

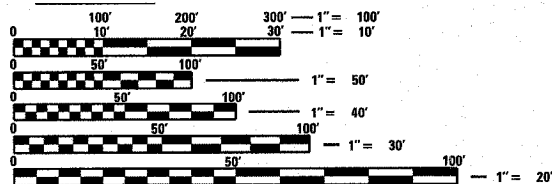
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- 001001 AREA OF REINFORCEMENT REBARS
- 001006 DECIMAL OF AN INCH AND A FOOT
- 280001-02 TEMPORARY EROSION CONTROL SYSTEMS
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- 503001-02 CONCRETE PARAPET SLIP-FORMING OPTION
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- 609006-02 BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
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- 701001-01 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701006-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701011-01 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
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- 701301-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701306-01 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701311-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701321-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701326-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 702001-05 TRAFFIC CONTROL DEVICES
- 704001-02 TEMPORARY CONCRETE BARRIER
- 780001-01 TYPICAL PAVEMENT MARKINGS
- 781001-02 RAISED REFLECTIVE PAVEMENT MARKERS

SCALES



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

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

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

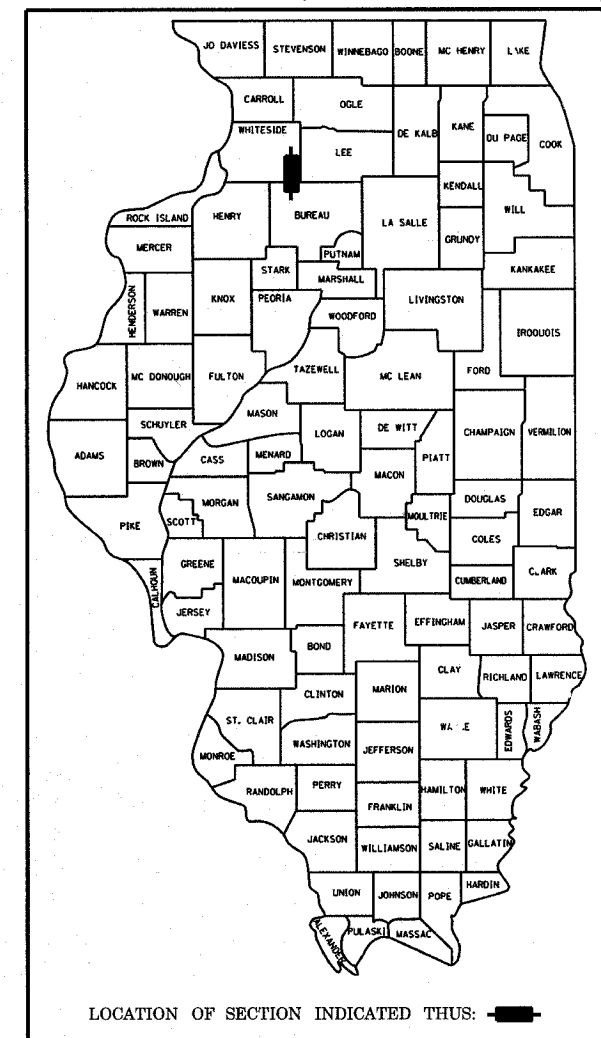
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

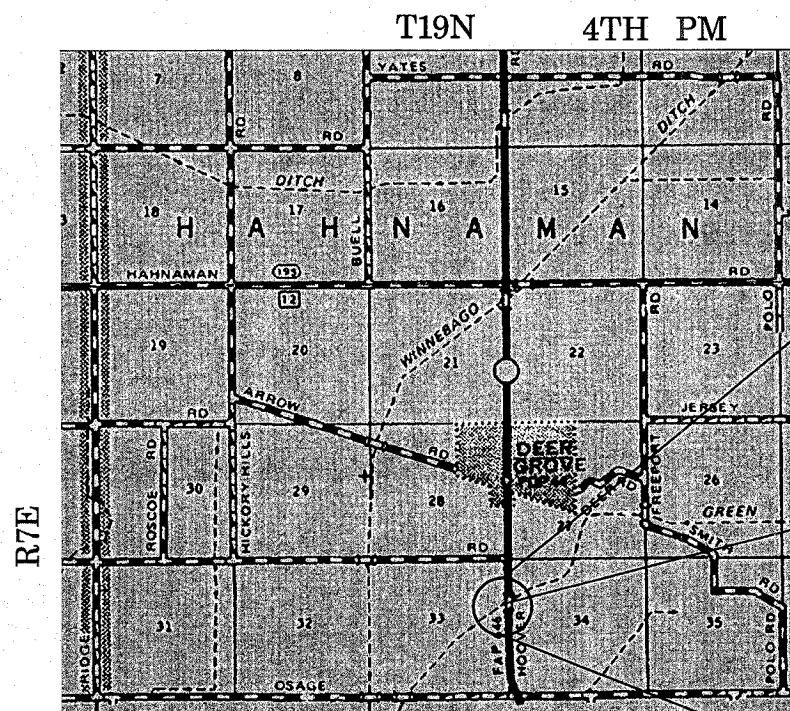
F.A.P. RTE 646 (IL 40)
SECTION 102 BR-2
PROJECT NO: ACBHF-0646(061)
WHITESIDE COUNTY
C-92-111-03

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	102 BR-2	WHITESIDE	69	1
FED. ROAD DIST. NO. 2		ILLINOIS	FED. AID PROJECT	

D-92-060-99



THIS PROJECT CONSISTS OF THE COMPLETE REMOVAL OF THE EXISTING THREE SPAN PRECAST, PRESTRESSED CONCRETE DECK BEAM STRUCTURE AT STATION 674+77.60 (S.N. 098-0018) CARRYING FAP RTE 646 (IL 40) OVER GREEN RIVER AND REPLACEMENT WITH A THREE SPAN, REINFORCED CONCRETE DECK AND WIDE FLANGE BEAM STRUCTURE (S.N. 098-0018)

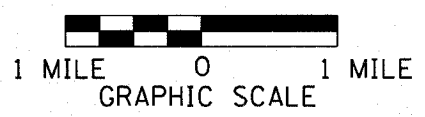


IMPROVEMENT BEGINS
STATION 669+00.00

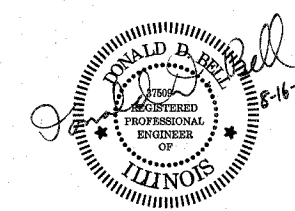
BRIDGE STRUCTURE
STATION 674+77.60
EXIST S.N. 098-0018
PROP S.N. 098-0018

IMPROVEMENT ENDS
STATION 680+50.00

LAYOUT MAP



GROSS LENGTH OF SECTION = 1150.00 FEET = 0.218 Mile
NET LENGTH OF SECTION = 1150.00 FEET = 0.218 Mile



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug 30 20 05
Sammy Mounts
REGION 2 DISTRICT ENGINEER

October 14, 20 05
Mike Sine/RS
ENGINEER OF DESIGN AND ENVIRONMENT

October 14, 20 05
Eric E. Harack
DEPUTY DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

DESIGNED: AMPH/GJM
CHECKED: GJM
DRAWN: AMPH
CHECKED: GJM

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FILE NAME: 1.S.111
DATE: AUG 2005

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 DON BELL
 CONSULTANT: RANDOLPH & ASSOC. 309-693-8844
 SQUAD LEADER: BECKY MARRUFFO 815-284-5902
 PROJECT ENGINEER: BOB WAGNER

←X071-2A→

←X071-2A→

SUMMARY OF QUANTITIES			80% FED 20% ST	CONSTRUCTION TYPE CODE		
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	SAFETY SFTY-3N
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	20	20		
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	141	141		
20200100	EARTH EXCAVATION	CU YD	2834	2834		
20300100	CHANNEL EXCAVATION	CU YD	1148	1148		
20400800	FURNISHED EXCAVATION	CU YD	6958	6958		
20700220	POROUS GRANULAR EMBANKMENT	CU YD	131	131		
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	124		124	
25000310	SEEDING, CLASS 4	ACRE	0.30	0.30		
25001830	SEEDING, CLASS 6 (MODIFIED)	ACRE	2.10	2.10		
25100115	MULCH, METHOD 2	ACRE	4.50	4.50		
25100630	EROSION CONTROL BLANKET	SQ YD	2201	2201		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	241	241		
28000300	TEMPORARY DITCH CHECKS	EACH	11	11		
28000400	PERIMETER EROSION BARRIER	FOOT	1240	1240		
28000500	INLET & PIPE PROTECTION	EACH	3	3		
28100107	STONE RIPRAP, CLASS A4	SQ YD	784		784	
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	27	27		
28200200	FILTER FABRIC	SQ YD	824	40	784	
35101400	AGGREGATE BASE COURSE, TYPE B	TON	797	797		
40600990	TEMPORARY RAMP	SQ YD	236	236		
40800040	INCIDENTAL BITUMINOUS SURFACING	TON	17	17		
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	253	253		
42001300	PROTECTIVE COAT	SQ YD	253	253		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	51	51		
44000030	BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	1037	1037		
44000100	PAVEMENT REMOVAL	SQ YD	313	313		

* SPECIALTY ITEMS

SUMMARY OF QUANTITIES			80% FED 20% ST	CONSTRUCTION TYPE CODE		
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	SAFETY SFTY-3N
44004250	PAVED SHOULDER REMOVAL	SQ YD	425	425		
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	1844	1844		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	146	146		
48202000	BITUMINOUS SHOULDERS SUPERPAVE	TON	433	433		
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1	
50104900	REMOVAL OF EXISTING SUB-STRUCTURES	EACH	2		2	
50200100	STRUCTURE EXCAVATION	CU YD	280		280	
50300100	FLOOR DRAINS	EACH	18		18	
50300150	NEOPRENE EXPANSION JOINT 2"	FOOT	92		92	
50300225	CONCRETE STRUCTURES	CU YD	100.6		100.6	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	228.6		228.6	
50300260	BRIDGE DECK GROOVING	SQ YD	722		722	
50300300	PROTECTIVE COAT	SQ YD	890		890	
50300310	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18		18	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1	
50500505	STUD SHEAR CONNECTORS	EACH	3762		3762	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	62670		62670	
51201000	FURNISHING METAL PILE SHELLS 12"	FOOT	1736		1736	
51202600	DRIVING AND FILLING SHELLS	FOOT	1736		1736	
51203200	TEST PILE METAL SHELLS	EACH	2		2	
51205200	TEMPORARY SHEET PILING	SQ FT	1887		1887	
51500100	NAME PLATES	EACH	1		1	
54201063	PIPE CULVERTS, CLASS D, TYPE 2 18"	FOOT	74	74		
54215547	METAL END SECTIONS 12"	EACH	4	4		
54215553	METAL END SECTIONS 18"	EACH	2	2		
54390090	INSERTION CULVERT LINER 12"	FOOT	70	70		
54390160	INSERTION CULVERT LINER 21"	FOOT	90	90		

SUMMARY OF QUANTITIES
IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY

←X071-2A→

SUMMARY OF QUANTITIES			80% FED 20% ST	CONSTRUCTION TYPE CODE		
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	SAFETY SFTY-3N
58700200	BRIDGE SEAT SEALER	SQ FT	262		262	
60105000	PIPE DRAINS, CORRUGATED STEEL OR ALUMINUM ALLOY 12"	FOOT	74	74		
60801015	FLAP GATE 15"	EACH	1	1		
60801024	FLAP GATE 24"	EACH	1	1		
60900240	TYPE C INLET BOX, STANDARD 609006	EACH	4	4		
60900515	CONCRETE THRUST BLOCKS	EACH	4	4		
61100500	EXPLORATION TRENCH 52" DEPTH	FOOT	115	115		
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	2	2		
61140000	STORM SEWERS, SPECIAL 8"	FOOT	115	115		
61140100	STORM SEWERS, SPECIAL 10"	FOOT	115	115		
61140200	STORM SEWERS, SPECIAL 12"	FOOT	115	115		
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	550	550		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
* 63100169	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	277	277		
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	12	12		
66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	1	1		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	9		
67100100	MOBILIZATION	L SUM	1	1		
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	8	8		
* 70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70106700	TEMPORARY RUMBLE STRIP	EACH	6	6		

* SPECIALTY ITEMS

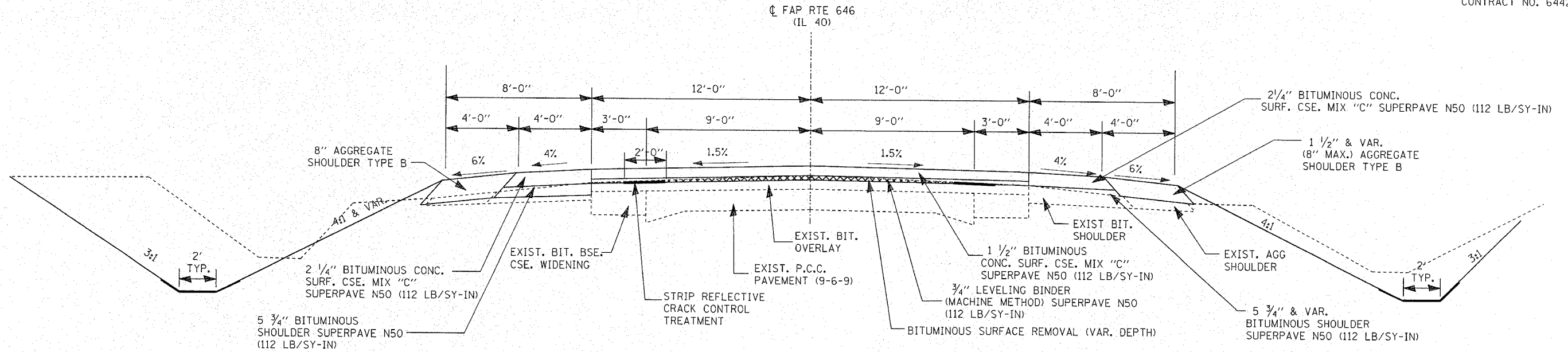
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SUMMARY OF QUANTITIES			80% FED 20% ST	CONSTRUCTION TYPE CODE		
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	SAFETY SFTY-3N
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	267	267		
70300200	TEMPORARY PAVEMENT MARKING	FOOT	4888	4888		
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	2146	2146		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1281	1281		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1180	1180		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1130	1130		
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	3738	3738		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	12	12		
78200410	GUARDRAIL MARKERS, TYPE A	EACH	10	10		
78200520	BARRIER WALL MARKERS, TYPE B	EACH	4	4		
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1096	1096		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6	6		
A2001314	TREE, ACER SACCHARINUM (SILVER MAPLE), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	7	7		
X0712400	TEMPORARY PAVEMENT	SQ YD	851	851		
X0919000	TEMPORARY PAVEMENT REMOVAL	SQ YD	851	851		
X4024000	TEMPORARY ACCESS (FIELD ENTRANCE)	EACH	1	1		
X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON	362	362		
X4066614	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50	TON	878	878		
X4066765	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N50	TON	103	103		
Z0002600	BAR SPLICERS	EACH	692		692	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2			2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2			2

SUMMARY OF QUANTITIES
 IL 40 OVER GREEN RIVER
 F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
 WHITESIDE COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED AMPH/GJM	CHECKED GJM	DATE AUG 2005	FILE NUMBER 136.111	F.A.P. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 4
RANDOLPH & ASSOCIATES, INC. CONSULTING ENGINEERS & LAND SURVEYORS			FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT					
CONTRACT NO. 64427								

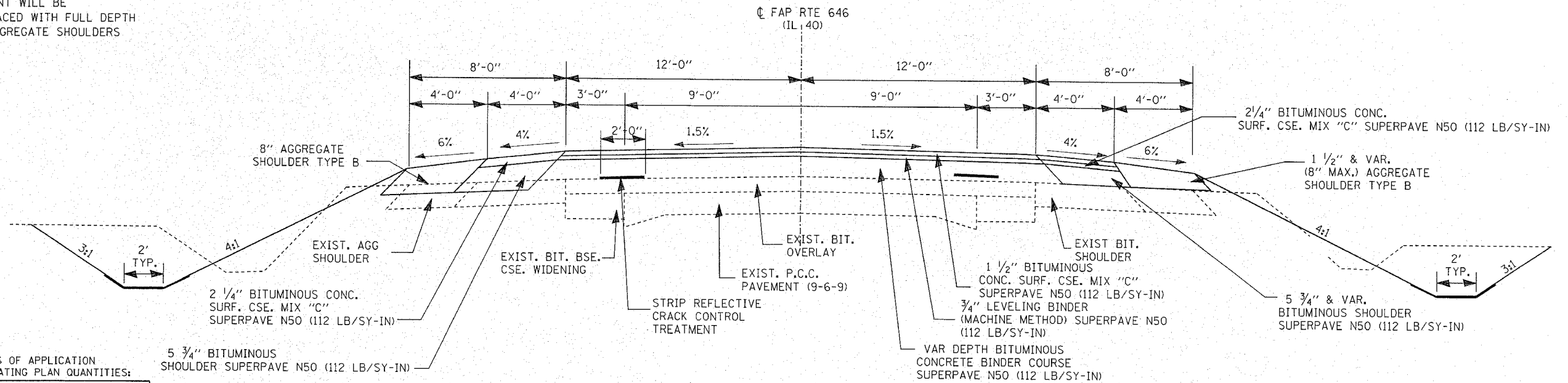


PROPOSED TYPICAL SECTION

STA. 668+70.00 LT TO STA. 669+75.00 LT
STA. 669+00.00 RT TO STA. 669+75.00 RT

NOTE: DURING STAGE I CONSTRUCTION, THE PROP. 3/4" LEVELING BINDER WILL ALSO BE PLACED ON THE RIGHT SHOULDER FROM STA. 669+70.00 RT TO STA. 678+70.00 RT

NOTE: PRIOR TO STAGE I, TEMPORARY PAVEMENT SHALL BE PLACED FROM STA. 668+70.00 LT TO STA. 679+66.00 LT. DURING STAGE II CONSTRUCTION THE TEMPORARY PAVEMENT WILL BE REMOVED AND REPLACED WITH FULL DEPTH BITUMINOUS AND AGGREGATE SHOULDERS



PROPOSED TYPICAL SECTION

STA. 669+75.00 LT TO STA. 671+10.50 LT
STA. 669+75.00 RT TO STA. 671+00.00 RT

PROPOSED TYPICAL SECTIONS
IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY

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

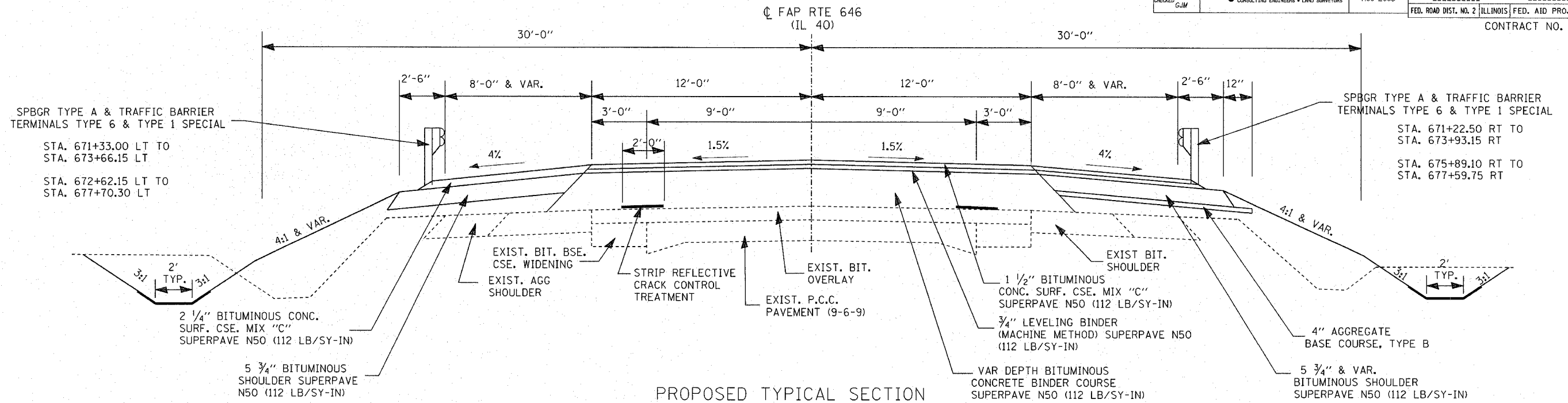
RATE OF APPLICATION	
BITUMINOUS	
Bituminous Surface Course	112 LB/SQ YD IN
Bituminous Conc. Binder	112 LB/SQ YD IN
Conversion	.056 T/SQ YD IN
BITUMINOUS MATERIALS (PRIME COAT)	
On Existing Pavement	.05 GAL/SQ YD
Fog Coat on New Binder	.03 GAL/SQ YD
Conversion	.004 TONS = 1 GAL
AGGREGATE (PRIME COAT)	
On Existing Pavement	4 LB/SQ YD
Fog Coat on New Binder	2 LB/SQ YD

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED AMPH/GJM	FILE NUMBER 136.111	F.A. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 5
CHECKED GJM	DATE AUG 2005	TO STA. _____		FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT		

CONTRACT NO. 64427



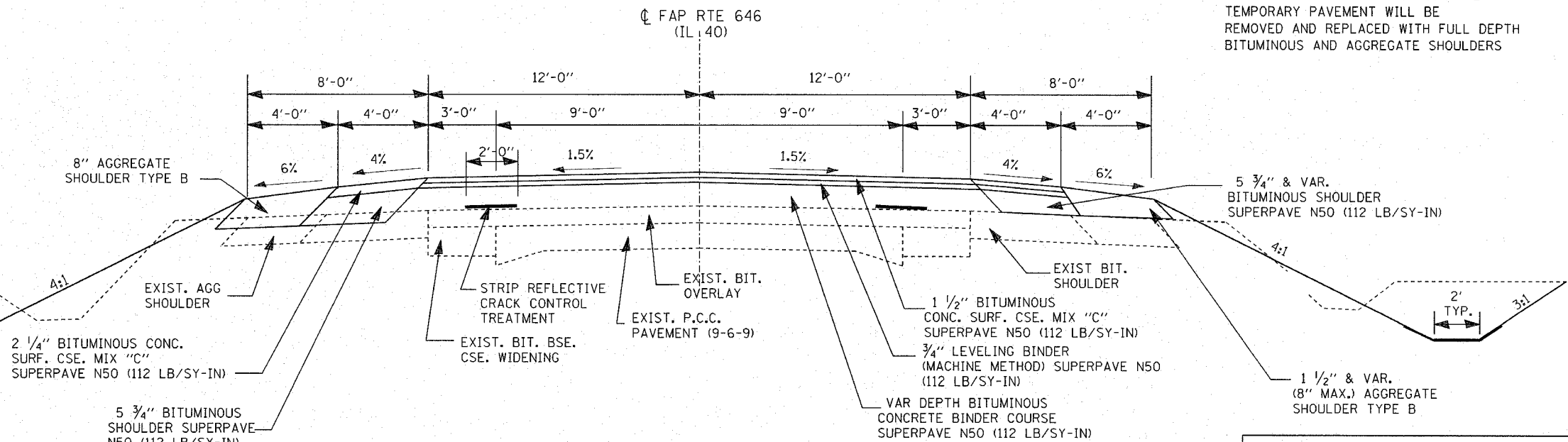
PROPOSED TYPICAL SECTION

STA. 671+10.50 LT TO STA. 673+35.05 LT / STA. 675+93.05 LT TO STA. 677+92.80 LT
BRIDGE OMISSION ϕ STA. 673+84.63 TO ϕ STA. 675+70.63
STA. 671+00.00 RT TO STA. 673+62.15 RT / STA. 676+20.20 RT TO STA. 677+82.25 RT

- NOTES:
- REMOVE EXISTING PAVEMENT FROM ϕ STA. 673+48.63 TO ϕ STA. 674+07.35 AND FROM ϕ STA. 675+48.00 TO ϕ STA. 676+06.63
 - RAISE PROFILE ELEVATION OF EXISTING PAVEMENT FROM STA. 669+75.00 TO STA. 678+70.00 WITH VAR DEPTH BITUMINOUS CONCRETE BINDER COURSE
 - ALL PROPOSED DITCH BOTTOMS SHALL BE LINED WITH A 4' STRIP OF EROSION CONTROL BLANKET.
 - PROPOSED PAVEMENT CONNECTOR (FLEXIBLE) ϕ STA. 673+48.63 TO ϕ STA. 673+54.63 AND ϕ STA. 676+00.63 TO ϕ STA. 676+06.63.
 - PROPOSED APPROACH PAVEMENT ϕ STA. 673+54.63 TO ϕ STA. 673+84.63 AND ϕ STA. 675+70.63 TO ϕ STA. 676+00.63.

NOTE: DURING STAGE I, THE PROP. $\frac{3}{4}$ " LEVELING BINDER WILL ALSO BE PLACED ON THE RIGHT SHOULDER FROM STA. 669+70.00 RT TO STA. 678+70.00 RT

NOTE: PRIOR TO STAGE I, TEMPORARY PAVEMENT SHALL BE PLACED FROM STA. 668+70.00 LT TO STA. 679+66.00 LT. DURING STAGE II CONSTRUCTION THE TEMPORARY PAVEMENT WILL BE REMOVED AND REPLACED WITH FULL DEPTH BITUMINOUS AND AGGREGATE SHOULDERS



PROPOSED TYPICAL SECTION


STA. 677+92.80 LT TO STA. 678+70.00 RT
STA. 677+82.25 RT TO STA. 678+70.00 RT

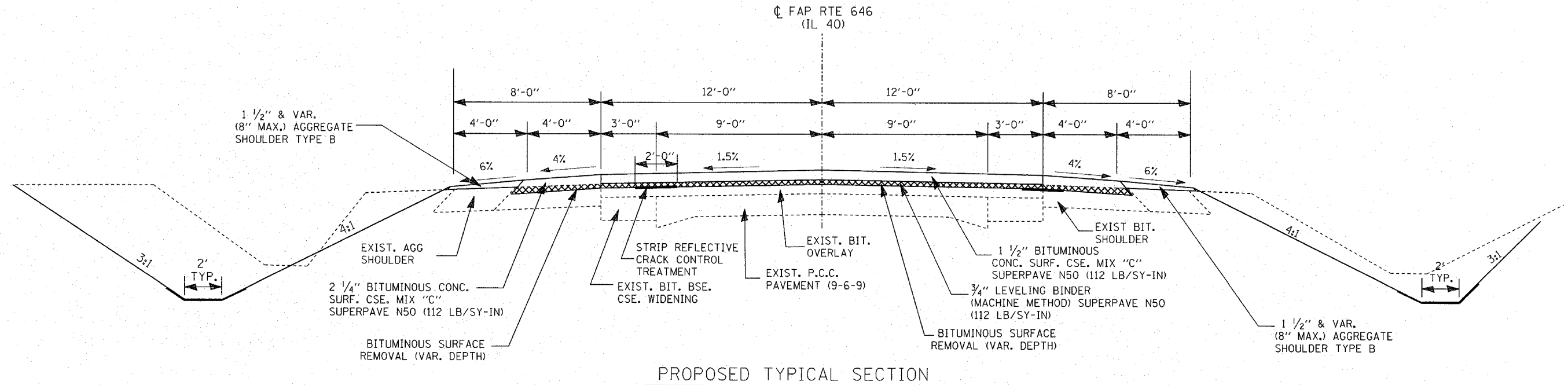
PROPOSED TYPICAL SECTIONS
IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY

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

RATE OF APPLICATION	
BITUMINOUS	
Bituminous Surface Course	112 LB/SQ YD IN
Bituminous Conc. Binder Conversion	112 LB/SQ YD IN .056 T/SQ YD IN
BITUMINOUS MATERIALS (PRIME COAT)	
On Existing Pavement	.05 GAL/SQ YD
Fog Coat on New Binder Conversion	.03 GAL/SQ YD .004 TONS = 1 GAL
AGGREGATE (PRIME COAT)	
On Existing Pavement	4 LB/SQ YD
Fog Coat on New Binder	2 LB/SQ YD

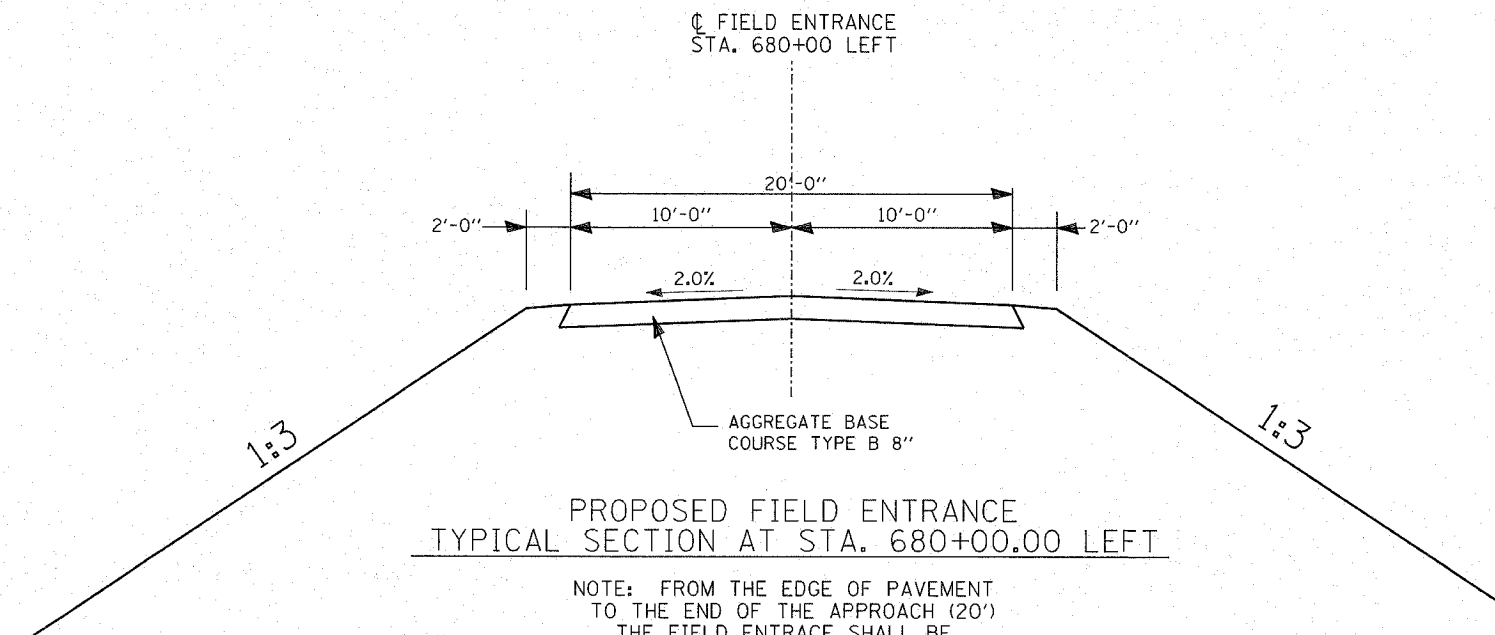
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED AMPH/GJM	 RANDOLPH & ASSOCIATES, INC. 111 N. PENDER PARKWAY, PEORIA, IL 61659-2124 TEL: 309-691-8444 • FAX: 309-691-8999 • 1-800-851-9221 4111 P. O. BOX 111 • PEORIA, IL 61615-0111	FILE NUMBER 136.111	F.A. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 6
CHECKED GJM		DATE AUG 2005	STA. _____ TO STA. _____		FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT		
DRAWN AMPH		CONTRACT NO. 64427					



PROPOSED TYPICAL SECTION
STA. 678+70.00 LT & RT TO STA. 680+50.00 LT & RT

NOTE: PRIOR TO STAGE I, TEMPORARY PAVEMENT SHALL BE PLACED FROM STA. 668+70.00 LT TO STA. 679+66.00 LT. DURING STAGE II CONSTRUCTION THE TEMPORARY PAVEMENT WILL BE REMOVED AND REPLACED WITH FULL DEPTH BITUMINOUS AND AGGREGATE SHOULDERS



PROPOSED FIELD ENTRANCE
TYPICAL SECTION AT STA. 680+00.00 LEFT


NOTE: FROM THE EDGE OF PAVEMENT TO THE END OF THE APPROACH (20') THE FIELD ENTRANCE SHALL BE INCIDENTAL BITUMINOUS SURFACING 2" AND AGGREGATE BASE COURSE TYPE B 8"

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

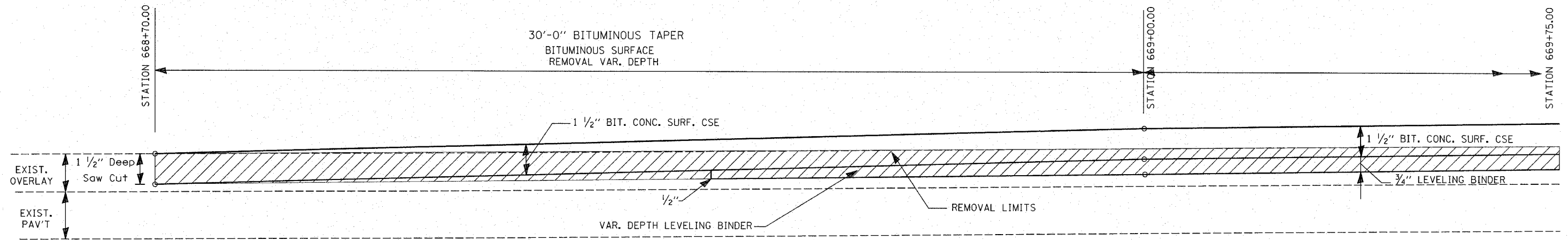
RATE OF APPLICATION	
BITUMINOUS	
Bituminous Surface Course	112 LB/SQ YD IN
Bituminous Conc. Binder Conversion	112 LB/SQ YD IN .056 T/SQ YD IN
BITUMINOUS MATERIALS (PRIME COAT)	
On Existing Pavement	.05 GAL/SQ YD
Fog Coat on New Binder Conversion	.03 GAL/SQ YD .004 TONS = 1 GAL
AGGREGATE (PRIME COAT)	
On Existing Pavement	4 LB/SQ YD
Fog Coat on New Binder	2 LB/SQ YD

PROPOSED TYPICAL SECTIONS
IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED AMPH/GJM	 RANDOLPH & ASSOCIATES, INC. 131 N. FARMER PARKWAY, PEORIA, IL 61615-2124 TEL. 309-693-8844 • FAX 309-693-8885 • 1-800-851-1021 WWW.RANDOLPH-ASSOCIATES.COM CONSULTING ENGINEERS • LAND SURVEYORS	FILE NUMBER 136.111	F.A. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 7
CHECKED GJM		DATE AUG 2005	STA.	TO STA.		FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT	
DRAWN AMPH							
CHECKED GJM							

CONTRACT NO. 64427

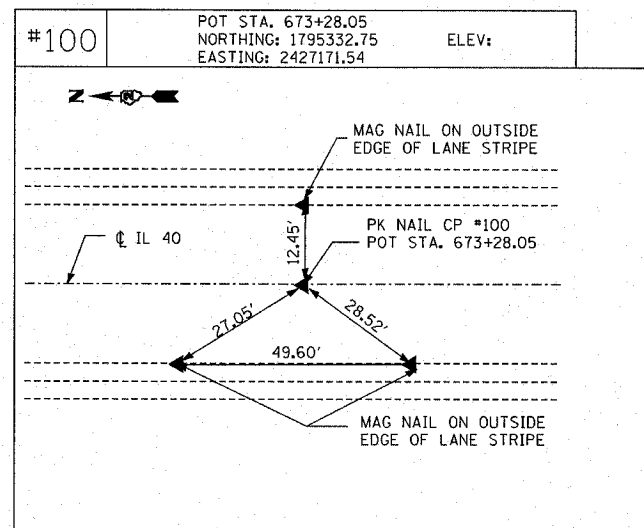
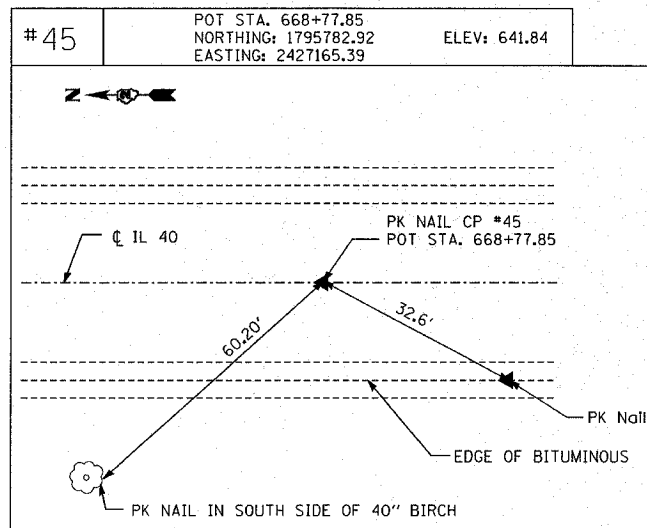
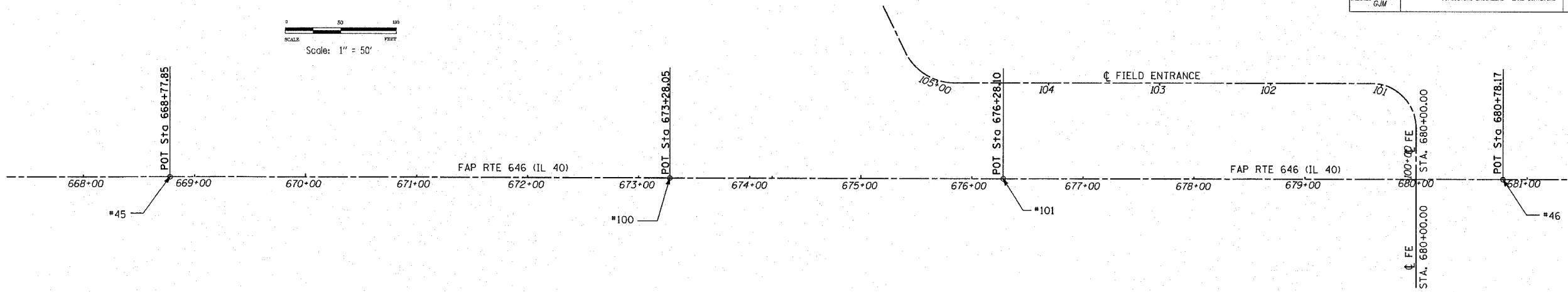
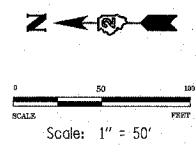


TAPER DETAIL
STA. 668+70.00 TO STA. 669+00.00

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

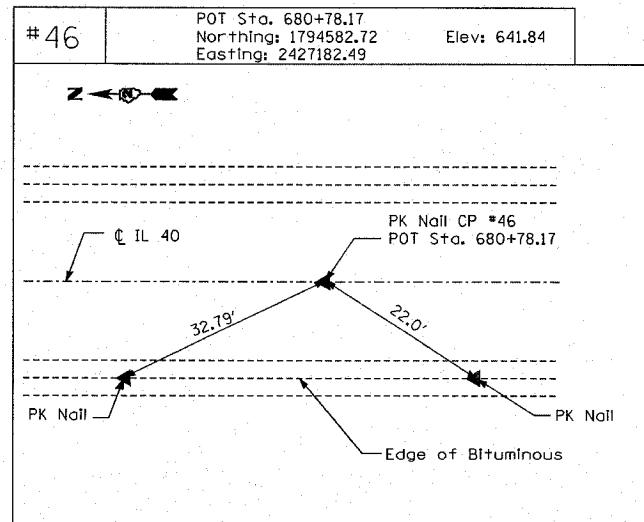
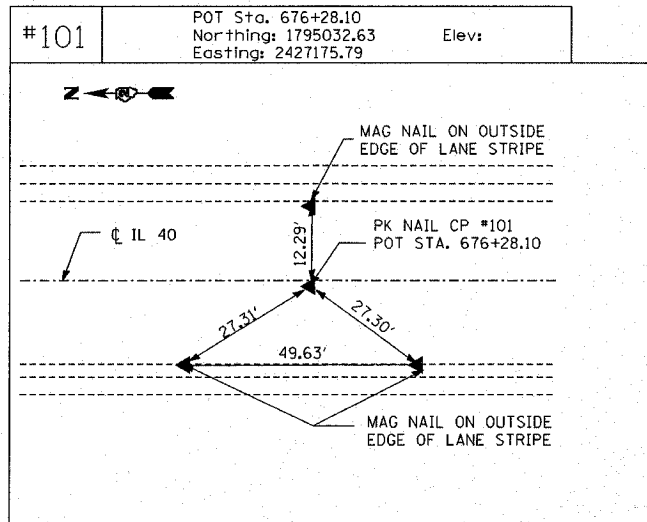
RATE OF APPLICATION	
BITUMINOUS Bituminous Surface Course	112 LB/SQ YD IN
Bituminous Conc. Binder	112 LB/SQ YD IN
Conversion	.056 T/SQ YD IN
BITUMINOUS MATERIALS (PRIME COAT)	
On Existing Pavement	.05 GAL/SQ YD
Fog Coat on New Binder	.03 GAL/SQ YD
Conversion	.004 TONS = 1 GAL
AGGREGATE (PRIME COAT)	
On Existing Pavement	4 LB/SQ YD
Fog Coat on New Binder	2 LB/SQ YD

PROPOSED
TYPICAL SECTIONS
IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY



HORIZONTAL CONTROL POINTS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
45	1795782.92	2427165.39		CL	668+77.85	0' (P.O.T.)	PK NAIL
46	1794582.72	2427182.49		CL	680+78.17	0' (P.O.T.)	PK NAIL
100	1795332.75	2427171.54		CL	673+28.05	0' (P.O.T.)	PK NAIL
101	1795032.63	2427175.79		CL	676+28.10	0' (P.O.T.)	PK NAIL

BENCHMARKS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
A	---	---	644.77	CL	674+78	---	CHISLED " □ " ON TOP OF WINGWALL S.W. CORNER OF BRIDGE #098-0018



HORIZONTAL & VERTICAL CONTROL

 IL 40 OVER GREEN RIVER
 F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
 WHITESIDE COUNTY

GENERAL NOTES

See cross sections for special ditches and backslopes.

The removal of Bituminous Surfacing not on a rigid type base removed in conjunction with the base shall be removed as EARTH EXCAVATION. The removal of Bituminous Surfacing on a rigid type base removed in conjunction with the base shall be included in the contract unit price for PAVEMENT REMOVAL of the type specified.

The final top 100 mm (four inches) of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

It is estimated that 6827 cubic yards of earth will be hauled to the job from outside the project limits. A shrinkage factor of 25% has been used.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 6 (modified) shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1 (modified). Class 6 (modified) shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches.

Fertilizer Nutrients shall be applied at the rate specified in Sections 250 and 252 of the Standard Specifications. This shall be included in the cost of the SEEDING or SODDING.

When mulch with emulsified asphalt is applied, it will be the contractor's responsibility to cover or protect all traffic signs, guardrail and curbs. Any signs, guardrail or curbs, which become covered with asphaltic material, shall be cleaned by the Contractor at his own expense.

Mulch on temporary seeding shall be MULCH METHOD 2

The following Mixture Requirements are applicable for this project:

BITUMINOUS CONCRETE MIXTURE REQUIREMENTS						
Mixture Use(s):	Binder	Level Binder	Surface	Shoulder (Base)	Shoulder (Surface)	Temporary Pavement
PG:	PG 64-22	PG 64-22	PG 64-22	PG 58-22	PG 64-22	PG 64-22
Max % RAP Allowabl	15%	15%	10%	50%	15%	25%
Design Air Voids	4.2% @ N50	4.2% @ N50	4.2% @ N50	2.0% @ N50	3.0% @ N50	4.2% @ N50
Mixture Composition	IL 19.0	IL 9.5	IL 9.5 or IL 12.5	BAM	IL 9.5 or IL 12.5	IL 19.0
Friction Aggregat	N/A	N/A	C	N/A	C	N/A
20 Year ESAL	N/A	N/A	1.90	N/A	N/A	2.3

The Contractor will be required to furnish 140 mm (5 1/2") high brass stencils as approved by the Engineer and install stationing at 250' intervals. Stationing shall be placed on both lanes of 2-lane highways and on the outside lanes in both directions on 4-lane highways. The stations shall be placed 150 mm (6") inside the pavement marking edge so they can be read from the shoulder. This work will be included in the cost of the final pavement surface.

Reflective Crack Control shall be placed on the existing surface prior to any resurfacing, unless pavement is milled then it will be placed on the binder course.

Guardrail posts may be driven through bituminous shoulders if the shoulder is not damaged as determined by the Engineer. If the shoulder is being damaged, the Contractor shall core holes in the shoulder according to Article 630.06 of the Standard Specifications.

Install a "TO ACTUATE SIGNAL" sign for the traffic signal detector loops. The detail of this sign is included in the plans. This work will be included in the cost of TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

Bituminous and Aggregate prime coat shall be placed in accordance with Section 406 of the Standard Specifications. The cost of the prime coats shall be included in the contract unit price per metric ton (ton) for LEVELING BINDER (MACHINE METHOD) of the type specified.

Temporary tapers shall be constructed on all bridges when the adjacent resurfacing cannot be placed before winter. Quantities have been included in the plans for a 1 to 360 V/H (30' to 1") taper on Interstate and 1 to 240 V/H (20' to 1") taper on all other highways. The taper shall be removed before resurfacing and will be paid for as BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH).

A Nationwide 404 Permit has been issued for this project and the conditions of that permit must be adhered to.

The structure will retain the same number 098-0018.

The contractor shall submit four copies of the required shop drawings for review and approval to the Bureau of Bridges and Structures, 2300 South Dirksen Parkway, Springfield, IL 62764. After approval of initial submittal, the contractor shall submit one set of shop drawings to Eric Harm, Engineer of Materials, 126 East Ash Street, Springfield, IL 62706, and eight (8) sets of shop drawings to be distributed to:

- District 2 District Engineer (1)
- Fabricator (1)
- Contractor (2)
- Resident Engineer (2)
- District 2 Bureau of Materials (2)

The review and approval of temporary sheet piling will require 4 to 6 weeks. The Contractor shall schedule his work accordingly.

The thickness for the Bridge Approach Pavement Connector (Flexible) adjacent to existing pavement shall be a minimum of 300 mm (12"). The material shall be 50 mm (2") Bituminous Concrete Surface Course Mixture D, and the remaining thickness shall be Bituminous Binder Course.

At bridge expansion joints, if temporary expansion joint bulkheads are attached to adjacent deck slabs or abutments for support, the Contractor shall cut the attachments as soon as the concrete has set to prevent joint damage due to horizontal contraction or expansion.

The curb is required on the bridge approach pavement as shown on Standard 420401.

The proposed pipes for entrances and side roads shall be placed in line with the existing or proposed ditch line.

Where field tile is encountered, storm sewer or pipe drain will be used in accordance with Section 611. The minimum size for replacement will be 150 mm (6") for Pipe Drains and 200 mm (8") for Storm Sewer, but the size must be at least 50 mm (2") larger than the adjoining tile. A Field Tile Junction Vault will be constructed at the right of way to connect the tile and storm sewer. The following quantities have been included in case field tile is encountered:

Exploration Trench 52" Depth	115 Ft.
Field Tile Junction Vault	2 Each
Storm Sewer Special, 8"	115 Ft.
Storm Sewer Special, 10"	115 Ft.
Storm Sewer Special, 12"	115 Ft.

Embankment quantities for the construction of the Traffic Barrier Terminals as shown in the plans are included in quantities for Furnished Excavation.

The Contractor shall supply the Resident Engineer with the manufacturer's installation requirements for the type of Steel Plate Beam Guardrail Terminal Type 1 Special (Tangent) or Steel Plate Beam Guardrail Terminal Type I Special (Flared).

One 8d galvanized nail shall be used to toe nail the wood block out to the wood post on all Traffic Barrier Terminal Type I Specials.

Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180 and only metal-backed delineators shall be permitted.

Salvage existing delineators within the project limits and place one at each end of approach guardrail terminal section. The work shall be included in the contract unit price for EARTH EXCAVATION.

Right-of-way markers will be erected with the back face of the marker on the right-of-way line unless the new right-of-way line has been surveyed and pinned, in which instance the right-of-way markers will be erected 300 mm (12 inches) inside the new right-of-way line.

PERMANENT SURVEY MARKERS, TYPE II shall be set at intervals of 1.6 Km (1 mile) or as directed by the Engineer. Bridge or culvert projects shall have one survey marker placed near the structure. Estimate 1 Each.

The Contractor shall submit to the Engineer a description of location, elevation, and coordinates for each permanent survey marker. The Engineer shall submit this information to the Survey Crew.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

- Citizens Frontier
- Commonwealth Edison Company
- Dome Pipeline Corporation
- Mediacom
- NICOR Gas Co.
- SBC/Ameritech Telephone Co


Following are the known utilities located within the project limits or immediately adjacent to the project construction limits, which are not members of JULIE and should be notified individually by the contractor:

- Green River Special Drainage District
- 200 Rodney Avenue
- Walnut, Illinois

CADD data will be available to Contractors and Consultants working on this project. This information will be provided upon request as MicroStation CADD files and Geopak coordinate geometry files ONLY. If data is required in other formats it will be your responsibility to make these conversions. If any discrepancy or inconsistency arises between the electronic data and the information on the hard copy, the information on the hard copy should be used. Contact the District's Project Engineer to request these files.

The Contractor shall be responsible to ensure that the flap gates remain in working order at all times. The following quantities have been included in case replacement of the flap gates is required:

Flap Gate 15"	1 Each
Flap Gate 24"	1 Each

DESIGNED AMPH/GJM	 RANDOLPH & ASSOCIATES, INC. 111 N. FRANKLIN PARKWAY, PERIODIC, IL 62420-2124 TEL: 307-975-0814 • FAX: 307-975-0820 • E: 307-975-1521 WWW: WWW.RANDOLPH-ASSOCIATES.COM CONSULTING ENGINEERS • LAND SURVEYORS	FILE NUMBER 136.111	F.A.P. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 9
CHECKED GJM		DATE AUG 2005	STA.	TO STA.			
DRAWN AMPH		FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT					
CHECKED GJM		CONTRACT NO. 64427					

COMMITMENTS

The Contractor shall not disturb the existing lift station located on Mr. Hostetler's property near Station 675+50 LT. If any damages are incurred, the Contractor shall be responsible for repairing the lift station at his own cost. The Contractor shall ensure that the flap gates are in working order and that they do not leak following insertion of the pipe liners. If any leakage occurs, the Contractor shall perform repairs at his own cost or to replace the flap gates. Quantities for flap gates have been included in the contract. This is a commitment made to the property owner.

