DISTRICT ONE-PLAN PREPARATION ENGINEER

ROGER K. ENG / LONG TRAN (847) 705-4240

11-16-07 Letting, Item 051

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66 +1 67	1

CONTRACT NO. 62845

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

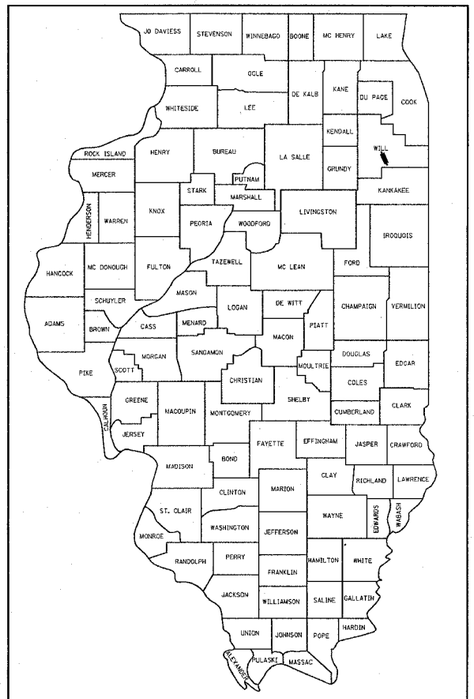
PROPOSED HIGHWAY PLANS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

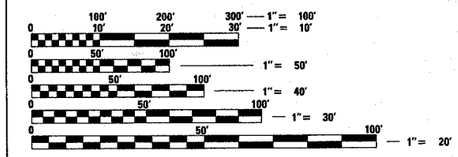
PROJECT IS LOCATED IN UNINCORPORATED MANHATTAN TOWNSHIP

F.A.P. ROUTE 852: US 52 (STATE STREET) AT PRAIRIE CREEK
SECTION: 18 B–5–R–2
BRIDGE REPLACEMENT & ROADWAY REPROFILING
SN: 099–4643
PROJECT: ACBRF-0852(010)
WILL COUNTY
C–91–010–05

D–91–010–05



LOCATION OF SECTION INDICATED THUS: – ■ –



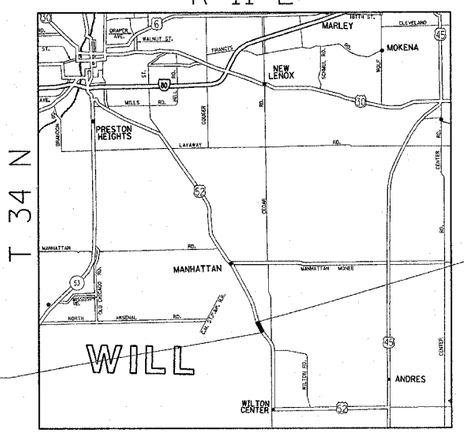
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CONTRACT NO. 62845

R 11 E

T 34 N



MANHATTAN TOWNSHIP

PROJECT BEGINS STA 1001+94

PROJECT ENDS STA 1014+56

N

TRAFFIC DATA
SPEED LIMIT: 55 MPH
2005 ADT: 3650

GROSS AND NET LENGTH OF PROJECT = 1262 FEET (0.2 MILES)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 22 2007
Diane O'Keefe/cd
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 12, 20 07
Eric E. Harm/cd
Interim ENGINEER OF DESIGN AND ENVIRONMENT
October 12, 20 07
Milton R. Sees, P.E./cd
DIRECTOR OF HIGHWAY, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

LIST OF STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-03	TEMPORARY EROSION CONTROL SYSTEMS
420001-06	PAVEMENT JOINTS
353001-03	PCC BASE COURSE WITH HMA BINDER AND SURFACE COURSES
420111-01	PCC PAVEMENT ROUNDOUTS
420401-05	BRIDGE APPROACH PAVEMENT
482006-02	HMA SHOULDER ADJACENT TO RIGID PAVEMENT
483001-03	PCC SHOULDER
515001-02	NAME PLATES FOR BRIDGES
542301-01	PRECAST REINFORCED CONCRETE FLARED END SECTIONS
542401	METAL END SECTION FOR PIPE CULVERT
601001-01	SUB-SURFACE DRAINS
601101	CONCRETE HEADWALL FOR PIPE DRAIN
606001-03	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
609001-03	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
609006-03	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-07	STEEL PLATE BEAM GUARDRAIL
630201-04	STEEL PLATE BEAM, PCC/HMA STABILIZATION
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701306-01	LANE CLOSURE, 2L,2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701321-08	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF MANHATTAN. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I, TYPE II OR TYPE III BARRICADE USED- ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1½INCHES (40MM) WHERE THE SPEED LIMIT IS 45 MPH (80KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H), WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

THE RESIDENT ENGINEER SHALL VERIFY THE LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO MILLING OR RESURFACING.

ALL PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE IMPROVEMENT ACCORDING TO DISTRICT 1 TYPICAL PAVEMENT MARKING.

THE RESIDENT ENGINEER SHALL CONTACT MS. CORA MATHIS, AREA TRAFFIC FIELD ENGINEER AT (815) 485-6475 (OFFICE) OR (847) 715-8428 (CELL), A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED THROUGHOUT THE IMPROVEMENT ACCORDING TO THE DISTRICT STANDARDS AS NOTED IN THE DETAIL.

PRIOR TO EMBANKMENT PLACEMENT, ALL VEGETATION, LOOSE MATERIAL, AND UNSTABLE MATERIAL SHOULD BE REMOVED TO DEPTH ENCOUNTERED AND REPLACED WITH SUITABLE EMBANKMENT MATERIAL. ANY EMBANKMENT WIDENING ON EXISTING SLOPES SHOULD BE BENCHED IN ACCORDANCE WITH ARTICLE 205.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE UNIT WEIGHT (CONVERSION FACTOR) QUOTED IS FOR THE ESTIMATING PLAN QUANTITIES ONLY. ACTUAL QUANTITIES TO FULFILL CONTRACT REQUIREMENTS WILL BE DETERMINED BASED ON UNIT WEIGHT OF APPROVED MIX DESIGN, PLAN DIMENSIONS, AND DENSITY LIMITATIONS. MAXIMUM PAYMENT WILL BE COMPUTED BASED ON WEIGHT AVERAGE DENSITIES OF THE IN-PLACE MIXTURE.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE ARTERIAL TRAFFIC CONTROL SUPERVISOR A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.

DURING CONSTRUCTION THE CONTRACTOR WILL ADHERE TO OSHA SAFETY GUIDELINES FOR MAXIMUM EQUIPMENT HEIGHTS UNDER HIGH VOLTAGE POWER LINES. BETWEEN STA 1009+00 AND STA 1010+00, ALL OF THE LOWEST 345,000 VOLT CONDUCTOR ARE APPROXIMATELY 54 FEET ABOVE THE PAVEMENT UNDER MAXIMUM CONDUCTOR SAG CONDITIONS. BETWEEN STA 1009+00 AND STA. 1010+00, THE ELEVATION CHANGES WILL NOT AFFECT THE REQUIRED NESC VERTICAL CLEARANCE ABOVE ROADS. HOWEVER, FOR WORKING UNDER THE CONDUCTORS AT THIS LOCATION, EQUIPMENT HEIGHTS WOULD BE LIMITED TO MAXIMUM OF 20 FEET BASED ON COMED'S CRITERIA. FOLLOWING OSHA GUIDELINES, EQUIPMENT HEIGHTS WOULD BE LIMITED TO MAXIMUM OF 30 FEET. BETWEEN STA 1010+00 AND STA 1012+00, ALL OF THE 765,000 VOLT CONDUCTORS ARE APPROXIMATELY 45 FEET ABOVE THE PAVEMENT UNDER MAXIMUM CONDUCTOR SAG CONDITIONS. BETWEEN STA 1010+00 AND STA 1012+00, THE ELEVATION CHANGES WILL NOT AFFECT THE REQUIRED NESC VERTICAL CLEARANCE ABOVE ROADS. HOWEVER, FOR WORKING UNDER THE CONDUCTORS AT THIS LOCATION, EQUIPEMENT HEIGHTS WOULD BE LIMITED TO MAXIMUM OF BETWEEN 1.75 AND 3.35 FEET BASED ON COMED'S CRITERIA. FOLLOWING OSHA GUIDELINES, EQUIPEMENT HEIGHTS WOULD BE LIMITED TO MAXIMUM OF BETWEEN 7.75 AND 9.35 FEET. MR. JOHN D. PRIBICH FROM COMED CAN BE CONTACTED AT (630) 437-2212 FOR FURTHER INFORMATION.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62845

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

US52 OVER PRAIRIE CREEK
INDEX OF SHEETS,
LIST OF STATE STANDARDS,
AND GENERAL NOTES

SCALE: NO SCALE
DATE: 8/28/2007

DRAWN BY
CHECKED BY

8/28/2007
c:\projects\p14980\designgn.m32
dbreyah

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	3
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		

CONTRACT # 62845

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: ROADWAY FED. 90% STATE 10% I000-2A	BRIDGE SN 099-4643 FED. 90% STATE 10% X081-2A
20200100	EARTH EXCAVATION	CU YD	189	189	
20201006	GRADING AND SHAPING SHOULDERS	UNIT	11	11	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	1057	1057	
20400800	FURNISHED EXCAVATION	CU YD	4538	4538	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	302		302
20800150	TRENCH BACKFILL	CU YD	93	93	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	7056	7056	
25000210	SEEDING, CLASS 2A	ACRE	0.42	0.42	
25000312	SEEDING, CLASS 4A	ACRE	1.01	1.01	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	38	38	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	38	38	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	38	38	
25100630	EROSION CONTROL BLANKET	SQ YD	7056	7056	
25200200	SUPPLEMENTAL WATERING	UNIT	20	20	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	146	146	
28000300	TEMPORARY DITCH CHECKS	EACH	23	23	
28000310	AGGREGATE DITCH CHECKS	EACH	8	8	
28000400	PERIMETER EROSION BARRIER	FOOT	2372	2372	
28100107	STONE RIPRAP, CLASS A4	SQ YD	474		474
28200200	FILTER FABRIC	SQ YD	577		577
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	4682	4682	
35300405	PORTLAND CEMENT CONCRETE BASE COURSE 9 1/4"	SQ YD	2910	2910	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	3.1	3.1	
40600300	AGGREGATE (PRIME COAT)	TON	15.6	15.6	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	0.3	0.3	
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	220	220	
40600895	CONSTRUCTING TEST STRIP	EACH	1	1	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	40	40	
40600990	TEMPORARY RAMP	SQ YD	65	65	

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: ROADWAY FED. 90% STATE 10% I000-2A	BRIDGE SN 099-4643 FED. 90% STATE 10% X081-2A
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	336	336	
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	288	288	
42001300	PROTECTIVE COAT	SQ YD	308	308	
44000100	PAVEMENT REMOVAL	SQ YD	1600	1600	
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	978	978	
44000700	APPROACH SLAB REMOVAL	SQ YD	220	220	
44004250	PAVED SHOULDER REMOVAL	SQ YD	1773	1773	
44004300	PAVEMENT BREAKING	SQ YD	1376	1376	
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	1461	1461	
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	490	490	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	2120	2120	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105220	PIPE CULVERT REMOVAL	FOOT	262	262	
50200100	STRUCTURE EXCAVATION	CU YD	391		391
50300225	CONCRETE STRUCTURES	CU YD	127.8		127.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	180.3		180.3
50300260	BRIDGE DECK GROOVING	SQ YD	450		450
50300280	CONCRETE ENCASEMENT	CU YD	8.4		8.4
50300300	PROTECTIVE COAT	SQ YD	574		574
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	637		637
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	49850		49850
50800515	BAR SPLICERS	EACH	558		558
51201700	FURNISHING STEEL PILES HP12X74	FOOT	922		922
51202305	DRIVING PILES	FOOT	922		922
51203700	TEST PILE STEEL HP12X74	EACH	1		1
51204650	PILE SHOES	EACH	12		12
51205200	TEMPORARY SHEET PILING	SQ FT	3811	2871	940
51500100	NAME PLATES	EACH	1		1
52100540	ANCHOR BOLTS, 1 1/2"	EACH	8		8

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

U.S. RTE. 52 OVER PRAIRIE CREEK

PLOT DATE: 8/28/2007

8/28/2007
c:\projects\1081\18pasheet.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	4
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		

CONTRACT # 62845

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: ROADWAY I000-2A	BRIDGE SN 099-4643 X081-2A
	54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	4	4	
	54215547	METAL END SECTIONS 12"	EACH	2	2	
	542A1060	PIPE CULVERTS, CLASS A, TYPE 2 15"	FOOT	262	262	
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	72		72
	60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	8	8	
	60100945	PIPE DRAINS 12"	FOOT	60	60	
	60107600	PIPE UNDERDRAINS 4"	FOOT	232	232	
	60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	148		148
	60600605	CONCRETE CURB, TYPE B	FOOT	120	120	
	60900315	TYPE D INLET BOX, STANDARD 609006	EACH	2	2	
	60900515	CONCRETE THRUST BLOCKS	EACH	2	2	
*	63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	675	675	
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
*	63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	3	3	
*	63100169	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)	EACH	1	1	
	63200310	GUARDRAIL REMOVAL	FOOT	737	737	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12	
	67100100	MOBILIZATION	L SUM	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~~	
	70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1	
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	70	70	
	70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6	6	
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	594	594	
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3727	3727	
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	15	15	

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: ROADWAY FED. 90% STATE 10% I000-2A	BRIDGE SN 099-4643 FED. 90% STATE 10% X081-2A
	70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	7537	7537	
	70300570	PAVEMENT MARKING TAPE, TYPE III 24"	FOOT	62	62	
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	66	66	
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	1210	1210	
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1210	1210	
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3727	3727	
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	15	15	
*	78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	546	546	
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	16	16	
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3	
*	78200420	GUARDRAIL MARKERS, TYPE B	EACH	16	16	
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10	
	80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	1	
	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1	
*	81800320	AERIAL CABLE, 3-1/C NO. 4 WITH MESSENGER WIRE	FOOT	1850	1850	
*	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	100	100	
*	83057355	LIGHT POLE, WOOD, 60 FOOT, CLASS 4, WITH 15FT MAST ARM	EACH	9	9	
*	84100110	REMOVAL OF TEMPORARY LIGHTING UNITS	EACH	9	9	
*	87000172	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (EPR-TYPE TC) 3/C NO. 4 AND NO. 6 GROUND	FOOT	150	150	
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	77.1	77.1	
	X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6	6	
	X0349800	CONCRETE HEADWALL FOR PIPE UNDERDRAIN REMOVAL	EACH	2	2	
	X0712400	TEMPORARY PAVEMENT	SQ YD	648	648	
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
	X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1

*SPECIALTY ITEMS

Rev.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

U.S. RTE. 52 OVER PRAIRIE CREEK

PLOT DATE: 8/28/2007

8/28/2007
c:\projects\18b5r149801\sheets\sos.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	4A
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		

CONTRACT # 62845

	SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
	CODE NO	ITEM	UNIT		ROADWAY FED. 90% STATE 10% 1000-2A	BRIDGE SN 099-4643 FED. 90% STATE 10% X081-2A				
	X8900005	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1		1				
*	XX006697	LUMINAIRE (SPECIAL)	EACH	9	9					
*	XX006937	GROUND ROD, 5/8" DIA. X 10 FT.	EACH	9	9					
	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					
	Z0040530	PIPE UNDERDRAIN REMOVAL	FOOT	58	58					
	Z0076800	TURF REINFORCEMENT MAT	SQ YD	305	305					
*	X0325867	COMBINATION POLE MOUNTED ELECTRIC SERVICE BOX	EACH	1	1					
@	Z0076600	TRAINEES	HOUR	500	500					

	SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
	CODE NO	ITEM	UNIT							

@ YOBO
* SPECIALTY ITEMS

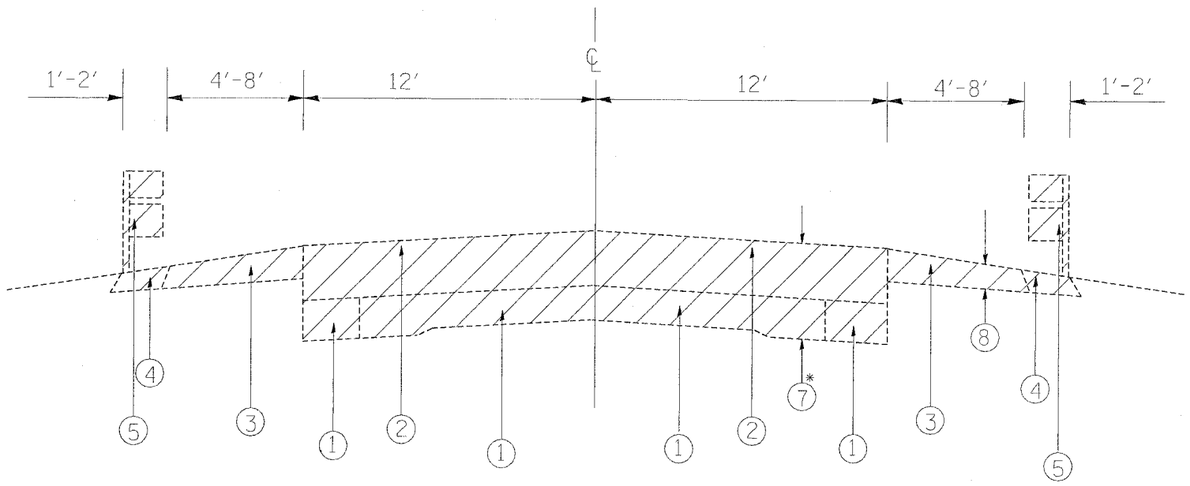
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
U.S. RTE. 52 OVER PRAIRIE CREEK

PLOT DATE: 8/28/2007

8/28/2007
c:\bro\projects\pol49018\design\qu32

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

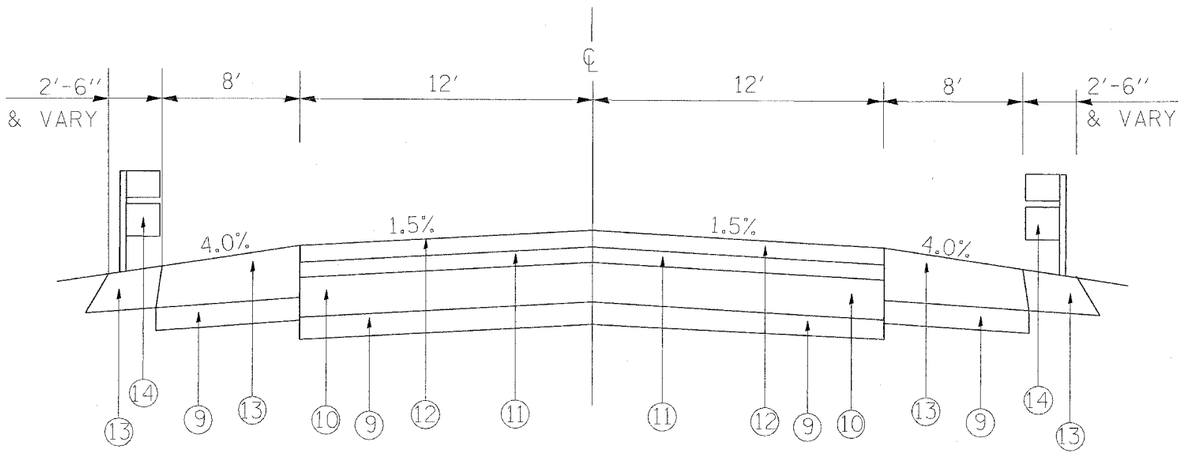


TYPICAL SECTION
US-52 EXISTING
STA 1002+94 TO STA 1007+38
STA 1008+61 TO STA 1013+56

* FROM STA. 1002+94 TO STA. 1005+20 REMOVE EXIST. PAVEMENT
FROM STA. 1005+20 TO STA. 1007+45 BREAK EXIST. PAVEMENT
FROM STA. 1008+54 TO STA. 1011+45 BREAK EXIST. PAVEMENT
FORM STA. 1011+45 TO STA. 1013+56 REMOVE EXIST. PAVEMENT
(PER STD. SPEC. SECT. 205.03)

LEGEND:

(1) EXISTING P.C.C BASE COURSE, 8"
(2) EXISTING HOT-MIX ASPHALT SURFACE COURSE, 12.5"
(3) EXISTING HOT-MIX ASPHALT SHOULDER, 8"
(4) EXISTING AGGREGATE SHOULDER TO BE REMOVED
(5) EXISTING GUARDRAIL TO BE REMOVED
(6) EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"
(7) PROPOSED PAVEMENT REMOVAL
(8) PROPOSED PAVED SHOULDER REMOVAL (LIMITS SHOWN ON ROADWAY PLAN)
(9) PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
(10) PROPOSED P.C.C BASE COURSE, 9¼"
(11) PROPOSED LEVELING BINDER (MACHINE METHOD), N50, (IL 9.5mm); 1"
(12) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, (IL 9.5mm); 1½"
(13) PROPOSED HOT-MIX ASPHALT SHOULDER, 8"
(14) PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A



TYPICAL SECTION
US-52 PROPOSED
STA 1002+94 TO STA 1007+16
STA 1008+84 TO STA 1013+56

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AC TYPE	AIR VOIDS
SHOULDERS		
HOT-MIX ASPHALT SHOULDERS, 8"	PG 64-22	2% @ 30 GYR
RESURFACING		
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, (IL 9.5mm); 1½"	PG 64-22	4% @ 50 GYR
LEVELING BINDER (MACHINE METHOD), N50, (IL 9.5mm); 1"	PG 64-22**	4% @ 50 GYR
TEMPORARY PAVEMENT		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, (IL 9.5mm); 1¾"	PG 64-22	4% @ 50 GYR
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm); 9¾"	PG 64-22**	4% @ 50 GYR

"THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LB/ SQ YD/IN"
**WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

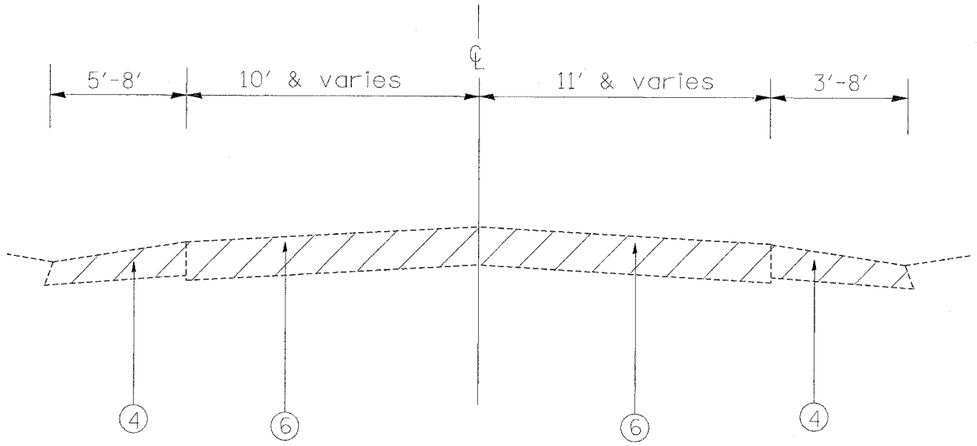
US-52
EXISTING & PROPOSED
TYPICAL SECTIONS

SCALE: NO SCALE
DATE: 8/23/2007

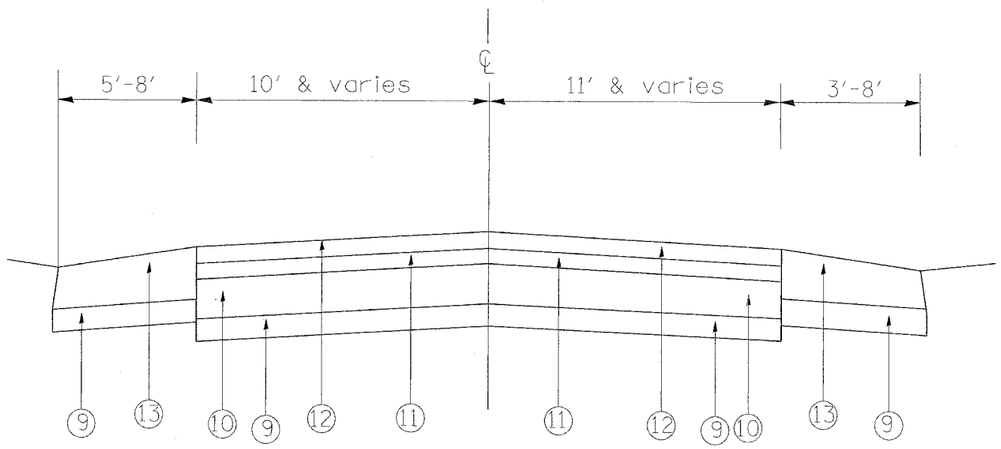
DRAWN BY
CHECKED BY

8/23/2007
c:\projects\pl4980\designasm32
abraugh

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL SECTION
HOFF ROAD EXISTING
STA 8+01 TO STA 9+43
LOOKING EAST



TYPICAL SECTION
HOFF ROAD PROPOSED
STA 8+01 TO STA 9+43
LOOKING EAST

LEGEND:

(1) EXISTING P.C.C BASE COURSE, 8"
(2) EXISTING HOT-MIX ASPHALT SURFACE COURSE, 12.5"
(3) EXISTING HOT-MIX ASPHALT SHOULDER, 8"
(4) EXISTING AGGREGATE SHOULDER TO BE REMOVED
(5) EXISTING GUARDRAIL TO BE REMOVED
(6) EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"
(7) PROPOSED PAVEMENT REMOVAL
(8) PROPOSED PAVED SHOULDER REMOVAL (LIMITS SHOWN ON ROADWAY PLAN)
(9) PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
(10) PROPOSED P.C.C BASE COURSE, 9¼"
(11) PROPOSED LEVELING BINDER (MACHINE METHOD), N50, (IL 9.5mm); 1"
(12) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, (IL 9.5mm); 1½"
(13) PROPOSED HOT-MIX ASPHALT SHOULDER, 8"
(14) PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HOFF ROAD
EXISTING & PROPOSED
TYPICAL SECTIONS

SCALE: NO SCALE
DATE: 8/14/2007
DRAWN BY
CHECKED BY

8/14/2007
c:\projects\pl4980\designed.m32
abraugh

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	7
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

EARTHWORK

1	2		3		4		5		6		7	
US 52 OVER PRAIRIE CREEK	EARTH EXCAVATION (CU YD)		UNSUITABLE MATERIAL (CU YD)		EMBANKMENT (CU YD)		ADJUSTMENT FOR SHRINKAGE (CU YD)		EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)		TOP SOIL FURNISH AND PLACE (SQ YD)	
	STAGE IA	STAGE II	STAGE IA	STAGE II	STAGE IA	STAGE II	STAGE IA	STAGE II	STAGE IA	STAGE II	STAGE IA	STAGE II
US 52 (STA. 1002+94 TO STA. 1007+45)	7	23	161	200	906	910	6	20	-900	-890		
US 52 (STA. 1008+54 TO STA. 1013+56)	17	142	332	364	1432	1452	15	121	-1417	-1331		
TOTAL	24	165	493	564	2338	2362	21	141	-2317	-2221	3590	3466

COLUMN 1: LOCATION FROM PLANS
COLUMN 2: CUT QUANTITIES FROM CROSS SECTIONS, WHICH DOES NOT INCLUDE UNSUITABLE MATERIAL
COLUMN 3: CUT MATERIAL THAT IS DETERMINED TO BE EITHER UNSTABLE OR UNSUITABLE FOR USE IN EMBANKMENT, ASSUME 6" OF UNSUITABLE MATERIAL
COLUMN 4: QUANTITIES FROM CROSS SECTIONS (FILL)
COLUMN 5: EARTH EXCAVATION THAT IS TO BE USED AS FILL MATERIAL IN THE EMBANKMENT, SHRINKAGE FACTOR WAS DETERMINED TO BE 15%
COLUMN 6: COLUMN 5 - COLUMN 4, POSITIVE QUANTITY= EXTRA EXCAVATION, NEGETIVE QUANTITY= FURNISHED EXCAVATION NEEDED
COLUMN 7: TOPSOIL FURNISH AND PLACE= AREA OF SEEDING AND

PLOT DATE = 8/14/2007
FILE NAME = c:\projects\pl4980\designaa.m32
PLOT SCALE = 50.000 ' / IN.
USER NAME = abraush

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

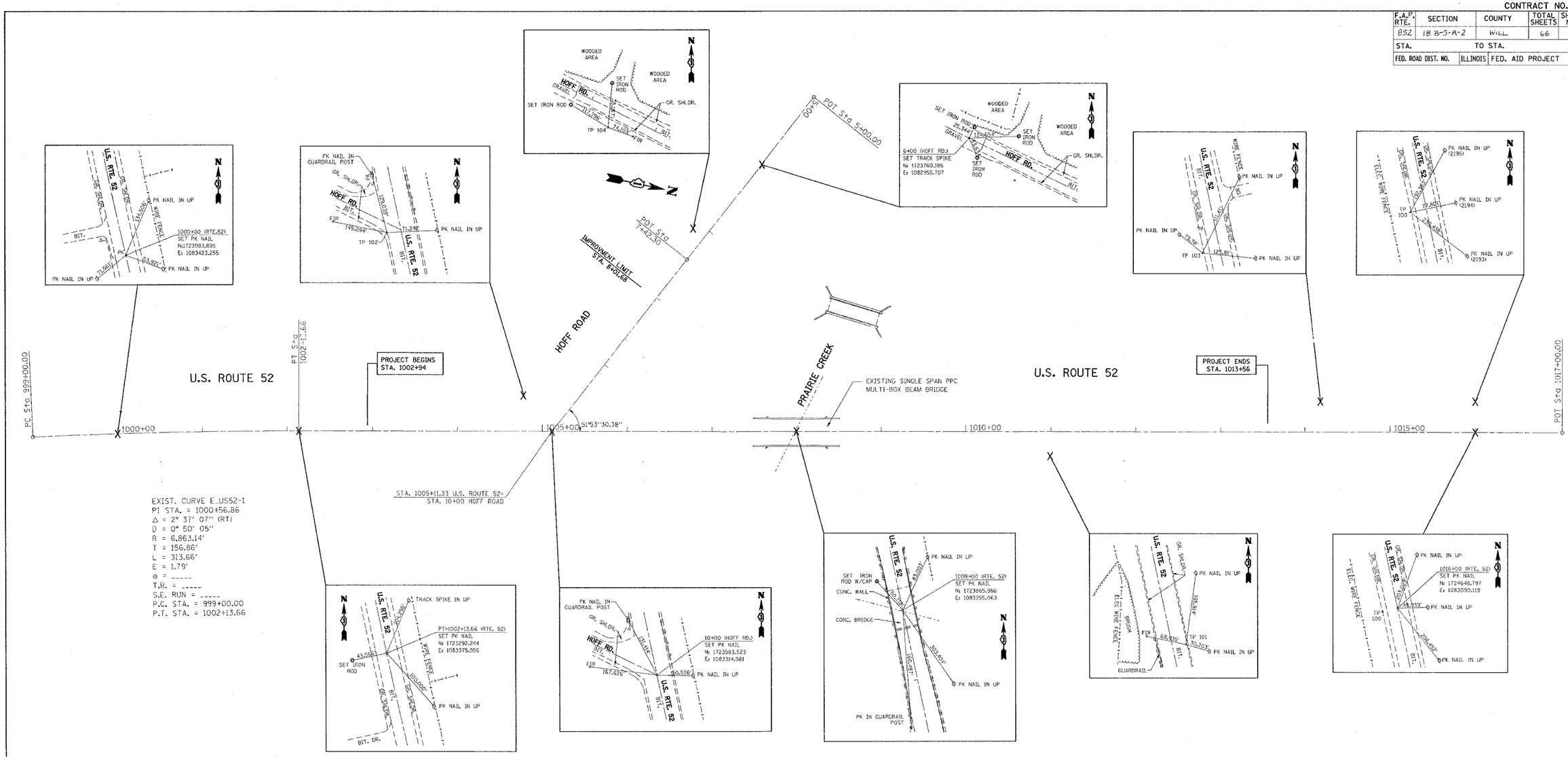
U.S. RTE. 52 OVER PRAIRIE CREEK

SCHEDULE OF QUANTITIES

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXIST. CURVE E_US52-1
PI STA. = 1000+56.86
Δ = 2° 37' 07" (RT)
D = 0° 50' 05"
R = 6,863.14'
T = 156.86'
L = 313.66'
E = 1.79'
θ = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 999+00.00
P.T. STA. = 1002+13.66

BENCHMARKS

BENCHMARK DESCRIPTIONS AND ELEVATIONS
FROM "WILL COUNTY BENCHMARKS" BOOK
DATED AUGUST 1998, PAGE 78 AND 80:

BM #6080 — CHISLED "□" ON SE WINGWALL OF STATE ST. (U.S. ROUTE 52) BRIDGE OVER MANHATTAN CREEK, IN MANHATTAN, ILLINOIS.
ELEV. = 672.79
(NAVD 88)

BM #1222 — NGS MARKER CONSISTING OF ⅝" DIA. STAINLESS STEEL ROD INSIDE 6" PVC PIPE WITH ALUMINUM ACCESS COVER, ±100'S OF SE CORNER OF MANHATTAN-MONEE RD. AND CEDAR RD.
ELEV. = 723.772
(NGS AE 2482)
(NAVD 88)

SET NEW BENCHMARKS

BM #1 — FOUND TRACK SPIKE IN WEST FACE OF UTILITY POLE ±17' SW OF SOUTH CORNER OF CHAINLINK FENCE AROUND GAS UTILITY
ELEV. = 658.718

BM #2 — FOUND CUT "□" ON TOP OF SOUTH END OF WEST BRIDGE WALL OVER PRAIRIE CREEK ON ROUTE 52
ELEV. = 658.660

BM #3 — SET TRACK SPIKE IN WEST FACE OF UTILITY POLE (THIRD POLE SOUTH OF PRAIRIE CREEK)
ELEV. = 668.635

BM #4 — SET CUT "□" AT THE BOTTOM OF THE WEST BRIDGE WALL OF ABANDONED RAILROAD BRIDGE, APPROX. IN THE MIDDLE
ELEV. = 659.655

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

U.S. RTE. 52 OVER PRAIRIE CREEK ALIGNMENT, TIES AND BENCHMARK PLAN

SCALE: VERT. NONE HORIZ.
DATE 6/13/2005
DRAWN BY
CHECKED BY

PLOT DATE = 6/13/2005
FILE NAME = c:\projects\pt49081\sht_rdy.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = ulrichkd

*REF-topo01
*REF-PP01
*REF-prof01

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	46	9
STA. 1000+00	TO STA.1010+00			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

EXISTING

PROJECT BEGINS STA. 1001+94

PROJECT ENDS STA. 1014+56

U.S. ROUTE 52

HOFF ROAD

PRAIRIE CREEK

STA. 1005+11.33 U.S. ROUTE 52= STA. 10+00 HOFF ROAD

PT Sta 1002+13.66

RESURFACING | RECONSTRUCTION

EXIST. R.O.W.

AGGREGATE DITCH

PAVEMENT REMOVAL (TYP.)

REMOVAL OF GRAVEL SHOULDER TO BE PAID FOR AS REMOVAL OF UNSUITABLE MATERIAL (TYP.)

REMOVE ALL EXIST. GUARDRAIL (TYP.)

PROP. TEMP. EASEMENT

FLAG POLE

PP W/TRANSF.

GAS PIPE

LIMITS OF HMA MILLING

PAVED SHOULDER REMOVAL (TYP.)

BREAK EXISTING PAVEMENT AND LEAVE IN PLACE

APPOACH SLAB REMOVAL (TYP.)

EXISTING SINGLE SPAN PPC MULTI-BOX BEAM BRIDGE TO BE REMOVED

PROP. PERM. EASEMENT

PROP. R.O.W.

PROP. LINE

REMOVAL OF GRAVEL SHOULDER TO BE PAID FOR AS REMOVAL OF UNSUITABLE MATERIAL (TYP.)

PAVEMENT REMOVAL (TYP.)

EXIST. CURVE E_US52-1
PI STA. = 1000+56.86
Δ = 2° 37′ 07″ (RT)
D = 0° 50′ 05″
R = 6,863.14′
T = 156.86′
L = 313.66′
E = 1.79′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 999+00.00
P.T. STA. = 1002+13.66

PROPOSED

PROJECT LIMIT STA. 8+01.68

PROJECT BEGINS STA. 1001+94

PROJECT ENDS STA. 1014+56

U.S. ROUTE 52

HOFF ROAD

PRAIRIE CREEK

PROP. HMA SHOULDER, 8′ WIDE (TYP.)
PROP. HOT-MIX ASHPALT SHOULDER, 8″
PROP. SUB-BASE GRANULAR MATERIAL, TYPE B, 4″

PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A (87.5 FT)
PROP. TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (FLARED)
PROP. TERMINAL MARKER DIRECT APPLIED
PROP. TRAFFIC BARRIER TERMINAL, TYPE 6
PROP. HOT-MIX ASPHALT STABILIZATION FOR GUARDRAIL 8″ (VAR. WIDTH) TYP.

