

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS  
**PROPOSED  
HIGHWAY PLANS**

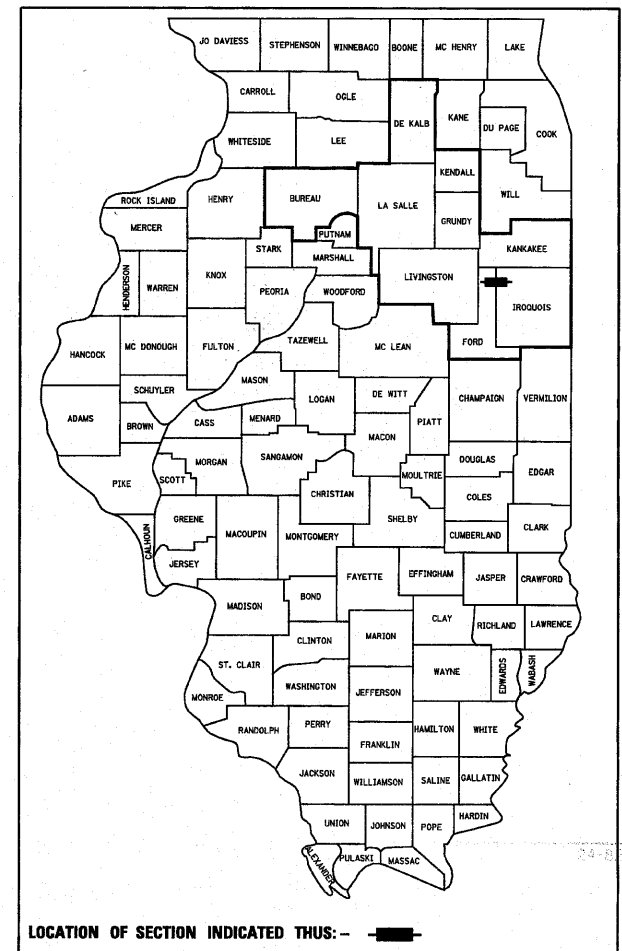
F.A.P. ROUTE 681 (IL ROUTE 116)  
SECTION 116 BR / [116 BR, (BR-2)BR, I & BR-3]  
PROJECT ACBRF-ACF-0681(042)  
STRUCTURE REPLACEMENTS  
FORD / IROQUOIS COUNTIES

C-93-028-09

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	1
		ILLINOIS	CONTRACT NO. 66880	

\* 116 BR/116 BR, (BR-2)BR, I & BR-3] 146 + 4 = 150

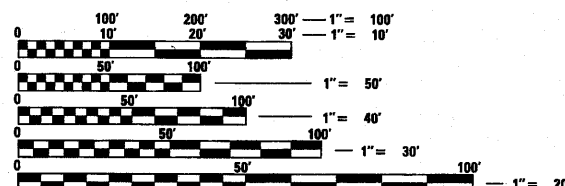
D-93-016-09 P-93-013-08 P-93-029-08 P-93-044-07  
P-93-043-07 P-93-031-06



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- 68-85 S.N. 027-0100 (PR.) / 027-0045 (EX.)
- 86-103 S.N. 027-0098 (PR.) / 027-0046 (EX.)
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FOR LIST OF STANDARDS, SEE SHEET NO. 2



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

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

DISTRICT 3 NO. (815) 434-6131  
PROJECT ENGINEER: JOE KANNEL  
UNIT CHIEF: MICHELE LINDEMANN  
CONTRACT NO. 66880

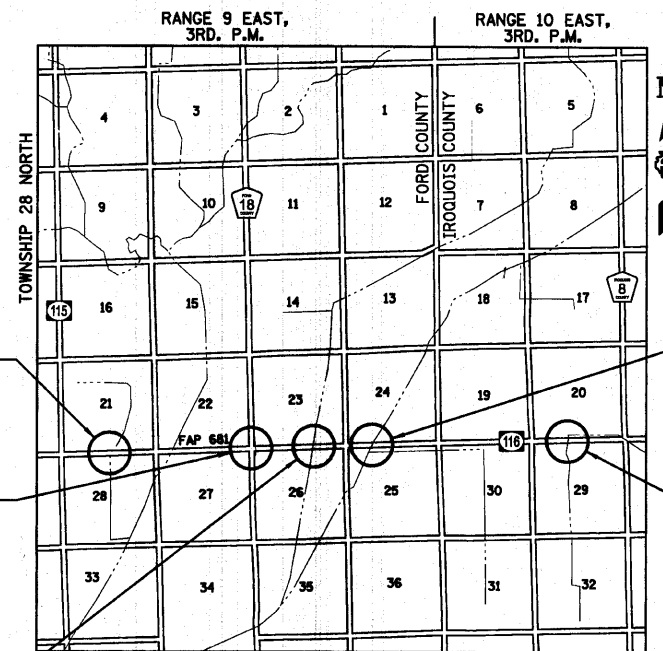
S.N. 027-2018 (PR.) / 027-0043 (EX.)  
STATION 26+64.00  
STRUCTURE REPLACEMENT OVER  
UNNAMED DRAINAGE DITCH  
(IMPROVEMENT)  
STA. 21+00.00 TO STA. 30+50.00

S.N. 027-2553 (PR.) / 027-2528 (EX.)  
STATION 106+78.61  
STRUCTURE REPLACEMENT OVER  
UNNAMED DRAINAGE DITCH  
(IMPROVEMENT)  
STA. 106+00.00 TO STA. 109+00.00

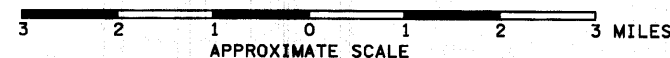
S.N. 027-0100 (PR.) / 027-0045 (EX.)  
STATION 141+45.17  
STRUCTURE REPLACEMENT OVER  
UNNAMED DRAINAGE DITCH  
(IMPROVEMENT)  
STA. 137+10.00 TO STA. 146+90.00

S.N. 027-0098 (PR.) / 027-0046 (EX.)  
STATION 174+61.04  
STRUCTURE REPLACEMENT OVER  
UNNAMED DRAINAGE DITCH  
(IMPROVEMENT)  
STA. 171+50.00 TO STA. 177+50.00

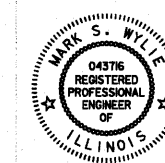
S.N. 038-2549 (PR.) / 038-0173 (EX.)  
STATION 284+00.00  
STRUCTURE REPLACEMENT OVER  
UNNAMED DRAINAGE DITCH  
(IMPROVEMENT)  
STA. 282+80.00 TO STA. 285+20.00



LOCATION MAP



GROSS LENGTH = 3170 FT. = 0.60 MILE  
NET LENGTH = 3170 FT. = 0.60 MILE



Mark S. Wylie Date 8/14/10  
MARK S. WYLIE  
REGISTERED PROFESSIONAL ENGINEER  
NO. 062-043716  
EXPIRATION 11/30/11

**FUNCTIONAL CLASSIFICATION**  
**RURAL MINOR ARTERIAL**  
2011 ADT = 1050  
P.V. = 81.1% S.U. = 7.8% M.U. = 11.1%

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
SUBMITTED Aug 10 2010  
George Rogers  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
October 1 2010  
Scott E. Stapp  
ENGINEER OF DESIGN AND ENVIRONMENT  
October 1 2010  
Christine M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

**GENERAL NOTES**

BRIDGE APPROACH PAVEMENT REMOVAL SHALL BE INCLUDED IN THE COST OF "PAVEMENT REMOVAL".

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

THE HMA SURFACE OF ALL MAILBOX TURNOUTS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES, AND SIDE ROADS SHALL BE MADE NEATLY, IN A WORKMANLIKE MANNER, AND SHALL ACCURATELY CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. IF REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SAW CUT THE HMA SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE HMA SURFACE.

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

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

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

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

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

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF "FURNISHED EXCAVATION".

ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

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

ANY ITEMS ON TOP OF STRUCTURES TO BE REMOVED, I.E. PAVEMENT, GUARDRAIL (BRIDGERAIL) WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE PAY ITEMS FOR REMOVAL OF EXISTING STRUCTURES.

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

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

GRANULAR MATERIALS	2.05	TONS / CU YD
BIT MATERIALS (PRIME COAT) ON AGGREGATE BASES	0.375	GAL / SQ YD
BITUMINOUS MATERIALS (PRIME COAT)	0.08	GAL / SQ YD
FOR ADDITIONAL HMA LIFTS "FOG COAT"	0.05	GAL / SQ YD
AGGREGATE PRIME COAT	0.002	TONS / SQ YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT / 100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION
CALCIUM CHLORIDE	2	LB / SQ YD / APPLICATION
TEMPORARY DITCH CHECKS	5	TONS AGGREGATE

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

- FRONTIER COMMUNICATIONS OF ILLINOIS
- EASTERN ILLINI ELECTRIC CO-OP
- PEOPLES GAS, LIGHT & COKE COMPANY
- VERIZON

**COMMITMENTS**

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

**FORD COUNTY STRUCTURES**

ANY SHORING IS TO BE REMOVED FROM THE EXISTING STRUCTURE AND DELIVERED TO A MAINTENANCE YARD BY THE CONTRACTOR AS DIRECTED BY THE MAINTENANCE FIELD ENGINEER.

**HIGHWAY STANDARDS**

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
542306-02	PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
542401-01	METAL END SECTION FOR PIPE CULVERTS
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
606201-02	TYPE B GUTTER (INLET, OUTLET & ENTRANCE)
606206-03	OUTLET TYPE 1 FOR TYPE B GUTTER
630001-08	STEEL PLATE BEAM GUARDRAIL
630101-08	GUARDRAIL MOUNTED ON EXISTING CULVERTS
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-06	TRAFFIC BARRIER TERMINAL, TYPE 2
631031-08	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
666001-01	RIGHT OF WAY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 2' (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 ≥ 45 MPH
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-02	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
BLR 21-8	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT THREE	
REVIEWED BY:	<i>Don Bensch</i> DISTRICT STUDIES & PLANS ENGINEER
DATE:	<i>8-10-10</i>
EXAMINED BY:	<i>Herbert D. Dwyer</i> DISTRICT CONSTRUCTION ENGINEER
	<i>Wayne L. Phillips</i> DISTRICT MATERIALS ENGINEER
	<i>Bruce A. Lockner</i> DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		<b>HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - DJM	REVISED -					681	*	FORD/IROUOIS	146	2
	PLOT SCALE = #SCALE#	CHECKED - MSW	REVISED -	SCALE:		SHEET NO. OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			
	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -	FARNSWORTH GROUP, INC.		CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704		(309) 663-8435 / (309) 663-1571 FAX		CONTRACT NO. 66880		

CODE NUMBER	ITEM	UNIT	TOTAL	80% FED. STATE	STP (L2S) FORD CO.	STP (L-2S) FORD CO.	BRF (L1C) FORD CO.	BRF (L1C) FORD CO.	STP (L2S) TROQUOIS CO.
				STRUCTURE NO. 027-2018 0011	STRUCTURE NO. 027-2553 0040	STRUCTURE NO. 027-0100 0011	STRUCTURE NO. 027-0098 0011	STRUCTURE NO. 038-2549 0040	
20200100	EARTH EXCAVATION	CU YD	8,145	3,100	1,985	2,395	495	170	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	338	98	96			144	
20300100	CHANNEL EXCAVATION	CU YD	4,240			1,540	2,700		
20700220	POROUS GRANULAR EMBANKMENT	CU YD	625	220	125			280	
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	130			60	70		
20800150	TRENCH BACKFILL	CU YD	308		257	18	33		
25000300	SEEDING, CLASS 3	ACRE	6.50	2.00	1.00	2.00	1.00	0.50	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	585	180	90	180	90	45	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	585	180	90	180	90	45	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	585	180	90	180	90	45	
25100630	EROSION CONTROL BLANKET	SQ YD	24,492	8,018	3,743	7,714	4,413	604	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	21,250	6,600	3,300	6,600	3,300	1,450	
28000305	TEMPORARY DITCH CHECKS	FOOT	265	90	60	65	50		
28000400	PERIMETER EROSION BARRIER	FOOT	6,779	1,850	1,158	1,756	1,278	737	
28000500	INLET AND PIPE PROTECTION	EACH	18	1	5	5	5	2	
28100105	STONE RIPRAP, CLASS A3	SQ YD	66		44			22	
28100107	STONE RIPRAP, CLASS A4	SQ YD	3,253	471	415	970	1,295	102	
28200200	FILTER FABRIC	SQ YD	3,253	471	415	970	1,295	102	
31100910	SUB-BASE GRANULAR MATERIAL, TYPE A 12"	SQ YD	1,730	333	1,210			187	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	429		90	181	158		
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1,664	416	626	311	163	148	
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	897	498	77	203	97	22	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1,384	346	346	173	173	346	
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	983	196	673			114	
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	780	233	178	203	107	59	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	149			59	90		

\* SPECIALTY ITEM

FILE NAME =  
#FILE#

USER NAME = #USER#  
PLOT SCALE = #SCALE#  
PLOT DATE = #DATE#

DESIGNED - JML  
DRAWN - DJM  
CHECKED - MSW  
DATE - 08/04/10

REVISED -  
REVISED -  
REVISED -  
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.
681	*	FORD/TROQUOIS	146	3
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 66880	

CODE NUMBER	ITEM	UNIT	TOTAL	80% FED. 20% STATE	STP (L25) FORD CO.	STP (L25) FORD CO.	BRF (L1C) FORD CO.	BRF (L1C) FORD CO.	STP (L25) IROQUOIS CO.
				STRUCTURE NO. 027-2018 0011	STRUCTURE NO. 027-2553 0040	STRUCTURE NO. 027-0100 0011	STRUCTURE NO. 027-0098 0011	STRUCTURE NO. 038-2549 0040	
44000100	PAVEMENT REMOVAL	SQ YD	1,879		220	1,004	247	300	108
X4401190	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	1,302				1,013	289	
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	4,224	1,064	671	1,030	734	725	
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				
50100600	REMOVAL OF EXISTING STRUCTURES NO. 4	EACH	1		1				
50100700	REMOVAL OF EXISTING STRUCTURES NO. 5	EACH	1			1			
50100800	REMOVAL OF EXISTING STRUCTURES NO. 6	EACH	1				1		
50100900	REMOVAL OF EXISTING STRUCTURES NO. 7	EACH	1					1	
50104400	CONCRETE HEADWALL REMOVAL	EACH	6			3	3		
X5015200	REMOVE EXISTING CULVERTS	EACH	19	3	3	8	5		
50200100	STRUCTURE EXCAVATION	CU YD	328			174	154		
50300100	FLOOR DRAINS	EACH	16			8	8		
50300225	CONCRETE STRUCTURES	CU YD	302.9			141.2	161.7		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	689.7			317.2	372.5		
50300260	BRIDGE DECK GROOVING	SQ YD	1,064			509	555		
50300280	CONCRETE ENCASEMENT	CU YD	23.8			11.2	12.6		
50300300	PROTECTIVE COAT	SQ YD	1,370			655	715		
50800105	REINFORCEMENT BARS	POUND	25,060	10,130	8,090			6,840	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	161,740	510		75,360	85,180	690	
51201610	FURNISHING STEEL PILES HP12x63	FOOT	2,593			1,439	1,154		
51202305	DRIVING PILES	FOOT	2,593			1,439	1,154		
51203610	TEST PILE STEEL HP12x63	EACH	3			2	1		
51204650	PILE SHOES	EACH	36				36		
51500100	NAME PLATES	EACH	3	1		1	1		

\* SPECIALTY ITEM

FILE NAME =	USER NAME = *USER*	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>				F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 4
*FILE#		DRAWN - DJM	REVISED -		SCALE:	SHEET NO. OF	SHEETS	STA. TO STA.	CONTRACT NO. 66880				
		CHECKED - MSW	REVISED -						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
		DATE - 08/04/10	REVISED -						* 116 BR/116 BR, (BR-2)BR, I & BR-3J				

CODE NUMBER	ITEM	UNIT	TOTAL	80% FED- 20% STATE	STP (L25) FORD	STP (L25) FORD CO.	BRF (L1C) FORD CO.	BRF (L1C) FORD CO.	STP (L25) IROQUOIS CO.
				STRUCTURE NO. 027-2018 0011	STRUCTURE NO. 027-2553 0040	STRUCTURE NO. 027-0100 0011	STRUCTURE NO. 027-0098 0011	STRUCTURE NO. 038-2549 0040	
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2		2				
54003000	CONCRETE BOX CULVERTS	CU YD	178.1		71.4	47.7			59.0
54020403	PRECAST CONCRETE BOX CULVERTS 4' x 3' (M273)	FOOT	60		60				
54020605	PRECAST CONCRETE BOX CULVERTS 6' x 5' (M273)	FOOT	76			76			
54020808	PRECAST CONCRETE BOX CULVERTS 8' x 8' (M273)	FOOT	86						86
54021007	PRECAST CONCRETE BOX CULVERTS 10' x 7' (M273)	FOOT	114		114				
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	153		24	45		84	
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	344				250	94	
542A5491	PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 36"	FOOT	135			135			
542A5497	PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 42"	FOOT	42			42			
54213450	END SECTIONS 15"	EACH	5			1		4	
54213459	END SECTIONS 24"	EACH	10				7	3	
54214521	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 36"	EACH	6			6			
54214527	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 42"	EACH	2			2			
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	76				36	40	
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4		2	2			
60100945	PIPE DRAINS 12"	FOOT	12						12
<del>60046304</del>	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	262				126	136	
60602800	CONCRETE GUTTER, TYPE B	FOOT	138						138
60603300	GUTTER OUTLET	EACH	2						2
60801015	FLAP GATE 15"	EACH	2		1	1			
60801024	FLAP GATE 24"	EACH	6				3	3	
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	1,800		500	275	650	187.5	187.5
* 63000003	STEEL PLATE BEAM GUARD RAIL, TYPE A, 9 FOOT POSTS	FOOT	225						225
* 63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	150		100				50
* 63100045	TRAFFIC BARRIER TERMINAL TYPE 2	EACH	1					1	

\* SPECIALTY ITEM

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FILE#		DRAWN - DJM	REVISED -					681	*	FORD/IROQUOIS	146	5
PLOT SCALE = #SCALE#		CHECKED - MSW	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 66880				
PLOT DATE = #DATE#		DATE - 08/04/10	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			* 116 BR/116 BR, (BR-2)BR, I & BR-31				

FARNSWORTH GROUP, INC.

CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

\* 116 BR/116 BR, (BR-2)BR, I & BR-31

24-8271

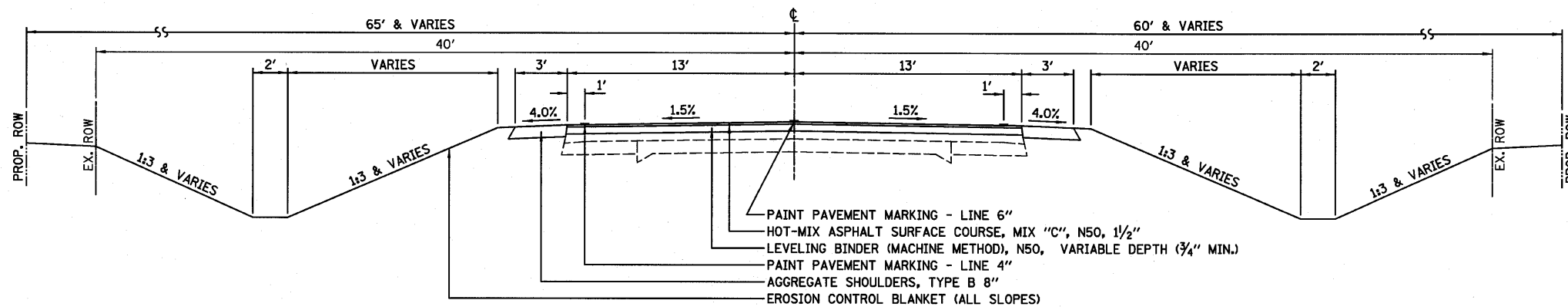
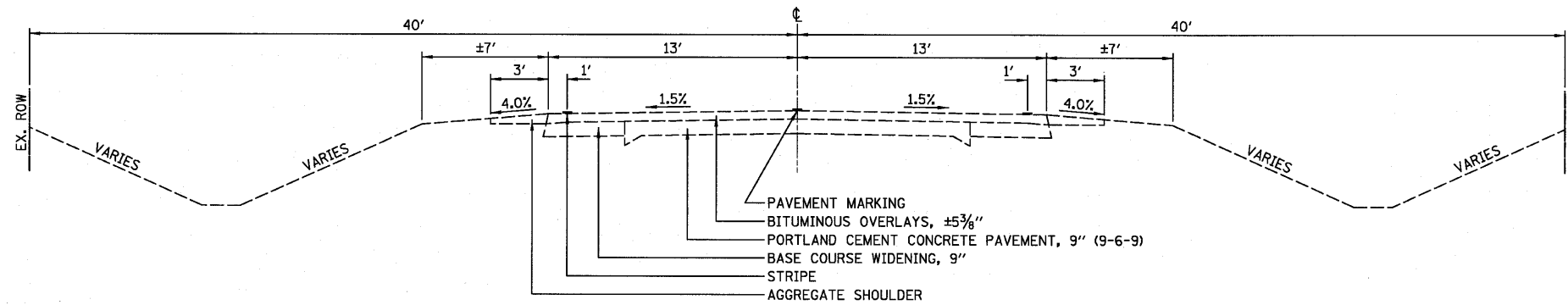
CODE NUMBER	ITEM	UNIT	TOTAL	80% FED.	STP (L25)	STP (L25)	BRF (L1C)	BRF (L1C)	STP (L25)
				ZOY/STATE	FORD	FORD CO.	FORD CO.	FORD CO.	IROQUOIS CO.
				STRUCTURE NO. 027-2018 0011	STRUCTURE NO. 027-2553 0040	STRUCTURE NO. 027-0100 0011	STRUCTURE NO. 027-0098 0011	STRUCTURE NO. 038-2549 0040	
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8			4	4		
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	6		3				3
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	10	4		3	3		
63200310	GUARDRAIL REMOVAL	FOOT	4,733	1,496	485	1,178	1,063		511
63300725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	188		172		16		
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	45	8	19	10	8		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	19	4	4	4	4		3
67100100	MOBILIZATION	L SUM	1	0.2	0.2	0.2	0.2		0.2
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	0.2	0.2	0.2	0.2		0.2
70101900	TRAFFIC CONTROL AND PROTECTION (DETOUR 1)	L SUM	1	0.2	0.2	0.2	0.2		0.2
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	12,196	3,800	1,116	3,920	2,400		960
78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	1,674	480	274	500	300		120
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	46	13	6	14	9		4
78200405	GUARDRAIL MARKERS	EACH	68	12	13	19	14		10
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	17	4	3	3	4		3
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	46	13	6	14	9		4
Z0054400	ROCK FILL	CU YD	336	98	94				144
X0323265	REMOVE EXISTING RIPRAP	SQ YD	28	28					
X0323586	PIPE DRAIN REMOVAL	FOOT	121	15	106				
X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	1,200	200	400	300	200		100
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1			1			
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1			1			
X5020503	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 3	EACH	1				1		
X5020504	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 4	EACH	1				1		

\* SPECIALTY ITEM

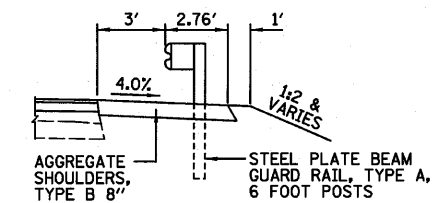
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#FILE#	PLOT SCALE = #SCALE#	DRAWN - DJM	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 66880		
	PLOT DATE = #DATE#	CHECKED - MSW	REVISED -								FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT		
		DATE - 08/04/10	REVISED -								* 116 BR/1116 BR, (BR-2)BR, I & BR-3J 24-8271		

FARNSWORTH GROUP, INC.

CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

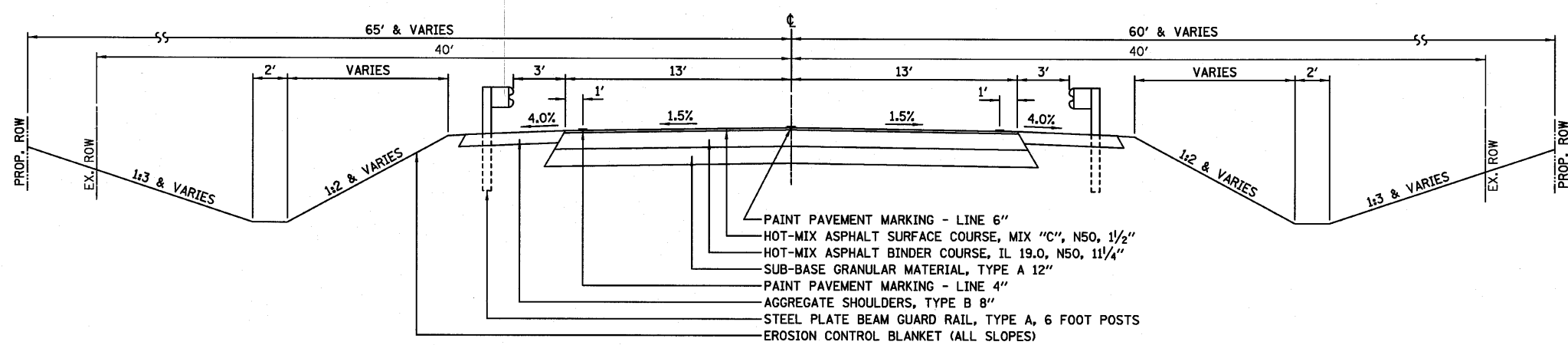


STA 21+00.00 TO STA 22+02.00  
STA 22+33.00 TO STA 26+28.00  
STA 27+00.00 TO STA 30+50.00



STA 24+76.50 RT TO STA 26+39.00 RT  
STA 26+89.00 RT TO STA 27+76.50 RT  
STA 25+51.50 LT TO STA 26+39.00 LT  
STA 26+89.00 LT TO STA 28+51.50 LT

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>			F.A.P. RTE. 681	SECTION *	COUNTY	TOTAL SHEETS 146	SHEET NO. 7
#FILE#		DRAWN - DJM	REVISED -					SN 027-2018		CONTRACT NO. 66880		
		CHECKED - MSW	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
		DATE - 08/04/10	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.					
FARNSWORTH GROUP, INC.				CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX				* 116 BR/1116 BR, (BR-2)BR, I & BR-3J			24-8271	



**PROPOSED TYPICAL CROSS SECTION** ②

F.A.P. 681 (IL116)

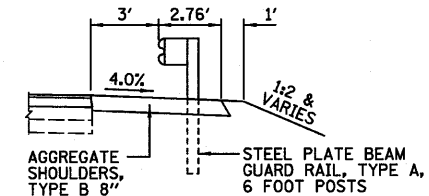
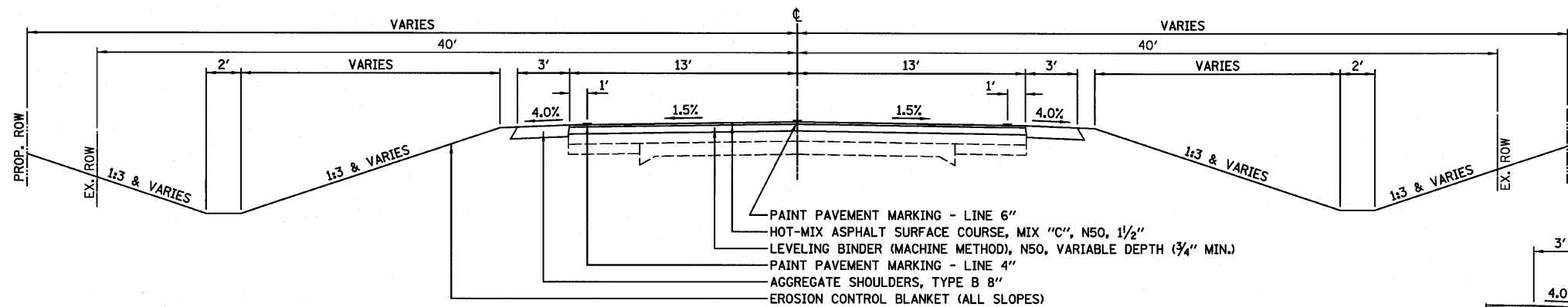
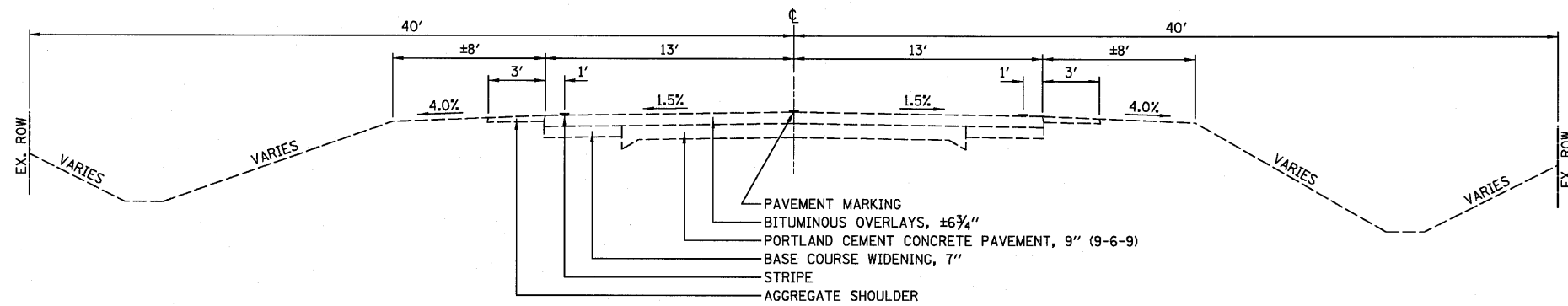
STA 22+02.00 TO STA 22+33.00  
STA 26+28.00 TO STA 27+00.00

	HMA BINDER	HMA LEVEL BINDER	HMA SURFACE
PG GRADE**	PG64-22	PG64-22	PG64-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 19.0	IL 9.5	IL 9.5
FRICTION AGGREGATE	-	-	MIXTURE C
DENSITY CONTROL METHOD	CORES/ CORRELATION*	SATISFACTION OF THE ENGINEER	CORES

- MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE, THE MINIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/OA SPECIFICATION.
- \*\* WHEN RAP EXCEEDS 20%, THE VIRGIN ASPHALT BINDER SHALL BE REDUCED BY ONE GRADE (I.E. 25% RAP WOULD REQUIRED A VIRGIN ASPHALT BINDER GRADE OF PG64-22 TO BE REDUCED TO PG58-22).

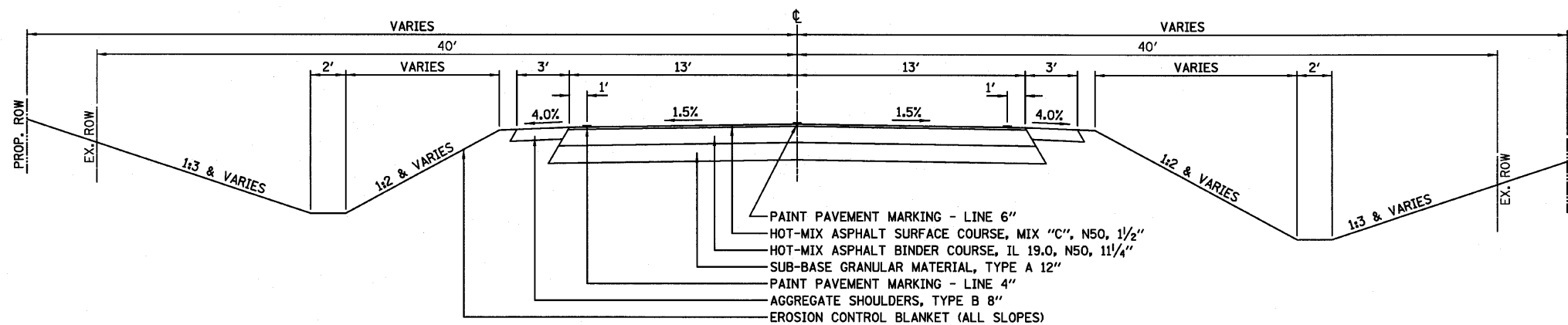
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#FILEL#		DRAWN - DJM	REVISED -					SN 027-2018		CONTRACT NO. 66880		
		CHECKED - MSW	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
		DATE - 08/04/10	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.			





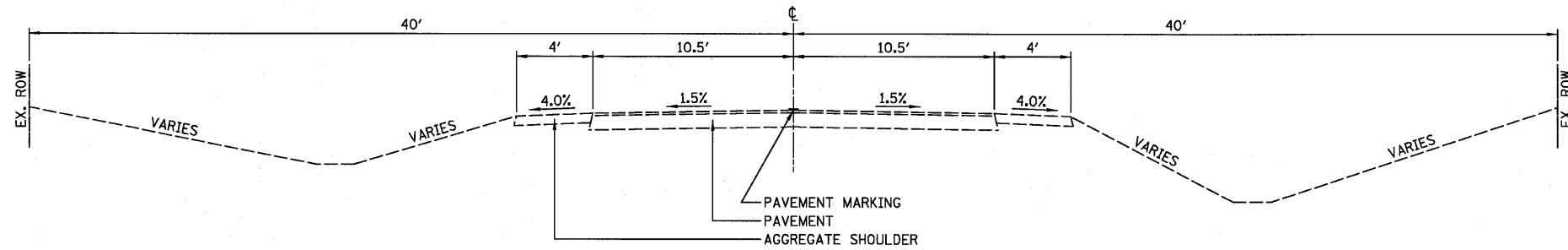
STA 105+00.00 TO STA 105+72.00  
STA 107+00.00 TO STA 109+00.00

STA 106+92.75 RT TO STA 108+05.25 RT  
STA 107+03.95 LT TO STA 108+66.45 LT

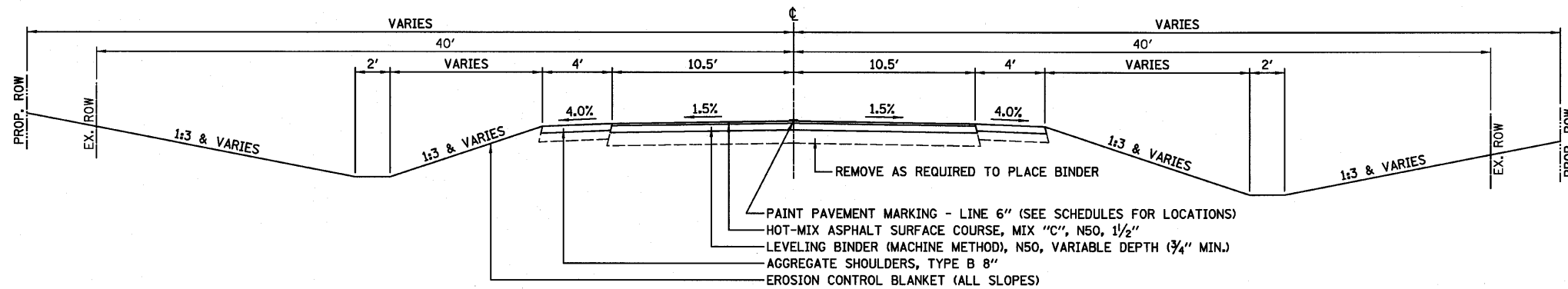


STA 105+72.00 TO STA 107+00.00

FILE NAME =	USER NAME = *USER*	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>			F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 9
*FILEL*	PLOT SCALE = *SCALE*	DRAWN - DJM	REVISED -					SCALE: SHEET NO. OF SHEETS STA. TO STA.			SN 027-2553	
	PLOT DATE = *DATE*	CHECKED - MSW	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		DATE - 08/04/10	REVISED -		* 116 BR/1116 BR, (BR-2)BR, I & BR-3J							

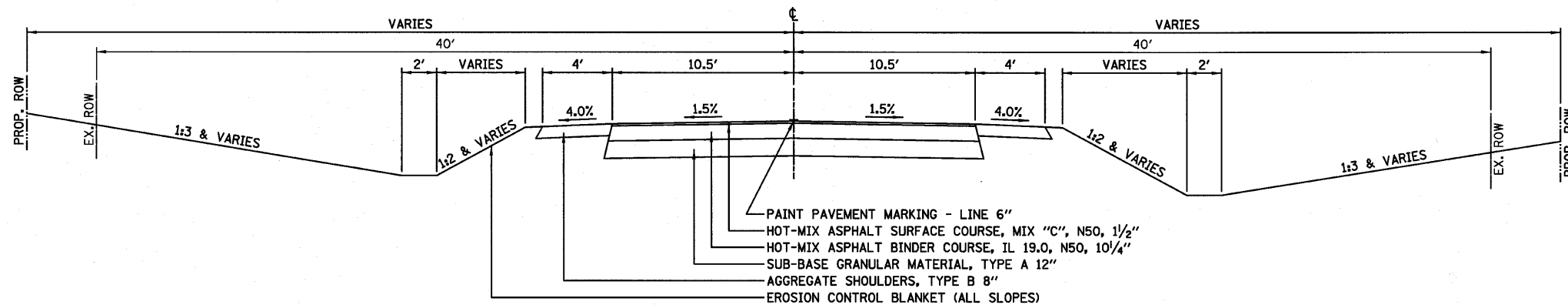


**EXISTING TYPICAL CROSS SECTION**  
N. 1600E. ROAD



**PROPOSED TYPICAL CROSS SECTION ①**  
N. 1600E. ROAD

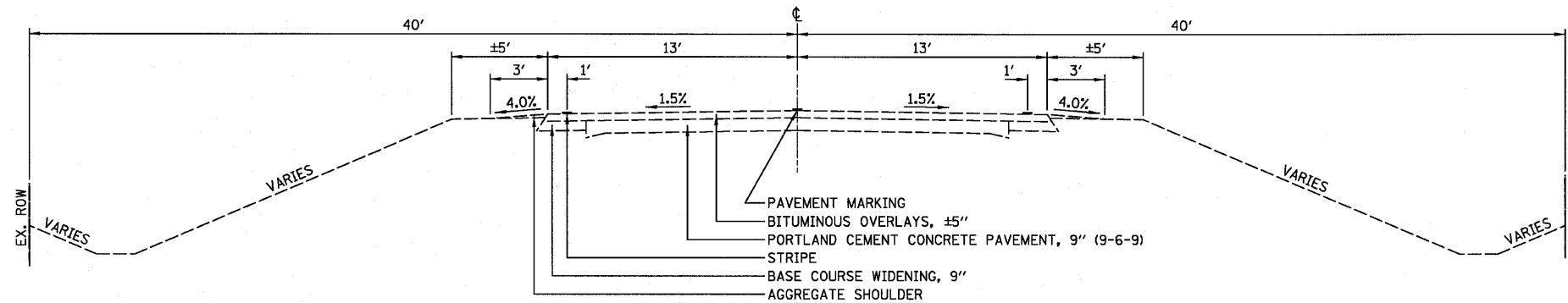
STA 8+27.00 TO STA 9+33.00  
STA 21+30.00 TO STA 21+48.00



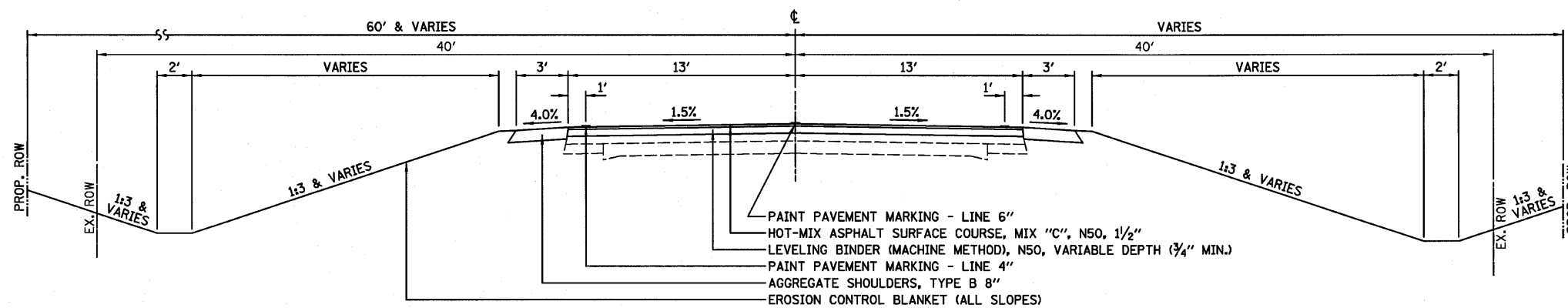
**PROPOSED TYPICAL CROSS SECTION ②**  
N. 1600E. ROAD

STA 9+33.00 TO STA 9+87.00  
STA 20+13.00 TO STA 21+30.00

FILE NAME =	USER NAME = *USER*	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>			F.A.P. RTE. 681	SECTION *	COUNTY FORD/IRROUOIS	TOTAL SHEETS 146	SHEET NO. 10
*FILEL*		DRAWN - DJM	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	SN 027-2553		CONTRACT NO. 66880		
		CHECKED - MSW	REVISED -					ILLINOIS FED. AID PROJECT				
		DATE - 08/04/10	REVISED -					* 116 BR/1116 BR, (BR-2)BR, I & BR-3J				



**EXISTING TYPICAL CROSS SECTION**  
F.A.P. 681 (IL116)

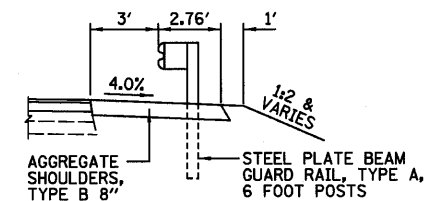


**PROPOSED TYPICAL CROSS SECTION** ①  
F.A.P. 681 (IL116)

STA 137+10.00 TO STA 140+60.50  
STA 142+30.00 TO STA 146+90.00

SEE STATE STANDARD 420401 BRIDGE  
APPROACH PAVEMENT CONNECTOR

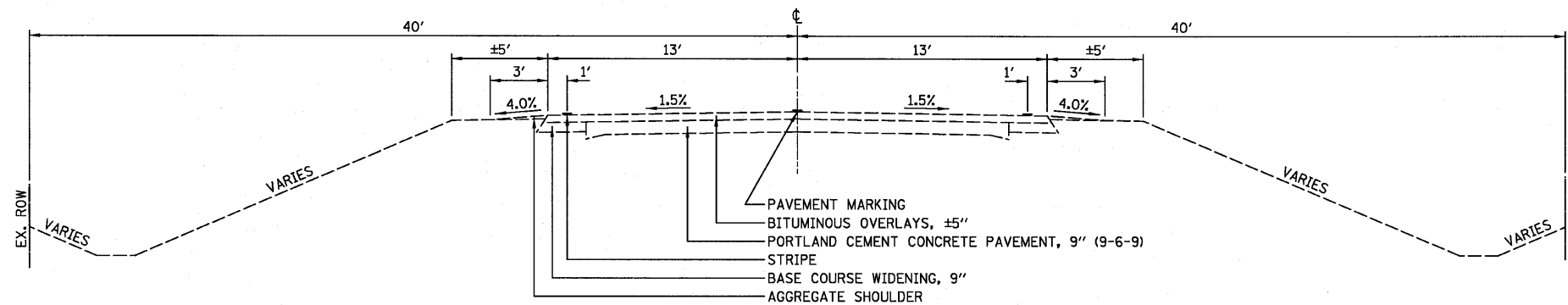
STA 140+60.50 TO STA 140+68.68  
STA 142+21.66 TO STA 142+30.00



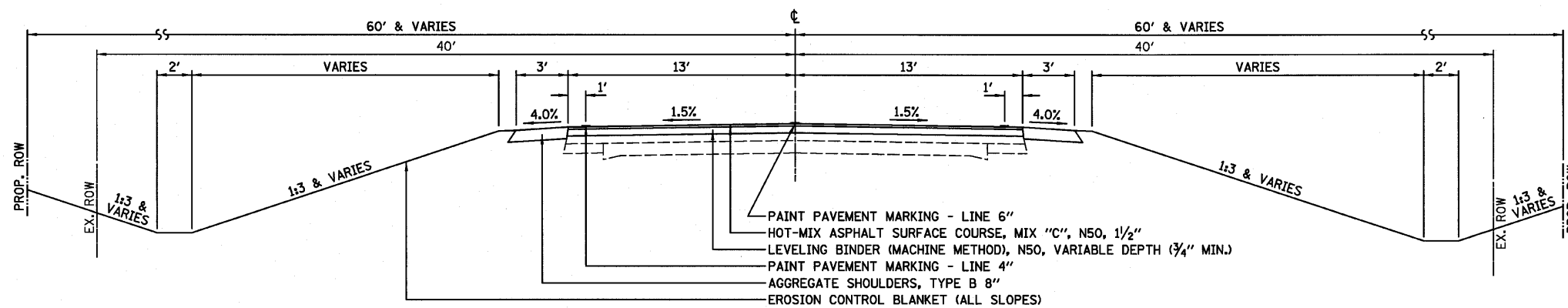
**DETAIL AT GUARDRAIL**

STA 137+37.66 RT TO STA 140+50.16 RT  
STA 142+46.74 RT TO STA 143+34.24 RT  
STA 139+56.09 LT TO STA 140+43.59 LT  
STA 142+52.67 LT TO STA 144+15.17 LT

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>			F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 11
#FILEL#		DRAWN - DJM	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.			SN 027-0100 CONTRACT NO. 66880				
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	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -		* 116 BR/1116 BR, (BR-2)BR, I & BR-3J							



**EXISTING TYPICAL CROSS SECTION**  
F.A.P. 681 (IL116)

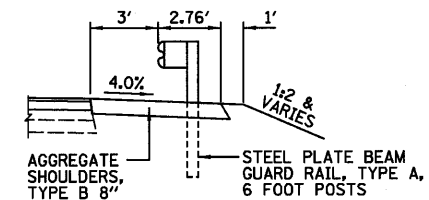


**PROPOSED TYPICAL CROSS SECTION** ①  
F.A.P. 681 (IL116)

STA 171+50.00 TO STA 173+65.00  
STA 175+57.00 TO STA 177+50.00

SEE STATE STANDARD 420401 BRIDGE  
APPROACH PAVEMENT CONNECTOR

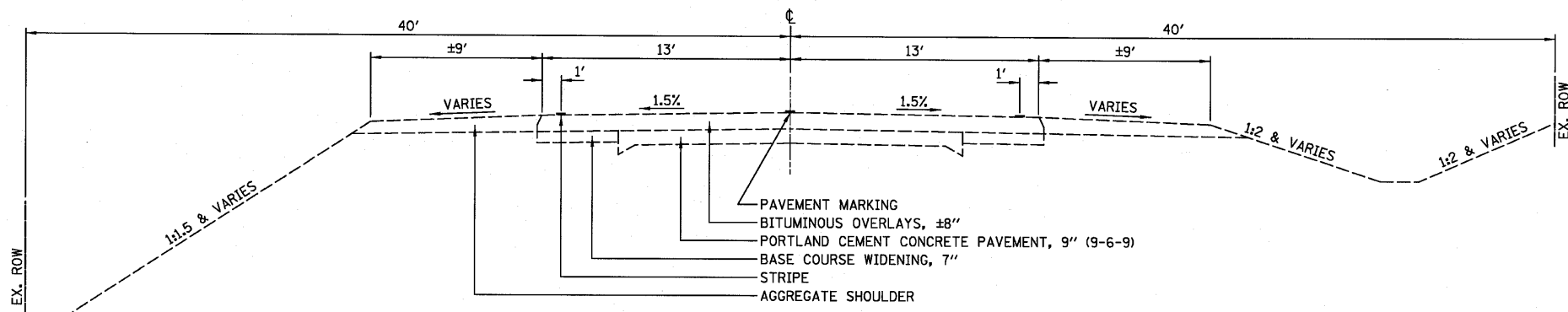
STA 173+65.00 TO STA 173+77.61  
STA 175+44.45 TO STA 175+57.00



**DETAIL AT GUARDRAIL**

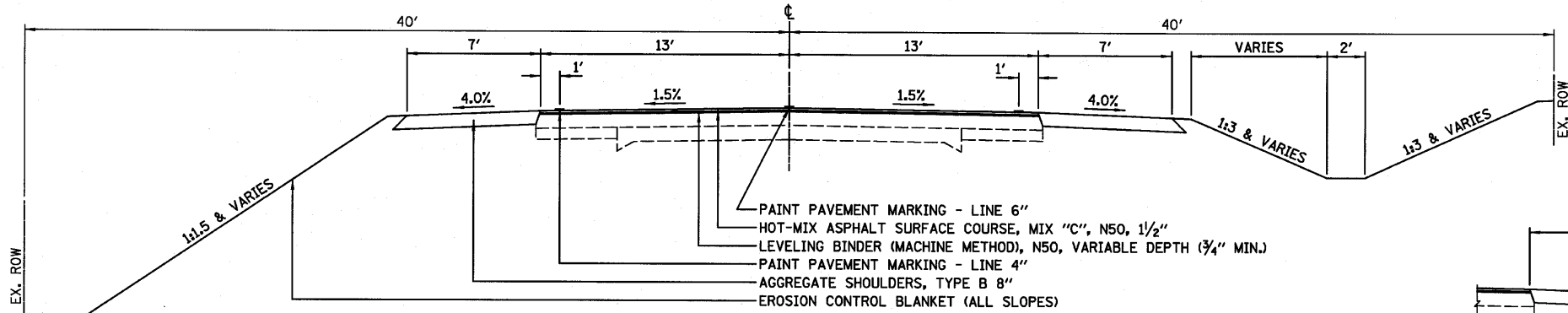
STA 172+52.21 RT TO STA 173+39.71 RT  
STA 175+82.25 LT TO STA 176+69.75 LT

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>			F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 12
#FILE#		DRAWN - DJM	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	SN 027-0098 CONTRACT NO. 66880				
		CHECKED - MSW	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		DATE - 08/04/10	REVISED -		* 116 BR/1116 BR, (BR-2)BR, I & BR-3J							



**EXISTING TYPICAL CROSS SECTION**

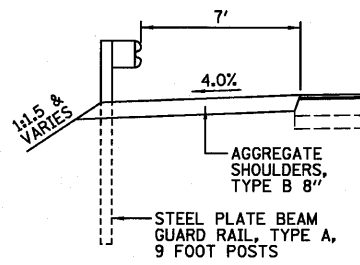
F.A.P. 681 (IL116)



**PROPOSED TYPICAL CROSS SECTION ①**

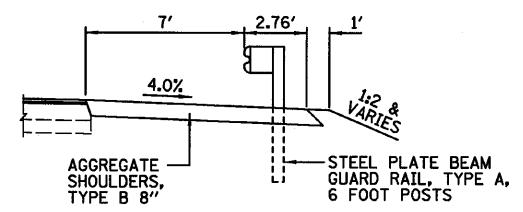
F.A.P. 681 (IL116)

STA 282+80.00 TO STA 283+70.00  
STA 284+30.00 TO STA 285+20.00



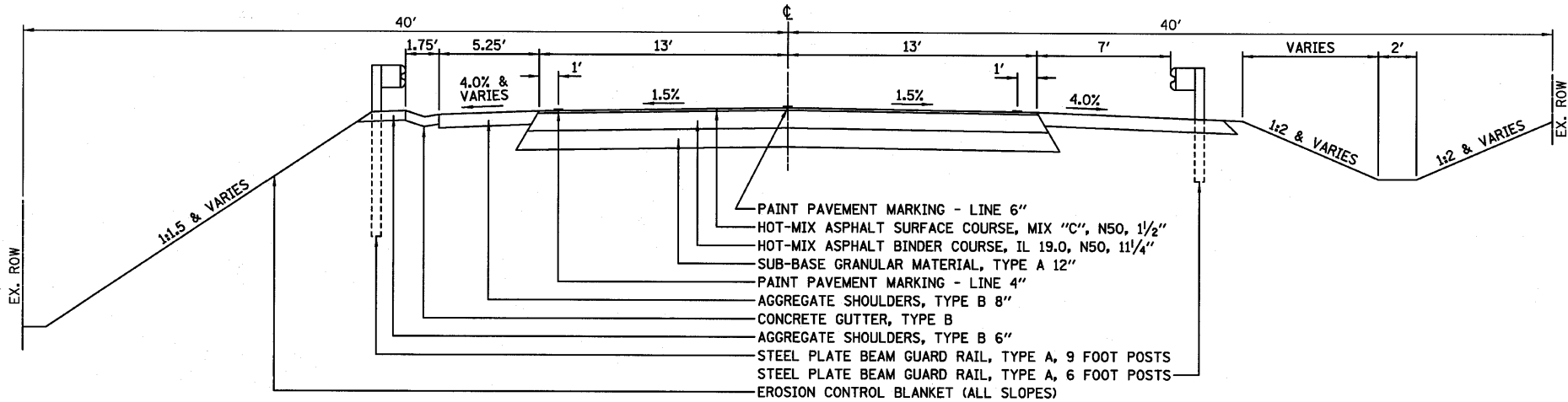
**DETAIL AT GUARDRAIL**

STA 283+25.00 TO STA 283+87.50  
STA 284+12.50 TO STA 285+37.50



**DETAIL AT GUARDRAIL**

STA 282+62.50 TO STA 283+87.50  
STA 284+12.50 TO STA 284+75.00



**PROPOSED TYPICAL CROSS SECTION ②**

F.A.P. 681 (IL116)

STA 283+70.00 TO STA 284+30.00

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>			F.A.P. RTE. 681	SECTION *	COUNTY FORD/IRROUOIS	TOTAL SHEETS 146	SHEET NO. 13
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		DATE - 08/04/10	REVISED -		FARNSWORTH GROUP, INC. CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX							

EARTHWORK				
LOCATION	EARTH EXCAVATION	TOTAL EXCAVATION ADJUSTED FOR 25% SHRINKAGE	EMBANKMENT	BALANCE WASTE (+) SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
STRUCTURE NO. 027-2018				
STA 21+00 TO STA 30+50	3,100	2,325	2,050	275
STRUCTURE NO. 027-2553				
STA 105+00 TO STA 109+00	1,485	1,115	495	620
STA 8+27 TO STA 9+87 (N 1600E)	225	170	125	45
STA 20+13 TO STA 21+48 (N 1600E)	275	205	130	75
STRUCTURE NO. 027-0100				
STA 137+10 TO STA 146+90	2,395	1,800	1,480	320
STRUCTURE NO. 027-0098				
STA 171+50 TO STA 177+50	495	370	505	-135
STRUCTURE NO. 038-2549				
STA 282+80 TO STA 285+20	170	130	95	35
EARTH EXCAVATION	8,145	6,115	4,880	1,235

CHANNEL EXCAVATION	
LOCATION	CU YD
STRUCTURE NO. 027-0100	1,540
STRUCTURE NO. 027-0098	2,700
TOTAL	4,240

POROUS GRANULAR EMBANKMENT	
LOCATION	CU YD
STRUCTURE @ STA 22+17.31	45
STRUCTURE NO. 027-2018	175
STRUCTURE NO. 027-2553	125
STRUCTURE NO. 038-2549	280
TOTAL	625

SEEDING/FERTILIZING						
LOCATION	SEEDING, CLASS 3	NITROGEN FERTILIZER NUTRIENT	PHOSPHOROUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING
	ACRE	POUND	POUND	POUND	SQ YD	POUND
STRUCTURE NO. 027-2018						
STA 21+00 LT TO STA 26+80 LT	0.50	45	45	45	2,355	1,650
STA 21+00 RT TO STA 26+80 RT	0.75	68	68	68	3,023	2,475
STA 26+80 LT TO STA 30+50 LT	0.25	22	22	22	1,232	825
STA 26+80 RT TO STA 30+50 RT	0.50	45	45	45	1,408	1,650
STRUCTURE NO. 027-2553						
STA 104+71 LT TO STA 109+57 LT	0.25	23	23	23	1,590	825
STA 104+71 RT TO STA 109+10 RT	0.25	23	23	23	1,570	825
STA 7+93 TO STA 9+32 (N 1600E)	0.25	22	22	22	380	825
STA 20+34 TO STA 21+54 (N 1600E)	0.25	22	22	22	203	825
STRUCTURE NO. 027-0100						
STA 134+62 LT TO STA 141+22 LT	0.50	45	45	45	2,578	1,650
STA 137+09 RT TO STA 140+86 RT	0.50	45	45	45	1,775	1,650
STA 141+68 RT TO STA 146+90 RT	0.50	45	45	45	1,665	1,650
STA 141+87 LT TO STA 146+90 LT	0.50	45	45	45	1,696	1,650
STRUCTURE NO. 027-0098						
STA 169+90 RT TO STA 173+86 RT	0.25	23	23	23	1,623	825
STA 170+60 LT TO STA 174+30 LT	0.25	23	23	23	1,284	825
STA 174+96 RT TO STA 175+85 RT	0.25	22	22	22	152	825
STA 175+33 LT TO STA 180+26 LT	0.25	22	22	22	1,354	825
STRUCTURE NO. 038-2549						
STA 282+00 LT TO STA 285+95 LT	0.25	22	22	22	227	725
STA 282+00 RT TO STA 285+77 RT	0.25	23	23	23	377	725
TOTAL	6.50	585	585	585	24,492	21,250

EROSION CONTROL			
LOCATION	TEMPORARY	PERIMETER	INLET AND PIPE
	DITCH CHECKS	EROSION BARRIER	PROTECTION
	FOOT	FOOT	EACH
STRUCTURE NO. 027-2018			
STA 20+95 35' LT TO STA 22+07 54' LT		115	
STA 20+95 40' RT TO STA 26+38 60' RT		556	
STA 22+28 59' LT TO STA 26+80 65' LT		453	
STA 26+90 59' RT TO STA 30+55 38' RT		367	
STA 27+09 51' LT TO STA 30+55 35' LT		359	
STA 21+75 30' LT AND 31' RT	10		
STA 22+75 39' LT AND 42' RT	10		
STA 23+75 45' LT AND 46' RT	10		
STA 24+75 46' LT AND 48' RT	10		
STA 25+75 47' LT AND 48' RT	10		
STA 26+25 48' LT AND 48' RT	10		
STA 27+75 42' LT AND 44' RT	10		
STA 28+75 40' LT AND 40' RT	10		
STA 29+75 36' LT AND 35' RT	10		
STA 22+36 63' RT			1
STRUCTURE NO. 027-2553			
STA 104+67 42' LT TO STA 105+94 68' LT		136	
STA 104+67 40' RT TO STA 105+90 68' RT		128	
STA 107+40 50' LT TO STA 109+62 37' LT		223	
STA 106+93 72' RT TO STA 108+90 40' RT		202	
STA 7+88 27' LT TO STA 9+33 42' LT (N 1600E)		146	
STA 7+88 25' RT TO STA 9+28 60' RT (N 1600E)		124	
STA 20+48 96' RT TO STA 21+58 24' RT (N 1600E)		131	
STA 20+92 44' LT TO STA 21+59 28' LT (N 1600E)		68	
STA 105+00 36' LT AND 35' RT	10		
STA 107+00 40' LT	5		
STA 107+50 38' RT	5		
STA 108+00 37' LT	5		
STA 108+50 35' RT	5		
STA 109+00 35' LT	5		
STA 8+00 22' LT (N 1600E)	5		
STA 9+00 30' LT AND 28' RT (N 1600E)	10		
STA 21+25 31' LT AND 34' RT (N 1600E)	10		
STA 105+98 47' RT			1
STA 106+11 55' LT			1
STA 8+22 21' RT (N 1600E)			1
STA 21+08 32' LT (N 1600E)			1
STA 21+16 31' LT (N 1600E)			1
CONTINUED			

EROSION CONTROL			
LOCATION	TEMPORARY	PERIMETER	INLET AND PIPE
	DITCH CHECKS	EROSION BARRIER	PROTECTION
	FOOT	FOOT	EACH
STRUCTURE NO. 027-0100			
STA 134+57 37' LT TO STA 141+22 58' LT		666	
STA 137+58 44' RT TO STA 140+86 73' RT		333	
STA 141+87 58' LT TO STA 145+84 49' LT		362	
STA 141+68 62' RT TO STA 145+97 44' RT		395	
STA 135+50 36' LT	5		
STA 136+50 39' LT	5		
STA 137+50 42' LT	5		
STA 138+50 44' LT AND 41' RT	10		
STA 140+00 48' LT AND 47' RT	10		
STA 143+00 43' LT AND 44' RT	10		
STA 144+50 40' LT AND 39' RT	10		
STA 146+00 36' LT AND 36' RT	10		
STA 140+82 35' LT			1
STA 142+11 34' RT			1
STA 142+28 34' LT			1
STA 145+26 38' LT AND 37' RT			2
STRUCTURE NO. 027-0098			
STA 171+04 41' LT TO STA 174+57 60' LT		331	
STA 169+84 40' RT TO STA 173+86 60' RT		404	
STA 175+33 60' LT TO STA 180+31 38' LT		472	
STA 175+25 50' RT TO STA 175+94 40' RT		71	
STA 170+50 34' RT	5		
STA 171+50 39' RT	5		
STA 172+00 43' LT	5		
STA 172+50 44' RT	5		
STA 173+50 46' LT AND 44' RT	10		
STA 176+00 45' LT	5		
STA 177+00 42' LT	5		
STA 178+00 39' LT	5		
STA 180+00 30' LT	5		
STA 172+56 47' LT			1
STA 173+74 45' RT			1
STA 174+10 45' LT			1
STA 175+54 44' LT			1
STA 179+25 32' LT			1
STRUCTURE NO. 038-2549			
STA 281+85 16' LT TO STA 283+79 32' LT		187	
STA 282+05 22' RT TO STA 283+82 40' RT		188	
STA 284+20 32' LT TO STA 286+00 18' LT		186	
STA 284+18 40' RT TO STA 285+85 20' RT		176	
STA 283+09 21' LT			1
STA 284+91 20' LT			1
TOTAL	265	6,779	18

RIPRAP		
LOCATION	REMOVE	STONE RIPRAP,
	EXISTING RIPRAP	CLASS A3
	SQ YD	SQ YD
STRUCTURE NO. 027-2018		
STA 21+90 LT	16	
STA 22+13 LT	12	
STRUCTURE NO. 027-2553		
STA 9+53 LT (N 1600E)		11
STA 20+55 LT (N 1600E)		11
STA 21+12 LT (N 1600E)		22
STRUCTURE NO. 038-2549		
STA 283+09 LT		11
STA 284+91 LT		11
TOTAL	28	66

REMOVAL OF PAVING MATERIALS			
LOCATION	PAVEMENT	HMA SURFACE	HMA SURFACE
	REMOVAL	REMOVAL - BUTT	REMOVAL,
	SQ YD	SQ YD	VARIABLE
			DEPTH
			SQ YD
STRUCTURE NO. 027-2018			
STA 21+00 TO STA 21+60		173	
STA 22+02 TO STA 22+16	41		
STA 22+19 TO STA 22+33	41		
STA 26+28 TO STA 26+52	69		
STA 26+76 TO STA 27+00	69		
STA 29+90 TO STA 30+50		173	
STRUCTURE NO. 027-2553			
STA 105+00 TO STA 105+60		173	
STA 105+72 TO STA 106+71.60	509		
STA 106+82.70 TO STA 107+00	54		
STA 108+40 TO STA 109+00		173	
STA 9+33 TO STA 10+00 (N 1600E)	126		
STA 20+00 TO STA 21+48 (N 1600E)	315		
STRUCTURE NO. 027-0100			
STA 137+10 TO STA 140+60			1,013
STA 140+60.50 TO STA 141+01	123		
STA 141+87 TO STA 142+30	124		
STA 146+30 TO STA 146+90		173	
STRUCTURE NO. 027-0098			
STA 171+50 TO STA 173+00			289
STA 173+65 TO STA 174+13.50	141		
STA 175+06.50 TO STA 175+57	159		
STA 176+90 TO STA 177+50		173	
STRUCTURE NO. 038-2549			
STA 282+80 TO STA 283+40		173	
STA 283+70 TO STA 283+88.75	54		
STA 284+11.25 TO STA 284+30	54		
STA 284+60 TO STA 285+20		173	
TOTAL	1,879	1,384	1,302

PAVING MATERIALS							
LOCATION	SUB-BASE GRAN	AGG SURF	BIT MATLS	LEVELING BINDER	HMA BINDER	HMA SURF CSE,	BR APPR PVT
	MATL TY A 12"	CSE B	PRIME COAT	(MACHINE METHOD), N50	CSE, IL-19.0, N50	MIX "C", N50	CON (FLX)
	SQ YD	TON	GALLON	TON	TON	TON	SQ YD
STRUCTURE NO. 027-2018							
STA 21+00 TO STA 22+02			38	13		25	
STA 22+02 TO STA 22+33	100		41		59	8	
STA 22+33 TO STA 26+28			148	372		96	
STA 26+28 TO STA 27+00	233		95		137	18	
STA 27+00 TO STA 30+50			94	113		86	
STRUCTURE NO. 027-2553							
STA 105+00 TO STA 105+72			27	9		18	
STA 105+72 TO STA 107+00	707		287		407	51	
STA 107+00 TO STA 109+00			75	42		50	
STA 8+27 TO STA 9+33 (N 1600E)			32	26		23	
STA 8+50 RT (N 1600E)		35					
STA 9+33 TO STA 10+00 (N 1600E)	144		59		76	9	
STA 20+00 TO STA 21+48 (N 1600E)	359		146		190	27	
STA 20+80 RT (N 1600E)		55					
STRUCTURE NO. 027-0100							
STA 137+10 TO STA 140+68.68			135	65		88	
STA 140+60.50 TO STA 140+68.68							29
STA 142+21.66 TO STA 142+30							30
STA 142+21.66 TO STA 146+90			176	138		115	
STA 145+00 LT		95					
STA 145+00 RT		86					
STRUCTURE NO. 027-0098							
STA 171+50 TO STA 173+77.61			86	42		56	
STA 172+80 LT		68					
STA 173+65 TO STA 173+77.61							45
STA 175+44.40 TO STA 175+57							45
STA 175+44.40 TO STA 177+50			77	55		51	
STA 176+05 RT		46					
STA 179+00 LT		44					
STRUCTURE NO. 038-2549							
STA 282+80 TO STA 283+70			34	11		22	
STA 283+70 TO STA 284+30	187		80		114	15	
STA 284+30 TO STA 285+20			34	11		22	
TOTAL	1,730	429	1,664	897	983	780	149

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
#FILE#		DRAWN - DJM	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	681	*	FORD/IRROUOIS	146	16
	PLOT SCALE = #SCALE#	CHECKED - MSW	REVISED -										CONTRACT NO. 66880		
	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -										FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
FARNSWORTH GROUP, INC.				CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX				* 116 BR/116 BR, (BR-2)BR, I & BR-3J				24-8271			



AGGREGATE SHOULDERS, TYPE B 8"	
LOCATION	SQ YD
STRUCTURE NO. 027-2018	
STA 21+00 LT TO STA 30+50 LT	532
STA 21+00 RT TO STA 30+50 RT	532
STRUCTURE NO. 027-2553	
STA 105+00 LT TO STA 106+32 LT	50
STA 105+00 RT TO STA 106+22 RT	50
STA 106+43 RT TO STA 109+00 RT	163
STA 106+58 LT TO STA 109+57.69 LT	222
STA 8+27 LT TO STA 9+33 LT (N 1600E)	47
STA 8+70 RT TO STA 9+33 RT (N 1600E)	52
STA 20+61 RT TO STA 21+48 RT (N 1600E)	68
STA 21+03 LT TO STA 21+48 LT (N 1600E)	19
STRUCTURE NO. 027-0100	
STA 135+00 LT TO STA 140+87 LT	298
STA 137+25.26 RT TO STA 140+81 RT	240
STA 142+03 RT TO STA 146+90 RT	244
STA 142+09 LT TO STA 146+90 LT	248
STRUCTURE NO. 027-0098	
STA 170+00 RT TO STA 173+83 RT	230
STA 170+60 LT TO STA 174+04 LT	173
STA 175+18 RT TO STA 177+50 RT	92
STA 175+39 LT TO STA 180+00 LT	239
STRUCTURE NO. 038-2549	
STA 282+06 RT TO STA 285+71.50 RT	401
STA 282+17.50 LT TO STA 285+75 LT	324
<b>TOTAL</b>	<b>4,224</b>

DRAINAGE						
LOCATION	PIPE DRAIN REMOVAL	CONC HDWL REMOVAL	CONC HDWL FOR PIPE DRAINS	CONCRETE GUTTER, TYPE B	GUTTER OUTLET	PIPE DRAINS 12"
	FOOT	EACH	EACH	FOOT	EACH	FOOT
STRUCTURE NO. 027-2018						
STA 27+43 44.5' RT	5		1			
STA 28+02 45' LT	10		1			
STRUCTURE NO. 027-2553						
STA 20+45 42' RT (N 1600E)	6		1			
STA 21+45 22' RT (N 1600E)	100		1			
STRUCTURE NO. 027-0100						
STA 140+83 LT		1				
STA 142+10 RT		1				
STA 142+28 RT		1				
STRUCTURE NO. 027-0098						
STA 173+79 RT		1				
STA 174+11 LT		1				
STA 175+43 LT		1				
STRUCTURE NO. 038-2549						
STA 283+08 LT					1	6
STA 283+29 LT TO STA 284+66 LT				138		
STA 284+92 LT					1	6
<b>TOTAL</b>	<b>121</b>	<b>6</b>	<b>4</b>	<b>138</b>	<b>2</b>	<b>12</b>

PIPE CULVERTS													
LOCATION	REMOVE EXISTING CULVERTS	PIPE CULVERTS, CLASS D, TYPE 1		PIPE CULVERTS, CLASS A, TYPE 1		END SECTIONS				FLAP GATE		TRENCH BACKFILL	
		EACH	FOOT		FOOT		EACH				EACH		CU YD
			15"	24"	EQRS 36"	EQRS 42"	15"	24"	PRC FLARED EQRS 36"	PRC FLARED EQRS 42"	15"	24"	
STRUCTURE NO. 027-2018													
STA 22+35 RT	1	24										1	
STA 26+39 LT AND RT	2												
STRUCTURE NO. 027-2553													
STA 106+44 LT													97
STA 8+50 26' RT (N 1600E)		45				1						1	10
STA 9+15 RT (N 1600E)	1												
STA 9+53 (N 1600E)				51					2				10
STA 9+66 (N 1600E)	1												55
STA 20+55 (N 1600E)	1				42					2			60
STA 21+12 (N 1600E)				84					4				25
STRUCTURE NO. 027-0100													
STA 139+50.50 RT	1												
STA 141+06 35' LT	2		48					1				1	
STA 141+89 35' RT	1		44					1				1	
STA 142+03 35' LT	1		50					1				1	
STA 143+14 RT	1												
STA 143+21 LT	1												
STA 143+41 RT	1												
STA 145+00 38.5' LT			54					2					10
STA 145+00 37' RT			54					2					8
STRUCTURE NO. 027-0098													
STA 172+80 47' LT	1	45				2							29
STA 173+85 45' RT	1		22					1				1	
STA 174+31 45' LT	1		42					1				1	
STA 175+39 44' LT	1		30					1				1	
STA 176+44 LT	1												
STA 179+00 33' LT		39				2							4
<b>TOTAL</b>	<b>19</b>	<b>153</b>	<b>344</b>	<b>135</b>	<b>42</b>	<b>5</b>	<b>10</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>308</b>	

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SCHEDULE OF QUANTITIES</b>				F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 17
#FILE#		DRAWN - DJM	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 66880			
		CHECKED - MSW	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT								
		DATE - 08/04/10	REVISED -		* 116 BR/I116 BR, (BR-2)BR, I & BR-3J								

GUARDRAIL									
LOCATION	GUARDRAIL REMOVAL FOOT	SPBGR, TYPE A, 6 FT POSTS FOOT	SPBGR, TYPE A, 9 FT POSTS FOOT	SPBGR, ATTACHED TO STRUCTURES FOOT	SPBGR (SHORT RADIUS) FOOT	TRAF BAR TERM TY 2 EACH	TRAF BAR TERM TY 6 EACH	TRAF BAR TERM TY 1 SPL TAN EACH	TRAF BAR TERM TY 1 SPL FLR EACH
STRUCTURE NO. 027-2018									
STA 21+36 RT TO STA 26+52 RT	516								
STA 21+63 LT TO STA 26+52 LT	489								
STA 24+26.50 RT TO STA 24+76.50 RT									1
STA 24+76.50 RT TO STA 26+39 RT		162.5							
STA 25+01.50 LT TO STA 25+51.50 LT									1
STA 25+51.50 LT TO STA 26+39 LT		87.5							
STA 26+39 LT TO 26+89 LT				50					
STA 26+39 RT TO 26+89 RT				50					
STA 26+75.50 LT TO STA 29+38.50 LT	263								
STA 26+75.50 RT TO STA 29+03 RT	228								
STA 26+89 LT TO STA 28+51.50 LT		162.5							
STA 26+89 RT TO STA 27+76.50 RT		87.5							
STA 27+76.50 RT TO STA 28+26.50 RT									1
STA 28+51.50 LT TO STA 29+01.50 LT									1
STRUCTURE NO. 027-2553									
STA 106+45 RT TO STA 108+13 RT	376								
STA 9+30.66 RT (N 1600E) TO STA 107+00 RT (IL 116)					86				
STA 20+69.03 RT (N 1600E) TO STA 107+11.21 LT (IL 116)					86				
STA 106+60 LT TO STA 107+29 LT	109								
STA 107+00 RT TO STA 108+12.50 RT		112.5							
STA 107+11 LT TO STA 108+74 LT		162.5							
STA 108+74 LT TO STA 109+24 LT								1	
STA 8+81 RT TO STA 9+31 RT (N 1600E)								1	
STA 20+69 RT TO STA 21+19 RT (N 1600E)								1	
STRUCTURE NO. 027-0100									
STA 135+04 LT TO STA 141+05 LT	601								
STA 137+25 RT TO STA 141+00 RT	375								
STA 137+25 RT TO STA 140+38 RT		312.5							
STA 139+06 LT TO STA 139+56 LT									1
STA 139+56 LT TO STA 140+44 LT		87.5							
STA 140+38 RT TO STA 140+81 RT							1		
STA 140+44 LT TO STA 140+87 LT							1		
STA 141+85 RT TO STA 142+86 RT	101								
STA 141+91 LT TO STA 142+92 LT	101								
STA 142+03 RT TO STA 142+47 RT							1		
STA 142+09 LT TO STA 142+53 LT							1		
STA 142+47 RT TO STA 143+34 RT		87.5							
STA 142+53 LT TO STA 144+15 LT		162.5							
STA 143+34 RT TO STA 143+84 RT									1
STA 144+15 LT TO STA 144+65 LT									1
CONTINUED									

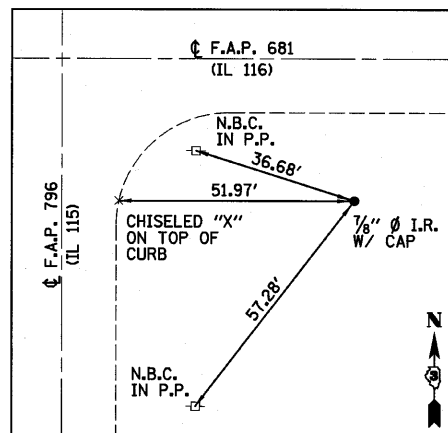
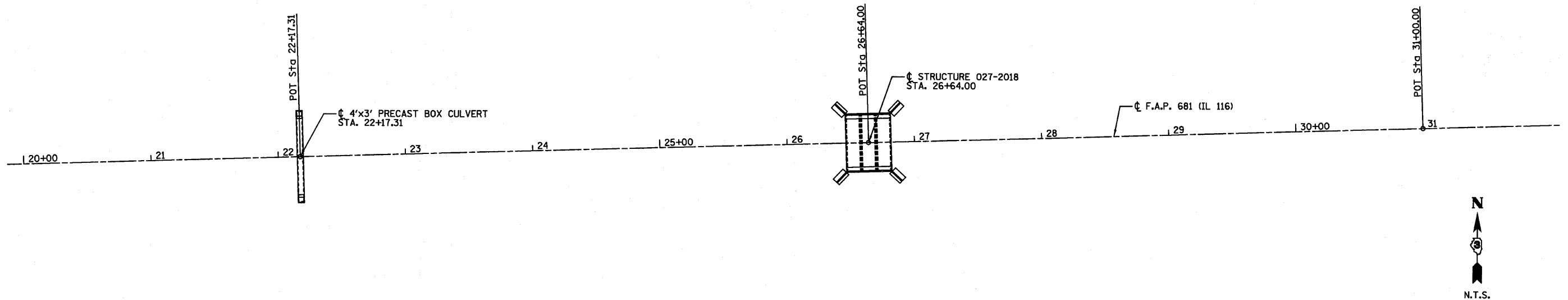
GUARDRAIL									
LOCATION	GUARDRAIL	SPBGR, TYPE A,	SPBGR, TYPE A,	SPBGR, ATTACHED	SPBGR	TRAF BAR TERM	TRAF BAR	TRAF BAR TERM	TRAF BAR TERM
	REMOVAL	6 FT POSTS	9 FT POSTS	TO STRUCTURES	(SHORT RADIUS)	TY 2	TERM TY 6	TY 1 SPL TAN	TY 1 SPL FLR
	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH
STRUCTURE NO. 027-0098									
STA 170+78 RT TO STA 174+04 RT	326								
STA 170+79 LT TO STA 172+54 LT	175								
STA 172+02 RT TO STA 172+52 RT									1
STA 172+52 RT TO STA 173+40 RT		87.5							
STA 173+10 LT TO STA 173+60 LT									1
STA 173+23 LT TO STA 174+24 LT	101								
STA 173+40 RT TO STA 173+83 RT							1		
STA 173+60 LT TO STA 174+04 LT							1		
STA 175+04 RT TO STA 175+91 RT	102								
STA 175+16 LT TO STA 176+13 LT	96								
STA 175+18 RT TO STA 175+62 RT							1		
STA 175+39 LT TO STA 175+82 LT							1		
STA 175+62 RT TO STA 175+75 RT		12.5							
STA 175+75 RT TO STA 175+87 RT					16				
STA 175+87 RT TO STA 175+92 RT						1			
STA 175+82 LT TO STA 176+70 LT		87.5							
STA 176+70 LT TO STA 177+20 LT									1
STA 176+76 LT TO STA 179+38 LT	263								
STRUCTURE NO. 038-2549									
STA 282+12.50 RT TO STA 282+62.50 RT								1	
STA 282+62.50 RT TO STA 283+87.50 RT		125							
STA 282+75 LT TO STA 283+25 LT								1	
STA 282+76 LT TO STA 285+75 LT	281								
STA 282+76 RT TO STA 285+24 RT	230								
STA 283+25 LT TO STA 283+87.50 LT			62.5						
STA 283+87.50 LT TO STA 284+12.50 LT				25					
STA 283+87.50 RT TO STA 284+12.50 RT				25					
STA 284+12.50 LT TO STA 285+37.50 LT			125						
STA 284+12.50 RT TO STA 284+75 RT		62.5							
STA 284+75 RT TO STA 285+25 RT								1	
STA 285+37.50 LT TO STA 285+75 LT			37.5						
TOTAL	4,733	1,800	225	150	188	1	8	6	10

FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	
LOCATION	EACH
STRUCTURE NO. 027-2018	
STA 21+50 40' LT AND 40' RT	2
STA 22+50 65' LT AND 60' RT	2
STA 29+50 65' LT AND 60' RT	2
STA 30+50 40' LT AND 40' RT	2
STRUCTURE NO. 027-2553	
STA 104+50 40' LT AND 40' RT	2
STA 105+00 50' LT AND 50' RT	2
STA 105+35 50' RT	1
STA 105+45 50' LT	1
STA 105+92 60' LT	1
STA 105+93 80' RT	1
STA 106+94 73' RT	1
STA 107+30 60' RT	1
STA 107+40 50' LT	1
STA 108+50 60' RT	1
STA 109+00 50' LT	1
STA 109+50 40' LT AND 40' RT	2
STA 8+50 30' LT (N 1600E)	1
STA 8+74 30' RT (N 1600E)	1
STA 21+50 30' LT AND 30' RT (N 1600E)	2
STRUCTURE NO. 027-0100	
STA 134+50 40' LT	1
STA 135+50 60' LT	1
STA 137+50 40' RT	1
STA 138+50 80' RT	1
STA 141+00 80' RT	1
STA 142+00 55' RT	1
STA 146+00 60' LT AND 55' RT	2
STA 147+00 40' LT AND 40' RT	2
STRUCTURE NO. 027-0098	
STA 170+50 40' LT	1
STA 171+00 40' RT	1
STA 171+50 60' LT	1
STA 172+00 60' RT	1
STA 175+00 60' RT	1
STA 175+50 40' RT	1
STA 178+50 60' LT	1
STA 179+50 60' LT	1
TOTAL	45

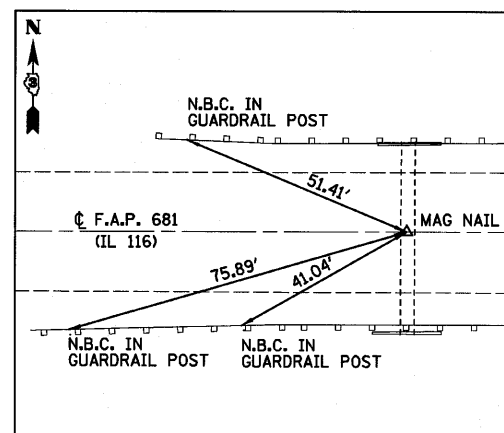
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#FILE#		DRAWN - DJM	REVISED -						CONTRACT NO. 66880				
	PLOT SCALE = #SCALE#	CHECKED - MSW	REVISED -										
	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -										
FARNSWORTH GROUP, INC.		CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704			(309) 663-8435 / (309) 663-1571 FAX				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		* 116 BR/I116 BR, (BR-2)BR, I & BR-3J		24-B271

PAVEMENT MARKING LINE		
LOCATION	PAINT PAVEMENT MARKING - LINE 4"	PAINT PAVEMENT MARKING - LINE 6"
	FOOT	FOOT
STRUCTURE NO. 027-2018		
STA 21+00 TO STA 30+50		480
STA 21+00 LT TO STA 30+50 LT	1,900	
STA 21+00 RT TO STA 30+50 RT	1,900	
STRUCTURE NO. 027-2553		
STA 105+00 TO STA 109+00		200
STA 105+00 LT TO STA 105+72 LT	166	
STA 105+00 RT TO STA 105+72 RT	144	
STA 107+00 LT TO STA 109+00 LT	392	
STA 107+00 RT TO STA 109+00 RT	414	
STA 20+00 TO STA 21+48 (N 1600E)		74
STRUCTURE NO. 027-0100		
STA 137+10 TO STA 146+90		500
STA 137+10 LT TO STA 146+90 LT	1,960	
STA 137+10 RT TO STA 146+90 RT	1,960	
STRUCTURE NO. 027-0098		
STA 171+50 TO STA 177+50		300
STA 171+50 LT TO STA 177+50 LT	1,200	
STA 171+50 RT TO STA 177+50 RT	1,200	
STRUCTURE NO. 038-2549		
STA 282+80 TO STA 285+20		120
STA 282+80 LT TO STA 285+20 LT	480	
STA 282+80 RT TO STA 285+20 RT	480	
TOTAL	12,196	1,674

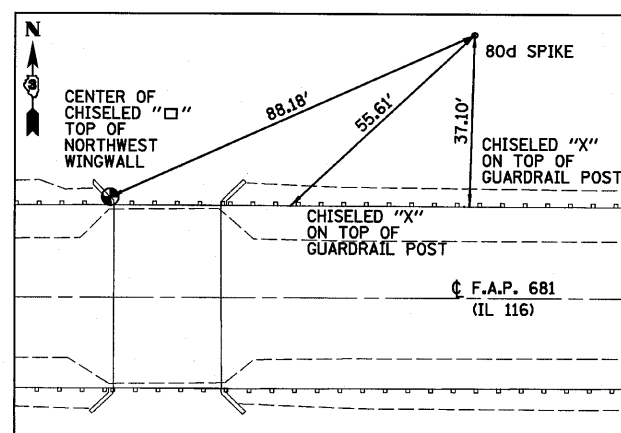
REFLECTORS/MARKERS				
LOCATION	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER	GUARDRAIL MARKERS	TERMINAL MARKER - DIRECT APPLIED
	EACH	EACH	EACH	EACH
STRUCTURE NO. 027-2018				
STA 21+00 TO STA 30+50	13	13		
STA 24+26.50 RT TO STA 28+26.50 RT			6	2
STA 25+01.50 LT TO STA 29+01.50 LT			6	2
STRUCTURE NO. 027-2553				
STA 105+00 TO STA 109+00	6	6		
STA 106+47 RT TO STA 108+13 RT			4	
STA 106+58 LT TO STA 109+24 LT			5	1
STA 8+81 RT TO STA 9+31 RT (N 1600E)			2	1
STA 20+69 RT TO STA 21+19 RT (N 1600E)			2	1
STRUCTURE NO. 027-0100				
STA 137+10 TO STA 146+90	14	14		
STA 137+25 RT TO STA 140+81 RT			6	
STA 139+06 LT TO STA 140+87 LT			4	1
STA 142+03 RT TO STA 143+84 RT			4	1
STA 142+09 LT TO STA 144+65 LT			5	1
STRUCTURE NO. 027-0098				
STA 171+50 TO STA 177+50	9	9		
STA 172+02 RT TO STA 173+83 RT			4	1
STA 173+10 LT TO STA 174+04 LT			3	1
STA 175+18 RT TO STA 175+90 RT			3	1
STA 175+39 LT TO STA 177+20 LT			4	1
STRUCTURE NO. 038-2549				
STA 282+12.50 RT TO STA 285+25 RT			5	2
STA 282+75 LT TO STA 285+75 LT			5	1
STA 282+80 TO STA 285+20	4	4		
TOTAL	46	46	68	17



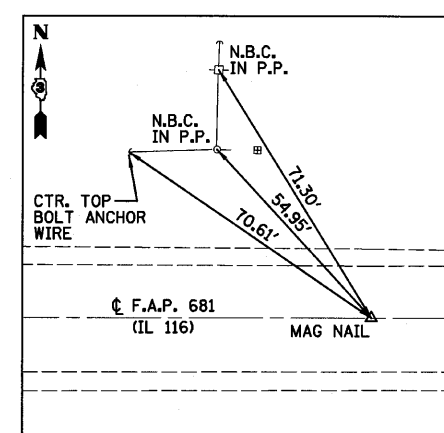
CONTROL POINT @ S.E. QUADRANT  
OF IL RTE. 116 AND IL RTE. 115  
N = 1534086.941  
E = 1019645.797  
ELEV = 658.003



IL 116  
STA 22+17.31  
N = 1534229.923  
E = 1021789.063



CONTROL POINT  
STA 27+31.62, 58.26' LT  
N = 1534303.011  
E = 1022301.473  
ELEV = 657.814

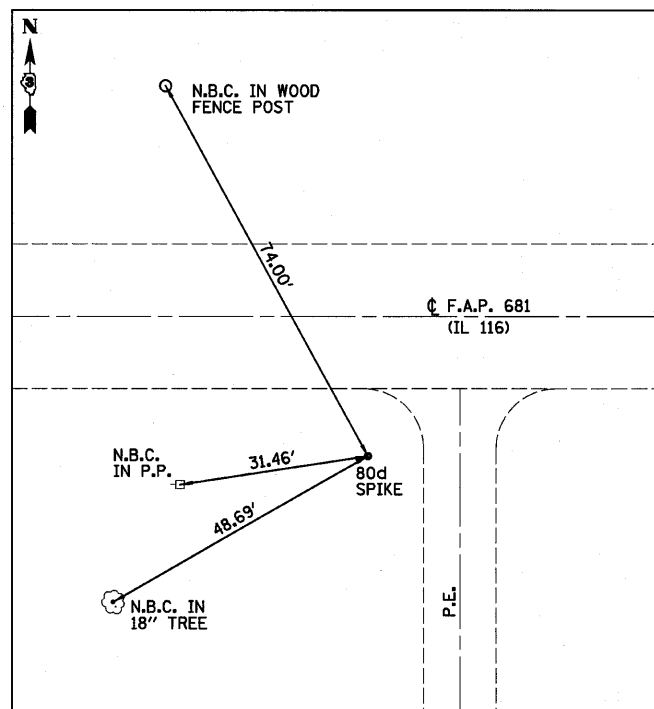
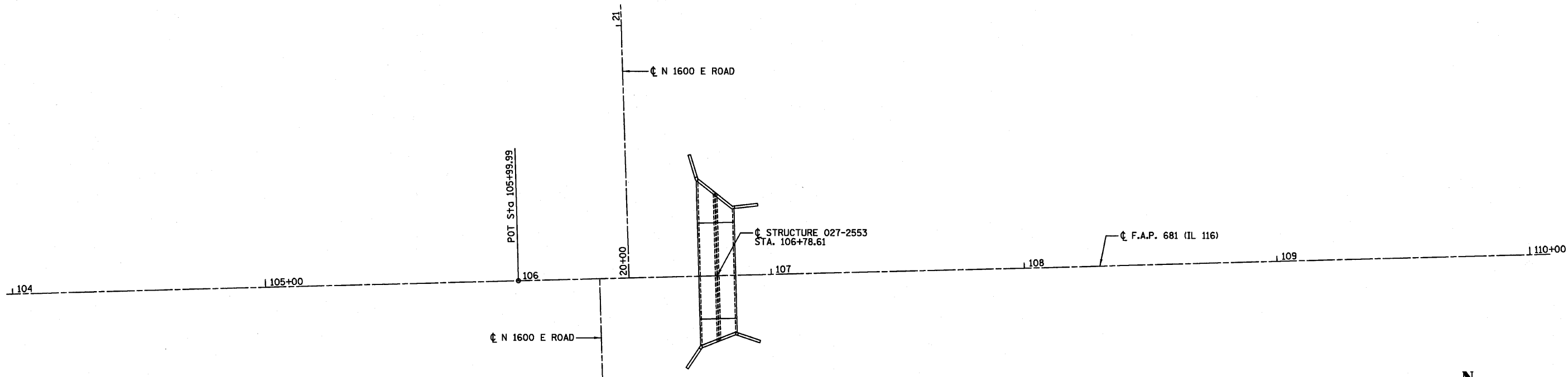


IL 116  
STA 31+00.00  
N = 1534255.414  
E = 1022671.382

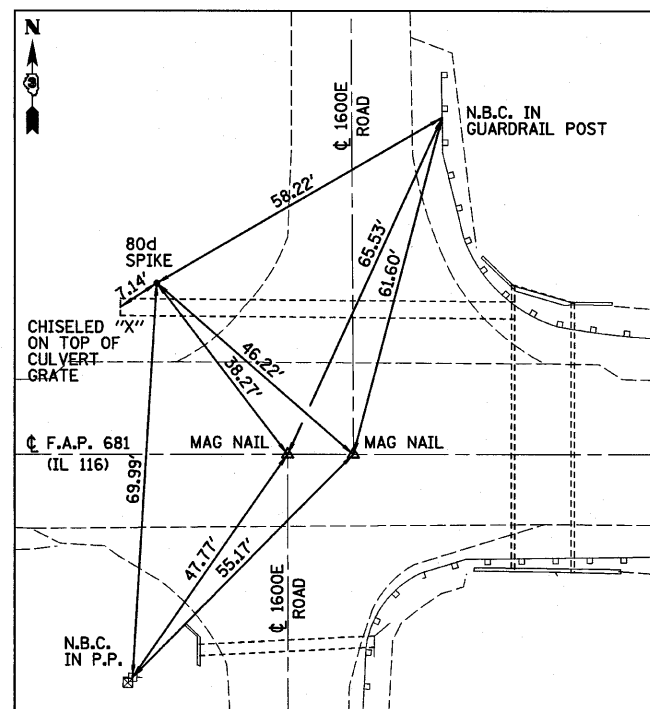
BENCHMARK  
STA 26+51, 22' LT  
CHISELED "X" ON  
N.W. WINGWALL  
ELEV=659.54

BENCHMARK  
STA 30+63, 40' LT  
RAILROAD SPIKE  
IN POWER POLE  
ELEV=657.43

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ALIGNMENT, SURVEY TIES AND BENCHMARKS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILEL#		DRAWN - DJM	REVISED -					681	*	FORD/IROQUOIS	146	21
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	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



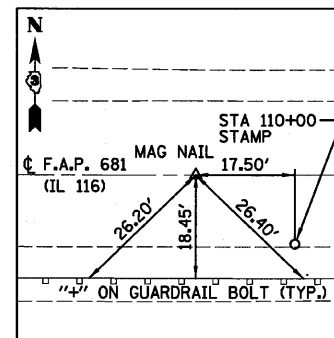
CONTROL POINT  
 STA 80+31.00, 23.24' RT  
 N = 1534385.385  
 E = 1027579.285  
 ELEV = 657.770



CONTROL POINT  
 STA 106+09.07, 30.38' LT  
 N = 1534513.177  
 E = 1030154.730  
 ELEV = 657.056

IL 116  
 STA 106+32.17 @  
 1600E ROAD (SOUTH)  
 N = 1534483.426  
 E = 1030178.636

IL 116  
 STA 106+43.78 @  
 1600E ROAD (NORTH)  
 N = 1534483.739  
 E = 1030190.248



IL 116  
 STA 110+00.00  
 N = 1534493.361  
 E = 1030546.344

BENCHMARK  
 STA 106+73, 29' LT  
 CHISELED "□" ON  
 TOP OF N.W. HEADWALL  
 ELEV=658.32

BENCHMARK  
 STA 106+05, 40' RT  
 RAILROAD SPIKE IN POWER POLE  
 S.W. QUADRANT OF IL RTE. 116  
 ELEV=657.03

FILE NAME =  
 \*FILEL\*

USER NAME = \*USER\*  
 PLOT SCALE = \*SCALE\*  
 PLOT DATE = \*DATE\*

DESIGNED - JML  
 DRAWN - DJM  
 CHECKED - MSW  
 DATE - 08/04/10

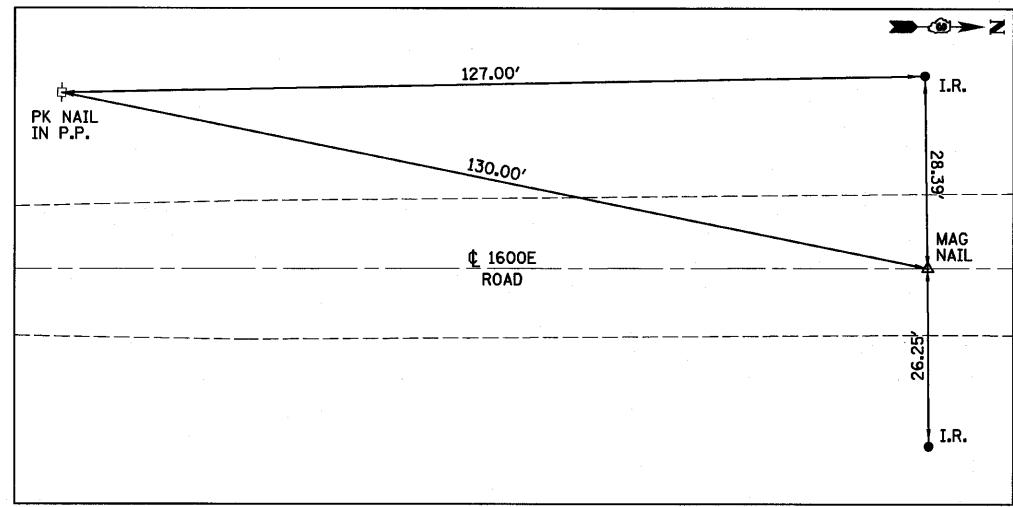
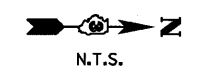
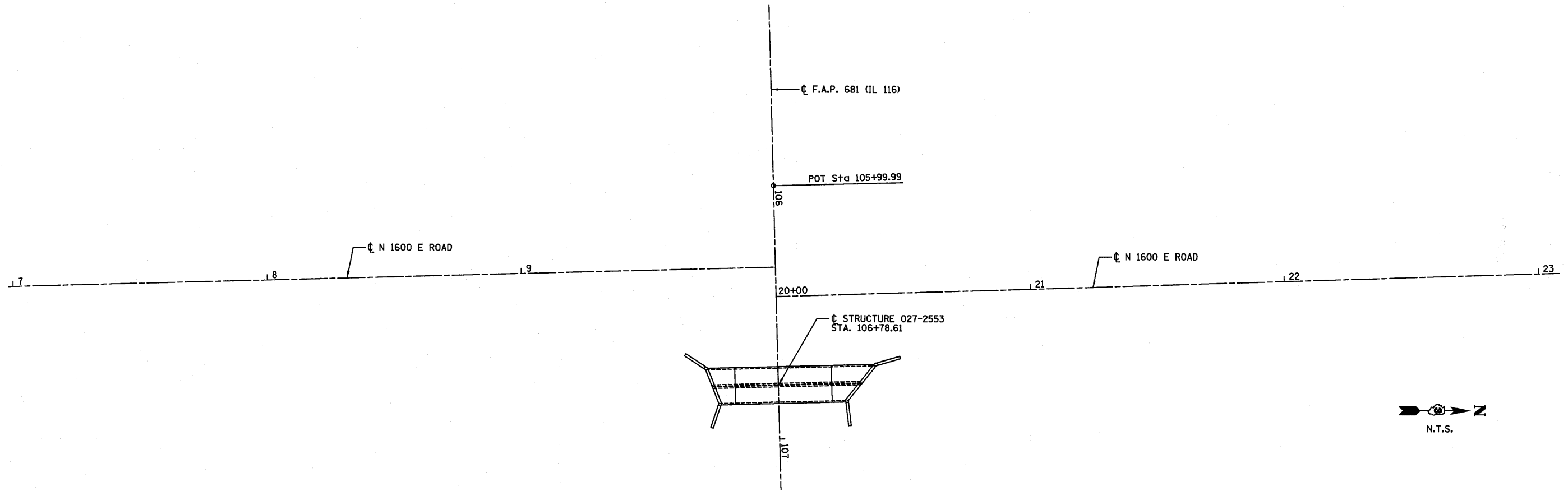
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

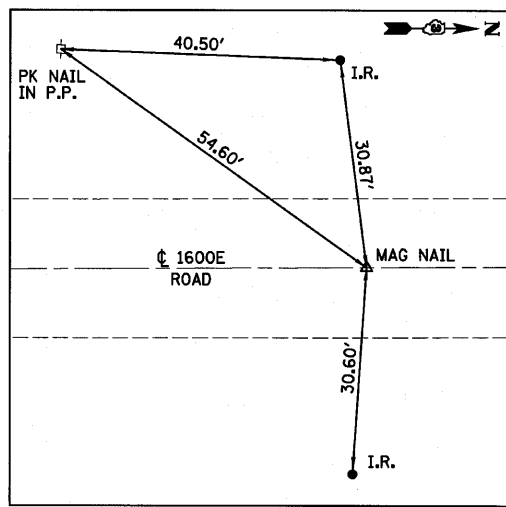
ALIGNMENT, SURVEY TIES AND BENCHMARKS

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

F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 22
SN 027-2553		CONTRACT NO. 66880		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TR 1600E  
 STA 8+00.00  
 N = 1534283.482  
 E = 1030184.331



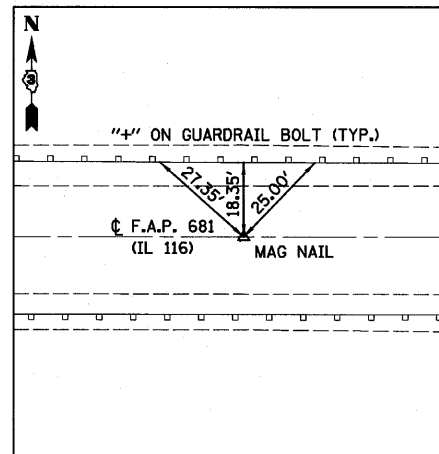
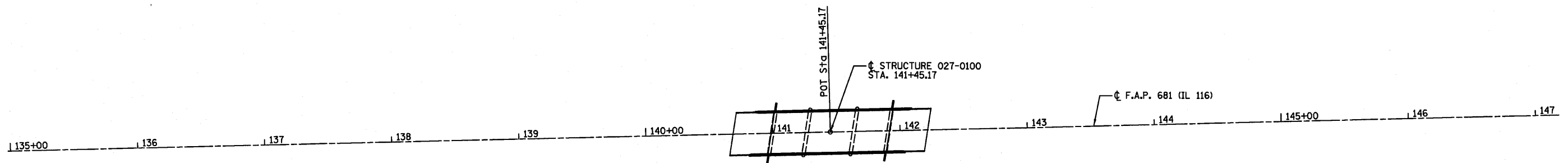
TR 1600E  
 STA 22+00.00  
 N = 1534683.638  
 E = 1030183.785

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#FILEL#		DRAWN - DJM	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - MSW	REVISED -
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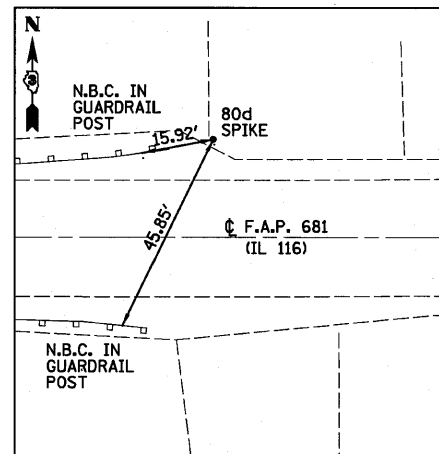
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>ALIGNMENT, SURVEY TIES AND BENCHMARKS</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

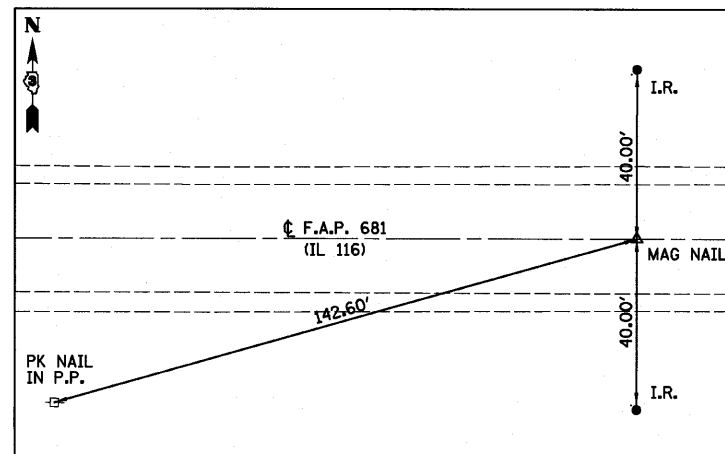
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	23
SN 027-2553		CONTRACT NO. 66880		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



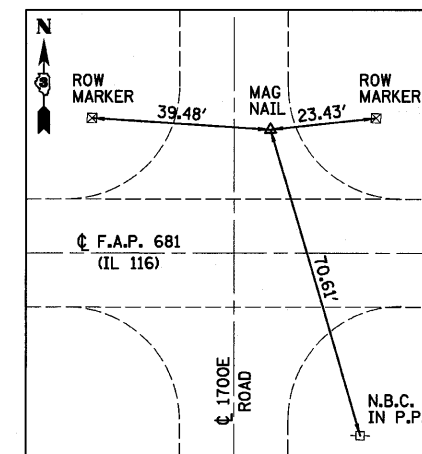
IL 116  
 STA 137+00.00  
 N = 1534565.415  
 E = 1033245.310



CONTROL POINT  
 STA 143+00.66, 21.83' LT  
 N = 1534602.363  
 E = 1033845.285  
 ELEV = 658.896



IL 116  
 STA 147+00.00  
 N = 1534590.550  
 E = 1034244.975



CONTROL POINT  
 STA 159+35.67, 27.46' LT  
 N = 1534650.233  
 E = 1035479.413  
 ELEV = 657.133

BENCHMARK  
 STA 141+90, 17' LT  
 CHISELED "□" ON  
 N.E. WINGWALL  
 ELEV=659.76

BENCHMARK  
 STA 142+10, 39' RT  
 RAILROAD SPIKE IN  
 POWER POLE SOUTH  
 SIDE OF IL RTE 116  
 ELEV=657.59

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -
#FILE#		DRAWN - DJM	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - MSW	REVISED -
	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ALIGNMENT, SURVEY TIES AND BENCHMARKS

F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 24
SN 027-0100		CONTRACT NO. 66880		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

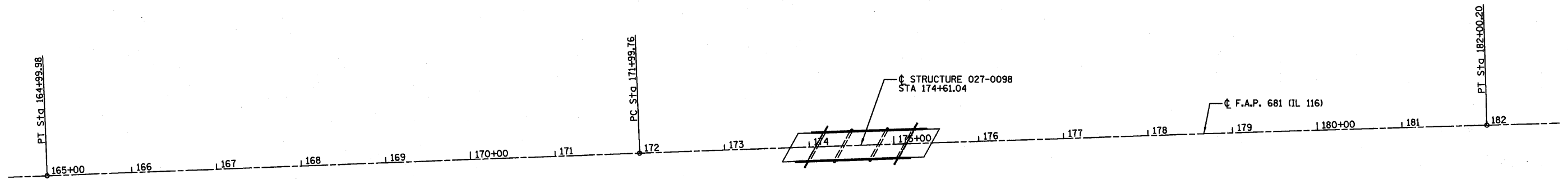
FARNSWORTH GROUP, INC.

CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

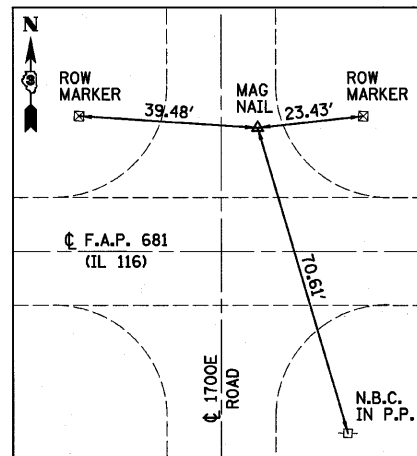
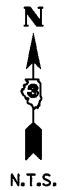
\* 116 BR/116 BR, (BR-2)BR, I & BR-3J

24-8271

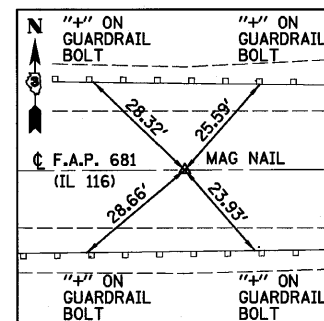




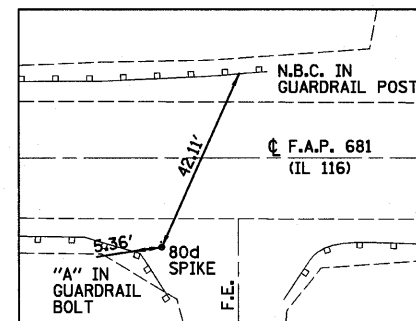
CURVE DATA  
 PI STA. = 176+99.99  
 $\Delta$  = 0° 31' 01" (RT)  
 $D$  = 0° 03' 06"  
 $R$  = 110,894.31'  
 $T$  = 500.22'  
 $L$  = 1,000.44'  
 $E$  = 1.13'  
 P.C. STA. = 171+99.76  
 P.T. STA. = 182+00.20



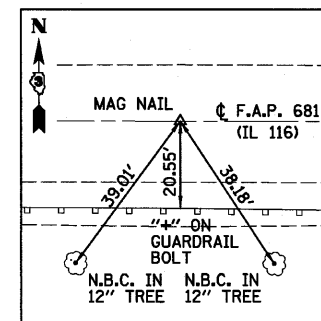
CONTROL POINT  
 STA 159+35.67, 27.46' LT  
 N = 1534650.233  
 E = 1035479.413  
 ELEV = 657.133



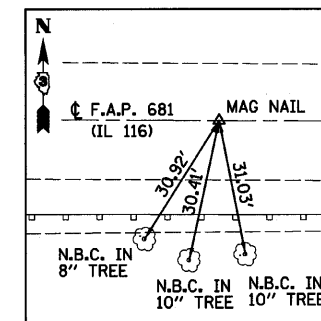
IL 116  
 STA 171+99.76  
 N = 1534668.456  
 E = 1036743.563



CONTROL POINT  
 STA 175+89.35, 19.74' RT  
 N = 1534662.740  
 E = 1037133.574  
 ELEV = 659.751



IL 116  
 STA 176+99.99  
 N = 1534687.322  
 E = 1037243.431



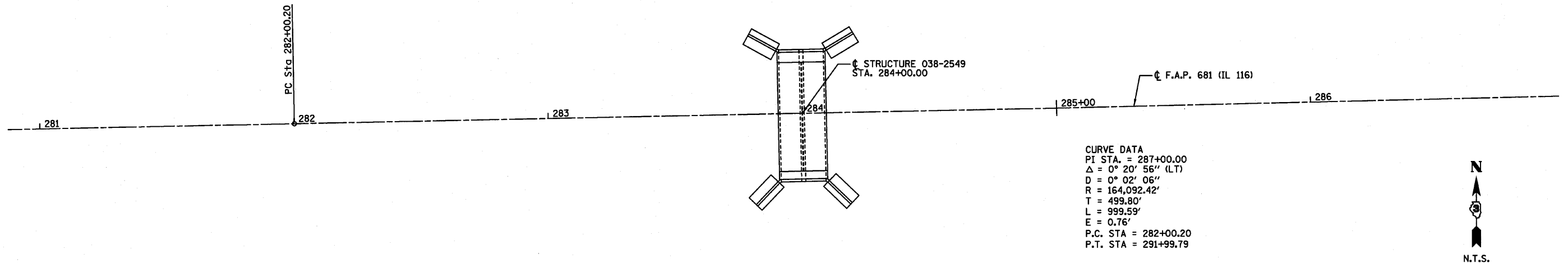
IL 116  
 STA 182+00.20  
 N = 1534701.678  
 E = 1037743.450

BENCHMARK  
 STA 172+39, 41' LT  
 80d SPIKE IN WOOD  
 FENCE POST  
 ELEV=654.96

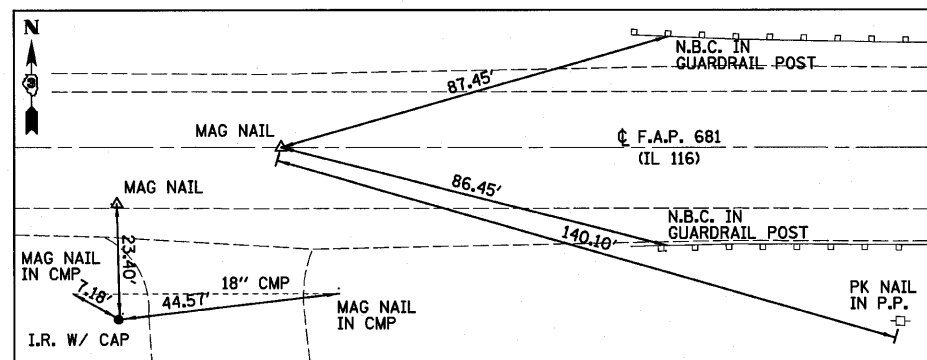
BENCHMARK  
 STA 174+94, 17' RT  
 CHISELED "C" ON  
 S.E. WINGWALL  
 ELEV=659.90

BENCHMARK  
 STA 182+06, 30' RT  
 RAILROAD SPIKE IN 12" TREE  
 SOUTH SIDE OF IL RTE 116  
 ELEV=655.02

FILE NAME =	USER NAME = *USER*	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ALIGNMENT, SURVEY TIES AND BENCHMARKS</b>			F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 25	
*FILE#		DRAWN - DJM	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 66880			
		CHECKED - MSW	REVISED -							FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
		DATE - 08/04/10	REVISED -							* 116 BR/1116 BR, (BR-2)BR, I & BR-3J		24-8271	

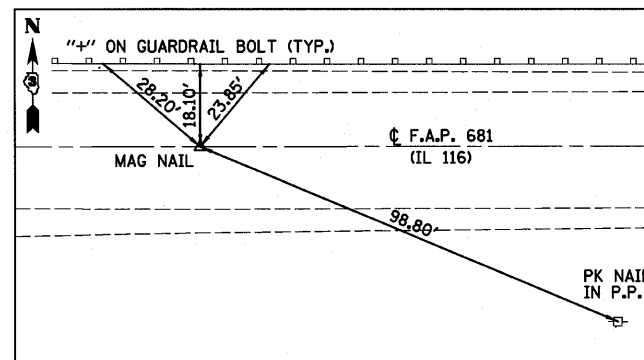


CURVE DATA  
 PI STA. = 287+00.00  
 $\Delta = 0^\circ 20' 56''$  (LT)  
 $D = 0^\circ 02' 06''$   
 $R = 164,092.42'$   
 $T = 499.80'$   
 $L = 999.59'$   
 $E = 0.76'$   
 P.C. STA = 282+00.20  
 P.T. STA = 291+99.79

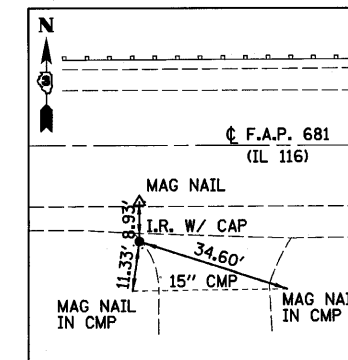


CONTROL POINT  
 STA 281+64.70, 35.42' RT  
 $N = 1534899.162$   
 $E = 1047698.202$   
 ELEV = 657.282

IL 116  
 STA 282+00.00  
 $N = 1534935.239$   
 $E = 1047733.038$



IL 116  
 STA 286+00.00  
 $N = 1534943.575$   
 $E = 1048132.727$



CONTROL POINT  
 STA 289+11.10, 21.19' RT  
 $N = 1534929.470$   
 $E = 1048444.236$   
 ELEV = 657.914

BENCHMARK  
 STA 283+36, 39' RT  
 BOLT IN POWER  
 POLE  
 ELEV=659.15

BENCHMARK  
 STA 283+91, 22' RT  
 CHISELED "□" ON  
 S.W. WINGWALL  
 ELEV=660.04

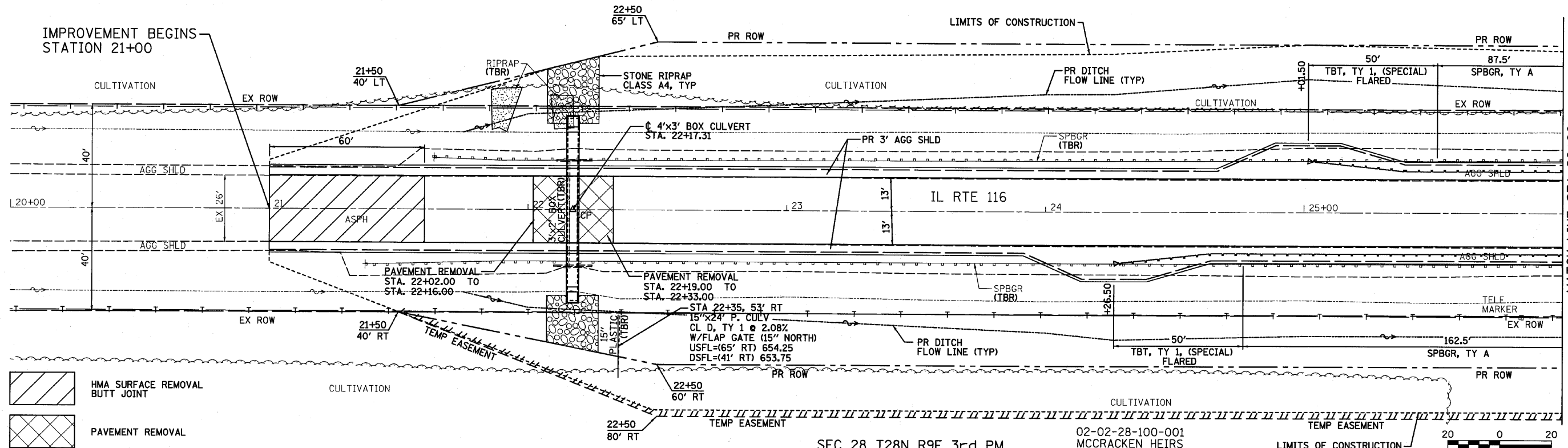
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

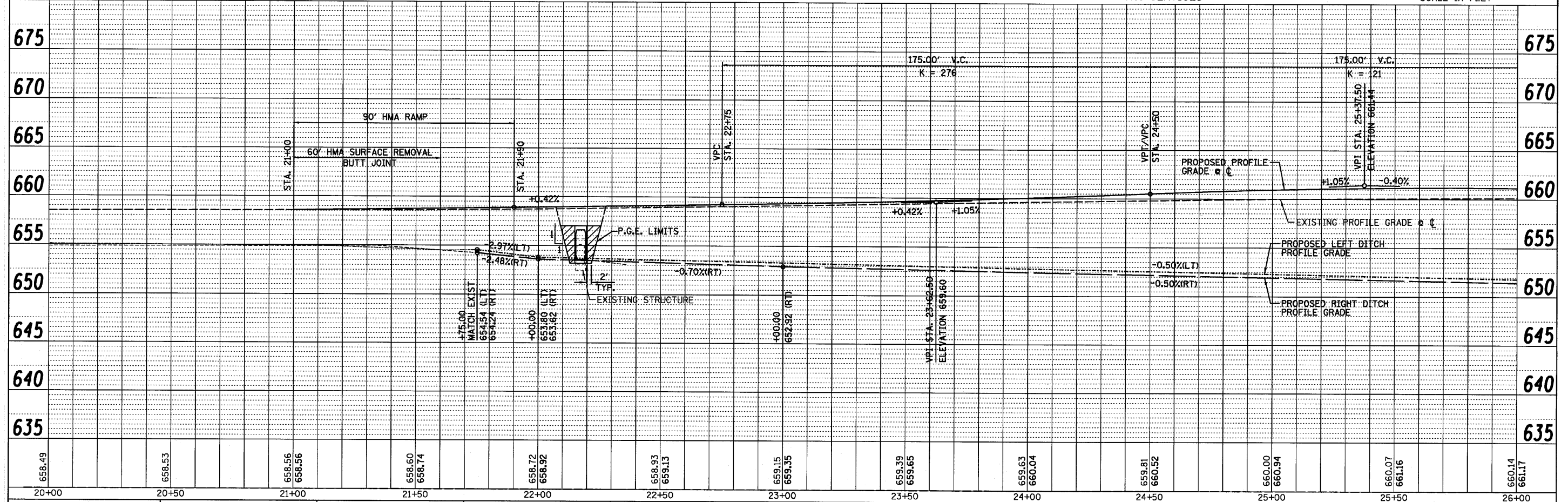
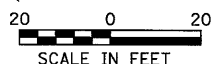
ALIGNMENT, SURVEY TIES AND BENCHMARKS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	26
SN 038-2549		CONTRACT NO. 66880		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



HMA SURFACE REMOVAL BUTT JOINT  
 PAVEMENT REMOVAL



658.49	658.53	658.56 658.56	658.60 658.74	658.72 658.92	658.93 659.13	659.15 659.35	659.39 659.65	659.63 660.04	659.81 660.52	660.00 660.94	660.07 661.16	660.14 661.17
20+00	20+50	21+00	21+50	22+00	22+50	23+00	23+50	24+00	24+50	25+00	25+50	26+00

FILE NAME = #FILEL#  
 USER NAME = #USER#  
 PLOT SCALE = #SCALE#  
 PLOT DATE = #DATE#

DESIGNED - JJO  
 DRAWN - JJO  
 CHECKED - MSW  
 DATE - 08/04/10

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

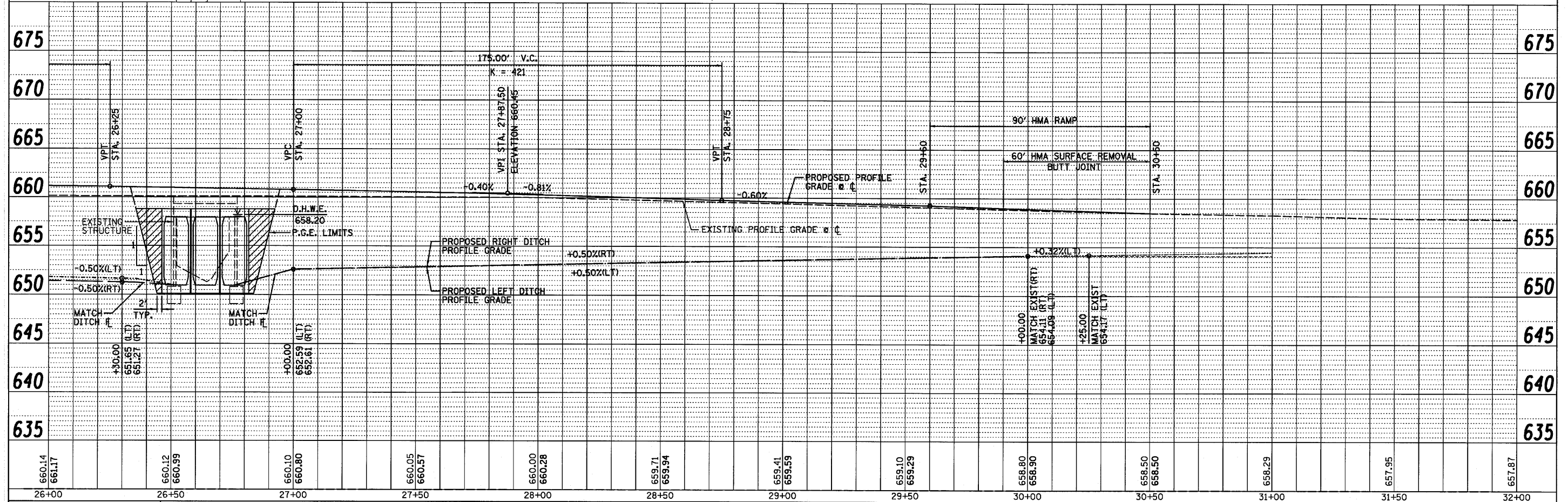
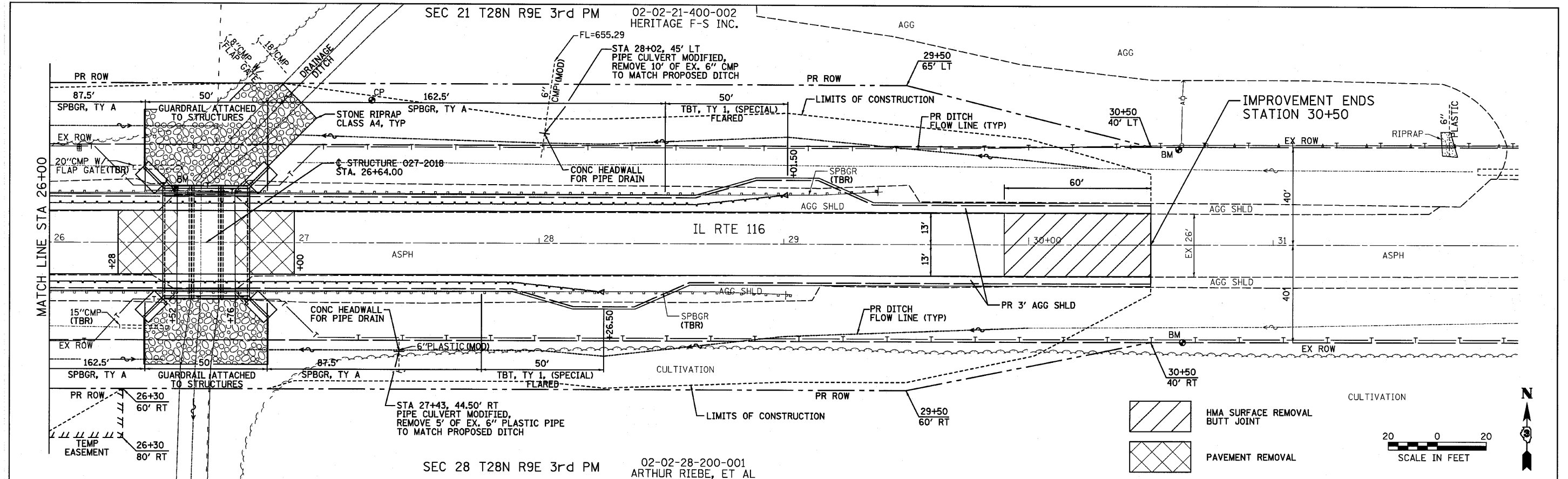
IL ROUTE 116  
PLAN & PROFILE

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

F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
 681 \* FORD/IROQUOIS 146 27  
 S.N. 027-2018 CONTRACT NO. 66880  
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT  
 \* 116 BR/I116 BR, (BR-2)BR, I & BR-3J

DATE	BY
REVISION	DATE
PLANNED	DATE
NOTED	DATE
NO.	NO.

DATE	BY
REVISION	DATE
PLANNED	DATE
NOTED	DATE
NO.	NO.



660.14	661.17	660.12	660.99	660.10	660.80	660.05	660.57	660.00	660.28	659.71	659.94	659.41	659.59	659.10	659.29	658.80	658.90	658.50	658.50	658.29	657.95	657.87
26+00	26+50	27+00	27+50	28+00	28+50	29+00	29+50	30+00	30+50	31+00	31+50	32+00										

SEC 22 T28N R9E 3rd PM 02-22-400-001  
JULIA HALPIN

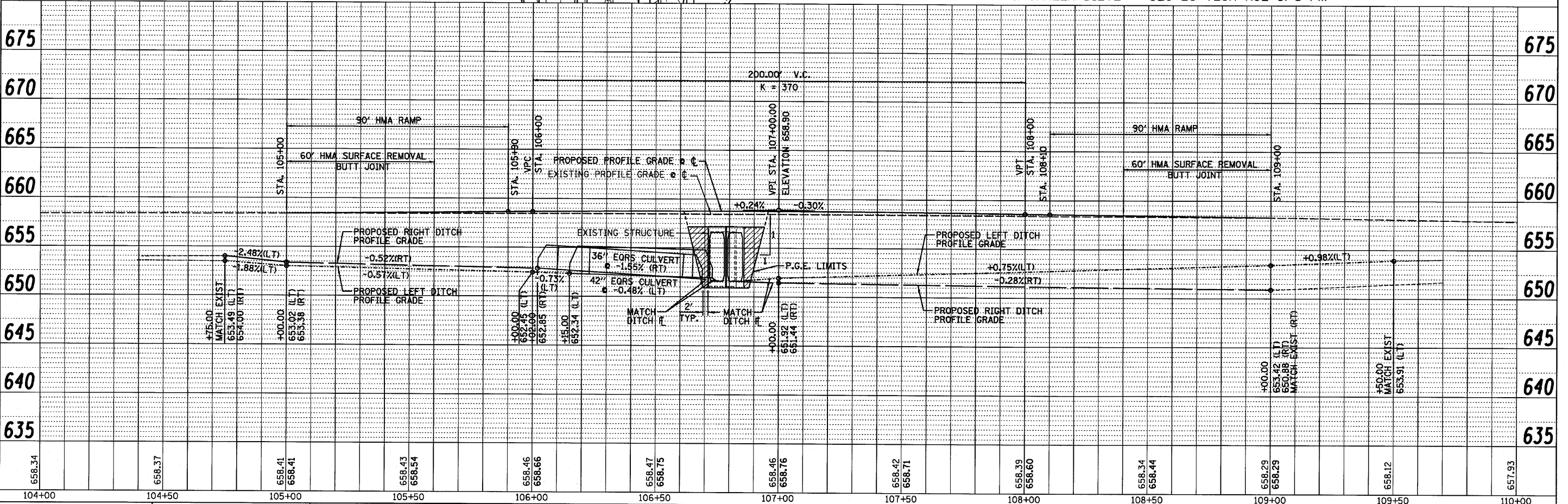
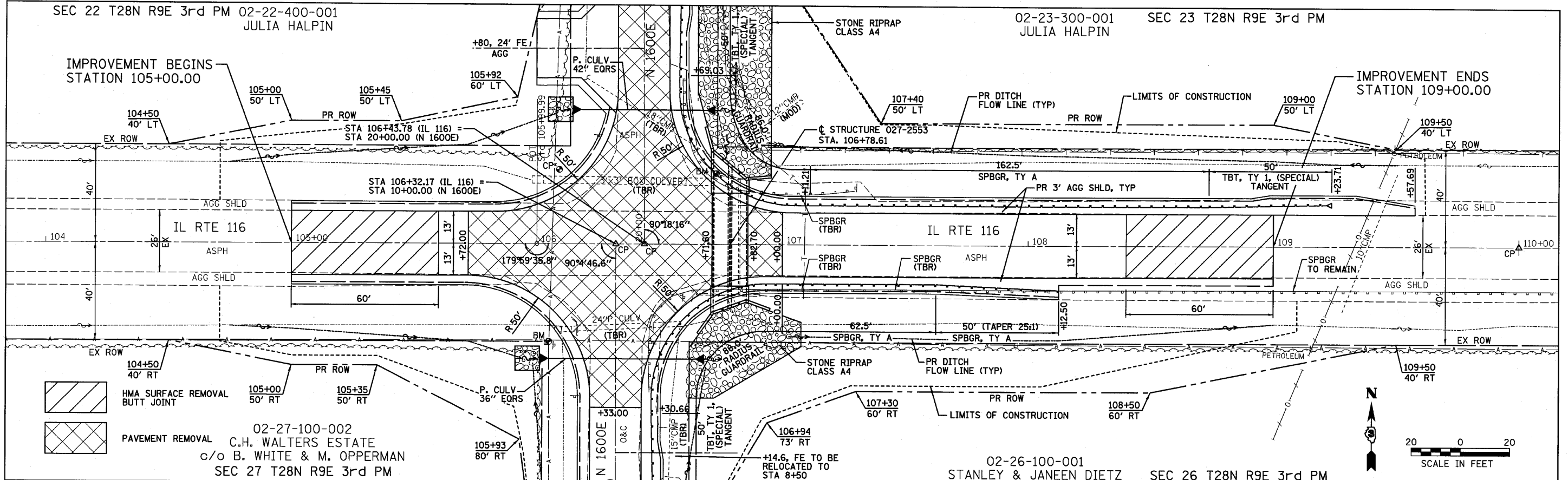
02-23-300-001 SEC 23 T28N R9E 3rd PM  
JULIA HALPIN

IMPROVEMENT BEGINS  
STATION 105+00.00

IMPROVEMENT ENDS  
STATION 109+00.00

DATE	BY
REVISIONS	

DATE	BY
REVISIONS	



104+00	104+50	105+00	105+50	106+00	106+50	107+00	107+50	108+00	108+50	109+00	109+50	110+00
658.34	658.37	658.41 658.41	658.43 658.54	658.46 658.66	658.47 658.75	658.46 658.76	658.42 658.71	658.39 658.60	658.34 658.44	658.29 658.29	658.12	657.93

SEC 27 T28N R9E 3rd PM

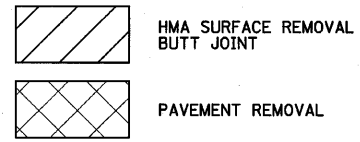
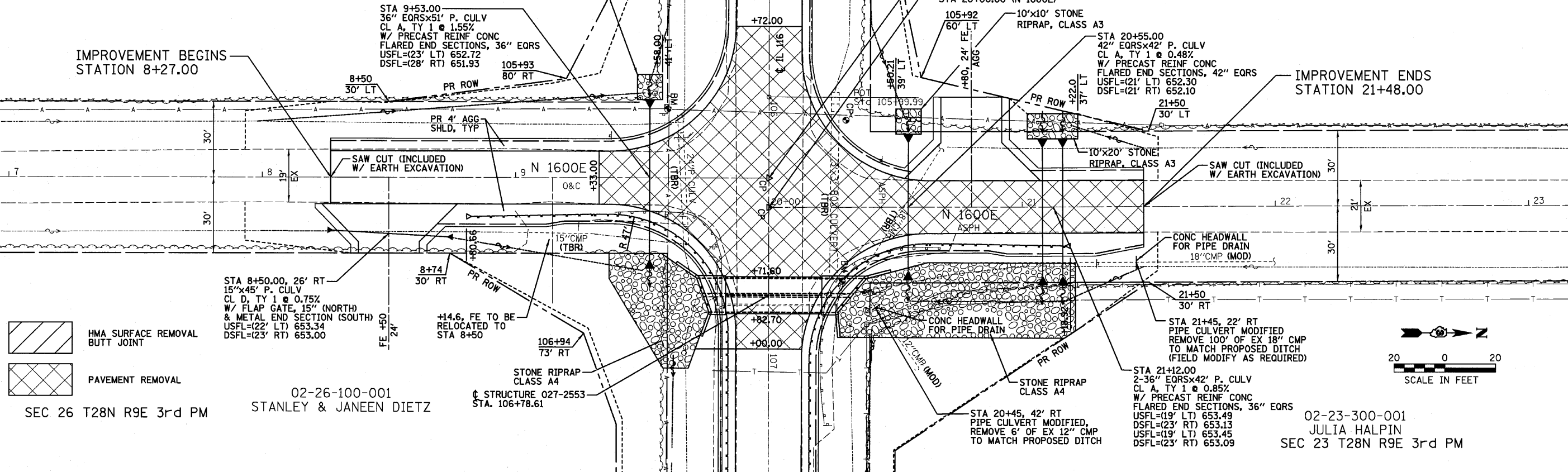
02-27-100-002  
C.H. WALTERS ESTATE  
c/o B. WHITE & M. OPPERMAN

02-22-400-001  
JULIA HALPIN  
SEC 22 T28N R9E 3rd PM

IMPROVEMENT BEGINS  
STATION 8+27.00

IMPROVEMENT ENDS  
STATION 21+48.00

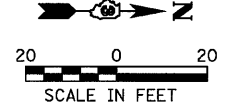
DATE	
BY	
REVISION	
PLANNING	
DESIGN	
CONSTRUCTION	
NO. _____	
DATE _____	
BY _____	
REVISION _____	
PLANNING _____	
DESIGN _____	
CONSTRUCTION _____	
NO. _____	
DATE _____	
BY _____	
REVISION _____	
PLANNING _____	
DESIGN _____	
CONSTRUCTION _____	
NO. _____	
DATE _____	
BY _____	
REVISION _____	
PLANNING _____	
DESIGN _____	
CONSTRUCTION _____	



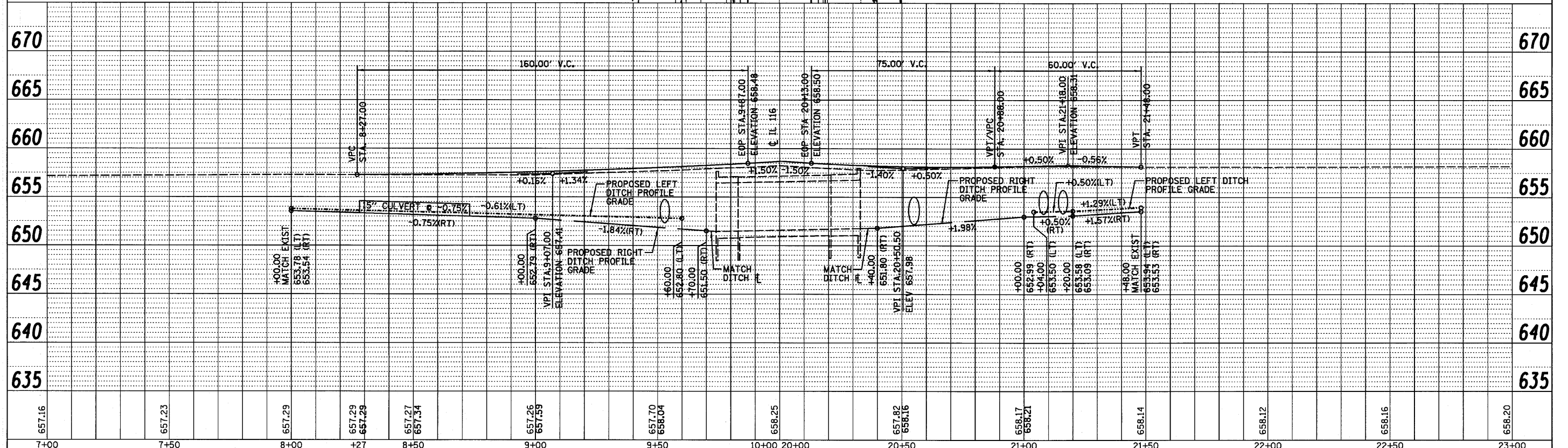
SEC 26 T28N R9E 3rd PM

02-26-100-001  
STANLEY & JANEEN DIETZ

02-23-300-001  
JULIA HALPIN  
SEC 23 T28N R9E 3rd PM



DATE	
BY	
REVISION	
PLANNING	
DESIGN	
CONSTRUCTION	
NO. _____	
DATE _____	
BY _____	
REVISION _____	
PLANNING _____	
DESIGN _____	
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NO. _____	
DATE _____	
BY _____	
REVISION _____	
PLANNING _____	
DESIGN _____	
CONSTRUCTION _____	



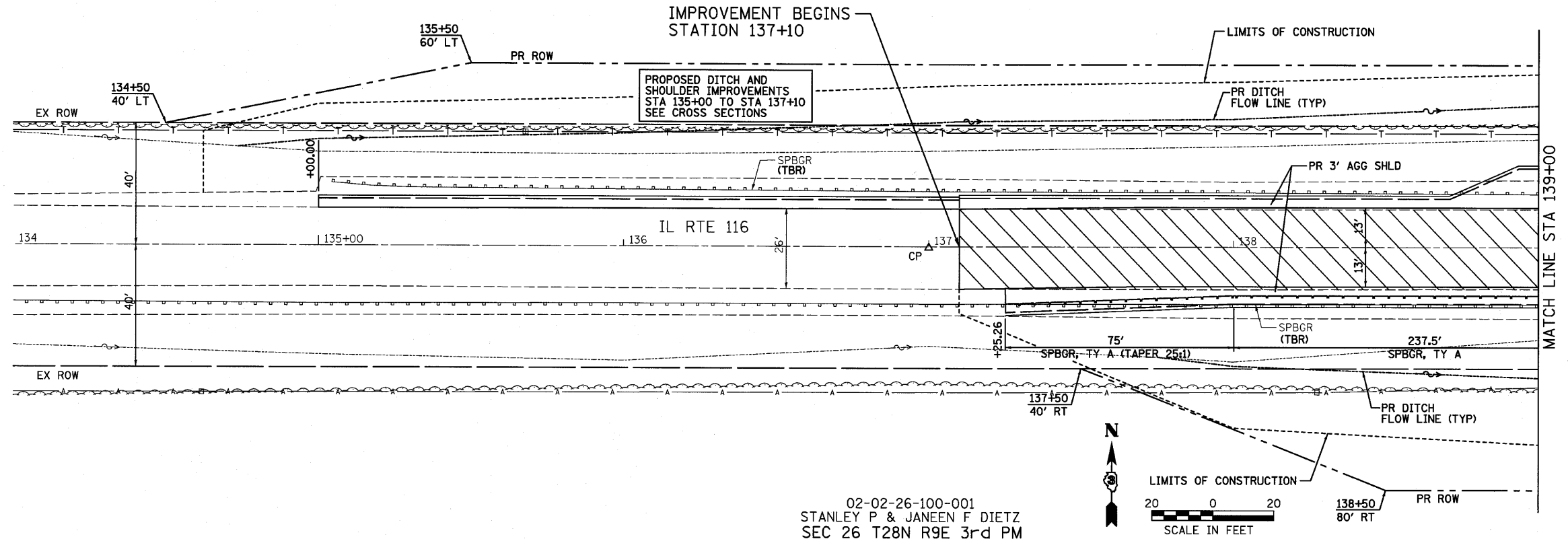
FILE NAME =	USER NAME = *USER*	DESIGNED - JJO	REVISED -	<p align="center"><b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b></p> <p align="center"><b>N 1600E ROAD PLAN &amp; PROFILE</b></p>	F.A.P. RTE. 681	SECTION *	COUNTY FORD/IRROQUOIS	TOTAL SHEETS 146	SHEET NO. 30
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FARNSWORTH GROUP, INC.

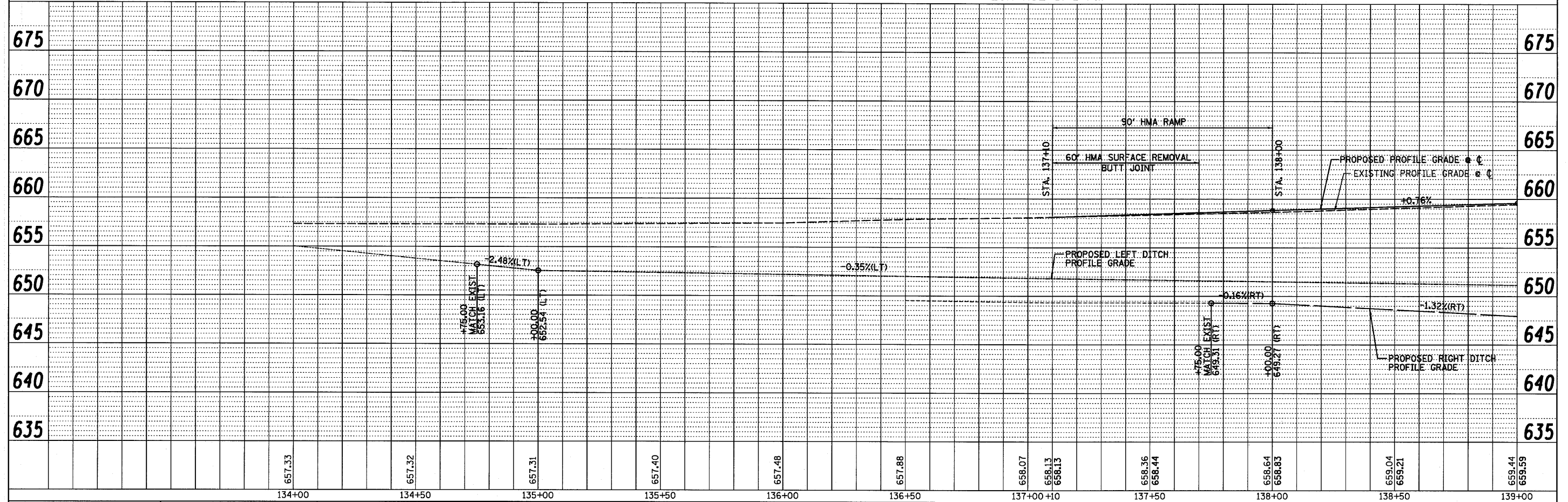
CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

\*116 BR/L116 BR, (BR-2)BR, I & BR-3J 24-8271

SEC 23 T28N R9E 3rd PM  
02-02-23-200-001  
SANDRA GUNTHER



02-02-26-100-001  
STANLEY P & JANEEN F DIETZ  
SEC 26 T28N R9E 3rd PM



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 116  
PLAN & PROFILE

FARNSWORTH GROUP, INC.

CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

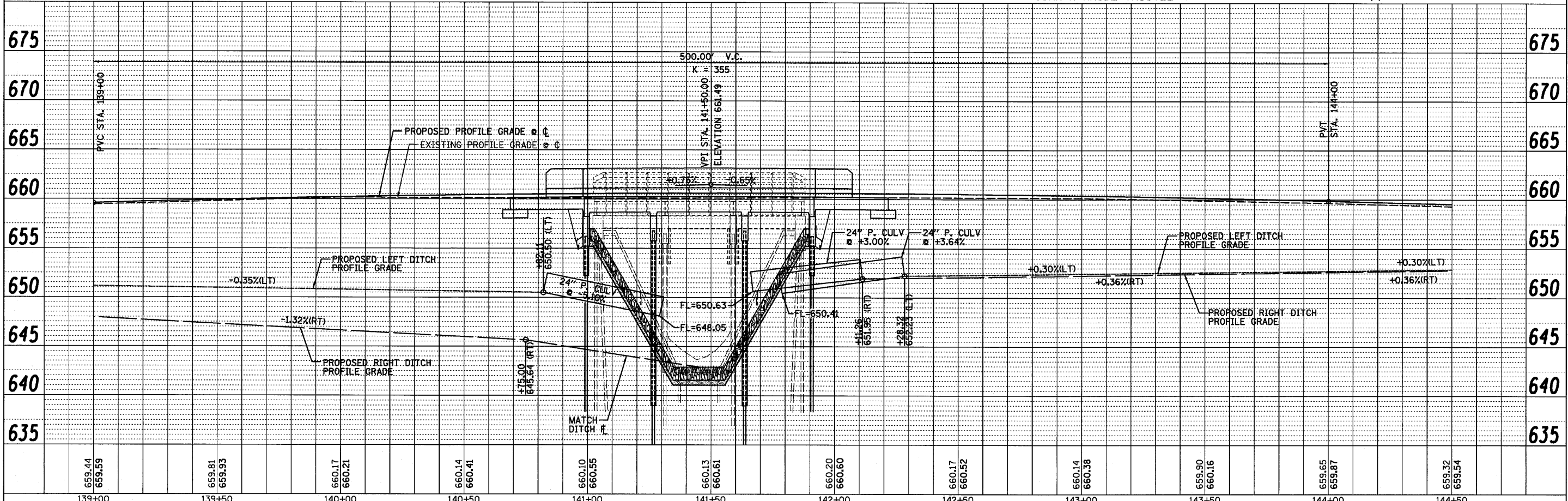
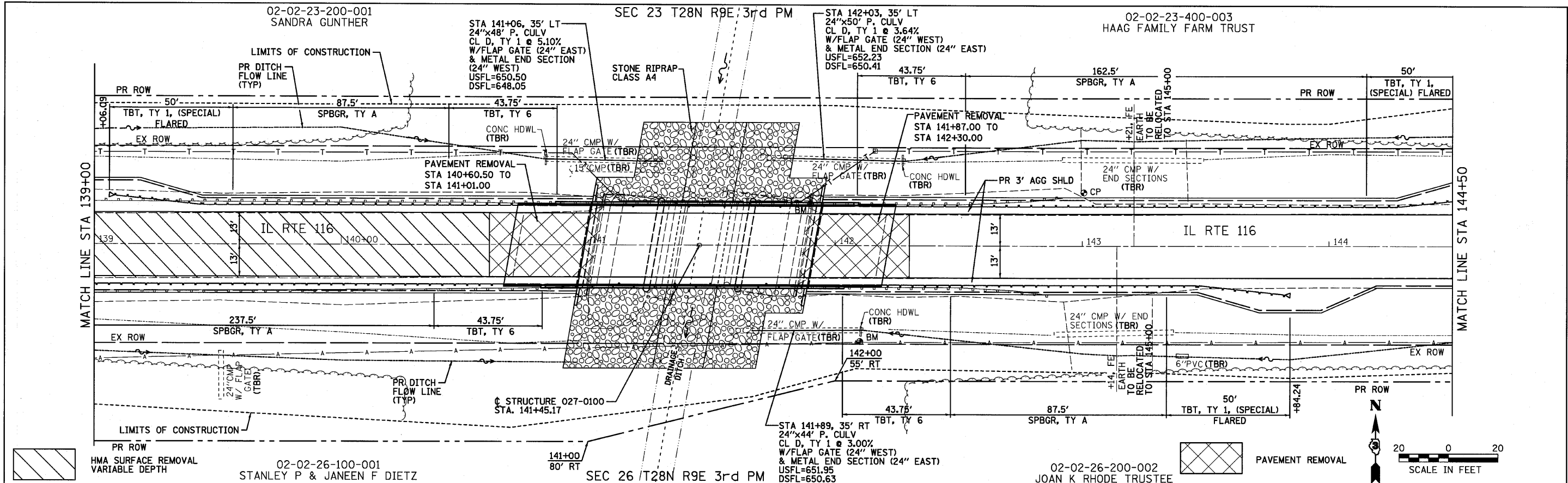
\* 116 BR/E116 BR, (BR-2)BR, I & BR-3J 24-8271

PLAN	REVISIONS	DATE
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	

PROFILE	REVISIONS	DATE
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	

DATE	BY
REVISIONS	NO.
APPROVED	NO.
ALIGNED	NO.
CHECKED	NO.
CADD FILE NAME	

DATE	BY
REVISIONS	NO.
APPROVED	NO.
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STRUCTURE	NO.
NOTATION	NO.



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FARNSWORTH GROUP, INC.

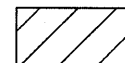
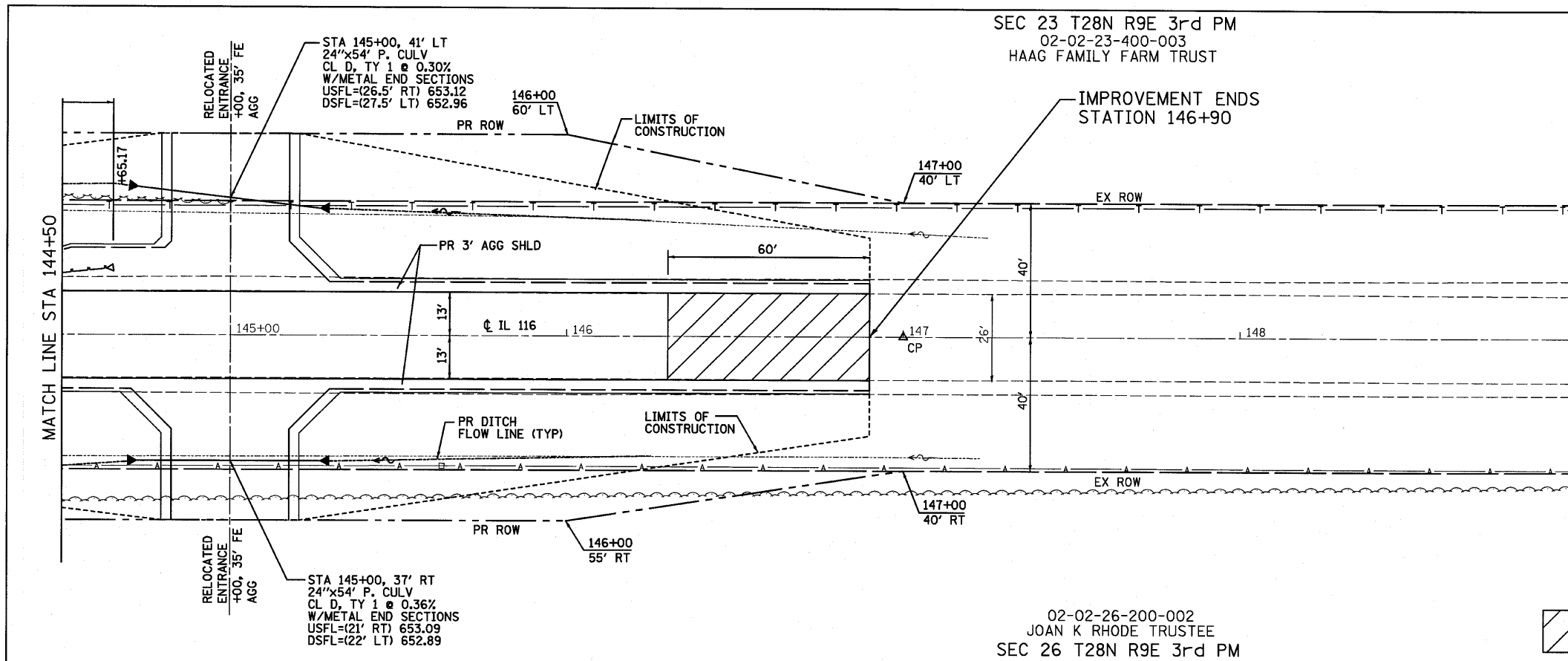
CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

CONTRACT NO. 66880



DATE	BY	REVIEWED	CHECKED
PLAN	NOTE BOOK NO.	ALIGNMENT CHECKED	FILE NAME

DATE	BY	REVIEWED	CHECKED
PROFILE	NOTE BOOK NO.	GRADES CHECKED	NOTATIONS CHKD

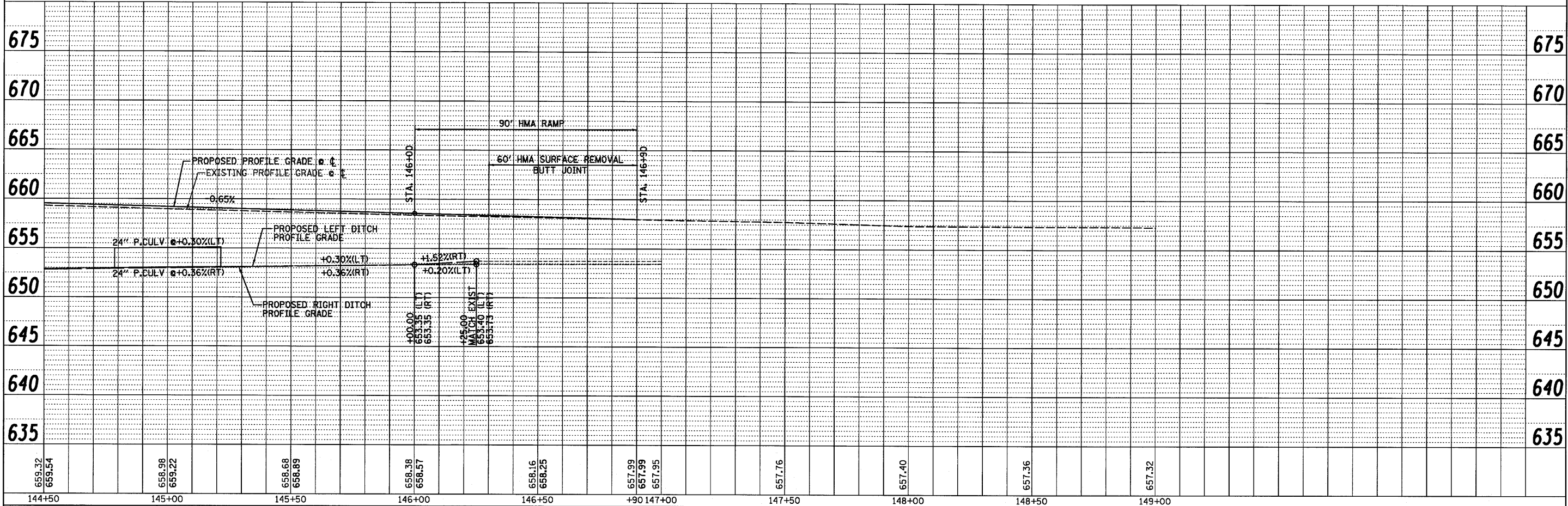


HMA SURFACE REMOVAL BUTT JOINT



20 0 20  
SCALE IN FEET

02-02-26-200-002  
JOAN K RHODE TRUSTEE  
SEC 26 T28N R9E 3rd PM



FILE NAME =	USER NAME = #USER#	DESIGNED - JUO	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 116  
PLAN & PROFILE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IRROUOIS	146	33
S.N. 027-0100		CONTRACT NO. 66880		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

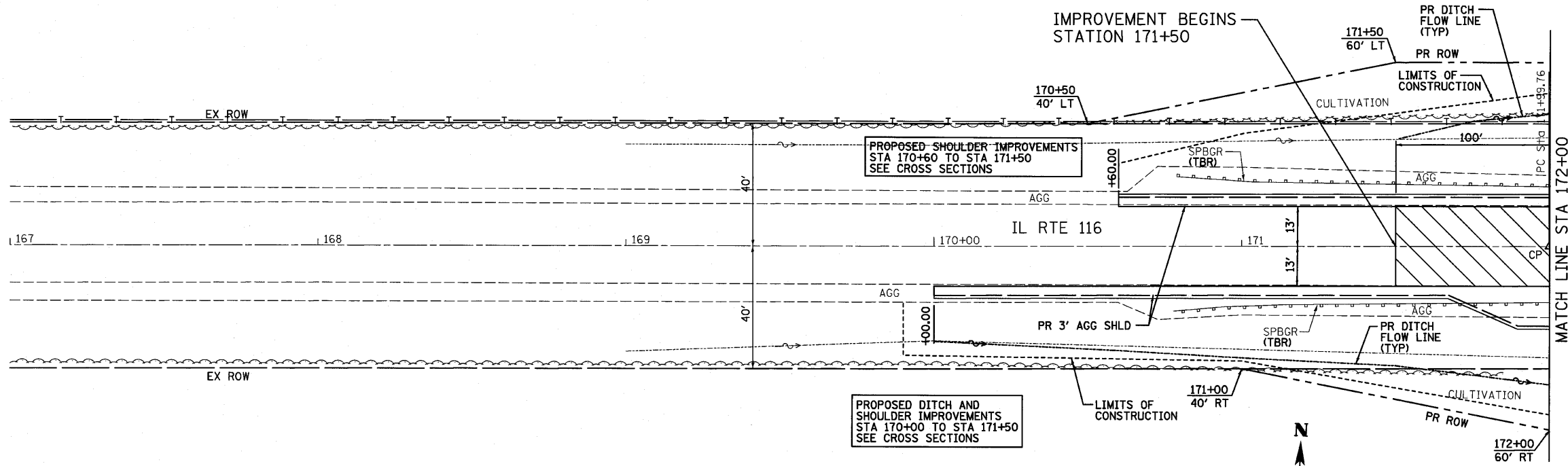
FARNSWORTH GROUP, INC.

CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

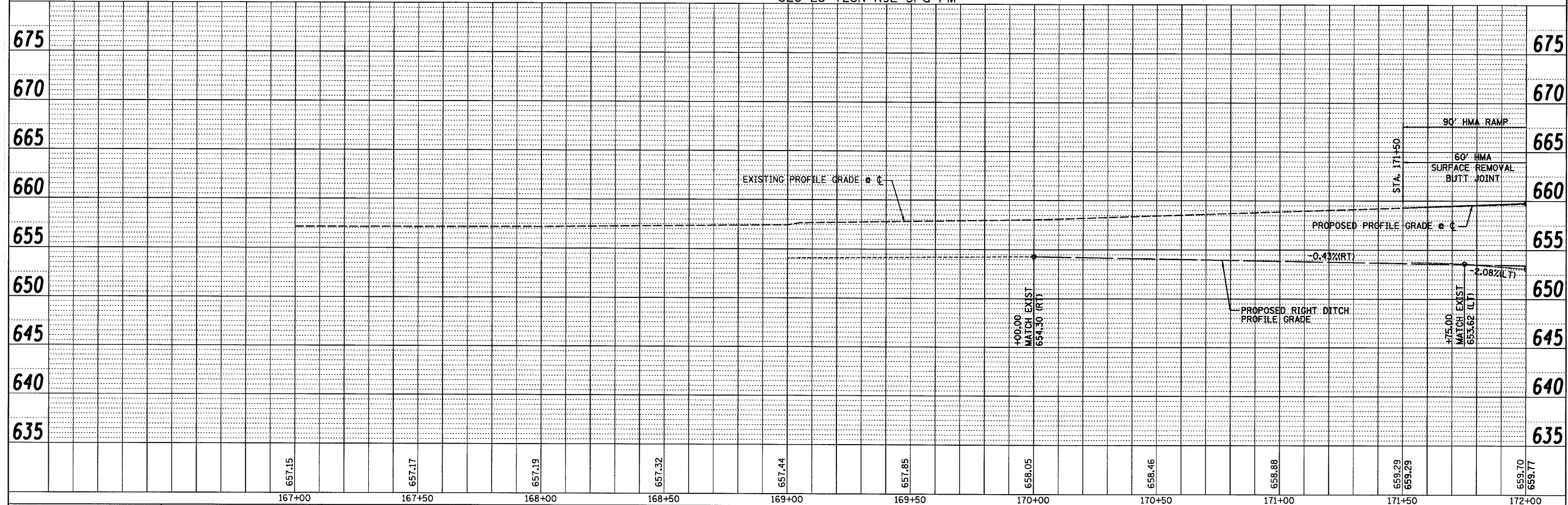
24-8271

SEC 24 T28N R9E 3rd PM  
02-02-24-300-003  
MCDONALD, JOHN AND DOLORES TRUST



HMA SURFACE REMOVAL  
VARIABLE DEPTH

02-02-25-100-001  
HAAG FARMS, INC.  
SEC 25 T28N R9E 3rd PM



FILE NAME =	USER NAME = #USER#	DESIGNED - JJO	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		<b>IL ROUTE 116 PLAN &amp; PROFILE</b>		F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 34
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		DATE - 08/04/10	REVISED -					* 116 BR/116 BR, (BR-2)BR, I & BR-3		24-8271		

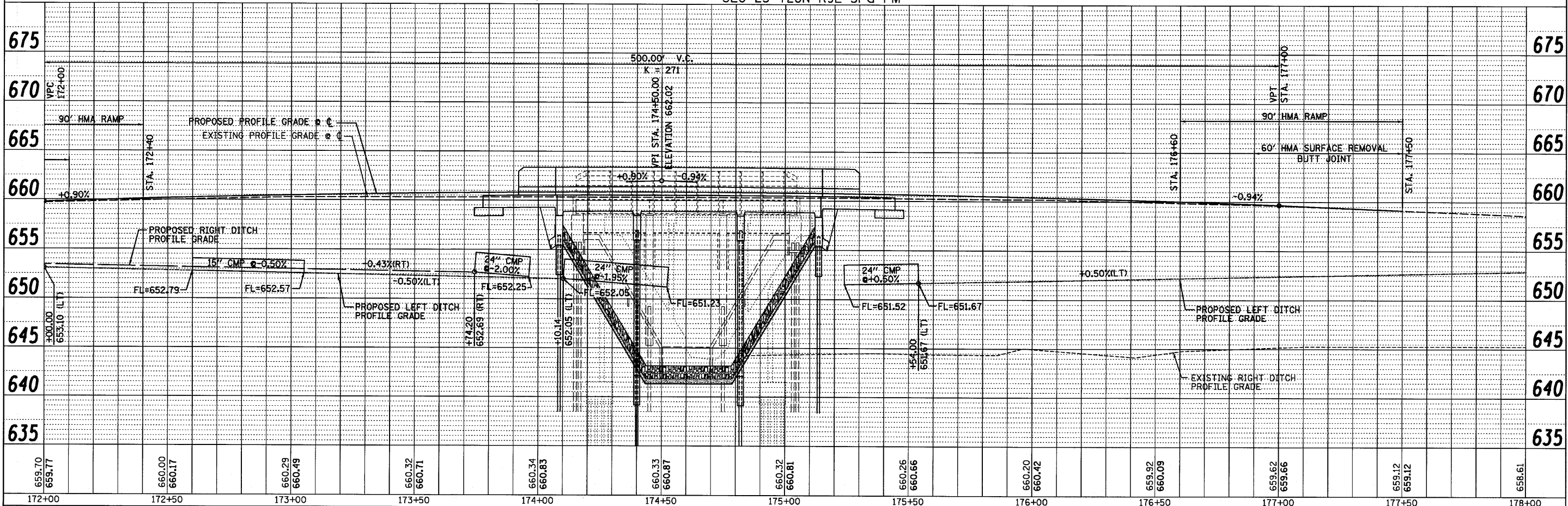
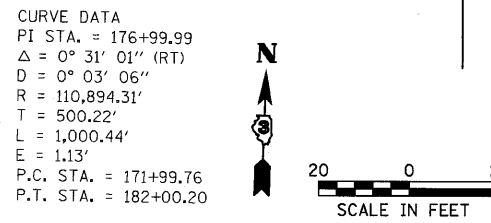
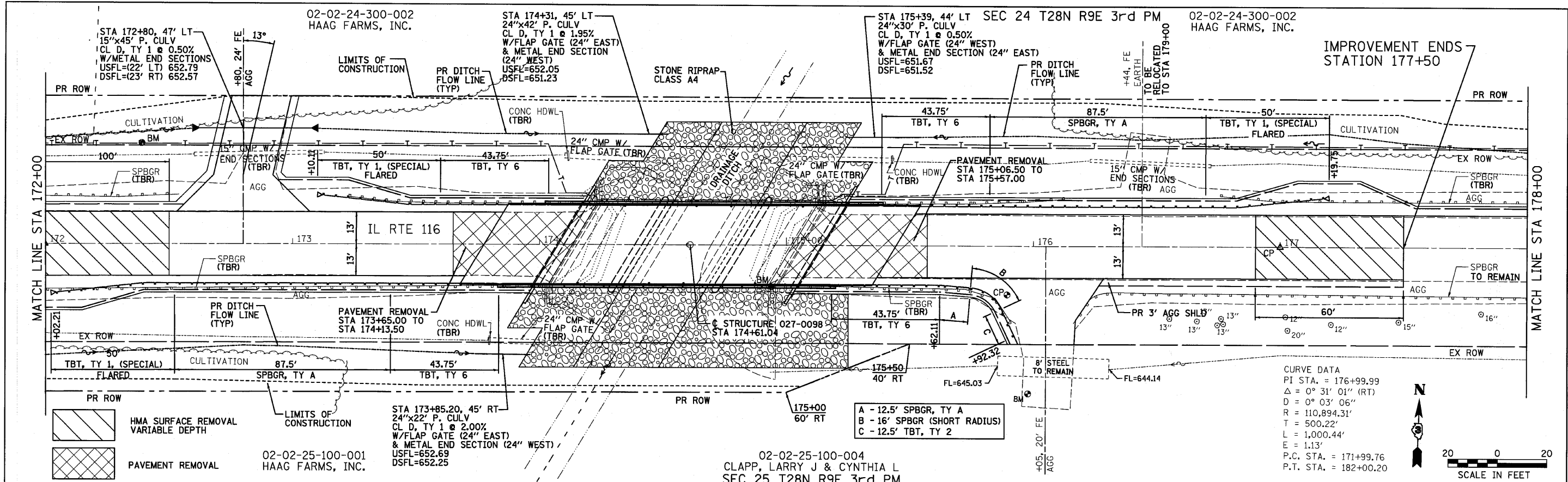
FARNSWORTH GROUP, INC.

CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

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

PLAN	DESIGNED	DATE
	BY	
	CHECKED	
	NO.	
	FILE NAME	

PROFILE	DESIGNED	DATE
	BY	
	CHECKED	
	NO.	
	FILE NAME	



PLAN

DATE	BY
REVISION	
APPROVED	
NO. NO.	
NO.	
NO.	

PROFILE

DATE	BY
REVISION	
APPROVED	
NO. NO.	
NO.	
NO.	

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FARNSWORTH GROUP, INC.

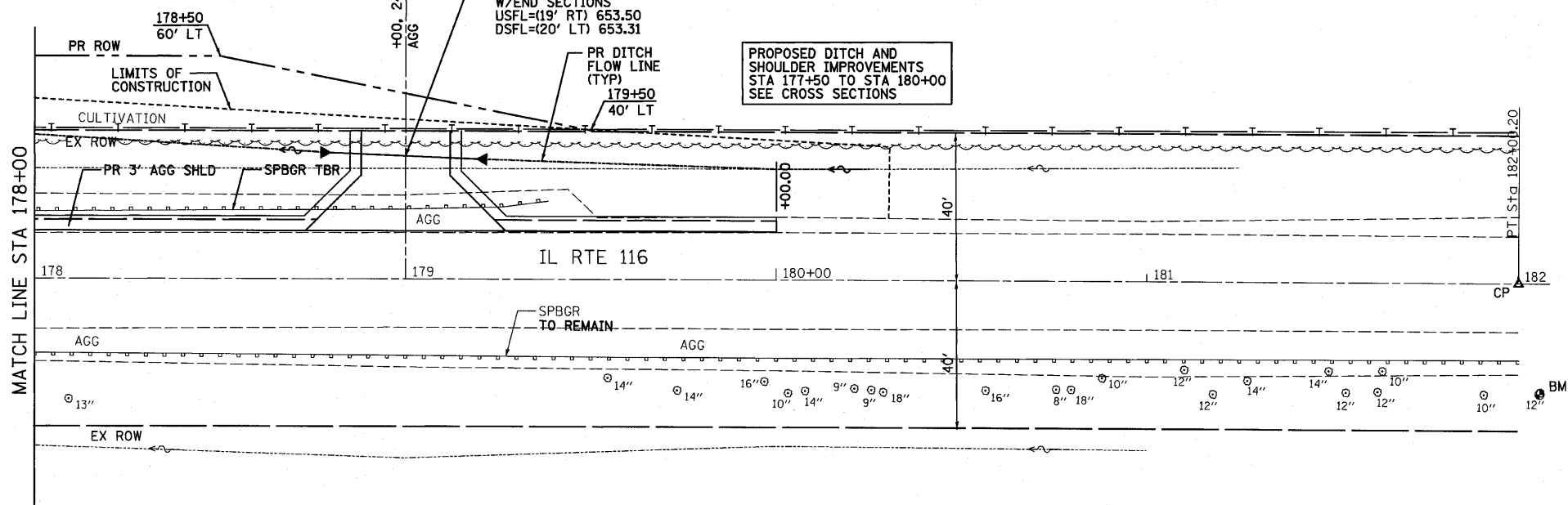
CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

24-8271

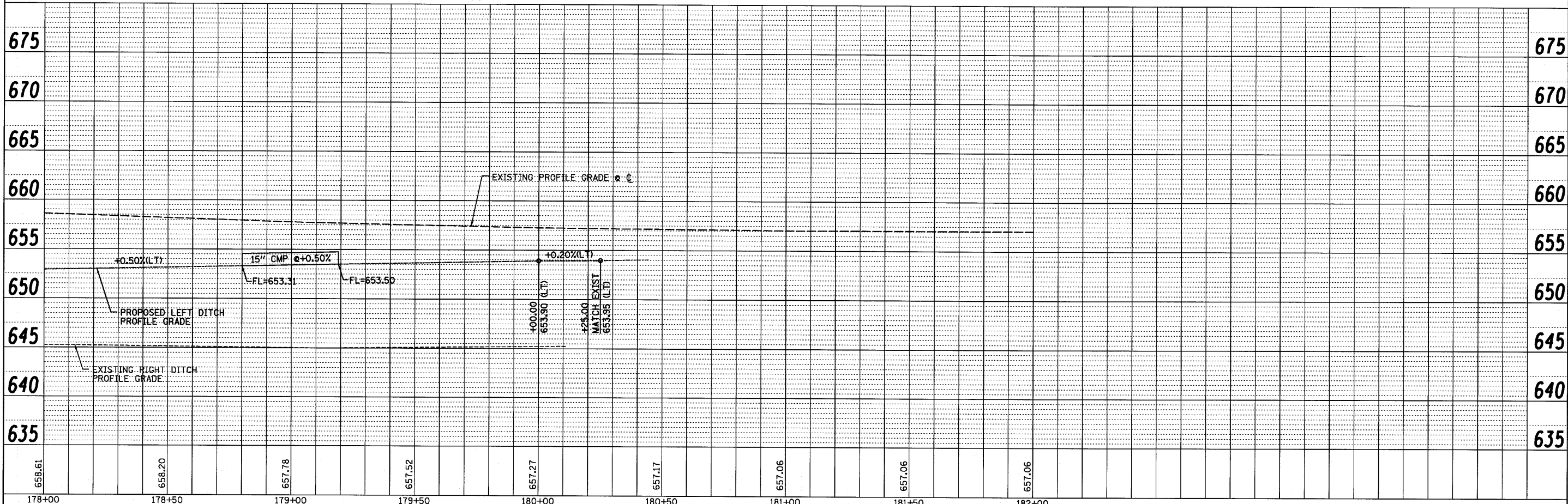
SEC 24 T28N R9E 3rd PM  
02-02-24-300-002  
HAAG FARMS, INC.

STA 179+00, 33' LT  
15"x39" P. CULV  
CL D, TY 1 @ 0.50%  
W/END SECTIONS  
USFL=(19' RT) 653.50  
DSFL=(20' LT) 653.31

PROPOSED DITCH AND  
SHOULDER IMPROVEMENTS  
STA 177+50 TO STA 180+00  
SEE CROSS SECTIONS



02-02-25-100-004  
CLAPP, LARRY J & CYNTHIA L  
SEC 25 T28N R9E 3rd PM



FILE NAME =	USER NAME = #USER#	DESIGNED - JJO	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL ROUTE 116 PLAN &amp; PROFILE</b>		F.A.P. RTE. 681	SECTION *	COUNTY FORD/TROQUOIS	TOTAL SHEETS 146	SHEET NO. 36
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PLOT DATE = #DATE#		DATE - 08/04/10	REVISED -								

FARNSWORTH GROUP, INC.

CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

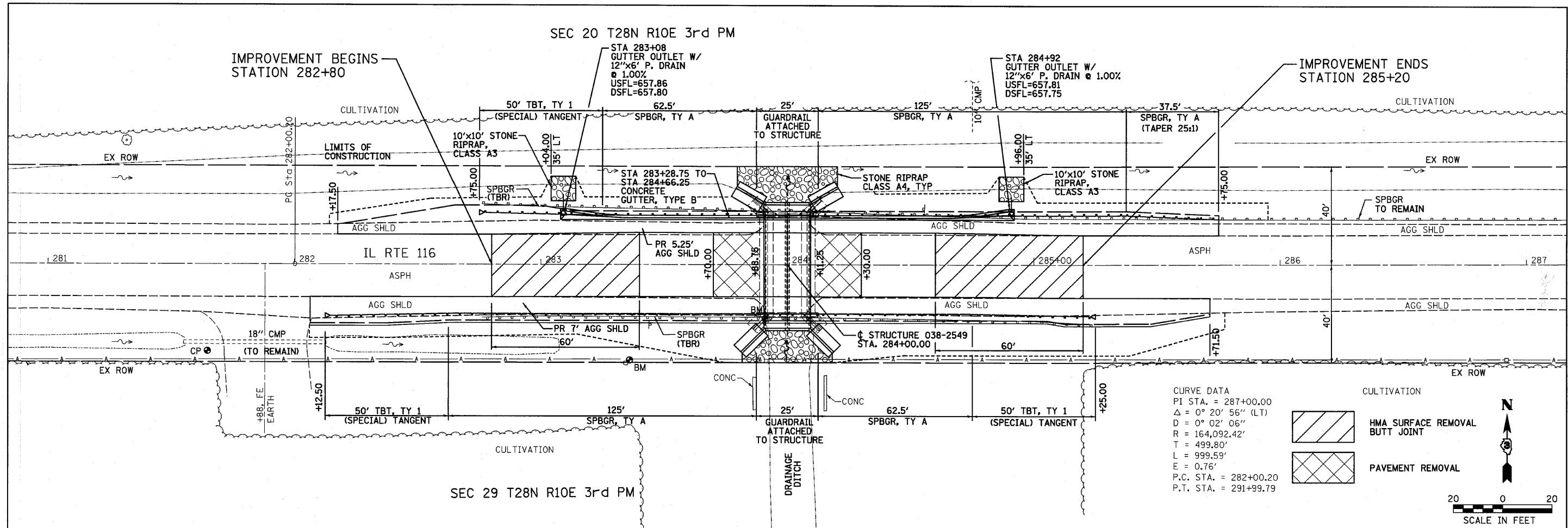
\* 116 BR/116 BR, (BR-2)BR, I & BR-3J 24-8271

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NOTE BOOK NO.		
CADD FILE NAME		

PROFILE	DATE	BY
GRADES		
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NOTATIONS		
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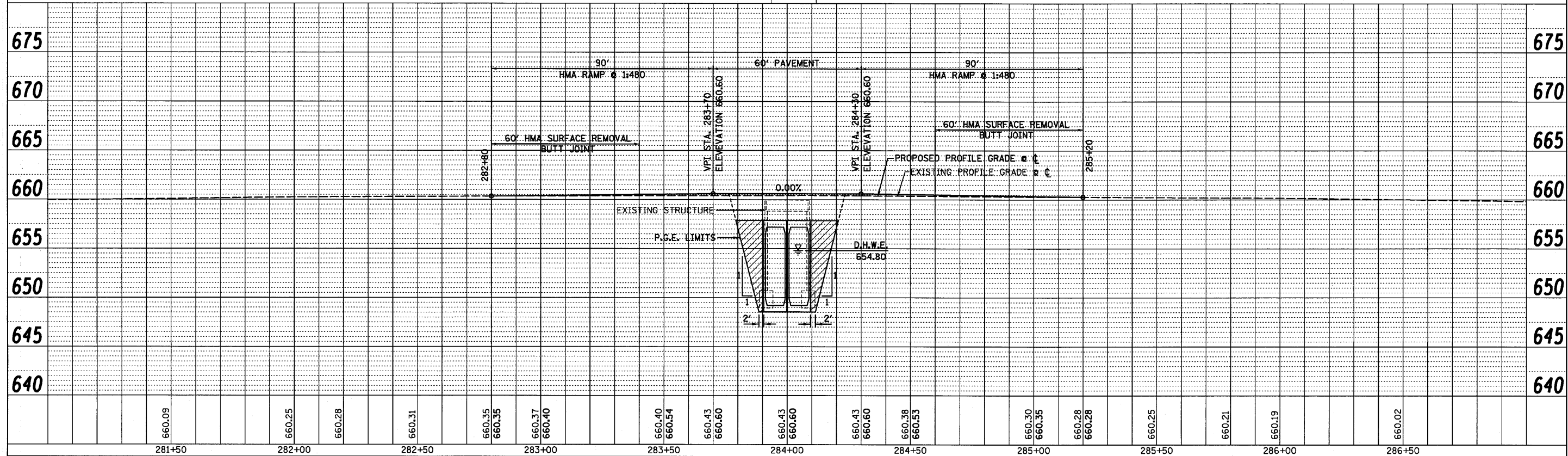
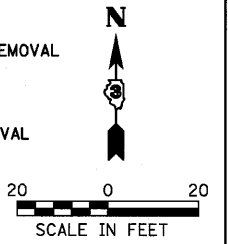
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DATE BY  
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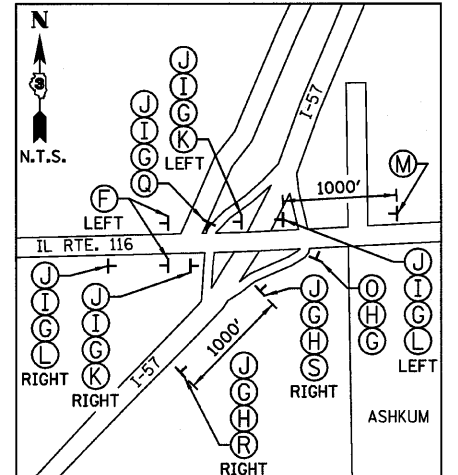
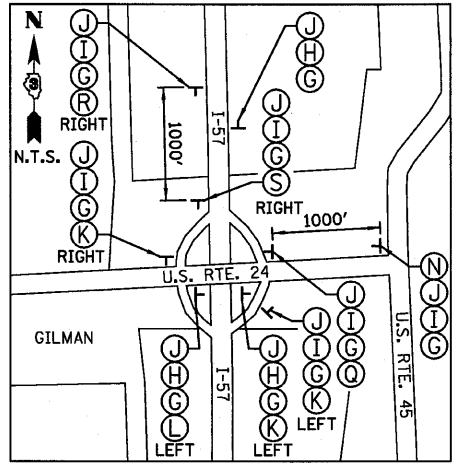
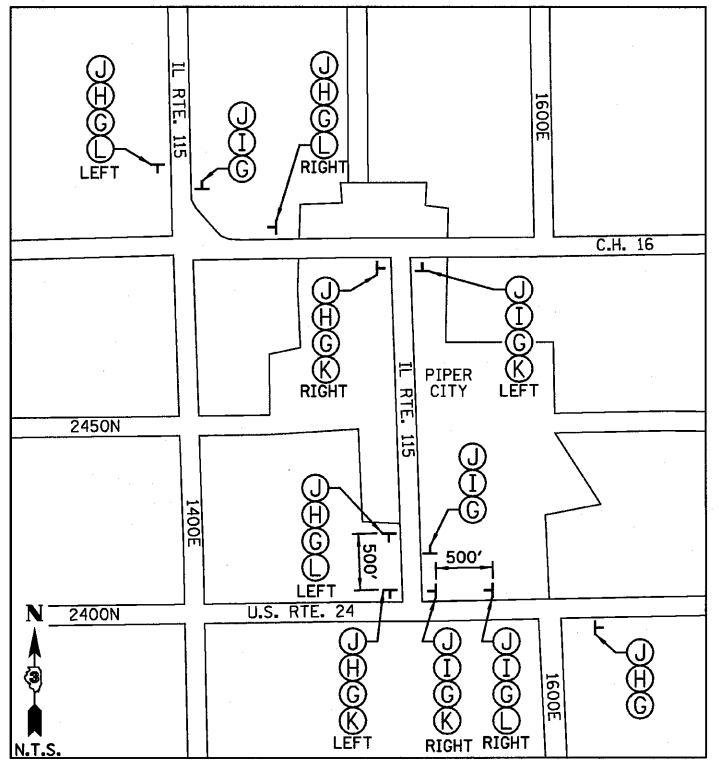
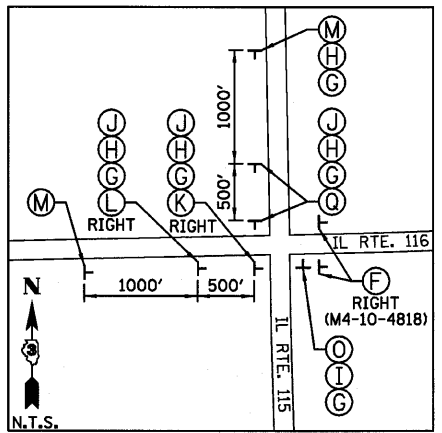
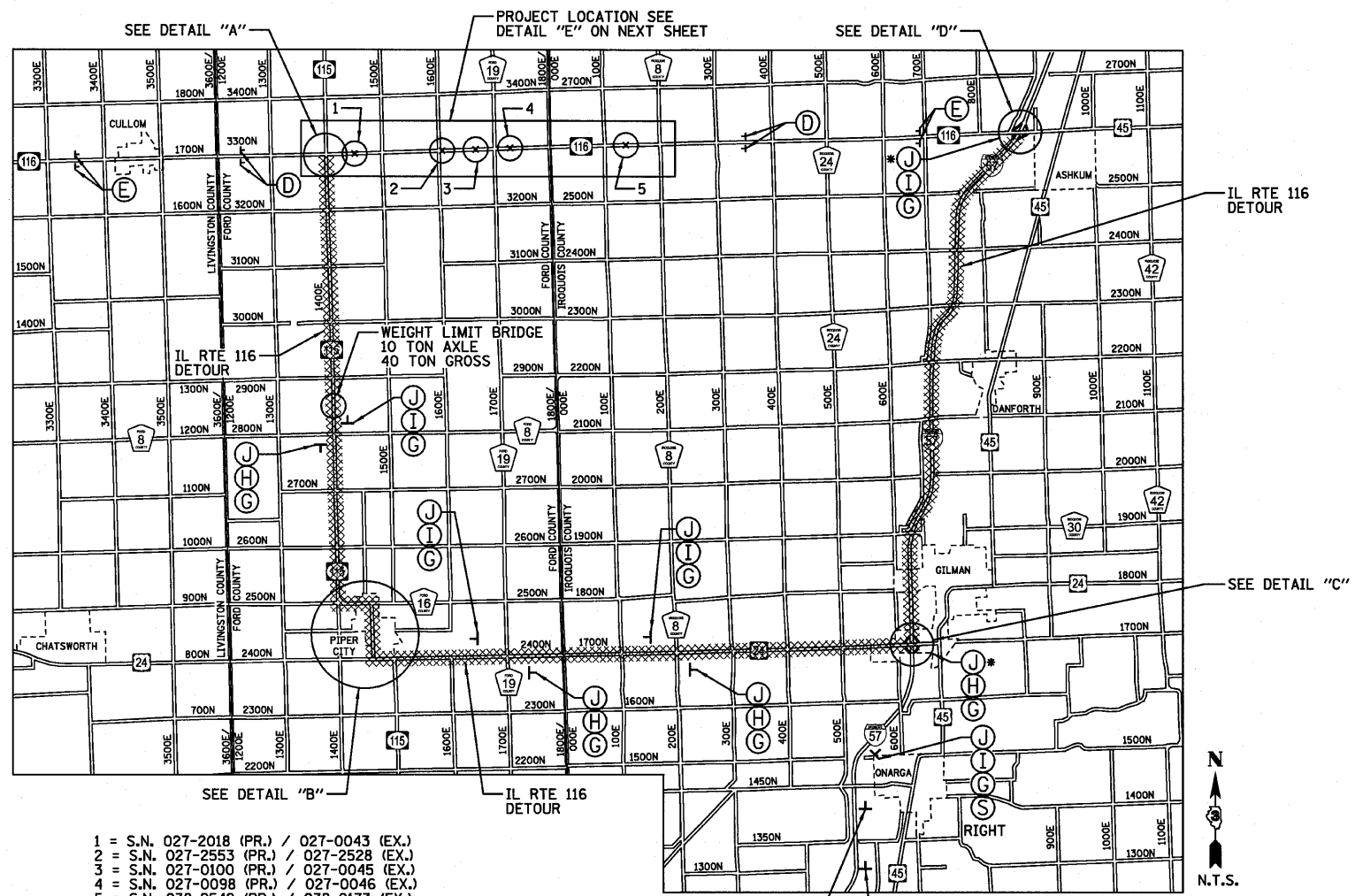


CURVE DATA  
 PI STA. = 287+00.00  
 $\Delta = 0^\circ 20' 56''$  (LT)  
 $D = 0^\circ 02' 06''$   
 $R = 164,092.42'$   
 $T = 499.80'$   
 $L = 999.59'$   
 $E = 0.76'$   
 P.C. STA. = 282+00.20  
 P.T. STA. = 291+99.79

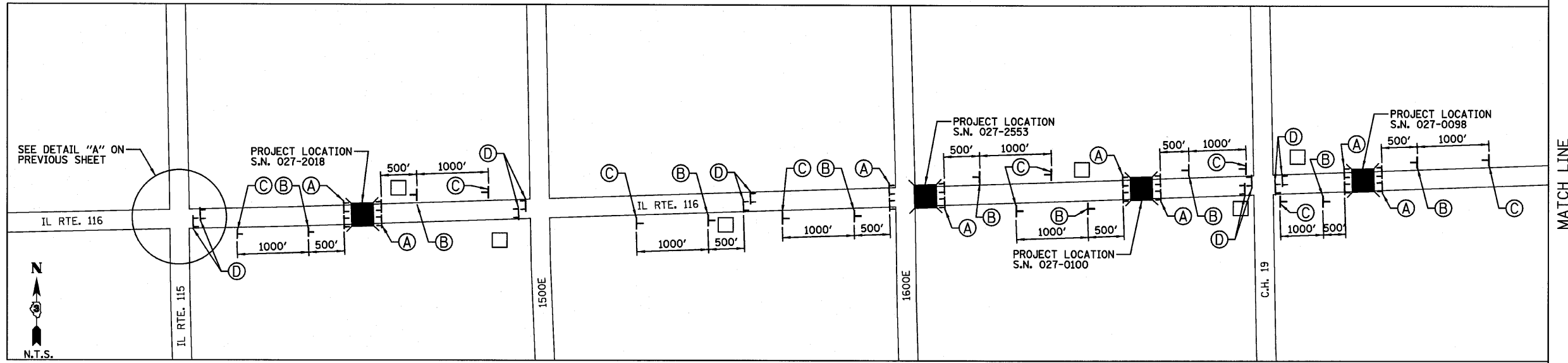
HMA SURFACE REMOVAL BUTT JOINT  
 PAVEMENT REMOVAL



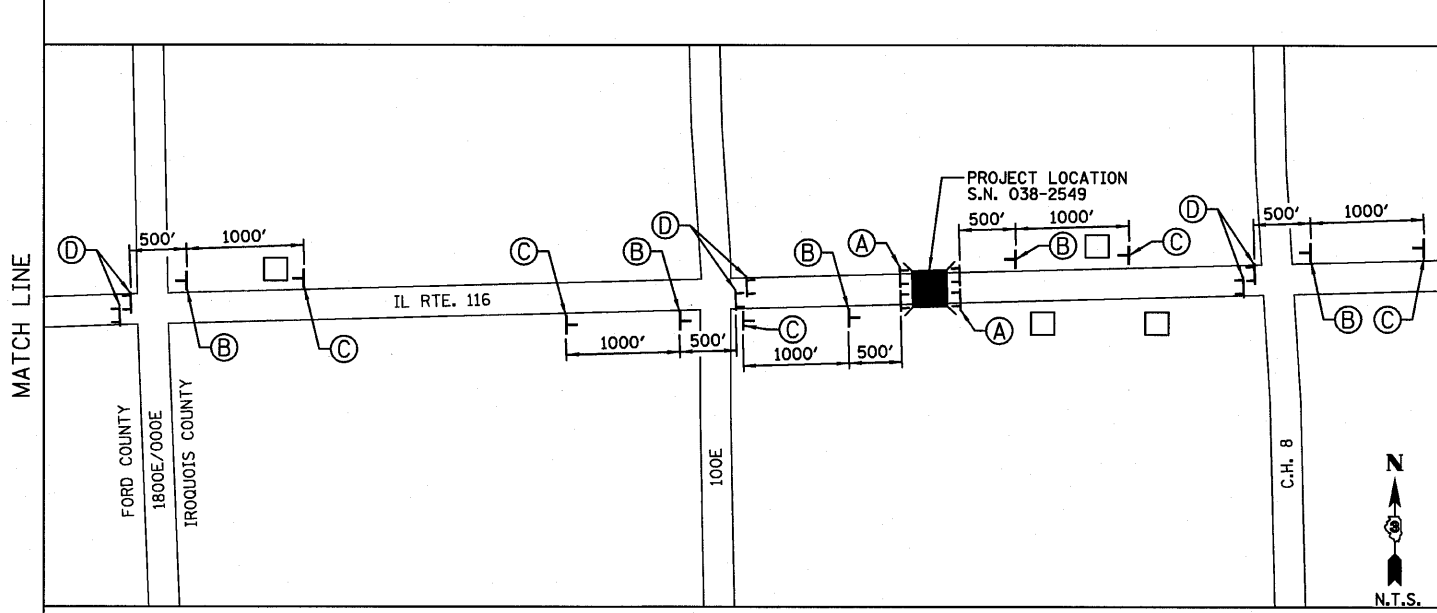
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																* 116 BR/L116 BR, (BR-2)BR, I & BR-3J		



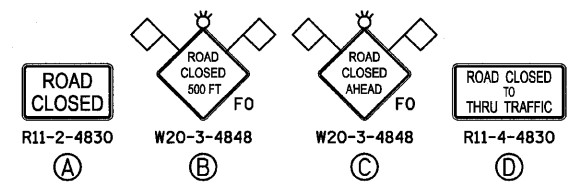
- NOTES:
- 1.) ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
  - 2.) ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED, UNLESS OTHERWISE NOTED.
  - 3.) LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
  - 4.) WORK SHALL BE DONE IN ACCORDANCE WITH BLR 21.
  - 5.) TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION MANUAL FOR UNIFORM TRAFFIC CONTROL, HIGHWAY STANDARDS AND SPECIAL PROVISIONS.
  - 6.) COVER ANY SIGNS DENOTING EAST IL ROUTE 116 WITHIN A MILE RADIUS OF THE INTERSECTION BETWEEN IL ROUTE 116 AND IL ROUTE 115. COVER ANY SIGNS DENOTING WEST IL ROUTE 116 WITHIN A MILE RADIUS OF THE I-57 INTERCHANGE.
  - 7.) COVER "PONTIAC" ON THE GREEN BOARD SIGNS ON I-57 NORTH AND SOUTH OF THE ASHKUM EXIT AT IL RTE. 116.



**NOTE:**  
ROAD CLOSURE OF N. 1600E ROAD SHALL BE DONE  
IN ACCORDANCE WITH BLR 21.



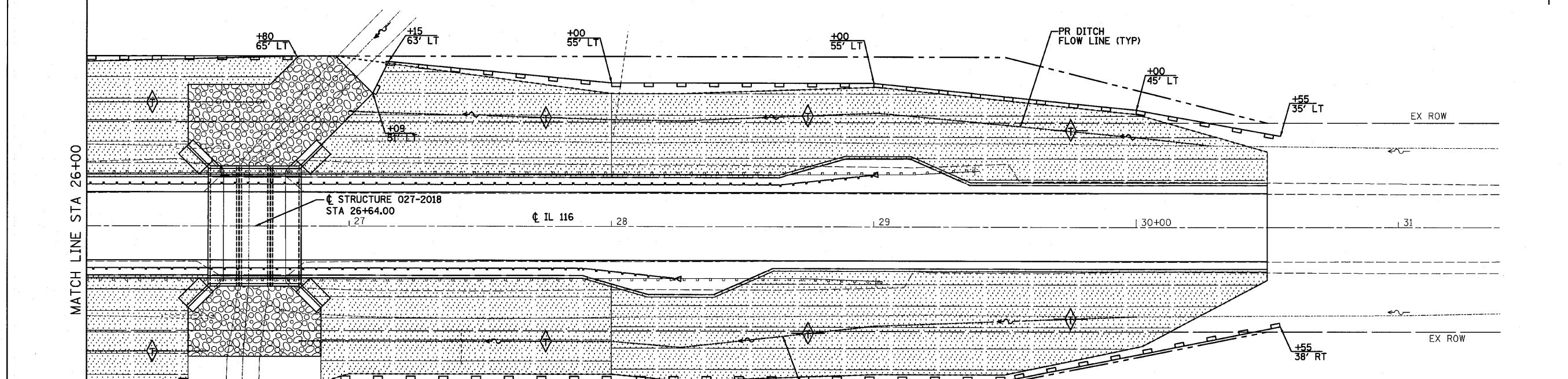
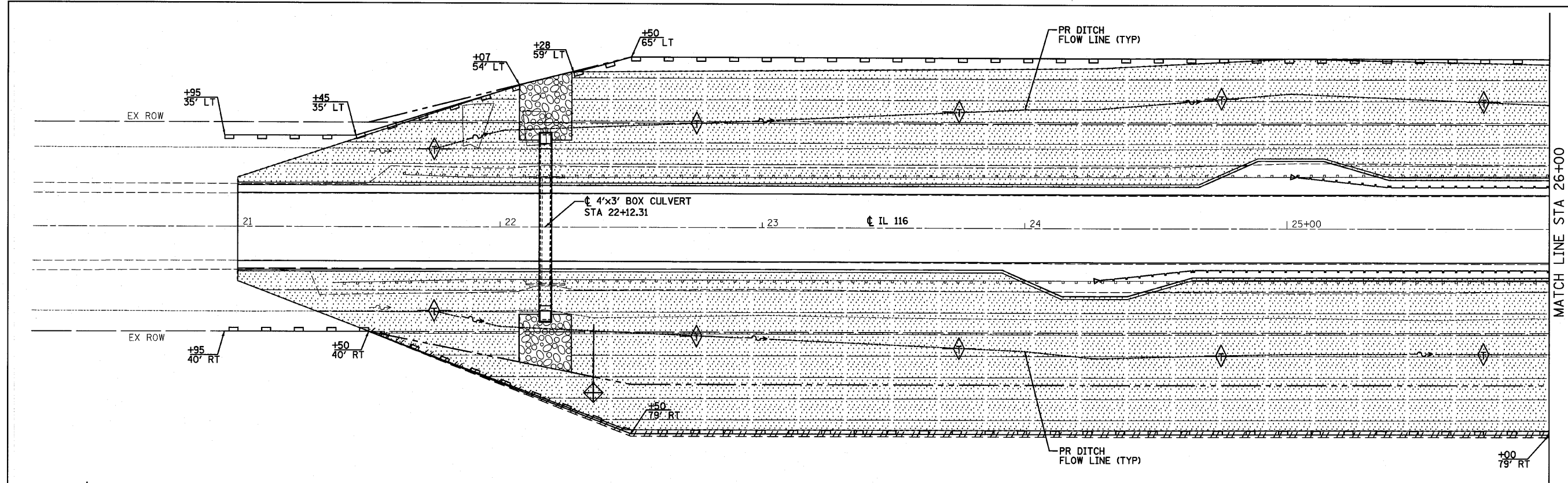
**PROJECT LOCATION VICINITY  
(DETAIL "E")**



- LEGEND**
- BUSINESS OR RESIDENCE
  - TT TYPE III BARRICADES CONFORMING TO STD. 701901 "ROAD CLOSED TO ALL TRAFFIC" WITH 2 FLASHING LIGHTS PER BARRICADE
  - TT TYPE III BARRICADES CONFORMING TO STD. 701901 "ROAD CLOSED TO THRU TRAFFIC" WITH 2 FLASHING LIGHTS PER BARRICADE
  - ⊥ SIGNS ON PERMANENT SUPPORTS
  - ⊙ FLASHING LIGHT ABOVE SIGN
  - ◇ 18"x18" ORANGE FLAG
  - FO FLORESCENT ORANGE

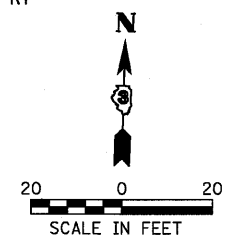
- NOTES:**
- 1.) ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
  - 2.) ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED, UNLESS OTHERWISE NOTED.
  - 3.) LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
  - 4.) WORK SHALL BE DONE IN ACCORDANCE WITH BLR 21.
  - 5.) TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION MANUAL FOR UNIFORM TRAFFIC CONTROL, HIGHWAY STANDARDS AND SPECIAL PROVISIONS.

FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETOUR PLAN</b>			F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 39
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	PLOT DATE = *DATE#	CHECKED - MSW	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		DATE - 08/04/10	REVISED -		* 116 BR/L116 BR, (BR-2)BR, I & BR-3J							



**NOTES:**

1. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY OR TEMPORARY EASEMENT.
2. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH 1/2" OR GREATER RAIN EVENT.



LEGEND	
	INLET AND PIPE PROTECTION
	TEMPORARY DITCH CHECK @ 100' SPACING
	PERIMETER EROSION BARRIER
	TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 3
	STONE RIPRAP, CLASS A4 & FILTER FABRIC
	LIMITS OF CONSTRUCTION

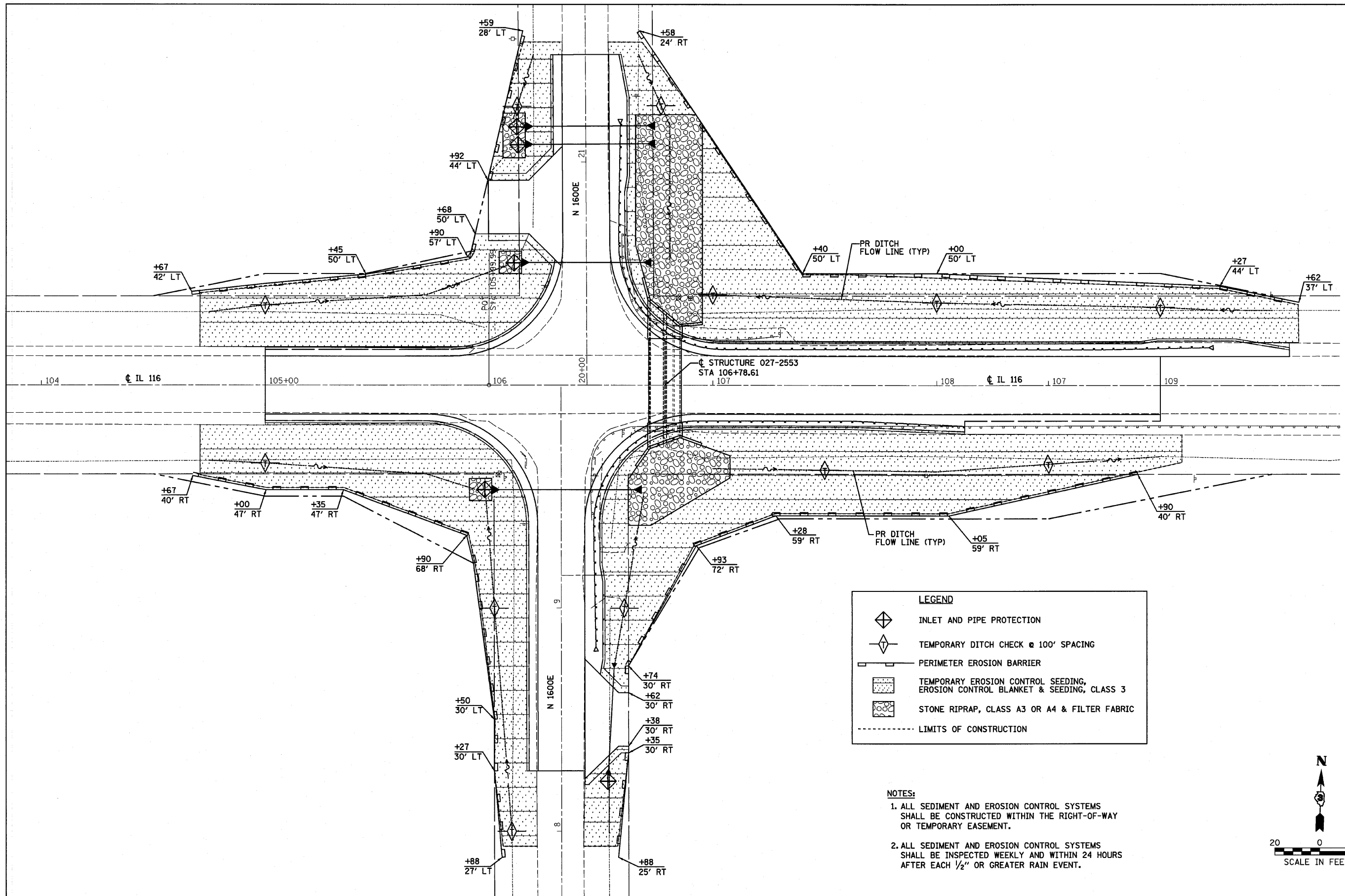
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	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

EROSION CONTROL		F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 40
		SN 027-2018		CONTRACT NO. 66880		
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	

F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 40
SN 027-2018		CONTRACT NO. 66880		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* 116 BR/E116 BR, (BR-2)BR, I & BR-3J				

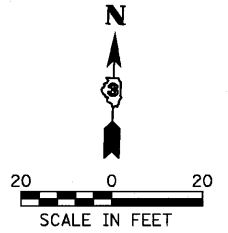




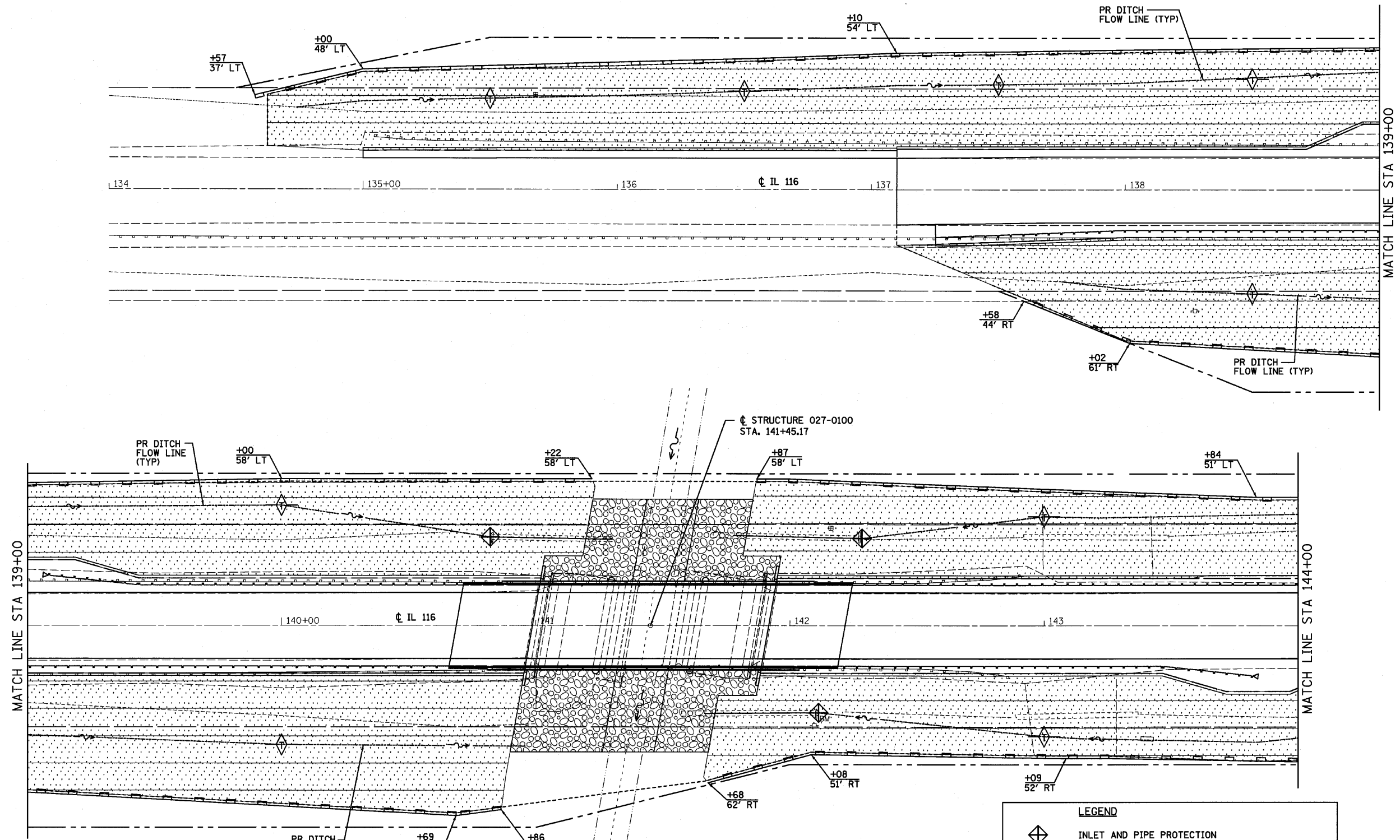
**LEGEND**

- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK @ 100' SPACING
- PERIMETER EROSION BARRIER
- TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 3
- STONE RIPRAP, CLASS A3 OR A4 & FILTER FABRIC
- LIMITS OF CONSTRUCTION

- NOTES:**
1. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY OR TEMPORARY EASEMENT.
  2. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH 1/2" OR GREATER RAIN EVENT.



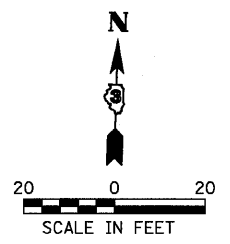
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*FILEL*		DRAWN - DJM	REVISED -					SN 027-2553		CONTRACT NO. 66880			
		CHECKED - MSW	REVISED -										
		DATE - 08/04/10	REVISED -										
				CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX				SCALE: SHEET NO. OF SHEETS STA. TO STA.		* 116 BR/L116 BR, (BR-2)BR, 1 & BR-3J			24-B271



- NOTES:**
1. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY OR TEMPORARY EASEMENT.
  2. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH 1/2" OR GREATER RAIN EVENT.

**LEGEND**

- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK @ 100' SPACING
- PERIMETER EROSION BARRIER
- TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 3
- STONE RIPRAP, CLASS A4 & FILTER FABRIC
- LIMITS OF CONSTRUCTION

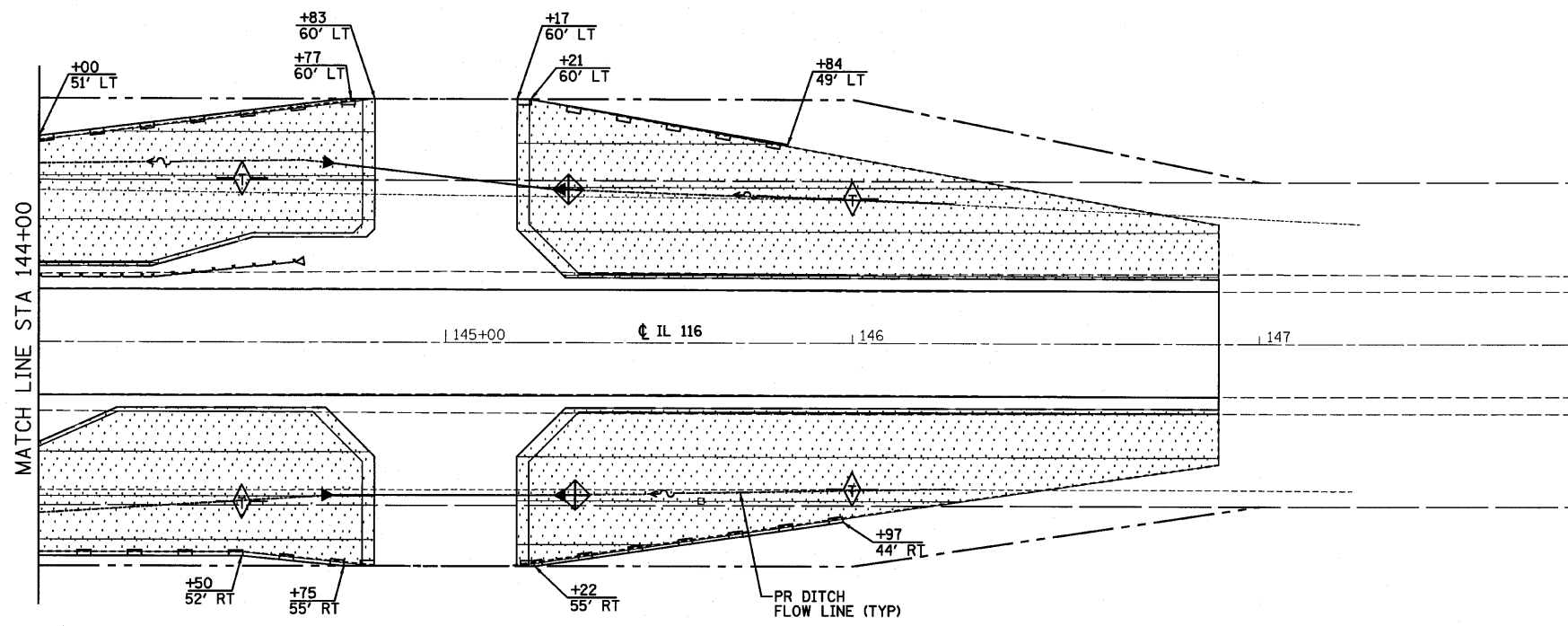


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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**







SCALE:		SHEET NO. OF SHEETS		STA.	TO STA.
		681	*		
		SECTION		COUNTY	TOTAL SHEETS
		SN 027-0100		FORD/IROUOIS	146
				CONTRACT NO. 66880	42

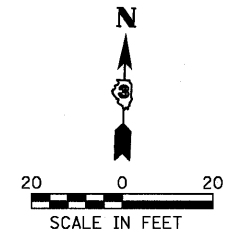
F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROUOIS	TOTAL SHEETS 146	SHEET NO. 42
SN 027-0100		CONTRACT NO. 66880		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



- NOTES:**
1. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY OR TEMPORARY EASEMENT.
  2. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH 1/2" OR GREATER RAIN EVENT.

**LEGEND**

-  INLET AND PIPE PROTECTION
-  TEMPORARY DITCH CHECK @ 100' SPACING
-  PERIMETER EROSION BARRIER
-  TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 3
-  STONE RIPRAP, CLASS A4 & FILTER FABRIC
-  LIMITS OF CONSTRUCTION



FILE NAME =	USER NAME = *USER*	DESIGNED - JML	REVISED -
*FILEL*		DRAWN - DJM	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - MSW	REVISED -
	PLOT DATE = *DATE*	DATE - 08/04/10	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

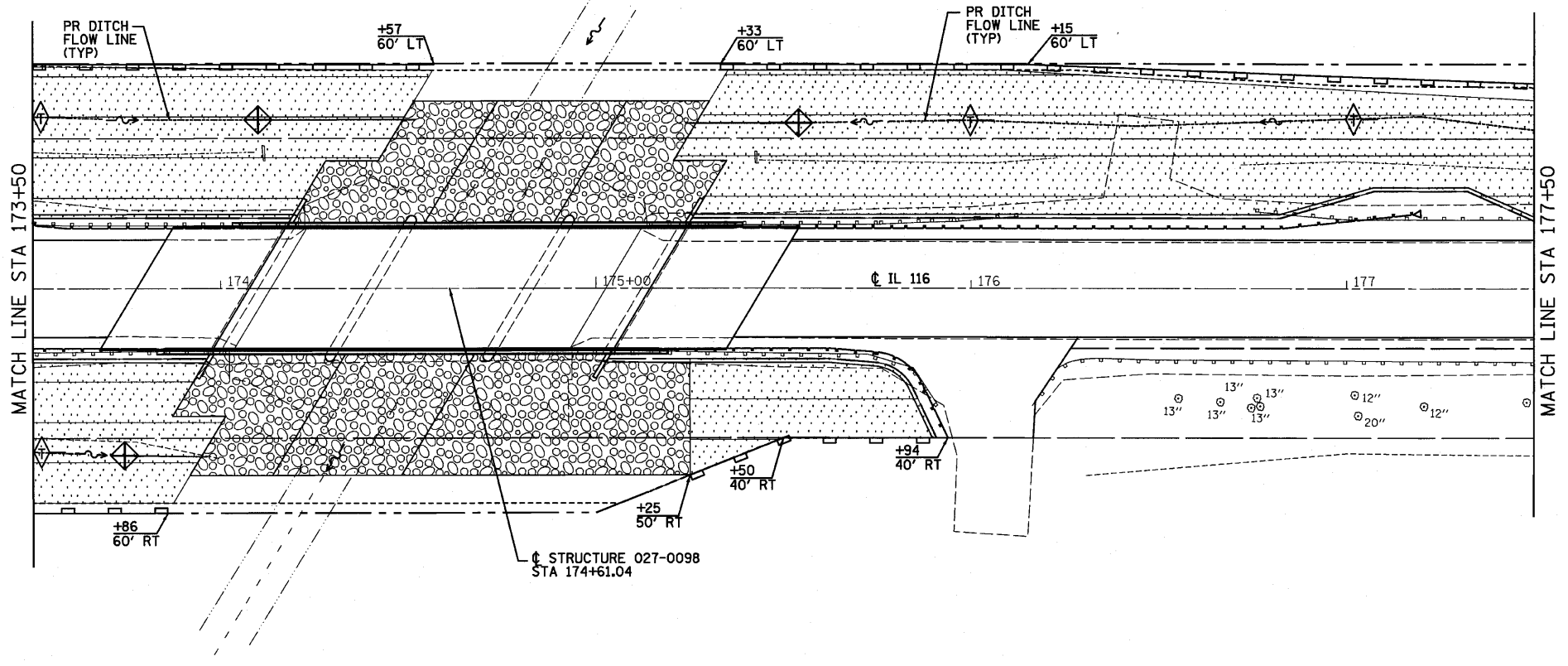
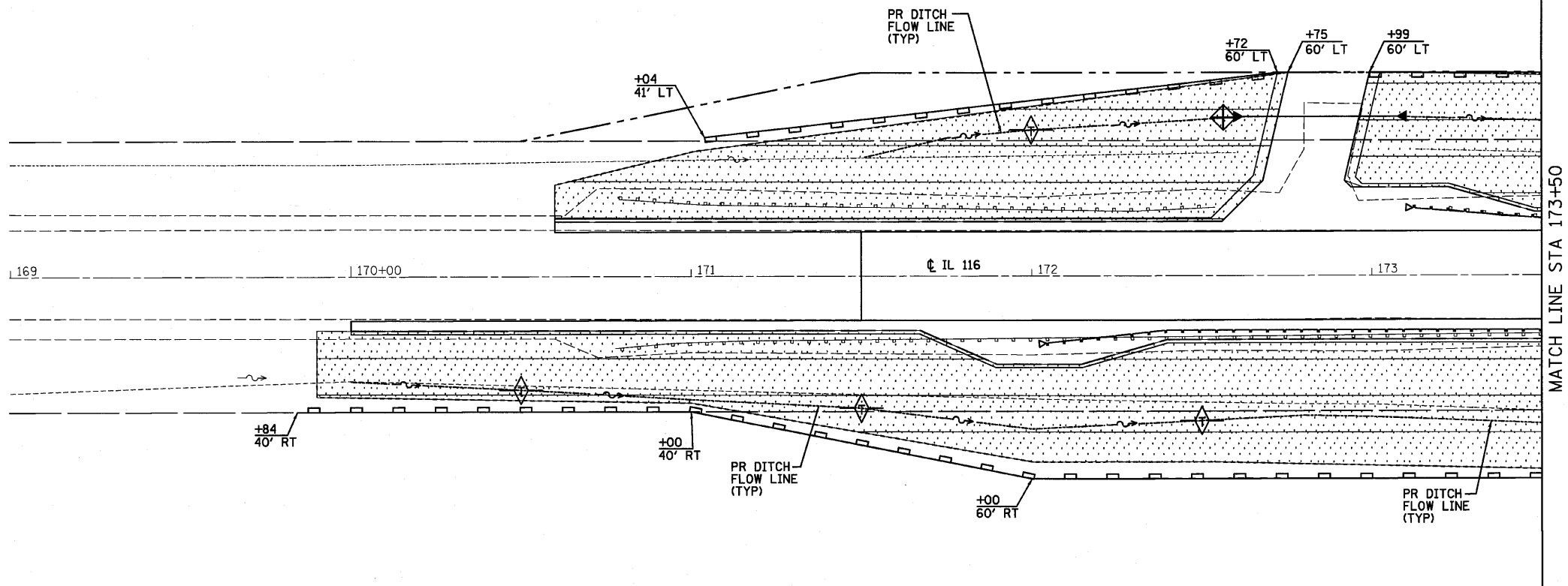
<b>EROSION CONTROL</b>			
SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.

F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROUOIS	TOTAL SHEETS 146	SHEET NO. 43
SN 027-0100		CONTRACT NO. 66880		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FARNSWORTH GROUP, INC.

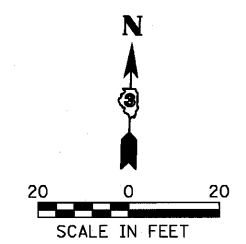
CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

\* 116 BR/I116 BR, (BR-2)BR, I & BR-3J 24-B271

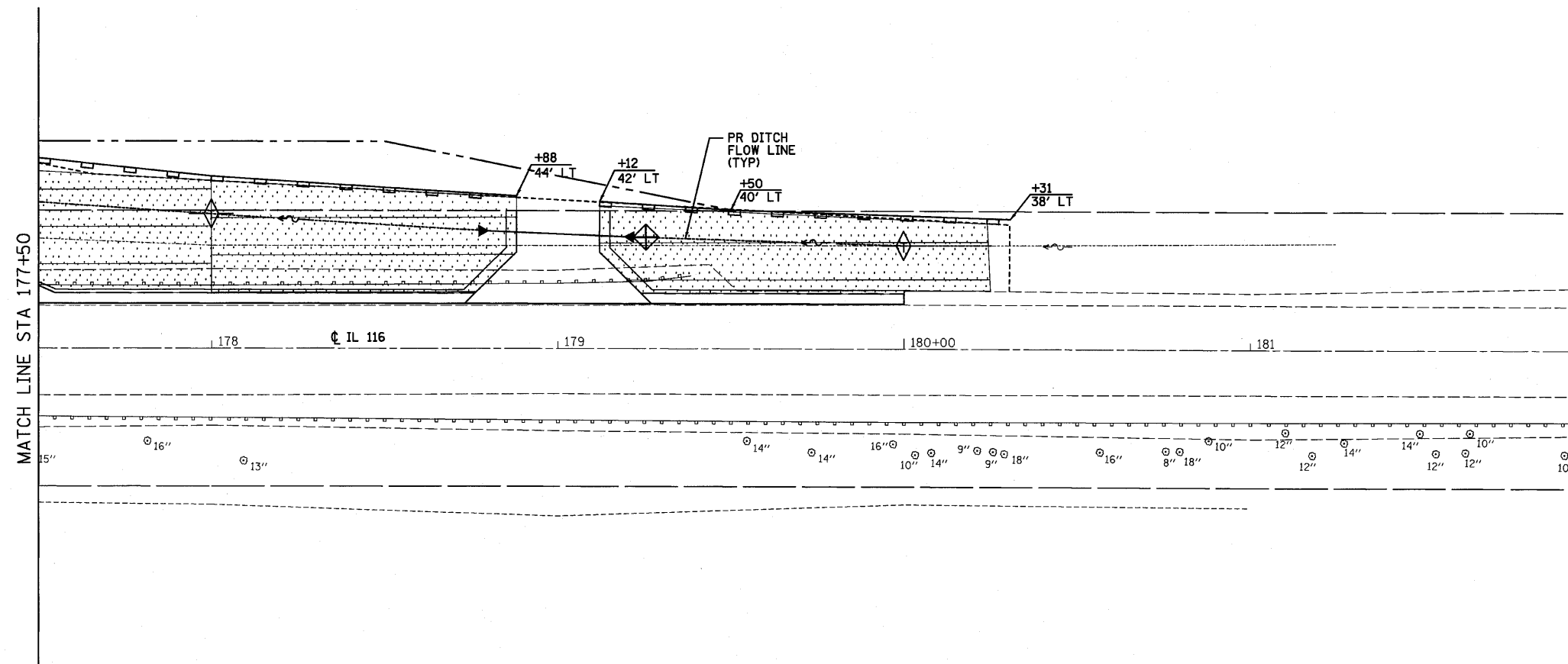


- NOTES:**
1. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY OR TEMPORARY EASEMENT.
  2. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH 1/2" OR GREATER RAIN EVENT.

LEGEND	
	INLET AND PIPE PROTECTION
	TEMPORARY DITCH CHECK @ 100' SPACING
	PERIMETER EROSION BARRIER
	TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 3
	STONE RIPRAP, CLASS A4 & FILTER FABRIC
	LIMITS OF CONSTRUCTION



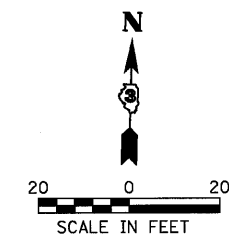
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#FILEL#	PLOT SCALE = #SCALE#	DRAWN - DJM	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.	SN 027-0098 CONTRACT NO. 66880					
	PLOT DATE = #DATE#	CHECKED - MSW	REVISED -				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
		DATE - 08/04/10	REVISED -				* 116 BR/1116 BR, (BR-2)BR, I & BR-31					
FARNSWORTH GROUP, INC.				CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX				24-8271				



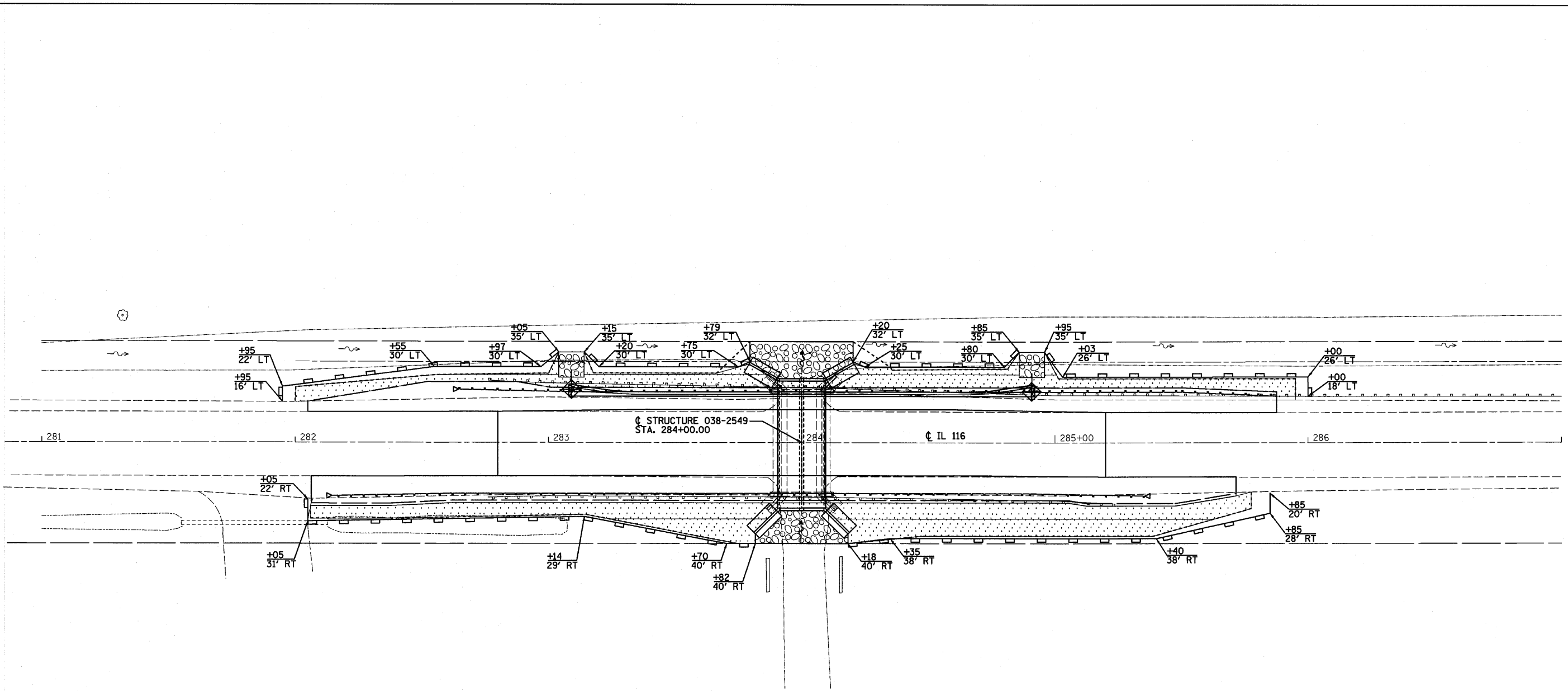
**NOTES:**

1. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY OR TEMPORARY EASEMENT.
2. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH 1/2" OR GREATER RAIN EVENT.

LEGEND	
	INLET AND PIPE PROTECTION
	TEMPORARY DITCH CHECK @ 100' SPACING
	PERIMETER EROSION BARRIER
	TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 3
	STONE RIPRAP, CLASS A4 & FILTER FABRIC
	LIMITS OF CONSTRUCTION





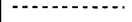


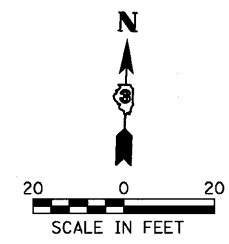
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#FILEL#	PLOT SCALE = #SCALE#	CHECKED - MSW	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	SN 027-0098	CONTRACT NO. 66880	
	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -							FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
										* 116 BR/1116 BR, (BR-2)BR, 1 & BR-3J		24-8271



- NOTES:**
1. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY OR TEMPORARY EASEMENT.
  2. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH 1/2" OR GREATER RAIN EVENT.

**LEGEND**

-  INLET AND PIPE PROTECTION
-  PERIMETER EROSION BARRIER
-  TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 3
-  STONE RIPRAP, CLASS A3 OR A4 & FILTER FABRIC
-  LIMITS OF CONSTRUCTION



FILE NAME =	USER NAME = #USER#	DESIGNED - JML	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EROSION CONTROL</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - DJM	REVISED -		681	*	FORD/IROUOIS	146	46			
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	PLOT DATE = #DATE#	DATE - 08/04/10	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
FARNSWORTH GROUP, INC.				CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX				* 116 BR/I116 BR, (BR-2)BR, I & BR-3J		24-8271		

SEC. 22, 23, 26, 27, T. 28 N., R. 9 E., 3RD P.M.



**PARCEL 3VP0002**

JULIA J. HALPIN

TOTAL HOLDING = 160.000 AC. ±  
 TOTAL R.O.W. REQUIRED = 0.301 AC. ±  
 AREA IN EX. R.O.W. = 0.241 AC.  
 NET R.O.W. REQ'D. = 0.060 AC. ±  
 REMAINDER = 159.699 AC. ±

**PARCEL 3VP0003**

ESTATE OF WILLIAM W. HALPIN  
 & JULIA J. HALPIN

TOTAL HOLDING = 160.000 AC. ±  
 TOTAL R.O.W. REQUIRED = 0.548 AC. ±  
 AREA IN EX. R.O.W. = 0.418 AC.  
 NET R.O.W. REQ'D. = 0.130 AC. ±  
 REMAINDER = 159.452 AC. ±

LEGEND

- ⊖ = N 1° 33' 11" W 43.12'
- ⊖ = N 77° 08' 14" E 50.99'
- ⊖ = N 88° 26' 49" E 45.00'
- ⊖ = N 76° 26' 08" E 48.05'
- ⊖ = N 9° 46' 53" E 91.61'
- ⊖ = N 88° 08' 57" E 23.79'
- ⊖ = S 88° 22' 27" W 31.97'
- ⊖ = N 9° 09' 45" W 70.66'
- ⊖ = N 64° 12' 11" W 65.30'
- ⊖ = S 88° 26' 49" W 35.00'
- ⊖ = N 80° 14' 35" W 50.99'
- ⊖ = N 1° 33' 11" W 36.88'
- ⊖ = S 1° 32' 46" E 37.19'
- ⊖ = S 77° 08' 38" W 101.98'
- ⊖ = S 88° 27' 14" W 120.00'
- ⊖ = S 68° 35' 55" W 38.28'
- ⊖ = S 29° 19' 29" W 61.70'
- ⊖ = S 88° 22' 27" W 28.02'
- ⊖ = N 88° 08' 57" E 42.21'
- ⊖ = S 80° 14' 11" E 50.99'
- ⊖ = S 1° 32' 46" E 42.81'
- ⊖ = 106+00.00 - 40.00'
- ⊖ = 106+10.57 - 40.00'
- ⊖ = 106+76.57 - 40.00'
- ⊖ = 106+00.00 - 40.00'
- ⊖ = 106+02.22 - 40.00'
- ⊖ = 106+62.22 - 40.00'

**PARCEL 3VP0001**

GERALDINE WILSON, et al, TRUSTEES

TOTAL HOLDING = 90.000 AC. ±  
 TOTAL R.O.W. REQUIRED = 0.300 AC. ±  
 AREA IN EX. R.O.W. = 0.237 AC.  
 NET R.O.W. REQ'D. = 0.063 AC. ±  
 REMAINDER = 89.700 AC. ±

**PARCEL 3VP0004**

STANLEY P. DIETZ, et ux.