GENERAL NOTES, JOB SPECIFIC NOTES, BIT. CONC. MIX REQUIREMENTS

IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY

AGGREGATE BASE COURSE, TYPE B						35101400
LOCATION STATION TO STATION	LT/RT	AREA	AREA	THICK	WEIGHT	
		SO FT	SO YDS	INCH		TON
FIELD ENTRANCES						
STA. 680+00.00	LT	11418	1268.61	8	578.49	
STA. 680+00.00	RT	2235.50	248.39	8	113.27	
UNDER BIT. SHOULDER FOR RUN ABOUT						
STA. 669+70.00 TO STA. 673+62.15	RT	2548.69	283.19	4	64.57	
STA. 676+20.20 TO STA. 678+70.00	RT	1599.61	177.73	4	40.52	
TOTAL					796.84	

BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)						44000030
LOCATION STATION TO STATION	DESCRPT.	LENGTH	WIDTH	AREA		
		FEET	FEET	SO FT	SO YD	
RESURFACING						
STA. 668+70.00 TO STA. 669+00.00	TAPER	30	24	80		
STA. 669+00.00 TO STA. 669+75.00	MAINLINE	75	24	200		
STA. 678+70.00 TO STA. 680+50.00	MAINLINE	180	24	480		
STA. 678+70.00 RT TO STA. 680+50.00 RT	SHOULDER	180	4	80		
STA. 679+66.00 LT TO STA. 680+50.00 LT	SHOULDER	84	4	37.33		
TEMPORARY TAPERS FOR WINTER SHUTDOWN						
STA. 673+24.63 TO STA. 673+54.63		30	24	80		
STA. 676+00.63 TO STA. 676+30.63		30	24	80		
TOTAL					1037.33	

TEMPORARY RAMP						40600990
LOCATION STATION	LT/RT	WIDTH	HEIGHT	LENGTH	QUANTITY	
		FEET	INCHES	(40:1 (H:V)) FEET		SO YD
STAGE I						
STA. 669+70.00	RT	17.5	0.75	2.5	4.86	
STA. 673+54.63	RT	17.5	1.50	5	9.72	
STA. 676+00.63	RT	17.5	1.50	5	9.72	
STA. 678+70.00	RT	17.5	0.75	2.5	4.86	
STAGE II						
STA. 669+70.00	LT	12	0.75	2.5	3.33	
STA. 673+54.63	LT	12	1.50	5	6.67	
STA. 676+00.63	LT	12	1.50	5	6.67	
STA. 678+70.00	LT	12	0.75	2.5	3.33	
STAGE III (FINAL)						
STA. 668+70.00	LT	12	1.50	5	6.67	
STA. 668+70.00	RT	12	1.50	5	6.67	
STA. 680+50.00	LT	12	1.50	5	6.67	
STA. 680+50.00	RT	12	1.50	5	6.67	
TEMPORARY TAPERS FOR WINTER SHUTDOWN (240:1 (H:V))						
STA. 673+54.63	LT	12	1.50	30	40.00	
STA. 673+54.63	RT	12	1.50	30	40.00	
STA. 676+00.63	LT	12	1.50	30	40.00	
STA. 676+00.63	RT	12	1.50	30	40.00	
TOTAL					235.83	

PAVED SHOULDER REMOVAL						44004250
LOCATION STATION TO STATION	LT/RT	LENGTH	WIDTH	AREA		
		FEET	FEET	SO FT	SO YDS	
STA. 668+70.00 TO STA. 673+98.36	LT	528.36	4	2113.44	234.83	
STA. 675+37.18 TO STA. 679+66.00	LT	428.82	4	1715.28	190.59	
TOTAL					425.41	

INCIDENTAL BITUMINOUS SURFACING				40800040
LOCATION	AREA	AREA	WEIGHT	
	SO FT	SO YD	TONS	
STA. 680.00 LT	689.64	76.63	8.58	
STA. 680.00 RT	697.00	77.44	8.67	
TOTAL			17.26	

STRIP REFLECTIVE CRACK CONTROL TREATMENT			44300200
LOCATION	LT/RT	LENGTH	
		FEET	
STA. 668+70.00 TO STA. 673+39.56	LT	469.56	
STA. 675+97.56 TO STA. 680+50.00	LT	452.44	
STA. 668+70.00 TO STA. 673+57.64	RT	487.64	
STA. 676+15.65 TO STA. 680+50.00	RT	434.35	
TOTAL		1843.99	

BRIDGE APPROACH PAVEMENT		42001165
LOCATION STATION TO STATION	AREA	
	SO YD	
STA. 673+54.60 TO STA. 673+84.60	126.70	
STA. 675+70.60 TO STA. 676+00.60	126.70	
TOTAL		253.40

AGGREGATE SHOULDERS TYPE B								48101200
LOCATION STATION TO STATION	LT/RT	LENGTH	WIDTH	LT	RT	WEIGHT		
				AVG. THICK	AVG. THICK	TON		
		FEET	FEET	INCH	INCH			
STA. 668+70.00 TO STA. 669+00.00	LT	30.00	4	8		6.15		
STA. 669+00.00 TO STA. 670+00.00	LT & RT	100.00	4	8	6.0	34.44		
STA. 670+00.00 TO STA. 671+00.00	LT & RT	100.00	4	8	7.0	39.77		
STA. 671+00.00 TO STA. 671+10.50	LT	10.50	4	8		2.05		
STA. 677+82.25 TO STA. 677+92.80	RT	10.55	4		6.5	3.07		
STA. 677+92.80 TO STA. 679+00.00	LT & RT	107.20	4	8	6	39.97		
STA. 679+00.00 TO STA. 679+71.00	LT & RT	71.00	4	8	4	18.45		
STA. 680+29.00 TO STA. 680+50.00	LT & RT	21.00	4	3.0	2	2.46		
TOTAL							146.36	

PROTECTIVE COAT		42001300
LOCATION STATION TO STATION	AREA	
	SO YD	
STA. 673+54.60 TO STA. 673+84.60	126.70	
STA. 675+70.60 TO STA. 676+00.60	126.70	
TOTAL		253.40

SHOULDER DRAIN SCHEDULE					
LOCATION STATION	LT/RT	54215547	60105000	60900240	60900515
		METAL END SECTIONS 12"	PIPE DRAIN, CORR. STEEL OR ALUM. ALLOY 12"	TYPE C, INLET BOX STANDARD 609006	CONCRETE THRUST BLOCKS
		EACH	FEET	EACH	EACH
STA. 673+46.00	LT	1	15.5	1	1
STA. 675+82.05	LT	1	15.3	1	1
STA. 673+73.20	RT	1	31.0	1	1
STA. 676+09.00	RT	1	12.0	1	1
TOTAL		4	73.8	4	4

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)		42001430
LOCATION STATION TO STATION	AREA	
	SO YD	
STA. 673+48.60 TO STA. 673+54.60	25.3	
STA. 676+00.60 TO STA. 676+06.60	25.3	
TOTAL		50.6

FIELD TILE SCHEDULE					
LOCATION	61100500	61133100	61140000	61140100	61140200
	EXPLORATION TRENCH 52" DEPTH	FIELD TILE JUNCTION VAULTS, 2' DIA.	STORM SEWER, SPECIAL 8"	STORM SEWER, SPECIAL 10"	STORM SEWER, SPECIAL 12"
	FOOT	EACH	FOOT	FOOT	FOOT
JOB SITE (AS PER GENERAL NOTE)	115	2	115	115	115
TOTAL		115	2	115	115

PAVEMENT REMOVAL				44000100
LOCATION	LENGTH	WIDTH	AREA	
	FEET	FEET	SO YDS	
STA. 673+48.63 TO STA. 674+07.35	58.71	24	156.56	
STA. 675+47.98 TO STA. 676+06.63	58.65	24	156.40	
TOTAL			312.96	

METAL END SECTIONS 18"			54215553
LOCATION STATION	LT/RT	EACH	
STA. 679+63.40	LT	1	
STA. 680+37.40	LT	1	
TOTAL			2

FLAP GATES			
LOCATION	60801015		60801024
	FLAP GATE 15"	FLAP GATE 24"	
	EACH	EACH	
JOB SITE (AS PER GENERAL NOTE)	1	1	
TOTAL			1

INSERTION CULVERT LINER 12"			54390090
LOCATION STATION TO STATION	LT/RT	LENGTH	
		FOOT	
STA. 673+70.10 TO STA. 674+40.10	RT	70	
TOTAL			70

PIPE CULVERTS, CLASS D, TYPE 2, 18"				542D1063
LOCATION STATION	OFFSET	LT/RT	LENGTH	
			FOOT	
STA. 680+00.00	43	LT	74	
TOTAL				74

INSERTION CULVERT LINER 21"			54390160
LOCATION STATION TO STATION	LT/RT	LENGTH	
		FOOT	
STA. 672+97.80 TO STA. 673+87.80	LT	90	
TOTAL			90

GUARDRAIL REMOVAL			63200310
LOCATION STATION TO STATION	LT/RT	LENGTH	
		FEET	
STA. 673+14.20 TO STA. 673+90.09	LT	75.95	
STA. 673+47.99 TO STA. 674+23.84	RT	75.89	
STA. 675+31.55 TO STA. 675+64.03	LT	49.09	
STA. 675+65.33 TO STA. 676+40.99	RT	75.70	
TOTAL			276.63

GUARDRAIL SCHEDULE				
LOCATION STATION TO STATION	LT/RT	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)	STEEL PLATE BEAM GUARDRAIL, TYPE A	TRAFFIC BARRIER TERMINAL, TYPE 6
			63100169 EACH	63000000 FOOT
STA. 671+33.00 TO STA. 671+83.00	LT	1		
STA. 671+83.00 TO STA. 673+33.00	LT		150.00	
STA. 673+33.00 TO STA. 673+66.15	LT			1
STA. 671+22.50 TO STA. 671+72.50	RT	1		
STA. 671+72.50 TO STA. 673+60.00	RT		187.50	
STA. 673+60.00 TO STA. 673+93.15	RT			1
STA. 675+62.15 TO STA. 675+95.30	LT			1
STA. 675+95.30 TO STA. 677+20.30	LT		125.00	
STA. 677+20.30 TO STA. 677+70.30	LT	1		
STA. 675+89.10 TO STA. 676+22.25	RT			1
STA. 676+22.25 TO STA. 677+09.75	RT		87.50	
STA. 677+09.75 TO STA. 677+59.75	RT	1		
TOTAL		4	550.00	4

FURNISHING AND ERECTING RIGHT OF WAY MARKERS				66600105
LOCATION	LT/RT	OFFSET	EACH	
STA. 668+00.00	LT	40.42	1	
STA. 669+00.00	LT	70	1	
STA. 672+00.00	LT	80	1	
STA. 673+00.00	LT	80	1	
STA. 674+00.00	LT	60	1	
STA. 680+50.00	LT	60	1	
STA. 681+00.00	LT	41.65	1	
STA. 668+00.00	RT	39.58	1	
STA. 669+00.00	RT	80	1	
STA. 672+00.00	RT	110	1	
STA. 673+50.00	RT	110	1	
STA. 674+01.49	RT	68.81	1	
TOTAL			12	

PERMANENT SURVEY MARKERS, TYPE II		66700305
LOCATION STATION TO STATION	QUANTITY	
	EACH	
STA. 673+84.60 TO STA. 675+70.60	1	
TOTAL		1

SCHEDULE OF QUANTITIES
 IL 40 OVER GREEN RIVER
 F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
 WHITESIDE COUNTY

ENGINEER'S FIELD OFFICE, TYPE A	67000400
DESCRIPTION	QUANTITY
	CAL MO
PRELIMINARY CONSTRUCTION	1
BRIDGE AND ROADWAY CONSTRUCTION (RT SIDE)	3
BRIDGE AND ROADWAY CONSTRUCTION (LT SIDE)	3
FINAL CONSTRUCTION	1
MISCELLANEOUS CLEANUP, ETC.	1
TOTAL	9

MOBILIZATION	67100100
LOCATION	L. SUM
ENTIRE JOB SITE	1
TOTAL	1

TRAFFIC CONTROL & PROTECTION, STANDARD 701321	70100405
LOCATION	EACH
ENTIRE JOB SITE	1
TOTAL	1

TRAFFIC CONTROL & PROTECTION, STANDARD 701201	70100450
LOCATION	L. SUM
ENTIRE JOB SITE	1
TOTAL	1

TRAFFIC CONTROL & PROTECTION, STANDARD 701306	70100460
LOCATION	L. SUM
ENTIRE JOB SITE	1
TOTAL	1

TRAFFIC CONTROL & PROTECTION, STANDARD 701326	70100500
LOCATION	L. SUM
ENTIRE JOB SITE	1
TOTAL	1

TRAFFIC CONTROL SURVEILLANCE	70103815
DESCRIPTION	QUANTITY
	CAL DA
PRELIMINARY SHOULDER WORK (LT. SIDE)	4
SHOULDER WORK AT NORTH END (LT. SIDE)	2
SHOULDER WORK AT NORTH END (RT. SIDE)	2
TOTAL	8

TEMPORARY RUMBLE STRIP	70106700
DESCRIPTION	QUANTITY
	EACH
NORTH SIDE OF BRIDGE	3
SOUTH SIDE OF BRIDGE	3
TOTAL	6

NOTE: PLACE TEMPORARY RUMBLE STRIPS AS PER HIGHWAY STANDARD 701321.

TRAFFIC STAGING SCHEDULE							
LOCATION STATION TO STATION	LT/RT	STAGE	70106500	70400100	70400200	70030350	70030250
			TEMPORARY BRIDGE TRAFFIC SIGNALS	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
			EACH	FOOT	FOOT	EACH	EACH
STA. 667+00.00	RT	1 & 2	•				
STA. 667+25.00	LT	1 & 2	•				
STA. 668+30.00		1 & 2				1	1
STA. 668+30.00 TO STA. 669+70.00		1 & 2		140	140		
STA. 669+70.00 TO STA. 678+70.00		1 & 2		900	900		
STA. 678+70.00 TO STA. 680+10.00		1		140			
STA. 678+70.00 TO STA. 679+60.00		2			90		
STA. 680+10.00		1				1	
STA. 679+90.00		2					1
STA. 681+15.00	RT	1	•				
STA. 681+40.00	LT	1	•				
STA. 680+65.00	RT	2					
STA. 680+90.00	LT	2					
TOTAL			1	1180	1130	2	2

SHORT-TERM PAVEMENT MARKING	70300100		
LOCATION STATION TO STATION	NO. OF APPLICATIONS	APPLIED	QUANTITY FOOT
STA. 669+00.00 TO STA. 673+48.63	2	CENTERLINE	81.56
STA. 676+06.63 TO STA. 680+50.00	2	CENTERLINE	80.60
STA. 669+00.00 TO STA. 680+50.00	1	CENTERLINE	104.54
TOTAL			266.70

TEMPORARY PAVEMENT MARKING	70300200	
LOCATION STATION TO STATION	APPLIED	QUANTITY FOOT
PLACED ON LEVELING BINDER		
STA. 669+00.00 TO STA. 674+77.63	S. BOUND NO PASSING	577.63
STA. 674+77.63 TO STA. 680+50.00	N. BOUND NO PASSING	572.37
PLACED ON SURFACE		
STA. 669+00.00 TO STA. 680+50.00	N. BOUND EDGELINE	1150.00
STA. 669+00.00 TO STA. 680+50.00	S. BOUND EDGELINE	1150.00
STA. 669+00.00 TO STA. 680+50.00	CENTERLINE	287.50
STA. 669+00.00 TO STA. 674+77.63	S. BOUND NO PASSING	577.63
STA. 674+77.63 TO STA. 680+50.00	N. BOUND NO PASSING	572.37
TOTAL		4887.50

PAVEMENT MARKING TAPE, TYPE III 4"	70300520		
LOCATION STATION TO STATION	LT/RT	APPLIED	QUANTITY FOOT
STAGE I			
STA. 668+70.00 TO STA. 679+66.00	LT	EDGELINE	1096.00
STAGE II			
STA. 669+00.00 TO STA. 679+50.00	RT	EDGELINE	1050.00
TOTAL			2146

WORK ZONE PAVEMENT MARKING REMOVAL	70301000	
LOCATION STATION TO STATION	APPLIED	QUANTITY SO FT
SHORT TERM PAVEMENT MARKING REMOVAL		
STA. 669+00.00 TO STA. 680+50.00	CENTERLINE	34.85
TEMPORARY PAVEMENT MARKING REMOVAL		
STA. 669+00.00 TO STA. 680+50.00	N. BOUND EDGELINE	383.33
STA. 669+00.00 TO STA. 680+50.00	S. BOUND EDGELINE	383.33
STA. 669+00.00 TO STA. 680+50.00	CENTERLINE	95.83
STA. 669+00.00 TO STA. 674+77.63	S. BOUND NO PASSING	192.54
STA. 674+77.63 TO STA. 680+50.00	N. BOUND NO PASSING	190.79
TOTAL		1280.68

PAINT PAVEMENT MARKING - LINE 4"	78001110	
LOCATION STATION TO STATION	APPLIED	QUANTITY FOOT
STA. 669+00.00 TO STA. 680+50.00	N. BOUND EDGELINE	1150.00
STA. 669+00.00 TO STA. 680+50.00	S. BOUND EDGELINE	1150.00
STA. 669+00.00 TO STA. 680+50.00	CENTERLINE	287.50
STA. 669+00.00 TO STA. 674+77.63	S. BOUND NO PASSING	577.63
STA. 674+77.63 TO STA. 680+50.00	N. BOUND NO PASSING	572.37
TOTAL		3737.50

* NOTE: ACTUAL "NO PASSING" ZONES TO BE LOCATED IN THE FIELD BY THE ENGINEER

GUARDRAIL AND BARRIER WALL MARKERS					
LOCATION STATION	LT/RT	SPACING (FEET)	TERMINAL MARKERS - DIRECT APPLIED	GUARDRAIL MARKER TYPE A	BARRIER WALL MARKER TYPE B
			78201000	78200410	78200520
			EACH	EACH	EACH
STA. 677+70.30	LT		1		
STA. 676+90.30	LT	80.0		1	
STA. 676+10.30	LT	80.0		1	
STA. 675+30.30	LT	80.0		1	
STA. 674+50.30	LT	80.0			1
STA. 673+70.30	LT	80.0			1
STA. 672+90.30	LT	80.0		1	
STA. 672+10.30	LT	80.0		1	
STA. 671+33.00	LT	77.3	1		
STA. 671+22.50	RT		1		
STA. 672+02.50	RT	80.0		1	
STA. 672+82.50	RT	80.0		1	
STA. 673+62.50	RT	80.0		1	
STA. 674+42.50	RT	80.0			1
STA. 675+22.50	RT	80.0			1
STA. 676+02.50	RT	80.0		1	
STA. 676+82.50	RT	80.0		1	
STA. 677+59.75	RT	77.3	1		
TOTAL			4	10	4

CONSTRUCTION LAYOUT	Z0013798
LOCATION	L. SUM
ENTIRE JOB SITE	1
TOTAL	1

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	78300200
LOCATION STATION TO STATION	QUANTITY EACH
STA. 668+70.00 TO STA. 669+75.00	2
STA. 678+70.00 TO STA. 680+50.00	4
TOTAL	6

RAISED REFLECTIVE PAVEMENT MARKER	78100100
LOCATION STATION TO STATION	QUANTITY EACH
STA. 668+70.00 TO STA. 673+54.63	6
STA. 676+00.63 TO STA. 680+50.00	6
(@ 80' SPACING O.C.)	
TOTAL	12

PAVEMENT MARKING REMOVAL	78300105		
LOCATION STATION TO STATION	LT/RT	APPLIED	QUANTITY FOOT
STAGE I			
STA. 668+70.00 TO STA. 679+66.00	LT	EDGELINE	1096
TOTAL			1096

SCHEDULE OF QUANTITIES
 IL 40 OVER GREEN RIVER
 F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
 WHITESIDE COUNTY

TEMPORARY PAVEMENT & TEMPORARY PAVEMENT REMOVAL				X0712400		X0919000	
LOCATION STATION TO STATION	LT/RT	LENGTH FEET	WIDTH FEET	TEMPORARY PAVEMENT		TEMPORARY PAVEMENT REMOVAL	
				AREA SQ FT	AREA SQ YDS	AREA SQ FT	AREA SQ YDS
☐ STA. 668+70.00 TO ☐ STA. 673+98.36	LT	528.36	8	4226.88	469.65	4226.88	469.65
☐ STA. 675+37.18 TO ☐ STA. 679+66.00	LT	428.82	8	3430.56	381.17	3430.56	381.17
TOTAL				850.83		850.83	

RESURFACING SCHEDULE						
LOCATION STATION TO STATION	LENGTH FEET	WIDTH FEET	AREA SQ YD	X4066614	X4066765	X4066414
				BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL 19.0, N50 (VARIABLE DEPTH)	LEVELING BINDER (MACHINE METHOD) SUPERPAVE N50 (3/4 Inch)	BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX C, N50 (1 1/2 Inch)
				TON	TON	TON
ALLEN ROAD MAINLINE						
☐ STA. 668+70.00 TO ☐ STA. 669+00.00	30.00	24	80.00		3.36	6.72
☐ STA. 669+00.00 TO ☐ STA. 669+75.00	75.00	24	200.00		8.40	16.80
☐ STA. 669+75.00 TO ☐ STA. 671+00.00	125.00	24	333.33	64.92	14.00	28.00
☐ STA. 671+00.00 TO ☐ STA. 673+00.00	200.00	24	533.33	338.52	22.40	44.80
☐ STA. 673+00.00 TO ☐ STA. 673+48.63	48.63	24	129.68	121.58	5.45	10.89
☐ STA. 673+48.63 TO ☐ STA. 673+54.63	6.00	24				
☐ STA. 673+54.63 TO ☐ STA. 673+84.63	30.00	24				
☐ STA. 673+84.63 TO ☐ STA. 675+70.63	186.00	24				
☐ STA. 675+70.63 TO ☐ STA. 676+00.63	30.00	24				
☐ STA. 676+00.63 TO ☐ STA. 676+06.63	6.00	24				
☐ STA. 676+06.63 TO ☐ STA. 677+00.00	93.37	24	248.99	191.95	10.46	20.91
☐ STA. 677+00.00 TO ☐ STA. 678+70.00	170.00	24	453.33	161.30	19.04	38.08
☐ STA. 678+70.00 TO ☐ STA. 680+50.00	180.00	24	480.00		20.16	40.32
TOTAL				878.27	103.26	206.53

TOP SURFACE OF THE SHOULDER					X4066414
LOCATION STATION TO STATION	LT/RT	LENGTH FEET	SHOULDER WIDTH FEET	SHOULDER AREA SQ YD	BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX C, N50 (2 1/4 Inch)
					TON
☐ STA. 668+70.00 TO ☐ STA. 669+00.00	LT	30.00	4	13.33	1.68
☐ STA. 669+00.00 TO ☐ STA. 671+10.50	LT	210.50	4	93.56	11.79
☐ STA. 671+10.50 TO ☐ STA. 672+83.00	LT	172.50	8.75	167.71	21.13
☐ STA. 672+83.00 TO ☐ STA. 673+33.00	LT	50.00	8.75 TO 6.75	43.06	5.43
☐ STA. 673+33.00 TO ☐ STA. 673+39.56	LT	6.56	6.75	4.92	0.62
☐ STA. 669+00.00 TO ☐ STA. 671+00.00	RT	200.00	4.00	88.89	11.20
☐ STA. 671+00.00 TO ☐ STA. 673+10.00	RT	210.00	8.75	204.17	25.73
☐ STA. 673+10.00 TO ☐ STA. 673+60.00	RT	50.00	8.75 TO 6.75	43.06	5.43
☐ STA. 673+60.00 TO ☐ STA. 673+62.15	RT	2.15	6.75	1.61	0.20
☐ STA. 675+95.30 TO ☐ STA. 676+45.30	LT	50.00	6.75 TO 8.75	43.06	5.43
☐ STA. 676+45.30 TO ☐ STA. 677+92.80	LT	147.50	8.75	143.40	18.07
☐ STA. 677+92.80 TO ☐ STA. 680+50.00	LT	257.20	4	114.31	14.40
☐ STA. 676+15.65 TO ☐ STA. 676+22.25	RT	6.60	6.75	4.95	0.62
☐ STA. 676+22.25 TO ☐ STA. 676+72.25	RT	50.00	6.75 TO 8.75	43.06	5.43
☐ STA. 676+72.25 TO ☐ STA. 677+82.25	RT	110.00	8.75	106.94	13.48
☐ STA. 677+82.25 TO ☐ STA. 680+50.00	RT	267.75	4	119.00	14.99
TOTAL					155.61

BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX C, N50 SUMMARY	
LOCATION	WEIGHT TONS
MAINLINE RESURFACING	206.53
TOP OF SHOULDER	155.61
TOTAL	362.14

BITUMINOUS SHOULDERS SUPERPAVE				48202000
LOCATION STATION TO STATION	LT/RT	LENGTH FEET	WEIGHT TON	
				☐ STA. 668+70.00 TO ☐ STA. 669+00.00
☐ STA. 669+00.00 TO ☐ STA. 670+00.00	LT & RT	100.00	18.75	
☐ STA. 670+00.00 TO ☐ STA. 671+00.00	LT & RT	100.00	26.82	
☐ STA. 671+00.00 TO ☐ STA. 672+00.00	LT & RT	100.00	90.33	
☐ STA. 672+00.00 TO ☐ STA. 673+00.00	LT & RT	100.00	69.96	
☐ STA. 673+00.00 TO ☐ STA. 673+89.45	LT & RT	89.45	36.87	
☐ STA. 675+65.85 TO ☐ STA. 676+50.00	LT & RT	84.15	33.25	
☐ STA. 676+50.00 TO ☐ STA. 677+50.00	LT & RT	100.00	82.67	
☐ STA. 677+50.00 TO ☐ STA. 678+50.00	LT & RT	100.00	49.40	
☐ STA. 678+50.00 TO ☐ STA. 679+50.00	LT & RT	100.00	16.53	
☐ STA. 679+50.00 TO ☐ STA. 680+50.00	LT & RT	100.00	3.84	
TOTAL				432.86

TREE, ACER SACCHARINUM (SILVER MAPLE), 1 3/4" CALIPER, BALLED AND BURLAPPED		A2001314
LOCATION	EACH	
ENTIRE JOB SITE	7	
TOTAL	7	

TEMPORARY ACCESS (FIELD ENTRANCE)		X4024000
LOCATION	EACH	
STA. 681+00.00 RT	1	
TOTAL	1	

SCHEDULE OF QUANTITIES

 IL 40 OVER GREEN RIVER
 F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
 WHITESIDE COUNTY

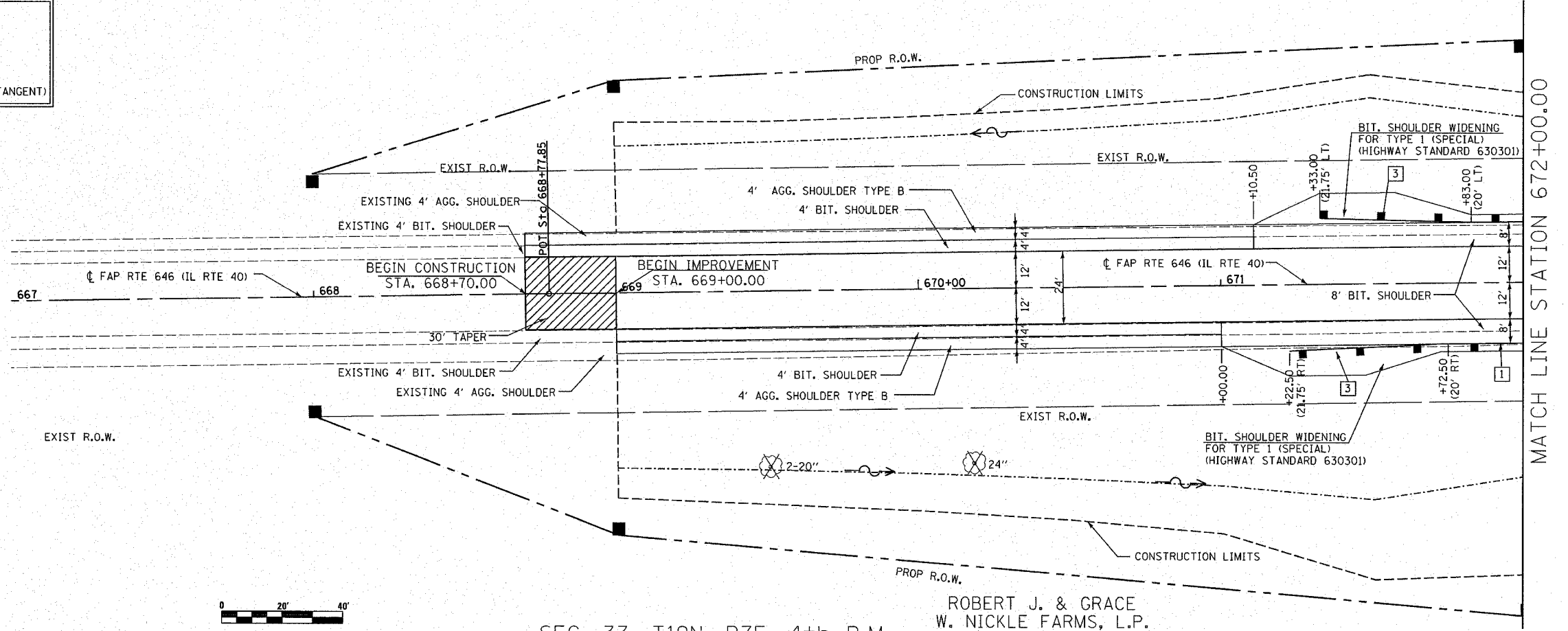
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SEC. 34, T19N, R7E, 4th P.M.

BRUCE E. HEADING
& DIANE J. HEADING

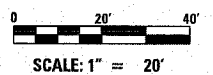
CONTRACT NO. 64427

- LEGEND**
- 1 SPBGR TYPE A
 - 2 TRAFFIC BARRIER TERMINAL TYPE 6
 - 3 TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)



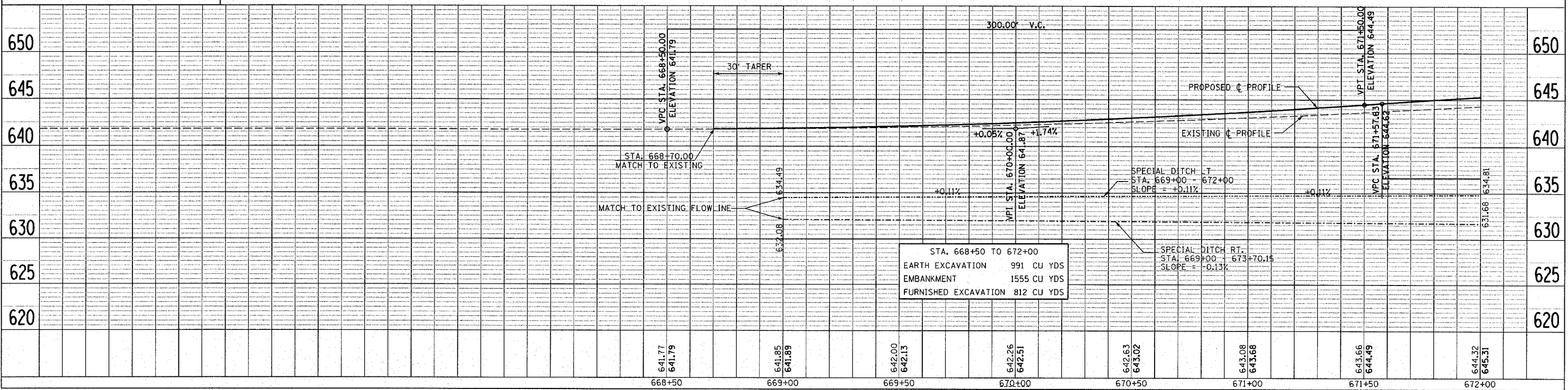
MATCH LINE STATION 672+00.00

PLAN & PROFILE SHEET
SHOWING EXISTING,
REMOVAL, & PROPOSED
IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY



SEC. 33, T19N, R7E, 4th P.M.

ROBERT J. & GRACE
W. NICKLE FARMS, L.P.



STA. 668+50 TO 672+00
EARTH EXCAVATION 991 CU YDS
EMBANKMENT 1555 CU YDS
FURNISHED EXCAVATION 812 CU YDS

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NOTE BOOK NO. DATE
ALIGNED BY DATE
CHECKED BY DATE
DRAWN BY DATE
DATE

PROFILE SURVEYED BY DATE
NOTE BOOK NO. DATE
GRADES CHECKED BY DATE
BLANK NOTED BY DATE
STRUCTURE NOTATIONS CHECKED BY DATE

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BY	
REVISIONS	
NO.	
DESCRIPTION	
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DESCRIPTION	
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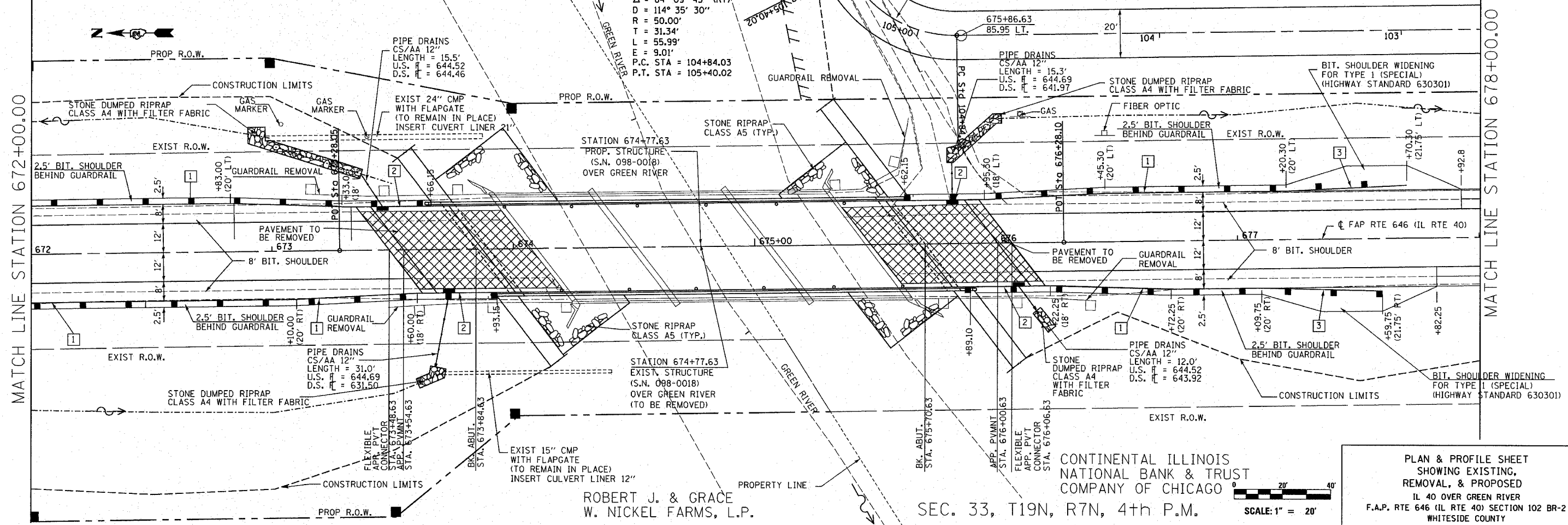
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LEGEND

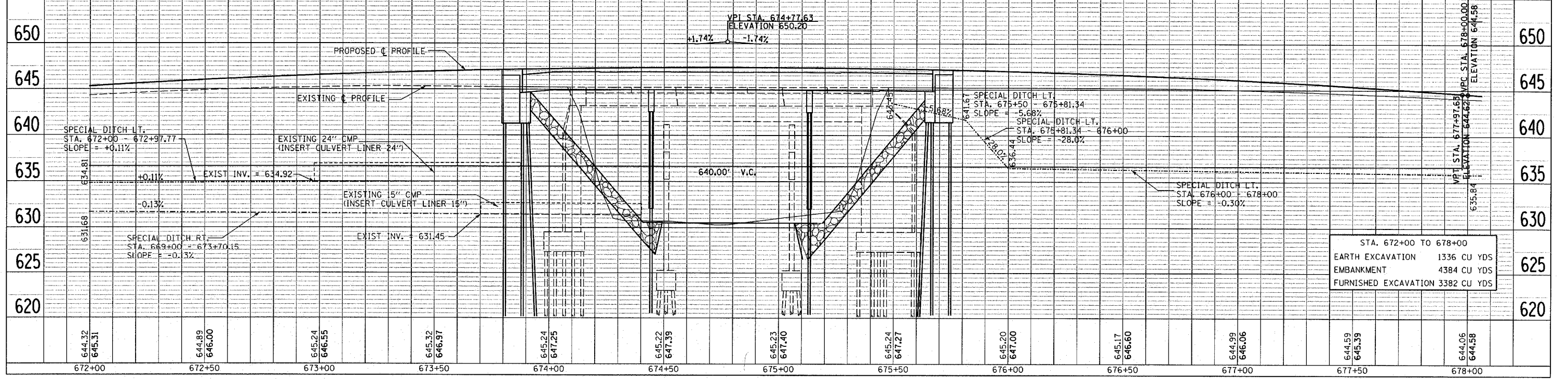
- 1 SPBGR TYPE A
- 2 TRAFFIC BARRIER TERMINAL TYPE 6
- 3 TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)

BRUCE E. HEADING & DIANE J. HEADING
 SEC. 34, T19N, R7N, 4th P.M.

DESIGNED AMPH/GJM	CHECKED GJM	DRAWN AMPH	CHECKED GJM	FILE NUMBER 136.111	F.A. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 15
				DATE AUG 2005	STA. 672+00.00 TO STA. 678+00.00		FED. ROAD DIST. NO. 2 ILLINOIS		FED. AID PROJECT



PLAN & PROFILE SHEET
 SHOWING EXISTING,
 REMOVAL, & PROPOSED
 IL 40 OVER GREEN RIVER
 F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
 WHITESIDE COUNTY

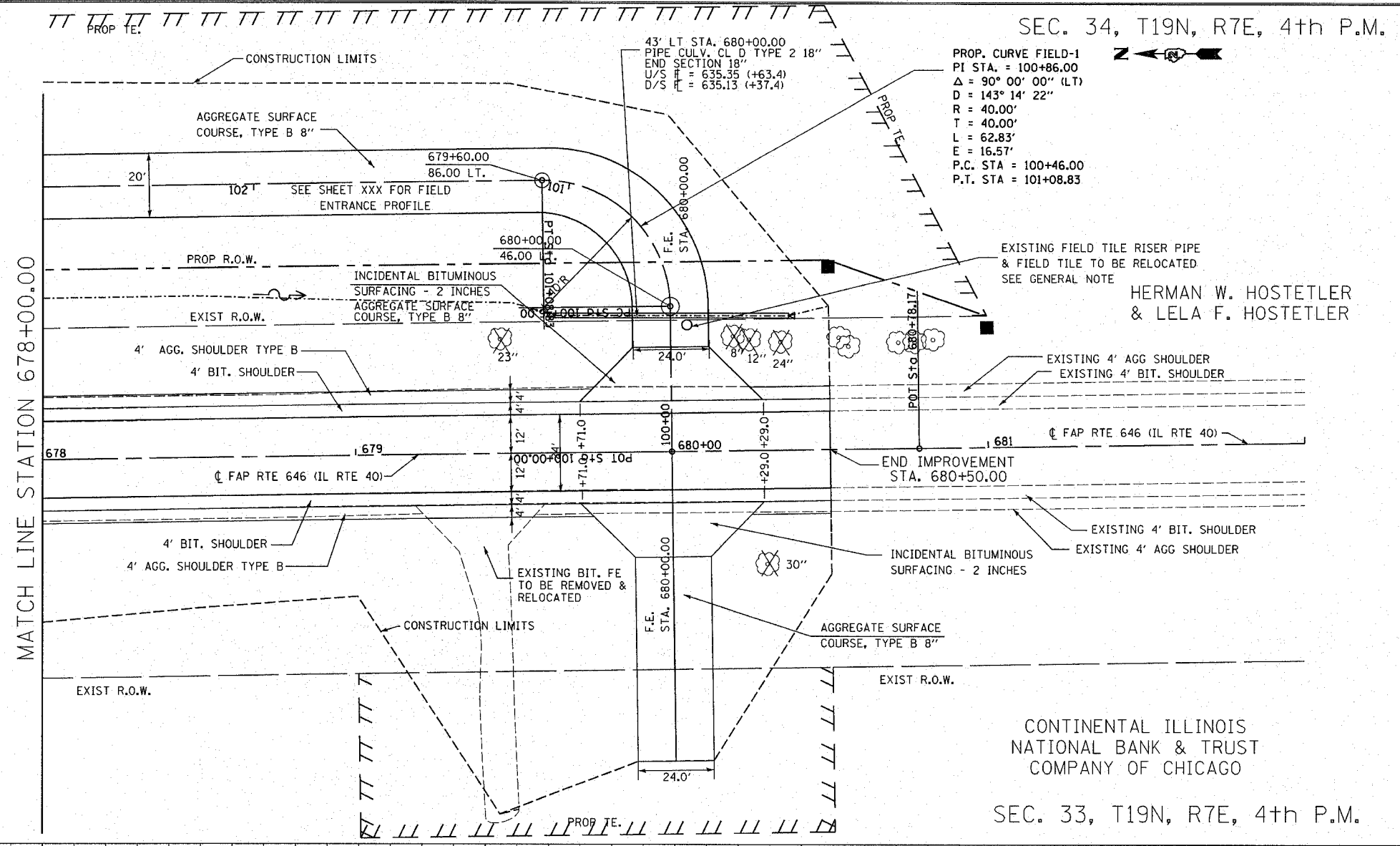


STA. 672+00 TO 678+00	EARTH EXCAVATION	1336 CU YDS
	EMBANKMENT	4384 CU YDS
	FURNISHED EXCAVATION	3382 CU YDS

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REVISION	
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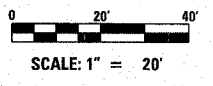
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			STA. 678+00.00 TO STA. 682+00.00		ILLINOIS		FED. AID PROJECT	
CONTRACT NO. 64427								



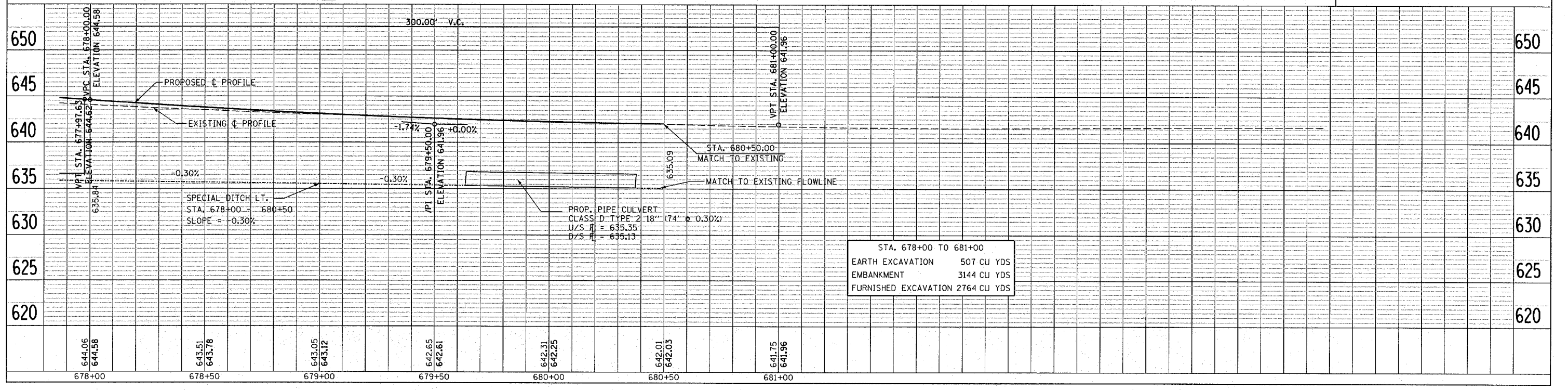
SEC. 34, T19N, R7E, 4th P.M.

SEC. 33, T19N, R7E, 4th P.M.

LEGEND		
1	SPBGR TYPE A	
2	TRAFFIC BARRIER TERMINAL TYPE 6	
3	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	



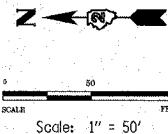
PLAN & PROFILE SHEET
SHOWING EXISTING,
REMOVAL, & PROPOSED
IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY



STA. 678+00 TO 681+00	
EARTH EXCAVATION	507 CU YDS
EMBANKMENT	3144 CU YDS
FURNISHED EXCAVATION	2764 CU YDS

644.06 644.58	643.51 643.78	643.05 643.12	642.65 642.81	642.31 642.25	642.01 642.03	641.75 641.96
678+00	678+50	679+00	679+50	680+00	680+50	681+00

LOCATION OF ITEMS NOT SHOWN	
ITEM	STATION
LT. SIGNAL	667+25.00
RT. SIGNAL	667+00.00
STOP BAR	666+50.00
NEAR LOOP	666+40.00
FAR LOOP	661+50.00



STAGE I

LOCATION OF ITEMS NOT SHOWN	
ITEM	STATION
LT. SIGNAL	681+40.00
RT. SIGNAL	681+15.00
STOP BAR	681+90.00
NEAR LOOP	682+00.00
FAR LOOP	686+90.00

DESIGNED: AMPH/GJM
 CHECKED: GJM
 DRAWN: AMPH
 CHECKED: GJM

R RANDOLPH & ASSOCIATES, INC.
 111 N. FISHBURN PARKWAY, PEORIA, IL 61614-2528
 TEL: 309-693-9864 FAX: 309-693-1100
 817 S. WASHINGTON ST., PEORIA, IL 61602-1528

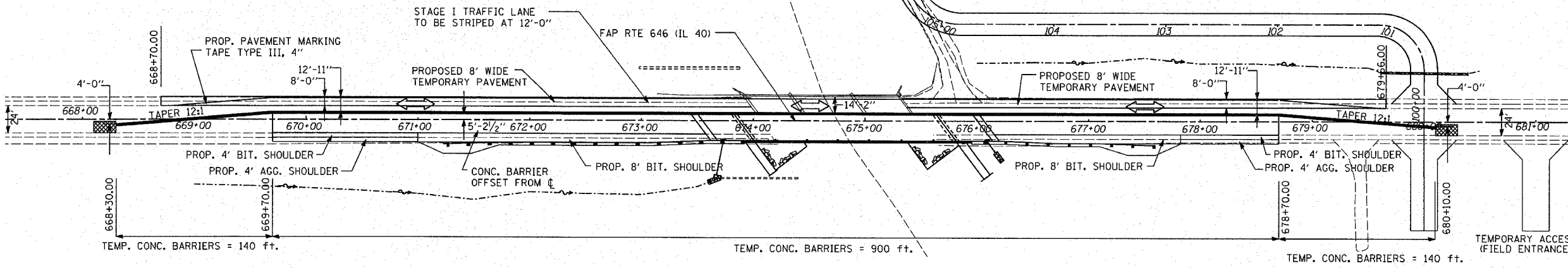
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 DATE: AUG 2005

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	102 BR-2	WHITESIDE	69	18

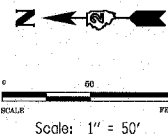
STA. _____ TO STA. _____
 FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT
 CONTRACT NO. 64427

SEE JOB SPECIFIC NOTE CONCERNING ACCESS TO FIELD ENTRANCES ON PLAN SHEET NO. _____

- PRIOR TO STAGE I CONSTRUCTION**
- 1.) CONSTRUCT NEW FIELD ENTRANCES AT STA. 680+00 LT & RT
 - 2.) CONSTRUCT TEMPORARY ACCESS (FIELD ENTRANCE) AT STA. 681+00.00 RT
- STAGE I CONSTRUCTION SEQUENCE**
- 1.) REMOVE EXISTING BIT. & AGG. SHOULDER ON EAST SIDE AND CONSTRUCT TEMPORARY PAVEMENT.
 - 2.) REMOVE EXISTING PAVEMENT MARKING EDGELINE ON EAST SIDE AND PLACE PROPOSED PAVEMENT MARKING TAPE TYPE III.
 - 3.) INSTALL TEMPORARY SIGNALS AT ENTRANCES
 - 4.) INSTALL TEMPORARY SIGNALS AND CONCRETE BARRIERS AS SHOWN ON STAGING PLAN AND PER TRAFFIC CONTROL STANDARD 701321.SDFGS
 - 5.) REMOVE PORTION OF EXISTING PAVEMENT AND INSTALL TEMPORARY SHEET PILING
 - 6.) REMOVE WEST PORTION OF EXIST STRUCTURE AND START EARTHWORK.
 - 7.) CONSTRUCT STAGE I STRUCTURE, CONSTRUCT BRIDGE APPR. PAVEMENT, AND FLEX CONNECTOR (AS PER STANDARD 420401).
 - 8.) PLACE BIT. BINDER COURSE (VAR. DEPTH) LEVELING BINDER, BIT. SHOULDER, AND TEMPORARY RAMP.
 - 9.) INSTALL GUARDRAIL & TERMINALS ON EAST SIDE AND TEMPORARY PAVEMENT MARKING.



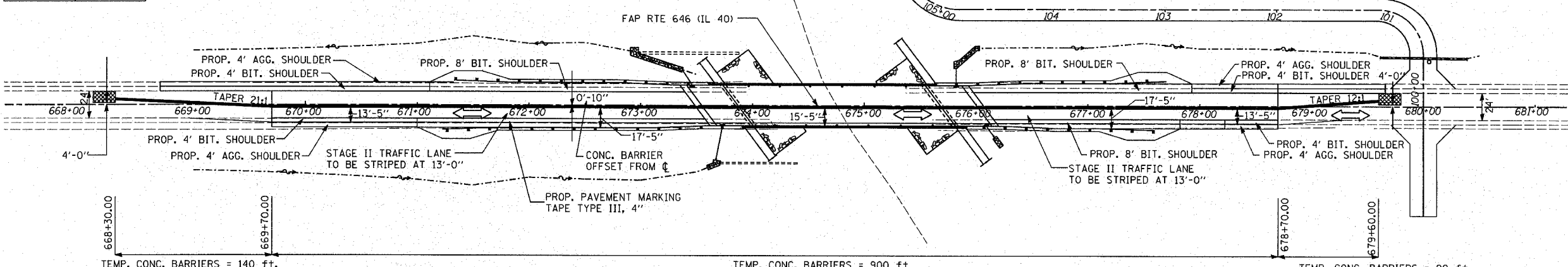
LOCATION OF ITEMS NOT SHOWN	
ITEM	STATION
LT. SIGNAL	667+25.00
RT. SIGNAL	667+00.00
STOP BAR	666+50.00
NEAR LOOP	666+40.00
FAR LOOP	661+50.00



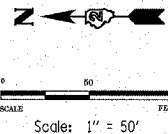
STAGE II

LOCATION OF ITEMS NOT SHOWN	
ITEM	STATION
LT. SIGNAL	680+90.00
RT. SIGNAL	680+65.00
STOP BAR	681+40.00
NEAR LOOP	681+50.00
FAR LOOP	686+40.00

- STAGE II CONSTRUCTION SEQUENCE**
- 1.) RELOCATE TEMPORARY CONCRETE BARRIER AND SWITCH TRAFFIC.
 - 2.) REMOVE EXIST. PAVEMENT AND EAST PORTION OF EXIST. STRUCTURE AND START EARTHWORK.
 - 3.) CONSTRUCT STAGE II STRUCTURE
 - 4.) REMOVE TEMPORARY SHEET PILING, CONSTRUCT BRIDGE APPR. PAVEMENT, AND FLEX. CONNECTOR (AS PER STANDARD 420401).
 - 5.) PLACE BIT. BINDER COURSE (VAR. DEPTH), LEVELING BINDER, BIT. SHOULDER AND TEMPORARY RAMP.
 - 6.) INSTALL GUARDRAIL & TERMINALS ON WEST SIDE AND TEMPORARY PAVEMENT MARKING.

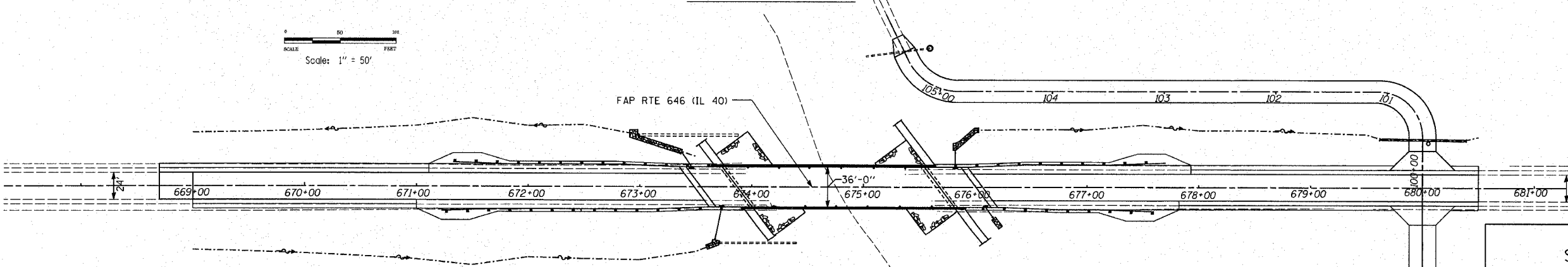


LOCATION OF ITEMS NOT SHOWN	
ITEM	STATION
LT. SIGNAL	667+25.00
RT. SIGNAL	667+00.00
STOP BAR	666+50.00
NEAR LOOP	666+40.00
FAR LOOP	661+50.00



STAGE III

- STAGE III FINAL CONSTRUCTION SEQUENCE**
- 1.) FINISH REMAINING EARTHWORK
 - 2.) PLACE SURFACE COURSES ON ENTIRE IMPROVEMENT INCLUDING TOP LIFT OF BITUMINOUS SHOULDERS.
 - 3.) PLACE PERMANENT PAVEMENT MARKING
 - 4.) DO FINAL DITCH GRADING, DITCH LINING, RIPRAP AND SEEDING.



SYMBOLS

— TEMPORARY CONCRETE BARRIER

▣ IMPACT ATTENUATOR

ADVANCE WARNING SIGNS, TEMPORARY RUMBLE STRIPS, VERTICAL PANELS, PAVEMENT MARKERS, AND BARRIER WALL REFLECTORS SHALL BE LOCATED IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.


SEE SPECIAL PROVISIONS, STAGING TYPICALS, AND HIGHWAY STANDARD 701321 FOR MORE INFORMATION.

SEE BRIDGE PLAN STAGING SHEET NO. _____

STAGE CONSTRUCTION DETAIL AND TRAFFIC CONTROL PLAN

IL 40 OVER GREEN RIVER
 F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
 WHITESIDE COUNTY

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DESIGNED AMPH/GJM	 RANDOLPH & ASSOCIATES, INC. <small>111 N. FIDELITY PARKWAY, PEORIA, IL 61614-2124 TEL. 309-693-2844 FAX 309-693-2828 • 1-800-693-1981 P. O. BOX 1000, PEORIA, IL 61602-1000 CONSULTING ENGINEERS - LAND SURVEYORS</small>	FILE NUMBER 136.111	F.A. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 19
CHECKED GJM		DATE AUG 2005	STA. _____	TO STA. _____	FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT		
DRAWN AMPH							
CHECKED GJM							

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CL FAP RTE 646
(IL 40)

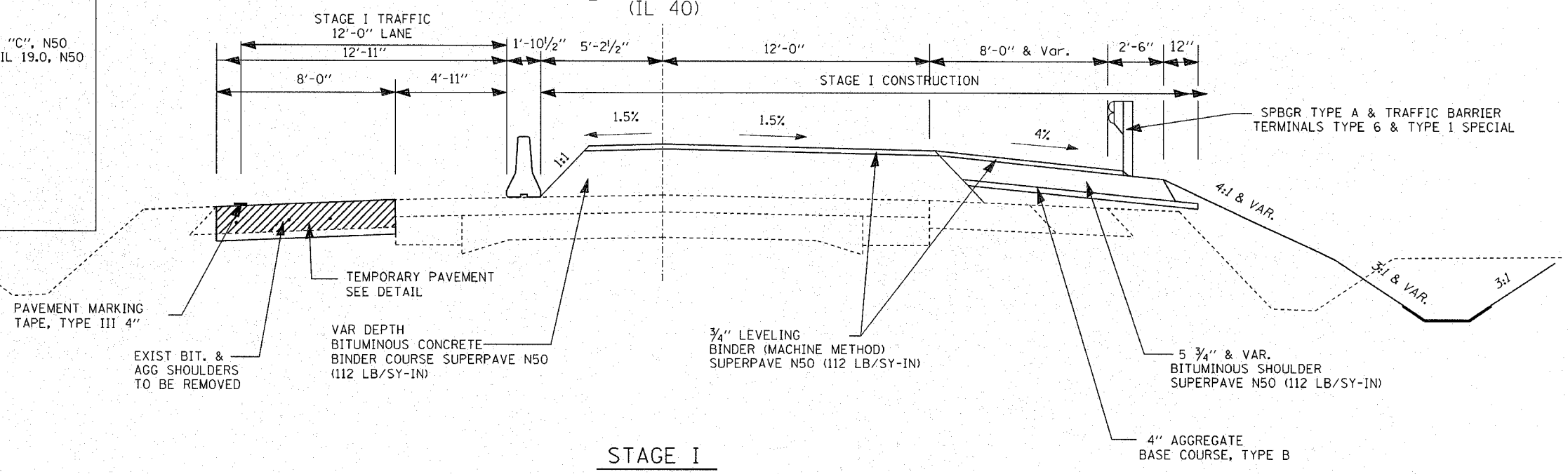
TEMPORARY PAVEMENT & SUB-BASE DETAIL

FLEXIBLE PAVEMENT OPTION

- 1.5" BIT. CONC. SURF. CSE, SUPERPAVE, MIX "C", N50
- 2.75" BIT. CONC. BINDER. CSE, SUPERPAVE, IL 19.0, N50
- 12" SUB-BASE GRANULAR MATERIAL, TYPE A

RIGID PAVEMENT OPTION

- 8" PCC BASE COURSE
- 4" SUB-BASE GRANULAR MATERIAL, TYPE A

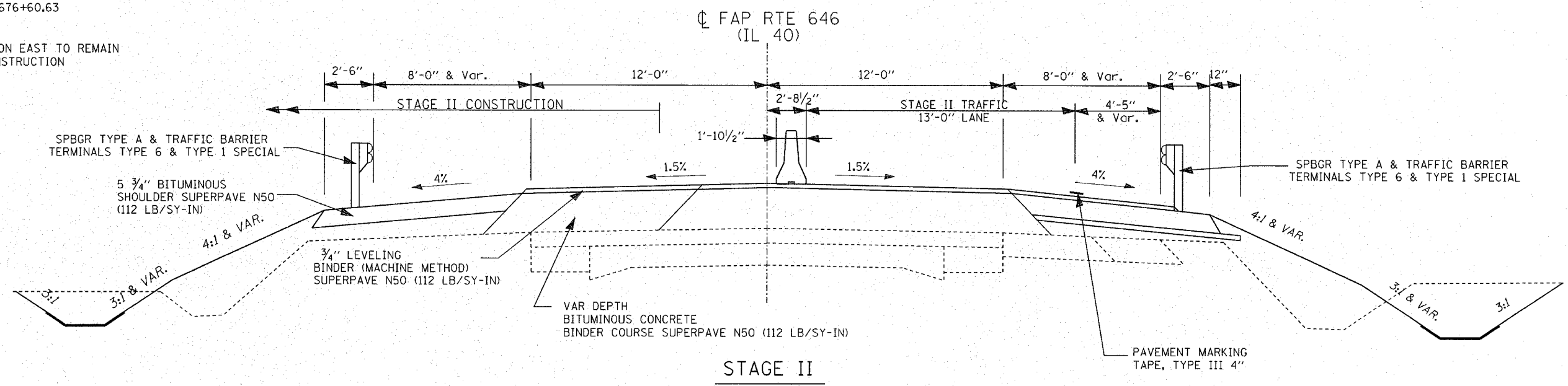


PROPOSED BRIDGE
CL STA. 673+84.63 TO CL STA. 675+70.63
GREEN RIVER (SN. 098-0018)

EXISTING BRIDGE
CL STA. 674+05.19 TO CL STA. 675+50.81
GREEN RIVER (SN. 098-0018)

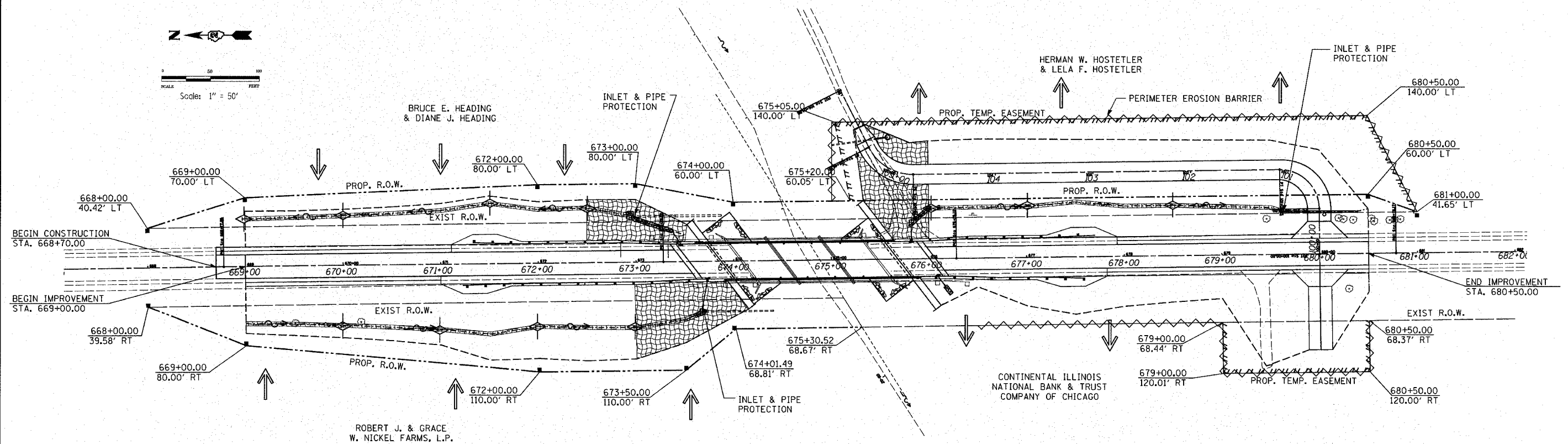
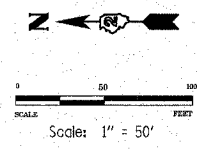
NOTE 1: BRIDGE APPR. PAV'T & CONNECTORS FROM
CL STA. 673+48.63 TO CL STA. 673+84.63 AND
CL STA. 675+70.63 TO CL STA. 676+60.63

NOTE 2: EXISTING GUARDRAIL ON EAST TO REMAIN
IN PLACE DURING STAGE I CONSTRUCTION



STAGING TYPICAL SECTIONS

IL 40 OVER GREEN RIVER
F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
WHITESIDE COUNTY



LEGEND	
	Direction of Overland Flow
	Temporary Ditch Checks
	Perimeter Erosion Barrier
	Erosion Control Blanket

**PROPOSED RIGHT OF WAY,
 PROPOSED TEMPORARY EASEMENT,
 AND PROPOSED EROSION CONTROL**
 IL 40 OVER GREEN RIVER
 F.A.P. RTE 646 (IL RTE 40) SECTION 102 BR-2
 WHITESIDE COUNTY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.L. F.A. 646	(102) BR-2	Whiteside	69	21
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	CONTRACT NO. 64427

Benchmark: Chisled "C" on SW corner of bridge 098-0018 on top of the wingwall. Elev.: 644.77
Existing Structure: S.N. 098-0018. Built as SBI Route 88, Sec. 102B in 1927. Three simple span precast-prestressed concrete deck beams are on hammerhead concrete piers and closed abutments. The overall length is 146'-0" and the overall width is 46'-0". The contractor shall remove the existing superstructure and abutments in stages and replace it with a three span wide flange beam with reinforced concrete slab superstructure on the existing concrete piers and new concrete abutments.
No Salvage.