PROP. PARAPET WALL (1′-7″ WIDE)

PROP. BRIDGE SHDR. DRAIN (SEE BRIDGE PLANS)

PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2½″
PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, 1½″
PROP. LEVELING BINDER (MACHINE METHOD), N50, 1″

PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A (225 FT)
PROP. TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)
PROP. TERMINAL MARKER DIRECT APPLIED
PROP. TRAFFIC BARRIER TERMINAL, TYPE 6
PROP. HOT-MIX ASPHALT STABILIZATION FOR GUARDRAIL 8″ (VAR. WIDTH) TYP.

RESURFACING | RECONSTRUCTION

EXIST. R.O.W.

PROP. TEMP. EASEMENT

PROP. PERM. EASEMENT

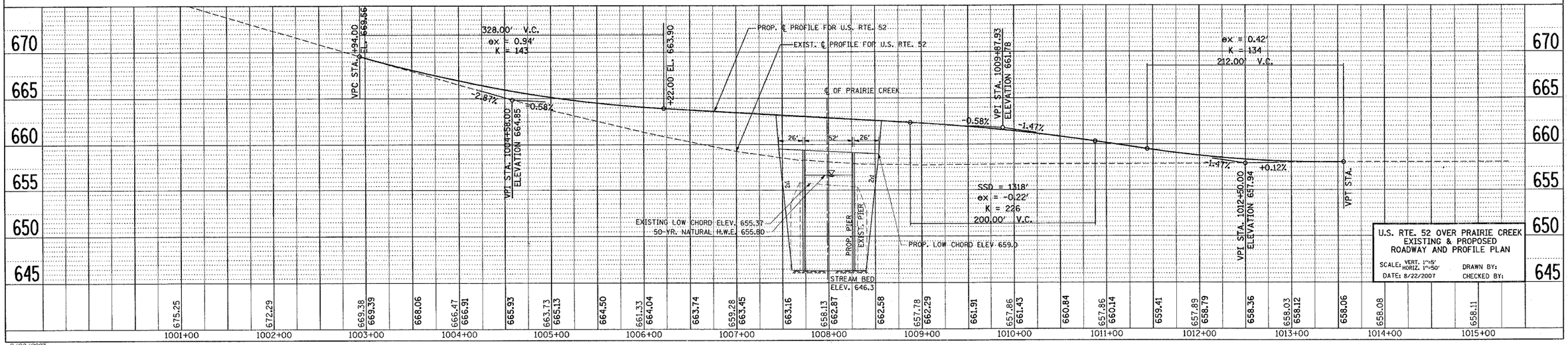
PROP. R.O.W.

PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2½″
PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, 1½″
PROP. LEVELING BINDER (MACHINE METHOD), N50, 1″
PROP. P.C.C. BASE COURSE 9¼″
PROP. SUB-BASE GRANULAR MATERIAL, TYPE B, 4″

PROP. 8″ CONC. SHOULDER (TYP.)

PROP. HMA SHOULDER, 8′ WIDE (TYP.)
PROP. HOT-MIX ASHPALT SHOULDER, 8″
PROP. SUB-BASE GRANULAR MATERIAL, TYPE B, 4″

PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, 1½″
PROP. LEVELING BINDER (MACHINE METHOD), N50, 1″
PROP. P.C.C. BASE COURSE 9¼″
PROP. SUB-BASE GRANULAR MATERIAL, TYPE B, 4″



U.S. RTE. 52 OVER PRAIRIE CREEK
EXISTING & PROPOSED
ROADWAY AND PROFILE PLAN

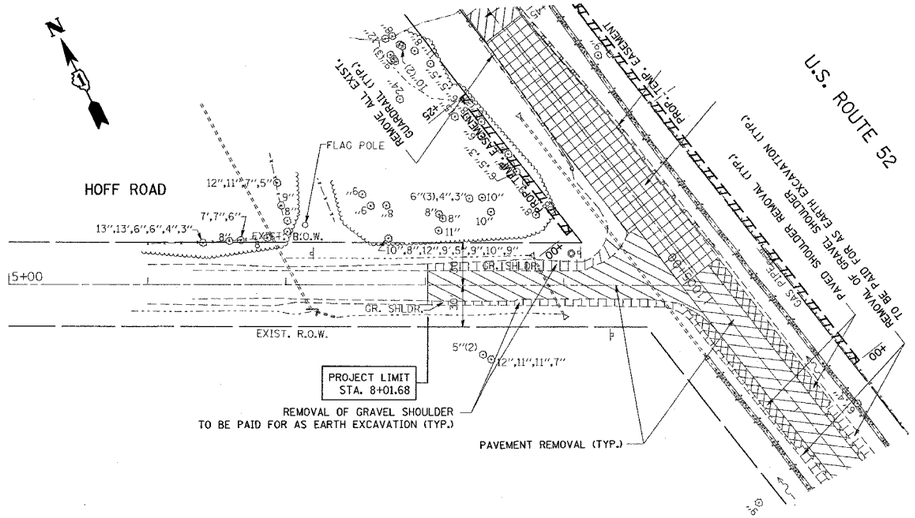
SCALE: VERT. 1″=5′ HORIZ. 1″=50′
DATE: 8/22/2007
DRAWN BY:
CHECKED BY:

8/22/2007
o:\projects\pl49801\sh_rdwy.dgn
ullrichkd

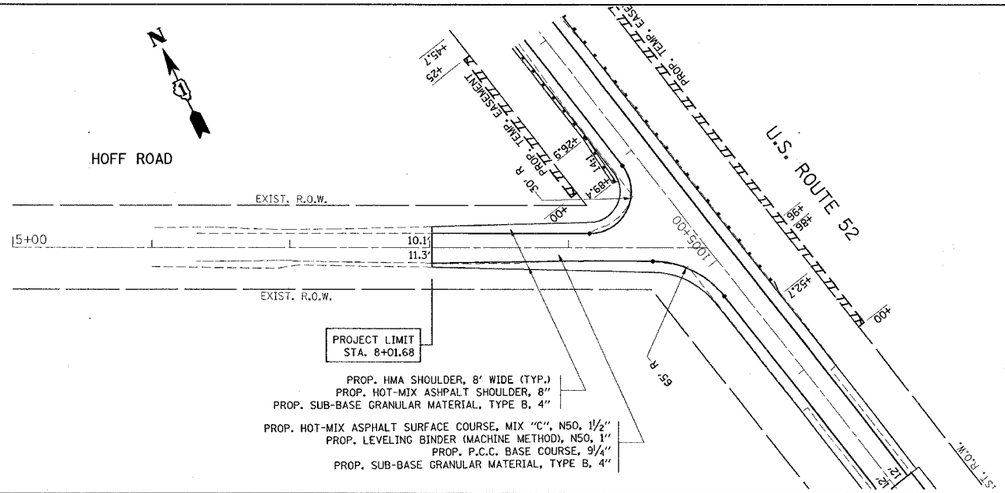
*REF-topo02
*REF-pp02
*REF-prof02

CONTRACT NO. 62845

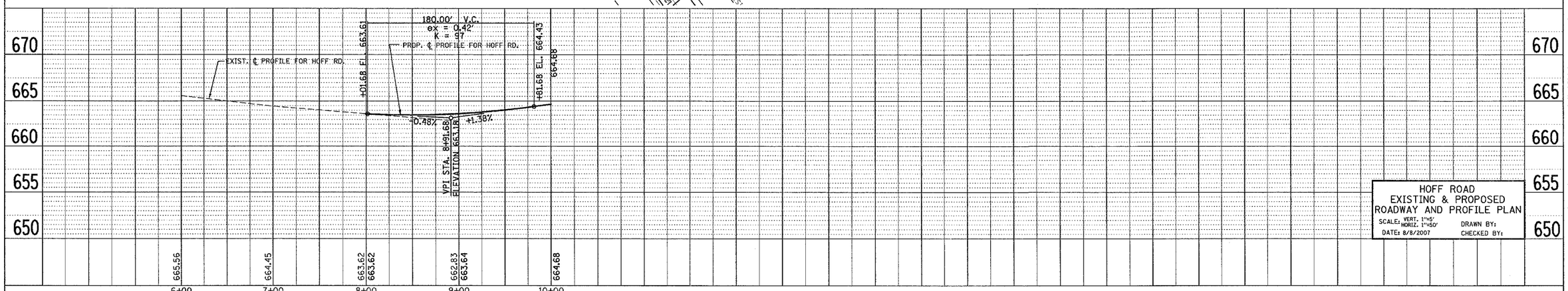
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	10
STA. 6+00	TO STA.9+00			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



EXISTING



PROPOSED



HOFF ROAD
EXISTING & PROPOSED
ROADWAY AND PROFILE PLAN
SCALE: VERT. 1"=5' HORIZ. 1"=50'
DRAWN BY:
DATE: 8/8/2007
CHECKED BY:

8/8/2007
c:\Projects\pl4980\sh_rdwy.dgn
lfiszekr1

*REF-pmk01

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PRESTAGE

INSTALL SIGNS SHOWN ON THE DETAILS "TEMPORARY INFORMATION SIGNING". PLACE PRIOR TO THE START OF CONSTRUCTION ACTIVITY ON US ROUTE 52 AND ON HOFF ROAD.

CONSTRUCT TEMPORARY PAVEMENT ALONG WESTBOUND SIDE OF HOFF ROAD.

STAGE IA

ESTABLISH TRAFFIC CONTROL AS SHOWN ON THE SUGGESTED STAGING AND TRAFFIC CONTROL STAGE IA. THIS WORK SHALL BE PAID FOR USING TRAFFIC CONTROL AND PROTECTION, STANDARD 701321-08.

TAKE NECESSARY EROSION CONTROL MEASURES SHOWN ON EROSION CONTROL PLAN.

DIVERTING ALL HOFF ROAD TRAFFIC TO THE WESTBOUND SIDE OF HOFF ROAD, CONSTRUCT SOUTHBOUND US 52 TO LIMITS SHOWN ON STAGING PLAN IA, THIS SHALL INCLUDE THE SUB-BASE GRANULAR MATERIAL, TYPE B 4" AND THE PCC BASE CRSE 9 1/4" .PERFORM EARTHWORK AND REGRADE DITCHES ON WESTSIDE OF US 52 TO THE PROPOSED ELEVATIONS SHOWN ON THE TEMPLATED CROSS-SECTIONS.

CONSTRUCT TEMPORARY PAVEMENT ALONG EASTBOUND SIDE OF HOFF ROAD.

STAGE IB

DIVERTING ALL HOFF ROAD TRAFFIC ONTO EXISTING EASTBOUND HOFF ROAD AND TEMPORARY PAVEMENT, CONSTRUCT THE INTERSECTION OF SOUTHBOUND US52 AND HOFF ROAD SHOWN ON STAGE IB.

STAGE II

ESTABLISH TRAFFIC CONTROL AS SHOWN ON THE SUGGESTED STAGING AND TRAFFIC CONTROL STAGE II PLAN. THIS WORK SHALL BE PAID FOR USING TRAFFIC CONTROL AND PROTECTION, STANDARD 701321-08.

TAKE NECESSARY TEMPORARY EROSION CONTROL MEASURES SHOWN ON EROSION CONTROL PLAN.

MAINTAINING ALL HOFF ROAD TRAFFIC ON THE EASTBOUND SIDE OF HOFF ROAD, CONSTRUCT NORTHBOUND US 52, THIS SHALL INCLUDE THE SUB-BASE GRANULAR MATERIAL, TYPE B 4" AND THE PCC BASE CRSE 9 1/4". PERFORM ALL EARTHWORK AND REGRADING OF DITCHES ON EAST SIDE OF US 52 TO THE PROPOSED ELEVATIONS SHOWN ON THE TEMPLATED CROSS-SECTIONS.

STAGE IIIA

RESTORE ALL TRAFFIC ON U.S. 52. MAINTAIN HOFF ROAD TRAFFIC AS IN STAGE II. REMOVE TEMPORARY PAVEMENT ON WESTBOUND SIDE OF HOFF ROAD. CONSRUCT WESTBOUND HOFF ROAD PAVEMENT AND SHOULDERS. RESTORE DITCHES ON WESTBOUND SIDE OF HOFF ROAD.

STAGE IIIB

MAINTAINING EASTBOUND HOFF ROAD TRAFFIC ON TEMPORARY PAVEMENT CONSRUCT EASTBOUND HOFF ROAD.

STAGE IV

RESTORE EASTBOUND HOFF ROAD TRAFFIC TO EASTBOUND HOFF ROAD AND REMOVE REMAINING TEMPORARY PAVEMENT ON THE EASTBOUND SIDE OF HOFF ROAD.

RESURFACING SHALL BE DONE WITH THE USE OF FLAG PERSONS AND USING THE APPROPRIATE HIGHWAY TRAFFIC CONTROL STANDARDS.

NOTE:

TEMPORARY PAVEMENT SHALL CONSIST OF

1 3/4" HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, (IL 9.5 mm)

9 3/4" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

U.S. 52 OVER PRAIRIE CREEK
STAGING NOTES

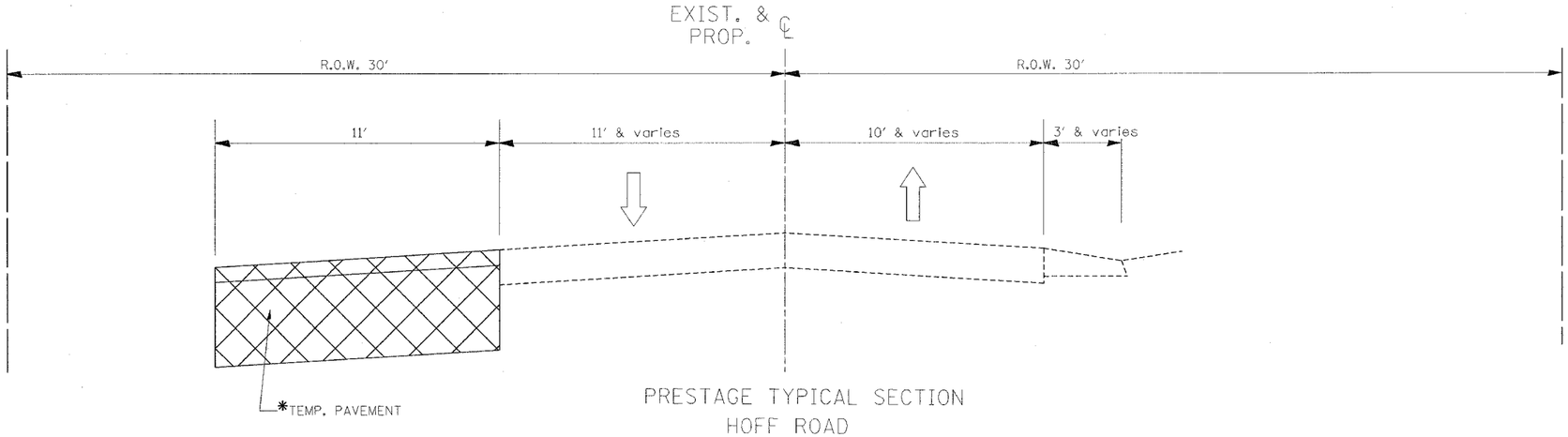
SCALE: VERT. 1"=50'
HORIZ.
DATE 8/14/2007

DRAWN BY
CHECKED BY

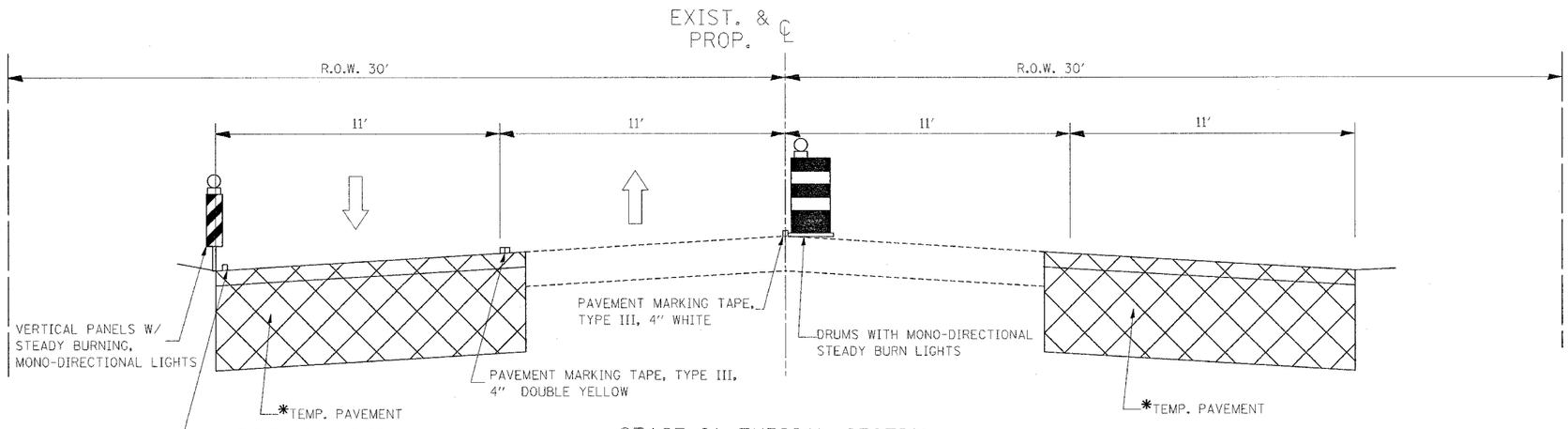
PLOT DATE = 8/14/2007
FILE NAME = c:\projects\p141980\designaa.n32
PLOT SCALE = 50.000 '/ IN.
USER NAME = ebrauch

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62845



PRESTAGE TYPICAL SECTION
HOFF ROAD
STA 8+01 TO STA 9+43
(LOOKING EAST)



STAGE IA TYPICAL SECTION
HOFF ROAD
STA 8+01 TO STA 9+43
(LOOKING EAST)

NOTE:

TEMPORARY PAVEMENT SHALL CONSIST OF

1¾" HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, (IL 9.5 mm)

9¾" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HOFF ROAD
STAGING TYPICALS
PRESTAGE & STAGE IA

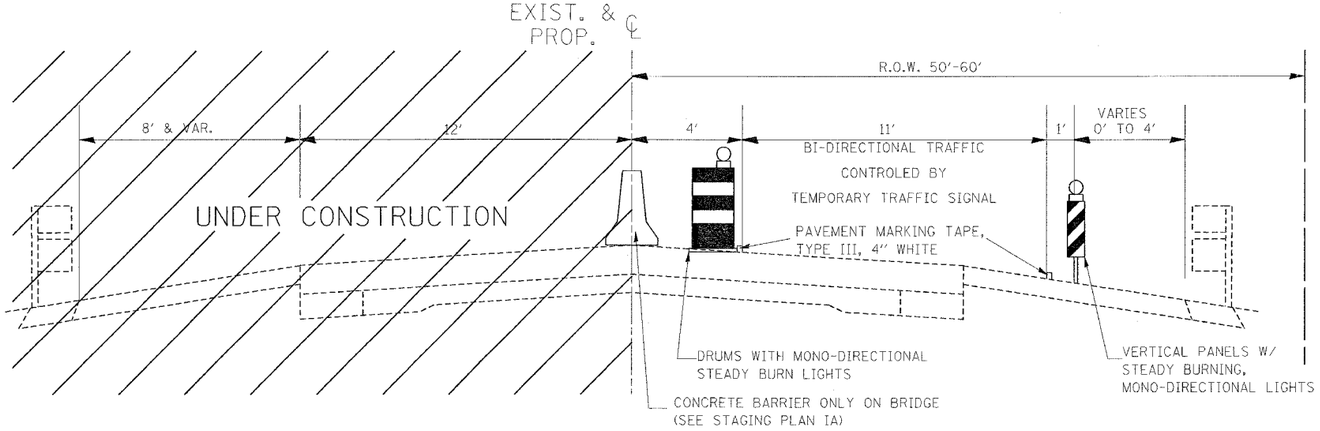
SCALE: NO SCALE
DATE: 8/14/2007

DRAWN BY
CHECKED BY

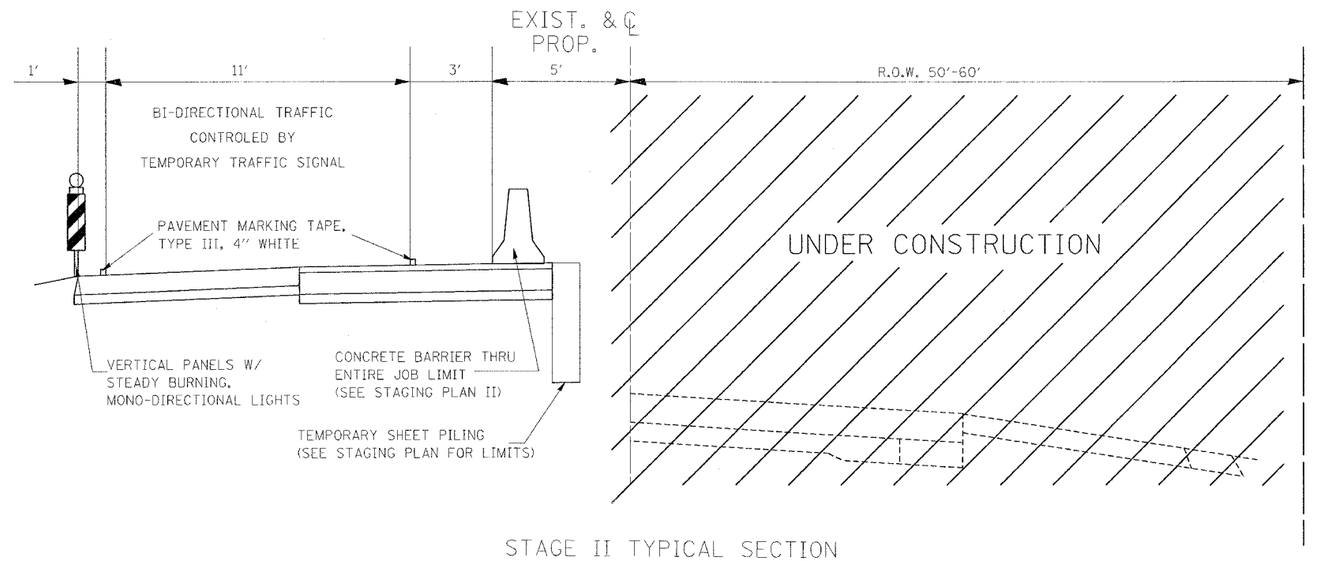
8/14/2007
c:\projects\pl4980\design\m32
dbrauch

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62845



STAGE IA TYPICAL SECTION
US-52
STA 1002+94 TO STA 1007+46
STA 1008+54 TO STA 1013+56
(LOOKING NORTH)



STAGE II TYPICAL SECTION
US-52
STA 1002+94 TO STA 1007+46
STA 1008+54 TO STA 1013+56
(LOOKING NORTH)

NOTE:

TEMPORARY PAVEMENT SHALL CONSIST OF

1¾" HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, (IL 9.5 mm)

9¾" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

US-52 OVER PRAIRIE CREEK
STAGING TYPICALS
STAGE IA & STAGE II

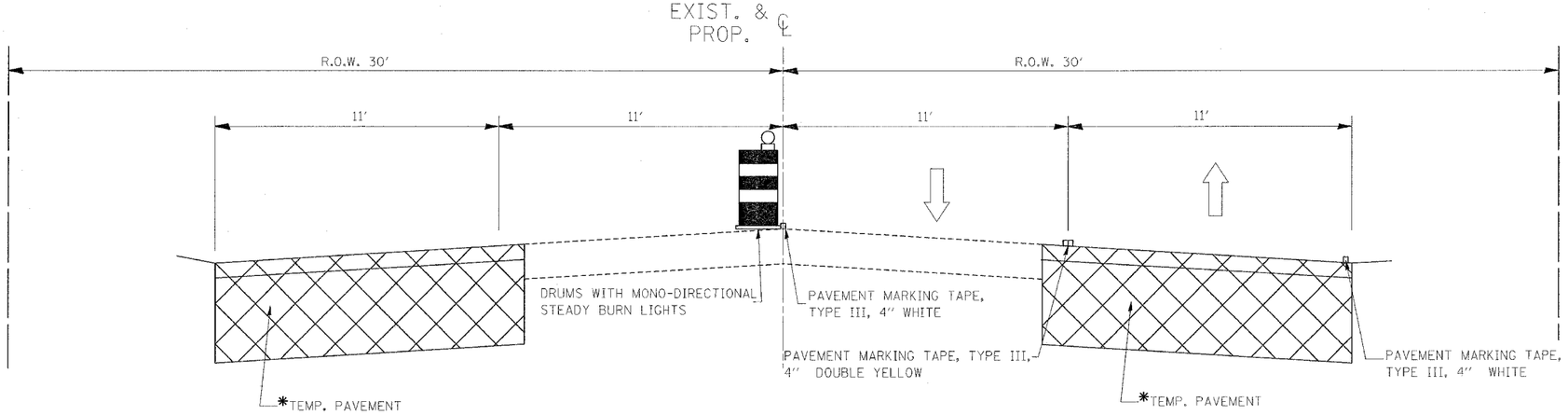
SCALE: NO SCALE
DATE: 8/23/2007

DRAWN BY
CHECKED BY

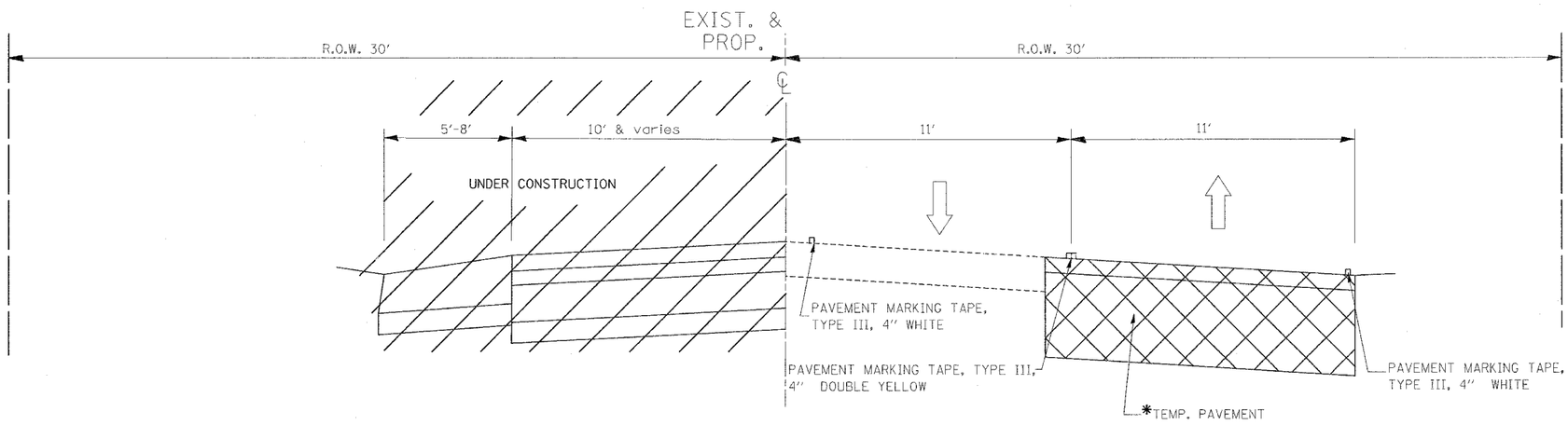
8/23/2007
c:\projects\pi4980\designaam32
abreuah

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62845



STAGE IB & II TYPICAL SECTION
HOFF ROAD
STA 8+01 TO STA 9+43
(LOOKING EAST)



STAGE IIIA TYPICAL SECTION
HOFF ROAD
STA 8+01 TO STA 9+43
(LOOKING EAST)

NOTE:

TEMPORARY PAVEMENT SHALL CONSIST OF

1¾" HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, (IL 9.5 mm)

9¾" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HOFF ROAD
STAGING TYPICALS
STAGE IB & II & IIIA

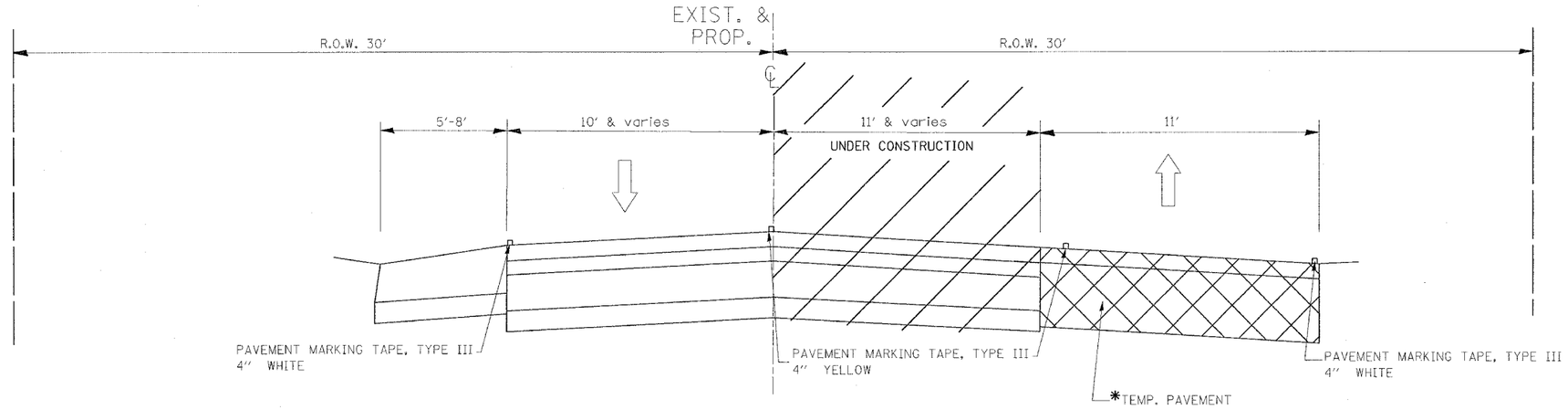
SCALE: NO SCALE
DATE: 8/14/2007

DRAWN BY
CHECKED BY

8/14/2007
c:\projects\pl4980\designaa.m32
abrsugh

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	15
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62845



STAGE IIIB TYPICAL SECTION
HOFF ROAD
STA 8+01 TO STA 9+43
(LOOKING EAST)

NOTE:

TEMPORARY PAVEMENT SHALL CONSIST OF

1¾" HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, (IL 9.5 mm)

9¾" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HOFF ROAD
STAGING TYPICALS
STAGE IIIB

SCALE: NO SCALE
DATE: 8/14/2007

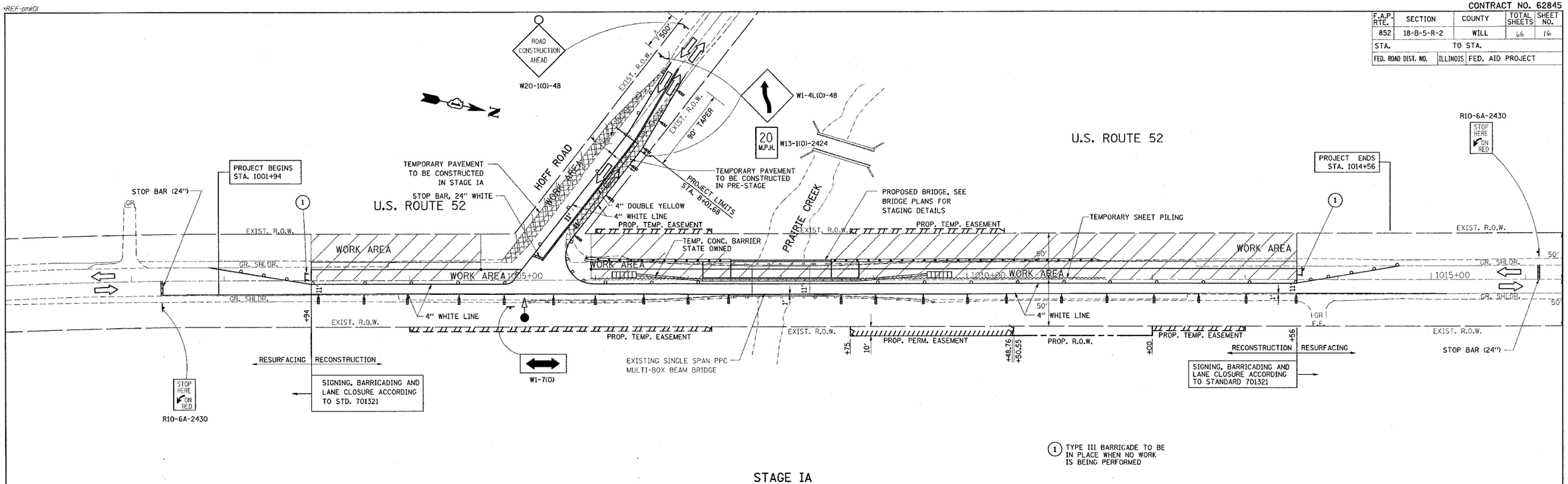
DRAWN BY
CHECKED BY

8/14/2007
c:\projects\pl4980\designaa.m32
abraugh

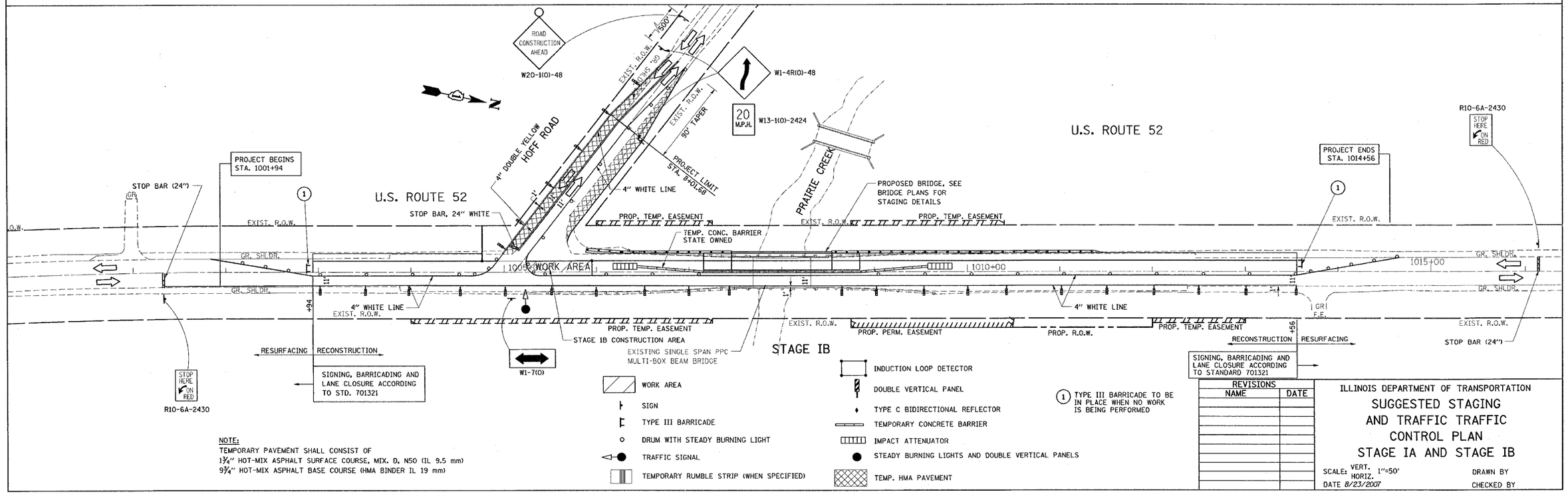
*REF-pnk01

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18-B-5-R-2	WILL	66	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE IA



STAGE IB

NOTE:
TEMPORARY PAVEMENT SHALL CONSIST OF
1¾" HOT-MIX ASPHALT SURFACE COURSE, MIX. D, N50 (IL 9.5 mm)
9¾" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm)

- WORK AREA
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- TEMP. HMA PAVEMENT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGING AND TRAFFIC TRAFFIC CONTROL PLAN STAGE IA AND STAGE IB