TOTAL HOLDING = 270.000 AC. ±  
 TOTAL R.O.W. REQUIRED = 0.468 AC. ±  
 AREA IN EX. R.O.W. = 0.325 AC.  
 NET R.O.W. REQ'D. = 0.143 AC. ±  
 REMAINDER = 269.532 AC. ±

**SURVEYOR'S STATEMENT**

I, CURT A. BENDER, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF F.A.P. 681 ILL. ROUTE 116 WAS MADE BY WILLET HOFMANN & ASSOCIATES, INC. UNDER MY DIRECTION, AT THE REQUEST OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT ALL MONUMENTS AND MARKS ARE OF THE CHARACTER AND OCCUPY THE POSITION SHOWN THEREON, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

7 DECEMBER 2009

*Curt A. Bender*

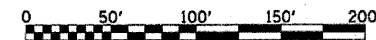
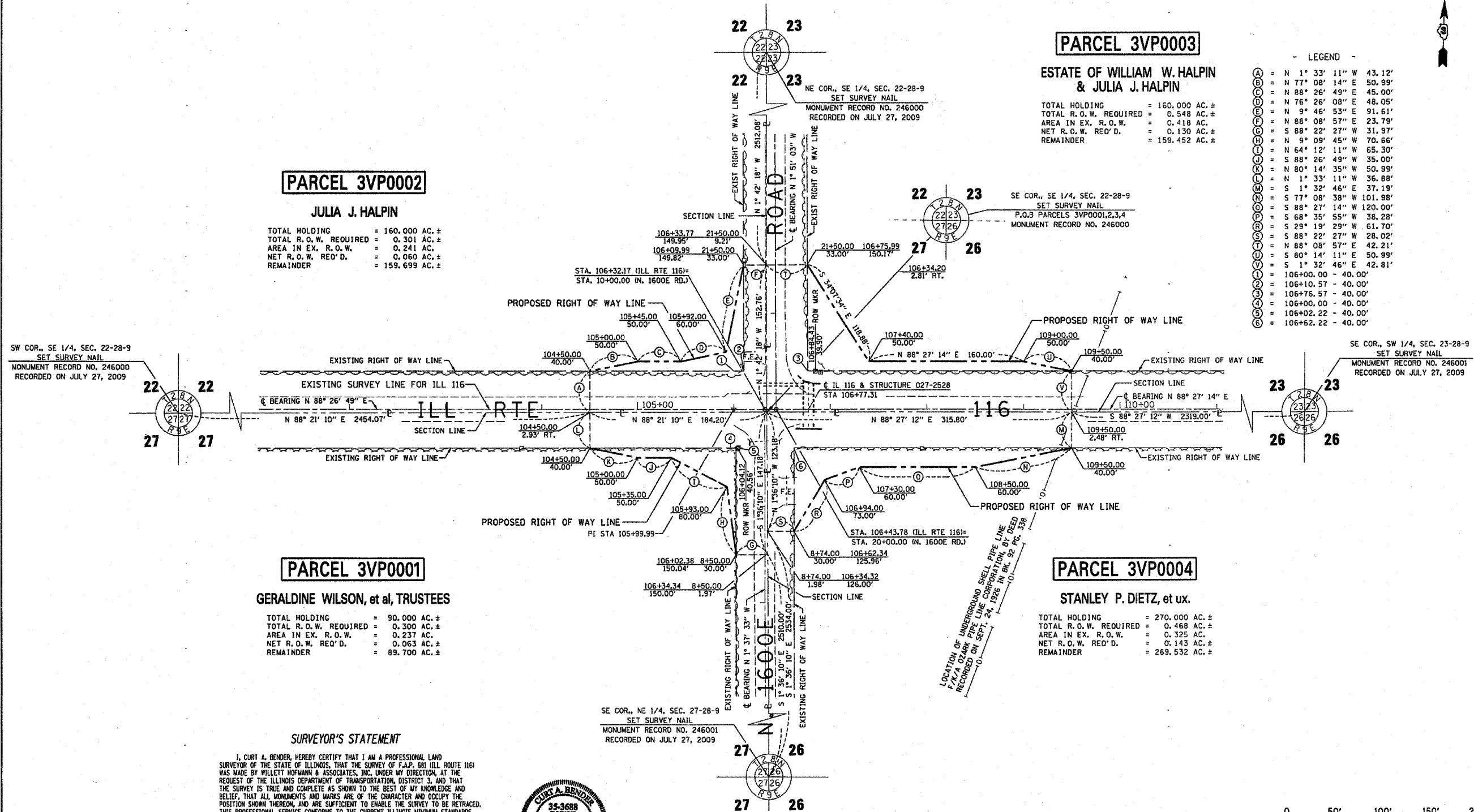
CURT A. BENDER, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3688 (EXPIRES NOVEMBER 2010)  
 WILLET, HOFMANN & ASSOCIATES, INC. - DESIGN FIRM NO. 184-000918



SE COR., NE 1/4, SEC. 27-28-9  
 SET SURVEY NAIL  
 MONUMENT RECORD NO. 246001  
 RECORDED ON JULY 27, 2009

SW COR., SE 1/4, SEC. 22-28-9  
 SET SURVEY NAIL  
 MONUMENT RECORD NO. 246000  
 RECORDED ON JULY 27, 2009

SE COR., SW 1/4, SEC. 23-28-9  
 SET SURVEY NAIL  
 MONUMENT RECORD NO. 246001  
 RECORDED ON JULY 27, 2009



NOTE: FOR THE PURPOSES OF THIS PLAT, BEARINGS ARE BASED UPON AN ASSUMED NORTH.

FILE NAME	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLANS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		PROJECT	JOB NO. R93-008-09	681	(116)1	FORD	146	468
		CHECKED - C B	REVISED -		SCALE: 1" = 50'	SHEET NO. 1 OF 1 SHEETS	ILLINOIS 116	CONTRACT NO. 66830	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
		PLLOT SCALE = #SCALE#	DATE		STA. 104+50.00 TO STA. 109+50.00						

W-1085509 ID-3 Ford Co. 116/036668-SHT-CONTR-PLAN.dgn  
 calculations by C.A. drawn by B.F.  
**WILLET, HOFMANN & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 100 East Second Street, Chicago, Illinois 60601  
 Phone: 312.467.1000  
 Fax: 312.467.1001  
 www.willett-hofmann.com

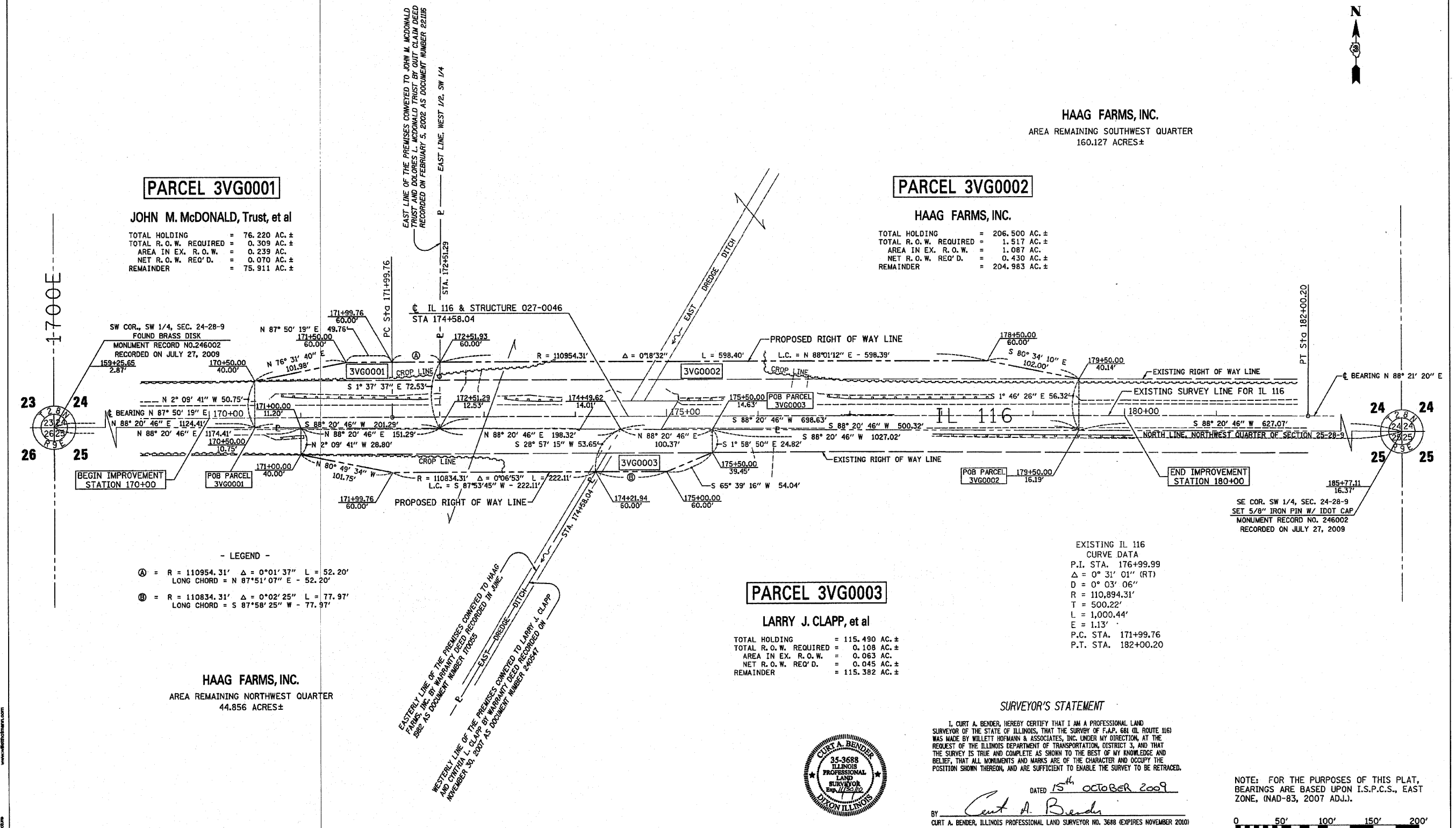
SW 1/4, SEC. 24, T. 28 N., R. 9 E. 3RD P.M.



**HAAG FARMS, INC.**  
 AREA REMAINING SOUTHWEST QUARTER  
 160.127 ACRES±

**PARCEL 3VG0001**  
**JOHN M. McDONALD, Trust, et al**  
 TOTAL HOLDING = 76.220 AC.±  
 TOTAL R.O.W. REQUIRED = 0.309 AC.±  
 AREA IN EX. R.O.W. = 0.239 AC.  
 NET R.O.W. REQ'D. = 0.070 AC.±  
 REMAINDER = 75.911 AC.±

**PARCEL 3VG0002**  
**HAAG FARMS, INC.**  
 TOTAL HOLDING = 206.500 AC.±  
 TOTAL R.O.W. REQUIRED = 1.517 AC.±  
 AREA IN EX. R.O.W. = 1.087 AC.  
 NET R.O.W. REQ'D. = 0.430 AC.±  
 REMAINDER = 204.983 AC.±



- LEGEND -  
 (A) = R = 110954.31' Δ = 0°01'37" L = 52.20'  
 LONG CHORD = N 87°51'07" E - 52.20'  
 (B) = R = 110834.31' Δ = 0°02'25" L = 77.97'  
 LONG CHORD = S 87°58'25" W - 77.97'

**HAAG FARMS, INC.**  
 AREA REMAINING NORTHWEST QUARTER  
 44.856 ACRES±

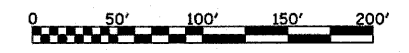
**PARCEL 3VG0003**  
**LARRY J. CLAPP, et al**  
 TOTAL HOLDING = 115.490 AC.±  
 TOTAL R.O.W. REQUIRED = 0.108 AC.±  
 AREA IN EX. R.O.W. = 0.063 AC.  
 NET R.O.W. REQ'D. = 0.045 AC.±  
 REMAINDER = 115.382 AC.±

**SURVEYOR'S STATEMENT**

I, CURT A. BENDER, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF F.A.P. 681 (IL ROUTE 116) WAS MADE BY WILLET HOFMANN & ASSOCIATES, INC. UNDER MY DIRECTION, AT THE REQUEST OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT ALL MONUMENTS AND MARKS ARE OF THE CHARACTER AND OCCUPY THE POSITION SHOWN THEREON, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

DATED 15<sup>th</sup> OCTOBER 2009  
 BY Curt A. Bender  
 CURT A. BENDER, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3688 (EXPIRES NOVEMBER 2010)  
 WILLET, HOFMANN & ASSOCIATES, INC. - DESIGN FIRM NO. 184-000918

NOTE: FOR THE PURPOSES OF THIS PLAT, BEARINGS ARE BASED UPON I.S.P.C.S., EAST ZONE, (NAD-83, 2007 ADJ.).



NW 1/4, SEC. 25, T. 28 N., R. 9 E. 3RD P.M.

V:\1128208 IL RTE 116 D-3\1128208.dwg - modifications by c.a. drawn by s.f.

**WILLET, HOFMANN & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 100 East Second Street, Downers Grove, IL 60130  
 Phone: 630.334.1001 Fax: 630.334.2888  
 Email: info@wha.com www.wha.com

FILE NAME	USER NAME = *USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLANS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FILE#*		DRAWN -	REVISED -		PROJECT	JOB NO. R-93-002-09	681	116BR-3	FORD	196	446
		CHECKED -	REVISED -		SCALE: 1" = 50'	SHEET NO. 1 OF 1 SHEETS	STA. 170+00 TO STA. 180+00	CONTRACT NO. 66880			
PLOT SCALE = *SCALE*		DATE -	REVISED -				FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
PLOT DATE = *DATE*											



SEC. 21 & 28, T. 28 N., R. 9 E., 3RD P.M.



PARCEL 3VV0001

STANLEY P. DIETZ, et al

TOTAL HOLDING = 91.550 AC. ±
TOTAL R.O.W. REQUIRED = 0.718 AC. ±
AREA IN EX. R.O.W. = 0.437 AC.
NET R.O.W. REQ'D. = 0.281 AC. ±
REMAINDER = 90.832 AC. ±

PARCEL 3VV0002

HERITAGE F-S, FORMERLY KNOWN AS FORD COUNTY F-S, INC.

TOTAL HOLDING = 4.160 AC. ±
TOTAL R.O.W. REQUIRED = 0.149 AC. ±
AREA IN EX. R.O.W. = 0.000 AC.
NET R.O.W. REQ'D. = 0.149 AC. ±
REMAINDER = 4.011 AC. ±

PARCEL 3VV0003

JAMES A. WRIGHT, et al

TOTAL HOLDING = 28.000 AC. ±
TOTAL R.O.W. REQUIRED = 0.722 AC. ±
AREA IN EX. R.O.W. = 0.512 AC.
NET R.O.W. REQ'D. = 0.210 AC. ±
REMAINDER = 27.278 AC. ±

TEMPORARY EASEMENT = 0.197 AC. ±
PURPOSE: BERM CONSTRUCTION & GRADING

PARCEL 3VV0004

EVELYN RIEBE, LIFE ESTATE

TOTAL HOLDING = 140.000 AC. ±
TOTAL R.O.W. REQUIRED = 0.478 AC. ±
AREA IN EX. R.O.W. = 0.344 AC.
NET R.O.W. REQ'D. = 0.134 AC. ±
REMAINDER = 139.522 AC. ±

SURVEYOR'S STATEMENT

I, CURT A. BENDER, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF F.A.P. 681 (ILL. ROUTE 116) WAS MADE BY WILLET HOFMANN & ASSOCIATES, INC. UNDER MY DIRECTION, AT THE REQUEST OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT ALL MONUMENTS AND MARKS ARE OF THE CHARACTER AND OCCUPY THE POSITION SHOWN THEREON, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

9 APRIL 2010
Curt A. Bender

CURT A. BENDER, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3688 (EXPIRES NOVEMBER 2010)
WILLET, HOFMANN & ASSOCIATES, INC. - DESIGN FIRM NO. 184-000918



930 East Second Street Dixon, Illinois 61021
Phone 815.284.5281 Fax 815.284.5285
Design Firm #184-000918
www.willett-hofmann.com

Table with columns: FILE NAME, USER NAME, DESIGNED, REVISED, DRAWN, CHECKED, DATE.

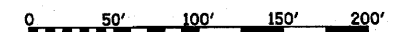
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

PROJECT: ILLINOIS 116
JOB NO. R-93-002-10
SCALE: 1" = 50'
SHEET NO. 1 OF 1 SHEETS
STA. 21+50.00 TO STA. 30+00.00

Table with columns: F.A.P. RTE, SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

- LEGEND
A = N 1° 41' 45" W 36.07'
B = S 45° 08' 40" W 36.52'
C = S 88° 21' 58" W 19.00'
D = S 1° 44' 47" E 63.94'
E = S 1° 39' 17" E 20.00'



NOTE: FOR THE PURPOSES OF THIS PLAT, BEARINGS ARE BASED UPON I.S.P.C.S., EAST ZONE, (NAD-83, 2007 ADJ.).

SECTION 23, T. 28 N., R. 9 E., 3RD P.M.



**PARCEL 3VU0001**

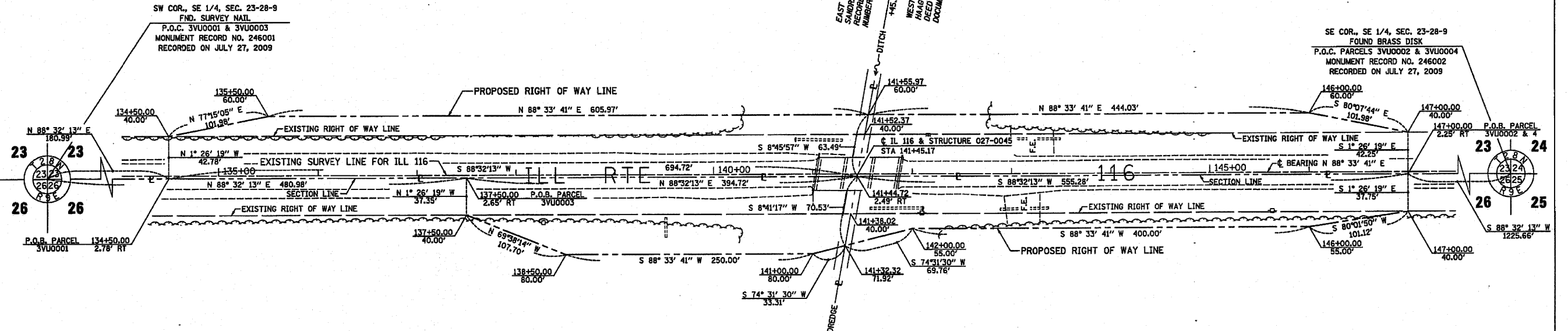
SANDRA GUNTHER, Life Estate

TOTAL HOLDING = 160.000 AC. ±  
 TOTAL R.O.W. REQUIRED = 0.984 AC. ±  
 AREA IN EX. R.O.W. = 0.684 AC.  
 NET R.O.W. REQ'D. = 0.300 AC. ±  
 REMAINDER = 159.016 AC. ±

**PARCEL 3VU0002**

HOWARD E. HAAG, et al, Trustees

TOTAL HOLDING = 114.428 AC. ±  
 TOTAL R.O.W. REQUIRED = 0.764 AC. ±  
 AREA IN EX. R.O.W. = 0.536 AC.  
 NET R.O.W. REQ'D. = 0.228 AC. ±  
 REMAINDER = 113.664 AC. ±



**PARCEL 3VU0003**

STANLEY P. DIETZ, et ux

TOTAL HOLDING = 199.990 AC. ±  
 TOTAL R.O.W. REQUIRED = 0.640 AC. ±  
 AREA IN EX. R.O.W. = 0.336 AC.  
 NET R.O.W. REQ'D. = 0.304 AC. ±  
 REMAINDER = 199.350 AC. ±

**PARCEL 3VU0004**

JOAN K. RHODE, Trustee

TOTAL HOLDING = 78.630 AC. ±  
 TOTAL R.O.W. REQUIRED = 0.672 AC. ±  
 AREA IN EX. R.O.W. = 0.483 AC.  
 NET R.O.W. REQ'D. = 0.189 AC. ±  
 REMAINDER = 77.958 AC. ±

**SURVEYOR'S STATEMENT**

I, CURT A. BENDER, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF F.A.P. 681 ILL. ROUTE 116 WAS MADE BY WILLET HOFMANN & ASSOCIATES, INC. UNDER MY DIRECTION AT THE REQUEST OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT ALL MONUMENTS AND MARKS ARE OF THE CHARACTER AND OCCUPY THE POSITION SHOWN THEREON, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

22 JANUARY 2010

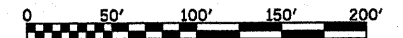
*Curt A. Bender*  
 CURT A. BENDER, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3688 EXPIRES NOVEMBER 2010  
 WILLET, HOFMANN & ASSOCIATES, INC. - DESIGN FIRM NO. 184-000918



EAST LINE OF THE PREMISES CONVEYED TO STANLEY P. DIETZ AND WILHELMINE F. DIETZ BY WARRANTY DEED RECORDED ON JANUARY 06, 1995 AS DOCUMENT NUMBER 189146  
 WEST LINE OF THE PREMISES CONVEYED TO JOAN K. RHODE TRUSTEE BY TRUSTEE'S DEED IN TRUST RECORDED ON JANUARY 15, 2005 AS DOCUMENT NUMBER 236779

EAST LINE OF THE PREMISES CONVEYED TO SANDRA GUNTHER BY PROBATE CASE NO. 05-P-189 RECORDED ON NOVEMBER 07, 2006 AS DOCUMENT NUMBER 237404  
 WEST LINE OF THE PREMISES CONVEYED TO HAAG FAMILY FARM TRUST BY TRUSTEE'S DEED RECORDED ON THE 20, 2007 AS DOCUMENT NUMBER 238774

SECTION 26, T. 28 N., R. 9 E., 3RD P.M.

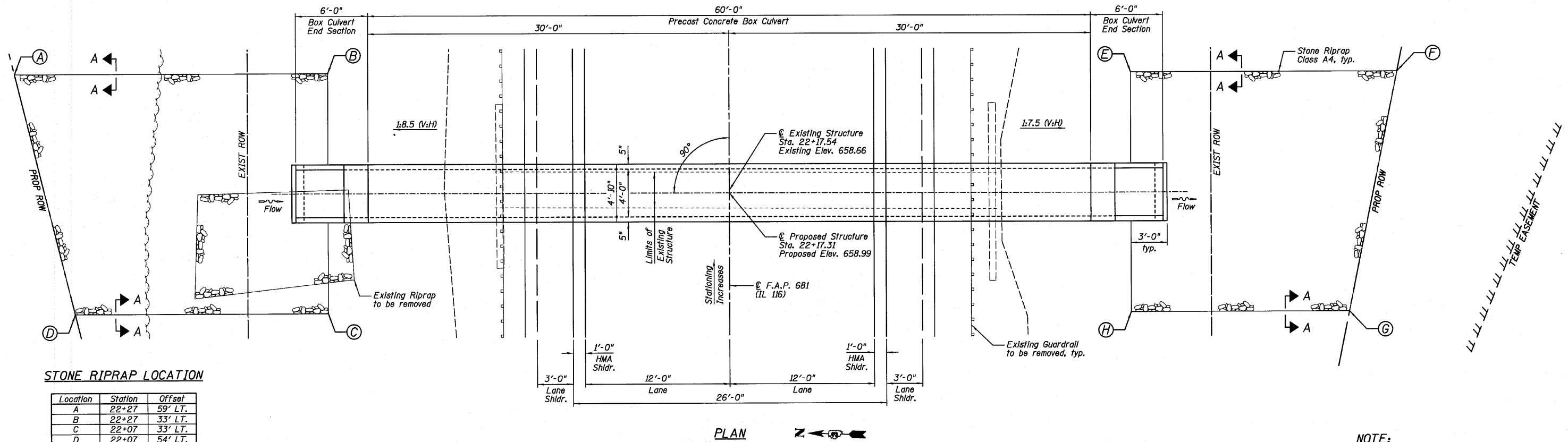
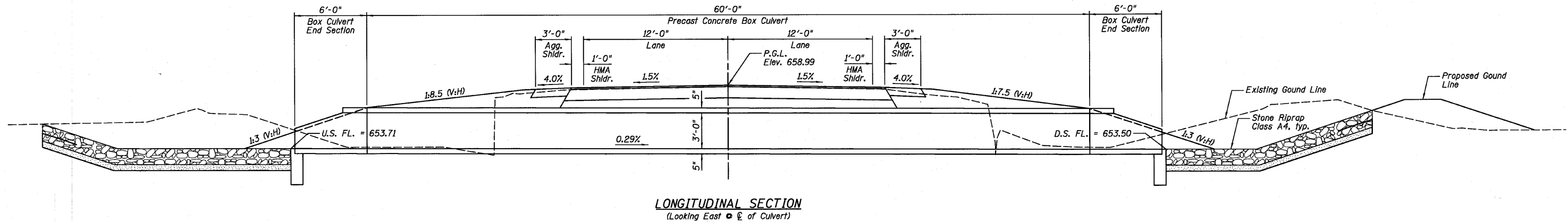


NOTE: FOR THE PURPOSES OF THIS PLAT, BEARINGS ARE BASED UPON AN ASSUMED NORTH.

FILE NAME #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLANS		F.A.P. RTE#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLLOT SCALE = #SCALE#	CHECKED - C B	REVISED -		PROJECT	JOB NO. R93-001-10	681	116(BR-218R)	FORD	146	46
PLLOT DATE = #DATE#	DATE -	REVISED -	DATE -	SCALE: 1" = 50'	SHEET NO. 1 OF 1 SHEETS	STA. 134+50.00 TO STA. 147+00.00	CONTRACT NO. 66880				

WILLET, HOFMANN & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 1000 W. MONROE STREET, CHICAGO, ILL. 60606  
 PHONE: 312.467.1000  
 FAX: 312.467.1001  
 WWW.WILLET-HOFMANN.COM

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



STONE RIPRAP LOCATION

Location	Station	Offset
A	22+27	59' LT.
B	22+27	33' LT.
C	22+07	33' LT.
D	22+07	54' LT.
E	22+27	33' RT.
F	22+27	55' RT.
G	22+07	51' RT.
H	22+07	33' RT.

Note: Stations and offsets for the Stone Riprap, Class A4 are from the roadway C.

GENERAL NOTES

- 1.) Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 2.) It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction area free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with the cost of "Precast Concrete Box Culvert 4'x3'".
- 3.) The precast concrete culvert sections shall be designed and manufactured in accordance with AASHTO M273 (ASTM C850).
- 4.) For backfilling and embankment, see Standard Specifications.
- 5.) The Contractor shall reshape the channel within the Right-Of-Way in order to facilitate drainage and the placement of riprap as directed by the Engineer. The cost of reshaping the channel shall be included in the cost of "Removal of Existing Structures No. 1". See District 3 Details for additional information regarding the Precast Concrete Box Culvert and Box Culvert End Sections.
- 6.)

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

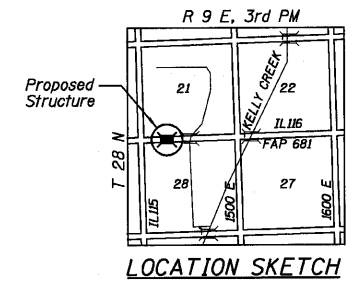
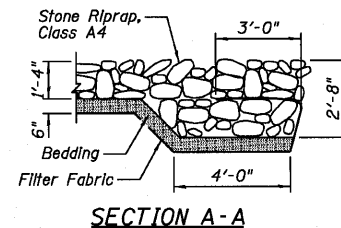
DATE 08/04/10

DESIGN STRESSES

PRECAST UNITS  
 $f'_c = 5,000$  psi (Precast)  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 65,000$  psi (Welded Wire Fabric)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	100
Filter Fabric	Sq. Yd.	100
Removal Of Existing Structures No. 1	Each	1
Box Culvert End Section, Culvert No. 1	Each	2
Precast Concrete Box Culvert 4'x3' (M273)	Foot	60



NOTE:

P.G.L. denotes Profile Grade Line.

4'x3' PRECAST  
CONCRETE BOX CULVERT  
IL. ROUTE 116 OVER  
UNNAMED DRAINAGE DITCH  
F.A.P. 681 - SECTION 116BR  
FORD COUNTY  
STATION 22+17.31

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. A1  
1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	47
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	CONTRACT NO. 66880	

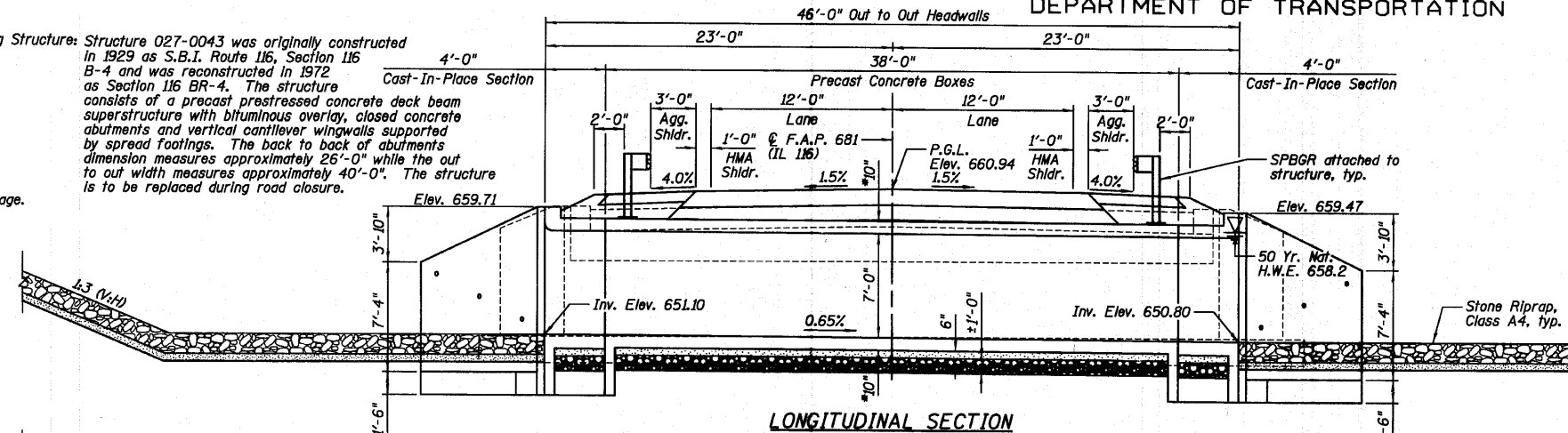
\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

Benchmarks: 1.) BM #90 Chiseled "C" on northwest wingwall, station 26+51/22' Lt., Elevation 661.83  
 2.) BM #91 R.R. spike in power pole, station 30+33/39' Lt., Elevation 662.19

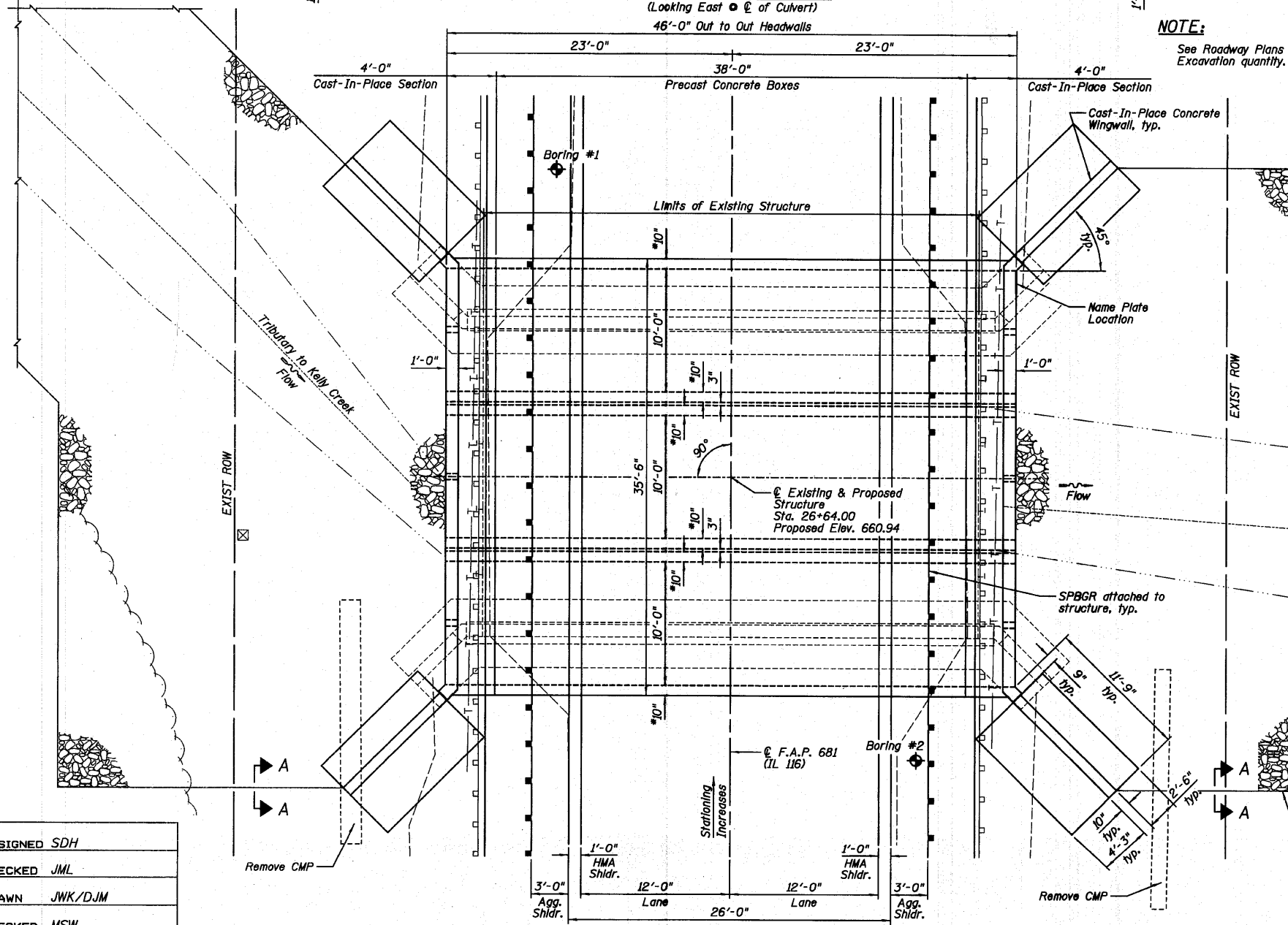
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

Existing Structure: Structure 027-0043 was originally constructed in 1929 as S.B.I. Route 116, Section 116 B-4 and was reconstructed in 1972 as Section 116 BR-4. The structure consists of a precast prestressed concrete deck beam superstructure with bituminous overlay, closed concrete abutments and vertical cantilever wingwalls supported by spread footings. The back to back of abutments dimension measures approximately 26'-0" while the out to out width measures approximately 40'-0". The structure is to be replaced during road closure.

No Salvage.



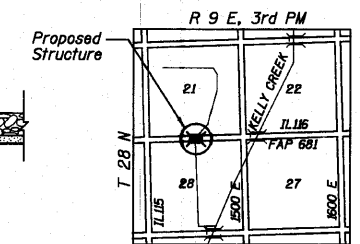
LONGITUDINAL SECTION  
 (Looking East @ C of Culvert)



PLAN

STATION 26+64.00  
 BUILT 20 BY  
 STATE OF ILLINOIS  
 F.A.P. 681 (IL116) SECTION 116-BR  
 LOADING: HS20-44  
 STR. NO. 027-2018

NAME PLATE  
 See Standard 515001



LOCATION SKETCH

NOTE:  
 See Roadway Plans for Channel Excavation quantity.

WATERWAY INFORMATION

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater EL.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
10	339	118	196	657.4	0.1	0.0	657.5	657.4	
Design	50	562	124	210	658.2	0.4	0.1	658.6	658.3
Base	100	663	124	210	658.4	0.6	0.2	659.0	658.6
Overtopping (exist.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Overtopping (prop.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Calc.	500	913	124	210	659.0	1.0	0.4	660.0	659.4

10 Yr. Velocity = 1.7 ft/sec. (Proposed)  
 10 Yr. Velocity = 2.9 ft/sec. (Existing)

TOTAL BILL OF MATERIAL - BOX CULVERT

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu. Yd.	98
Stone Riprap, Class A4	Sq. Yd.	371
Filter Fabric	Sq. Yd.	371
Removal Of Existing Structures No. 2	Each	1
Reinforcement Bars	Pound	10,130
Reinforcement Bars, Epoxy Coated	Pound	510
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	71.4
Precast Concrete Box Culvert 10'x7' (M273)	Foot	114
Rock Fill	Cu. Yd.	98

GENERAL NOTES

- 1.) Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- 2.) Reinforcement bars designated (E) shall be epoxy coated.
- 3.) Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 4.) Cast-In-Place concrete exposed edges shall be beveled 3/4".
- 5.) It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction area free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with the cost of "Concrete Box Culverts".
- 6.) Structural seal does not include design of precast elements.
- 7.) The precast concrete culvert sections shall be designed and manufactured in accordance with AASHTO M273 (ASTM C 850).
- 8.) For backfilling and embankment, see Standard Specifications.
- 9.) End of precast section shall not have a bell or spigot.
- 10.) Contractor to confirm all precast culvert dimensions with supplier before starting construction. All applicable cast-in-place concrete dimensions shall match precast culvert dimensions.
- 11.) See Sheet B8 for soil borings.
- 12.) The last section of precast culvert shall have an integral toe wall and reinforcing bars extending from the precast culvert as shown on Sheet B3.
- 13.) The pay item "Removal and Disposal of Unsuitable Material" shall include the excavation of unsuitable material for a depth of ±1'-6" below the structure for a width of 39'-6" within the limits of the toe walls as shown on the plans. The actual amount shall be determined in the field by the Engineer.
- 14.) The pay item "Rock Fill" shall include the placement of CA-7 and Gradation 1 below the structure for a width of 39'-6" within the limits of the toe walls as shown on the plans. The actual amount shall be determined in the field by the Engineer.
- 15.) The Contractor shall reshape the channel within the Right-Of-Way in order to facilitate drainage and the placement of riprap as directed by the Engineer. The cost of reshaping the channel shall be included in the cost of "Removal of Existing Structures".
- 16.) Alternate extended bars from precast section in slabs so top and bottom mats of reinforcement do not lap at the same location.

DESIGN SPECIFICATIONS

AASHTO 2002

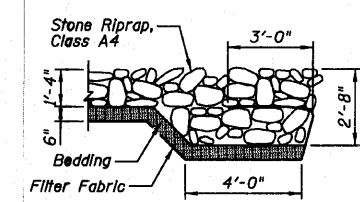
DESIGN STRESSES

FIELD UNITS  
 f'c = 3,500 psi (Cast-In-Place)  
 fy = 60,000 psi (Reinforcement)

PRECAST UNITS  
 f'c = 5,000 psi (Precast)  
 fy = 60,000 psi (Reinforcement)  
 fy = 65,000 psi (Welded Wire Fabric)

LOADING HS20-44

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



SECTION A-A



Mark S. Wylie Date 8/14/10  
 MARK S. WYLIE  
 ILLINOIS STRUCTURAL ENGINEER  
 NO. 081-005002  
 Exp. Date 11/30/10

NOTES:

- 1.) Confirm slab and wall thickness with Precaster.
- 2.) P.G.L. denotes Profile Grade Line.

INDEX OF SHEETS

SHEET NO.	TITLE
B1	GENERAL PLAN AND ELEVATION
B2	STONE RIPRAP LAYOUT PLAN
B3	LONGITUDINAL SECTION, SECTION THRU PRECAST BARRELS AND PRECAST END ELEVATION
B4	CAST-IN-PLACE CONCRETE CULVERT SECTIONS, DETAILS AND BILL OF MATERIAL
B5	CAST-IN-PLACE TOP SLAB PLAN AND SECTION
B6	CAST-IN-PLACE BOTTOM SLAB PLAN AND SECTIONS
B7	WINGWALLS
B8	SOIL BORING LOGS

GENERAL PLAN AND ELEVATION  
 IL. ROUTE 116 OVER  
 TRIBUTARY TO KELLY CREEK  
 F.A.P. 681 - SECTION 116BR  
 FORD COUNTY  
 STATION 26+64.00  
 STRUCTURE NO. 027-2018

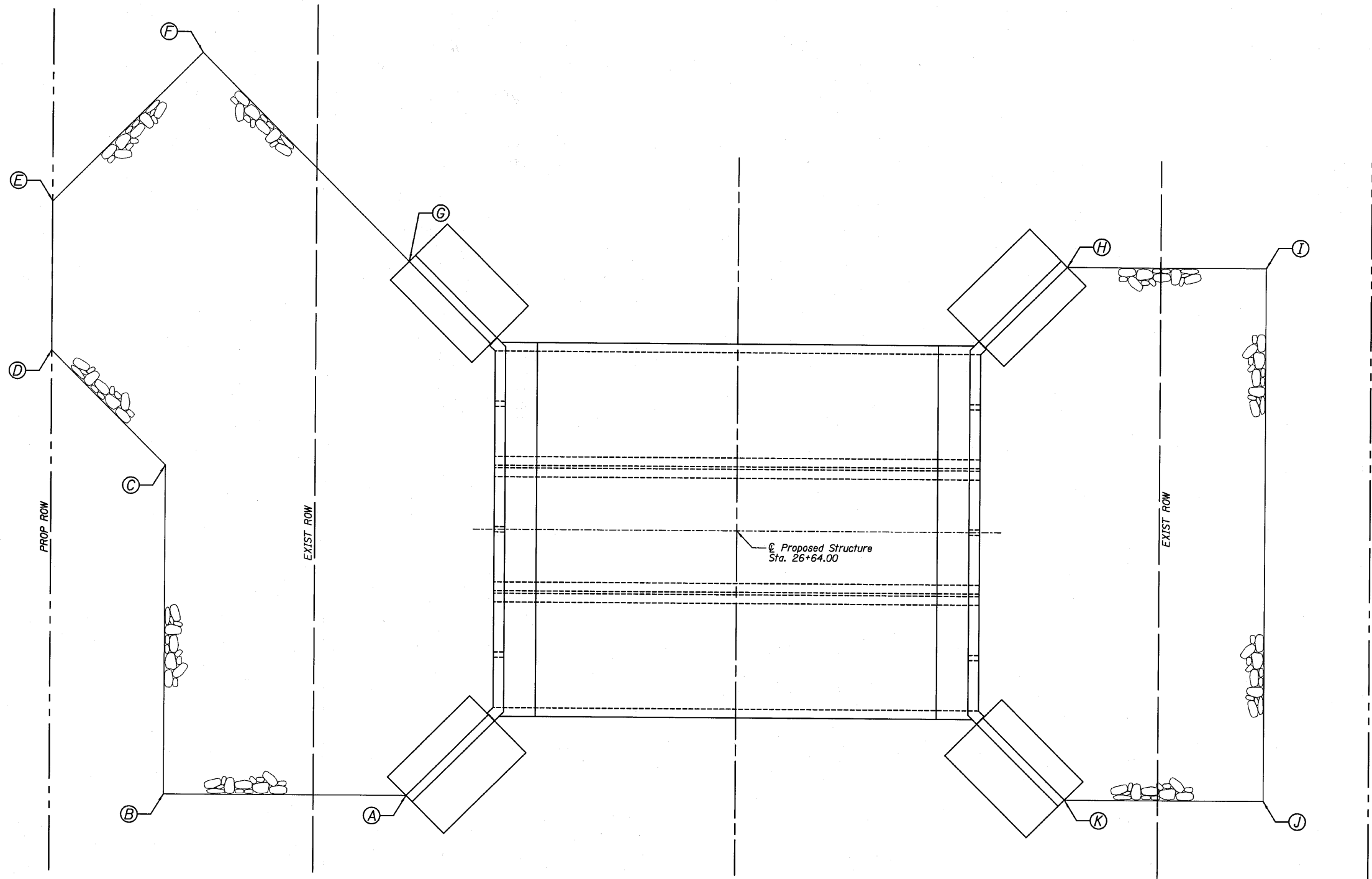
DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

Farnsworth GROUP, INC.  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

SHEET NO. B1  
 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	48
CONTRACT NO. 66880				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

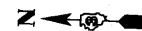


**STONE RIPRAP LOCATION**

Location	Station	Offset
A	26+39	31' LT.
B	26+39	54' LT.
C	26+70	54' LT.
D	26+81	65' LT.
E	26+95	65' LT.
F	27+09	51' LT.
G	26+89	31' LT.
H	26+89	31' RT.
I	26+89	50' RT.
J	26+39	50' RT.
K	26+39	31' RT.

Note: Stations and offsets for the Stone Riprap, Class A4 are from the roadway centerline.

STONE RIPRAP LAYOUT PLAN



DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

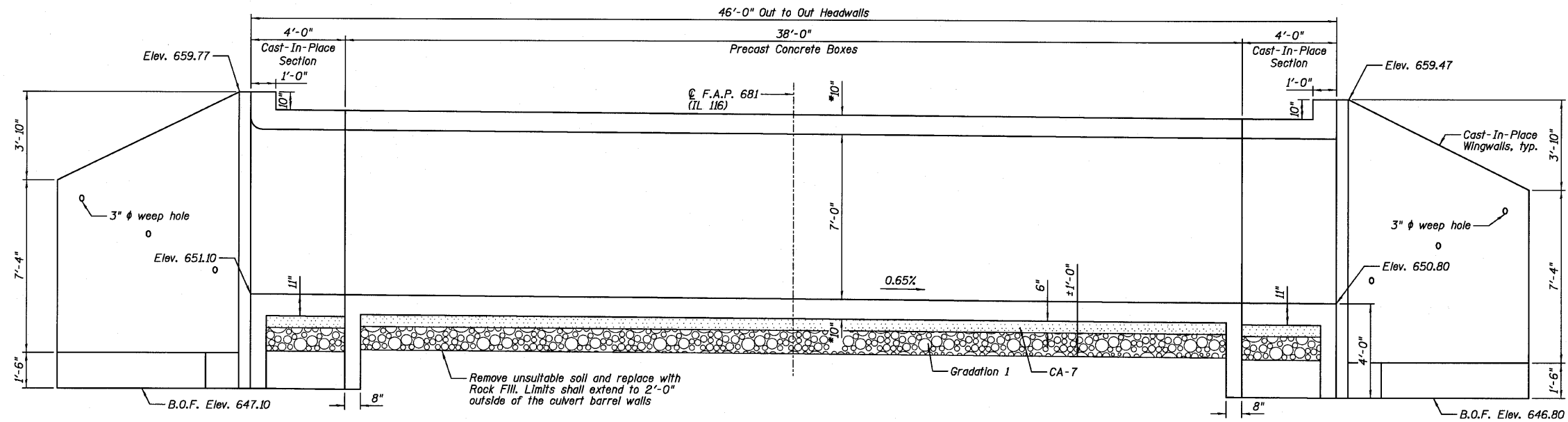
STONE RIPRAP LAYOUT PLAN  
STRUCTURE NO. 027-2018

<p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	SHEET NO. B2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	8 SHEETS	681	*	FORD/IROQUOIS	146	49
		FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
				CONTRACT NO. 66880		

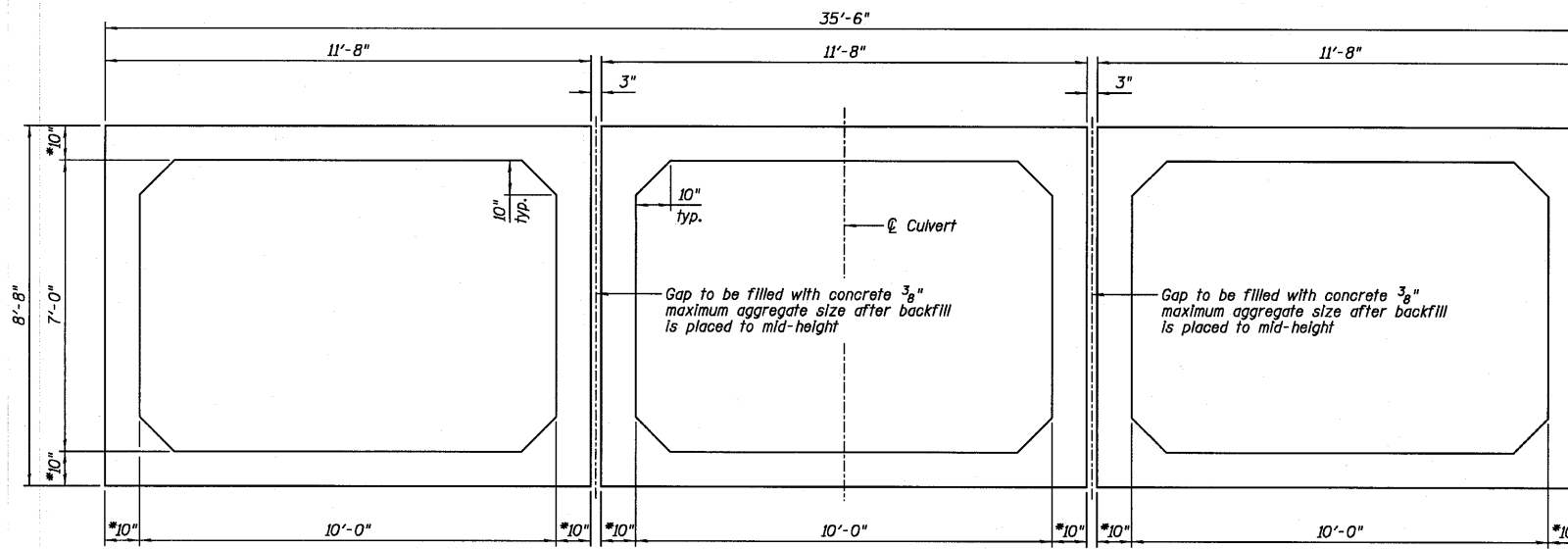
\* 116 BR/[116 BR. (BR-2)BR. I BR-3]

24-8271

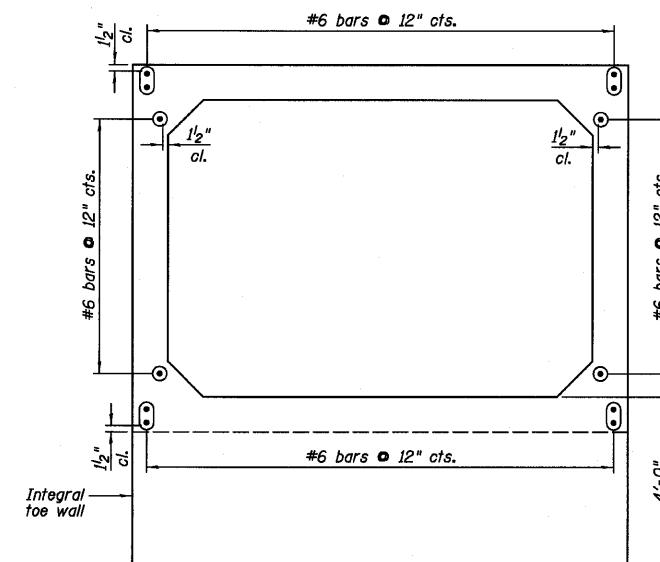
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**LONGITUDINAL SECTION**  
(Looking East @ C of Culvert)



**SECTION THRU PRECAST CONCRETE BARRELS**



**PRECAST CONCRETE CULVERT END ELEVATION**  
Section is symmetrical about C of Culvert

**LONGITUDINAL SECTION,  
SECTION THRU PRECAST  
BARRELS AND PRECAST  
END ELEVATION  
STRUCTURE NO. 027-2018**

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**NOTES:**

- 1.) Confirm slab and wall thickness with Precaster.
- 2.) For Cast-In-Place concrete portions, see Sheets B4-B6.
- 3.) B.O.F. denotes Bottom Of Footing.
- 4.) Cost of reinforcing bars extending from precast barrels included with the cost of Precast Concrete Box Culvert.

<b>Farnsworth GROUP, INC.</b> 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. B3	F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 50
	8 SHEETS	CONTRACT NO. 66880				
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

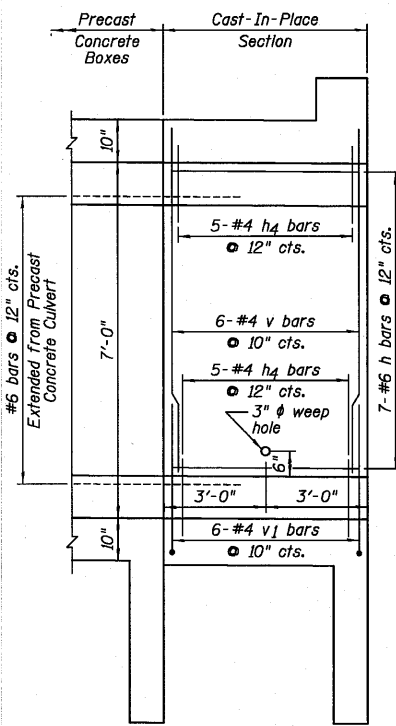
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24-8271

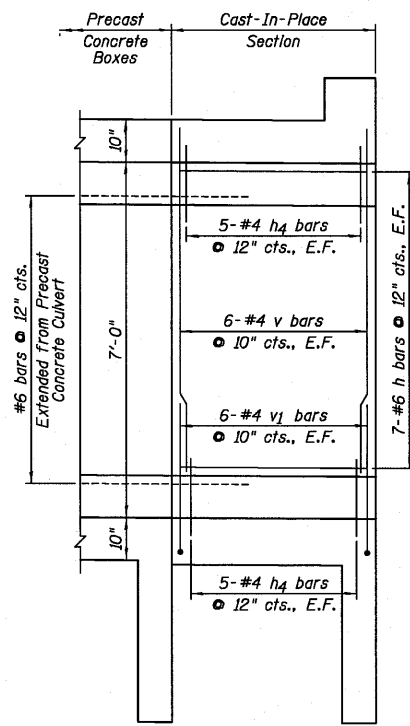
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CAST-IN-PLACE CULVERT  
BILL OF MATERIAL

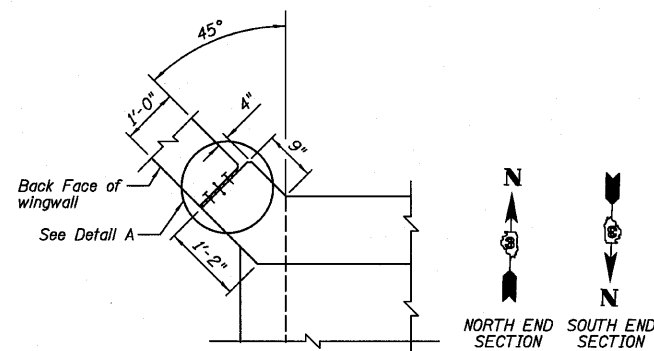
Bar	No.	Size	Length	Shape
a	24	#7	35'-2"	—
a1	8	#7	36'-10"	—
a2	8	#7	23'-4"	—
d	92	#4	5'-3"	—
h	388	#6	3'-8"	—
h1	76	#6	10'-7"	—
h2	4	#6	35'-2"	—
h3	4	#6	35'-2"	—
h4	120	#4	2'-6"	—
h5	8	#5	35'-2"	—
n(E)	60	#6	5'-8"	—
s	36	#4	5'-1"	—
s1	36	#4	4'-11"	—
t	96	#5	7'-3"	—
v	72	#4	6'-10"	—
v1	72	#4	3'-7"	—
v2	30	#5	18'-2"	—
v3	8	#4	18'-2"	—
w	64	#5	10'-7"	—
Item		Unit	Quantity	
Reinforcement Bars		Pound	10,130	
Reinforcement Bars, Epoxy Coated		Pound	510	
Name Plates		Each	1	
Concrete Box Culverts		Cu. Yd.	71.4	



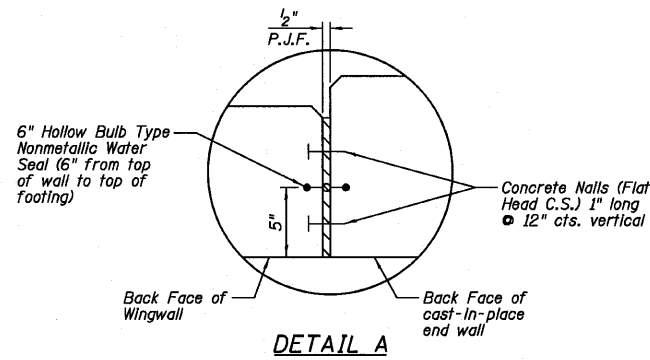
EXTERIOR WALL



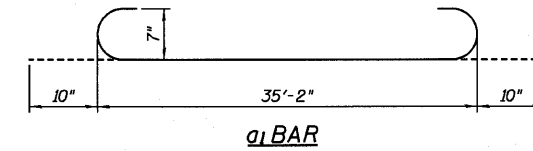
INTERIOR WALL



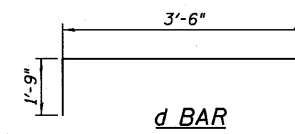
CORNER DETAIL



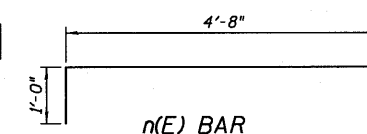
DETAIL A



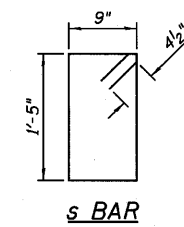
a1 BAR



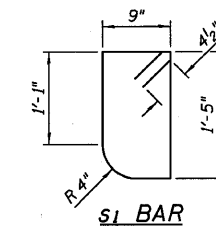
d BAR



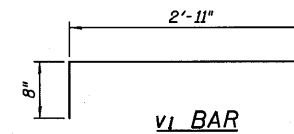
n(E) BAR



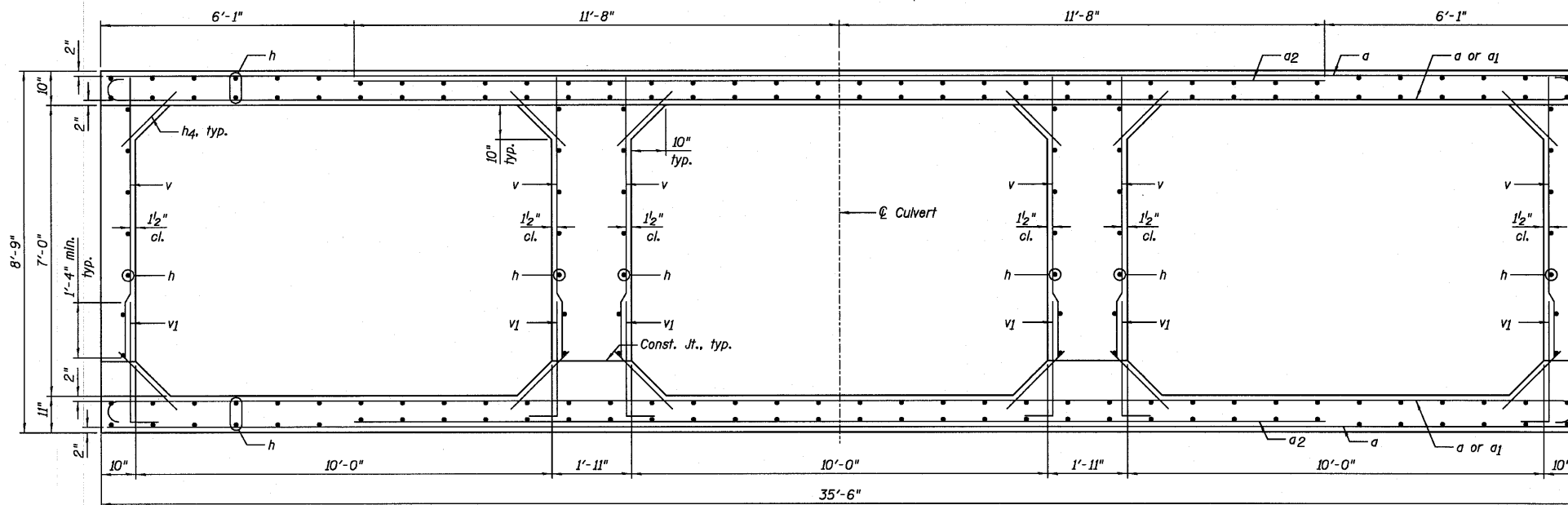
s BAR



s1 BAR

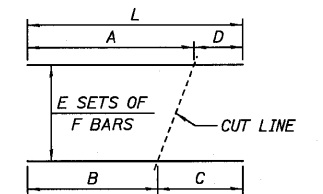


v1 BAR



SECTION THRU CAST-IN-PLACE CONCRETE BARREL

BAR CUTTING DIAGRAM



BAR	A	B	C	D	E	F	L
v2	11'-0"	7'-2"	11'-0"	7'-2"	2	15	18'-2"
v3	11'-0"	7'-2"	11'-0"	7'-2"	2	4	18'-2"

CAST-IN-PLACE CONCRETE CULVERT  
SECTIONS, DETAILS AND  
BILL OF MATERIAL  
STRUCTURE NO. 027-2018

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. B4

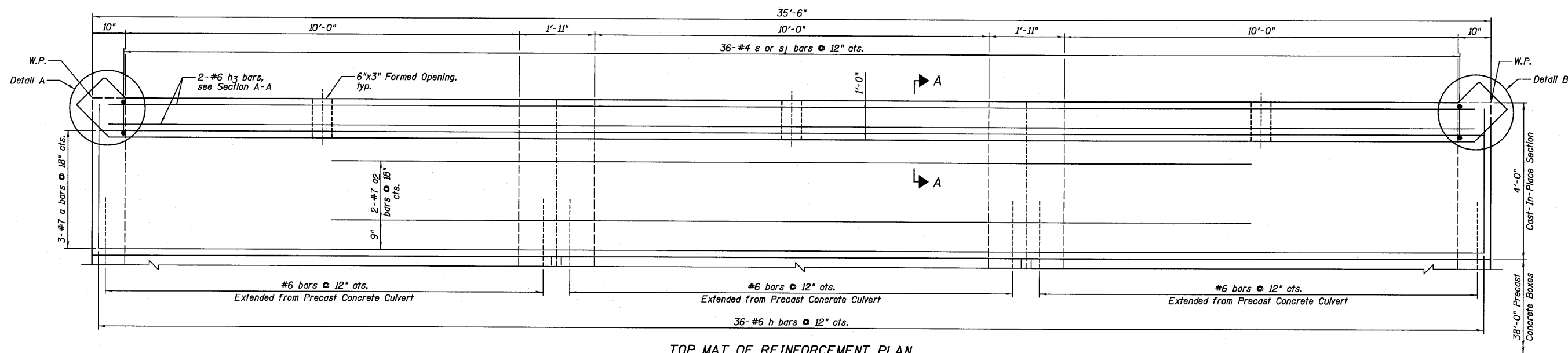
8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	51
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

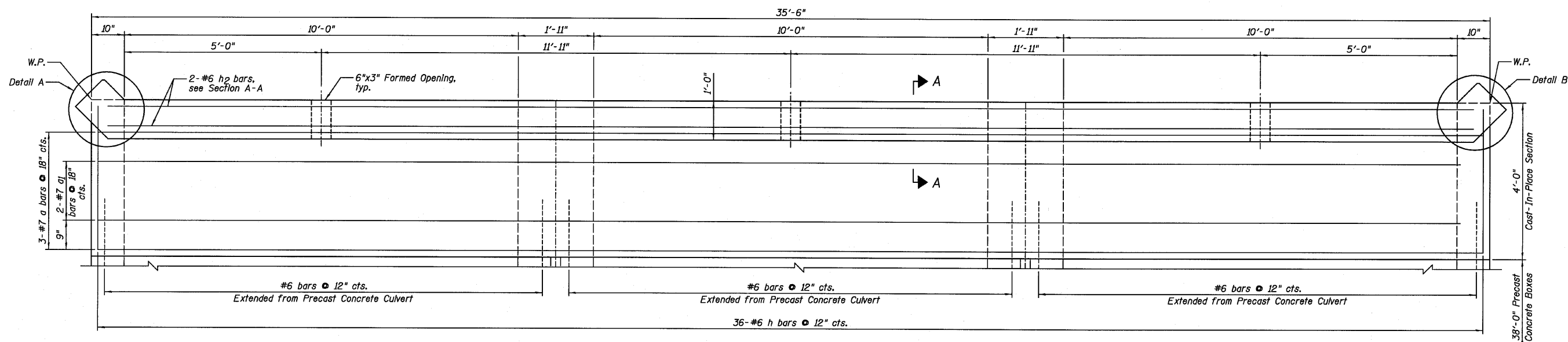
\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

24-8271

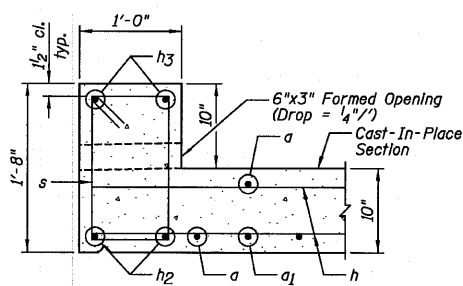
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



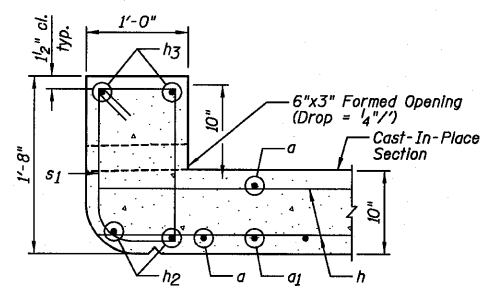
TOP MAT OF REINFORCEMENT PLAN



BOTTOM MAT OF REINFORCEMENT PLAN

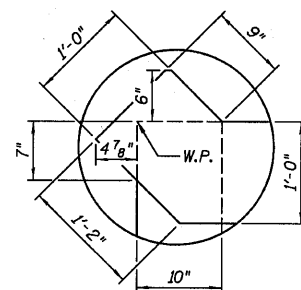


DOWNSTREAM HEADWALL

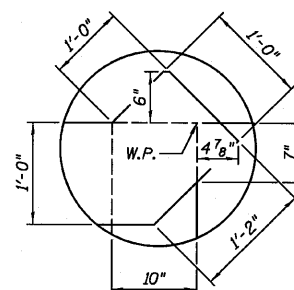


UPSTREAM HEADWALL

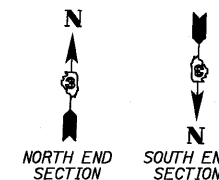
SECTION A-A



DETAIL A



DETAIL B



NOTES:

- 1.) For Bill of Material, see Sheet B4.
- 2.) W.P. denotes Working Point.

CAST-IN-PLACE TOP  
SLAB PLAN AND SECTION  
STRUCTURE NO. 027-2018

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. B5

8 SHEETS

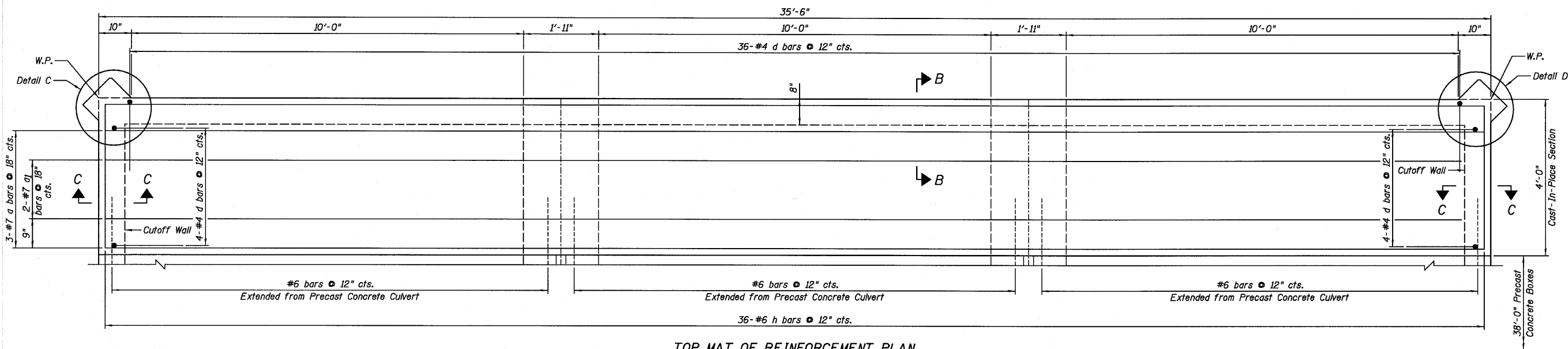
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	52
CONTRACT NO. 66880				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

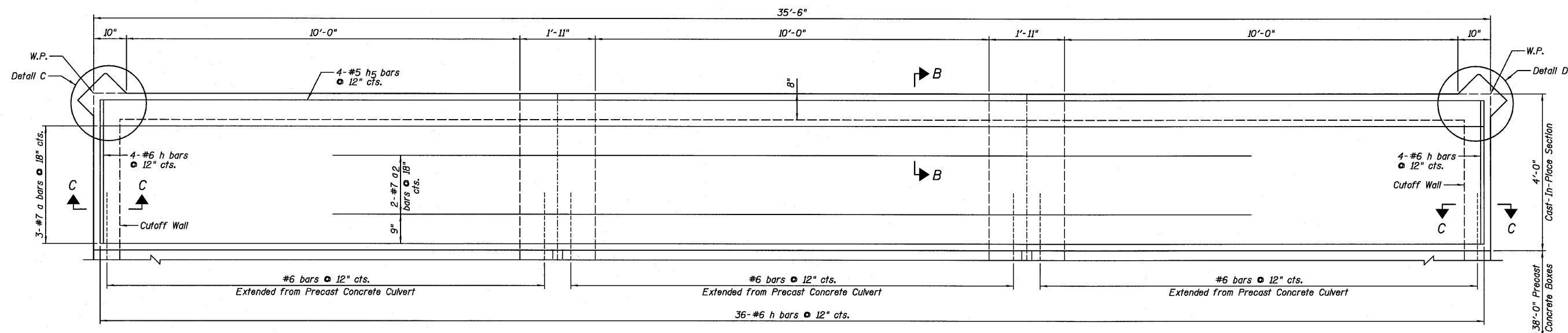
24-8271



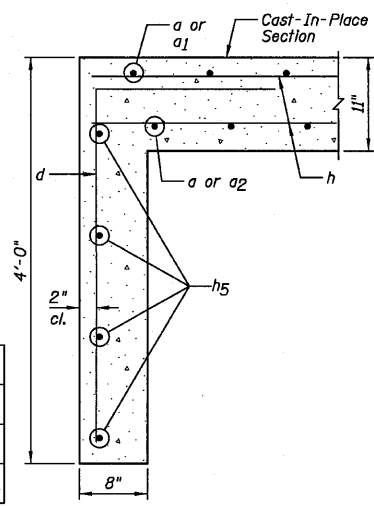
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



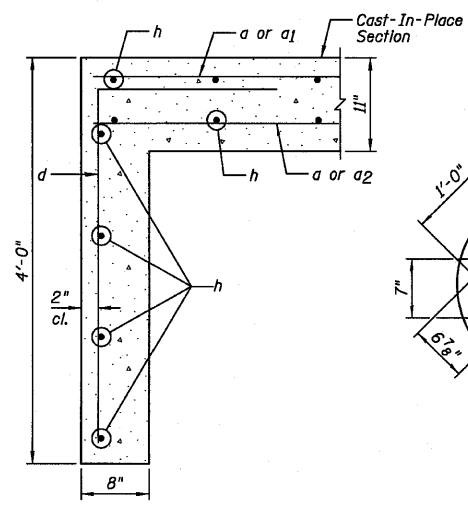
TOP MAT OF REINFORCEMENT PLAN



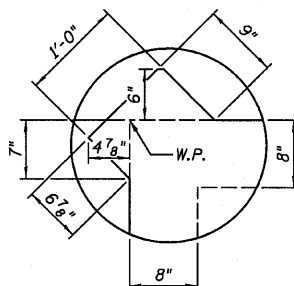
BOTTOM MAT OF REINFORCEMENT PLAN



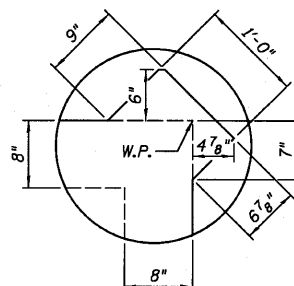
SECTION B-B



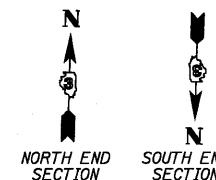
SECTION C-C



DETAIL C



DETAIL D



NOTES:

- 1.) For Bill of Material, see Sheet B4.
- 2.) W.P. denotes Working Point.

