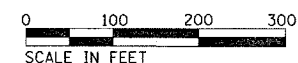


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HIGHWAY STANDARDS

SEE PAGE 2 FOR LIST OF STANDARDS



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.

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

JULIE 1-800-892-0123

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: DAVE BROVIK
UNIT CHIEF: SCOTT A. FERGUSON

CONTRACT NO. 66361

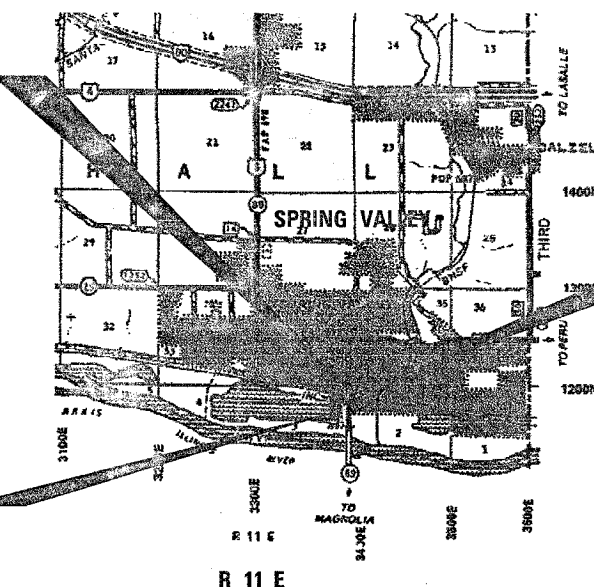
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROPOSED HIGHWAY PLAN F.A.P. ROUTE 698 (IL 89) SECTION 1 VBR PROJECT BRF-0698(023) BUREAU COUNTY

C - 93 - 130 - 03

REMOVAL AND REPLACEMENT OF S.N 006-0110
CARRYING IL 89 OVER THE CSX RAILROAD

PROJECT BEGINS
STA. 28+10

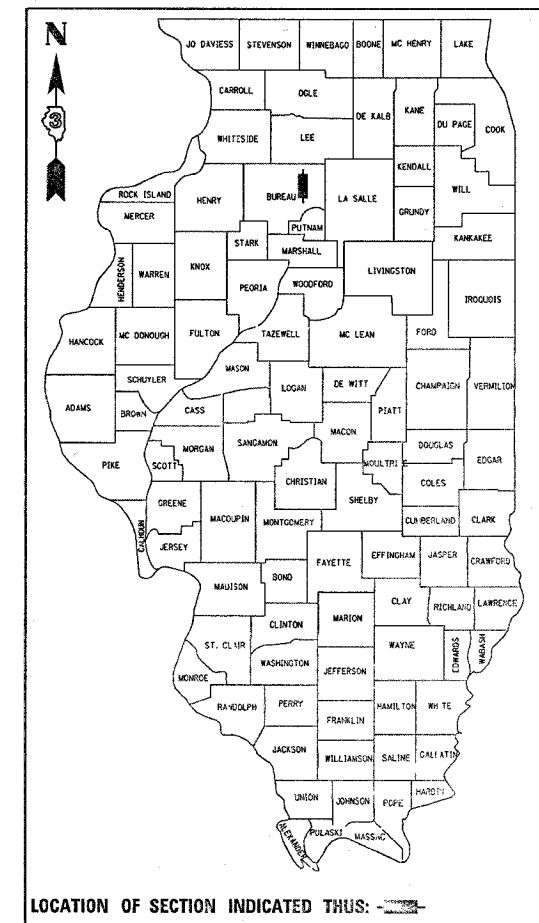
PROJECT ENDS
STA. 35+00



GROSS AND NET LENGTH = 750FT. = .14 MI.

CONTRACT NO. 66361				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	NO.
698	1 VBR	BUREAU	72+	1
ILLINOIS PROJECT				

P-93-068-02
D-93-046-02



FUNCTION CLASSIFICATION
OTHER PRINCIPAL ARTERIAL

2005 ADT = 6000

P.V. = 91.8% S.U. = 5.0% M.U. = 3.2%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED _____
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
February 2, 2007
Eric E. Hamm/D
ENGINEER OF DESIGN AND ENVIRONMENT
February 2, 2007
Mickel R. Seer, P.E./D
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

F. L. SHE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	2
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

THE THICKNESS OF BITUMINOUS MIXTURES 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 BITUMINOUS MIXTURE IS PLACED.

THE BITUMINOUS 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 BITUMINOUS SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE BITUMINOUS SURFACE

THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION SHALL GOVERN THE UNDERGROUND WORK PERTAINING TO WATERMAIN AND SANITARY SEWER IN THIS CONTRACT.

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.

AGGREGATE (PRIME COAT): FA 20 MAY BE USED IN ADDITION TO THE GRADATIONS LISTED IN THE 3RD PARAGRAPH OF ARTICLE 1003.03(c) OF THE STANDARD SPECIFICATIONS.

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

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

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 TYPE 1 LIDS FOR USE WITH SANITARY SEWER MANHOLES WILL HAVE THE DESIGNATION "SANITARY" STAMPED INTO IT.

FOR NEW CONSTRUCTION, PLACE SIDEWALK RAMPS FOR THE HANDICAPPED (STANDARD 424001) AT ALL LOCATIONS WHERE PROPOSED SIDEWALK ABUTS CURB AT STREET ENTRANCES.

ALL ELEVATIONS REFERRING 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 REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

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

GRANULAR MATERIALS	2.05	TONS / CU YD
BITUMINOUS MAT PRIME COAT	0.08	GAL / SQ YD OR
	0.375	GAL / SQ YD
AGGREGATE PRIME COAT	0.002	TONS / SQ YD
BITUMINOUS 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

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (815-434-8417) TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.

ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

THE COST OF MAKING ANY SEWER CONNECTIONS TO AN EXISTING DRAINAGE STRUCTURE OR PIPE SHALL BE INCLUDED IN THE COST OF THE NEW SEWER.

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

360networks (worldwide fiber)
City of Spring Valley
Insight Communtions
Verizon
Illinois Power Co. - Electric
Illinois Power Co. - Gas
CSX RAILROAD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY: Paul Paul
DISTRICT STUDIES & PLANS ENGINEER

DATE: 4-24-06

EXAMINED BY: Herb Jung
DISTRICT CONSTRUCTION ENGINEER

David Dale
DISTRICT MATERIALS ENGINEER

Bruce A. Hubert
DISTRICT OPERATIONS ENGINEER

STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT BARS
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
420001-06	PAVEMENT JOINTS
420101-03	7.2 m (24') JOINTED PCC PAVEMENT
420401-05	BRIDGE APPROACH PAVEMENT
424001-04	CURB RAMPS FOR SIDEWALK
442101-05	CLASS B PATCHES
483001-02	PCC SHOULDER
515001-02	NAME PLATE FOR BRIDGES
542301	PRECAST REINFORCED CONCRETE FLARED END SECTION
602301-01	INLET, TYPE A
602306-01	INLET, TYPE B
602401-01	MANHOLE, TYPE A
602701-01	CAST IRON STEPS
604001-02	FRAME AND LIDS, TYPE 1
604006-02	FRAME AND GRATE, TYPE 3
604036-01	GRATE, TYPE 8
606001-02	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606006	OUTLET FOR CONCRETE CURB AND GUTTER, TYPE B-15.60 (6.24)
609001-02	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
609006-02	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-06	STEEL PLATE BEAM GUARDRAIL
630201-03	PCC/BITUMINOUS STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-03	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-05	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-01	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
666001	RIGHT-OF-WAY MARKERS
667101	PERMANENT SURVEY MARKERS
701001-01	OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY
701006-02	OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701011-01	OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS P 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-08	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
7015C1-03	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
702001-06	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIER
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES					
CODE NO.	ITEM	UNIT	CONSTRUCTION CODE TYPE:		
			X171-5B		
			TOTAL QUANTITY	ROADWAY 80% FED/	BRIDGE 20% STATE
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	535	535	0
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	86	86	0
20200100	EARTH EXCAVATION	CU YD	213.4	213.4	0
20400800	FURNISHED EXCAVATION	CU YD	15351	15351	0
20700400	POROUS GRANULAR EMBANKMENT (SPECIAL)	CU YD	131	0	131
20800150	TRENCH BACKFILL	CU YD	88	88	0
* 25000210	SEEDING, CLASS 2A	ACRE	0.61	0.61	0
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	56	56	0
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	56	56	0
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	56	56	0
* 25100115	MULCH, METHOD 2	ACRE	4	4	0
* 25100630	EROSION CONTROL BLANKET	SQ YD	2418	2418	0
* 25200100	SODDING	SQ YD	59	59	0
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	488	488	0
28000300	TEMPORARY DITCH CHECKS	EACH	1	1	0
28000400	PERIMETER EROSION BARRIER	FOOT	1124	1124	0
28000500	INLET AND PIPE PROTECTION	EACH	2	2	0
31100910	SUB-BASE GRANULAR MATERIAL, TYPE A 12"	SQ YD	1107	1107	0
35600712	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	SQ YD	220	220	0
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	27	27	0
40600300	AGGREGATE (PRIME COAT)	TON	0.7	0.7	0
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	4.2	4.2	0
40600990	TEMPORARY RAMP	SQ YD	14.5	14.5	0
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	150.6	150.6	0
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	28.4	28.4	0
42000501	PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)	SQ YD	686.5	686.5	0
42001300	PROTECTIVE COAT	SQ YD	686.5	686.5	0
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	210	210	0
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	17.33	17.33	0
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	17.33	17.33	0
42300600	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 10 INCH	SQ YD	51	51	0
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	1168	1168	0
44000100	PAVEMENT REMOVAL	SQ YD	295	295	0
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	99	99	0
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	261	261	0
44000600	SIDEWALK REMOVAL	SQ FT	41.7	41.7	0
44000700	APPROACH SLAB REMOVAL	SQ YD	134	134	0
44200974	CLASS B PATCHES, TYPE III, 10 INCH	SQ YD	16	16	0

* SPECIALTY ITEMS
* * SFTY - 3N

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	I VBR	BUREAU	72	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	CONSTRUCTION CODE TYPE:		
			URBAN TOTAL QUANTITY	X171-5B	
				ROADWAY 80% FED/	BRIDGE 20% STATE
44213200	SAW CUTS	FOOT	48	48	0
48101200	AGGREGATE SHOULDERS, TYPE B	TON	94	94	0
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	55.2	55.2	0
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	0	1
50157300	PROTECTIVE SHIELD	SQ YD	613	0	613
50200100	STRUCTURE EXCAVATION	CU YD	333	0	333
50300225	CONCRETE STRUCTURES	CU YD	211.3	0	211.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	319.7	0	319.7
50300260	BRIDGE DECK GROOVING	SQ YD	716	0	716
50300300	PROTECTIVE COAT	SQ YD	1074	0	1074
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	0	1
50500505	STUD SHEAR CONNECTORS	EACH	2916	0	2916
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	100560	0	100560
50800515	BAR SPLICERS	EACH	945	0	945
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	278.5	0	278.5
51100100	SLOPE WALL 4 INCH	SQ YD	483	0	483
51201610	FURNISHING STEEL PILES HP12x63	FOOT	845	0	845
51203610	TEST PILE STEEL HP12x63	EACH	4	0	4
51204650	PILE SHOES	EACH	36	0	36
51500100	NAME PLATES	EACH	1	0	1
52100520	ANCHOR BOLTS, 1 INCH	EACH	24	0	24
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12	0	12
52100540	ANCHOR BOLTS, 1 1/2 INCH	EACH	24	0	24
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	127	127	0
550A0410	STORM SEWERS, CLASS A, TYPE 2 24"	FOOT	389.5	389.5	0
55100500	STORM SEWER REMOVAL 12"	FOOT	5	5	0
* 56102900	DUCTILE IRON WATER MAIN 4"	FOOT	44	44	0
* 56103200	DUCTILE IRON WATER MAIN 10"	FOOT	600	600	0
* 56105100	WATER VALVES 10"	EACH	2	2	0
* 56108100	ADJUSTING WATER VALVES 4"	EACH	1	1	0
* 56108710	TAPPING VALVES AND SLEEVES 4"	EACH	1	1	0
* 56109000	TAPPING VALVES AND SLEEVES 10"	EACH	1	1	0
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	69	0	69
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	8.5	8.5	0
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	129	0	129
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	4	4	0
60221700	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 8 GRATE	EACH	2	2	0
60228110	MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	5	5	0
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	1	1	0
60240220	INLETS, TYPE B, TYPE 3 FRAME AND GRATE	EACH	2	2	0
60260050	SANITARY MANHOLES TO BE RECONSTRUCTED	EACH	1	1	0
60260500	INLETS TO BE ADJUSTED WITH NEW TYPE 3 FRAME AND GRATE	EACH	3	3	0
60603300	GUTTER OUTLET	EACH	1	1	0
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	55	55	0
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	533	533	0

* SPECIALTY ITEMS
* SFTY - 3N

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES					
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTRUCTION CODE TYPE:	
				X171-5B	
				ROADWAY 80% FED/	BRIDGE 20% STATE
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	225	225	0
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	0
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	2	2	0
* 63100215	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)	EACH	2	2	0
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	22	22	0
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1	0
66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1	0
67000400	ENGINEER'S FIELD OFFICE TYPE A	CAL MO	16	16	0
67100100	MOBILIZATION	L SUM	1	1	0
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	0
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	0
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1	0
70103815	TRAFFIC CONTROL AND SURVEILLANCE	CAL DA	120	120	0
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	0
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	192	192	0
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	5560	5560	0
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	64	64	0
70400100	TEMPORARY CONCRETE BARRIER	FOOT	650	650	0
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	650	650	0
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	2760	2760	0
78200410	GUARDRAIL MARKERS, TYPE A	EACH	3	3	0
78200520	BARRIER WALL MARKERS, TYPE B	EACH	6	6	0
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	0
78300105	PAVEMENT MARKING REMOVAL	FOOT	1100	1100	0
X0323149	TEMPORARY MECHANICALLY STABILIZED EARTH RETAINING WALL	SQ FT	3429	0	3429
* X0323814	SANITARY SEWER REMOVAL, 18"	FOOT	228	228	0
* X0324446	DUCTILE IRON WATER MAIN FITTING - 10", 11 1/4 DEGREE BEND	EACH	1	1	0
* X0324447	DUCTILE IRON WATER MAIN FITTING - 10", 22 1/2 DEGREE BEND	EACH	1	1	0
* X0324448	DUCTILE IRON WATER MAIN FITTING - 10", 45 DEGREE BEND	EACH	6	6	0
51202305	DRIVING PILES	FOOT	845	0	845
* X0325386	SANITARY SEWER PVC (C-900) 18"	FOOT	141	141	0
* X0325390	DUCTILE IRON WATER MAIN FITTING - COUPLER	EACH	2	2	0
X0325391	EXPANDED POLYSTRENE FILL	CU YD	515	0	515
* X0325392	DUCTILE IRON WATER MAIN FITTING - 6" X 2" REDUCER	EACH	1	1	0
X0329862	REMOVE EXISTING MANHOLE	EACH	2	2	0
X0919000	TEMPORARY PAVEMENT REMOVAL	SQ YD	220	220	0
X4020700	AGGREGATE SURFACE COURSE, TYPE B 8"	SQ YD	521.3	521.3	0
* XX001468	PVC SANITARY SEWER, 18"	FOOT	240	240	0
* XX003772	CUT AND CAP EXISTING 10" WATER MAIN	EACH	1	1	0
* XX005006	DUCTILE IRON WATER MAIN FITTING - 10" X 10" TEE	EACH	1	1	0
* XX005009	DUCTILE IRON WATER MAIN FITTING - 10" X 6" REDUCER	EACH	1	1	0

* SPECIALTY ITEMS
* SFTY - 3N

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. DATE: HORIZ. DRAWN BY: CHECKED BY:

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES					
CODE NO.	ITEM	UNIT	URBAN	CONSTRUCTION CODE TYPE:	
			TOTAL QUANTITY	X171-5B ROADWAY 80% FED/	BRIDGE 20% STATE
* XX005100	DUCTILE IRON WATER MAIN FITTING - 10" X 4" REDUCER	EACH	1	1	0
XX005281	STEEL CASING PIPE 16" (BORED AND JACKED)	FOOT	104	104	0
XX005401	STEEL CASING PIPE 24" (BORED AND JACKED)	FOOT	107	107	0
XX006077	GATE VALVE AND BOX 6"	EACH	1	1	0
Z0005215	BITUMINOUS STABILIZATION 6" AT STEEL PLATE BEAM GUARDRAIL	SQ YD	275.3	275.3	0
Z0007550	BUILDING REMOVAL	EACH	1	1	0
Z0017100	DOWEL BARS	EACH	40	40	0
.. Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	0
.. Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	0
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	0
Z0065100	SETTLEMENT PLATFORMS	EACH	2	2	0
Z0075310	TIE BARS 3/4"	EACH	241	241	0

- * SPECIALTY ITEMS
- * * SFTY - 3N

[illegible]

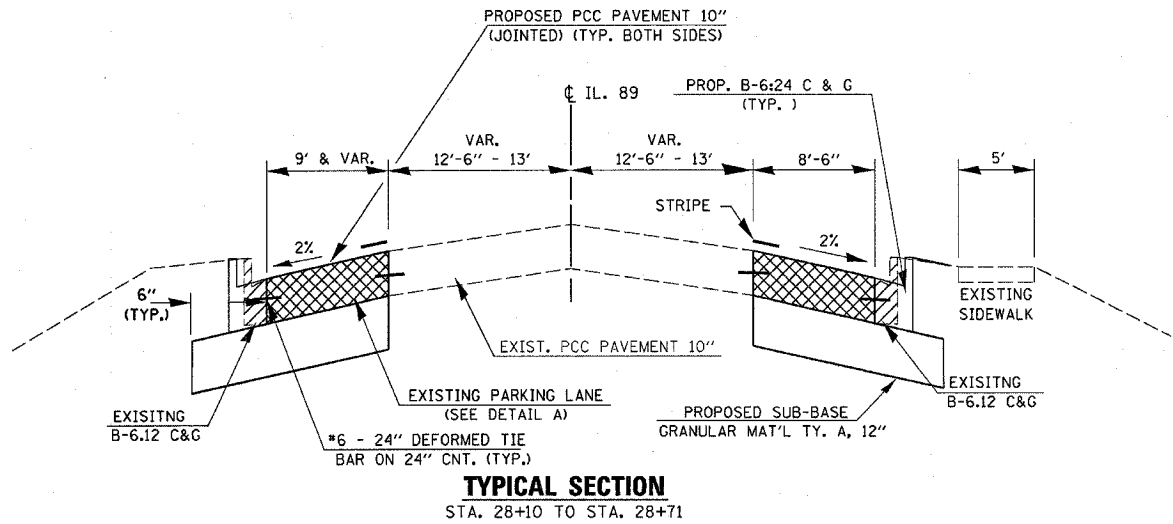
ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

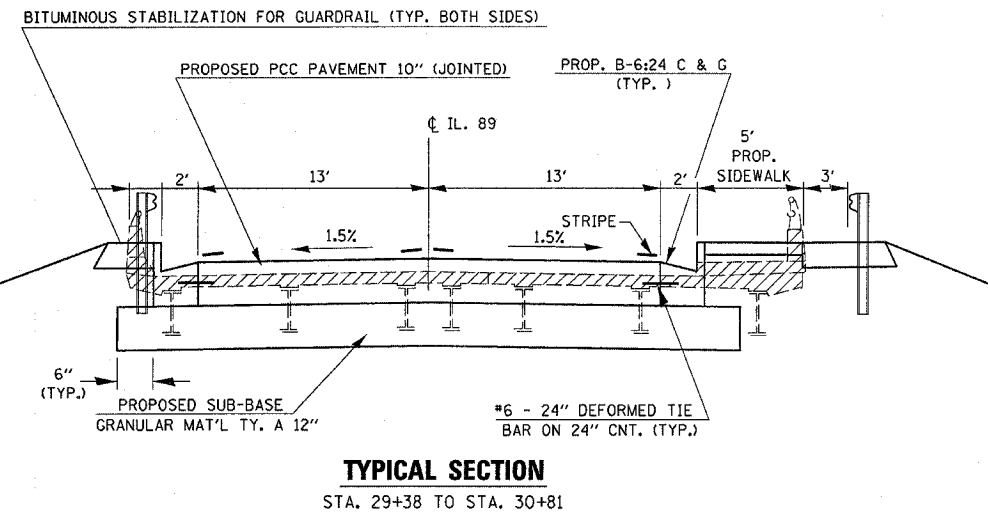
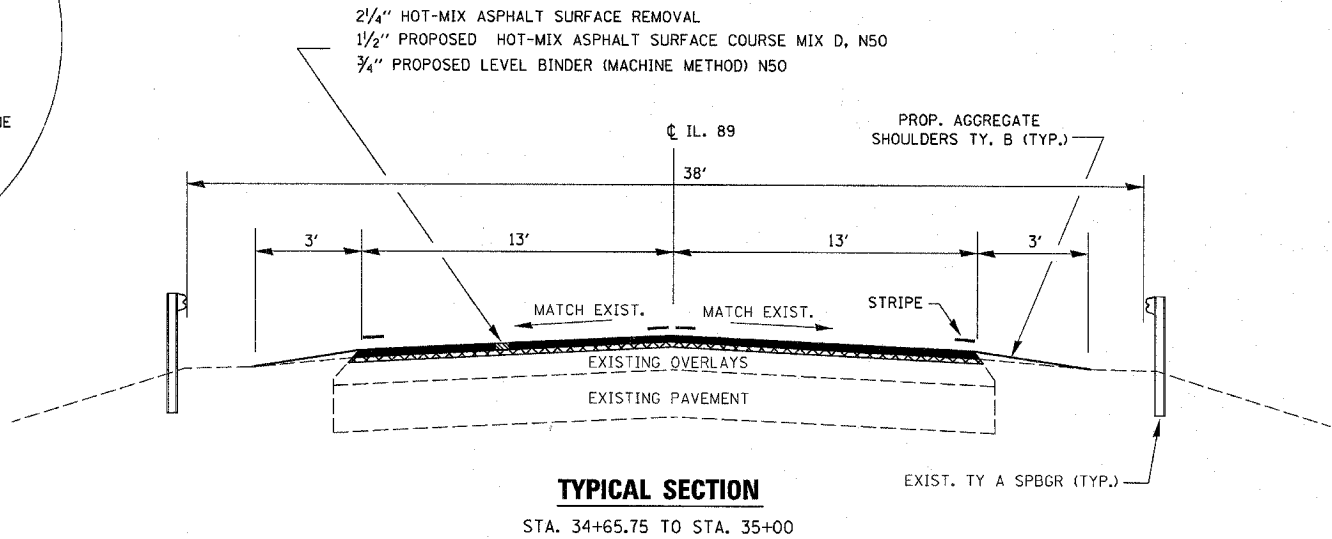
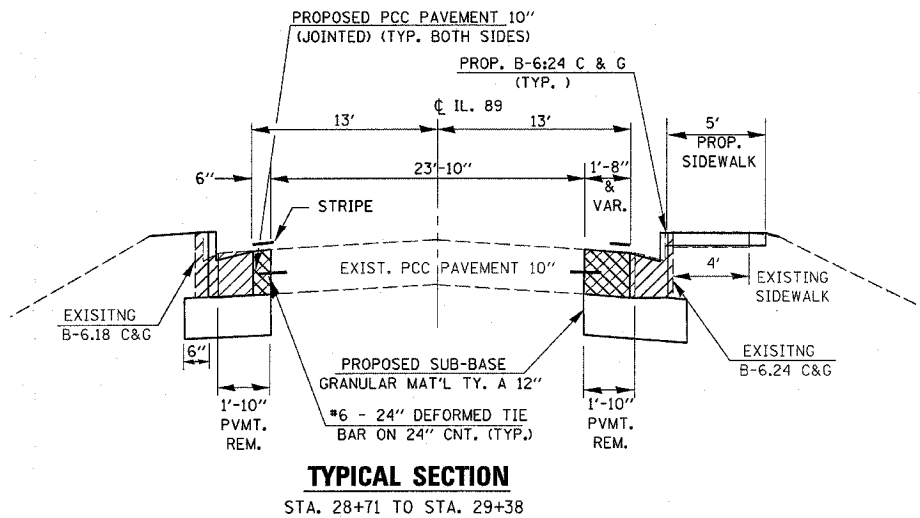
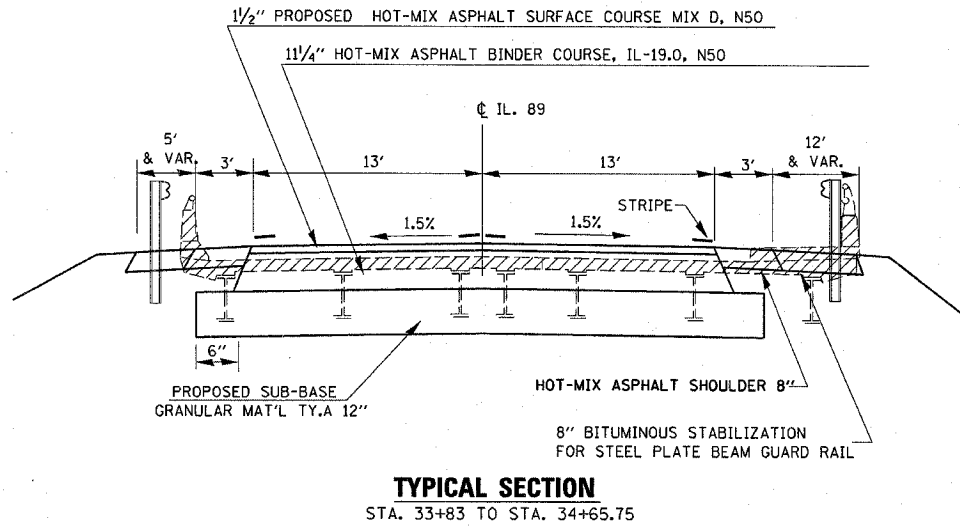
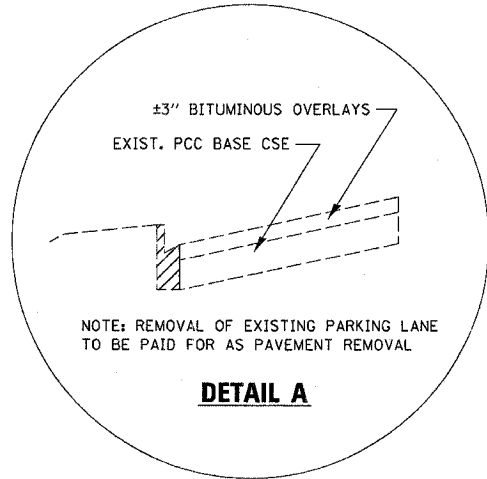
SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



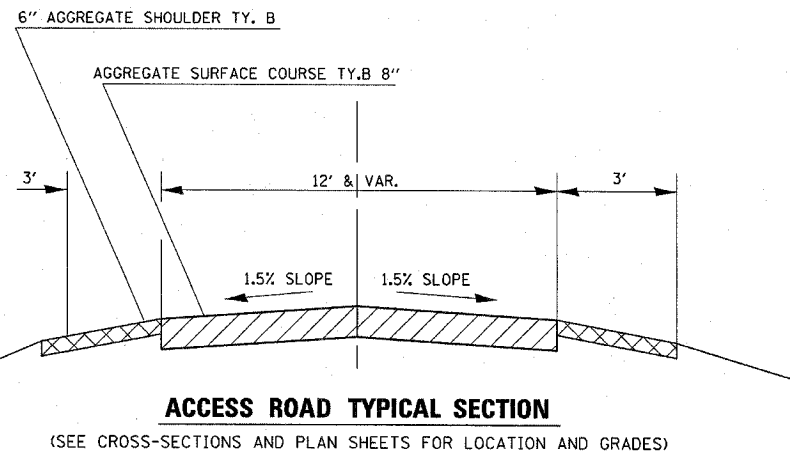
NOTE: BRIDGE TYPICAL SECTION
STA. 30+81 TO STA. 33+83
(SEE BRIDGE SHEETS)



	HMA BINDER	HMA LEVEL BINDER	HMA SURFACE	HMA SHOULDER 8"
PG GRADE	PG58-22	PG58-22	PG64-22	PG58-22
MAX % RAP ALLOWABLE	25%	25%	15%	30%
DESIGN	4.0% @ N50	4.0% @ N50	4.0% @ N50	2.0% @ N30
AIR VOIDS	IL 19.0	IL 9.5	IL 12.5 OR IL 9.5	BAM
MIXTURE COMPOSITION	IL 19.0	IL 9.5	IL 12.5 OR IL 9.5	BAM
FRICTION			MIXTURE D	
AGGREGATE			CORES	
DENSITY CONTROL METHOD	CORES	SATISFACTION OF ENGINEER	CORES /NUCLEAR	*

* Material shall be compacted to 93.0-97.4 percent of the maximum theoretical density, except when placed as the first lift on an unimproved subgrade. Then the materials shall be compacted to a minimum of 92.0%. The maximum theoretical density shall be determined from the moving average as specified in the QC/QA specification.

** If RAP option is selected, the asphalt cement grade may need to be adjusted. This will be determined by the Engineer.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT.
HORIZ.

DRAWN BY
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

REMOVAL SCHEDULE					
LOCATION STA TO STA	LENGTH	BRIDGE APPR. PAV'T REMOVAL	PAV'T REMOVAL	COMB. CONC. CURB & GUTTER REMOVAL	SIDEWALK REMOVAL
	FEET	SQ YD	SQ YD	FEET	SQ YD
28+10 - 28+55	45			54	
28+10 - 28+60	50			73	
28+75 - 29+35	60			69	
28+85 - 29+35	50			65	
28+10 - 29+38	70		122		
28+10 - 29+38	90		173		
28+40 - 28+52	12				
28+95 - 29+35	40				
29+35 - 29+60	25	67			6.7
34+40 - 34+65	25	67			35
TOTAL		134	295	261	41.7

TRAFFIC CONTROL SCHEDULE				
STAGE	HOT-MIX ASPHALT BASE CSE. WIDEN. 9"	TEMPORARY PAVEMENT REMOVAL	TEMPORARY PAINT PAVEMENT MARKING 4" YELLOW	PAVEMENT MARKING REMOVAL
	SQ YD	SQ YD	FOOT	SQ FT
STAGE I	88	88	1200	750
STAGE II	132	132	1600	350
TOTAL	220	220	2800	1100

EPOXY PAINT PAVEMENT MARKING							
LOCATION	LENGTH	EPOXY PAINT PVMT MK MARKING LINE 4"		TEMPORARY PVMT MK MARKING LINE 4"		SHORT TERM PAVEMENT MARKING	WORK ZONE PAVT MARKING REMOVAL
		YELLOW	WHITE	YELLOW	WHITE	YELLOW	
	LIN FT	LIN FT		LIN FT		LIN FT	SQ FT
STA. 28+10 TO STA. 29+38	128	256	256	256	256	26	8.7
STA. 29+38 TO STA. 30+81	143.0	286	286	286	286	29	9.7
STA. 30+81 TO STA. 30+87	6.0	12	12	12	12	4	1.3
STA. 30+87 TO STA 31+17	30.0	60	60	60	60	6	2
STA. 31+17 TO STA. 33+47	230.0	460	460	460	460	46	15.3
STA. 33+47 TO STA. 33+77	30.0	60	60	60	60	6	2
STA. 33+77 TO STA. 33+83	6.0	12	12	12	12	4	1.3
STA. 33+83 TO STA. 34+65.75	82.8	166	166	166	166	50	16.7
STA 34+65.75 TO STA 35+00	34.3	69	69	69	69	21	7
TOTAL	690.0	1380	1380	1380	1380	192	64

APPROACH PAVEMENT						
LOCATION	LENGTH	WIDTH	AREA	BRIDGE APPROACH PAVEMENT (SPECIAL)	BRIDGE APPR. PVMT. CONNECTOR PCC	BRIDGE APPR. PVMT. CONNECTOR FLEXIBLE
	FEET	FEET	SQ .YD.	SQ. YD.	SQ. YD.	SQ.YD.
STA. 30+81 TO STA. 30+87	6	26	17.33		17.33	
STA. 30+87 TO STA 31+17	30	31.5	105	105		
STA. 31+17 TO STA. 33+47	230	30	766.67			
STA. 33+47 TO STA. 33+77	30	31.5	105	105		
STA. 33+77 TO STA. 33+83	6	26	17.33			17.33
TOTAL				210	17.33	17.33

• NOTE: SEE BRIDGE PLAN SHEET 12 OF 24 FOR DETAILS OF SPECIAL BRIDGE APPROACH PAVEMENT.
PAY ITEMS FOR REINFORCEMENT BARS EPOXY COATED AND CONCRETE SUPERSTRUCTURE INCLUDED ON THIS SHEET ARE FOR INFORMATION ONLY AND SHALL BE INCLUDED IN THE COST FOR BRIDGE APPROACH PAVEMENT (SPECIAL)

SEEDING & EROSION CONTROL SCHEDULE												
LOCATION	SIDE	SEEDING CL 2A	MULCH METHOD 2	NITROGEN FERTILIZER	PHOSPHORUS FERTILIZER	POTASSIUM FERTILIZER	SODDING	TEMPORARY EROSION CONTROL SEEDING	EROSION CONTROL BLANKET	TEMPORARY DITCH CHECK	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION
		ACRE	ACRE	POUNDS	POUNDS	POUNDS	SQ. YD.	POUNDS	SQ YD	EACH	FOOT	EACH
STA 28+10 TO STA 28+60	RT			0.4	0.4	0.4	31					
STA 28+10 TO STA 28+60	LT			0.4	0.4	0.4	28					
STA 29+00 TO STA 31+50	RT	0.15	1.2	13.5	13.5	13.5		120	726		308.5	
STA 29+00 TO STA 31+50	LT	0.11		9.9	9.9	9.9		88			297	
STA 32+85 TO STA 35+00	RT	0.17	1.4	15.3	15.3	15.3		136	822		260.5	
STA 32+85 TO STA 35+00	LT	0.18	1.4	16.2	16.2	16.2		144	870		257.5	
STA 31+52	RT											1
STA 31+52	LT											1
STA 31+25	LT									1		
TOTAL		0.61	4.00	55.70	55.70	55.70	59.00	488.00	2418.00	1.00	1123.50	2.00

1. NOTE: QUANTITY FOR TEMPORARY SEEDING AND MULCH AVAILABLE FOR 8 APPLICATIONS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SCHEDULE
OF QUANTITIES**SCALE: VERT.
HORIZ.
DATEDRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SANITARY SEWER SCHEDULE

LOCATION		ELEVATION			MANHOLES SANITARY 4' DIA W' TY 1 FRAME C.L.	SANITARY SEWER PVC (C-900) 18"	PVC SANITARY SEWER 18"	STEEL CASING PIPE 24" BORED & JACKED
STATION	OFFSET	INV. IN	INV. OUT	RIM.	EACH	FOOT	FOOT	FOOT
29+47	18' LT	480.65	480.55	491.50	1		48	
29+47	30.5' RT	477.99	476.99	490.50	1		114	
30+59	58.5' RT	470.14	468.14	477.00	1		77	
31+36	51' RT	463.84	461.84	472.50	1			
32+06.5	50' RT					141		107
32+77.4	49.5' RT	452.65	450.65	465.00	1			
TOTAL					5	141	240	107

WATERMAIN SCHEDULE

LOCATION		DUCTILE IRON WATER MAIN 10"	DUCTILE IRON WATER MAIN 4"	DI WM FITTING 10" 45 DEG BEND	DI WM FITTING 10" 22 1/2 DEG BEND	DI WM FITTING 10" 11 1/4 DEG BEND	STN. STL. TAP. VALVE AND SLEEVES 10"	STN. STL. TAP. VALVE AND SLEEVES 4"	STEEL CASING PIPE 16" BORED & JACKED	COUPLING	WATER VALVES 10"	ADJUST WATER VALVES 4"	DIWM FITTING 10" x 10" TEE	6" GATE VALVE & BOX	DIWM FITTING 10" x 6" REDUCER	DIWM FITTING 6" x 2" REDUCER	DIWM FITTING 10" x 4" REDUCER	CUT & CAP EXIST. 10" WATER MAIN
STATION	OFFSET	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
29+38	26' RT						1											1
29+38	37' RT	11		2	1													
30+57.5	92' RT	124				1												
31+38	72.5' RT	82.5									1							
32+60	79.5' RT	122							104		1							
32+95	96.5' LT	152.5		2														
33+01.5	56' RT	25.5											1				1	
33+03	81.5' RT	42.5		2														
33+43	98.5' LT	40								1				1	1	1		
33+46	54' RT		44					1		1								
33+47	67' RT											1						
TOTAL		600	44	6	1	1	1	1	104	2	2	1	1	1	1	1	1	1

STORM SEWER SCHEDULE

LOCATION		ELEVATION			INLET TY. A WITH TY. 3 F & G	INLET TY. B WITH TY. 3 F & G	INLETS TO BE ADJUSTED W' NEW TY. 3 F & G	STORM SEWER CLASS A TYPE 2 12"	STORM SEWER CLASS A TYPE 2 24"	REMOVE EXIST MANHOLE	STORM SEWER REMOVAL 12"	SANITARY MANHOLES TO BE RECONSTR.	MANHOLES TY. A 5' DIA TYPE 8 GRATE	MANHOLES TY. A 5' DIA W' TY 1 FRAME C.L.
STATION	OFFSET	INV. IN	INV. OUT	RIM.	EACH	EACH	EACH	FOOT	FOOT	EACH	FOOT	EACH	EACH	EACH
28+40	23' LT	488.71	488.61	492.04		1	1	3	89.5					
28+40.5	24.0' RT		488.88	491.88			1	85						
28+92	31' RT									1				
29+24.5	25' LT	487.35	487.25	492.50										1
29+24.5	14.44' LT	487.48	487.38	490.75	1	1					5	1		
29+24.5	14' RT	487.72	487.62	490.79			1	39						
29+30	31.5' RT									1				
30+51.5	28' LT	484.20	480.20	490.50					128					1
31+25	29' LT	477.00	466.00	484.45					74					1
31+52.5	29' LT	465.00	464.90	469.80					28				1	
31+52.5	41.5' RT	463.54		468.10					70				1	
33+50	41' RT	455.25	455.15	481.25										1
TOTAL					1	2	3	127	389.5	2	5	1	2	4

SCHEDULE
OF QUANTITIES

PLOT DATE = 4/23/2006
FILE NAME = #FILEL*
PLOT SCALE = #SCALE*
USER NAME = #USER*

CONTRACT NO.66361

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

EARTHWORK SCHEDULE

LOCATION BUREAU COUNTY	EARTH EXCAVATION	EARTH EX. ADJUSTED FOR SHRINKAGE (0.75)	EMBANKMENT	FURNISHED EXCAVATION
				WASTE(+) OR SHORTAGE(-)
	CU YD	CU YD	CU YD	CU YD
NORTH OF BRIDGE				
STA 28+00 TO STA 28+25	12	9.00	0.7	8.30
STA 28+25 TO STA 28+50	20.4	15.30	0.7	14.60
STA 28+50 TO STA 28+75	15.8	11.85	0	11.85
STA 28+75 TO STA 29+00	13.8	10.35	0	10.35
STA 29+00 TO STA 29+25	11.1	8.33	0	8.33
STA 29+25 TO STA 29+50	20.9	15.68	0	15.68
STA 29+50 TO STA 29+75	16.2	12.15	206.2	-194.05
STA 29+75 TO STA 30+00	0	0.00	508.7	-508.70
STA 30+00 TO STA 30+25	0	0.00	674.7	-674.70
STA 30+25 TO STA 30+50	0	0.00	826.4	-826.40
STA 30+50 TO STA 30+75	0	0.00	1092.2	-1092.20
STA 30+75 TO STA 31+00	0	0.00	1323.2	-1323.20
STA 31+00 TO STA 31+25	0	0.00	1248.9	-1248.90
STA 31+25 TO STA 31+50	0	0.00	563.6	-563.60
SOUTH OF BRIDGE				
STA 33+00 TO STA 33+25	0	0.00	531.5	-531.50
STA 33+25 TO STA 33+50	0	0.00	1692.1	-1692.10
STA 33+50 TO STA 33+75	0	0.00	2238.8	-2238.80
STA 33+75 TO STA 34+00	0	0.00	1983.3	-1983.30
STA 34+00 TO STA 34+25	0	0.00	1710.3	-1710.30
STA 34+25 TO STA 34+50	0	0.00	818.6	-818.60
STA 34+50 TO STA 34+75	0	0.00	13.4	-13.40
STA 34+75 TO STA 35+00	0	0.00	0	0.00
EXISTING FRONTAGE ROAD	103.2			
TOTAL	213.4	82.65	15433.3	-15350.65

*

*

* Pay Items

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARD RAIL TYPE A	TRAFFIC BARRIER TERMINAL TYPE 6	TRAFFIC BARRIER TERMINAL TYPE 6 (SPL.)	TRAFFIC BAR. TERM. TY 1 SPL TANGENT	BITUMINOUS FOR SPBGR 6" FOR STABILIZATION
	FOOT	EACH	EACH	EACH	SQ YD
NORTH EAST QUADRANT					
STA 29+85.75 TO STA 30+35.75				1	
STA 30+35.75 TO STA 30+85.75	50				30.2
STA 30+85.75 TO STA 31+17		1			
NORTH WEST QUADRANT					
STA 29+68.25 TO STA 30+18.25				1	
STA 30+18.25 TO STA 30+55.75	37.5				73.5
STA 30+55.75 TO STA 30+87			1		
SOUTH EAST QUADRANT					
STA 33+47 TO STA 33+78.25		1			56.9
STA 33+78.25 TO STA 34+65.75	87.5				
SOUTH WEST QUADRANT					
STA 33+77 TO STA 34+08.25			1		114.7
STA 34+08.25 TO STA 34+58.25	50				
TOTAL	225	2	2	2	275.3