SCALE: VERT. 1"=50'
HORIZ.
DATE 8/23/2007

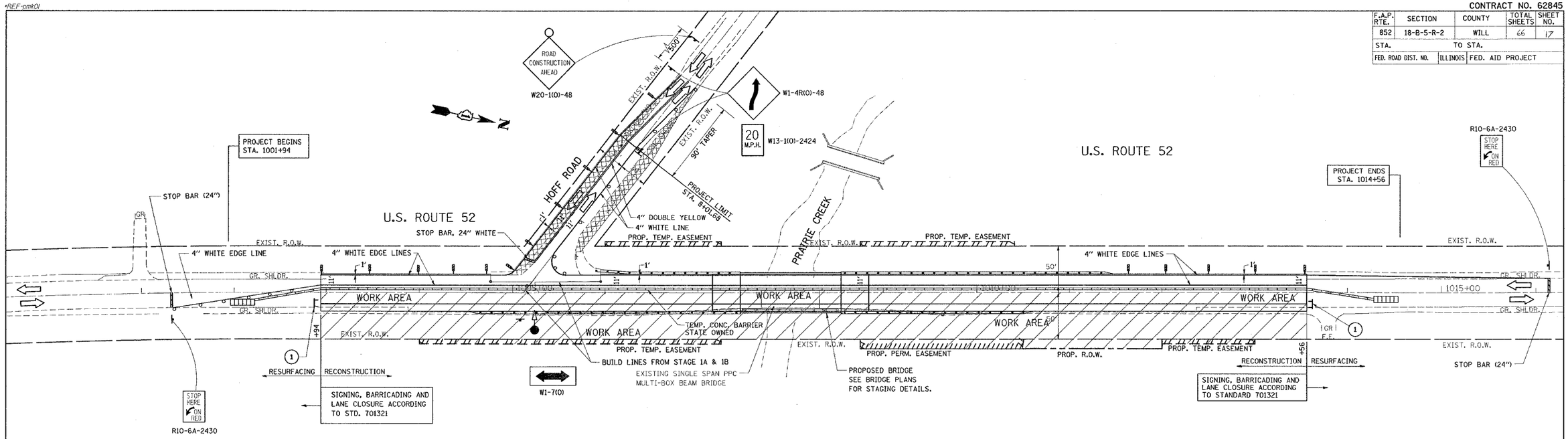
DRAWN BY
CHECKED BY

PLOT DATE = 8/23/2007
FILE NAME = c:\projects\p149801sh_stage.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bauerdL

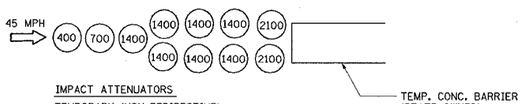
*REF-pmk01

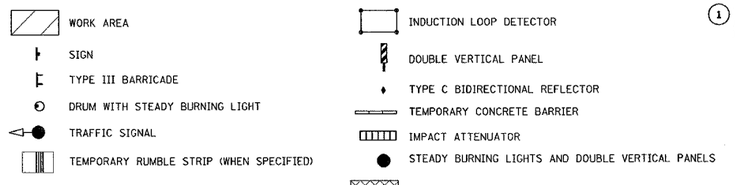
CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18-B-5-R-2	WILL	66	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE II





STAGE II

1 TYPE III BARRICADE TO BE IN PLACE WHEN NO WORK IS BEING PERFORMED

NOTE:
TEMPORARY PAVEMENT SHALL CONSIST OF
1¾" HOT-MIX ASPHALT SURFACE COURSE, MIX. D, N50 (IL 9.5 mm)
9¾" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGING AND TRAFFIC TRAFFIC CONTROL PLAN STAGE II

SCALE: VERT. 1"=50'
HORIZ.
DATE 8/10/2007

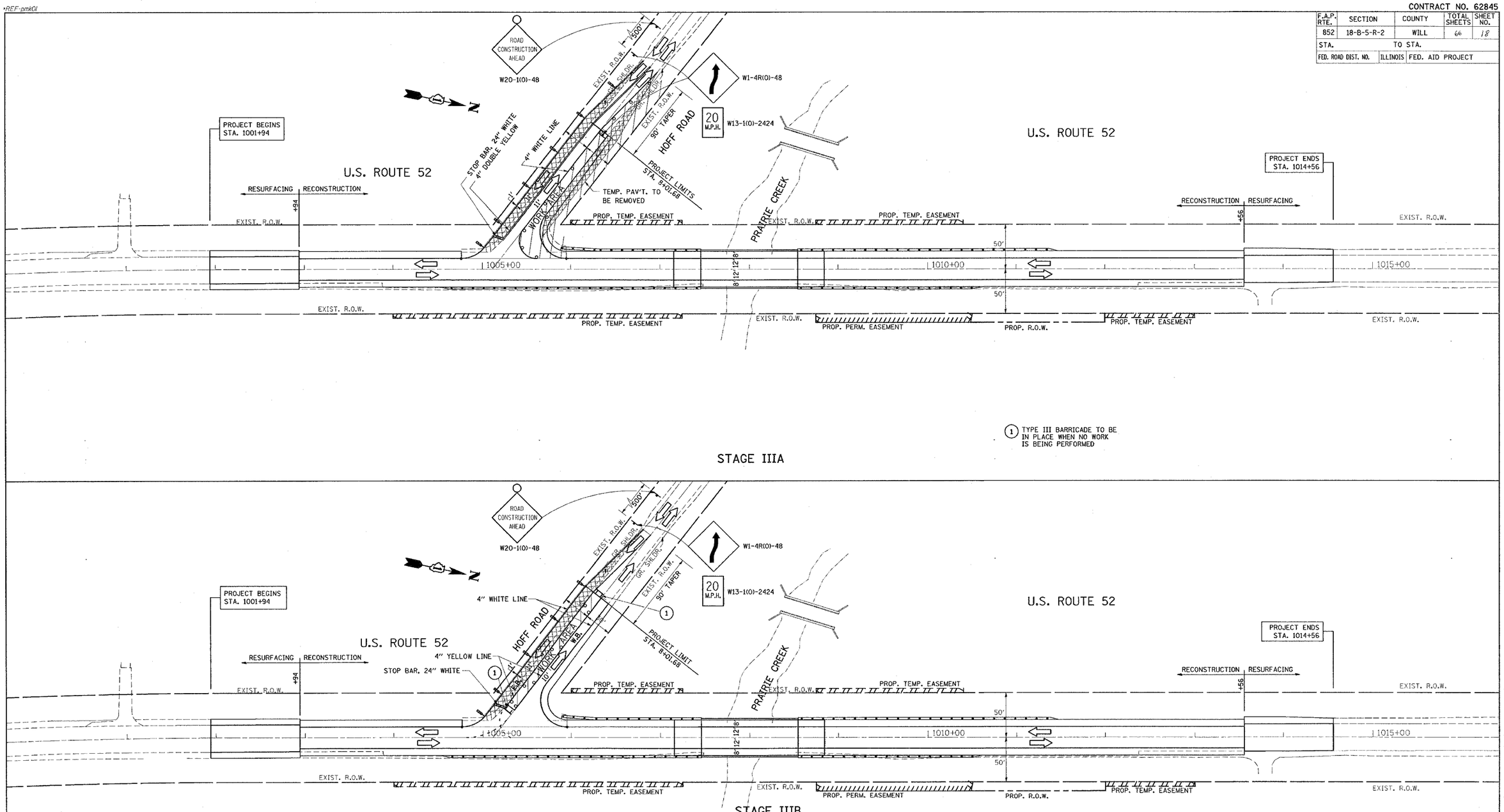
DRAWN BY
CHECKED BY

PLOT DATE = 8/10/2007
FILE NAME = c:\projects\p14988\sh_stage.dgn
PLOT SCALE = 50.0000 '/ IN.
USER NAME = lizzakr

*REF-pmkOI

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18-B-5-R-2	WILL	66	18
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE IIIA

STAGE IIIB

NOTE:
TEMPORARY PAVEMENT SHALL CONSIST OF
1¾" HOT-MIX ASPHALT SURFACE COURSE, MIX. D, N50 (IL 9.5 mm)
9¾" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL 19 mm)

- WORK AREA
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP (WHEN SPECIFIED)
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- TEMP. HMA PAVEMENT

1 TYPE III BARRICADE TO BE IN PLACE WHEN NO WORK IS BEING PERFORMED

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGING AND TRAFFIC TRAFFIC CONTROL PLAN STAGE IIIA AND STAGE IIIB

SCALE: VERT. 1"=50' HORIZ.
DATE 8/10/2007
DRAWN BY
CHECKED BY

PLOT DATE = 8/10/2007
FILE NAME = c:\PWorks\dot\d1498\sh_stage.dgn
PLOT SCALE = 50.0000 '/ IN.
USER NAME = lizelur

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES IMMEDIATELY AFTER STRIPPING OF EXISTING VEGETATION.

NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE SITE OTHER THAN THROUGH SEDIMENTATION/STILLING BASINS. THE CONTRACTOR WILL ADJUST HIS OPERATIONS AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.

THE QUANTITIES SHOWN SURROUND FOR TEMPORARY DITCH CHECKS AND INLET AND PIPE PROTECTION ARE MEASURED AS EACH, REGARDLESS OF TYPE OR CONFIGURATION USED.

THE CONTRACTOR SHALL SURROUND ALL EARTH STOCKPILES WITH SILT FENCE AND SHALL BE PAID FOR AS PERIMETER EROSION BARRIER, EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AND ENGINEER WITHIN 24 HOURS OR ANY STORM EXCEEDING 0.5 INCH OF PRECIPITATION.

STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES TO REMAIN IN PLACE FOR 21 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.

ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMIT.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 95-60.

EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH SEQUENCE OF STAGE CONSTRUCTION.

STABILIZATION MEASURES SHALL BE INTIATED AS SOON AS PRACTICAL, BUT IN NO CASE EXCEED 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED ON ALL DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDER DAYS.

THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING TO ALL ERODIBLE BARE EARTH AREAS WITHIN THE CONTRACT LIMITS EACH WEEK, REGARDLESS OF WEATHER CONDITIONS OR PROGRESS OF THE WORK. UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ERODIBLE EMBANKMENT AND EXCAVATION AREAS WHERE WORK IS IN PROGRESS SHALL BE INCLUDED ON THE AREAS TO BE SEEDED. SEE SPECIAL PROVISION FOR TEMPORARY EROSION CONTROL SEEDING.

ALL PERIMETER EROSION BARRIER SHALL BE PLACED IN STAGE I, IF REQUIRED IN STAGE II IT SHALL BE LEFT IN PLACE. IT SHALL ONLY BR REPLACED IF DAMAGED, AT THE DIRECTION OF THE ENGINEER.

REFER TO LANDSCAPING PLAN FOR AREA TO BE SEEDED.

THE WILL/SOUTH COOK SOIL AND WATER CONSERVATION DISTRICT (WSCSWCD) IS RESPONSIBLE FOR CONDUCTING SITE VISITS AND VERIFYING THAT THE PRACTICES ARE WORKING PROPERLY AND DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE WSCSWCD.

WSCSWCD MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF THE LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO FINAL INSPECTION.

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL REVISED FEBRUARY 2002.

A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

PRIOR TO COMMENCING LAND-DISTUBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE WSCSWCD.

DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING INTO DRAIN TILES IS STRICTLY PROHIBITED. COMPROMISED DRAIN TILES SHOULD BE IMMEDIATELY REPAIRED OR INCORPORATED INTO STORM WATER FACILITIES.

ALL DROP INLETS ON AND ADJACENT TO THE SITE MUST HAVE A SEDIMENT TRAPPING OR CONTAINMENT DEVICE INSTALLED DURING CONSTRUCTION ACTIVITIES.

ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS, INSPECTED DAILY AND CLEANED WHEN NECESSARY.

ALL EROSION CONTROL MEASURES MUST BE INSPECTED WEEKLY AND AFTER EACH ½" RAIN EVENT.

EROSION CONTROL BLANKET AND/OR STRAW MULCH WITH NETTING (DEPENDING ON SLOPE, SLOPE LENGTH, AND FLOW RATES) SHALL BE INSTALLED ON ALL SLOPES AND IN CRITICAL AREAS (I.E. DETENTION BASIN PERIMETERS, BERMS ETC.) IMMEDIATELY UPON FINAL GRADING.

PRIORITY SHALL BE GIVEN TO THE COMPLETION AND STABILIZATION OF THE DETENTION AREAS. WORK IN THESE AREAS SHALL NOT BE PROLONGED IN ATTEMPT THAT ALL FINAL GRADING AND STABILIZATION CAN TAKE PLACE AT ONE TIME.

THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL. ALL OPEN AREAS THAT ARE TO REMAIN IDLE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET AND HEAVY MULCHING.

SILT FENCE IS TO BE INSTALLED FOLLOWING THE COMPLETION AND STABILIZATION OF THE STORM WATER FACILITIES AND IS TO REMAIN IN PLACE UNTIL THE CONTRIBUTING AREA IS STABILIZED.

BERMS MUST BE STABILIZED IMMEDIATELY UPON RECEIVING FINAL GRADING. STRAW MULCH WITH NETTING OR EROSION CONTROL BLANKET SHALL BE USED ON SIDE SLOPES AND SUMMIT.

IN AREAS WHERE WORK IS COMPLETE, PERMANENT STABILIZATION SHALL OCCUR WITHIN 7 DAYS OF COMPLETION, AND IN AREAS WHERE WORK HAS TEMPORARILY CEASED FOR 21 DAYS OR MORE, TEMPORARY STABILIZATION SHALL OCCUR BY THE 14TH DAY AFTER WORK HAS CEASED.

COMPLETED SLOPES SHALL BE SEEDED AND MULCHED (OR BLANKETED, IF APPLICABLE) AS THE EXCAVATION PROCEEDS TO THE EXTENT CONSIDERED DESIRABLE AND PRACTICAL. PERMANENT SEEDING SHALL BE USED WHENEVER POSSIBLE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME. NO WORK SHALL BE PERFORMED IN FLOWING WATER. WATER IN AND NEAR THE CRITICAL AREAS SHOULD BE ISOLATED FROM CONCENTRATED FLOWS OR STREAM FLOW. THE STREAM BANKS SHOULD BE STABILIZED AT THE END OF EACH DAY. ONCE WORK IN THIS AREA BEGINS, PRIORITY SHALL BE GIVEN TO THE COMPLETION OF THE WORK AND FINAL STABILIZATION OF ALL DISTURBED AREAS.

ALL DISTURBED AREAS AND WORK AREAS MUST BE ISOLATED FROM CREEK FLOWS AT ALL TIMES. THE DIVERSION/ ISOLATION OF THE CREEK FLOWS MUST BE CONSTRUCTED FROM NON-ERODIBLE MATERIALS. THE WSCSWCD MUST BE IN AGREEMENT WITH THE OVERALL EXACT METHOD OF DIVERSION/ISOLATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

US52 OVER PRAIRIE CREEK

EROSION CONTROL NOTES

SCALE: NO SCALE — DRAWN BY

DATE: 8/14/2007 — CHECKED BY

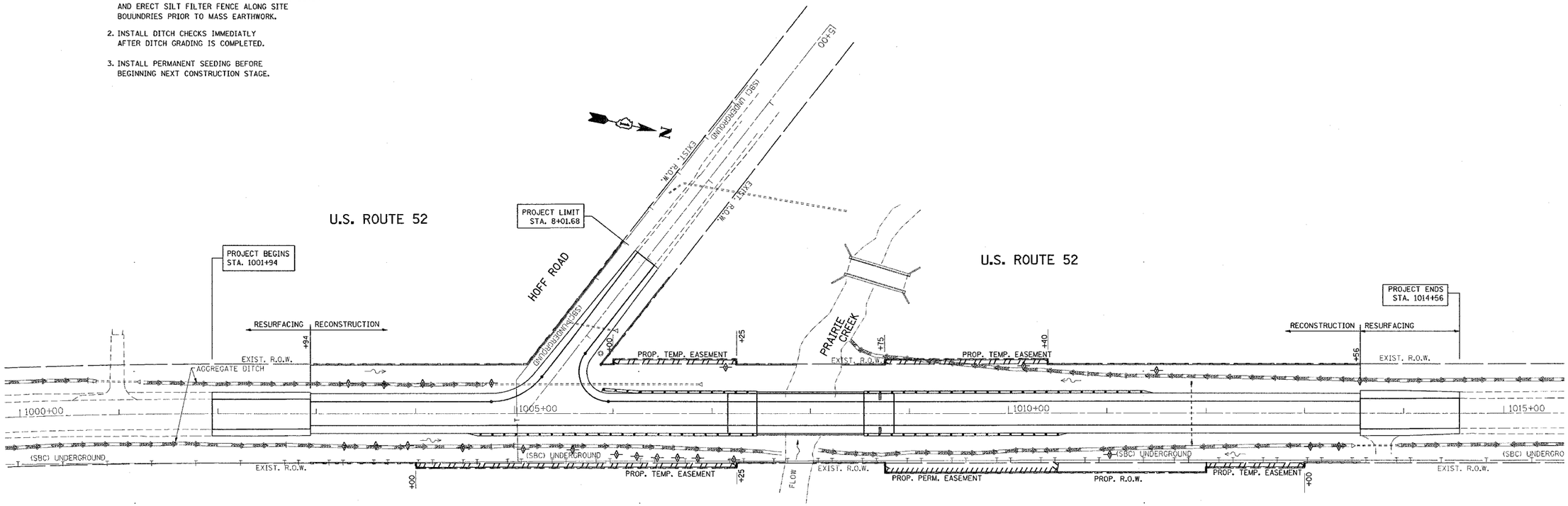
8/14/2007
c:\projects\pl4980\designdm32
obrauch

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TEMPORARY EROSION CONTROL
SEQUENCE OF CONSTRUCTION

1. ESTABLISH TEMPORARY EROSION CONTROL MEASURES AND ERECT SILT FILTER FENCE ALONG SITE BOUUNDRIES PRIOR TO MASS EARTHWORK.
2. INSTALL DITCH CHECKS IMMEDIATLY AFTER DITCH GRADING IS COMPLETED.
3. INSTALL PERMANENT SEEDING BEFORE BEGINNING NEXT CONSTRUCTION STAGE.



PERMANENT DITCH CHECKS	
1003+00	RT.
1004+00	RT.
1005+00	RT.
1006+00	RT.
1006+00	LT.
1007+00	RT.
1007+00	LT.
1013+00	RT.

NOTE:
PERMANENT DITCH CHECKS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR AGGREGATE DITCH CHECKS.

INSTALL PERIMETER EROSION BARRIER ALL ALONG R.O.W. & TEMPORARY EASEMENTS.

TEMPORARY DITCH CHECKS	
1003+28	33' RT
1003+32	30' LT.
1003+60	33' RT.
1003+68	30' LT.
1003+92	32' RT.
1004+07	30' LT.
1004+47	35' RT.
1004+76	31' LT.
1005+09	36' RT.
1005+59	37' RT.
1006+03	41' RT.
1006+24	44' RT.
1006+45	45' RT.
1006+65	45' RT.
1006+86	45' RT.
1007+14	47' LT.
1007+21	47' RT.
1010+15	48' LT.
1011+23	42' RT.
1011+50	43' LT.
1013+06	34' RT.
1013+35	34' RT.
1013+56	33' LT.

LEGEND

SYMBOL	DESCRIPTION
-◇-	TEMPORARY DITCH CHECK (SEE STANDARD 280001)
———	PERIMETER EROSION BARRIER (SILT FENCE, SEE STANDARD 280001)
<~~	EXISTING FLOW LINE
——— ——	EXIST. R.O.W.
– – ———	PROP. R.O.W.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

U.S. RTE. 52 OVER PRAIRIE CREEK
PROPOSED
EROSION CONTROL PLAN

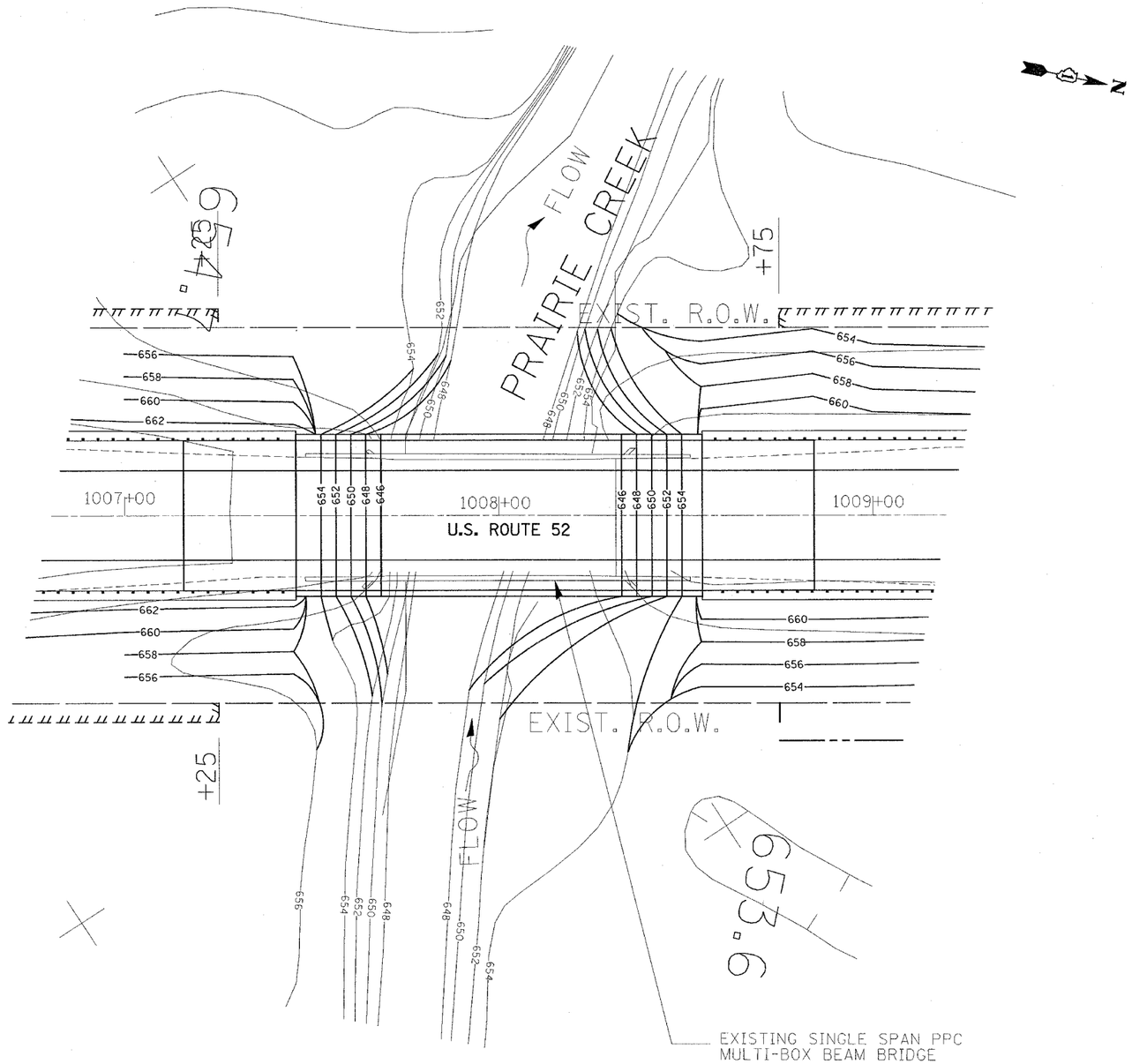
SCALE: VERT. 1"=50'
HORIZ.
DATE 8/24/2007

DRAWN BY
CHECKED BY

PLOT DATE = 8/24/2007
FILE NAME = o:\pro_pets\plt4980\sh_rdwy.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bauerdL

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	21
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BRIDGE REMOVAL & REPLACEMENT
US52 OVER PRAIRIE CREEK
GRADING PLAN
UNINCORPORATED MANHATTAN TOWNSHIP

SCALE: VERT.
HORIZ.
DATE

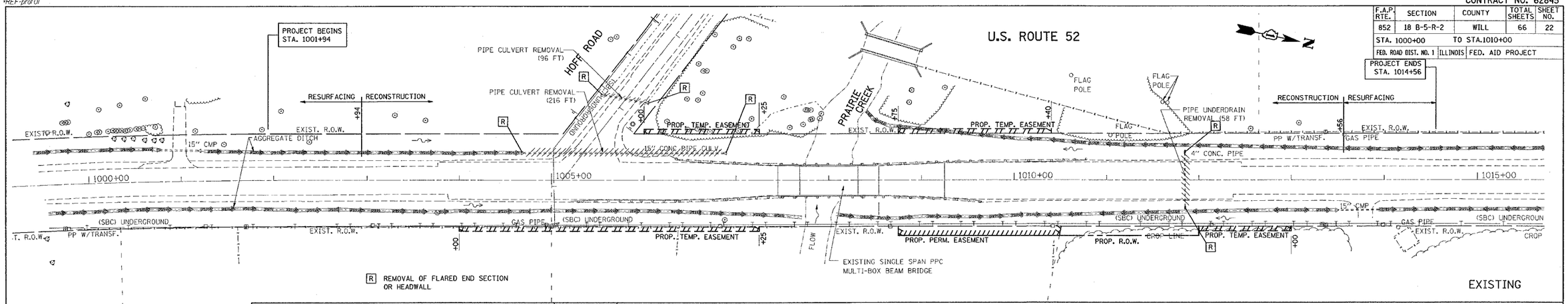
DRAWN BY
CHECKED BY

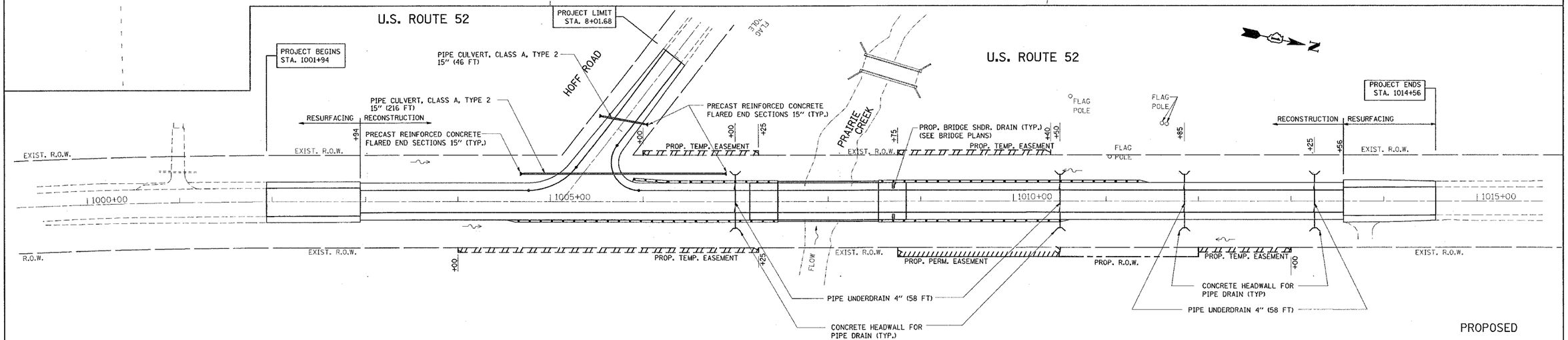
PLOT DATE = 8/14/2007
FILE NAME = c:\projects\p149801\designsam32
PLOT SCALE = 50.000 ' / IN.
USER NAME = abreush

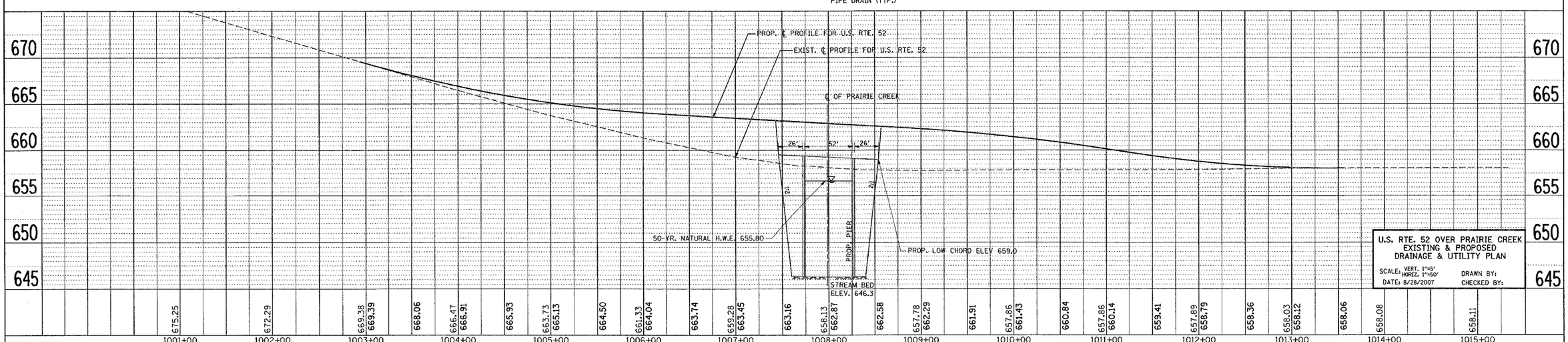
*REF-topo01
*REF-PP01
*REF-prof01

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	22
STA. 1000+00		TO STA.1010+00		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		







U.S. RTE. 52 OVER PRAIRIE CREEK
EXISTING & PROPOSED
DRAINAGE & UTILITY PLAN

SCALE: VERT. 1"=5' HORIZ. 1"=50'
DATE: 8/28/2007
DRAWN BY:
CHECKED BY:

8/28/2007
c:\projects\pl4980\sh_rdwy.dgn
dr\wakosgn

PART OF SECTION 28, T34N, R11E, OF THE 3RD PM, WILL COUNTY, ILLINOIS

CONTRACT NO.

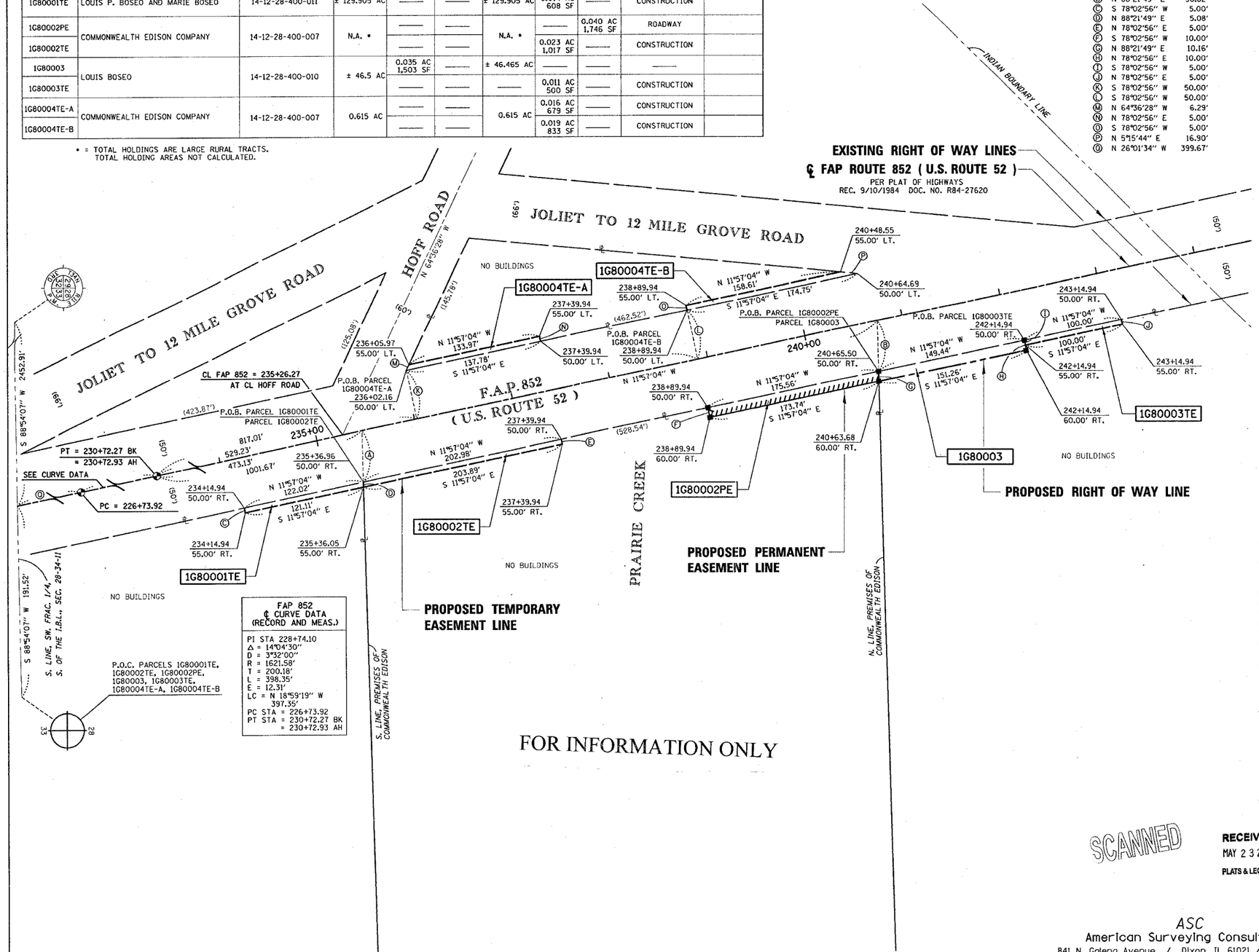
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	PRAIRIE CREEK	WILL	66	23
STA. 234+00 TO STA. 243+50				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

PARCEL NO.	OWNER	PERMANENT INDEX NUMBER	TOTAL HOLDING	AREA TAKING	PREVIOUSLY DEDICATED	REMAINDER	EASEMENTS TEMP	EASEMENTS PERM	EASEMENT PURPOSE	PROPERTY ACQUIRED BY
1G80001TE	LOUIS P. BOSEO AND MARIE BOSEO	14-12-28-400-011	± 129.905 AC	———	———	± 129.905 AC	0.014 AC 608 SF	———	CONSTRUCTION	
1G80002PE	COMMONWEALTH EDISON COMPANY	14-12-28-400-007	N.A. •	———	———	N.A. •	———	0.040 AC 1,746 SF	ROADWAY	
1G80002TE				———	———		0.023 AC 1,017 SF	———	CONSTRUCTION	
1G80003	LOUIS BOSEO	14-12-28-400-010	± 46.5 AC	0.035 AC 1,503 SF	———	± 46.465 AC	———	———	———	
1G80003TE				———	———	———	0.011 AC 500 SF	———	CONSTRUCTION	
1G80004TE-A	COMMONWEALTH EDISON COMPANY	14-12-28-400-007	0.615 AC	———	———	0.615 AC	0.016 AC 679 SF	———	CONSTRUCTION	
1G80004TE-B				———	———		0.019 AC 833 SF	———	CONSTRUCTION	

• = TOTAL HOLDINGS ARE LARGE RURAL TRACTS. TOTAL HOLDING AREAS NOT CALCULATED.

LINE LEGEND

(A)	N 88°21'49" E	50.82'
(B)	N 88°21'49" E	50.82'
(C)	S 78°02'56" W	5.00'
(D)	N 88°21'49" E	5.08'
(E)	N 78°02'56" E	5.00'
(F)	S 78°02'56" W	10.00'
(G)	N 88°21'49" E	10.16'
(H)	N 78°02'56" E	10.00'
(I)	S 78°02'56" W	5.00'
(J)	N 78°02'56" E	5.00'
(K)	S 78°02'56" W	50.00'
(L)	S 78°02'56" W	50.00'
(M)	N 64°36'28" W	6.29'
(N)	N 78°02'56" E	5.00'
(O)	S 78°02'56" W	5.00'
(P)	N 5°15'44" E	16.90'
(Q)	N 26°01'34" W	399.67'



FOR INFORMATION ONLY

LEGEND

SECTION CORNER — QUARTER SECTION CORNER — CENTER OF SECTION

- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED CENTERLINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED TEMPORARY EASEMENT LINE
- PROPOSED PERMANENT EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- ACCESS CONTROL LINE
- 123.45' (123.45') MEASURED OR COMPUTED DIMENSION / RECORD DATA
- FOUND IRON PIPE OR IRON ROD
- SET ⅝ INCH IRON ROD
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- FENCE LINE
- SIGN

BEARINGS SHOWN HEREON REFERENCE DATUM PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION PER PLAT OF HIGHWAYS DOC. R84-27620, REC. 9/10/1984

- T1 T2 T3 — THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET ⅝ INCH IRON ROD FLUSH WITH GROUND. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT1 BT2 BT3 — THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED ⅝ INCH IRON ROD 20 INCHES BELOW GROUND SURFACE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ — STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■M — STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED ⅝ INCH IRON ROD 20 INCHES BELOW GROUND SURFACE TO MARK FUTURE SURVEY MARKER POSITION. IDENTIFIED BY COLORED PLASTIC CAP AND SURVEYORS REGISTRATION NUMBER.
- ■U — STAKING OF PROPOSED RIGHT OF WAY IN CLOSE PROXIMITY TO UNDERGROUND UTILITIES. SET DIVISION OF HIGHWAYS SURVEY MARKER ON ⅝ INCH IRON ROD (BETWEEN 6 INCHES AND 12 INCHES IN LENGTH) TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

STATE OF ILLINOIS)
) S.S.
COUNTY OF COOK)

THIS IS TO CERTIFY THAT I, COVENTINE FIDIS, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 28, TOWNSHIP 34 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WILL COUNTY. THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY. THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT CHICAGO, ILLINOIS THIS 22ND DAY OF MAY, 2007.