GENERAL NOTES

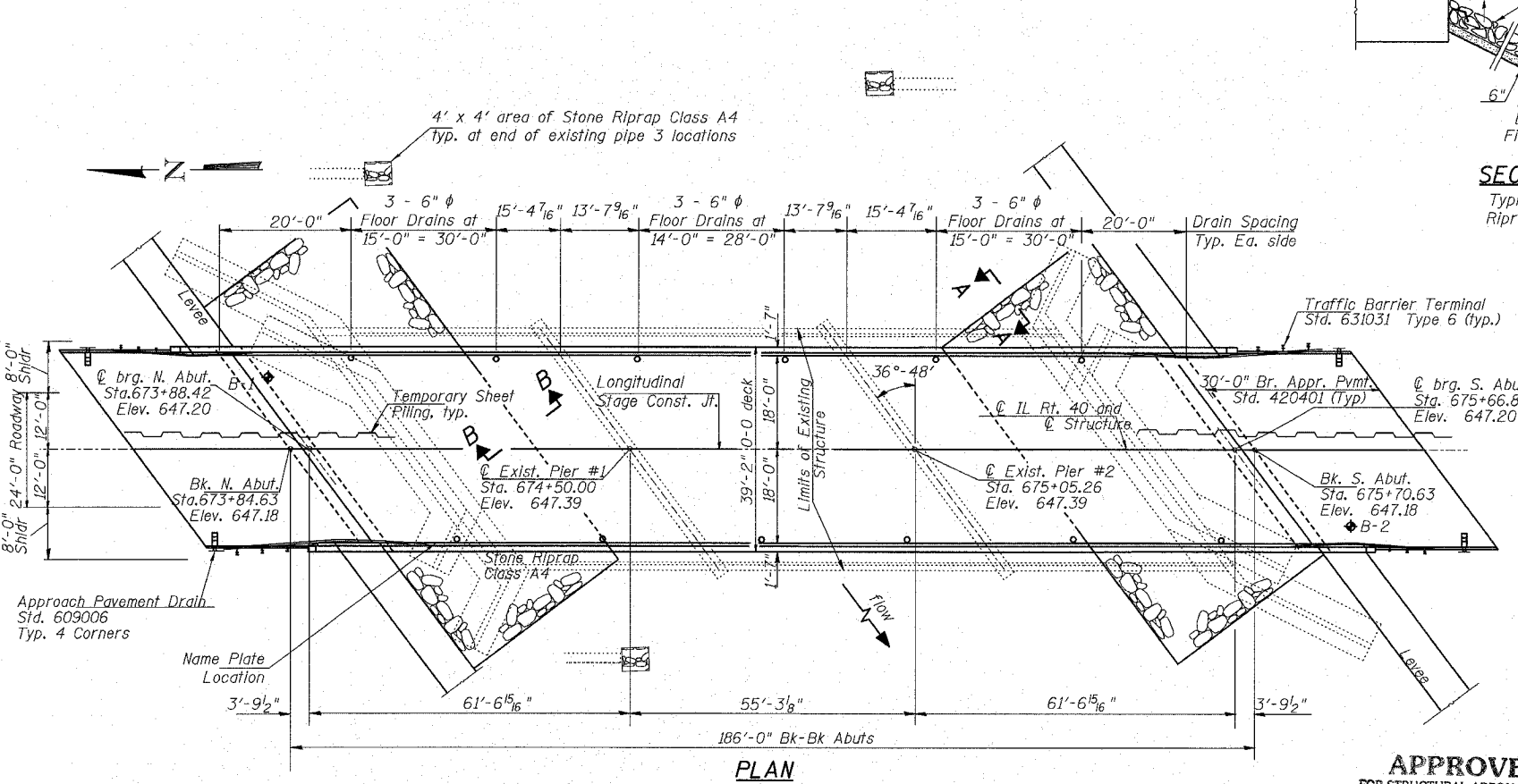
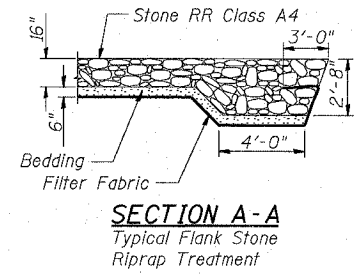
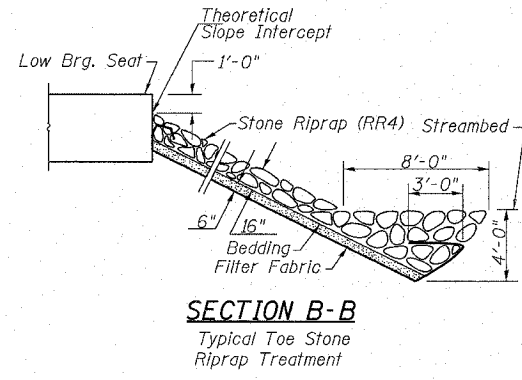
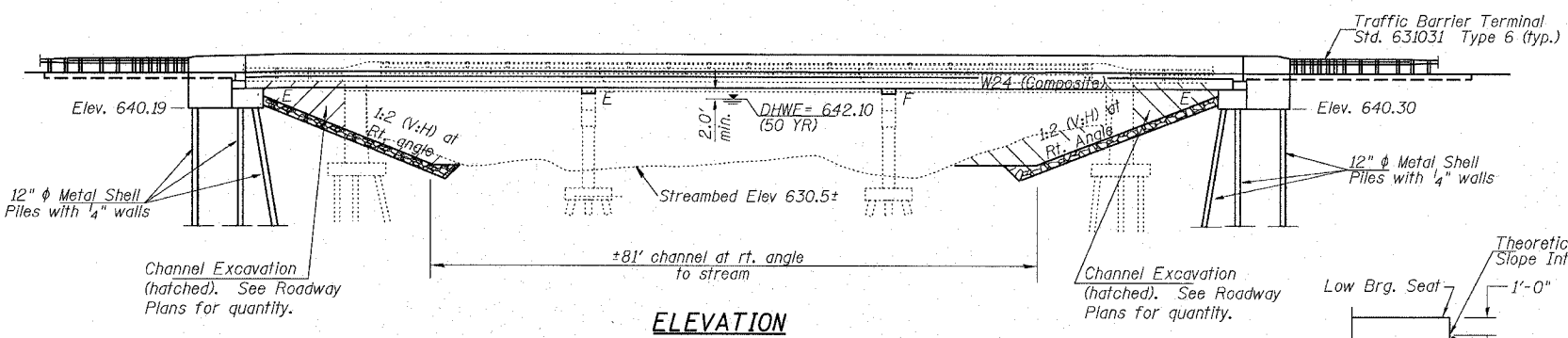
- Fasteners shall be high strength bolts AASHTO M 164, Type 3 in unpainted areas and mechanically galvanized AASHTO M 164, Type 1 or 2 in painted areas. Bolts $\frac{3}{8}$ " ϕ , open holes $\frac{1}{16}$ " ϕ , unless otherwise noted.
- Calculated weight of Structural Steel = 167,230 pounds.
- All structural steel shall be AASHTO M 270 Grade 50W.
- Field welding of construction accessories will not be permitted to beams or girders.
- Anchor bolts shall be set before bolting diaphragms over supports.
- The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.
- Reinforcement bars shall conform to the requirements of AASHTO M 31 or M322 Grade 60.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- Plan dimensions and details relative to existing structure have been taken from existing plans and some field measurements and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, two $\frac{1}{8}$ " adjusting shims shall be provided for each bearing and placed as detailed.
- The contractor shall drive one test pile at the north abutment and one test pile at the south abutment in permanent locations as directed by the Engineer before ordering the remainder of piles.
- Bridge Seat Sealer shall be applied to the seat area of the north and south abutments.
- AASHTO M 270 Grade 50W structural steel shall only be painted, for a distance of three times the depth of the beams or girders (but not exceeding 10 feet) each way from the deck joints. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".
- All Construction joints shall be bonded.

TOTAL BILL OF MATERIAL

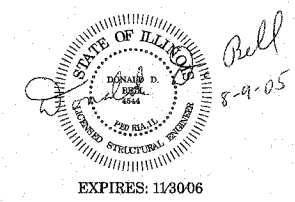
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Concrete Structures	Cu. Yd.		100.6	100.6
Concrete Superstructure	Cu. Yd.	228.6		228.6
Reinforcement Bars, Epoxy Coated	Pound	53,200	9,470	62,670
Furnishing Metal Pile Shells 12"	Lin. Ft.		1736	1736
Driving and Filling Shells	Lin. Ft.		1736	1736
Test Pile Metal Shells	Each		2	2
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3762		3762
Name Plates	Each	1		1
Stone Riprap, Class A4	Sq. Yd.		784	784
Protective Coat	Sq. Yd.	890		890
Structure Excavation	Cu. Yd.		280	280
Neoprene Expansion Joint 2"	Lin. Ft.	92		92
Filter Fabric For use with Riprap	Sq. Yd.		784	784
Temporary Sheet Piling	Sq. Ft.		1887	1887
Bridge Deck Grooving	Sq. Yd.	722		722
Floor Drains	Each	18		18
Bar Splicers	Each	648	44	692
Porous Granular Embankment (Special)	Cu. Yd.		124	124
Removal of Existing Substructures	Each		2	2
Elastomeric Bearing Assembly Type I	Each	18		18
Bridge Seat Sealer	Sq. Ft.		262	262

GENERAL PLAN AND ELEVATION
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB		FILE NUMBER	136.111
CHECKED	JFJ		DATE	Aug. 2005
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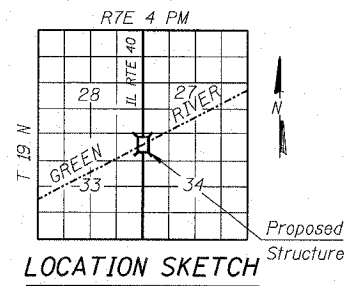
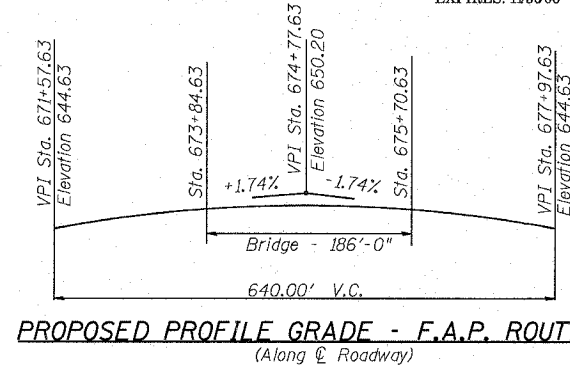


APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



STATION 674+77.63
BUILT 20_ BY
STATE OF ILLINOIS
F.A.P. RT. 646 SEC.
SEC. (102) BR-2
LOADING HS20
STR. NO. 098-0018
NAME PLATE
See Std. 515001

LOADING HS 20-44
Allow 50#/sq. ft for future wearing surface
DESIGN SPECIFICATIONS
AASHTO Standard Specs - 2002, (17th Edition)



DESIGN STRESSES
FIELD UNITS
 $f_c = 3500$ psi
 $f_y = 60,000$ psi (Reinf.)
 $f_y = 50,000$ psi (Structural Steel)
AASHTO M270 Grade 50W

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = .04g
Site Coefficient (S) = 1.0

WATERWAY INFORMATION
Drainage Area = 316 sq. mi. Low Grade Elev. 641.85' @ Sta. 669+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E. Ft.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	13190	1213	1283	642.1	0.4	0.2	642.5	642.3
Base	100	14840	1282	1372	642.8	0.6	0.2	643.3	643.0
Overtopping	--	--	--	--	--	--	--	--	--
Max. Calc.	500	18650	1282	1554	644.2	1.2	0.5	645.4	644.7

stations on level 50

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

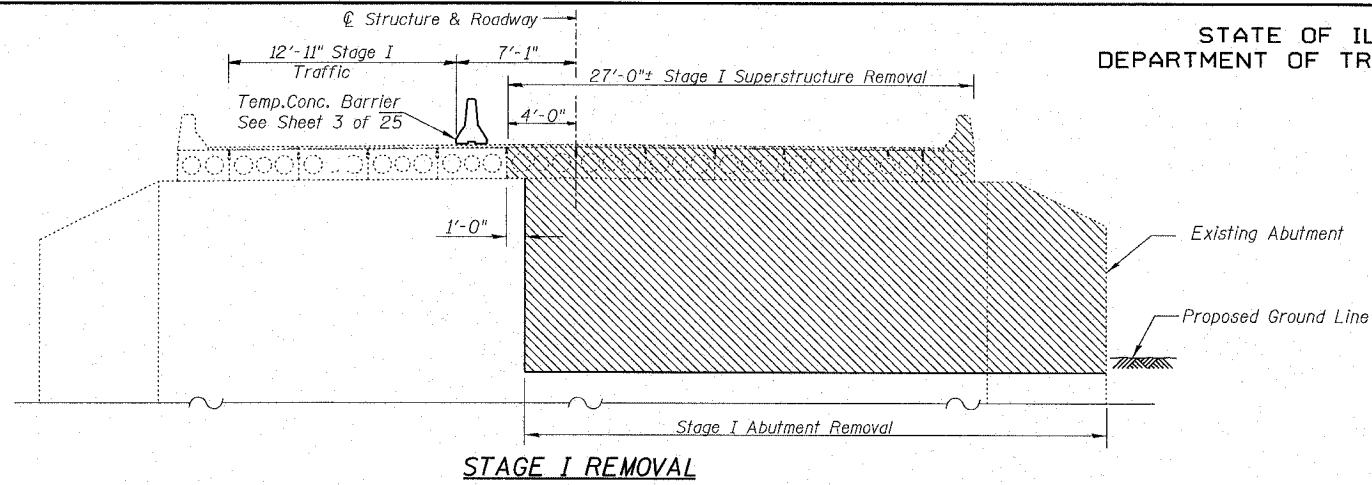
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S. B. I.	(102)	Whiteside	69	22
F.A. 646	BR-2			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 64427

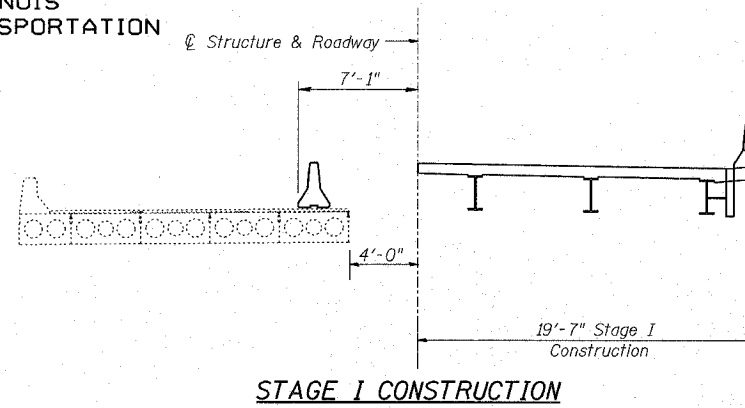
SHEET NO. 2
25 SHEETS

INDEX OF DRAWINGS

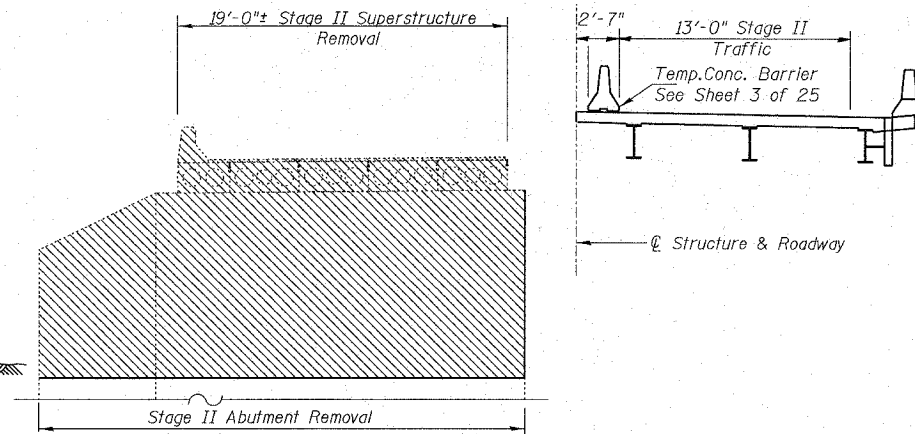
Sht. No.	Sht. Title
1	General Plan and Elevation
2	Stage Construction and Temp Sheet Piling
3	Temporary Concrete Barrier
4 & 5	Deck Elevations
6	Deck Plan & Section
7	Superstructure Details
8	2" Neoprene Joint
9	Structural Steel Framing Plan
10	Diaphragm & Splice Details
11	Abutment Bearings
12	Pier Bearings
13	Anchor Bolt Details
14	North Abutment
15	North Abutment Details
16	South Abutment
17	South Abutment Details
18	Pier 1
19	Pier 2
20	Concrete Pile Details
21	Bar Splicer Details
22	Cantilever Forming Brackets
23, 24 & 25	Soil Boring Logs



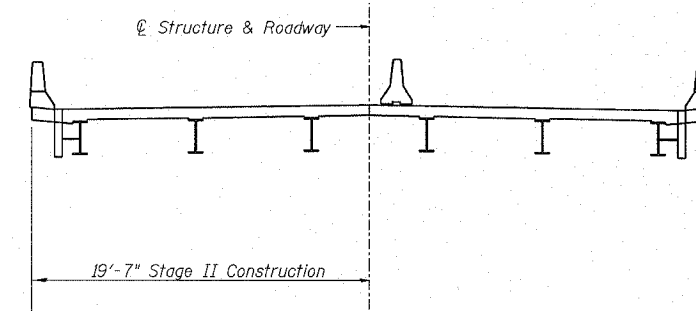
STAGE I REMOVAL



STAGE I CONSTRUCTION



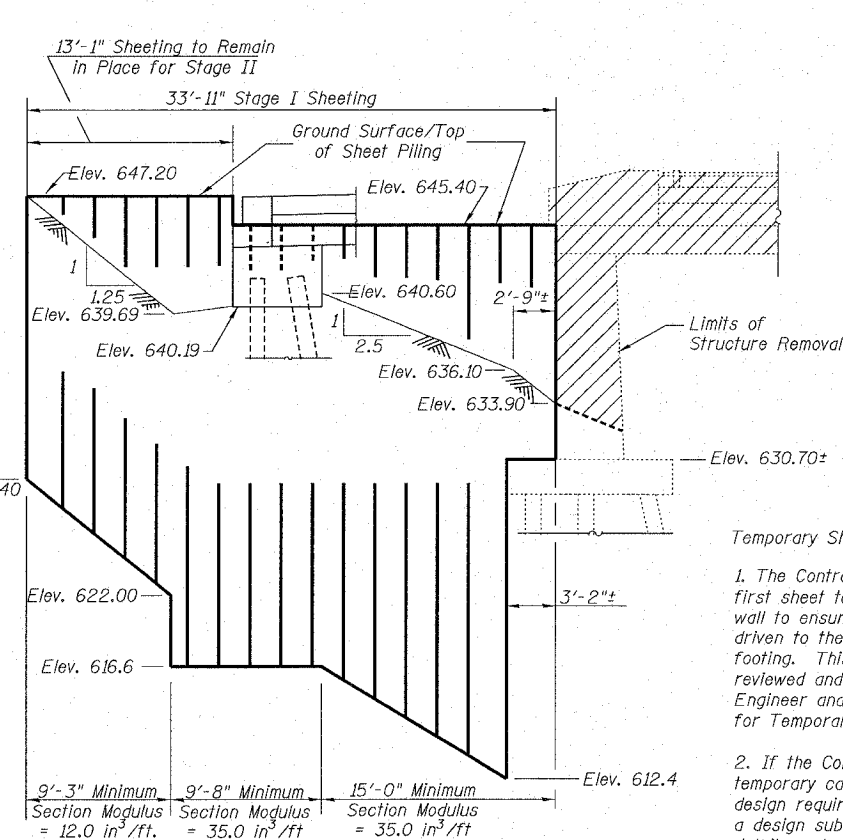
STAGE II REMOVAL



STAGE II CONSTRUCTION

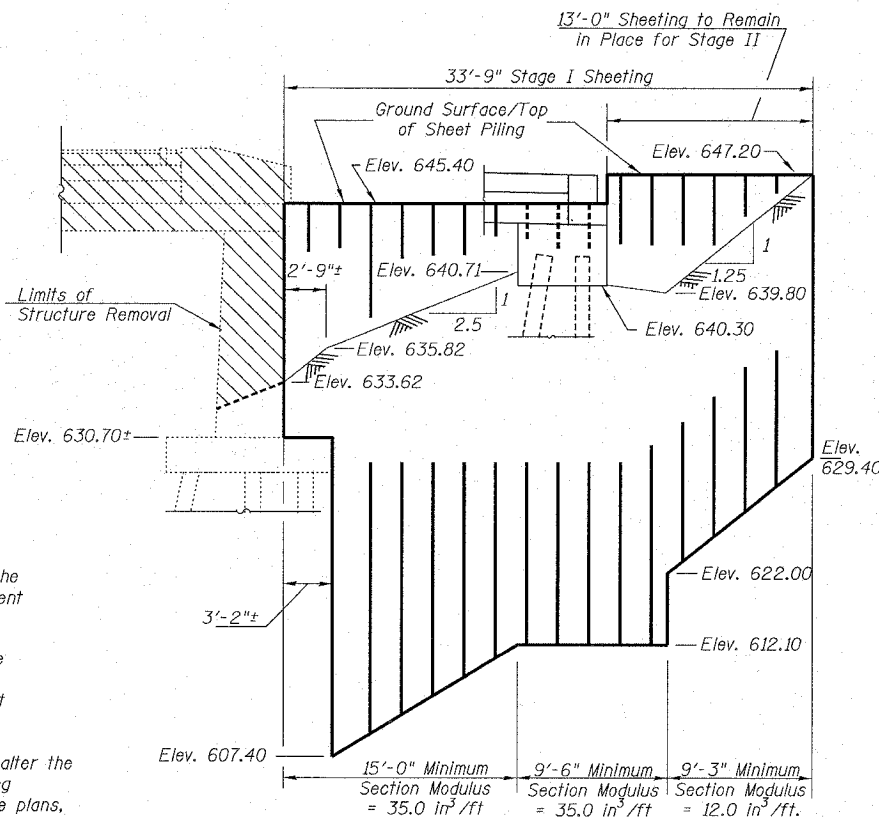
Stage Construction Notes:

- All sections are looking south.
- For quantity of Temporary Concrete Barrier see Roadway Plans.



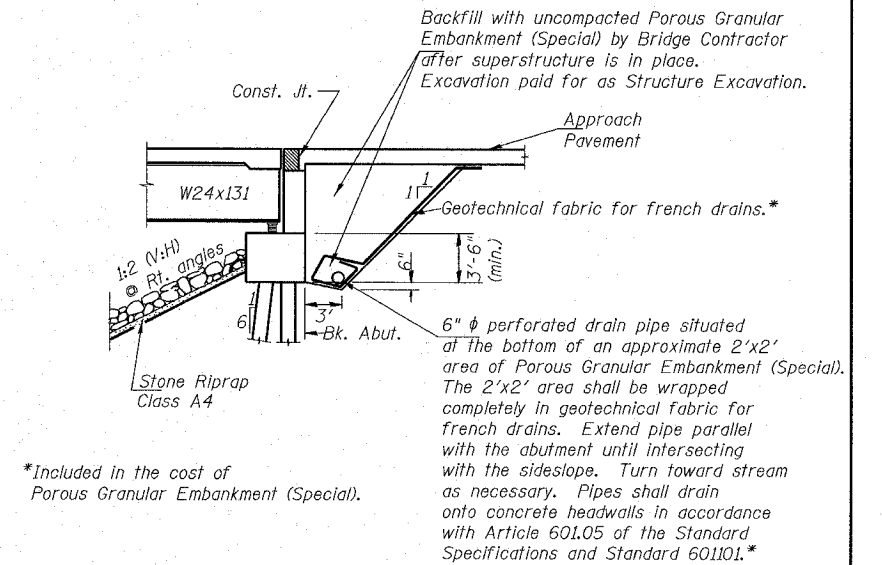
TEMPORARY SHEET PILING - NORTH ABUTMENT

Slopes and distances are along sheeting (parallel to ϕ Roadway)



TEMPORARY SHEET PILING - SOUTH ABUTMENT

Slopes and distances are along sheeting (parallel to ϕ Roadway)



SECTION THRU ABUTMENT

at right angle to abut.

STAGE CONSTRUCTION AND TEMP SHEET PILING
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

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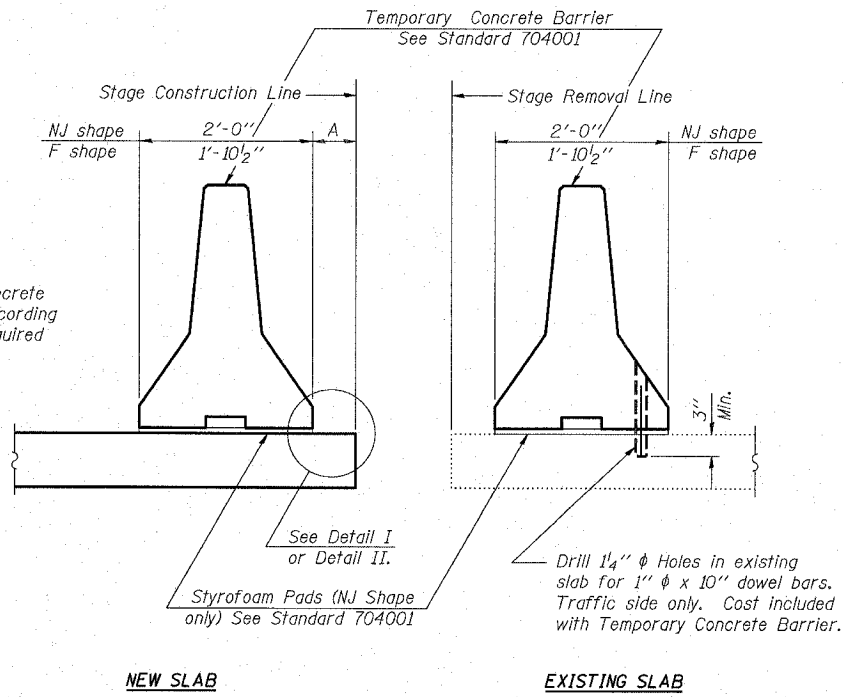
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3 25 SHEETS
S. B. L.	(102)	Whiteside	69	23	
F. A. 646	BR-2				

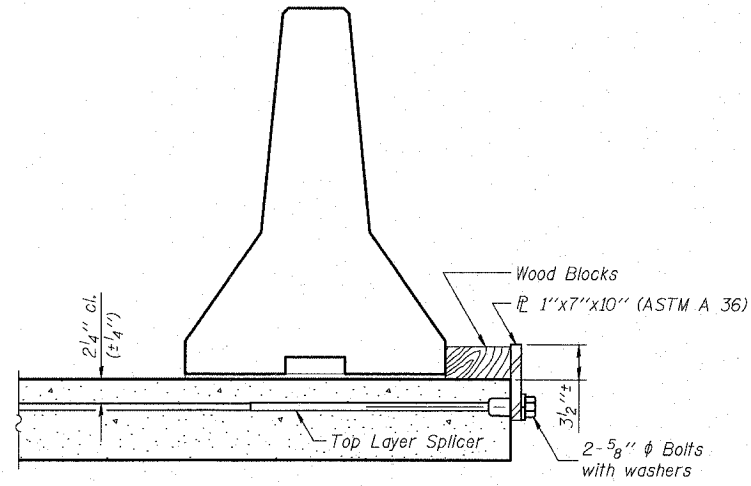
CONTRACT NO. 64427



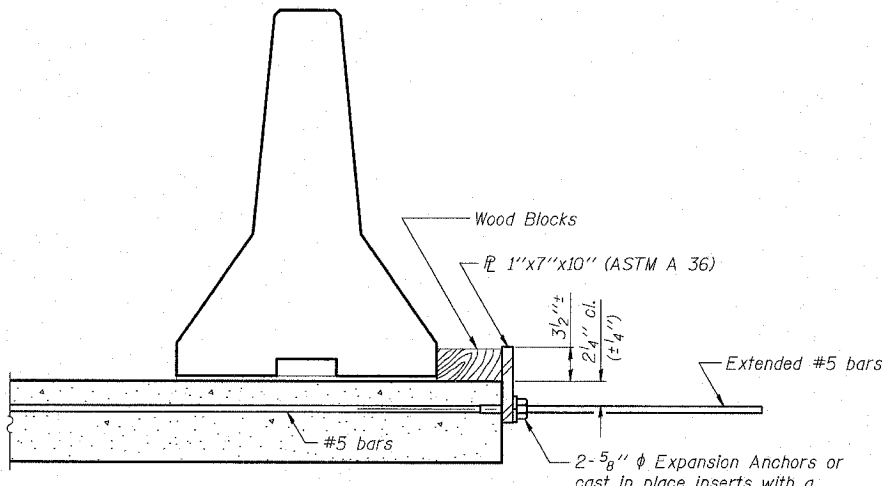
When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

- NOTES**
- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
 - Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.

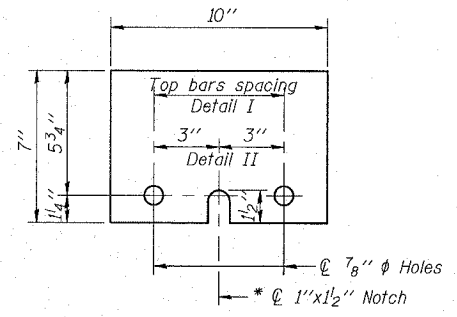
SECTIONS THRU SLAB



DETAIL I
The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II
The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



1"x7"x10"
* Required only with Detail II

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

TEMPORARY CONCRETE BARRIER
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

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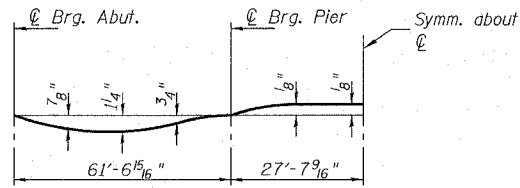
DESIGNED: DDB	<p>RANDOLPH & ASSOCIATES, INC. 111 N. PIERCE PARKWAY, PEORIA, IL 61614-2024 TEL: 309-271-8940 FAX: 309-271-8088 WWW.RANDOLPH-ASSOCIATES.COM CONSULTING ENGINEERS AND SURVEYORS</p>	FILE NUMBER
CHECKED: JFJ		136.111
DRAWN: JDB		DATE
CHECKED: DDB		Aug.
		2005

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I.	(102)	Whiteside	69	24
F. A. 646	BR-2			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 64427

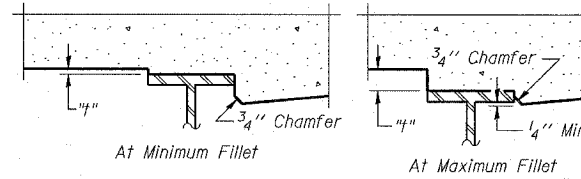
SHEET NO. 4
25 SHEETS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

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



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

FILLET HEIGHTS

BEAM 1

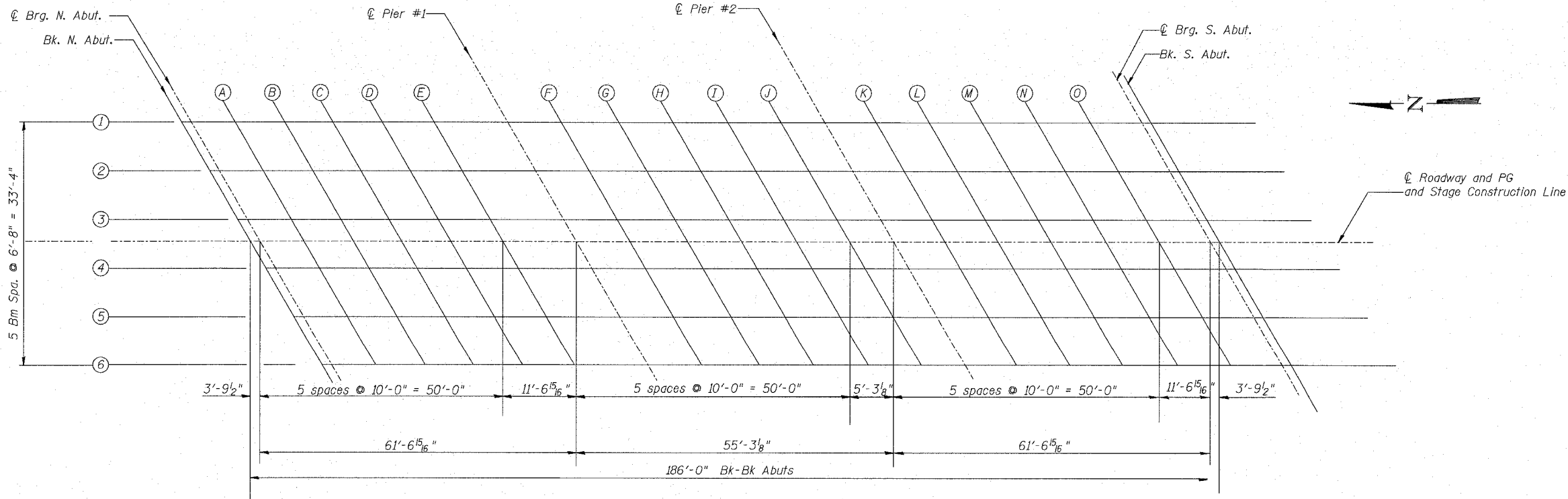
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
BK. N. ABUT.	673+72.16	16.667 Lt	646.828	646.828
☉ BRG. N. ABUT.	673+75.95	16.667 Lt	646.849	646.849
A	673+85.95	16.667 Lt	646.902	646.959
B	673+95.95	16.667 Lt	646.949	647.044
C	674+05.95	16.667 Lt	646.991	647.095
D	674+15.95	16.667 Lt	647.027	647.111
E	674+25.95	16.667 Lt	647.058	647.102
☉ PIER #1	674+37.53	16.667 Lt	647.087	647.087
F	674+47.53	16.667 Lt	647.106	647.093
G	674+57.53	16.667 Lt	647.119	647.106
H	674+67.53	16.667 Lt	647.128	647.116
I	674+77.53	16.667 Lt	647.130	647.117
J	674+87.53	16.667 Lt	647.128	647.119
☉ PIER #2	674+92.79	16.667 Lt	647.124	647.124
K	675+02.79	16.667 Lt	647.113	647.150
L	675+12.79	16.667 Lt	647.097	647.175
M	675+22.79	16.667 Lt	647.075	647.178
N	675+32.79	16.667 Lt	647.048	647.146
O	675+42.79	16.667 Lt	647.015	647.080
☉ BRG. S. ABUT.	675+54.37	16.667 Lt	646.970	646.970
BK. S. ABUT.	675+58.16	16.667 Lt	646.954	646.954

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
BK. N. ABUT	673+77.15	10.000 Lt	646.984	646.984
☉ BRG. N. ABUT.	673+80.94	10.000 Lt	647.005	647.005
A	673+90.94	10.000 Lt	647.054	647.111
B	674+00.94	10.000 Lt	647.099	647.194
C	674+10.94	10.000 Lt	647.138	647.242
D	674+20.94	10.000 Lt	647.171	647.255
E	674+30.94	10.000 Lt	647.200	647.244
☉ PIER #1	674+42.52	10.000 Lt	647.225	647.225
F	674+52.52	10.000 Lt	647.242	647.229
G	674+62.52	10.000 Lt	647.253	647.240
H	674+72.52	10.000 Lt	647.258	647.246
I	674+82.52	10.000 Lt	647.258	647.245
J	674+92.52	10.000 Lt	647.253	647.244
☉ PIER #2	674+97.78	10.000 Lt	647.248	647.248
K	675+07.78	10.000 Lt	647.234	647.271
L	675+17.78	10.000 Lt	647.215	647.293
M	675+27.78	10.000 Lt	647.190	647.293
N	675+37.78	10.000 Lt	647.160	647.258
O	675+47.78	10.000 Lt	647.125	647.190
☉ BRG. S. ABUT.	675+59.36	10.000 Lt	647.077	647.077
BK. S. ABUT.	675+63.15	10.000 Lt	647.060	647.060

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
BK. N. ABUT	673+82.13	3.333 Lt	647.115	647.115
☉ BRG. N. ABUT.	673+85.93	3.333 Lt	647.134	647.134
A	673+95.93	3.333 Lt	647.181	647.238
B	674+05.93	3.333 Lt	647.223	647.318
C	674+15.93	3.333 Lt	647.259	647.363
D	674+25.93	3.333 Lt	647.290	647.374
E	674+35.93	3.333 Lt	647.316	647.360
☉ PIER #1	674+47.51	3.333 Lt	647.338	647.338
F	674+57.51	3.333 Lt	647.352	647.339
G	674+67.51	3.333 Lt	647.360	647.347
H	674+77.51	3.333 Lt	647.363	647.351
I	674+87.51	3.333 Lt	647.360	647.347
J	674+97.51	3.333 Lt	647.352	647.343
☉ PIER #2	675+02.77	3.333 Lt	647.346	647.346
K	675+12.77	3.333 Lt	647.329	647.366
L	675+22.77	3.333 Lt	647.307	647.385
M	675+32.77	3.333 Lt	647.280	647.383
N	675+42.77	3.333 Lt	647.248	647.346
O	675+52.77	3.333 Lt	647.209	647.274
☉ BRG. S. ABUT.	675+64.35	3.333 Lt	647.158	647.158
BK. S. ABUT.	675+68.14	3.333 Lt	647.140	647.140



DECK ELEVATIONS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB		FILE NUMBER	136.111
CHECKED	JFJ		DATE	Aug. 2005
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CHECKED	DDB			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. S. B. I. F. A. 646	SECTION (102) BR-2	COUNTY Whiteside	TOTAL SHEETS 69	SHEET NO. 25
ILLINOIS FED. AID PROJECT-		CONTRACT NO. 64427		

SHEET NO. 5
24 SHEETS

PG & SCL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
BK. N. ABUT	673+84.63	0.000	647.180	647.180
☉ BRG. N. ABUT.	673+88.42	0.000	647.199	647.199
A	673+98.42	0.000	647.244	647.301
B	674+08.42	0.000	647.285	647.380
C	674+18.42	0.000	647.320	647.424
D	674+28.42	0.000	647.349	647.433
E	674+38.42	0.000	647.373	647.417
☉ PIER #1	674+50.00	0.000	647.394	647.394
F	674+60.00	0.000	647.407	647.394
G	674+70.00	0.000	647.413	647.400
H	674+80.00	0.000	647.415	647.403
I	674+90.00	0.000	647.411	647.398
J	675+00.00	0.000	647.401	647.392
☉ PIER #2	675+05.26	0.000	647.394	647.394
K	675+15.26	0.000	647.376	647.413
L	675+25.26	0.000	647.353	647.431
M	675+35.26	0.000	647.325	647.428
N	675+45.26	0.000	647.291	647.389
O	675+55.26	0.000	647.251	647.316
☉ BRG. S. ABUT.	675+66.84	0.000	647.199	647.199
BK. S. ABUT.	675+70.63	0.000	647.180	647.180

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
BK. N. ABUT	673+87.12	3.333 Rt	647.140	647.140
☉ BRG. N. ABUT.	673+90.91	3.333 Rt	647.158	647.158
A	674+00.91	3.333 Rt	647.203	647.260
B	674+10.91	3.333 Rt	647.242	647.337
C	674+20.91	3.333 Rt	647.275	647.379
D	674+30.91	3.333 Rt	647.304	647.388
E	674+40.91	3.333 Rt	647.326	647.370
☉ PIER #1	674+52.49	3.333 Rt	647.346	647.346
F	674+62.49	3.333 Rt	647.357	647.344
G	674+72.49	3.333 Rt	647.362	647.349
H	674+82.49	3.333 Rt	647.362	647.350
I	674+92.49	3.333 Rt	647.357	647.344
J	675+02.49	3.333 Rt	647.346	647.337
☉ PIER #2	675+07.75	3.333 Rt	647.338	647.338
K	675+17.75	3.333 Rt	647.319	647.356
L	675+27.75	3.333 Rt	647.295	647.373
M	675+37.75	3.333 Rt	647.265	647.368
N	675+47.75	3.333 Rt	647.229	647.327
O	675+57.75	3.333 Rt	647.188	647.253
☉ BRG. S. ABUT.	675+69.33	3.333 Rt	647.134	647.134
BK. S. ABUT.	675+73.13	3.333 Rt	647.115	647.115


BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
BK. N. ABUT	673+92.11	10.000 Rt	647.060	647.060
☉ BRG. N. ABUT.	673+95.90	10.000 Rt	647.077	647.077
A	674+05.90	10.000 Rt	647.119	647.176
B	674+15.90	10.000 Rt	647.155	647.250
C	674+25.90	10.000 Rt	647.186	647.290
D	674+35.90	10.000 Rt	647.211	647.295
E	674+45.90	10.000 Rt	647.231	647.275
☉ PIER #1	674+57.48	10.000 Rt	647.248	647.248
F	674+67.48	10.000 Rt	647.256	647.243
G	674+77.48	10.000 Rt	647.259	647.246
H	674+87.48	10.000 Rt	647.256	647.244
I	674+97.48	10.000 Rt	647.248	647.235
J	675+07.48	10.000 Rt	647.235	647.226
☉ PIER #2	675+12.74	10.000 Rt	647.225	647.225
K	675+22.74	10.000 Rt	647.203	647.240
L	675+32.74	10.000 Rt	647.176	647.254
M	675+42.74	10.000 Rt	647.143	647.246
N	675+52.74	10.000 Rt	647.105	647.203
O	675+62.74	10.000 Rt	647.062	647.127
☉ BRG. S. ABUT.	675+74.32	10.000 Rt	647.005	647.005
BK. S. ABUT.	675+78.11	10.000 Rt	646.984	646.984

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
BK. N. ABUT	673+97.10	16.667 Rt	646.954	646.954
☉ BRG. N. ABUT.	674+00.89	16.667 Rt	646.970	646.970
A	674+10.89	16.667 Rt	647.009	647.066
B	674+20.89	16.667 Rt	647.043	647.138
C	674+30.89	16.667 Rt	647.071	647.175
D	674+40.89	16.667 Rt	647.094	647.178
E	674+50.89	16.667 Rt	647.111	647.155
☉ PIER #1	674+62.47	16.667 Rt	647.124	647.124
F	674+72.47	16.667 Rt	647.130	647.117
G	674+82.47	16.667 Rt	647.130	647.117
H	674+92.47	16.667 Rt	647.124	647.112
I	675+02.47	16.667 Rt	647.114	647.101
J	675+12.47	16.667 Rt	647.097	647.088
☉ PIER #2	675+17.73	16.667 Rt	647.087	647.087
K	675+27.73	16.667 Rt	647.062	647.099
L	675+37.73	16.667 Rt	647.032	647.110
M	675+47.73	16.667 Rt	646.997	647.100
N	675+57.73	16.667 Rt	646.956	647.054
O	675+67.73	16.667 Rt	646.910	646.975
☉ BRG. S. ABUT.	675+79.31	16.667 Rt	646.849	646.849
BK. S. ABUT.	675+83.10	16.667 Rt	646.828	646.828

DECK ELEVATIONS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED DDB	 RANDOLPH & ASSOCIATES, INC. <small>111 N. PIONEER PARKWAY, PERU, IL 61354-2124 TEL: 815-241-2200 FAX: 815-241-2201 WWW.RANDOLPHASSOCIATES.COM</small>	FILE NUMBER 136.111
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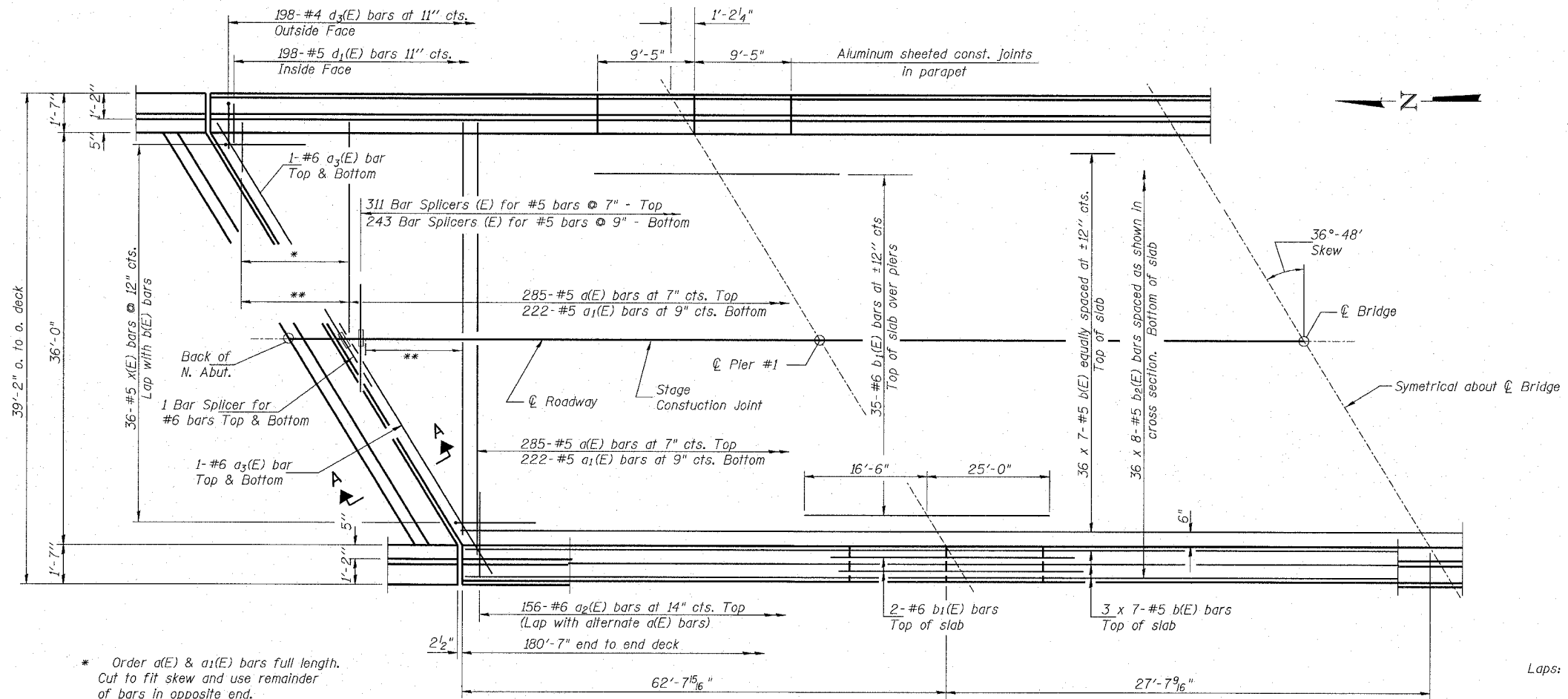
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I.	(102)	Whiteside	69	26
F. A.	646	BR-2		
FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT -			

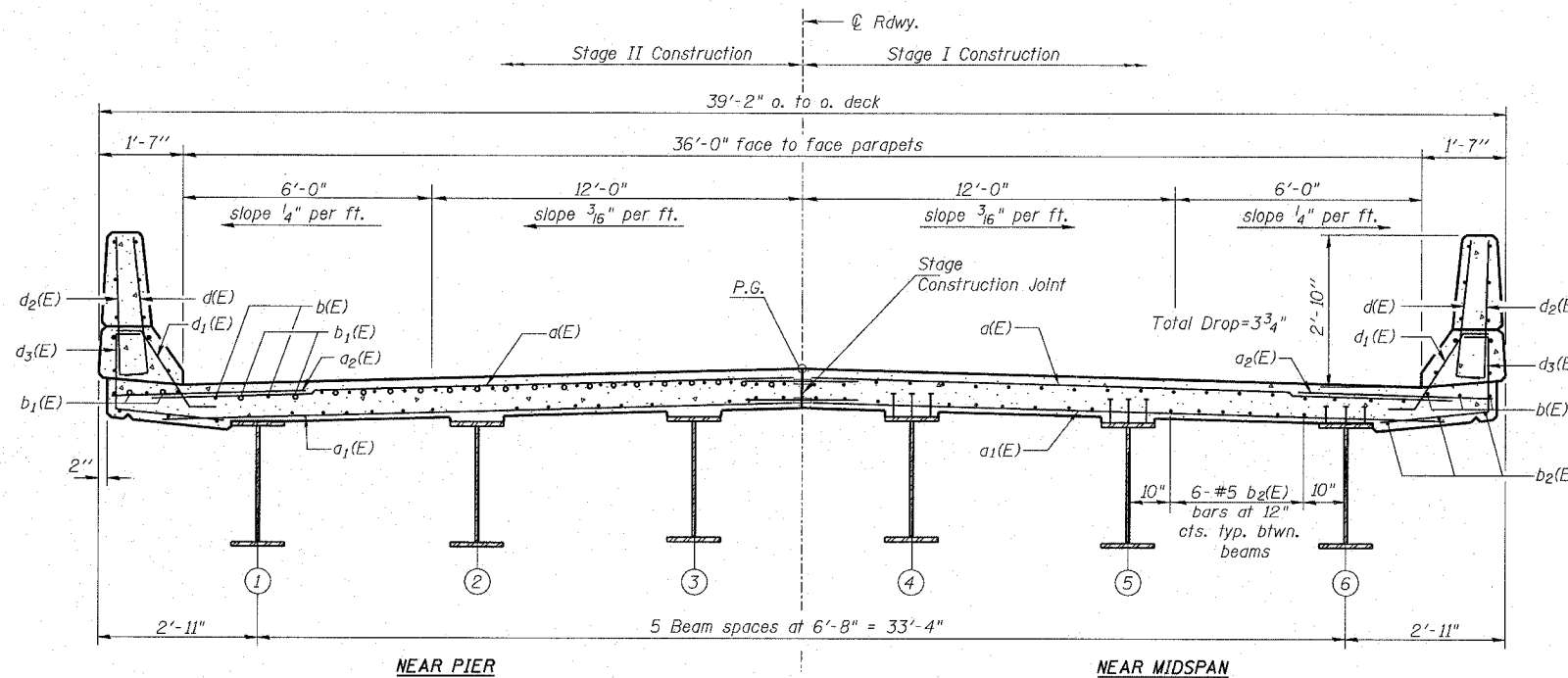
CONTRACT NO. 64427

SHEET NO. 6
25 SHEETS



- * Order $a(E)$ & $a_1(E)$ bars full length. Cut to fit skew and use remainder of bars in opposite end.
- ** 26-#5 $a(E)$ bars at 7" cts. Top
21-#5 $a_1(E)$ bars at 9" cts. Bottom

HALF PLAN



CROSS SECTION
(Looking South)

Notes:
See Sheet 7 of 25 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 7 of 25 for parapet reinforcement.

DECK PLAN & SECTION
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB	RANDOLPH & ASSOCIATES, INC. 111 N. FORTY-SECOND STREET, SUITE 200 CHICAGO, ILLINOIS 60640 TEL: (312) 464-8800 FAX: (312) 464-8801 WWW.RANDOLPH-ASSOCIATES.COM	FILE NUMBER	136.111
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I.	(102)	Whiteside	69	28
F. A.	646 BR-2	ILLINOIS FED. AID PROJECT-		
CONTRACT NO. 64427				

SHEET NO. 8
25 SHEETS

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.

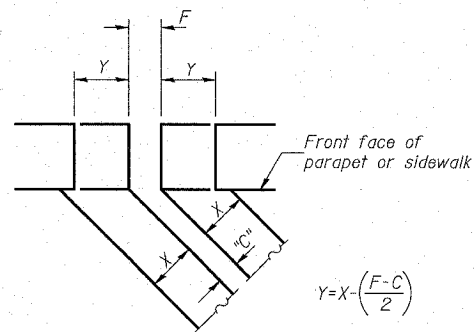
INSTALLATION NOTES

- Install continuous seal in roadway, parapet, curb, and sidewalk.
- Install anchor blocks as indicated.

NOTE A: Maximum spacing of anchor bolts shall be 12" centers.