CURB AND GUTTER SCHEDULE

LOCATION	CONCRETE C & G TY. B-6:12	CONCRETE C & G TY. B-6:24	TIE BARS 3/4"	GUTTER OUTLET TY. B
	FOOT	FOOT	EACH	EACH
STA 28+10 LT TO STA 28+50 LT	40		20	
STA 28+50 LT TO STA 28+98.5 LT		49	25	
STA. 28+70 RT C.E. MARINA		32		
STA 28+98.5 LT TO STA 29+37.75 LT		39		
STA 29+37.75 LT TO STA 30+87 LT		149	75	
STA 28+10 RT TO STA 28+25 RT	15		8	
STA 28+25 RT TO STA 28+60 RT		53	27	
STA 28+80 RT TO STA 28+95 RT		24	12	1
STA 28+98.5 TO STA 29+37.75		39		
STA 29+37.75 RT TO STA 30+87 RT		148	74	
TOTAL	55	533	241	1

ACCESS ROAD

LOCATION	LENGTH	WIDTH	AGGREGATE SURFACE COURSE TY. B, 8"	AGGREGATE SHOULDER TY B
	FEET	FEET	SQ YD	TON
WEST	128	12	170.7	29.2
NORTH	169	12	225.3	38.5
EAST	94	12	125.3	21.4
TOTAL			521.3	89.1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE
OF QUANTITIES

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TREE REMOVAL SCHEDULE				TREE REMOVAL SCHEDULE			
LOCATION		TREE REMOVAL 6 TO 15 UNITS	TREE REMOVAL OVER 15 UNITS	LOCATION		TREE REMOVAL 6 TO 15 UNITS	TREE REMOVAL OVER 15 UNITS
STATION	OFFSET	UNIT	UNIT	STATION	OFFSET	UNIT	UNIT
30+97.833	23.829 LT	8		33+32.722	67.499 LT	6	
30+99.661	40.351 LT	8		33+32.824	88.092 LT	8	
31+02.326	29.301 LT	8		33+35.429	88.639 LT	12	
31+03.461	50.994 RT		31	33+36.572	55.893 LT	6	
31+10.648	53.583 LT	8		33+37.342	46.363 RT	6	
31+10.751	28.968 LT	6		33+42.833	51.391 RT	6	
31+20.063	33.040 LT	6		33+43.536	42.855 LT	6	
31+29.166	30.191 LT	6		33+44.521	88.874 LT	18	18
31+35.737	34.851 LT	8		33+45.059	63.780 LT	8	
31+40.364	39.180 LT	6		33+45.646	49.150 RT	8	
31+41.070	41.610 LT	6		33+46.291	44.209 RT	8	
31+43.525	34.654 LT	6		33+47.208	44.831 RT		
32+81.554	82.679 LT	11		33+48.235	41.541 RT		19
32+82.376	61.384 LT	8		33+48.911	65.498 LT	8	
32+85.659	66.782 LT	11		33+86.286	63.783 LT	6	
32+87.668	48.081 LT	15		33+86.291	62.015 LT	6	
32+87.902	49.513 LT	11		33+90.748	69.968 LT	8	
32+89.117	83.967 LT	8		33+91.251	72.962 LT	8	
32+89.284	85.752 LT	11		33+94.152	41.136 LT	8	
32+89.344	80.986 LT	15		33+95.253	68.675 LT	12	
32+89.375	84.773 LT	6		33+96.264	68.570 LT	8	
32+89.983	90.223 LT	8		33+96.706	71.307 LT	6	
32+90.048	55.614 LT	15		34+05.835	53.916 RT	6	
32+91.666	68.506 LT	6		34+15.208	51.470 RT	13	
32+92.306	56.527 LT	11		34+17.059	30.300 LT		18
32+92.402	54.154 LT	11		34+18.610	46.754 RT	11	
32+92.898	67.310 LT	11		34+23.286	43.556 RT	11	
33+04.713	44.489 RT	6		34+24.869	55.745 RT	11	
33+10.376	39.373 RT	6		34+25.922	34.564 LT	15	
33+23.635	43.417 RT	6		34+32.134	35.777 RT	6	
33+30.206	40.325 LT	6		34+34.094	46.882 RT	11	
33+30.273	49.694 LT	6		34+40.748	33.146 RT	11	
33+32.385	54.842 LT	6		34+46.510	37.418 RT	8	
				TOTAL		535	86

MAINLINE SCHEDULE															
LOCATION	LENGTH	WIDTH	AREA	PCC PAV'T 10" JOINTED	PROT. COAT	SUB-BASE GRANULAR MATERIAL TY A 12"	PCC DRIVEWAY PVMT. 10"	HOT-MIX ASPHALT BINDER IL -19, N50 11 1/4"	HOT-MIX ASPHALT SURFACE COURSE MIX D N 50	LEVEL BIND (MACH.METH) N 50	AGG. PRIME COAT TONS	BIT. PRIME COAT GAL.	AGG. SHLDRS. TY B TONS	TEMP. RAMP SQ YD	HOT-MIX ASPHALT SHLDRS. 8" SQ. YD.
STA. 28+10 TO STA. 29+38	128	var	273.4	273.4	273.4	287	51								
STA. 29+38 TO STA. 30+81	143	26	413.11	413.11	413.11	429									
STA. 30+81 TO STA. 30+87	6	26	17.33												
STA. 30+87 TO STA. 31+17	30	31.5	105												
STA. 31+17 TO STA. 33+47	230	30	766.67												
STA. 33+47 TO STA. 33+77	30	31.5	105												
STA. 33+77 TO STA. 33+83	6	26	17.33												
STA. 33+83 TO STA. 34+65.75	82.75	26	239.06			391		150.61	20.08		0.5	19.1			55.2
STA 34+65.75 TO STA 35+00	34.25	26	98.94						8.31	4.16	0.2	7.9	4.9	14.5	
LINE TOTAL	690		2035.8	686.5	686.5	1107.0	51.0	150.6	28.4	4.2	0.7	27.0	4.9	14.5	55.2

PLOT DATE : 11/29/2006
PLOT SCALE : 1"=50'
USER NAME : KUSERS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE
OF QUANTITIES

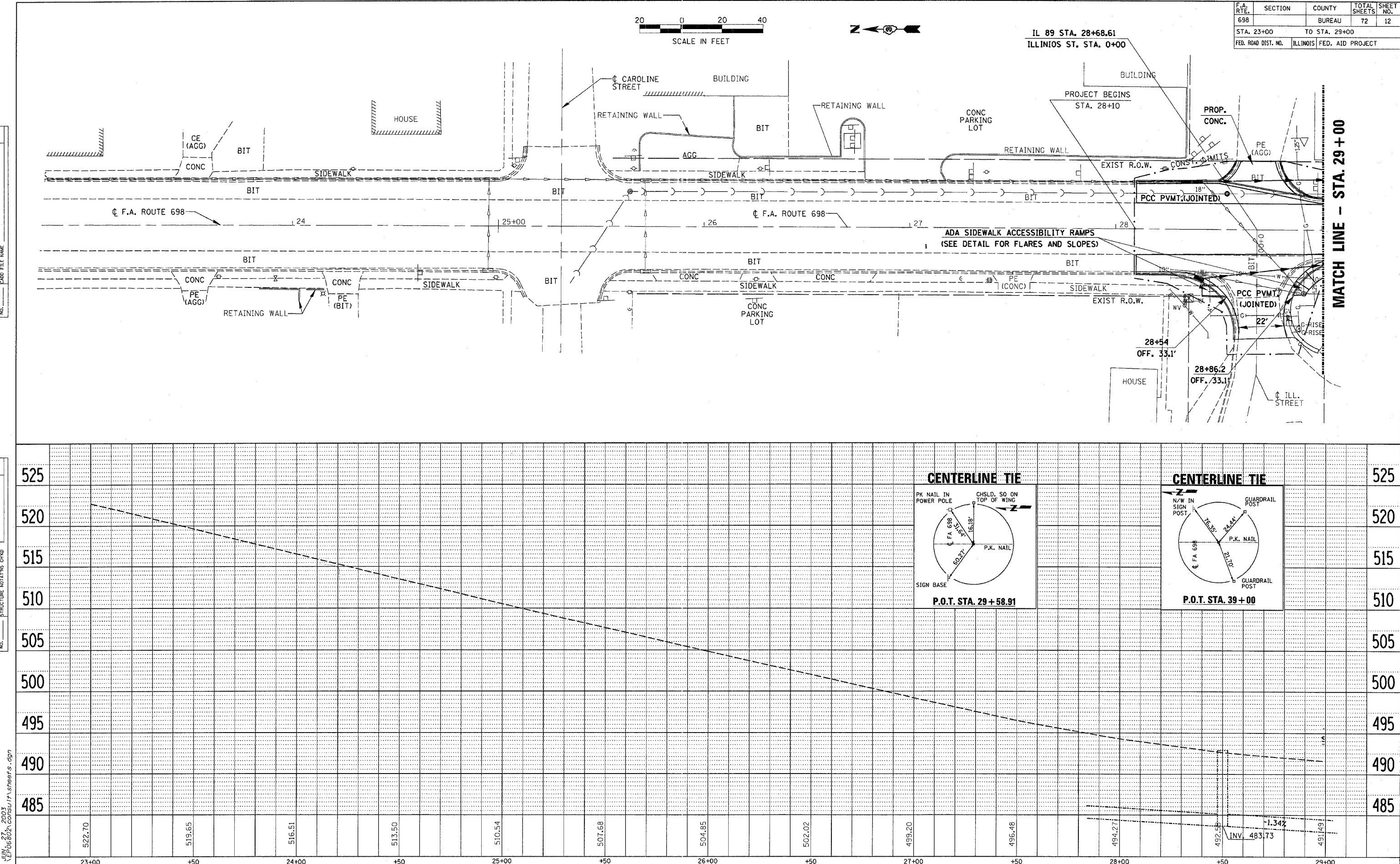
SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698		BUREAU	72	12
STA. 23+00		TO STA. 29+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

PLAN	DATE	BY
SURVEYED		
NOTE BOOK		
ALIGNMENT CHECKED		
CONC. FILE NAME		

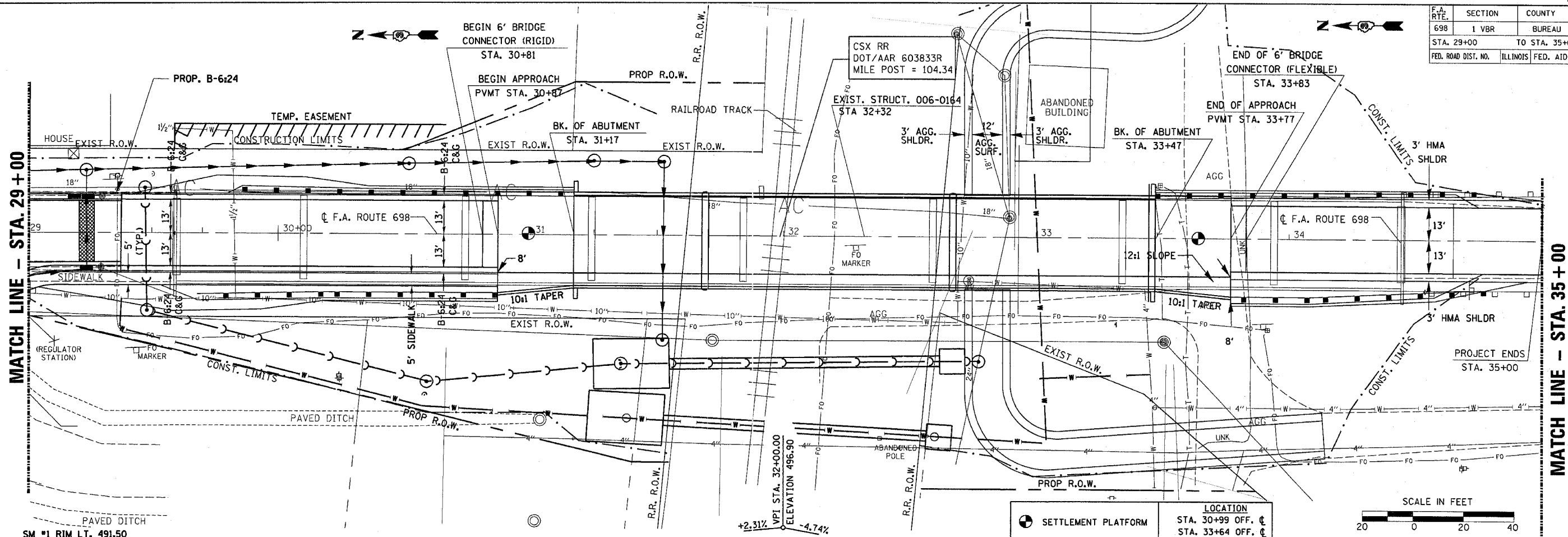
PROFILE	DATE	BY
SURVEYED		
NOTE BOOK		
GRADES CHECKED		
STATIONING NOTATIONS CHKD		



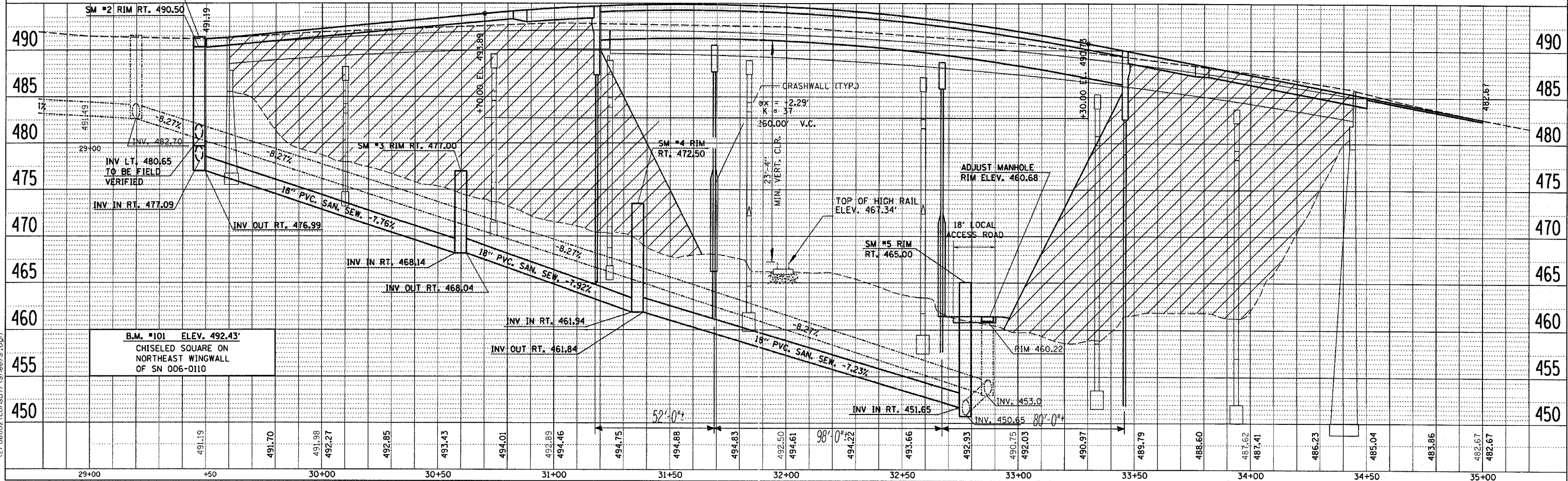
F.A. ROUTE 698 PLAN AND "PROFILE"
STA. 23+00 to STA. 29+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	13
STA. 29+00		TO STA. 35+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PLAN	DATE
SURVEYED	BY
NOTED	DATE
NOTE BOOK	NO.
NO. OF WAY CHECKED	
PAID FILE NAME	



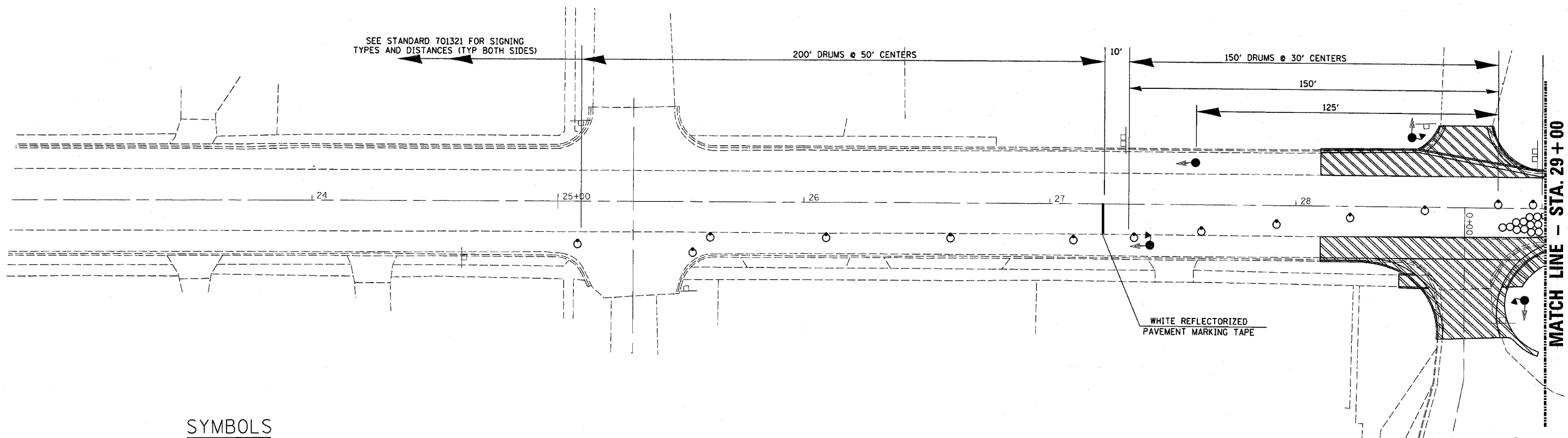
PROFILE	DATE
SURVEYED	BY
NOTED	DATE
NOTE BOOK	NO.
NO. OF WAY CHECKED	
PAID FILE NAME	



JUN 27, 2003
1:EP06802:consul1:1: sheets.dgn

F.A. ROUTE 698 PLAN AND PROFILE
STA. 29+00 to STA. 35+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SYMBOLS

- WORK AREA
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR (NON-REDIRECTIVE) TEST LEVEL 3
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- TRAFFIC SIGNAL WITH MICROWAVE DETECTOR

AREA FINISHED PRIOR TO STAGE CONSTRUCTION

REVISIONS	
NAME	DATE

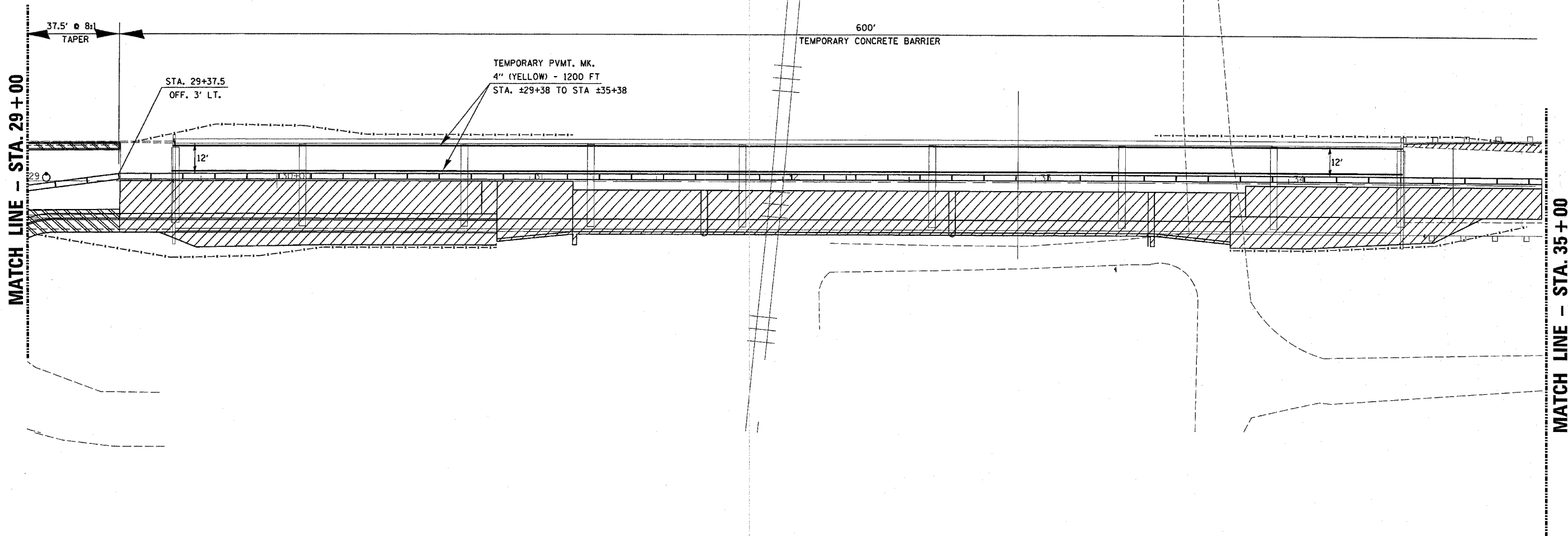
ILLINOIS DEPARTMENT OF TRANSPORTATION

**STAGE 1
CONSTRUCTION**

SCALE: VERT. _____
HORIZ. _____
DATE _____

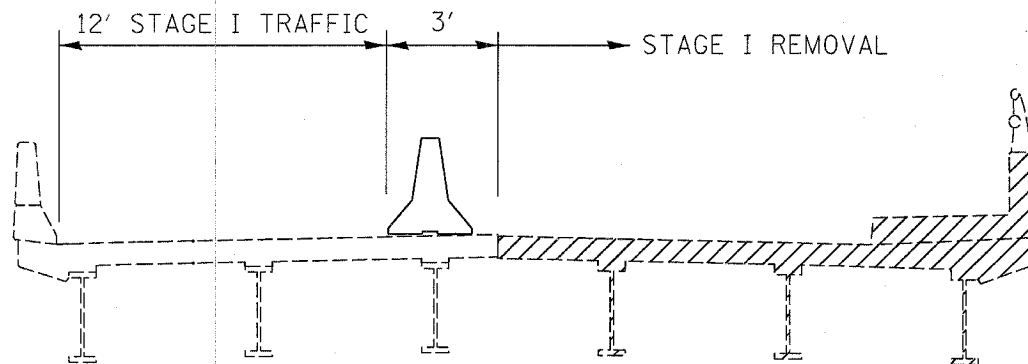
DRAWN BY _____
CHECKED BY _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SYMBOLS

- WORK AREA
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR (NON-REDIRECTIVE) TEST LEVEL 3
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- TRAFFIC SIGNAL WITH MICROWAVE DETECTOR



STAGE I TYPICAL
SEE BRIDGE SHEET PG 2

REVISIONS	
NAME	DATE

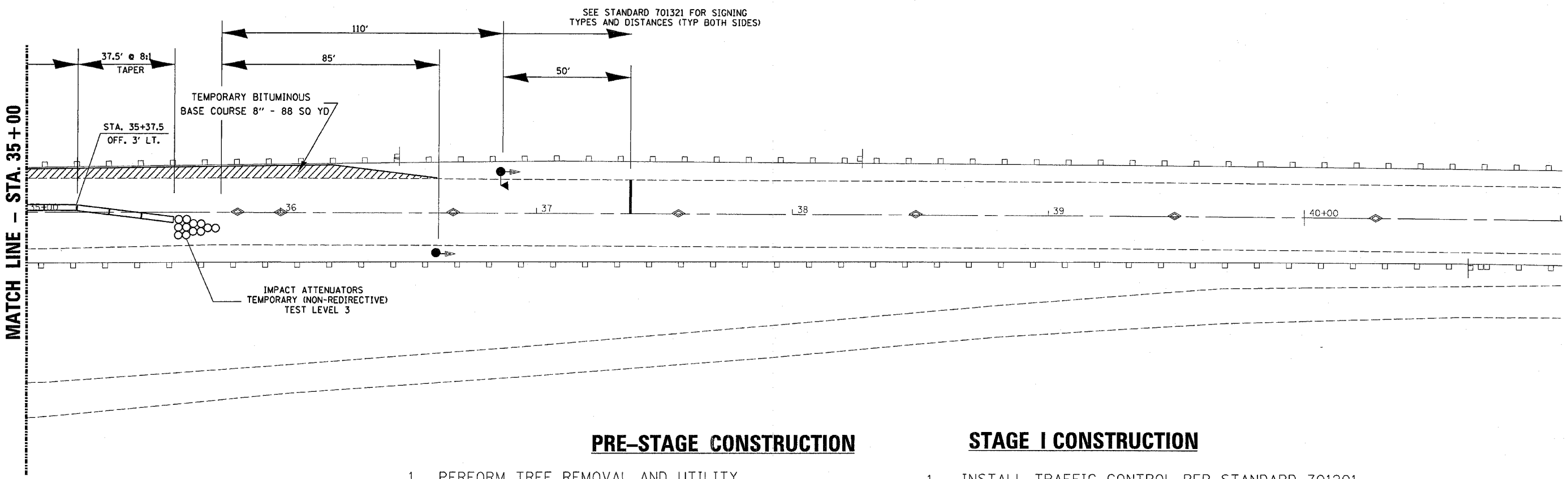
ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE 1 CONSTRUCTION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	16
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PRE-STAGE CONSTRUCTION

1. PERFORM TREE REMOVAL AND UTILITY WORK ACCORDING TO STANDARD 701006
2. CONSTRUCT CONCRETE SIDEROAD, ENTRANCE, AND SHOULDER ACCORDING TO TRAFFIC STANDARD 701501

STAGE I CONSTRUCTION

1. INSTALL TRAFFIC CONTROL PER STANDARD 701201
2. INSTALL TEMPORARY TRAFFIC SIGNALS
3. INSTALL TRAFFIC CONTROL PER STANDARD 701321 AND AS DETAILED IN THESE PLANS.
4. REMOVE SOUTHBOUND PORTION OF EXISTING STRUCTURE
5. CONSTRUCT SOUTHBOUND PORTION OF STRUCTURE
6. CONSTRUCT SOUTHBOUND SHOULDER
7. MILL AND PLACE LEVELING BINDER ON SOUTHBOUND PAVEMENT
8. INSTALL GUARDRAIL

SYMBOLS

WORK AREA

DRUM WITH STEADY BURNING LIGHT

TRAFFIC SIGNAL

TYPE C BIDIRECTIONAL REFLECTOR

TEMPORARY CONCRETE BARRIER

IMPACT ATTENUATOR (NON-REDIRECTIVE) TEST LEVEL 3

STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

TRAFFIC SIGNAL WITH MICROWAVE DETECTOR

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**STAGE 1
CONSTRUCTION**

SCALE: VERT.
DATE

DRAWN BY
CHECKED BY

STAGE II CONSTRUCTION

1. RELOCATE TRAFFIC CONTROL PER STANDARD 701321 AND AS DETAILED IN THESE PLANS, FOR THE NORTHBOUND LANE CLOSURE
2. INSTALL TEMPORARY PAVEMENT
3. REMOVE NORTHBOUND PORTION OF EXISTING STRUCTURE
4. CONSTRUCT NORTHBOUND PORTION OF STRUCTURE
5. CONSTRUCT NORTHBOUND SHOULDER
6. MILL AND PLACE LEVELING BINDER PLACE ON NORTHBOUND PAVEMENT
7. INSTALL GUARDRAIL
8. REMOVE TRAFFIC CONTROL
9. REMOVE TEMPORARY TRAFFIC SIGNALS

STAGE III CONSTRUCTION

TRAFFIC CONTROL PER STANDARD 701201

PLACE BITUMINOUS SURFACE ON SOUTHBOUND AND NORTHBOUND LANES

PLACE PERMANENT PAVEMENT MARKINGS ON SOUTHBOUND AND NORTHBOUND LANES

LANDSCAPE RESTORATION

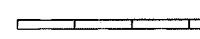
SYMBOLS

 WORK AREA

 DRUM WITH STEADY BURNING LIGHT

 TRAFFIC SIGNAL

 TYPE C BIDIRECTIONAL REFLECTOR

 TEMPORARY CONCRETE BARRIER

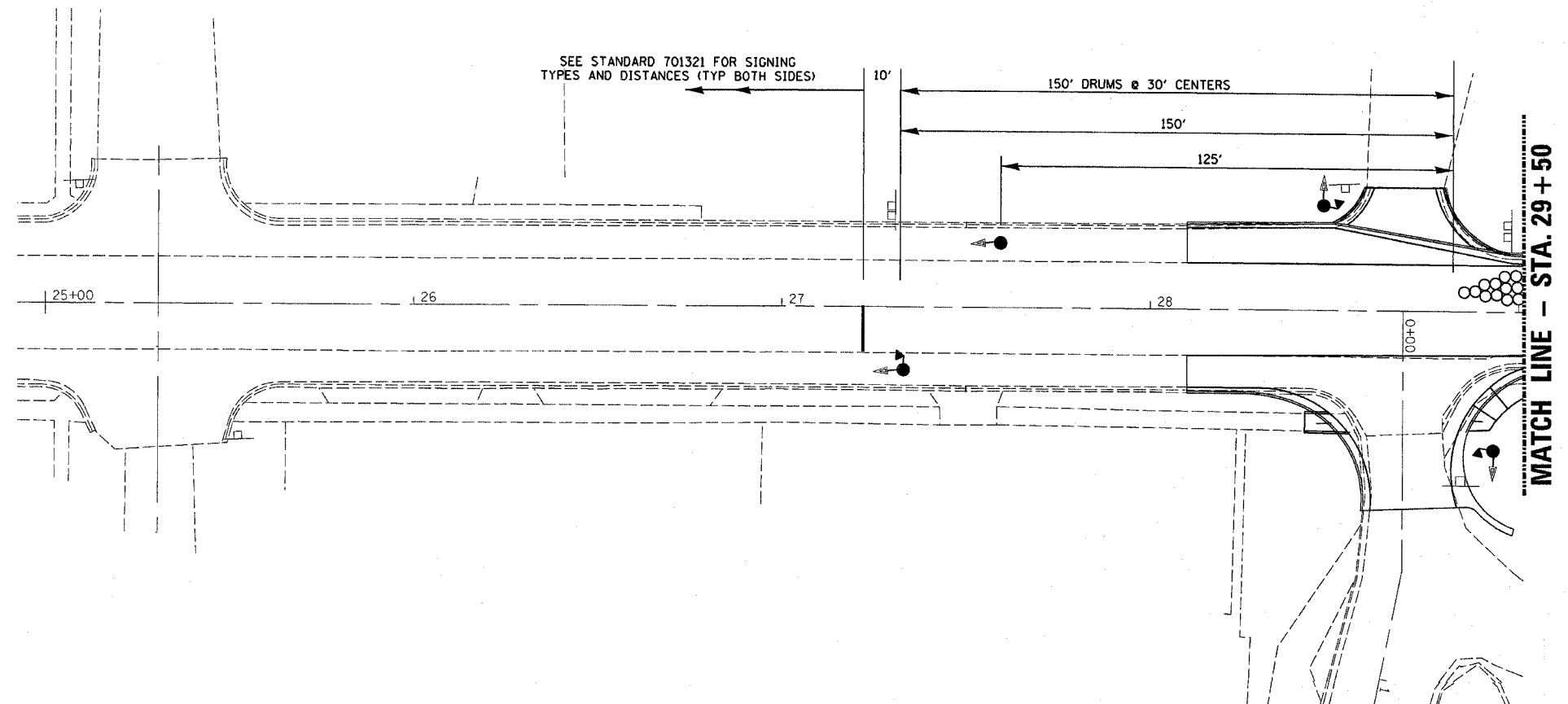
 IMPACT ATTENUATOR (NON-REDIRECTIVE) TEST LEVEL 3

 STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

 TRAFFIC SIGNAL WITH MICROWAVE DETECTOR



CONTRACT NO. 66361				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	17
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT



REVISIONS	
NAME	DATE

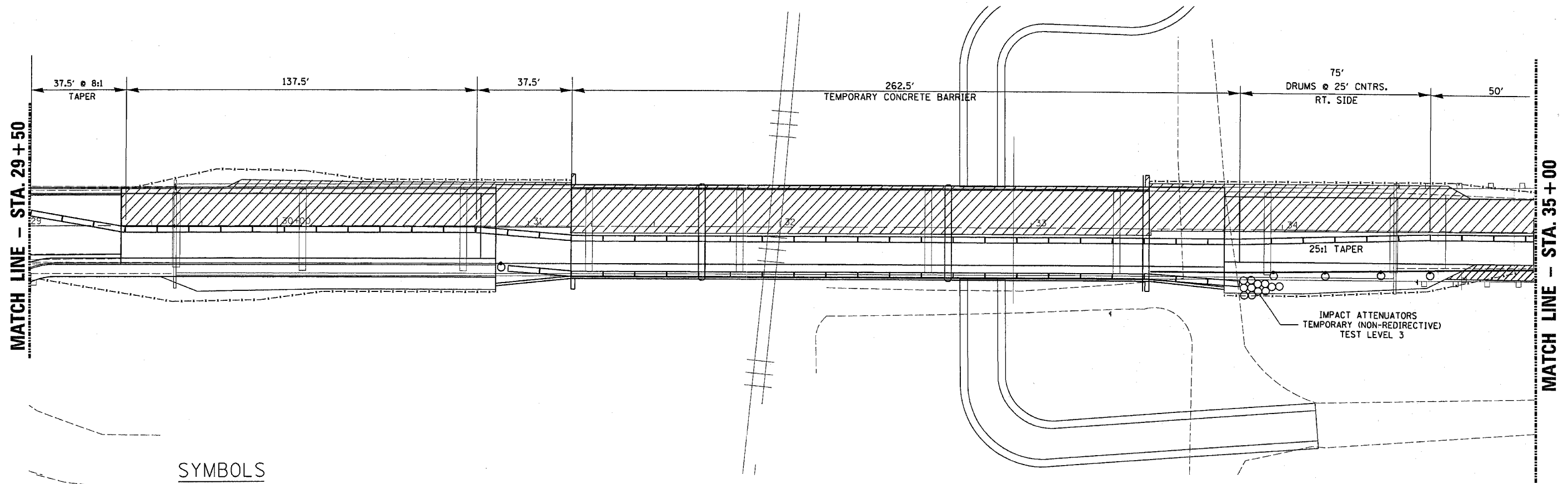
ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE 2 CONSTRUCTION

SCALE: VERT.
HORIZ.
DATE

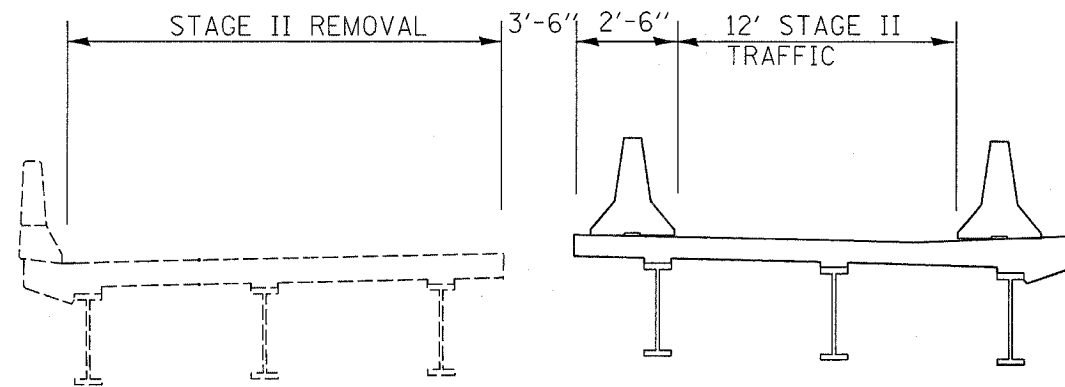
DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	18
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SYMBOLS

- WORK AREA
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR (NON-REDIRECTIVE) TEST LEVEL 3
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- TRAFFIC SIGNAL WITH MICROWAVE DETECTOR



STAGE II TYPICAL
SEE BRIDGE SHEET PG 2

REVISIONS	
NAME	DATE

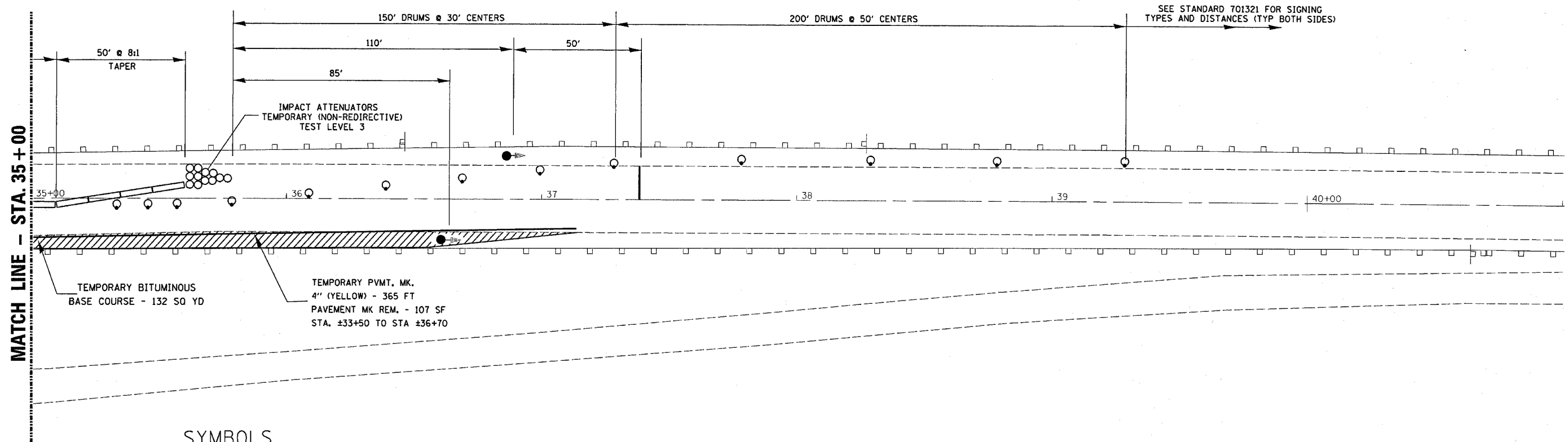
ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE 2 CONSTRUCTION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	19
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SYMBOLS

WORK AREA

DRUM WITH STEADY BURNING LIGHT

TRAFFIC SIGNAL

TYPE C BIDIRECTIONAL REFLECTOR

TEMPORARY CONCRETE BARRIER

IMPACT ATTENUATOR (NON-REDIRECTIVE) TEST LEVEL 3

STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

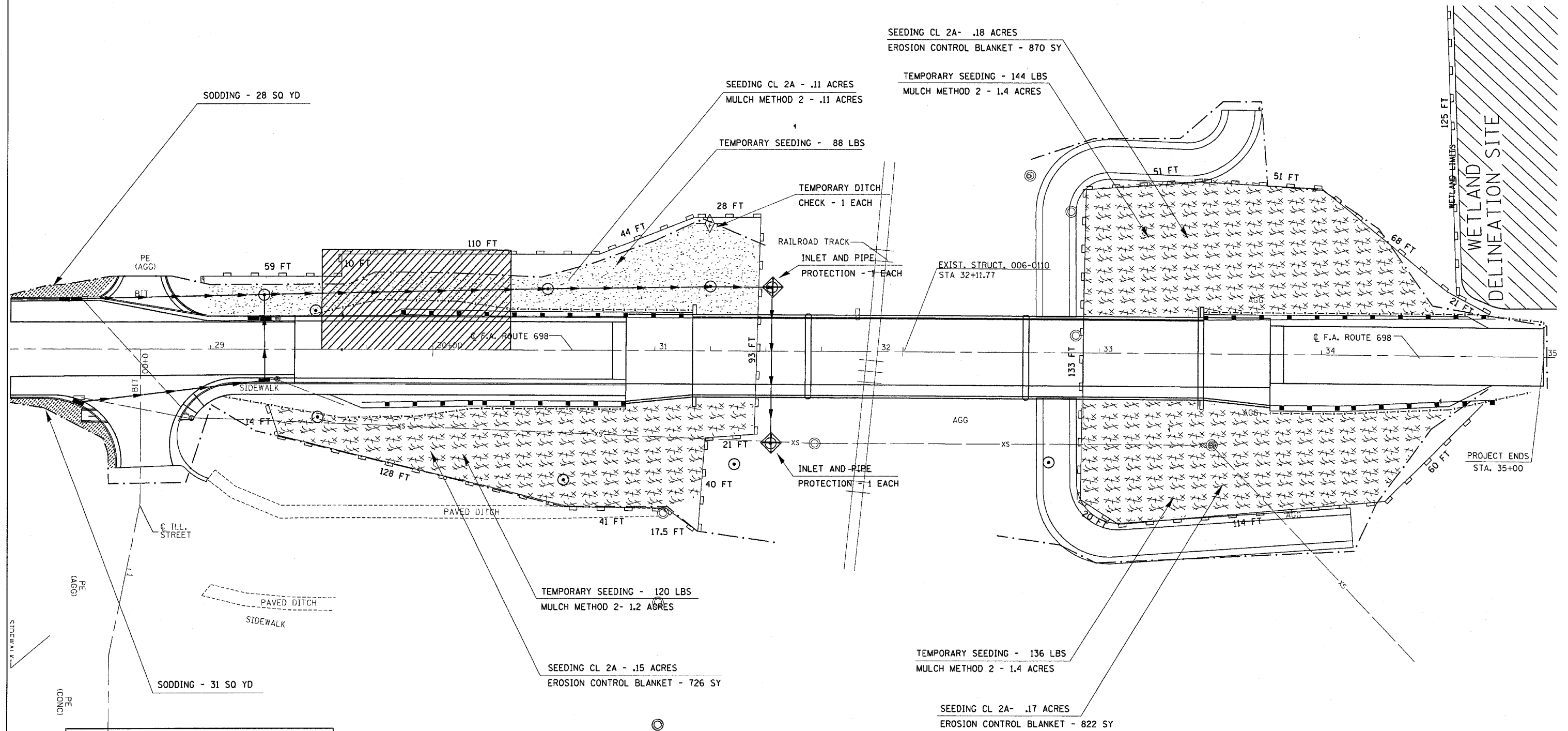
TRAFFIC SIGNAL WITH MICROWAVE DETECTOR

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**STAGE 2
CONSTRUCTION**VERT.
SCALE: HORIZ.
DATEDRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	20
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

- PERIMETER EROSION CONTROL BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK

- CONTAMINATED SOIL AREA (SEE COMMITMENT FILE FOR SITE REPORT)
- WETLAND DELINEATION SITE (RESTRICTED AREA)

REVISIONS	
NAME	DATE

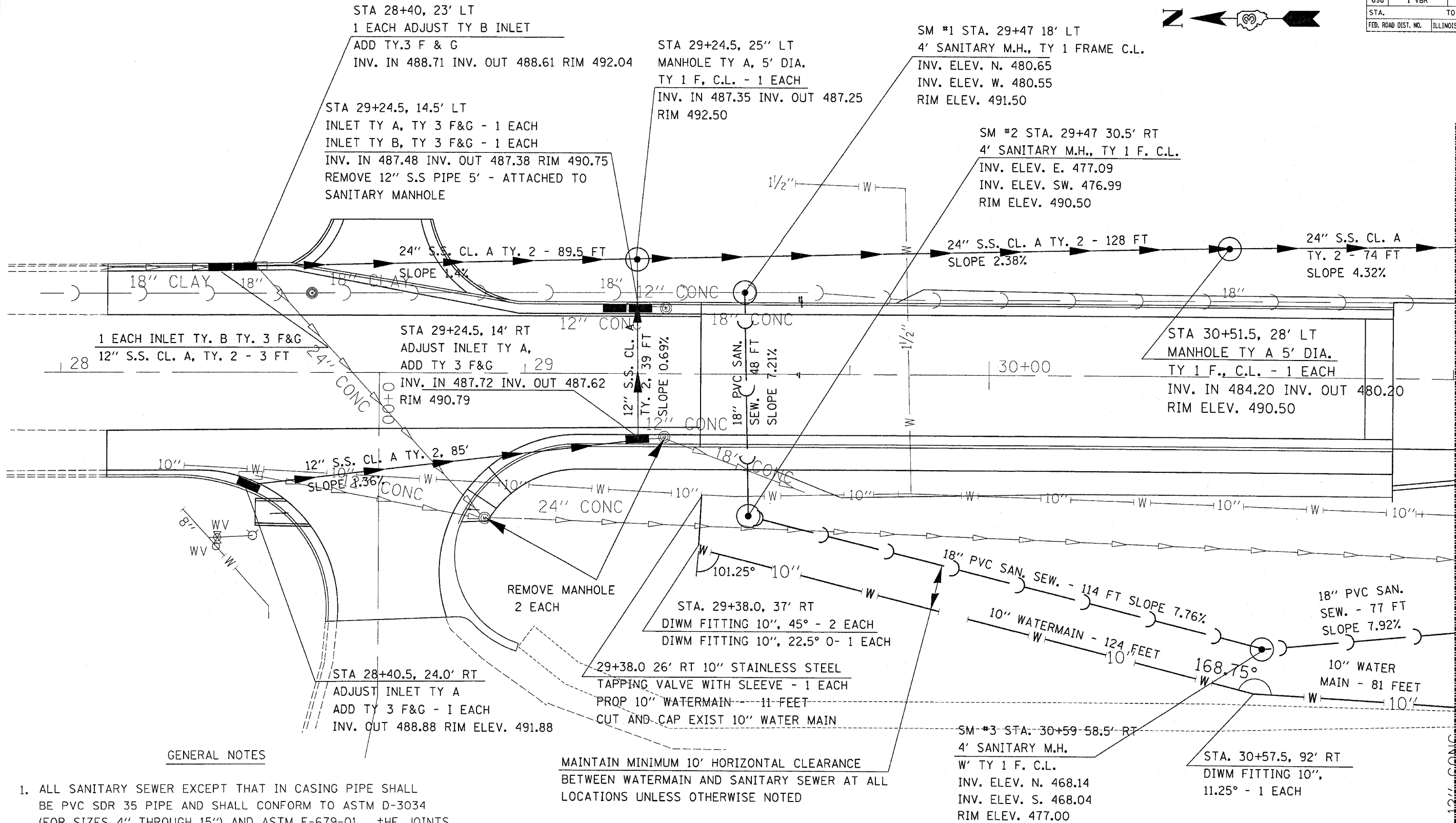
ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING AND EROSION CONTROL

SCALE: VERT. DATE
HORIZ. DRAWN BY
CHECKED BY

PLOT DATE = 4/23/2006
FILE NAME = #FILE#
DRAWN BY = #USER#
USER NAME = #USER#

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



MATCH LINE - STA. 31+00

GENERAL NOTES

1. ALL SANITARY SEWER EXCEPT THAT IN CASSING PIPE SHALL BE PVC SDR 35 PIPE AND SHALL CONFORM TO ASTM D-3034 (FOR SIZES 4" THROUGH 15") AND ASTM F-679-01. THE JOINTS SHALL BGE FLEXIBLE ELECTROMETRIC SEALS CONFORMING TO ASTM F-477.
2. THE PVC PIPE IN CASSING SHALL MEET ANSI/AWWA C900 SPECIFICATIONS WITH PUSH-ON JOINTS (ASTM F-477-02). THE PIPE MATERIAL WILL NOT CHANGE BETWEEN MANHOLES.