CAST-IN-PLACE BOTTOM  
SLAB PLAN AND SECTIONS  
STRUCTURE NO. 027-2018

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

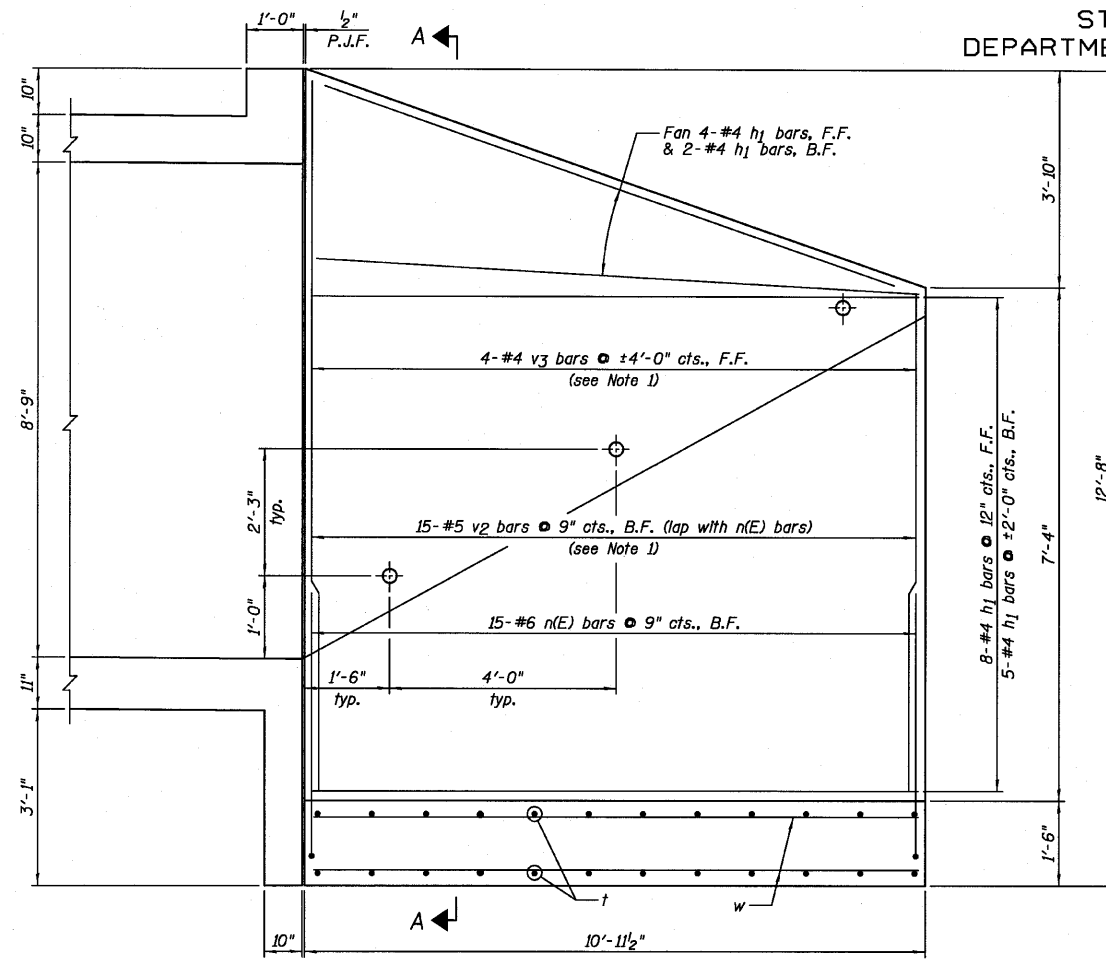
DATE 08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

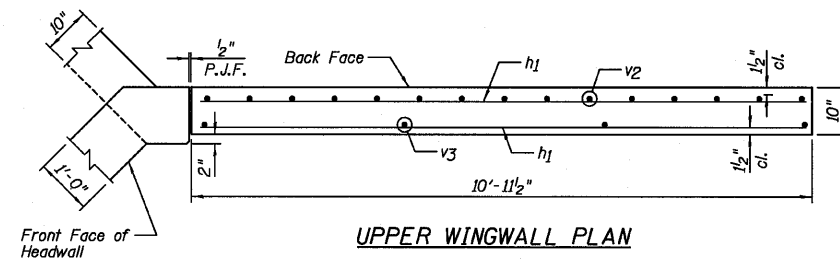
SHEET NO. B6  
8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

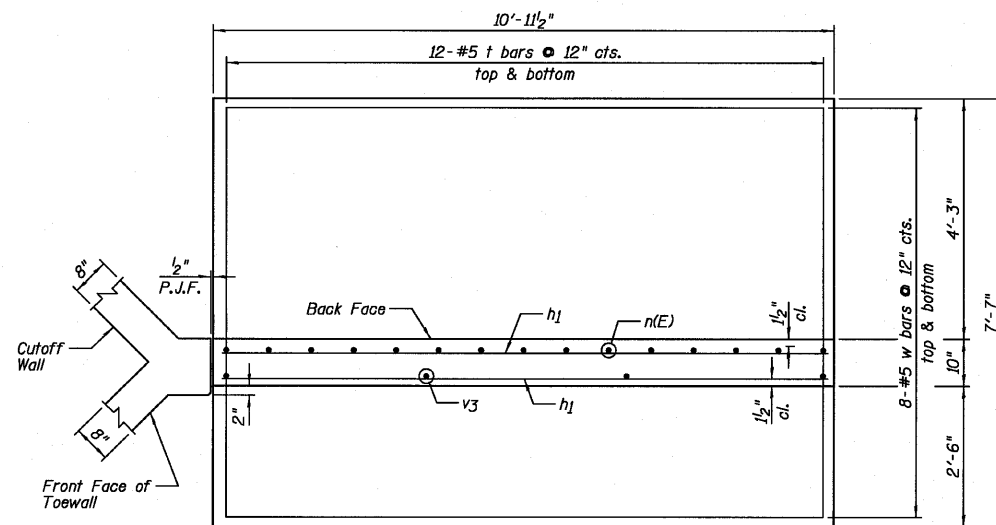
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



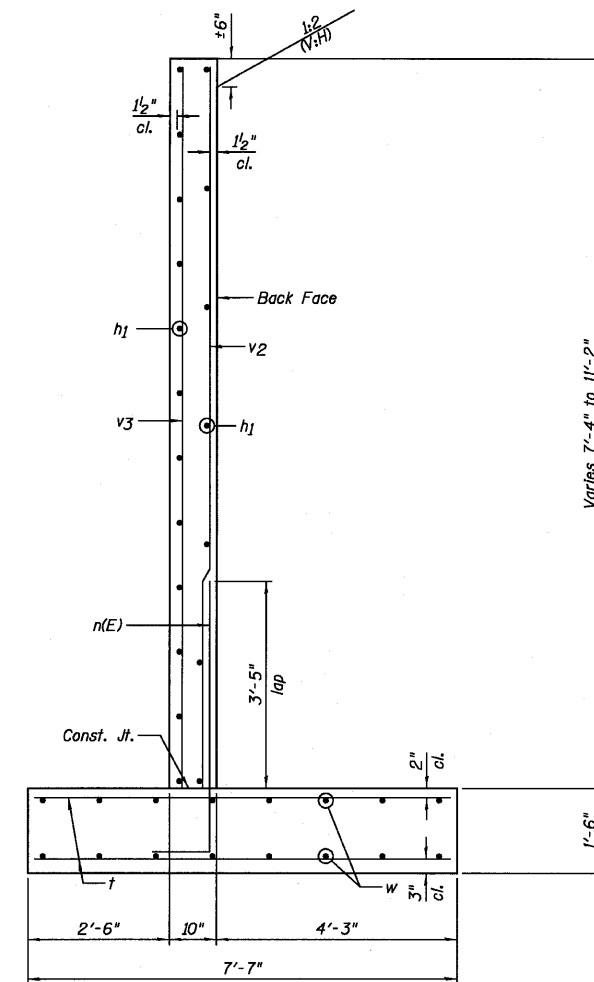
WINGWALL ELEVATION



UPPER WINGWALL PLAN



LOWER WINGWALL PLAN



SECTION A-A  
(Calc. Max Soil Pressure 2840 psf)

NOTES:

- 1.) Order v2 and v3 bars full length, cut according to Bar Cutting Diagram on Sheet B4. Use remainder of bars in opposite wingwall.
- 2.) For Bill of Material, see Sheet B4.
- 3.) F.F. denotes Front Face and B.F. denotes Back Face.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. B7

8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	54
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

WINGWALLS  
STRUCTURE NO. 027-2018

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Illinois Department  
of Transportation  
Division of Highways  
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 3/17/09

ROUTE SBI-116 (IL 116) DESCRIPTION IL 116 over Drainage Ditch, 0.5 MI E of IL 115 LOGGED BY LM

SECTION 116-B-4 LOCATION North 1/2, SEC. 28, TWP. 28N, RNG. 9E, 3<sup>rd</sup> PM

COUNTY Ford DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev. ft	First Encounter Upon Completion After Hrs.	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev. ft	First Encounter Upon Completion After Hrs.
027-0043 (Exist.) 26+64					650.81	650.16										
BORING NO. 1 (N.E. Quad.) 26+89 Offset 14.00ft Lt. Ground Surface Elev. 659.74 ft																
Augered White CA6 shoulder stone, Black Silty Clay Loam Fill																
657.24 Very Stiff Black Silty Clay Loam Fill																
652.24 Very Stiff Gray Silty Clay Loam																
650.24 Very Stiff Brown & Gray Silty Clay Loam Till																
647.74 Hard Gray Silty Clay Loam Till																
640.74 Very Stiff to Stiff Gray Silt, Silty Loam, Clay thickly interbedded																

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)



Illinois Department  
of Transportation  
Division of Highways  
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 3/17/09

ROUTE SBI-116 (IL 116) DESCRIPTION IL 116 over Drainage Ditch, 0.5 MI E of IL 115 LOGGED BY LM

SECTION 116-B-4 LOCATION North 1/2, SEC. 28, TWP. 28N, RNG. 9E, 3<sup>rd</sup> PM

COUNTY Ford DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev. ft	First Encounter Upon Completion After Hrs.	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev. ft	First Encounter Upon Completion After Hrs.
027-0043 (Exist.) 26+64					650.81	649.66										
BORING NO. 2 (S.W. Quad.) 26+41 Offset 15.00ft Rt. Ground Surface Elev. 659.76 ft																
Augered White CA6 shoulder stone, Black Silty Clay Loam Fill																
657.26 Very Stiff Black & Brown Silty Clay Loam Fill																
652.76 Stiff to Very Stiff Gray Clay																
652.76 Stiff to Very Stiff Brown Silt, Clay, Sand Interbedded																
650.26 Hard Brown Silty Clay Loam Till																
647.76 Hard Gray Silty Clay Loam Till																
642.26 Hard to Very Stiff Gray Clay Till																

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)

DESIGNED SDH
CHECKED JML
DRAWN JWK/DJM
CHECKED MSW

DATE 08/04/10

SOIL BORING LOGS  
STRUCTURE NO. 027-2018

Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. 68	F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 55
	8 SHEETS	CONTRACT NO. 66880				
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT		

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271

Benchmarks: BM #30 Chiseled "□" on northwest wingwall, Station 106+73/29' Lt., Elevation 658.32.  
 BM #31 R.R. spike in power pole, Station 106+05/40' Rt., Elevation 657.03.

Existing Structure: Structure 027-2528 was originally constructed in 1929 as S.B.I. Route 116, Section 116 and was extended north in 1986 as Section (115,116) RS. The structure is a 10'x5' concrete box culvert with parallel wingwalls. The structure includes a 3'x3' concrete box culvert opening which crosses TR 1600E. The length of the culvert measures approximately 47'-0" out to out and varies. The structure is to be replaced during road closure.

No Salvage.

**DESIGN SPECIFICATIONS**

AASHTO 2002

**DESIGN STRESSES**

**FIELD UNITS**

$f'_c = 3,500$  psi (Cast-In-Place)  
 $f_y = 60,000$  psi (Reinforcement)

**PRECAST UNITS**

$f'_c = 5,000$  psi (Precast)  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 65,000$  psi (Welded Wire Fabric)

**LOADING HS20-44**

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

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**INDEX OF SHEETS**

SHEET NO.	TITLE
C1	GENERAL PLAN AND ELEVATION
C2	STONE RIPRAP LAYOUT PLAN
C3	LONGITUDINAL SECTION, PRECAST CONCRETE SECTION AND ELEVATION
C4	NORTH AND SOUTH END WALL CONCRETE SECTION AND ELEVATION
C5	CAST-IN-PLACE CONCRETE CULVERT SECTION, DETAILS AND BILL OF MATERIAL
C6	NORTH END CAST-IN-PLACE TOP SLAB PLANS, SECTION AND DETAILS
C7	NORTH END CAST-IN-PLACE BOTTOM SLAB PLANS, SECTION AND DETAILS
C8	SOUTH END CAST-IN-PLACE TOP SLAB PLANS, SECTION AND DETAILS
C9	SOUTH END CAST-IN-PLACE BOTTOM SLAB PLANS, SECTION AND DETAILS
C10-C11	WINGWALLS
C12	SOIL BORING LOGS

**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.	Exist.	Prop.
Design	10	144	41	49	655.9	0.3	0.2	656.2	656.1	
Base	50	234	49	58	656.6	0.4	0.3	657.0	656.9	
Overlapping (exist.)	100	275	50	60	656.8	0.6	0.3	657.4	657.1	
Max. Calc.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	500	372	50	60	656.9	1.4	1.3	658.3	658.2	

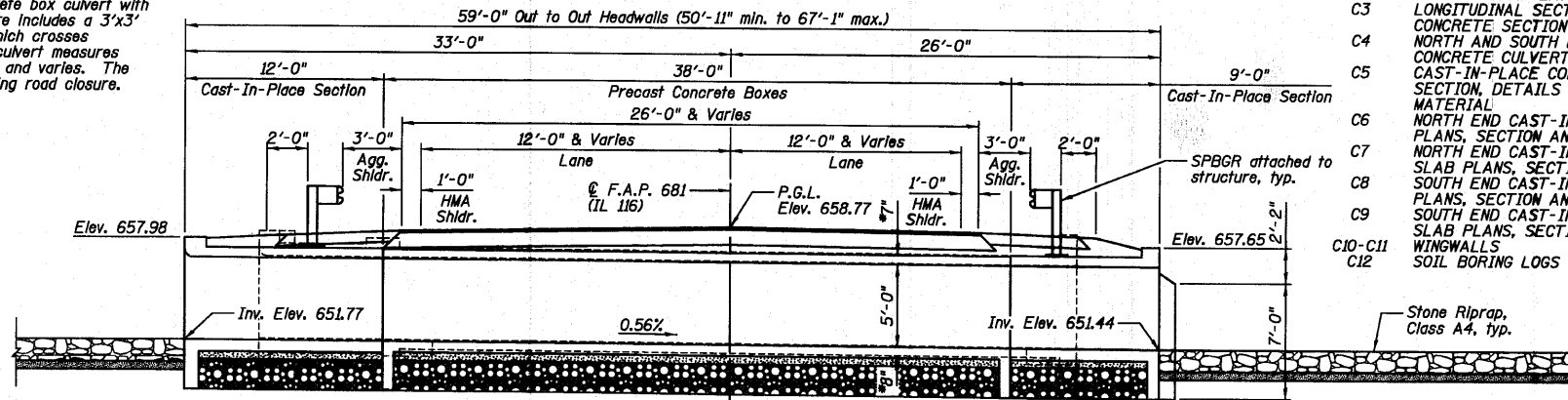
10 Yr. Velocity = 2.7 ft/sec. (Proposed)  
 10 Yr. Velocity = 3.2 ft/sec. (Existing)

**TOTAL BILL OF MATERIAL-BOX CULVERT**

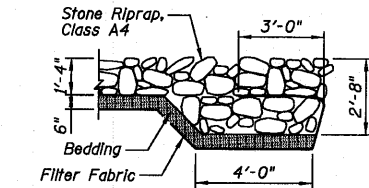
ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu. Yd.	96
Stone Riprap, Class A4	Sq. Yd.	415
Filter Fabric	Sq. Yd.	415
Removal Of Existing Structures No. 3	Each	1
Removal Of Existing Structures No. 4	Each	1
Reinforcement Bars	Pound	8,090
Concrete Box Culverts	Cu. Yd.	47.7
Precast Concrete Box Culvert 6'x5' (M273)	Foot	76
Rock Fill	Cu. Yd.	94

**GENERAL NOTES**

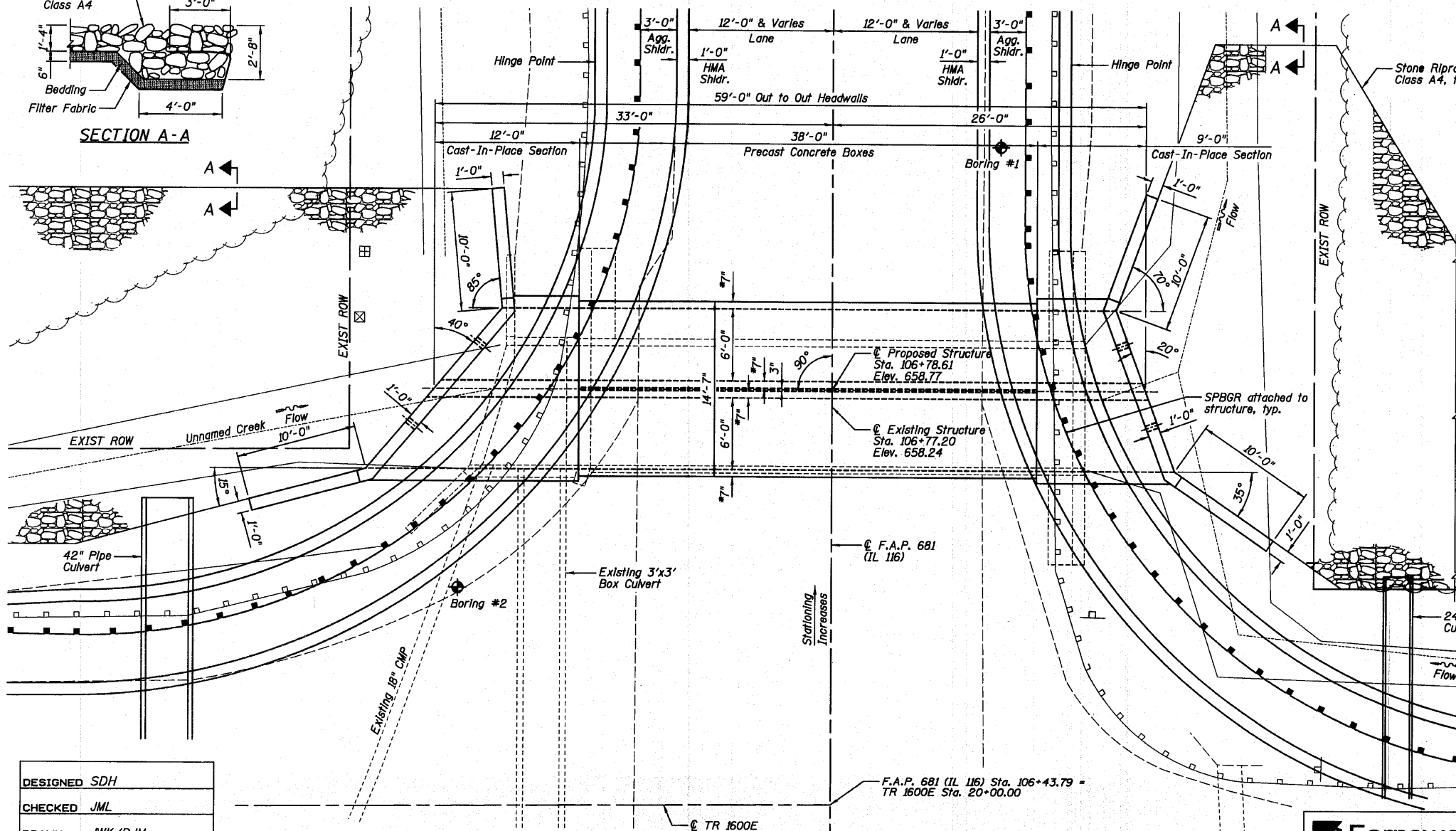
- 1.) Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- 2.) Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 3.) Cast-in-Place concrete exposed edges shall be beveled  $\frac{3}{4}$ ".
- 4.) It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction area free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with the cost of "Concrete Box Culverts".
- 5.) Structural seal does not include design of precast elements.
- 6.) The precast concrete culvert sections shall be designed and manufactured in accordance with AASHTO M273 (ASTM C 850).
- 7.) For backfilling and embankment, see Standard Specifications.
- 8.) End of precast section shall not have a bell or spigot.
- 9.) Contractor to confirm all precast culvert dimensions with supplier before starting construction. All applicable cast-in-place concrete dimensions shall match precast culvert dimensions.
- 10.) See Sheet C12 for soil borings.
- 11.) The last section of precast culvert shall have an integral toe wall and reinforcing bars extending from the precast culvert as shown on Sheet C2.
- 12.) The pay item "Removal and Disposal of Unsuitable Material" shall include the excavation of unsuitable material for a depth of  $\pm 2'-4'$  below the structure for a width of 18'-7" within the limits of the toe walls as shown on the plans. The actual amount shall be determined in the field by the Engineer.
- 13.) The pay item "Rock Fill" shall include the placement of Gradation 1 and CA-7 below the structure for a width of 18'-7" within the limits of the toe walls as shown on the plans. The actual amount shall be determined in the field by the Engineer. See Special Provision.
- 14.) The Contractor shall reshape the channel within the Right-Of-Way in order to facilitate drainage and the placement of riprap as directed by the Engineer. The cost of reshaping the channel shall be included in the cost of "Removal of Existing Structures No. 4".
- 15.) Alternate extended bars from precast section in slabs so top and bottom mats of reinforcement do not lap at the same location.
- 16.) I.F. denotes Inside Face, O.F. denotes Outside Face, E.F. denotes Each Face, B.F. denotes Back Face, and F.F. denotes Front Face.
- 17.) At least 6' of the culvert walls shall be poured with the wingwalls.



**LONGITUDINAL SECTION**  
 (Looking East @ C of Culvert)



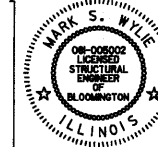
**SECTION A-A**



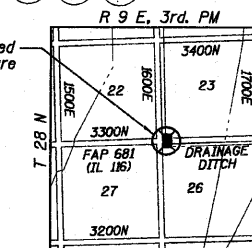
**PLAN**

**NOTES:**

- 1.) \*Confirm slab and wall thickness with Precaster.
- 2.) P.G.L. Denotes Profile Grade Line.
- 3.) See Roadway plans for ROW location.



Mark S. Wylie Date 8/17/10  
 MARK S. WYLIE  
 ILLINOIS STRUCTURAL ENGINEER  
 NO. 081-005002  
 Exp. Date 11/30/10



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
**IL. ROUTE 116 OVER**  
**UNNAMED CREEK**  
**F.A.P. 681 - SECTION (116)**  
**FORD COUNTY**  
**STATION 106+78.61**  
**STRUCTURE NO. 027-2553**

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

**Farnsworth GROUP, INC.**  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

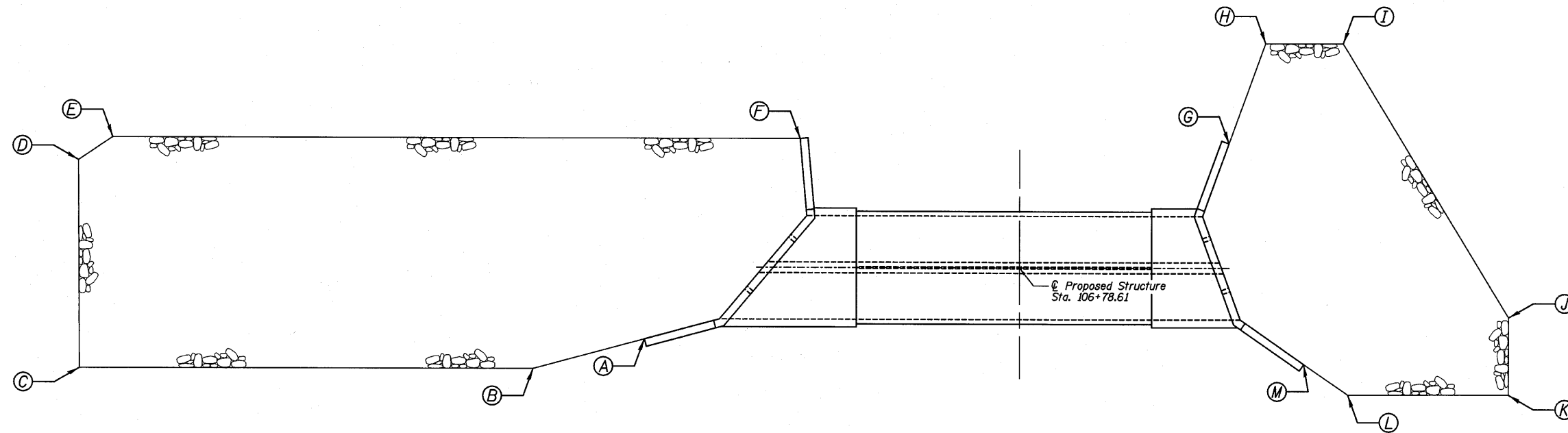
SHEET NO. C1  
 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	56
CONTRACT NO. 66880				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



STONE RIPRAP LAYOUT PLAN

STONE RIPRAP LOCATION

Location	Station	Offset
A	106+69	48' LT.
B	106+65	63' LT.
C	106+65	121' LT.
D	106+92	121' LT.
E	106+95	117' LT.
F	106+95	28' LT.
G	106+95	27' RT.
H	107+08	32' RT.
I	107+08	42' RT.
J	106+72	63' RT.
K	106+62	63' RT.
L	106+62	42' RT.
M	106+66	37' RT.

Note: Stations and offsets for the Stone Riprap, Class A4 are from the roadway  $\phi$ .

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

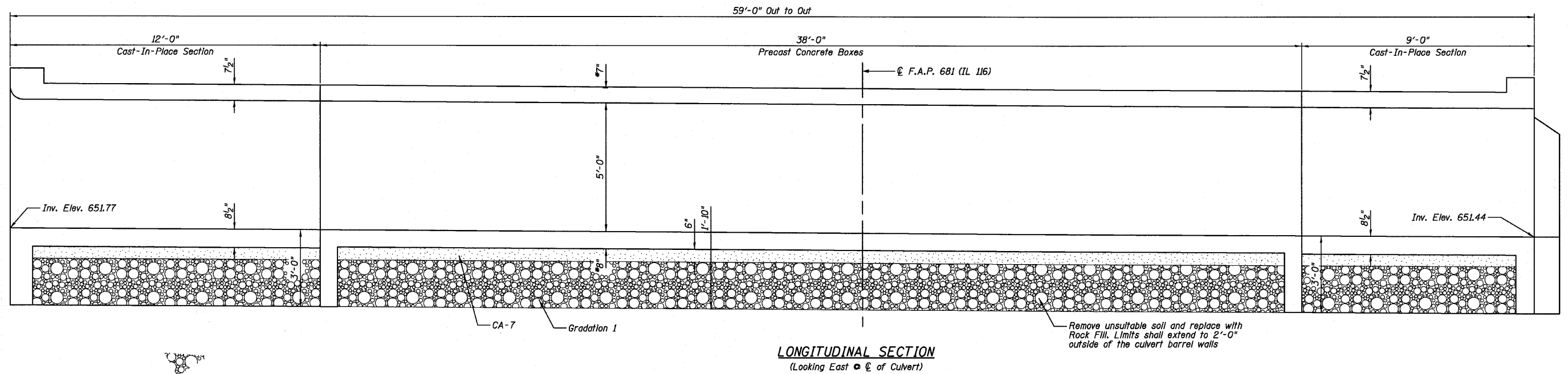
STONE RIPRAP LAYOUT PLAN  
STRUCTURE NO. 027-2553

<b>Farnsworth</b> GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. C2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12 SHEETS	681	*	FORD/IROQUOIS	146	57
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
				CONTRACT NO. 66880		

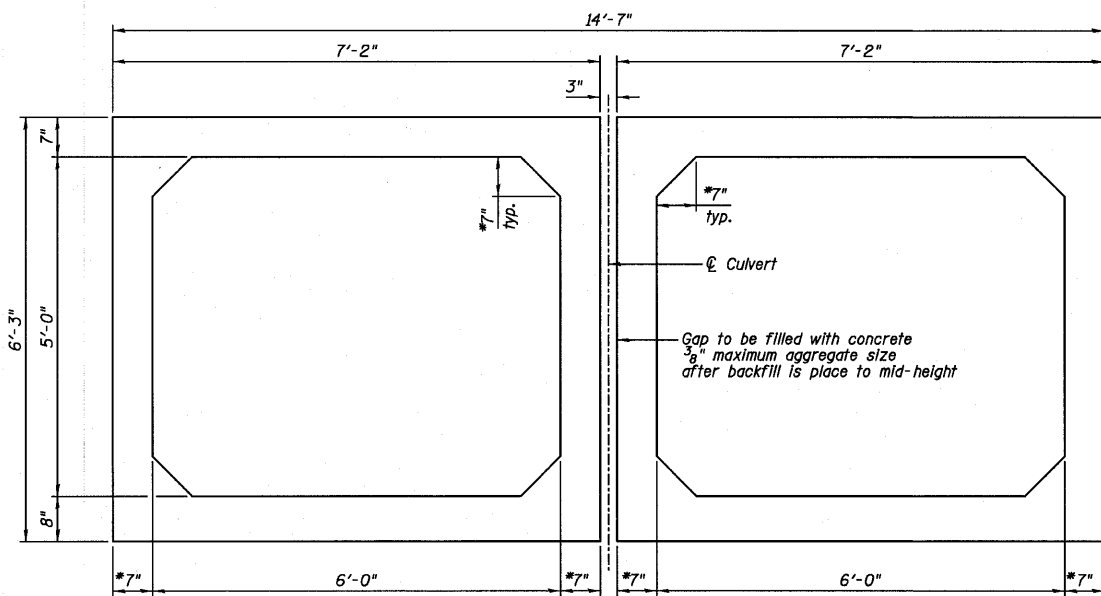
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24-8271

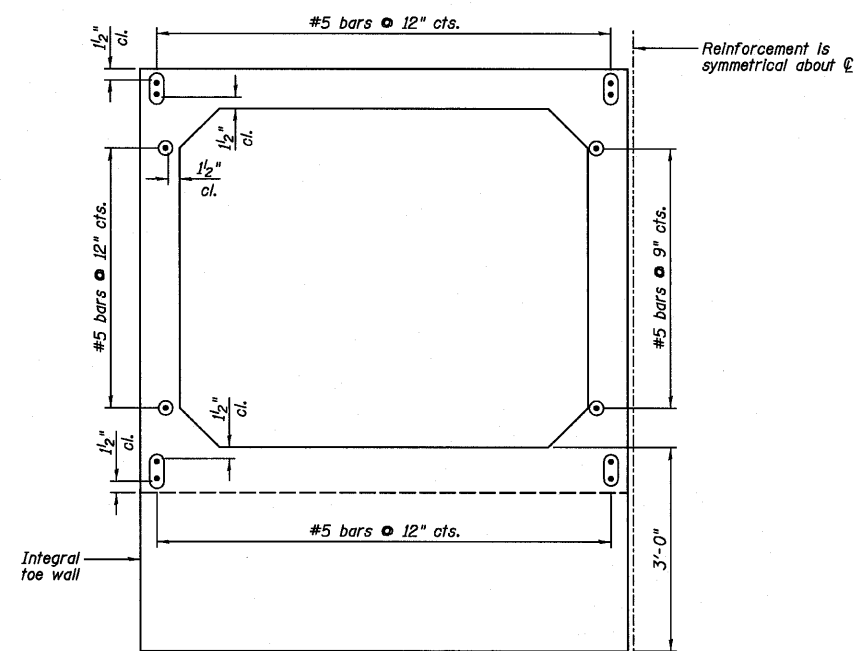
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**LONGITUDINAL SECTION**  
(Looking East of Culvert)



**SECTION THRU PRECAST CONCRETE BARRELS**



**PRECAST CONCRETE CULVERT END ELEVATION**  
Section is symmetrical about  $\varnothing$  Culvert

**NOTES:**

- 1.) Confirm slab and wall thickness with Precaster.
- 2.) For Cast-In-Place concrete portions, see Sheet C4-C9.
- 3.) B.O.F. denotes Bottom Of Footing.
- 4.) Cost of reinforcing bars extending from precast barrels included with the cost of Precast Concrete Box Culvert.

**LONGITUDINAL SECTION,  
PRECAST CONCRETE  
SECTION AND ELEVATION  
STRUCTURE NO. 027-2553**

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. C3

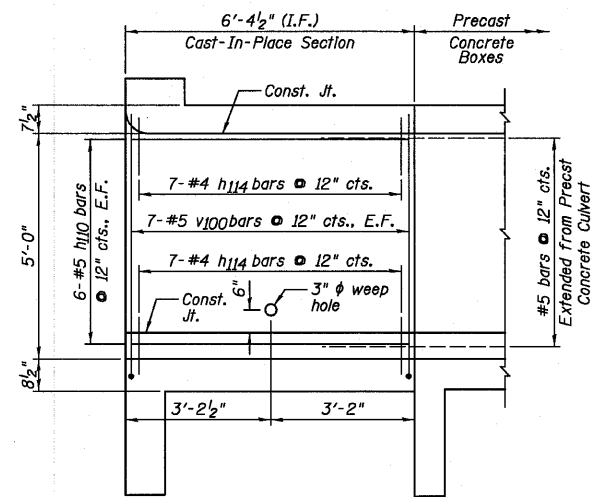
12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	58
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

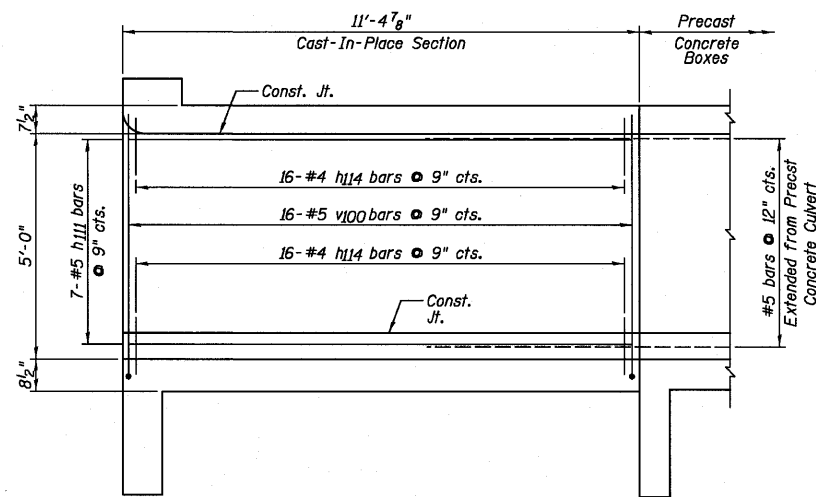
\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

24-8271

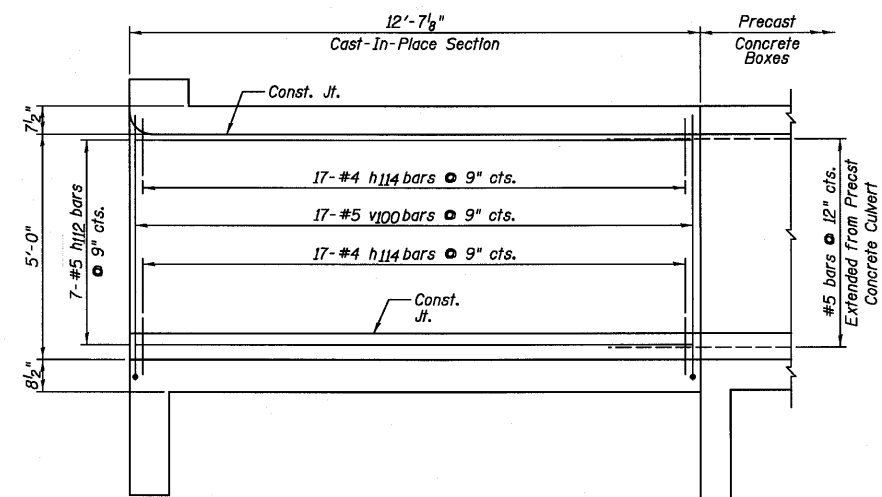
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



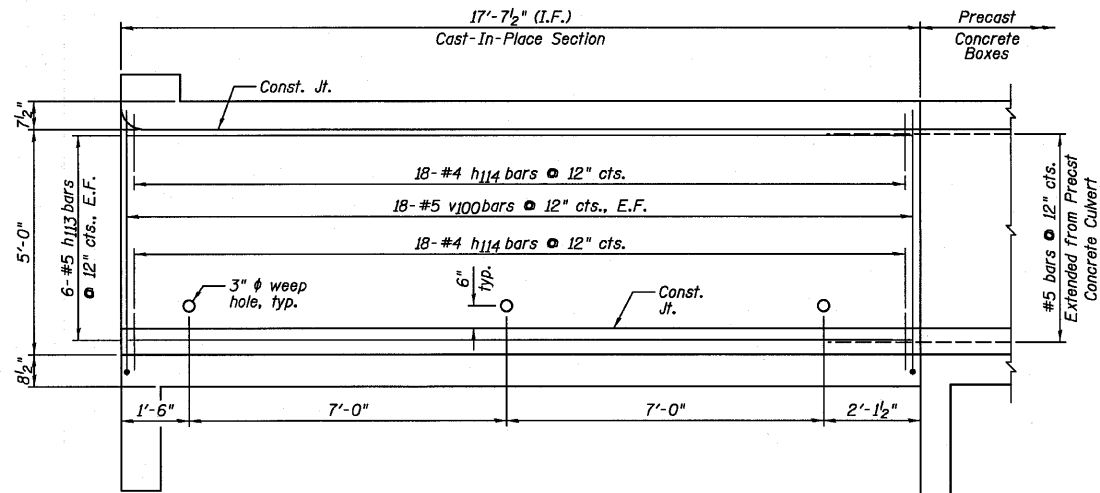
**NORTH EAST EXTERIOR WALL  
ELEVATION (SHORT)**



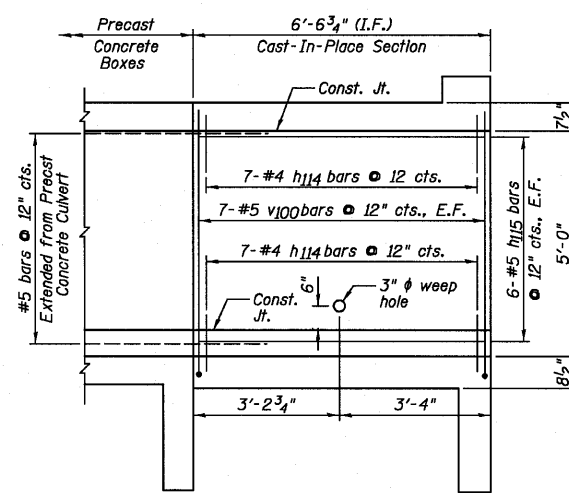
**NORTH INTERIOR WALL  
ELEVATION (SHORT) EAST FACE**



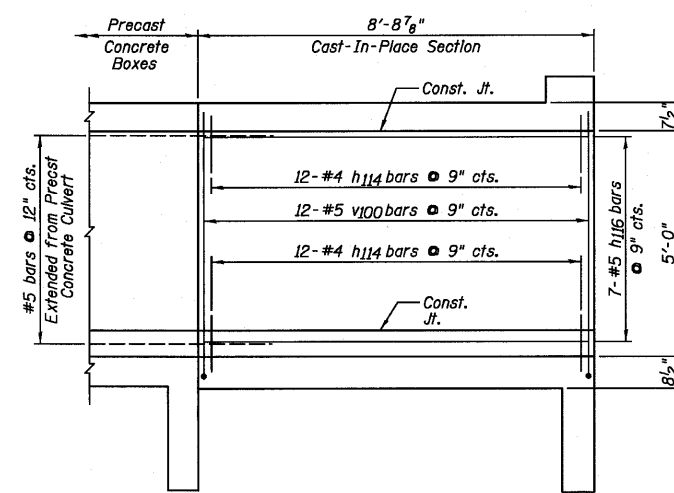
**NORTH INTERIOR WALL  
ELEVATION (LONG) WEST FACE**



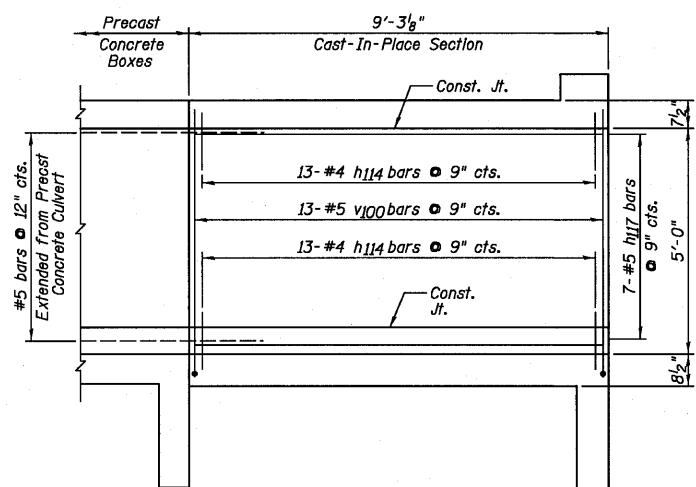
**NORTH WEST EXTERIOR WALL  
ELEVATION (LONG)**



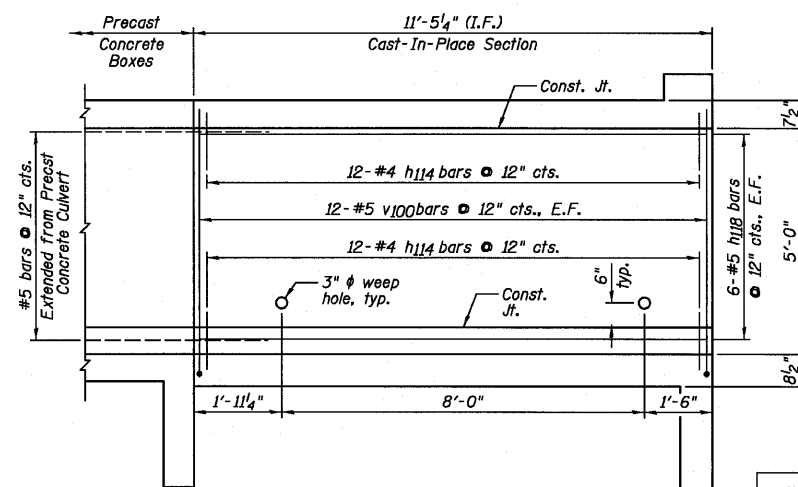
**SOUTH EAST EXTERIOR WALL  
ELEVATION (SHORT)**



**SOUTH INTERIOR WALL  
ELEVATION (SHORT) EAST FACE**



**SOUTH INTERIOR WALL  
ELEVATION (LONG) WEST FACE**



**SOUTH WEST EXTERIOR WALL  
ELEVATION (LONG)**

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**NORTH AND SOUTH END  
CAST-IN-PLACE WALL SECTIONS  
STRUCTURE NO. 027-2553**

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/683-8435, 309/683-1571 fax

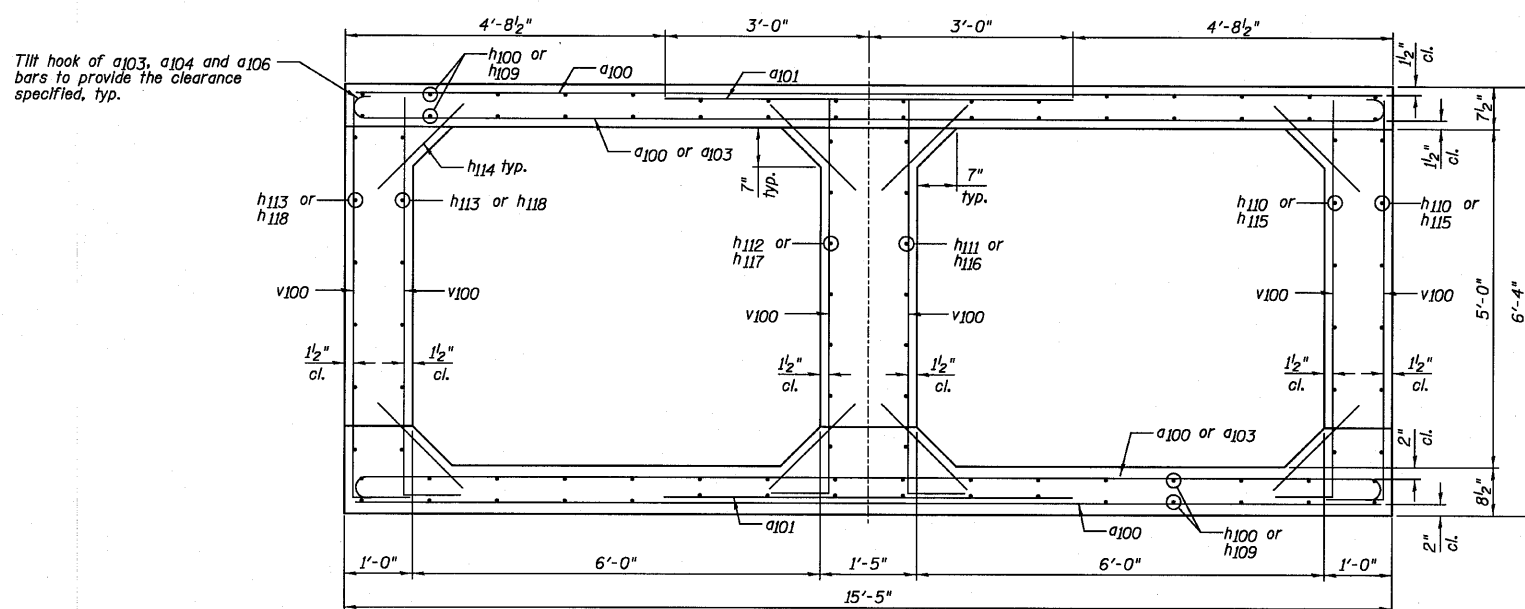
SHEET NO. C4  
12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	59
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

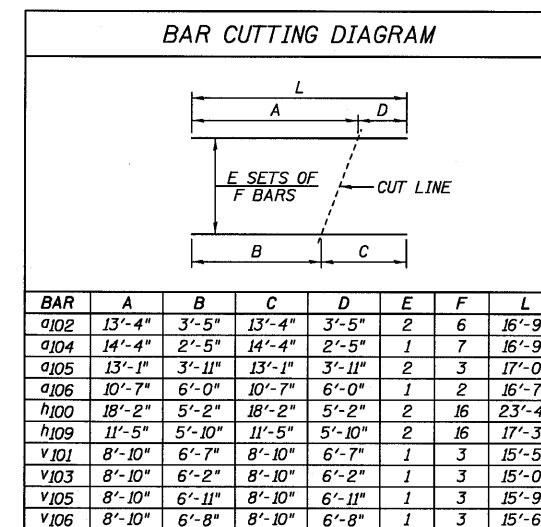
\* 116 BR/L116 BR, (BR-2)BR, I & BR-31

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



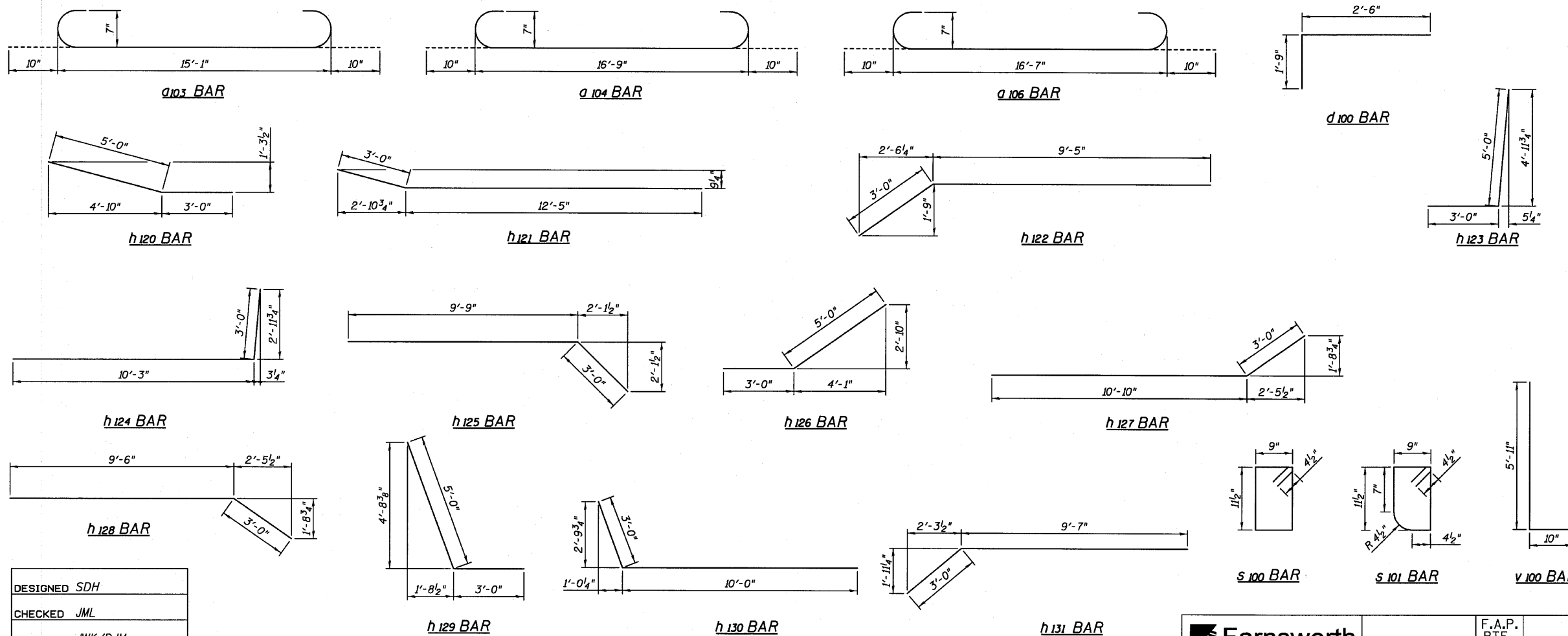
SECTION THRU CAST-IN-PLACE CONCRETE BARREL  
(Looking North)



Note: "L" dimension does not take into account the hook length for the hooked bar a104 and a106.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a100	32	#7	15'-1"	---
a102	22	#7	6'-0"	---
a104	12	#7	16'-9"	---
a103	14	#7	16'-9"	(C)
a104	7	#7	18'-5"	(C)
a105	6	#7	17'-0"	---
a106	2	#7	18'-3"	(C)
d100	78	#4	4'-3"	---
h100	32	#5	23'-4"	---
h101	4	#6	18'-0"	---
h102	3	#5	5'-2"	---
h103	3	#5	18'-2"	---
h104	4	#5	19'-9"	---
h105	4	#6	15'-0"	---
h106	4	#5	16'-2"	---
h107	3	#5	11'-5"	---
h108	3	#5	5'-10"	---
h109	32	#5	17'-3"	---
h110	12	#5	5'-4"	---
h111	7	#5	11'-1"	---
h112	7	#5	12'-1"	---
h113	12	#5	17'-5"	---
h114	204	#4	1'-9"	---
h115	12	#5	5'-11"	---
h116	7	#5	8'-5"	---
h117	7	#5	8'-10"	---
h118	12	#5	11'-2"	---
h119	16	#5	9'-8"	---
h120	6	#5	8'-0"	---
h121	6	#5	15'-5"	---
h122	5	#5	12'-5"	---
h123	6	#5	8'-0"	---
h124	6	#5	13'-3"	---
h125	5	#5	12'-9"	---
h126	7	#5	8'-0"	---
h127	7	#5	13'-10"	---
h128	5	#5	12'-6"	---
h129	6	#5	8'-0"	---
h130	6	#5	13'-0"	---
h131	5	#5	12'-7"	---
s100	16	#4	4'-2"	---
s101	19	#4	4'-0"	---
v100	146	#5	6'-9"	---
v101	3	#4	15'-5"	---
v102	3	#4	8'-3"	---
v103	3	#4	15'-0"	---
v104	9	#4	8'-9"	---
v105	3	#4	15'-9"	---
v106	3	#4	15'-6"	---
Item	Unit	Quantity		
Reinforcement Bars	Pound	8,090		
Concrete Box Culverts	Cu. Yd.	47.7		



DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

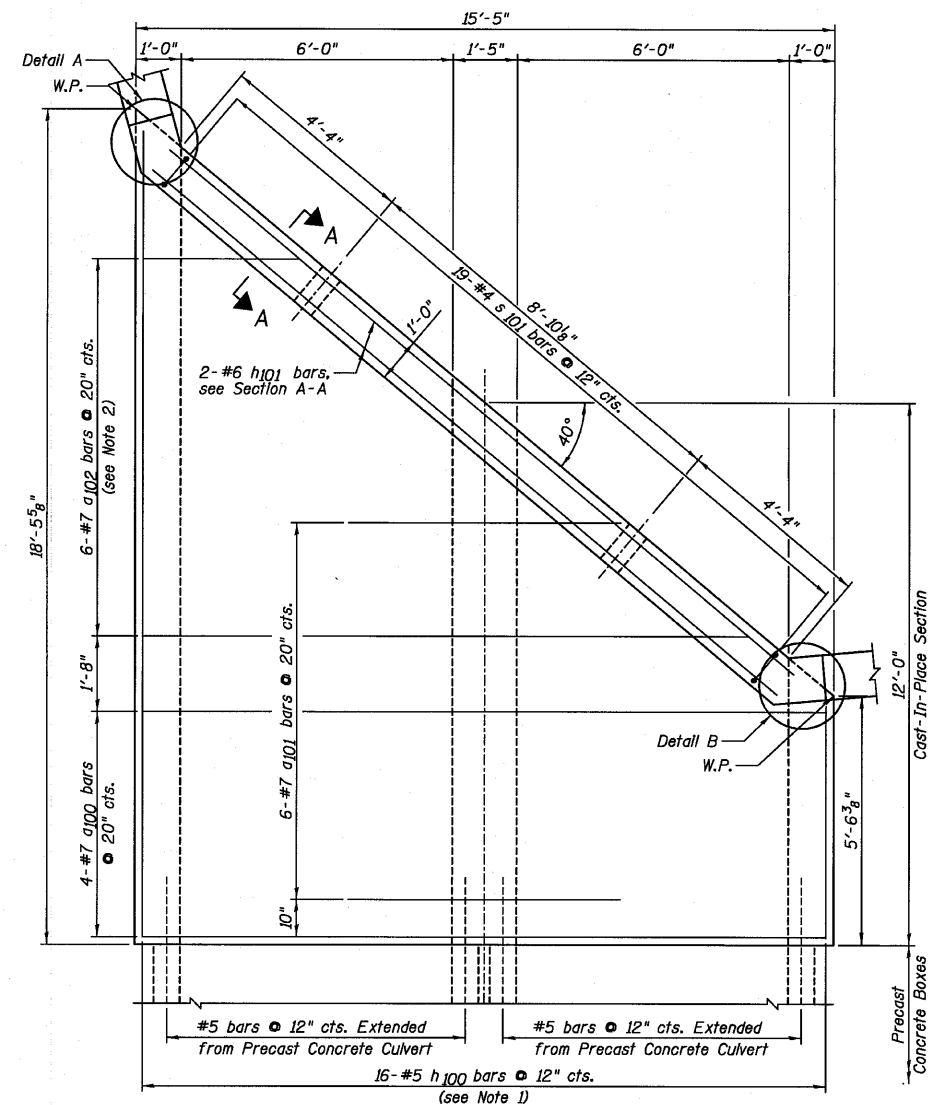
**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. C5	F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 60
12 SHEETS	FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		
			CONTRACT NO. 66880		

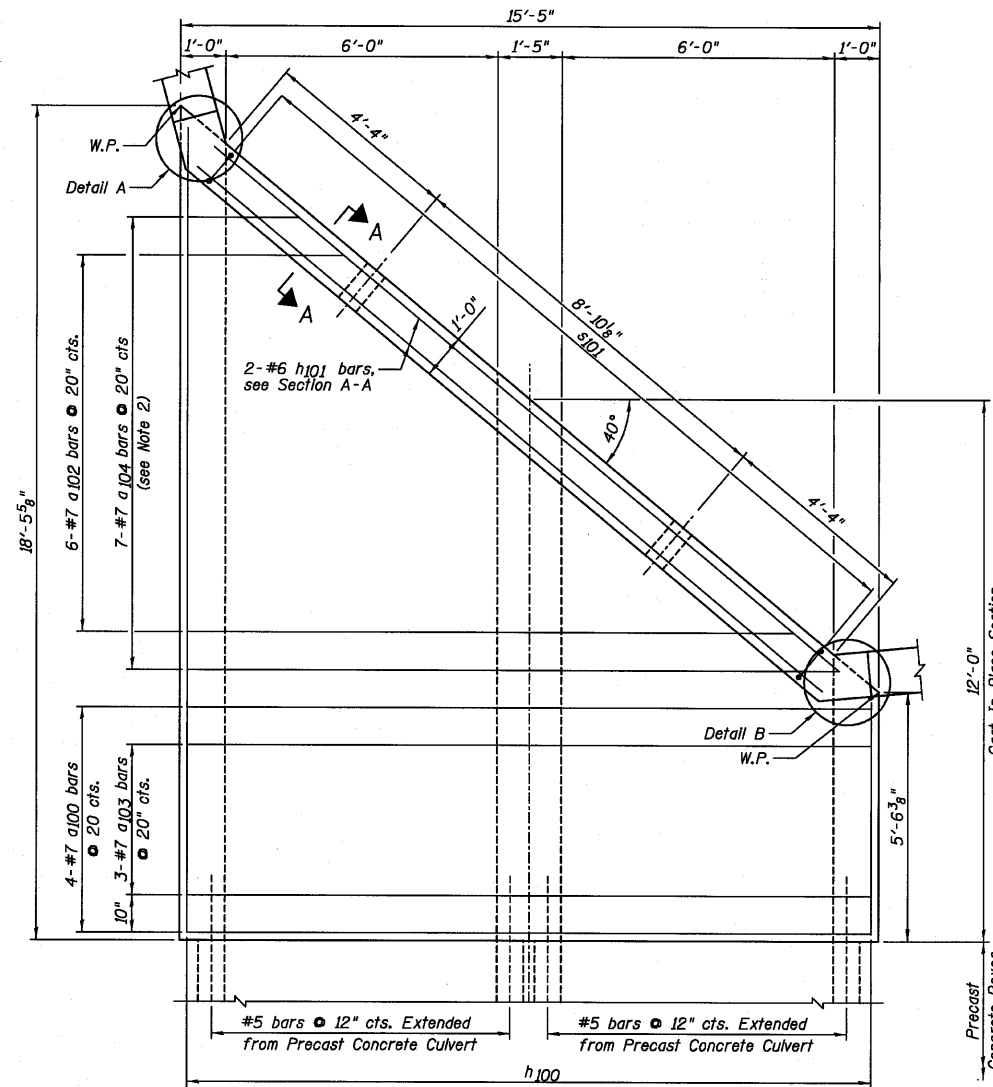
CAST-IN-PLACE  
CONCRETE CULVERT  
SECTION, DETAILS AND  
BILL OF MATERIAL  
STRUCTURE NO. 027-2553



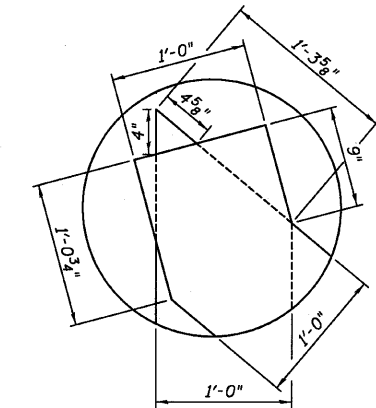
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



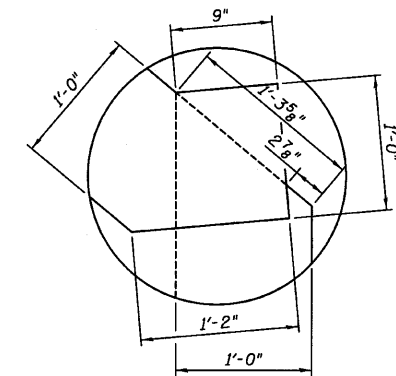
TOP MAT OF REINFORCEMENT PLAN



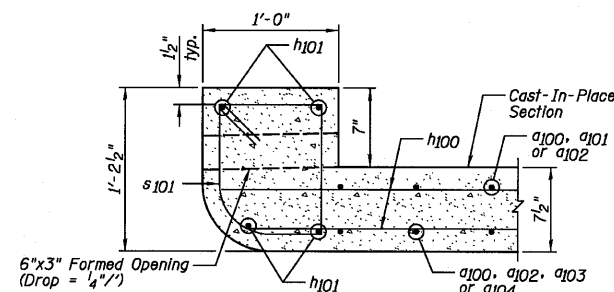
BOTTOM MAT OF REINFORCEMENT PLAN



DETAIL A



DETAIL B



SECTION A-A

NOTES:

- 1.) Order h100 bars full length, cut according to Bar Cutting Diagram on Sheet C5. Use remainder of bars in bottom mat.
- 2.) Order a102 and a104 bars full length, cut according to Bar Cutting Diagram on Sheet C5. Use remainder of bars in bottom slab.
- 3.) For Bill of Material, see Sheet C5.
- 4.) W.P. denotes Working Point.

NORTH END CAST-IN-PLACE  
TOP SLAB PLANS,  
SECTION AND DETAILS  
STRUCTURE NO. 027-2553

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. C6

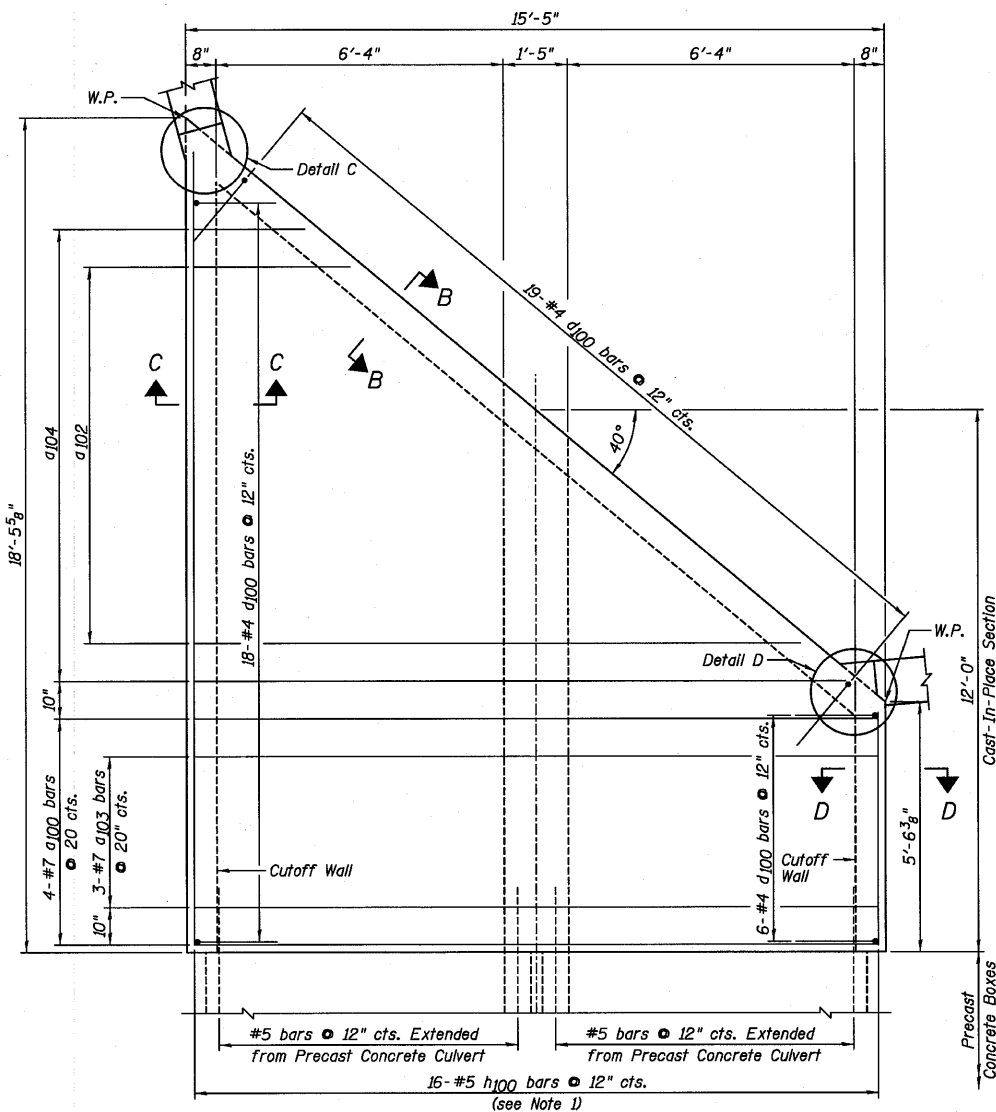
12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	61
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

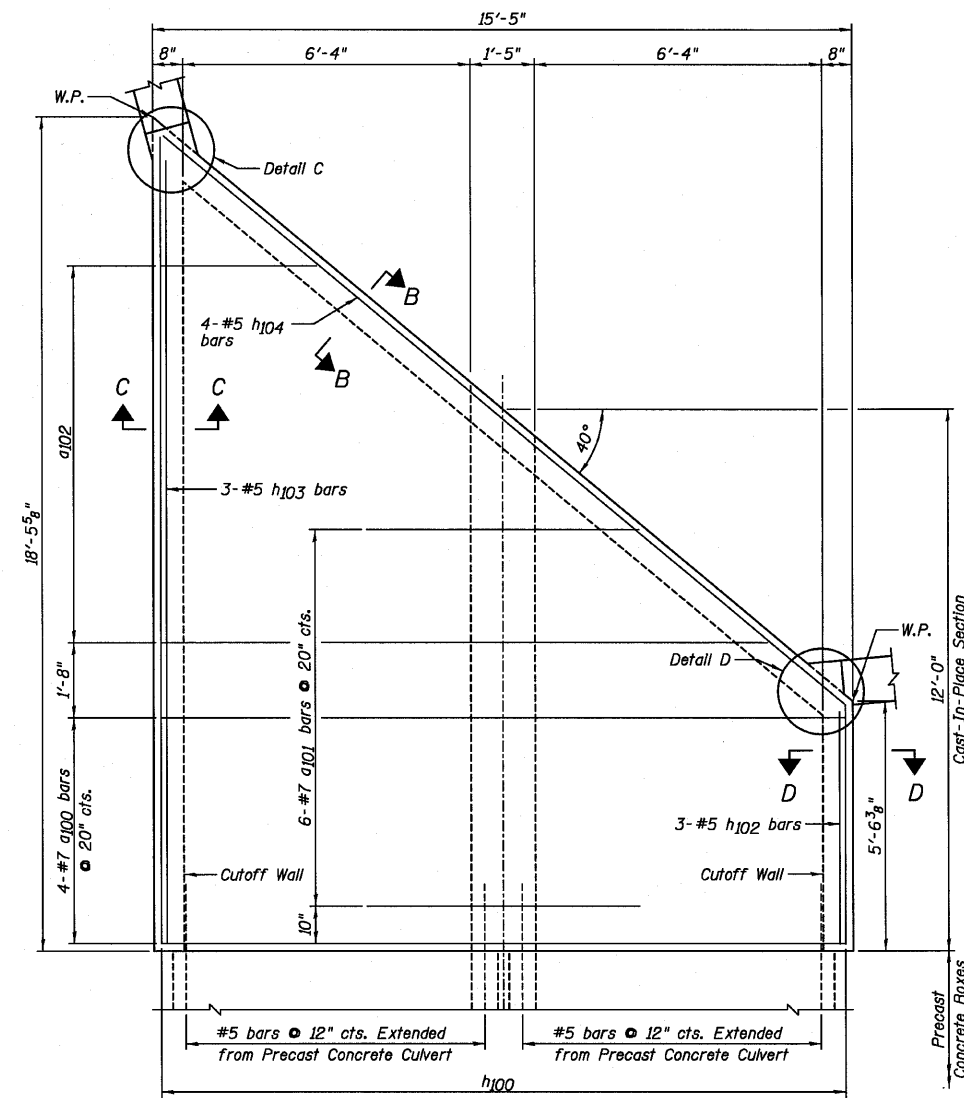
\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271

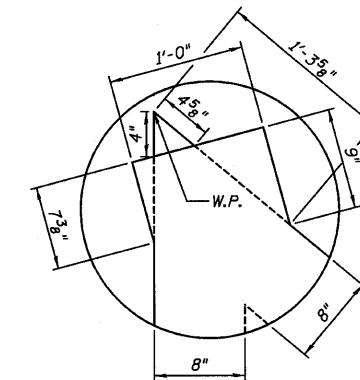
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



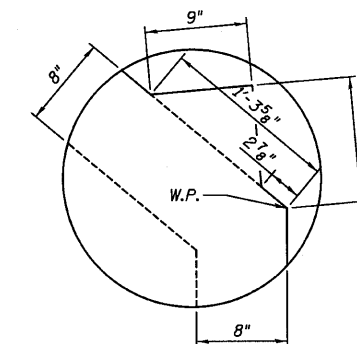
TOP MAT OF REINFORCEMENT PLAN



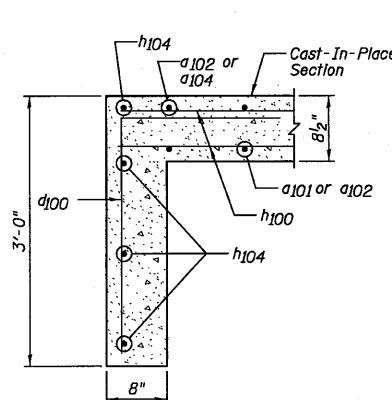
BOTTOM MAT OF REINFORCEMENT PLAN



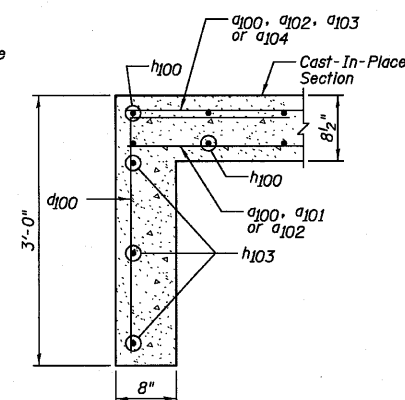
DETAIL C



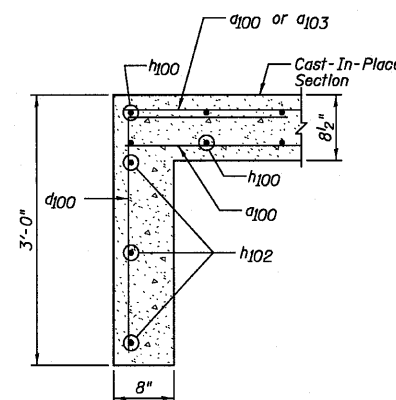
DETAIL D



SECTION B-B



SECTION C-C



SECTION D-D

NOTES:

- Order h100 bars full length, cut according to Bar Cutting Diagram on Sheet C5. Use remainder of bars in bottom mat.
- For Bill of Material, see Sheet C5.
- W.P. denotes Working Point.

NORTH END CAST-IN-PLACE  
BOTTOM SLAB PLANS,  
SECTIONS AND DETAILS  
STRUCTURE NO. 027-2553

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

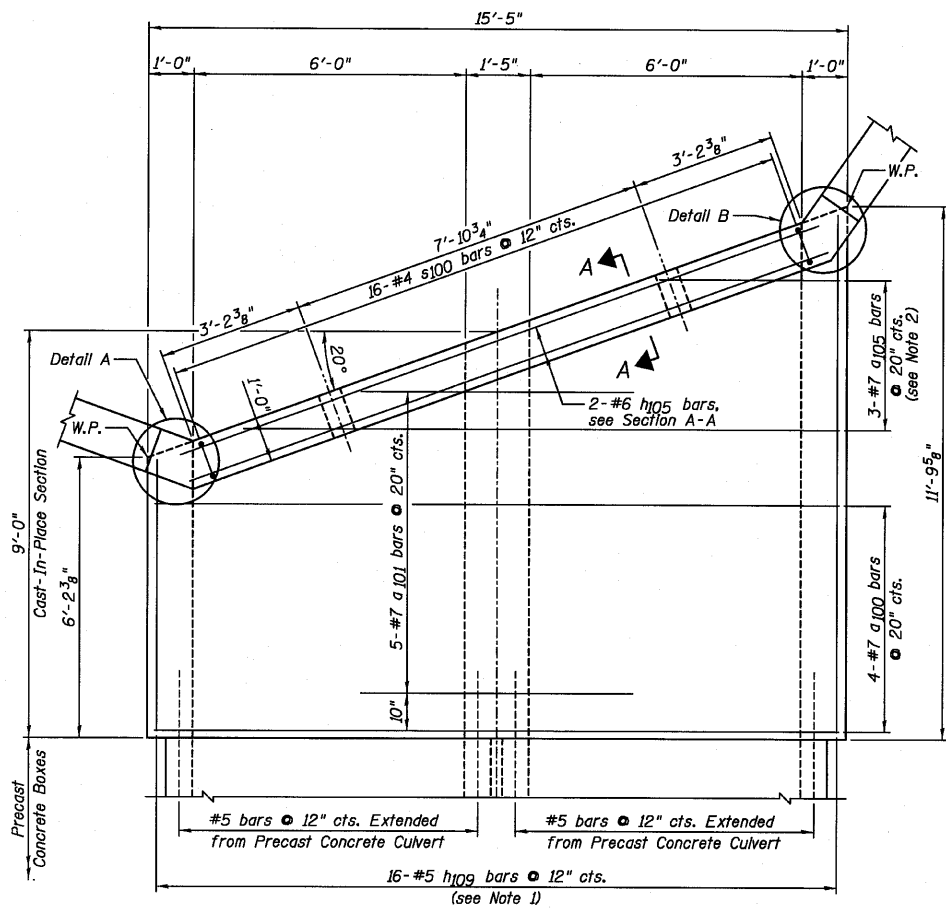
<p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	SHEET NO. C7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12 SHEETS	681	*	FORD/IROQUOIS	146	62
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	62
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66880				

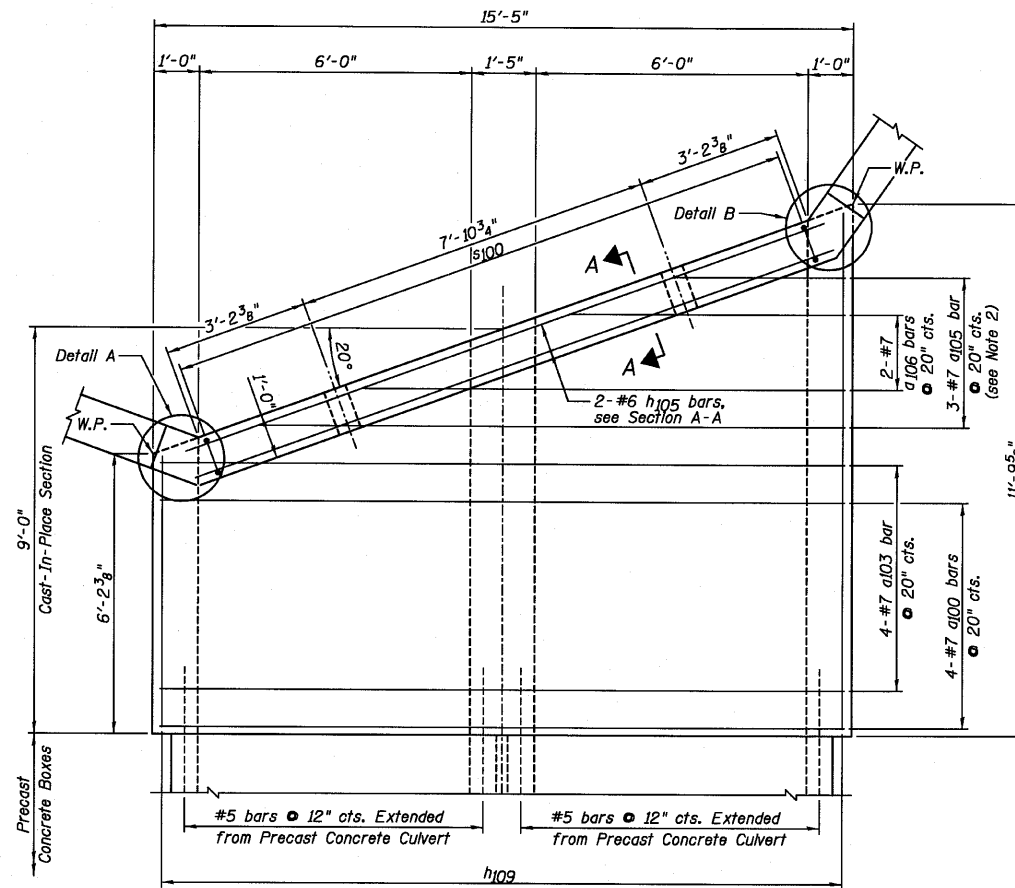
\* 116 BR/L116 BR, (BR-2)BR, I & BR-31

24-8271

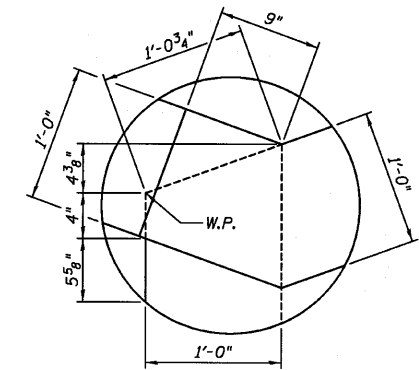
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



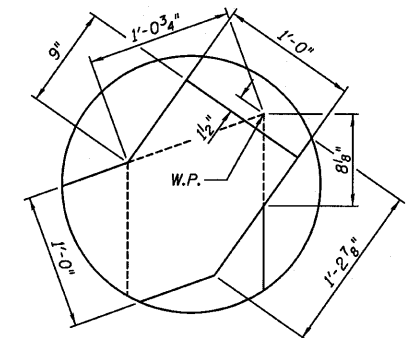
TOP MAT OF REINFORCEMENT PLAN



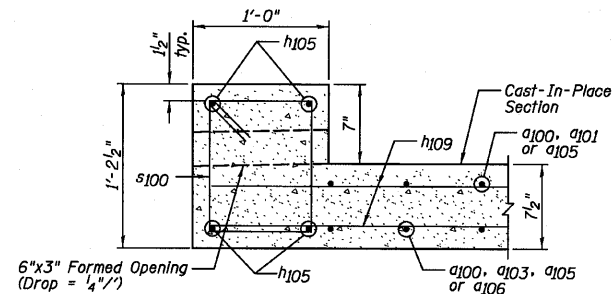
BOTTOM MAT OF REINFORCEMENT PLAN



DETAIL A



DETAIL B



SECTION A-A

NOTES:

- 1.) Order h109 bars full length, cut according to Bar Cutting Diagram on Sheet C5. Use remainder of bars in bottom mat.
- 2.) Order a105 and a106 bars full length, cut according to Bar Cutting Diagram on Sheet C5. Use remainder of bars in bottom slab.
- 3.) For Bill of Material, see Sheet C5.
- 4.) W.P. denotes Working Point.