SKEW LIMITATIONS

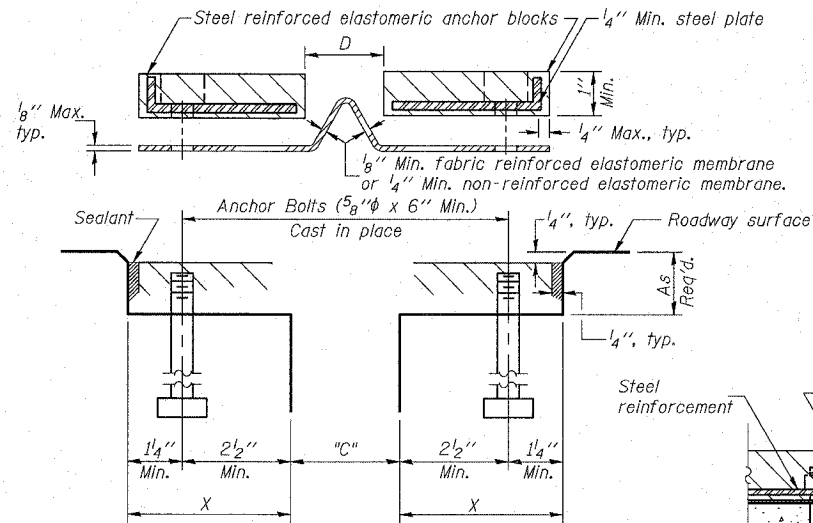
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



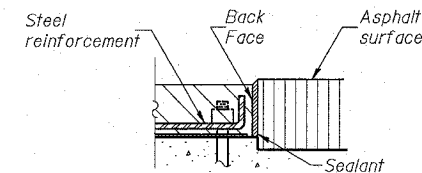
FORMING BLOCKOUT SKETCH

$$Y = X \left(\frac{F-C}{2} \right)$$

For dimension "F" see sheet #6 of 25



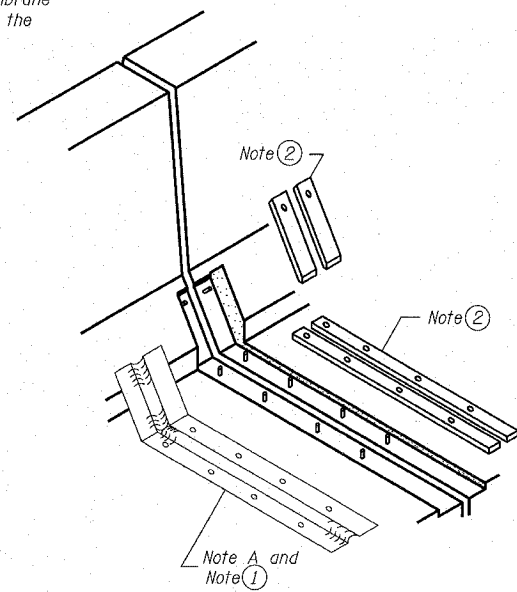
CROSS SECTION



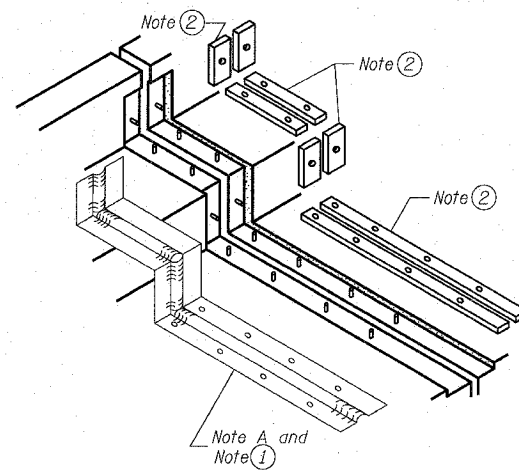
ANCHOR BLOCK WITH ASPHALT SURFACE

GENERAL NOTES

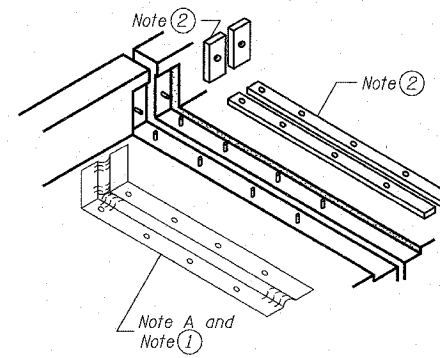
Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.
The elastomeric membrane shall be pre-molded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.
The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.
Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.
The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.



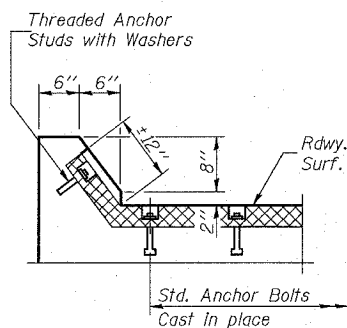
AT PARAPET



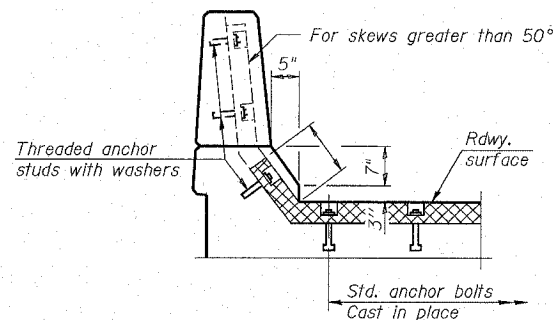
AT SIDEWALK OR MEDIAN



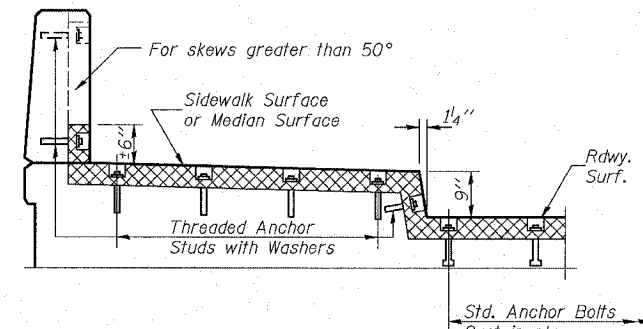
AT WALL



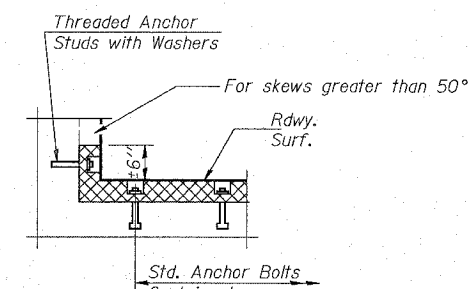
AT CURB



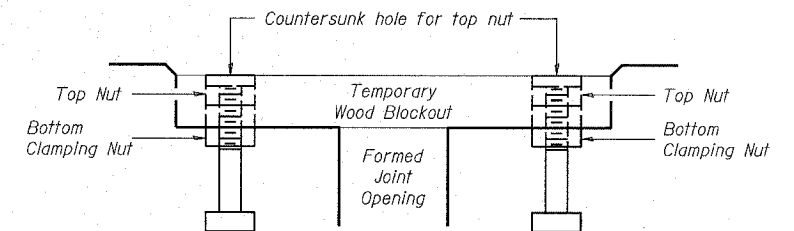
AT PARAPET



AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS



AT WALL



Note: Stud needs to be threaded lower to allow for use of clamping nut.
Anchor studs should be stainless
RECOMMENDED BLOCKOUT DETAIL

2" NEOPRENE JOINT
AT NORTH AND SOUTH ABUTMENTS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB	<p>RANDOLPH & ASSOCIATES, INC. 111 N. FIDELITY PARKWAY, PEORIA, IL 61615-1124 TEL: 309-693-2644 FAX: 309-693-0868 WWW.RANDOLPH-ASSOCIATES.COM</p>	FILE NUMBER
CHECKED	JFJ		136.111
DRAWN	JDB		DATE
CHECKED	DDB		Aug.
			2005

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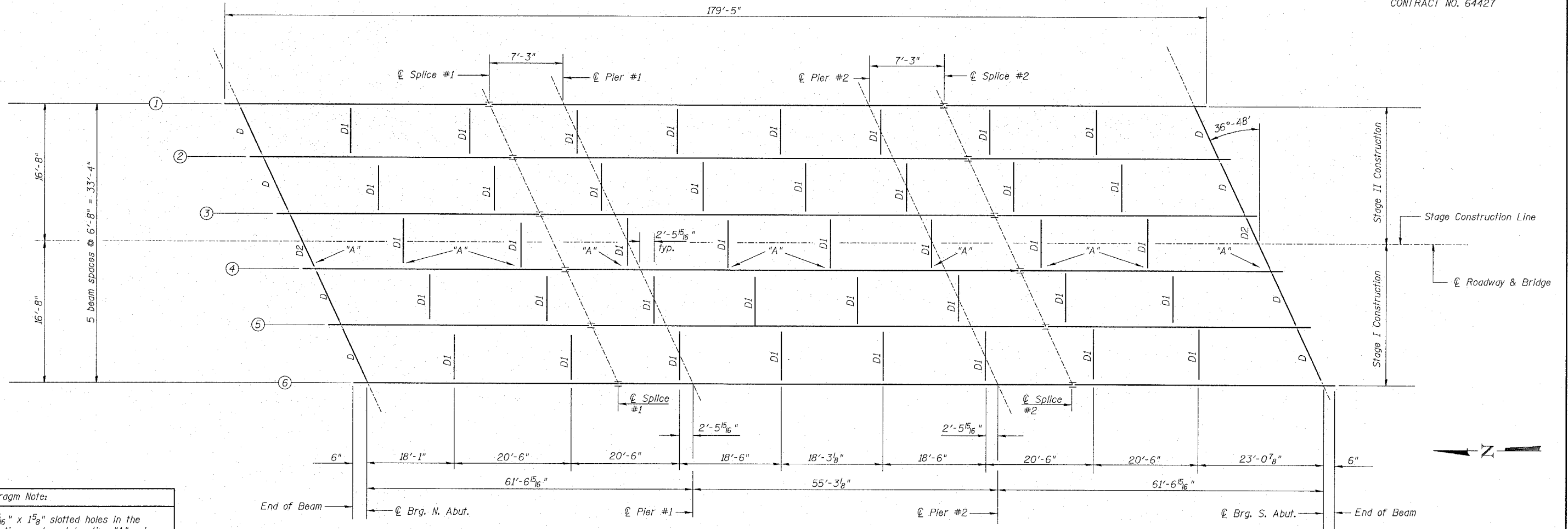
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STATE OF ILLINOIS
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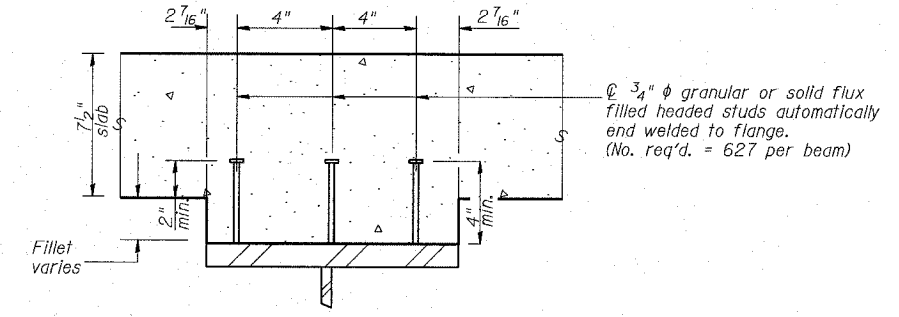
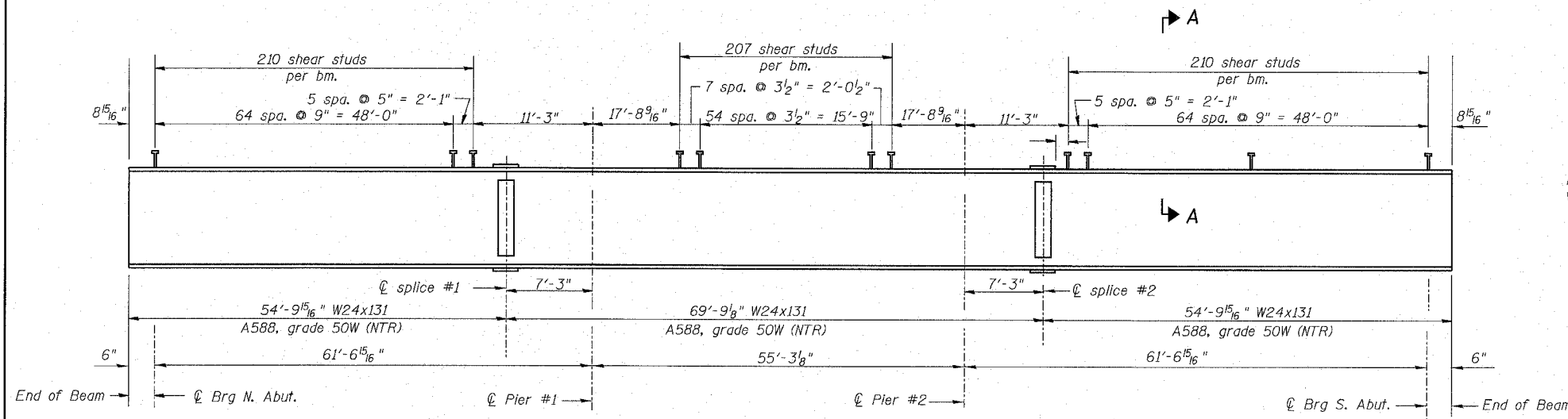
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I.	(102)	Whiteside	69	29
F. A.	646 BR-2			
FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT-			

CONTRACT NO. 64427



Diaphragm Note:
Use 1 5/16" x 1 5/8" slotted holes in the connection angles at location "A" only. Provide 1/4" plate washers for slotted holes.
Bolts shall be finger tightened prior to the deck pour for stage II construction and then fully tightened after completion of the deck pour for stage II construction.

FRAMING PLAN



SECTION A-A

**STRUCTURAL STEEL
FRAMING PLAN**
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

Note: NTR denotes Notch Toughness Requirements

BEAM ELEVATION

DESIGNED	DDB	RANDOLPH & ASSOCIATES, INC. 111 N. POWERS AVENUE, PEORIA, IL 61604-3444 TEL: (309) 691-8811 FAX: (309) 691-8899 HTTP://WWW.RANDOLPHINC.COM	FILE NUMBER	136.111
CHECKED	JFJ		DATE	Aug. 2005
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CHECKED	DDB			

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MOMENT TABLE

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. #1	0.5 Sp. #2
I_s	(in ⁴)	4,020	4,020
I_c (n)	(in ⁴)	10,574	10,574
I_c (3n)	(in ⁴)	7,728	7,728
S_s	(in ³)	329	329
S_c (n)	(in ³)	473	473
S_c (3n)	(in ³)	427	427
Z	(in ³)		370
Q	(k/')	0.803	1.244
M_Q	(k)	255	409
s_Q	(k/')	0.442	0.442
$M_s Q$	(k)	151	40
M_L	(k)	433	203
M (Imp)	(k)	116	86
$5/3(M_L + M$ (Imp))	(k)	915	657
M_a	(k)	1717	940
M_u	(k)	1958	2186
$f_s Q$ (non-comp)	(ksi)	9.3	0.9
$f_s Q$ (comp)	(ksi)	4.2	1.1
f_s $5/3(M_L + M$ (Imp))	(ksi)	23.2	16.7
f_s (Overload)	(ksi)	36.8	18.8
f_s (Total)	(ksi)	39.8	
VR	(k)	48.4	38.0

* Compact, Braced section.
** Non-Compact Section

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R_Q	(k)	31.9
R_L	(k)	36.1
Imp.	(k)	11.2
R (Total)	(k)	77.6

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total and Overload)

$I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

$I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.

VR is the maximum L + impact shear range in span.

Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.

The Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1 & 10.50.1.1.

f_s (Total) is the sum of the stresses due to

$$1.3 (M_Q + M_s Q + \frac{5}{3}(M_L + M (Imp)))$$

f_s (Overload) is the sum of the stresses due to

$$M_Q + M_s Q + \frac{5}{3}(M_L + M (Imp))$$

M_Q - moment due to dead loads on non-composite section

$M_s Q$ - moment due to dead loads on composite section

M_L - moment due to live loads on non-composite or composite section

M (Imp) - moment due to live load impact on non-composite or composite section

M_a (applied moment) = $1.3 (M_Q + M_s Q + \frac{5}{3}(M_L + M (Imp)))$

M_u is the maximum bending strength of the section

TOP OF BEAM ELEVATIONS BEFORE DEFLECTIONS ***

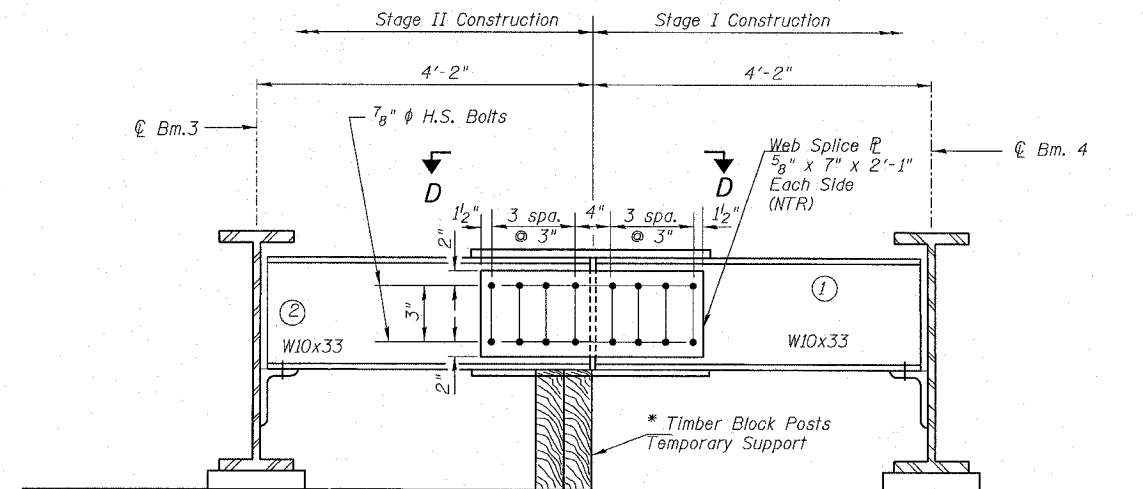
	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
⊙ Brg. N. Abut	646.180	646.330	646.460	646.490	646.400	646.300
⊙ Splice 1	646.350	646.490	646.600	646.610	646.520	646.390
⊙ Brg. Pier 1	646.355	646.493	646.601	646.609	646.517	646.385
⊙ Brg. Pier 2	646.395	646.517	646.609	646.601	646.493	646.345
⊙ Splice 2	646.400	646.520	646.610	646.600	646.490	646.340
⊙ Brg. S. Abut	646.300	646.400	646.490	646.460	646.330	646.170

*** For Fabrication Only

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I.	(102)	Whiteside	69	30
F.A. 646	BR-2			
ILLINOIS FED. AID PROJECT-				
CONTRACT NO. 64427				

SHEET NO. 10
25 SHEETS



DIAPHRAGM D2

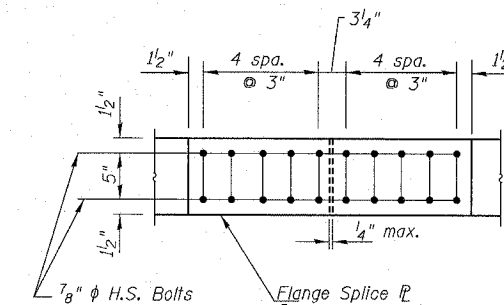
2 Required
(looking South)

For details of connections to beams see diaphragm D

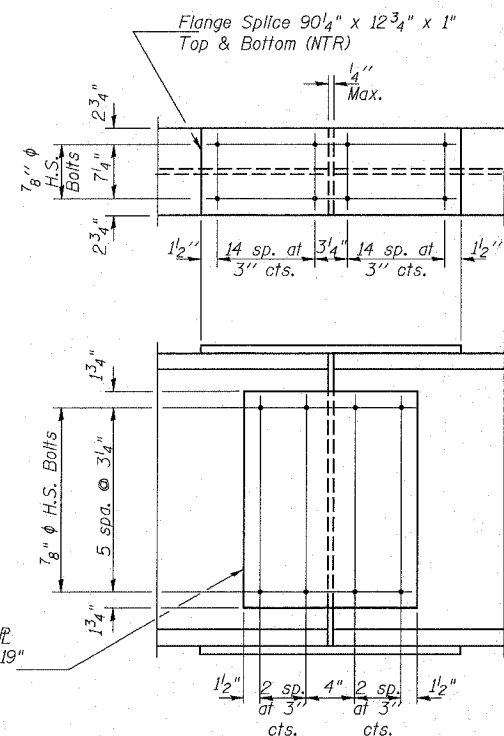
* Cost of Timber Block Posts included with "Furnishing and Erecting Structural Steel".

DIAPHRAGM D2 CONSTRUCTION SEQUENCE

- 1.) Order Diaphragm D2 in two sections with lengths of 4'-1 1/2" and 4'-1 1/2".
- 2.) Attach section ① of Diaphragm to Beam 4 and top flange splice ⊕ during Stage I Construction.
- 3.) Place Timber Block Posts between section ① of diaphragm and abutment bearing seat.
- 4.) Attach section ② of diaphragm to both Beam 3 and section ① of diaphragm during Stage II Construction.
- 5.) Attach web splice plates to sections ① and ② of diaphragms.
- 6.) Remove Timber Block Posts.
- 7.) Attach bottom flange splice plate to sections ① and ② of diaphragms.

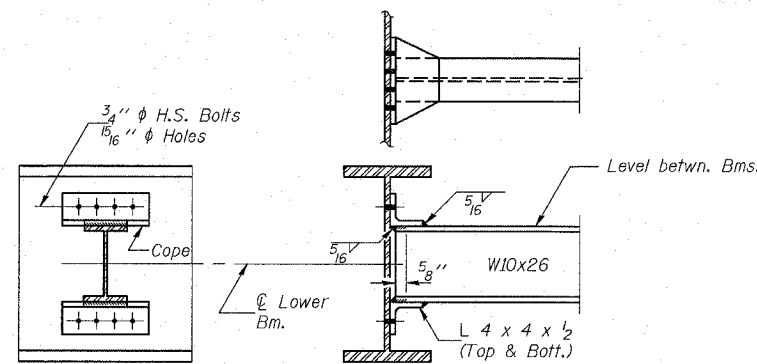


VIEW D-D



SPLICE

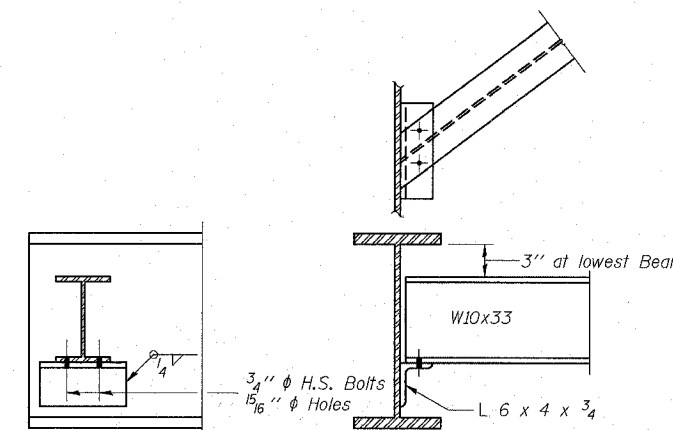
12 required



DIAPHRAGM D1

40 Required

Note:
Two hardened washers shall be required over all oversize holes for diaphragms.



DIAPHRAGM D

8 Required

DIAPHRAGM & SPLICE DETAILS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB	RANDOLPH & ASSOCIATES, INC. 411 N. FRENCH PARKWAY, PEORIA, IL 61615-2124 TEL: 309-693-5900 FAX: 309-693-5901 11777 W. 127th ST., LAWRENCEVILLE, GA 30046	FILE NUMBER	136.111
CHECKED	JFJ		DATE	Aug.
DRAWN	JDB			2005
CHECKED	DDB			

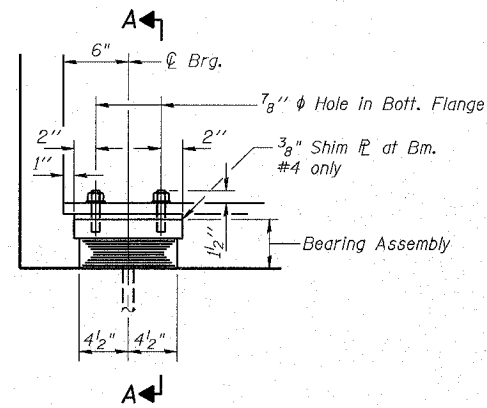
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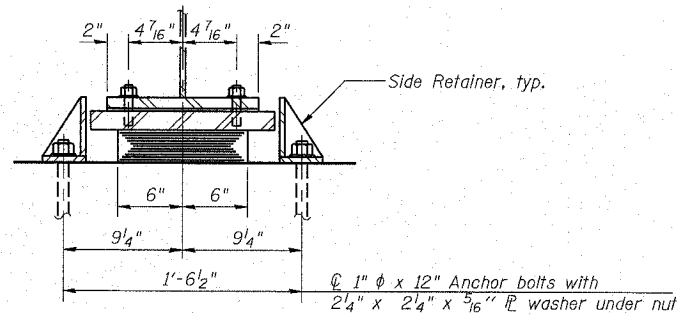
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.L. F.A. 646	(102) BR-2	Whiteside	69	31
ILLINOIS FED. AID PROJECT - CONTRACT NO. 64427				

SHEET NO. 11
25 SHEETS

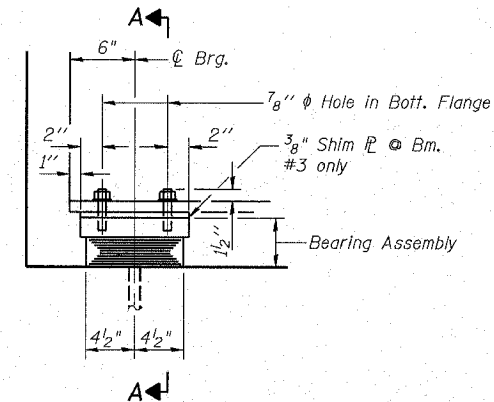


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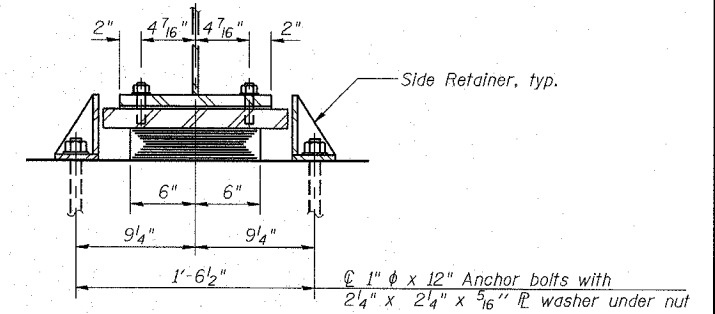


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. - NORTH ABUTMENT
6 required

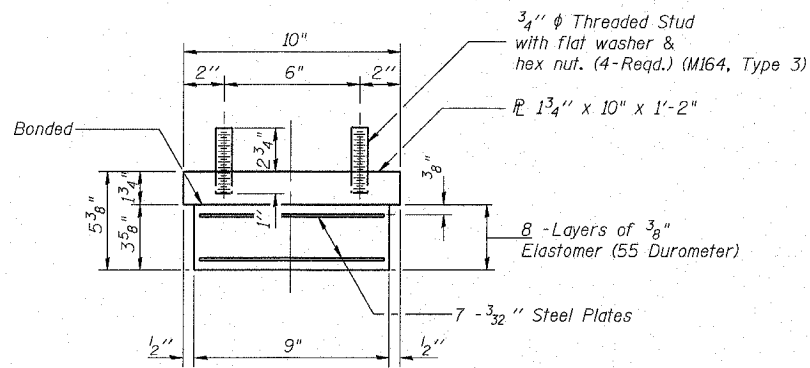


ELEVATION AT ABUT.



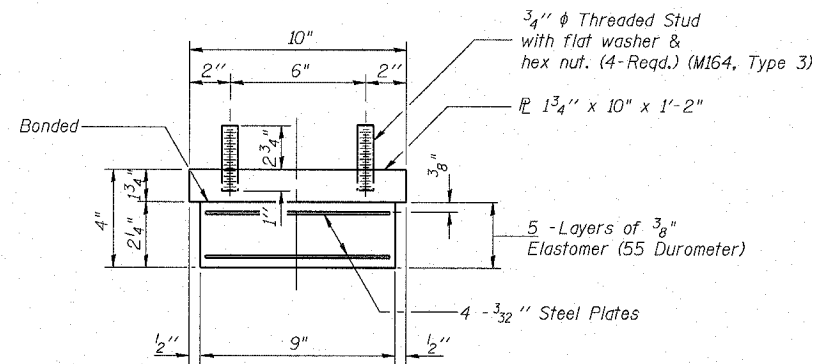
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. - SOUTH ABUTMENT
6 required



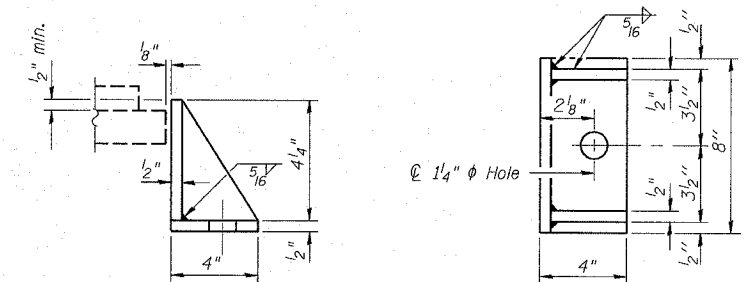
BEARING ASSEMBLY - NORTH ABUTMENT

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



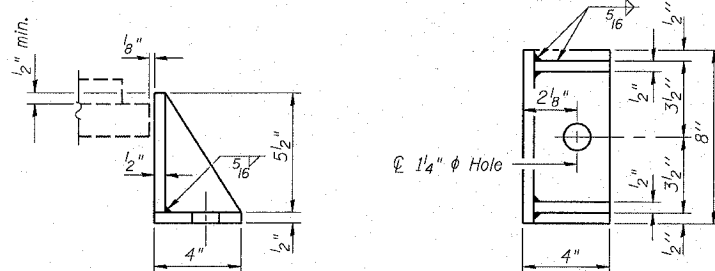
BEARING ASSEMBLY - SOUTH ABUTMENT

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



SIDE RETAINER - SOUTH ABUTMENT

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.



SIDE RETAINER - NORTH ABUTMENT

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12

ABUTMENT BEARINGS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

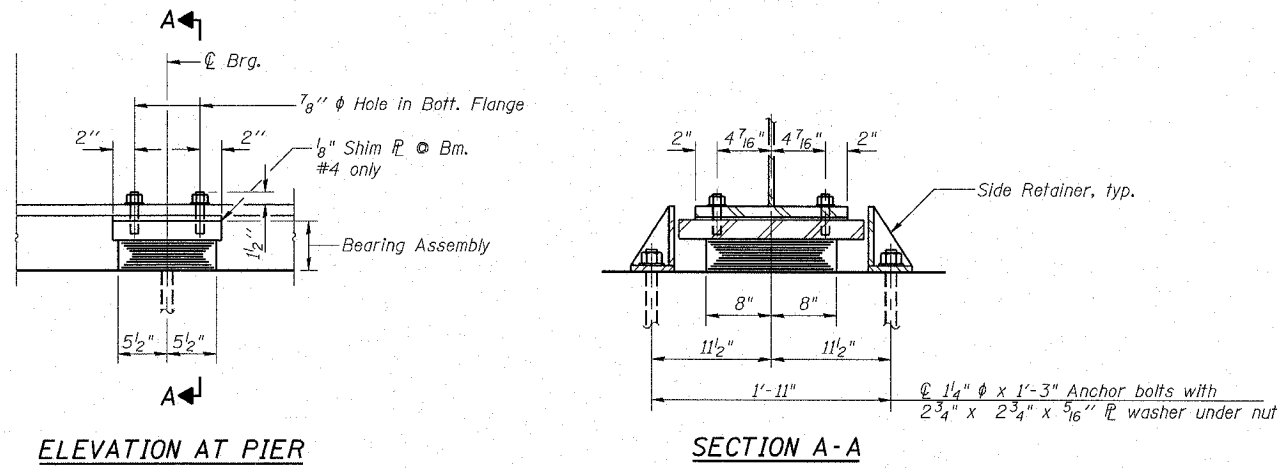
DESIGNED DDB	<p>RANDOLPH & ASSOCIATES, INC. 111 N. FORTHER STREET, PEORIA, IL 61604-2124 TEL: 309-251-2900 FAX: 309-251-2905 CONSULTING ENGINEERS - LAND SURVEYORS</p>	FILE NUMBER 136.111
CHECKED JFJ		DATE Aug.
DRAWN JDB		2005
CHECKED DDB		

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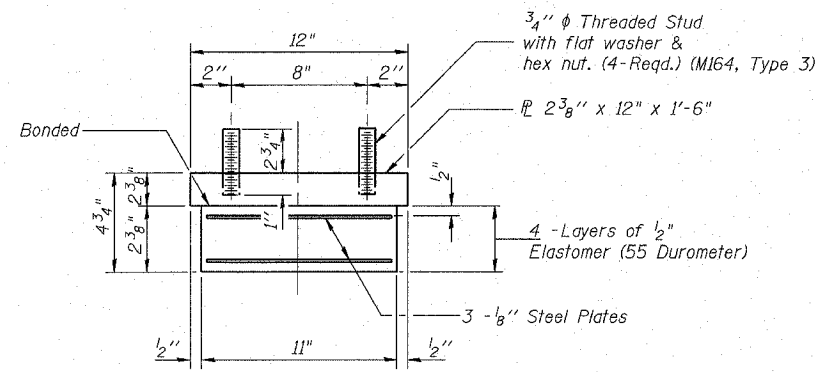
9/9/2005 9:46:03 AM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 12 25 SHEETS
S. B. I.	(102)	Whiteside	69	32	
F. A. 646	BR-2				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			
CONTRACT NO. 64427					

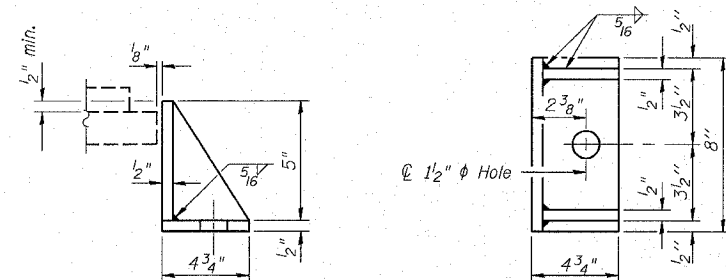


TYPE I ELASTOMERIC EXP. BRG. - PIER #1
6 required



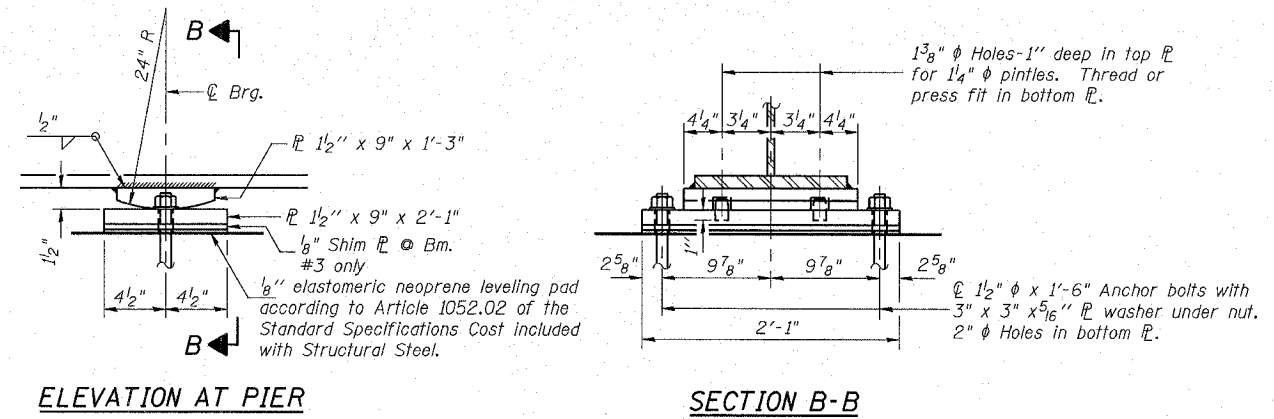
BEARING ASSEMBLY - PIER #1

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



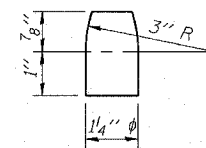
SIDE RETAINER - PIER #1

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.



FIXED BEARINGS AT PIER #2
6 required

Notes: Anchor bolts at fixed bearings may be built into the masonry. See sheet 13 for Anchor Bolt installation.



BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type 1	Each	6

PIER BEARINGS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB	RANDOLPH & ASSOCIATES, INC. 111 N. FRONT STREET, PORTA, IL 60453-0124 TEL: 815-493-8844 FAX: 815-493-8828 1-800-461-8811 HTTP://WWW.RANDOLPHINC.COM CONSULTING ENGINEERS • LAND SURVEYORS	FILE NUMBER	136.111
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DRAWN	JDB			
CHECKED	DDB			

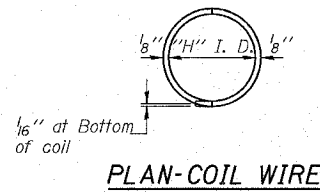
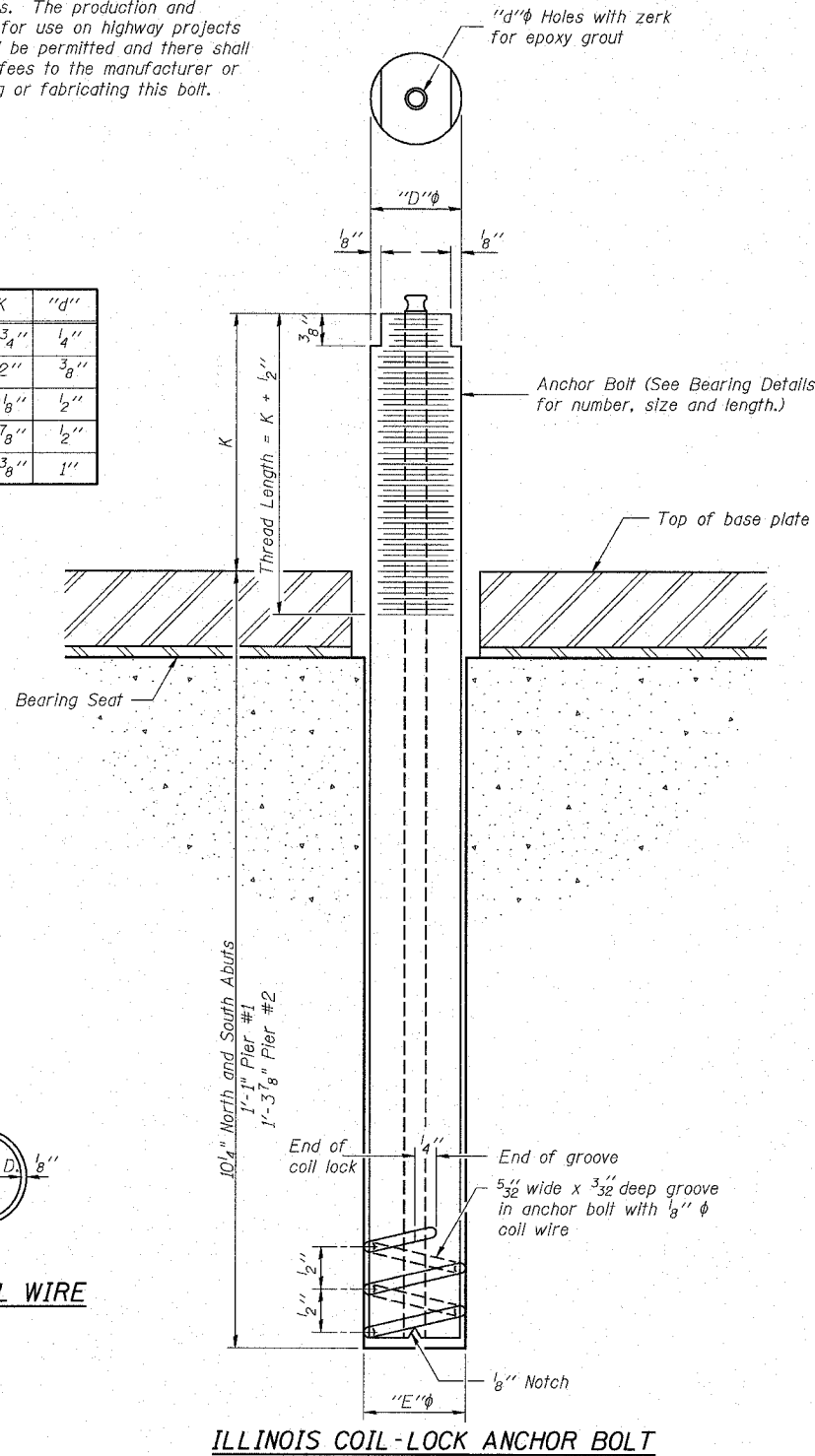
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8/9/2005

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"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 3/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



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
All	A307

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.

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 not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

ANCHOR BOLT DETAILS FOR BEARINGS

ANCHOR BOLT DETAILS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB	<p>RANDOLPH & ASSOCIATES, INC. 111 N. PINNACLE PARKWAY, ROCKFORD, IL 61107-0101 TEL: 815-395-8844 FAX: 815-395-8888 HTTP://WWW.RANDOLPHINC.COM</p>	FILE NUMBER	136.111
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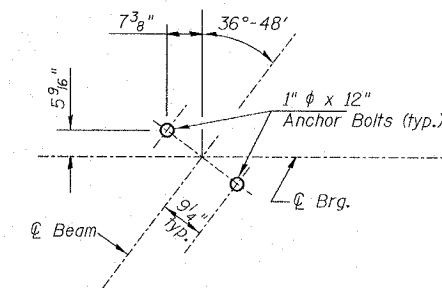
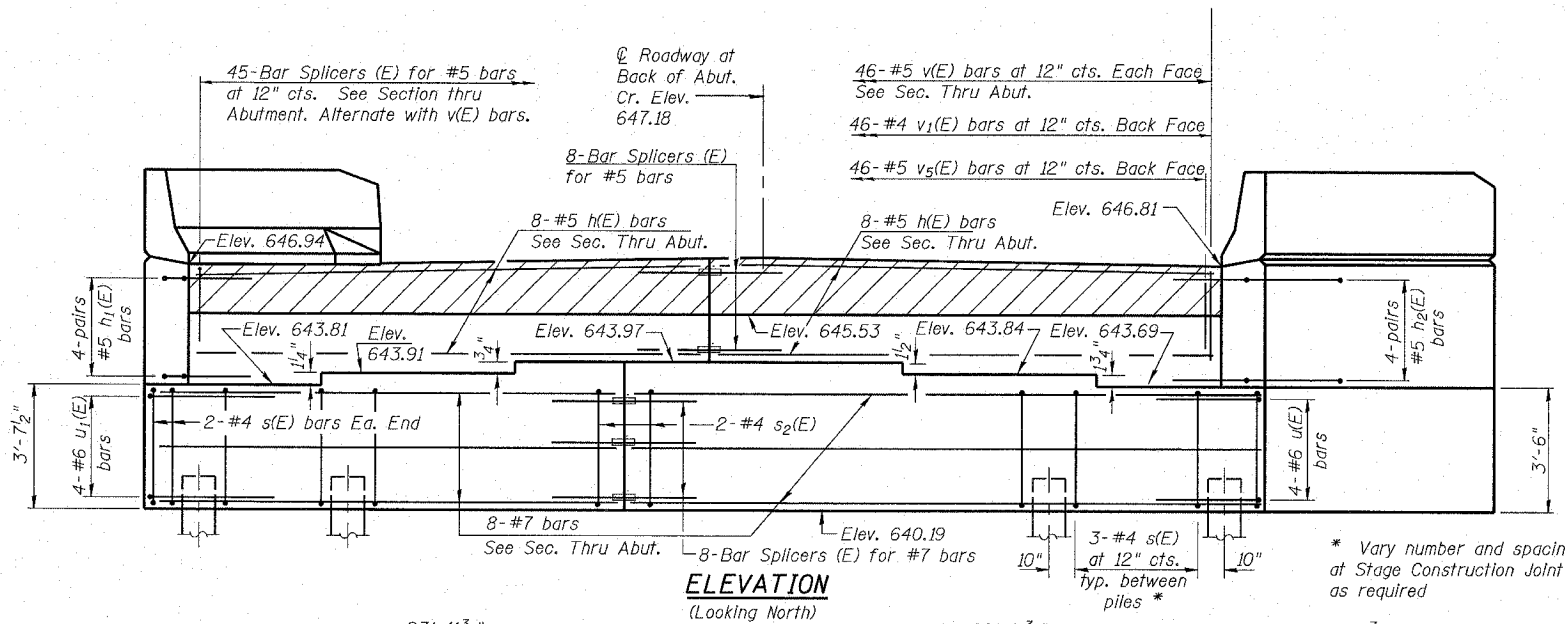
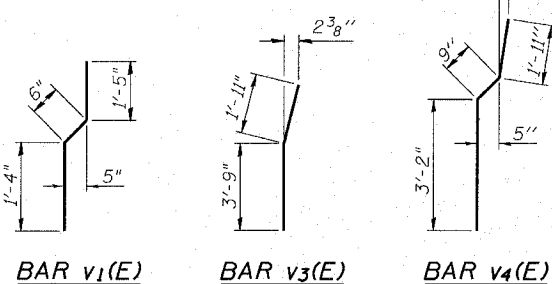
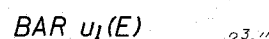
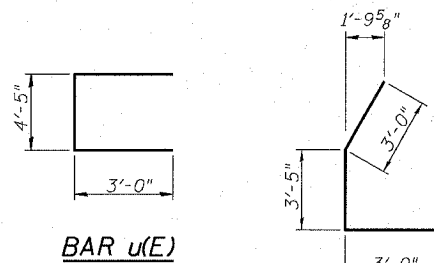
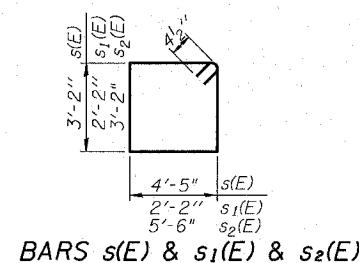
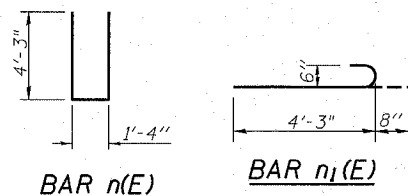
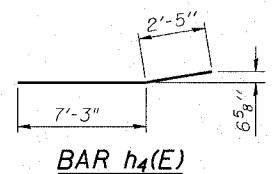
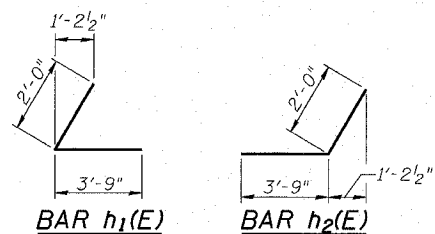
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.L. F.A. 646	BR-2	Whiteside	69	34
ILLINOIS		FED. AID PROJECT-		

CONTRACT NO. 64427

SHEET NO. 14
25 SHEETS

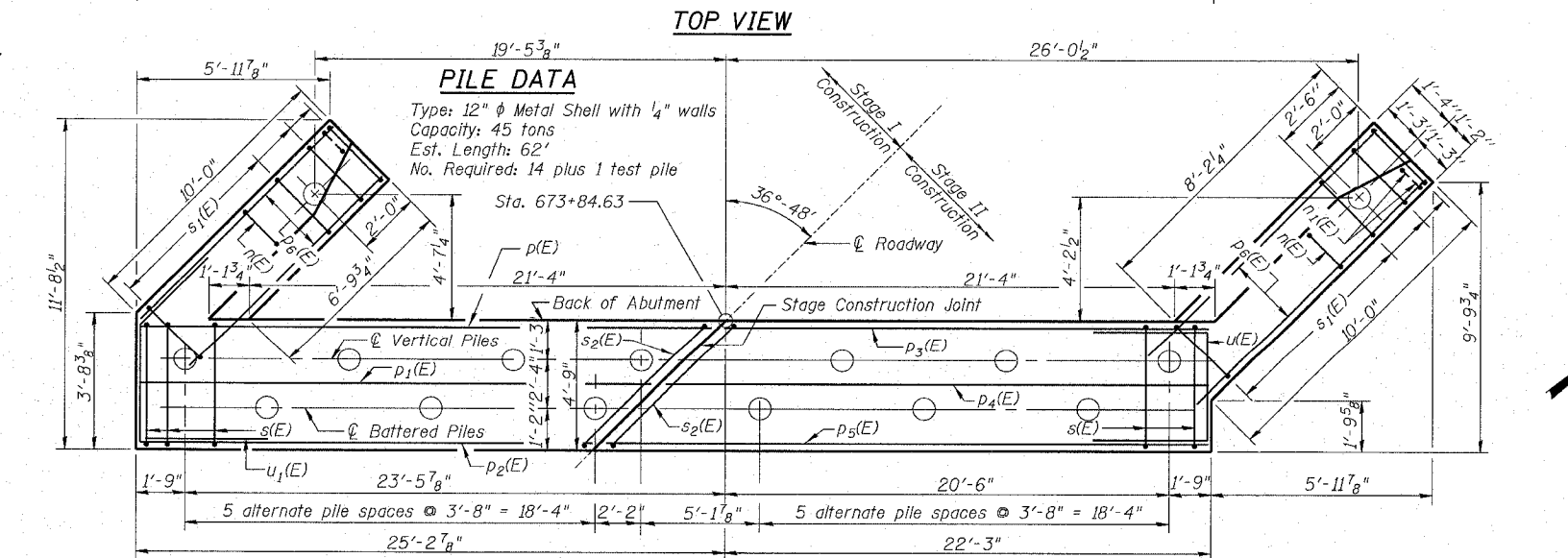
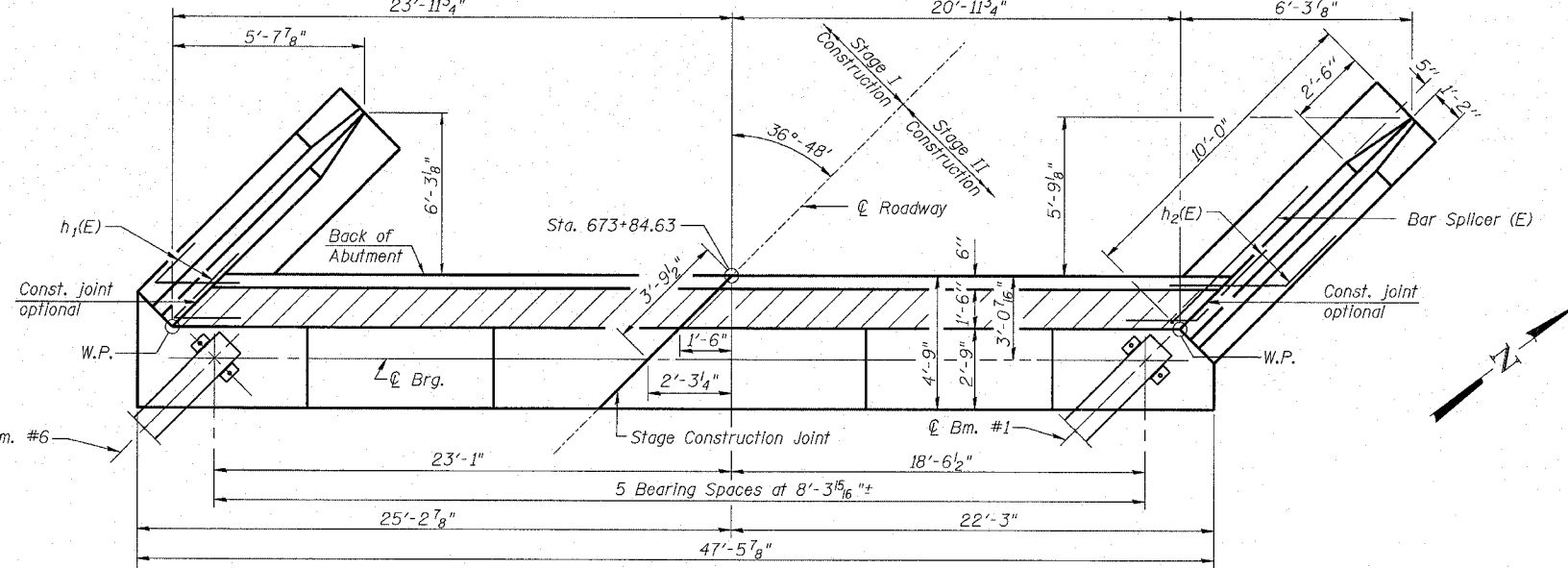


ANCHOR BOLT LAYOUT DETAIL

NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	16	#5	22'-1"	—
h1(E)	8	#5	5'-9"	—
h2(E)	8	#5	5'-9"	—
h3(E)	20	#4	9'-8"	—
h4(E)	12	#4	9'-8"	—
n(E)	16	#6	9'-10"	—
n1(E)	12	#6	4'-11"	—
p(E)	3	#7	24'-0"	—
p1(E)	2	#7	23'-1"	—
p2(E)	3	#7	21'-5"	—
p3(E)	3	#7	22'-0"	—
p4(E)	2	#7	23'-8"	—
p5(E)	3	#7	25'-3"	—
p6(E)	12	#7	9'-9"	—
s(E)	40	#4	15'-11"	—
s1(E)	22	#4	9'-5"	—
s2(E)	2	#4	18'-1"	—
u(E)	4	#6	10'-5"	—
u1(E)	4	#6	9'-5"	—
v(E)	92	#5	4'-10"	—
v1(E)	46	#4	3'-3"	—
v2(E)	22	#6	5'-6"	—
v3(E)	6	#6	5'-8"	—
v4(E)	16	#6	5'-10"	—
v5(E)	46	#5	2'-4"	—
Structure Excavation		Cu. Yd.	140.9	
Concrete Structures		Cu. Yd.	44.9	
Reinforcement Bars, Epoxy Coated		Pound	3750	
Furnishing Metal Shell Piles 12"		Ft.	868	
Bridge Seat Sealer		Sq. Ft.	131	
Test Piles		Each	1	
Driving and Filling Shells		Ft.	868	

Notes:
1. Reinforcement bars designated (E) shall be epoxy coated.
2. For details of Bar Splicers, see sheet 21 of 25.