MAINTAIN MINIMUM 10' HORIZONTAL CLEARANCE BETWEEN WATERMAIN AND SANITARY SEWER AT ALL LOCATIONS UNLESS OTHERWISE NOTED



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DRAINAGE & UTILITY SHEET

SCALE: VERT. HORIZ. DATE

DRAWN BY
CHECKED BY

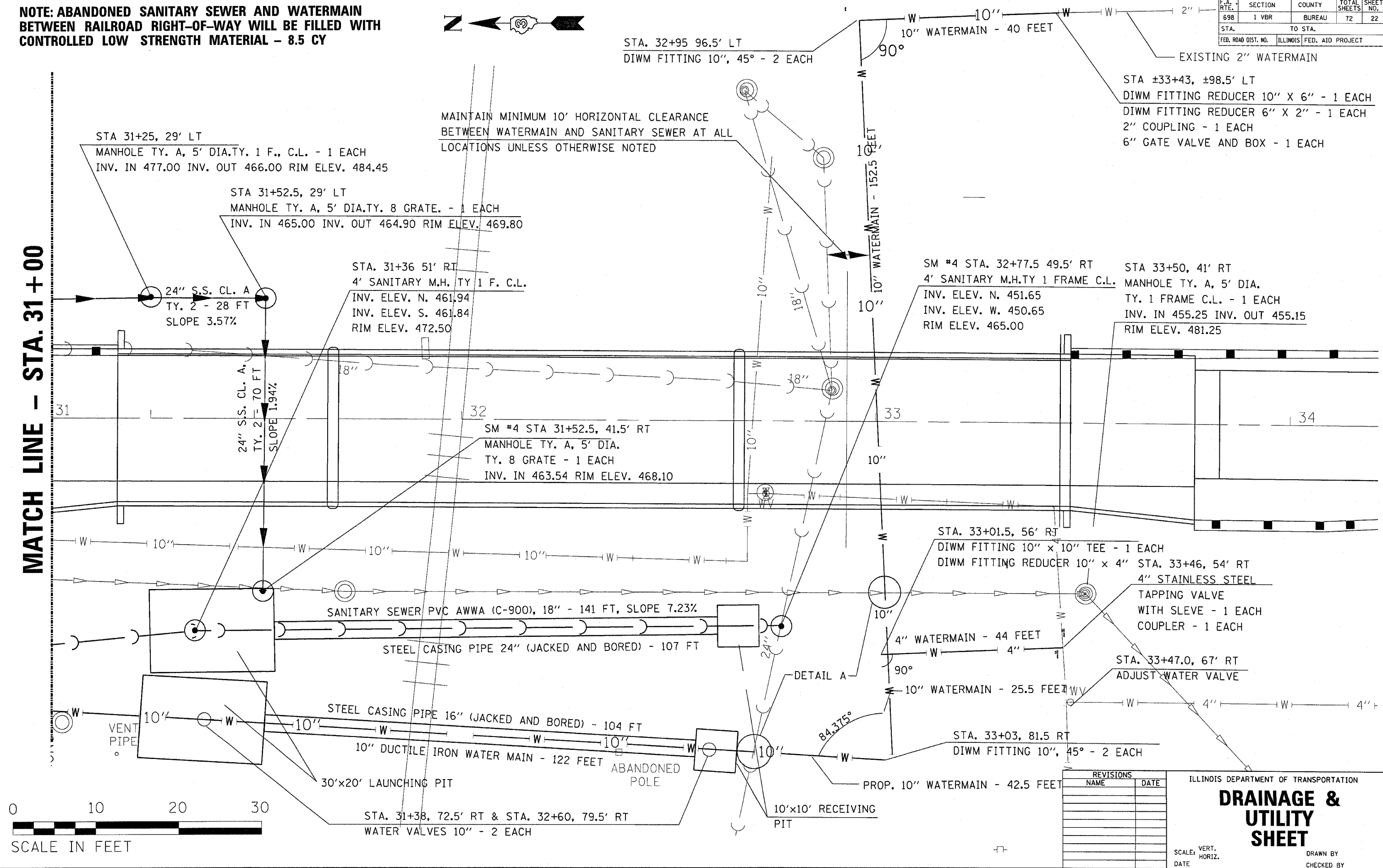
PLOT DATE = 4/23/2008
FILE NAME = #FILE#
PLOT NAME = #PLOT#
USER NAME = #USER#

**NOTE: ABANDONED SANITARY SEWER AND WATERMAIN
BETWEEN RAILROAD RIGHT-OF-WAY WILL BE FILLED WITH
CONTROLLED LOW STRENGTH MATERIAL - 8.5 CY**



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	22
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

MATCH LINE - STA. 31+00



0 10 20 30
SCALE IN FEET

ILLINOIS DEPARTMENT OF TRANSPORTATION

**DRAINAGE &
UTILITY
SHEET**

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

A PART OF THE NE 1/4 SEC. 3, T. 15 N., R. 11 E., 4th P.M.

3500001-DEO
RIVERVIEW PROPERTIES OF SPRING VALLEY, LLC

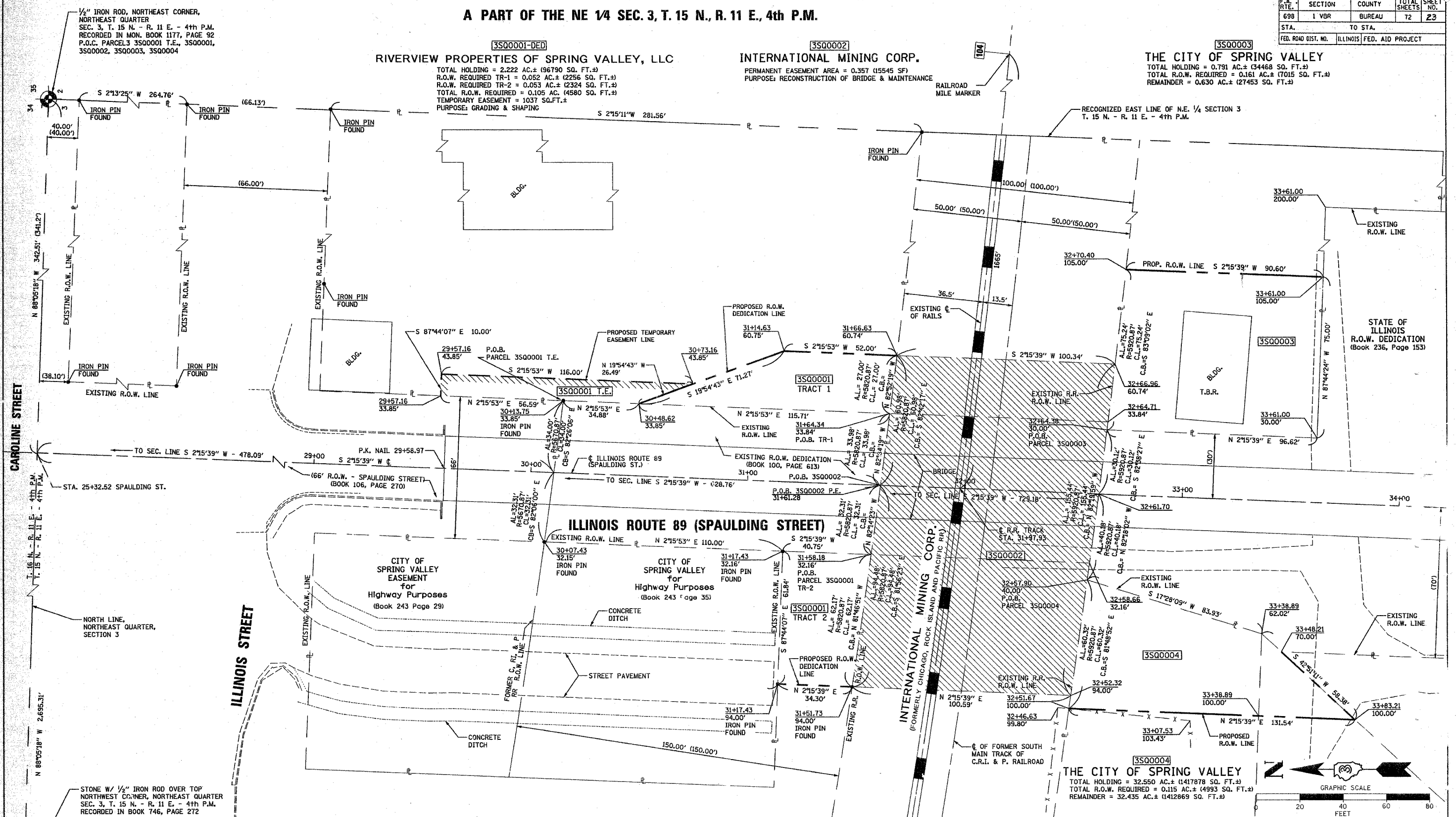
TOTAL HOLDING = 2.222 AC.± (96790 SQ. FT.±)
R.O.W. REQUIRED TR-1 = 0.052 AC.± (2256 SQ. FT.±)
R.O.W. REQUIRED TR-2 = 0.053 AC.± (2324 SQ. FT.±)
TOTAL R.O.W. REQUIRED = 0.105 AC.± (4580 SQ. FT.±)
TEMPORARY EASEMENT = 1037 SQ. FT.±
PURPOSE: GRADING & SHAPING

3500002
INTERNATIONAL MINING CORP.

PERMANENT EASEMENT AREA = 0.357 (15545 SF)
PURPOSE: RECONSTRUCTION OF BRIDGE & MAINTENANCE

3500003
THE CITY OF SPRING VALLEY

TOTAL HOLDING = 0.791 AC.± (34468 SQ. FT.±)
TOTAL R.O.W. REQUIRED = 0.161 AC.± (7015 SQ. FT.±)
REMAINDER = 0.630 AC.± (27453 SQ. FT.±)



THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

THIS IS TO CERTIFY THAT DAVID P. PHILLIPS, IS AN ILLINOIS PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, AND THAT THE SURVEY OF F.A.P. 698 (ILLINOIS ROUTE 89) WAS MADE UNDER HIS DIRECTION AND THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF HIS KNOWLEDGE AND BELIEF OF THE UNDERSIGNED, THAT ALL MONUMENTS AND MARKS ARE OF HIS CHARACTER AND OCCUPY THE POSITION SHOWN THEREON, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

DATE: JAN. 20, 2004

ILLINOIS PROFESSIONAL LAND SURVEYOR NUMBER 2591
LICENSE EXPIRES 11/30/04

RIGHT OF WAY PLANS

F.A.P. ROUTE 698 ILLINOIS ROUTE 89)
SECTION 1VBR
BUREAU COUNTY
JOB NO. R-93-003-04
STA. 25+30 TO
STA. 34+00
SCALE 1"=20'

SHEET NO. 1 OF 1

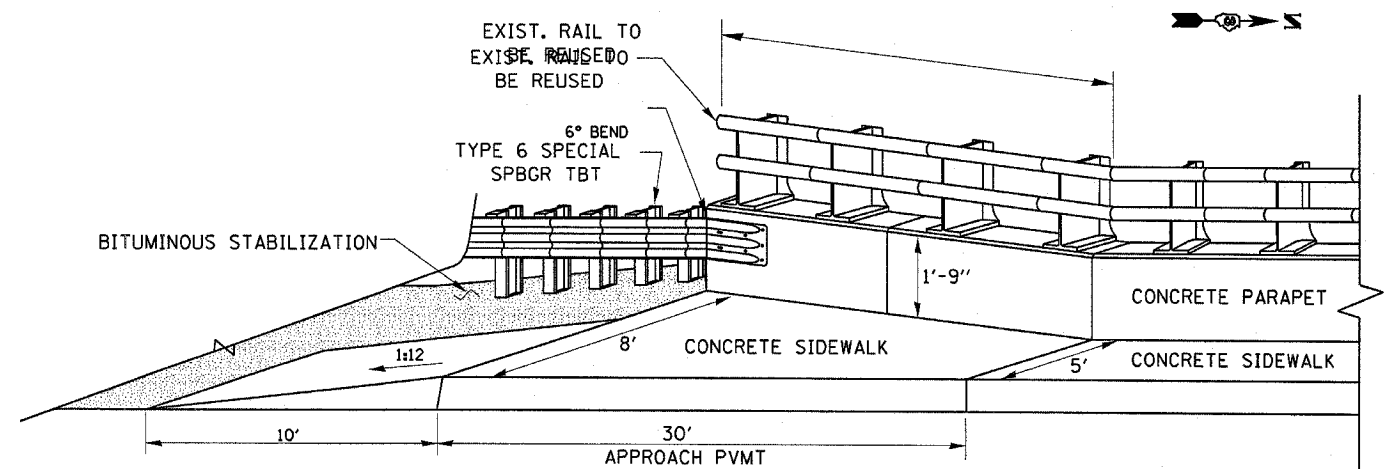
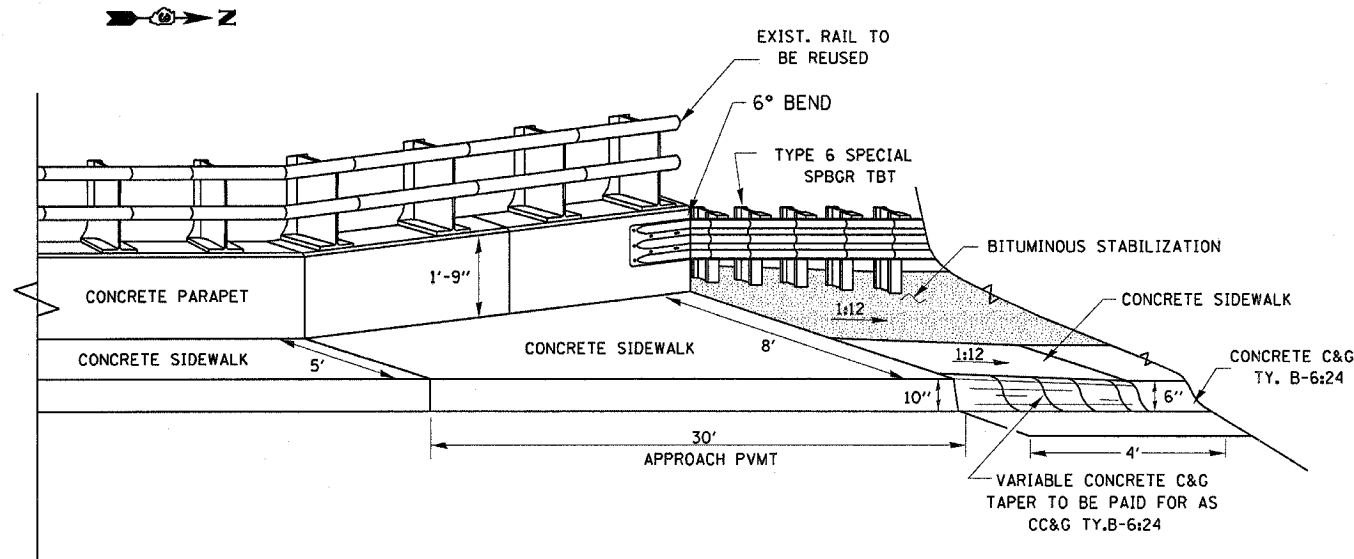
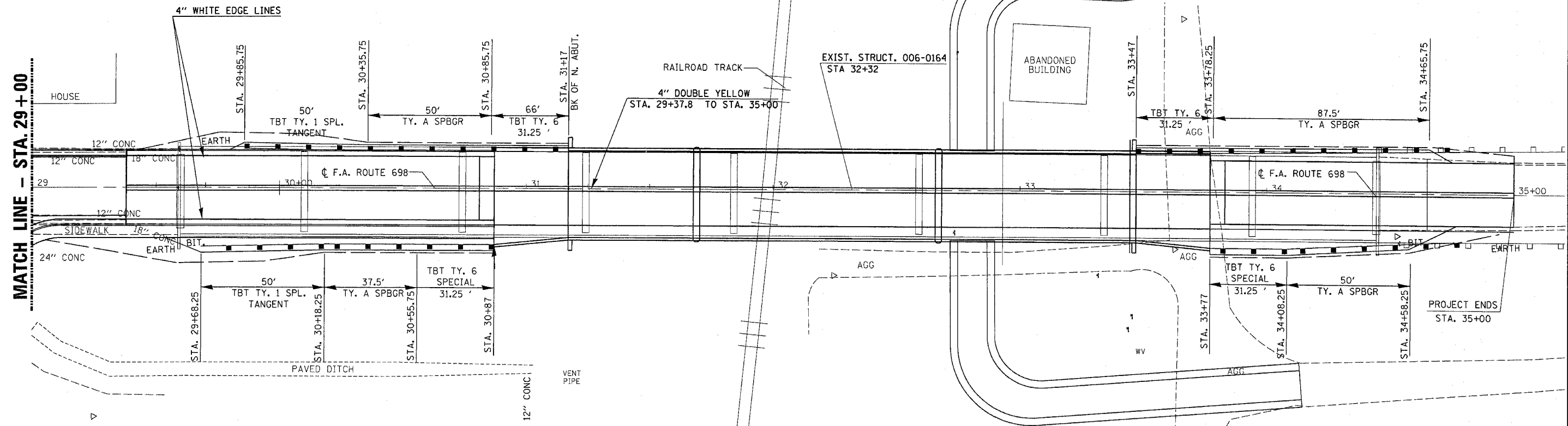
A PART OF THE NE 1/4 SEC. 3, T. 15 N., R. 11 E., 4th P.M.

[illegible]

INTERSECTION DETAIL SHEET

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	25
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SIDEWALK AND GUARDRAIL DETAILS

REVISIONS	
NAME	DATE

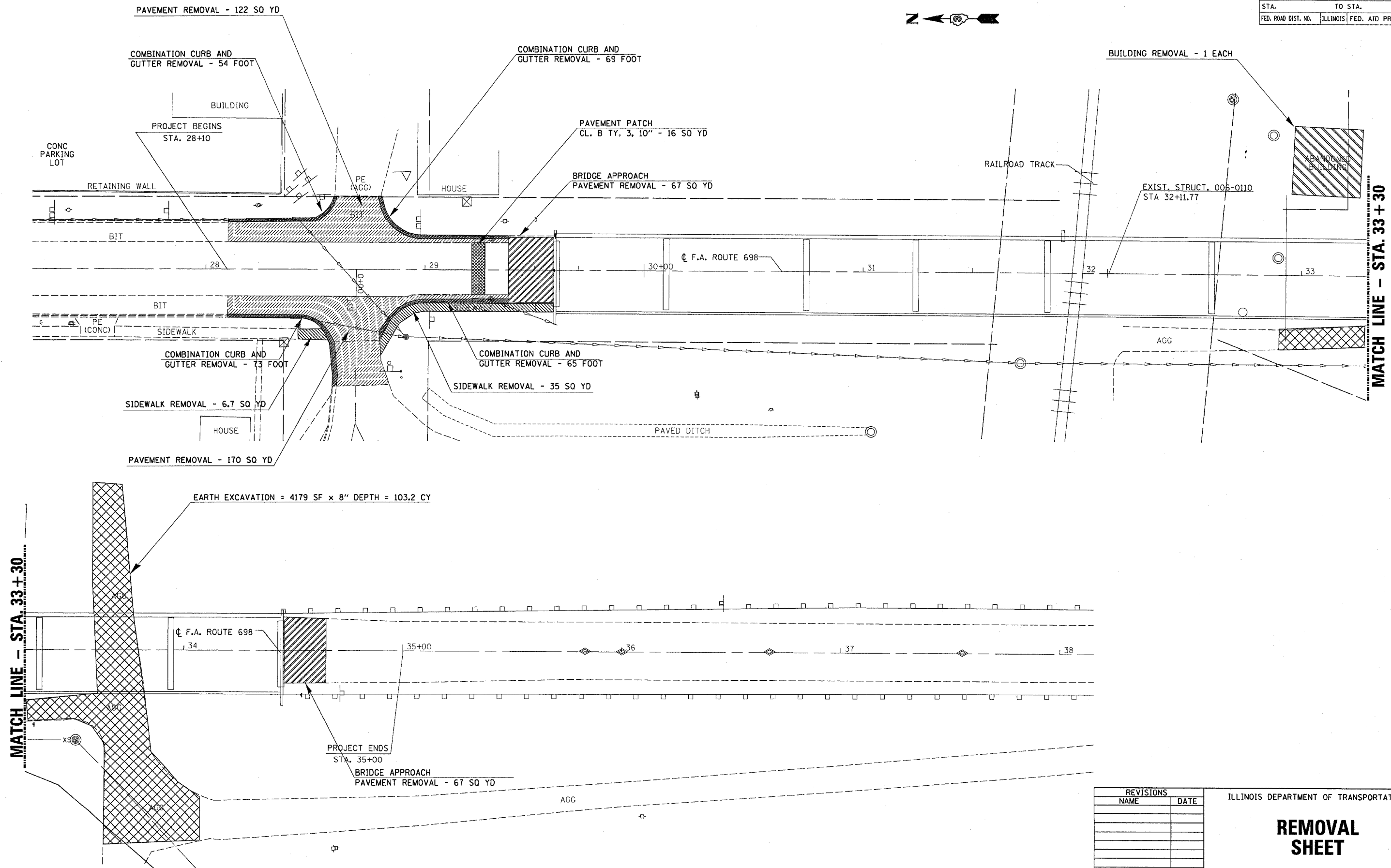
ILLINOIS DEPARTMENT OF TRANSPORTATION

GUARDRAIL AND PAVEMENT MARKING DETAIL

SCALE: VERT. 1"=10'
HORIZ. 1"=40'

DATE: DRAWN BY: CHECKED BY:

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	26
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLOT DATE = 4/23/2006
FILE NAME = #FILEL9
PLOT SCALE = 1/8"=1'-0"
USER NAME = J052674

REVISIONS	
NAME	DATE

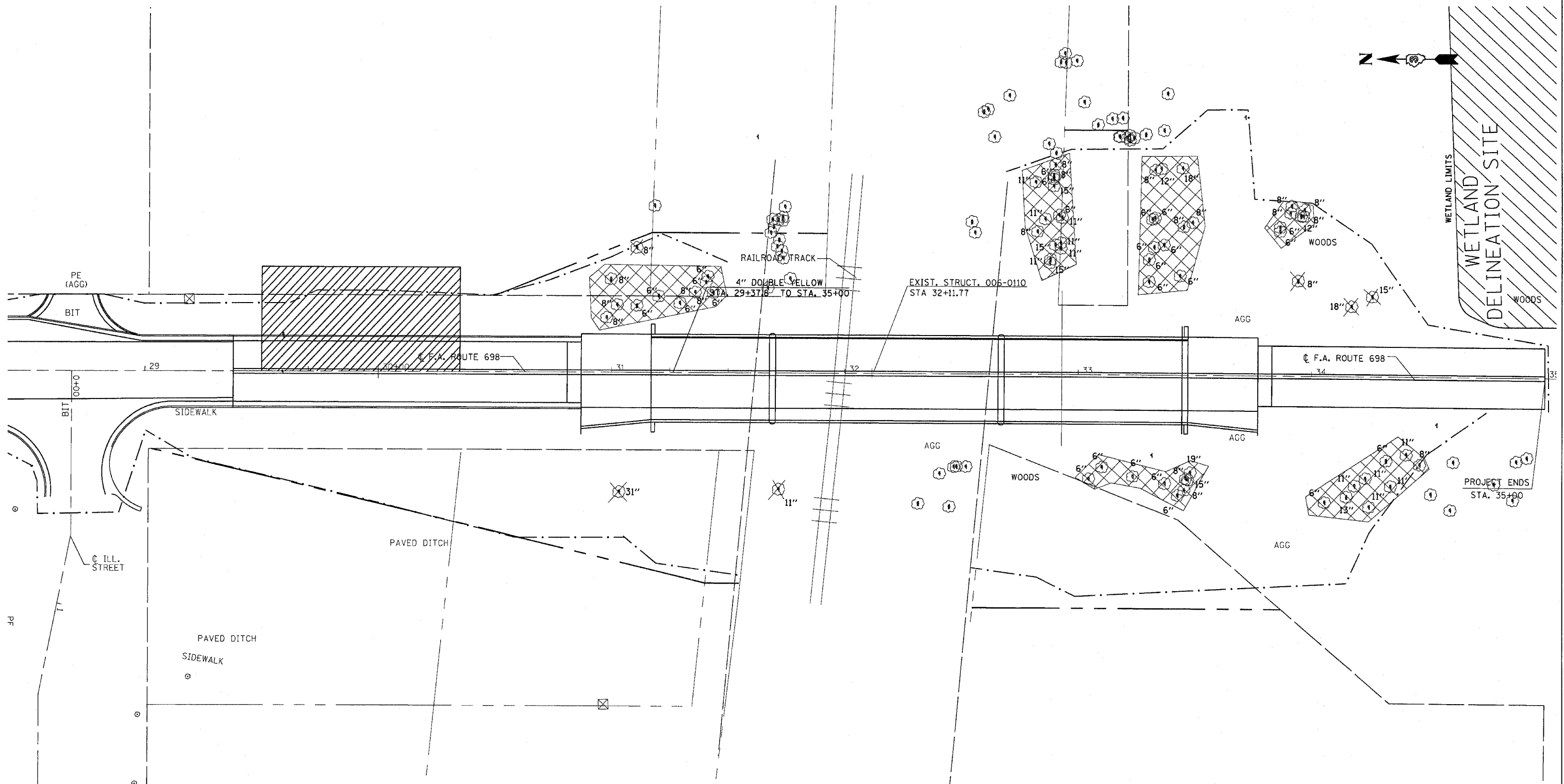
ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL SHEET

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	27
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



-  CONTAMINATED SOIL AREA (SEE COMMITMENT FILE FOR SITE REPORT)
-  TREE REMOVAL
-  CONSTRUCTION LIMITS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TREE REMOVAL SHEET

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

Existing Structure: S.N. 006-0110, originally built in 1936 as S.A. Route 21. In 1970 the deck was replaced and an interior beam line was added. The existing structure consists of 8 spans - 3 span continuous steel, 4 span continuous steel, and 1 steel simple span. The back to back abutment length is 486'-6" and the out to out bridge width is 36'-9". Structure to be removed and replaced. Traffic to be maintained utilizing stage construction.

Salvage: Existing aluminum rail to be removed from west side of bridge and attached to the new west parapet.

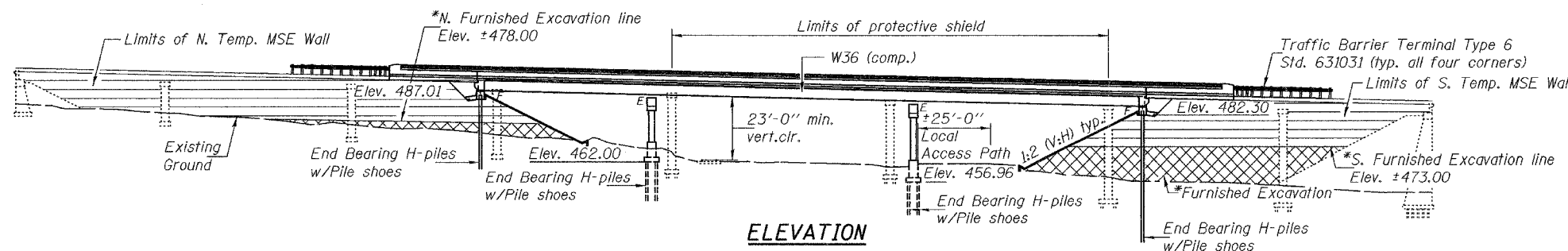
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	28
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
24 SHEETS

Contract No. 66361

INDEX OF SHEETS

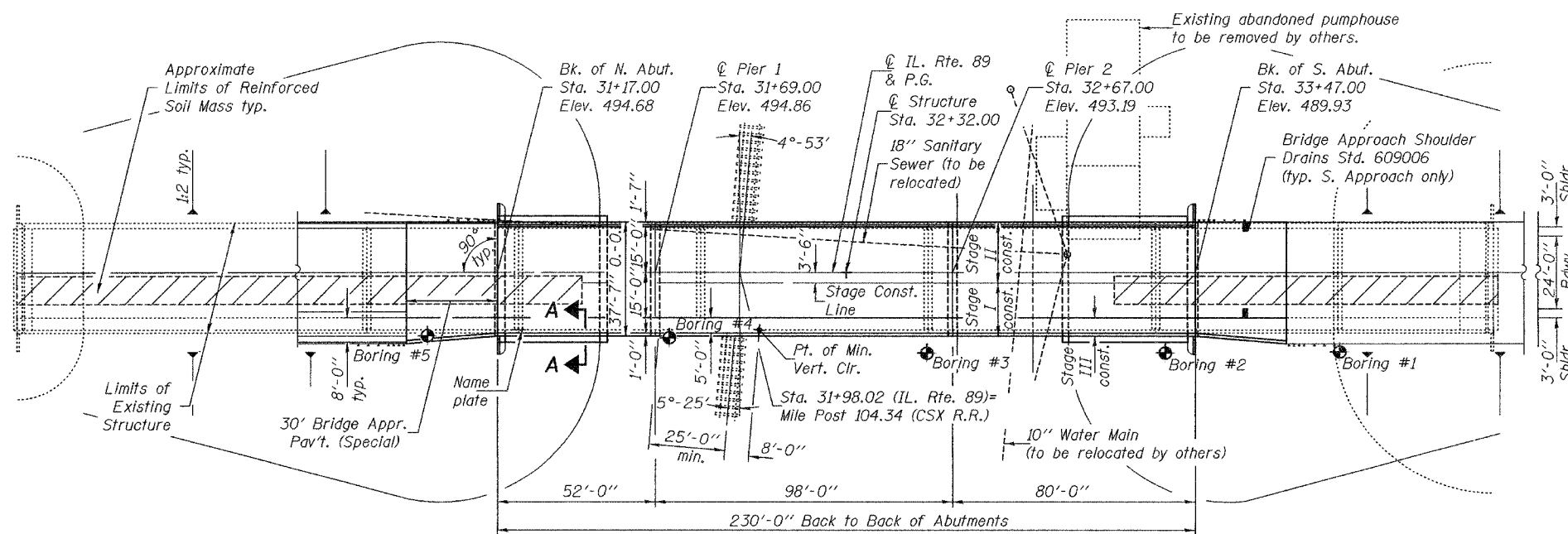
- 1 General Plan
- 2 General Data & Stage Construction Details
- 3 North TMSE Wall Details
- 4-5 South TMSE Wall Details
- 6 Temporary Concrete Barrier
- 7-8 Top of Slab Elevations
- 9 Superstructure
- 10-11 Superstructure Details
- 12 Bridge Approach Pavement (Special) Parapet Details
- 13 Diaphragm Details
- 14 Structural Steel
- 15 Structural Steel Details
- 16 Bearing Details
- 17 Anchor Bolt Details for Bearings
- 18 North Abutment
- 19 South Abutment
- 20 Pier 1
- 21 Pier 2
- 22 Bar Splicer Assembly Details
- 23-24 Boring Logs



STATION 32+32.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 698 SEC. 1VBF
LOADING HL93
STRUCTURE NO. 006-0164

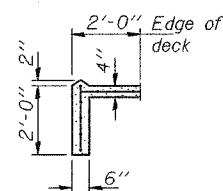
NAME PLATE

See Std. 515001



PLAN

* For Furnished Excavation details and quantities, see roadway plans.



SECTION A-A

DESIGNED	<i>Robert J. Huang</i>
CHECKED	<i>My E. Cyprien</i>
DRAWN	<i>h.t. duong</i>
CHECKED	<i>AEZ / PEC</i>

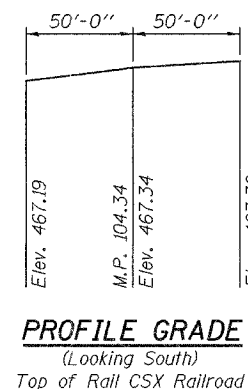
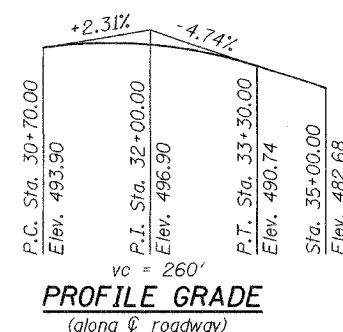
Jan 9, 2007

EXAMINED *Thomas J. Tomalski*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2008



LOADING HL 93

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

DESIGN SPECIFICATIONS

1998 AASHTO LRFD Bridge Design Specifications
with 1999 thru 2002 Interims

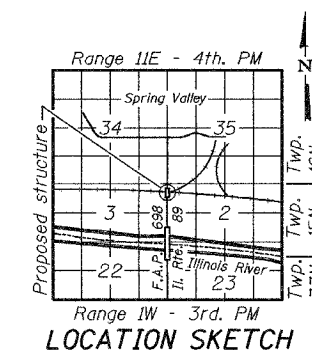
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (reinforcement)}$
 $f_v = 50,000 \text{ psi (M270 Grade 50W)}$

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.05g
Site Coefficient (S) = 1.1

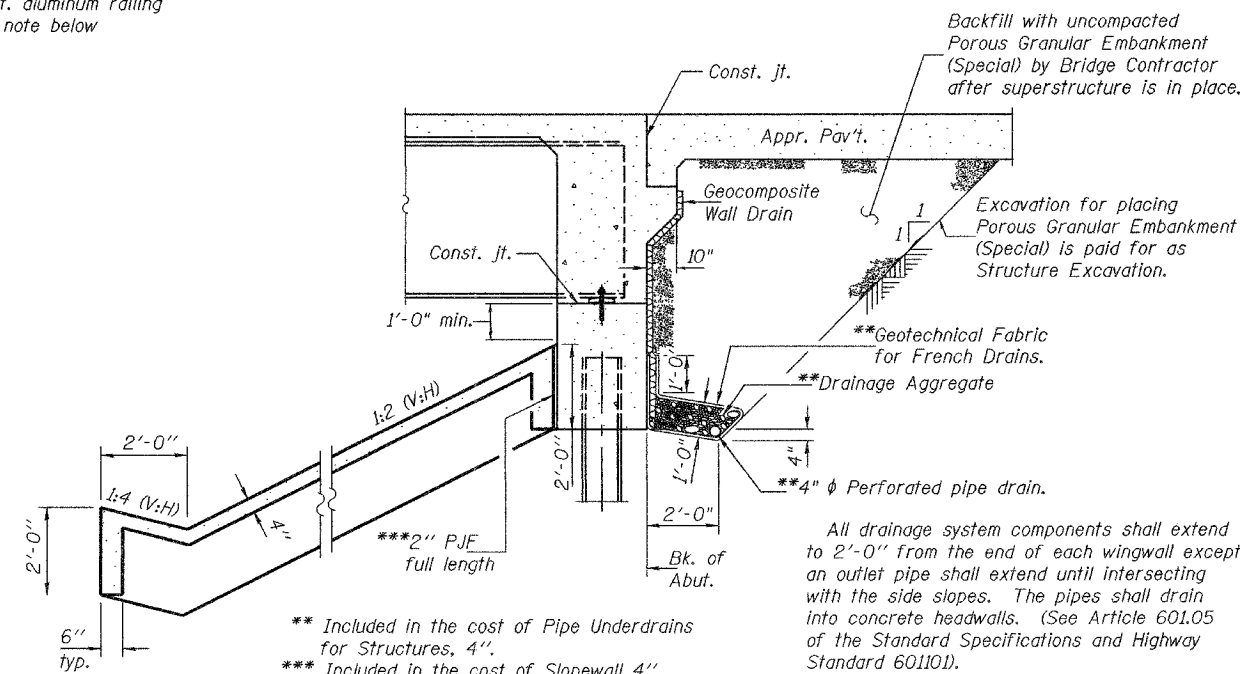
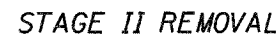
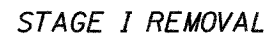


GENERAL PLAN
ILLINOIS ROUTE 89 OVER
CSX RAILROAD
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
F.A.P. 698	IVBR	BUREAU	72	29	24 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

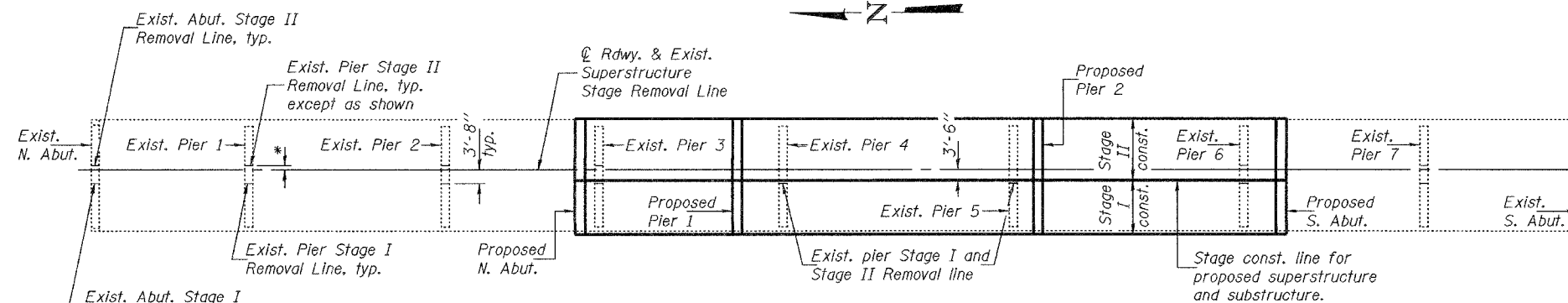
GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.
Slipforming of West parapet not allowed.