COVENTINE FIDIS
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 2159
LICENSE EXPIRATION DATE 11/30/2008

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

STATE OF ILLINOIS ★ COVENTINE FIDIS ★ 35-2159 ★ CHICAGO, ILL. ★ PROFESSIONAL LAND SURVEYOR

SCANNED

RECEIVED
MAY 23 2007
PLATS & LEGALS

ASC
American Surveying Consultants
841 N. Galena Avenue / Dixon, IL 61021 / 815-288-6231
8604 W. Catalpa Avenue / Chicago, IL 60656 / 773-444-0800
Illinois Professional Design Firm No. 184-003192

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.P. 852
(U.S. ROUTE 52)

SECTION: PRAIRIE CREEK — WILL COUNTY
JOB NO. R-91-013-03
STATION 234+00 — TO STATION 243+50
SCALE 1" = 50' — SHEET 1

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

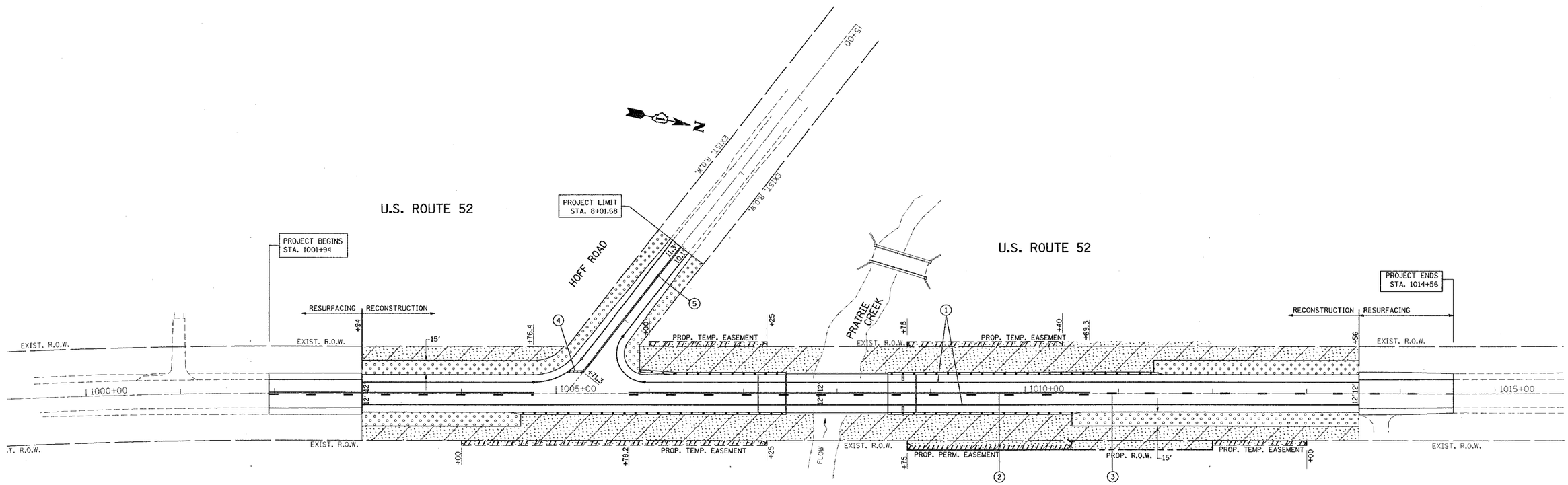
CALCULATIONS BY: J. DYBAS AND D. DEMKOVICH — DRAFTING BY: D. DEMKOVICH — CHECKED BY: M. WOOD — REVISION DATE: 05/22/2007 — ASC JOB NO. 205053-1

•&DATE#•
•DATE-TIME•
•DGN-SPEC•
•REF-•
•REF-•
•REF-•
•REF-•

*REF-pmk01

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING NOTES:

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR LANE.

ALL FINAL PAVEMENT MARKINGS ARE THERMOPLASTIC EXCEPT FOR BRIDGE DECK AND APPROACH PAVEMENT.

PAVEMENT MARKINGS FOR THE APPROACH PAVEMENT AND BRIDGE DECK SHALL BE PREFORMED PLASTIC PAVEMENT MARKING TYPE B.

ALL FINAL THERMOPLASTIC (OF THE EXTRUDED TYPE) PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL, (TC-13).

ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKER" DETAIL, (TC-11).

THE RESIDENT ENGINEER SHALL VERIFY THE LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO MILLING OR RESURFACING.

LANDSCAPING NOTES:

1) TOPSOIL, 4" SHOULD BE PROVIDED AT ALL AREAS OF SEEDING
2) SUPPLEMENTAL WATERING SHALL BE PROVIDED AT ALL SEEDING CLASS 2A AREAS
3) EROSION CONTROL BLANKET SHALL BE PLACED ON ALL SEEDED AREAS
4) TURF REINFORCEMENT MAT WILL BE PLACED AT DITCH BOTTOM ALONG AREAS WHERE THE LONGITUDINAL SLOPE IS GREATER THAN 2.8%

LEGEND

TEMPORARY AND PERMANENT SEEDING CLASS 2A AREA
APPLY NITROGEN FERTILIZER NUTRIENT, PHOSPHOROUS FERTILIZER NUTRIENT AND POTASSIUM FERTILIZER NUTRIENT TO ALL SEEDING CLASS 2A AREAS

TEMPORARY AND PERMANENT SEEDING CLASS 4A AREA

PAVEMENT MARKING LEGEND

1. 4" WHITE EDGE LINE
2. 4" YELLOW NO PASSING CENTERLINE
3. 4" YELLOW CENTERLINE SKIP-DASH
4. 24" WHITE STOP BAR
5. 4" DOUBLE YELLOW CENTERLINE

TURF REINFORCEMENT AREAS

-STA. 1006+00 TO STA. 1007+45 (LT)
-STA. 1008+54 TO STA. 1008+84 (LT)
-STA. 1003+00 TO STA. 1004+00 (RT)
-STA. 1005+00 TO STA. 1005+20 (RT)
-STA. 1006+00 TO STA. 1007+00 (RT)
-STA. 1013+00 TO STA. 1013+56 (RT)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

U.S. RTE. 52 OVER PRAIRIE CREEK
PROPOSED
PAVEMENT MARKING AND LANDSCAPING PLAN

SCALE: VERT. 1"=50'
HORIZ.
DATE 8/24/2007

DRAWN BY
CHECKED BY

PLOT DATE = 8/24/2007
FILE NAME = D:\projects\vol4980\sh_rdwy.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bauerdl

CONTRACT NO. 62845

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18-B-5-R-2	WILL	66	25
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Notes:

① CONTROLLER WITH STEEL BASE CABINET AND BATTERY BACK-UP CABINET SHALL BE MOUNTED ON A WOOD STAND.

② UN-INTERRUPTABLE POWER SUPPLY(UPS) SHALL BE INCLUDED IN "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION" PAY ITEM.

③ 5 WOOD POLES INSTALLED BY THE TRAFFIC CONTRACTOR (SEE TEMPORARY TRAFFIC SIGNAL PLANS FOR LOCATIONS).

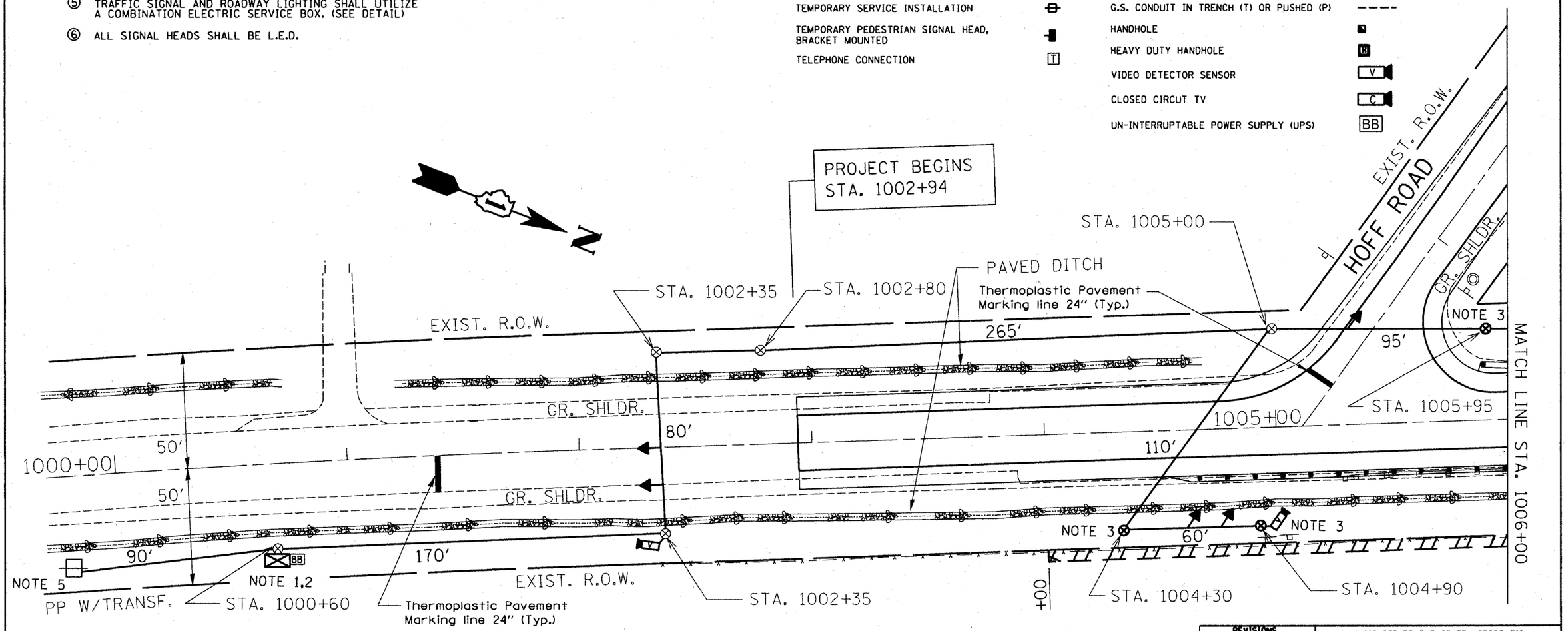
④ PROPOSED WOOD POLES FOR ROADWAY LIGHTING SHALL BE USED TO SUPPORT TRAFFIC SIGNAL CABLE.

⑤ TRAFFIC SIGNAL AND ROADWAY LIGHTING SHALL UTILIZE A COMBINATION ELECTRIC SERVICE BOX. (SEE DETAIL)

⑥ ALL SIGNAL HEADS SHALL BE L.E.D.

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TELEPHONE CONNECTION (T)
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- MICROWAVE VEHICLE SENSOR (M)
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- COMMON TRENCH (CT)
- UNIT DUCT (UD)
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- HANDHOLE
- HEAVY DUTY HANDHOLE (H)
- VIDEO DETECTOR SENSOR (V)
- CLOSED CIRCUT TV (C)
- UN-INTERRUPTABLE POWER SUPPLY (UPS) (BB)



U.S. ROUTE 52

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY TRAFFIC SIGNAL PLAN

U.S. ROUTE 52 OVER PRAIRIE CREEK

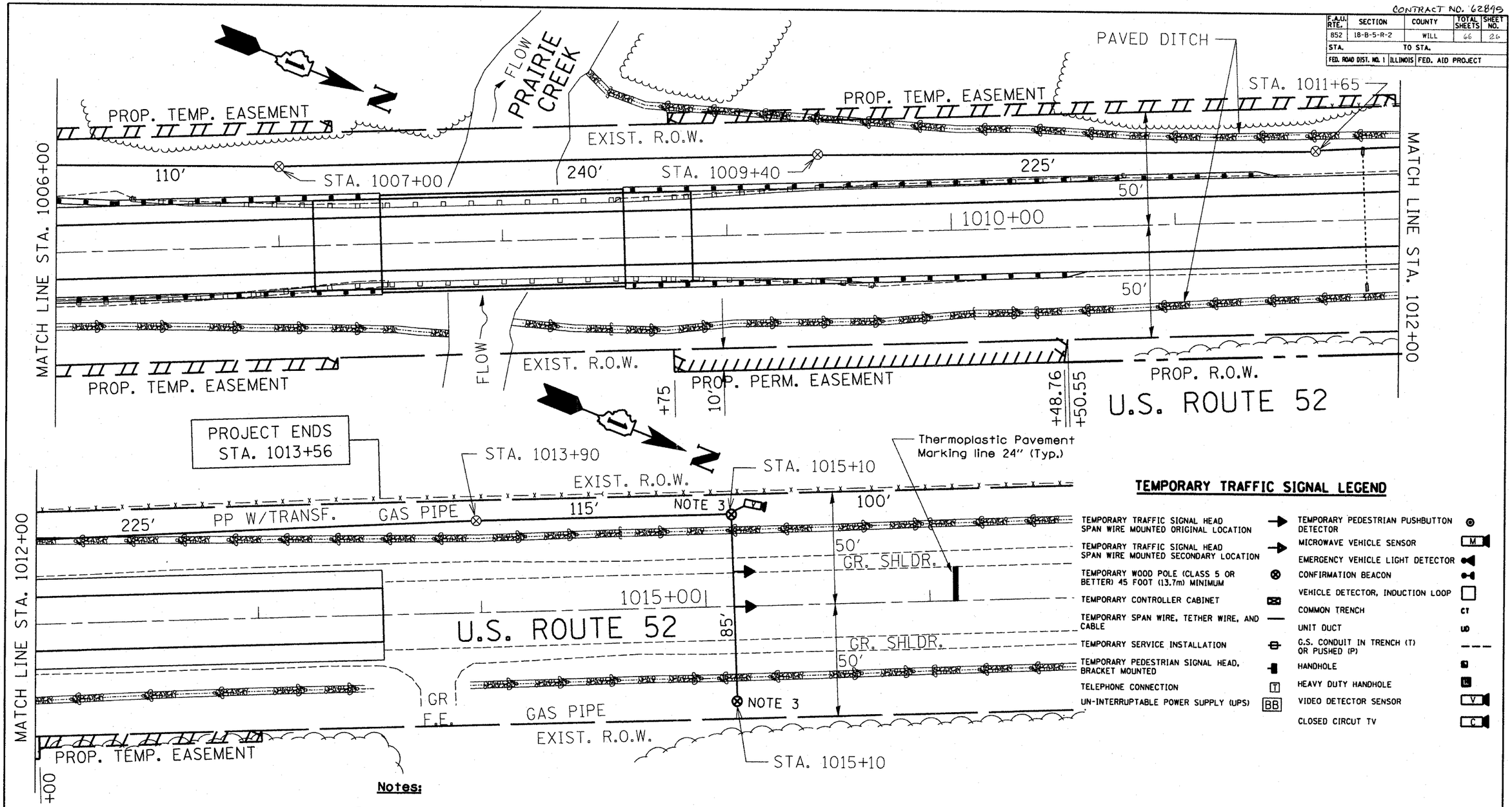
SCALE: VERT. N.T.S. HORIZ.
DATE 8/6/2007

DRAWN BY: SN
DESIGNED BY: DC
CHECKED BY: DAD

8/6/2007
c:\projects\pi498018\traffic.dgn
nguyensm

CONTRACT NO. 62B49

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18-B-5-R-2	WILL	66	26
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TELEPHONE CONNECTION [T]
- UN-INTERRUPTABLE POWER SUPPLY (UPS) [BB]
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- MICROWAVE VEHICLE SENSOR [M]
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- COMMON TRENCH [CT]
- UNIT DUCT [UD]
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- HANDHOLE [H]
- HEAVY DUTY HANDHOLE [HH]
- VIDEO DETECTOR SENSOR [V]
- CLOSED CIRCUT TV [C]

Notes:

1. CONTROLLER WITH STEEL BASE CABINET AND BATTERY BACK-UP CABINET SHALL BE MOUNTED ON A WOOD STAND.
2. UN-INTERRUPTABLE POWER SUPPLY(UPS) SHALL BE INCLUDED IN "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION" PAY ITEM.
3. 5 WOOD POLES INSTALLED BY THE TRAFFIC CONTRACTOR (SEE TEMPORARY TRAFFIC SIGNAL PLANS FOR LOCATIONS).
4. PROPOSED WOOD POLES FOR ROADWAY LIGHTING SHALL BE USED TO SUPPORT TRAFFIC SIGNAL CABLE.
5. TRAFFIC SIGNAL AND ROADWAY LIGHTING SHALL UTILIZE A COMBINATION ELECTRIC SERVICE BOX. (SEE DETAIL)
6. ALL SIGNAL HEADS SHALL BE L.E.D.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL PLAN

U.S. ROUTE 52 OVER PRAIRIE CREEK

SCALE: VERT. HORIZ. N.T.S.

DATE 8/6/2007

DRAWN BY: SN
DESIGNED BY: DG
CHECKED BY: DAD

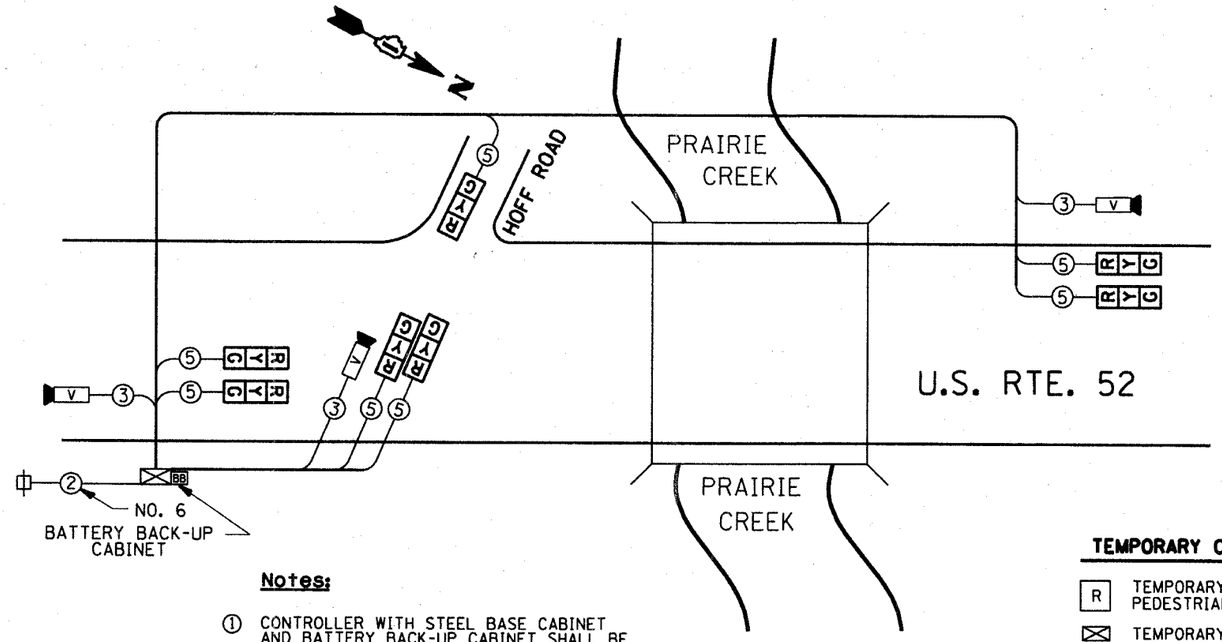
8/6/2007
c:\projects\p1498018\traffic.dgn
nguyensm

CONTRACT NO. 62845

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18-B-5-R-2	WILL	66	27
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR. EVP WILL BE PAID FOR SEPARATELY.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMP--ORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATROY SIGNS SHALL BE RE-MOVED FROM EXISTING POLES. RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS. SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL. AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. 24" WHITE STOP BAR TO BE INSTALLED AFTER THE INSTALLATION AND IMPLEMENTATION OF THE TEMPORARY TRAFFIC SIGNALS



Notes:

① CONTROLLER WITH STEEL BASE CABINET AND BATTERY BACK-UP CABINET SHALL BE MOUNTED ON A WOOD STAND.

② UN-INTERRUPTABLE POWER SUPPLY(UPS) SHALL BE INCLUDED IN "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION" PAY ITEM.

③ 5 WOOD POLES INSTALLED BY THE TRAFFIC CONTRACTOR (SEE TEMPORARY TRAFFIC SIGNAL PLANS FOR LOCATIONS).

④ PROPOSED WOOD POLES FOR ROADWAY LIGHTING SHALL BE USED TO SUPPORT TRAFFIC SIGNAL CABLE.

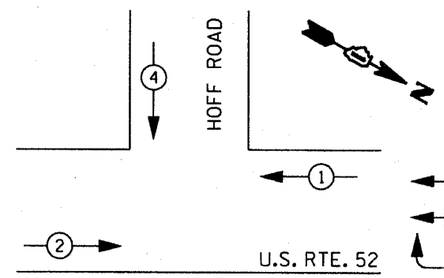
⑤ TRAFFIC SIGNAL AND ROADWAY LIGHTING SHALL UTILIZE A COMBINATION ELECTRIC SERVICE BOX. (SEE DETAIL)

⑥ ALL SIGNAL HEADS SHALL BE L.E.D.

TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300 mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- (5) — INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PEDESTRIAN PUSHBUTTON DETECTOR
- VEHICLE DETECTOR, INDUCTION LOOP
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- M — MICROWAVE VEHICLE SENSOR
- V — VIDEO DETECTOR SENSOR
- C — CLOSED CIRCUT TV
- BB — BATTERY - BACK UP
- T — TELEPHONE CONNECTION

CONTROLLER SEQUENCE



PHASE DESIGNATION

LEGEND

- DUAL ENTRY PHASE
- PROTECTED LEFT TURN PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- * — NUMBER REFERS TO ASSOCIATED PHASE

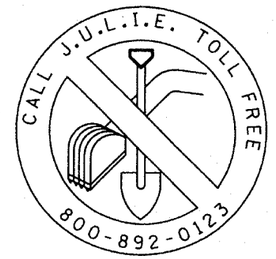
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS X	WATTAGE INCAND.	WATTAGE LED	X % OPERATION	
SIGNAL (RED)	7	135	17	0.50	59.5
(YELLOW)	7	135	25	0.25	43.8
(GREEN)	7	135	15	0.25	26.2
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
				TOTAL =	230.0

ENERGY COSTS - BILLED TO: (ADDRESS) _____

ENERGY SUPPLY - CONTACT: _____
PHONE: (708) 235-2327
COMPANY: COMMONWEALTH EDISON

FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK	(FT.) (m)	VERTICAL	(FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' + L - 2 = (6m+L-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

SUMMARY OF QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
X8900005	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1



REVISIONS NAME	DATE

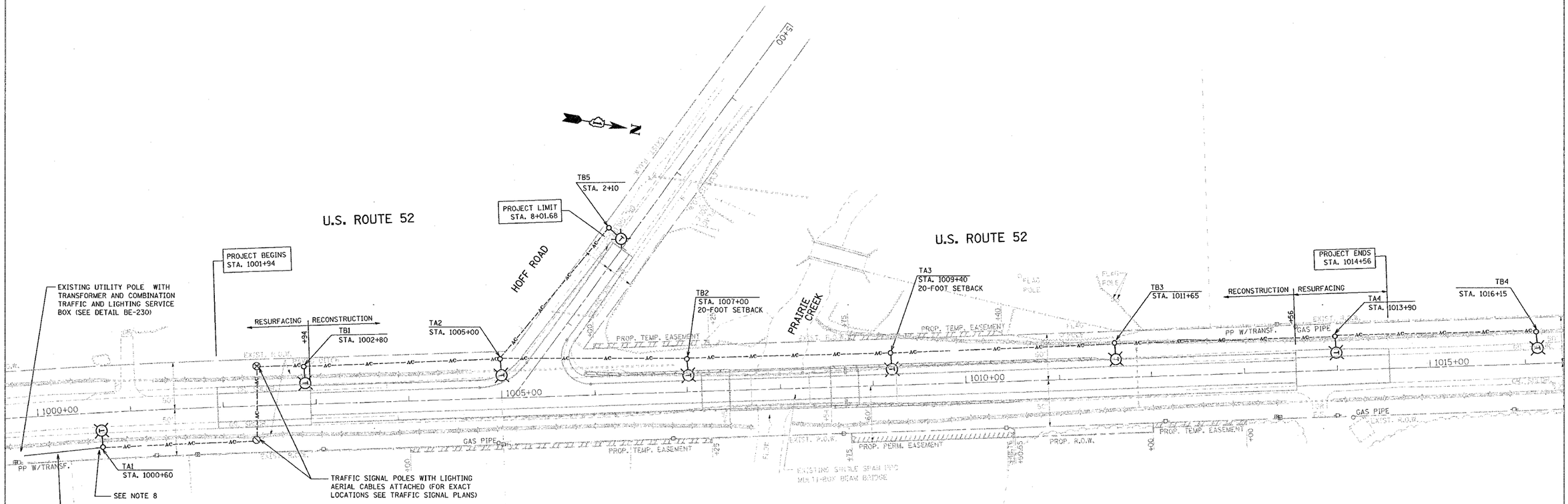
ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM
U.S. ROUTE 52 OVER PRAIRIE CREEK

SCALE: VERT. N.T.S. HORIZ.
DATE 8/6/2007
DRAWN BY: SN
DESIGNED BY: DC
CHECKED BY: DAD

8/6/2007
c:\projects\p149801\traffic.dgn
nguyensm

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	28
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

- 3-1/C #4 & 1/C #6 MULTICONDUCTOR CABLE IN CONDUIT
- 60-FOOT TEMPORARY WOOD POLE WITH 15-FOOT MAST ARM, 400W MULTI-TAP LUMINAIRE WITH PHOTOCELL, 50-FOOT MOUTING HEIGHT
- 60-FOOT WOOD POLE SHARED WITH TRAFFIC (SEE NOTE 2)
- ---AC--- AERIAL CABLE 3 1/C #4 WITH MESSENGER WIRE ALUMINUM
- 3-1/C #4 & 1/C #6 GND. 600V, (EPR-TYPE-TC-RHH) IN 2 1/2" RGS CONDUIT

GENERAL NOTES

1. ALL WOOD LIGHT POLES SHALL HAVE A MINIMUM SETBACK OF 30-FEET FROM THE EDGE OF TRAVELED PAVEMENT UNLESS OTHERWISE NOTED.
2. WOOD POLES INSTALLED BY THE TRAFFIC CONTRACTOR. (SEE TRAFFIC SIGNAL PLANS FOR ALL LOCATIONS).
3. TEMPORARY LIGHT POLES TA1-TA4 & TB1-TB3 ARE SHARED AND COMMON FOR LIGHTING AND TRAFFIC SYSTEMS. (UNLESS OTHERWISE NOTED). THESE LIGHT POLES AND TB4 & TB5 SHALL BE INSTALLED BY THE LIGHTING CONTRACTOR.
4. SYSTEM VOLTAGE IS 120/240V SINGLE PHASE. LUMINAIRE OPERATING VOLTAGE SHALL BE 120V.
5. THE TEMPOARY LIGHT POLES SHALL BE LABELED AS SHOWN ON THE PLANS. THIS WORK SHALL BE PART OF THE TEMPORARY LIGHT POLE PAY ITEM.
6. ALL TEMPORARY LIGHT POLES SHALL BE INSTALLED, TESTED, AND OPERATIONAL BEFORE THE START OF CONSTRUCTION.
7. THE UTILITY COMPANY SHALL BE CONTACTED AND NOTIFIED AS SOON AS POSSIBLE OF THE PENDING ELELCTRICAL CONNECTIONS AND INSTALLATION.
8. SEE "AERIAL CABLE CONNECTION DETAIL" SHEET BE 801 FOR CONNECTION OF THE ELECTRICAL CABLE ASSEMBLY TO THE AERIAL CABLE.
9. THE 2-POLE 40A BREAKER IN THE COMBINATION TRAFFIC AND LIGHTING SERVICE BOX SHALL BE THE MAIN DISCONNECTING MEANS FOR THE LIGHTING.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

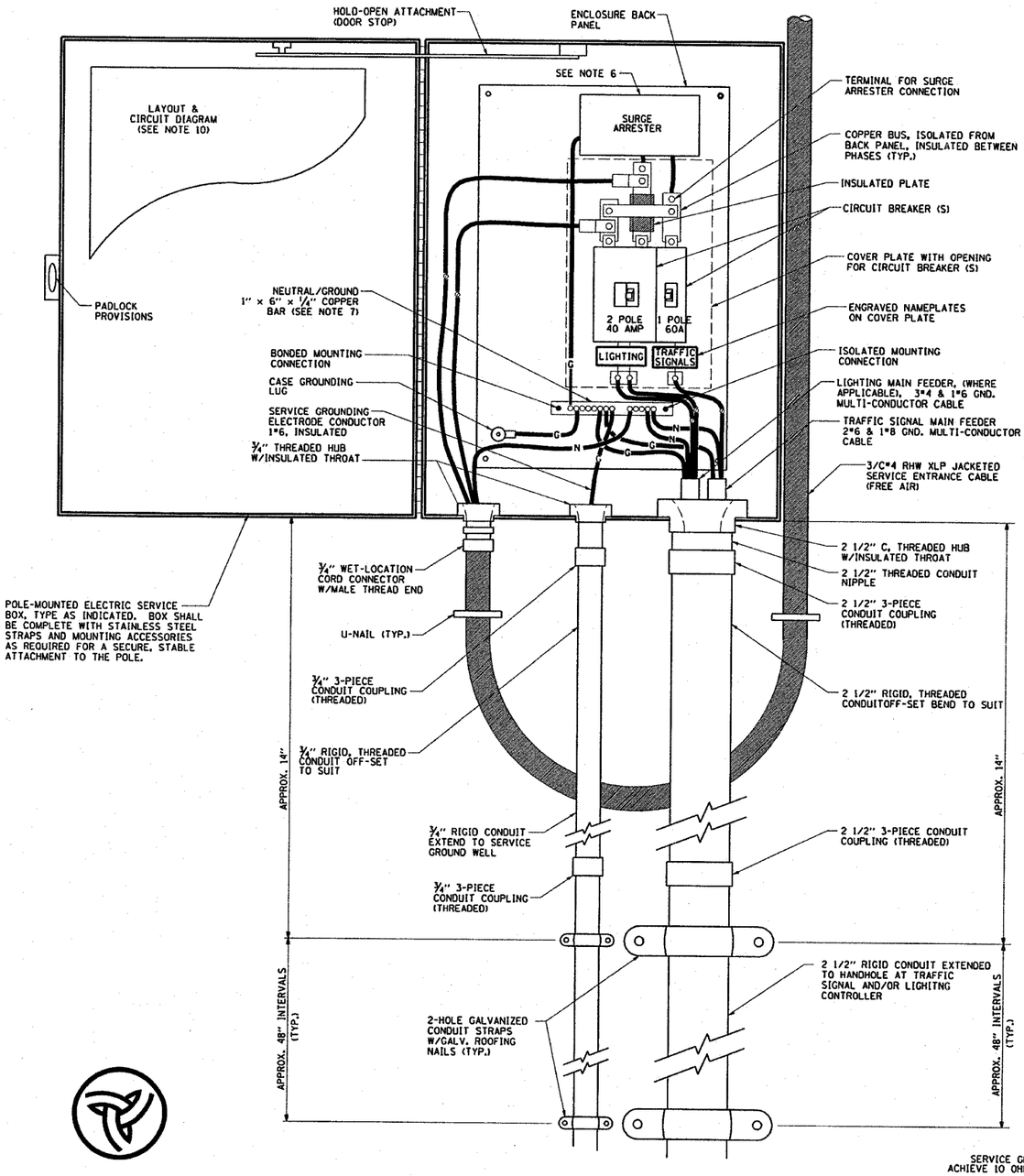
US 52 OVER PRAIRIE CREEK
TEMPOARARY LIGHTING PLANS

SCALE: VERT. NONE HORIZ.
DATE AUGUST 2007
DRAWN BY AC
CHECKED BY

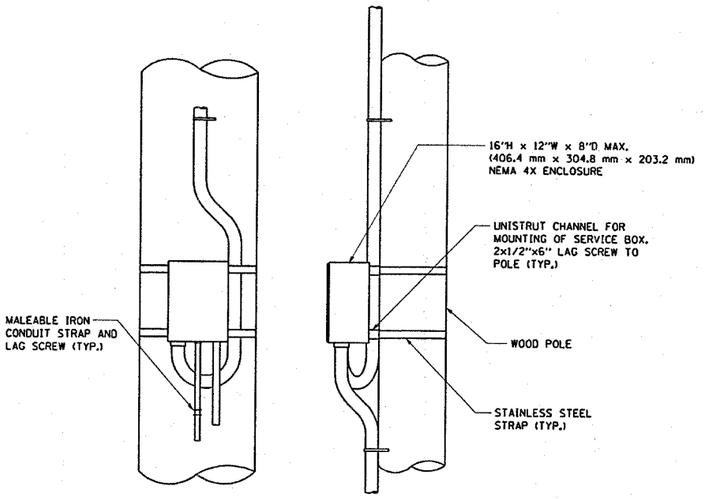
PLOT DATE = 8/13/2007
FILE NAME = c:\projects\tb14980\tb_lightingdgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = lisaneicf

CONTRACT NO. 62845

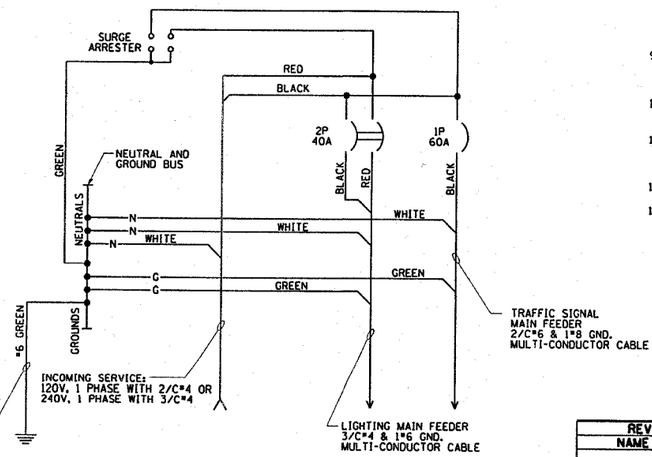
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18-B-S-R-2	WILL	66	29
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



POLE-MOUNTED ELECTRIC SERVICE ENTRANCE
GENERAL LAYOUT DIAGRAM



DISCONNECT MOUNTING DETAIL
N.T.S.



SCHEMATIC DIAGRAM

NOTES:

1. ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
2. THE POLE-MOUNTED ELECTRIC SERVICE BOX DETAIL DEPICTS THE BASIC CONSTRUCTION OF THE EQUIPMENT. SLIGHT MODIFICATIONS APPLY FOR DIFFERING SERVICES AND APPLICATIONS AS FOLLOWS:
   - TYPE A — FULLY EQUIPPED FOR 240/120V. 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER
   - TYPE A1 — FULLY EQUIPPED FOR 240/120V. 3W SERVICE, BLANK COVER IN LIEU OF LIGHTING MAIN BREAKER
   - TYPE B — EQUIPPED FOR 120V. SERVICE, COMPLETE WITH 1P, 60A. TRAFFIC SIGNALS MAIN BREAKER
   - TYPE B1 — EQUIPPED FOR 120V. SERVICE, COMPLETE WITH 1P, 40A. TRAFFIC SURVEILLANCE MAIN BREAKER
3. THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
4. THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H1208SSGLP/A-16P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
5. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
6. THE SURGE PROTECTOR SHALL BE SUITABLE FOR 240/120 VOLT SINGLE PHASE 60HZ AC ELECTRICAL SERVICE, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CMOV230L065XST OR APPROVED EQUAL.
7. BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
8. THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
9. THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
10. A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
11. A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
12. LUGS AND CONNECTORS SHALL BE RATED FOR 75°C CONDUCTOR.
13. THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.