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A-1-R (35°-60°) 9-01-03

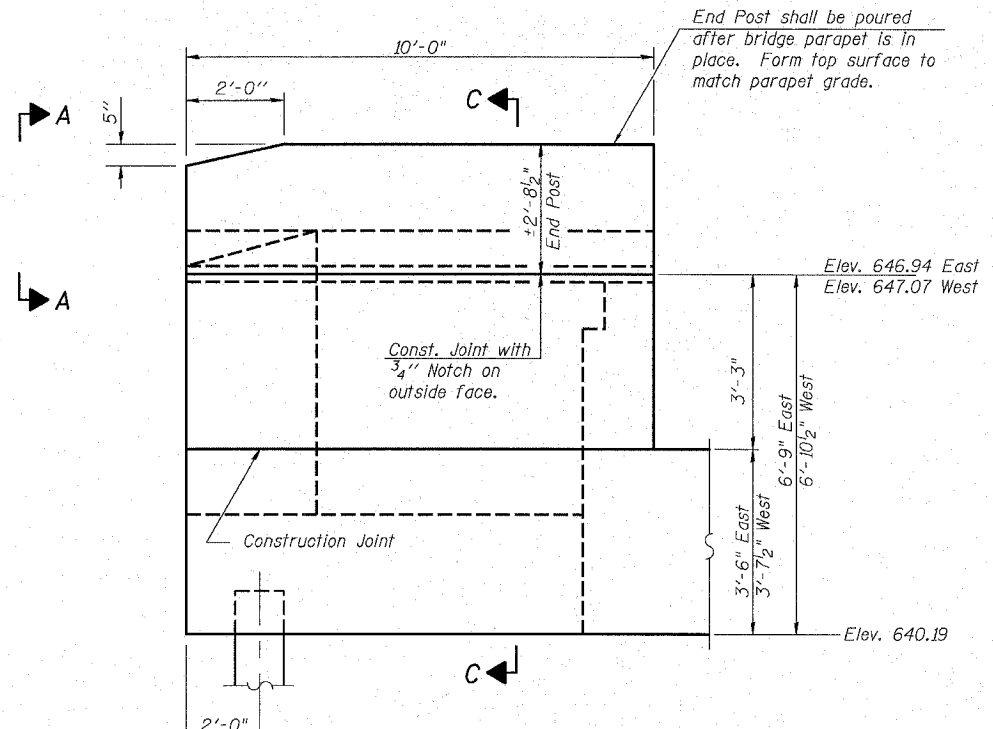
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DRAWN	JDB			
CHECKED	DDB			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

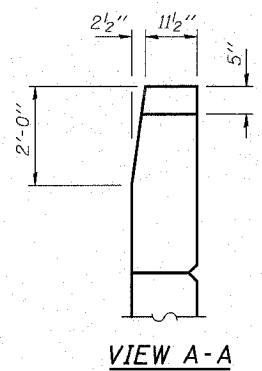
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FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

CONTRACT NO. 64427

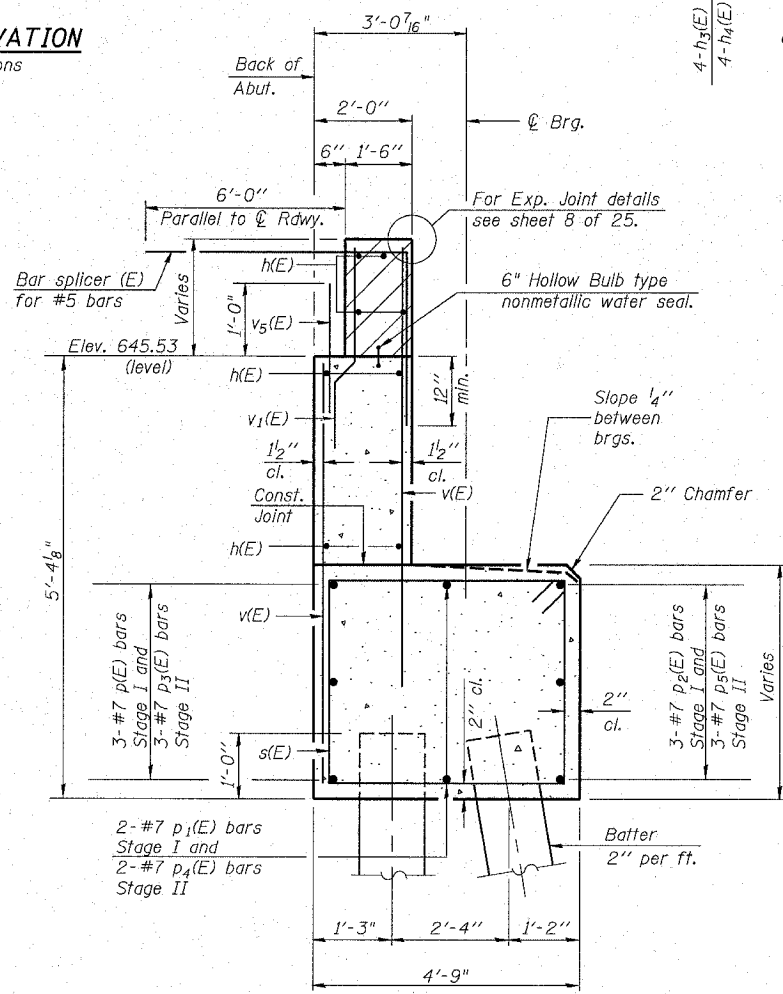
SHEET NO. 15
25 SHEETS



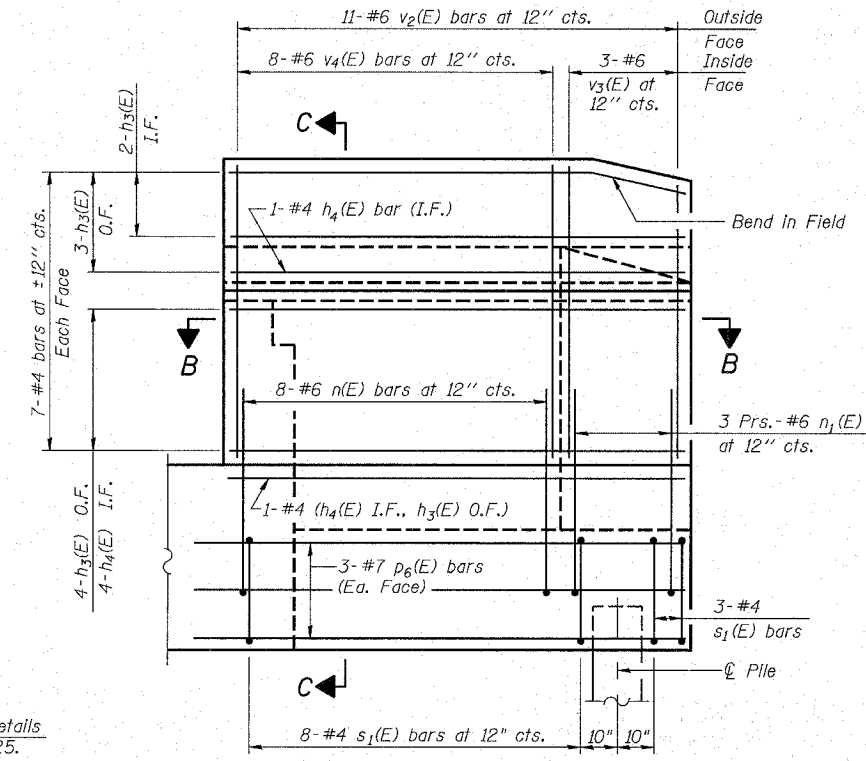
WING WALL ELEVATION
Showing Dimensions



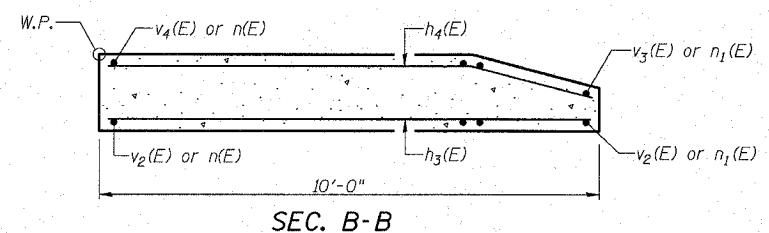
VIEW A-A



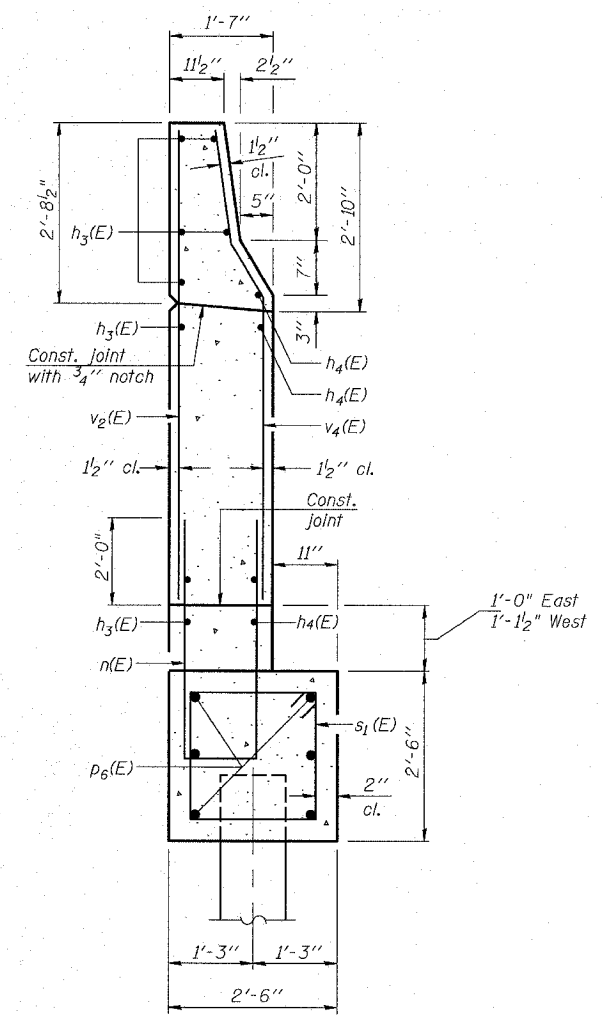
SEC. THRU ABUT.
(at right angles to abut.)



WING WALL ELEVATION
Showing Reinforcement



SEC. B-B



SEC. C-C

- Notes:
1. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
 2. Space reinforcement in cap to miss anchor bolts.
 3. Pour steps monolithically with cap.
 4. Reinforcement bars designated (E) shall be epoxy coated.
 5. Quantity of concrete in end post included with Concrete Superstructure on sheet 7 of 24.

NORTH ABUTMENT DETAILS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB	<p>RANDOLPH & ASSOCIATES, INC. 111 N. PEPPER PARKWAY, PEORIA, IL 61615-2134 TEL: 309-253-2868 FAX: 309-253-6388 11-000-001-1001 WWW.RANDOLPH-ASSOCIATES.COM</p>	FILE NUMBER	136.111
CHECKED	JFJ		DATE	June
DRAWN	JDB		DATE	2004
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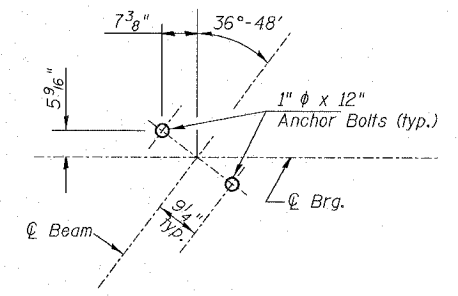
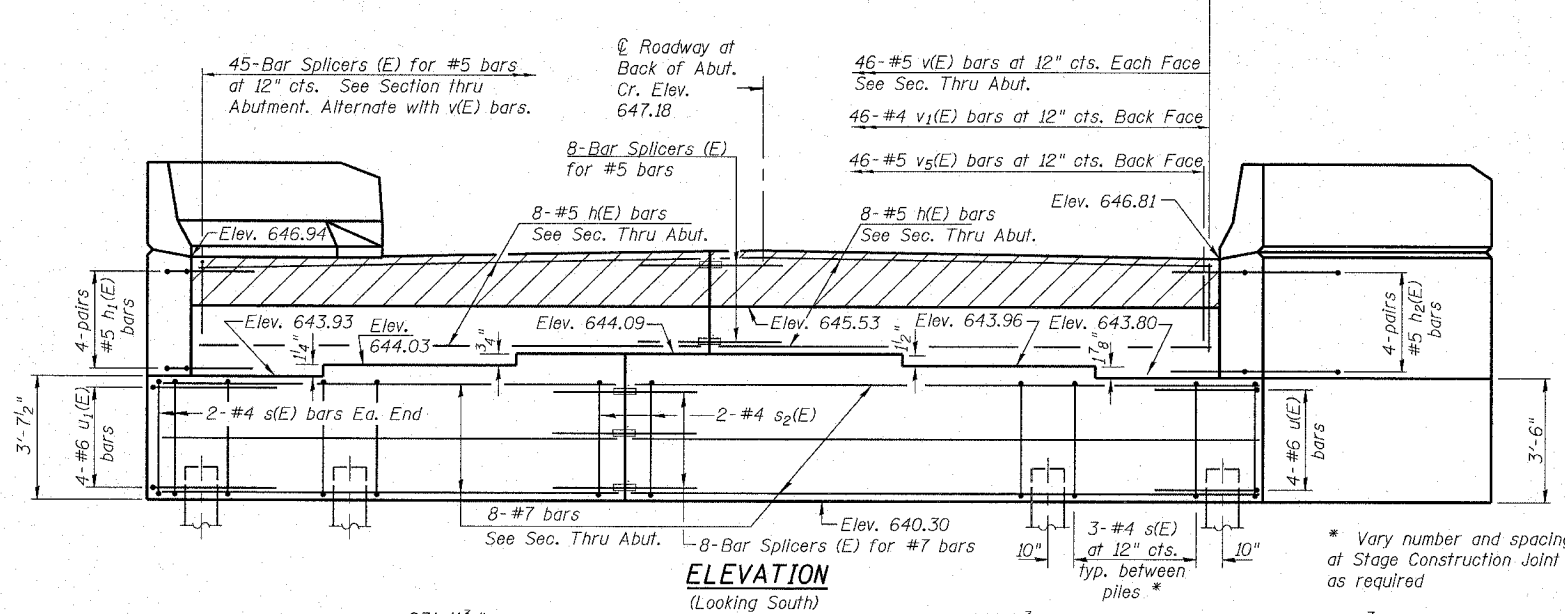
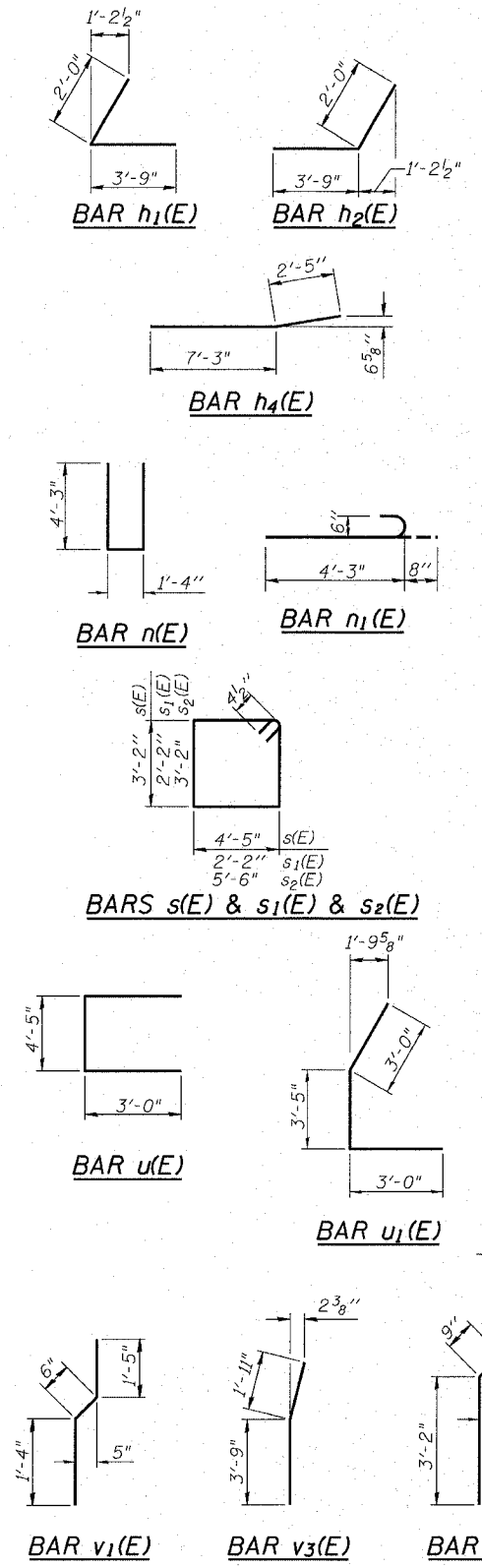
8/9/2005

A-1-D 9-01-03

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. 646	(102) BR-2	Whiteside	69	36
ILLINOIS FED. AID PROJECT-		CONTRACT NO. 64427		

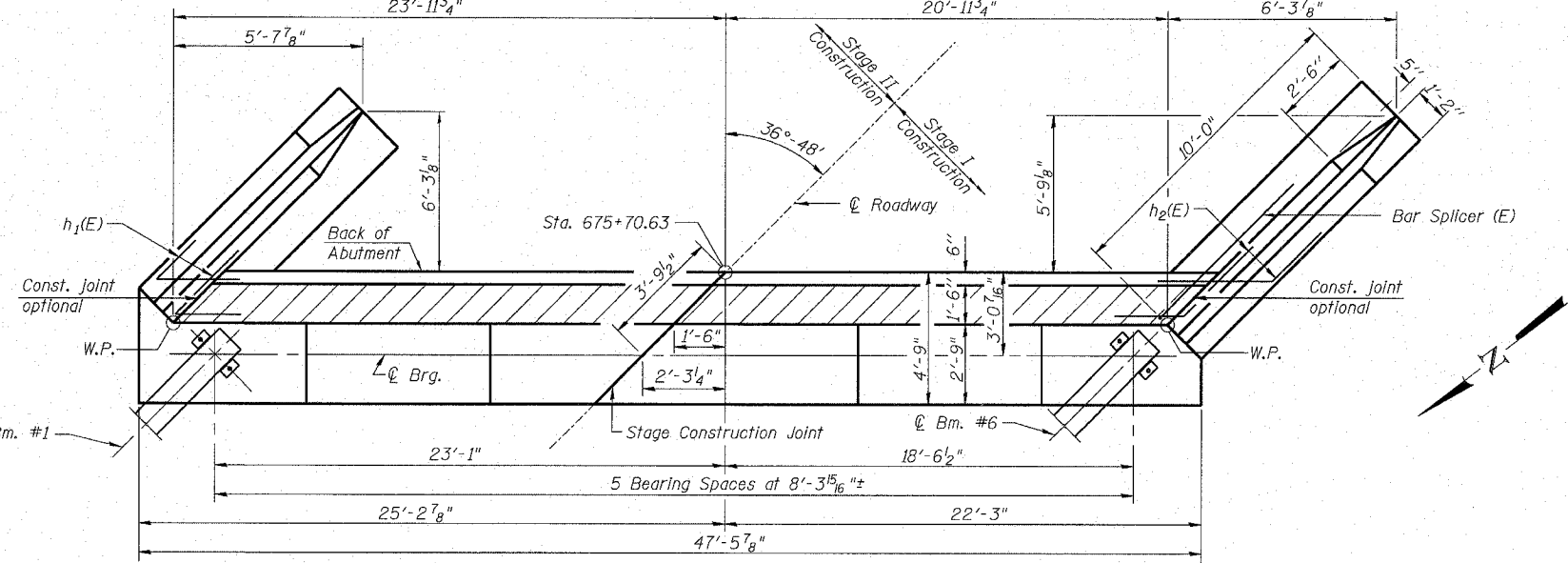
SHEET NO. 16
25 SHEETS



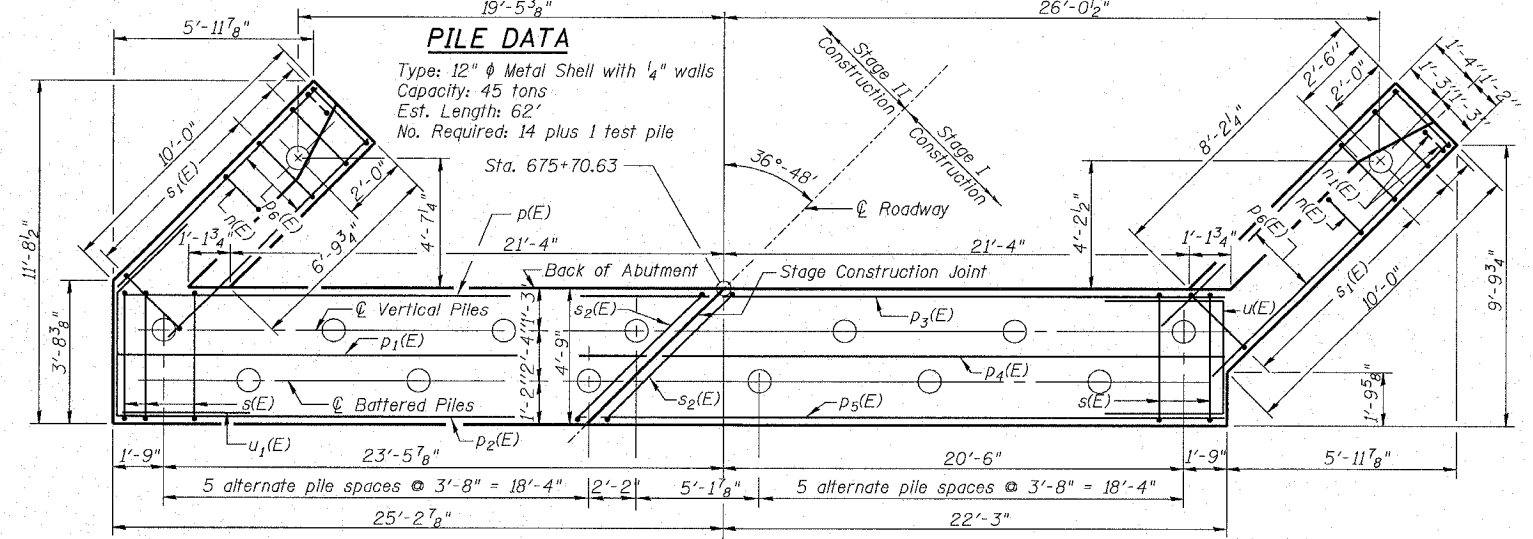
ANCHOR BOLT LAYOUT DETAIL

**SOUTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	16	#5	22'-1"	—
h ₁ (E)	8	#5	5'-9"	—
h ₂ (E)	8	#5	5'-9"	—
h ₃ (E)	20	#4	9'-8"	—
h ₄ (E)	12	#4	9'-8"	—
n(E)	16	#6	9'-10"	—
n ₁ (E)	12	#6	4'-11"	—
p(E)	3	#7	24'-0"	—
p ₁ (E)	2	#7	23'-1"	—
p ₂ (E)	3	#7	21'-5"	—
p ₃ (E)	3	#7	22'-0"	—
p ₄ (E)	2	#7	23'-8"	—
p ₅ (E)	3	#7	25'-3"	—
p ₆ (E)	12	#7	9'-9"	—
s(E)	40	#4	15'-11"	—
s ₁ (E)	22	#4	9'-5"	—
s ₂ (E)	2	#4	18'-1"	—
u(E)	4	#6	10'-5"	—
u ₁ (E)	4	#6	9'-5"	—
v(E)	92	#5	4'-10"	—
v ₁ (E)	46	#4	3'-3"	—
v ₂ (E)	22	#6	5'-6"	—
v ₃ (E)	6	#6	5'-8"	—
v ₄ (E)	16	#6	5'-10"	—
v ₅ (E)	46	#5	2'-4"	—
Structure Excavation		Cu. Yd.	138.7	
Concrete Structures		Cu. Yd.	44.3	
Reinforcement Bars, Epoxy Coated		Pound	3750	
Furnishing Metal Shell Piles 12"		Ft.	868	
Bridge Seat Sealer		Sq. Ft.	131	
Test Piles		Each	1	
Driving and Filling Shells		Ft.	868	



TOP VIEW



PLAN-PILE CAP

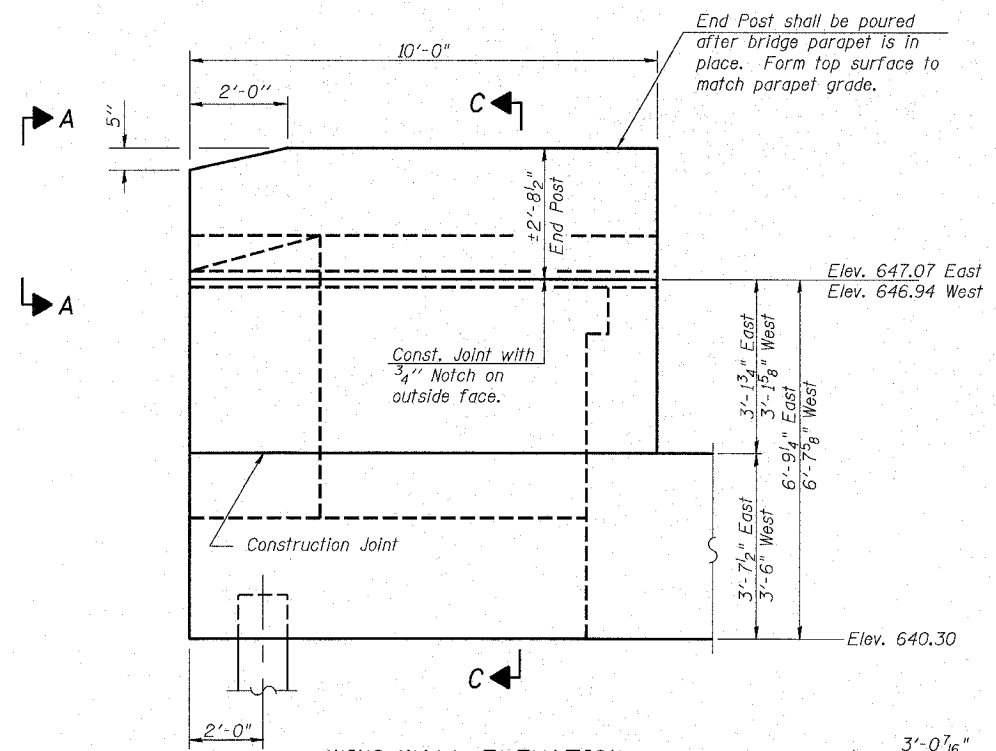
Reinforcement bars designated (E) shall be epoxy coated.
For details of Bar Splicers, see sheet 21 of 25.

**SOUTH ABUTMENT
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018**

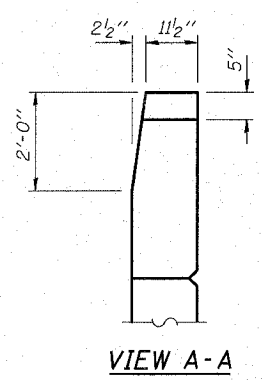
DESIGNED	DDB	RANDOLPH & ASSOCIATES, INC. 111 N. POWER STREET, PEORIA, IL 61604-2214 TEL: 309-693-2000 FAX: 309-693-2001 HTTP://WWW.RANDOLPHINC.COM CONSULTING ENGINEERS & LAND SURVEYORS	FILE NUMBER	136.111
CHECKED	JFJ		DATE	Aug. 2005
DRAWN	JDB			
CHECKED	DDB			

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 8/9/2005

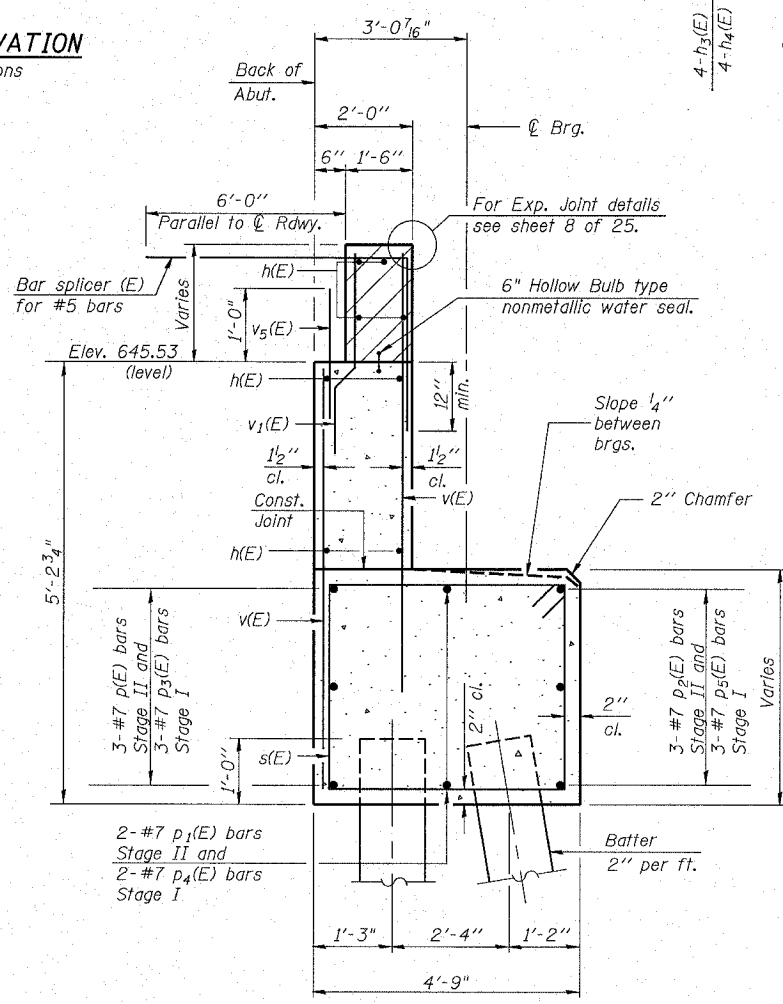
A-1-R (35°-60°) 9-01-03



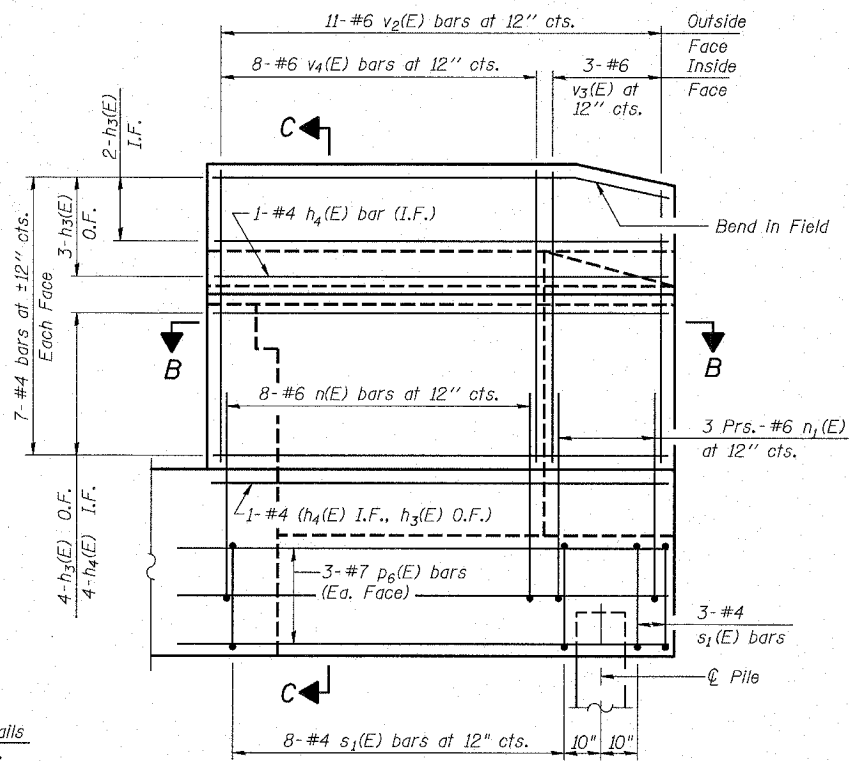
WING WALL ELEVATION
Showing Dimensions



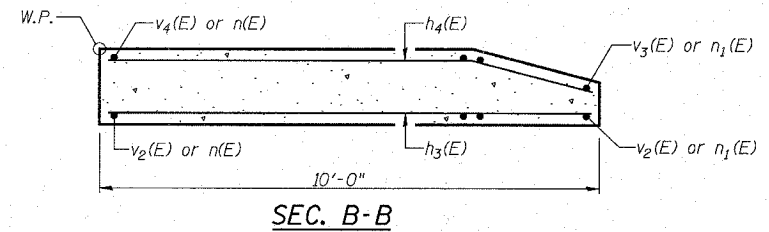
VIEW A-A



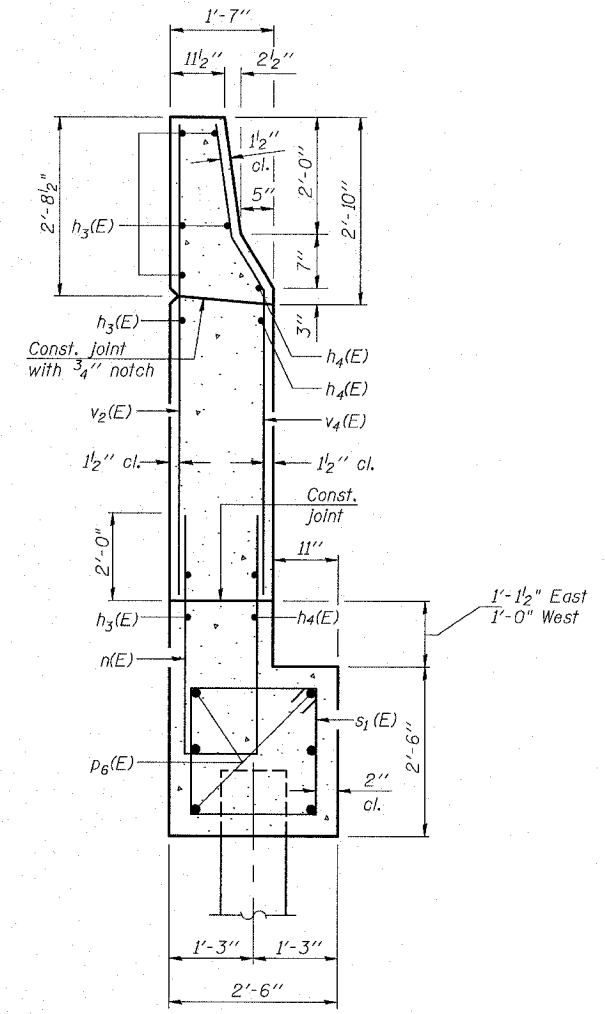
SEC. THRU ABUT.
(at right angles to abut.)



WING WALL ELEVATION
Showing Reinforcement



SEC. B-B



SEC. C-C

Notes: Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap. Reinforcement bars designated (E) shall be epoxy coated. Quantity of concrete in end post included with Concrete Superstructure on sheet 7 of 24.

SOUTH ABUTMENT DETAILS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

DESIGNED	DDB		FILE NUMBER
CHECKED	JFJ		136.111
DRAWN	JDB		DATE
CHECKED	DDB		Aug.
			2005

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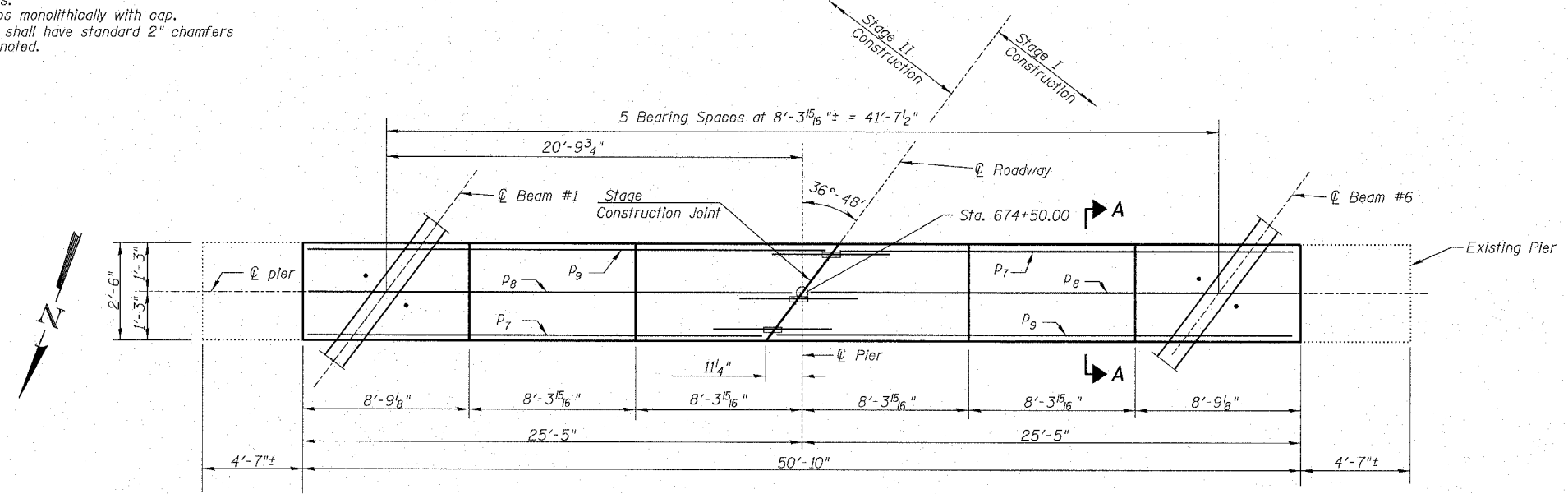
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8/9/2005

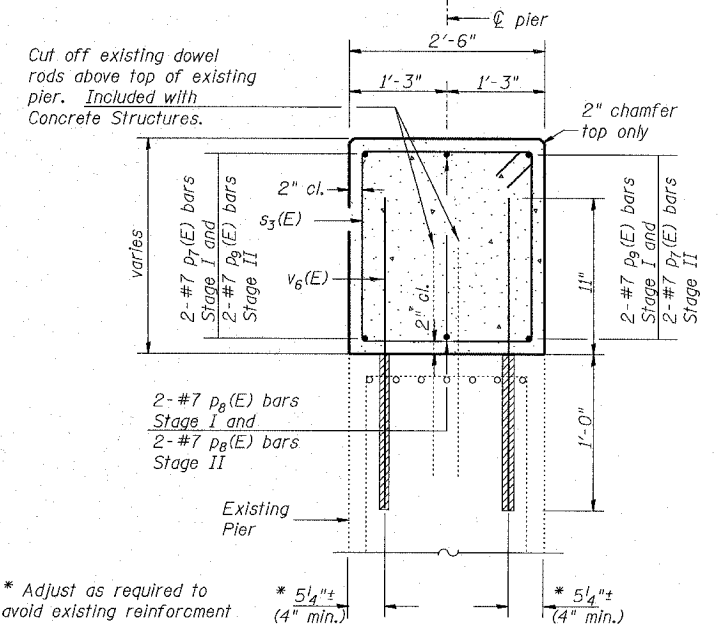
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.L. F.A. 646	(102) BR-2	Whiteside	69	38
ILLINOIS FED. AID PROJECT-				
CONTRACT NO. 64427				

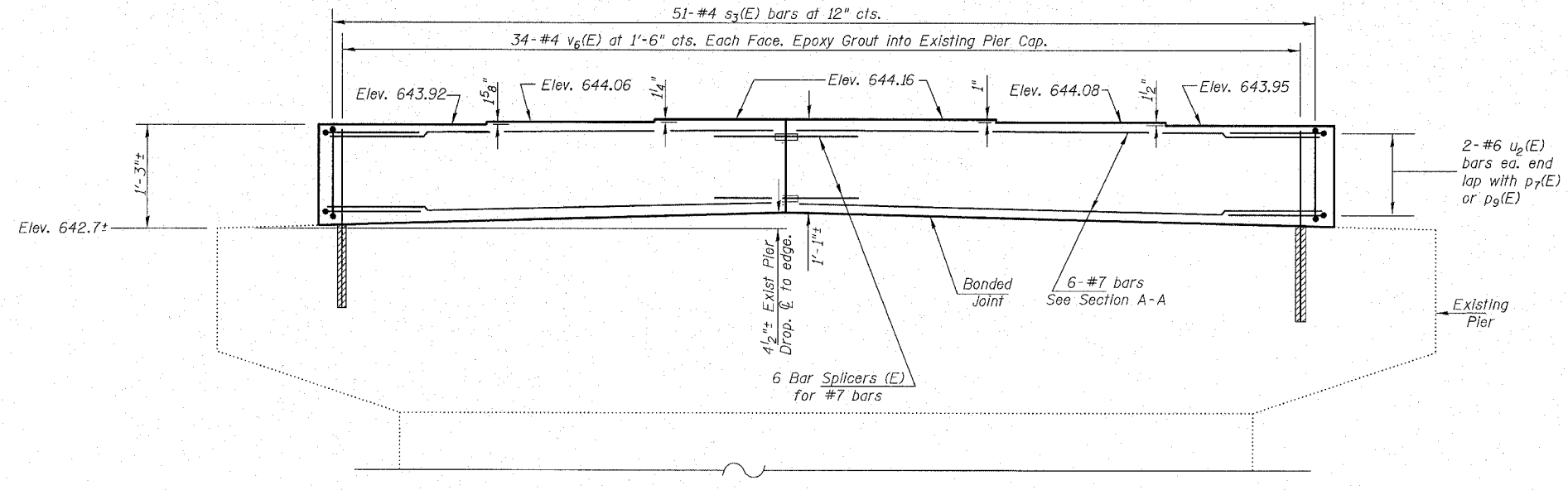
Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
All edges shall have standard 2" chamfers except as noted.



PLAN - PIER #1



SECTION A-A



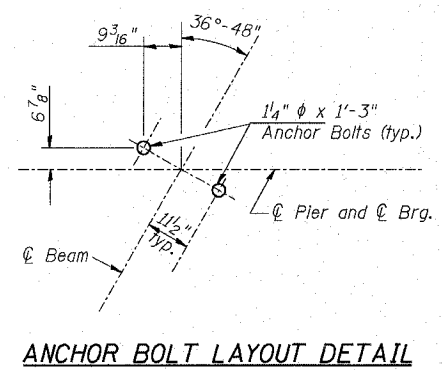
ELEVATION - PIER #1
(Looking South)

PIER #1
BILL OF MATERIAL

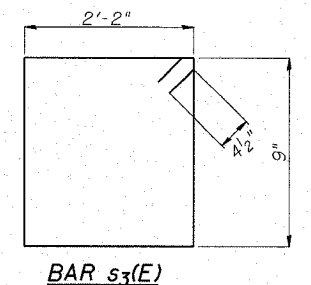
Bar	No.	Size	Length	Shape	
p7(E)	4	#7	24'-2"	—	
p8(E)	4	#7	25'-1"	—	
p9(E)	4	#7	26'-0"	—	
s3(E)	51	#4	6'-7"	□	
u2(E)	4	#6	8'-2"	—	
v6(E)	68	#4	1'-11"	—	
Concrete Structures				Cu. Yd.	5.5
Reinforcement Bars, Epoxy Coated				Pound	980

Notes:
1. Reinforcement bars designated (E) shall be epoxy coated.
2. For details of Bar Splicers, see sheet 21 of 25.

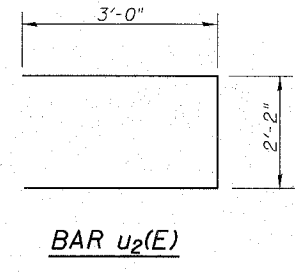
PIER 1
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018



ANCHOR BOLT LAYOUT DETAIL



BAR s3(E)



BAR u2(E)

Notes:
v6(E) bars shall be epoxy grouted into existing pier cap in accordance with Section 584 of the Standard Specifications.
In accordance with Section 584.04, epoxy grouting shall not be paid for separately, but shall be included in the cost of Concrete Structures.

DESIGNED	DDB		FILE NUMBER
CHECKED	JFJ		136.111
DRAWN	JDB		DATE
CHECKED	DDB		Aug.
			2005

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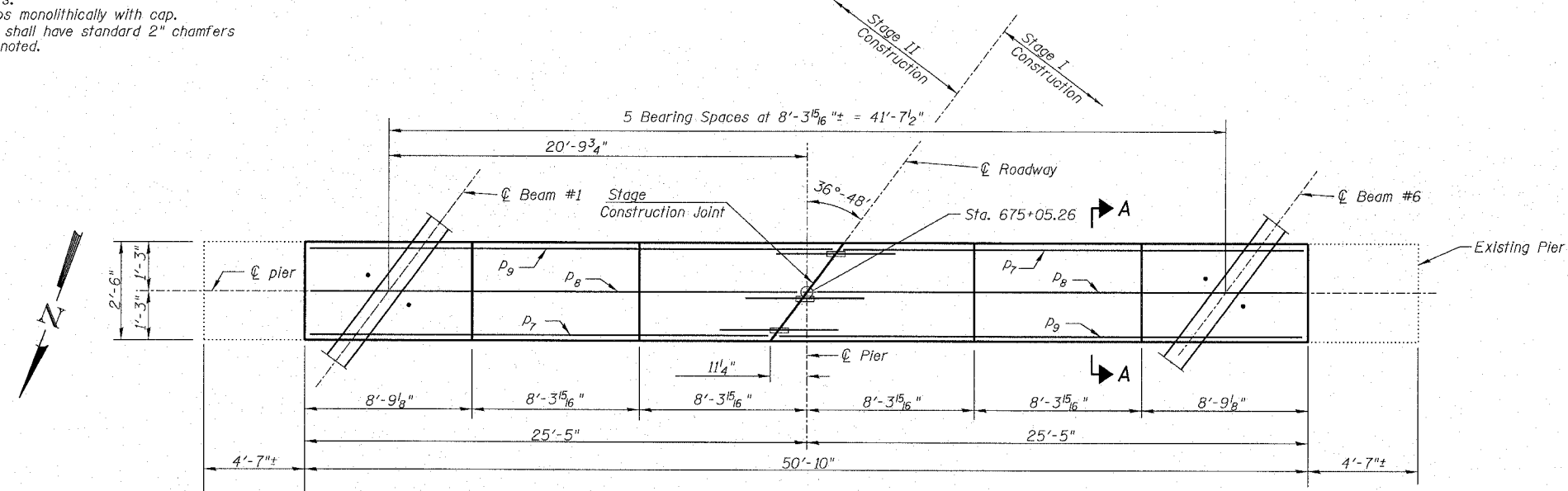
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I.	(102)	Whiteside	69	39
F. A. 646	BR-2			
FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT-			

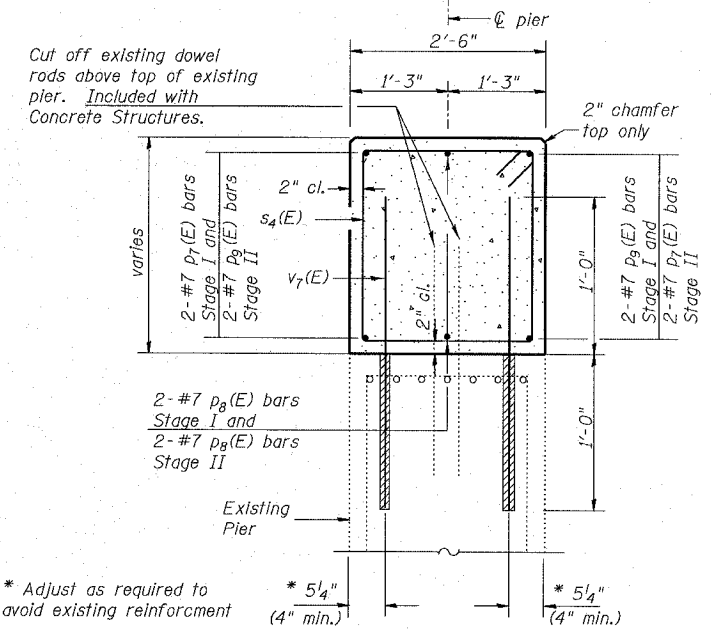
CONTRACT NO. 64427

SHEET NO. 19
25 SHEETS

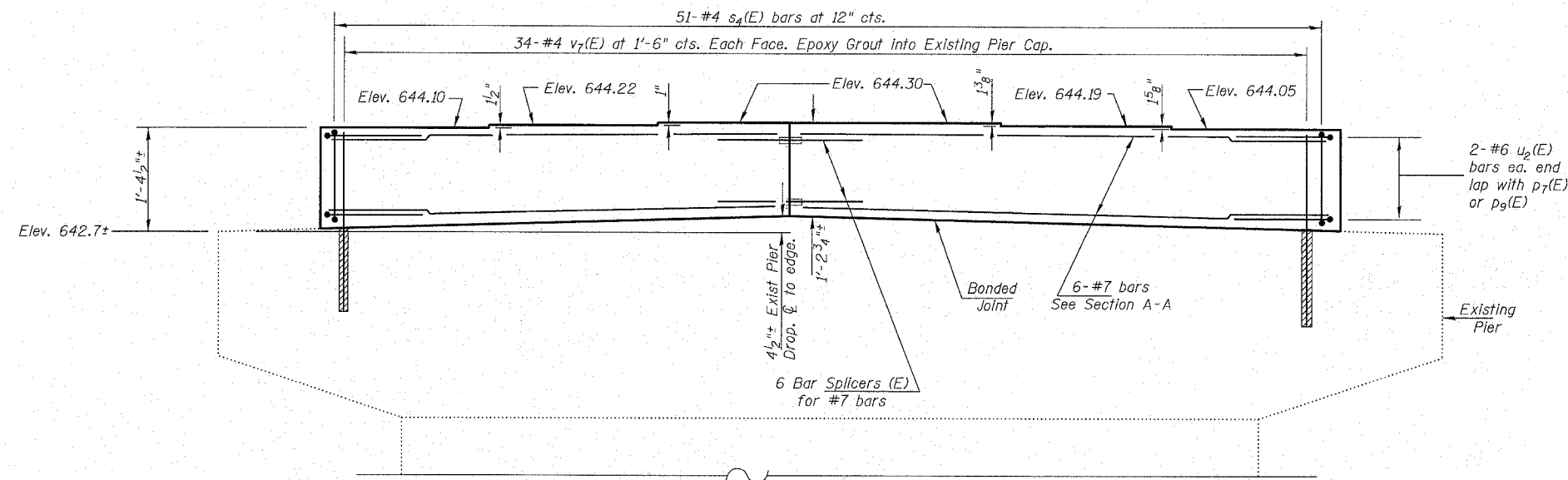
Notes: Space reinforcement in cap to miss anchor bolts.
Four steps monolithically with cap.
All edges shall have standard 2" chamfers except as noted.



PLAN - PIER #2



SECTION A-A



ELEVATION - PIER #2
(Looking South)

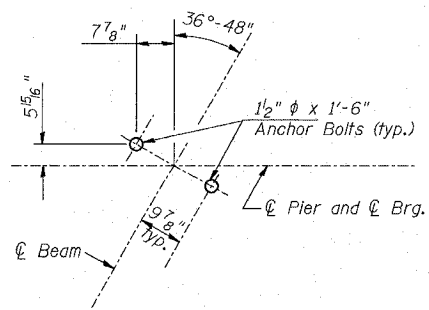
PIER #2
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
p7(E)	4	#7	24'-2"	—	
p8(E)	4	#7	25'-1"	—	
p9(E)	4	#7	26'-0"	—	
s4(E)	51	#4	6'-11"	□	
u2(E)	4	#6	8'-2"	—	
v7(E)	68	#4	2'-0"	—	
Concrete Structures				Cu. Yd.	5.9
Reinforcement Bars, Epoxy Coated				Pound	990

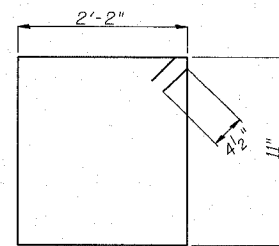
Notes:
1. Reinforcement bars designated (E) shall be epoxy coated.
2. For details of Bar Splicers, see sheet 21 of 25.