SECTION THRU INTEGRAL ABUTMENT

Notes: All staging sections are looking South.
For quantity of Temporary Concrete Barrier, see roadway plans.
Hatched areas indicate Removal of Existing Structures.
The aluminum railing for the proposed structure is to be reused from the West parapet of the existing structure. See sheet 11 of 24 for details.
For limits of Temporary Mechanically Stabilized Earth (TMSE) wall, see sheet 3 of 24.
TMSE wall shall be constructed to the elevation of the pipe underdrain. The pipe underdrain shall then be installed prior to constructing the remainder of the TMSE wall.



PLAN

(Showing Stage Removal lines and Stage I & II Construction lines for Superstructure and Substructure.)

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007

EXAMINED *Thomas J. Domagala*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

* Stage II Removal line for existing substructures to be determined by contractor so as not to disturb wall or pavement integrity.

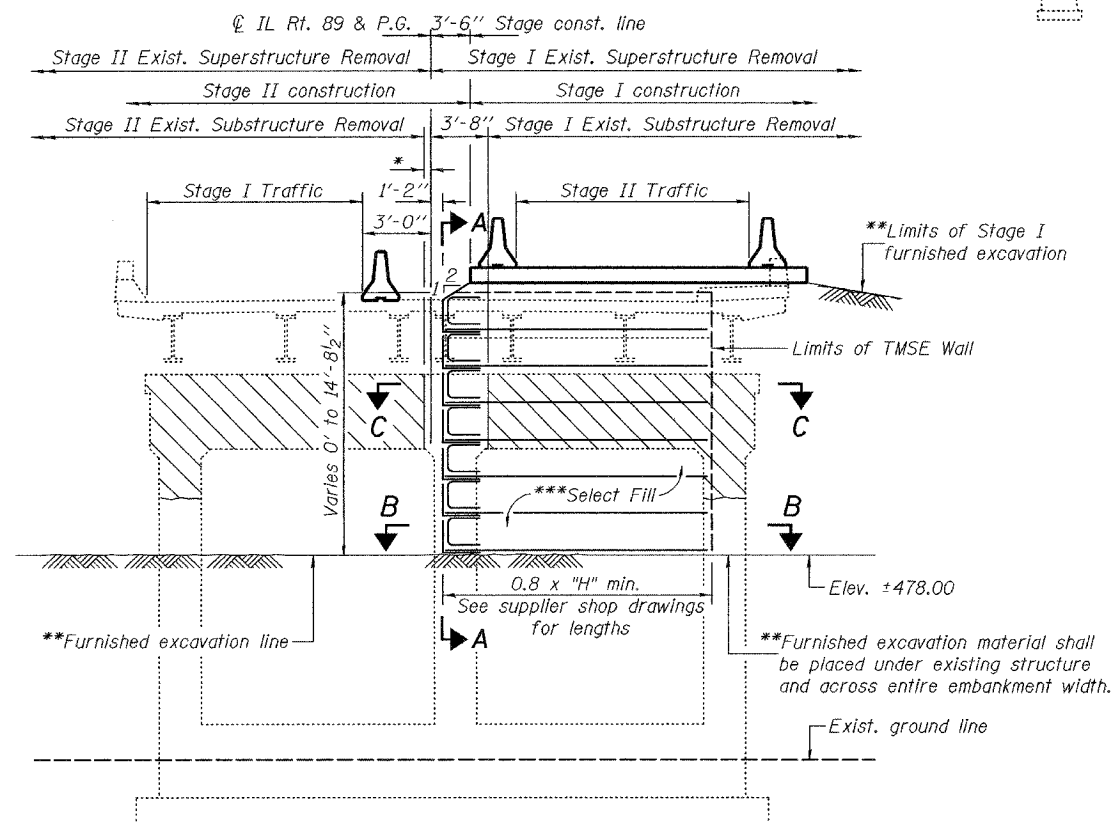
GENERAL DATA &
STAGE CONSTRUCTION DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

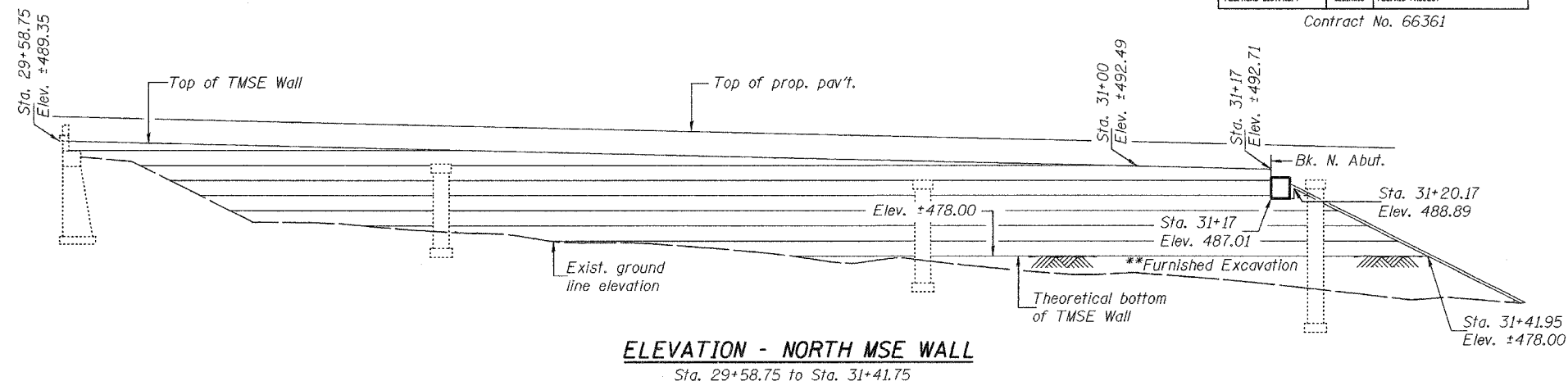
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract No. 66361

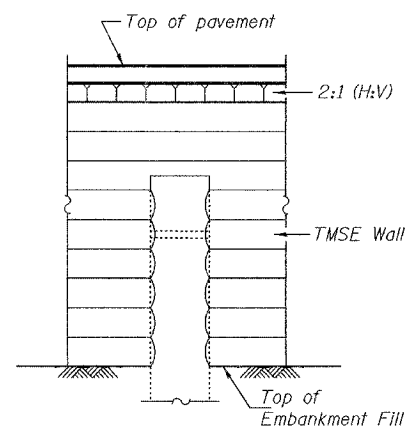
Notes: Hatched areas in Typical Section indicate removal of existing substructures.
Embankment shall be compacted to a minimum unconfined compressive strength of 1.25 tsf.
*Stage II Removal Line for Existing Substructure to be determined by contractor so as not to disturb wall or pavement integrity.
**For Furnished Excavation details and quantities, see roadway plans.
***See special provisions for Temporary Mechanically Stabilized Earth Retaining Walls.



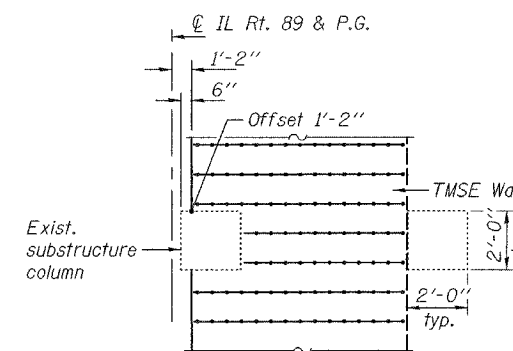
TYPICAL SECTION
Looking south



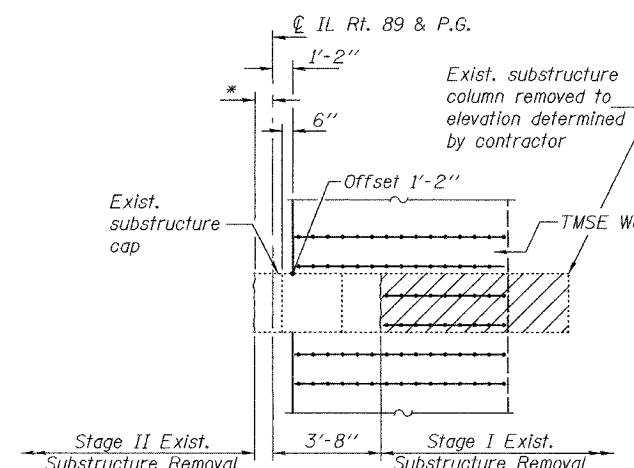
ELEVATION - NORTH MSE WALL
Sta. 29+58.75 to Sta. 31+41.75



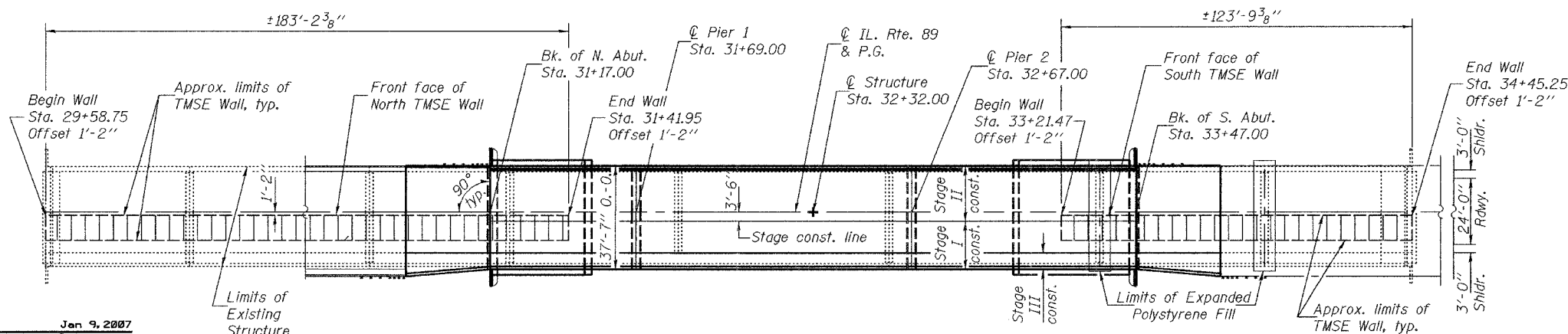
SECTION A-A



SECTION B-B



SECTION C-C



PLAN

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Mechanically Stabilized Earth Wall	Sq. Yd.	381
Expanded Polystyrene Fill	Cu. Yd.	515

NORTH TMSE WALL DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

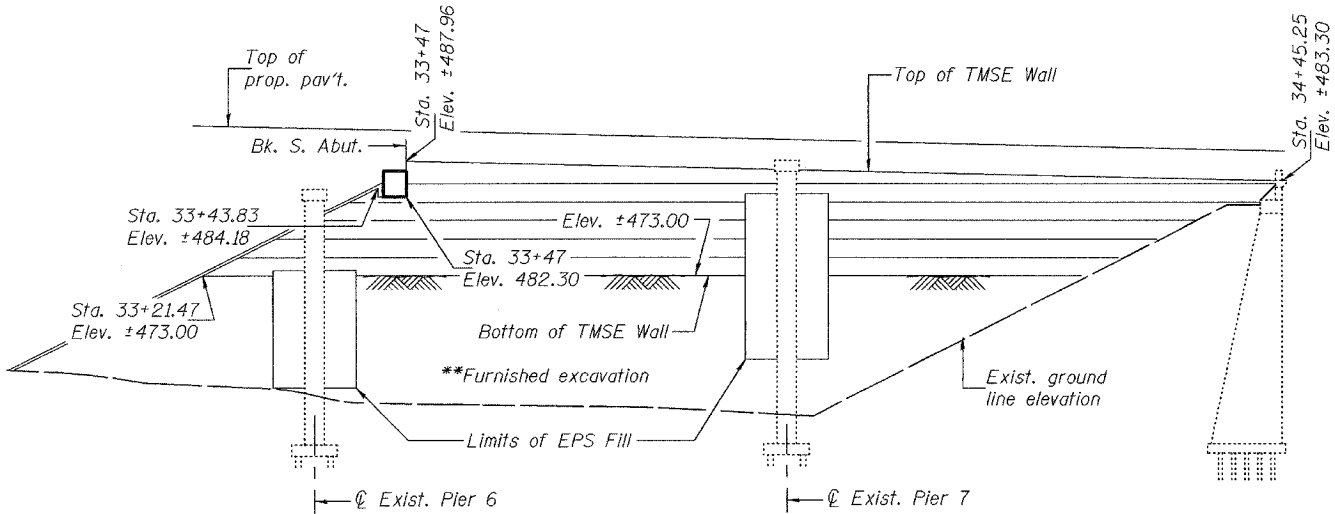
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	31
SHEET NO. 4				
24 SHEETS				

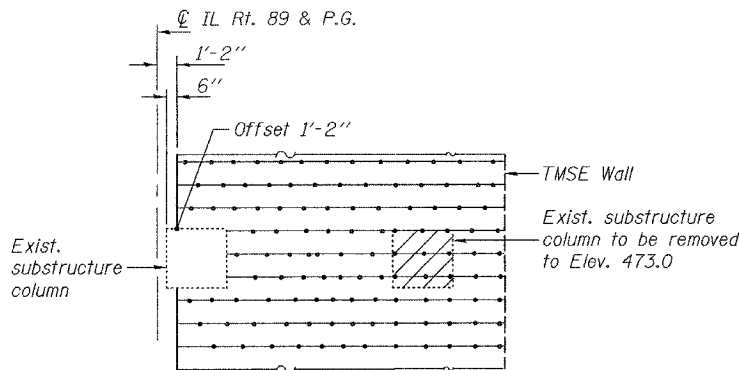
Contract No. 66361

**CONSTRUCTION SEQUENCE FOR SOUTH TMSE
AND EPS FILL AT EXISTING PIER 6**

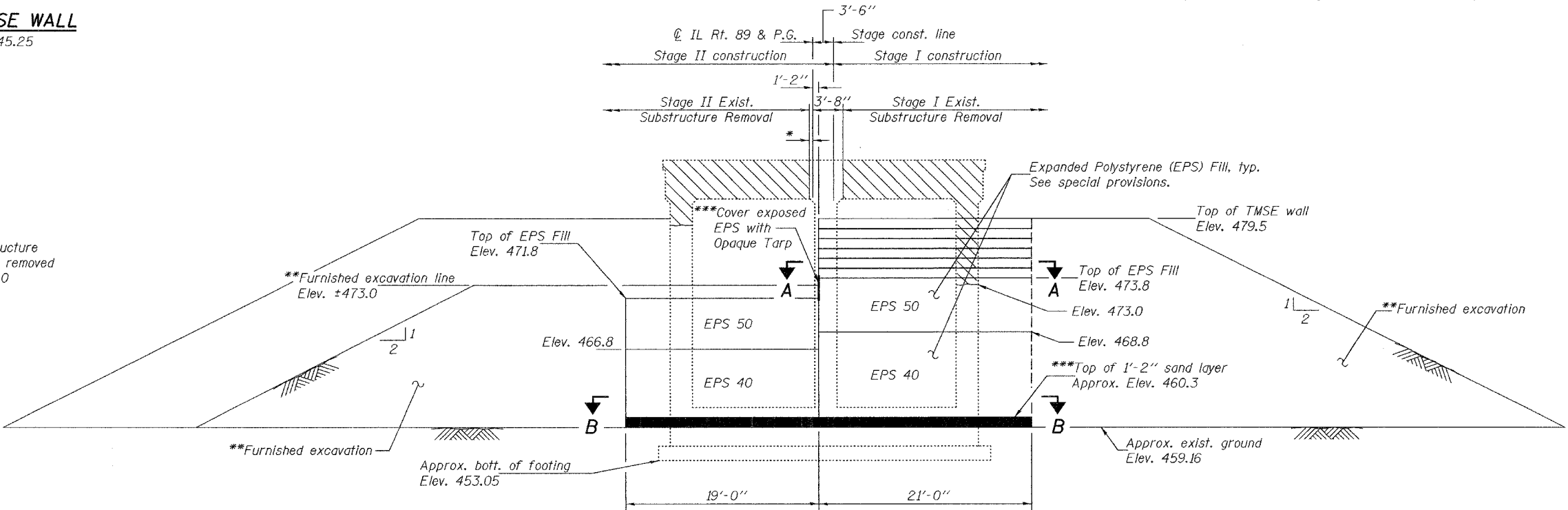
1. Remove Stage I portion of existing Pier 6 cap and column to Elev. 473.0
2. Place 1'-2" of sand to Elev. 460.3 for the Stage I and Stage II EPS fill to the limits shown in the existing Pier 6 Section B-B.
3. Install EPS fill for Stage I and Stage II to Elev. 462.8.
4. Place Furnished Excavation on Stage I and II after each EPS fill installation in such a way that the EPS fill is effectively surrounded by the Furnished Excavation.
5. Continue simultaneous installation of EPS fill and placement of Furnished Excavation for Stage I to Elev. 473.8 and on Stage II to Elev. 471.8
6. Simultaneously build TMSE wall and placement of the Furnished Excavation on Stage I to Elev. 479.5 and complete Stage I construction.
7. For Stage II construction, the Furnished Excavation shall be placed to the required elevation on the Stage II Foundation and proceed with the Stage II construction as required.



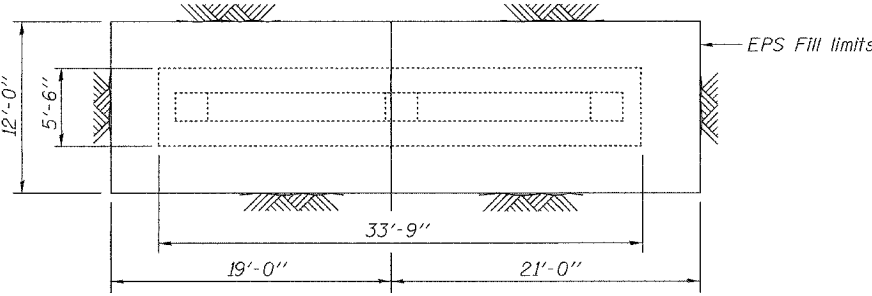
ELEVATION - SOUTH MSE WALL
Sta. 33+21.47 to Sta. 34+45.25



SECTION A-A



SECTION AT EXISTING PIER 6
(Looking south)



SECTION B-B

Notes: Hatched areas indicate removal of existing structures.
*Stage II Removal Line for Existing Substructure to be determined by contractor so as not to disturb wall or pavement integrity.
**For Furnished Excavation details and quantities, see roadway plans.
***Cost included with Expanded Polystyrene Fill. See special provisions.

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007
EXAMINED *Thomas J. Damagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

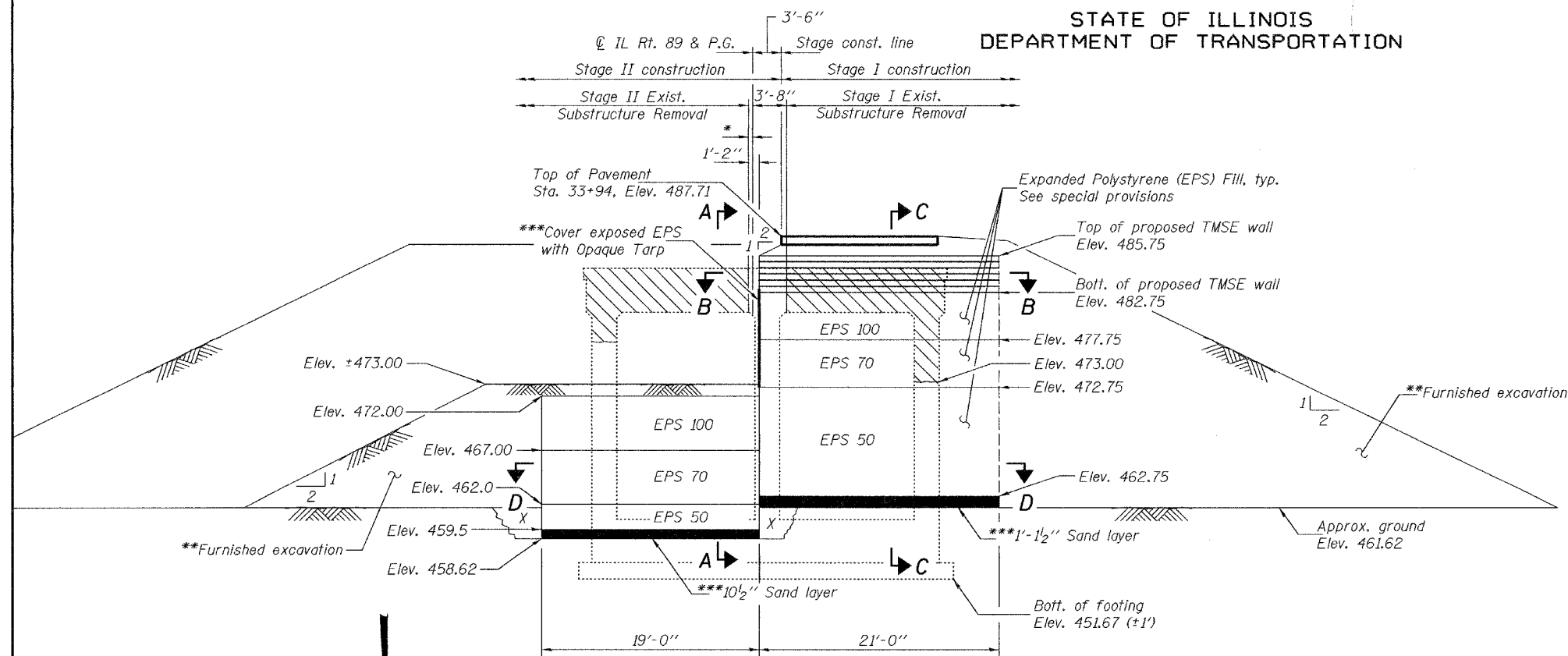
SOUTH TMSE WALL DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	32
Contract No. 66361				

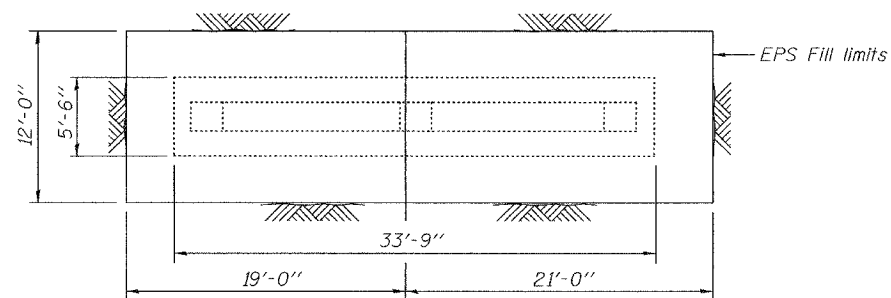
SHEET NO. 5

24 SHEETS



SECTION AT EXISTING PIER 7
(Looking south)

X = PGE compacted to satisfaction of Engineer, according to Article 207 of the Std. Spec's.***



SECTION D-D

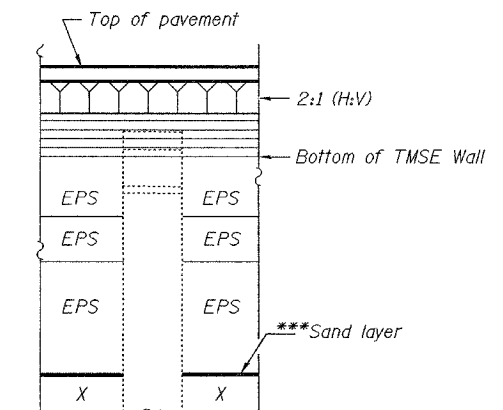
Notes: Hatched areas indicate removal of existing structures.
*Stage II Removal Line for Existing Substructure to be determined by contractor so as not to disturb wall or pavement integrity.
**For Furnished Excavation details and quantities, see roadway plans.
***Cost included with Expanded Polystyrene Fill. See special provisions.

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

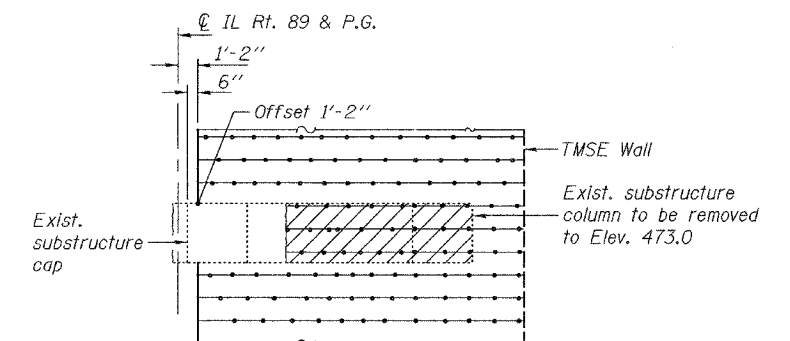
EXAMINED
PASSED
Jan 9, 2007
Thomas J. Domagala
Ralph E. Anderson
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

CONSTRUCTION SEQUENCE FOR SOUTH TMSE
AND EPS FILL AT EXISTING PIER 7

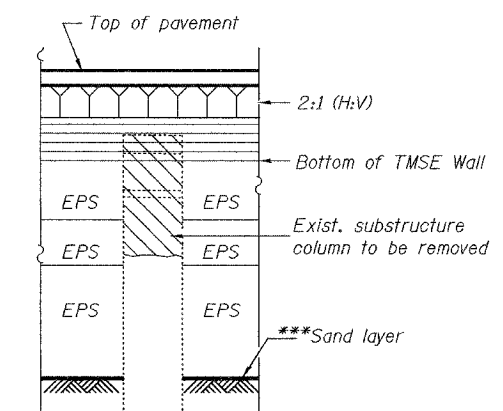
1. Remove Stage I portion of existing Pier 7 cap and column to Elev. 473.0.
2. Excavate to Elev. 458.62 for Stage II EPS fill as shown on the section at existing Pier 7.
3. Place 10 1/2" of sand to Elev. 459.5 for Stage II EPS fill to the limits shown in the existing Pier 7 Section D-D.
4. Install EPS fill for Stage II to Elev. 467.0.
5. Place and compact Porous Granular Embankment (PGE) in the areas designated as "X", on both sides of the Stage II EPS fill to Elev. 461.62.
6. Place 1'-1 1/2" of sand to Elev. 462.75 for Stage I EPS fill to the limits shown in the existing Pier 7 Section D-D.
7. Install EPS fill for Stage I to Elev. 467.0.
8. Place Furnished Excavation around Stages I and II EPS fill adding EPS fill and Furnished Excavation to Elev. 472.0.
9. Complete placement of EPS fill for Stage I Foundation to Elev. 475.25.
10. Complete placement of the Furnished Excavation up to Elev. 473.0 for Stage II.
11. Continue with the installation of Stage I EPS fill and Furnished Excavation to Elev. 482.75.
12. Build TMSE wall on Stage I.
13. Complete placement of the Furnished Excavation on Stage I and complete Stage I construction.
14. For Stage II construction, the Furnished Excavation should be placed to the required elevation.



SECTION A-A



SECTION B-B



SECTION C-C

SOUTH TMSE WALL DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 24 SHEETS
F.A.P. 698	IVBR	BUREAU	72	33	
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT-		

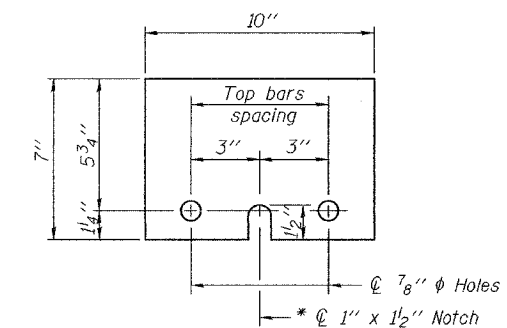
NOTES

Connect one (1) 1"x7"x10" steel $\bar{L}$ to the top layer of couplers with 2- $\frac{5}{8}$ " ϕ bolts screwed to coupler at approximate $\bar{C}$ of each barrier panel.

Connect one (1) 1"x7"x10" steel $\mathcal{L}$ to the concrete slab with 2-5 $\frac{1}{8}$ " ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate $\mathcal{L}$ of each barrier panel.

ANCHOR DETAIL

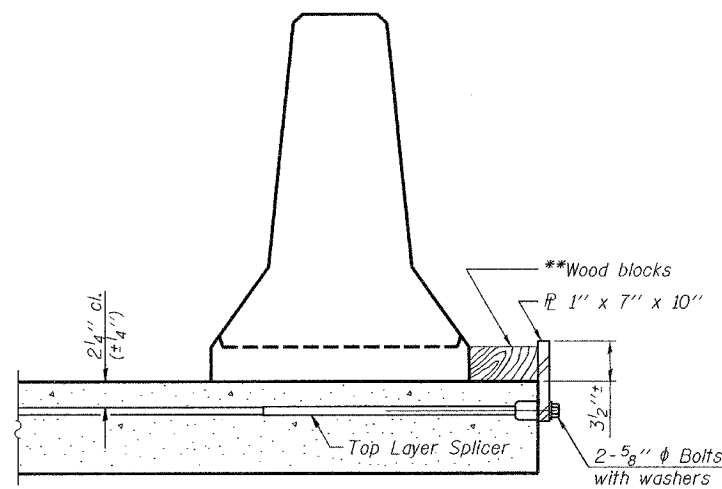
See sheet 11 of 24 for details of $d_5(E)$ & $d_7(E)$ bars.



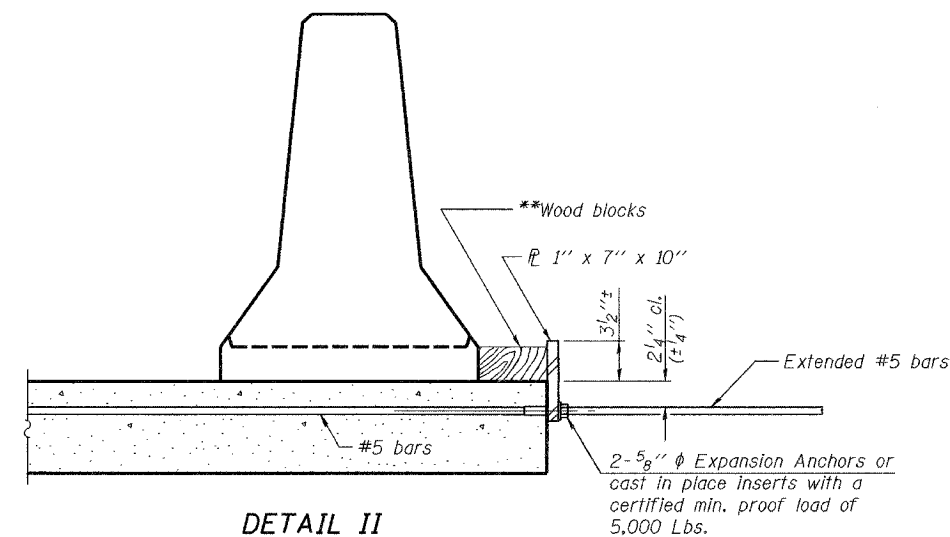
STEEL RETAINER @ 1" x 7" x 10"

* Required only with Detail II

SECTIONS THRU SLAB



DETAIL I



DETAIL II

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

R-27

11-1-06

Jan 9, 2007

EXAMINED *Thomas J. Donagale*
ENGINEER OF BRIDGE DESIGN

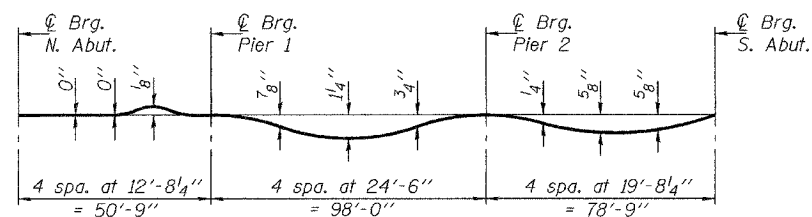
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. RTE 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	34	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

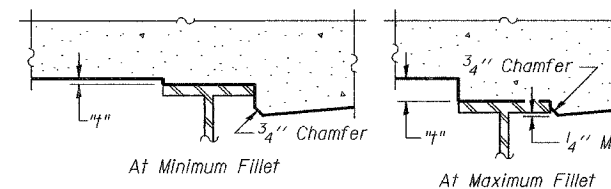
Contract No. 66361



DEAD LOAD DEFLECTION DIAGRAM

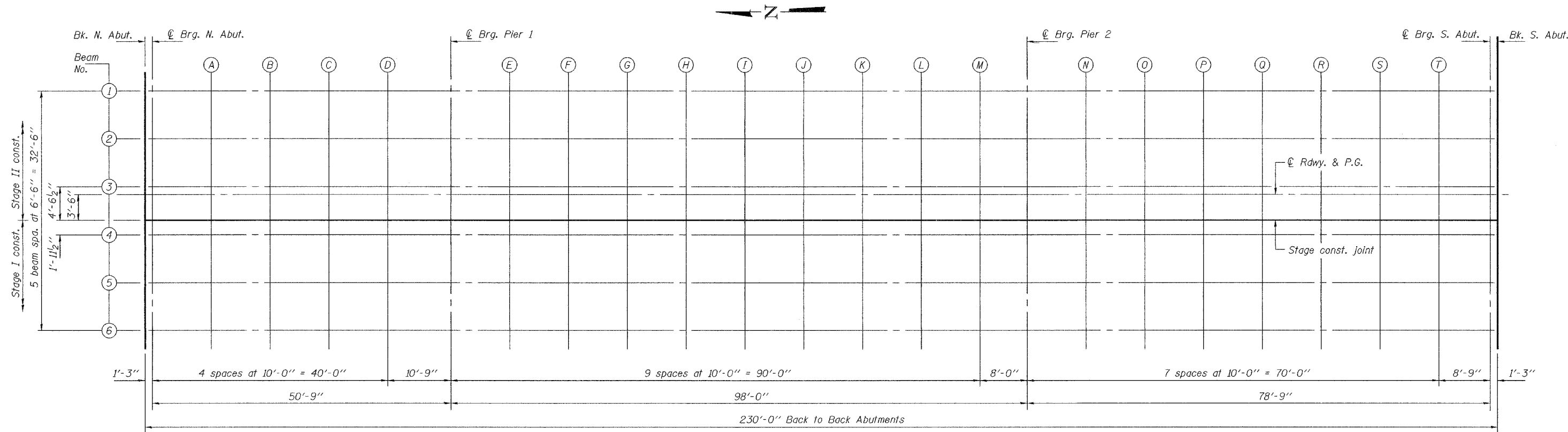
(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 8 of 24.

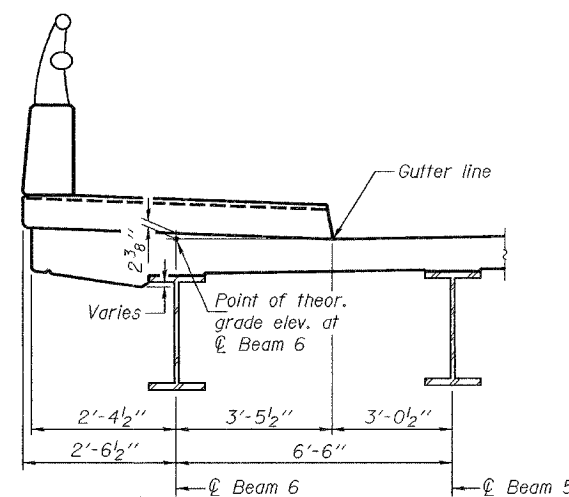


To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 8 of 24, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN



SECTION THRU SIDEWALK
(Looking North)

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

EXAMINED *Thomas J. Domagala*
ENGINEER OF BRIDGE DESIGN
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

Jan 9, 2007

TOP OF SLAB ELEVATIONS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract No. 66361

SHEET NO. 8

24 SHEETS

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut	3117.000	-14.042	494.453	494.453
€ Brg. N. Abut	3118.250	-14.042	494.466	494.466
A	3128.250	-14.042	494.553	494.553
B	3138.250	-14.042	494.612	494.610
C	3148.250	-14.042	494.644	494.639
D	3158.250	-14.042	494.650	494.643
€ Brg. Pier 1	3169.000	-14.042	494.625	494.625
E	3179.000	-14.042	494.574	494.603
F	3189.000	-14.042	494.496	494.555
G	3199.000	-14.042	494.391	494.471
H	3209.000	-14.042	494.258	494.353
I	3219.000	-14.042	494.099	494.205
J	3229.000	-14.042	493.912	494.000
K	3239.000	-14.042	493.699	493.767
L	3249.000	-14.042	493.458	493.503
M	3259.000	-14.042	493.190	493.210
€ Brg. Pier 2	3267.000	-14.042	492.956	492.956
N	3277.000	-14.042	492.639	492.652
O	3287.000	-14.042	492.296	492.321
P	3297.000	-14.042	491.925	491.967
Q	3307.000	-14.042	491.527	491.584
R	3317.000	-14.042	491.101	491.155
S	3327.000	-14.042	490.649	490.697
T	3337.000	-14.042	490.176	490.198
€ Brg. S. Abut	3345.750	-14.042	489.761	489.761
Back S. Abut	3347.000	-14.042	489.702	489.702

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut	3117.000	-7.542	494.565	494.565
€ Brg. N. Abut	3118.250	-7.542	494.578	494.578
A	3128.250	-7.542	494.665	494.665
B	3138.250	-7.542	494.724	494.722
C	3148.250	-7.542	494.757	494.751
D	3158.250	-7.542	494.762	494.755
€ Brg. Pier 1	3169.000	-7.542	494.737	494.737
E	3179.000	-7.542	494.686	494.716
F	3189.000	-7.542	494.608	494.667
G	3199.000	-7.542	494.503	494.583
H	3209.000	-7.542	494.371	494.465
I	3219.000	-7.542	494.211	494.318
J	3229.000	-7.542	494.025	494.112
K	3239.000	-7.542	493.811	493.879
L	3249.000	-7.542	493.615	493.615
M	3259.000	-7.542	493.302	493.322
€ Brg. Pier 2	3267.000	-7.542	493.068	493.068
N	3277.000	-7.542	492.752	492.764
O	3287.000	-7.542	492.408	492.433
P	3297.000	-7.542	492.037	492.079
Q	3307.000	-7.542	491.639	491.696
R	3317.000	-7.542	491.213	491.267
S	3327.000	-7.542	490.761	490.809
T	3337.000	-7.542	490.288	490.311
€ Brg. S. Abut	3345.750	-7.542	489.874	489.874
Back S. Abut	3347.000	-7.542	489.814	489.814

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut	3117.000	-1.042	494.667	494.667
€ Brg. N. Abut	3118.250	-1.042	494.680	494.680
A	3128.250	-1.042	494.766	494.767
B	3138.250	-1.042	494.826	494.824
C	3148.250	-1.042	494.858	494.852
D	3158.250	-1.042	494.863	494.856
€ Brg. Pier 1	3169.000	-1.042	494.839	494.839
E	3179.000	-1.042	494.788	494.817
F	3189.000	-1.042	494.710	494.768
G	3199.000	-1.042	494.604	494.684
H	3209.000	-1.042	494.472	494.567
I	3219.000	-1.042	494.313	494.419
J	3229.000	-1.042	494.126	494.213
K	3239.000	-1.042	493.912	493.981
L	3249.000	-1.042	493.672	493.717
M	3259.000	-1.042	493.404	493.424
€ Brg. Pier 2	3267.000	-1.042	493.170	493.170
N	3277.000	-1.042	492.853	492.866
O	3287.000	-1.042	492.509	492.535
P	3297.000	-1.042	492.138	492.155
Q	3307.000	-1.042	491.740	491.797
R	3317.000	-1.042	491.315	491.368
S	3327.000	-1.042	490.863	490.910
T	3337.000	-1.042	490.390	490.412
€ Brg. S. Abut	3345.750	-1.042	489.975	489.975
Back S. Abut	3347.000	-1.042	489.916	489.916

€ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut	3117.000	0.000	494.683	494.683
€ Brg. N. Abut	3118.250	0.000	494.696	494.696
A	3128.250	0.000	494.783	494.783
B	3138.250	0.000	494.842	494.840
C	3148.250	0.000	494.874	494.869
D	3158.250	0.000	494.880	494.873
€ Brg. Pier 1	3169.000	0.000	494.855	494.855
E	3179.000	0.000	494.804	494.833
F	3189.000	0.000	494.726	494.784
G	3199.000	0.000	494.621	494.701
H	3209.000	0.000	494.488	494.583
I	3219.000	0.000	494.329	494.435
J	3229.000	0.000	494.142	494.230
K	3239.000	0.000	493.929	493.997
L	3249.000	0.000	493.688	493.733
M	3259.000	0.000	493.420	493.440
€ Brg. Pier 2	3267.000	0.000	493.186	493.186
N	3277.000	0.000	492.869	492.882
O	3287.000	0.000	492.526	492.551
P	3297.000	0.000	492.155	492.197
Q	3307.000	0.000	491.756	491.814
R	3317.000	0.000	491.331	491.385
S	3327.000	0.000	490.870	490.927
T	3337.000	0.000	490.406	490.428
€ Brg. S. Abut	3345.750	0.000	489.991	489.991
Back S. Abut	3347.000	0.000	489.932	489.932

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut	3117.000	3.500	494.629	494.629
€ Brg. N. Abut	3118.250	3.500	494.641	494.641
A	3128.250	3.500	494.728	494.729
B	3138.250	3.500	494.787	494.785
C	3148.250	3.500	494.820	494.814
D	3158.250	3.500	494.825	494.818
€ Brg. Pier 1	3169.000	3.500	494.800	494.800
E	3179.000	3.500	494.749	494.779
F	3189.000	3.500	494.671	494.730
G	3199.000	3.500	494.566	494.646
H	3209.000	3.500	494.434	494.529
I	3219.000	3.500	494.274	494.381
J	3229.000	3.500	494.088	494.175
K	3239.000	3.500	493.874	493.942
L	3249.000	3.500	493.633	493.678
M	3259.000	3.500	493.365	493.385
€ Brg. Pier 2	3267.000	3.500	493.131	493.131
N	3277.000	3.500	492.815	492.827
O	3287.000	3.500	492.471	492.496
P	3297.000	3.500	492.100	492.142
Q	3307.000	3.500	491.702	491.759
R	3317.000	3.500	491.277	491.330
S	3327.000	3.500	490.824	490.872
T	3337.000	3.500	490.352	490.374
€ Brg. S. Abut	3345.750	3.500	489.937	489.937
Back S. Abut	3347.000	3.500	489.878	489.878