6" DECAL ON FRONT COVER

BE-230

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

US 52 OVER PRAIRIE CREEK

TEMPORARY COMBINATION LIGHTING & TRAFFIC POLE MOUNTED ELECTRIC SERVICE BOX DETAIL

SCALE: NONE

DRAWN BY

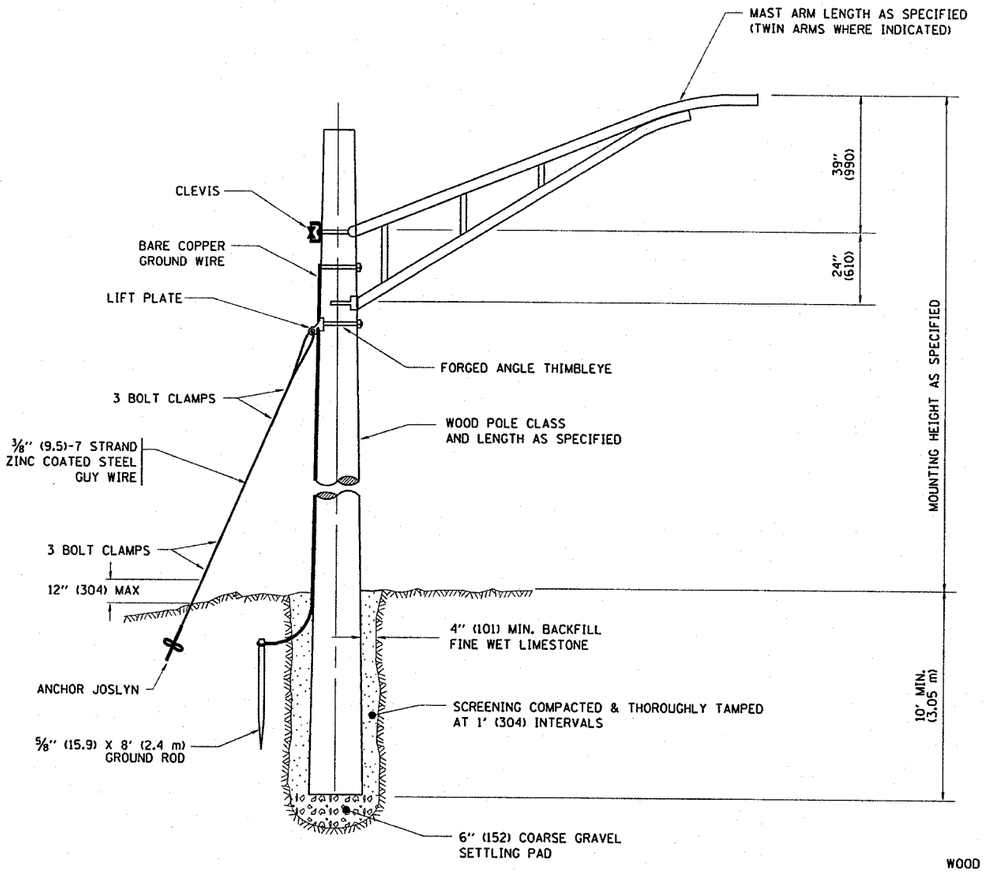
CHECKED BY

PLOT DATE = 6/21/2007
FILE NAME = c:\projects\p149801\lighting.m32
PLOT SCALE = 1.0000 '/ IN.
USER NAME = cubica

...\projects\p149801\lighting.m32 6/21/2007 9:49:12 AM User=cubica

CONTRACT NO. 62845

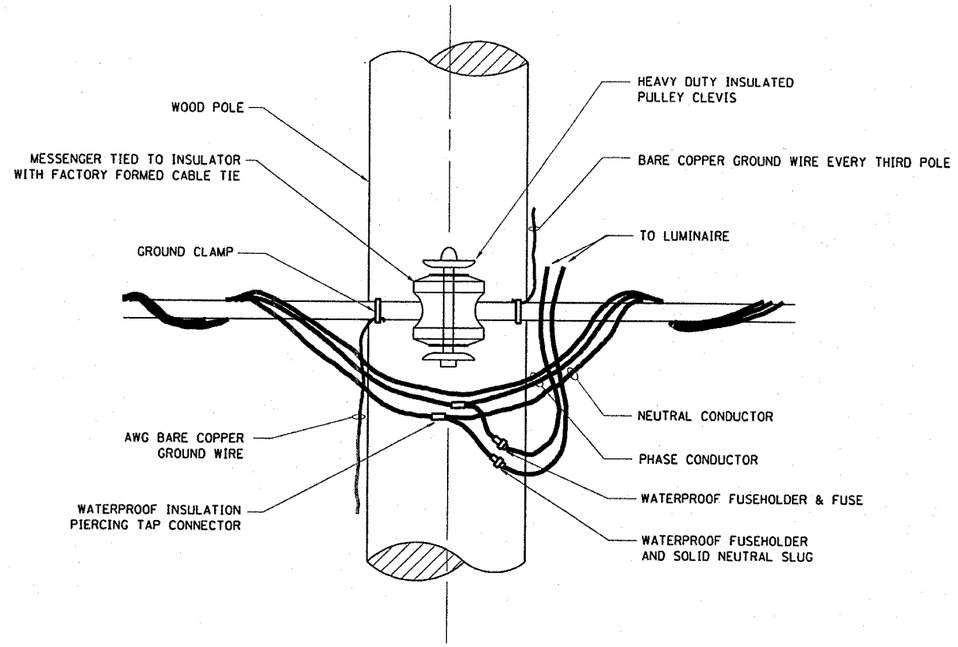
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18B-5-R-2	WILL	66	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



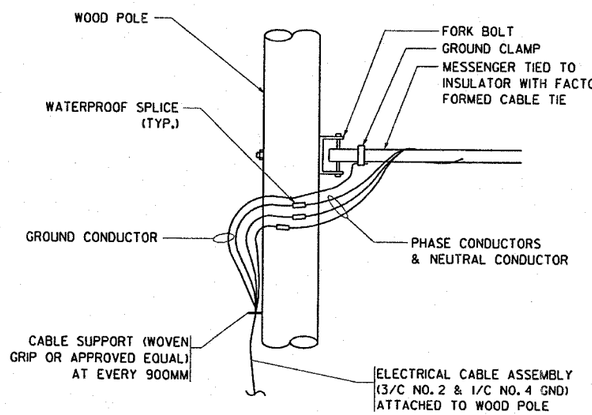
TEMPORARY LIGHT POLE DETAIL

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

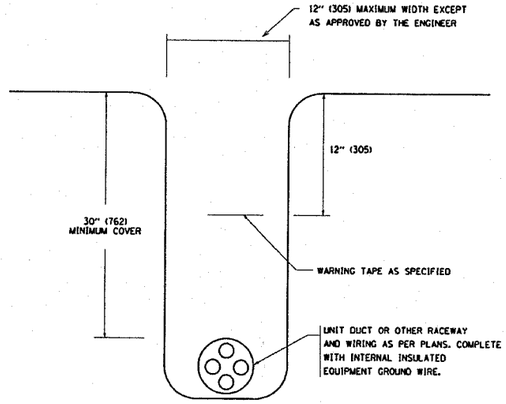


TEMPORARY LIGHT POLE ATTACHMENT DETAIL



AERIAL CABLE CONNECTION DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

US 52 OVER PRAIRIE CREEK
LIGHTING DETAILS

SCALE: VERT. NONE
HORIZ.

DRAWN BY

CHECKED BY

PLOT DATE = 6/21/2007
FILE NAME = c:\projects\p149801\lighting.m32
PLOT SCALE = 100.0000 / IN.
USER NAME = cubica

...\projects\p149801\lighting.m32 6/21/2007 9:49:41 AM User=cubica

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. L. F. A. P. 852	188-5-R	WILL	66	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S1
S21 SHEETS

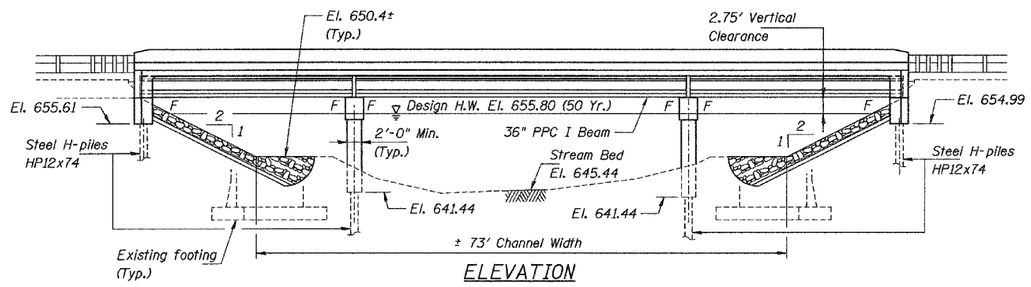
CONTRACT NO. 62845

Bench Mark:
☐ *Square cut on top of south end of west bridge wall over Prairie Creek on Route 52. Elev. 658.66 Ft.*

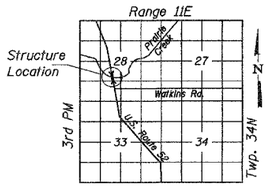
Existing Structure: SN 099-0132 is a single span precast prestressed concrete multi box beam bridge built in 1922, superstructure replaced in 1974, concrete deck replaced in 1985 and five box beams replaced in 2001. The bridge is supported on closed abutments with caps. 63'-1¼" bk. to bk. of abutments and 33'-0" o. to o. of deck.

Traffic to be maintained utilizing staged construction with temporary traffic signals.

No Salvage



ELEVATION



LOCATION SKETCH

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

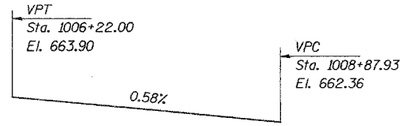
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS

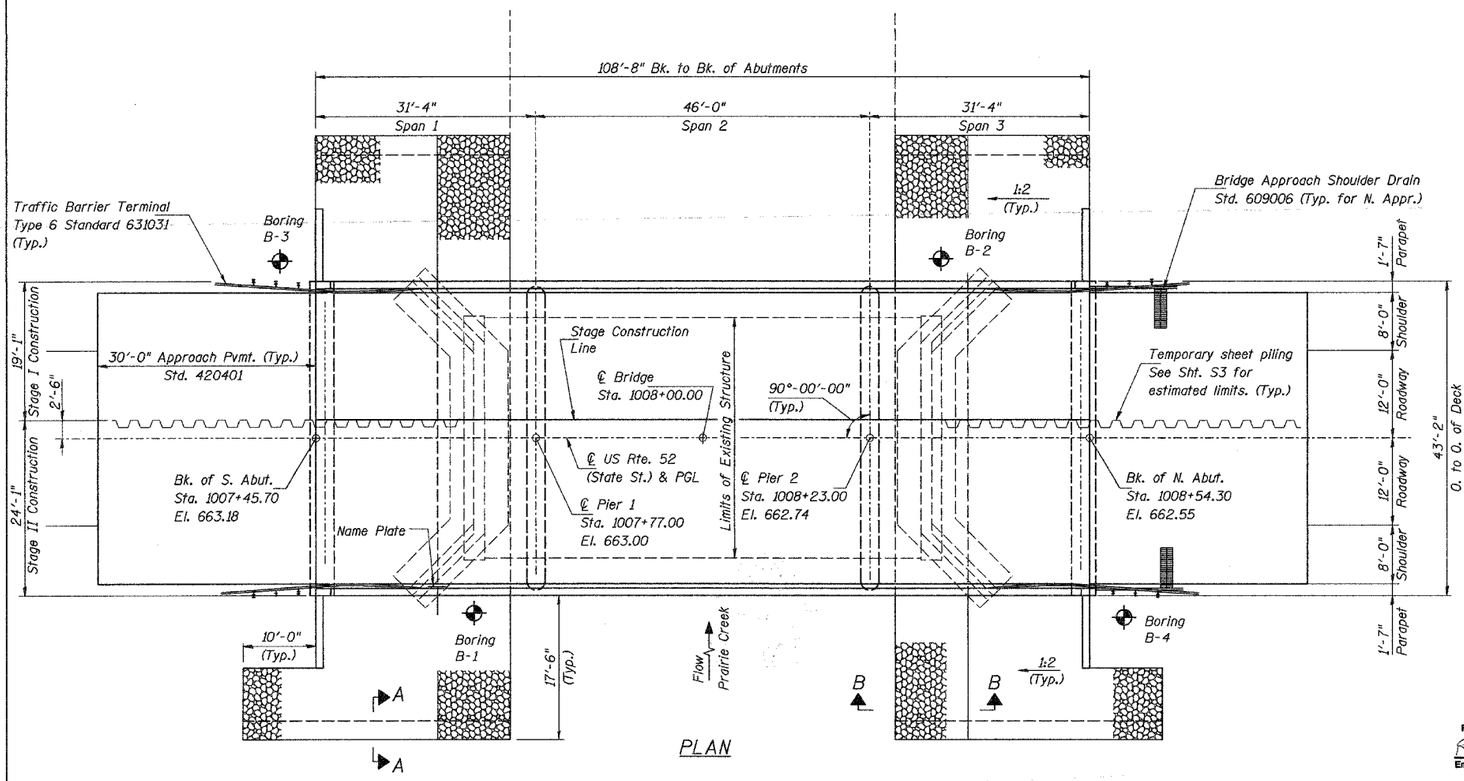
f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f'_s = 270,000 psi (½" ϕ low lax. strands)
f_{si} = 201,960 psi (½" ϕ low lax. strands)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.4g
Site Coefficient (S) = 1.0



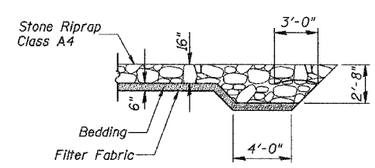
PROFILE GRADE
(Along ℄ Roadway)



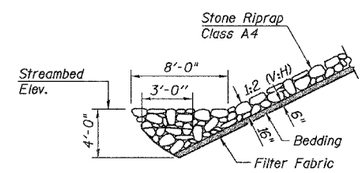
PLAN

PRAIRIE CREEK
BUILT 200 BY
WILL COUNTY
SEC. 18B-5-R
FAP RTE. 852 STA. 1008+00.00
STR. NO. 099-4643 LOADING HS20

NAME PLATE
See Std. 515001



SECTION A-A



SECTION B-B

STATE OF ILLINOIS DANIEL G. STROMBERG 81-5163 LICENSED STRUCTURAL ENGINEER CHICAGO, ILLINOIS
Expires 11/30/08
5/16/2007

APPROVED
For Structural Adequacy Only
Ralph E Anderson (RJD)
Engineer of Bridges & Structures

WATERWAY INFORMATION

Drainage Area = 21.8 Sq. Mi. Low Grade Elev. 658.1 @ Sta. 1013+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1350	428	499	654.7	0.3	0.3	655.0	655.0
Design	50	1970	458	595	655.8	0.7	0.4	656.5	656.2
Base	100	2220	458	641	656.3	0.9	0.5	657.2	656.8
Overtopping	350	2600	458		656.7	1.0		657.7	
Max. Calc.	500	2790	458	696	656.9	1.1	0.7	658.0	657.6

Design Scour Elevations (ft.)

S. Abut.- 652.61
Pier 1- 638.66
Pier 2- 639.15
N. Abut.- 651.99

Notes:
For Staging and Temporary Sheet Piling Details see Sheet No. S3.
For Soil Borings Logs see Sheet No. S20.

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
GENERAL PLAN

DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G. B. I. F. A. P. 852	18B-5-R	WILL	66	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S2
S21 SHEETS

CONTRACT NO. 62845

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

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

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.	——	391	391
Driving Piles	Foot	——	922	922
Porous Granular Embankment (Special)	Cu. Yd.	——	302	302
Concrete Structures	Cu. Yd.	——	127.8	127.8
Concrete Superstructure	Cu. Yd.	180.3	——	180.3
Bridge Deck Grooving	Sq. Yd.	450	——	450
Furnishing and Erecting Precast Prestressed Concrete I Beams, 36"	Foot	637	——	637
Stone Riprap, Class A4	Sq. Yd.	——	474	474
Reinforcement Bars, Epoxy Coated	Pound	39040	10810	49850
Furnishing Steel Piles HP 12x74	Foot	——	922	922
Pile Shoes	Each	——	12	12
Test Pile Steel HP12x74	Each	——	1	1
Filter Fabric	Sq. Yd.	——	577	577
Temporary Sheet Piling	Sq. Ft.	——	940	940
Name Plates	Each	1	——	1
Removal of Existing Structures	Each	——	——	1
Bar Splicers	Each	482	76	558
Protective Coat	Sq. Yd.	574	——	574
Underwater Structure Excavation Protection-Location 1	Each	——	1	1
Underwater Structure Excavation Protection-Location 2	Each	——	1	1
Concrete Encasement	Cu. Yd.	——	8.4	8.4
Geocomposite Wall Drain	Sq. Yd.	——	72	72
Pipe Underdrains for Structures, 4"	Foot	——	148	148
Anchor Bolts, 1½" Dia.	Each	8	——	8

LIST OF STRUCTURAL DRAWINGS

COLLINS ENGINEERS INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
GENERAL NOTES & BILL OF MATERIAL
DRAWN BY: KAC
CHECKED BY: JMH/DGS DATE: OCTOBER, 2004

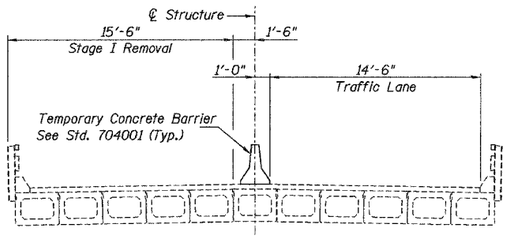
FILE: G:\B37600\FINAL PLANS\B37600114.dgn
DATE: 12-Jul-04 11:04

...\view\099463\c099463-s2.dgn 9/13/2007 9:31:29 AM

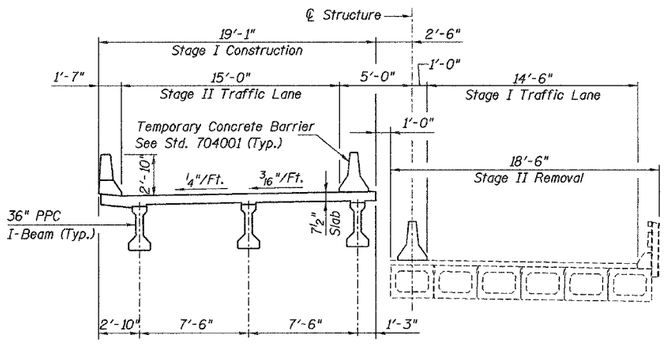
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. R. I. F. A. P. 852	18B-5-R	WILL	66	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S3
S21 SHEETS

CONTRACT NO. 62845

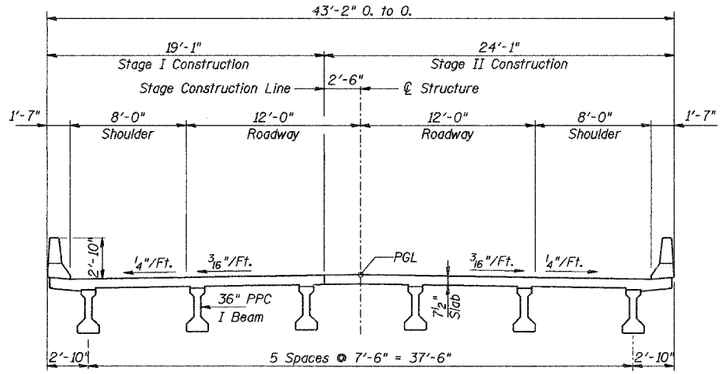


STAGE I REMOVAL
(Looking North)

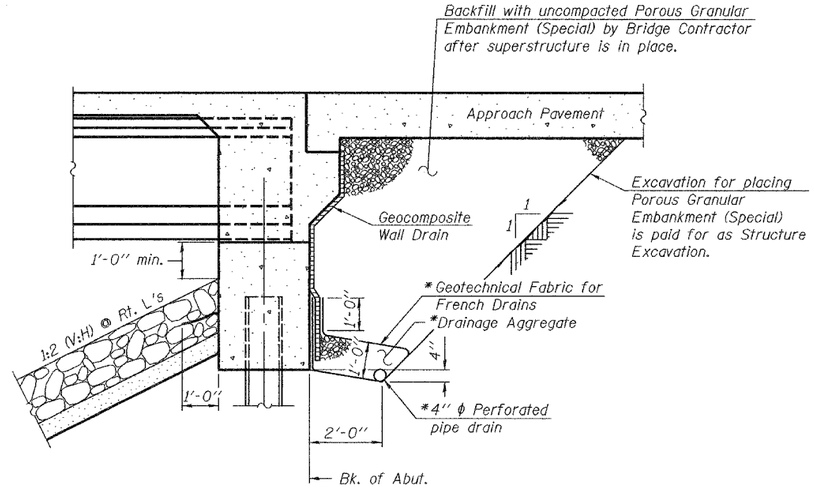


STAGE I CONSTRUCTION AND STAGE II REMOVAL
(Looking North)

Note:
For quantity of Temporary Concrete Barrier see Roadway Plans.



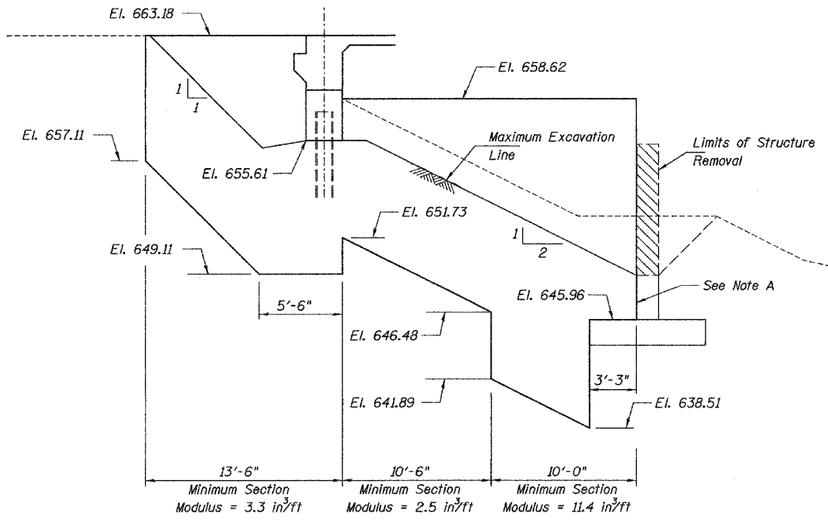
FINAL CROSS SECTION
(Looking North)



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.

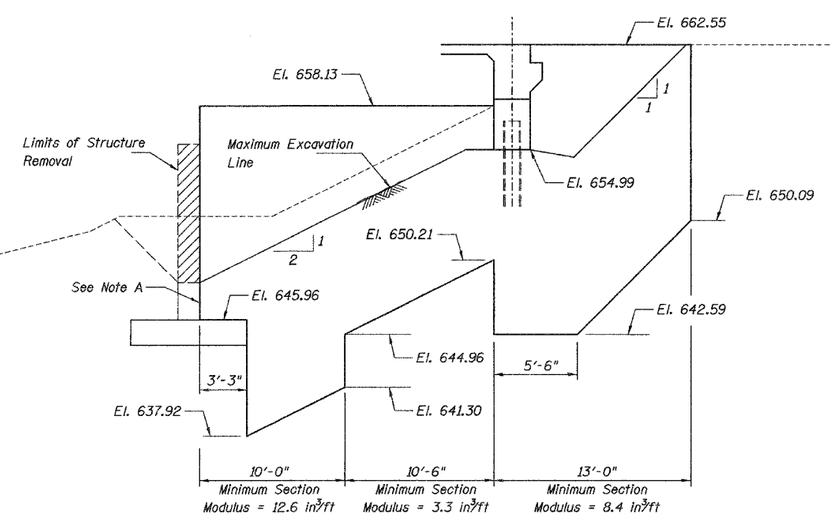
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SOUTH ABUTMENT

Stream Bed
El. 645.44

Note A:
The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.



NORTH ABUTMENT

ELEVATION-TEMPORARY SHEET PILING
(Note: Sheet piling sections and elevations are the estimated minimum requirements.)

Note:
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

COLLINS ENGINEERS INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
STAGING DETAILS

DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

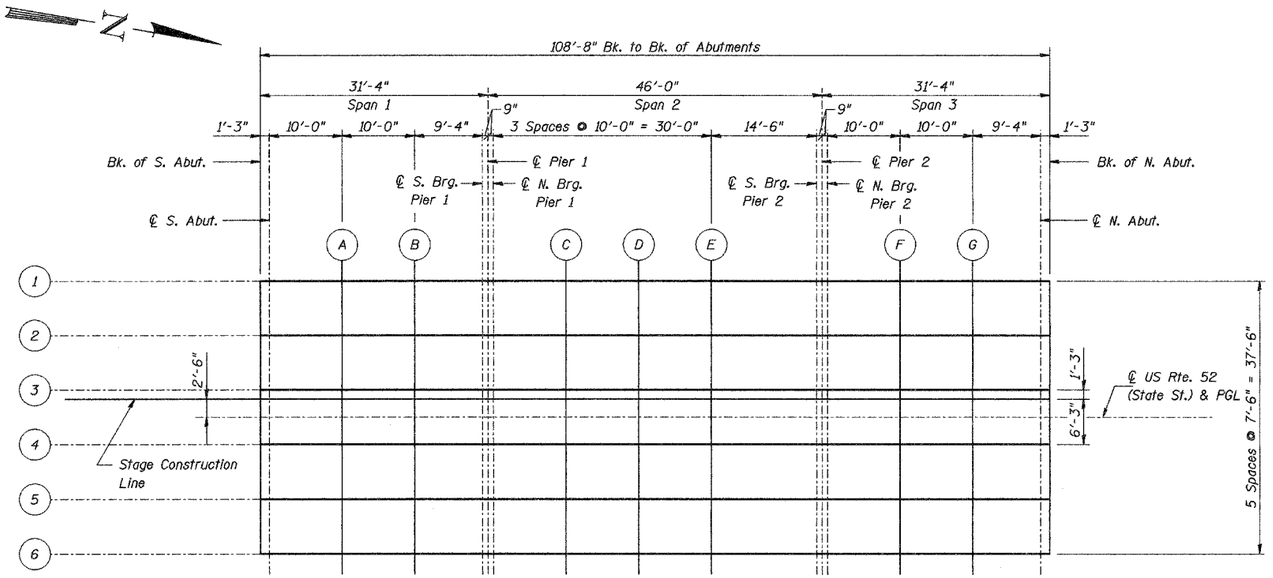
FILE: a837600FINAL PLANS837600104.dgn
DATE: 14-Jul-04 08:52

\\FIN\099-4643\099-4643-s3.dgn 9/13/2007 9:34:16 AM

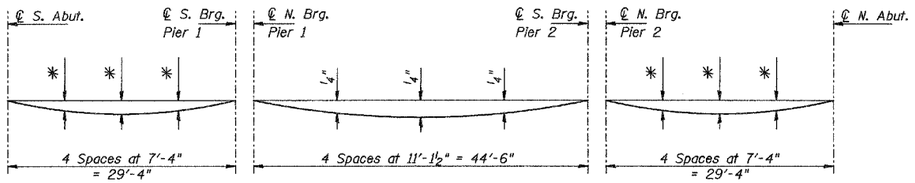
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 852	18B-5-R	WILL	66	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S4
S21 SHEETS

CONTRACT NO. 62845



PLAN

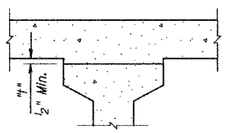


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheet No. S5.

✱ Less than ⅛".



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on Sheet No. S5, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

Note:
For Top of Slab Elevations see Sheet No. S5.

COLLINS ENGINEERS INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
TOP OF SLAB ELEVATIONS-I

DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

FILE: g:\B3760\FINAL PLANS\B37600103.dgn
DATE: 27-May-04 11:34

...\vidx\0994643\0994643-04.dgn 9/13/2007 9:34:47 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 852	188-5-R	WILL	66	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 62845

SHEET NO. S5

S21 SHEETS

BEAM 1

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	100745.67	18.750	662.856	662.856
CL of S. Abut.	100746.92	18.750	662.848	662.848
A	100756.92	18.750	662.791	662.792
B	100766.92	18.750	662.733	662.739
CL S. Brg Pier 1	100776.25	18.750	662.679	662.679
CL Pier1	100777.00	18.750	662.674	662.674
CL N. Brg Pier 1	100777.75	18.750	662.670	662.670
C	100787.75	18.750	662.612	662.631
D	100797.75	18.750	662.554	662.592
E	100807.75	18.750	662.496	662.547
CL S. Brg Pier 2	100822.25	18.750	662.412	662.412
CL Pier 2	100823.00	18.750	662.408	662.408
CL N. Brg Pier 2	100823.75	18.750	662.404	662.404
F	100833.75	18.750	662.346	662.349
G	100843.75	18.750	662.288	662.290
CL of N. Abut.	100853.08	18.750	662.234	662.234
Bk. of N. Abut.	100854.33	18.750	662.226	662.226

BEAM 2

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	100745.67	11.250	663.008	663.008
CL of S. Abut.	100746.92	11.250	663.001	663.001
A	100756.92	11.250	662.943	662.945
B	100766.92	11.250	662.885	662.891
CL S. Brg Pier 1	100776.25	11.250	662.831	662.831
CL Pier 1	100777.00	11.250	662.827	662.827
CL N. Brg Pier 1	100777.75	11.250	662.822	662.822
C	100787.75	11.250	662.764	662.784
D	100797.75	11.250	662.706	662.744
E	100807.75	11.250	662.649	662.699
CL S. Brg Pier 2	100822.25	11.250	662.565	662.565
CL Pier 2	100823.00	11.250	662.560	662.560
CL N. Brg Pier 2	100823.75	11.250	662.556	662.556
F	100833.75	11.250	662.498	662.502
G	100843.75	11.250	662.440	662.443
CL of N. Abut.	100853.08	11.250	662.386	662.386
Bk. of N. Abut.	100854.33	11.250	662.379	662.379

BEAM 3

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	100745.67	3.750	663.125	663.125
CL of S. Abut.	100746.92	3.750	663.118	663.118
A	100756.92	3.750	663.060	663.062
B	100766.92	3.750	663.002	663.008
CL S. Brg Pier 1	100776.25	3.750	662.948	662.948
CL Pier1	100777.00	3.750	662.944	662.944
CL N. Brg Pier 1	100777.75	3.750	662.939	662.939
C	100787.75	3.750	662.882	662.901
D	100797.75	3.750	662.824	662.861
E	100807.75	3.750	662.766	662.816
CL S. Brg Pier 2	100822.25	3.750	662.682	662.682
CL Pier 2	100823.00	3.750	662.677	662.677
CL N. Brg Pier 2	100823.75	3.750	662.673	662.673
F	100833.75	3.750	662.615	662.619
G	100843.75	3.750	662.557	662.560
CL of N. Abut.	100853.08	3.750	662.523	662.523
Bk. of N. Abut.	100854.33	3.750	662.515	662.515

BEAM 4

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	100745.67	-3.750	663.125	663.125
CL of S. Abut.	100746.92	-3.750	663.118	663.118
A	100756.92	-3.750	663.060	663.062
B	100766.92	-3.750	663.002	663.008
CL S. Brg Pier 1	100776.25	-3.750	662.948	662.948
CL Pier1	100777.00	-3.750	662.944	662.944
CL N. Brg Pier 1	100777.75	-3.750	662.939	662.939
C	100787.75	-3.750	662.882	662.901
D	100797.75	-3.750	662.824	662.861
E	100807.75	-3.750	662.766	662.816
CL S. Brg Pier 2	100822.25	-3.750	662.682	662.682
CL Pier 2	100823.00	-3.750	662.677	662.677
CL N. Brg Pier 2	100823.75	-3.750	662.673	662.673
F	100833.75	-3.750	662.615	662.619
G	100843.75	-3.750	662.557	662.559
CL of N. Abut.	100853.08	-3.750	662.503	662.503
Bk. of N. Abut.	100854.33	-3.750	662.496	662.496

BEAM 5

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	100745.67	-11.250	663.008	663.008
CL of S. Abut.	100746.92	-11.250	663.001	663.001
A	100756.92	-11.250	662.943	662.945
B	100766.92	-11.250	662.885	662.891
CL S. Brg Pier 1	100776.25	-11.250	662.831	662.831
CL Pier1	100777.00	-11.250	662.827	662.827
CL N. Brg Pier 1	100777.75	-11.250	662.822	662.822
C	100787.75	-11.250	662.764	662.784
D	100797.75	-11.250	662.706	662.744
E	100807.75	-11.250	662.649	662.699
CL S. Brg Pier 2	100822.25	-11.250	662.565	662.565
CL Pier 2	100823.00	-11.250	662.560	662.560
CL N. Brg Pier 2	100823.75	-11.250	662.556	662.556
F	100833.75	-11.250	662.498	662.502
G	100843.75	-11.250	662.440	662.442
CL of N. Abut.	100853.08	-11.250	662.386	662.386
Bk. of N. Abut.	100854.33	-11.250	662.379	662.379

BEAM 6

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	100745.67	-18.750	662.856	662.856
CL of S. Abut.	100746.92	-18.750	662.848	662.848
A	100756.92	-18.750	662.791	662.792
B	100766.92	-18.750	662.733	662.739
CL S. Brg Pier 1	100776.25	-18.750	662.679	662.679
CL Pier1	100777.00	-18.750	662.674	662.674
CL N. Brg Pier 1	100777.75	-18.750	662.670	662.670
C	100787.75	-18.750	662.612	662.631
D	100797.75	-18.750	662.554	662.592
E	100807.75	-18.750	662.496	662.547
CL S. Brg Pier 2	100822.25	-18.750	662.412	662.412
CL Pier 2	100823.00	-18.750	662.408	662.408
CL N. Brg Pier 2	100823.75	-18.750	662.404	662.404
F	100833.75	-18.750	662.346	662.349
G	100843.75	-18.750	662.288	662.290
CL of N. Abut.	100853.08	-18.750	662.234	662.234
Bk. of N. Abut.	100854.33	-18.750	662.226	662.226

PROFILE GRADE LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	100745.67	0.000	663.184	663.184
CL of S. Abut.	100746.92	0.000	663.177	663.177
A	100756.92	0.000	663.119	663.125
B	100766.92	0.000	663.061	663.071
CL S. Brg Pier 1	100776.25	0.000	663.007	663.007
CL Pier1	100777.00	0.000	663.002	663.002
CL N. Brg Pier 1	100777.75	0.000	662.998	662.998
C	100787.75	0.000	662.940	662.969
D	100797.75	0.000	662.882	662.927
E	100807.75	0.000	662.824	662.880
CL S. Brg Pier 2	100822.25	0.000	662.740	662.740
CL Pier 2	100823.00	0.000	662.736	662.736
CL N. Brg Pier 2	100823.75	0.000	662.732	662.732
F	100833.75	0.000	662.674	662.681
G	100843.75	0.000	662.616	662.623
CL of N. Abut.	100853.08	0.000	662.562	662.562
Bk. of N. Abut.	100854.33	0.000	662.555	662.555

STAGE LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	100745.67	2.500	663.145	663.145
CL of S. Abut.	100746.92	2.500	663.138	663.138
A	100756.92	2.500	663.080	663.086
B	100766.92	2.500	663.022	663.032
CL S. Brg Pier 1	100776.25	2.500	662.968	662.968
CL Pier1	100777.00	2.500	662.963	662.963
CL N. Brg Pier 1	100777.75	2.500	662.959	662.959
C	100787.75	2.500	662.901	662.930
D	100797.75	2.500	662.843	662.888
E	100807.75	2.500	662.785	662.841
CL S. Brg Pier 2	100822.25	2.500	662.701	662.701
CL Pier 2	100823.00	2.500	662.697	662.697
CL N. Brg Pier 2	100823.75	2.500	662.693	662.693
F	100833.75	2.500	662.635	662.642
G	100843.75	2.500	662.577	662.583
CL of N. Abut.	100853.08	2.500	662.523	662.523
Bk. of N. Abut.	100854.33	2.500	662.515	662.515

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643

TOP OF SLAB ELEVATIONS-II

DRAWN BY: KAC
CHECKED BY: JMH/DGS DATE: OCTOBER, 2004

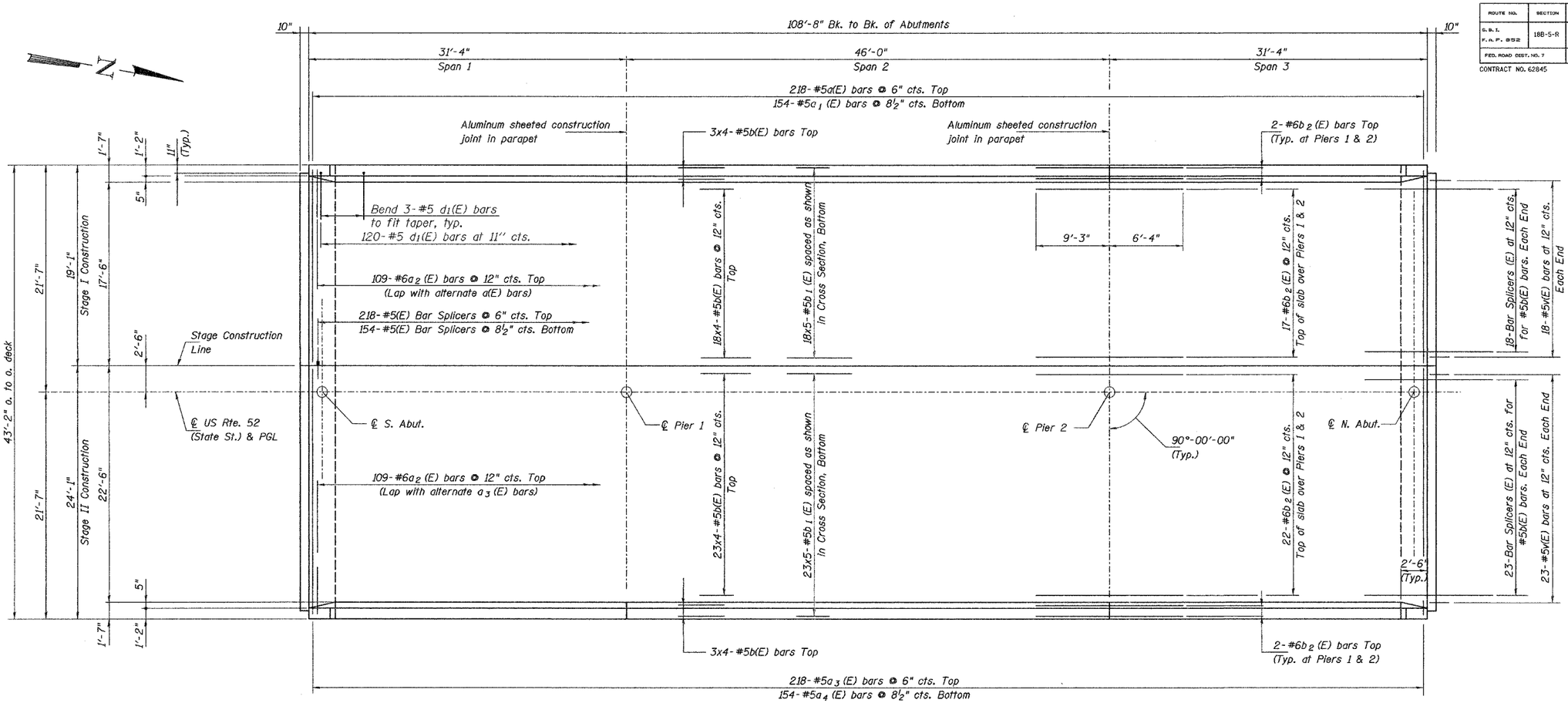
FILE: g:\B37600\FINAL PLANS\B37600t2.dgn
DATE: 21-Oct-04 08:37

...\view\0994643\0994643-t3.dgn 9/13/2007 9:35:20 AM

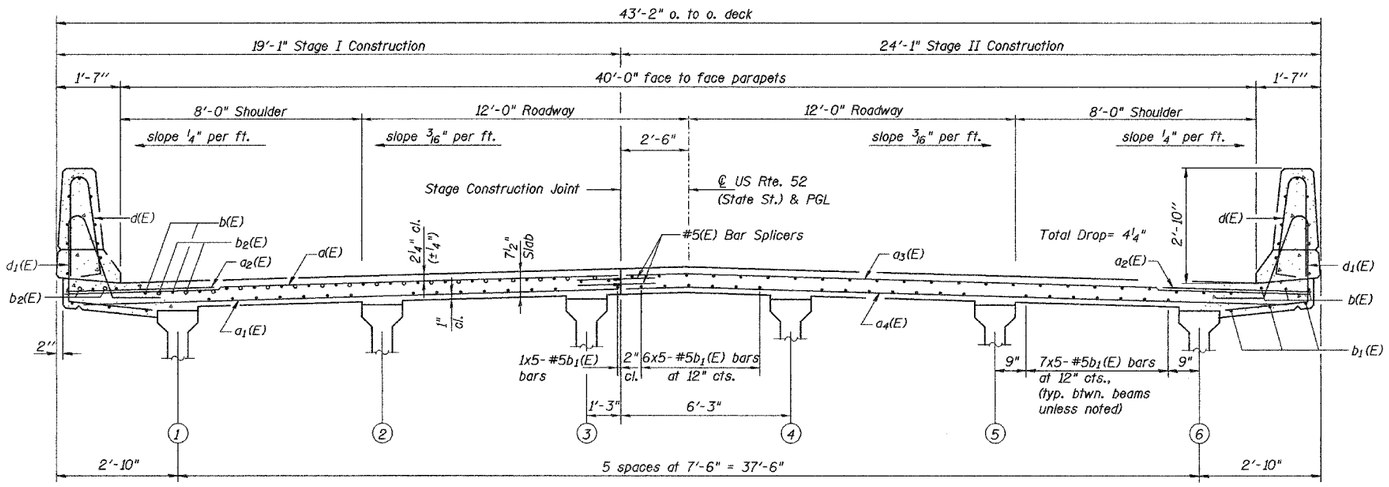
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S.R. 52 F.A.P. 852	18B-5-R	WILL	66	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 62845

SHEET NO. S6
S21 SHEETS



PLAN



NEAR PIER NEAR MIDSPAN

CROSS SECTION
(Looking North)

MINIMUM BAR LAPS
#5 bar = 1'-8"

Notes:
See sheet S9 for superstructure details and Bill of Material.
For diaphragm details see sheets S7 & S8.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet S9 for parapet reinforcement.