PIER 2
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

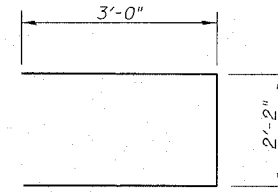
DESIGNED	DDB	FILE NUMBER	136.111
CHECKED	JFJ	DATE	Aug. 2005
DRAWN	JDB	RANDOLPH & ASSOCIATES, INC.	
CHECKED	DDB	CONSULTING ENGINEERS & LAND SURVEYORS	



ANCHOR BOLT LAYOUT DETAIL



BAR s4(E)



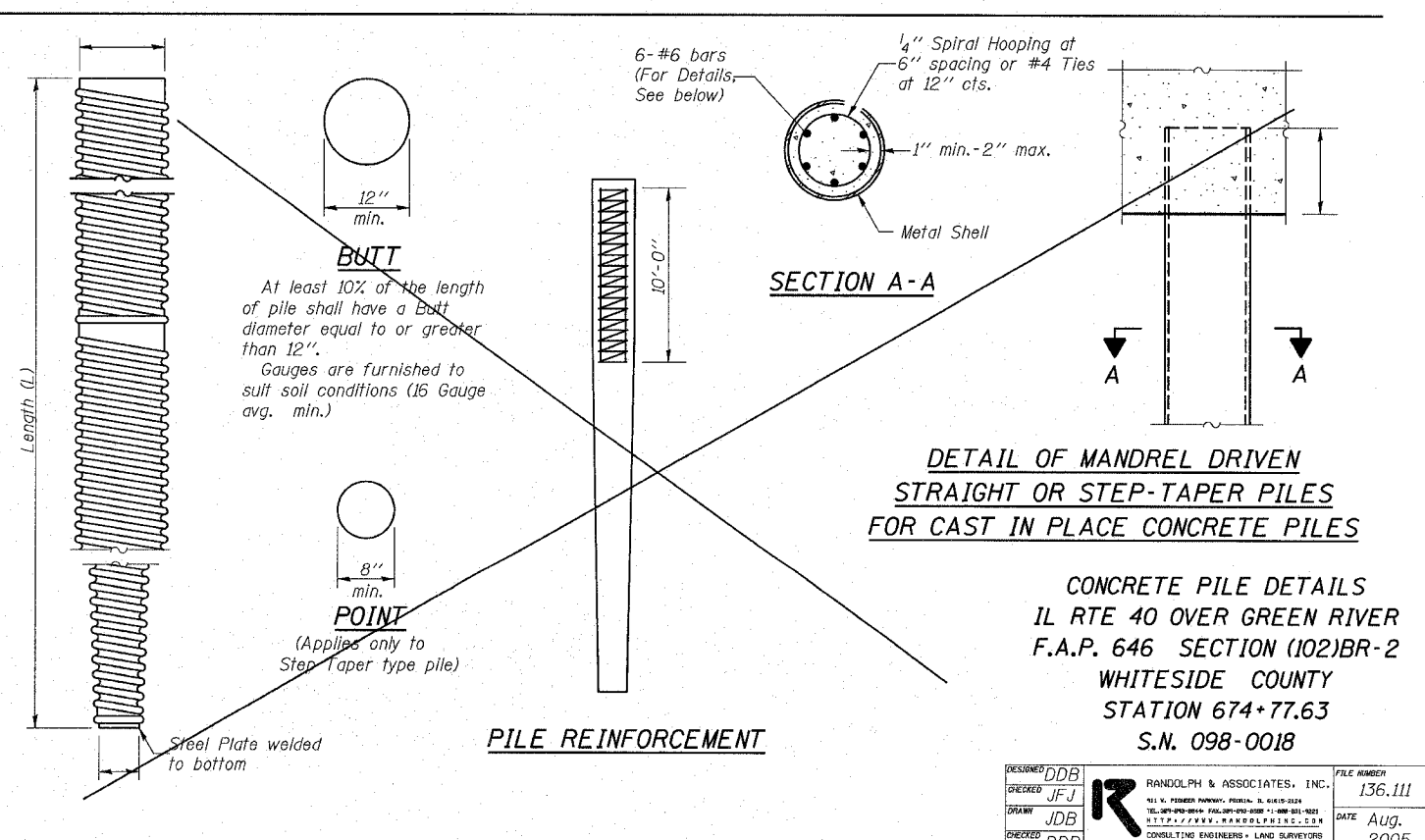
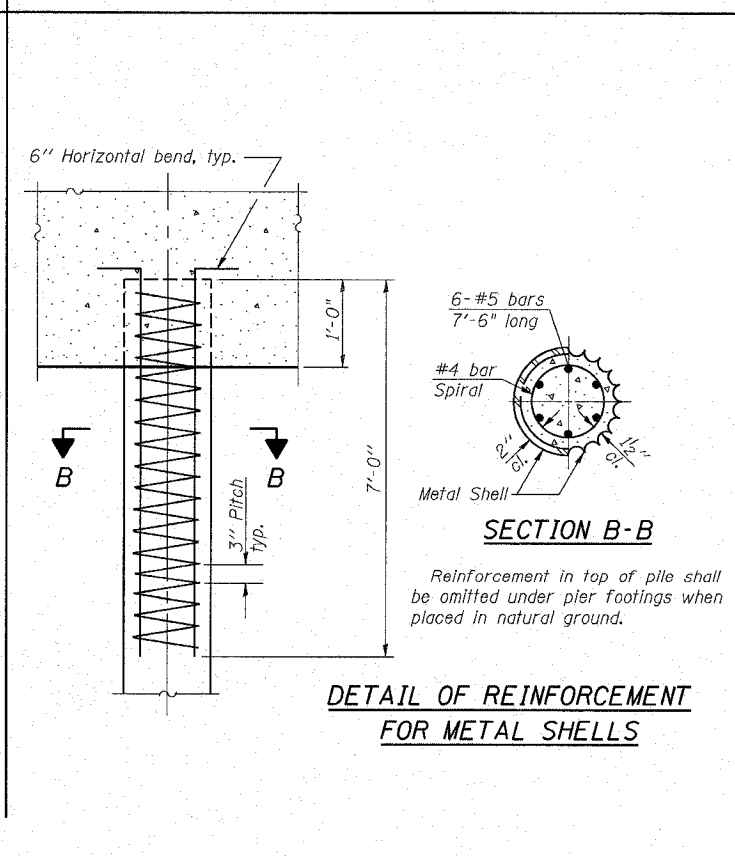
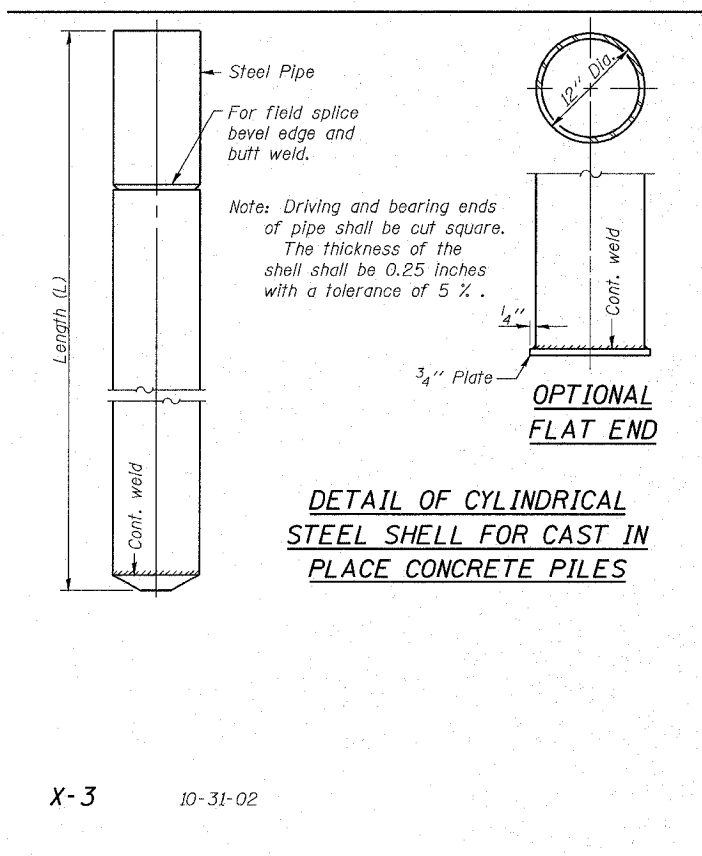
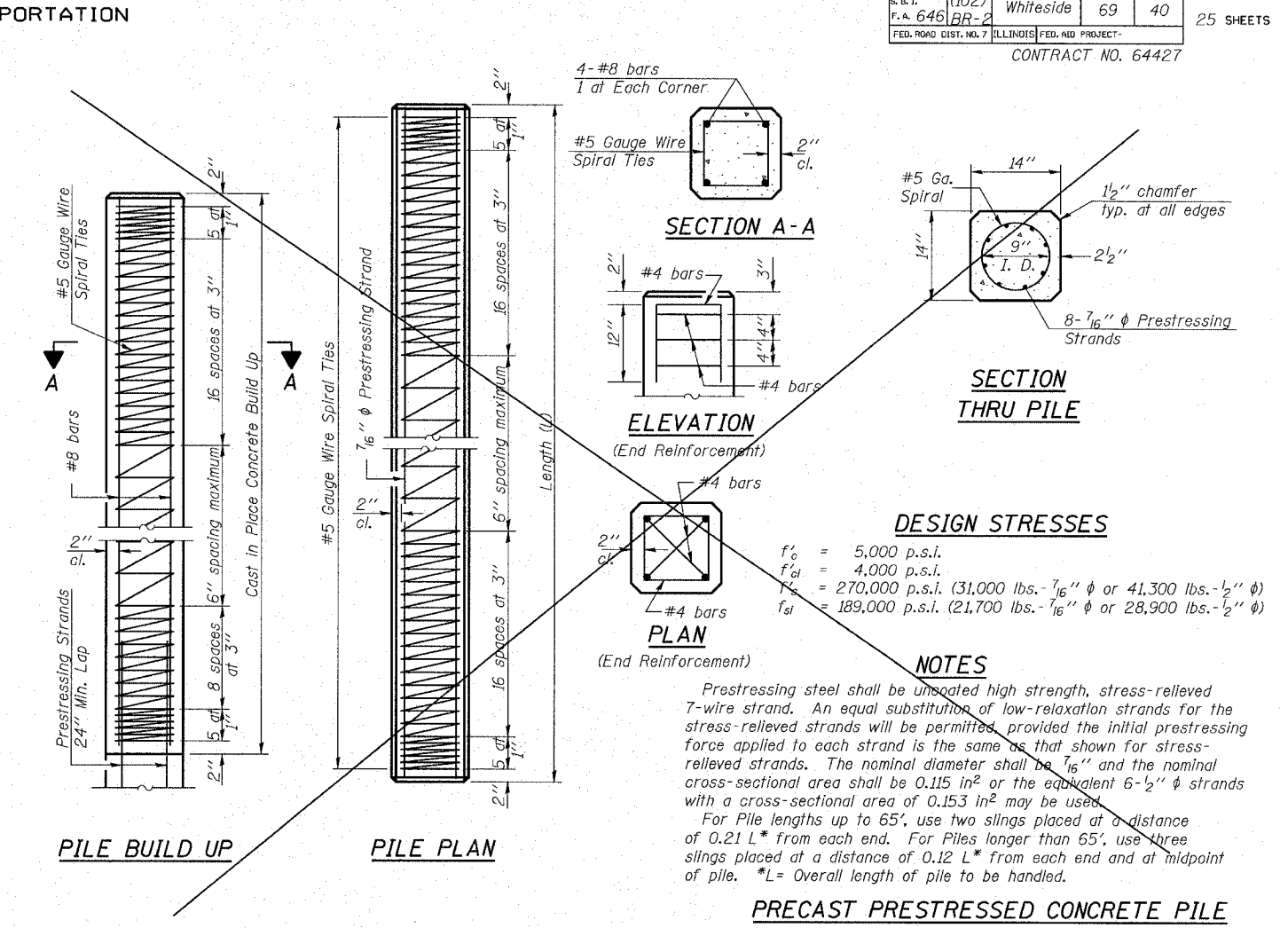
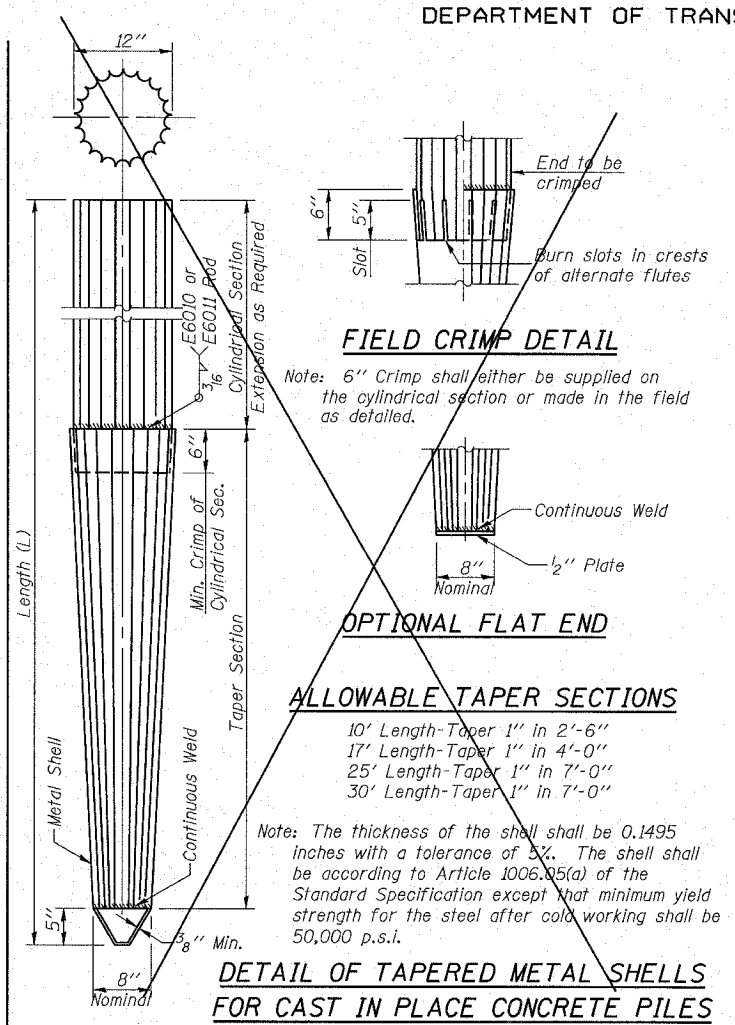
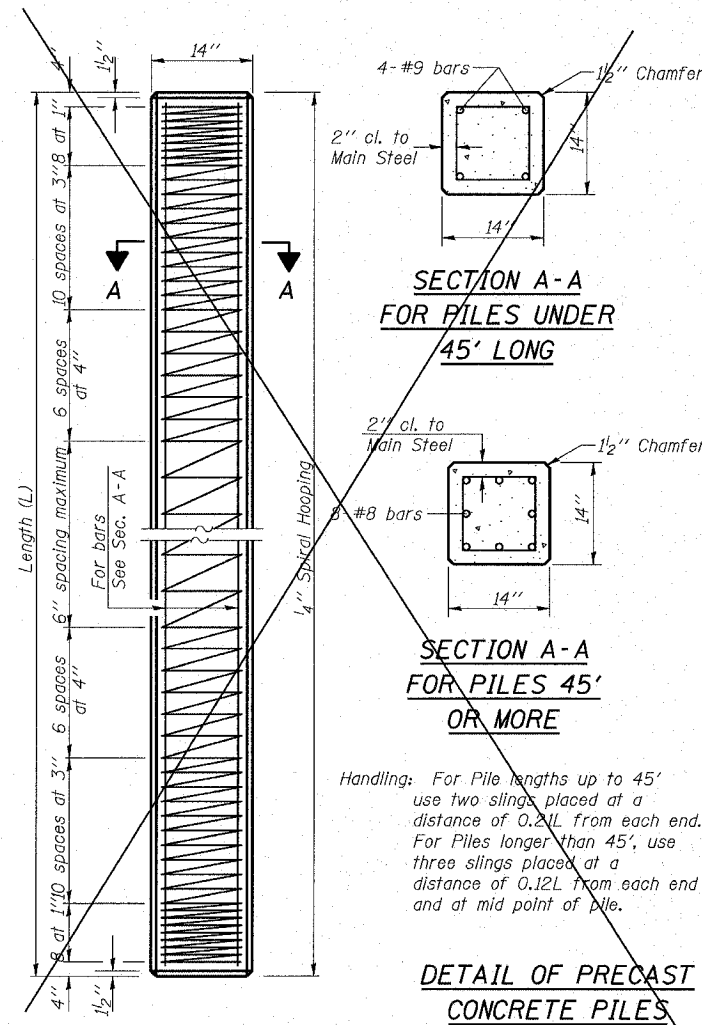
BAR u2(E)

Notes:
v7(E) bars shall be epoxy grouted into existing pier cap in accordance with Section 584 of the Standard Specifications.
In accordance with Section 584.04, epoxy grouting shall not be paid for separately, but shall be included in the cost of Concrete Structures.

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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:

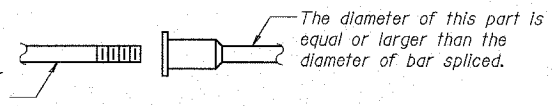
- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
- ② Minimum *Pull-out Strength = $1.25 \times f_{s,allow} \times A_t$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s,allow}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

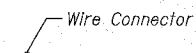
The diameter of this part is the same as the diameter of the bar spliced.



ROLLED THREAD DOWEL BAR



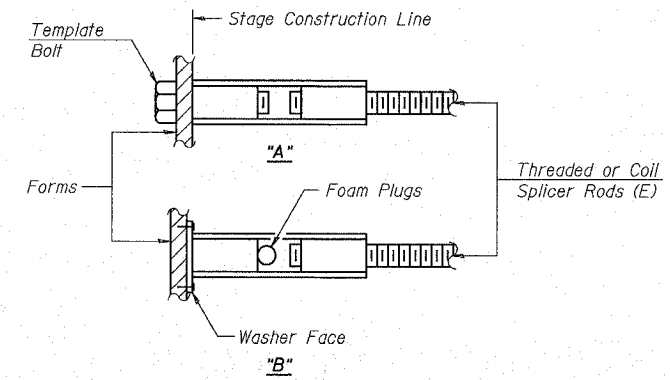
**** ONE PIECE**



WELDED SECTIONS

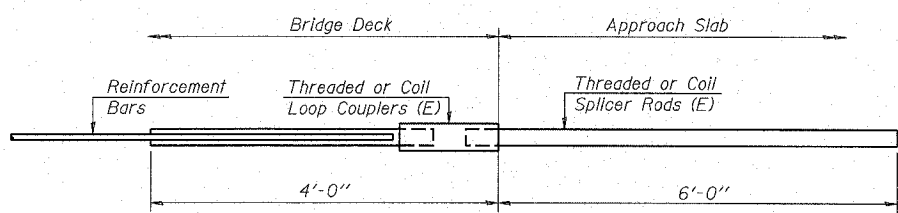
BAR SPLICER ASSEMBLY ALTERNATIVES

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



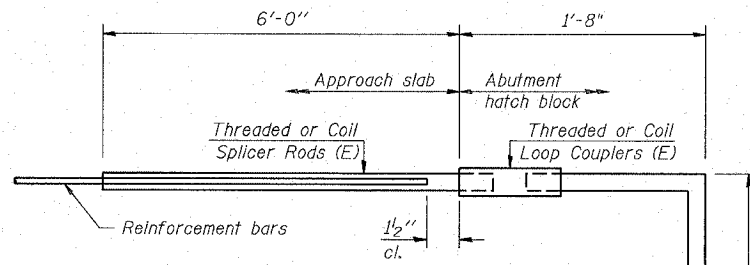
INSTALLATION AND SETTING METHODS

"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.



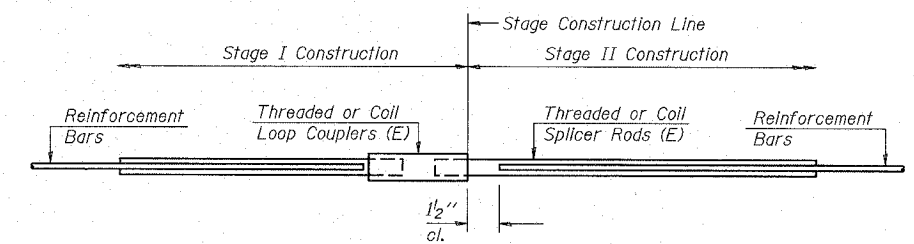
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar		
Min. Capacity =	23.0 kips - tension	
Min. Pull-out Strength =	9.2 kips - tension	
No. Required =	0	



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar		
Min. Capacity =	23.0 kips - tension	
Min. Pull-out Strength =	9.2 kips - tension	
No. Required =	90	



STANDARD

Bar Size	No. Assemblies Required	Location
#5	554	deck
#7	16	abutments
#5	16	abutments
#7	12	piers
#6	4	deck

BAR SPLICER DETAILS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

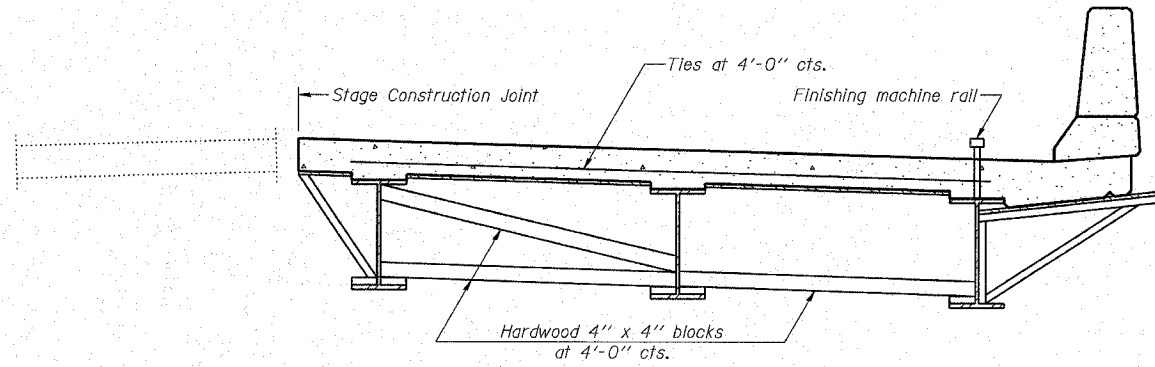
DESIGNED	DDB	RANDOLPH & ASSOCIATES, INC. 111 N. FLOWER PARKWAY, P.O. BOX 1111, CHICAGO, ILL. 60601 TEL: 312-942-0844 FAX: 312-942-0800 WWW.RANDOLPHINC.COM	FILE NUMBER	136.111
CHECKED	JFJ		DATE	Aug. 2005
DRAWN	JDB			
IN CHARGE	DDB			

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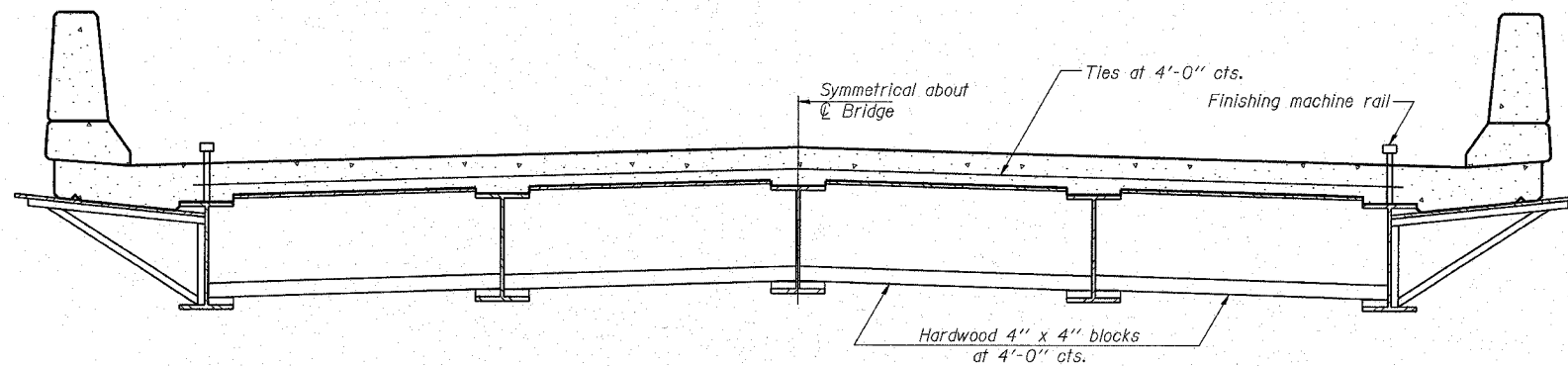
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 22 25 SHEETS
S. B. L.	(102)	Whiteside	69	42	
F. A. 646	BR-2				
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		CONTRACT NO. 64427	



**FORM BRACES FOR
STAGE CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06, except as modified below and in the details shown on this sheet.
The finishing machine rails shall be placed on the top flange of the exterior beams.
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR
STANDARD CONSTRUCTION**

**CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES WITH
W27 BEAMS AND SMALLER**

CANTILEVER FORMING BRACKETS
IL RTE 40 OVER GREEN RIVER
F.A.P. 646 SECTION (102)BR-2
WHITESIDE COUNTY
STATION 674+77.63
S.N. 098-0018

SB-1 9-01-03

DRAWN	JDB	RANDOLPH & ASSOCIATES, INC. 111 N. FIDELITY PARKWAY, PEORIA, IL 61610-2134 TEL: 309-693-2000 FAX: 309-693-2001 811 P. O. BOX 222222, PEORIA, IL 61622-2222 CONSULTING ENGINEERS • LAND SURVEYORS	FILE NUMBER	136.111
CHECKED	JFJ		DATE	Aug. 2005
CHECKED	DDB			
CHECKED	DDB			

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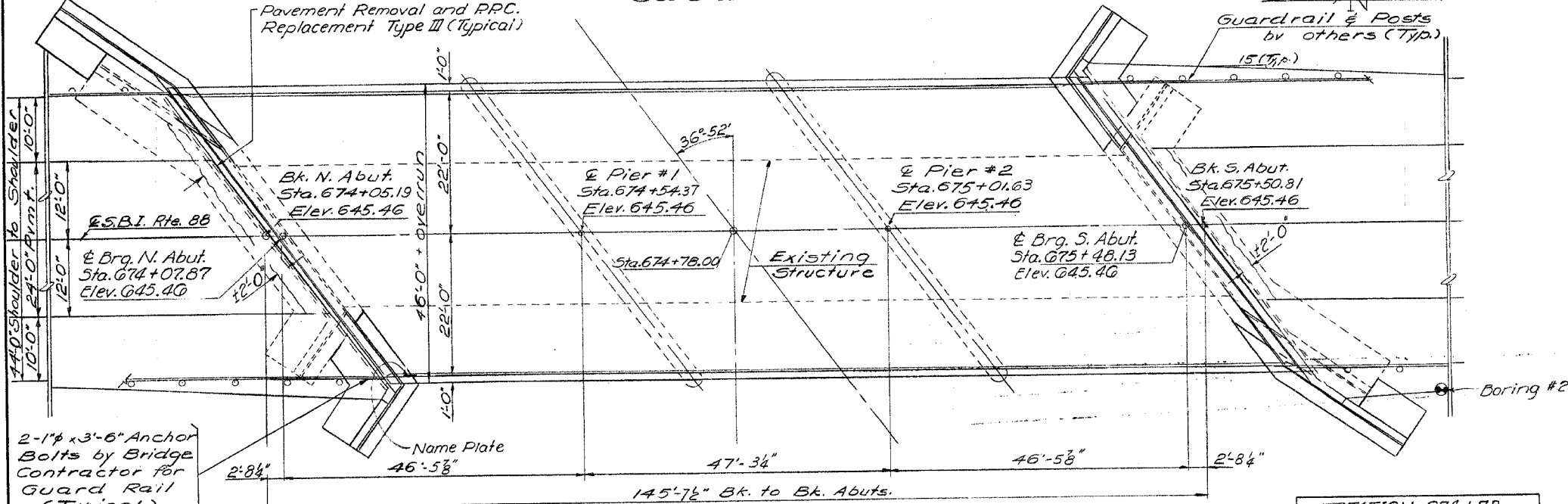
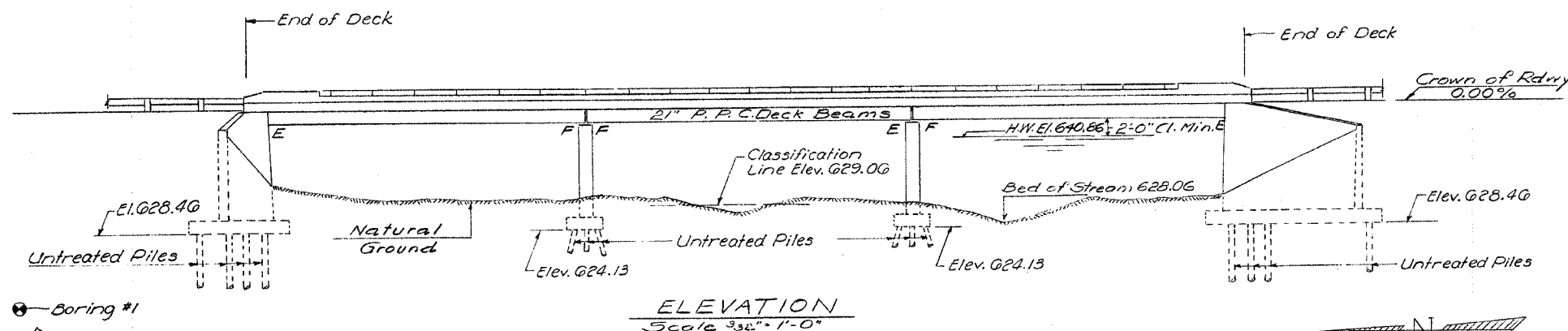
B.M.: "a" S.W. Corner Bridge Abut. Elev. 645.46
 Existing Structure: Steel thru truss
 24'-8" x 140'. Built in 1930 as Sec. 102 C
 SBI 88. Closed R.C. Abuts. Bridge Contractor
 to remove existing superstructure.
 No Salvage. Temporary bridge required.

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

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 646	(102)BR-2	WHITESIDE	69	46
CONTRACT #64427				

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
 The Contractor shall drive 2 timber test piles in a permanent location 1 at Pier 2 and 1 at S. Abutment as directed by the Engineer before ordering the remainder of piles.
 It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
 An alternate strand pattern using Extra High Strength Pre-stressing strand (270 k.s.i.) is permitted.
 The concrete rail section above the top of P.P.C. Deck Beams shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
 Protective Coat shall not be applied to surfaces to which Coal Tar Interlayer Protective Coat is applied.
 Expansion bolts shall consist of self drilling expansion anchors and 3/4" φ x 12" hooked bolts.



TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Bituminous Concrete Surface Course, Class I	Tons	61		61
Removal of Existing Super-Str.	Each	1		1
Concrete Removal	Cu. Yds.		21	21
Expansion Bolts 3/4"	Each		210	210
Class A Excav. for Structures	Cu. Yds.		550	550
Class B Excav. for Structures	Cu. Yds.		250	250
Protective Coat	Sq. Yds.	110		110
Test Pile Timber	Each		2	2
Class X Concrete	Cu. Yds.	30.5	397.0	427.5
Aluminum Railing	Lin. Ft.	254		254
P.P.C. Deck Beams (21")	Sq. Ft.	6509		6509
Reinforcement Bars	Lbs.	3160	42190	45350
Name Plates	Each	1		1
Coal Tar Interlayer Prot. Coat	Sq. Yds.	670		670
Pavement Removal & P.P.C. Replacement, Type III, 10"	Sq. Yds.			13
Untreated Piles Up to 30'	Lin. Ft.		2310	2310
Untreated Piles 30.1 to 45'	Lin. Ft.		2625	2625
Temporary Bridge Complete	Each			1

STATION 674+78
 BUILT 197 BY
 STATE OF ILLINOIS
 S.B.I. RTE. 88 SEC. 102BR
 LOADING H520

NAME PLATE
 See Std. 2113-1

PLAN

WATERWAY INFORMATION

Drainage Area 233,600 Acres
 Character Rolling, Sand, Flooded, Cultivated
 Required Opening (50 Yr. Fl.) 1270 Sq. Ft.
 Present Opening 1270 Sq. Ft.
 Proposed Opening 1270 Sq. Ft.

Q(50) = 8110 c.f.s.

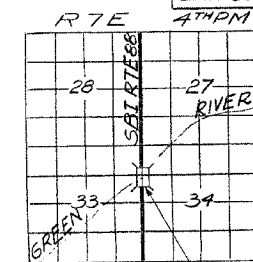
PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
 f'ci = 4,000 psi
 f's = 248,000 psi (Strands)
 f'si = 173,600 psi (Strands)

DESIGN STRESSES

f's = 20,000 psi (Reinf. & Struct.)
 f'c = 1,400 psi (Curb & Parapet)
 f'c = 1,000 psi (Wings & Sub.)
 v = 90 psi
 n = 10

LOADING H520-44



LOCATION SKETCH

GENERAL PLAN & ELEVATION

S.B.I. RTE. 88 OVER GREEN RIVER
 S.B.I. RTE 88 - SECTION 102 BR

WHITESIDE CO.

STA. 674+78

PROPOSED PROFILE S.B.I. RTE 88

DESIGNED	Stanley Santoni, Liaison
CHECKED	R. u. matthur
DRAWN	jacobs
CHECKED	R. u. matthur

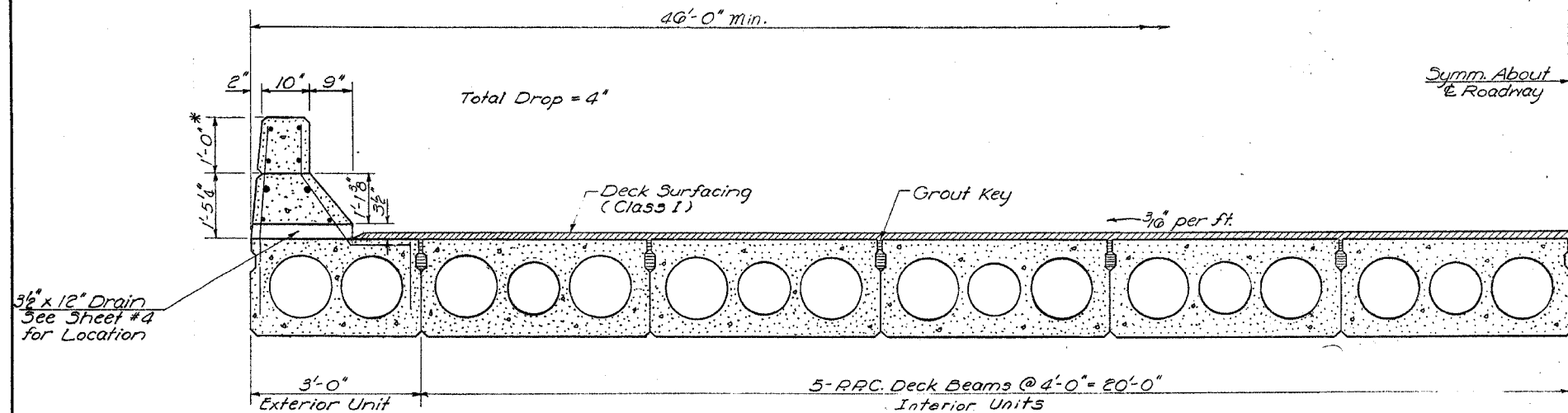
EXAMINED	May 13 1970
PASSED	Richard H. Hatterman
APPROVED	Richard H. Hatterman

ENGINEER OF PUBLIC WORKS AND TRAFFIC STRUCTURES
 ENGINEER OF DESIGN
 CHIEF HIGHWAY ENGINEER

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

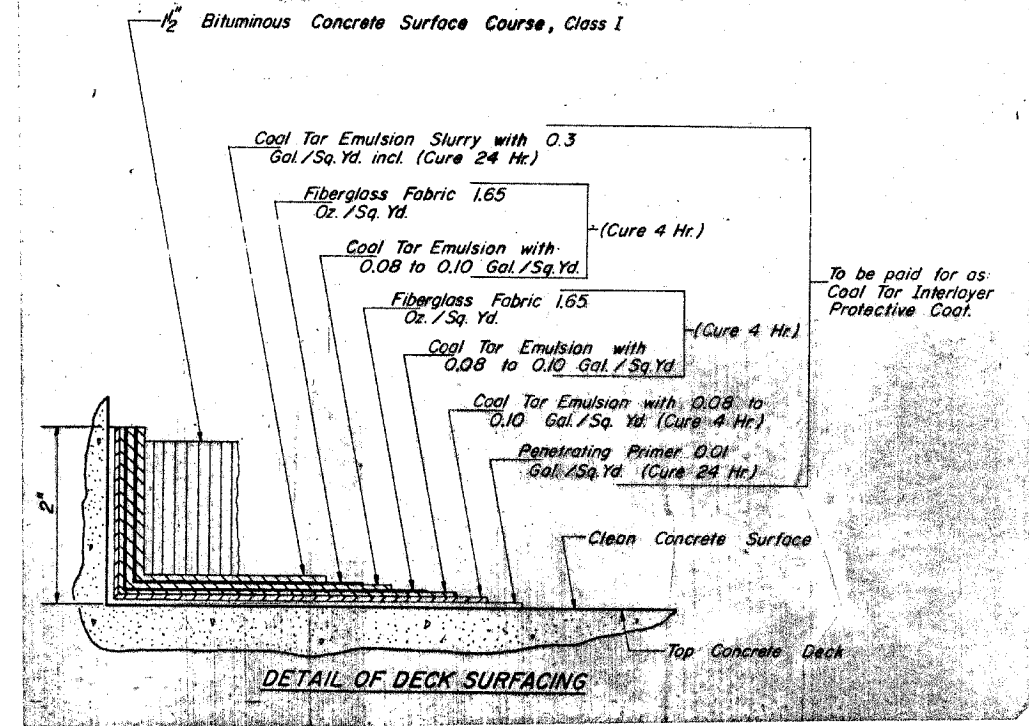
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 646	(102)BR-2	WHITESIDE	69	47
CONTRACT #64427				

SHEET NO. _____
SHEETS

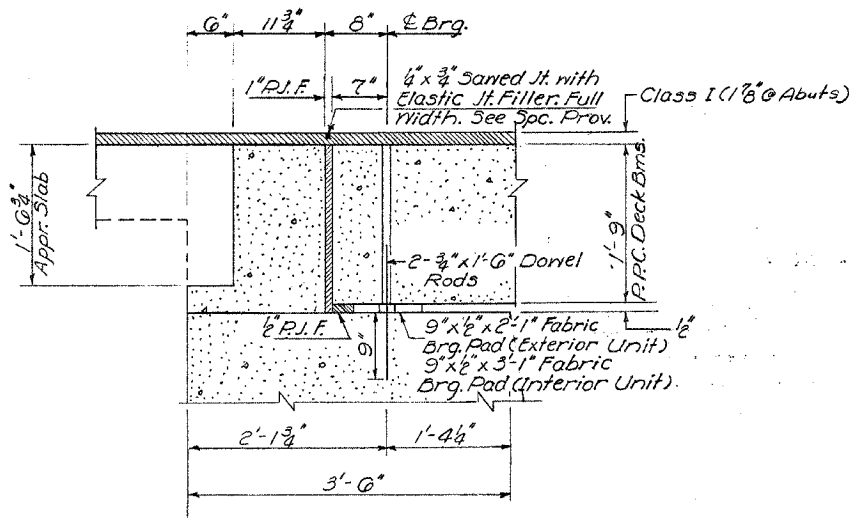


* Construct top of parapet parallel to grade. Vary this dimension to allow for camber in beam.

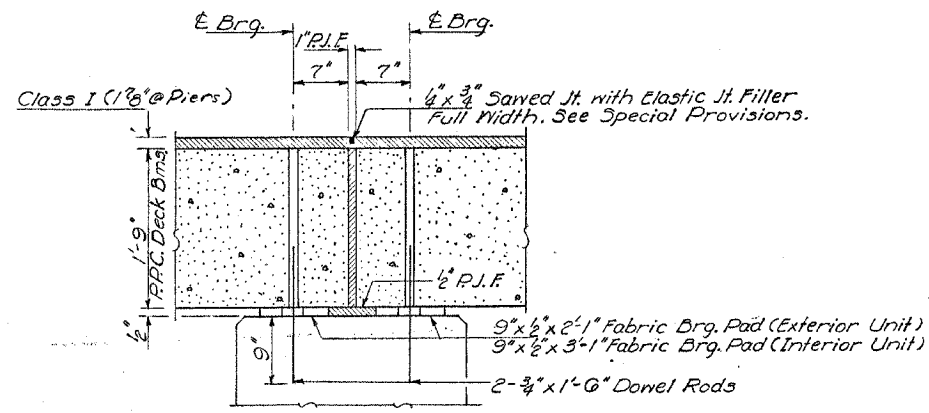
HALF CROSS SECTION



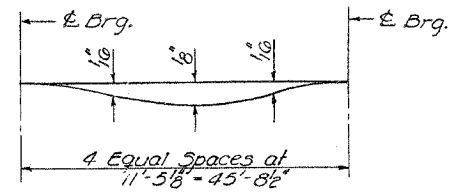
DETAIL OF DECK SURFACING



SEC. THRU ABUT.
(Dimensions @ Rt. Ls)



SEC. THRU PIER
(Dimensions @ Rt. Ls)



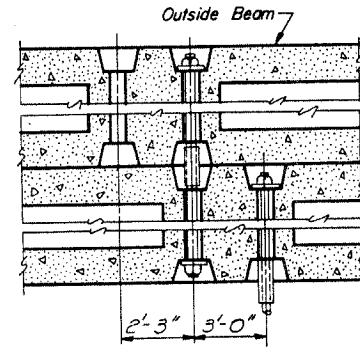
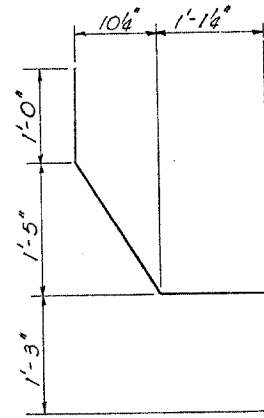
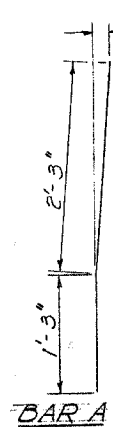
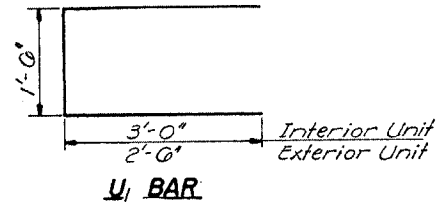
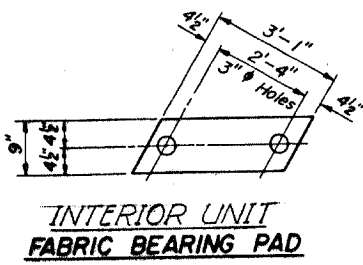
DEAD LOAD DEFLECTION
(Includes Weight of Concrete Curb, Handrail and Class I only.)

DESIGNED Stanley Shun-Tsun Lin	EXAMINED <i>[Signature]</i> May 13 1970
CHECKED R. W. Mathew	PASSED <i>[Signature]</i>
DRAWN Jacobs	APPROVED <i>[Signature]</i>
CHECKED R. W. Mathew	CHIEF HIGHWAY ENGINEER

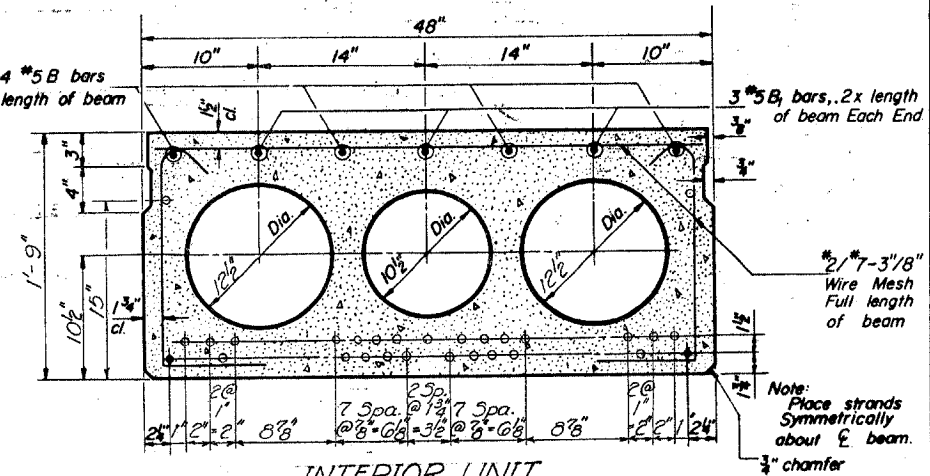
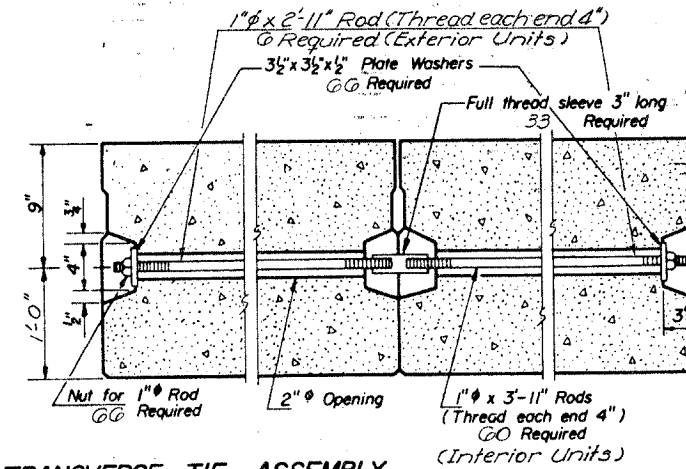
SUPERSTRUCTURE
S.B.I. RT. 88 SEC. 102 BR
WHITESIDE COUNTY
STA. 674 + 76

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

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 646	(102)BR-2	WHITESIDE	69	48	
CONTRACT #64427					

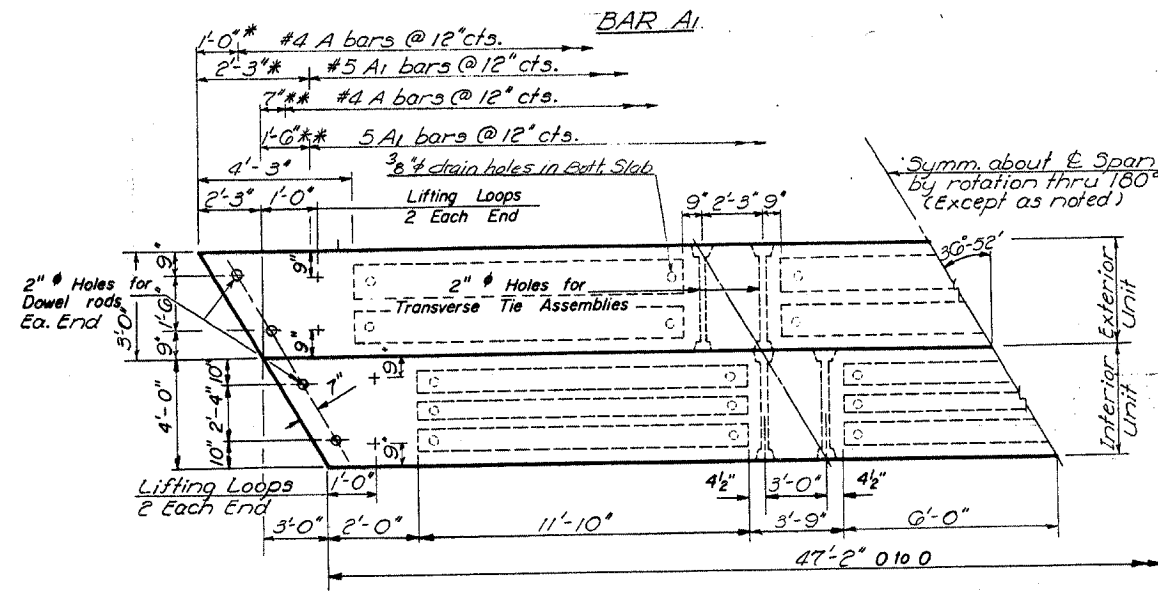


TYPICAL TRANSVERSE TIE ASSEMBLY



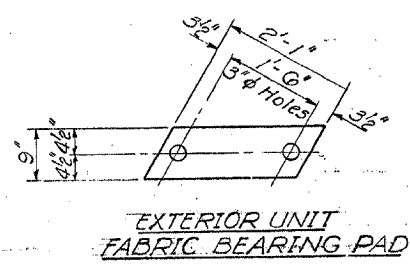
INTERIOR UNIT
TYPICAL SECTION

7/16" Strands, Each Strand Stressed to 18,900 lbs.
12 Strands 1 1/2" up 15 Strands 3/4" up 2 Strands 15" up

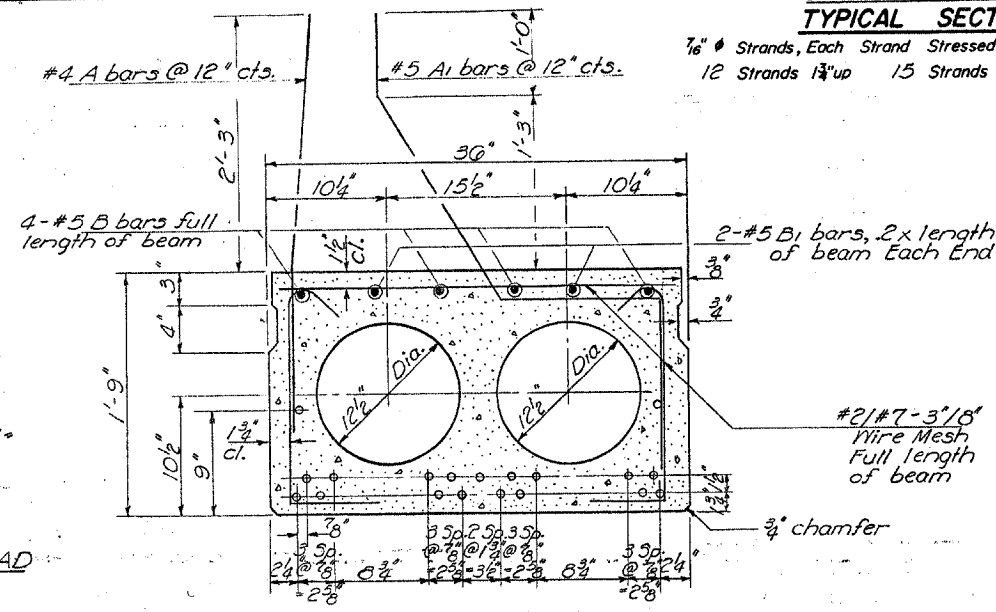


PLAN

* For Span 1 E. Exterior Bm. N. End & Span 3 W. Exterior Bm. S. End only.
** For Span 1 W. Exterior Bm. N. End & Span 3 E. Exterior Bm. S. End only.



EXTERIOR UNIT
FABRIC BEARING PAD



EXTERIOR UNIT
TYPICAL SECTION

7/16" Strands Each Strand Stressed to 18,900 lbs.
8 Strands 1 1/2" up 2 Strands 9"

GENERAL NOTES

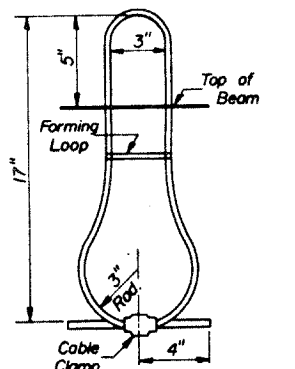
Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand. The nominal diameter shall be 7/16" and the nominal cross-sectional area shall be 0.109 sq. in. Lifting loops shall be 3/8" diameter, 6x19 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 29,000 lbs. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside beam shall be filled with grout after transverse tie assembly is in place. Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into sub-structure. Grout dowels at fixed end. At expansion end grout dowels into sub-structure and fill holes in beam with P.A.F-4. After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with A.S.T.M. Designation: A153. Cost of reinforcement and accessories cast into the beam, of bearing pads, of armor angles, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams." Dowel rods shall be ASTM A-306 or ASTM A-615. Transverse tie rods shall be ASTM-306, Grade 70-80.

BILL OF MATERIAL

Precast Prestressed Concrete Deck beams	Sq. Ft.	6509
---	---------	------

DESIGNED: Stanley Shaw
CHECKED: R. V. Mathur
DRAWN: JAMES R. CARMAN
CHECKED: R. V. Mathur

EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]



LIFTING LOOP DETAIL

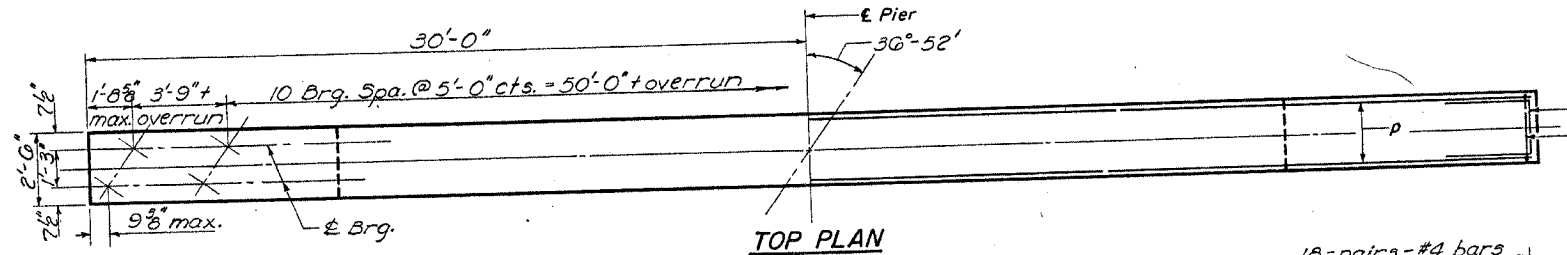
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 646	102	BR-2	69	49	
CONTRACT #64427					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

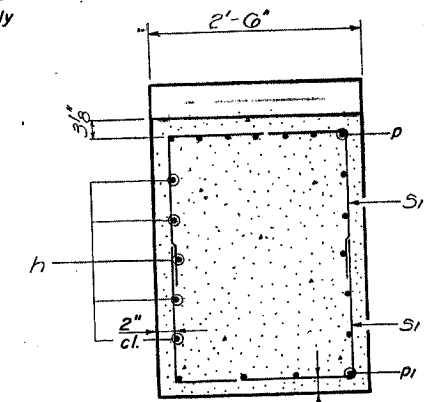
Note:
Space reinforcement in cap to miss anchor bolts.
Minimum bar laps = 24 dia. unless otherwise noted.
All edges shall have standard 3/4" chamfers except as noted.
Four steps monolithically with cap.