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut	3117.000	5.458	494.598	494.598
€ Brg. N. Abut	3118.250	5.458	494.611	494.611
A	3128.250	5.458	494.697	494.698
B	3138.250	5.458	494.757	494.755
C	3148.250	5.458	494.789	494.783
D	3158.250	5.458	494.794	494.787
€ Brg. Pier 1	3169.000	5.458	494.770	494.770
E	3179.000	5.458	494.719	494.748
F	3189.000	5.458	494.641	494.699
G	3199.000	5.458	494.535	494.615
H	3209.000	5.458	494.403	494.498
I	3219.000	5.458	494.244	494.350
J	3229.000	5.458	494.057	494.144
K	3239.000	5.458	493.843	493.912
L	3249.000	5.458	493.603	493.648
M	3259.000	5.458	493.335	493.355
€ Brg. Pier 2	3267.000	5.458	493.101	493.101
N	3277.000	5.458	492.784	492.797
O	3287.000	5.458	492.440	492.466
P	3297.000	5.458	492.069	492.111
Q	3307.000	5.458	491.671	491.728
R	3317.000	5.458	491.246	491.299
S	3327.000	5.458	490.794	490.841
T	3337.000	5.458	490.321	490.343
€ Brg. S. Abut	3345.750	5.458	489.906	489.906
Back S. Abut	3347.000	5.458	489.847	489.847

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut	3117.000	11.958	494.496	494.496
€ Brg. N. Abut	3118.250	11.958	494.509	494.509
A	3128.250	11.958	494.596	494.596
B	3138.250	11.958	494.655	494.653
C	3148.250	11.958	494.688	494.682
D	3158.250	11.958	494.693	494.686
€ Brg. Pier 1	3169.000	11.958	494.668	494.668
E	3179.000	11.958	494.617	494.647
F	3189.000	11.958	494.539	494.598
G	3199.000	11.958	494.434	494.514
H	3209.000	11.958	494.302	494.396
I	3219.000	11.958	494.142	494.249
J	3229.000	11.958	493.956	494.043
K	3239.000	11.958	493.742	493.810
L	3249.000	11.958	493.501	493.546
M	3259.000	11.958	493.233	493.253
€ Brg. Pier 2	3267.000	11.958	492.999	492.999
N	3277.000	11.958	492.683	492.695
O	3287.000	11.958	492.339	492.364
P	3297.000	11.958	491.968	492.010
Q	3307.000	11.958	491.570	491.627
R	3317.000	11.958	491.144	491.198
S	3327.000	11.958	490.692	490.740
T	3337.000	11.958	490.219	490.242
€ Brg. S. Abut	3345.750	11.958	489.805	489.805
Back S. Abut	3347.000	11.958	489.745	489.745

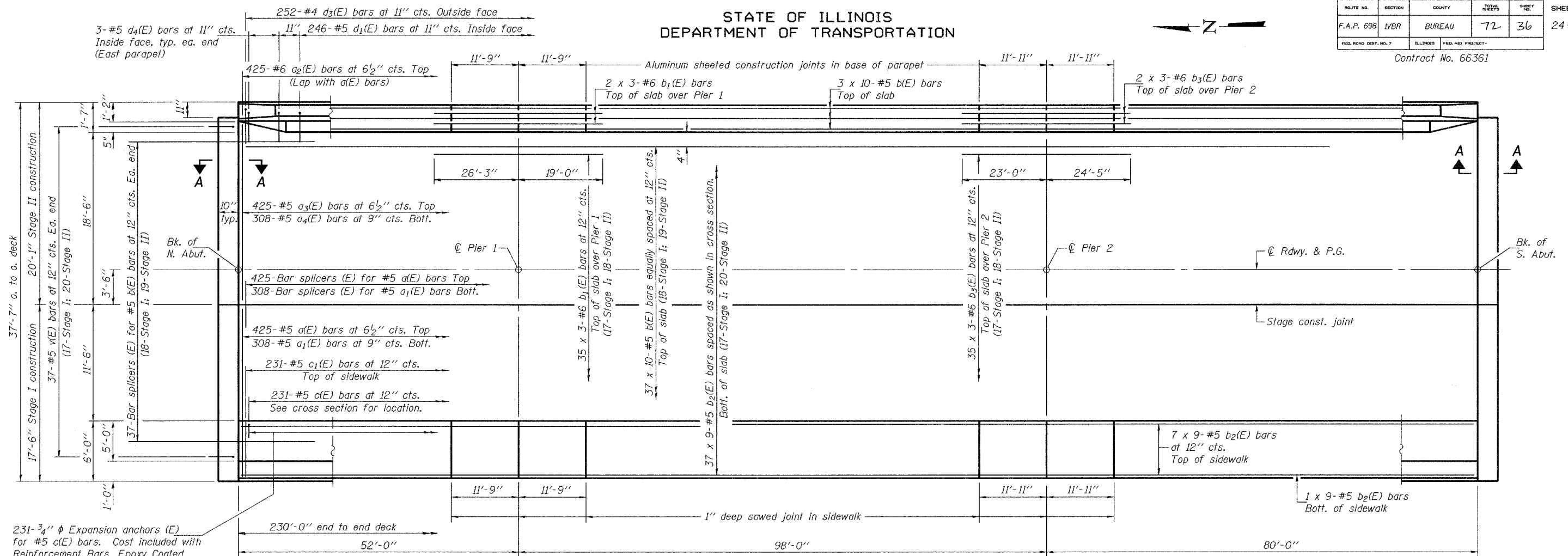
BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut	3117.000	18.458	494.361	494.361
€ Brg. N. Abut	3118.250	18.458	494.374	494.374
A	3128.250	18.458	494.461	494.461
B	3138.250	18.458	494.520	494.518
C	3148.250	18.458	494.553	494.547
D	3158.250	18.458	494.558	494.551
€ Brg. Pier 1	3169.000	18.458	494.533	494.533
E	3179.000	18.458	494.482	494.512
F	3189.000	18.458	494.404	494.463

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

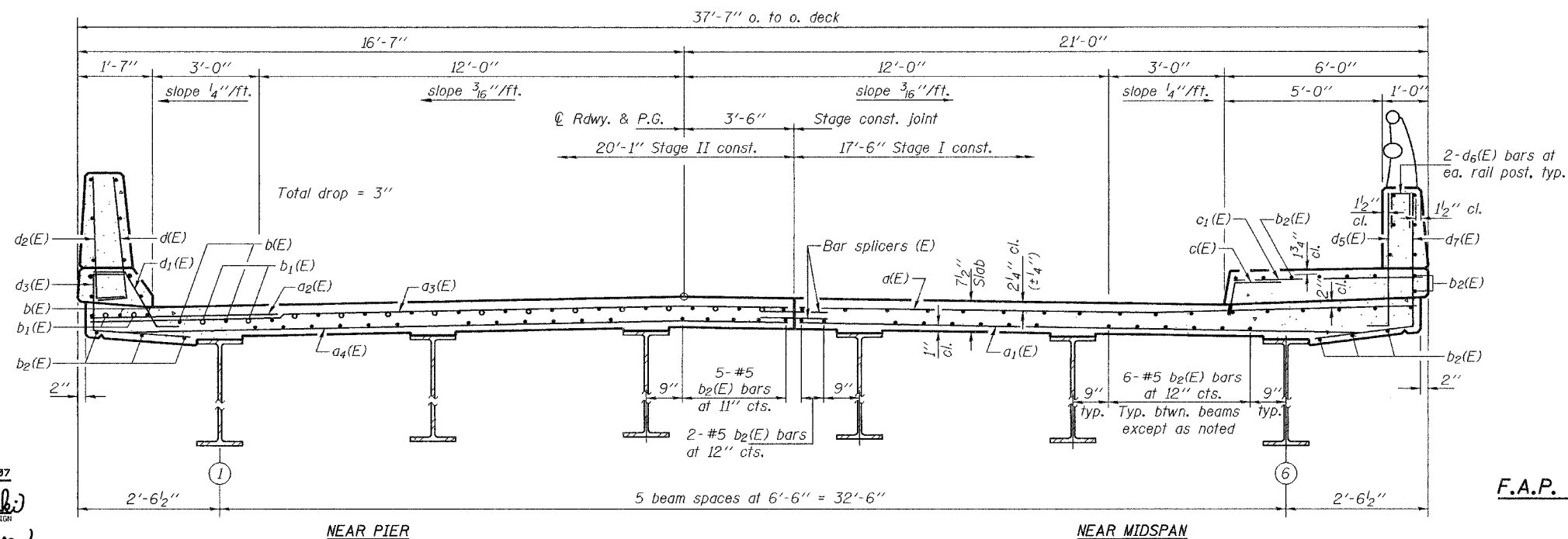
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	36	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract No. 66361



PLAN

Notes: See sheets 10 & 11 of 24 for superstructure details & parapet reinforcement.
Bars indicated thus 35 x 3-#5 etc. indicates 35 lines of bars with 3 lengths per line.
See sheet 13 of 24 for Section A-A and diaphragm details.
See sheet 22 of 24 for bar splicer details.
See sheet 13 of 24 for details of v(E) bars.
The Contractor shall be required to pour the deck starting at the South Abutment toward the North Abutment. See plan view for direction of pour. Pouring the deck from North to South is not allowed.
See sheet 10 of 24 for Bill of Material.



MIN. BAR LAPS
#5 bars = 2'-2"
#6 bars = 2'-7"

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

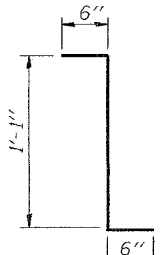
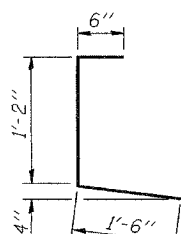
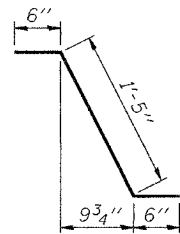
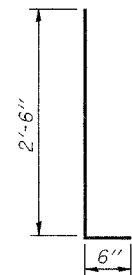
Jan 9, 2007
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

CROSS SECTION
(Looking South)



#5 bars = 1'-8"
#8 bars = 3'-5"



SUPERSTRUCTURE DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007

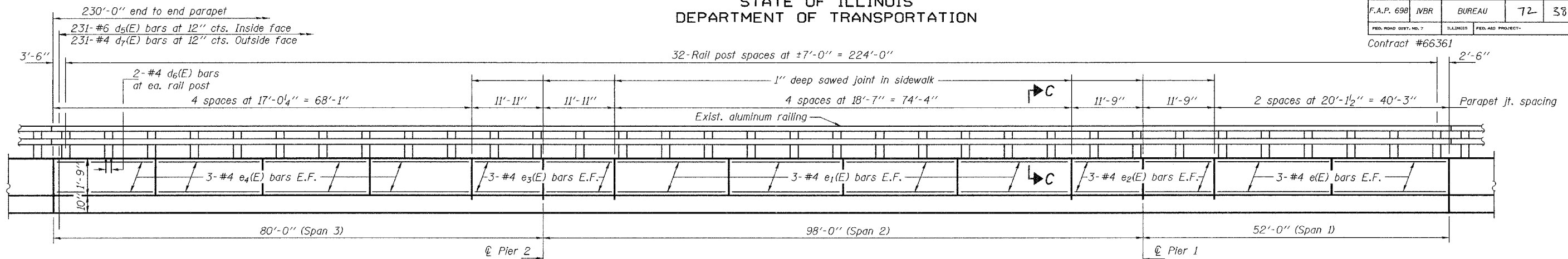
EXAMINED *Thomas J. Donagale*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

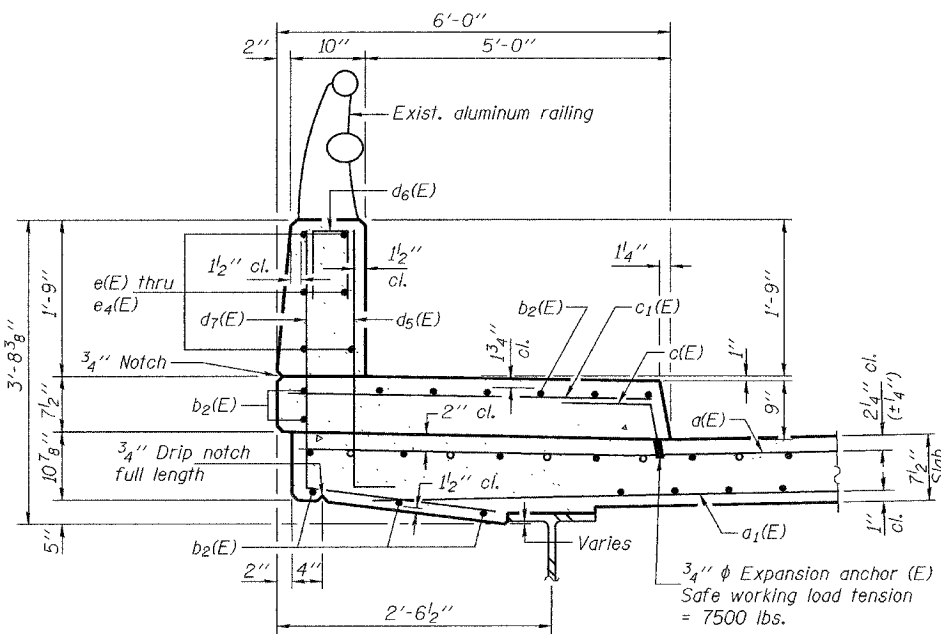
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
F.A.P. 698	IVBR	BUREAU	72	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

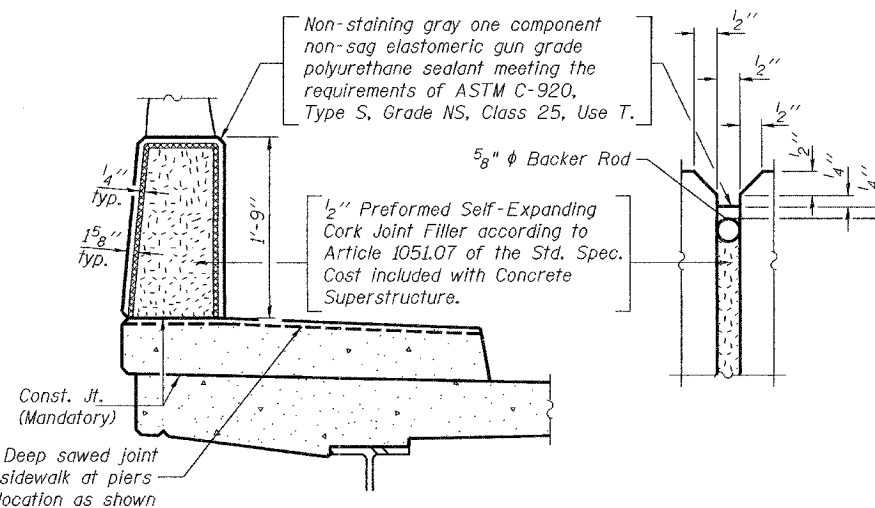
Contract #66361



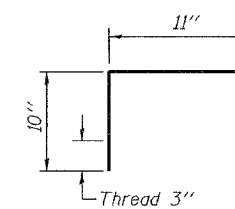
INSIDE ELEVATION OF WEST PARAPET & SIDEWALK
Looking West



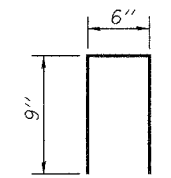
SECTION THRU WEST PARAPET



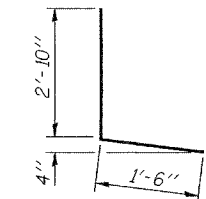
PARAPET JOINT DETAILS



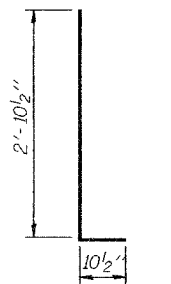
BAR c(E)



BAR d₆(E)

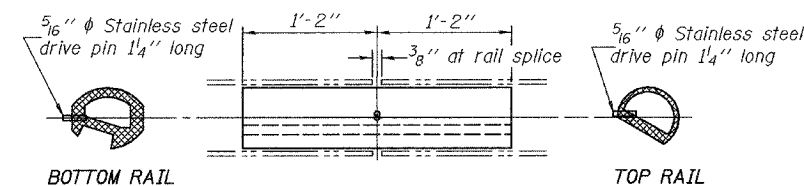


BAR d₇(E)

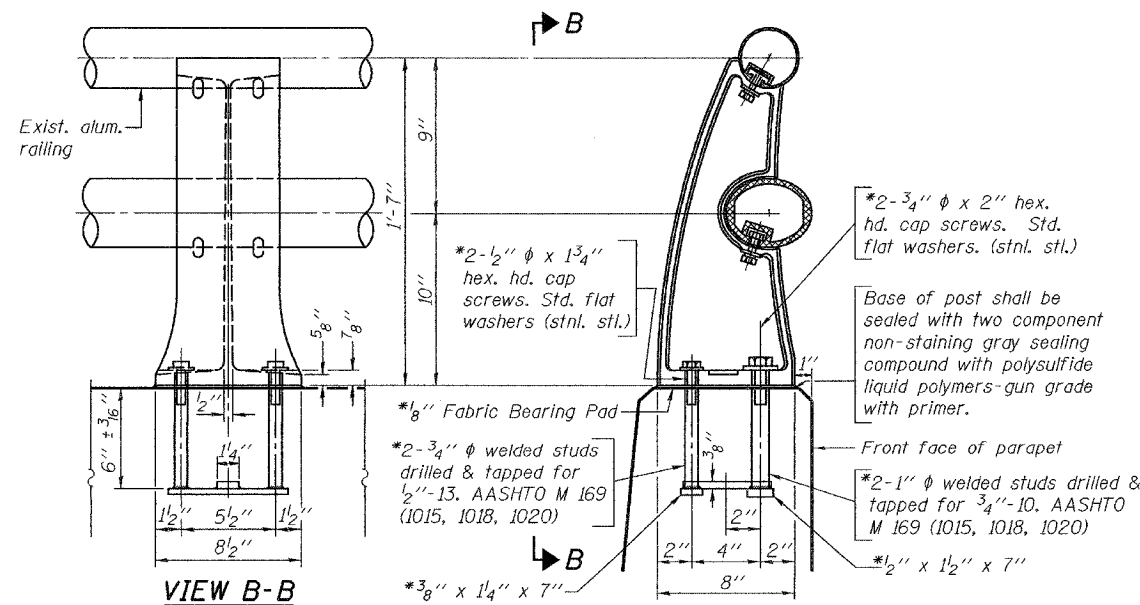


BAR d₅(E)

Notes: The aluminum railing for the proposed structure is to be reused from the existing structure. See special provision for Removing and Re-Erecting Existing Railing. In lieu of the cast-in-place anchor device shown in the Rail Post Details, the Contractor has the option of drilling and epoxy grouting stainless steel anchor rods of the same diameter and grade as specified cap screws. Embedment shall be according to the manufacturer's specifications. See sheet 10 of 24 for Bill of Material. Rail posts shall be placed to miss parapet joints. Space reinforcement to miss anchor rods.

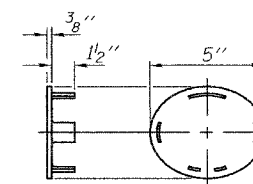


RAIL SPLICE



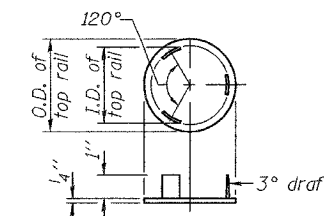
RAIL POST DETAILS

* Anchor device elements are to be provided by the Contractor. Cost included with Removing and Re-Erecting Existing Railing.



CAST END CAP

For bottom rail
DRIVE FIT TYPE
2 Required



CAST END CAP

For top rail
2 Required

SUPERSTRUCTURE DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

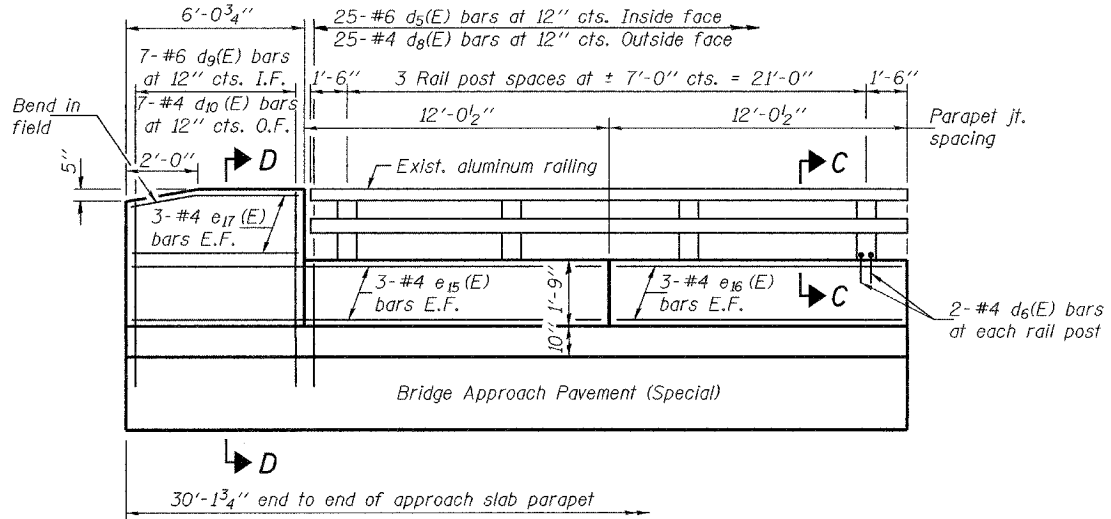
DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

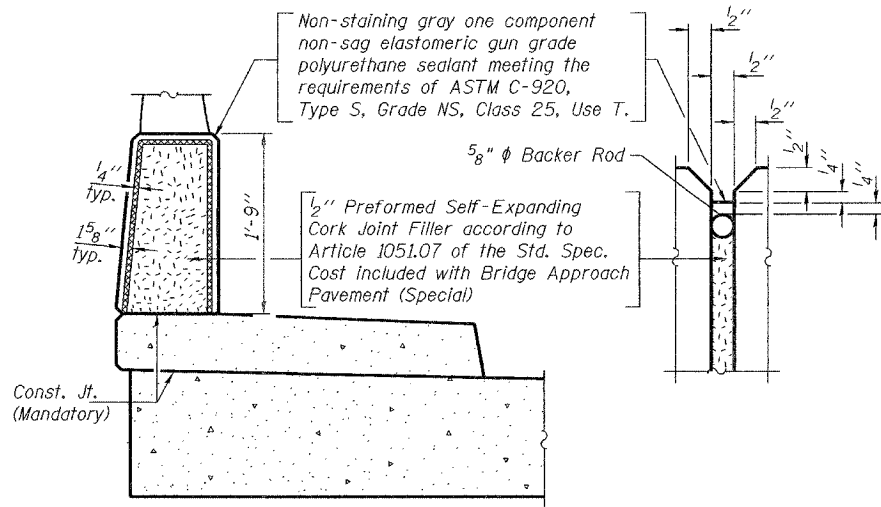
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	39	24 SHEETS
FED. ROAD DIST. NO. 7	ILL. DIST. NO.	FED. AID PROJECT			

Contract No. 66361



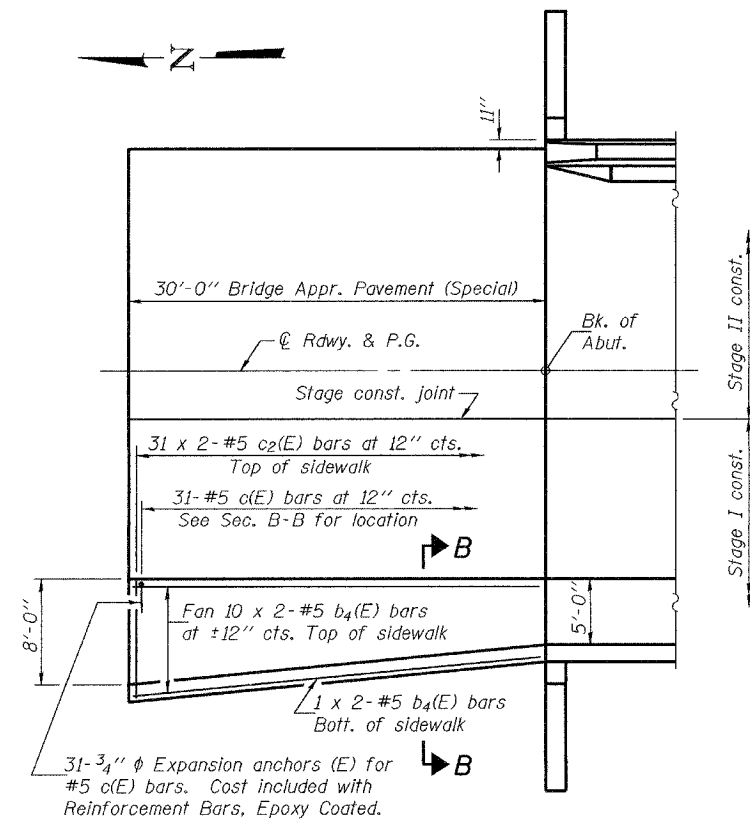
NORTHWEST APPROACH PARAPET ELEVATION
(Looking West - Southwest parapet similar)



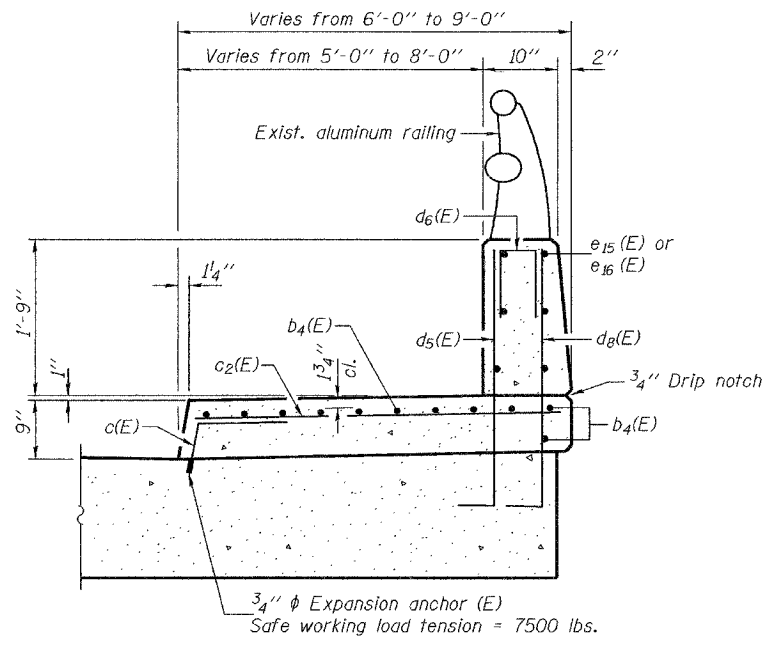
PARAPET JOINT DETAILS

MIN. BAR LAP
#5 bar = 2'-2"

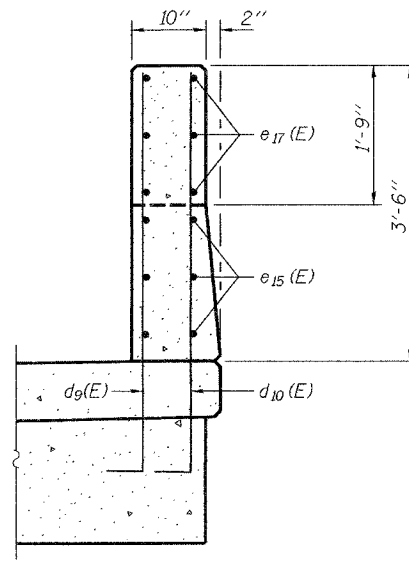
Notes: *Concrete Superstructure on this sheet includes parapet and sidewalk only.
**Cost of Concrete Superstructure and reinforcement bars on this sheet included with Bridge Approach Pavement (Special). Quantities are shown for information only.
For quantity of Bridge Approach Pavement (Special), see roadway plans.
For additional approach pavement details, see roadway plans. See sheet 22 of 24 for bar splicer details.
Bars indicated thus 10 x 2-#5 etc. indicates 10 lines with 2 lengths per line.
The aluminum railing for the proposed structure is to be reused from the existing structure. See sheet 11 of 24 for railing details and notes.
See sheet 11 of 24 for Section C-C and additional notes. Space reinforcement to miss anchor rods.



PLAN - NORTH APPROACH
(South Appr. similar)



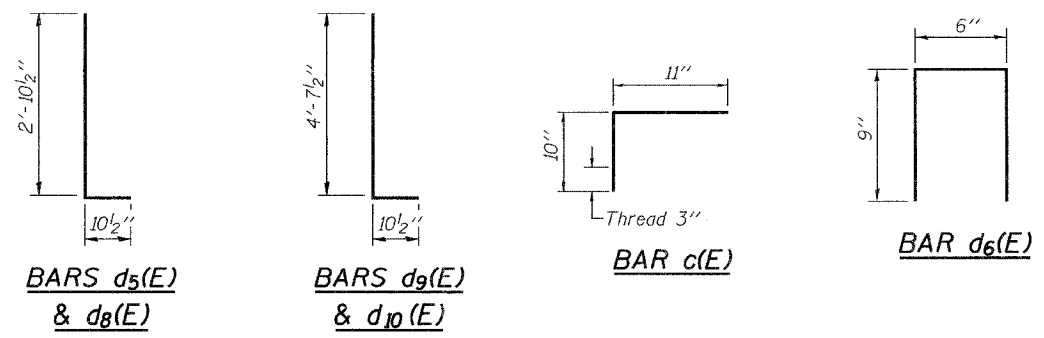
SECTION B-B



SECTION D-D

****PARAPETS & SIDEWALK OF
TWO APPROACH PAVEMENTS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
b4(E)	44	#5	16'-0"	—
c(E)	62	#5	1'-9"	┐
c2(E)	124	#5	5'-5"	—
d5(E)	50	#6	3'-9"	┐
d6(E)	16	#4	2'-0"	┐
d8(E)	50	#4	3'-9"	┐
d9(E)	14	#6	5'-6"	┐
d10(E)	14	#4	5'-6"	┐
e15(E)	12	#4	17'-10"	—
e16(E)	12	#4	11'-9"	—
e17(E)	12	#4	5'-9"	—
Concrete Superstructure			Cu. Yd.	16.0
Reinforcement Bars, Epoxy Coated			Pound	2430



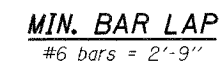
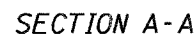
**BRIDGE APPROACH
PAVEMENT (SPECIAL) PARAPET DETAILS**
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

DESIGNED	RLT	Jan 9, 2007
CHECKED	PEC	Thomas J. Domagala ENGINEER OF BRIDGE DESIGN
DRAWN	h.t. duong	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	RLT/PEC	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	40
FED. ROAD DIST. NO. 7	BLINDS	FED. AID PROJECT-		

SHEET NO. 13
24 SHEETS

Contract No. 66361



DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

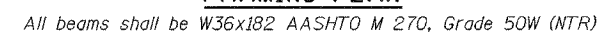
Jan 9, 2007

EXAMINED *Thomas J. Donagale*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

Contract No. 66361



SECTION A-A

Jan 9, 2007

EXAMINED *Thomas J. Domagala*
ENGINEER OF BRIDGE DESIGN

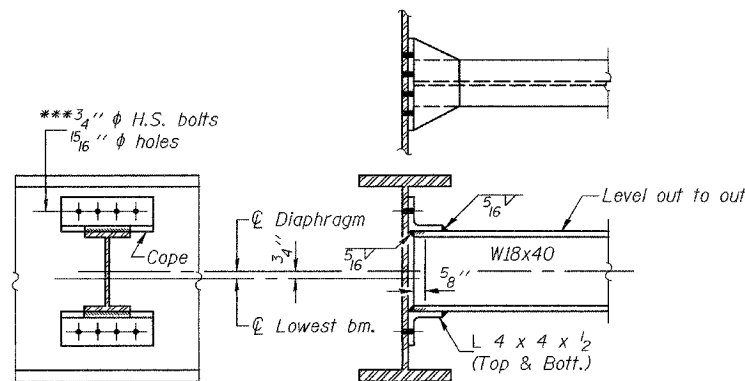
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
F.A.P. 698	IVBR	BUREAU	72	42
SHEET NO. 15 24 SHEETS				

Contract No. 66361



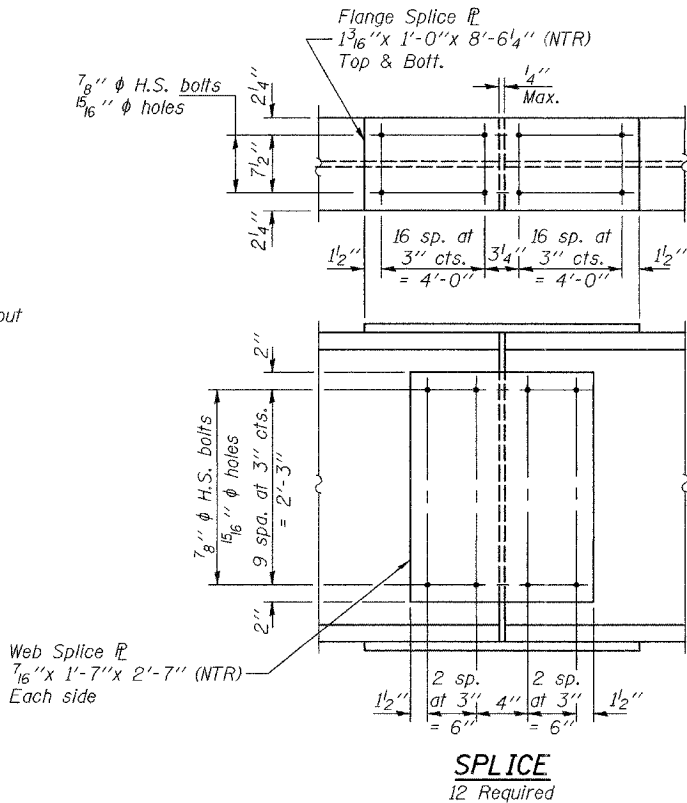
DIAPHRAGM D
70 Required

* Span 1 was designed non-composite. Stud shear connectors shown on sheet 14 of 24 were added for fatigue only.

*** Use 3/16 inch x 1 1/2 inch vertical slotted holes in top and bottom angles at West side of Beam 3 only except at Pier. Provide 5/16 inch plate washers for slotted holes. The bolts for slotted holes in angles at Beam 3 shall only be finger tightened prior to the deck pour for Stage II Construction. The bolts shall be fully tightened after completion of the deck pour for Stage II Construction.

All splice plate material, diaphragms and angles shall be AASHTO M270, Grade 50W.

Notes: Two hardened washers shall be required over all oversized holes for diaphragms.
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



****TOP OF BEAM ELEVATIONS**

Location	¢ Brg. N. Abut.	¢ Brg. Pier 1	¢ Splice 1	¢ Splice 2	¢ Brg. Pier 2	¢ Splice 3 (Optional)	¢ Brg. S. Abut.
Beam 1	493.799	493.800	493.800	492.612	492.049	491.449	489.094
Beam 2	493.911	493.912	493.912	492.724	492.162	491.561	489.207
Beam 3	494.013	494.014	494.014	492.826	492.263	491.663	489.308
Beam 4	493.944	493.945	493.945	492.757	492.194	491.594	489.239
Beam 5	493.842	493.843	493.843	492.655	492.093	491.492	489.138
Beam 6	493.707	493.708	493.708	492.520	491.958	491.357	489.003

**For fabrication use only.

INTERIOR BEAM MOMENT TABLE - 3 SPAN					
	*0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
Is	(in ⁴)	11300	11300	11300	11300
Ic (n)	(in ⁴)	26369	26369	26369	26369
Ic (3n)	(in ⁴)	19175	19175	19175	19175
Ss	(in ³)	623	623	623	623
Sc (n)	(in ³)	866	866	866	866
Sc (3n)	(in ³)	778	778	778	778
DC1	(k/ft.)	0.834	0.834	0.834	0.834
M DC1	(k)	49	521	391	699
DC2	(k/ft.)	0.232	0.232	0.232	0.232
M DC2	(k)	24	120	142	111
DW	(k/ft.)	0.325	0.325	0.325	0.325
M DW	(k)	33	168	199	215
M _t +Imp	(k)	548	731	1061	802
Ma (Strength I)	(k)	1098	2333	2822	2792
Mr	(k)	2959	2959	4248	2959
fs DC1	(k.s.i.)	0.9	10.0	7.5	13.5
fs DC2	(k.s.i.)	0.4	2.3	2.2	3.0
fs DW	(k.s.i.)	0.6	3.2	3.1	4.1
fs 1.3 (k+I)	(k.s.i.)	13.7	18.3	19.1	20.1
fs (Service II)	(k.s.i.)	15.6	33.8	31.9	40.7
Vsr	(k)	25.7	26.3	26.3	28.7

INTERIOR BEAM REACTION TABLE - HL 93 LOADING				
	N. Abut.	Pier 1	Pier 2	S. Abut.
R DC1	(k)	10.9	70.5	84.4
R DC2+DW	(k)	8.4	46.3	54.7
R _t	(k)	52.0	102.1	112.4
Imp.	(k)	13.1	18.9	20.1
R (Total)	(k)	84.4	237.8	271.6

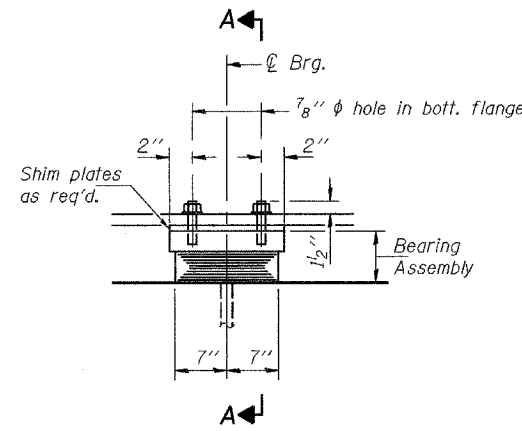
DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

EXAMINED *Thomas J. Damagala*
ENGINEER OF BRIDGE DESIGN
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

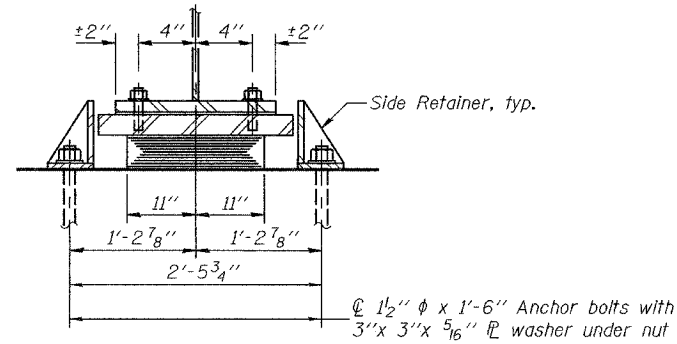
STRUCTURAL STEEL DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

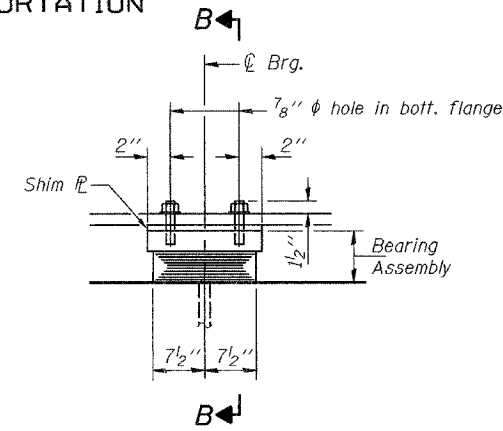
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 16
F.A.P. 698	IVBR	BUREAU	72	43	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract No. 66361		



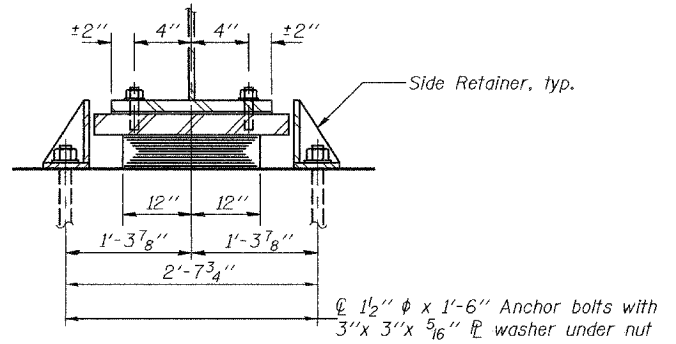
ELEVATION AT PIER 1



SECTION A-A



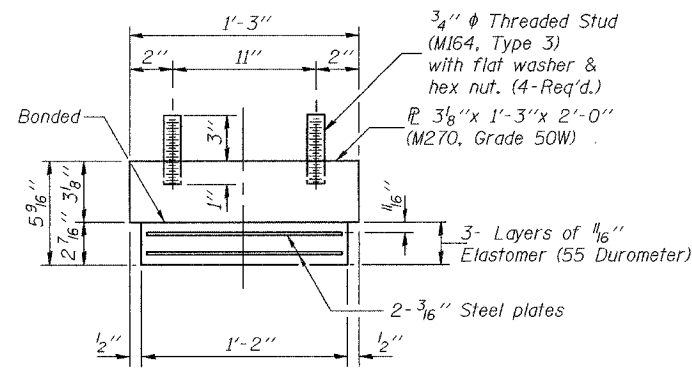
ELEVATION AT PIER 2



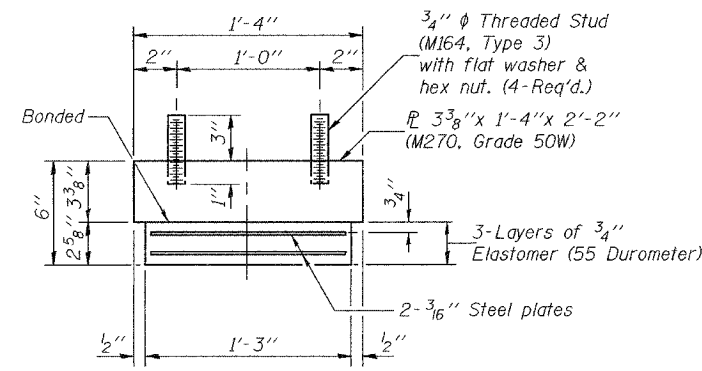
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.