SOUTH END CAST-IN-PLACE  
TOP SLAB PLANS,  
SECTION AND DETAILS  
STRUCTURE NO. 027-2553

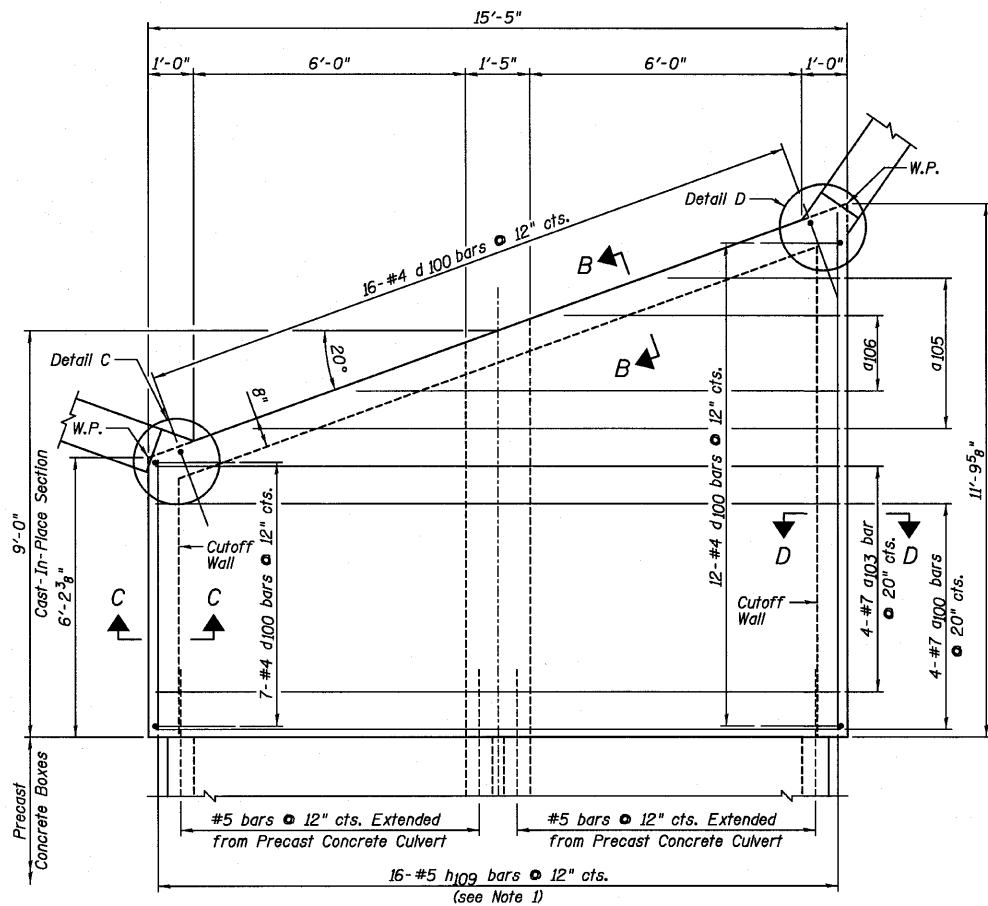
DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

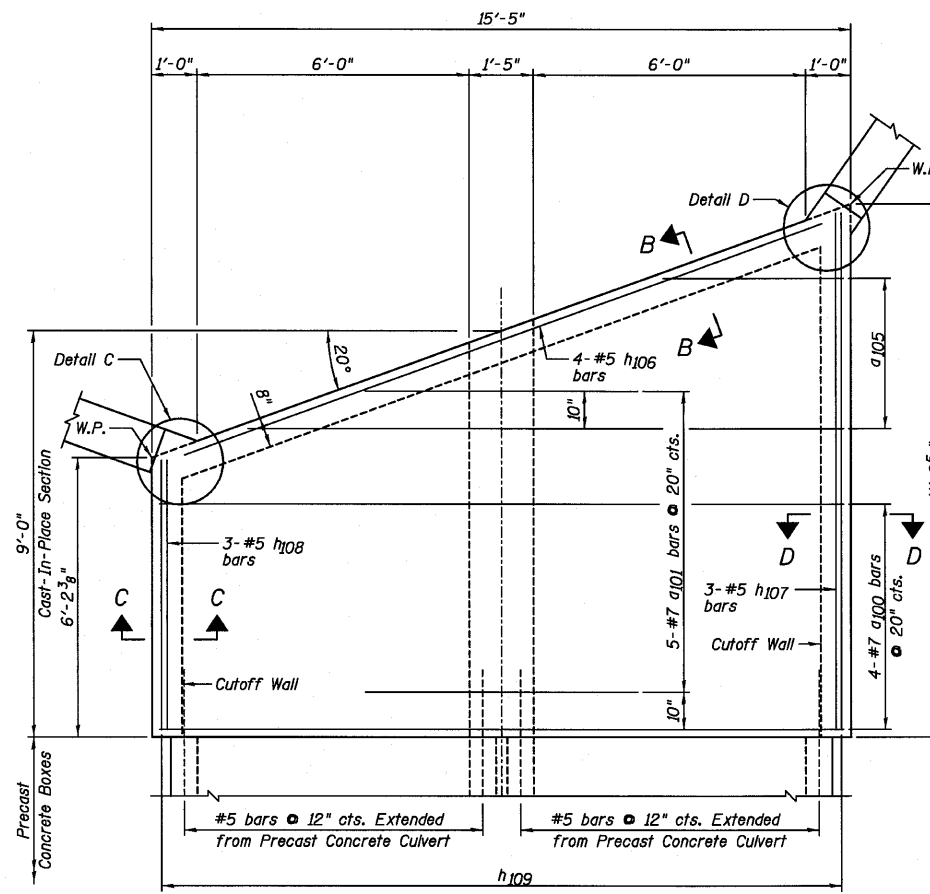
SHEET NO. C8  
12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	63
CONTRACT NO. 66880				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

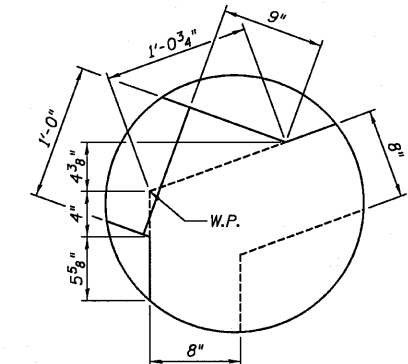
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



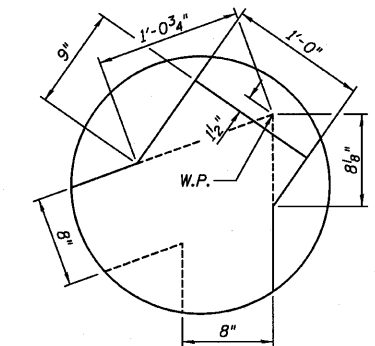
TOP MAT OF REINFORCEMENT PLAN



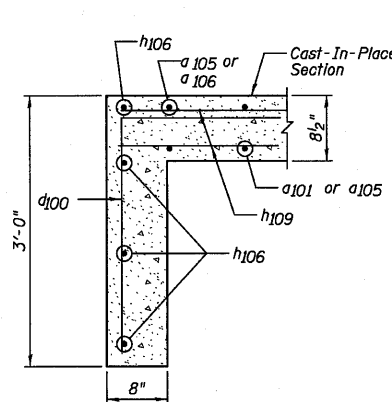
BOTTOM MAT OF REINFORCEMENT PLAN



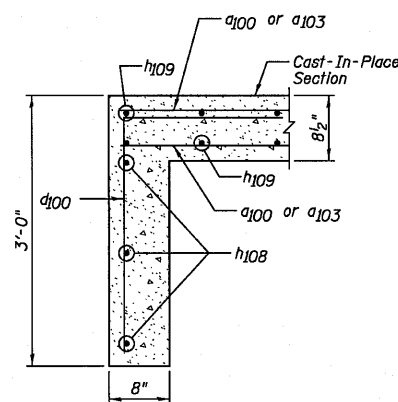
DETAIL C



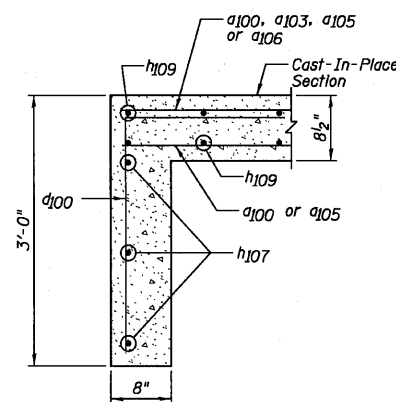
DETAIL D



SECTION B-B



SECTION C-C



SECTION D-D

NOTES:

- 1.) Order h109 bars full length, cut according to Bar Cutting Diagram on Sheet C5. Use remainder of bars in bottom mat.
- 2.) For Bill of Material, see Sheet C5.
- 3.) W.P. denotes Working Point.

SOUTH END CAST-IN-PLACE  
BOTTOM SLAB PLANS,  
SECTIONS AND DETAILS  
STRUCTURE NO. 027-2553

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

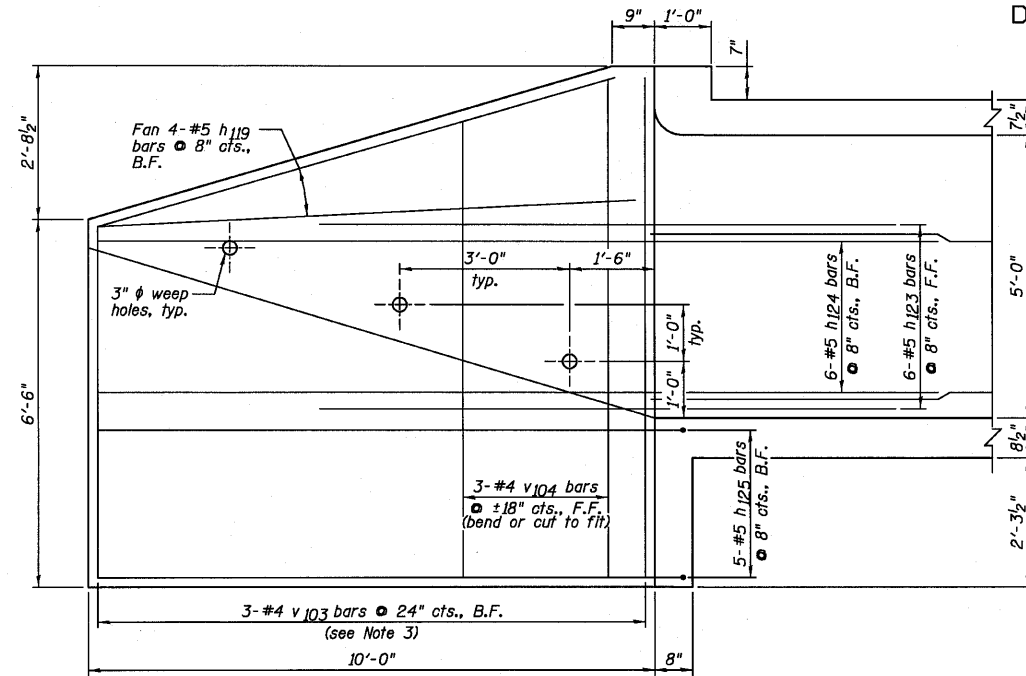
DATE 08/04/10

Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. C9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12 SHEETS	681	*	FORD/IROQUOIS	146	64
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
				CONTRACT NO. 66880		

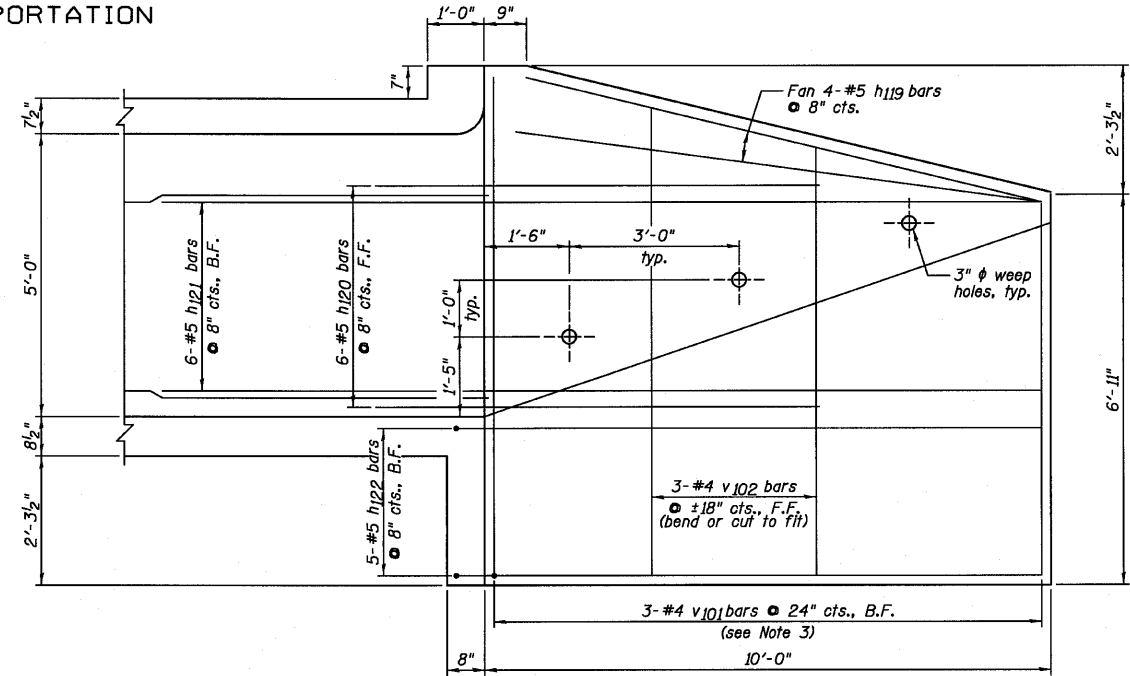
\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

24-8271

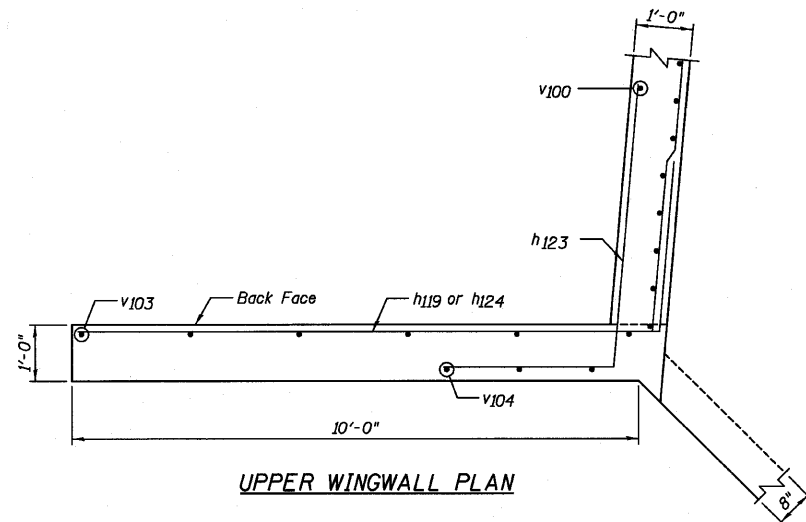
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



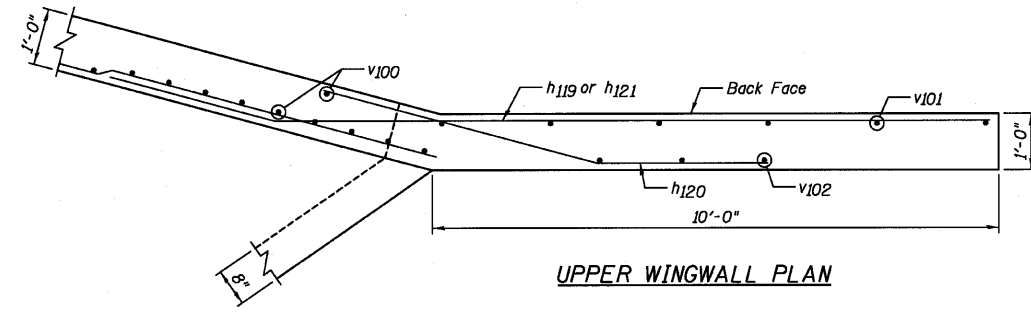
NORTHEAST WINGWALL ELEVATION



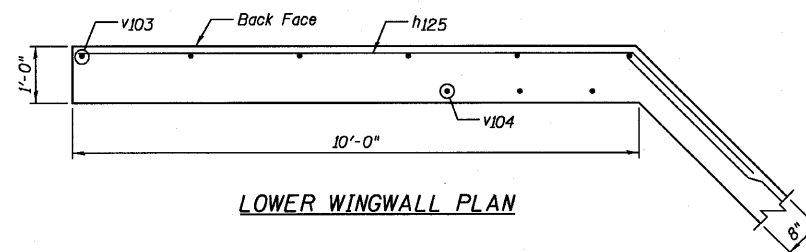
NORTHWEST WINGWALL ELEVATION



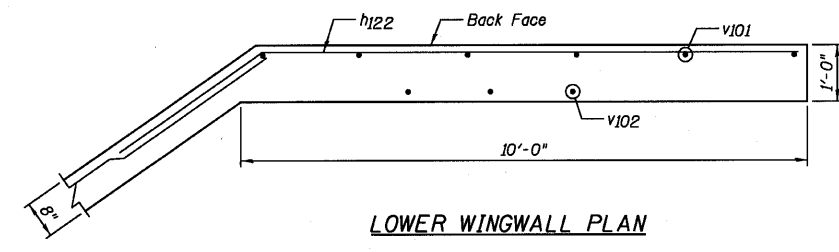
UPPER WINGWALL PLAN



UPPER WINGWALL PLAN



LOWER WINGWALL PLAN



LOWER WINGWALL PLAN

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

NOTES:

- 1.) For Bill of Material, see Sheet C5.
- 2.) For bar extension length, see Sheet C3.
- 3.) Order v101 and v103 bars full length, cut according to Bar Cutting Diagram on Sheet C5. Use all bars in back face of wingwall.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. C10

12 SHEETS

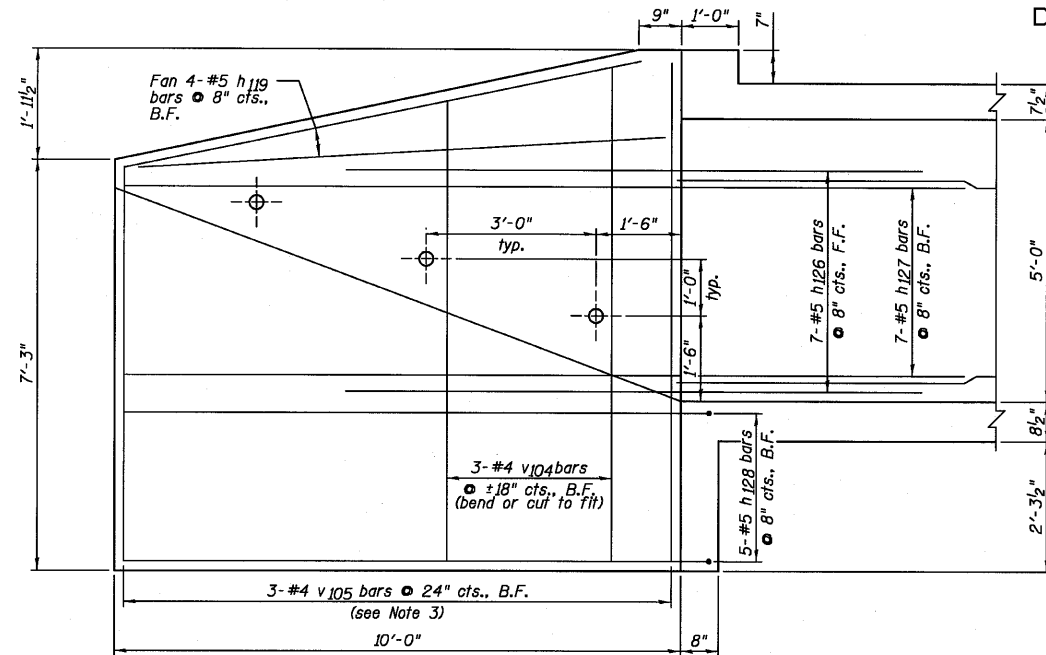
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	65
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

WINGWALLS  
STRUCTURE NO. 027-2553

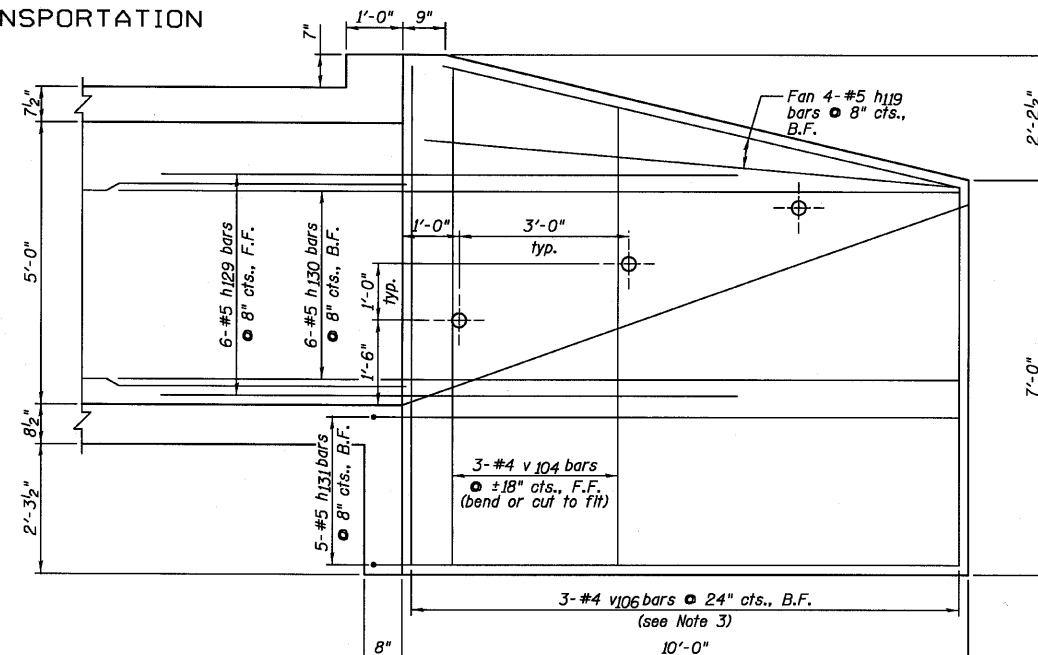
\* 116 BR/L116 BR, (BR-2)BR, I & BR-31

24-8271

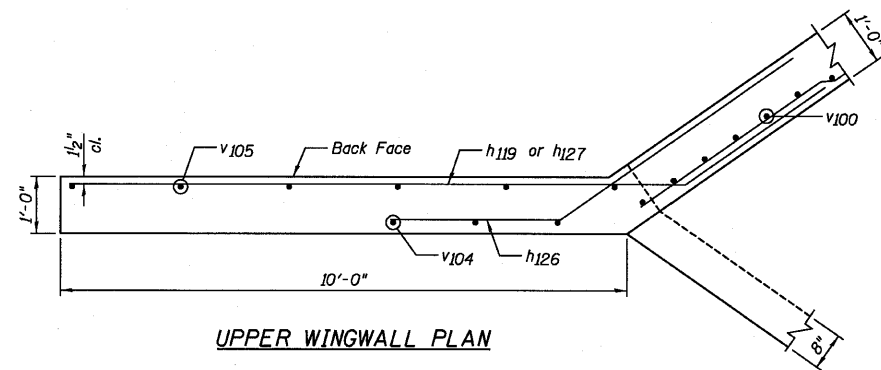
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



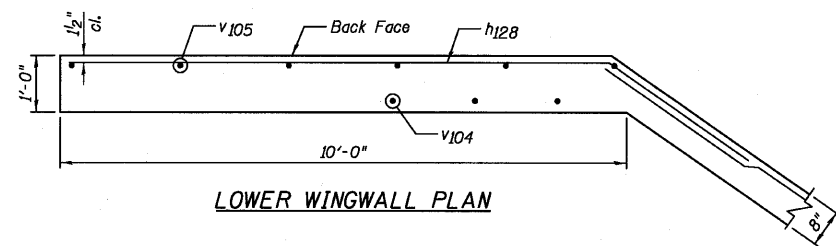
SOUTHWEST WINGWALL ELEVATION



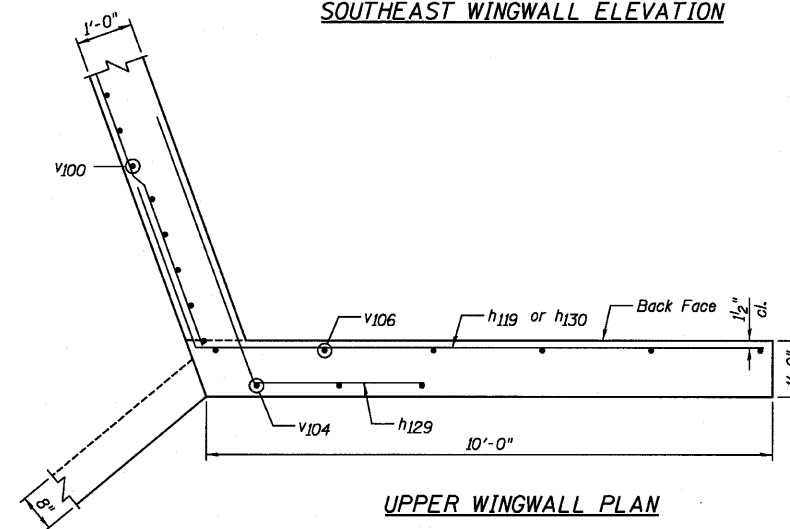
SOUTHEAST WINGWALL ELEVATION



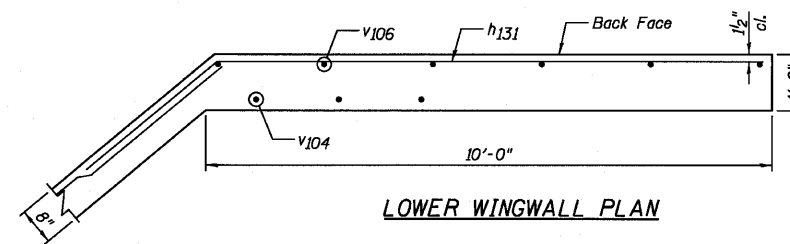
UPPER WINGWALL PLAN



LOWER WINGWALL PLAN



UPPER WINGWALL PLAN



LOWER WINGWALL PLAN

NOTES:

- 1.) For Bill of Material, see Sheet C5.
- 2.) For bar extension length, see Sheet C3.
- 3.) Order v105 and v106 bars full length, cut according to Bar Cutting Diagram on Sheet C5. Use all bars in back face of wingwall.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. C11  
12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	66
CONTRACT NO. 66880				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

WINGWALLS  
STRUCTURE NO. 027-2553

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WATERWAY INFORMATION

Drainage Area = 9.48 Sq. Mi.		Low Grade Elev. 657.31 @ Sta. 135+00.00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	50	1595	424	611	655.7	0.0	0.0	655.8	655.8
Base	100	1855	480	678	656.6	0.0	0.0	656.6	656.6
Overtopping	375	2325	571	794	657.9	0.0	0.0	657.9	657.9
Max. Calc.	500	2482	570	819	658.5	0.3	0.2	658.8	658.7

10 Yr. Velocity = 2.2 ft/sec. (Proposed)  
10 Yr. Velocity = 3.2 ft/sec. (Existing)

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	West Abutment	Pier 1	Pier 2	East Abutment
	655.32	638.90	638.90	655.38

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Edition (with 2008 and 2009 Interim Revisions)

DESIGN STRESSES

FIELD UNITS  
f'c = 3,500 psi (Cast-in-Place)  
fy = 60,000 psi (Reinforcement)

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.077 g  
Design Spectral Acceleration at 0.2 sec. (SDs) = 0.132 g  
Soil Site Class = C

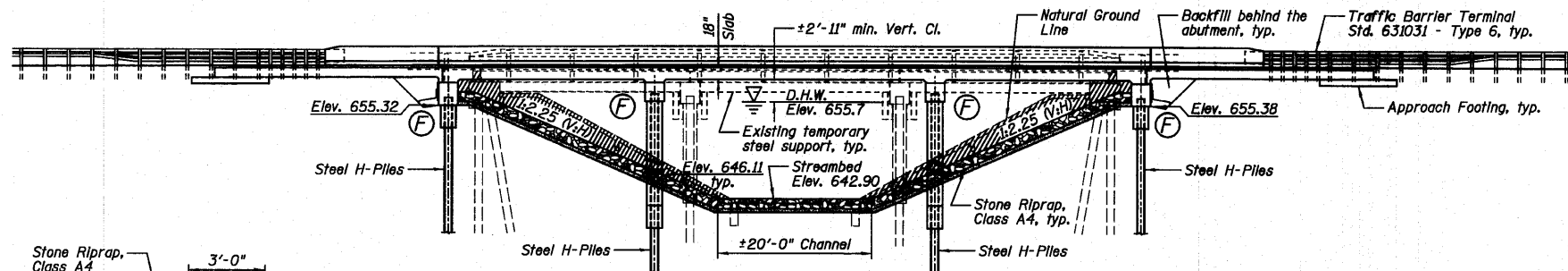
INDEX OF SHEETS

SHEET NO.	TITLE
D1	GENERAL PLAN AND ELEVATION
D2	GENERAL DATA
D3	TOP OF SLAB ELEVATION LOCATIONS AND ELEVATIONS
D4	APPROACH SLAB ELEVATIONS
D5-D6	SUPERSTRUCTURE DECK
D7	SUPERSTRUCTURE CROSS SECTION
D8	SUPERSTRUCTURE DETAILS
D9-D10	BRIDGE APPROACH SLAB DETAILS
D11	WEST ABUTMENT
D12	EAST ABUTMENT
D13	PIER NO. 1
D14	PIER NO. 2
D15	PIER DETAILS
D16	HP PILE DETAILS
D17-D18	SOIL BORING LOGS

- Benchmarks: 1.) Benchmark Chiseled "□" on Northeast corner of bridge on wingwall, Station 141+90/17' LT., Elevation = 659.76.  
2.) Benchmark Railroad spike in power pole South side of IL Route 116, Station 142+10/39' RT., Elevation = 657.59.

Existing Structure: S.N. 027-0045, built in 1972 as SBI 116 Section 116BR-2. The superstructure consists of simple span precast prestressed concrete deck beams with a steel railing attached to the exterior beams and a bituminous wearing surface. The substructure consists of concrete pile bent abutments supported by precast concrete piles and two concrete solid shaft pile bent piers supported by precast concrete piles. The back to back of abutment dimension measures 86'-0" and the out to out dimension measures 33'-0". The span lengths are 27'-0", 27'-7 1/2" and 27'-0" @ bearing to @ bearing with a 9°45'00" left forward skew. In 2008, Temporary Steel Supports were added to support deteriorated precast prestressed concrete deck beams throughout the structure. Bridge to be closed and traffic detoured during construction.

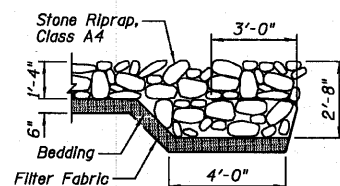
Salvage: Temporary Steel Supports.



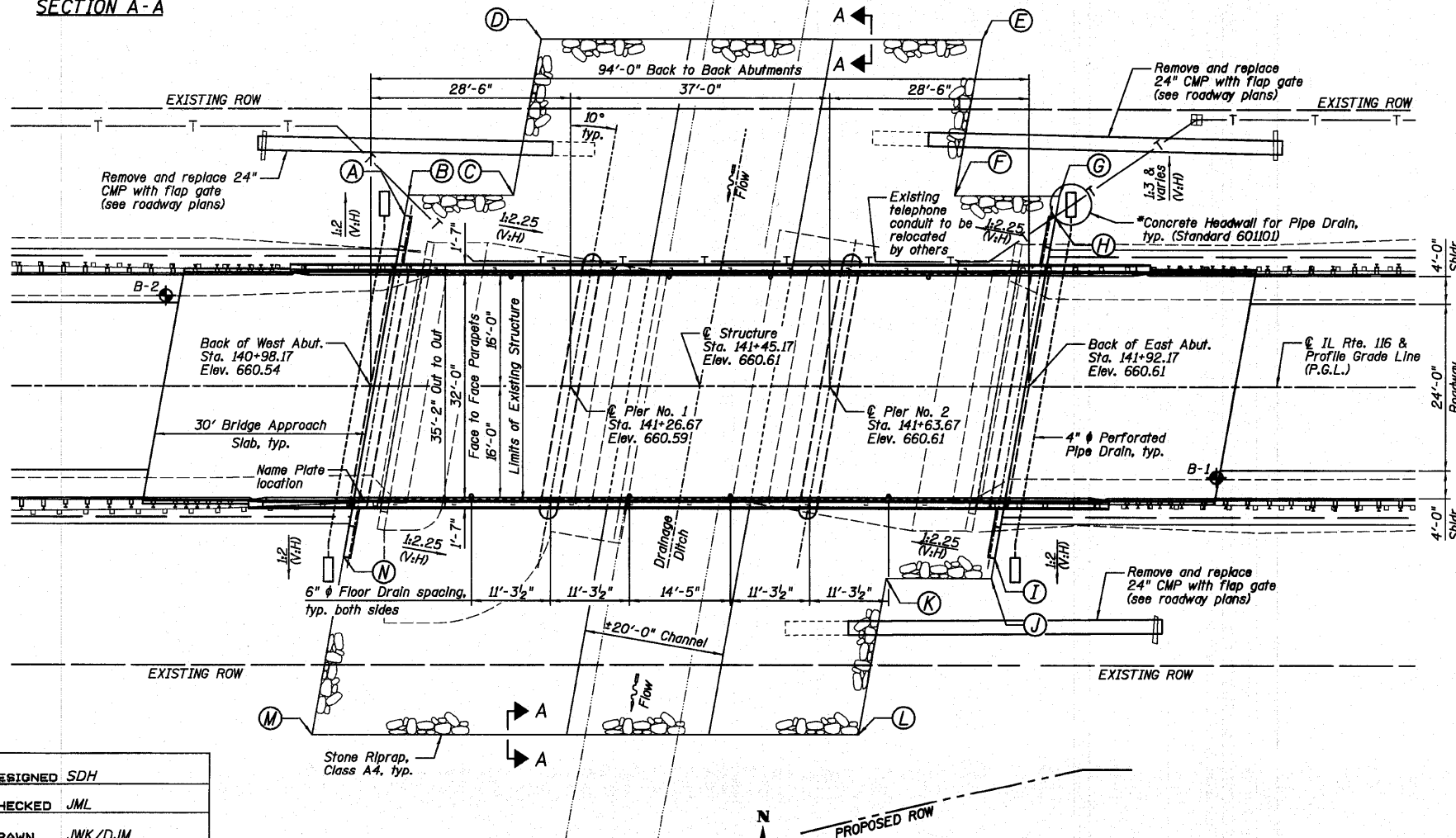
ELEVATION

(Horizontal dimensions @ Rt. L's to Roadway)

Denotes channel excavation, see roadway plans for quantity.



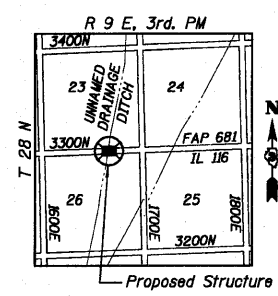
SECTION A-A



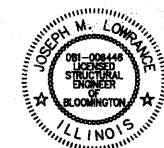
STONE RIPRAP LOCATION

Location	Station	Offset
A	141+03	24' LT.
B	141+04	28' LT.
C	141+19	28' LT.
D	141+22	50' LT.
E	141+85	50' LT.
F	141+82	28' LT.
G	141+97	28' LT.
H	141+96	24' LT.
I	141+87	24' RT.
J	141+87	28' RT.
K	141+72	28' RT.
L	141+68	50' RT.
M	140+90	50' RT.
N	140+95	23' RT.

Note: Stations and offsets for the Stone Riprap, Class A4 are from the roadway @.



LOCATION SKETCH



Joseph M. Lowrance  
Date 08-04-10  
JOSEPH M. LOWRANCE  
ILLINOIS STRUCTURAL ENGINEER  
NO. 081-006446  
Exp. Date 11/30/10

APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TSU)  
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN AND ELEVATION  
IL. ROUTE 116 OVER  
UNNAMED DRAINAGE DITCH  
F.A.P. 681 - SECTION (116 BR-2)BR  
FORD COUNTY  
STATION 141+45.17  
STRUCTURE NO. 027-0100

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. D1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS	681	*	FORD/IROQUOIS	146	68
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
		* 116 BR/L116 BR, (BR-2)BR, I & BR-31				

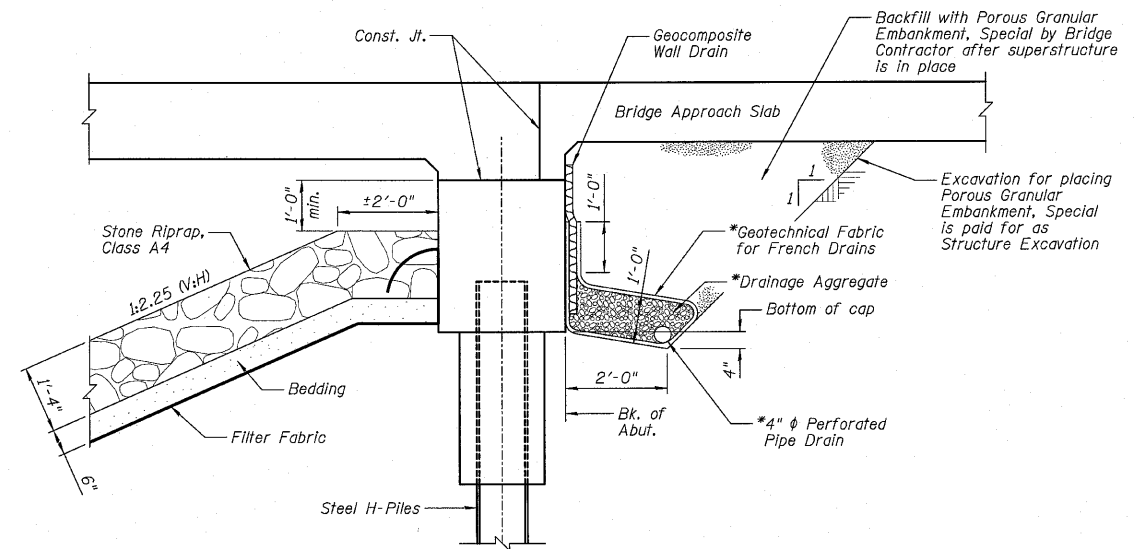
\*Included in the cost of Pipe Underdrains for Structures 4".



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**TOTAL BILL OF MATERIAL**

ITEMS	UNITS	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		60	60
Stone Riprap, Class A4	Sq. Yd.		970	970
Filter Fabric	Sq. Yd.		970	970
Removal of Existing Structures No. 5	Each	1		1
Structure Excavation	Cu. Yd.		174	174
Floor Drains	Each	8		8
Concrete Structures	Cu. Yd.		141.2	141.2
Concrete Superstructure	Cu. Yd.	317.2		317.2
Bridge Deck Grooving	Sq. Yd.	509		509
Concrete Encasement	Cu. Yd.		11.2	11.2
Protective Coat	Sq. Yd.	655		655
Reinforcement Bars, Epoxy Coated	Pound	67,880	7,480	75,360
Furnishing Steel Piles HP12x63	Foot		1,439	1,439
Driving Piles	Foot		1,439	1,439
Test Pile Steel HP12x63	Each		2	2
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		36	36
Pipe Underdrains For Structures 4"	Foot		126	126
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1



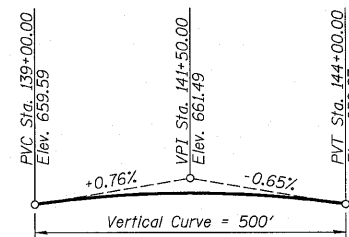
**SECTION THRU EAST ABUTMENT**  
(Similar For West Abutment)

**NOTES:**

- 1.) Horizontal dimensions @ Rt. L's to Abutment.
- 2.) \*Included in the cost of Pipe Underdrains for Structures 4".
- 3.) 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).

**GENERAL NOTES:**

- 1.) Reinforcement bars shall conform to the requirements of ASTM A706 Gr. 60. See Special Provisions.
- 2.) Reinforcement bars designated (E) shall be epoxy coated.
- 3.) Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 4.) The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.
- 5.) Slipforming of parapets is not allowed.
- 6.) The Contractor is advised that the existing PPC deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for the removal and replacement of the structure.
- 7.) The pay item Removal of Existing Structures No. 5 shall include the removal and salvage of the Temporary Support Connections at the Abutments, Piers and the Temporary Supports under each Superstructure span. All structural steel from the existing temporary supports shall become the property of IDOT and delivered to the Pontiac Maintenance Yard.
- 8.) The pay item Removal of Existing Structure No. 5 shall include removal of the bituminous wearing surface on top of the existing deck.



**PROFILE GRADE**  
(Along & Roadway)

STATION 141+45.17  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 681 SEC. 116(BR-2)BR  
LOADING HL93  
STR. NO. 027-0100

**NAME PLATE**  
See Standard 515001

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**GENERAL DATA**  
**STRUCTURE NO. 027-0100**

<p>FARNSWORTH GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	SHEET NO. D2  18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		681	*	FORD/IROQUOIS	146	69
		CONTRACT NO. 66880				
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	141+00.99	-16.00	660.28	660.28
☉ Piles West Abut.	141+02.26	-16.00	660.28	660.28
A	141+12.26	-16.00	660.30	660.30
B	141+22.26	-16.00	660.31	660.31
☉ Pier No. 1	141+29.49	-16.00	660.32	660.32
C	141+39.49	-16.00	660.33	660.34
D	141+49.49	-16.00	660.34	660.35
E	141+59.49	-16.00	660.34	660.35
☉ Pier No. 2	141+66.49	-16.00	660.34	660.34
F	141+76.49	-16.00	660.34	660.35
G	141+86.49	-16.00	660.34	660.34
☉ Piles East Abut.	141+93.72	-16.00	660.34	660.34
Back of East Abut.	141+94.99	-16.00	660.33	660.33

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	141+00.28	-12.00	660.36	660.36
☉ Piles West Abut.	141+01.56	-12.00	660.36	660.36
A	141+11.56	-12.00	660.38	660.38
B	141+21.56	-12.00	660.39	660.40
☉ Pier No. 1	141+28.78	-12.00	660.40	660.40
C	141+38.78	-12.00	660.41	660.42
D	141+48.78	-12.00	660.42	660.43
E	141+58.78	-12.00	660.42	660.43
☉ Pier No. 2	141+65.78	-12.00	660.43	660.43
F	141+75.78	-12.00	660.43	660.43
G	141+85.78	-12.00	660.42	660.43
☉ Piles East Abut.	141+93.01	-12.00	660.42	660.42
Back of East Abut.	141+94.28	-12.00	660.42	660.42

☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)

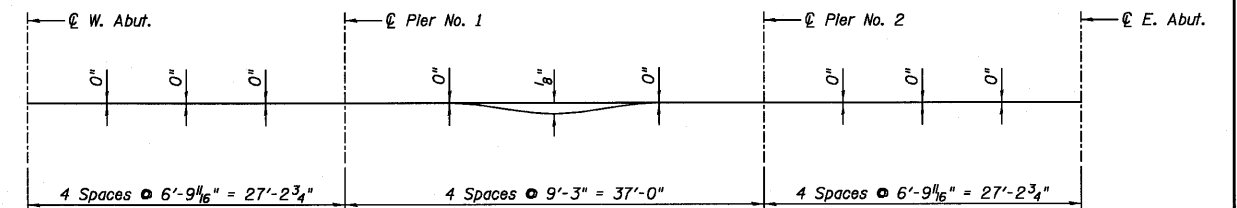
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	140+98.17	0.00	660.54	660.54
☉ Piles West Abut.	140+99.44	0.00	660.54	660.54
A	141+09.44	0.00	660.56	660.57
B	141+19.44	0.00	660.58	660.58
☉ Pier No. 1	141+26.67	0.00	660.59	660.59
C	141+36.67	0.00	660.60	660.61
D	141+46.67	0.00	660.61	660.62
E	141+56.67	0.00	660.61	660.62
☉ Pier No. 2	141+63.67	0.00	660.61	660.61
F	141+73.67	0.00	660.61	660.62
G	141+83.67	0.00	660.61	660.61
☉ Piles East Abut.	141+90.90	0.00	660.61	660.61
Back of East Abut.	141+92.17	0.00	660.61	660.61

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	140+96.05	12.00	660.35	660.35
☉ Piles West Abut.	140+97.32	12.00	660.35	660.35
A	141+07.32	12.00	660.37	660.38
B	141+17.32	12.00	660.39	660.39
☉ Pier No. 1	141+24.55	12.00	660.40	660.40
C	141+34.55	12.00	660.41	660.42
D	141+44.55	12.00	660.42	660.43
E	141+54.55	12.00	660.42	660.43
☉ Pier No. 2	141+61.55	12.00	660.43	660.43
F	141+71.55	12.00	660.43	660.43
G	141+81.55	12.00	660.42	660.43
☉ Piles East Abut.	141+88.78	12.00	660.42	660.42
Back of East Abut.	141+90.05	12.00	660.42	660.42

SOUTH FACE OF PARAPET

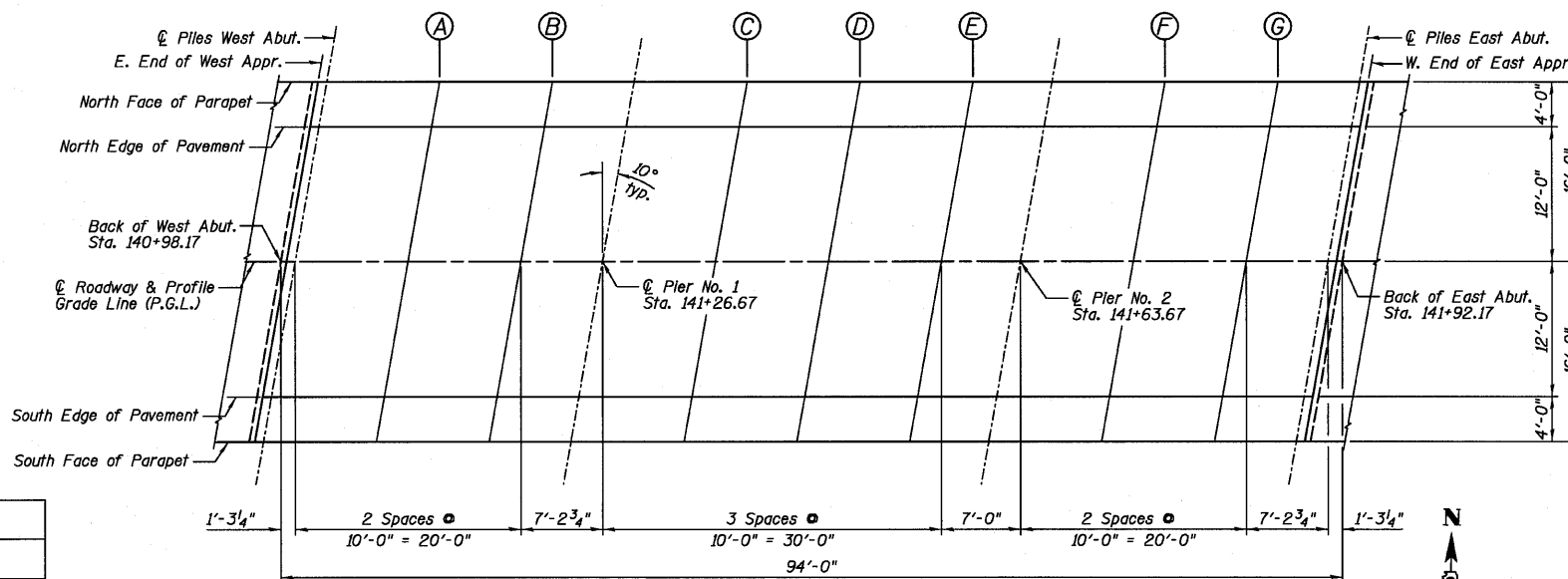
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	140+95.35	16.00	660.27	660.27
☉ Piles West Abut.	140+96.62	16.00	660.27	660.27
A	141+06.62	16.00	660.29	660.29
B	141+16.62	16.00	660.30	660.31
☉ Pier No. 1	141+23.85	16.00	660.31	660.31
C	141+33.85	16.00	660.33	660.33
D	141+43.85	16.00	660.33	660.34
E	141+53.85	16.00	660.34	660.34
☉ Pier No. 2	141+60.85	16.00	660.34	660.34
F	141+70.85	16.00	660.34	660.35
G	141+80.85	16.00	660.34	660.35
☉ Piles East Abut.	141+88.08	16.00	660.34	660.34
Back of East Abut.	141+89.35	16.00	660.34	660.34



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only)

The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection."



**ELEVATION LOCATION PLAN**

**TOP OF SLAB ELEVATION  
LOCATIONS AND ELEVATIONS  
STRUCTURE NO. 027-0100**

DESIGNED SDH
CHECKED JML
DRAWN JWK/DJM
CHECKED MSW

DATE 08/04/10

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. D3  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	70
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

\* 116 BR/116 BR, (BR-2)BR, I & BR-31

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH CURB LINE/NORTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Apr.	140+71.57	-16.42	660.20
A	140+81.57	-16.42	660.23
B	140+91.50	-16.00	660.26
Back of West Abut.	141+00.99	-16.00	660.28
E. End of West Apr.	141+01.50	-16.00	660.28

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Apr.	140+70.80	-12.00	660.29
A	140+80.80	-12.00	660.32
B	140+90.80	-12.00	660.34
Back of West Abut.	141+00.29	-12.00	660.36
E. End of West Apr.	141+00.80	-12.00	660.36

☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)

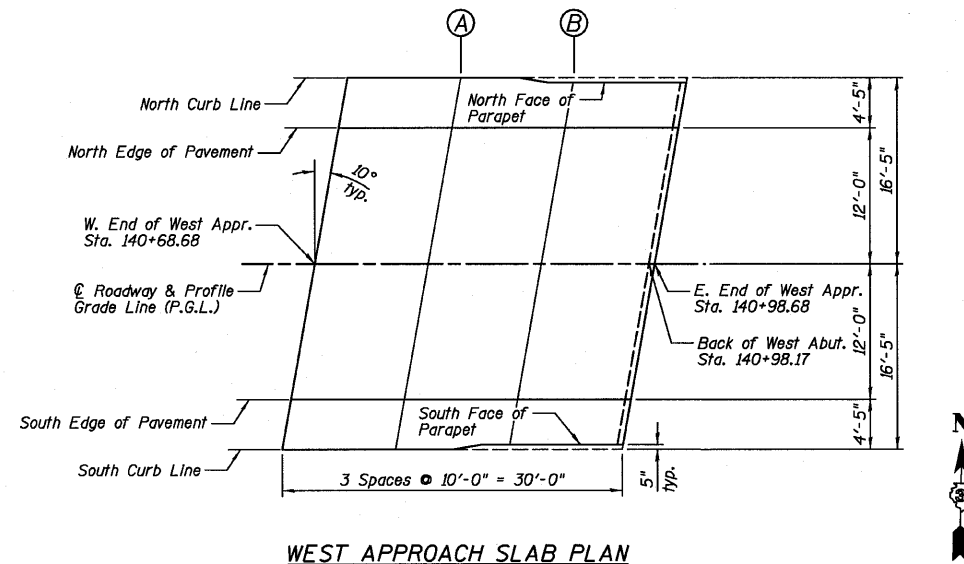
Location	Station	Offset	Theoretical Grade Elevations
W. End of West Apr.	140+68.68	0.00	660.47
A	140+78.68	0.00	660.50
B	140+88.68	0.00	660.52
Back of West Abut.	140+98.17	0.00	660.54
E. End of West Apr.	140+98.68	0.00	660.54

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Apr.	140+66.56	12.00	660.28
A	140+76.56	12.00	660.30
B	140+86.56	12.00	660.33
Back of West Abut.	140+96.06	12.00	660.35
E. End of West Apr.	140+96.56	12.00	660.35

SOUTH CURB LINE/SOUTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Apr.	140+65.78	16.42	660.18
A	140+75.78	16.42	660.21
B	140+85.86	16.00	660.24
Back of West Abut.	140+95.35	16.00	660.27
E. End of West Apr.	140+95.86	16.00	660.27



WEST APPROACH SLAB PLAN

NORTH CURB LINE/NORTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Apr.	141+94.48	-16.00	660.33
Back of East Abut.	141+94.99	-16.00	660.33
A	142+04.48	-16.00	660.33
B	142+14.55	-16.42	660.31
E. End of East Apr.	142+24.55	-16.42	660.29

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Apr.	141+93.77	-12.00	660.42
Back of East Abut.	141+94.28	-12.00	660.42
A	142+03.77	-12.00	660.41
B	142+13.77	-12.00	660.40
E. End of East Apr.	142+23.77	-12.00	660.39

☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)

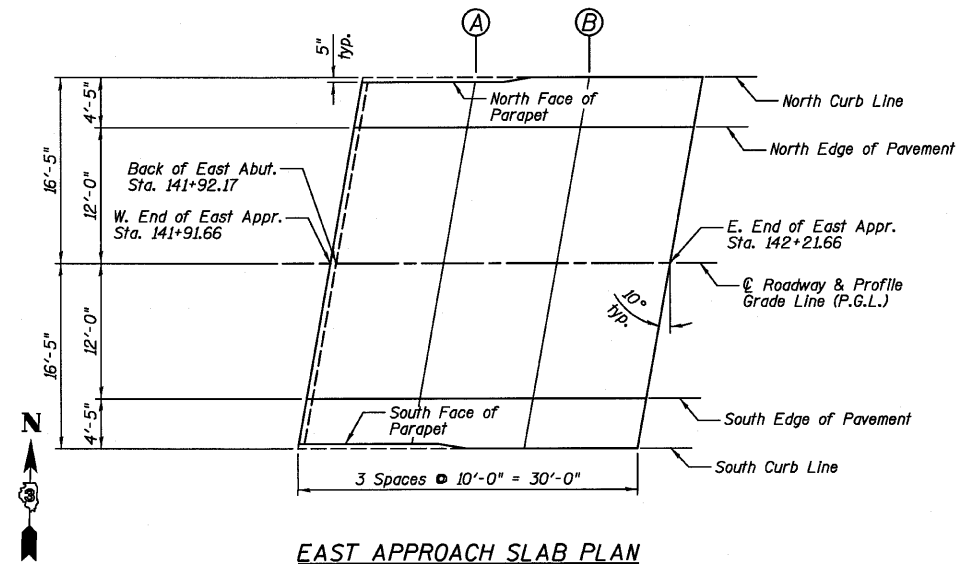
Location	Station	Offset	Theoretical Grade Elevations
W. End of East Apr.	141+91.66	0.00	660.61
Back of East Abut.	141+92.17	0.00	660.61
A	142+01.66	0.00	660.60
B	142+11.66	0.00	660.59
E. End of East Apr.	142+21.66	0.00	660.58

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Apr.	141+89.54	12.00	660.42
Back of East Abut.	141+90.05	12.00	660.42
A	141+99.54	12.00	660.41
B	142+09.54	12.00	660.40
E. End of East Apr.	142+19.54	12.00	660.39

SOUTH CURB LINE/SOUTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Apr.	141+88.84	16.00	660.34
Back of East Abut.	141+89.34	16.00	660.34
A	141+98.84	16.00	660.33
B	142+08.76	16.42	660.31
E. End of East Apr.	142+18.76	16.42	660.30



EAST APPROACH SLAB PLAN

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

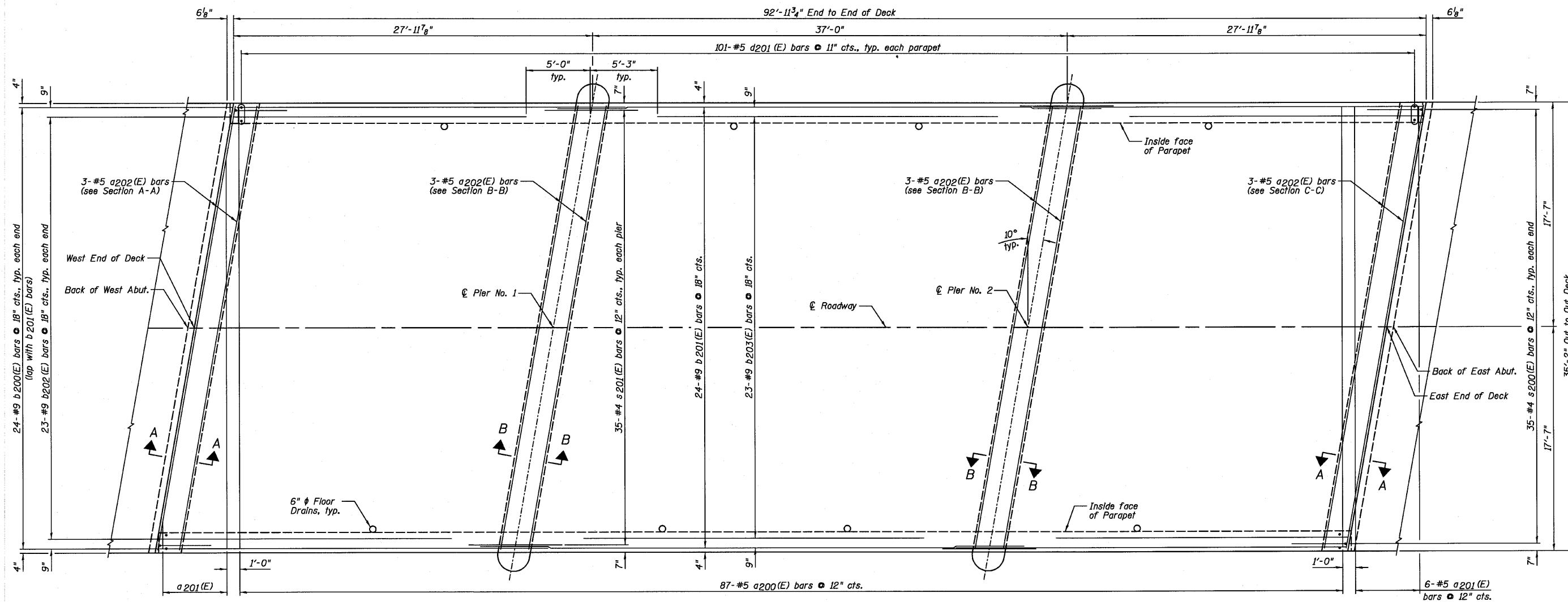
APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 027-0100

 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. D4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS	681	*	FORD/IROQUOIS	146	71
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
				CONTRACT NO. 66880		

\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



BOTTOM OF SLAB PLAN



BAR LAP  
#9 - 5'-3"

NOTES:

- 1.) See Sheet D8 for Superstructure Details and Bill of Material.
- 2.) See Sheet D7 for Sections A-A and B-B.
- 3.) See Sheet D8 for Floor Drain details.
- 4.) Order a201(E) bars full length. Cut according to Bar Cutting Diagram on Sheet D8. Use remainder of bars in opposite end of deck.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

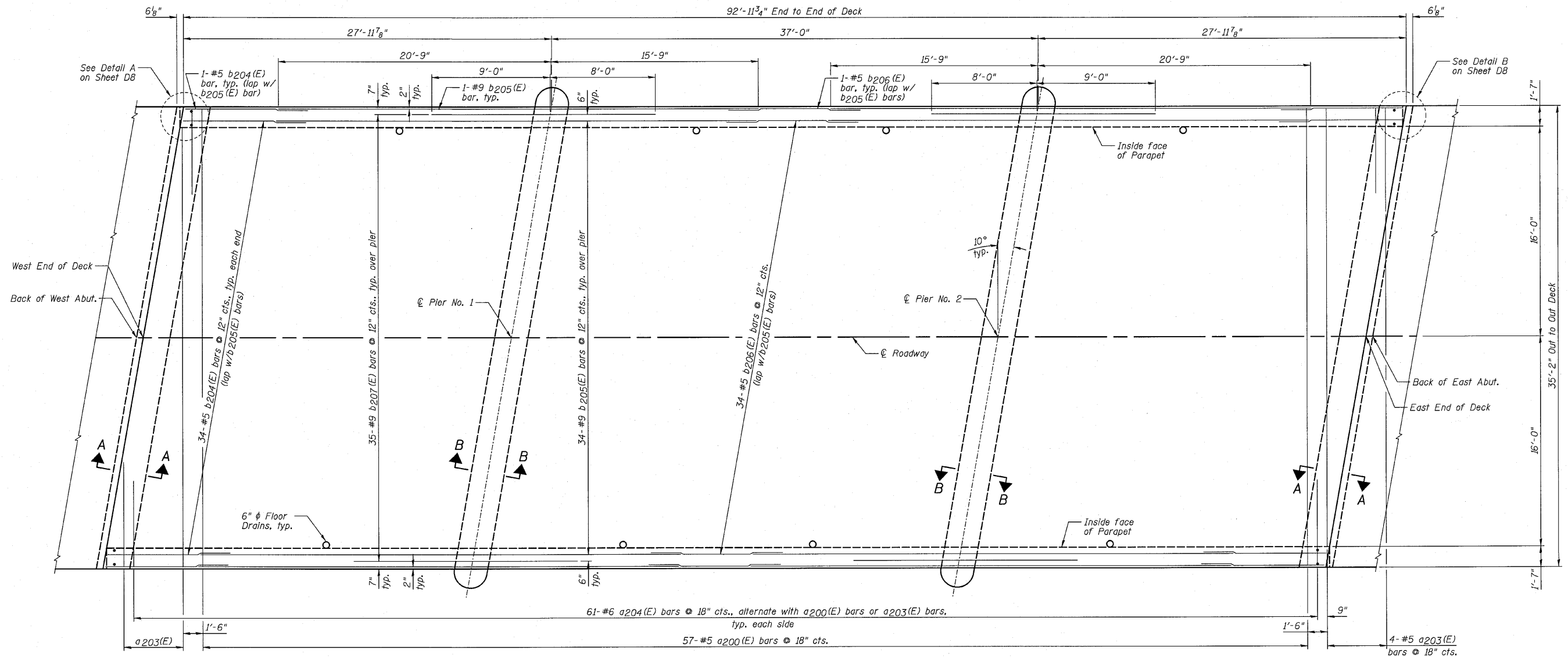
DATE 08/04/10

SUPERSTRUCTURE DECK  
STRUCTURE NO. 027-0100

F.A.P. RTE. 681	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	*	FORD/IROQUOIS	146	72
SHEET NO. D5 18 SHEETS		CONTRACT NO. 66880		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TOP OF SLAB PLAN



BAR LAP  
#5 - 2'-3"

NOTES:

- 1.) See Sheet D8 for Superstructure Details and Bill of Material.
- 2.) See Sheet D7 for Sections A-A and B-B.
- 3.) See Sheet D8 for Floor Drain details.
- 4.) Order a203(E) bars full length. Cut according to Bar Cutting Diagram on Sheet D8. Use remainder of bars in opposite end of deck.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

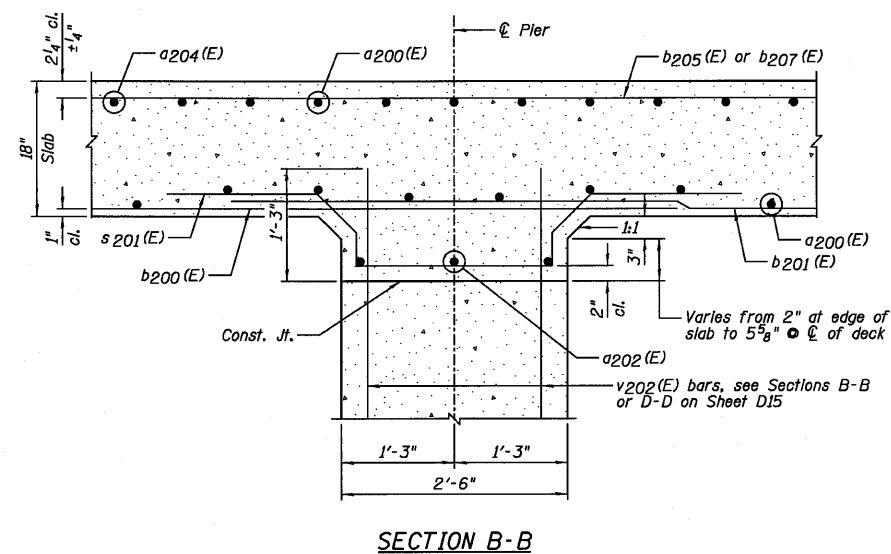
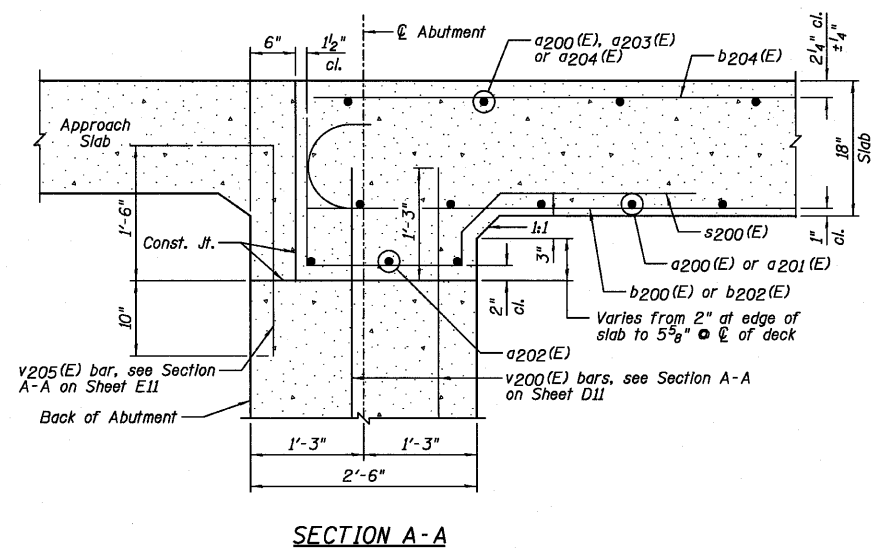
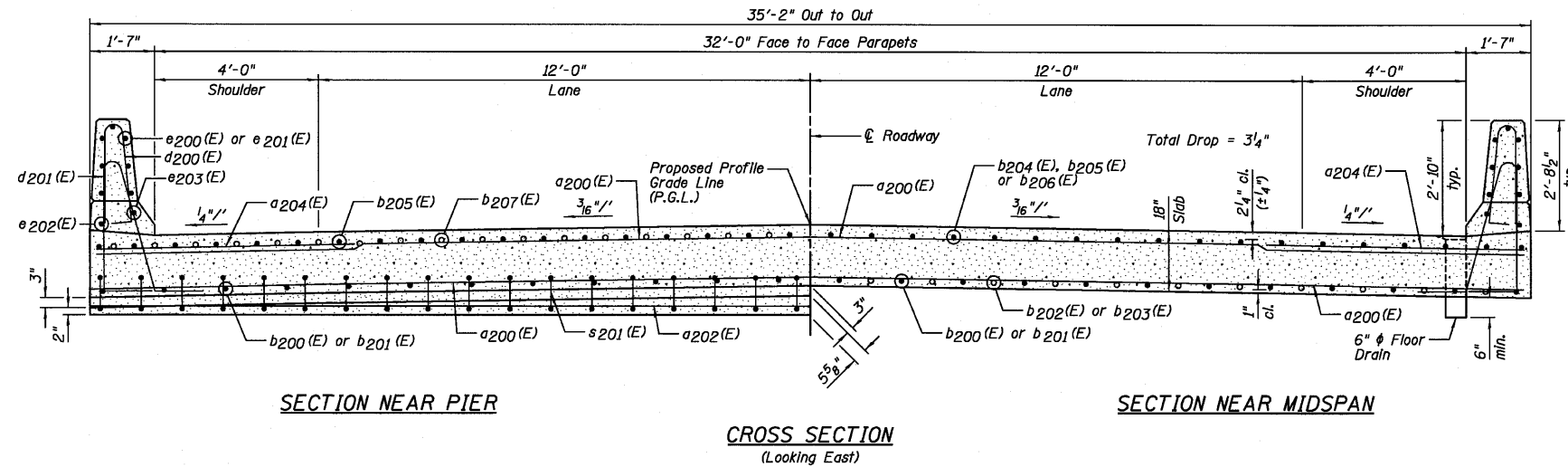
**SUPERSTRUCTURE DECK**  
**STRUCTURE NO. 027-0100**

<p>FARNSWORTH GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	SHEET NO. D6  18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		681	*	FORD/IROQUOIS	146	73
		CONTRACT NO. 66880				
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**NOTES:**

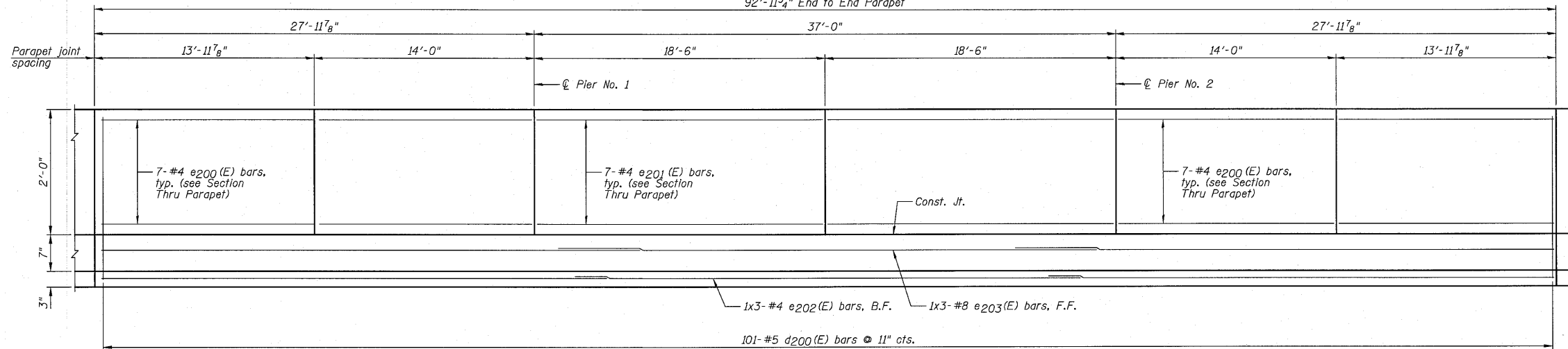
- 1.) For Section Thru Parapet, see Sheet D8.
- 2.) For locations of Sections A-A and B-B, see Sheets D5 and D6.

<p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	SHEET NO. D7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS	681	*	FORD/IROQUOIS	146	74
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880				

**SUPERSTRUCTURE CROSS SECTION  
STRUCTURE NO. 027-0100**

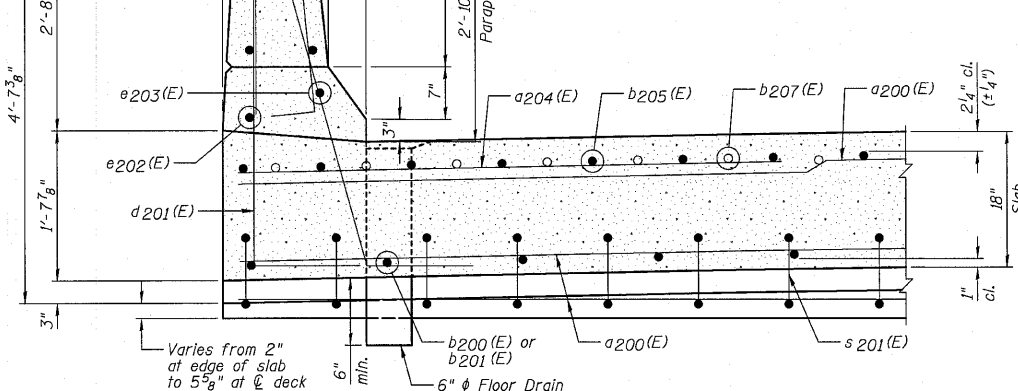
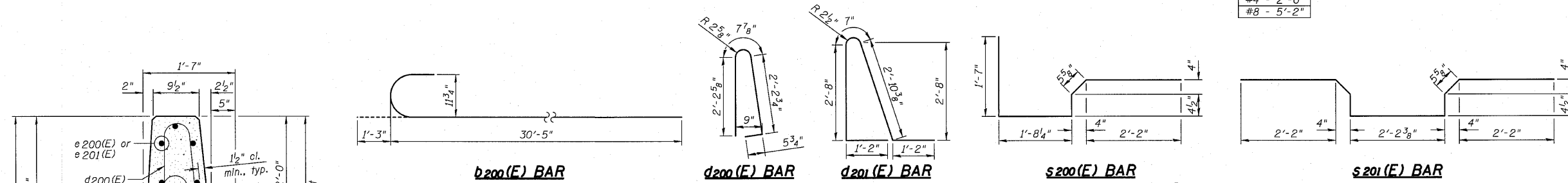
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

92'-11 3/4" End to End Parapet

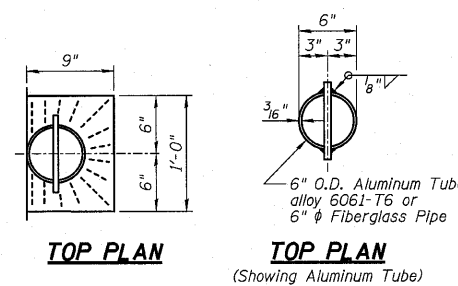
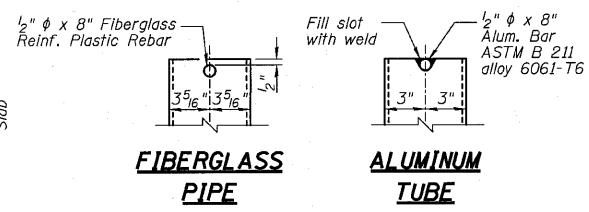


INSIDE ELEVATION OF PARAPET

BAR LAP  
#4 - 2'-0"  
#8 - 5'-2"

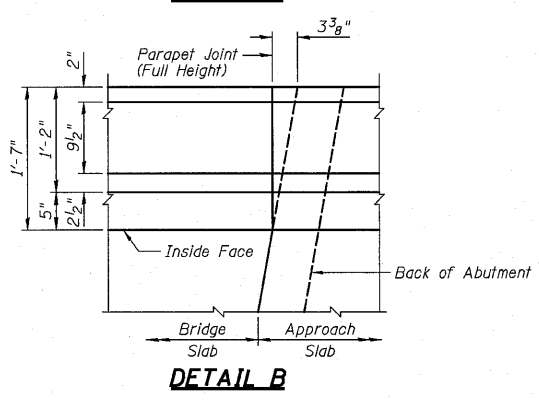
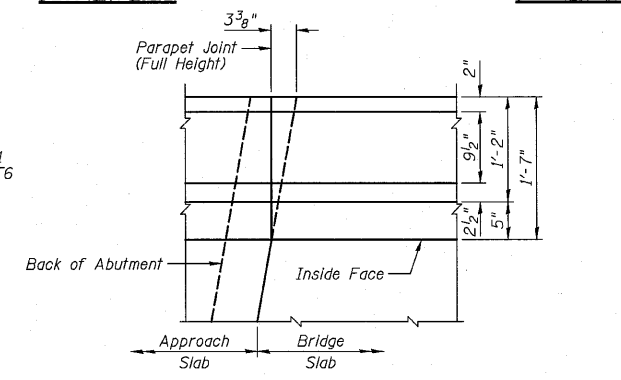


SECTION THRU PARAPET



DRAIN NOTES:

- 1.) Space Drains to miss slab reinforcement.
- 2.) Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
- 3.) The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.



BAR CUTTING DIAGRAM

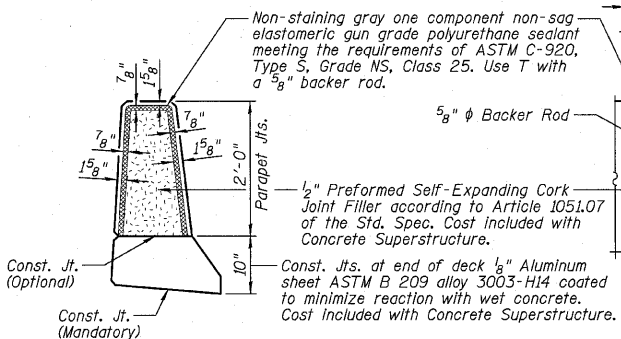
BAR	A	B	C	D	E	F	L
a201(E)	30'-5"	2'-1"	30'-5"	2'-1"	1	6	32'-6"
a203(E)	33'-5"	7'-11"	33'-5"	7'-11"	1	4	41'-4"

NOTES:

- 1.) B.F. Denotes Back Face and F.F. Denotes Front Face.
- 2.) For location of Detail A and Detail B, see Sheet D6.
- 3.) Inside elevation of parapet is exaggerated vertically to show reinforcement.
- 4.) Bars indicated thus 1x3-#4 etc. indicates 1 line of bars with 3 lengths per line.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10



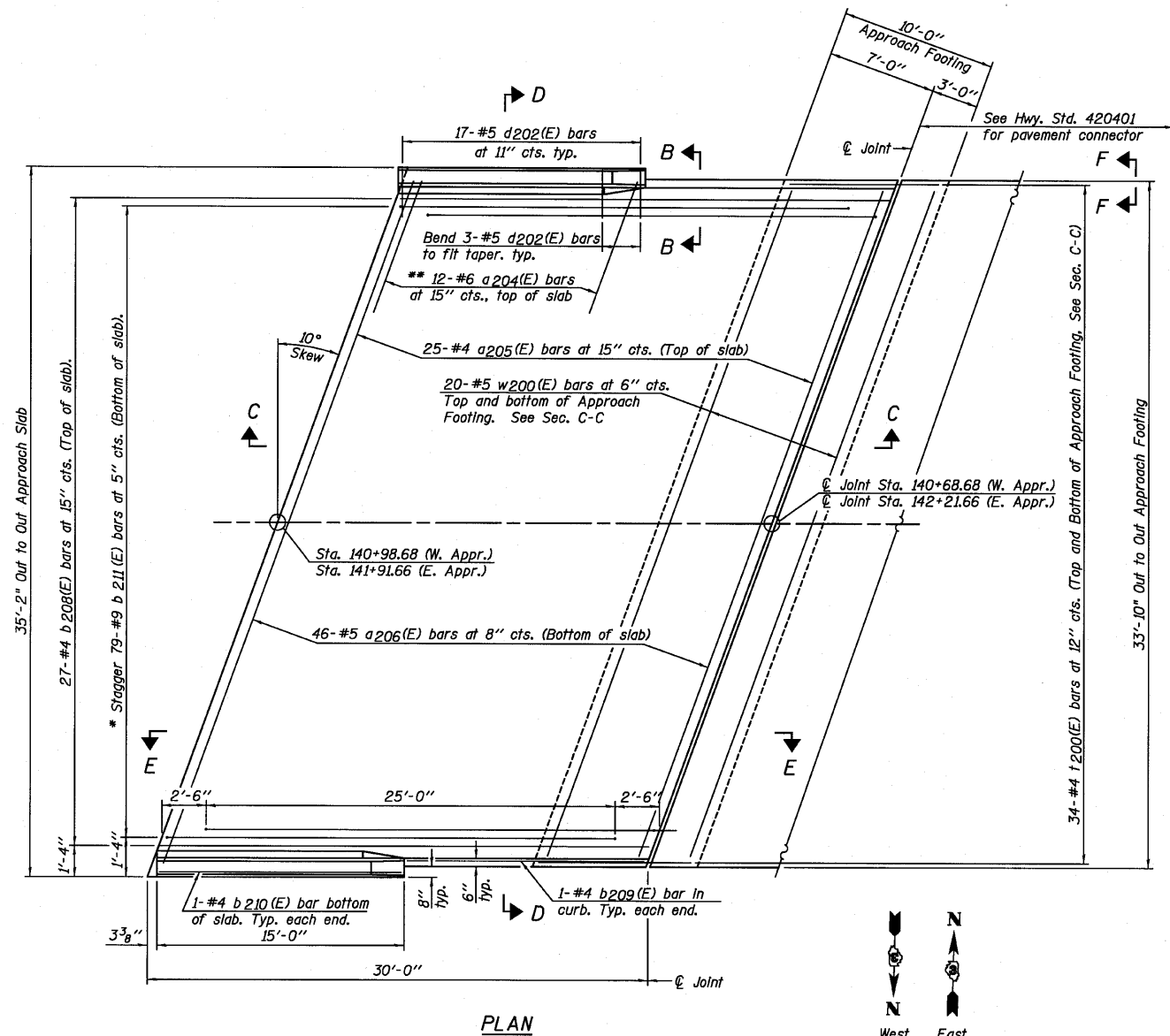
PARAPET JOINT DETAILS

SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 027-0100

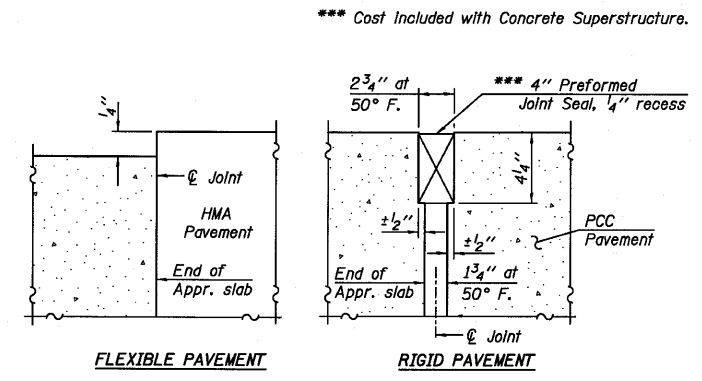
<b>Farnsworth GROUP, INC.</b> 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. D8	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS	681	*	FORD/IROQUOIS	146	75
		CONTRACT NO. 66880		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

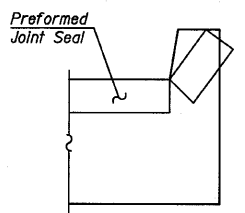
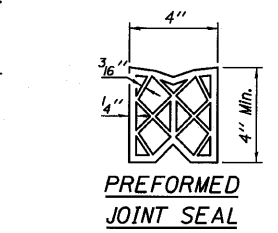
Notes:  
See Sheet D10 for Sections C-C & D-D and View E-E.  
a205(E) and a206(E) bar spacings measured along  $\text{C} \perp$  Rdwy.