PILE DATA

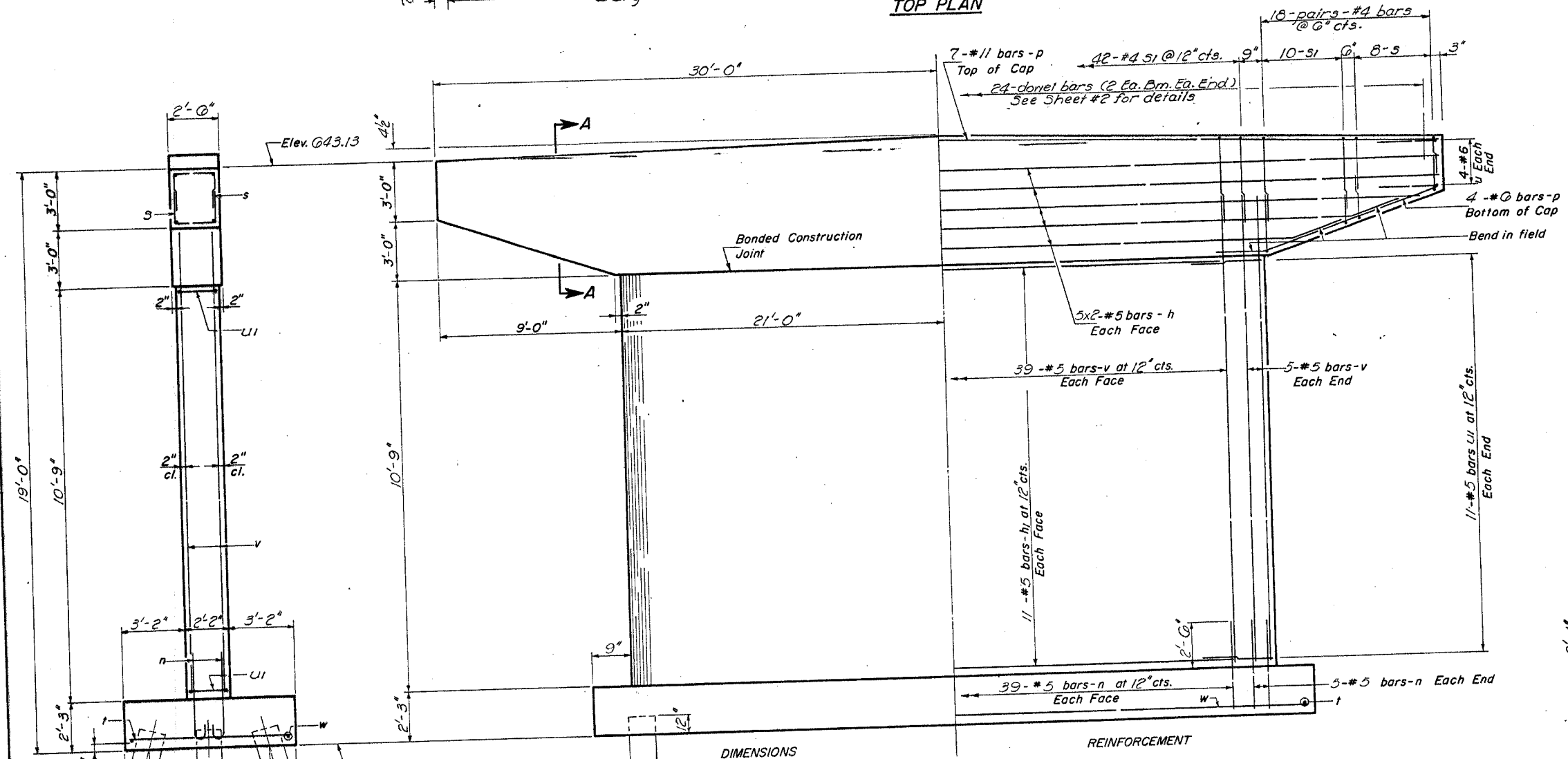
Type Untreated
Capacity 20 Ton
Est. Length 30'(P-1) 35'(P-2)
No. Req'd. 39 (P-1)
38 + 1 test pile (P-2)



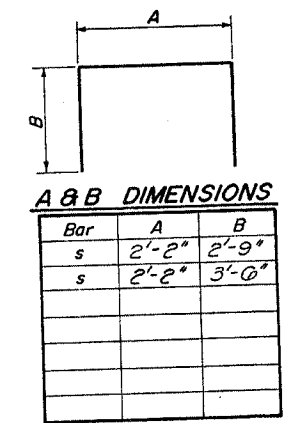
TOP PLAN



SECTION A-A



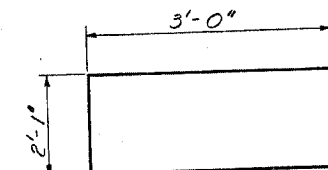
ELEVATION



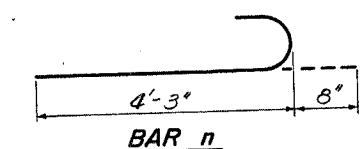
A & B DIMENSIONS

Bar	A	B
s	2'-2"	2'-9"
s	2'-2"	3'-0"

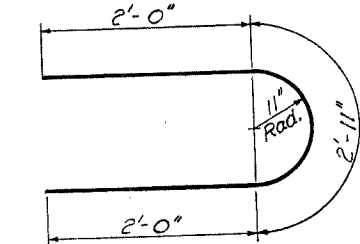
BARS s



BAR u



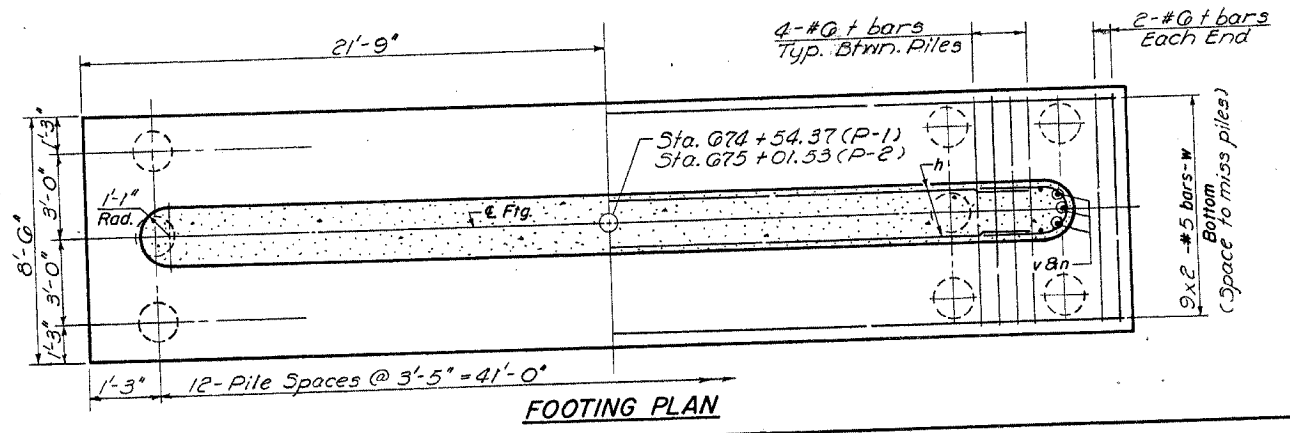
BAR n



BAR u1

2 PIERS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n				
h	40	#5	30'-0"	—
h1	44	#5	39'-9"	—
n	170	#5	4'-11"	⌋
p	14	#11	59'-9"	—
p1	10	#6	10'-0"	—
s	64	#4	7'-8"	⌋
s1	104	#4	9'-2"	⌋
i	52	#6	8'-3"	—
u	10	#6	8'-1"	⌋
u1	44	#5	6'-11"	⌋
v	170	#5	14'-0"	—
w	30	#5	21'-0"	—
Class X Concrete			Cu. Yds.	197.0
Reinforcement Bars			Lbs.	14620
Untreated Piles (Up to 30)			Lin Ft	1170
Untreated Piles (30 to 45)			Lin Ft	1330
Test Pile (Timber)			Ea.	1



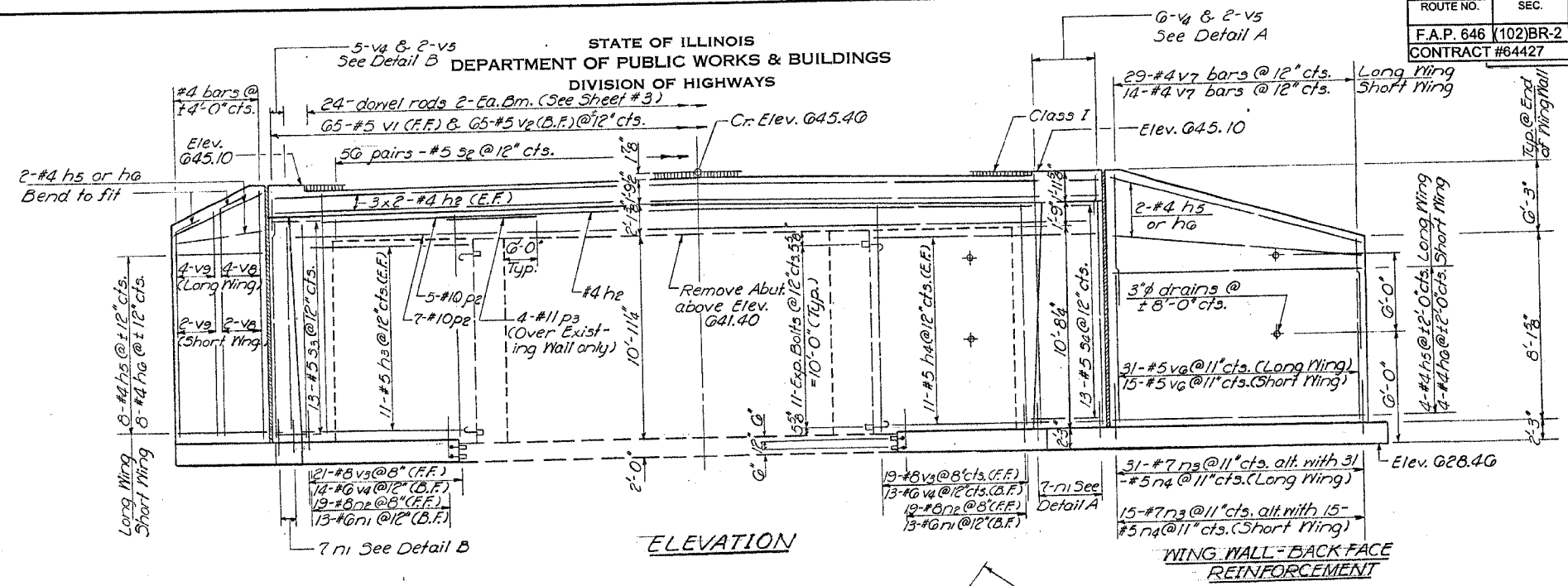
FOOTING PLAN

DESIGNED Stanley Shum-Tsui
CHECKED R. W. Mathis
DRAWN G. Ritchie
CHECKED R. W. Mathis

EXAMINED
PASSED
APPROVED

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. SHEETS
F.A.P. 646	102BR-2	WHITESIDE	69	50	
CONTRACT #64427					

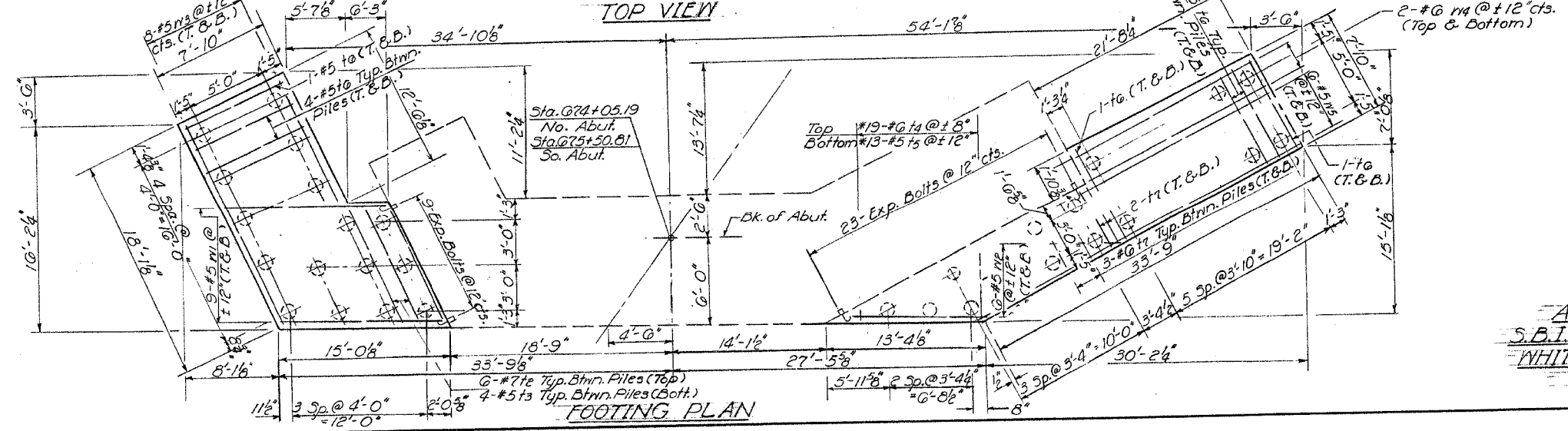
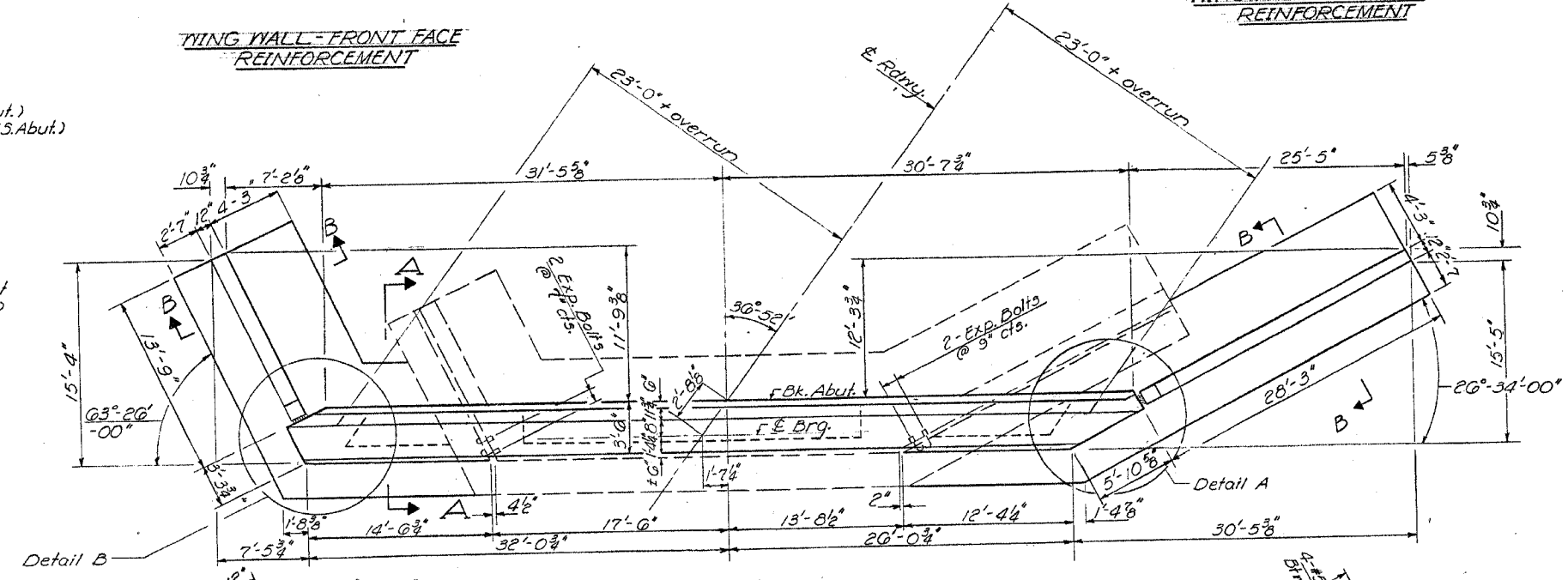
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



PILE DATA
 Type: Untreated
 Capacity: 20 Tons
 Est'd. Length: 30' (N. Abut.) 35' (S. Abut.)
 No. Req'd.: 38 (N. Abut.) 37 + 1 test pile (S. Abut.)

* Order t_4 and t_5 bars full length, cut to fit and use remainder of bars in the other abutment.

Notes:
 Work this sheet with Sheet #8.
 All reinforcement bars in Footing shall be spaced to miss piles.
 Expansion Bolts shall consist of self drilling inserts and $\frac{3}{4}$ " hooked bolts imbedded a min. of 9" into new concrete.



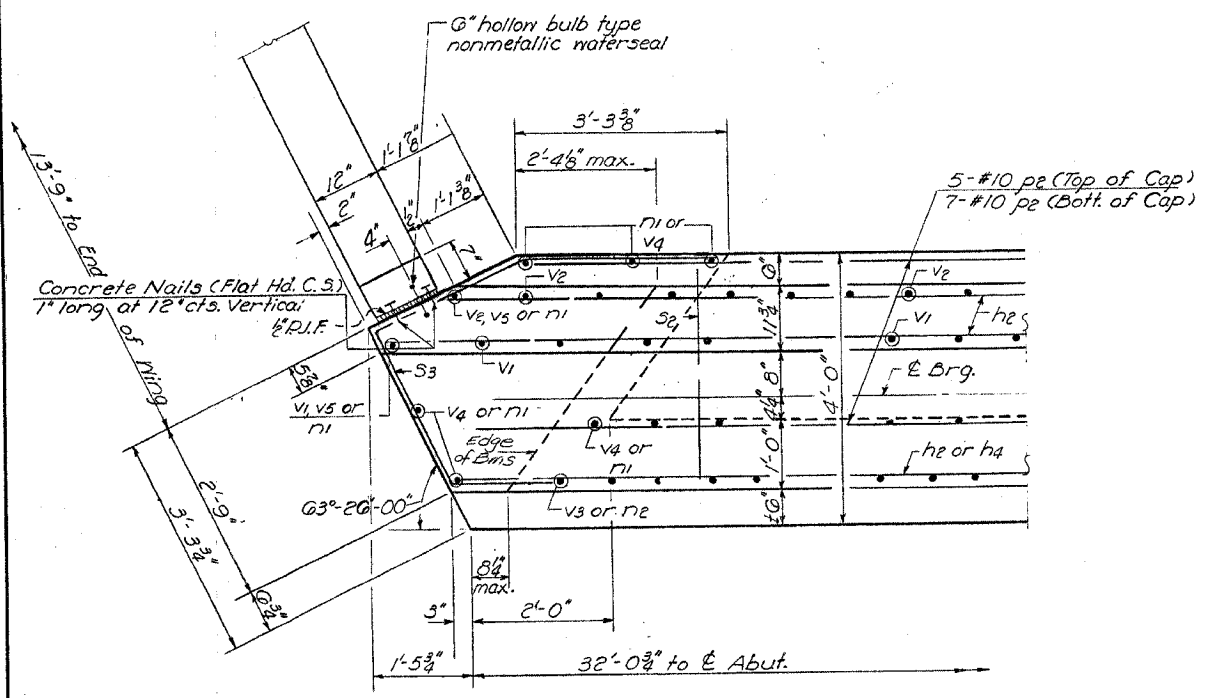
DESIGNED Stanley Shumbar	EXAMINED <i>[Signature]</i>
CHECKED R. W. Mathews	PASSED <i>[Signature]</i>
DRAWN Jacobs	APPROVED <i>[Signature]</i>
CHECKED R. W. Mathews	CHIEF HIGHWAY ENGINEER

M 47 13 19 70

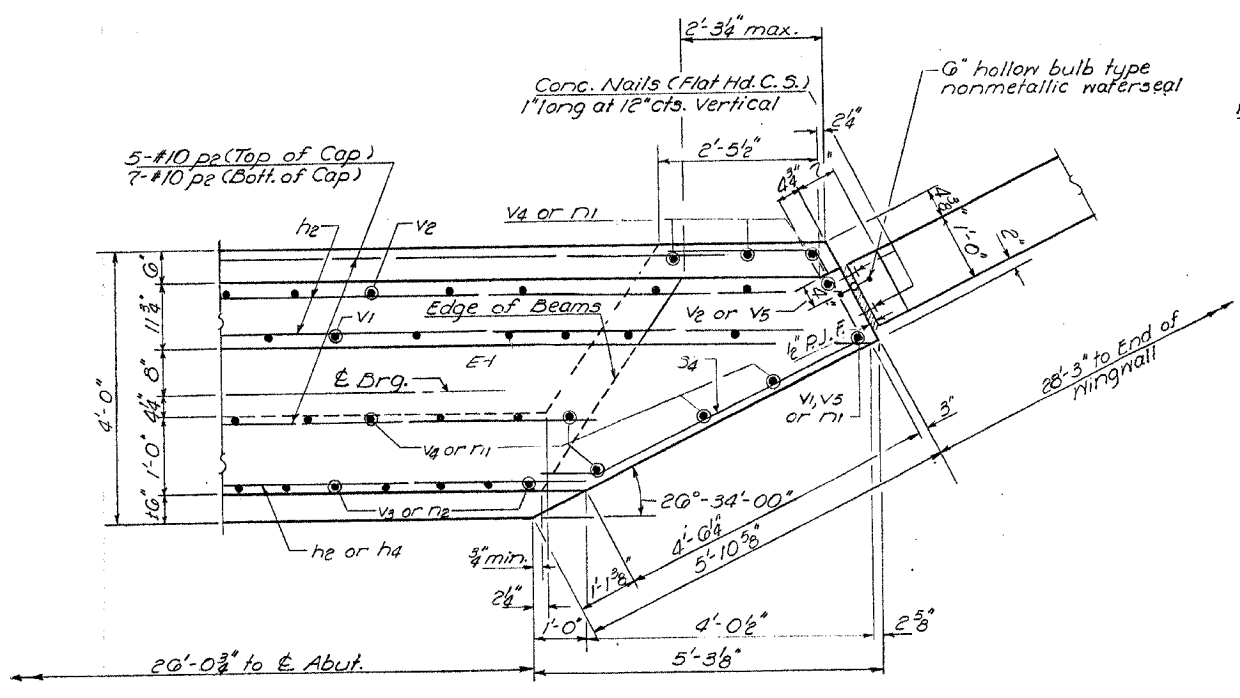
ABUTMENTS
 S.B.I. RT. 88 SEC. 102BR
 WHITESIDE COUNTY
 STA. 674 + 78

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

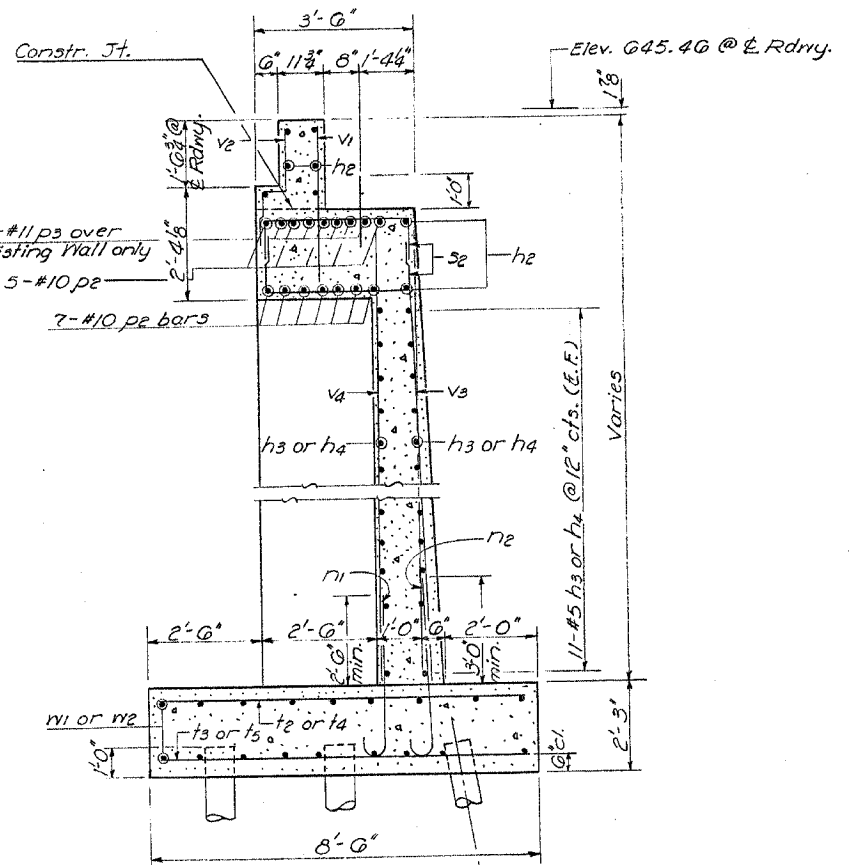
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 646	(102)BR-2	WHITESIDE	69	51	
CONTRACT #64427					



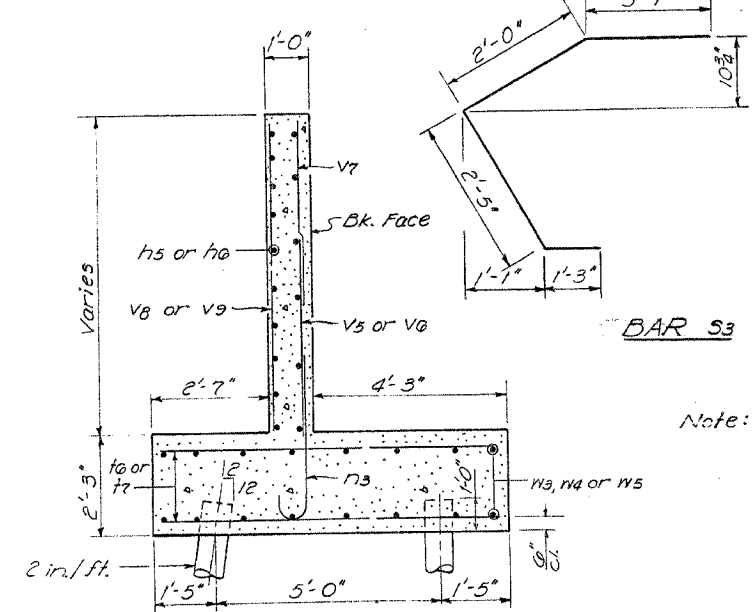
DETAIL 'B'



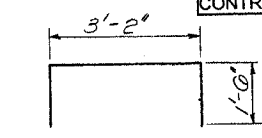
DETAIL 'A'



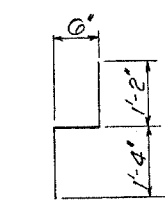
SECTION A-A



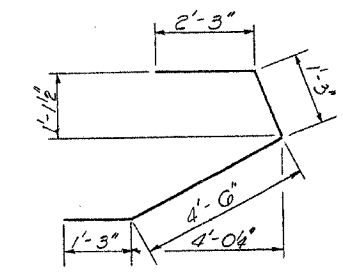
SEC. THRU WINGWALL



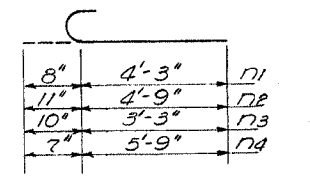
BAR 3E



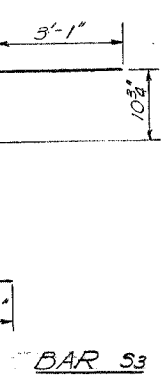
BAR V2



BARS S



BARS n1, n2, n3 & n4



BAR S3

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2	32	#4	33'-0"	—
h3	44	#5	14'-5"	—
h4	44	#5	12'-3"	—
h5	32	#4	28'-0"	—
h6	32	#4	13'-0"	—
n1	80	#6	4'-11"	C
n2	70	#8	5'-8"	C
n3	92	#7	4'-1"	C
n4	92	#5	6'-4"	C
p2	24	#10	59'-0"	—
p3	16	#11	15'-0"	—
s2	224	#5	6'-2"	□
s3	20	#5	8'-9"	<
s4	20	#5	9'-3"	>
t2	38	#7	9'-3"	—
t3	20	#5	9'-3"	—
t4	19	#6	6'-9"	—
t5	13	#5	6'-9"	—
t6	150	#6	7'-7"	—
t7	44	#6	5'-9"	—
v1	130	#5	3'-0"	—
v2	130	#5	3'-0"	—
v3	80	#8	12'-3"	—
v4	70	#6	12'-3"	—
v5	8	#6	14'-2"	—
v6	92	#5	7'-0"	—
v7	60	#4	7'-9"	—
v8	12	#4	14'-3"	—
v9	12	#4	11'-3"	—
w1	30	#5	14'-9"	—
w2	24	#5	13'-0"	—
w3	32	#5	17'-9"	—
w4	8	#5	22'-3"	—
w5	24	#5	33'-0"	—
Class X Concrete			Cu.Yds.	200.0
Reinforcement Bars			Lbs.	27570
Expansion Bolts (3/4\"/>				

Note: Work this sheet with Sheet #7

DESIGNED Stanley Shum Tomoda
CHECKED R. W. Mathur
DRAWN jacobson
CHECKED R. W. Mathur

EXAMINED [Signature]
PASSED H. Baumann
APPROVED Richard H. Hollerman

MAY 13 1970

ABUTMENT DETAILS
S.B.I.R.T. 88 SEC. 102BR
WHITESIDE COUNTY
STA. 674 + 78

STORM WATER POLLUTION PREVENTION PLAN EROSION CONTROL PLAN

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64R	102_BB-2	WHITESIDE	69	52
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 64427				

THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

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

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

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

SITE DESCRIPTION

DESCRIPTION OF CONSTRUCTION ACTIVITY:

THIS PROJECT CONSISTS OF REMOVAL AND REPLACEMENT OF THE STRUCTURE CARRYING IL 40 OVER GREEN RIVER UNDER STAGE CONSTRUCTION.

DESCRIPTION OF INTENDED SEQUENCE OF ACTIVITIES:

THE SEQUENCE OF EVENTS ARE AS FOLLOW: CLEARING, EMBANKMENT, EXCAVATION, GRADING AND PAVING. THIS PROJECT WILL BE CONSTRUCTED IN SEGMENTS AS SHOWN IN THE "STAGING PLANS".

TOTAL CONSTRUCTION SITE (CONSTRUCTION LIMIT TO CONSTRUCTION LIMIT) 4.00 ACRES

PROPOSED R.O.W (TOTAL PARCEL AREA) 1.53 ACRES

DISTURBED BY EXCAVATION (E.O.P TO CONSTRUCTION LIMIT) 3.10 ACRES

SUPPORTING REPORTS AND PLANS

THE FOLLOWING ASSISTED IN DEVELOPING THE EROSION CONTROL PLAN AS REFERENCED DOCUMENTS:

SOIL PROFILE SHEETS, SOILS REPORTS, BORING LOGS
USGS DRAINAGE MAPS, PROJECT PLAN DOCUMENTS

DRAINAGE TRIBUTARIES RECEIVING WATER FROM CONSTRUCTION SITE

GREEN RIVER

EROSION CONTROLS AND SEDIMENT CONTROL PROCEDURES

STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

PERIMETER EROSION CONTROL SHALL BE PLACED PRIOR TO BEGINNING EARTHWORK.

STABILIZATION PRACTICES DURING CONSTRUCTION:

AS EARTH EXCAVATION AND EMBANKMENT ARE BEING COMPLETED THE CONTRACTOR SHALL PLACE DITCH CHECKS, INLET AND PIPE PROTECTION, EROSION CONTROL BLANKET, AND SEEDING AS STAGES OF THE PROJECT ARE COMPLETED. PERIMETER EROSION BARRIER WILL BE INSTALLED AT ADDITIONAL LOCATIONS AS THE PROJECT PROGRESSES. SEEDING SHALL BE COMPLETED AS SPECIFIED IN THE EROSION CONTROL/ SEEDING MOBILIZATION AND TEMPORARY SEEDING SPECIAL PROVISION.

MAINTENANCE AFTER FINAL GRADING

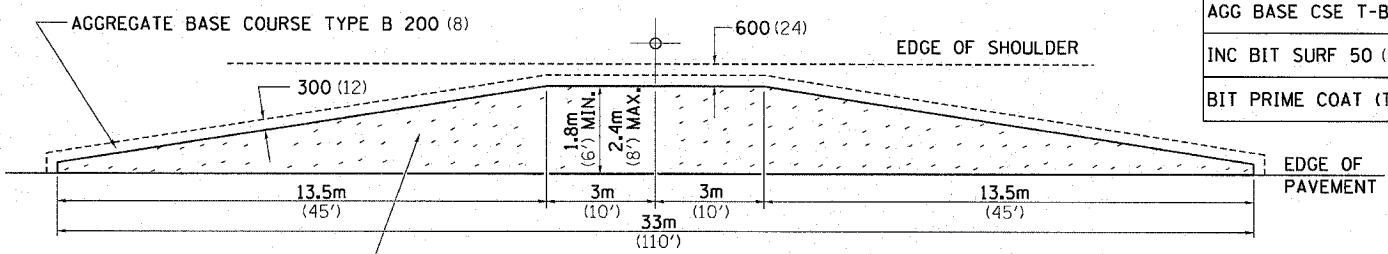
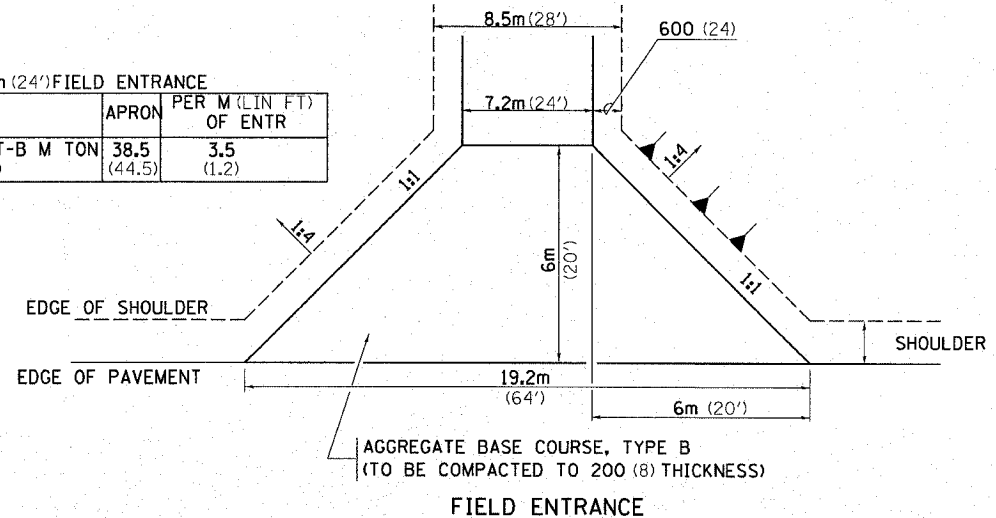
TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH THE PROPER STAND. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP AND DISTURBED TURF RESEEDED.

PLOT DATE = DATE
 FILE NAME = TITLE
 PLOT SCALE = SCALE
 REFERENCE = REF

BITUMINOUS APPROACHES & MAILBOX RETURNS

7.2m (24') FIELD ENTRANCE

	APRON PER M (LIN. FT.)	OF ENTR
AGG BASE CSE T-B M (TON)	38.5 (44.5)	3.5 (1.2)



	1.8m (6')	2.4m (8')
AGG BASE CSE T-B (TON)	22.2 (24.5)	28.2 (31.1)
INC BIT SURF 50 (2) (TON)	5.3 (5.8)	7.1 (7.8)
BIT PRIME COAT (TON)	0.05 (0.06)	0.07 (0.08)

ON ALL ENTRANCES
 AGGREGATE BASE COURSE TYPE B 200 (8)
 INCIDENTAL BITUMINOUS SURFACING 50 (2)

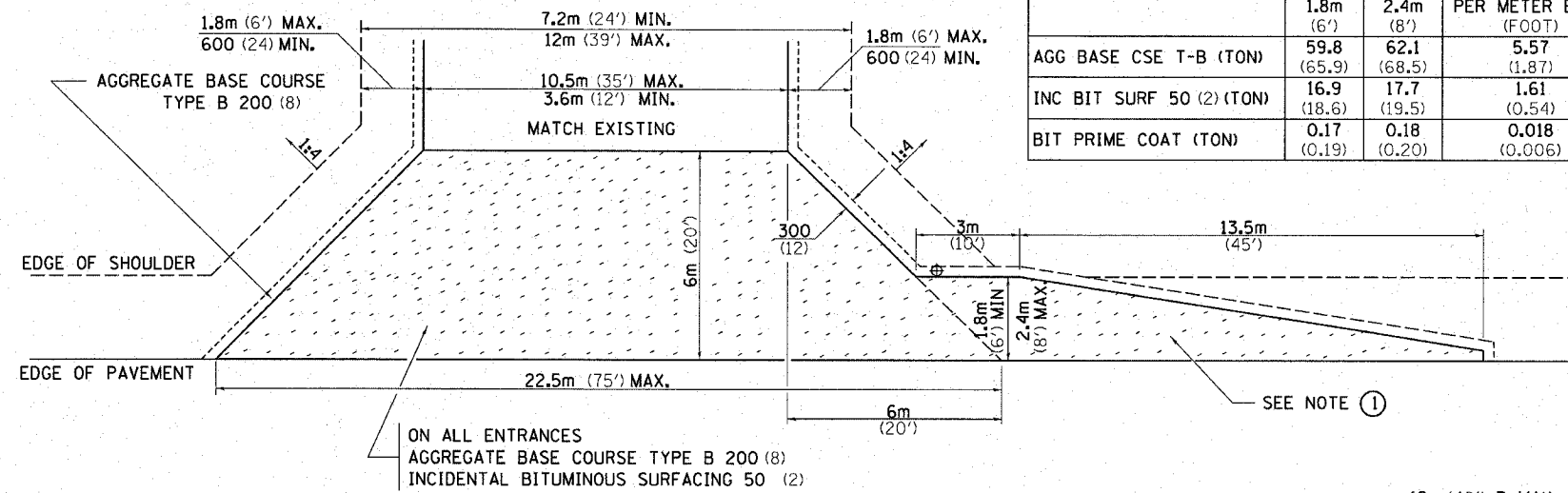
MAILBOX TURNOUT

NOTE

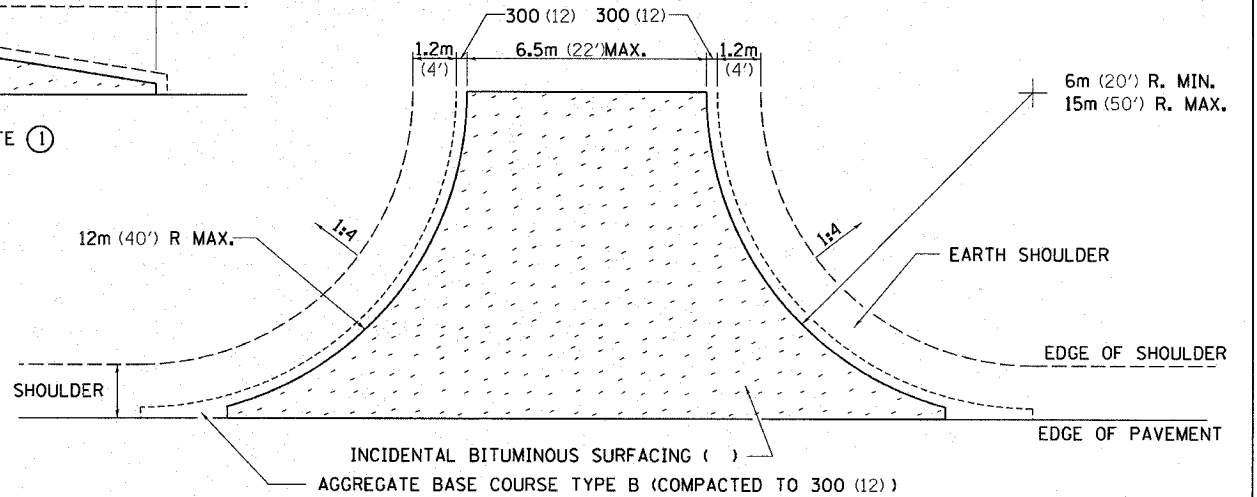
- TURNOUTS ARE TO BE CONSTRUCTED ON THE APPROACH SIDE OF ALL PE & CE REGARDLESS IF A MAILBOX IS PRESENT.
- ALL PE & CE ARE TO BE SURFACED TO RIGHT OF WAY LINE. AREA BEHIND RIGHT OF WAY SHALL MATCH EXISTING SURFACE.
- FE ARE TO BE AGGREGATE TO RIGHT OF WAY OR TOUCH DOWN, WHICH EVER IS GREATEST.
- QUANTITIES ARE CALCULATED WITH 1' BITUMINOUS SHOULDER IN PLACE. AGGREGATE QUANTITIES SHOWN ARE FOR NEW CONSTRUCTION.
- EXCAVATION REQUIRED FOR PLACEMENT OF AGGREGATE BASE COURSE SHALL BE CONSIDERED INCIDENTAL TO THE AGGREGATE BASE COURSE.
- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

10.5m (35') COMMERCIAL ENTRANCE

	1.8m (6')	2.4m (8')	PER METER ENTR (FOOT)
AGG BASE CSE T-B (TON)	59.8 (65.9)	62.1 (68.5)	5.57 (1.87)
INC BIT SURF 50 (2) (TON)	16.9 (18.6)	17.7 (19.5)	1.61 (0.54)
BIT PRIME COAT (TON)	0.17 (0.19)	0.18 (0.20)	0.018 (0.006)



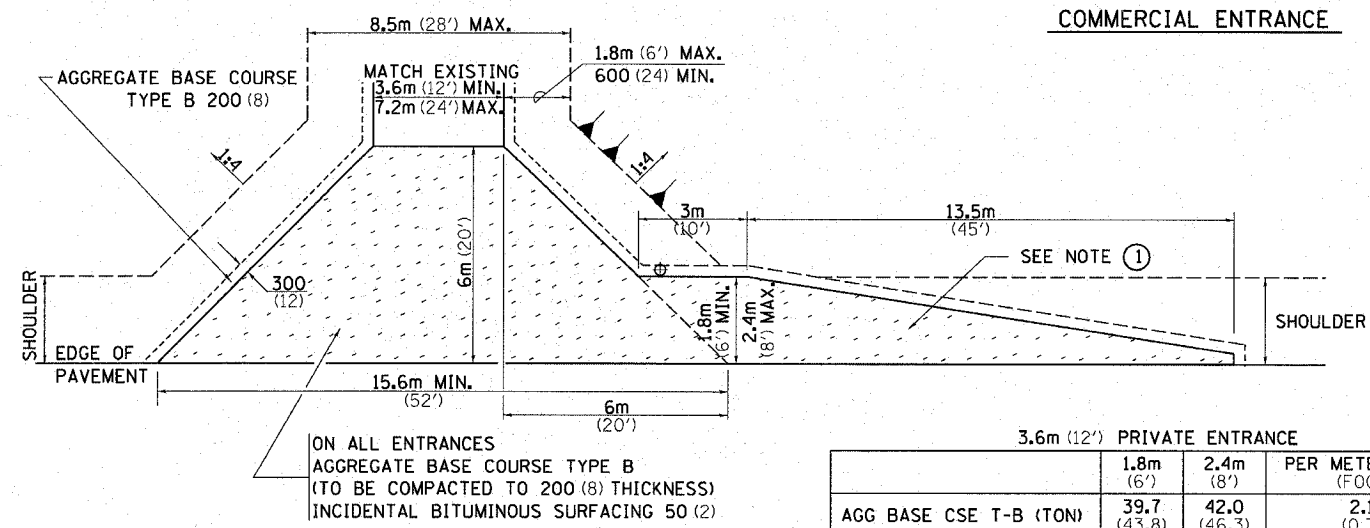
COMMERCIAL ENTRANCE



SIDE ROAD RETURN

	6m RADIUS (20')			9m RADIUS (30')			12m RADIUS (40')		
	5.5m (18')	6m (20')	6.5m (22')	5.5m (18')	6m (20')	6.5m (22')	5.5m (18')	6m (20')	6.5m (22')
AGG BASE CSE T-B (TON)	40.9 (45.1)	43.7 (48.2)	46.4 (51.2)	70.3 (77.5)	74.4 (82.0)	78.6 (86.6)	105.5 (116.3)	111.0 (122.4)	116.6 (128.5)
INC BIT SURF AT 25 (1) (TON)	3 (3.3)	3.3 (3.6)	3.4 (3.8)	5.3 (5.8)	5.5 (6.1)	5.9 (6.5)	8.0 (8.8)	8.4 (9.3)	9.0 (9.9)
BIT PRIME COAT (TON)	0.07 (0.08)	0.08 (0.09)	0.10 (0.10)	0.14 (0.15)	0.15 (0.16)	0.15 (0.17)	0.20 (0.22)	0.22 (0.24)	0.23 (0.25)

NOTE: USE 50 (2) INC. BIT. SURF. ON EXISTING RETURNS



PRIVATE ENTRANCE

3.6m (12') PRIVATE ENTRANCE

	1.8m (6')	2.4m (8')	PER METER ENTR (FOOT)
AGG BASE CSE T-B (TON)	39.7 (43.8)	42.0 (46.3)	2.11 (0.71)
INC BIT SURF 50 (2) (TON)	10.7 (11.8)	11.5 (12.7)	0.57 (0.19)
BIT PRIME COAT (TON)	0.11 (0.12)	0.18 (0.13)	0.006 (0.002)

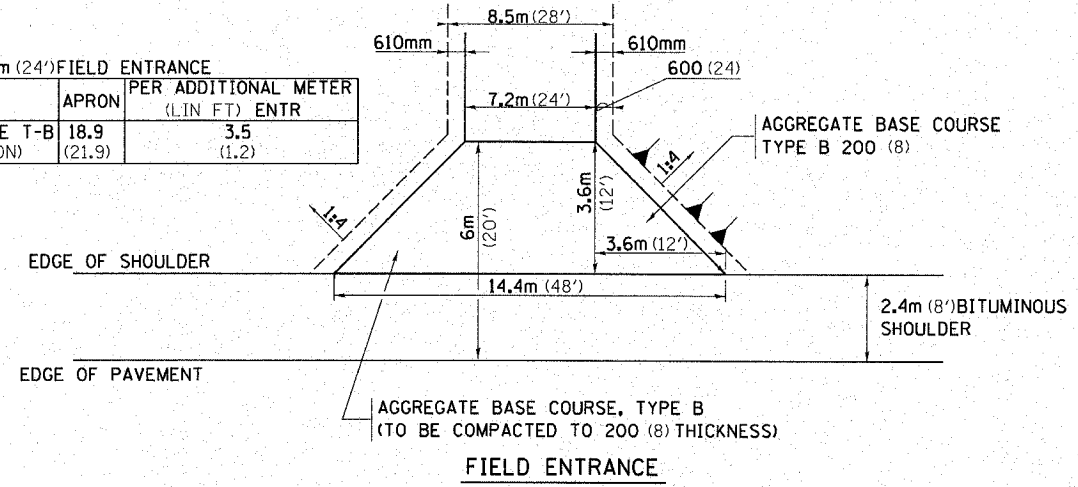
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 FILE NAME = 011111
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 REFERENCE = 011111

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	JD2-BB-2	WHITESIDE	69	54
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT _____		

ENTRANCE AND SIDEROADS WITH 2.4m (8') BITUMINOUS SHOULDERS

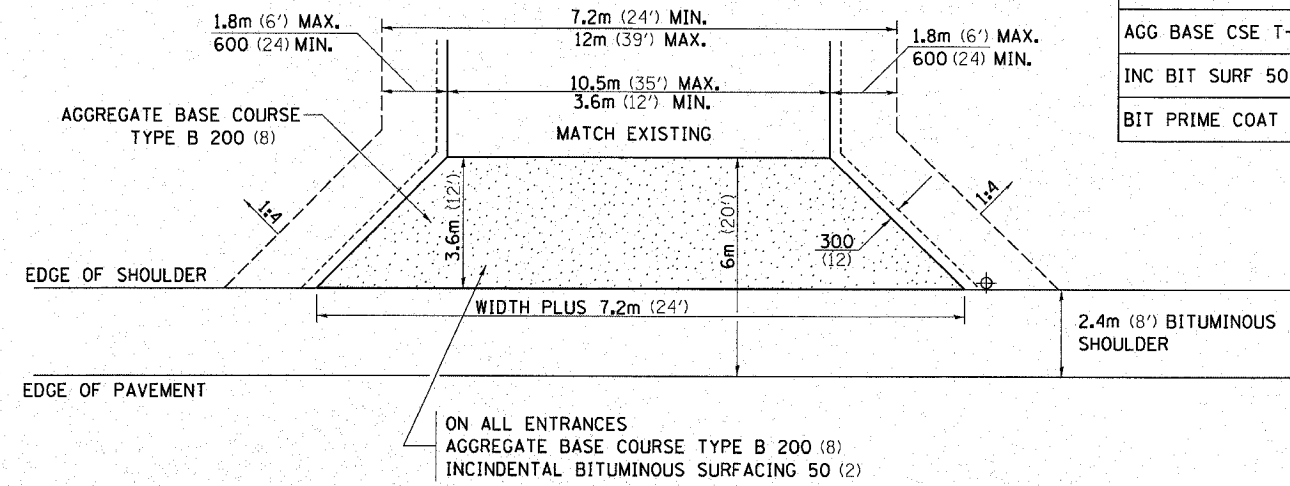
7.2m (24') FIELD ENTRANCE

AGG BASE CSE T-B M TON (TON)	APRON PER ADDITIONAL METER (LIN FT) ENTR	3.5 (1.2)
		18.9 (21.9)



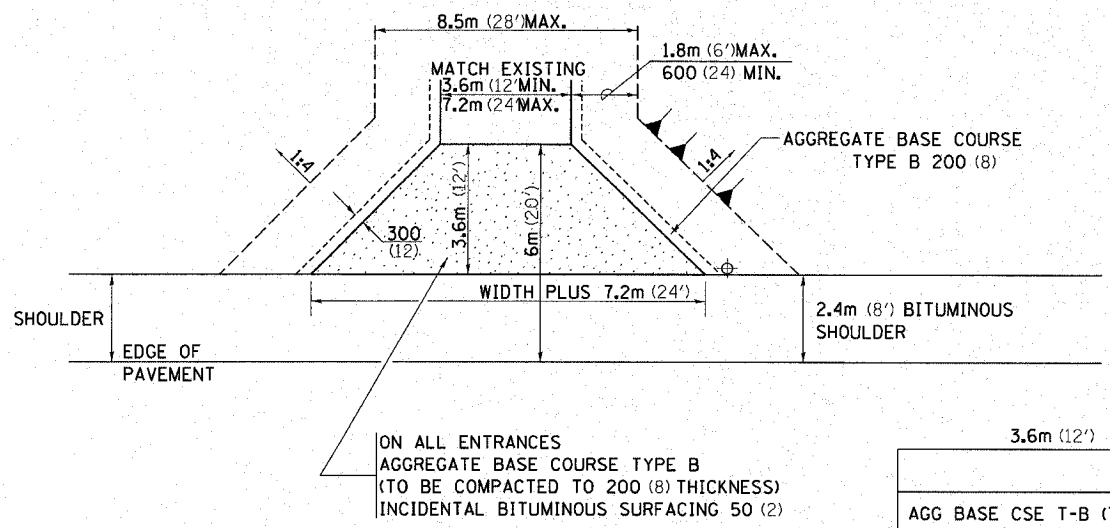
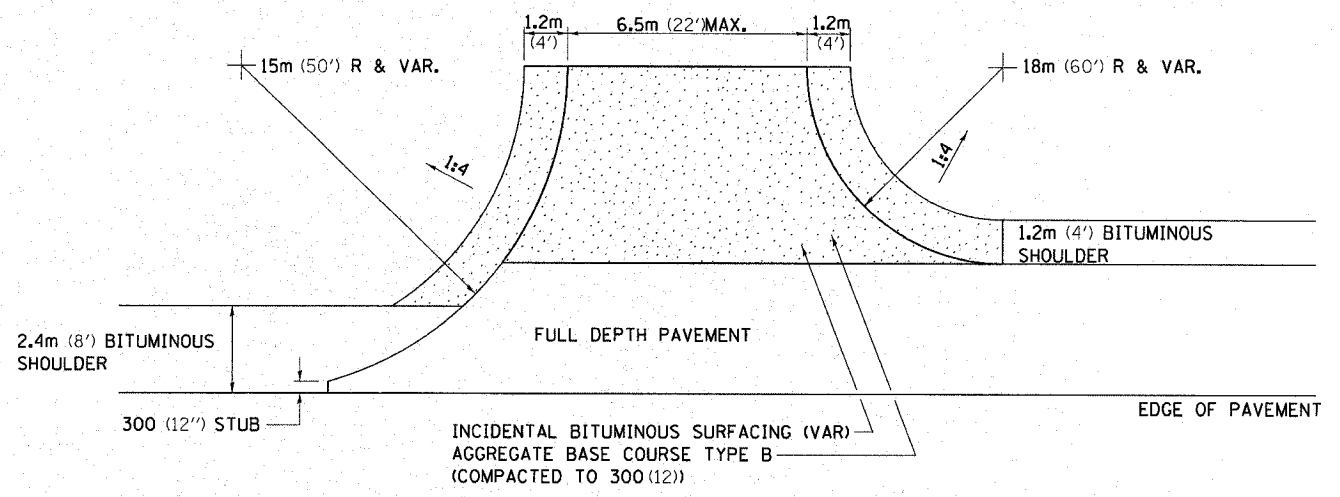
NOTE

- ① ALL PE & CE ARE TO BE BITUMINOUS SURFACED TO RIGHT OF WAY LINE. AREA BEHIND RIGHT OF WAY SHALL MATCH EXISTING SURFACE.
- ② FE ARE TO BE AGGREGATE TO RIGHT OF WAY OR TOUCH DOWN, WHICH EVER IS GREATEST.
- ③ QUANTITIES ARE CALCULATED WITH 2.4m BITUMINOUS SHOULDER IN PLACE. AGGREGATE QUANTITIES SHOWN ARE FOR NEW CONSTRUCTION.
- ④ EXCAVATION REQUIRED FOR PLACEMENT OF AGGREGATE BASE COURSE SHALL BE CONSIDERED INCIDENTAL TO THE AGGREGATE BASE COURSE.
- ⑤ ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.



COMMERCIAL ENTRANCE

	3.6m (12')		10.5m (35')	
	3.6m (12')	10.5m (35')	3.6m (12')	10.5m (35')
AGG BASE CSE T-B (TON)	14.3 (15.8)	27.0 (29.8)	0.64 (0.70)	1.70 (1.87)
INC BIT SURF 50 (2) (TON)	3.3 (3.6)	6.35 (7.0)	0.14 (0.15)	0.40 (0.44)
BIT PRIME COAT (TON)	0.042 (0.046)	0.082 (0.090)	0.002 (0.002)	0.005 (0.006)



COMMERCIAL ENTRANCE

3.6m (12') PRIVATE ENTRANCE

	3.6m (12')		7.2m (24')	
	3.6m (12')	7.2m (24')	3.6m (12')	7.2m (24')
AGG BASE CSE T-B (TON)	14.3 (15.8)	21.0 (23.1)	0.64 (0.70)	1.20 (1.32)
INC BIT SURF 50 (2) (TON)	3.3 (3.6)	4.9 (5.4)	0.14 (0.15)	0.27 (0.30)
BIT PRIME COAT (TON)	0.042 (0.046)	0.063 (0.069)	0.002 (0.002)	0.004 (0.004)

SIDE ROAD RETURN

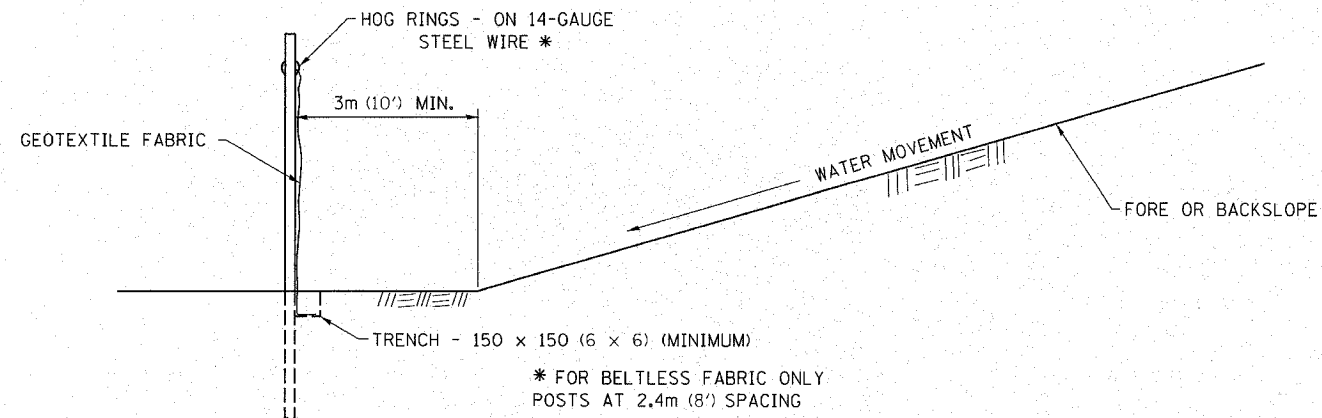
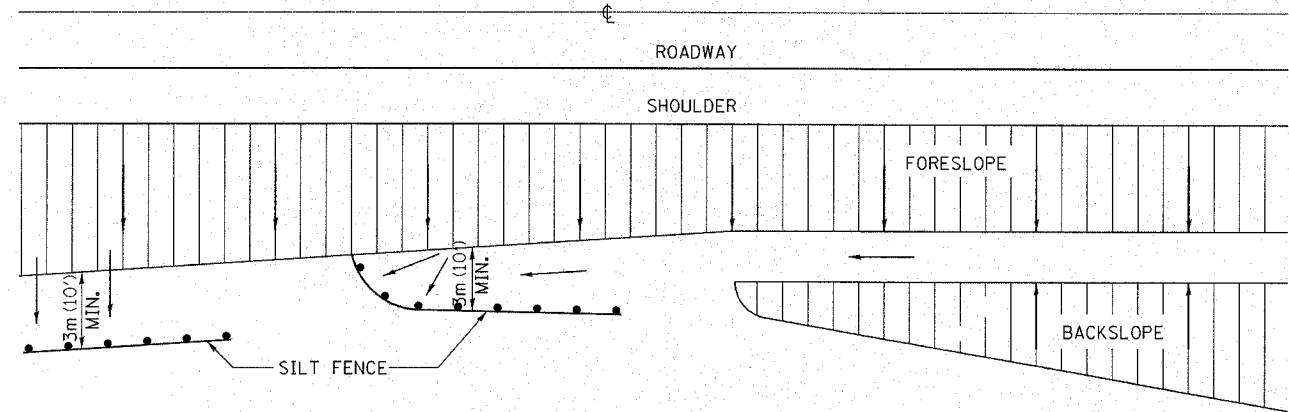
	6m RADIUS (20')	9m RADIUS (30')	12m RADIUS (40')
AGG BASE CSE T-B (TON)			
INC BIT SURF AT 25 (1) (TON)			
BIT PRIME COAT (TON)			

NOTE: USE 50 (2) INC. BIT. SURF. ON EXISTING RETURNS

PRIVATE ENTRANCE

PLOT DATE: 08/10/2005
 FILE NAME: 050427.DWG
 PLOT SCALE: 1:1
 REFERENCE: 050427

EROSION CONTROL DETAILS FOR SILT FENCE



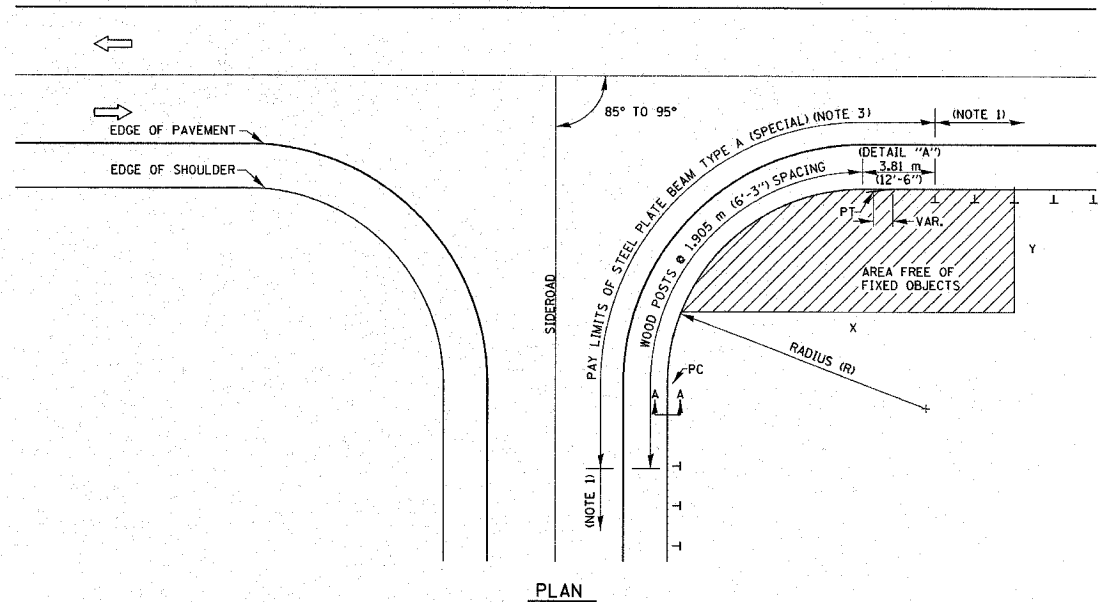
DETAILS OF SILT FENCE

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

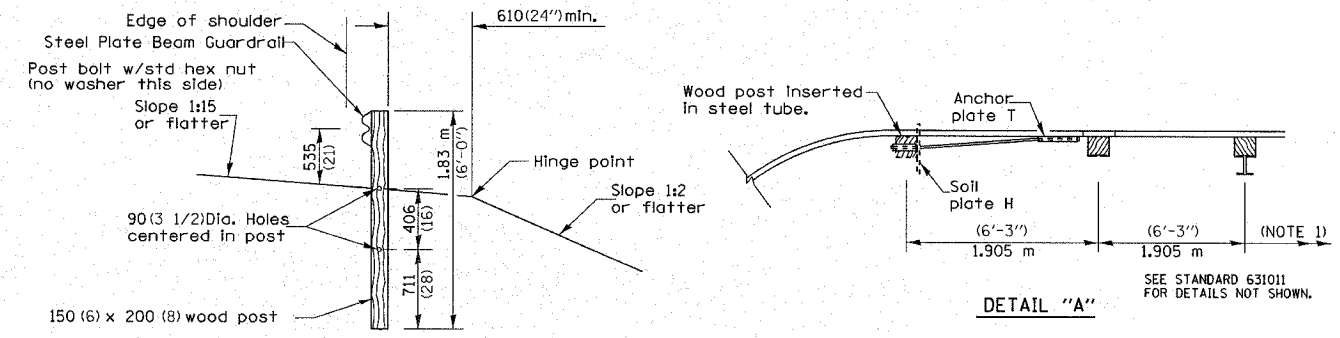
REVISED 10-22-01

STEEL PLATE BEAM GUARD RAIL, TYPE A (SPECIAL)

CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
646	JD2.BB-2	WHITESIDE	69
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 64427



PLAN



SECTION A-A

DETAIL "A"

SEE STANDARD 631011 FOR DETAILS NOT SHOWN.