TYPE I ELASTOMERIC EXP. BRG.

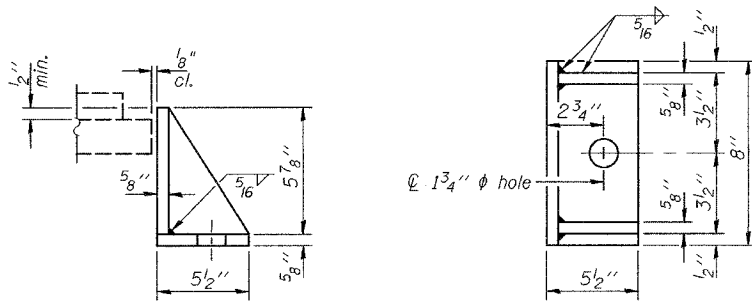


BEARING ASSEMBLY



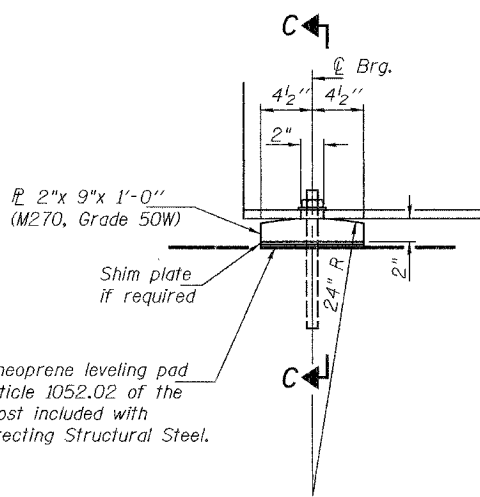
BEARING ASSEMBLY

Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet 17 of 24 for anchor bolt installation.
Shim plates shall not be placed under Bearing Assembly.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

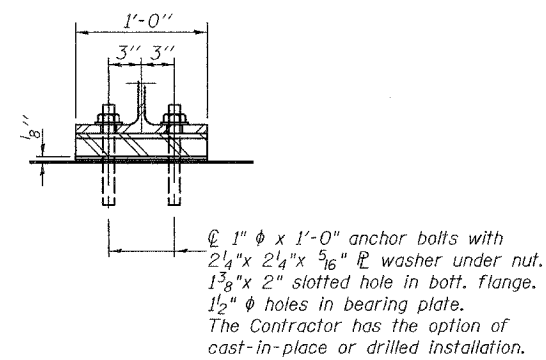


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. All plates for side retainers shall be AASHTO M270, Grade 50W.



ELEVATION AT ABUTMENTS



SECTION C-C

FIXED BEARING

12 Required

BILL OF MATERIAL

Item	Unit	Quantity
Elastomeric Bearing Assembly, Type I	Each	12

BEARING DETAILS

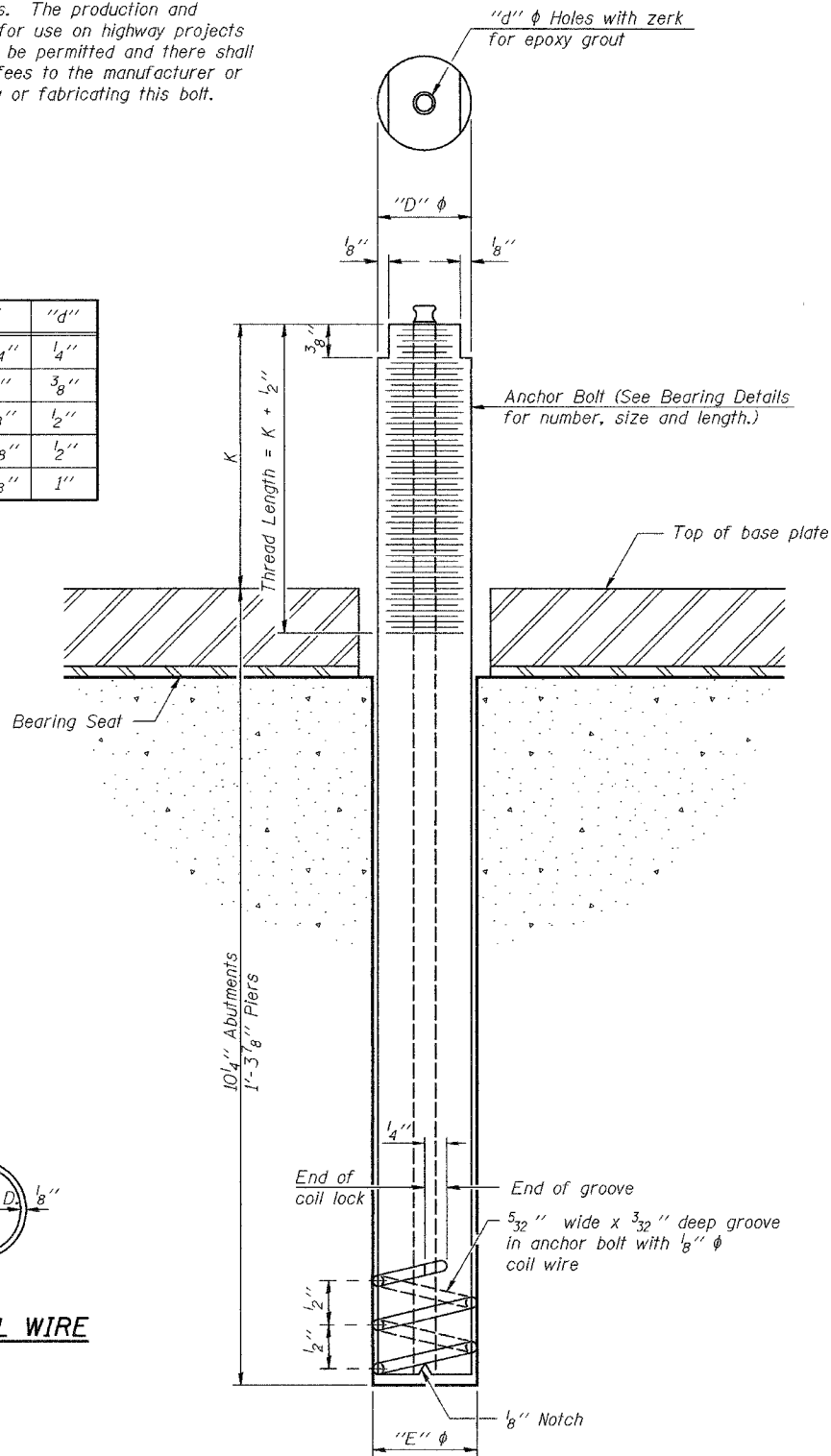
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 ¹ / ₈ "	1 ³ / ₁₆ "	1 ³ / ₄ "	1 ¹ / ₄ "
1 ¹ / ₄ "	1 ³ / ₈ "	1 ¹ / ₁₆ "	2"	3 ³ / ₈ "
1 ¹ / ₂ "	1 ⁵ / ₈ "	1 ⁵ / ₁₆ "	2 ¹ / ₈ "	1 ¹ / ₂ "
2"	2 ¹ / ₈ "	1 ⁵ / ₁₆ "	2 ⁷ / ₈ "	1 ¹ / ₂ "
2 ¹ / ₂ "	2 ⁵ / ₈ "	2 ⁵ / ₁₆ "	3 ³ / ₈ "	1"



ILLINOIS COIL-LOCK ANCHOR BOLT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MATERIALS FOR ILLINOIS COIL-LOCK
ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS
COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abuts.	A325
Piers	A325

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

ROUTE NO.	SECTION	COUNTY	DATE	SHEET
F.A.P. 698	IVBR	BUREAU	72	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract No. 66361

SHEET NO. 17

24 SHEETS

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall be paid for as anchor bolts with diameter specified in the table below.

BILL OF MATERIAL

Item	Unit	Quantity
Anchor Bolts, 1" ϕ	Each	24
Anchor Bolts, 1 ¹ / ₂ " ϕ	Each	24

ANCHOR BOLT DETAILS

FOR BEARINGS

F.A.P. RTE. 698 - SECTION IVBR

BUREAU COUNTY

STATION 32+32.00

STRUCTURE NO. 006-0164

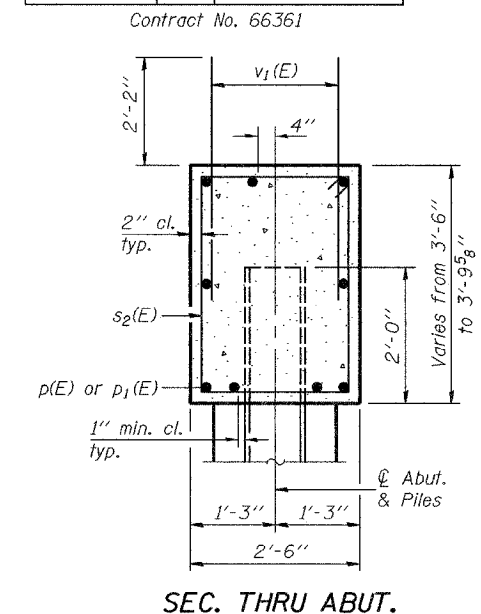
DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

ABB-1

10-22-04

Jan 9, 2007
EXAMINED *Thomas J. Donagale*
ENGINEER OF BRIDGE DESIGN
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 18
F.A.P. 698	IVBR	BUREAU	72	45	24 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		



Technical drawing of a bridge deck cross-section, showing dimensions, reinforcement details, and construction stages.

Overall Dimensions:

- Total width: 37'-7"
- Stage I construction: 17'-6"
- Stage II construction: 20'-1"

Reinforcement Details:

- Top reinforcement: 40-#5 $v_1(E)$ bars at 12" cts. (19-Stage I; 21-Stage II)
- Bottom reinforcement (left): 3-#5 $v_1(E)$ bars at 9 3/4" cts. Ea. end
- Bottom reinforcement (middle): 6-#5 $v_1(E)$ bars at 12" cts. Typ. btwn. beams except as noted
- Bottom reinforcement (right): 5-#5 $v_1(E)$ bars at 11" cts.

Structural Details:

- Beam 6 and Beam 1 are shown.
- Bar splicers (E) are indicated.
- 5 beam spaces at 6'-6" = 32'-6"
- Stage const. jt. (construction joint) is shown.
- 3'-6" dimension from centerline to centerline of beam.
- 1'-0" dimension from centerline to centerline of beam.
- 1'-6" dimension from centerline to centerline of beam.
- 5'-9 1/2" dimension from centerline to centerline of beam.
- 6'-6" dimension from centerline to centerline of beam.
- 5'-2 1/2" dimension from centerline to centerline of beam.
- 7'-9 1/2" dimension from centerline to centerline of beam.
- 6'-6" dimension from centerline to centerline of beam.
- 5'-9 1/2" dimension from centerline to centerline of beam.

Other Details:

- 2'-6 1/2" dimension from centerline to centerline of beam.
- 14'-11 1/2" dimension from centerline to centerline of beam.
- 17'-6 1/2" dimension from centerline to centerline of beam.
- 2'-6 1/2" dimension from centerline to centerline of beam.
- 2 pile spaces at 6'-6" = 13'-0"
- 1'-11 1/2" dimension from centerline to centerline of beam.
- 4'-6 1/2" dimension from centerline to centerline of beam.
- 2 pile spaces at 6'-6" = 13'-0"
- 2'-6 1/2" dimension from centerline to centerline of beam.
- 3"-typ. dimension from centerline to centerline of beam.
- 3"-typ. dimension from centerline to centerline of beam.
- 1"-φ anchor bolt, typ.
- Bk. N. Abut. Sta. 31+17.00

2'-0"

1'-0" 1'-0"

1/2" c/c

SECTION A-A

HP12x63

Welded wire fabric
6 x 6-W4.0 x W4.0
weighing 58#/100 sq. ft.
The cost of Excavation,
Concrete Enclosure and
Reinforcement is included
with Furnishing Piles.
Forms for Enclosure
may be omitted when soil
conditions permit.

3'-0" Concrete Enclosure

2'-0"

± 10"

A

A

1. Place Furnished Excavation to Elev. 478.0.
2. Pre-core pile locations through Furnished Excavation using an 18" auger down to Elev. ± 460.0 and drive the piles. Cost included with Driving Piles.
3. Fill annulus up to the approximate top of rock elevation (± 467.0) with Class SI concrete. Dry loose sand shall be placed to fill the annulus from the top of the rock to Elev. 478.0. Cost included with Driving Piles.
4. Build the TMSE wall and place the Furnished Excavation behind the TMSE.
5. Construct the pile encasement as shown on plans.

1. Place Stage II Furnished Excavation to the bottom of the Abutment.
2. Pre-core pile locations through Furnished Excavation using an 18" auger down to Elev. ± 460.0 and drive the piles. Cost included with Driving Piles.
3. Fill annulus up to the approximate top of rock elevation (± 467.0) with Class SI concrete. Dry loose sand shall be placed to fill the annulus from the top of the rock to the bottom of the Abutment. Cost included with Driving Piles.
4. Construct the pile encasement as shown on plans.

Order $v_2(E)$ full length. Cut as shown and use remainder of bars in opposite face.

Bar	No.	Size	Length	Shape
h(E)	52	#5	10'-9"	—
p(E)	9	#7	17'-2"	—
p ₁ (E)	9	#7	19'-9"	—
s ₂ (E)	38	#5	11'-7"	□
u(E)	8	#6	8'-1"	—
v ₁ (E)	78	#5	4'-4"	—
v ₂ (E)	18	#5	11'-2"	—
Concrete Structures			Cu. Yd.	16.3
Reinforcement Bars,			Pound	2380
Epoxy Coated				
Structure Excavation			Cu. Yd.	84
Furnishing Steel Piles			Foot	200
HP12x63				
Pile Shoes			Each	6
Driving Piles			Foot	200
Test Pile Steel				
HP12x63			Each	1

F.A.P. RTE. 698 - SECTION 1VBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007

EXAMINED *Thomas J. Donagale*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	46
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 19
24 SHEETS

Technical drawing of a bridge section showing Stage II Construction and Stage I Construction. The drawing includes elevations, dimensions, and reinforcement details for various parts of the bridge structure.

Stage II Construction:

- Left End:** Elevation 489.81. Dimensions: 7'-6 1/8" total height, 3'-4" top slope, 4'-2 1/8" and 3'-7 1/8" vertical sections. Reinforcement: 3-#5 s₂(E) bars at 9 3/4" cts. Ea. end.
- Abutment Area:** Elevation 485.89. Reinforcement: 6-#5_{2s}(E) bars at 12" cts. Dimensions: 2" typ. spacing, 9"9" typ. spacing between beams except as noted.
- Central Section:** Elevation 486.01. Reinforcement: 9-#7 p₁(E) bars. See Sec. thru Abut. Dimensions: 1 1/2" spacing.
- Right Section:** Elevation 486.11. Reinforcement: 9-#7 p₁(E) bars. See Sec. thru Abut. Dimensions: 1 1/8" spacing.

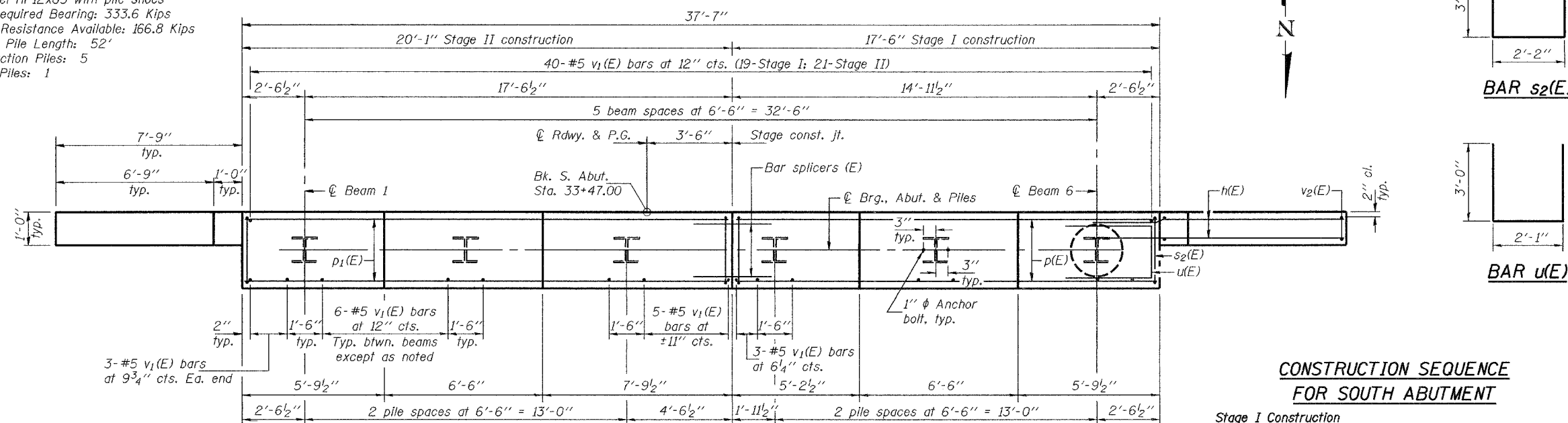
Stage I Construction:

- Central Section:** Elevation 486.04. Reinforcement: 5-#5 s₂(E) bars at ±11" cts. Dimensions: 9" spacing.
- Right Section:** Elevation 485.94. Reinforcement: 9-#7 p(E) bars. See Sec. thru Abut. Dimensions: 1 1/4" spacing.
- End Section:** Elevation 485.80. Reinforcement: 9-#5 v₂(E) bars at ±12" cts. E.F. (See field cutting diagram). Dimensions: 4'-3 1/8" total height, 3'-4" top slope, 9 1/8" vertical section. Reinforcement: 7-#5 h(E) bars at 7 1/2" cts. E.F.

Other Details:

- Optional const. jts:** Indicated on the left side of the bridge deck.
- Reinforcement:** 9-Bar Splicers (E) for #7 p(E) bars. 9-#7 p₁(E) bars. See Sec. thru Abut. 9-#7 p(E) bars. See Sec. thru Abut. 9-#5 v₂(E) bars at ±12" cts. E.F. (See field cutting diagram).
- Dimensions:** 3'-6" Stage Const. Jt. 2'-2" min. 7'-6 1/8" total height. 3'-4" top slope. 4'-2 1/8" and 3'-7 1/8" vertical sections. 2" typ. spacing. 9"9" typ. spacing between beams except as noted. 1 1/2" spacing. 1 1/8" spacing. 9" spacing. 1 1/4" spacing. 4'-3 1/8" total height. 3'-4" top slope. 9 1/8" vertical section.
- Notes:** Conc. pile encasement, typ. See pile encasement detail. Fan 6-#5 h(E) bars E.F. Bend in field as required.

Type: Steel HP12x63 with pile shoes
Nominal Required Bearing: 333.6 Kips
Factored Resistance Available: 166.8 Kips
Estimated Pile Length: 52'
No. Production Piles: 5
No. Test Piles: 1



PLAN

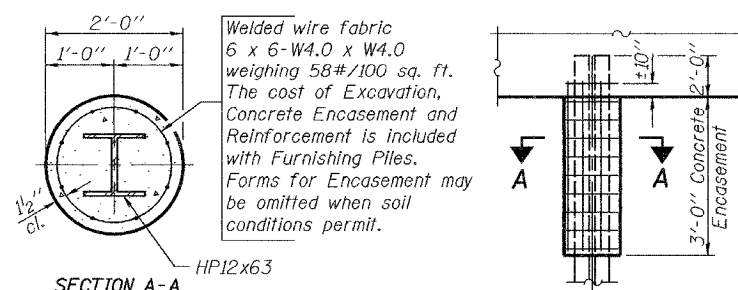
Notes: Pour steps monolithically with cap.
For anchor bolt installation details, see sheet 17 of 24.
For bar splicer assembly details, see sheet 22 of 24.
If h(E) bars interfere with HP piles, cut h(E) bars to fit and maintain min. 2'-2" embedment.
For Furnished Excavation details, see sheet 4 of 24. For additional details and quantities, see roadway plans.

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

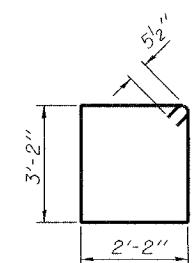
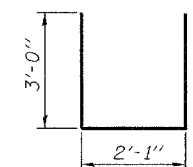
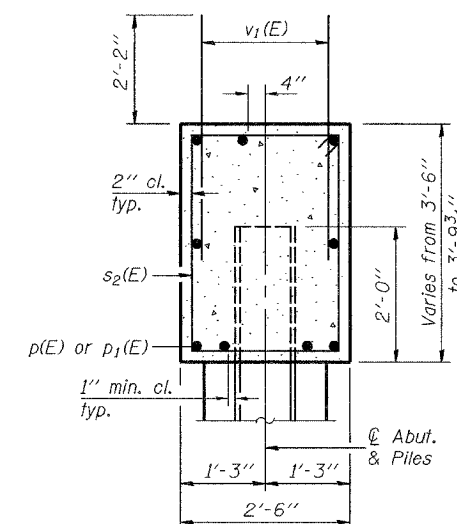
Jan 9, 2007

EXAMINED *Thomas J. Domagala*
ENGINEER OF BRIDGE DESIGN

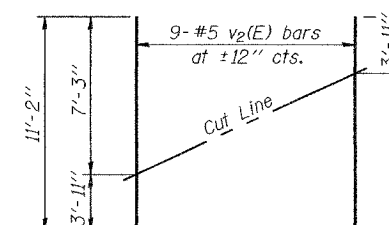
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES



PILE ENCASEMENT DETAIL

 $BAR\ s_2(E)$ 
$$BAR \ u(E)$$


SEC. THRU ABUT.



FIELD CUTTING DIAGRAM

Order $v_2(E)$ full length. Cut as shown and use remainder of bars in opposite face.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	52	#5	10'-9"	—
p(E)	9	#7	17'-2"	—
p ₁ (E)	9	#7	19'-9"	—
s ₂ (E)	38	#5	11'-7"	□
u(E)	8	#6	8'-1"	—
v ₁ (E)	78	#5	4'-4"	—
v ₂ (E)	18	#5	11'-2"	—
Concrete Structures			Cu. Yd.	16.3
Reinforcement Bars, Epoxy Coated			Pound	2380
Structure Excavation			Cu. Yd.	84
Furnishing Steel Piles HP12x63			Foot	260
Driving Piles			Foot	260
Test Pile Steel HP12x63			Each	1
Pile Shoes			Each	6

SOUTH ABUTMENT
F.A.P. RTE. 698 - SECTION 1VBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

- CONSTRUCTION SEQUENCE
FOR SOUTH ABUTMENT

Stage I Construction

1. Place Furnished Excavation to Elev. 473.0.
2. Pre-core pile locations through Furnished Excavation using an 18" auger down to Elev. ± 461.0 and drive the piles. Cost included with Driving Piles.
3. Sleeve piles with corrugated metal pipes through the TMSE Wall limits and fill annulus with dry loose sand. Cost included with Driving Piles.
4. Build the TMSE Wall and Stage I Furnished Excavation to the bottom of the Abutment.
5. Construct the pile encasement as shown on plans.

Stage II Construction

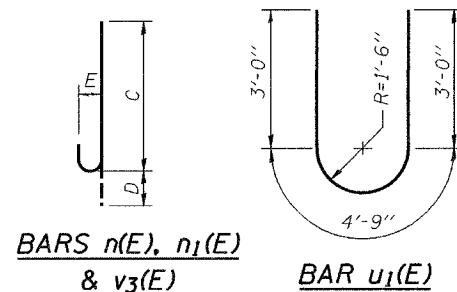
1. Place Stage II Furnished Excavation to the bottom of the Abutment.
2. Pre-core pile locations through Furnished Excavation using an 18" auger down to Elev. +461.0 and drive the piles. Cost Included with Driving Piles.
3. Fill annulus with dry loose sand. Cost Included with Driving Piles.
4. Construct the pile encasement as shown on plans.

Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For bar splicers details, see sheet 22 of 24.
For anchor bolt details, see sheet 17 of 24.

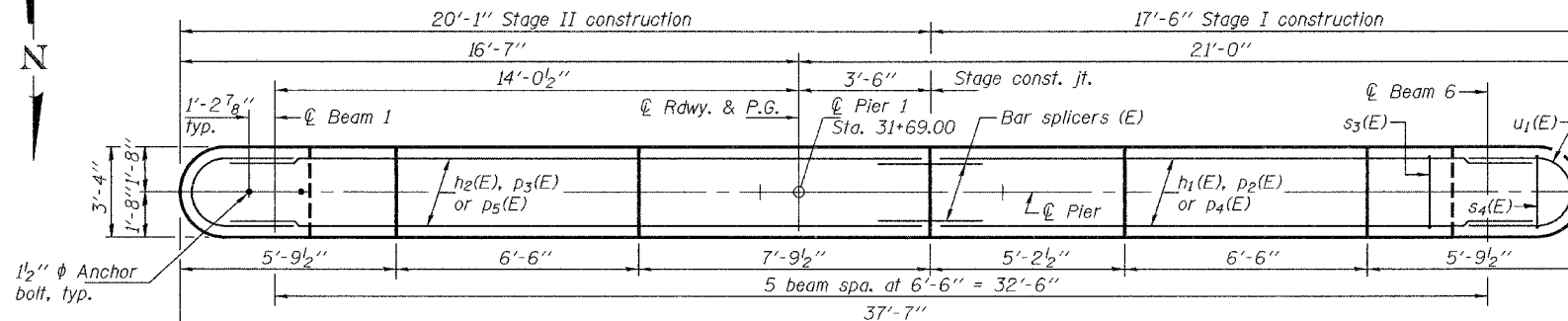
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 20 24 SHEETS
F.A.P. 698	IVBR	BUREAU	72	47	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

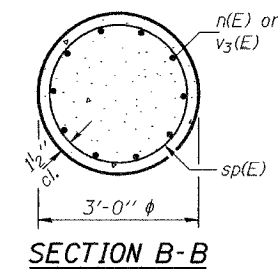
Contract No. 66361



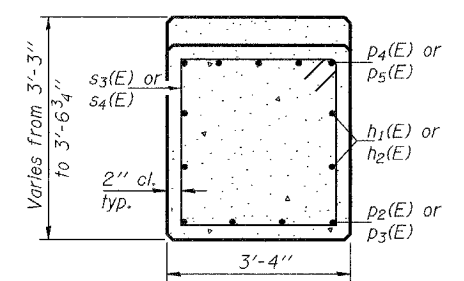
Bar	C	D	E
$n(E)$	9'-10"	1'-5"	1'-1'4"
$n_1(E)$	4'-4"	10"	7"
$v_3(E)$	15'-7"	1'-5"	1'-1'4"



TOP PLAN



SECTION B-B



A & B DIMENSIONS

SEC. THRU PIER CAP

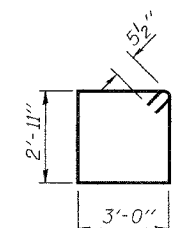
Bar	A	B
$s_4(E)$	3'-0"	2'-7"
$s_5(E)$	3'-0"	8'-10"
$s_6(E)$	3'-0"	4'-4"

BILL OF MATERIAL

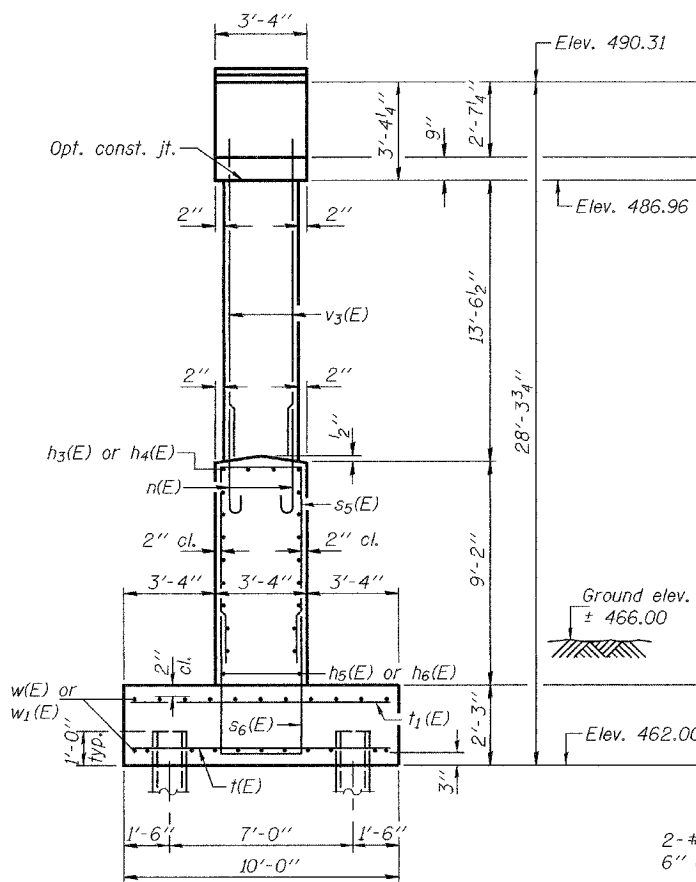
Bar	No.	Size	Length	Shape
$h_1(E)$	4	#5	15'-8"	—
$h_2(E)$	4	#5	18'-3"	—
$h_3(E)$	4	#7	12'-11"	—
$h_4(E)$	4	#7	15'-6"	—
$h_5(E)$	18	#5	12'-11"	—
$h_6(E)$	18	#5	15'-6"	—
$n(E)$	40	#10	11'-3"	U
$n_1(E)$	6	#7	5'-2"	U
$p_2(E)$	4	#8	15'-7"	—/
$p_3(E)$	4	#8	18'-2"	—/
$p_4(E)$	5	#8	15'-8"	—
$p_5(E)$	5	#8	18'-3"	—
$s_3(E)$	32	#5	12'-9"	□
$s_4(E)$	12	#5	8'-2"	□
$s_5(E)$	37	#5	20'-8"	□
$s_6(E)$	37	#7	11'-8"	□
* $sp(E)$	4	#5	13'-9"	W
$t(E)$	60	#8	9'-8"	—
$t_1(E)$	37	#5	9'-8"	—
$u_1(E)$	28	#5	10'-9"	U
$v_3(E)$	40	#10	17'-0"	U
$v_6(E)$	6	#5	8'-10"	—
$w(E)$	22	#5	16'-2"	—
$w_1(E)$	22	#5	18'-9"	—
Concrete Structures			Cu. Yd.	94.7
Reinforcement Bars, Epoxy Coated			Pound	12000
Structure Excavation			Cu. Yd.	82
Furnishing Steel Piles HP12x63			Foot	110
Pile Shoes			Each	12
Driving Piles			Foot	110
Test Pile Steel HP12x63			Each	1



BARS $s_4(E)$,
 $s_5(E)$ & $s_6(E)$



BAR $s_3(E)$



END VIEW

CONSTRUCTION SEQUENCE

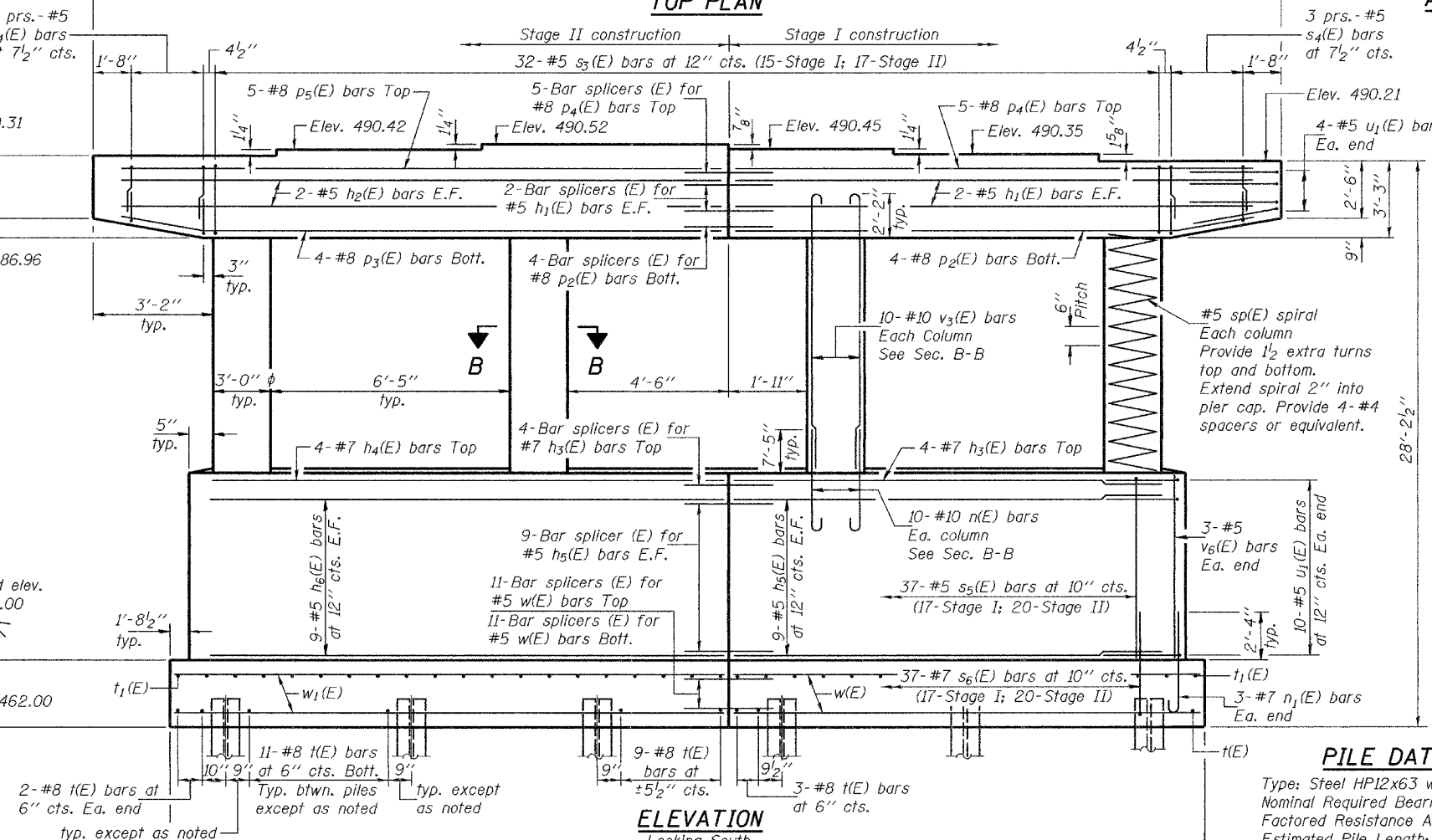
1. Pre-core piles to Elev. ± 458.0 according to Art. 512.10c of the Standard Specifications.
 2. Drive the piles to the required nominal required bearing.
 3. Use concrete to fill the annulus up to Elev. ± 461.5 .
- Cost included with Driving Piles.

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007

EXAMINED *Thomas J. Demagala*
ENGINEER OF BRIDGE DESIGN

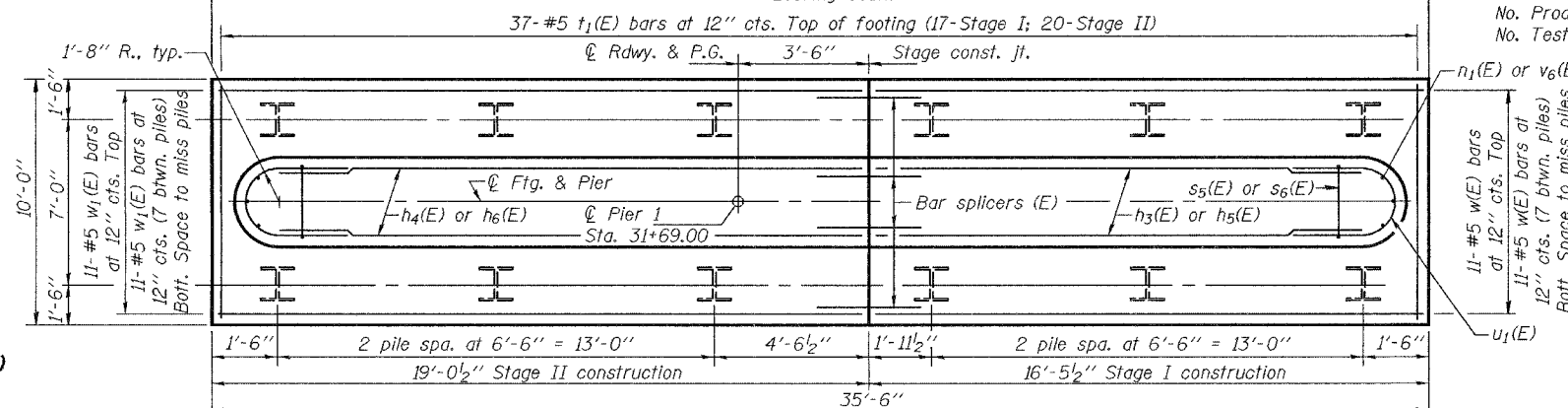
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES



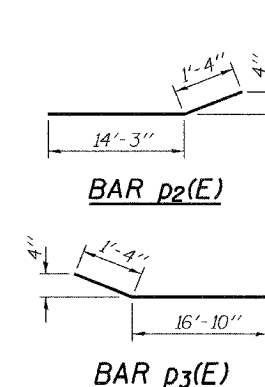
ELEVATION
Looking South

PILE DATA

Type: Steel HPI2x63 with pile shoes
Nominal Required Bearing: 401.2 Kips
Factored Resistance Available: 200.6 Kips
Estimated Pile Length: 10'
No. Production Piles: 11
No. Test Piles: 1



FOOTING PLAN



BAR $p_2(E)$

$$BAR \ p_3(E)$$

PIER 1

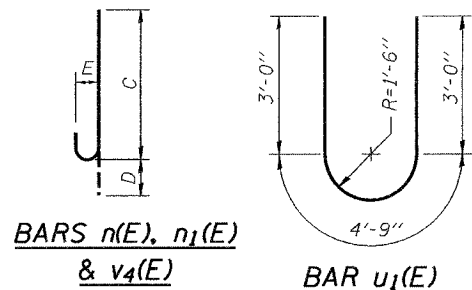
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For bar splicers details, see sheet 22 of 24.
For anchor bolt details, see sheet 17 of 24.