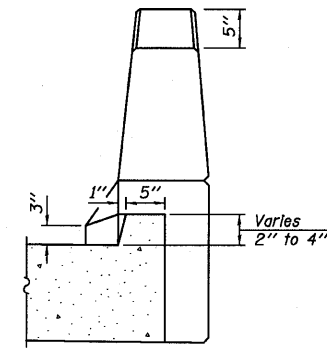
\* Tilt #9 b211(E) bars as required to maintain clearance.  
\*\* Space between a205(E) bars, typ. each parapet.



DETAIL A



VIEW F-F  
Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



VIEW B-B

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10 BA-L 7-1-10

BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 027-0100

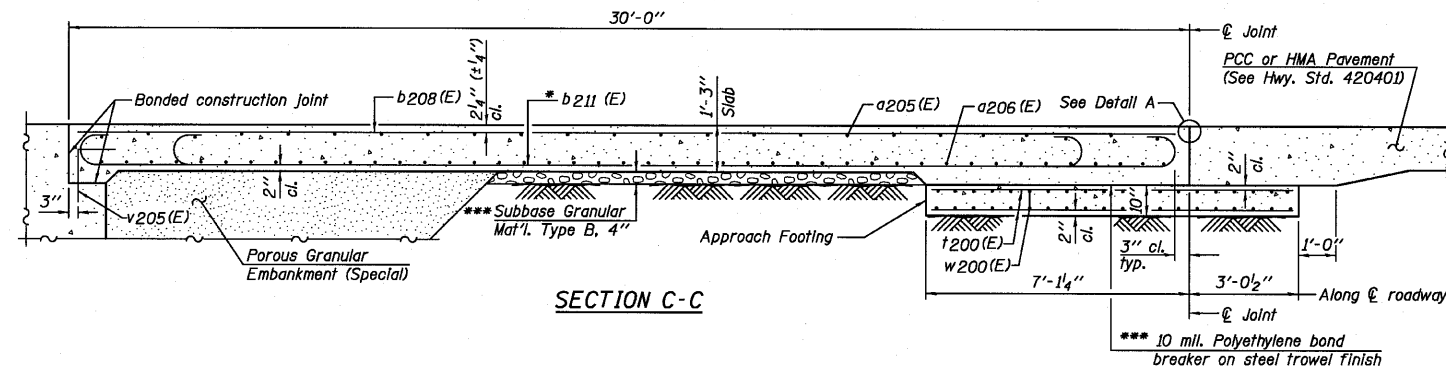
<p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	SHEET NO. D9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66880						
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT		



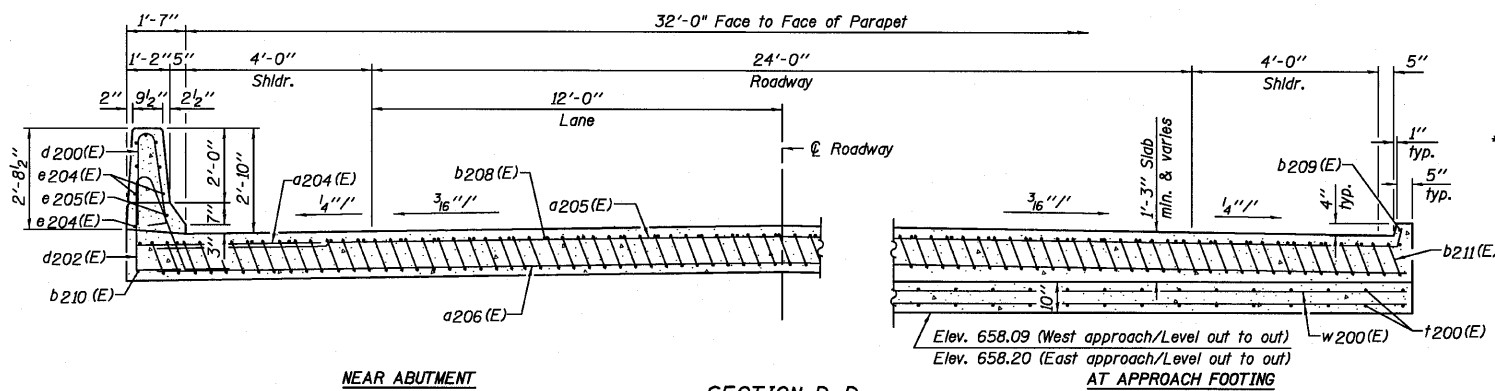
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:

See Sheet D9 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.  
For v200(E) bar details, see Sheets D11 and D12.  
The approach footing maximum applied service bearing pressure ( $q_{max}$ ) = 2.0 ksf.  
Cost of excavation for approach footing included with Concrete Structures.  
For Porous Granular Embankment (Special) and drainage treatment details, see Sheet D2.  
For additional parapet details, see Sheet D9.



SECTION C-C

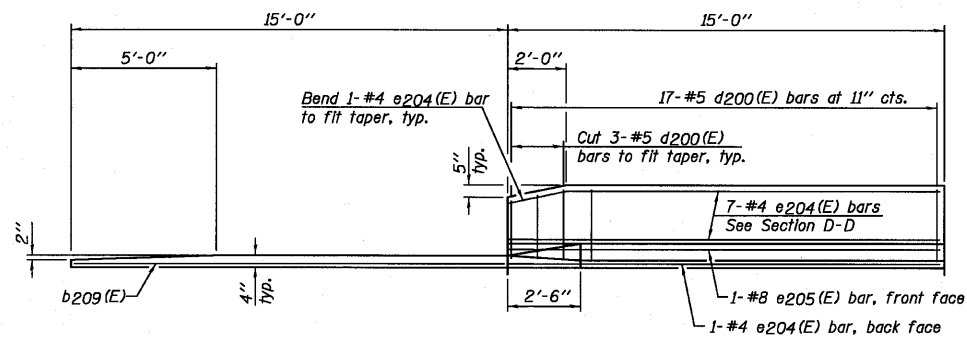


NEAR ABUTMENT

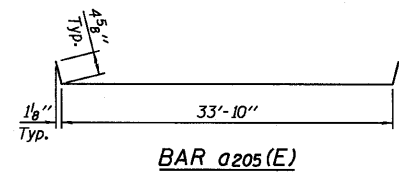
SECTION D-D

(See Plan for dimensions not shown)

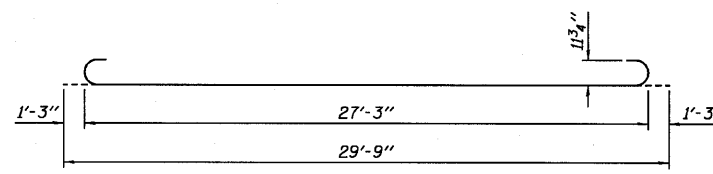
AT APPROACH FOOTING



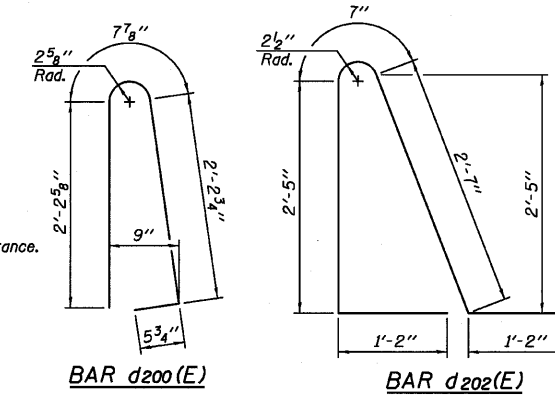
VIEW E-E



BAR a205(E)



BAR b211(E)



BAR d200(E)

BAR d202(E)

\* Till #9 b211(E) bars as required to maintain clearance.  
\*\*\* Cost included with Concrete Superstructure.

TWO APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a204(E)	48	#6	6'-6"	—	
a205(E)	50	#4	34'-7"	—	
a206(E)	92	#5	34'-0"	—	
b208(E)	54	#4	29'-8"	—	
b209(E)	4	#4	14'-8"	—	
b210(E)	4	#4	14'-6"	—	
b211(E)	158	#9	29'-9"	—	
d200(E)	68	#5	5'-7"	—	
d202(E)	68	#5	7'-11"	—	
e204(E)	32	#4	14'-8"	—	
e205(E)	4	#8	14'-8"	—	
t200(E)	136	#4	9'-1"	—	
w200(E)	80	#5	34'-0"	—	
Item				Unit	Quantity
Concrete Superstructure				Cu. Yd.	107.0
Concrete Structures				Cu. Yd.	21.2
Reinforcement Bars, Epoxy Coated				Pound	27,170

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

BA-L

7-1-10

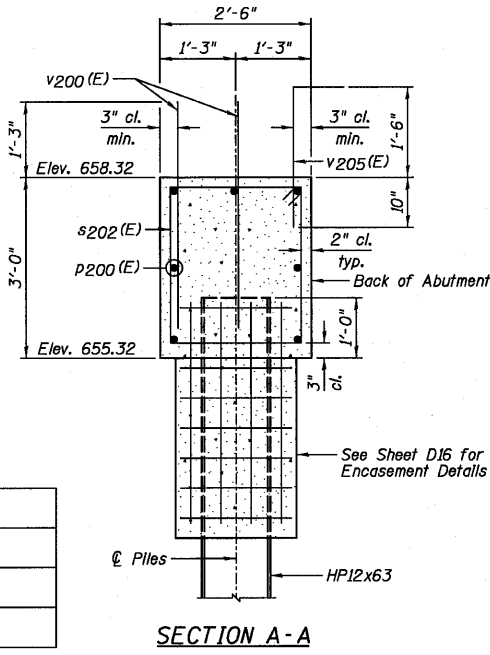
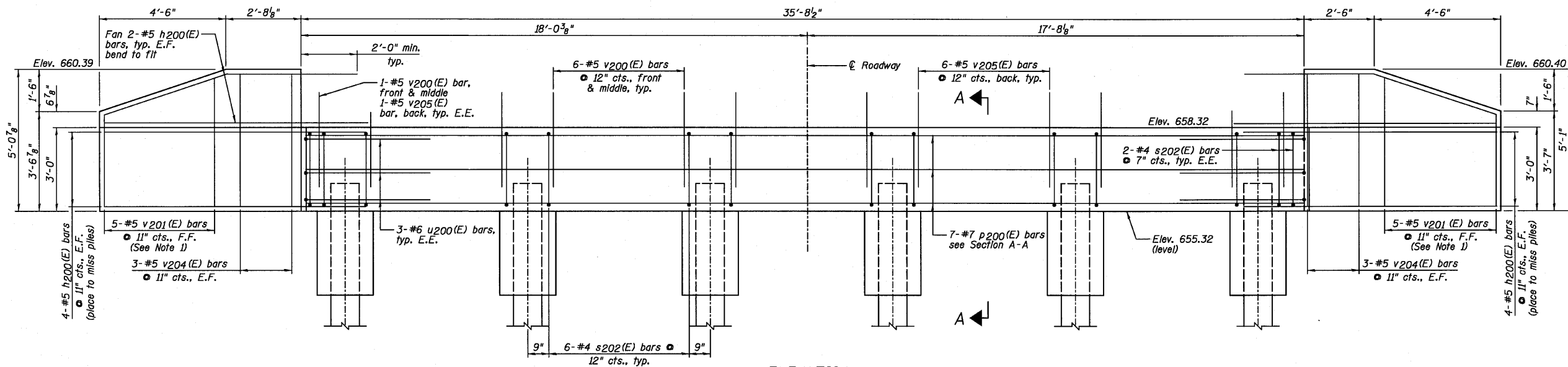
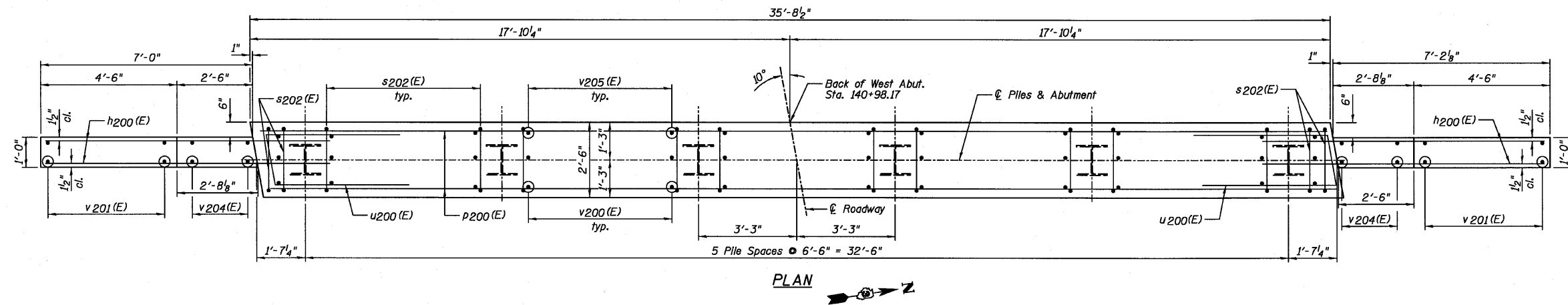
BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 027-0100

Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. D10	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS	681	*	FORD/IROQUOIS	146	77
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 66880		

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PILE DATA:

Pile Type and Size	Steel - HP12x63
Nominal Required Bearing	291 kips
Factored Resistance Available	146 kips
Estimated Pile Length	36 Feet
Number of Production Piles	6
Number of Test Piles	0

BAR CUTTING DIAGRAM

BAR	A	B	C	D	E	F	L
v201(E)	4'-7"	2'-11"	4'-7"	2'-11"	2	5	7'-6"

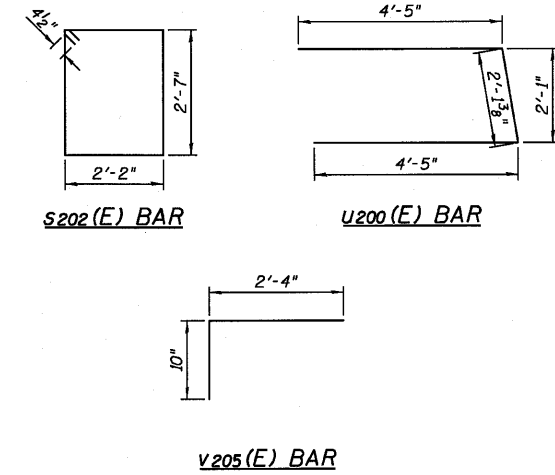
ELEVATION  
(Looking West)

WEST ABUTMENT  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h200(E)	24	#5	9'-0"	—
p200(E)	7	#7	35'-4"	—
s202(E)	34	#4	10'-3"	□
u200(E)	6	#6	10'-11"	∟
v200(E)	64	#5	3'-9"	—
v201(E)	10	#5	7'-6"	—
v204(E)	12	#5	4'-9"	—
v205(E)	32	#5	3'-2"	—

Item	Unit	Quantity
Porous Granular Embankment, Special	Cu. Yd.	30
Structure Excavation	Cu. Yd.	43
Concrete Structures	Cu. Yd.	12.3
Concrete Encasement	Cu. Yd.	2.1
Reinforcement Bars, Epoxy Coated	Pound	1,560
Furnishing Steel Piles HP12x63	Foot	216
Driving Piles	Foot	216
Geocomposite Wall Drain	Sq. Yd.	18
Pipe Underdrains For Structures 4"	Foot	63



NOTES:

- Order v201(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in back face.
- Bend or cut h200(E) bars to miss piles.
- E.E. denotes Each End, F.F., denotes Front Face and E.F. denotes Each Face.

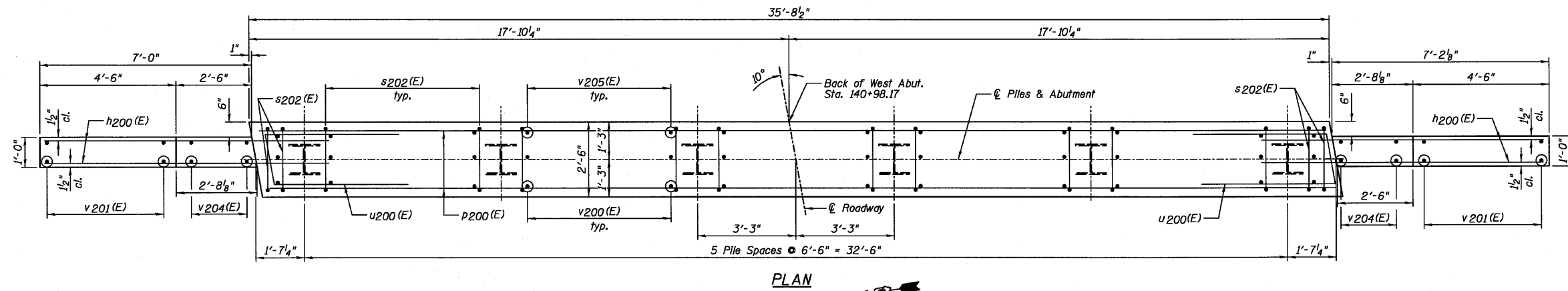
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DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

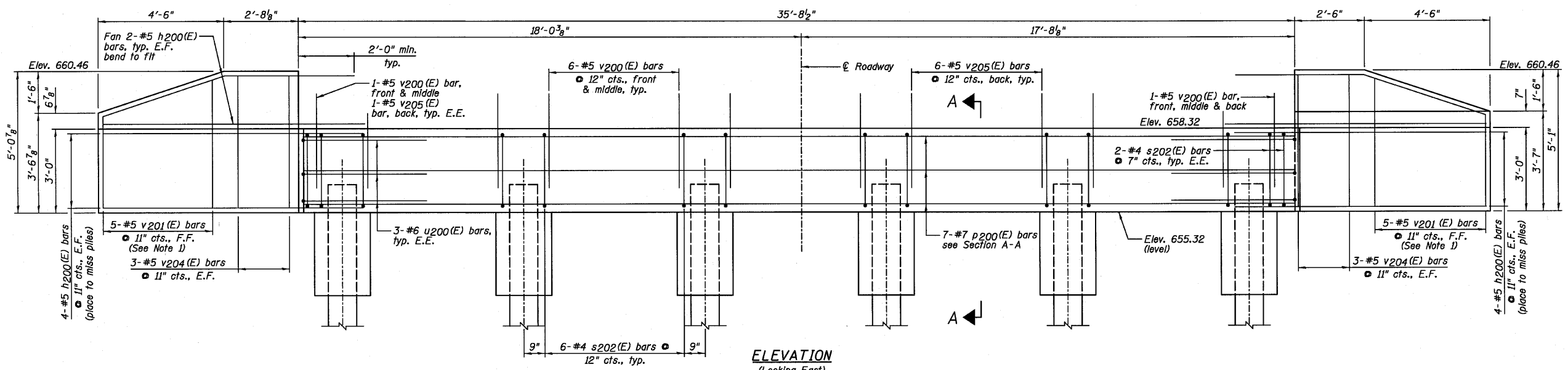
WEST ABUTMENT  
STRUCTURE NO. 027-0100

Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. D11	F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 78
	18 SHEETS	ILLINOIS FED. AID PROJECT		CONTRACT NO. 66880		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



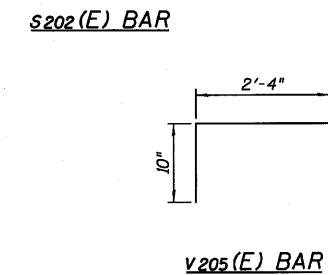
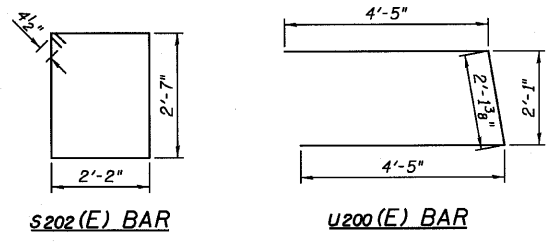
PLAN



ELEVATION  
(Looking East)

EAST ABUTMENT  
BILL OF MATERIAL

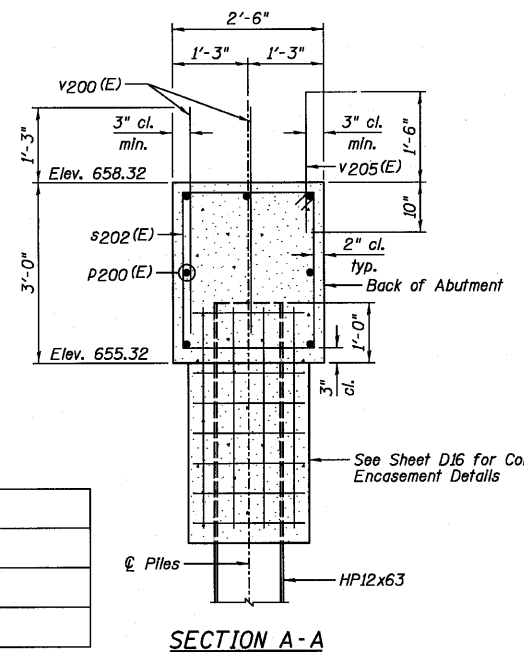
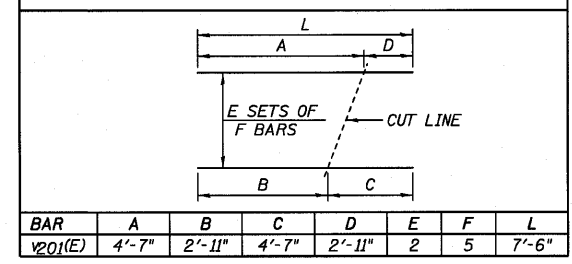
Bar	No.	Size	Length	Shape
h200(E)	24	#5	9'-0"	
p200(E)	7	#7	35'-4"	
s202(E)	34	#4	10'-3"	□
u200(E)	6	#6	10'-11"	└
v200(E)	64	#5	3'-9"	
v201(E)	10	#5	7'-6"	
v204(E)	12	#5	4'-9"	
v205(E)	32	#5	3'-2"	



PILE DATA:

Pile Type and Size	Steel - HP12x63
Nominal Required Bearing	290 klps
Factored Resistance Available	145 klps
Estimated Pile Length	41 Feet
Number of Production Piles	5
Number of Test Piles	1

BAR CUTTING DIAGRAM



SECTION A-A

NOTES:

- Order v201(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in back face.
- Bend or cut h200(E) bars to miss piles.
- E.E. denotes Each End, F.F., denotes Front Face and E.F. denotes Each Face.

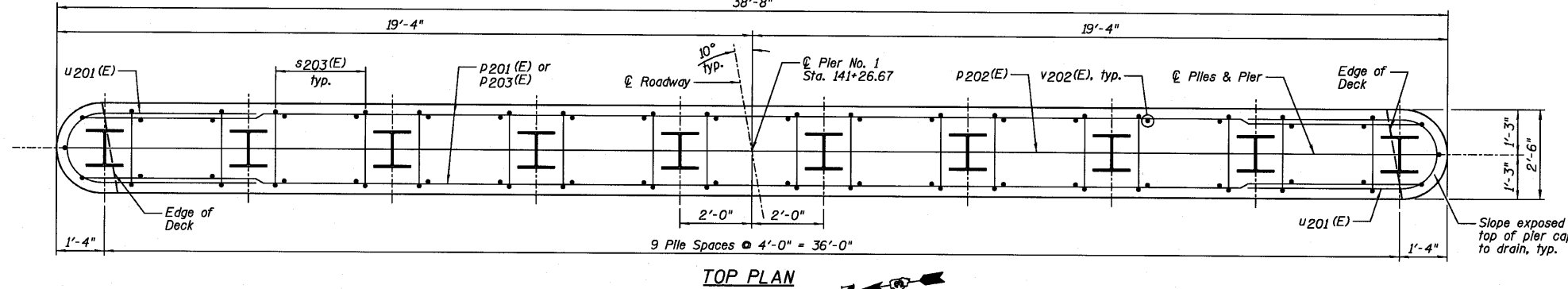
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CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

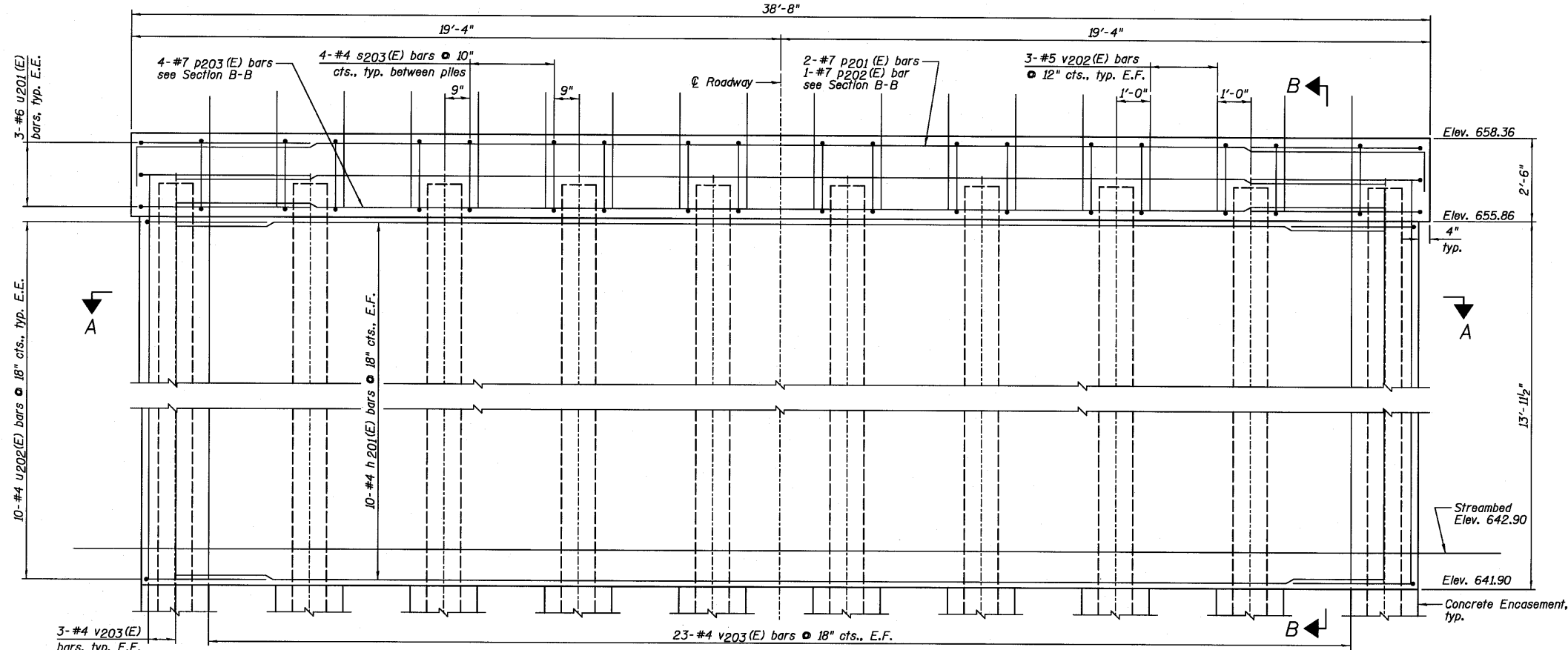
EAST ABUTMENT  
STRUCTURE NO. 027-0100

<p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	SHEET NO. D12	F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 79
	18 SHEETS	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		CONTRACT NO. 66880		

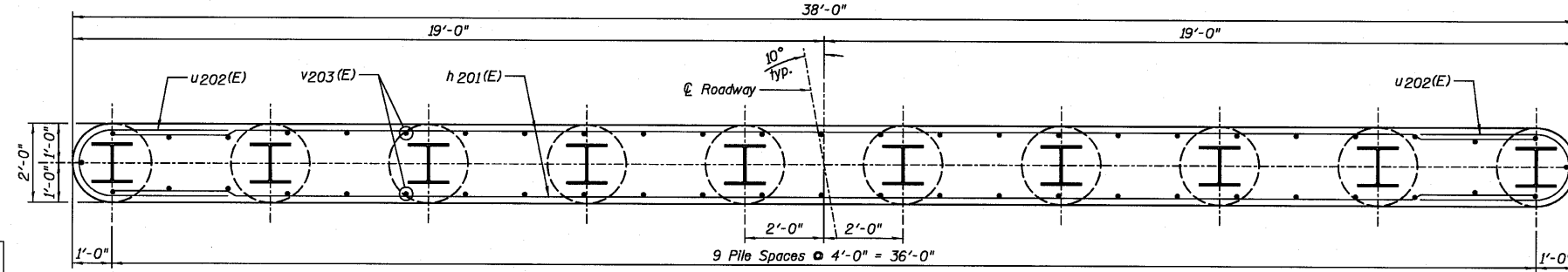
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TOP PLAN



ELEVATION  
(Looking East)



SECTION A-A

PIER NO. 1  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h201(E)	20	#4	36'-0"	—
p201(E)	2	#7	39'-4"	—
p202(E)	1	#7	40'-6"	—
p203(E)	4	#7	37'-0"	—
s203(E)	36	#4	9'-5"	□
u201(E)	6	#6	12'-3"	—
u202(E)	20	#4	8'-5"	—
v202(E)	54	#5	3'-3"	—
v203(E)	52	#4	15'-1"	—
Item	Unit	Quantity		
Structure Excavation	Cu. Yd.	44		
Concrete Structures	Cu. Yd.	47.7		
Concrete Encasement	Cu. Yd.	3.5		
Reinforcement Bars, Epoxy Coated	Pound	2,180		
Furnishing Steel Piles HPI2x63	Foot	468		
Driving Piles	Foot	468		
Test Pile Steel HPI2x63	Each	1		
Underwater Structure Excavation Protection - Location 1	Each	1		

PILE DATA:

Pile Type and Size	Steel - HPI2x63
Nominal Required Bearing	312 kips
Factored Resistance Available	156 kips
Estimated Pile Length	52 Feet
Number of Production Piles	9
Number of Test Piles	1

NOTES:

- 1.) If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed under water into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation 1'-0" above the water line at the time of construction.
- 2.) E.F. denotes Each Face and E.E. denotes Each End.
- 3.) See Sheet D15 for Section B-B.

PIER NO. 1  
STRUCTURE NO. 027-0100

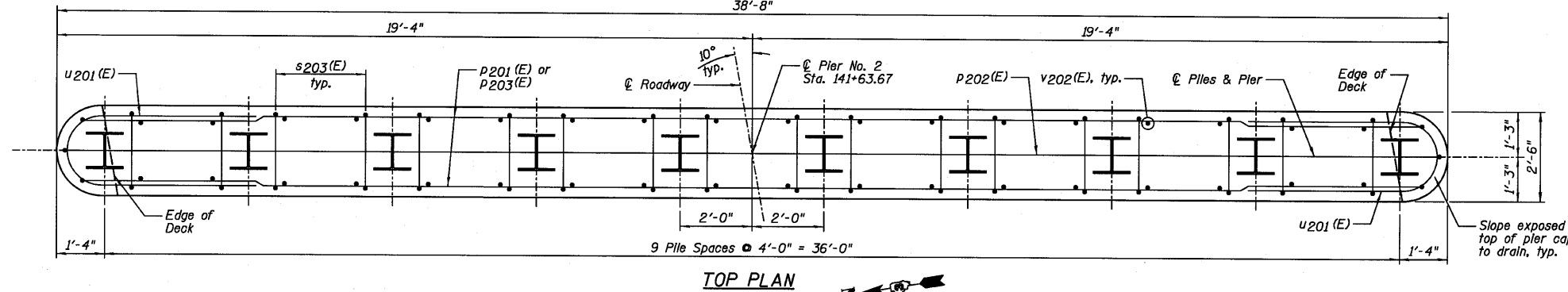
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CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

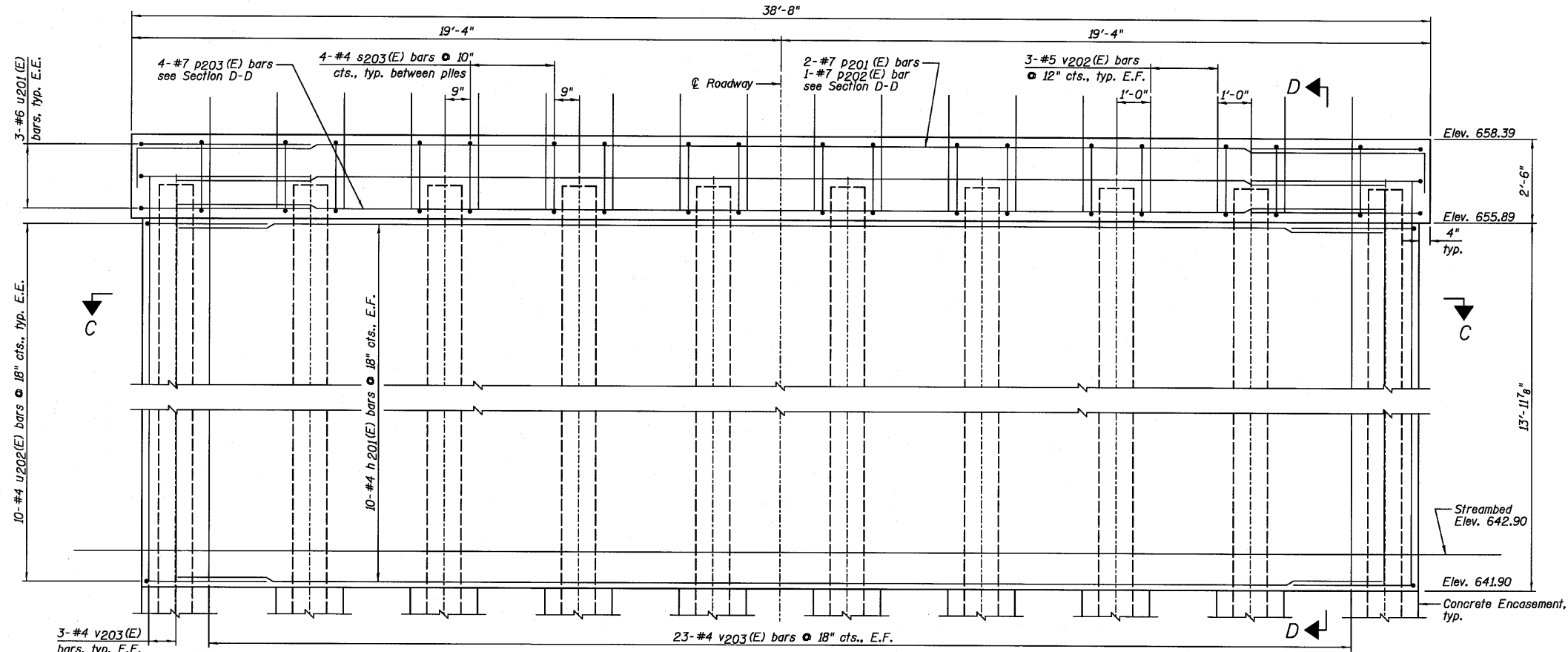
SHEET NO. D13  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	80
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	CONTRACT NO. 66880	

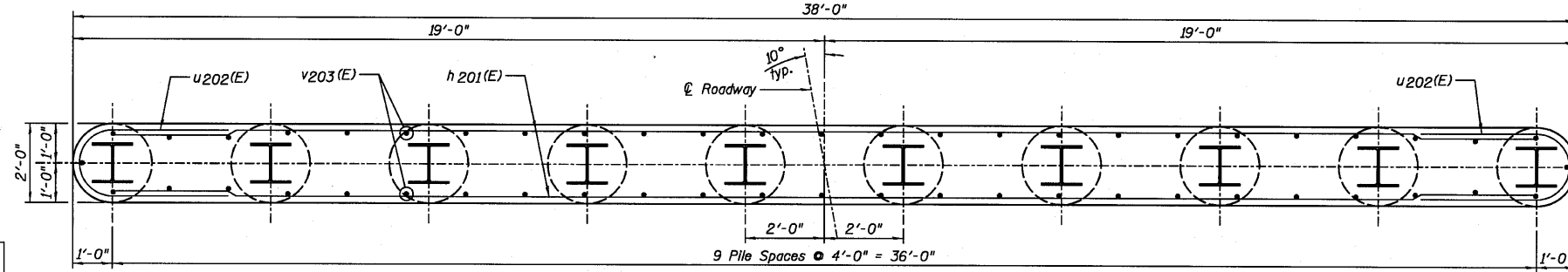
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TOP PLAN



ELEVATION  
(Looking East)



SECTION C-C

PIER NO. 2  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h201(E)	20	#4	36'-0"	—
p201(E)	2	#7	39'-4"	—
p202(E)	1	#7	40'-6"	—
p203(E)	4	#7	37'-0"	—
s203(E)	36	#4	9'-5"	□
u201(E)	6	#6	12'-3"	—
u202(E)	20	#4	8'-5"	—
v202(E)	54	#5	3'-3"	—
v203(E)	52	#4	15'-1"	—
Item	Unit	Quantity		
Structure Excavation	Cu. Yd.	44		
Concrete Structures	Cu. Yd.	47.7		
Concrete Encasement	Cu. Yd.	3.5		
Reinforcement Bars, Epoxy Coated	Pound	2,180		
Furnishing Steel Piles HPI2x63	Foot	550		
Driving Piles	Foot	550		
Underwater Structure Excavation Protection - Location 2	Each	1		

PILE DATA:

Pile Type and Size	Steel - HPI2x63
Nominal Required Bearing	320 klps
Factored Resistance Available	160 klps
Estimated Pile Length	55 Feet
Number of Production Piles	10
Number of Test Piles	0

NOTES:

- 1.) If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed under water into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation 1'-0" above the water line at the time of construction.
- 2.) E.F. denotes Each Face and E.E. denotes Each End.
- 3.) See Sheet D15 for Section D-D.

PIER NO. 2  
STRUCTURE NO. 027-0100

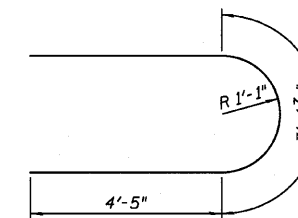
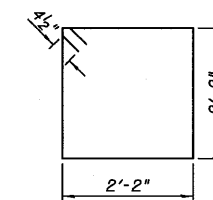
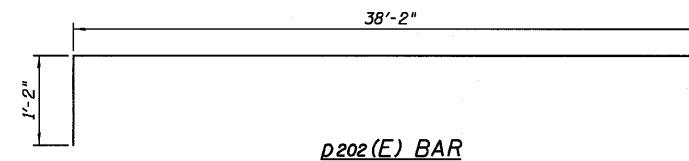
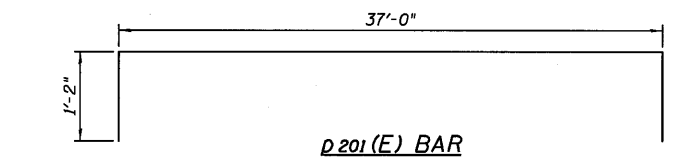
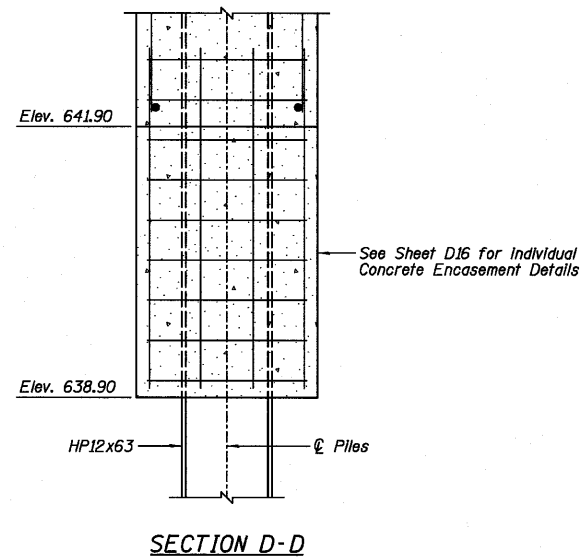
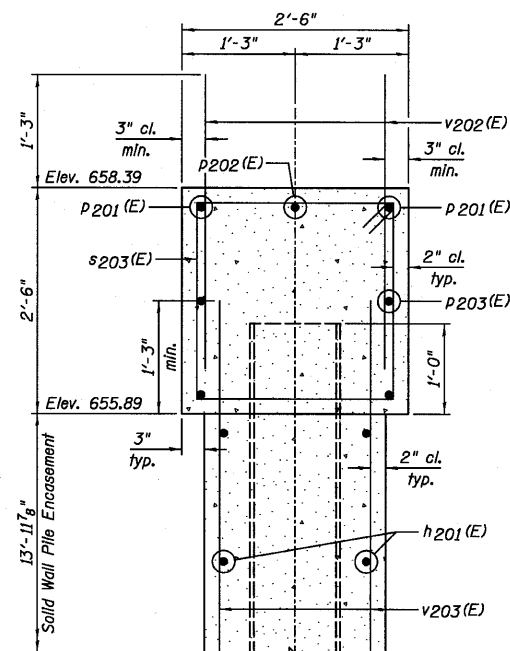
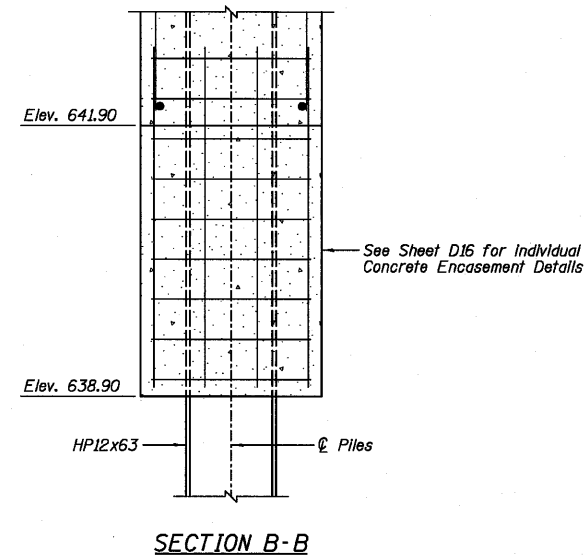
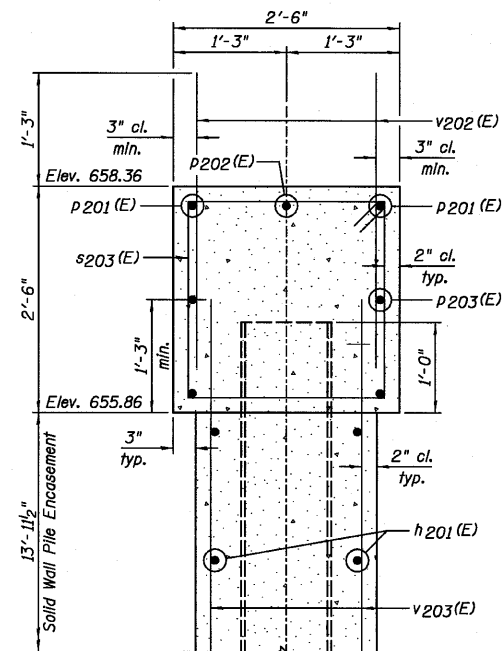
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CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

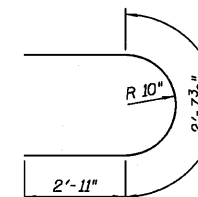
SHEET NO. D14  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	81
CONTRACT NO. 66880				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



U201(E) BAR



U202(E) BAR

NOTES:

- 1.) 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 1'-0" above the water line at the time of construction.
- 2.) See Sheet D13 for location of Section B-B.
- 3.) See Sheet D14 for location of Section D-D.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

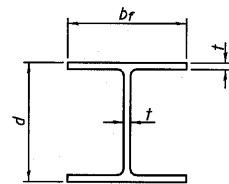
SHEET NO. D15	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	681	*	FORD/IROQUOIS	146	82
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
			CONTRACT NO. 66880		

PIER DETAILS  
STRUCTURE NO. 027-0100

\* 116 BR/116 BR, (BR-2)BR, I & BR-31

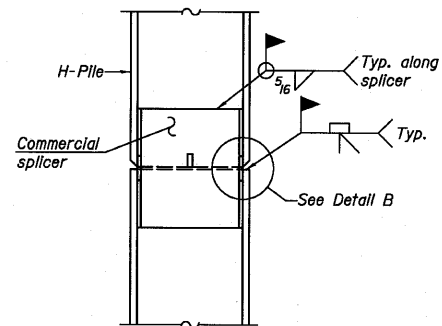
24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

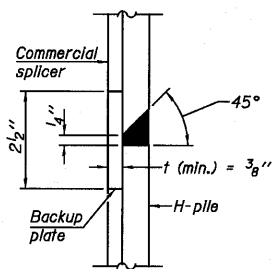


STEEL PILE TABLE

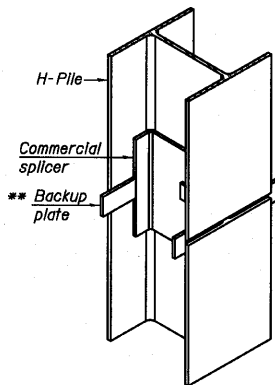
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	3/8"	30"
x102	14"	14 3/4"	1/8"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/8"	24"
x74	12 5/8"	12 1/4"	5/8"	24"
x63	12"	12 5/8"	1/2"	24"
x53	11 3/4"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



ELEVATION

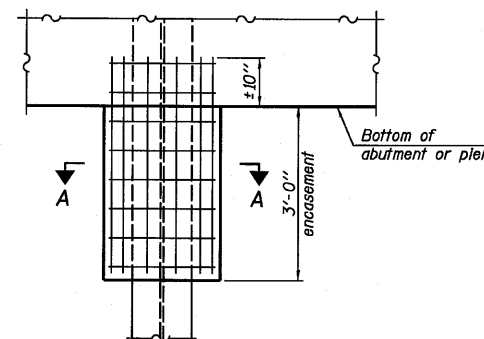


DETAIL "B"



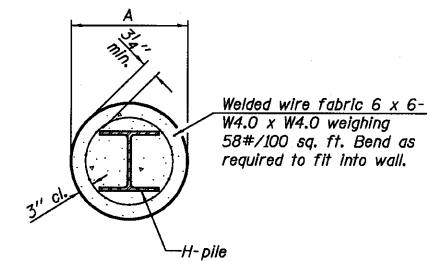
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



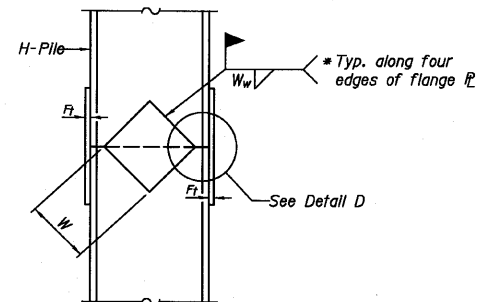
ELEVATION

PILE ENCASEMENT

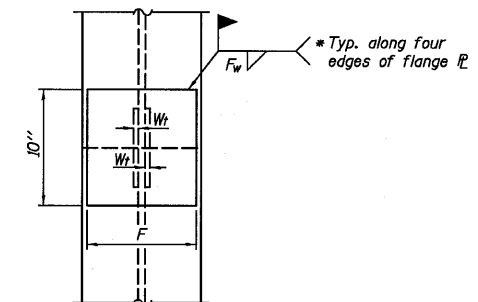


SECTION A-A

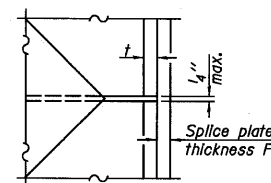
Note:  
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



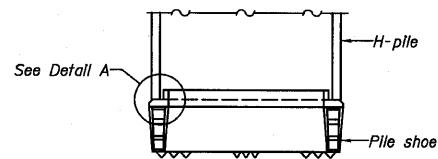
END VIEW



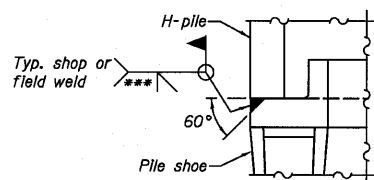
DETAIL D

WELDED PLATE FIELD SPLICE

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

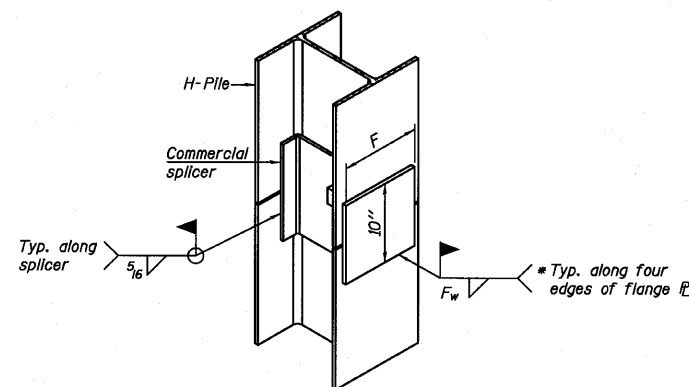


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).

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

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

F-HP

7-1-10

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. D16  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	83
CONTRACT NO. 66880				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

HP PILE DETAILS  
STRUCTURE NO. 027-0100

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Illinois Department  
of Transportation  
Division of Highways  
District #3, Ottawa

SOIL BORING LOG

Page 1 of 2

Date 3/2/09

ROUTE SBI-116 (IL 116) DESCRIPTION IL 116 over Drainage Ditch 2.67 MI E. of IL 115 LOGGED BY LM  
SECTION 116-BR-1 LOCATION SE1/4 of SE 1/4, SEC. 23, TWP. 28N, RNG. 9E  
COUNTY Ford DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	BORING NO. Station	Offset ft	Ground Surface Elev. ft	D E P T H ft	B L O W S Qu	U C S (tsf)	M O I S T (%)	Surface Water Elev. 645.78 ft				Stream Bed Elev. 643.56 ft				Groundwater Elev.:							
								First Encounter	Upon Completion	After	Hrs.	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)
Augered white shoulder stone, HMA millings, & Black Silty Clay Loam Fill								Hard Gray Silty Clay Loam/Clay Till with layers of Gray Clay (continued)															
657.41								3															
Very Stiff Black Silty Clay Loam Fill								5 3.5 17.9															
652.91								3 4.3 21.3															
Stiff Gray & Brown Silty Loam/Silty Clay Loam								2 4.0 26.4															
650.41								3 4.0 26.4															
Loose and Stiff Brown Fine/Medium Sand & Silt interbedded - some Sandy Loam and Silty Clay Loam Layers								30 4.0 22.9															
645.41								19.7															
Stiff Brownish-Gray Silty Loam & Silty Clay Loam with Silt Layers								2 2.0 19.9															
642.91								3 3.4 15.0															
Very Stiff Gray Silty Clay Loam Till								3 1.5 27.9															
640.41								3 1.5 27.9															

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)



Illinois Department  
of Transportation  
Division of Highways  
District #3, Ottawa

SOIL BORING LOG

Page 2 of 2

Date 3/2/09

ROUTE SBI-116 (IL 116) DESCRIPTION IL 116 over Drainage Ditch 2.67 MI E. of IL 115 LOGGED BY LM  
SECTION 116-BR-1 LOCATION SE1/4 of SE 1/4, SEC. 23, TWP. 28N, RNG. 9E  
COUNTY Ford DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	BORING NO. Station	Offset ft	Ground Surface Elev. ft	D E P T H ft	B L O W S Qu	U C S (tsf)	M O I S T (%)	Surface Water Elev. 645.78 ft				Stream Bed Elev. 643.56 ft				Groundwater Elev.:							
								First Encounter	Upon Completion	After	Hrs.	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)
Soft to Hard Gray Silt with minor Clay (continued)								8															
612.41								22 9.3 21.4															
Hard Gray Silty Clay Loam Till with some Silt & Sand seams (continued)								26															
612.41								29.5															
Hard Gray Silty Clay Loam Till with some Silt & Sand seams								20															
612.41								11.3															
End of Boring								593.41															
612.41								11.0															
Hard Gray Silty Clay Loam Till with some Silt & Sand seams								8.8															
612.41								10.2															
Hard Gray Silty Clay Loam Till with some Silt & Sand seams								17.7															
612.41								10.6															
Hard Gray Silty Clay Loam Till with some Silt & Sand seams								8.7															
612.41								8.7															

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)

DESIGNED SDH
CHECKED JML
DRAWN JWK/DJM
CHECKED MSW

DATE 08/04/10

SOIL BORING LOGS  
STRUCTURE NO. 027-0100

 Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. D17	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS	681	*	FORD/IROQUOIS	146	84
	CONTRACT NO. 66880					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271





STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WATERWAY INFORMATION

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exst.	Prop.	H.W.E.	Exst.	Prop.	Exst.	Prop.
Design	10	472	204	376	652.6	0.0	0.0	652.6	652.6
Base	50	717	287	494	654.5	0.0	0.0	654.5	654.5
Overtopping	100	821	321	541	655.1	0.0	0.0	655.1	655.1
Max. Calc.	500	1066	401	647	656.6	0.0	0.0	656.6	656.6

10 Yr. Velocity = 1.3 ft/sec. (Proposed)  
10 Yr. Velocity = 2.5 ft/sec. (Existing)

SCOUR INFORMATION

Design Scour Elevation (ft.)	West Abutment	Pier 1	Pier 2	East Abutment
	655.44	639.18	639.18	655.37

INDEX OF SHEETS

SHEET NO.	TITLE
E1	GENERAL PLAN AND ELEVATION
E2	GENERAL DATA
E3	TOP OF SLAB ELEVATION LOCATIONS AND ELEVATIONS
E4	APPROACH SLAB ELEVATIONS
E5-E6	SUPERSTRUCTURE DECK
E7	SUPERSTRUCTURE CROSS SECTION
E8	SUPERSTRUCTURE DETAILS
E9-E10	BRIDGE APPROACH SLAB DETAILS
E11	WEST ABUTMENT
E12	EAST ABUTMENT
E13	PIER NO. 1
E14	PIER NO. 2
E15	PIER DETAILS
E16	HP PILE DETAILS
E17-E18	SOIL BORING LOGS

Benchmarks: 1.) Chiseled "□" top Southeast wingwall, Station 174+94/17' RT., Elevation = 659.90.  
2.) 80d Spike in wood fence post, Station 172+39/±4' LT., Elevation = 654.96.

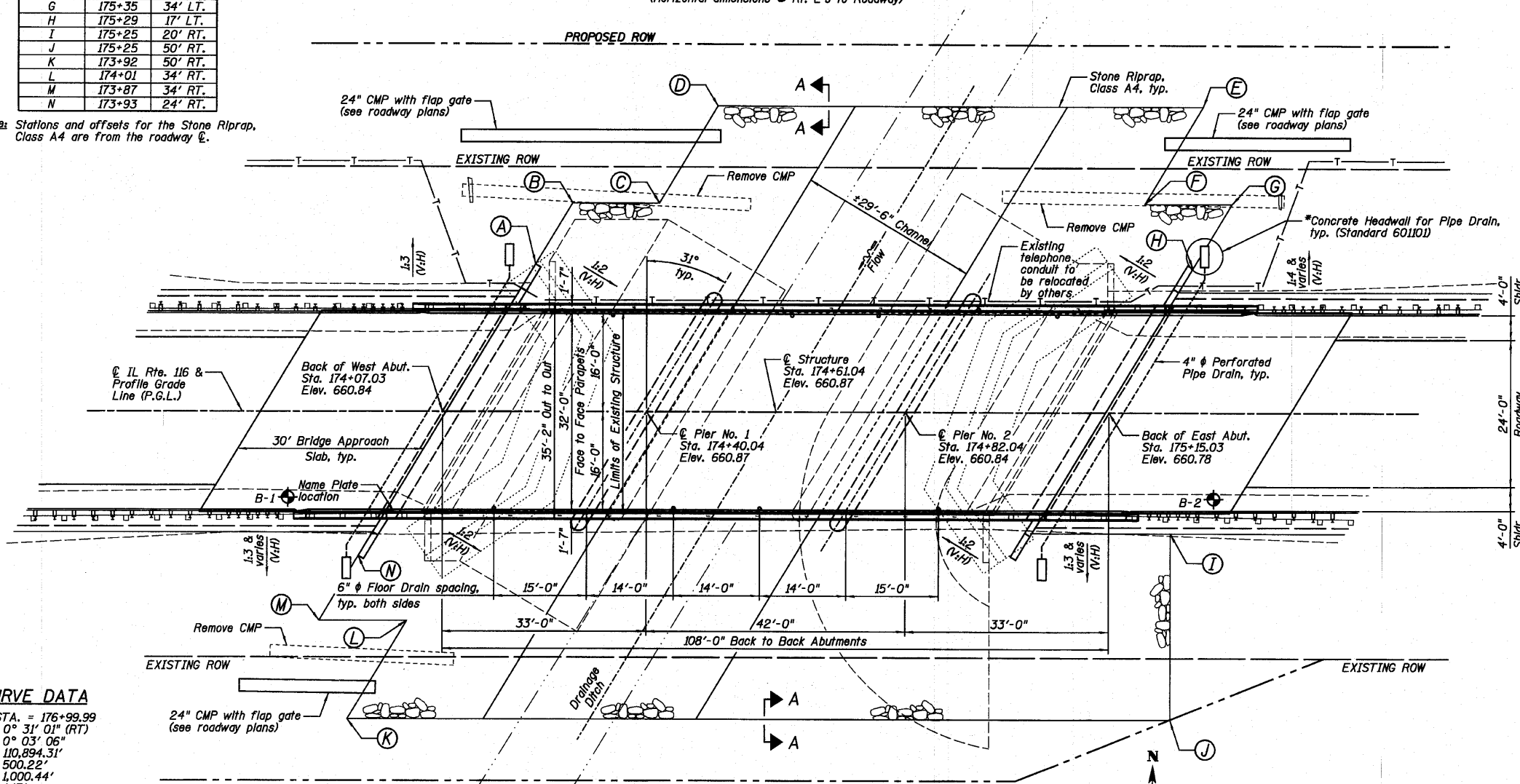
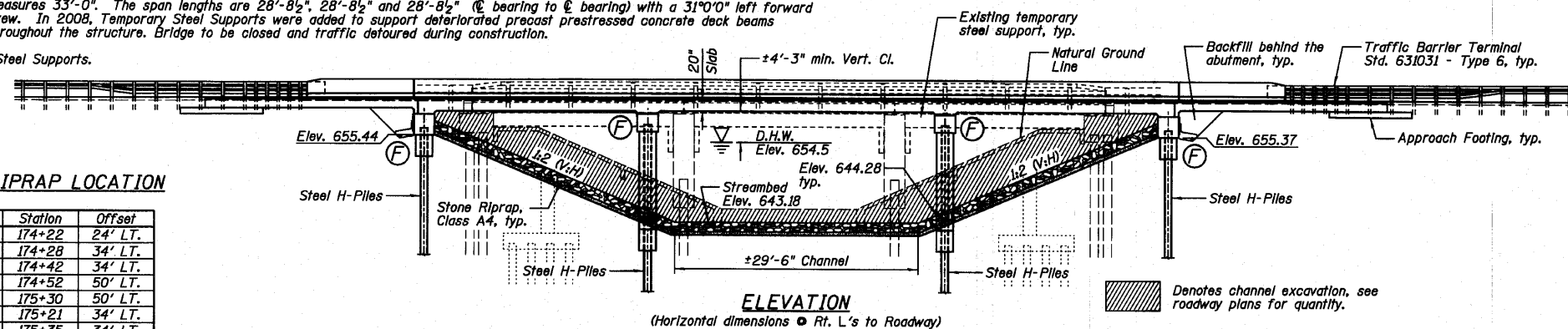
Existing Structure: S.N. 027-0046, built in 1972 as SBI 116 Section 116BR-2. The superstructure consists of simple span precast prestressed concrete deck beams with a steel railing attached to the exterior beams and a bituminous wearing surface. The substructure consists of concrete pile bent abutments supported by precast concrete piles and two concrete solid shaft pile bent piers supported by precast concrete piles. The back to back of abutment dimension measures 93'-0" and the out to out dimension measures 33'-0". The span lengths are 28'-8 1/2", 28'-8 1/2" and 28'-8 1/2" (to bearing to bearing) with a 31'-0" left forward skew. In 2008, Temporary Steel Supports were added to support deteriorated precast prestressed concrete deck beams throughout the structure. Bridge to be closed and traffic detoured during construction.

Salvage: Temporary Steel Supports.

STONE RIPRAP LOCATION

Location	Station	Offset
A	174+22	24' LT.
B	174+28	34' LT.
C	174+42	34' LT.
D	174+52	50' LT.
E	175+30	50' LT.
F	175+21	34' LT.
G	175+35	34' LT.
H	175+29	17' LT.
I	175+25	20' RT.
J	175+25	50' RT.
K	173+92	50' RT.
L	174+01	34' RT.
M	173+87	34' RT.
N	173+93	24' RT.

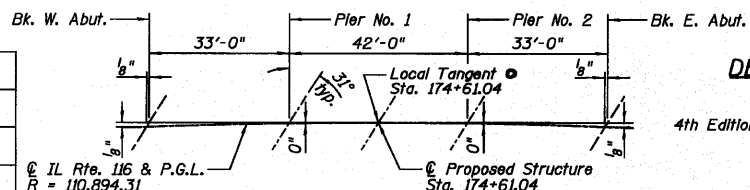
Note: Stations and offsets for the Stone Riprap, Class A4 are from the roadway centerline.



CURVE DATA

PI STA. = 176+99.99  
Δ = 0° 31' 01" (RT)  
D = 0° 03' 06"  
R = 110,894.31'  
T = 500.22'  
L = 1,000.44'  
E = 1.13'  
P.C. STA. = 171+99.76  
P.T. STA. = 182+00.20

PLAN



OFFSET SKETCH

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Edition (with 2008 and 2009 Interim Revisions)

DESIGN STRESSES

FIELD UNITS  
f'c = 3,500 psi (Cast-in-Place)  
fy = 60,000 psi (Reinforcement)

LOADING HL-93

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

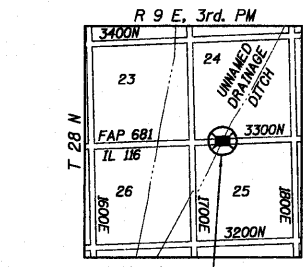
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.077 g  
Design Spectral Acceleration at 0.2 sec. (SD2) = 0.132 g  
Soil Site Class = C

\*Included in the cost of Pipe Underdrains for Structures.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/863-8435, 309/863-1571 fax

LOCATION SKETCH



JOSEPH M. LOWRANCE  
ILLINOIS STRUCTURAL ENGINEER  
NO. 081-008446  
Exp. Date 11/30/10

APPROVED FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (Seal)  
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN AND ELEVATION  
IL. ROUTE 116 OVER  
UNNAMED DRAINAGE DITCH  
F.A.P. 681 - SECTION (116)BR-3  
FORD COUNTY  
STATION 174+61.04  
STRUCTURE NO. 027-0098

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

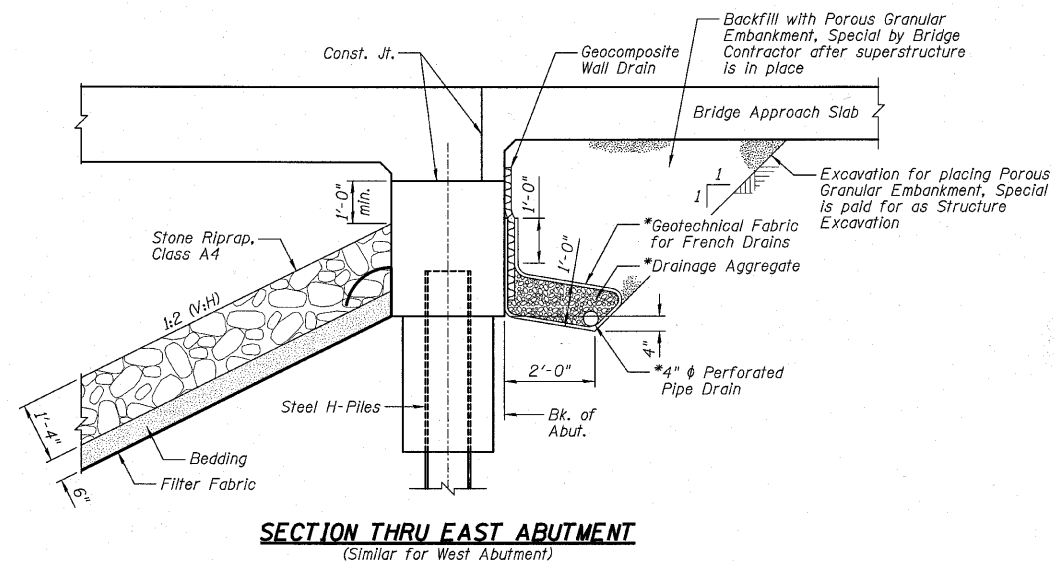
DATE 08/04/10

SHEET NO. E1	F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 86
18 SHEETS	CONTRACT NO. 66880		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**TOTAL BILL OF MATERIAL**

ITEMS	UNITS	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		70	70
Stone Riprap, Class A4	Sq. Yd.		1,295	1,295
Filter Fabric	Sq. Yd.		1,295	1,295
Removal of Existing Structures No. 6	Each	1		1
Structure Excavation	Cu. Yd.		154	154
Floor Drains	Each	8		8
Concrete Structures	Cu. Yd.		161.7	161.7
Concrete Superstructure	Cu. Yd.	372.5		372.5
Bridge Deck Grooving	Sq. Yd.	555		555
Concrete Encasement	Cu. Yd.		12.6	12.6
Protective Coat	Sq. Yd.	715		715
Reinforcement Bars, Epoxy Coated	Pound	76,460	8,720	85,180
Furnishing Steel Piles HP12x63	Foot		1,154	1,154
Driving Piles	Foot		1,154	1,154
Test Pile Steel HP12x63	Each		1	1
Pile Shoes	Each		36	36
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		40	40
Pipe Underdrains For Structures 4"	Foot		136	136
Underwater Structure Excavation Protection - Location 3	Each		1	1
Underwater Structure Excavation Protection - Location 4	Each		1	1

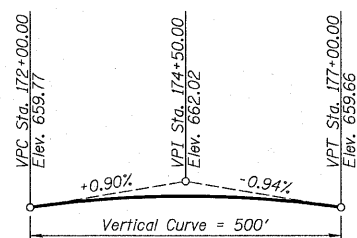


**NOTES:**

- 1.) Horizontal dimensions @ Rt. L's to Abutment.
- 2.) \*Included in the cost of Pipe Underdrains for Structures 4".
- 3.) 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).

**GENERAL NOTES:**

- 1.) Reinforcement bars shall conform to the requirements of ASTM A706 Gr. 60. See Special Provisions.
- 2.) Reinforcement bars designated (E) shall be epoxy coated.
- 3.) Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 4.) The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.
- 5.) Slipforming of parapets is not allowed.
- 6.) The Contractor is advised that the existing PPC deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for the removal and replacement of the structure.
- 7.) The pay item Removal of Existing Structures No. 6 shall include the removal and salvage of the temporary support connections at the abutments, piers and the temporary supports under each superstructure span. All structural steel from the existing temporary supports shall become the property of IDOT and delivered to the Pontiac Maintenance Yard.
- 8.) The pay item Removal of Existing Structures No. 6 shall include removal of the bituminous wearing surface on top of the existing deck.



**PROFILE GRADE**  
(Along & Roadway)

STATION 174+61.04  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 681 SEC. (116)BR-3  
LOADING HL93  
STR. NO. 027-0098

**NAME PLATE**  
See Standard 515001

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**GENERAL DATA**  
**STRUCTURE NO. 027-0098**

<p>2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	SHEET NO. E2	F.A.P. RTE. 681	SECTION *	COUNTY FORD/IROQUOIS	TOTAL SHEETS 146	SHEET NO. 87
	18 SHEETS	CONTRACT NO. 66880				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	174+16.64	-16.01	660.59	660.59
☉ Piles West Abut.	174+18.10	-16.01	660.59	660.59
A	174+28.11	-16.01	660.59	660.60
B	174+38.11	-16.01	660.60	660.60
☉ Pier No. 1	174+49.65	-16.00	660.60	660.60
C	174+59.65	-16.00	660.60	660.60
D	174+69.65	-16.00	660.59	660.60
E	174+79.65	-16.00	660.58	660.59
☉ Pier No. 2	174+91.65	-16.00	660.56	660.56
F	175+01.65	-16.01	660.54	660.54
G	175+11.65	-16.01	660.52	660.52
☉ Piles East Abut.	175+23.19	-16.01	660.49	660.49
Back of East Abut.	175+24.64	-16.01	660.48	660.48

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	174+14.24	-12.01	660.67	660.67
☉ Piles West Abut.	174+15.70	-12.01	660.67	660.67
A	174+25.71	-12.01	660.68	660.68
B	174+35.71	-12.01	660.68	660.69
☉ Pier No. 1	174+47.25	-12.00	660.68	660.68
C	174+57.25	-12.00	660.68	660.69
D	174+67.25	-12.00	660.67	660.69
E	174+77.25	-12.00	660.66	660.67
☉ Pier No. 2	174+89.25	-12.00	660.65	660.65
F	174+99.25	-12.01	660.63	660.63
G	175+09.25	-12.01	660.61	660.61
☉ Piles East Abut.	175+20.78	-12.01	660.58	660.58
Back of East Abut.	175+22.24	-12.01	660.57	660.57

☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)

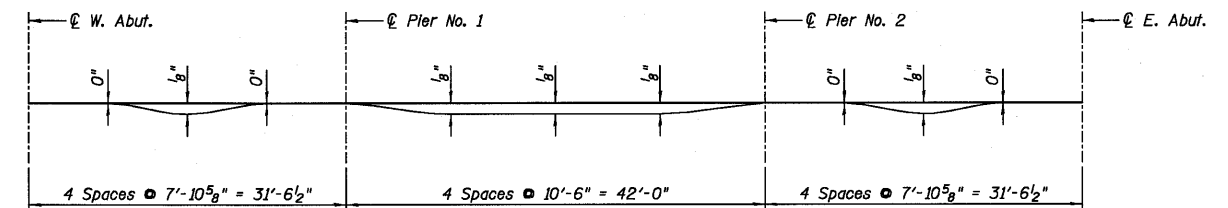
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	174+07.03	-0.01	660.84	660.84
☉ Piles West Abut.	174+08.49	-0.01	660.85	660.85
A	174+18.50	-0.01	660.86	660.86
B	174+28.50	-0.01	660.87	660.87
☉ Pier No. 1	174+40.04	0.00	660.87	660.87
C	174+50.04	0.00	660.87	660.88
D	174+60.04	0.00	660.87	660.88
E	174+70.04	0.00	660.86	660.87
☉ Pier No. 2	174+82.04	0.00	660.84	660.84
F	174+92.04	-0.01	660.83	660.83
G	175+02.04	-0.01	660.81	660.82
☉ Piles East Abut.	175+13.57	-0.01	660.78	660.78
Back of East Abut.	175+15.03	-0.01	660.78	660.78

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	173+99.82	11.99	660.65	660.65
☉ Piles West Abut.	174+01.28	11.99	660.65	660.65
A	174+11.29	11.99	660.66	660.67
B	174+21.29	11.99	660.67	660.68
☉ Pier No. 1	174+32.83	12.00	660.68	660.68
C	174+42.83	12.00	660.68	660.69
D	174+52.83	12.00	660.68	660.69
E	174+62.83	12.00	660.68	660.69
☉ Pier No. 2	174+74.83	12.00	660.67	660.67
F	174+84.83	11.99	660.65	660.66
G	174+94.83	11.99	660.64	660.64
☉ Piles East Abut.	175+06.36	11.99	660.61	660.61
Back of East Abut.	175+07.82	11.99	660.61	660.61

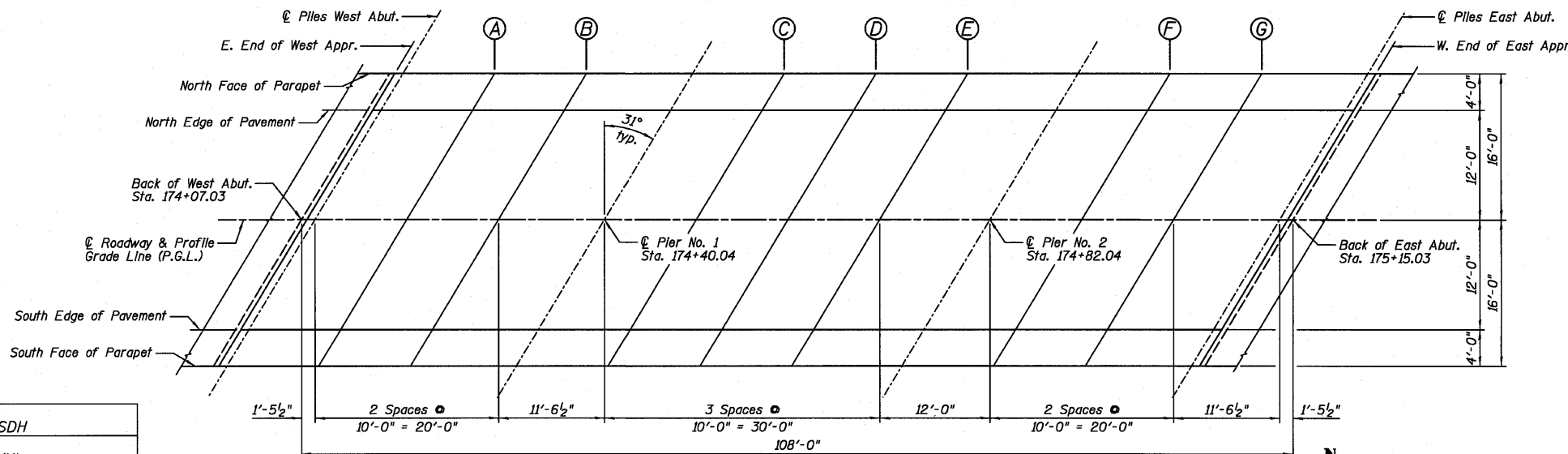
SOUTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of West Abut.	173+97.42	15.99	660.56	660.56
☉ Piles West Abut.	173+98.87	15.99	660.56	660.56
A	174+08.88	15.99	660.58	660.58
B	174+18.88	15.99	660.59	660.59
☉ Pier No. 1	174+30.43	16.00	660.60	660.60
C	174+40.43	16.00	660.60	660.61
D	174+50.43	16.00	660.60	660.61
E	174+60.43	16.00	660.60	660.61
☉ Pier No. 2	174+72.43	16.00	660.59	660.59
F	174+82.43	15.99	660.57	660.58
G	174+92.43	15.99	660.56	660.56
☉ Piles East Abut.	175+03.96	15.99	660.53	660.53
Back of East Abut.	175+05.42	15.99	660.53	660.53



DEAD LOAD DEFLECTION DIAGRAM  
(Includes weight of concrete only)

The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection."