- NOTES:
- STEEL PLATE BEAM GUARDRAIL TYPE A, TYPE B, OR TRAFFIC BARRIER TERMINAL AS SPECIFIED.
 - FOR THE 2.59 m (8'-6") RADIUS, THE RAIL IS NOT BOLTED TO THE POST LOCATED AT THE MIDPOINT OF THE CURVE.
 - STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL) MEASURED FOR PAYMENT IN METERS (FEET), THE LENGTH MEASURED WILL BE THE OVERALL LENGTH OF THE SINGLE RAIL ERECTED MEASURED ALONG THE TOP EDGE OF THE RAIL ELEMENTS TO THE LIMITS SHOWN ON THE PLANS.
 - BLOCK OUTS SHALL NOT BE USED WITHIN LIMITS OF THIS PAY ITEM.

GENERAL NOTES

ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

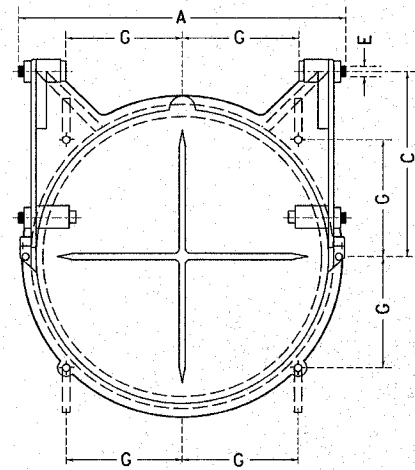
INSTALLATION CHARACTERISTICS PER DESIGN RADIUS (R)			
R	NO. OF WOOD POSTS	X	Y
2.59 (8'-6")	5 (NOTE 2)	7.6 m (25')	4.6 (15')
5.18 (17'-0")	6	9.1 m (30')	4.6 (15')
7.77 (25'-6")	8	12.2 m (40')	6.1 (20')
10.67 (35'-0")	11	15.2 m (50')	6.1 (20')

REVISED 2-10-04

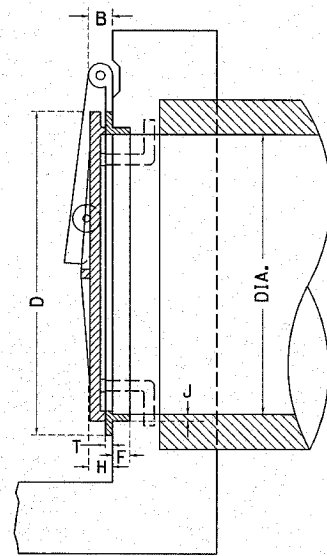
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 PLOT SCALE: 1/8" = 1'-0"
 REFERENCE: 1000

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	JD2-BB-2	WHITESIDE	69	56
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 64427				

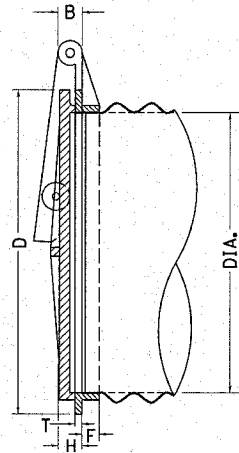
AUTOMATIC FLAP GATES



FRONT ELEVATION



SECTION



SECTION SHOWING METHOD OF APPLICATION TO CORRUGATED METAL PIPE

IT IS INTENDED THAT THE AUTOMATIC FLAP GATES SHALL BE A COMMERCIAL PRODUCT PRODUCED BY A RELIABLE MANUFACTURER. THE GATE MAY BE MADE OF CAST IRON, CAST STEEL OR OTHER SUITABLE MATERIALS. THE DESIGN MAY DIFFER FROM THE DRAWING IF IT WILL WORK IN A SATISFACTORY, TROUBLE FREE MANNER AND WILL WITHSTAND THE WATER PRESSURE AT THE INSTALLATION LOCATION. THE GATE SHALL BE APPROVED BY THE ENGINEER.

THE SIZE OF AUTOMATIC FLAP GATES SHALL REFER TO THE DIAMETER OF THE OUTLET PIPE OR OPENING.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR FLAP GATES OF THE SIZE SPECIFIED AND SHALL INCLUDE ALL MATERIALS AND COMPLETE INSTALLATION.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TABLE OF DIMENSIONS

DIAM	A	B	C	D	E	F	G	H	J	T
200 (8)	273 (10 3/4)	35 (1 3/8)	144 (5 11/16)	254 10	13 (1/2)	29 (1 1/8)	90 (3 5/16)	32 (1 1/4)	19 (3/8)	10 (3/8)
250 (10)	324 (12 3/4)	35 (1 3/8)	181 (7 1/8)	311 (12 1/4)	13 (1/2)	29 (1 1/8)	111 (4 3/8)	38 (1 1/2)	13 (1/2)	11 (1/16)
300 (12)	375 (14 3/4)	35 (1 3/8)	216 (8 1/2)	368 (14 1/2)	13 (1/2)	29 (1 1/8)	130 (5 1/8)	38 (1 1/2)	13 (1/2)	13 (1/2)
350 (14)	438 (17 1/4)	35 (1 3/8)	251 (9 5/8)	425 (16 3/4)	13 (1/2)	32 (1 1/4)	151 (5 5/8)	38 (1 1/2)	13 (1/2)	14 (9/16)
375 (15)	451 (17 3/4)	35 (1 3/8)	270 (10 5/8)	451 (17 3/4)	13 (1/2)	32 (1 1/4)	159 (6 1/4)	38 (1 1/2)	13 (1/2)	14 (9/16)
400 (16)	489 (19 1/4)	35 (1 3/8)	286 (11 1/4)	476 (18 3/4)	13 (1/2)	32 (1 1/4)	168 (6 5/8)	38 (1 1/2)	13 (1/2)	14 (9/16)
450 (18)	565 (22 1/4)	51 2	321 (12 5/8)	533 21	19 (3/4)	40 (1 5/8)	189 (7 1/8)	44 (1 3/4)	14 (9/16)	14 (9/16)
500 (20)	629 (24 3/4)	51 2	359 (14 1/8)	603 (23 3/4)	19 (3/4)	35 (1 3/8)	210 (8 1/4)	44 (1 3/4)	16 (5/8)	16 (5/8)
525 (21)	641 (25 1/4)	51 2	378 (14 3/8)	616 (24 1/4)	19 (3/4)	35 (1 3/8)	217 (8 5/8)	44 (1 3/4)	16 (5/8)	16 (5/8)
600 (24)	718 (28 1/4)	51 2	432 17	699 (27 1/2)	19 (3/4)	38 (1 1/2)	248 (9 3/4)	44 (1 3/4)	16 (5/8)	16 (5/8)
750 (30)	895 (35 1/4)	64 (2 1/2)	521 (20 1/2)	864 34	25 1	40 (1 5/8)	305 12	51 2	27 (1 1/16)	16 (5/8)
900 (36)	1054 (41 1/2)	64 (2 1/2)	635 25	1038 (40 7/8)	25 1	52 (2 1/16)	367 (14 1/16)	57 (2 1/4)	29 (1 1/8)	17 (1/16)
1050 (42)	1207 (47 1/2)	64 (2 1/2)	756 (29 3/4)	1194 47	25 1	59 (2 3/16)	422 (16 5/8)	57 (2 1/4)	29 (1 1/8)	19 (3/4)
1200 (48)	1359 (53 1/2)	64 (2 1/2)	864 34	1372 54	25 1	70 (2 3/4)	484 (19 1/16)	57 (2 1/4)	35 (1 3/8)	19 (3/4)
1350 (54)	1543 (60 3/4)	64 2 1/2	965 38	1581 (62 1/4)	32 (1 1/4)	70 (2 3/4)	559 22	76 3	38 (1 1/2)	22 (1/8)
1500 (60)	1702 (67)	64 (2 1/2)	1067 42	1740 (68 1/2)	32 (1 1/4)	70 (2 3/4)	616 (24 1/4)	76 3	38 (1 1/2)	24 (5/16)
1650 (66)	1855 (73 3/8)	64 (2 1/2)	1194 47	1905 75	32 (1 1/4)	73 (2 7/8)	673 (26 1/2)	76 3	38 (1 1/2)	25 1
1800 (72)	2007 (79)	64 (2 1/2)	1295 51	2083 82	32 (1 1/4)	76 3	737 29	76 3	38 (1 1/2)	25 1
1950 (78)	2184 (86)	64 (2 1/2)	1403 (55 1/4)	2254 (88 3/4)	32 (1 1/4)	89 (3 1/2)	797 (31 3/8)	76 3	41 (1 5/8)	29 (1 1/8)
2100 (84)	2350 (92 1/2)	89 (3 1/2)	1511 (59 1/2)	2426 (95 1/2)	38 (1 1/2)	89 (3 1/2)	857 (33 3/4)	76 3	44 (1 3/4)	32 (1 1/4)

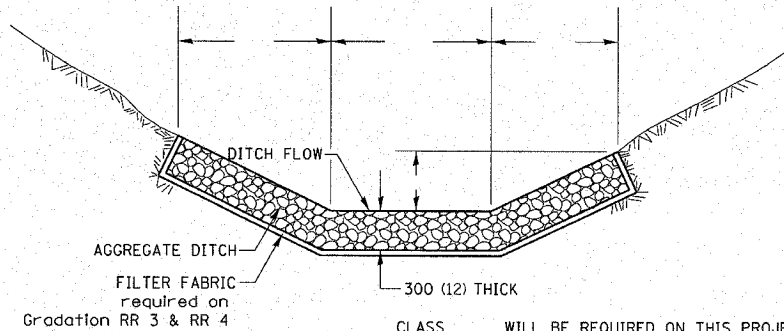
PLOT DATE = 08/10/2005
 FILE NAME = WELLS
 REFERENCE = SHEETS

CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
646	J02.BB-2	WHITESIDE	69
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 64427			

AGGREGATE DITCH FOR FLEXIBLE DITCH LINING

DESIGNER NOTES

- 1) Class A3 or A4 can be used for ditch lining. Use A4 for velocities greater than 3.66 m/s (12 fps.) A3 may be used as an alternate to fibermat.
- 2) Include pay item for FILTER FABRIC FOR USE WITH RIPRAP. Note the specification book does not require fabric on A3 but include it when using this standard.
- 3) Example: Class A4 means A quality and gradation RR 4. See Article 705.01 for size.
- 4) Remember to fill in the dimensions on the ditch section above.
- 5) Add the class A3 or A4 to the note on the bottom right.
- 6) Use Pay Item 28300470 Aggregate Ditch 12" or MX283010 Aggregate Ditch, 300 mm



BEDDING STONE WILL BE USED IN ACCORDANCE WITH ARTICLE 281 OF THE STANDARD SPECIFICATIONS. THE COST WILL BE INCLUDED IN THE COST OF AGGREGATE DITCH.

CLASS ____ WILL BE REQUIRED ON THIS PROJECT AT THE LOCATION SHOWN ON THE PLANS.

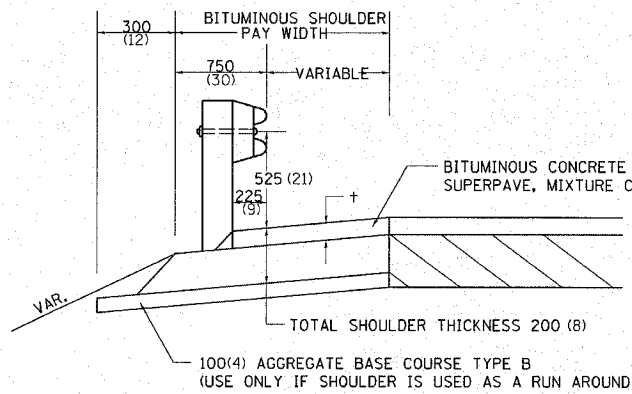
THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 283. AGGREGATE DITCH WILL BE MEASURED FOR PAYMENT IN PLACE AND THE AREA COMPUTED IN SQUARE METERS (SQUARE YARD) OF ACTUAL SURFACE AREA. AGGREGATE DITCH WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE METER (SQUARE YARD) FOR AGGREGATE DITCH, 300 mm (12").

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

AGGREGATE DITCH FOR FLEXIBLE DITCH LINING 21.4

REVISED 4-12-01

DETAIL OF BITUMINOUS SHOULDER AT GUARD RAIL



† = SEE TYPICAL SECTIONS FOR THICKNESS

GENERAL NOTES

THE TOP LIFT SHALL NOT BE PLACED BEHIND THE GUARDRAIL POSTS. WHEN PLACING THE TOP LIFT THE RAIL & BLOCKOUTS MUST BE REMOVED FROM THE POSTS. THE POST SHALL NOT BE REMOVED.

THE HEIGHT OF THE GUARD RAIL SHALL BE SET 525 (21) FROM THE FINISHED SURFACE.

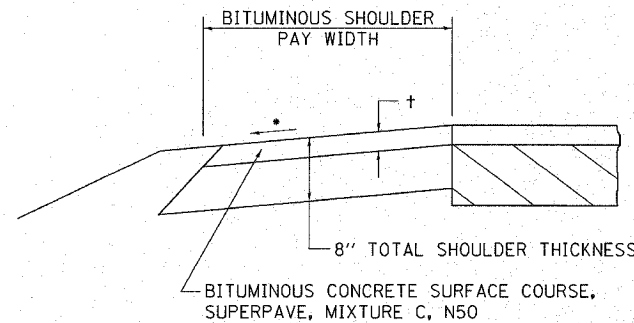
THE BITUMINOUS SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50, AND SQUARE METER (SQUARE YARD) FOR BITUMINOUS SHOULDERS SUPERPAVE OF THE THICKNESS SPECIFIED. THE REMOVAL & REINSTALLATION OF THE GUARDRAIL WILL BE INCLUDED IN THE COST OF THE BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

DETAIL OF BITUMINOUS SHOULDER AT GUARD RAIL 23.4

REVISED 1-17-02

BITUMINOUS SHOULDER



† = SEE TYPICAL SECTIONS FOR THICKNESS

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

GENERAL NOTES

THE BITUMINOUS SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50, AND SQUARE YARD FOR BITUMINOUS SHOULDERS SUPERPAVE OF THE THICKNESS SPECIFIED.

USE BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50, WHEN RESURFACING EXISTING BITUMINOUS SHOULDERS. THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50.

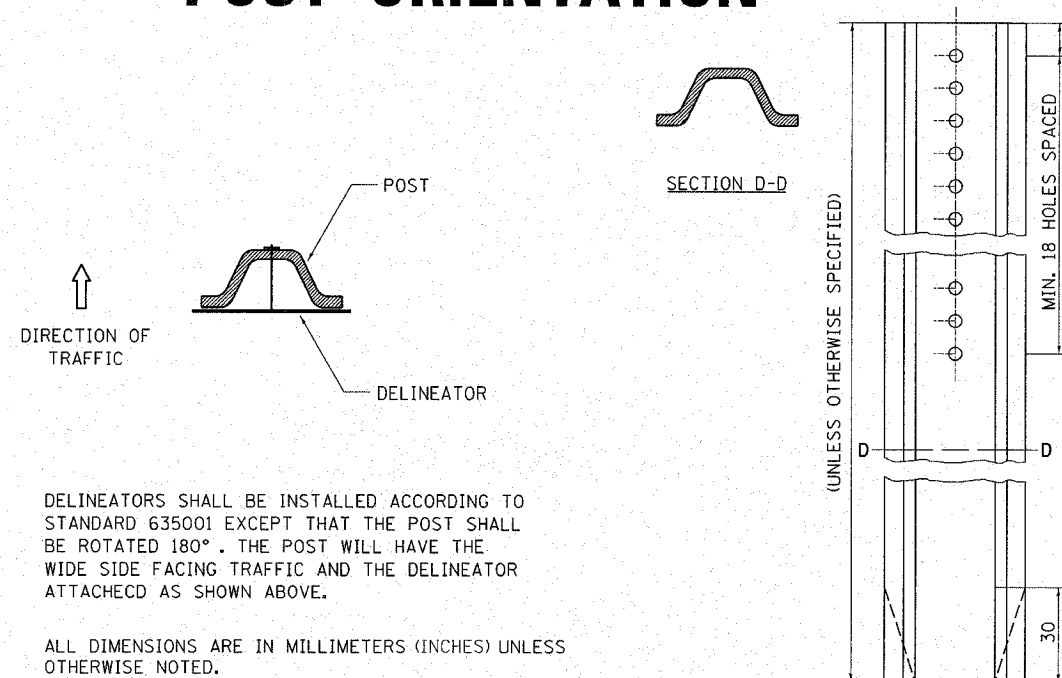
REMOVAL OF MATERIAL FOR PLACEMENT OF THE BITUMINOUS SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

BITUMINOUS SHOULDER 23.4a

REVISED 5-30-03

DELINEATOR AND POST ORIENTATION



DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHED AS SHOWN ABOVE.

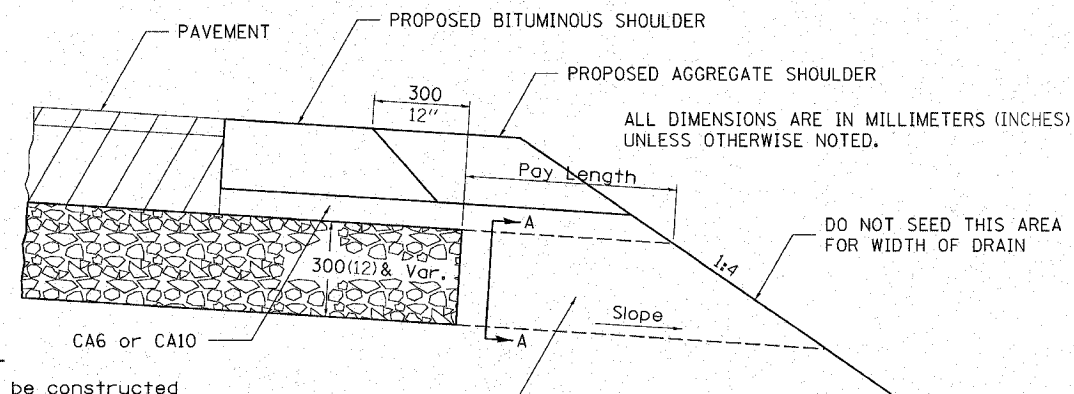
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

DELINEATOR AND POST ORIENTATION 37.4

REVISED 1-31-00

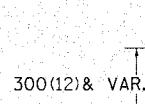
PLOT DATE = 08/18/2005
 PLOT NAME = 081115
 PLOT SCALE = 1/4" = 1'-0"
 PLOT REFERENCE = 081115

DRAIN FOR AGGREGATE BASE COURSE



NOTES:

The rock outlets shall be constructed using CA7 and will be paid for at the contract unit price per m² (SQ. YD.) for SUB-BASE GRANULAR MATERIAL, TYPE A of the thickness specified which includes the filter fabric. The Rock outlets will be measured in m² (SQ. YD.), the width being 900 (36) by the length shown above. The cost of the CA6 or CA10 under the shoulder shall be included in the contract unit price per m² (SQ. YD.) for SUB-BASE GRANULAR MATERIAL, TYPE A of the thickness specified. The filter fabric to be used shall conform to the filter fabric used for Riprap.



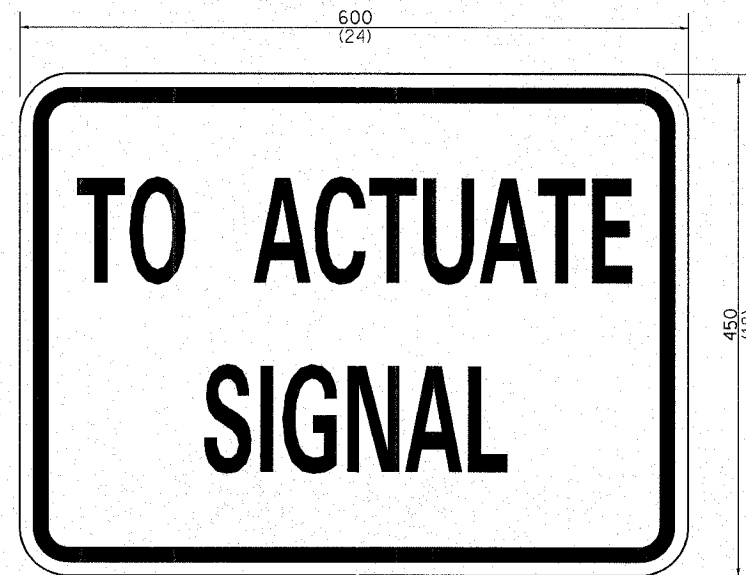
SECTION A-A

NOTE: Slope same as shoulder with 2% min.

DRAIN FOR AGGREGATE BASE COURSE 96.4

REVISED 7-13-95

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 450(18)
 100(4) CAPITAL LETTERS - BLACK
 13 (1/2) BORDER - BLACK
 WHITE REFLECTIVE - TYPE B
 ENGINEERING GRADE SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

REVISED 8-7-90

CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
646	J02.BB-2	WHITESIDE	69
STA. _____		TO STA. _____	
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT	
CONTRACT NO. 64427			

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

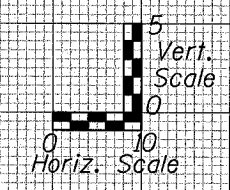
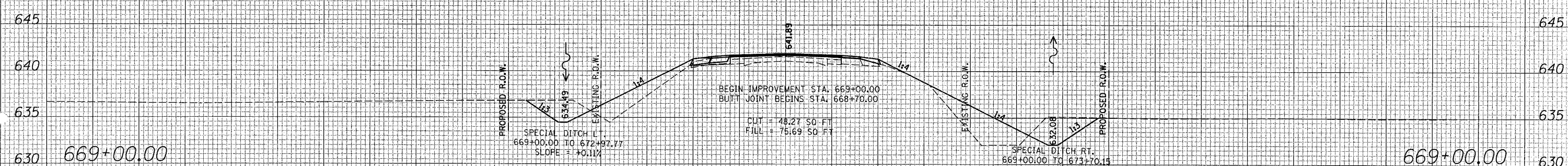
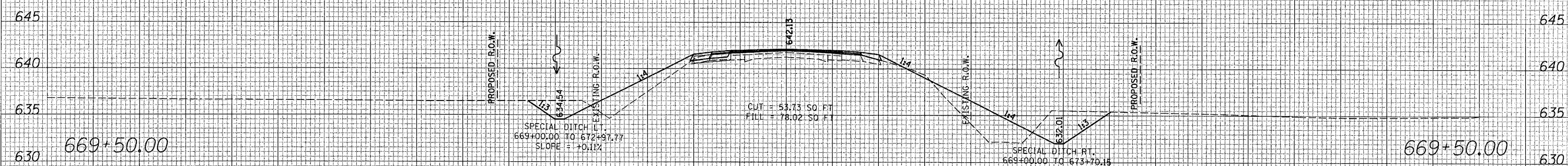
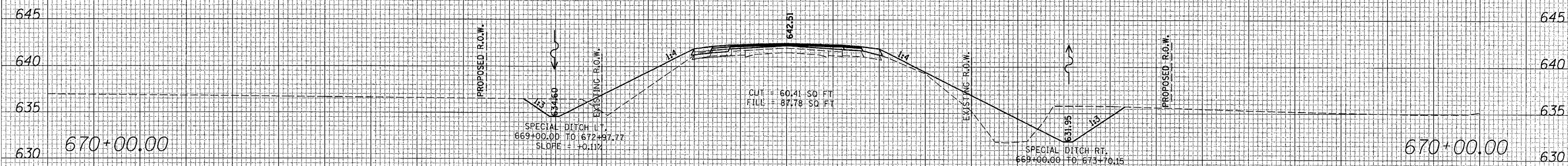
DESIGNED A.M.P.H./G.J.M.		FILE NUMBER 136.111	F.A. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 60
CHECKED G.M.		DATE Aug 2008	STA. 670+00.00	TO STA.		FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT	
DRAWN A.M.P.H.		CONTRACT NO. 64427					
CHECKED G.J.M.							

UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY.

C FAP 646
(IL 40)

FINAL SURVEY PLOTTED FROM PLATE AREAS CHECKED

ORIGINAL SURVEY PLOTTED FROM PLATE AREAS CHECKED

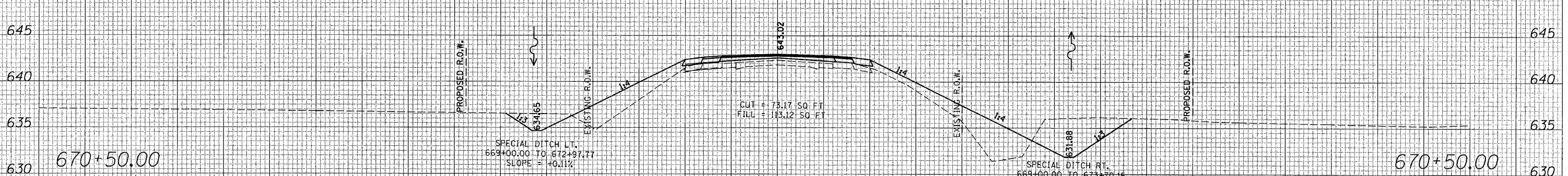
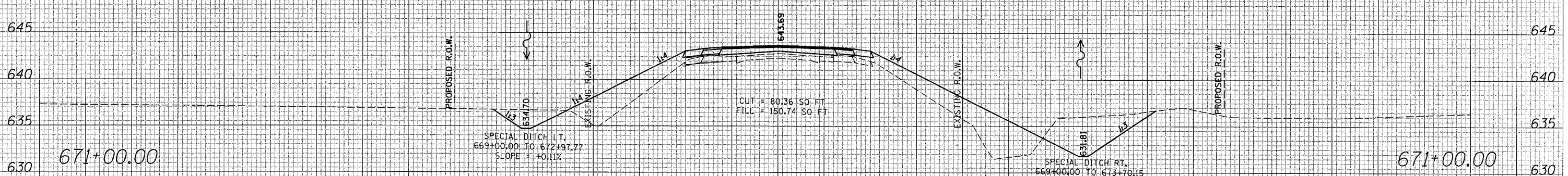
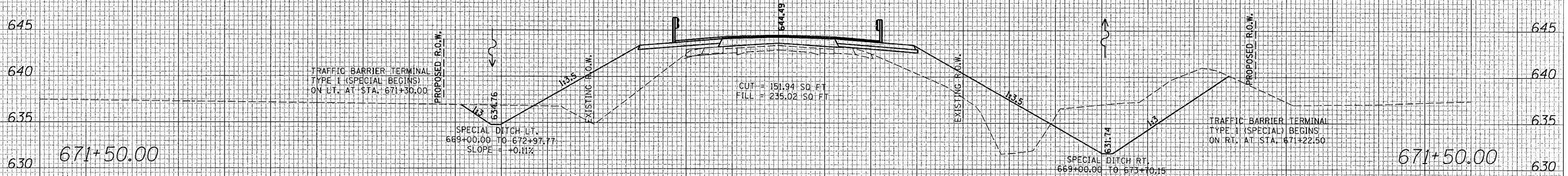


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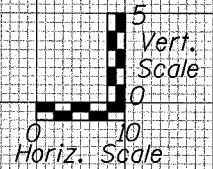
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DESIGNED AMTH/GJM		FILE NUMBER 136,111	F.A. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 61
CHECKED GJM		DATE Aug 2005	STA. 671+00.00	TO STA. 671+22.50		FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT	
DRAWN AMPH		CONTRACT NO. 64427					
CHECKED GJM							

UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY



140 120 100 80 60 40 20 0 20 40 60 80 100 120 140



FINAL SURVEY PLOTTED DATE AREAS CHECKED

ORIGINAL SURVEY PLOTTED DATE AREAS CHECKED

140

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140

UNLESS ELEVATIONS ARE SHOWN
 ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
 ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
 THE UTILITY COMPANY

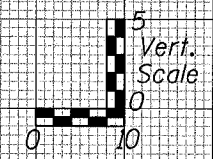
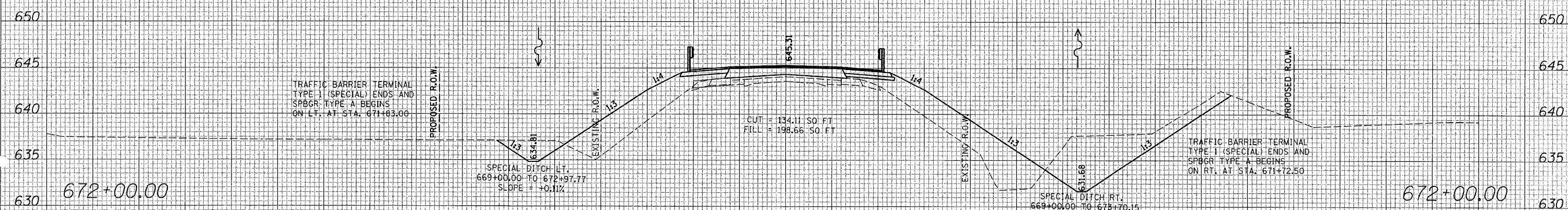
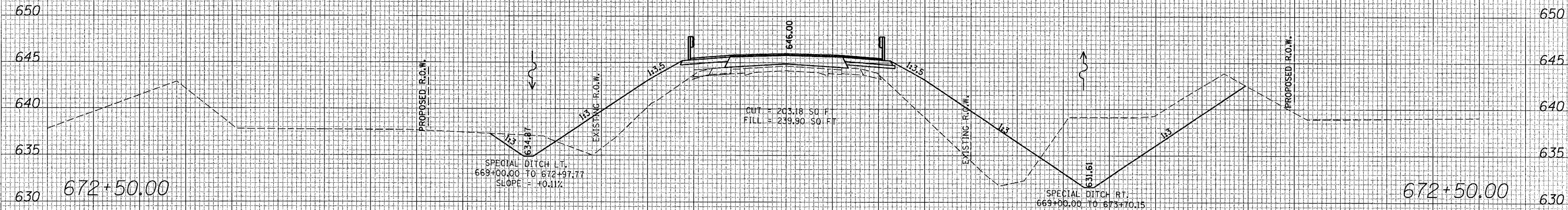
C FAP 646
 (ILL 40)

DESIGNED BY GJM	CHECKED BY GJM	DATE AUG 2005	F.A. No. 135,111	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 62
RANDOLPH & ASSOCIATES, INC. 111 N. PIONEER PARKWAY, FORTUNA, IL 60424 TEL: 815/451-4444 FAX: 815/451-4444 WWW.RANDOLPH-ASSOCIATES.COM			STA. _____ TO STA. _____ FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT				

CONTRACT NO. 64427

FINAL SURVEY PLOTTED AREAS CHECKED

ORIGINAL SURVEY PLOTTED AREAS CHECKED



140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

DESIGNED BY: RAMPY/GJM
CHECKED BY: GJM
DRAWN BY: RAMPY
REVIEWED BY: GJM
RANDOLPH & ASSOCIATES, INC.
151 W. FORTY-SEVENTH STREET, SUITE 100
CHICAGO, ILLINOIS 60649
TEL: 312.467.8800 FAX: 312.467.8801
WWW.RANDOLPH-ASSOCIATES.COM
CONSULTING ENGINEERS & LAND SURVEYORS
FILE NUMBER: 136/111
DATE: Aug 2005

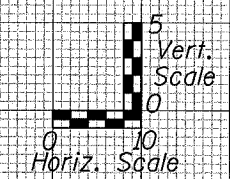
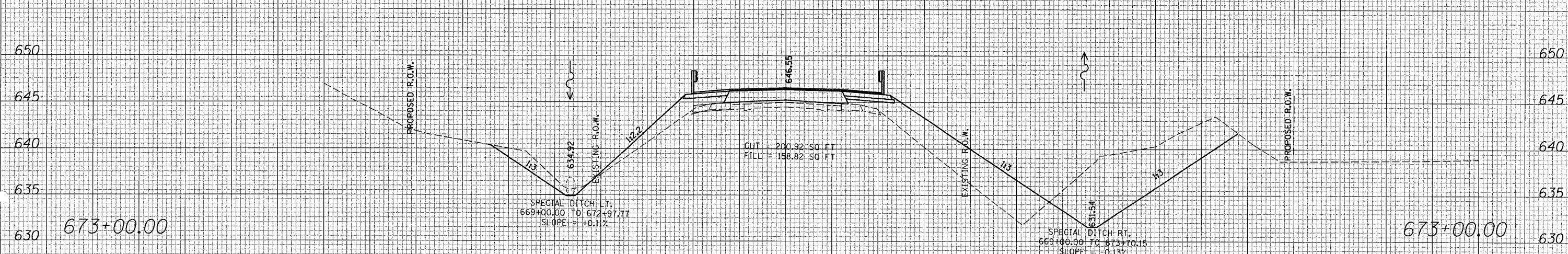
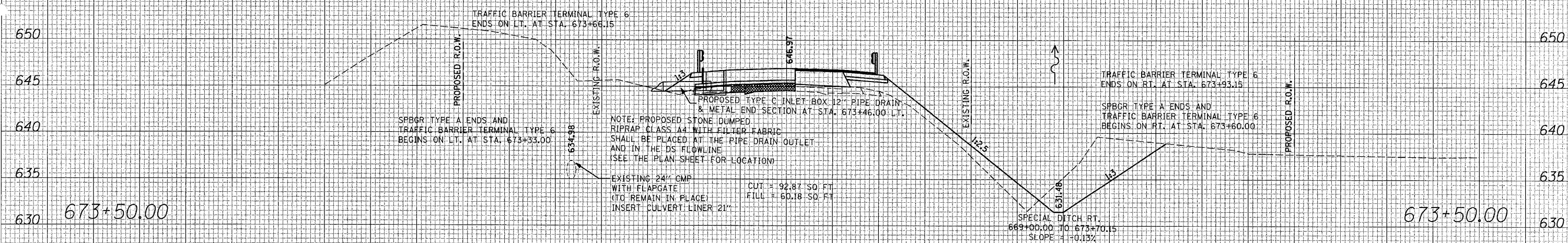
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	102 BR-2	WHITESIDE	69	63
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 64427				

SCALE
1" = 40'
DATE
NO.

SURVEYED
PLOTTED
NOTE BOOK
AREAS CHECKED

SCALE
1" = 40'
DATE
NO.

SURVEYED
PLOTTED
NOTE BOOK
AREAS CHECKED



140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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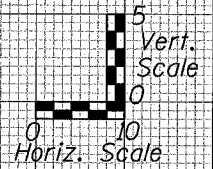
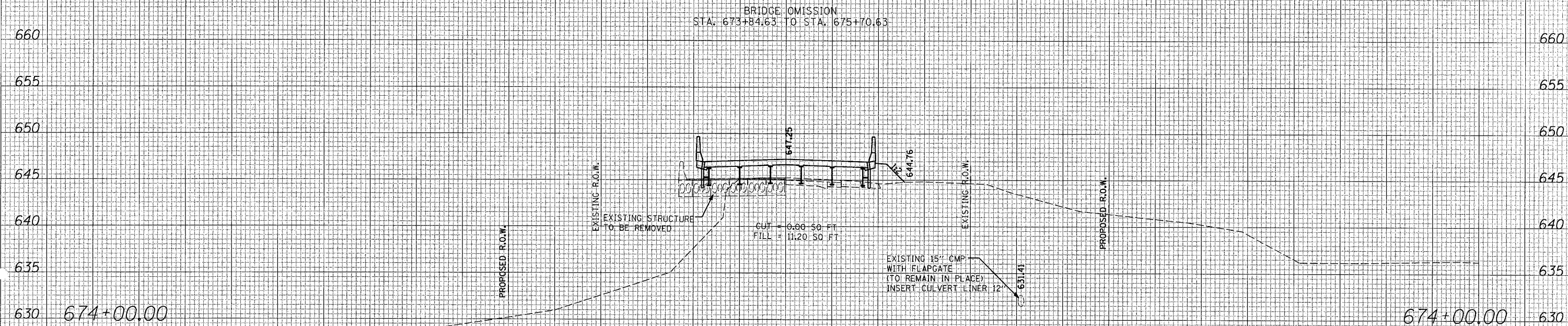
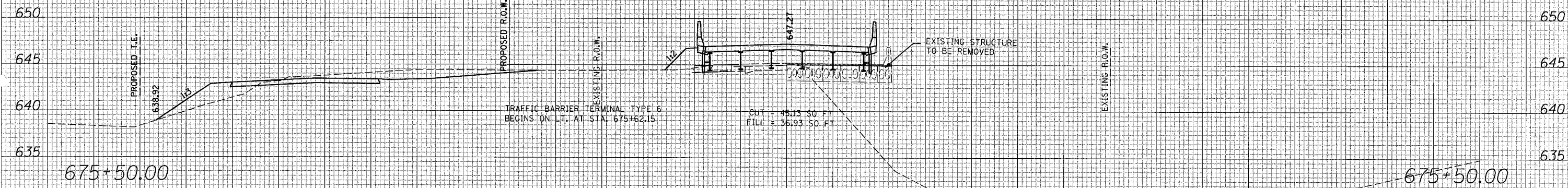
UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

DESIGNED BY: AMPH/GJM
CHECKED BY: GJM
DRAWN BY: AMPH
CHECKED BY: GJM
RANDOLPH & ASSOCIATES, INC.
111 W. PULASKI AVENUE, PEORIA, IL 61604-0104
TEL: 309.691.1700 FAX: 309.691.1701
WWW.RANDOLPH-ASSOCIATES.COM
CONSULTING ENGINEERS & LAND SURVEYORS
DATE: Aug 2005

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	102 BR-2	WHITESIDE	69	64
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 64427				

FINAL SURVEY PLOTTED DATE AREAS CHECKED

ORIGINAL SURVEY PLOTTED DATE AREAS CHECKED



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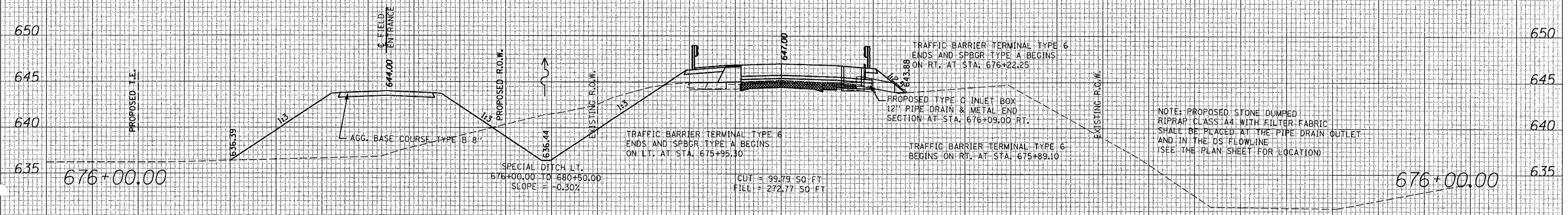
UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

DESIGNED BY: J.M.J./G.M.
CHECKED BY: G.M.
DRAWN BY: AMP/J
CHECKED BY: G.M.
DATE: AUG. 2005

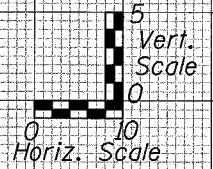
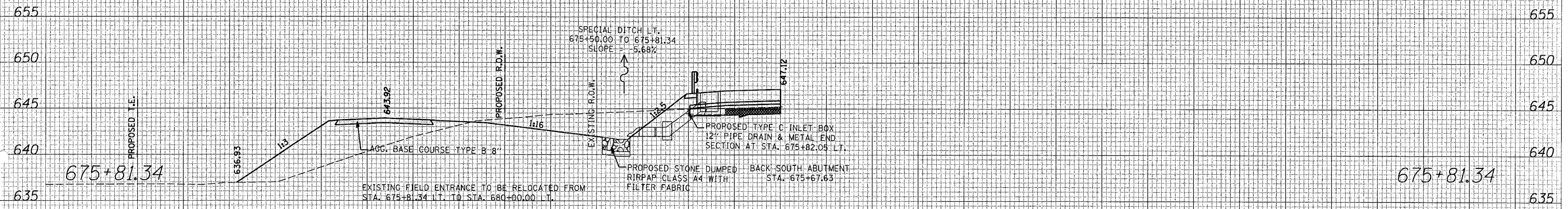
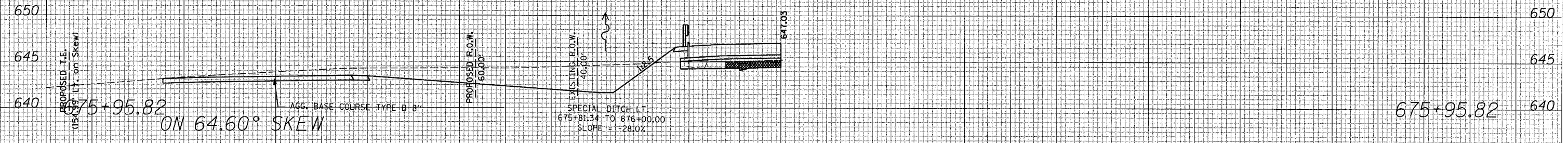
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	102 BR-2	WHITESIDE	69	65
STA.		TO STA.		
FED. ROAD DIST. NO. 2		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 64427

FINAL SURVEY
SURVEYED
BY: J.M.J./G.M.
DATE: AUG. 2005
REVISIONS:
NO. 1: 8/10/05
NO. 2: 8/10/05
NO. 3: 8/10/05
NO. 4: 8/10/05
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NO. 200: 8/10/05



NOTE: PROPOSED STONE DUMPED
RIPRAP CLASS A4 WITH FILTER FABRIC
SHALL BE PLACED AT THE PIPE DRAIN OUTLET
AND IN THE DS FLOWLINE
(SEE THE PLAN SHEET FOR LOCATION)

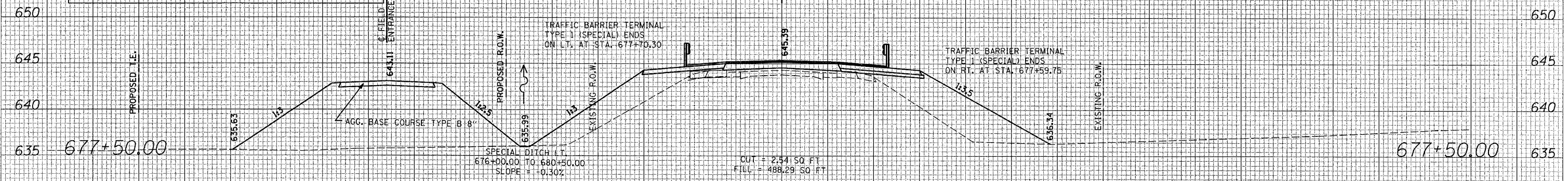


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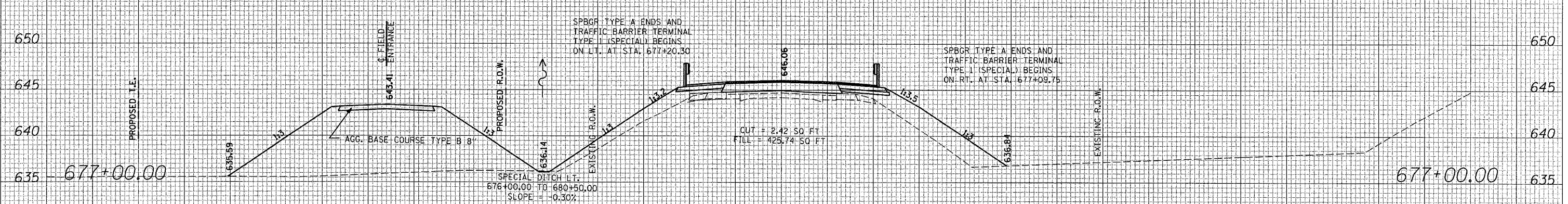
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DESIGNED AMPH/GJM	FILE NUMBER 1361111	F.A. RTE. 646	SECTION 102 BR-2	COUNTY WHITESIDE	TOTAL SHEETS 69	SHEET NO. 66	
CHECKED GJM	DATE Aug. 2005	STA. _____ TO STA. _____				CONTRACT NO. 64427	
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT							

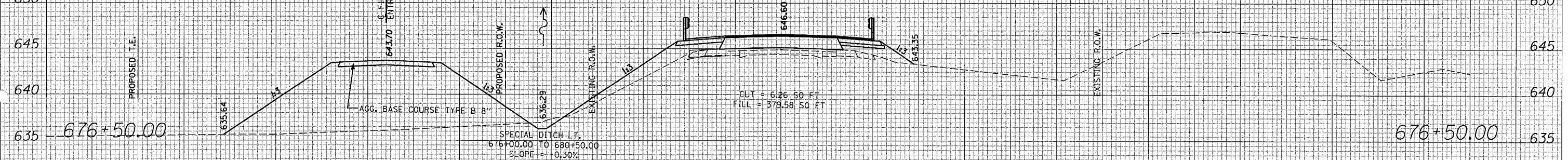
UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY



650	650
645	645
640	640
635	635



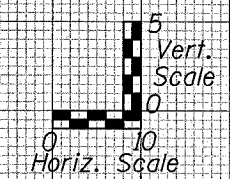
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645	645
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650	650
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FINAL SURVEY PLOTTED FROM DATE _____
NOTE BOOK NO. _____
AREAS CHECKED _____

ORIGINAL SURVEY PLOTTED FROM DATE _____
NOTE BOOK NO. _____
AREAS CHECKED _____



140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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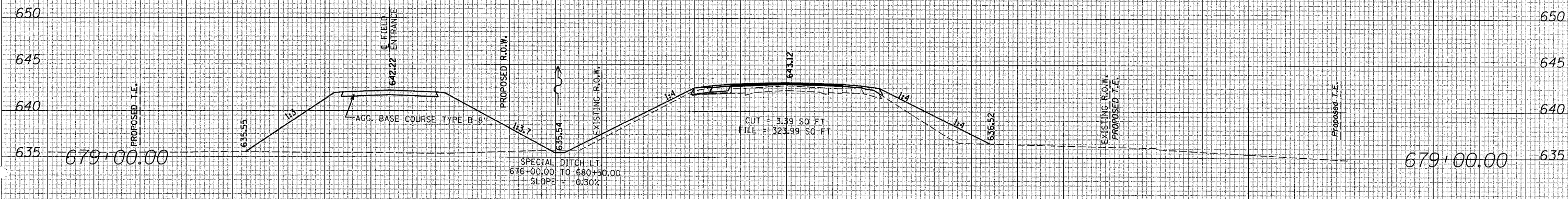
UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

DESIGNED: R
CHECKED: GJM
DATE: AUG 2005
FILE NUMBER: 136.111

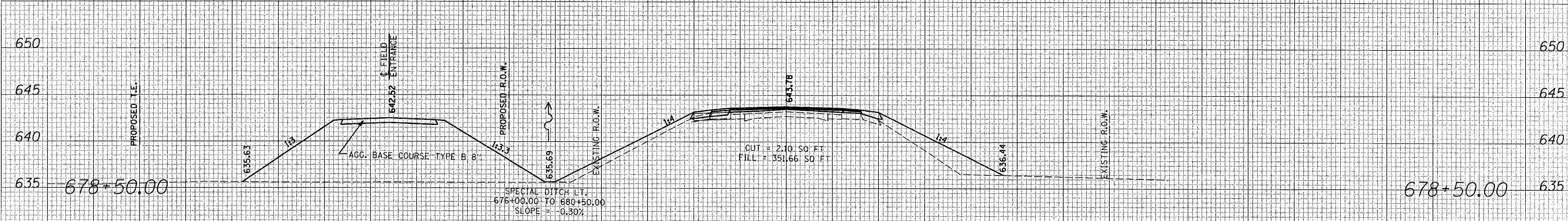
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	102 BR-2	WHITESIDE	69	67
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT				

CONTRACT NO. 64427

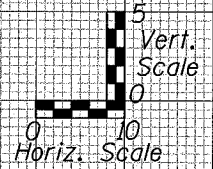
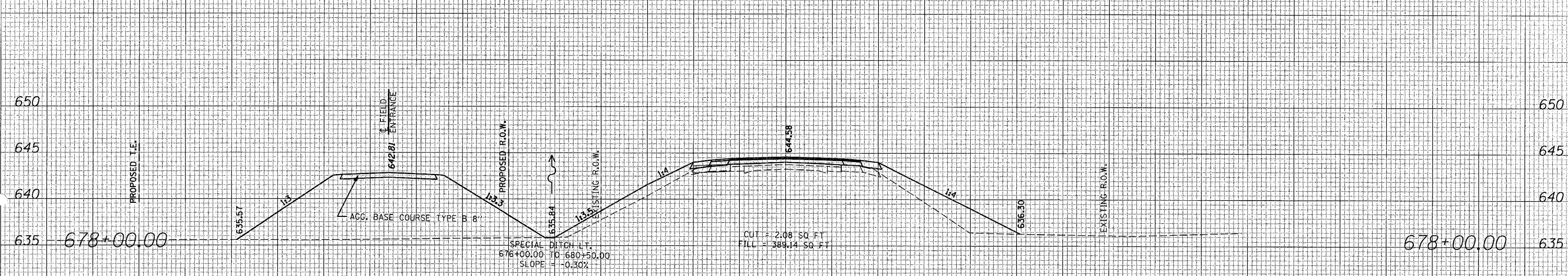
SCALE
DATE
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AREAS CHECKED



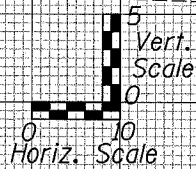
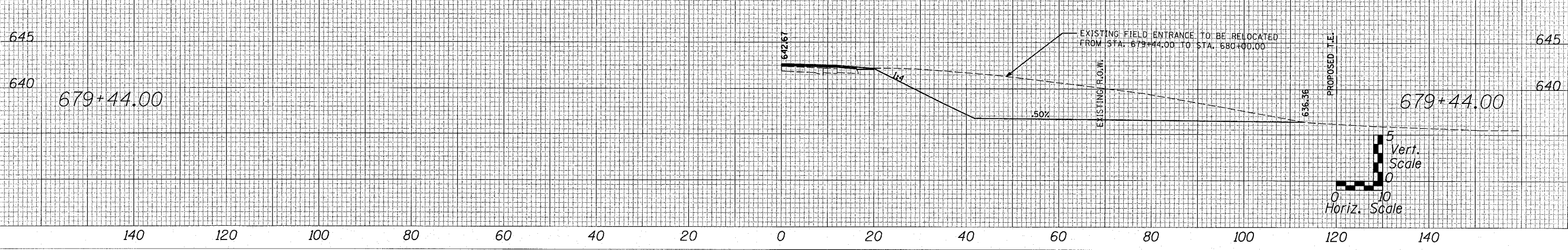
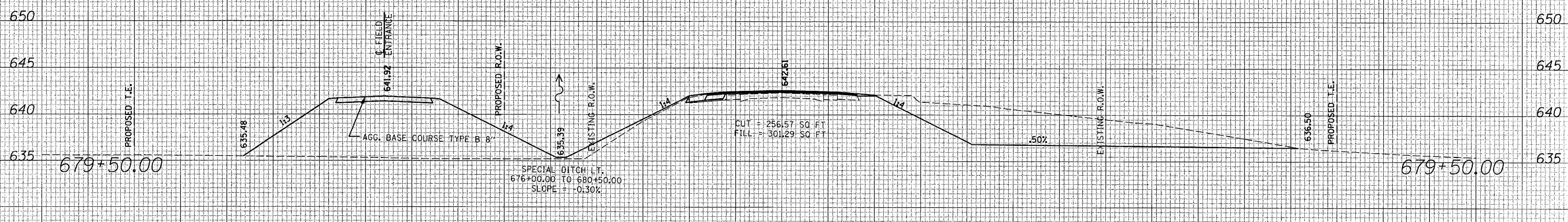
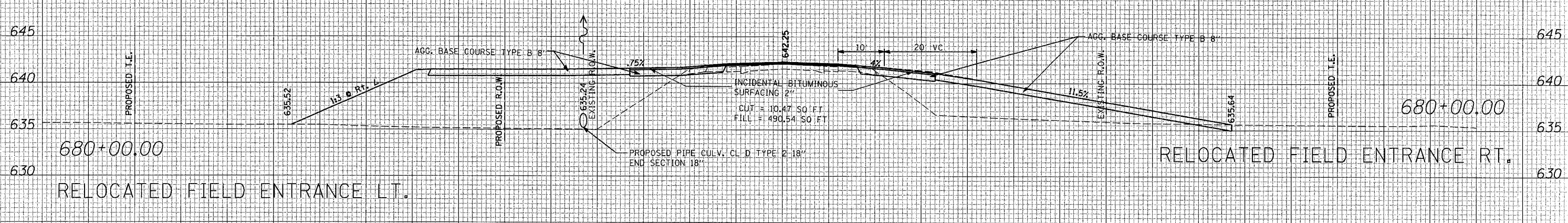
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

DESIGNED BY: JMB/1/GJM
CHECKED BY: GJM
DATE: AUG 2005
PROJECT: R
RANDOLPH & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS

F.A. SECTION COUNTY TOTAL SHEETS SHEET NO.
646 102 BR-2 WHITESIDE 69 68
STA. _____ TO STA. _____
FED. ROAD DIST. NO. 2 (ILLINOIS) FED. AID PROJECT
CONTRACT NO. 64427



140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

FINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED

ORIGINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED

140

120

100

80

60

40

20

0

20

40

60

80

100

120

140

UNLESS ELEVATIONS ARE SHOWN
 ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
 ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
 THE UTILITY COMPANY

C FAP 646
 (IL 40)

DESIGNED BY: A.M.P./G.J.M.
 CHECKED BY: G.J.M.
 DRAWN BY: A.M.P./G.J.M.
 CHECKED BY: G.J.M.

RANDOLPH & ASSOCIATES, INC.
 111 W. PETER PARKWAY, DEERFIELD, IL 60015
 TEL: 847.939.8800 FAX: 847.939.8801
 WWW.RANDOLPH-ASSOCIATES.COM

FILE NUMBER: 136.111
 DATE: Aug 2005

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	102 BR-2	WHITESIDE	69	69

STA. _____ TO STA. _____
 FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT
 CONTRACT NO. 64427

FINAL SURVEY

SURVEYED	PLOTTED	CHECKED
NOTE BOOK	AREAS	AREAS
NO.	CHECKED	CHECKED

ORIGINAL SURVEY

SURVEYED	PLOTTED	CHECKED
NOTE BOOK	AREAS	AREAS
NO.	CHECKED	CHECKED