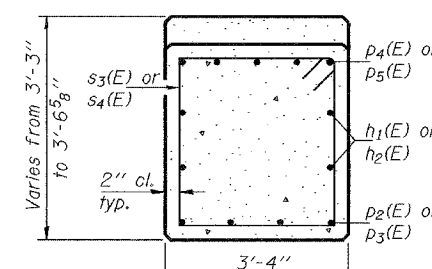
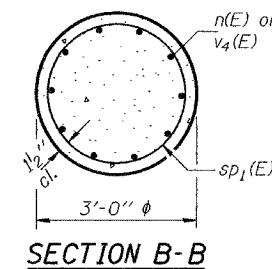
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 21
F.A.P. 698	IVBR	BUREAU	72	48	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract No. 66361



Bar	C	D	E
$n(E)$	9'-10"	1'-5"	1'-1 1/4"
$n_1(E)$	4'-4"	10"	7"
$v_4(E)$	23'-10"	1'-5"	1'-1 1/4"



A & B DIMENSIONS

Bar	A	B
$s_4(E)$	3'-0"	2'-7"
$s_6(E)$	3'-0"	4'-4"
$s_7(E)$	3'-0"	3'-10"

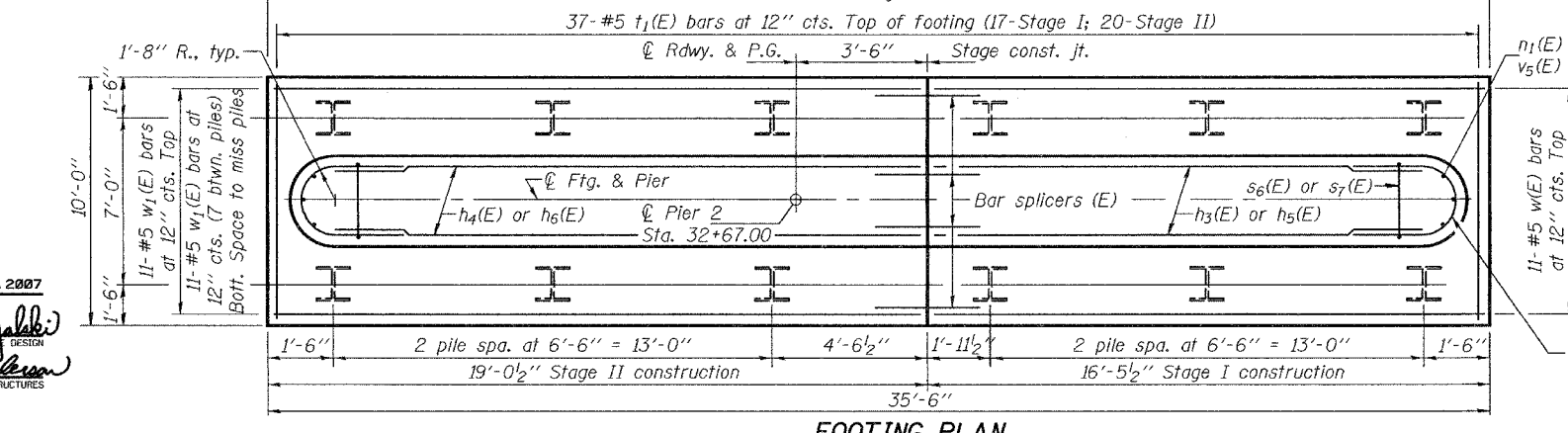
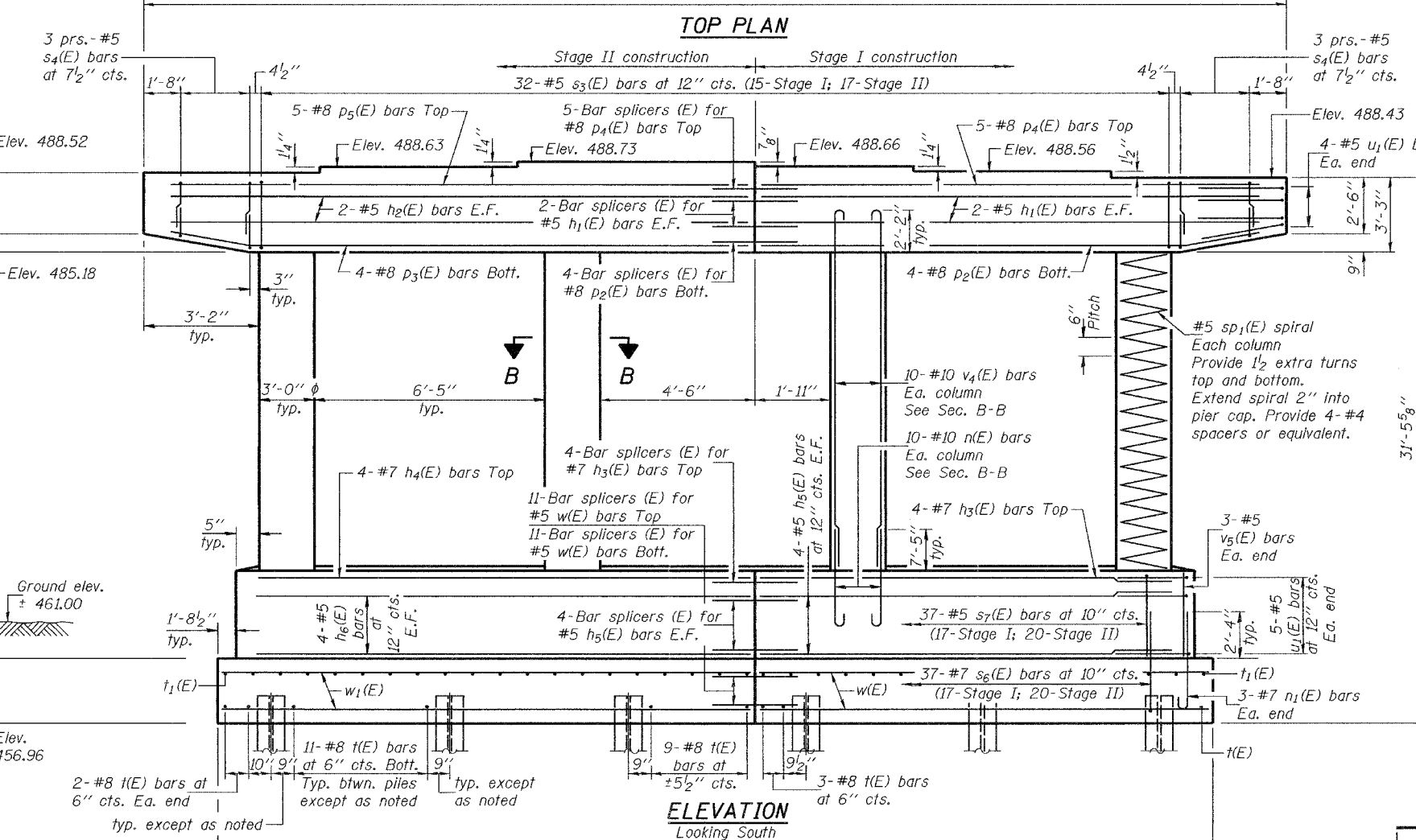
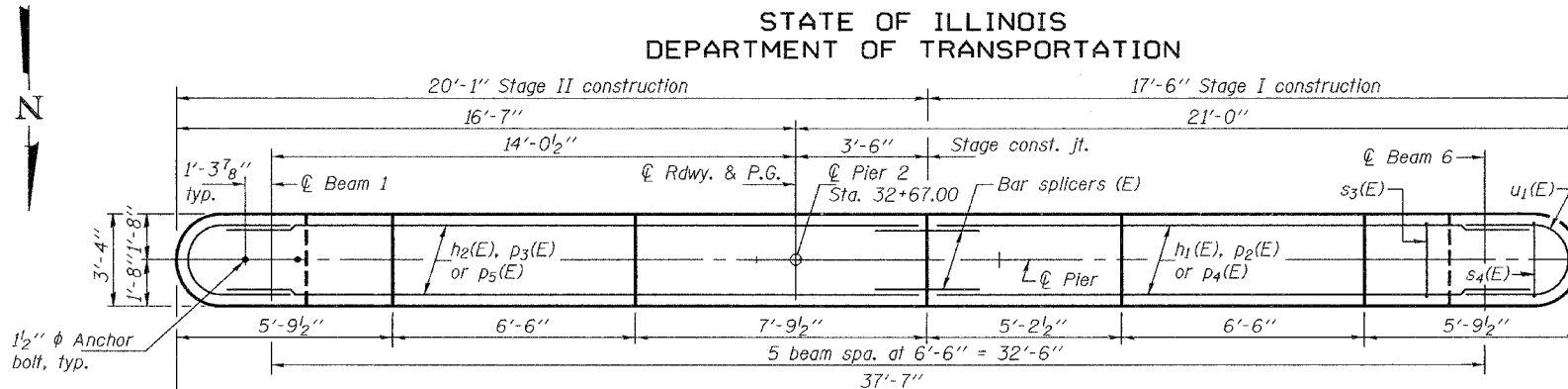
SEC. THRU PIER CAP

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_1(E)$	4	#5	15'-8"	
$h_2(E)$	4	#5	18'-3"	
$h_3(E)$	4	#7	12'-11"	
$h_4(E)$	4	#7	15'-6"	
$h_5(E)$	8	#5	12'-11"	
$h_6(E)$	8	#5	15'-6"	
$n(E)$	40	#10	11'-3"	
$n_1(E)$	6	#7	5'-2"	
$p_2(E)$	4	#8	15'-7"	
$p_3(E)$	4	#8	18'-2"	
$p_4(E)$	5	#8	15'-8"	
$p_5(E)$	5	#8	18'-3"	
$s_3(E)$	32	#5	12'-9"	
$s_4(E)$	12	#5	8'-2"	
$s_6(E)$	37	#7	11'-8"	
$s_7(E)$	37	#5	10'-8"	
$sp_1(E)$	4	#5	22'-0"	
$t(E)$	60	#8	9'-8"	
$t_1(E)$	37	#5	9'-8"	
$u_1(E)$	18	#5	10'-9"	
$v_4(E)$	40	#10	25'-3"	
$v_5(E)$	6	#5	3'-10"	
$w(E)$	22	#5	16'-2"	
$w_1(E)$	22	#5	18'-9"	
Concrete Structures	Cu. Yd.		84.0	
Reinforcement Bars, Epoxy Coated	Pound		12630	
Structure Excavation	Cu. Yd.		83	
Furnishing Steel Piles HP12x63	Foot		275	
Driving Piles	Foot		275	
Pile Shoes	Each		12	
Test Pile Steel HP12x63	Each		1	

Min. lap for $sp_1(E)$ = 1 1/2 turns
*Length is height of spiral.
**Weight includes spacers for spirals.

PIER 2
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164



END VIEW

PILE DATA

Type: Steel HP12x63 with pile shoes
Nominal Required Bearing: 442.6 Kips
Factored Resistance Available: 221.3 Kips
Est. Pile Length: 25'
No. Production Piles: 11
No. Test Piles: 1

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.t. duong
CHECKED	RLT/PEC

Jan 9, 2007
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	49	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract No. 66361

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.

A_t = Tensile stress area of lapped reinforcement bars.

* = 28 day concrete

The diameter of this part is equal or larger than the diameter of bar spliced.

The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

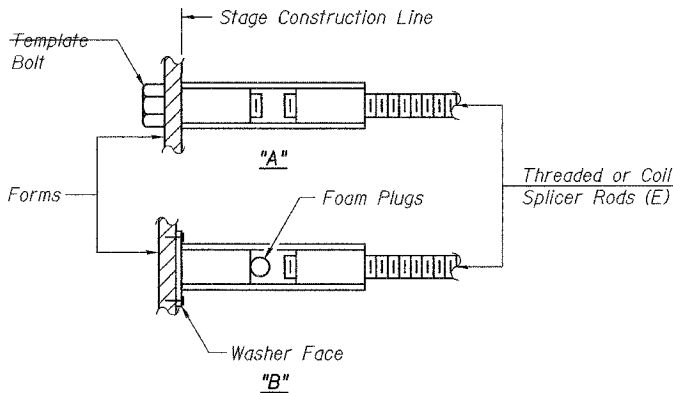
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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

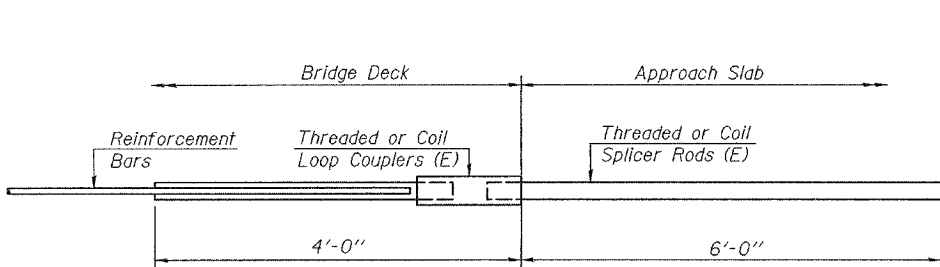


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

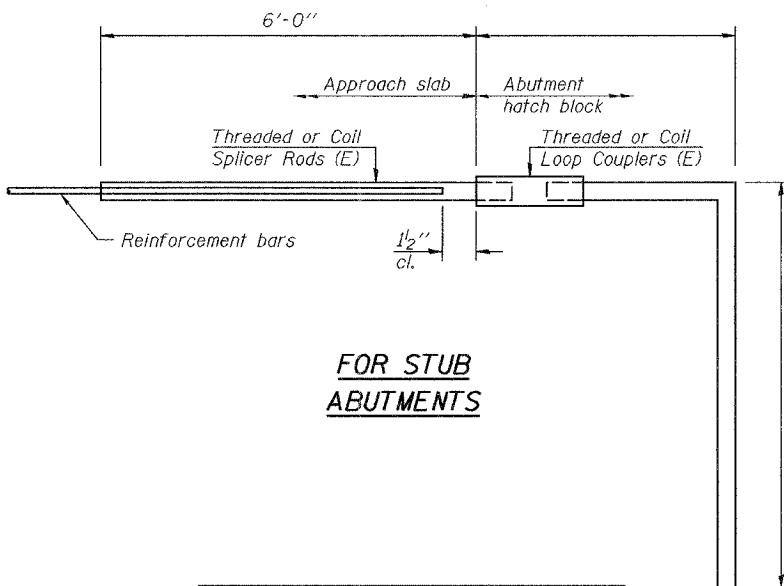
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



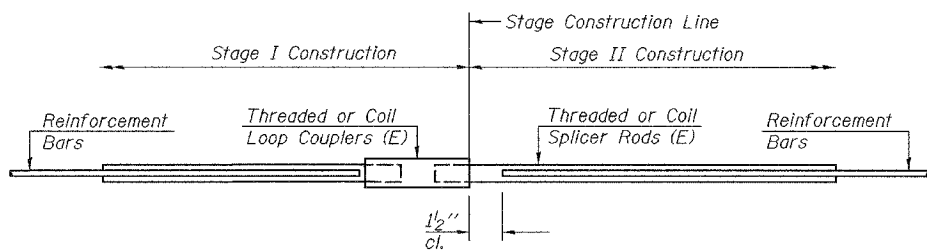
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 74



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#8	9	Pier 2 - Cap
#5	4	Pier 2 - Cap
#7	4	Pier 2 - Crashwall
#5	8	Pier 2 - Crashwall
#5	22	Pier 2 - Footing
#7	9	N. Abut.
#7	9	S. Abut.
#5	425	Top of deck
#5	308	Bottom of deck
#6	8	N. Diaphragm
#6	8	S. Diaphragm
#8	9	Pier 1 - Cap
#5	4	Pier 1 - Cap
#7	4	Pier 1 - Crashwall
#5	18	Pier 1 - Crashwall
#5	22	Pier 1 - Footing

BAR SPLICER ASSEMBLY DETAILS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

DESIGNED	RLT
CHECKED	PEC
DRAWN	h.f. duong
CHECKED	RLT/PEC

BSD-1

11-1-06

Jan 9, 2007
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	50
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 23

24 SHEETS

Contract No. 66361

Illinois Department of Transportation
Division of Highways
District 3 Materials

SOIL BORING LOG

Page 1 of 2

Date 1/14/03

ROUTE FAP 698(189) DESCRIPTION ILLINOIS 89 OVER C.S.X.T. RAILROAD AT SPRING VALLEY LOGGED BY LM-IDOT

SECTION IVBR LOCATION NW 1/4, SEC. 2, TWP. 15N, RING. 11E, 2 PM

COUNTY BUREAU DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 006-010 EXISTING
Station 32+11.77

BORING NO. 1 PROP. EMBANKMENT
Station 33+92
Offset 25.00ft RT
Ground Surface Elev. 462.73 ft

DEPTH (ft)	SOIL TYPE	WATER	TEMP.	MOISTURE (%)	UNSAT. WAT. (%)	UCS (psi)	UCS (ksi)	UCS (ksi)	UCS (ksi)
0	Augered Brown SANDY CLAY LOAM & CONCRETE DEBRIS (FILL)								
461.23	Stiff Brown SANDY LOAM with GRAVEL & CONCRETE DEBRIS (FILL)								
459.23	Medium Brown CLAY LOAM with GRAVEL (FILL)								
456.23	Medium Brown SANDY LOAM with GRAVEL & COAL SLAG DEBRIS (FILL)								
454.23	Stiff Brown SANDY CLAY LOAM with GRAVEL (FILL)								
450.73	Medium Black CLAY LOAM with COAL SLAG PIECES (FILL)								
428.23	Brown LOAMY GRAVEL & SAND								
426.73	TOP OF ROCK Dense Brown & Gray SILTY LOAM & Highly Weathered LIMESTONE PATOKA FORMATION PENNSYLVANIAN SYSTEM Dense Gray Highly Weathered SHALE								

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 Materials

SOIL BORING LOG

Page 2 of 2

Date 1/14/03

ROUTE FAP 698(189) DESCRIPTION ILLINOIS 89 OVER C.S.X.T. RAILROAD AT SPRING VALLEY LOGGED BY LM-IDOT

SECTION IVBR LOCATION NW 1/4, SEC. 2, TWP. 15N, RING. 11E, 2 PM

COUNTY BUREAU DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 006-010 EXISTING
Station 32+11.77

BORING NO. 1 PROP. EMBANKMENT
Station 33+92
Offset 25.00ft RT
Ground Surface Elev. 462.73 ft

DEPTH (ft)	SOIL TYPE	WATER	TEMP.	MOISTURE (%)	UNSAT. WAT. (%)	UCS (psi)	UCS (ksi)	UCS (ksi)	UCS (ksi)
421.73	Dense Gray Highly Weathered SHALE (continued)								
1504*	Dense Gray Calcareous SHALE								
74									
100									
150									
120									
408.23									
1004*									

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 Materials

SOIL BORING LOG

Page 1 of 1

Date 1/21/03

ROUTE FAP 698(189) DESCRIPTION ILLINOIS 89 OVER C.S.X.T. RAILROAD AT SPRING VALLEY LOGGED BY LM-IDOT

SECTION IVBR LOCATION NW 1/4, SEC. 2, TWP. 15N, RING. 11E, 2 PM

COUNTY BUREAU DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 006-010 EXISTING
Station 32+11.77

BORING NO. 2 SOUTH ABUT.
Station 33+37
Offset 24.00ft RT
Ground Surface Elev. 463.47 ft

DEPTH (ft)	SOIL TYPE	WATER	TEMP.	MOISTURE (%)	UNSAT. WAT. (%)	UCS (psi)	UCS (ksi)	UCS (ksi)	UCS (ksi)
461.47	Augered Brown SAND & GRAVEL ROADBED								
461.47	Brown SANDY CLAY LOAM with GRAVEL & CONCRETE DEBRIS (FILL)								
453.97	Very Stiff Brown SANDY CLAY								
449.47	Stiff Black SANDY LOAM with LIMESTONE Pieces								
446.47	Stiff Brown SANDY CLAY LOAM								

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)

BORING LOGS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 698	IVBR	BUREAU	72	50A
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 24

24 SHEETS

Contract No. 66361

Illinois Department of Transportation
Division of Highways
District 3 Materials

SOIL BORING LOG

Page 1 of 1

Date 1/13/03

ROUTE FAP 698(189) DESCRIPTION ILLINOIS 89 OVER C.S.X.T. RAILROAD AT SPRING VALLEY LOGGED BY LM-IDOT

SECTION IVBR LOCATION NW 14, SEC. 2, TWP. 15N, RING. 11E, 2 PM

COUNTY BUREAU DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 006-0110 EXISTING
Station 32+11.77

BORING NO. 3 PIER 2
Station 32+58
Offset 29.00ft RT
Ground Surface Elev. 464.36 ft

DEPTH (ft)	BULGE (ft)	SHEAR (ft)	Penetration (ft)	UCS (psi)	Failure Mode
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

ALUGERED SANDY CLAY LOAM & GRAVEL (FILL)
462.86

Hard Brown SANDY CLAY LOAM with GRAVEL & CONCRETE DEBRIS (FILL)
442.86

TOP OF ROCK
Very Stiff Red & Gray Weathered SHALE (CLAY)
440.86

Hard Greenish Gray Weathered SHALE
436.86

Dense Gray LIMESTONE
434.86

Hard Brown CLAY LOAM TILL
452.36

Very Stiff Brown & Gray CLAY TILL
450.86

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 Materials

SOIL BORING LOG

Page 1 of 1

Date 1/13/03

ROUTE FAP 698(189) DESCRIPTION ILLINOIS 89 OVER C.S.X.T. RAILROAD AT SPRING VALLEY LOGGED BY LM-IDOT

SECTION IVBR LOCATION NW 14, SEC. 2, TWP. 15N, RING. 11E, 2 PM

COUNTY BUREAU DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 006-0110 EXISTING
Station 32+11.77

BORING NO. 4 PIER 1
Station 31+75
Offset 21.00ft RT
Ground Surface Elev. 467.93 ft

DEPTH (ft)	BULGE (ft)	SHEAR (ft)	Penetration (ft)	UCS (psi)	Failure Mode
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

ALUGERED Brown Medium Brown SANDY LOAM with CONCRETE DEBRIS & GRAVEL
462.93

TOP OF ROCK
Gray Highly Weathered SHALE (SILTY CLAY)
459.93

Hard Gray Weathered SHALE
454.93

Dense Gray LIMESTONE
454.93

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 Materials

SOIL BORING LOG

Page 1 of 1

Date 1/13/03

ROUTE FAP 698(189) DESCRIPTION ILLINOIS 89 OVER C.S.X.T. RAILROAD AT SPRING VALLEY LOGGED BY LM-IDOT

SECTION IVBR LOCATION NW 14, SEC. 2, TWP. 15N, RING. 11E, 2 PM

COUNTY BUREAU DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 006-0110 EXISTING
Station 32+11.77

BORING NO. 5 NORTH ABUT.
Station 31+00
Offset 20.00ft RT
Ground Surface Elev. 469.95 ft

DEPTH (ft)	BULGE (ft)	SHEAR (ft)	Penetration (ft)	UCS (psi)	Failure Mode
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

ALUGERED Black SILTY LOAM with CONCRETE DEBRIS
466.95

TOP OF ROCK
Augered Dense Gray LIMESTONE
465.45

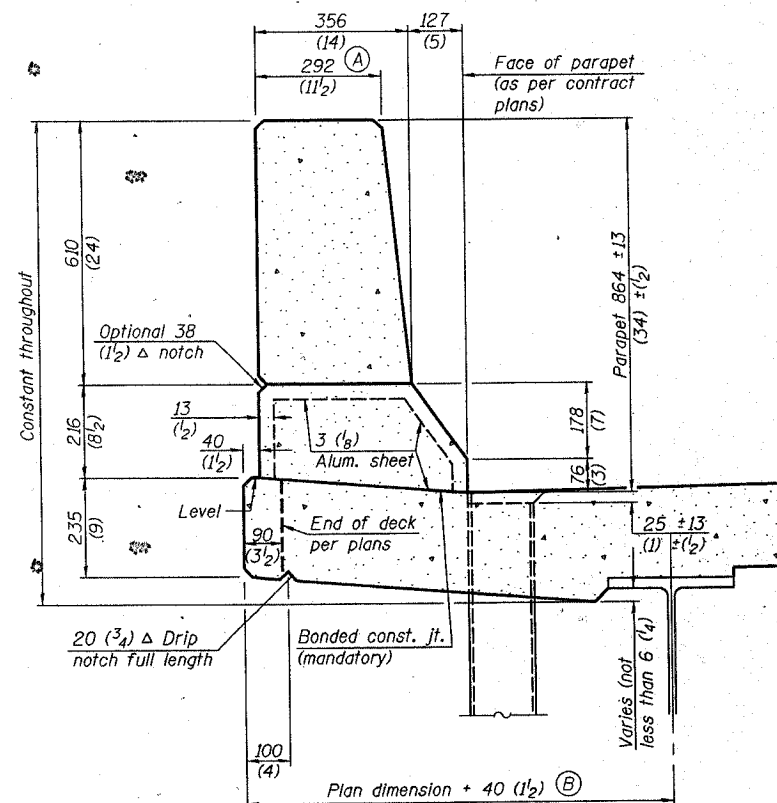
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING LOGS
F.A.P. RTE. 698 - SECTION IVBR
BUREAU COUNTY
STATION 32+32.00
STRUCTURE NO. 006-0164

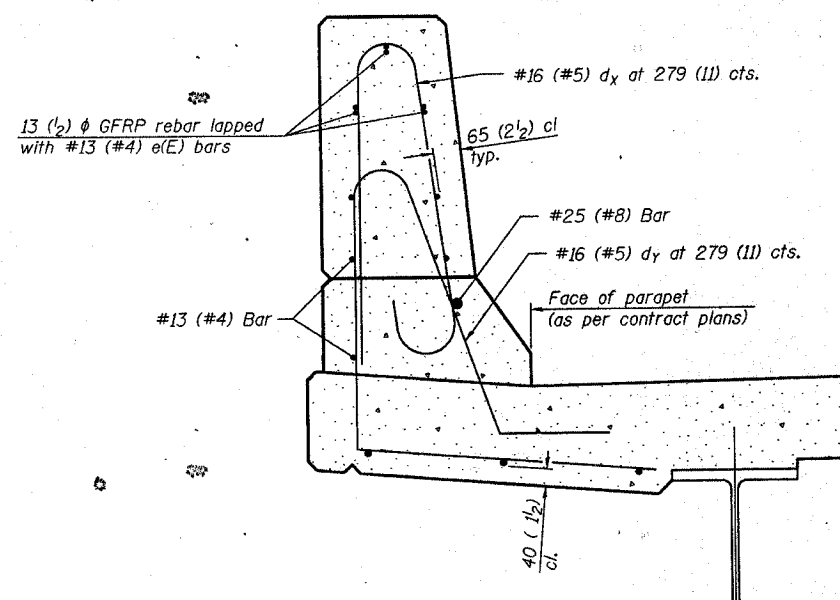
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 6098	IVBR	BUREAU	72	508
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

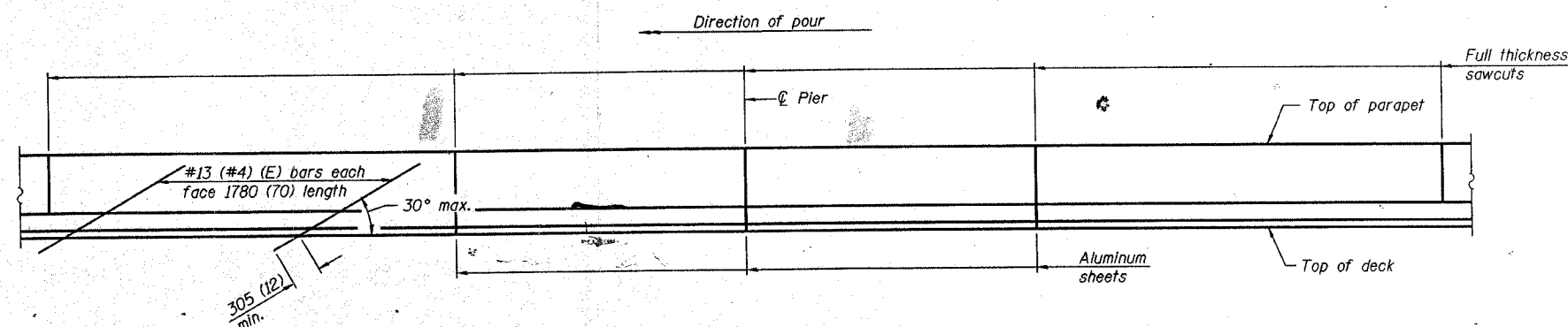
Contract # 60360



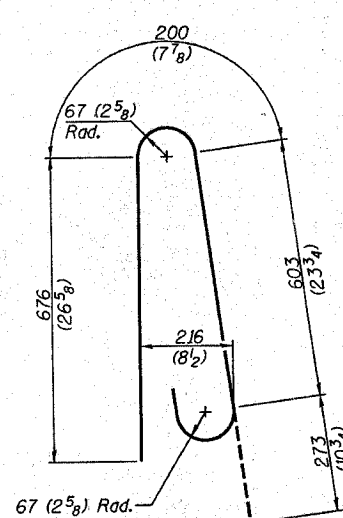
SECTION
(Showing dimensions)



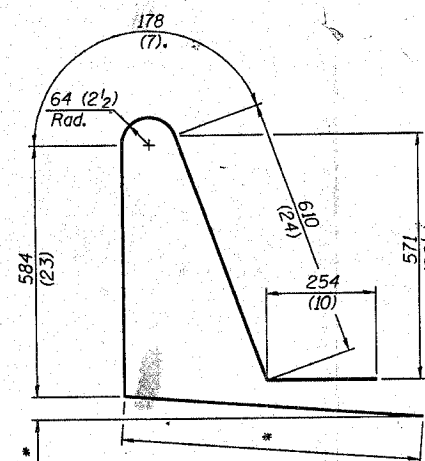
SECTION
(Showing required reinforcement)



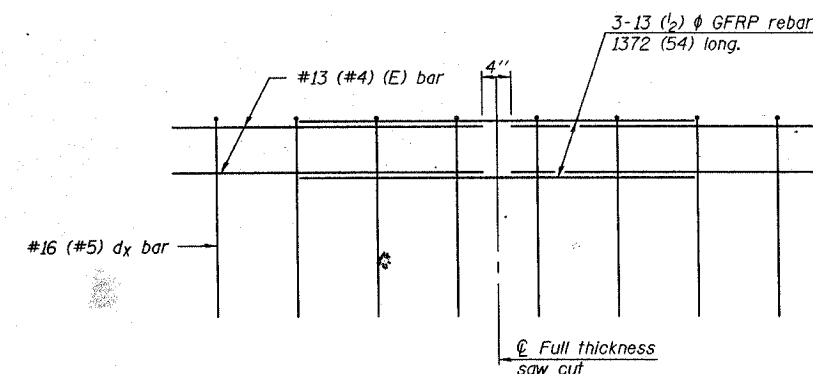
ELEVATION
(Showing parapet joints and typical stiffening reinforcement between joints)



BAR dx(e)



BAR dy(e)
* Per contract plans



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section)

GENERAL NOTES
All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B= 0.0422 m³/m (0.0165 cu. yds./ft.) of parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all other locations. Adjust/add joint locations to maintain 3 to 6 meter (10 to 20 foot) spacing.

**CONCRETE PARAPET
SLIPFORMING OPTION**

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1VBR	BUREAU	72	51
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

B.M. (New) top of arrow on fire hydrant Sta. 28+40 R.L. 35.5' - Elev. 383.04
Existing Structure 1.5 A Route 21, Section 1 VBR C.D. of Sta. 30+55.00, built in 1937
Concrete deck to be replaced Stage Construction shall be used to maintain one way traffic

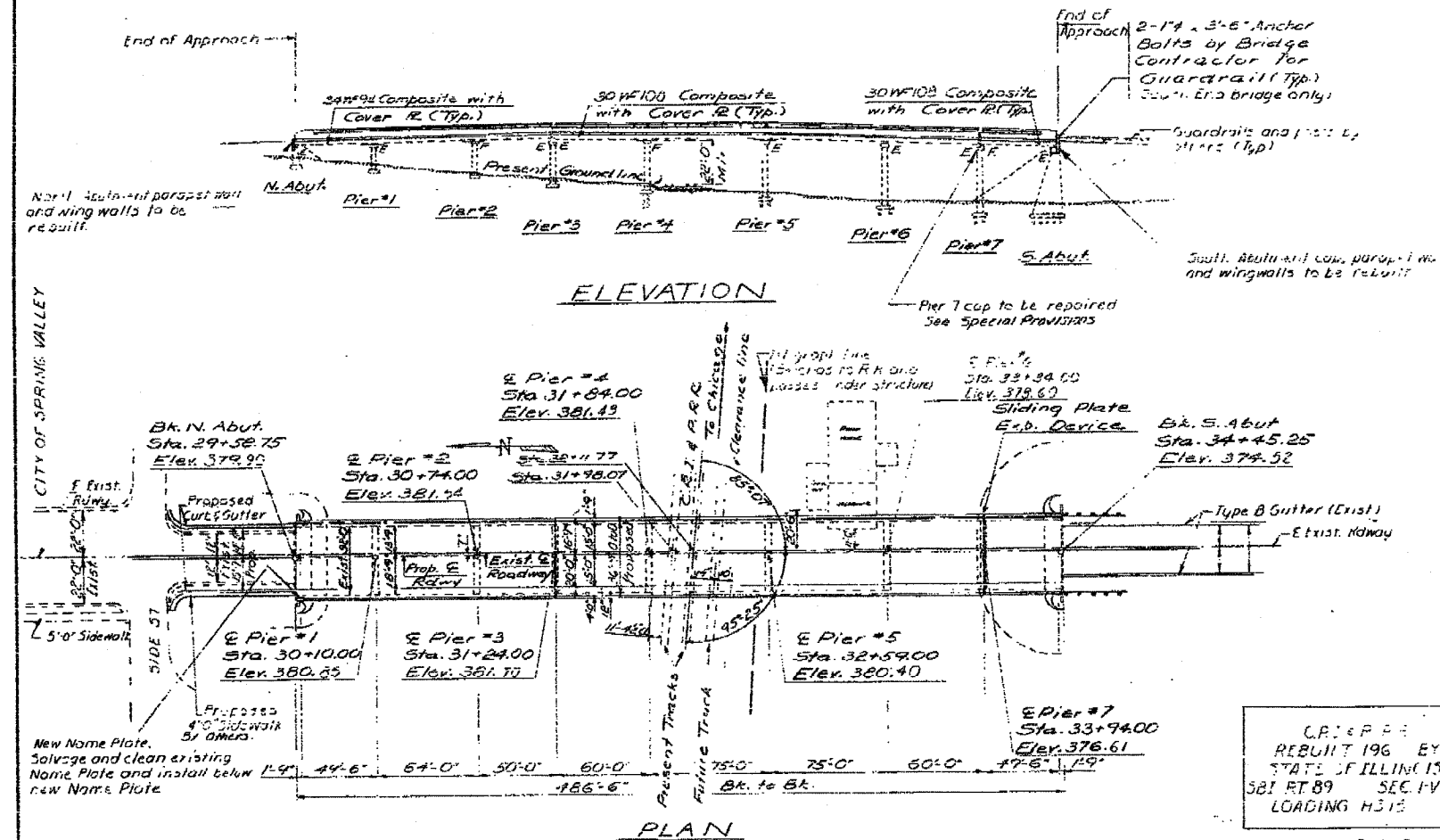
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	BY	REVISION	REASON	DATE	BY	REVISION	REASON
1-1-89	1-VBR	BUREAU	55	2-6			

GENERAL NOTES

All reinforcement bars shall be lap spliced 24 diameters unless otherwise shown.
Pier 7 cap to be repaired See Special Provisions
Roadway expansion guards shall be assembled in the shop in proper position. With the ends in place & shall be left open. Used for shop inspection. Exception otherwise provided all new structural steel shall receive one shop coat of red iron paint & two field coats of Aluminum paint. It shall be the responsibility of the Contractor to verify all dimensions & conditions existing in the field prior to construction & ordering of materials.
Pier 7 Engineer in charge will designate portions of the cap & columns requiring repairs. Necessary jacking & cribbing of spans #7 & #8 included in Bill of Material. See Special Provisions.

North. Engineer in charge will designate portions of the cap requiring repairs. Necessary jacking & cribbing of spans #1 included in Bill of Material.
The concrete rail section above the mandatory construction joint at the top of the pier on the East edge and at the top of the pier on the West edge shall be constructed of Class 2 Concrete, except the aggregates shall conform to the requirements of Portland Concrete.



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu Yds.		13	13
Removal of Concrete Deck	Sq. Yds.			13
Reinforcing Steel	Cu Yds.	360.7	20.1	380.8
Class 2 Concrete	Cu Yds.	91040		91040
Structural Steel	Lbs.	6174		6174
Stud Shear Connectors	Ech.			864
Aluminum Rolling	Lin. Ft.			132,640
Aluminum Rolling, type 4	Lin. Ft.			111
Reinforcement Bars	Lbs.	129,725	3820	133,545
Preformed Joint Sealer	Lin. Ft.			487
Temporary Guardrail	Lin. Ft.			1.5
Bridge Seat Sealant	Lbs.			3
Jacking/Cribbing	Cu Yds.			1
Name Plates	Each			1
Clearing & Grading	Sq. Yds.			1

* At Pier #7 only

CRIPPER
REBUILT 196 BY
STATE OF ILLINOIS
S21 RT.89 SEC. 1-VBR
LOADING H315

NAME PLATE
See Std. 2113-1

DESIGN STRESSES
F_c = 1200 psi - Deck Slab
F_c = 1400 psi - Curb, Parapet
F_s = 20,000 psi - Reinf.
F_s = 20,000 psi - Struct.
n = 10

LOADING H3 15-44

Allowable & Defl. 1200 Comp.

Note: Allow 25 #/d for Put. Wearing Surf.

GENERAL PLAN & ELEVATION

F.A.R.T. 94 (S.B.I. 89-ILL 89) - SEC. 1-VBR

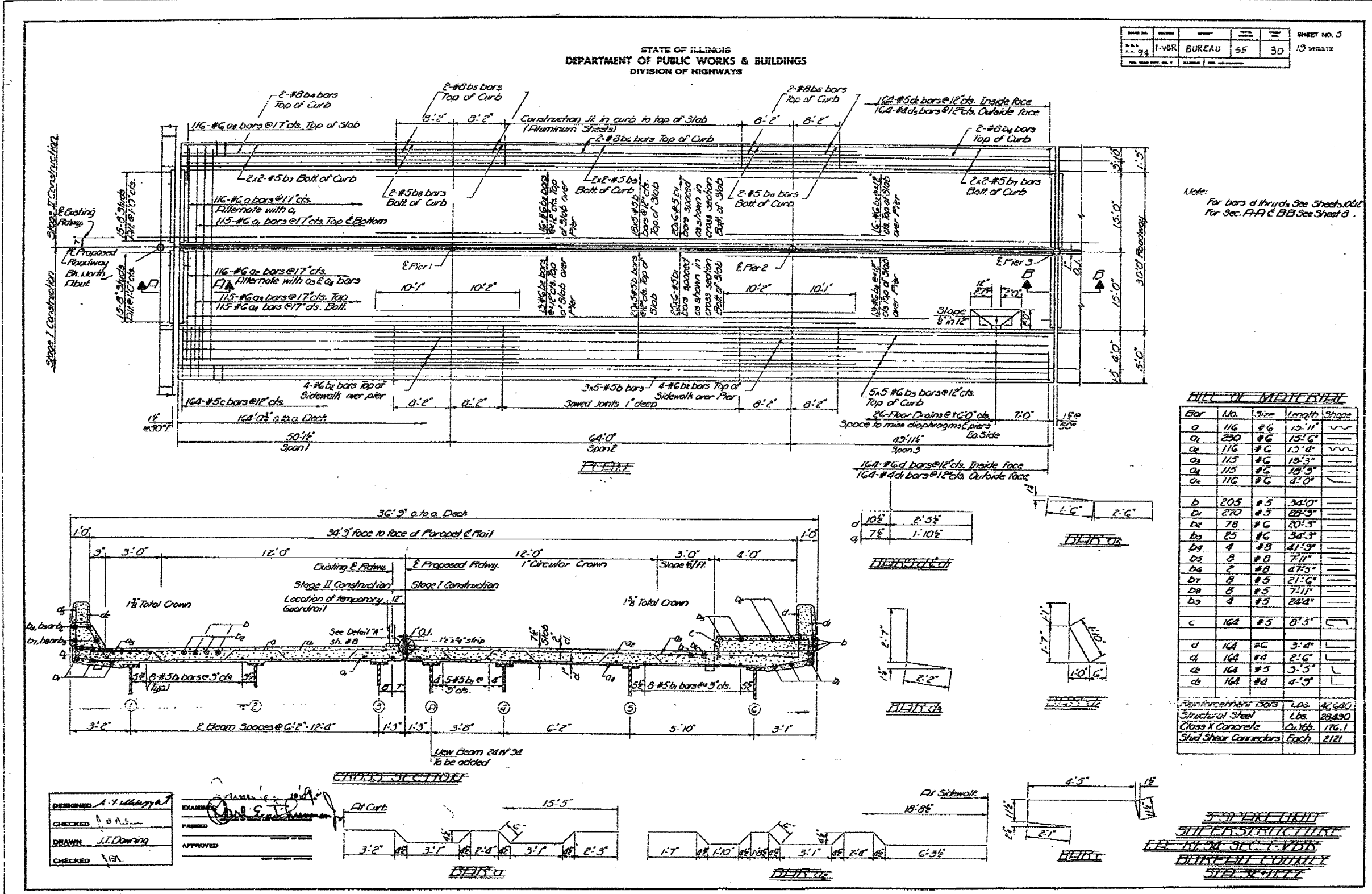
BUREAU COUNTY

STA. 32+11.77

GRADE PROFILE F.A.R.T. 94 LOCATION SKETCH

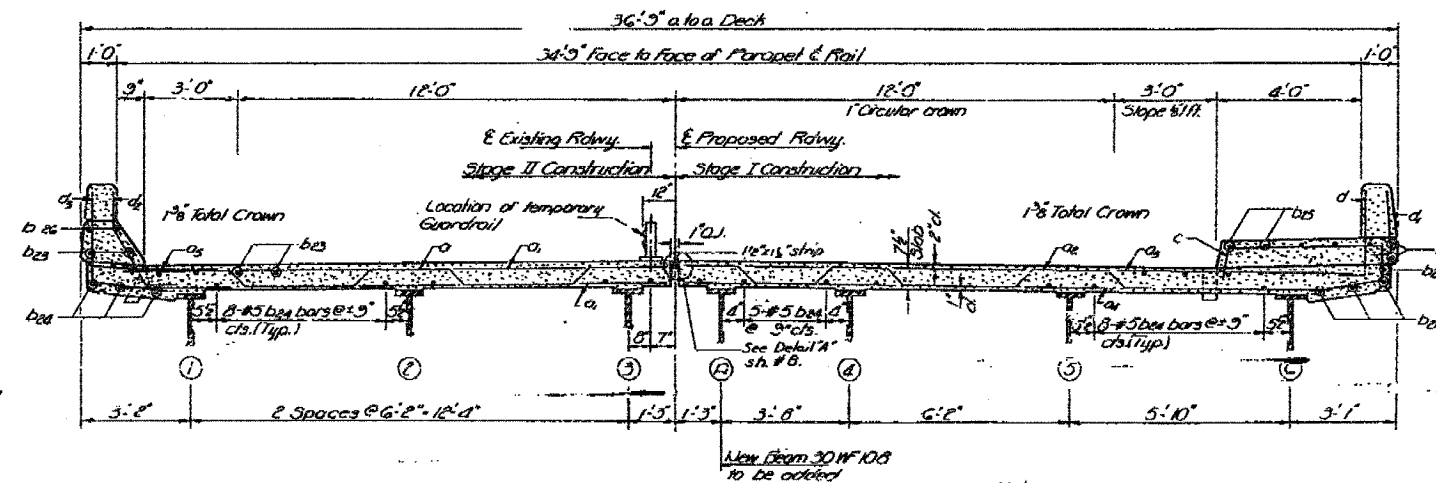
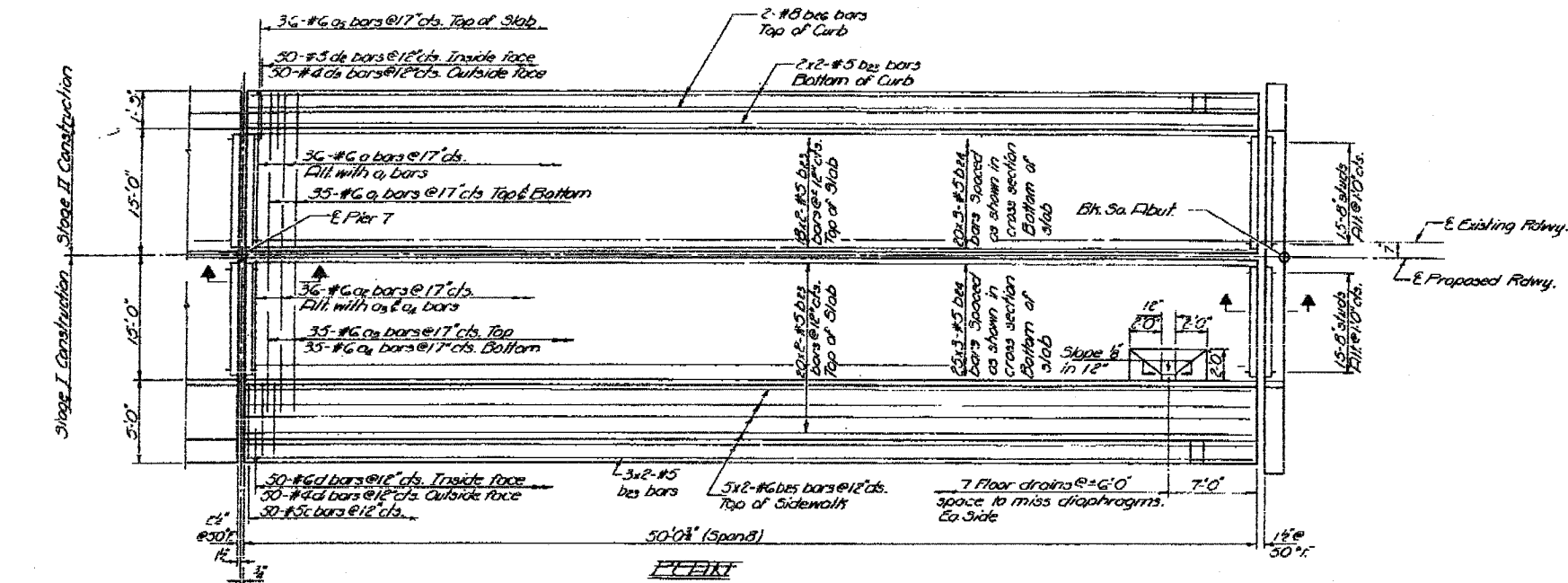
DESIGNED	A. F. Khayyat
CHECKED	J. E. Khayyat
DRAWN	J. E. Khayyat
CHECKED	J. E. Khayyat

EXAMINED	J. E. Khayyat
PASSED	J. E. Khayyat
APPROVED	J. E. Khayyat



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	IVBR	BUREAU	72	54
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SEARCHED	INDEXED	SERIALIZED	FILED
APR 24 1968	FBI - BUREAU	55	32



<u>BILL OF MATERIALS</u>				
Bar	No.	Size	Length	Shape
a	36	#6	15'-11"	~
q	70	#6	15'-6"	~
az	36	#6	19'-4"	~
qz	35	#6	19'-3"	~
qz	35	#6	18'-3"	~
qz	56	#6	4'-0"	~
b23	86	#5	25'-6"	~
b24	135	#5	17'-6"	~
b25	10	#6	25'-9"	~
b26	2	#8	49'-9"	~
d	50	#6	3'-4"	L
de	50	#4	2'-6"	L
de	50	#3	3'-5"	L
ds	50	#4	4'-9"	L
c	50	#5	8'-5"	C
<u>Subtotal - Bars</u>			<u>Lbs.</u>	<u>1280</u>
Structural Steel			Lbs.	2560
Class I Concrete			Cu Yds.	54.9
Shel Shear Conn.			Each	735

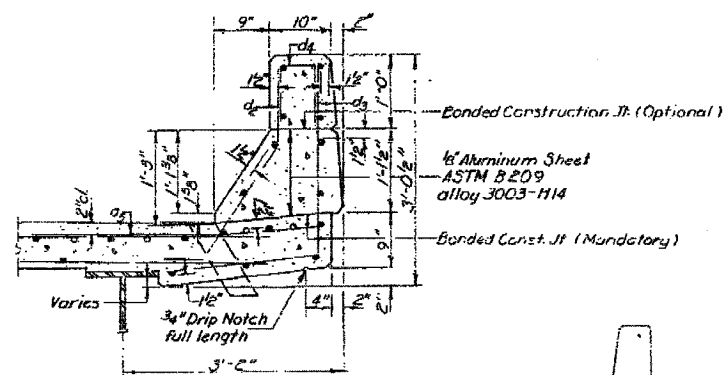
Notes:
For bars g, a, a₂ & c See Sheet 5.
For bars d, d₁, d₂ & d₃ See Sheets 3, 10 & 12.
For Section A-A See Sheet 8.
For Section C-C See Sheets 8 & 17.