COLLINS ENGINEERS INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

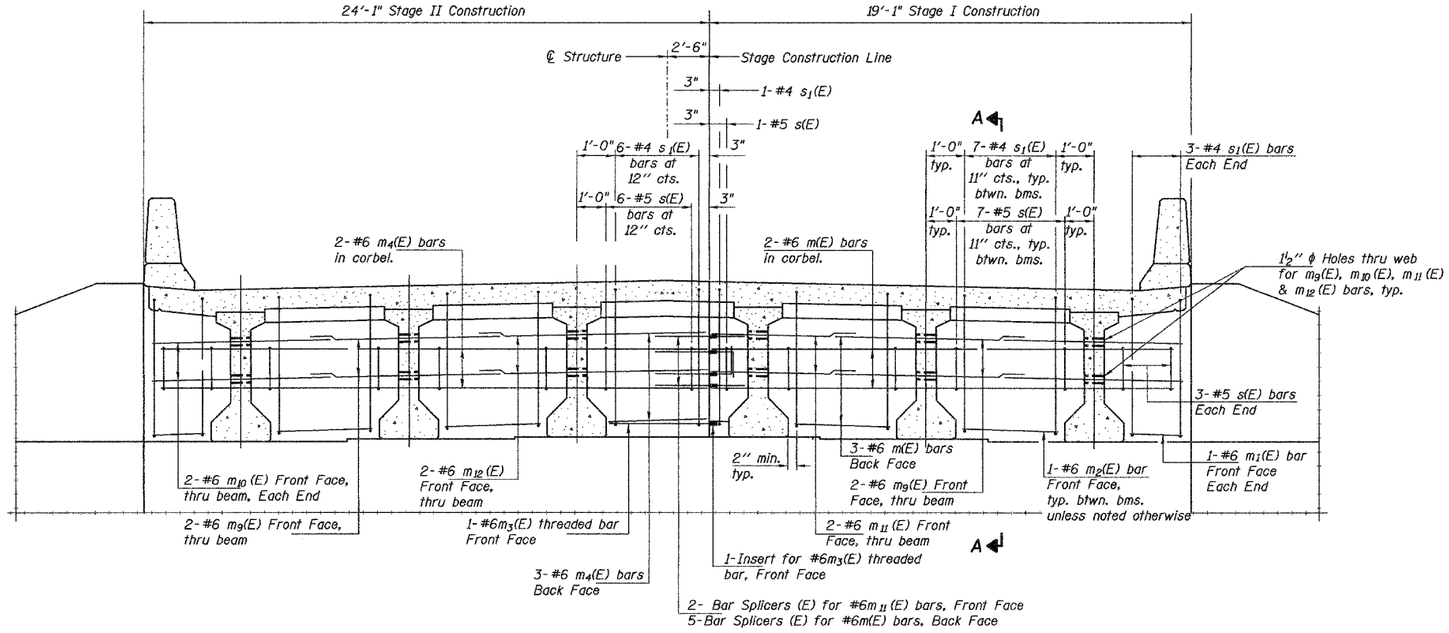
ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
SUPERSTRUCTURE DETAILS -I
DRAWN BY: KAC
CHECKED BY: JMH/DGS DATE: OCTOBER, 2004

FILE: g:\B37600\FINAL PLANS\B37600101.dgn
DATE: 14-JUL-04 11:57

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U. S. I. F. A. P. 852	18B-5-R	WILL	66	57
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

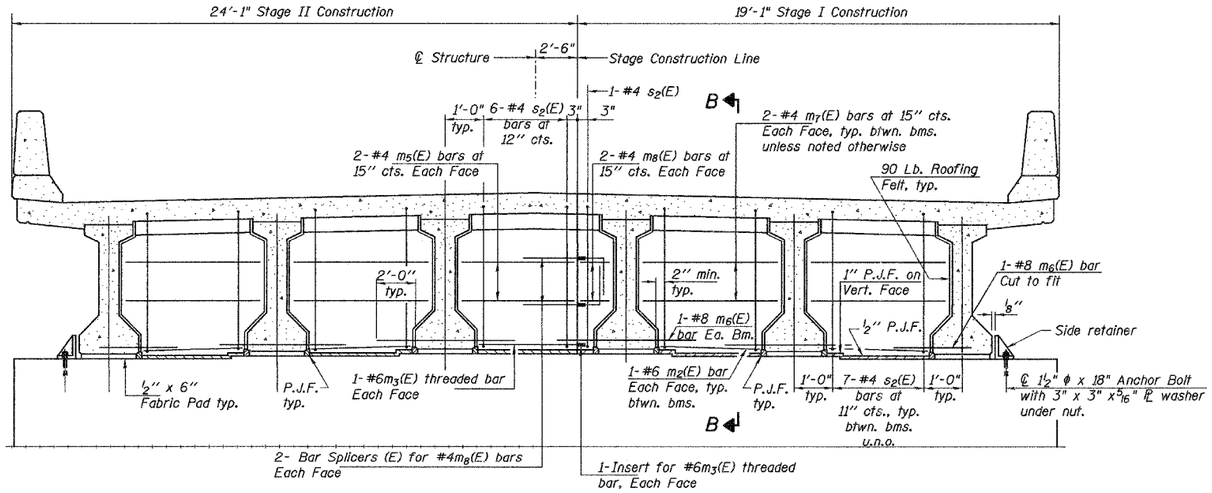
SHEET NO. 57
S21 SHEETS

CONTRACT NO. 62845



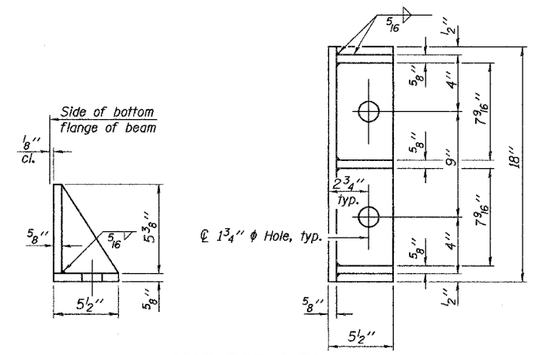
DIAPHRAGM ELEVATION AT ABUTMENT

(Looking South)



DIAPHRAGM AT PIER

(Looking South)



SIDE RETAINER

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

MINIMUM BAR LAPS

#6 bar = 2'-9"

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet S9 of S21.

Concrete in diaphragm is included with Concrete Superstructure on sheet S9 of S21.

For details of bars s(E), s_1(E) and s_2(E) see sheet S9 of S21.

The s(E), s_1(E) and s_2(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

See sheet S8 of S21 for Sections A-A and B-B.

Cost of 90 Lb. roofing felt is included with Concrete Superstructure.

The side retainer shall be galvanized after shop fabrication according to AASHTO M 111. Cost of side retainer and anchor bolts shall be included with Concrete Structures.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for side retainers may be cast in place or installed in holes drilled before deck pour and after members are in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

COLLINS ENGINEERS INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

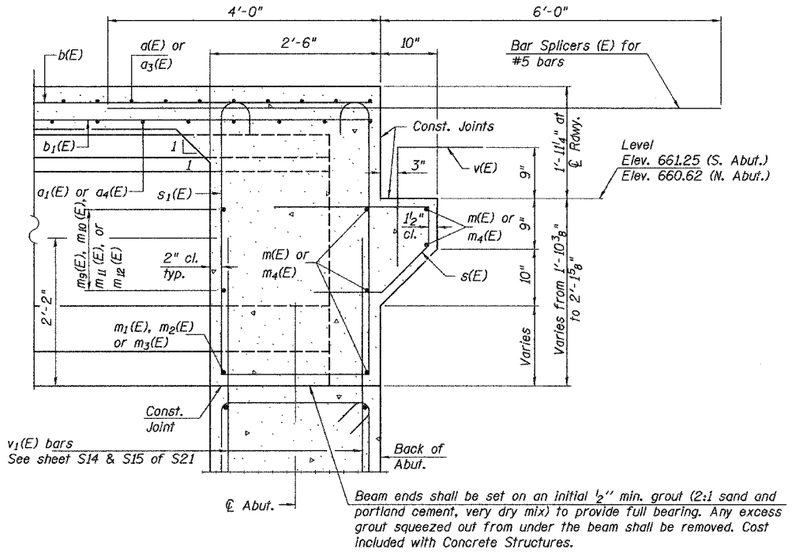
ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
SUPERSTRUCTURE DETAILS -II
DRAWN BY: KAC
CHECKED BY: JMH/DGS DATE: OCTOBER, 2004

FILE: g:\B3760\FINAL PLANS\B3760102.dgn
DATE: 14-Jul-04 12:03

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. S. I. F. A. P. 852	18B-5-R	WILL	66	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S8
S21 SHEETS

CONTRACT NO. 62845



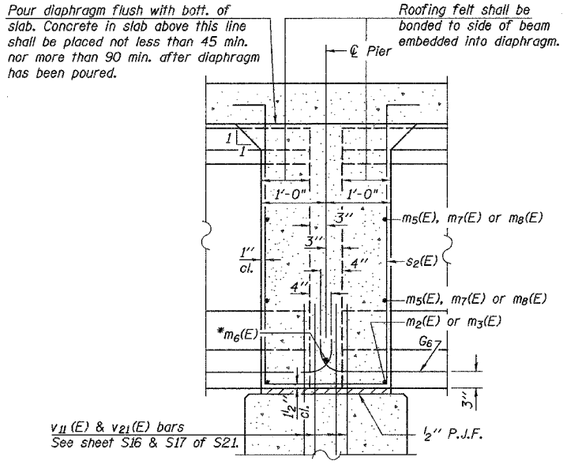
Beam ends shall be set on an initial ½" min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

SECTION A-A

Dimensions at right angles to abutment, except as shown.

Pour diaphragm flush with bott. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.

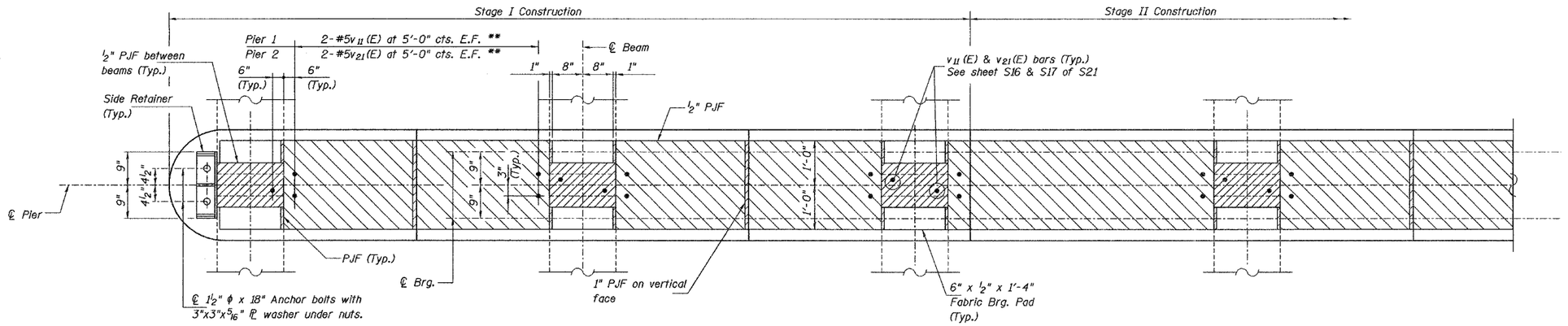
Roofing felt shall be bonded to side of beam embedded into diaphragm.



* *Tightly fasten the #8 bars together with No. 9 wire ties.*

SECTION B-B

Dimensions along ℄ of beam, except as shown.



PLAN AT PIER

(Showing bearing pad and PJF details)

*** Typical between beams*

Note:
See sheet S7 for location of Sections A-A and B-B.

COLLINS ENGINEERS INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
SUPERSTRUCTURE DETAILS-III

DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

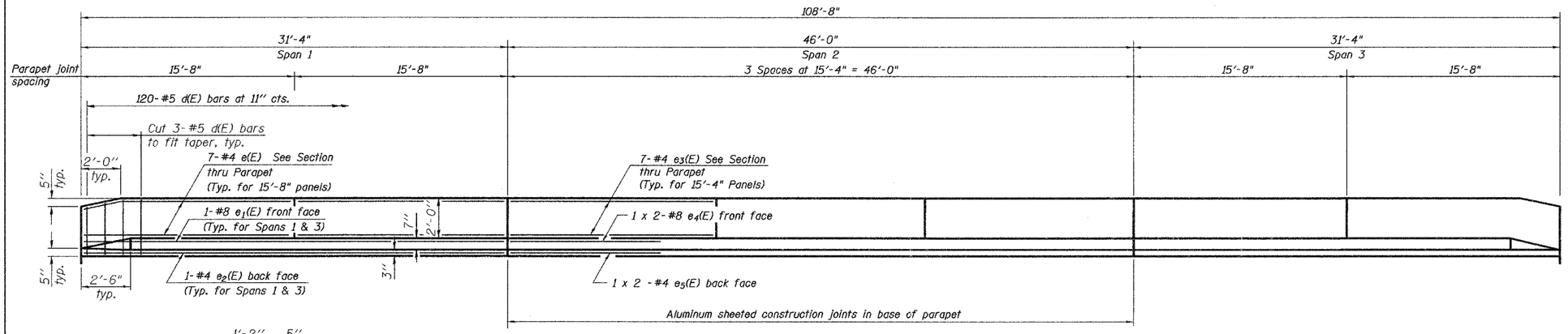
FILE: g:\B37600\FINAL PLANS\B37600106.dgn
DATE: 14-JUL-04 12:39

...\V16\V0894643\0894E43-69.dgn 9/12/2007 9:37:03 AM

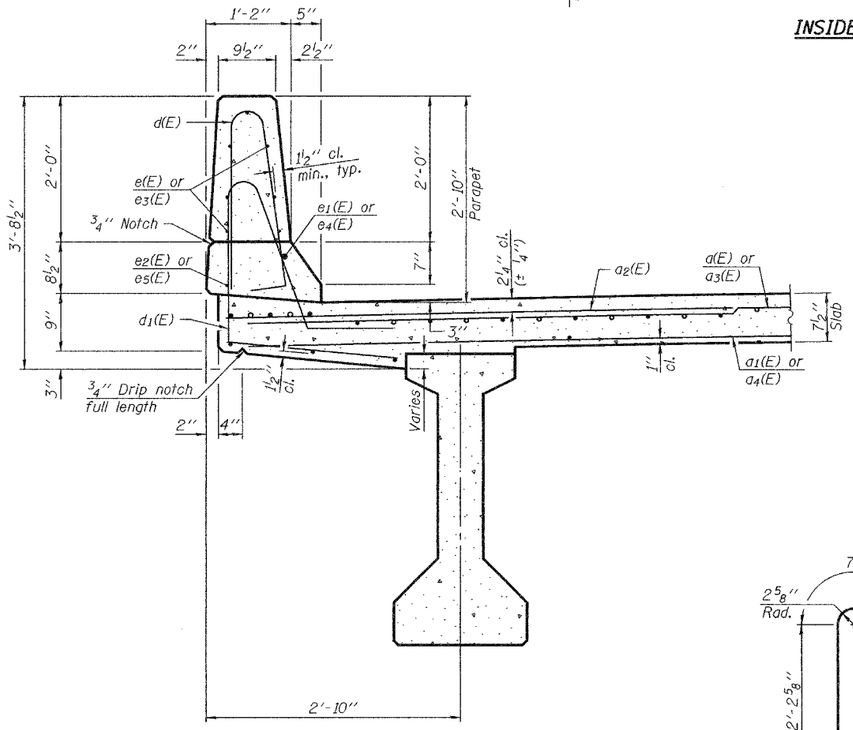
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U. S. I. F. A. P. 852	18B-5-R	WILL	66	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S9
S21 SHEETS

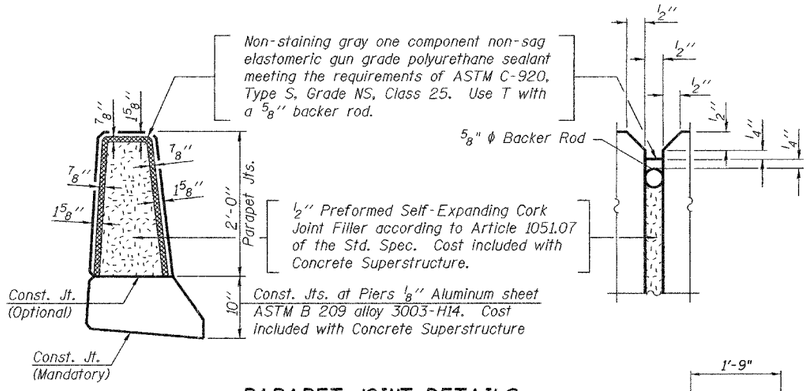
CONTRACT NO. 62845



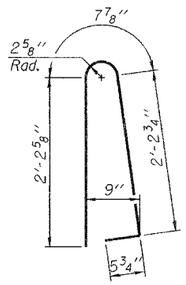
INSIDE ELEVATION OF PARAPET



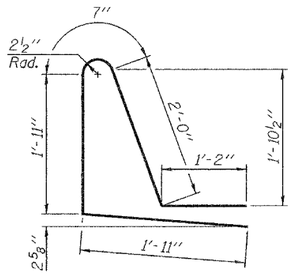
SECTION THRU PARAPET



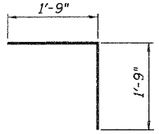
PARAPET JOINT DETAILS



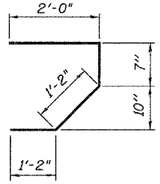
BAR d(E)



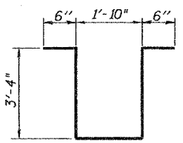
BAR d1(E)



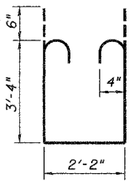
BAR v(E)



BAR s(E)



BAR s2(E)



BAR s1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	218	#5	18'-7"	
d1(E)	154	#5	18'-3"	
d2(E)	218	#6	6'-0"	
d3(E)	218	#5	23'-7"	
d4(E)	154	#5	23'-3"	
b(E)	188	#5	28'-4"	
b1(E)	205	#5	23'-0"	
b2(E)	86	#6	15'-7"	
d(E)	240	#5	5'-7"	L
d1(E)	240	#5	7'-7"	L
e(E)	56	#4	15'-4"	
e1(E)	4	#8	31'-0"	
e2(E)	4	#4	31'-0"	
e3(E)	42	#4	15'-0"	
e4(E)	4	#8	24'-7"	
e5(E)	4	#4	23'-8"	
m(E)	10	#6	18'-10"	
m1(E)	4	#6	1'-9"	
m2(E)	24	#6	5'-8"	
m3(E)	6	#6	5'-4"	
m4(E)	10	#6	23'-9"	
m5(E)	8	#4	5'-8"	
m6(E)	12	#8	5'-6"	
m7(E)	32	#4	6'-8"	
m8(E)	8	#4	2'-8"	
m9(E)	8	#6	10'-3"	
m10(E)	8	#6	8'-0"	
m11(E)	4	#6	7'-11"	
m12(E)	4	#6	11'-5"	
s(E)	82	#5	4'-11"	⊐
s1(E)	82	#4	9'-10"	⊔
s2(E)	70	#4	9'-6"	⊏⊐
v(E)	82	#5	3'-6"	⊐
Reinforcement Bars, Epoxy Coated			Lbs.	39040
Concrete Superstructure			Cu. Yds.	180.3
Anchor Bolts, 1½" ϕ			Each	8

Note:
Bars indicated thus 1x2-#4 etc. indicates 1 line of bars with 2 lengths per line.

MINIMUM BAR LAPS

#4 bars = 1'-4"
#8 bars = 3'-5"

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
SUPERSTRUCTURE DETAILS-IV
DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

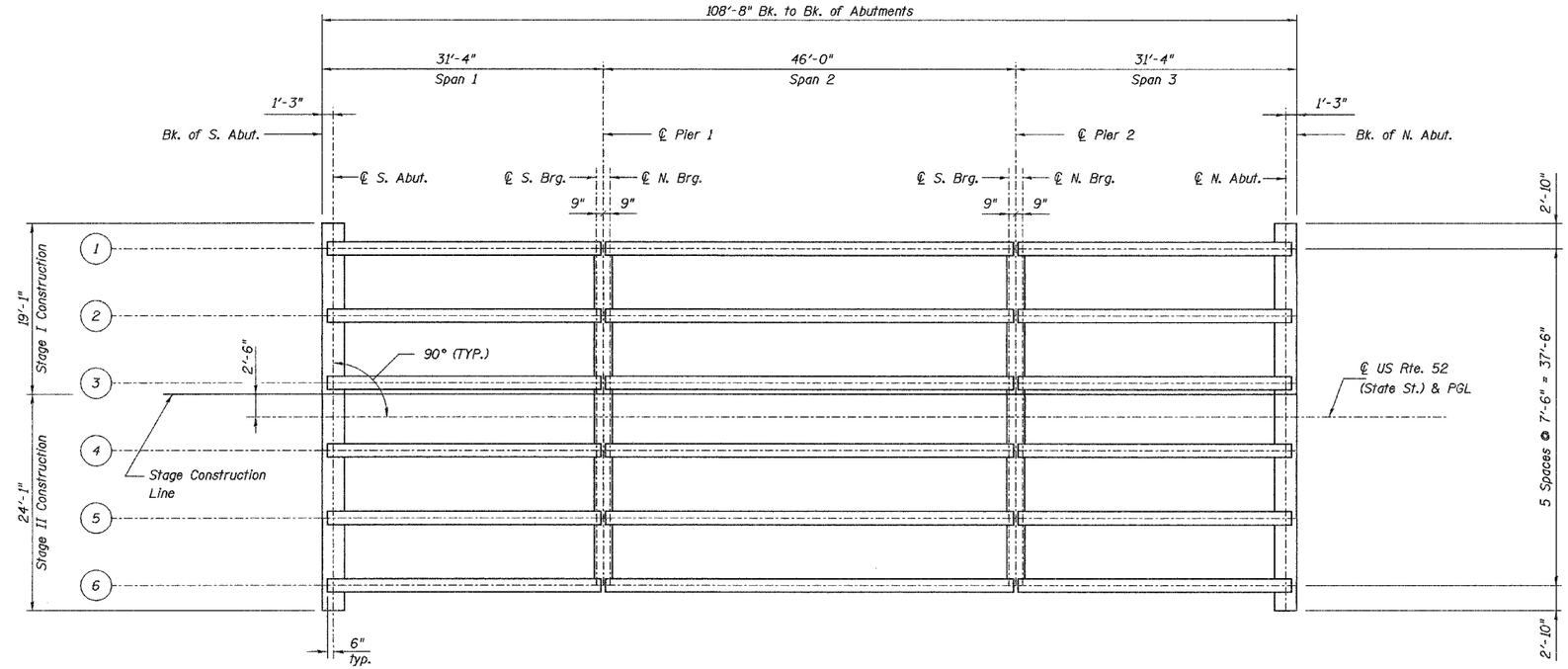
FILE: g:\B37600\FINAL PLANS\B37600107.dgn
DATE: 14-Jul-04 15:50

...\view\0994843\0994843-69.cgn 9/13/2007 9:37:39 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 852	18B-5-R	WILL	66	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S10
S21 SHEETS

CONTRACT NO. 62845



PLAN

(Beam lengths shown on sheets S11 and S12 of S21.)

BEAM MOMENT TABLE

		0.4 Sp. #1	Pier #1	0.5 Sp. #2	Pier #2	0.6 Sp. #3
I	(in^4)	48647.6	----	48647.6	----	48647.6
I'	(in^4)	176440	----	176440	----	176440
S_b	(in^3)	3165.1	----	3165.1	----	3165.1
S_b'	(in^3)	5926	----	5926	----	5926
S_t	(in^3)	2358.1	----	2358.1	----	2358.1
S_t'	(in^3)	28343	----	28343	----	28343
M_{ℓ}	(k/')	1.09	----	1.09	----	1.09
M_{ℓ}	('k)	123	----	288	----	123
s_{ℓ}	(k/')	0.55	0.55	0.55	0.55	0.55
$M_{s\ell}$	('k)	27	87	60	87	27
M_L	('k)	163.0	167.7	219.5	167.7	163.0
M (Imp)	('k)	48.9	50.3	64.1	50.3	48.9

BEAM REACTION TABLE

		Abutment	Pier #1 Span 1 Pier #2 Span 3	Pier #1 Span 2 Pier #2 Span 2
R_{ℓ}	(K)	16.4	16.4	25.1
Rs_{ℓ} *	(K)	5.4	11.9	11.9
R_L *	(K)	32.0	22.5	22.5
Imp.*	(K)	9.6	6.8	6.8
R (Total)	(K)	63.4	57.6	66.3

* The total Rs_{ℓ}, F_L, and Impact Reactions are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios.

I and I' are the moment of inertia and composite moment of inertia of the beam section.
S_b and S_b' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.
S_t and S_t' are the non-composite and composite section modulus for the top fiber of the prestressed beam.
M_{ℓ} is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.
Ms_{ℓ} is the moment due to dead loads on the compposite section.
M_L is the moment due to live load on the composite section.
M (Imp) is the moment due to live load impact on the composite section.

Note:
For Beam Details see Sheets S11 thru S13 of S21.

COLLINS ENGINEERS, INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643

FRAMING PLAN

DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

FILE: G:\B37600\FINAL PLANS\B37600105.dgn
DATE: 15-Jul-04 06:53

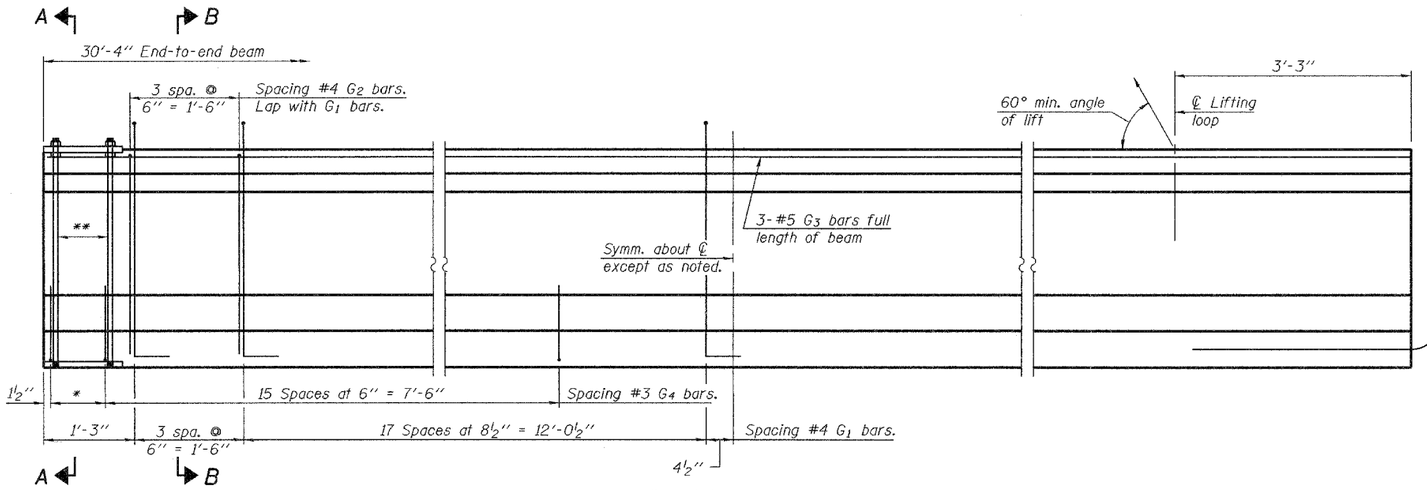
\\rlex\298945431\d9548623-s10.dgn 8/13/2007 11:35:07 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 652	18B-5-R	WILL	66	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 62845

SHEET NO. S11

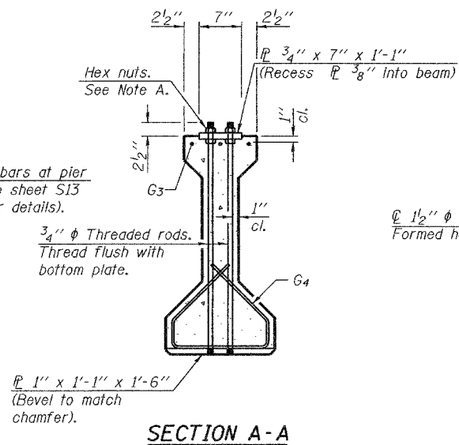
S21 SHEETS



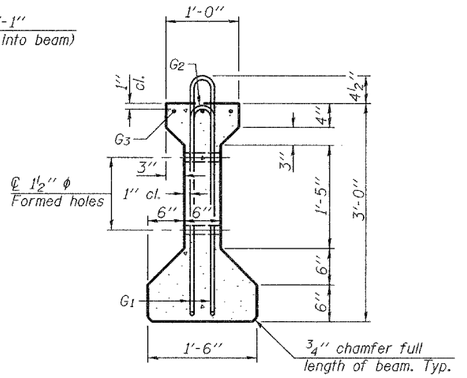
* 3 spaces at 3" = 9".
** 4-¾" ϕ threaded dowel rods at 3" cts., each face.

ELEVATION OF BEAM
(Showing reinforcement & dimensions)

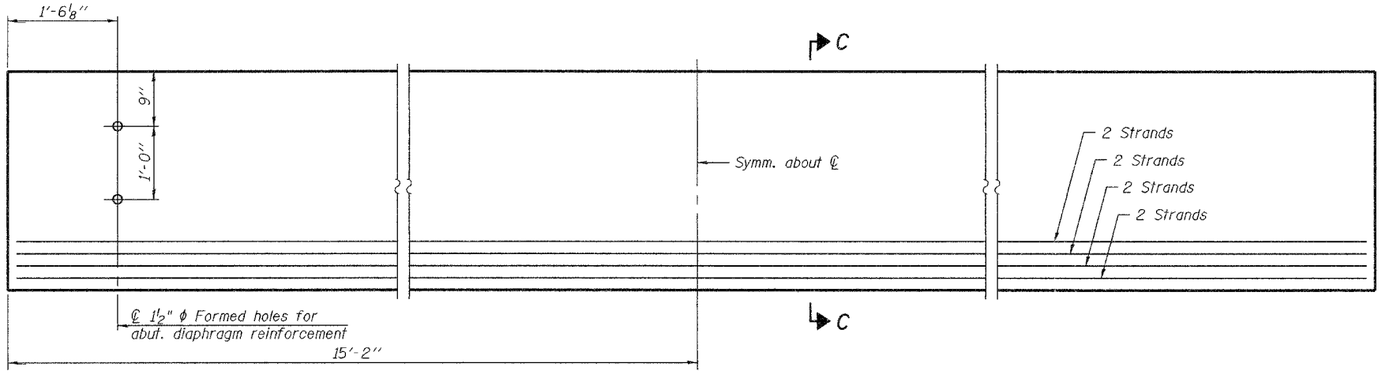
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



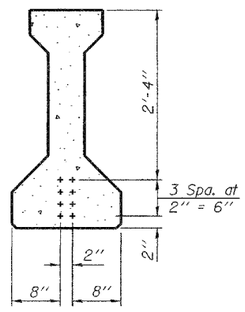
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C

*** BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	42	#4	7'-5"	
G_2	8	#4	5'-8"	
G_3	3	#5	30'-2"	
G_4	38	#3	4'-1"	
G_6	2	#8	3'-9"	

*** For information only

Notes:
See sheet S13 of S21 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.