ELEVATION LOCATION PLAN

NOTE:

Offset dimensions are from the Roadway ☉. See offset sketch on Sheet E1 for additional information.

TOP OF SLAB ELEVATION  
LOCATIONS AND ELEVATIONS  
STRUCTURE NO. 027-0098

DESIGNED SDH
CHECKED JML
DRAWN JWK/DJM
CHECKED MSW

DATE 08/04/10

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E3  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	88
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66880				

\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH CURB LINE/NORTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr.	173+87.48	-16.45	660.53
A	173+97.48	-16.44	660.55
B	174+07.23	-16.02	660.57
Back of West Abut.	174+16.64	-16.01	660.59
E. End of West Appr.	174+17.23	-16.01	660.59

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr.	173+84.82	-12.03	660.62
A	173+94.82	-12.03	660.64
B	174+04.82	-12.02	660.65
Back of West Abut.	174+14.24	-12.01	660.67
E. End of West Appr.	174+14.82	-12.01	660.67

☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)

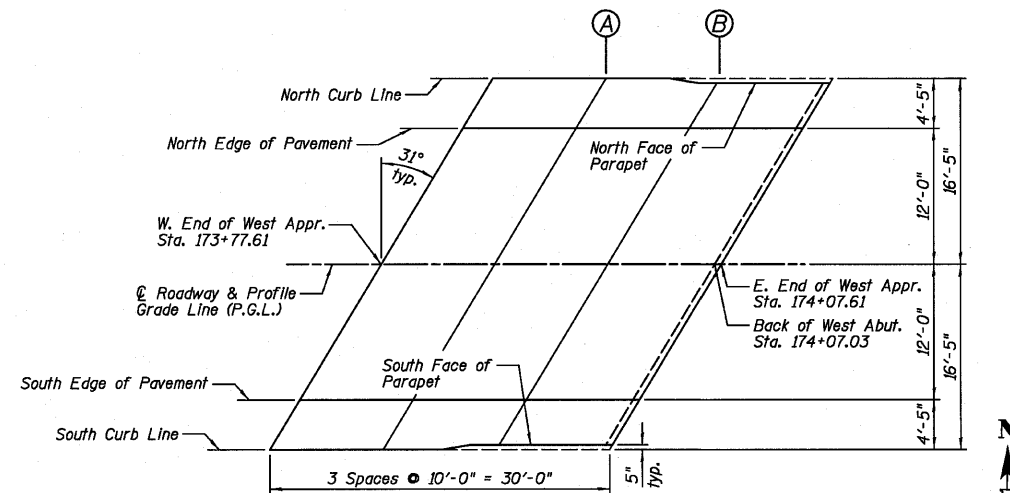
Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr.	173+77.61	-0.03	660.79
A	173+87.61	-0.03	660.81
B	173+97.61	-0.02	660.83
Back of West Abut.	174+07.03	-0.01	660.84
E. End of West Appr.	174+07.61	-0.01	660.85

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr.	173+70.40	11.97	660.58
A	173+80.40	11.97	660.61
B	173+90.40	11.98	660.63
Back of West Abut.	173+99.82	11.99	660.65
E. End of West Appr.	174+00.40	11.99	660.65

SOUTH CURB LINE/SOUTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr.	173+67.75	16.39	660.48
A	173+77.75	16.38	660.51
B	173+88.00	15.98	660.54
Back of West Abut.	173+97.42	15.99	660.56
E. End of West Appr.	173+98.00	15.99	660.56



WEST APPROACH SLAB PLAN

NORTH CURB LINE/NORTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr.	175+24.06	-16.01	660.48
Back of East Abut.	175+24.64	-16.01	660.48
A	175+34.06	-16.02	660.45
B	175+44.31	-16.44	660.41
E. End of East Appr.	175+54.31	-16.45	660.37

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr.	175+21.66	-12.01	660.57
Back of East Abut.	175+22.24	-12.01	660.57
A	175+31.66	-12.02	660.54
B	175+41.66	-12.03	660.51
E. End of East Appr.	175+51.66	-12.03	660.47

☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)

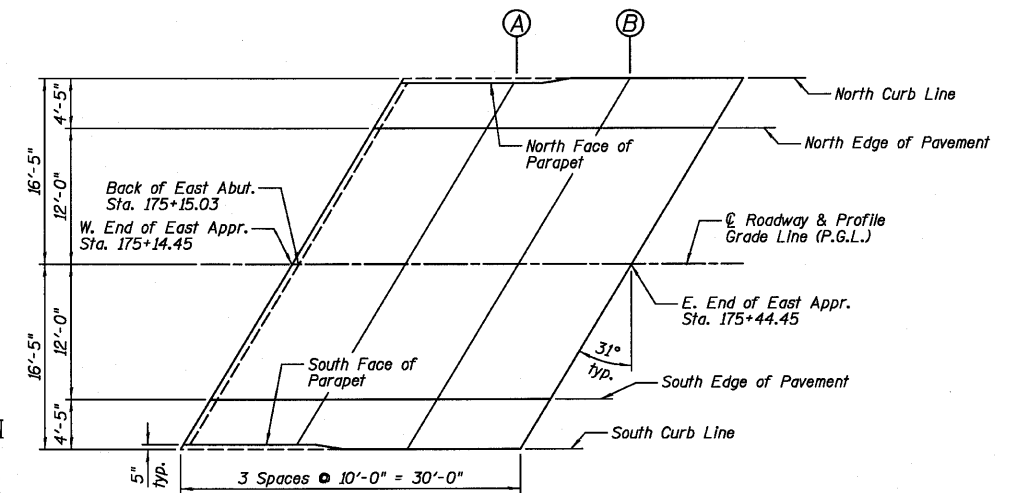
Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr.	175+14.45	-0.01	660.78
Back of East Abut.	175+15.03	-0.01	660.78
A	175+24.45	-0.02	660.75
B	175+34.45	-0.03	660.72
E. End of East Appr.	175+44.45	-0.03	660.69

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr.	175+07.24	11.99	660.61
Back of East Abut.	175+07.82	11.99	660.61
A	175+17.24	11.98	660.59
B	175+27.24	11.97	660.56
E. End of East Appr.	175+37.24	11.97	660.53

SOUTH CURB LINE/SOUTH FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr.	175+04.83	15.99	660.53
Back of East Abut.	175+05.42	15.99	660.53
A	175+14.83	15.98	660.51
B	175+24.58	16.38	660.47
E. End of East Appr.	175+34.58	16.39	660.44



EAST APPROACH SLAB PLAN

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**NOTE:**  
Offset dimensions are from the Roadway ☉.  
See offset sketch on Sheet E1 for additional information.

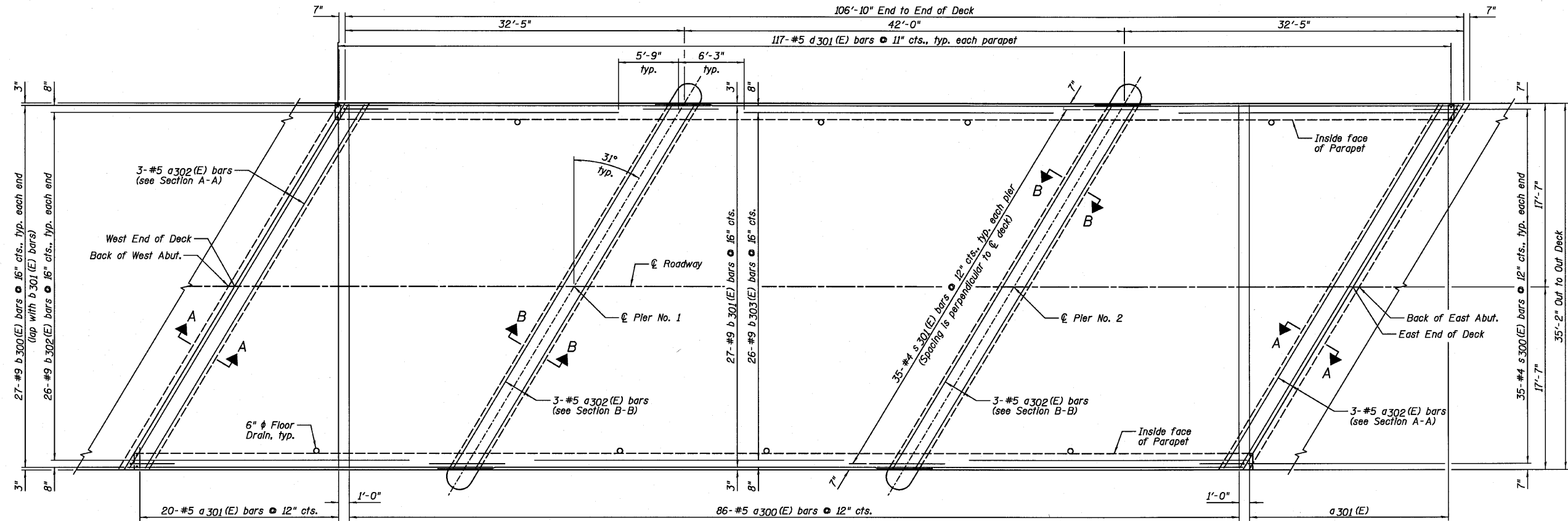
APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 027-0098

<b>Farnsworth GROUP, INC.</b> 2709 McGraw Drive Bloomington, Illinois 61704 309/683-8435, 309/683-1571 fax	SHEET NO. E4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS	681	*	FORD/IROQUOIS	146	89
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 66880

\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



BOTTOM OF SLAB PLAN



BAR LAP  
#9 - 5'-3"

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

NOTES:

- 1.) See Sheet E8 for Superstructure Details and Bill of Material.
- 2.) See Sheet E7 for Sections A-A and B-B.
- 3.) See Sheet E8 for Floor Drain details.
- 4.) Order #5 bars full length. Cut according to Bar Cutting Diagram on Sheet E8. Use remainder of bars in opposite end of deck.

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Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E5

18 SHEETS

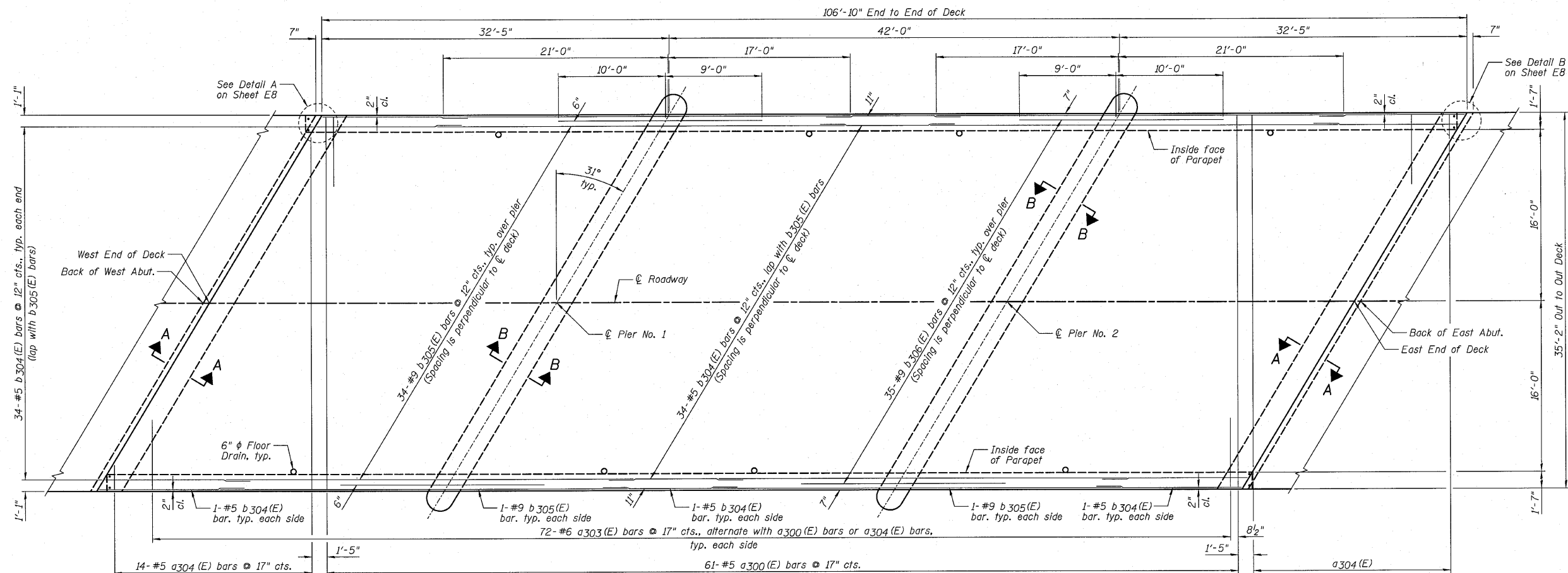
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681	*	FORD/IROQUOIS	146	90
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

SUPERSTRUCTURE DECK  
STRUCTURE NO. 027-0098

\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TOP OF SLAB PLAN



NOTES:

- 1.) See Sheet E8 for Superstructure Details and Bill of Material.
- 2.) See Sheet E7 for Sections A-A and B-B.
- 3.) See Sheet E8 for Floor Drain details.
- 4.) Order a304(E) bars full length. Cut according to Bar Cutting Diagram on Sheet E8. Use remainder of bars in opposite end of deck.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

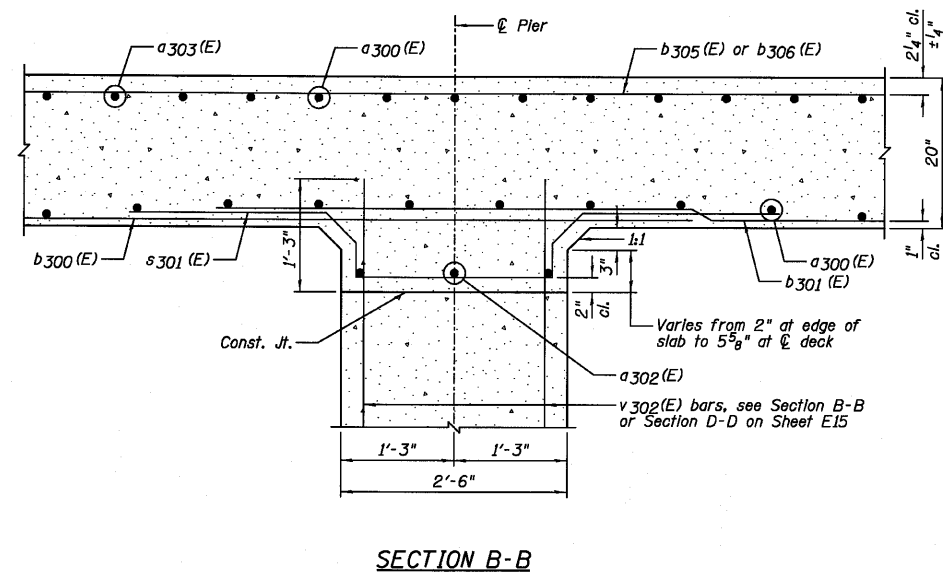
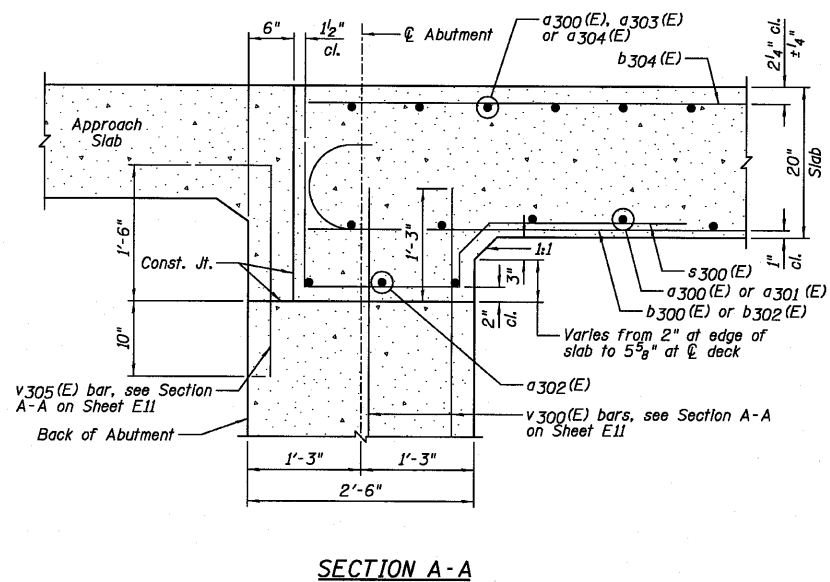
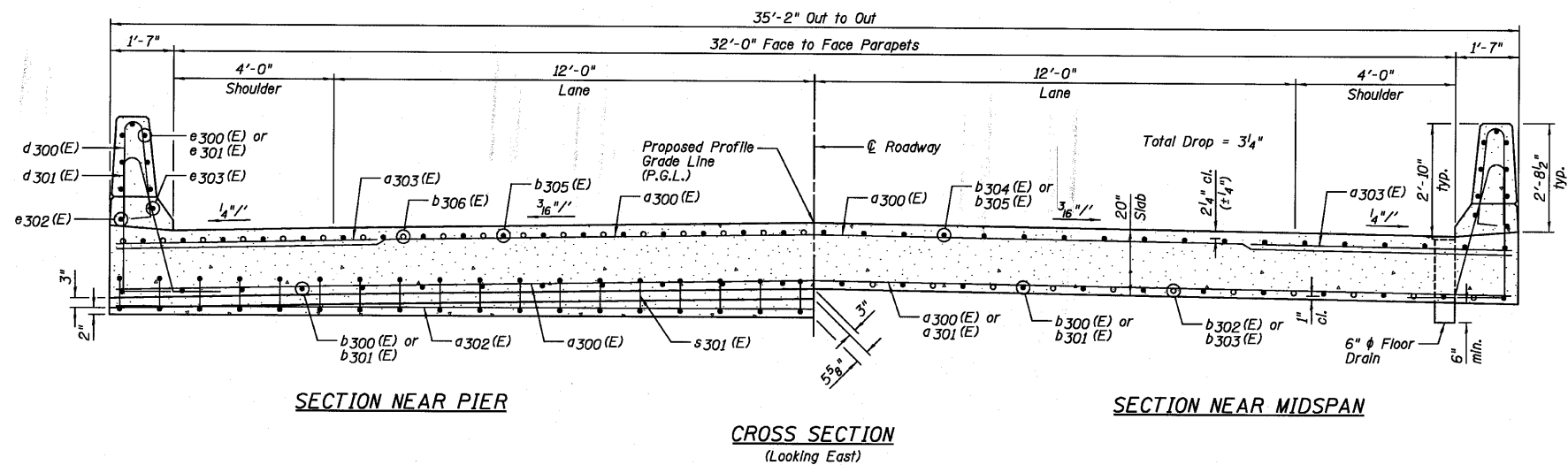
**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E6  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	91
CONTRACT NO. 66880				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUPERSTRUCTURE DECK  
STRUCTURE NO. 027-0098

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



DESIGNED	SDH
CHECKED	JML
DRAWN	JMK/DJM
CHECKED	MSW

DATE 08/04/10

NOTES:

- 1.) For Section Thru Parapet, see Sheet E8.
- 2.) For locations of Sections A-A and B-B, see Sheets E5 and E6.

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Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E7  
18 SHEETS

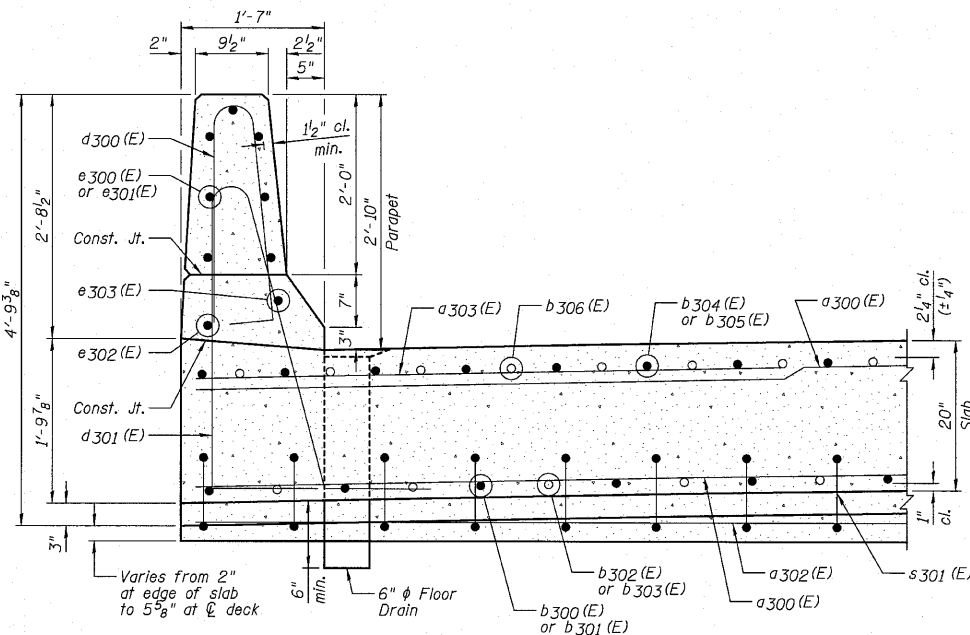
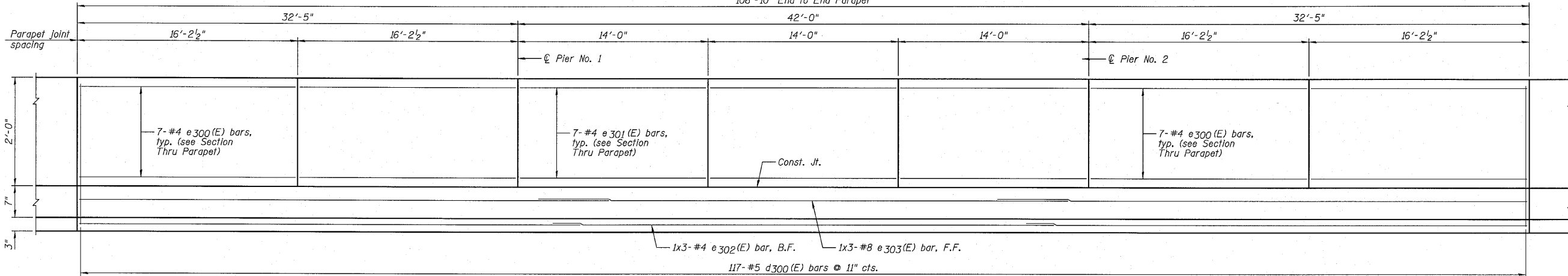
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	92
CONTRACT NO. 66880				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUPERSTRUCTURE CROSS SECTION  
STRUCTURE NO. 027-0098



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

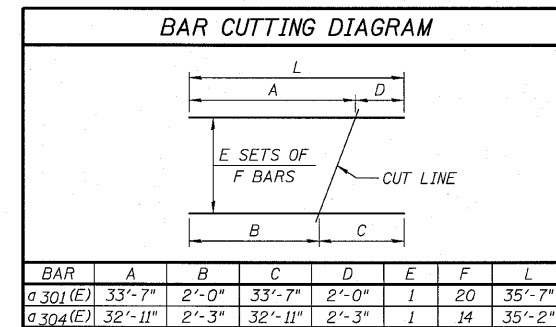
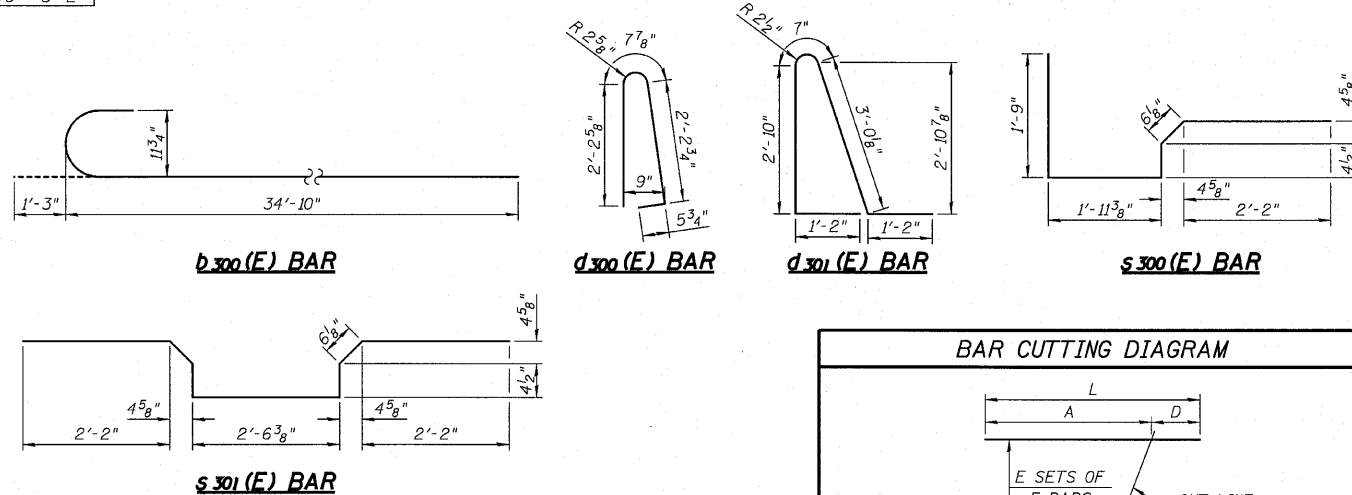
106'-10" End to End Parapet



SECTION THRU PARAPET

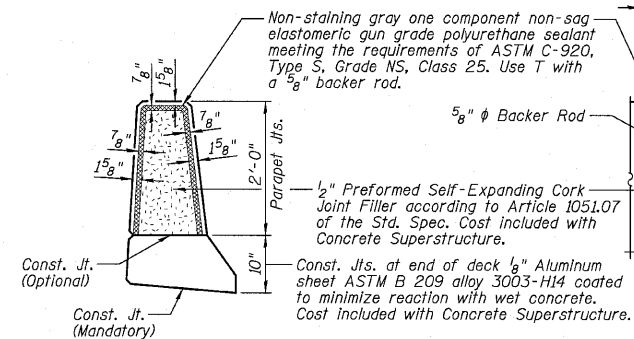
INSIDE ELEVATION OF PARAPET

BAR LAP  
#4 - 2'-0"  
#8 - 5'-2"

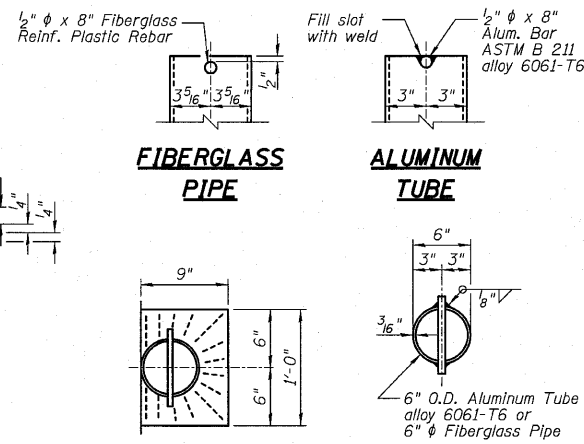


SUPERSTRUCTURE  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a300(E)	147	#5	34'-10"	—
a301(E)	20	#5	35'-7"	—
a302(E)	12	#5	40'-8"	—
a303(E)	144	#6	6'-6"	—
a304(E)	14	#5	35'-2"	—
b300(E)	54	#9	36'-1"	C
b301(E)	27	#9	47'-3"	—
b302(E)	52	#9	26'-6"	—
b303(E)	26	#9	29'-6"	—
b304(E)	108	#5	13'-6"	—
b305(E)	72	#9	38'-0"	—
b306(E)	70	#9	19'-0"	—
d300(E)	234	#5	5'-7"	A
d301(E)	234	#5	8'-9"	A
e300(E)	56	#4	15'-11"	—
e301(E)	42	#4	13'-8"	—
e302(E)	6	#4	36'-10"	—
e303(E)	6	#8	38'-11"	—
s300(E)	70	#4	6'-9"	—
s301(E)	70	#4	8'-8"	—
Item	Unit	Quantity		
Concrete	Cu. Yd.	264.7		
Superstructure				
Reinforcement Bars, Epoxy Coated	Pound	48,080		



PARAPET JOINT DETAILS

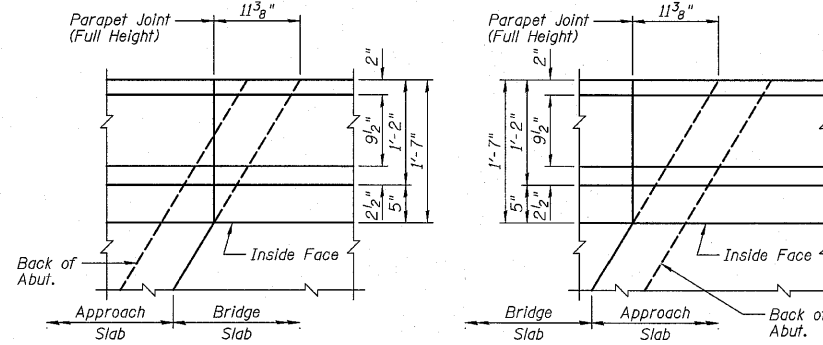


TOP PLAN

TOP PLAN  
(Showing Aluminum Tube)

DRAIN NOTES:

- 1.) Space Drains to miss slab reinforcement.
- 2.) Fiberglass pipe shall conform to ASTM D2996, with short-term rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
- 3.) The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.



DETAIL A

DETAIL B

NOTES:

- 1.) B.F. denotes Back Face and F.F. denotes Front Face.
- 2.) For location of Detail A and Detail B, see Sheet E6.
- 3.) Inside elevation of parapet is exaggerated vertically to show reinforcement.
- 4.) Bars indicated thus 1x3-#4 etc. indicates 1 line of bars with 3 lengths per line.

SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 027-0098

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

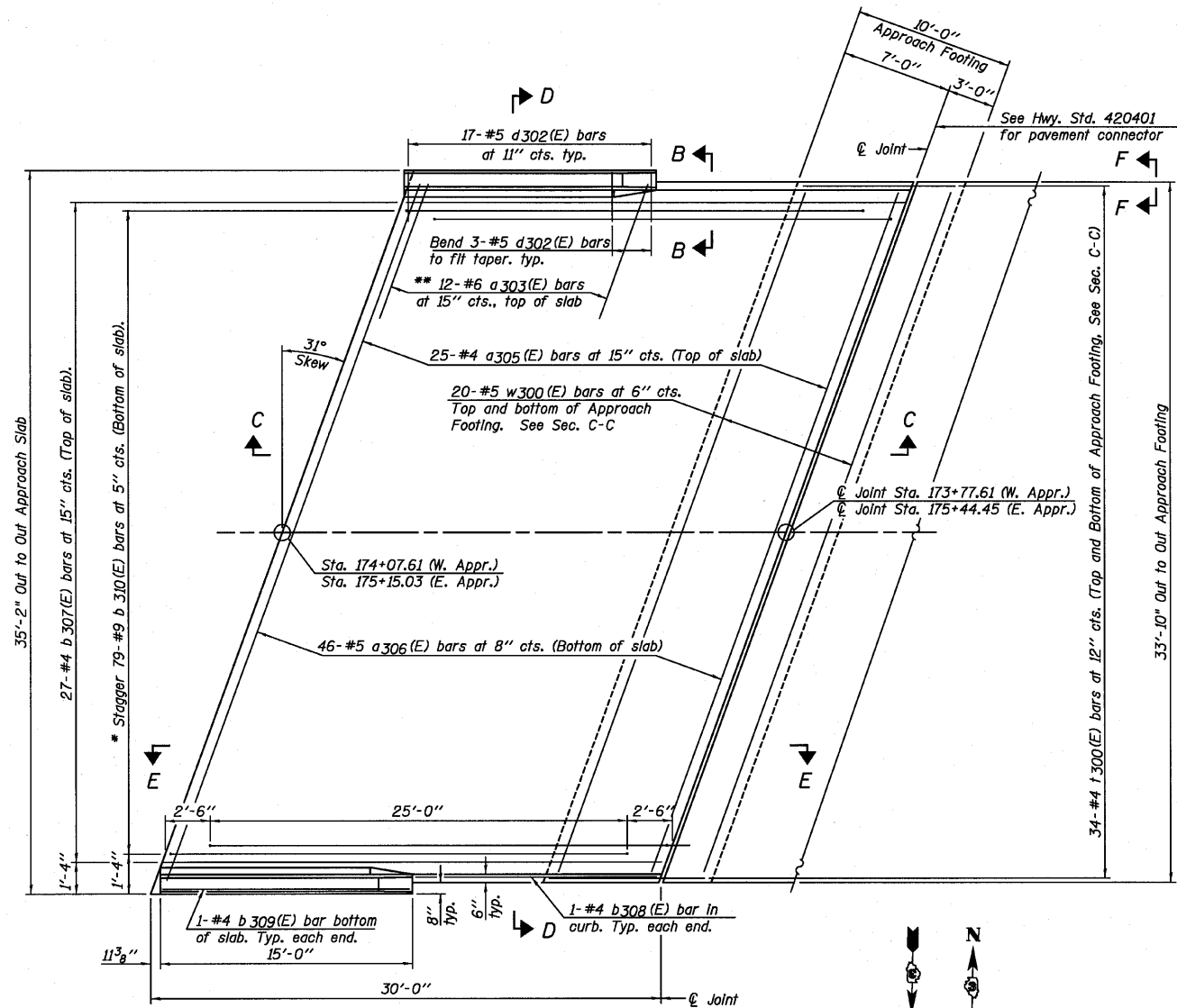
**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E8  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	93
CONTRACT NO. 66880				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

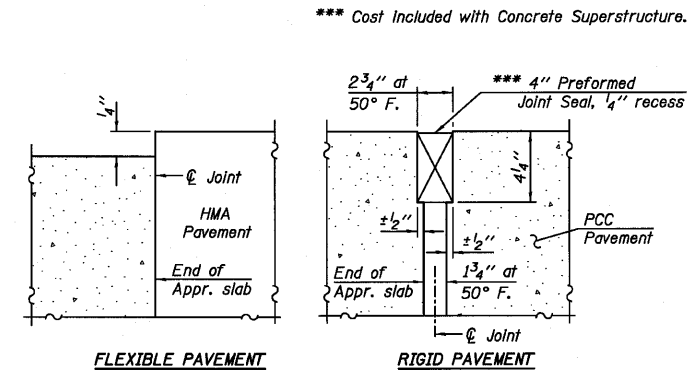
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
See Sheet E10 for Sections C-C & D-D and View E-E.  
a305(E) and a306(E) bar spacings measured along  $\text{\textcircled{C}}$  Rdwy.

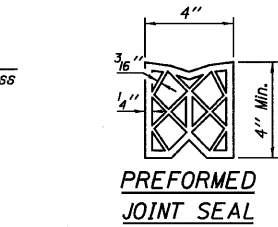


PLAN

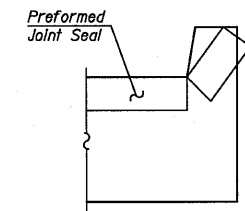
\* Tilt #9 b310(E) bars as required to maintain clearance.  
\*\* Space between a305(E) bars, typ. each parapet.



DETAIL A

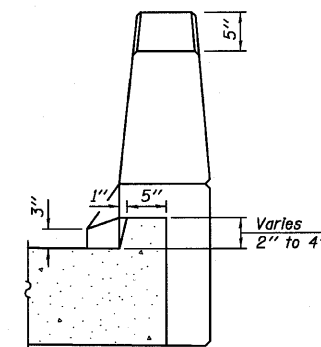


PREFORMED JOINT SEAL



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



VIEW B-B

DESIGNED SDH
CHECKED JML
DRAWN JWK/DJM
CHECKED MSW

DATE 08/04/10

BA-L

7-1-10

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2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E9

18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	94
CONTRACT NO. 66880				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

\* 116 BR/L116 BR, (BR-2)BR, I & BR-3J

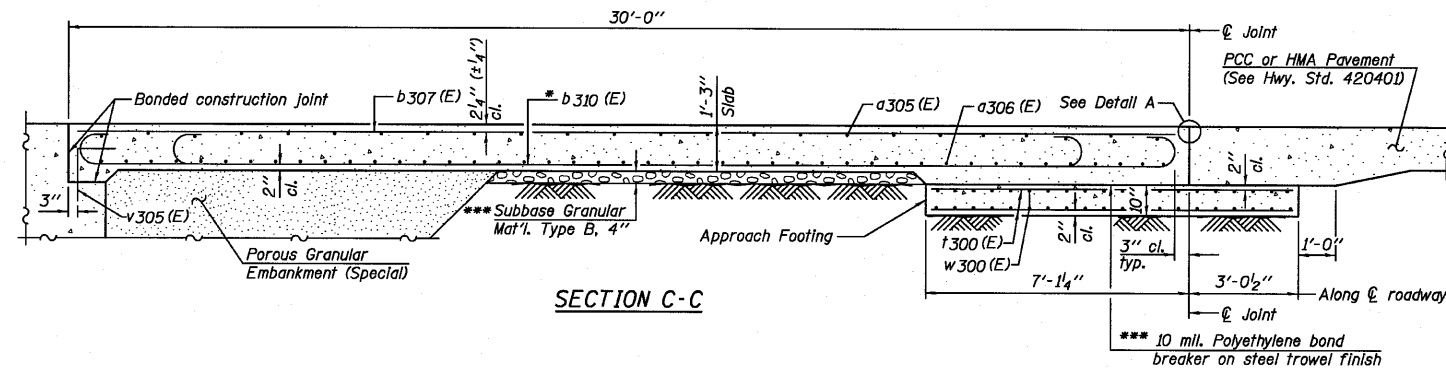
24-8271

BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 027-0098

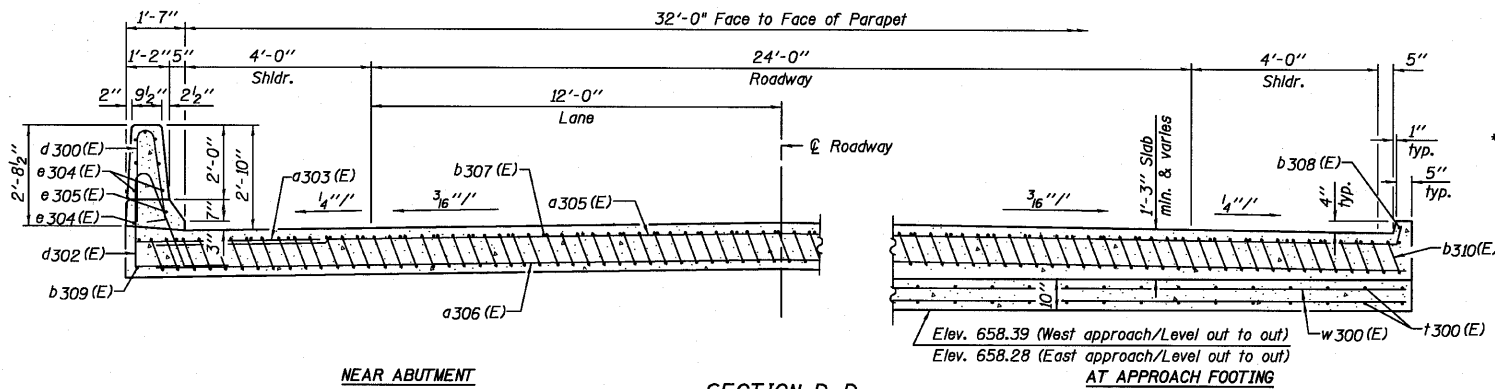
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:

See Sheet E9 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.  
For v300 (E) bar details, see Sheets E11 and E12.  
The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
Cost of excavation for approach footing included with Concrete Structures.  
For Porous Granular Embankment (Special) and drainage treatment details, see Sheet E2.  
For additional parapet details, see Sheet E8.



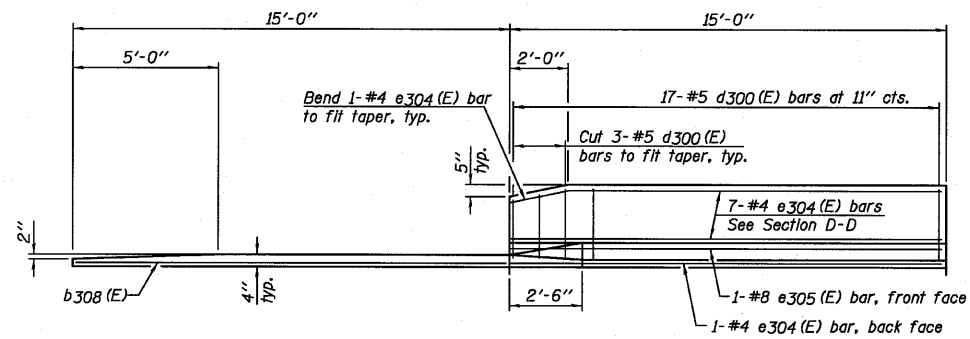
SECTION C-C



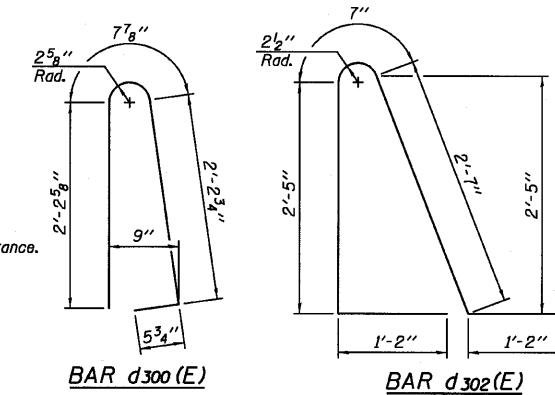
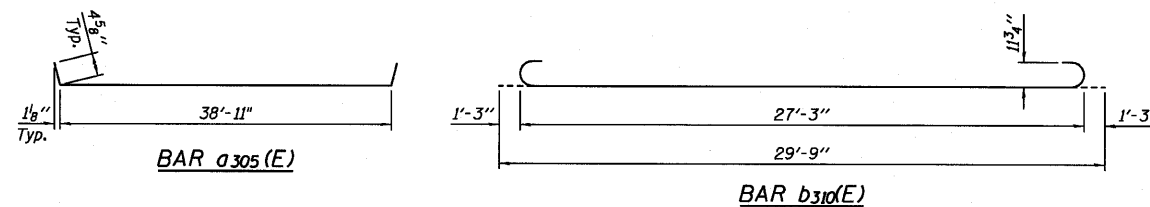
NEAR ABUTMENT

SECTION D-D

(See Plan for dimensions not shown)



VIEW E-E



\* Tilt #9 b310(E) bars as required to maintain clearance.  
\*\*\* Cost Included with Concrete Superstructure.

TWO APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a303(E)	48	#6	6'-6"	—	
a305(E)	50	#4	39'-8"	—	
a306(E)	92	#5	39'-1"	—	
b307(E)	54	#4	29'-8"	—	
b308(E)	4	#4	15'-0"	—	
b309(E)	4	#4	14'-1"	—	
b310(E)	158	#9	29'-9"	—	
d300(E)	68	#5	5'-7"	⌒	
d302(E)	68	#5	7'-11"	⌒	
e304(E)	32	#4	14'-8"	—	
e305(E)	4	#8	14'-8"	—	
t300(E)	136	#4	11'-3"	—	
w300(E)	80	#5	39'-1"	—	
Item				Unit	Quantity
Concrete Superstructure				Cu. Yd.	107.8
Concrete Structures				Cu. Yd.	24.4
Reinforcement Bars, Epoxy Coated				Pound	28,380

BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 027-0098

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

BA-L

7-1-10

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

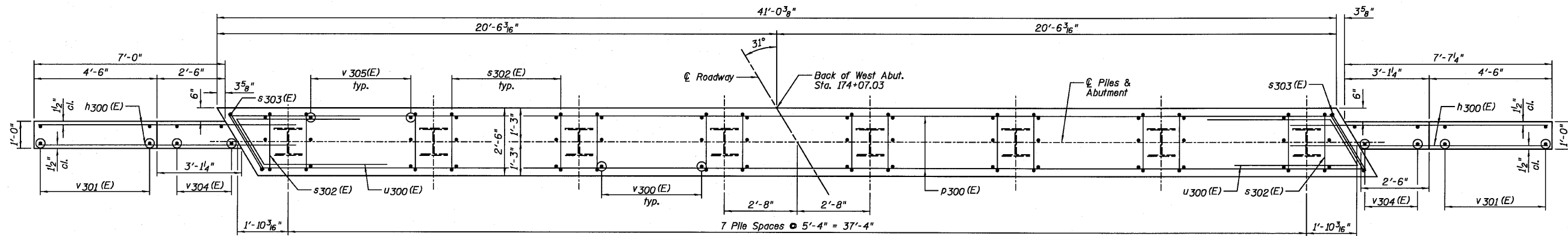
SHEET NO. E10  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	95
CONTRACT NO. 66880				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

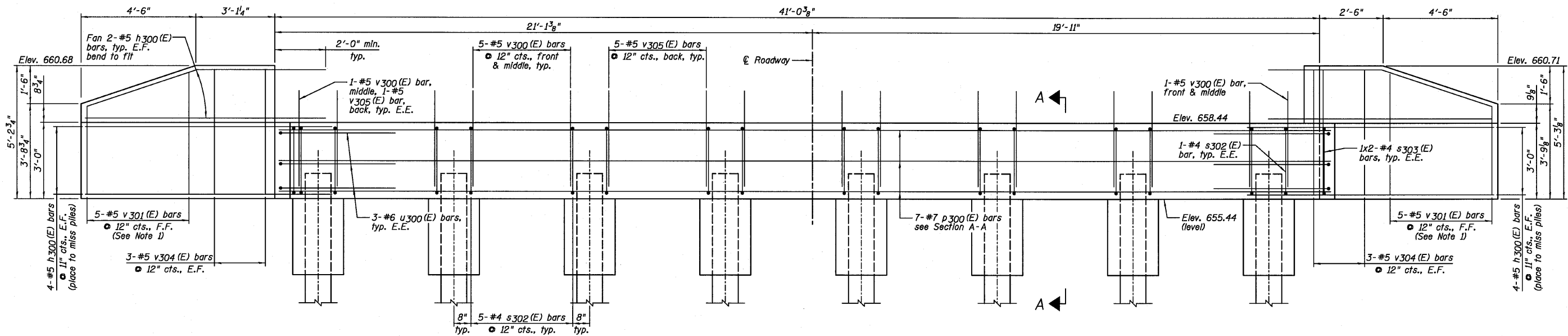
\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN



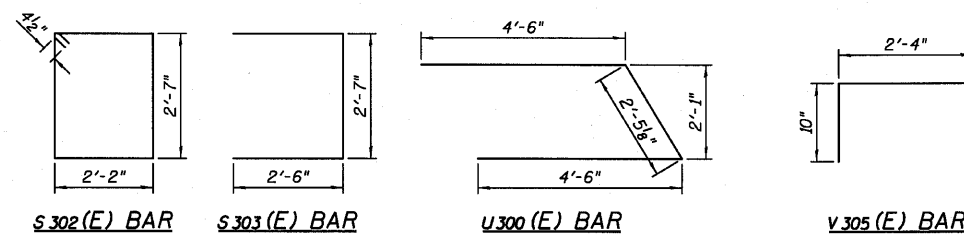
ELEVATION  
(Looking West)

WEST ABUTMENT  
BILL OF MATERIAL

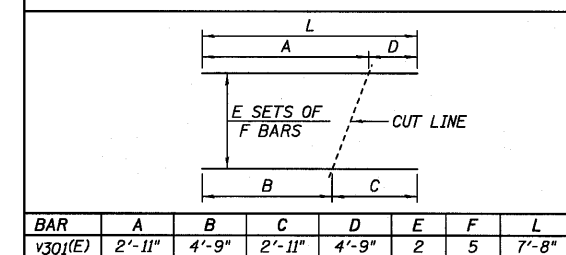
Bar	No.	Size	Length	Shape
h300(E)	24	#5	9'-5"	—
p300(E)	7	#7	40'-8"	—
s302(E)	37	#4	10'-3"	□
s303(E)	4	#4	7'-8"	□
u300(E)	6	#6	11'-5"	└
v300(E)	73	#5	3'-9"	—
v301(E)	10	#5	7'-8"	—
v304(E)	12	#5	4'-11"	—
v305(E)	36	#5	3'-2"	—

Item	Unit	Quantity
Porous Granular Embankment, Special	Cu. Yd.	35
Structure Excavation	Cu. Yd.	49
Concrete Structures	Cu. Yd.	13.9
Concrete Encasement	Cu. Yd.	2.8
Reinforcement Bars, Epoxy Coated	Pound	1,800
Furnishing Steel Piles HP12x63	Foot	248
Driving Piles	Foot	248
Pile Shoes	Each	8
Geocomposite Wall Drain	Sq. Yd.	20
Pipe Underdrains For Structures 4"	Foot	68



BAR CUTTING DIAGRAM



PILE DATA:

Pile Type and Size	Steel - HP12x63 with Pile Shoes
Nominal Required Bearing	223 kips
Factored Resistance Available	111 kips
Estimated Pile Length	31 Feet
Number of Production Piles	8
Number of Test Piles	0

NOTES:

- Order v301(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in Back Face.
- Bend or cut h300(E) bars to miss piles.
- E.E. denotes Each End, F.F. denotes Front Face and E.F. denotes Each Face.

WEST ABUTMENT  
STRUCTURE NO. 027-0098

DESIGNED SDH
CHECKED JML
DRAWN JWK/DJM
CHECKED MSW

DATE 08/04/10

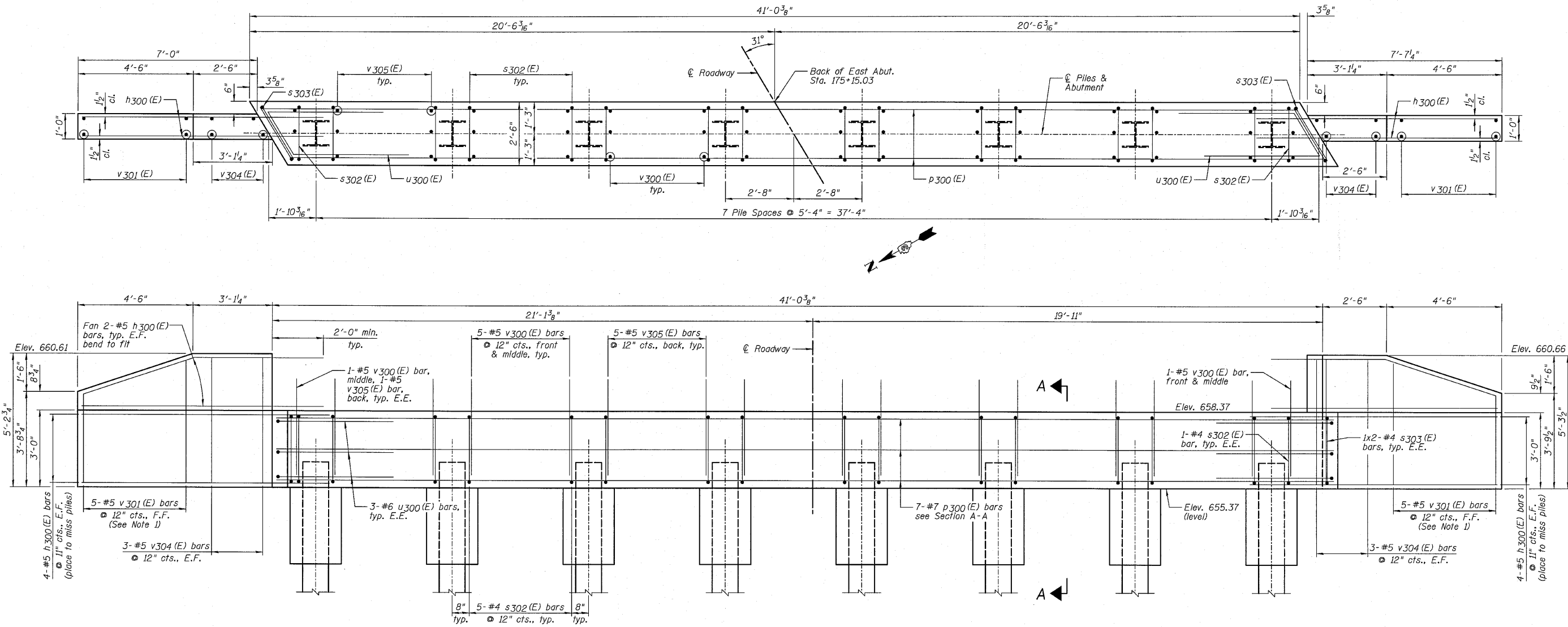
SECTION A-A

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E11  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	96
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66880		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



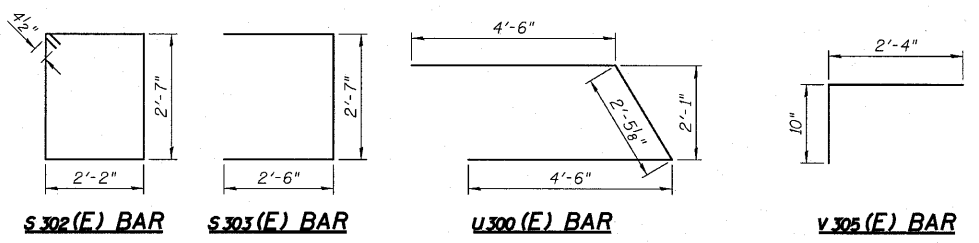
**EAST ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h300(E)	24	#5	9'-5"	—
p300(E)	7	#7	40'-8"	—
s302(E)	37	#4	10'-3"	□
s303(E)	4	#4	7'-8"	□
u300(E)	6	#6	11'-5"	└
v300(E)	73	#5	3'-9"	—
v301(E)	10	#5	7'-8"	—
v304(E)	12	#5	4'-11"	—
v305(E)	36	#5	3'-2"	—

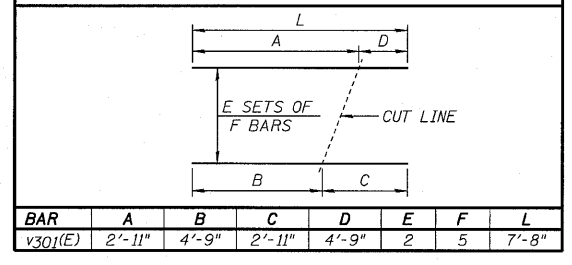
  

Item	Unit	Quantity
Porous Granular Embankment, Special	Cu. Yd.	35
Structure Excavation	Cu. Yd.	49
Concrete Structures	Cu. Yd.	13.9
Concrete Encasement	Cu. Yd.	2.8
Reinforcement Bars, Epoxy Coated	Pound	1,800
Furnishing Steel Piles HP12x63	Foot	232
Driving Piles	Foot	232
Pile Shoes	Each	8
Geocomposite Wall Drain	Sq. Yd.	20
Pipe Underdrains For Structures 4"	Foot	68

**ELEVATION  
(Looking East)**



**BAR CUTTING DIAGRAM**



**PILE DATA:**

Item	Value
Pile Type and Size	Steel - HP12x63 with Pile Shoes
Nominal Required Bearing	224 kips
Factored Resistance Available	112 kips
Estimated Pile Length	29 Feet
Number of Production Piles	8
Number of Test Piles	0

**NOTES:**

- Order v301 (E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in Back Face.
- Bend or cut h300(E) bars to miss piles.
- E.E. denotes Each End, F.F. denotes Front Face and E.F. denotes Each Face.

**EAST ABUTMENT  
STRUCTURE NO. 027-0098**

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

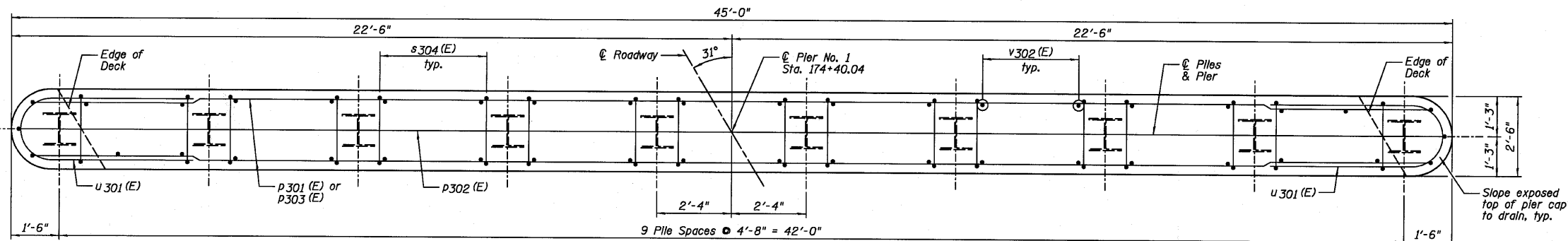
SHEET NO. E12  
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	97

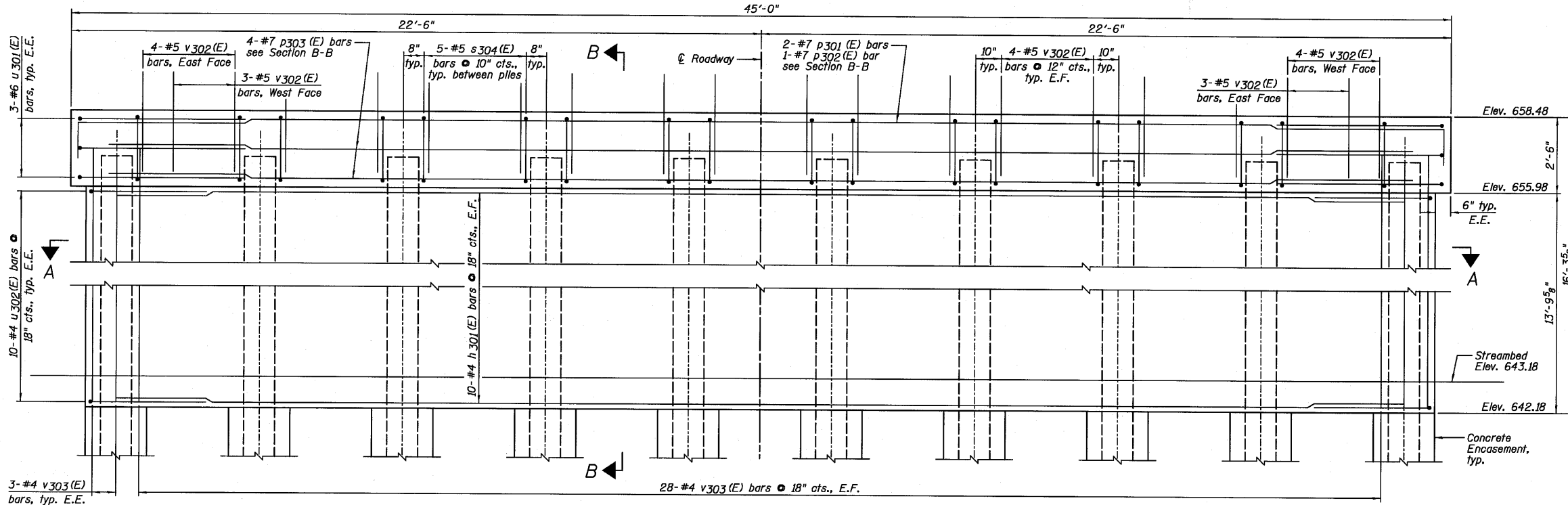
CONTRACT NO. 66880

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

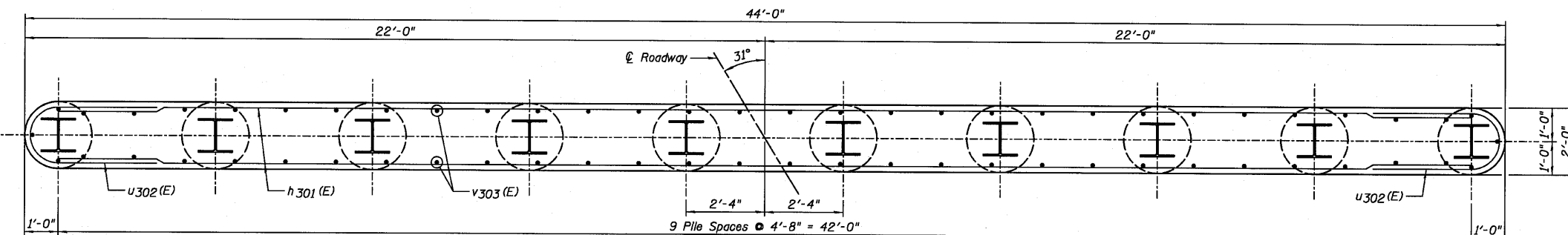
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TOP PLAN



ELEVATION  
(Looking East)



SECTION A-A

PIER NO. 1  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h 301 (E)	20	#4	42'-0"	—
p 301 (E)	2	#7	45'-8"	⌈
p 302 (E)	1	#7	46'-10"	⌈
p 303 (E)	4	#7	43'-4"	—
s 304 (E)	45	#4	9'-5"	□
u 301 (E)	6	#6	12'-0"	⌈
u 302 (E)	20	#4	8'-5"	⌈
v 302 (E)	70	#5	3'-3"	—
v 303 (E)	62	#4	14'-11"	—
Item	Unit	Quantity		
Structure Excavation	Cu. Yd.	28		
Concrete Structures	Cu. Yd.	54.8		
Concrete Encasement	Cu. Yd.	3.5		
Reinforcement Bars, Epoxy Coated	Pound	2,560		
Furnishing Steel Piles HP12x63	Foot	324		
Driving Piles	Foot	324		
Test Pile Steel HP12x63	Each	1		
Pile Shoes	Each	10		
Underwater Structure Excavation Protection - Location 3	Each	1		

PILE DATA:

Pile Type and Size	Steel - HP12x63 with Pile Shoes
Nominal Required Bearing	356 kips
Factored Resistance Available	178 kips
Estimated Pile Length	36 Feet
Number of Production Piles	9
Number of Test Piles	1

NOTES:

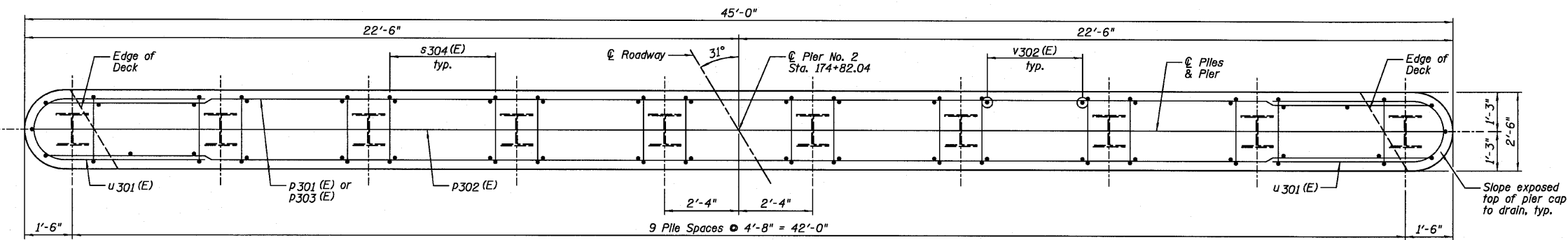
- 1.) If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed under water into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation 1'-0" above the water line at the time of construction.
- 2.) E.F. denotes Each Face and E.E. denotes Each End.
- 3.) See Sheet E15 for Section B-B.

PIER NO. 1  
STRUCTURE NO. 027-0098

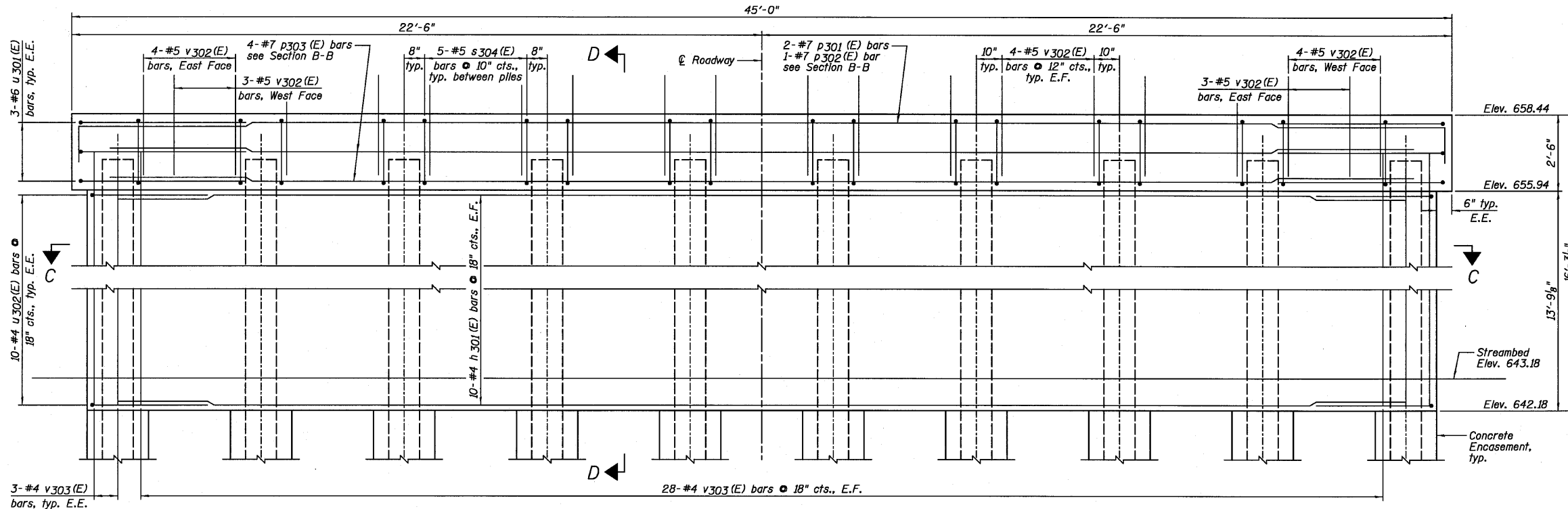
DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

<b>Farnsworth</b> GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax	SHEET NO. E13	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS	681	*	FORD/IROQUOIS	146	98
		FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT
				CONTRACT NO. 66880		

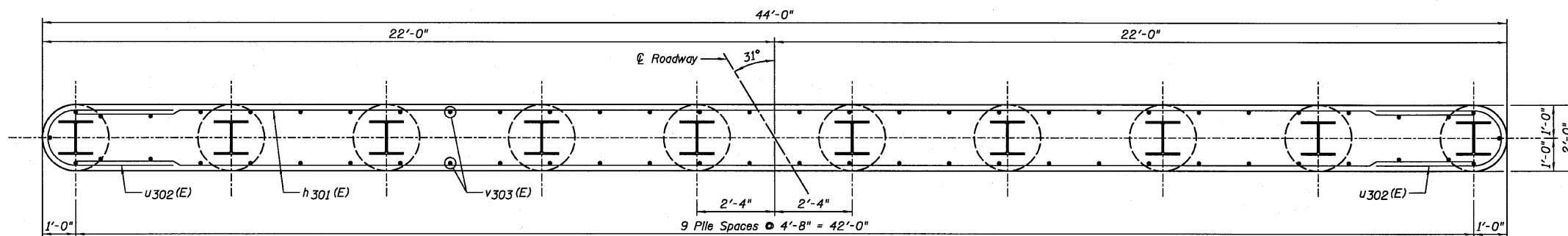
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TOP PLAN



ELEVATION  
(Looking East)



SECTION C-C

PIER NO. 2  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h 301 (E)	20	#4	42'-0"	□
p 301 (E)	2	#7	45'-8"	□
p 302 (E)	1	#7	46'-10"	□
p 303 (E)	4	#7	43'-4"	□
s 304 (E)	45	#4	9'-5"	□
u 301 (E)	6	#6	12'-0"	C
u 302 (E)	20	#4	8'-5"	C
v 302 (E)	70	#5	3'-3"	—
v 303 (E)	62	#4	14'-11"	—

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	28
Concrete Structures	Cu. Yd.	54.7
Concrete Encasement	Cu. Yd.	3.5
Reinforcement Bars, Epoxy Coated	Pound	2,560
Furnishing Steel Piles HP12x63	Foot	350
Driving Piles	Foot	350
Pile Shoes	Each	10
Underwater Structure Excavation Protection - Location 4	Each	1

PILE DATA:

Pile Type and Size	Steel - HP12x63 with Pile shoes
Nominal Required Bearing	360 kips
Factored Resistance Available	180 kips
Estimated Pile Length	35 Feet
Number of Production Piles	10
Number of Test Piles	0

NOTES:

- 1.) If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed under water into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation 1'-0" above the water line at the time of construction.
- 2.) E.F. denotes Each Face and E.E. denotes Each End.
- 3.) See Sheet E15 for Section D-D.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW
DATE	08/04/10

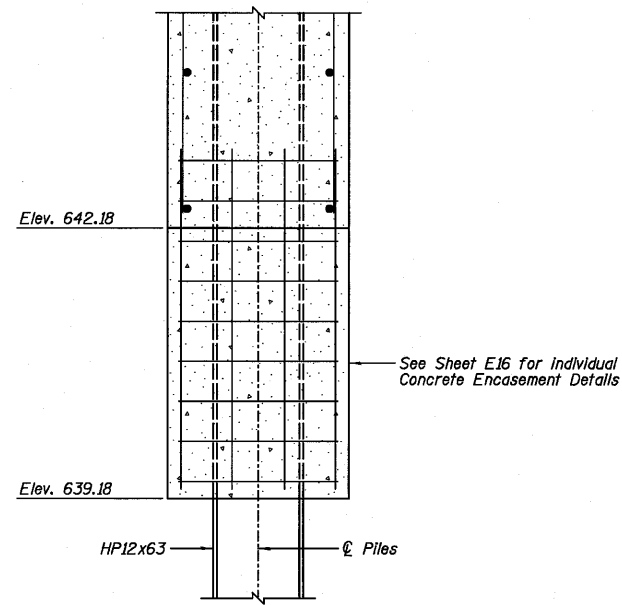
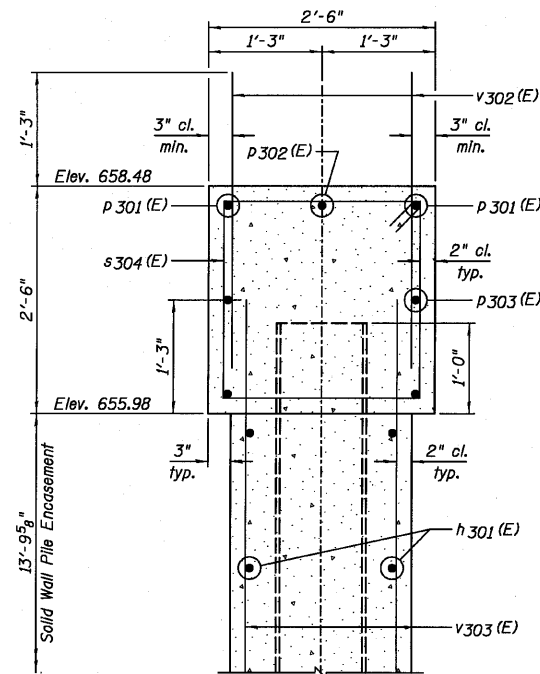
**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E14  
18 SHEETS

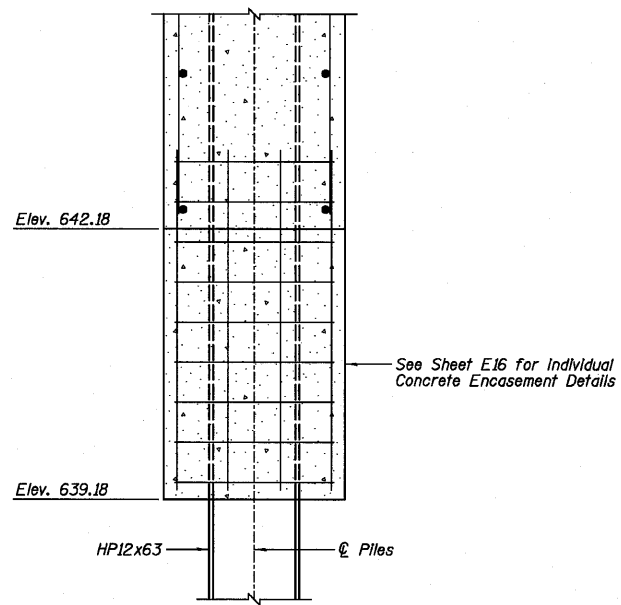
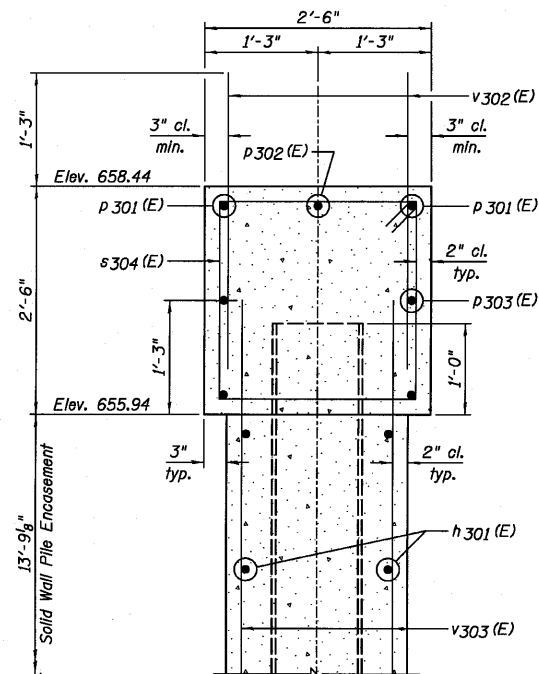
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	*	FORD/IROQUOIS	146	99
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66880				

PIER NO. 2  
STRUCTURE NO. 027-0098

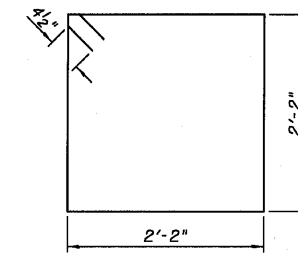
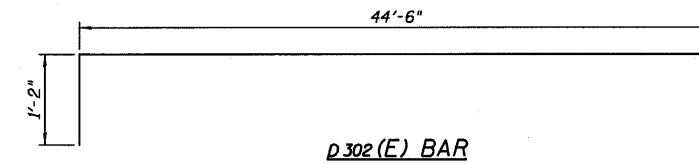
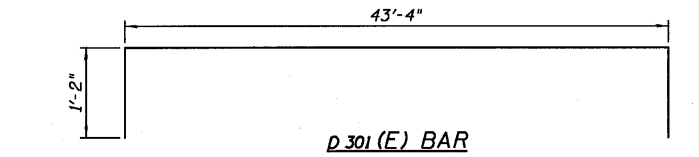
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



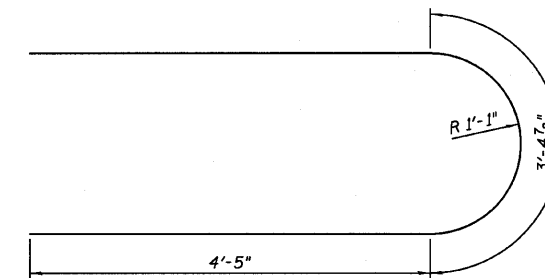
SECTION B-B



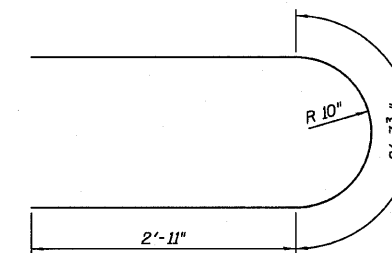
SECTION D-D



s 304 (E) BAR



U 301 (E) BAR



U 302 (E) BAR

NOTES:

- 1.) 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 1'-0" above the water line at the time of construction.
- 2.) See Sheet E13 for location of Section B-B.
- 3.) See Sheet E14 for location of Section D-D.

DESIGNED	SDH
CHECKED	JML
DRAWN	JWK/DJM
CHECKED	MSW

DATE 08/04/10

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

SHEET NO. E15	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	681	*	FORD/IROQUOIS	146	100
18 SHEETS	CONTRACT NO. 66880				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

PIER DETAILS  
STRUCTURE NO. 027-0098

\* 116 BR/[116 BR, (BR-2)BR, I & BR-3]

24-8271