~~STATE OF TEXAS~~
~~SUPREMACY~~
~~IN THE~~
~~MARSHALL COUNTY~~
~~STATE OF TEXAS~~

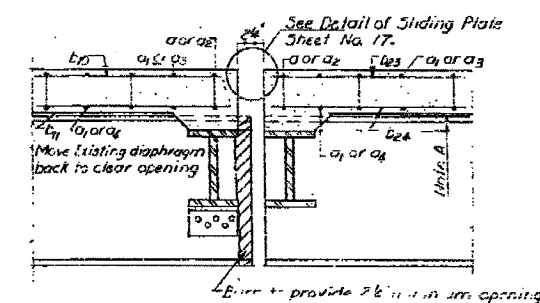
DESIGNED	A. Y. Khayyat
CHECKED	H. B. Nelson
DRAWN	J. T. Downing
CHECKED	H. B. N.

EXAMINED _____ 1964
PASSED _____
APPROVED _____

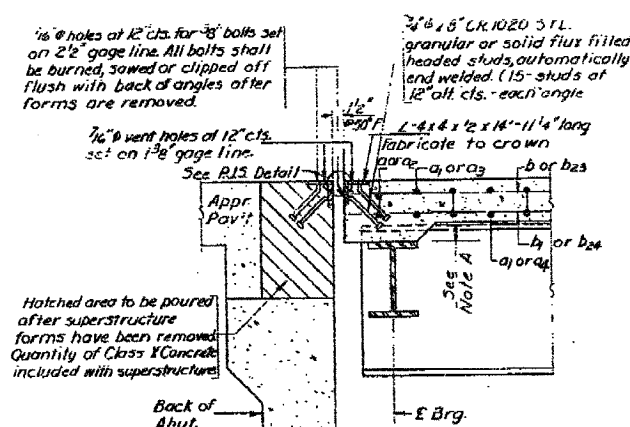
REPORT NO.	SECTION	COUNTY	NUMBER SHEETS	SHEET NO.
94	1-VBR	BUREAU	55	33



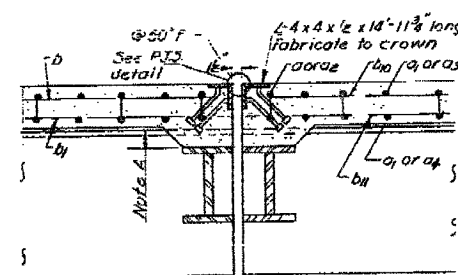
CURB SECTION
Cost of Aluminum Drains and Sheets
shall be incidental to Class X Concrete



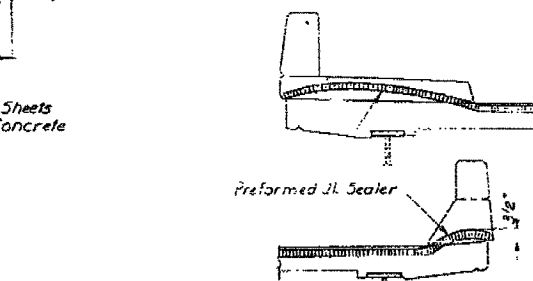
SIDEWALK SECTION



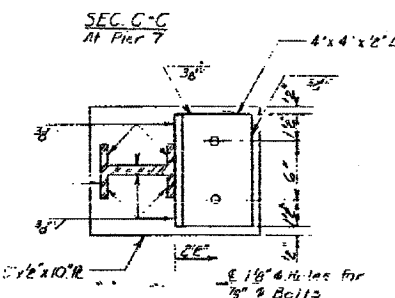
SECTION A-A
At Abutments



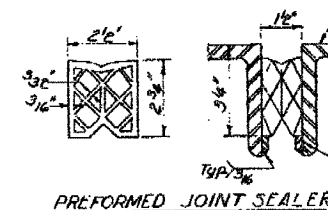
SEC. B-B (AT PIER 3)
for notes see Sec. A-A



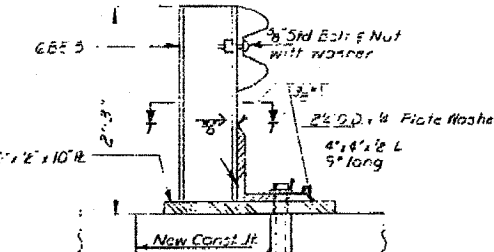
TYPICAL END OF SEALER TREATMENT



SECTION T-T



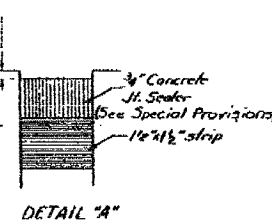
PREFORMED JOINT SEALER



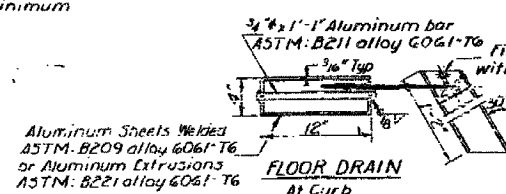
*DETAIL OF TEMPORARY
GUARDRAIL POSTS

DESIGNED *A. J. Klaypat*
CHECKED *[Signature]* *SEL.*
DRAWN *Ray Robinson*
CHECKED *[Signature]*

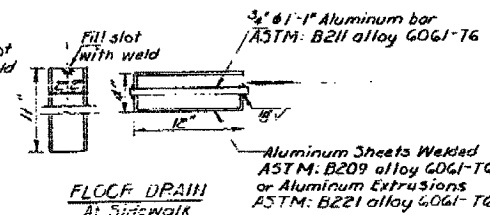
EXAMINED *[Signature]*
PASSED
APPROVED



DETAIL "A"



FLOOR DRAIN
At Elv. b



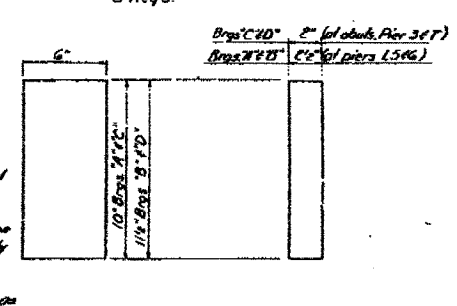
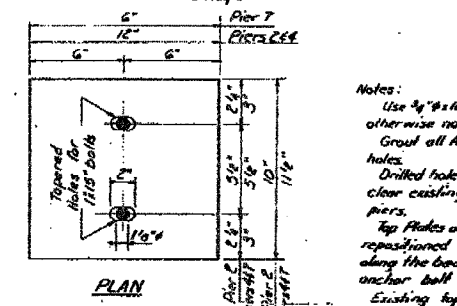
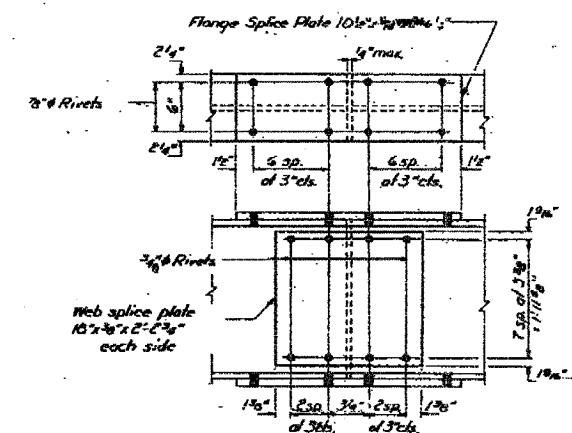
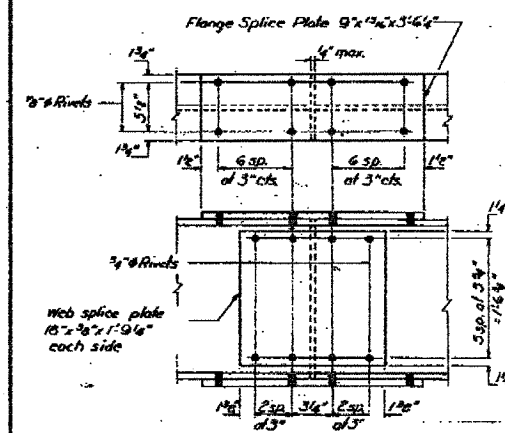
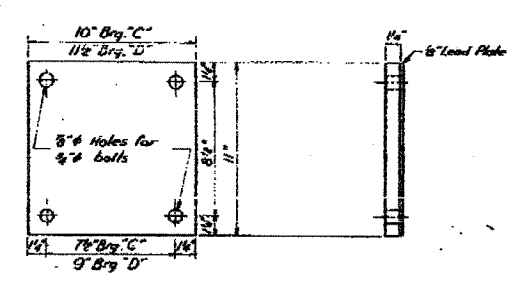
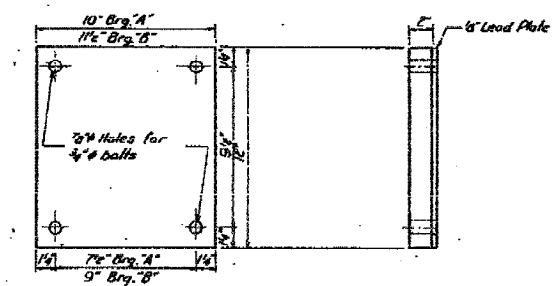
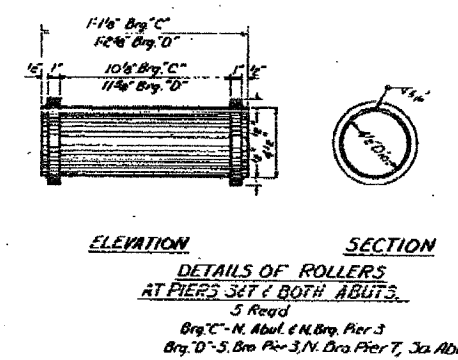
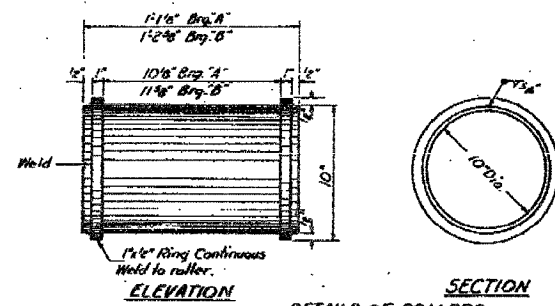
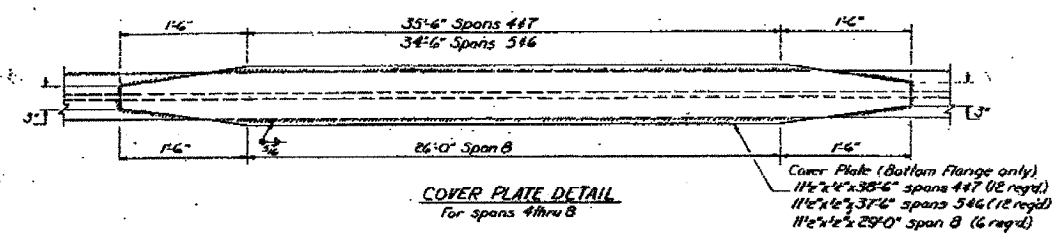
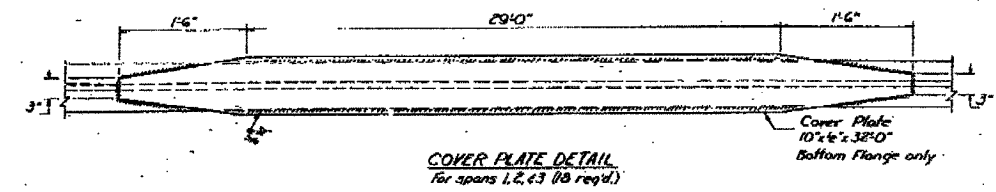
FLOOD DRAIN
At Sidewalk

SUPERSTRUCTURE DETAILS
EA. RT. 94 SEC. 1-NBR
BUREAU COUNTY
STA. 32+11.77

FOR INFORMATION ONLY

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

94	IVBR	BUREAU	55	41
SHEET NO. 16				
1/3 SHEETS				



Notes:
Use 1/2" x 11" anchor bolts unless otherwise noted.
Grout all anchor bolts in 2" drilled holes.
Drilled holes for new anchor bolts and clear existing reinforcement in tops of piers.
Top plates of new beam bearings may be repositioned a maximum of 2" longitudinally along the beam to provide necessary anchor bolt clearance.
Existing top reinforcement in pier caps consists of 5-1" bars @ 4'-6" cts. & 2-3/8" bars @ 9'-0" cts. in Pier 3 cap & 6'-0" cts. in other caps.

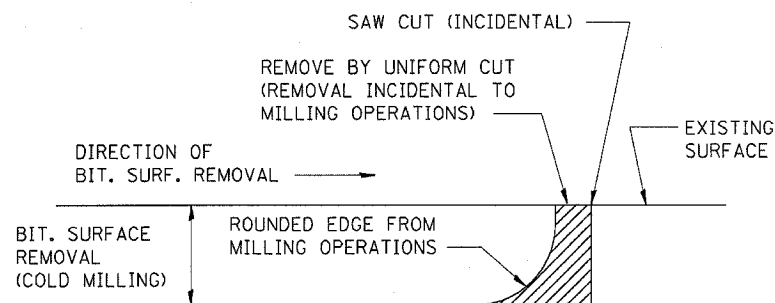
DESIGNED A.Y. Whayyad
CHECKED J.B.A.
DRAWN S.E. Limbey
CHECKED J.B.A.

EXAMINED J.B.A.
PASSED J.B.A.
APPROVED J.B.A.

NEW BEAM &
STRUCTURAL STEEL DETAILS
FA. RT. 94 SEC. I-VBR
BUREAU COUNTY
STA. 52+11.77

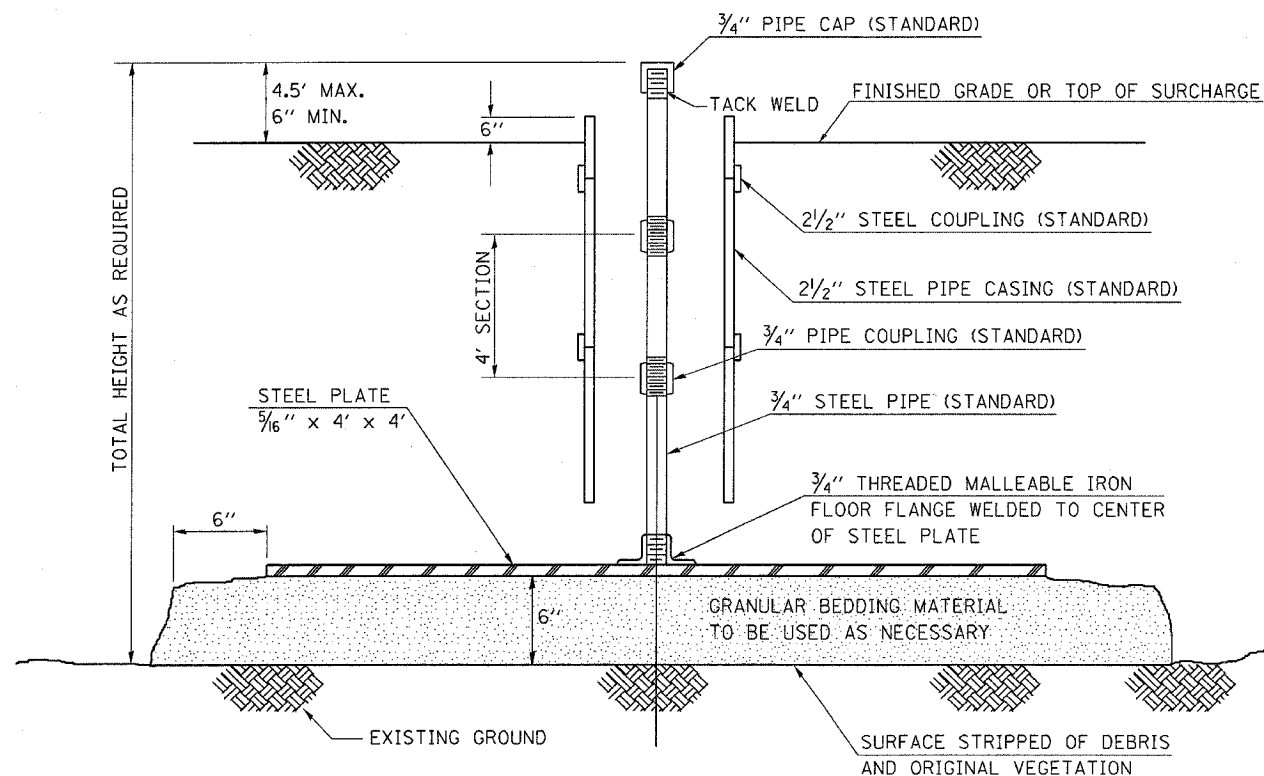


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	63
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



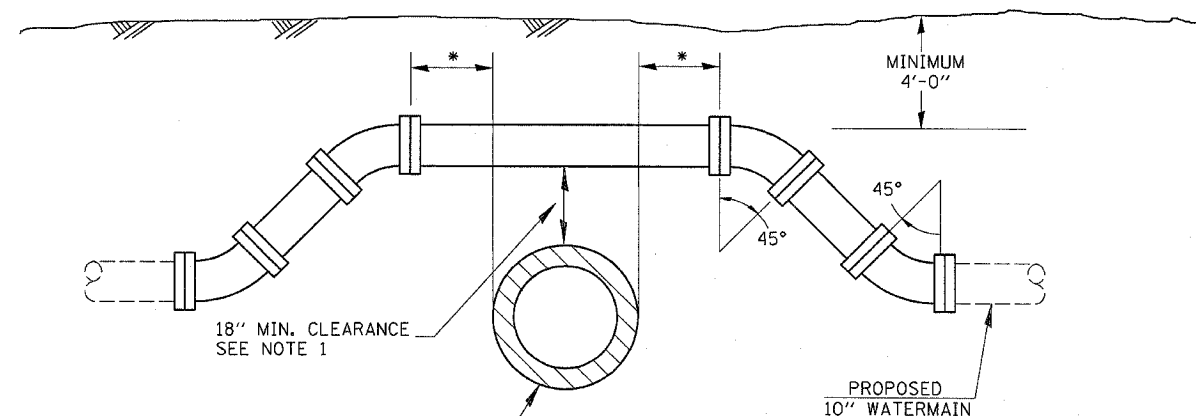
NOTE: WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

BITUMINOUS DETAIL AT BUTT JOINTS



SETTLEMENT PLATFORM DETAIL

2 EACH - LOCATIONS SHOWN ON PLAN AND PROFILE SHEETS



DETAIL A - ADJUSTING WATER MAIN

* MINIMUM 10'

NOTE:

1. CONTRACTOR SHALL REMOVE EXISTING COVER TO TOP OF EXISTING SEWER PIPE TO VERIFY ELEVATION OF PIPE. BACKFILL OVER THE EXISTING PIPE AND AROUND THE PROPOSED WATER MAIN SHALL BE IN ACCORDANCE WITH STANDARD DRAWING NO. 22 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

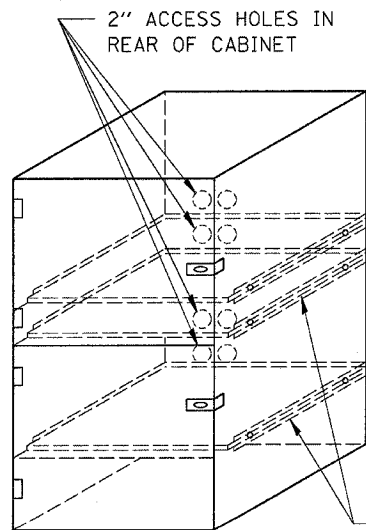
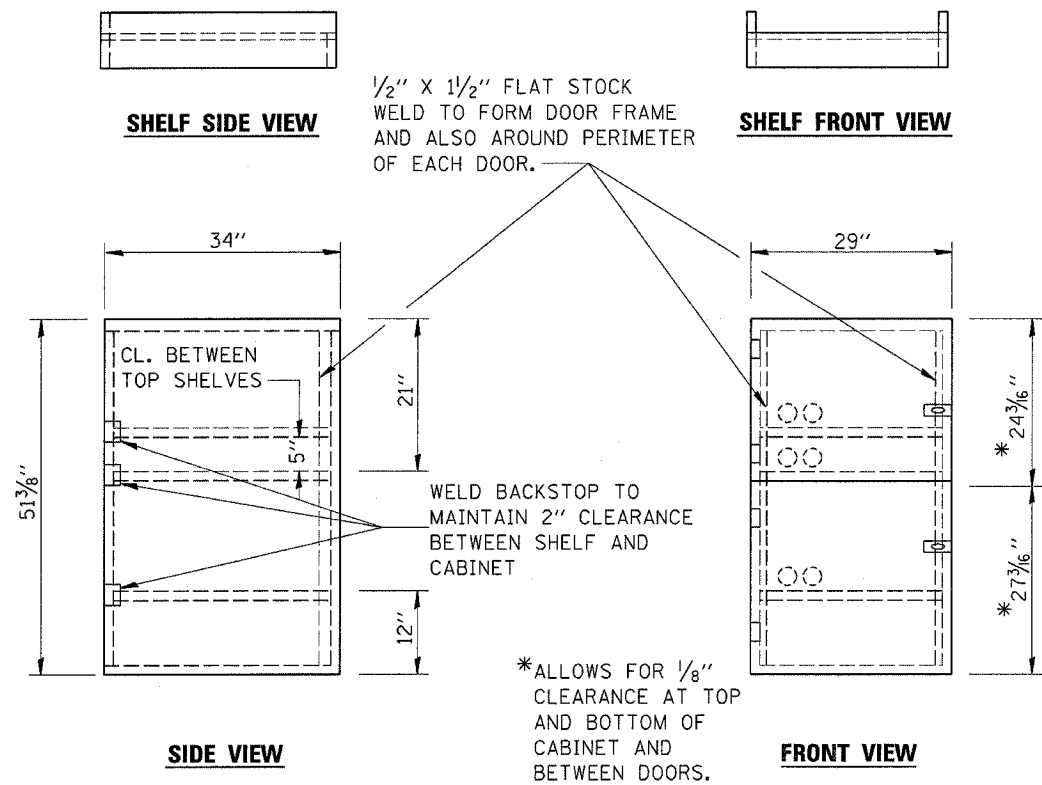
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS

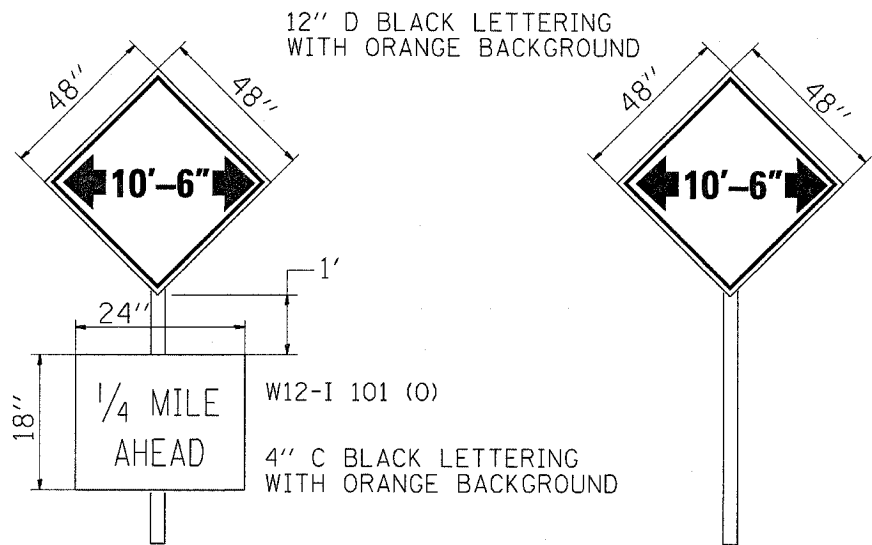
SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY



- NOTES:
1. USE 16 GAUGE STEEL FOR CABINET.
 2. THE TOP SHELF SHALL SLIDE IN OR OUT WITH THE TOP DOOR OPEN.
 3. ALL HINGES AND HASPS WILL BE WELDED TO THE CABINET.
 4. ALL EDGES SHALL BE GROUND SMOOTH.
 5. TWO (2" DIA.) ACCESS HOLES WILL BE REQUIRED FOR EACH SHELF.
 6. CABINET SHALL BE PAINTED WITH TWO COATS OF FLAT PAINT.
 7. 2 EACH MATCHING KEY PADLOCKS, WITH 3 KEYS PROVIDED, MASTER MODEL 3 T OR EQUIVALENT.
 8. 4 EACH PLAIN STEEL, NON-REMOVABLE PIN, NO HOLE 4"x4" SQUARE CORNER HINGES TO BE WELDED ON.
 9. 2 EACH EXTRA HEAVY, PLAIN STEEL, FIXED STAPLE, NO HOLE, 7 1/4 " HASPS TO BE WELDED ON.

LOCKABLE COMPUTER CABINET



TO BE POST MOUNTED AS SHOWN ELSEWHERE IN THE PLANS.

THE ENGINEER WILL NOTIFY DISTRICT 3 BUREAU OF OPERATIONS 14 CALENDAR DAYS PRIOR TO INSTALLING ANY TRAFFIC CONTROL DEVICES THAT WILL RESTRICT THE PAVEMENT WIDTH.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO MEET THIS REQUIREMENT.

PRICE OF FURNISHING AND INSTALLING WIDTH RESTRICTION SIGNING WILL BE INCLUDED IN THE PRICE OF STANDARD TRAFFIC CONTROL & PROTECTION 701321

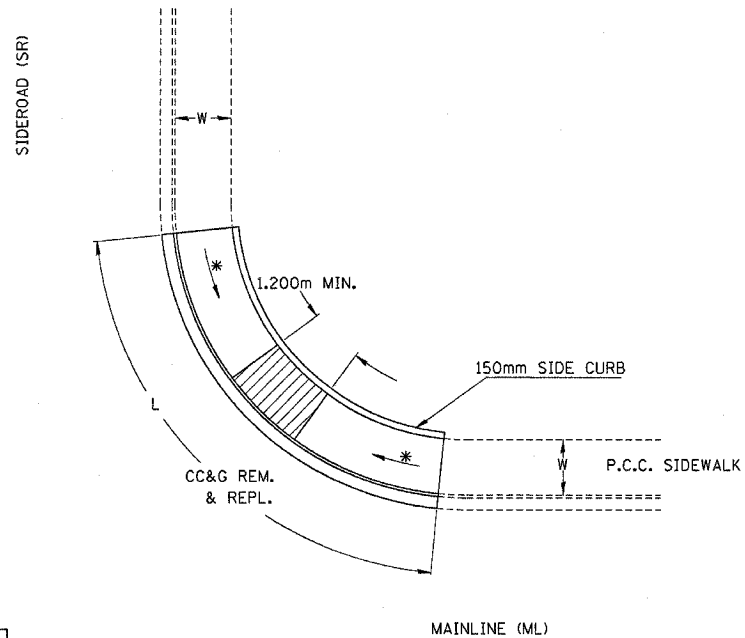
WIDTH RESTRICTION SIGNING DETAILS

- 1 ADVANCE SIGN AT THE IL 71 & IL 89 INTERSECTION (4 MILES AHEAD)
- 1 ADVANCED SIGN AT THE IL RT 6 & IL 89 INTERSECTION (1/2 MILE AHEAD)
- 1/4 MILE AHEAD OF CONSTRUCTION LIMITS EACH END = 2 EACH

TOTAL = 4 EACH

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
		DETAILS	
SCALE: VERT. DATE		DRAWN BY CHECKED BY	

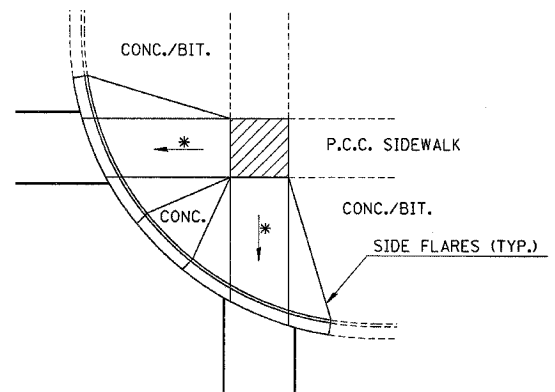
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	65
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



LEGEND	
	SLOPE = 2%
	SLOPE = 1:12 MAX.

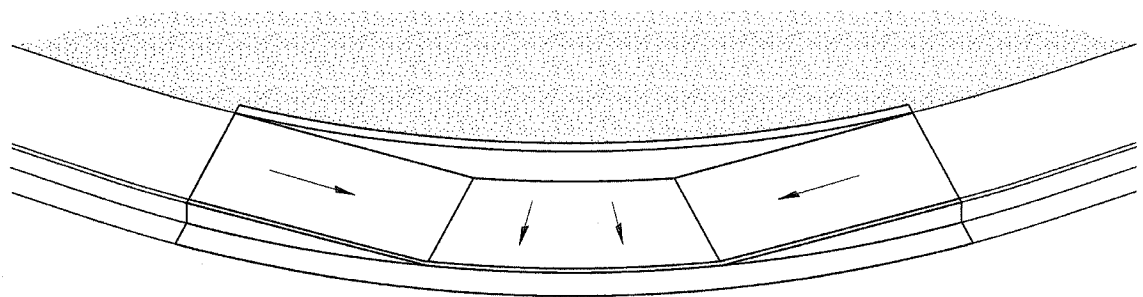
METHOD 3

ADA SIDEWALK
ACCESSIBILITY RAMPS



LEGEND	
	SLOPE = 2%
	SLOPE = 1:12 MAX.

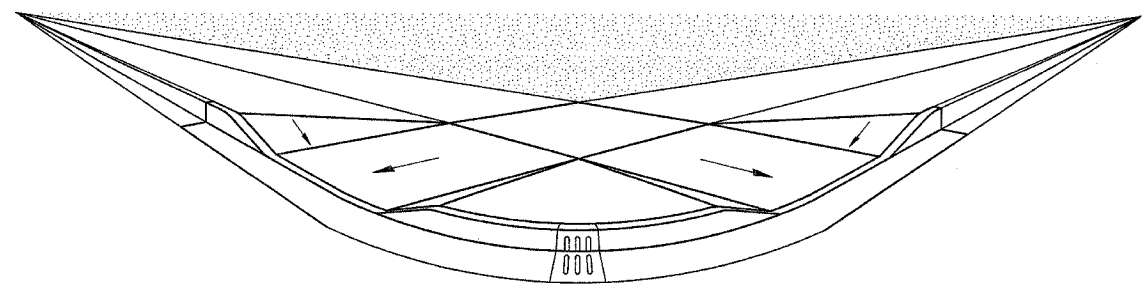
METHOD 1 WITH SIDE FLARES



LEGEND	
	GRASS

METHOD 3 PERSPECTIVE

ADA SIDEWALK
ACCESSIBILITY RAMPS



LEGEND	
	GRASS

METHOD 1 PERSPECTIVE
WITH SIDE FLARES

ADA SIDEWALK
ACCESSIBILITY RAMPS

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS

REVISIONS	
NAME	DATE

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	66
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

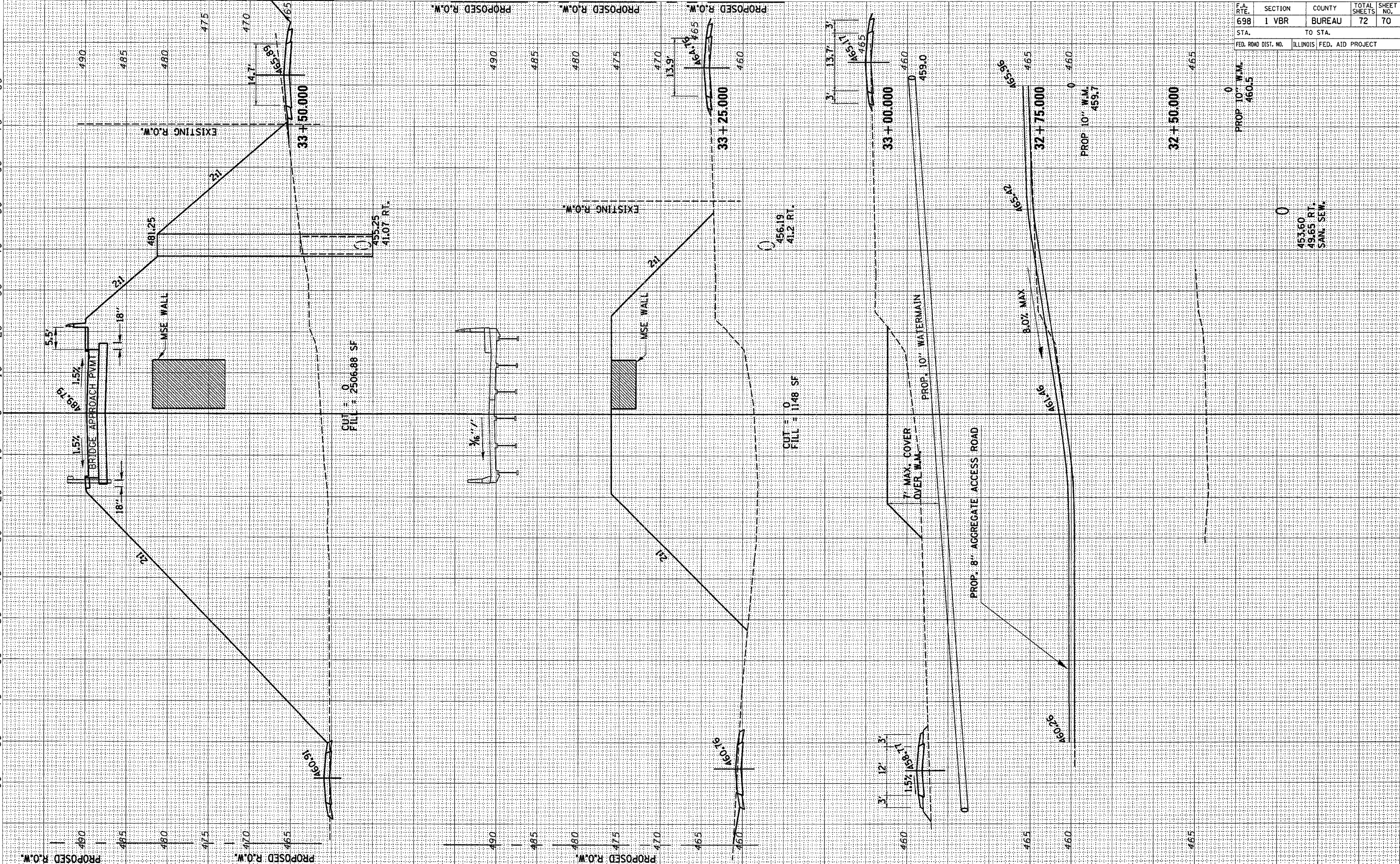
FINAL SURVEY	BY	DATE
NOTE BOOK		
AREA		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
AREA		
AREAS CHECKED		



STA. 27+50 TO STA. 28+75

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	70
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



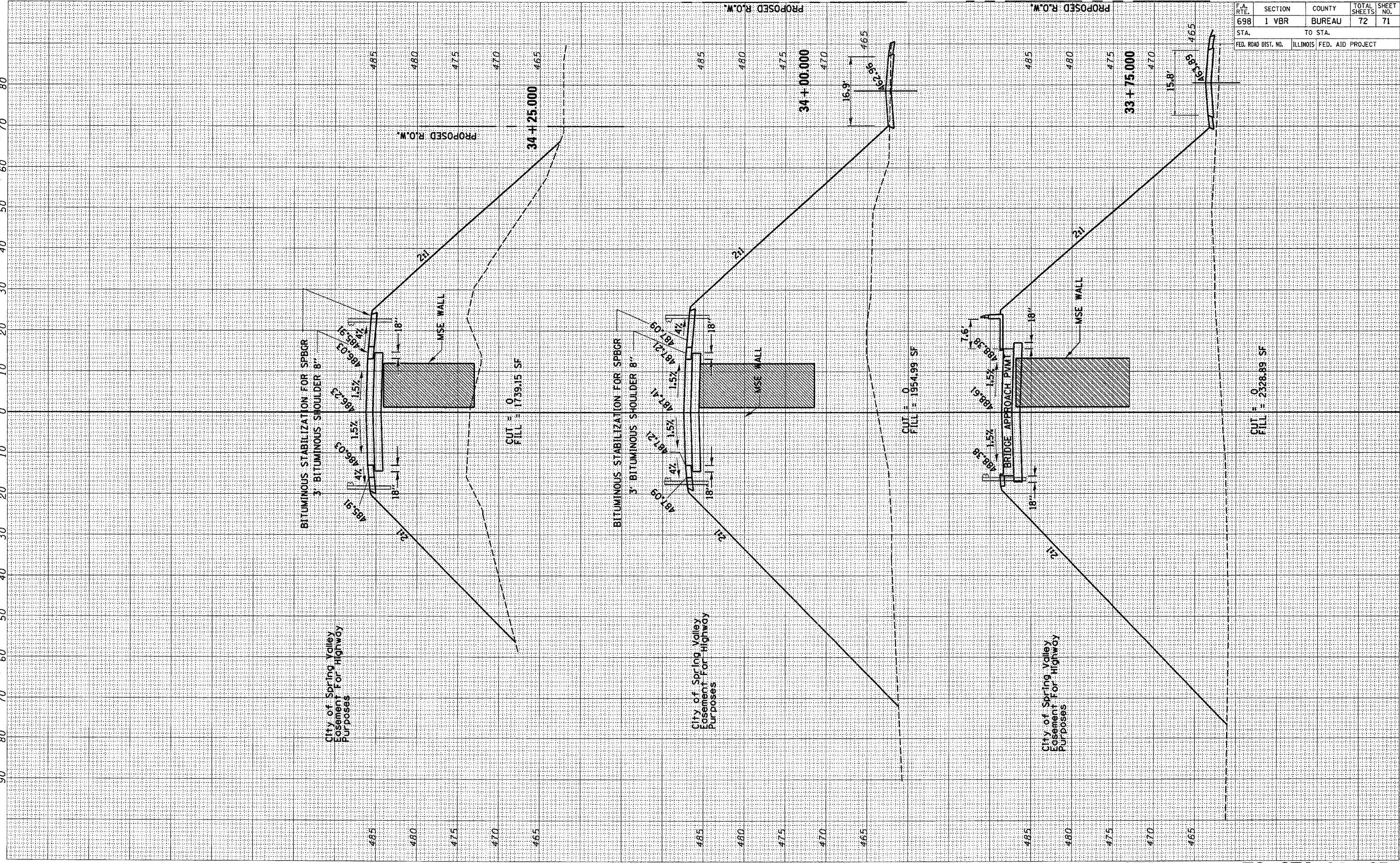
FINAL SURVEY	SURVEYED	BY	DATE
NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.

ORIGINAL SURVEY	SURVEYED	BY	DATE
NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1 VBR	BUREAU	72	71
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	BY	DATE
NOTE BOOK		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
AREAS CHECKED		



STA. 33 + 75 TO STA. 34 + 25