PI-4-36

12-21-06

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

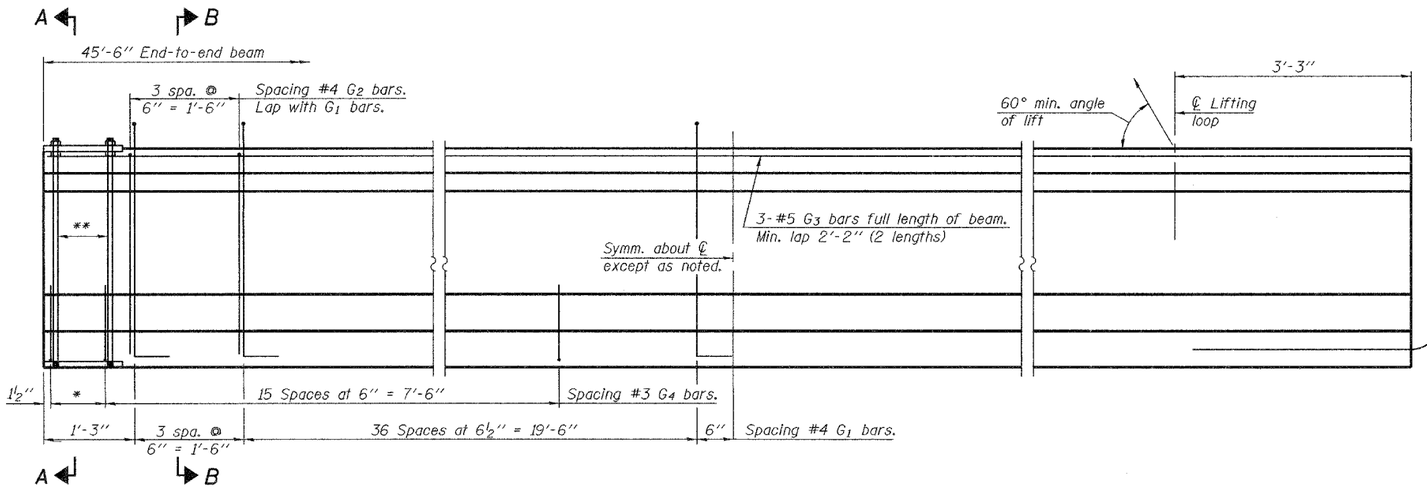
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
BEAM DETAILS SPANS 1 & 3
DRAWN BY: MBM
CHECKED BY: PRL/GRA DATE: MARCH, 2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 852	18B-5-R	WILL	46	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 62845

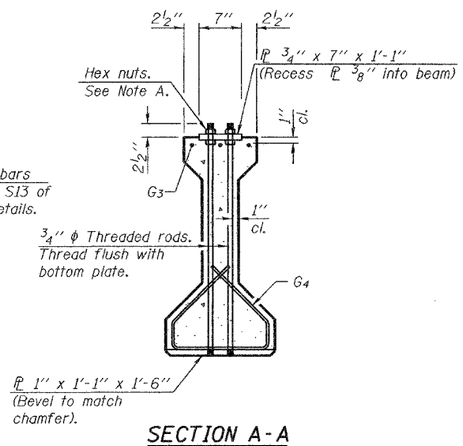
SHEET NO. S12
S21 SHEETS



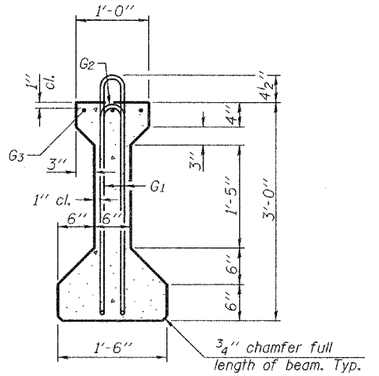
* 3 spaces at 3" = 9".
** 4-¾" ϕ threaded dowel rods at 3" cts., each face.

ELEVATION OF BEAM
(Showing reinforcement & dimensions)

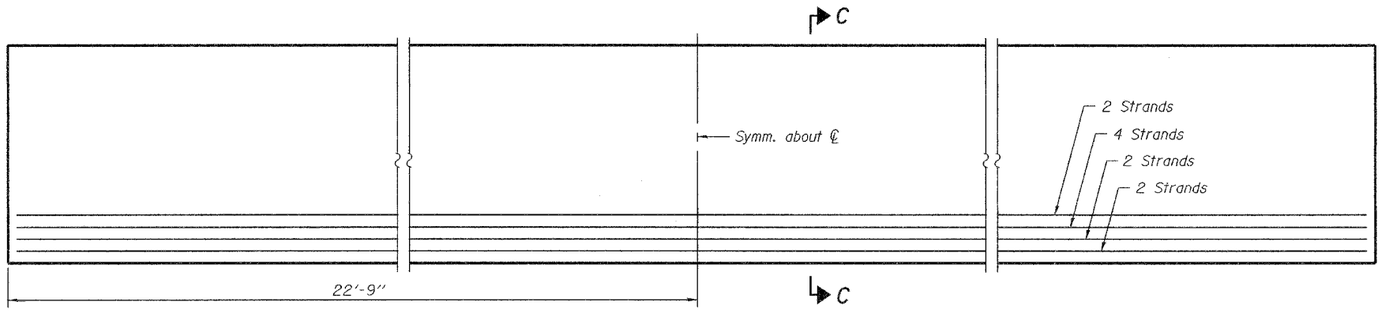
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



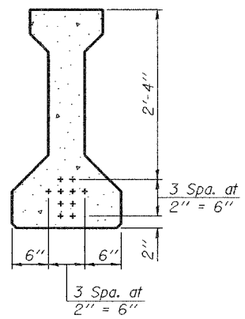
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C

*** BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	80	#4	7'-5"	
G_2	8	#4	5'-8"	
G_3	6	#5	23'-9"	
G_4	38	#3	4'-1"	
G_6	4	#8	3'-9"	

*** For information only

Notes:
See sheet S13 of S21 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.

PI-4-36

12-21-06

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
BEAM DETAILS SPAN 2

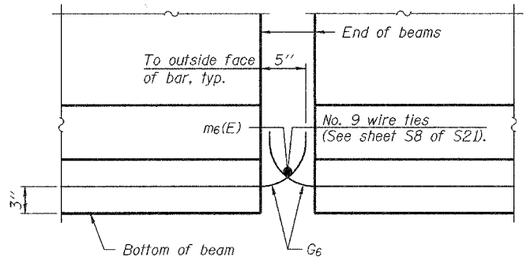
DRAWN BY: MBM
CHECKED BY: PRL/GRA
DATE: MARCH, 2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 852	188-5-R	WILL	66	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

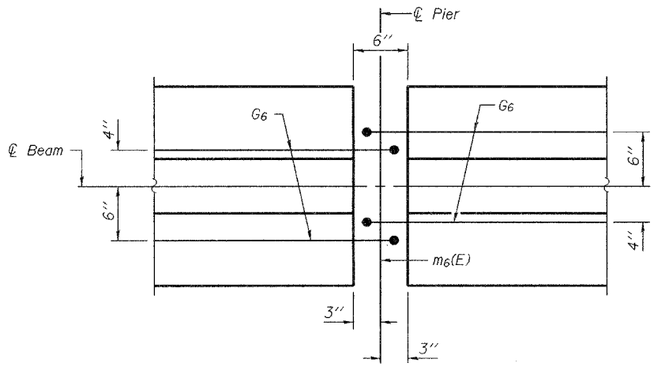
CONTRACT NO. 62845

SHEET NO. S13

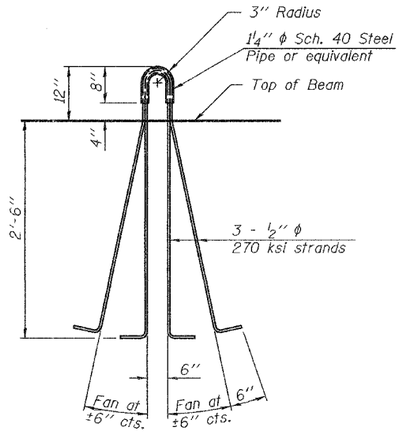
S21 SHEETS



ELEVATION OF BEAM AT PIER



PLAN OF BEAM AT PIER



LIFTING LOOP DETAIL

NOTES

Inserts for ¾" ϕ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

Non-prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

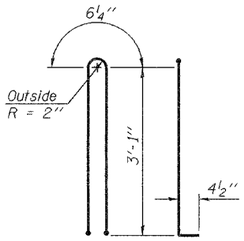
A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.

Cut G6 bars when necessary to maintain 1½" clearance.

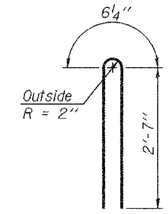
The bottom plates and studs shall be galvanized according to AASHTO M111.

Threaded rods shall be ASTM F 1554 Grade 55.

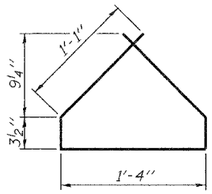
The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam or Bulb-T beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 36 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.



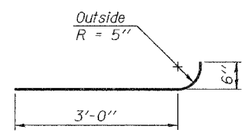
BAR G1



BAR G2



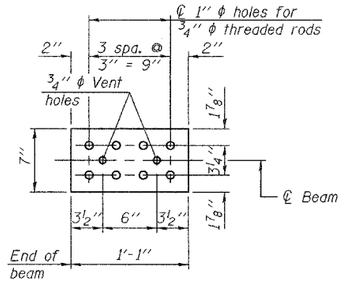
BAR G4



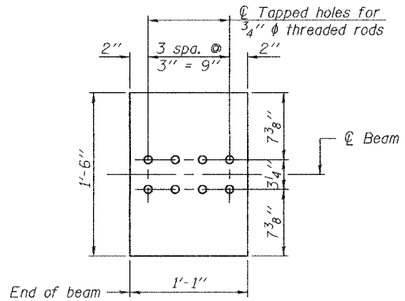
BAR G6

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	637.0



TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643

36" PPC I-BEAM DETAILS

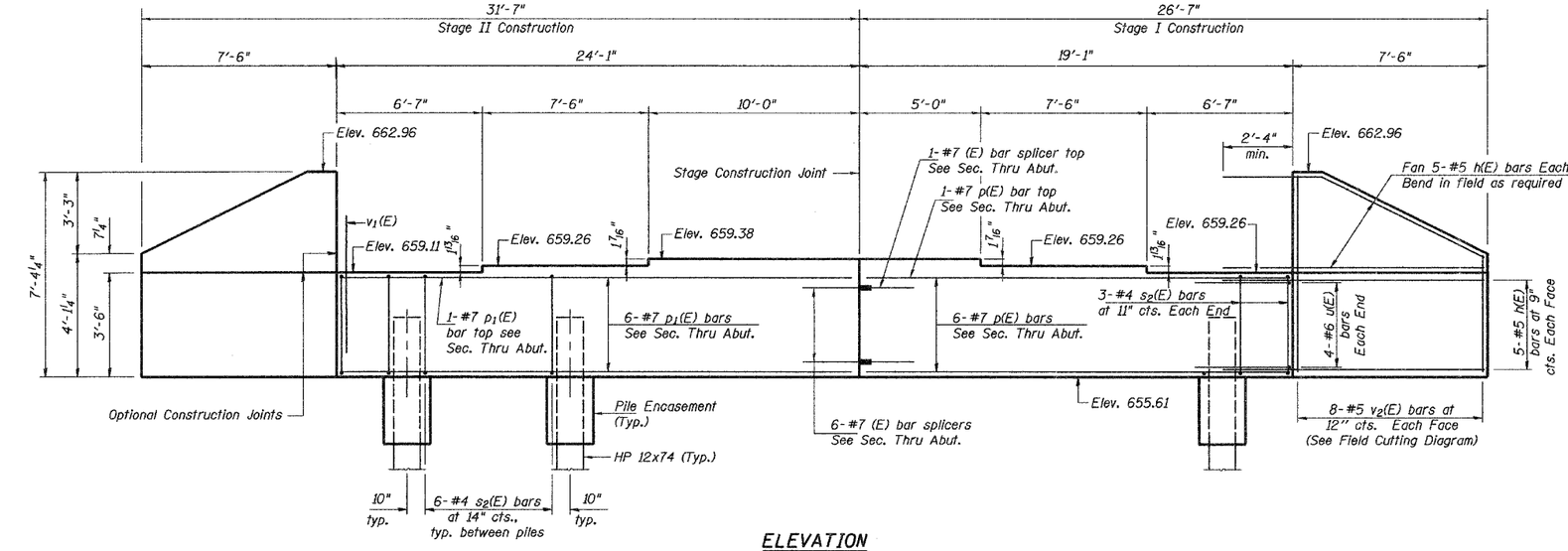
DRAWN BY: MBM
CHECKED BY: PRL/GRA
DATE: MARCH, 2007

PI-4-36D 12-21-06

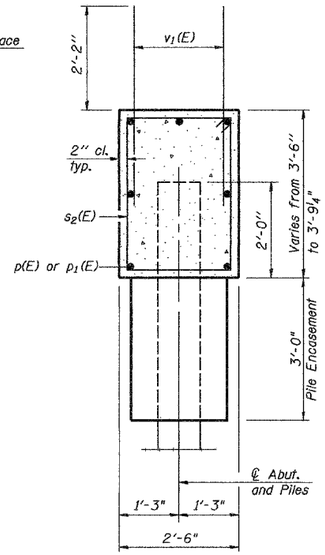
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 852	18B-5-R	WILL	66	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S14
S21 SHEETS

CONTRACT NO. 62845



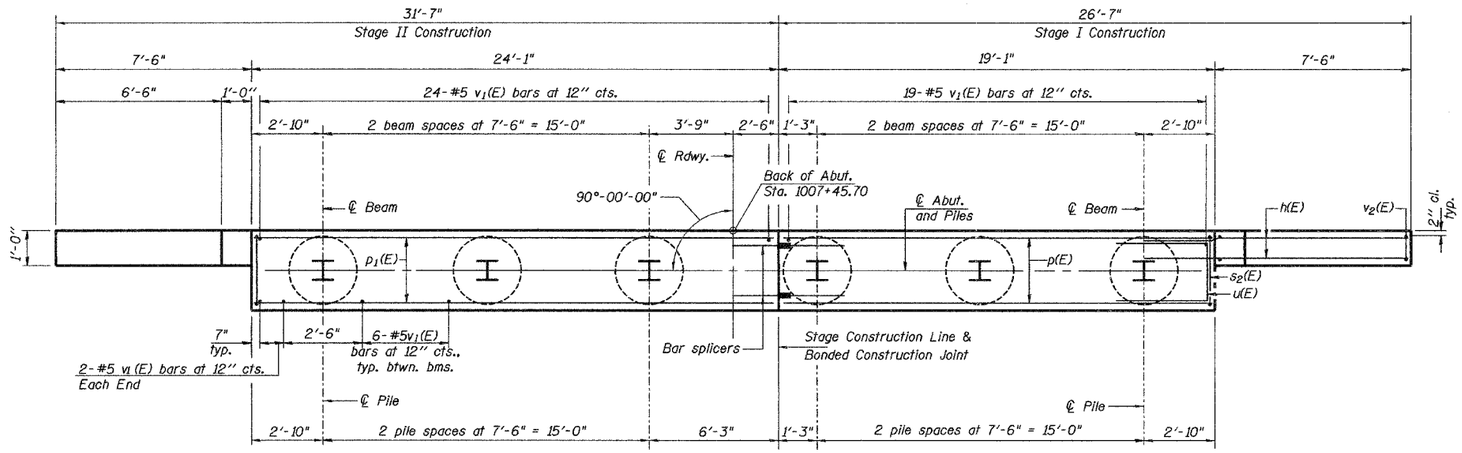
ELEVATION
(Looking South)



SEC. THRU ABUT.

BILL OF MATERIAL

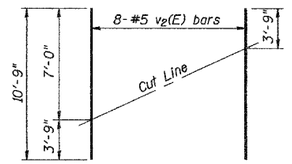
Bar	No.	Size	Length	Shape
h(E)	40	#5	9'-8"	
p(E)	7	#7	18'-9"	
p1(E)	7	#7	23'-9"	
s2(E)	36	#4	11'-5"	
u(E)	8	#6	9'-4"	
v1(E)	77	#5	4'-4"	
v2(E)	16	#5	10'-9"	
Concrete Structures		Cu. Yd.	17.9	
Reinforcement Bars, Epoxy Coated		Pound	1930	
Structure Excavation		Cu. Yd.	60	
Concrete Encasement		Cu. Yd.	2.1	
Furnishing Steel Piles, HP12x74		Foot	174	
Pile Shoes		Each	6	
Driving Piles		Foot	174	



PLAN

BAR s2(E)

BAR u(E)



FIELD CUTTING DIAGRAM

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

Notes:
Pour steps monolithically with cap.

PILE DATA

Type:	HP 12x74 w/ Pile Shoes
Nominal Required Bearing:	456 kips
Allowable Resistance Available:	152 kips
Est. Length:	29'-0"
No. Production Piles:	6
No. Test Piles:	0

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
SOUTH ABUTMENT DETAILS
DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

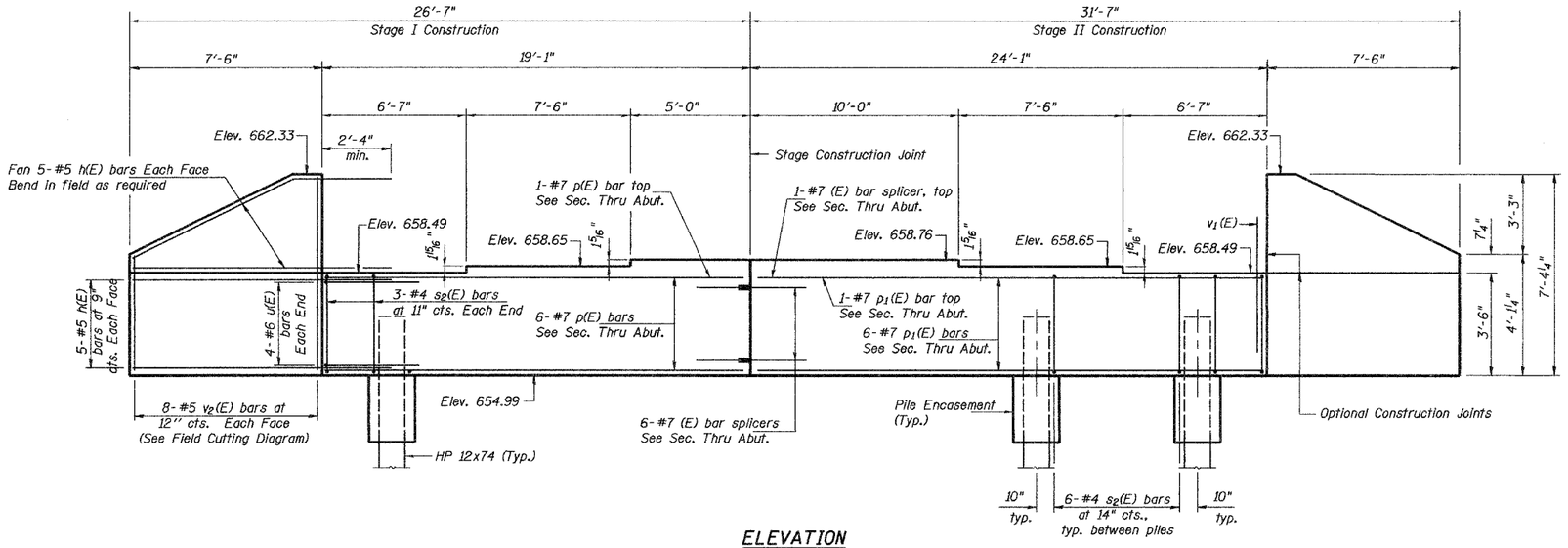
FILE: g:\B3760\B3760117\FINAL PLANS\B3760117.dgn
DATE: 15-JUL-04 08:12

...\v11w\0994643\0994643-s14.dgn 9/13/2007 9:41:10 AM

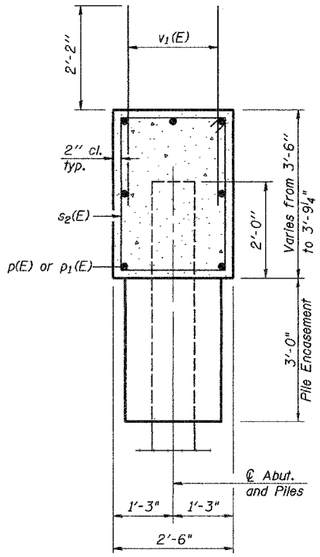
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 852	18B-5-R	WILL	66	45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S15 S21 SHEETS

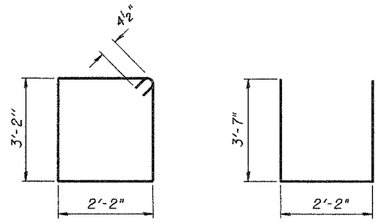
CONTRACT NO. 62845



ELEVATION
(Looking North)

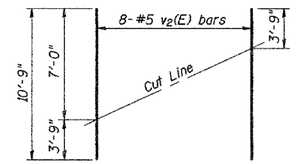


SEC. THRU ABUT.



BAR s2(E)

BAR u(E)

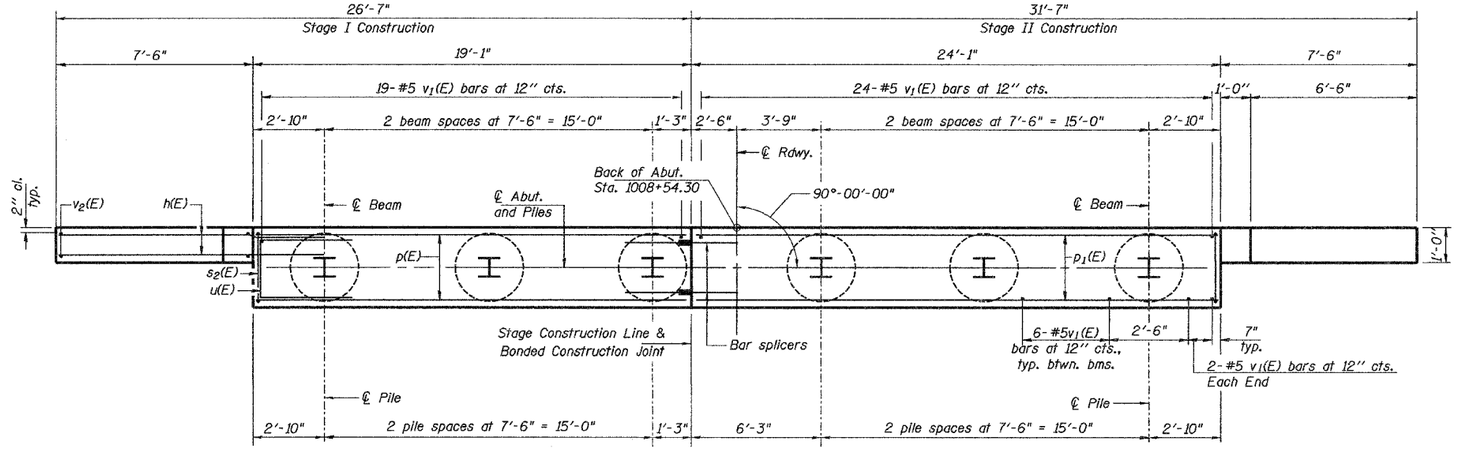


FIELD CUTTING DIAGRAM

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#5	9'-8"	
p(E)	7	#7	18'-9"	
p1(E)	7	#7	23'-9"	
s2(E)	36	#4	11'-5"	
u(E)	8	#6	9'-4"	
v1(E)	77	#5	4'-4"	
v2(E)	16	#5	10'-9"	
Concrete Structures		Cu. Yd.	17.9	
Reinforcement Bars, Epoxy Coated		Pound	1930	
Structure Excavation		Cu. Yd.	57.4	
Concrete Encasement		Cu. Yd.	2.1	
Furnishing Steel Piles, HP12x74		Foot	312	
Driving Piles		Foot	312	



PLAN

PILE DATA

Type:	HP 12x74
Nominal Required Bearing:	456 kips
Allowable Resistance Available:	152 kips
Est. Length:	52'-0"
No. Production Piles:	6
No. Test Piles:	0

Notes:
Pour steps monolithically with cap.

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643

NORTH ABUTMENT DETAILS

DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

FILE: g:@3760@FINAL PLANS@3760018.dgn
DATE: 14-Jul-04 07:34

...\view\0994643\0994643-s15.dgn 5/13/2007 8:42:16 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. R. I. F. A. P. 852	18B-5-R	WILL	66	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

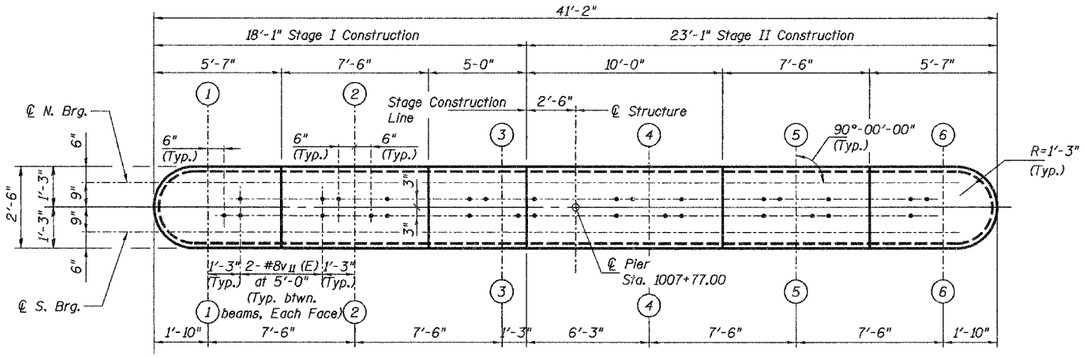
CONTRACT NO. 62845

SHEET NO. S16 S21 SHEETS

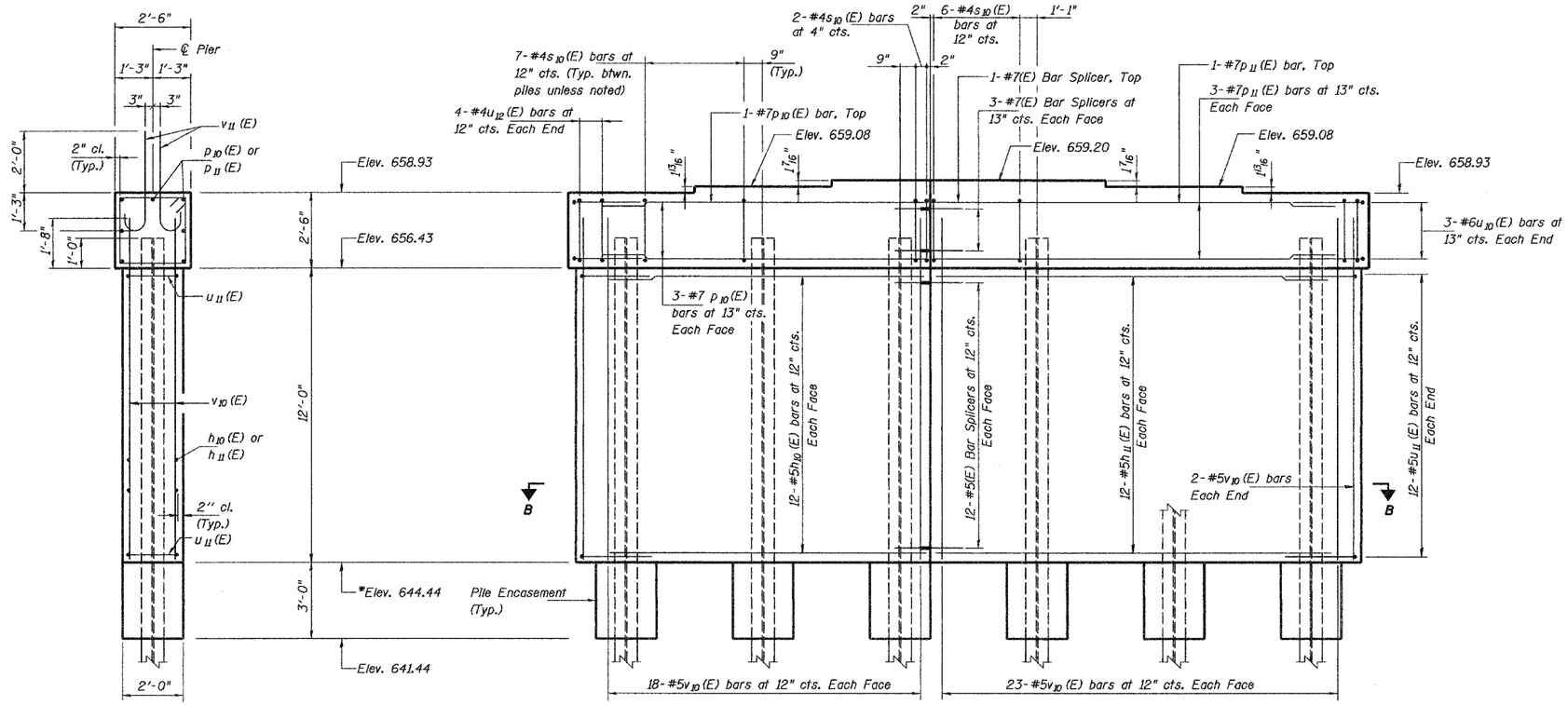
Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.

PILE DATA

Type:	HP 12x74 w/ Pile Shoes
Nominal Required Bearing:	456 kips
Allowable Resistance Available:	152 kips
Est. Length:	29'-0"
No. Production Piles:	6
No. Test Piles:	0

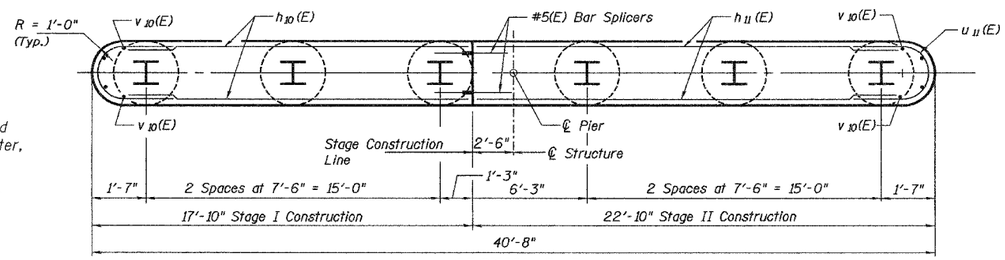


TOP PLAN



END VIEW

ELEVATION
(Looking North)

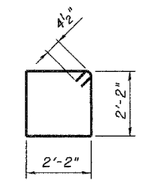


SECTION B-B

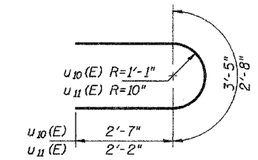
* Forms shall be placed below Elev 644.44 after excavation for pier wall. Reinforcement and concrete encasement shall be poured underwater into forms. If a portion of the pier wall is under water, concrete shall be tremied under water into forms according to Article 503.08 of the Standard Specifications. Concrete shall be tremied to an elevation 1'-0" above the water level at the time of construction.

BILL OF MATERIAL

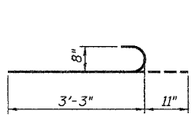
Bar	No.	Size	Length	Shape
h_{10}(E)	24	#5	16'-8"	——
h_{11}(E)	24	#5	21'-8"	——
p_{10}(E)	7	#7	16'-8"	——
p_{11}(E)	7	#7	21'-8"	——
s_{10}(E)	36	#4	9'-5"	□
u_{10}(E)	6	#6	8'-7"	⊐
u_{11}(E)	24	#5	7'-0"	⊐
u_{12}(E)	8	#4	4'-8"	⊓
v_{10}(E)	86	#5	13'-6"	——
v_{11}(E)	30	#8	4'-2"	⊐
Concrete Structures		Cu. Yd.	46.4	
Structure Excavation		Cu. Yd.	139	
Reinforcement Bars, Epoxy Coated		Pound	3490	
Underwater Structure Excavation Protection Location 1		Each	1	
Concrete Encasement		Cu. Yd.	2.1	
Furnishing Steel Piles, HP12x74		Foot	174	
Pile Shoes		Each	6	
Driving Piles		Foot	174	



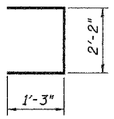
BAR s_{10}(E)



BARS u_{10}(E) & u_{11}(E)



BAR v_{11}(E)



BAR u_{12}(E)

REVISIONS NAME	DATE

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
PIER 1 DETAILS

DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

FILE: g:\3760\FINAL PLANS\3760010.dgn
DATE: 15-Jul-04 09:07

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S. R. 1 F.A.P. 852	18B-5-R	WILL	66	47
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S17
S21 SHEETS

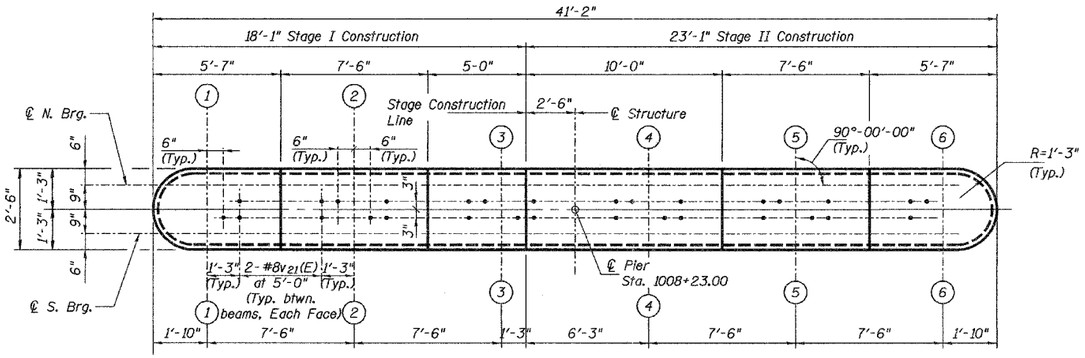
CONTRACT NO. 62845

Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.

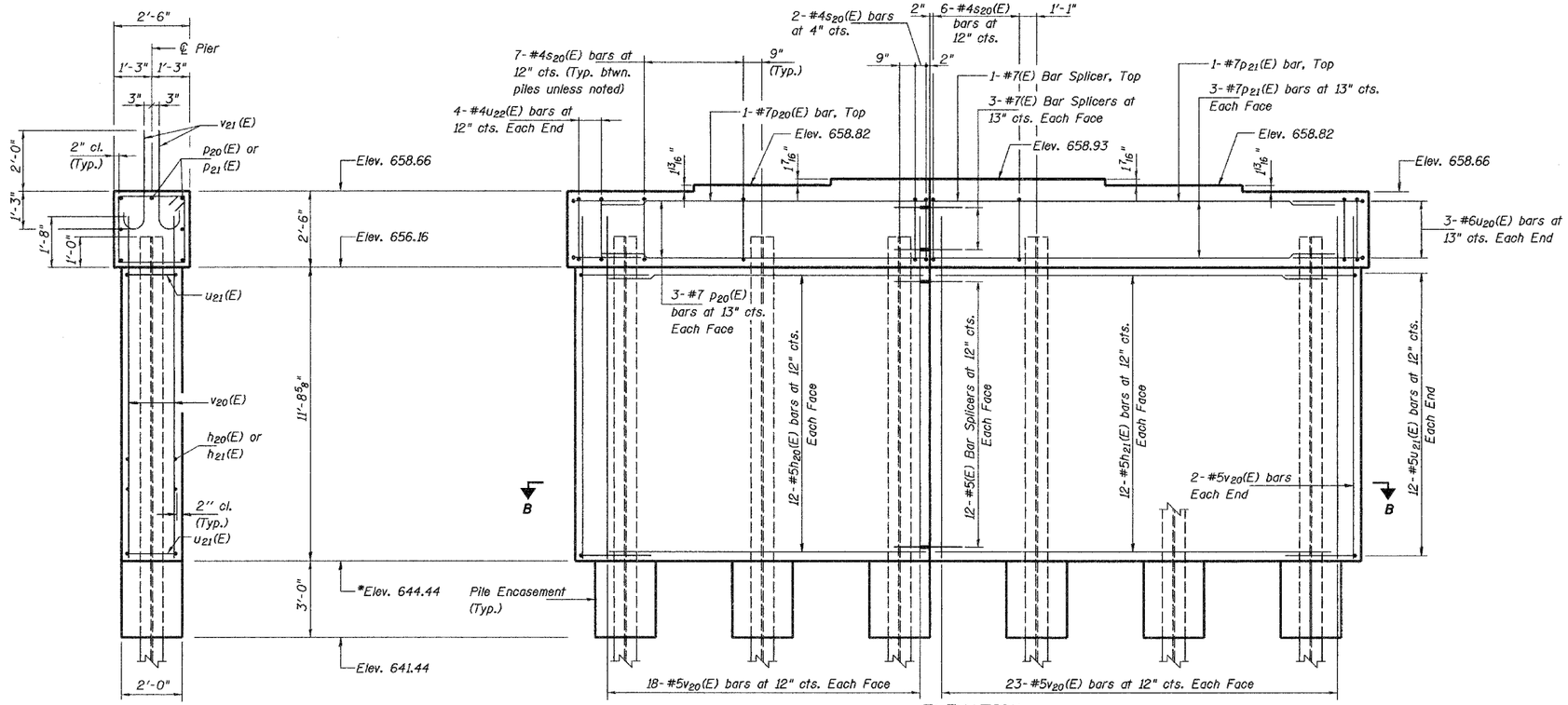
PILE DATA

Type:	HP 12x74
Nominal Required Bearing:	456 kips
Allowable Resistance Available:	152 kips
Est. Length:	52'-3"
No. Production Piles:	5
No. Test Piles:	1

Note:
The test pile should be retapped 24 hours after initial drive for at least 50 blows or 6", whichever occurs first, to determine if relaxation (loss in capacity) occurs. If relaxation occurs, the piles will need to be driven deeper and retapped another 24 hours after the second drive. If relaxation still occurs, the Contractor shall contact the IDOT Bridge Office to evaluate the appropriate action that should be taken.

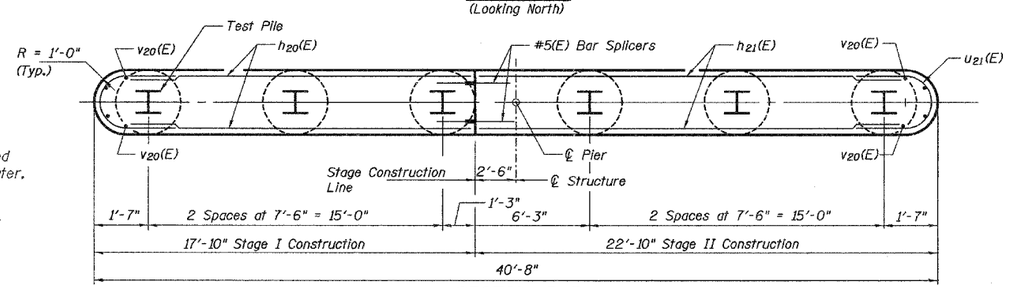


TOP PLAN



END VIEW

ELEVATION
(Looking North)

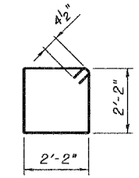


SECTION B-B

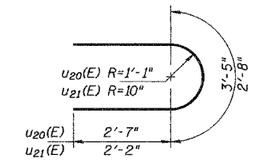
* Forms shall be placed below Elev 644.44 after excavation for pier wall. Reinforcement and concrete encasement shall be poured underwater into forms. If a portion of the pier wall is under water, concrete shall be tremied under water into forms according to Article 503.08 of the Standard Specifications. Concrete shall be tremied to an elevation 1'-0" above the water level at the time of construction.

BILL OF MATERIAL

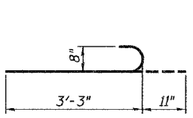
Bar	No.	Size	Length	Shape
$h_{20}(E)$	24	#5	16'-8"	——
$h_{21}(E)$	24	#5	21'-8"	——
$p_{20}(E)$	7	#7	16'-8"	——
$p_{21}(E)$	7	#7	21'-8"	——
$s_{20}(E)$	36	#4	9'-5"	□
$u_{20}(E)$	6	#6	8'-7"	⊃
$u_{21}(E)$	24	#5	7'-0"	⊃
$u_{22}(E)$	8	#4	4'-8"	⊓
$v_{20}(E)$	86	#5	13'-2"	——
$v_{21}(E)$	30	#8	4'-2"	⊃
Concrete Structures		Cu. Yd.	45.6	
Structure Excavation		Cu. Yd.	135	
Reinforcement Bars, Epoxy Coated		Pound	3460	
Underwater Structure Excavation Protection Location 2		Each	1	
Concrete Encasement		Cu. Yd.	2.1	
Furnishing Steel Piles, HP12x74		Foot	262	
Driving Piles		Foot	262	
Test Pile Steel HP12x74		Each	1	



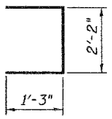
BAR $s_{20}(E)$



BARS $u_{20}(E)$ & $u_{21}(E)$



BAR $v_{21}(E)$



BAR $u_{22}(E)$

COLLINS ENGINEERS, INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
PIER 2 DETAILS
DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

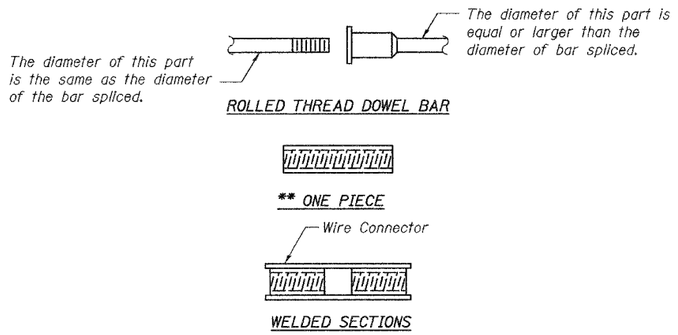
FILE: g:\B3760\FINAL PLANS\B3760011.dgn
DATE: 18-Jun-04 12:40

...\tex\099e4d3\039e4d3-s17.dgn 5/13/2002 8:45:15 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 852	18B-5-R	WILL	66	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

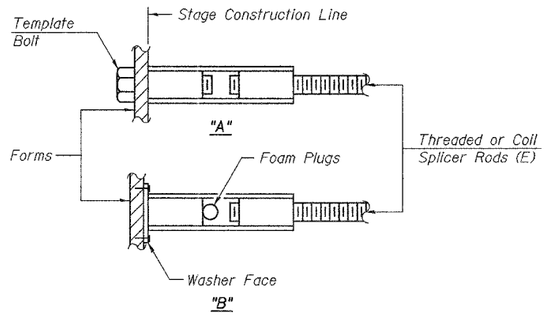
SHEET NO. S18
S21 SHEETS

CONTRACT NO. 62845



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

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

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

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

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

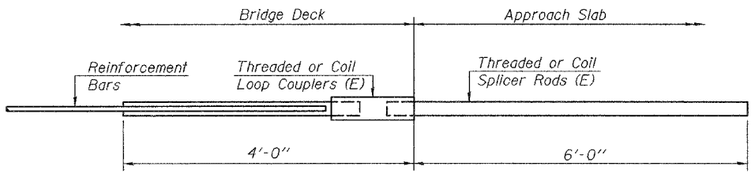
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

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

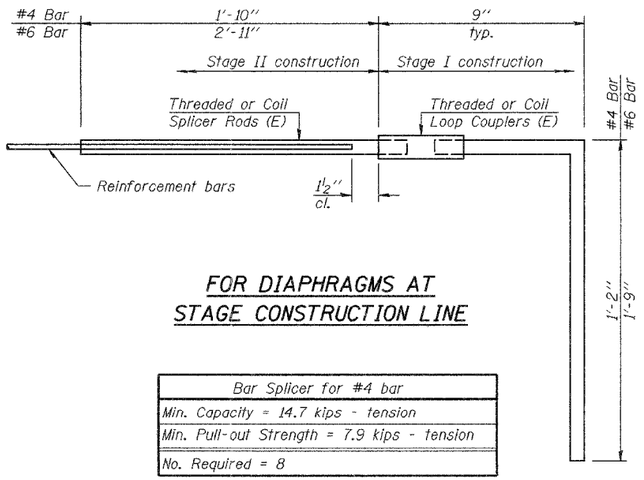
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

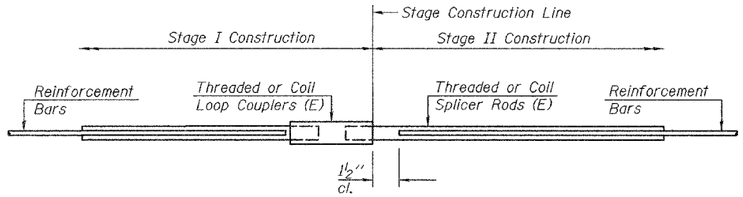
Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 82



FOR DIAPHRAGMS AT STAGE CONSTRUCTION LINE

Bar Splicer for #4 bar
Min. Capacity = 14.7 kips - tension
Min. Pull-out Strength = 7.9 kips - tension
No. Required = 8

Bar Splicer for #6 bar
Min. Capacity = 33.1 kips - tension
Min. Pull-out Strength = 17.4 kips - tension
No. Required = 4



STANDARD

Bar Size	No. Assemblies Required	Location
#5	372	Superstructure
#6	16	Superstructure
#7	14	N & S Abuts.
#5	48	Piers 1 & 2
#7	14	Piers 1 & 2

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643

BAR SPLICER ASSEMBLY DETAILS

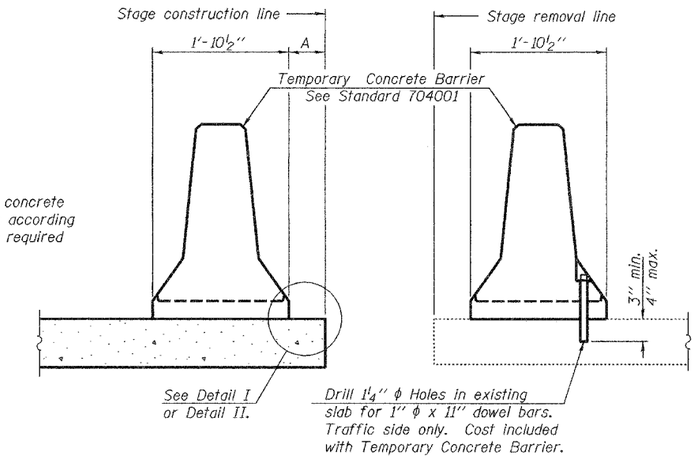
DRAWN BY: MBM
CHECKED BY: PRL/GRA
DATE: MARCH, 2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 852	18B-5-R	WILL	66	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S19
S21 SHEETS

CONTRACT NO. 62845

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".



NEW SLAB EXISTING SLAB

SECTIONS THRU SLAB

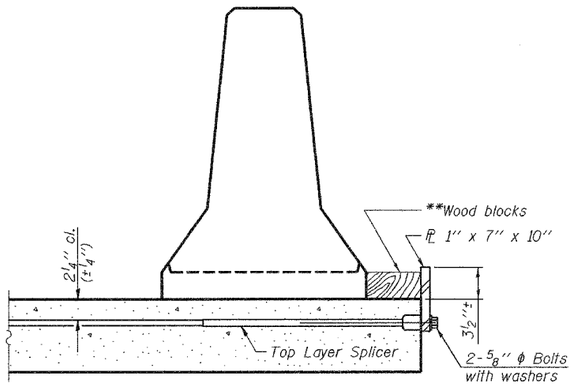
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

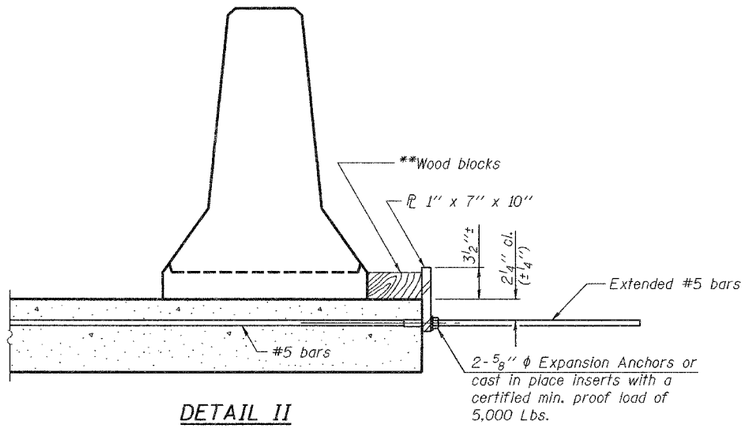
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

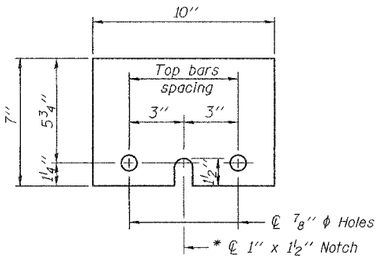


DETAIL I



DETAIL II

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



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

R-27

11-1-06

COLLINS ENGINEERS INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643

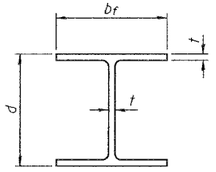
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

DRAWN BY: MBM
CHECKED BY: PRL/GRA
DATE: MARCH, 2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 852	18B-5-R	WILL	66	50
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

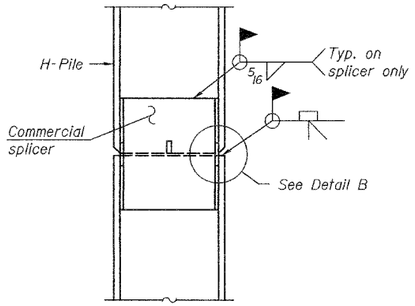
SHEET NO. S20
S21 SHEETS

CONTRACT NO. 62845

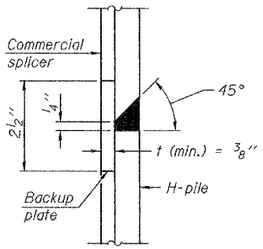


STEEL PILE TABLE

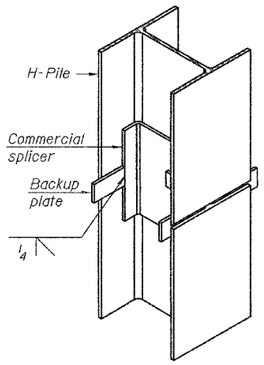
Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	$14\frac{1}{4}''$	$14\frac{7}{8}''$	$\frac{13}{16}''$	30''
x102	14''	$14\frac{3}{4}''$	$\frac{11}{16}''$	30''
x89	$13\frac{7}{8}''$	$14\frac{3}{4}''$	$\frac{5}{8}''$	30''
x73	$13\frac{5}{8}''$	$14\frac{5}{8}''$	$\frac{1}{2}''$	30''
HP 12x84	$12\frac{1}{4}''$	$12\frac{1}{4}''$	$\frac{11}{16}''$	24''
x74	$12\frac{1}{8}''$	$12\frac{1}{4}''$	$\frac{5}{8}''$	24''
x63	12''	$12\frac{1}{8}''$	$\frac{1}{2}''$	24''
x53	$11\frac{3}{4}''$	12''	$\frac{7}{16}''$	24''
HP 10x57	10''	$10\frac{1}{4}''$	$\frac{9}{16}''$	24''
x42	$9\frac{3}{4}''$	$10\frac{1}{8}''$	$\frac{7}{16}''$	24''
HP 8x36	8''	$8\frac{1}{8}''$	$\frac{7}{16}''$	18''



ELEVATION

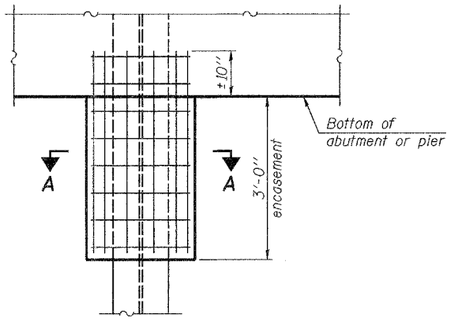


DETAIL "B"

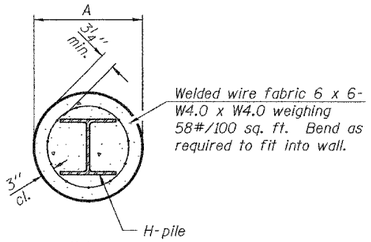


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



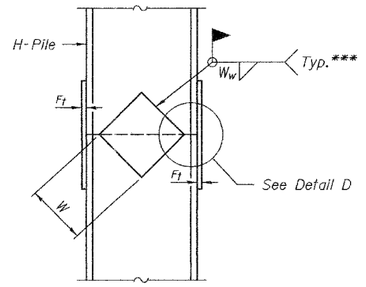
ELEVATION



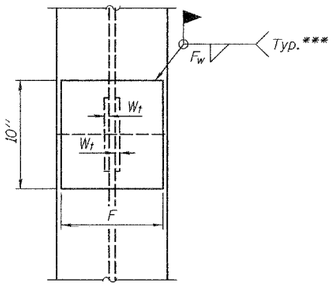
SECTION A-A

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

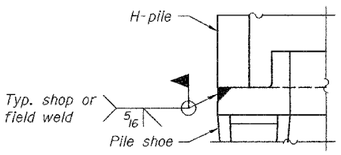
PILE ENCASEMENT



ELEVATION

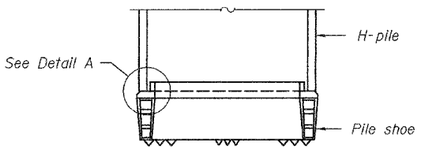


END VIEW

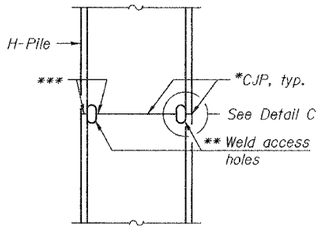


DETAIL A

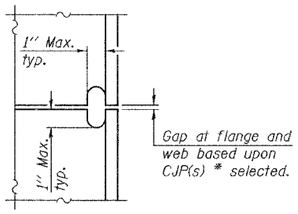
H-PILE SHOE ATTACHMENT



ELEVATION

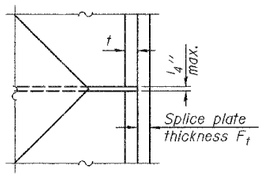


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F_f	F_w	W	W_t	W_w
HP 14x117	$12\frac{1}{2}''$	1''	$\frac{7}{8}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x102	$12\frac{1}{2}''$	$\frac{7}{8}''$	$\frac{3}{4}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x89	$12\frac{1}{2}''$	$\frac{3}{4}''$	$\frac{11}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x73	$12\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{9}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
HP 12x84	10''	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x74	10''	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x63	10''	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x53	10''	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 10x57	8''	$\frac{3}{4}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x42	8''	$\frac{5}{8}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 8x36	7''	$\frac{5}{8}''$	$\frac{7}{16}''$	$4\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds $\frac{1}{4}''$ from end of each pile.

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

REVISIONS	
NAME	DATE

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643
PILE DETAILS

DRAWN BY: MBM
CHECKED BY: PRL/GRA DATE: MARCH, 2007

F-HP 11-1-06

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U. S. L. F. A. P. 852	18B-5-R	WILL	66	51
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S21

S21 SHEETS

CONTRACT NO. 62845

STS Consultants Ltd.
STRUCTURE BORING LOG

Page 1 of 1
Date 6/9/03

JOB NO. 33444
ROUTE FAP 607: US 52 DESCRIPTION US Rte. 52 over Prairie Creek
SECT. T34N, R11E, 18W-32S STRUCT. NO. 099-0132 DRILLED BY STS - Baker
COUNTY Will LOCATION Manhattan, IL

Boring No. B-1
Station
Offset
Surface Elev. 656.05 ft

DEPTH	BLOWS	Qu tsf	W %
Stiff Black and Brown TOPSOIL and CLAY (fill)	1 2 3	1.3P	17.7
654.05			
Stiff to Medium Brown and Dark Gray SILTY CLAY (fill) Trace Organics	3 4 2	1.9P	10.4
	1 2 3 2	0.8B	34.3
648.55			
Soft Dark Gray and Black ORGANIC CLAY	2 3 3 2	0.3P	42.1
	2 2 3	0.3P	22.1
645.05			
Very Stiff to Stiff Brown to Gray CLAY	2 2 3	2.0P	
	5 6 6 10	1.8B	20.4
	3 4 4 7	1.3B	21.3
	3 3 6 6	1.2B	20.4
636.05			
Dense Brown SAND [A-1-b]	12 16 15		17
	12 17 22		11.9
631.05			

DEPTH	BLOWS	Qu tsf	W %
Surface Water Elev. ____ Groundwater Elev.: when drilling 640.1 at Completion 638.1 after ____ Hrs.			
Stiff Gray SILTY CLAY LOAM	4 10 7		1.5B
629.05			
Very Hard Light Gray Slightly Weathered Fair to Excellent Rock Quality Fine Grained COLOMITIC LIMESTONE	RUN 1 REC=99.6% RQD=76.6%		
	RUN 2 REC =100% RQD=85%		
613.05			
End of Boring Borehole grouted upon completion Casing used: 10 ft. of 4 in., 50 ft of NX Automatic-CME Hammer used for Standard Penetration Tests.			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

STS Consultants Ltd.
STRUCTURE BORING LOG

Page 1 of 2
Date 6/12/03

JOB NO. 33444
ROUTE FAP 607: US 52 DESCRIPTION US Rte. 52 over Prairie Creek
SECT. T34N, R11E, 18W-32S STRUCT. NO. 099-0132 DRILLED BY STS - Baker
COUNTY Will LOCATION Manhattan, IL

Boring No. B-2
Station
Offset
Surface Elev. 655.66 ft

DEPTH	BLOWS	Qu tsf	W %
Black TOPSOIL and CLAY (fill)	3 5 6 4		18.5
654.66			
Medium Dense Gray SANDY GRAVEL (fill)	6 7		7.3
653.66			
Very Stiff to Stiff Brown CLAY (fill)	3 4 7 9	2.3B	21
	5 5 4 5	2.0P	15.4
	2 3 3 4	1.2B	20.7
	2 3 3 4	0.8B	26.3
Sample is Medium [A-6 (15)]			
643.55			
Very Stiff to Stiff Gray CLAY	6 7 12	2.4B	19.5
	4 5 9	2.1P	19.3
	4 6 8 8	1.5B	20
	4 5 6 8	1.4B	20.6
	4 7 7 12	1.8P	20.4
Medium Dense 631.55 Brown SAND			13.9

DEPTH	BLOWS	Qu tsf	W %
Surface Water Elev. ____ Groundwater Elev.: when drilling 645.6 at Completion 635.6 after ____ Hrs.			
Very Stiff to Stiff Gray CLAY LOAM [A-6 (0)]	630.05		
	4 5	2.0P	17.7
Brown to Greenish Gray CLAYSTONE with Limestone Fragments	627.05		
	5 6 FT 9	1.0P	13.9
	FT		12.9
	5 6 8		9.2
	620.55		
Very Soft Greenish Gray CLAYSTONE	90		15.6
	RUN 1 REC=100% RQD=0%		
Soft Dark Gray to Dark Green Very Poor Rock Quality Fine Grained CLAYSTONE	615.55		
Driller's Note: Rock swelling and deforming split barrel - unable to advance core barrel.	ROLLER BIT NO SAMPLING		
605.55			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

STS Consultants Ltd.
STRUCTURE BORING LOG

Page 2 of 2
Date 6/12/03

JOB NO. 33444

STRUCTURE NO. 099-0132
ROUTE FAP 607: US 52
SECTION T34N, R11E, 18W-32S
COUNTY Will

Boring No. B-2
Station
Offset
Surface Elev. 655.66 ft

DEPTH	BLOWS	Qu tsf	W %
Soft Dark Gray to Dark Green Very Poor Rock Quality Fine Grained CLAYSTONE	603.05		
Driller's Note: Rock swelling and deforming split barrel - unable to advance core barrel.	RUN 2 REC=96.3% RQD=71.3%		
Very Hard to Hard Light Gray to Dark Gray Slightly Weathered Fair Quality Rock SHALEY DOLOMITIC LIMESTONE with Layers of Claystone	598.55		
End of Boring Borehole grouted upon completion Casing used: 10 ft. of 4 in., 48 ft. of HX Automatic-CME Hammer used for Standard Penetration Tests.			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

STS Consultants Ltd.
STRUCTURE BORING LOG

Page 1 of 1
Date 6/16/03

JOB NO. 33444
ROUTE FAP 607: US 52 DESCRIPTION US Rte. 52 over Prairie Creek
SECT. T34N, R11E, 18W-32S STRUCT. NO. 099-0132 DRILLED BY ATV - Baker
COUNTY Will LOCATION Manhattan, IL

Boring No. B-3
Station
Offset
Surface Elev. 654.54 ft

DEPTH	BLOWS	Qu tsf	W %
Very Stiff Black TOPSOIL (Fill) trace roots	2 2 3 4	2.3B	18.2
626.04			
Driller's Note: SOLID LIMESTONE BEDROCK	50		12.7
	ROLLER BIT NO SAMPLING		
626.54			
End of Boring Borehole grouted upon completion Casing used: 10 ft. of 4 in. Automatic-CME Hammer used for Standard Penetration Tests.			
	2 3 4 5		20.3
Medium to Stiff Black Organic CLAY	2 3 4 5	0.8B	30.0
649.04			
	2 2 3 7	1.3P	32.2
Stiff to Medium Gray CLAY	4 5 6 11	1.0B	15.7
	4 5 6 11	0.9B	15.7
	4 7 8 16	0.8B	17.6
	5 7 9 11	1.1B	20.8
634.54			
Medium Dense to Dense Brown SAND and GRAVEL	9 10 13 15		15.0
	15 15 24		15.4

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

STS Consultants Ltd.
STRUCTURE BORING LOG

Page 1 of 2
Date 6/10/03

JOB NO. 33444
ROUTE FAP 607: US 52 DESCRIPTION US Rte. 52 over Prairie Creek
SECT. T34N, R11E, 18W-32S STRUCT. NO. 099-0132 DRILLED BY STS - Baker
COUNTY Will LOCATION Manhattan, IL

Boring No. B-4
Station
Offset
Surface Elev. 653.09 ft

DEPTH	BLOWS	Qu tsf	W %
Dark Brown TOPSOIL and CLAY (fill)	3 5 4 5		24.7
651.09			
Stiff Dark Brown CLAY with topsoil noted (fill)	3 4 4 5	1.0P	24.0
648.59			
Medium Dark Gray and Brown ORGANIC CLAY	1 1 2 2	0.7B	27.8
645.59			
Stiff Gray CLAY	5 5 5 6	1.6B	19.7
	3 4 6 8	1.9B	21.3
	4 6 8 10	1.7B	21.8
	4 5 8 10	1.4B	21.7
635.59			
Dense to Medium Dense Brown SAND Cave-in while drilling from 17.5 to 21.0 ft.	13 10 21		16.9
	23 8		8.2
632.09			
Stiff Brown SILTY CLAY LOAM 90% Mud Loss from 20 to 25 ft.	5	1.3P	12.7
	7 10 12 16	1.8P	16.2
628.09			

DEPTH	BLOWS	Qu tsf	W %
Surface Water Elev. ____ Groundwater Elev.: when drilling 643.1 at Completion 642.1 after ____ Hrs.			
Hard Gray CLAY LOAM	17 24 28	4.5P	15.7
	11 21 21 29	4.5P	13.7
Claystone noted	16 14 15	4.5P	19.0
617.34	14 50/5"		21.3
Hard Gray to Dark Gray Slightly to Moderately Weathered SHALEY DOLOMITIC LIMESTONE	RUN 1 REC=95% RQD=40.6%		
614.09			
Soft Dark Gray Poor Rock Quality CLAYSTONE Driller's Note: Swelling CLAYSTONE	RUN 2 REC=78.6% RQD=38.8%		
Very Hard to Hard Light Gray Slightly Weathered DOLOMITIC LIMESTONE	605.09		
603.09			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

STS Consultants Ltd.
STRUCTURE BORING LOG

Page 2 of 2
Date 6/10/03

JOB NO. 33444

STRUCTURE NO. 099-0132
ROUTE FAP 607: US 52
SECTION T34N, R17E, 18W-32S
COUNTY Will

Boring No. B-4
Station
Offset
Surface Elev. 653.09 ft

DEPTH	BLOWS	Qu tsf	W %
Very Hard to Hard Light Gray Slightly Weathered DOLOMITIC LIMESTONE	602.09		
End of Boring Borehole grouted upon completion Casing used: 20 ft. of 4 in., 35 ft. of NX Automatic-CME Hammer used for Standard Penetration Tests.			
Artesian Water Flowing From Borehole at 9.0 GPM+/- After Casing Removal			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

APPROXIMATE STATIONS AND OFFSETS TAKEN FROM STS CONSULTANTS LTD. GEOTECHNICAL ENGINEERING REPORT		
BORING NO.	STATION	OFFSET
B-1	1007+63	26' RIGHT
B-2	1008+46	28' LEFT
B-3	1007+49	28' LEFT
B-4	1008+61	26' RIGHT

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 52 (STATE STREET)
OVER PRAIRIE CREEK
FAP RTE. 852 SEC. 18B-5-R
WILL COUNTY
STA. 1008+00.00 STRUCTURE NO. 099-4643

SOIL BORING LOGS

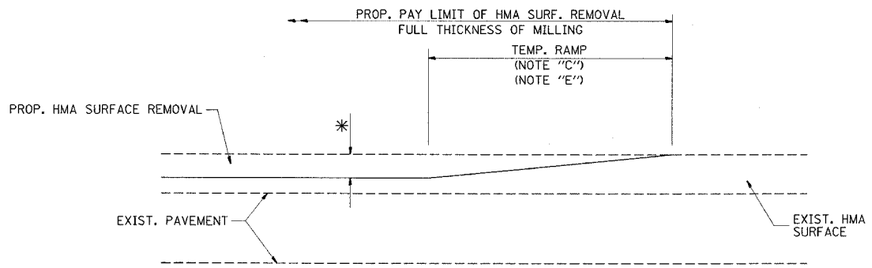
DRAWN BY: KAC
CHECKED BY: JMH/DGS
DATE: OCTOBER, 2004

FILE: g:\3760\FINAL PLANS\3760113.dgn
DATE: 12-Jul-04 10:06

V:\jobs\099464\3\099464-3-S21.dgn 9/13/2007 9:46:14 AM

CONTRACT NO. 62845

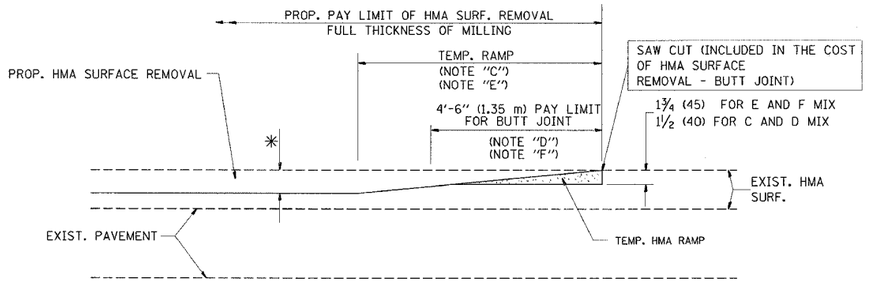
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	52
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

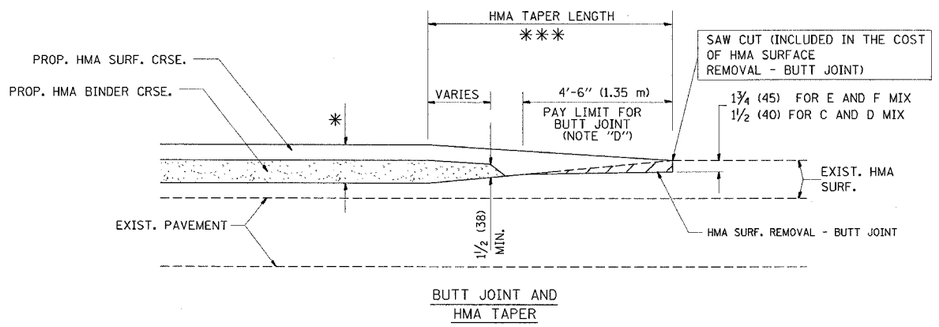


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

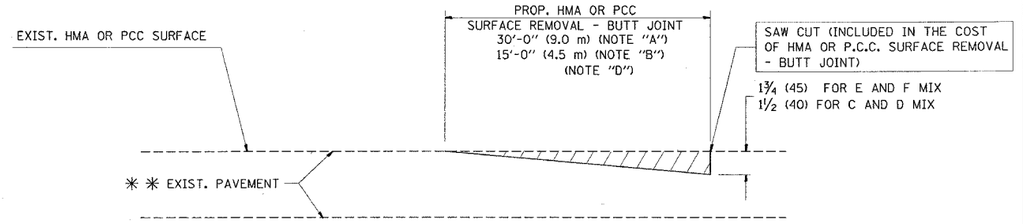
OPTION 2

TYPICAL TEMPORARY RAMP

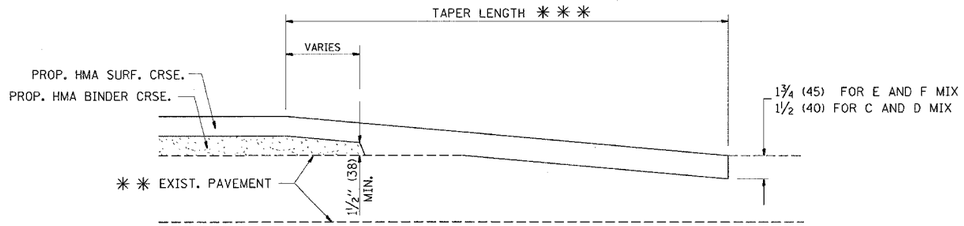


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. HORIZ. NONE

DRAWN BY

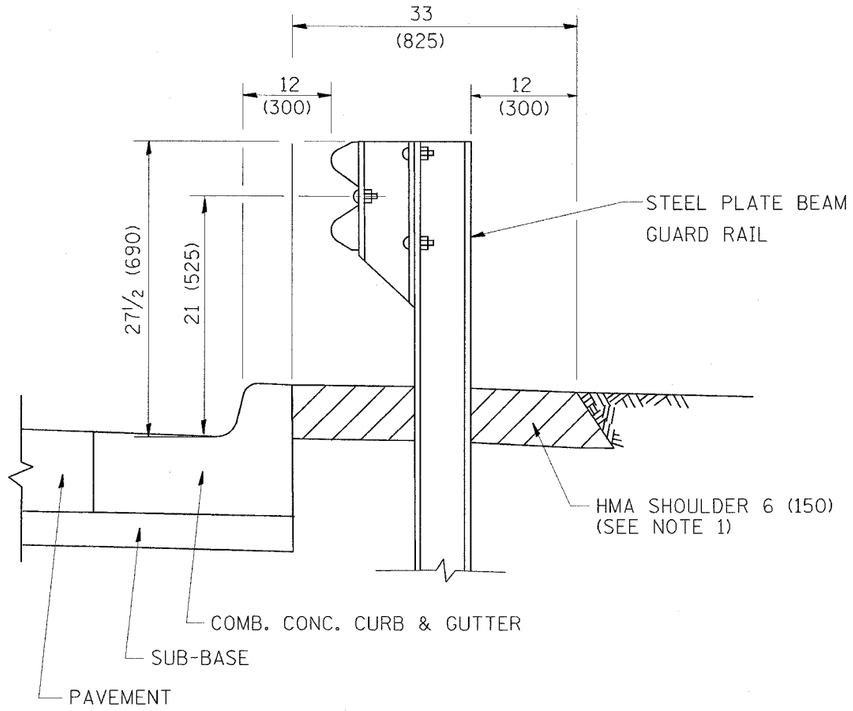
CHECKED BY

BD400-05 (VI=BD32)

PLOT DATE = 5/3/2007
FILE NAME = c:\projects\...\mrpt\PSGUMD_1\Opts.DW\cadd standards\bd52.dgn
PLOT SCALE = 64.8000 '/ IN.
USER NAME = adbrush

CONTRACT NO. 62845

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	53
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

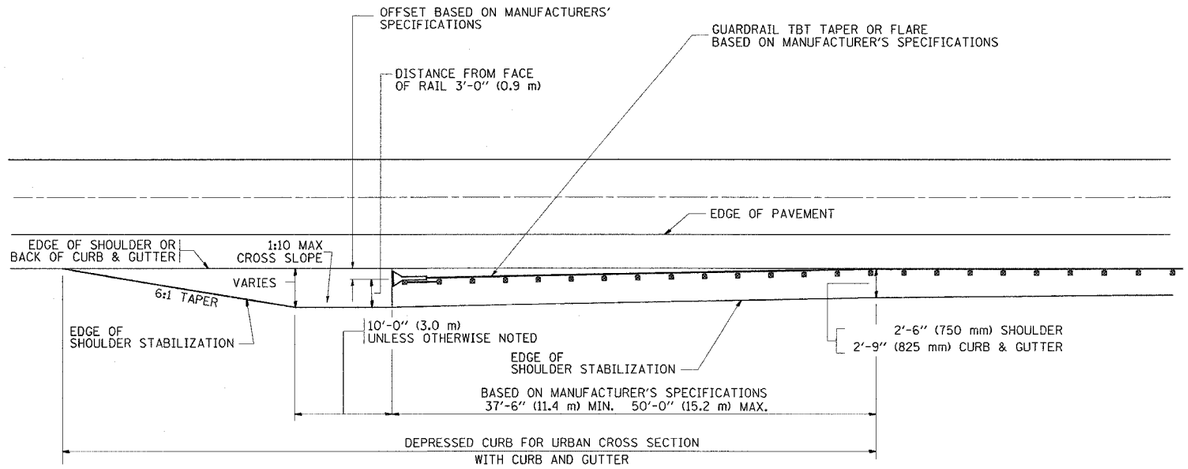


NOTES:
1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL

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

REVISIONS	
NAME	DATE
M. DE YONG	09-22-90
M. DE YONG	07-14-92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	02/23/95
A. ABBAS	03/21/97
E. GOMEZ	08/28/00
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL.

SCALE: VERT. NONE HORIZ.

DRAWN BY jls

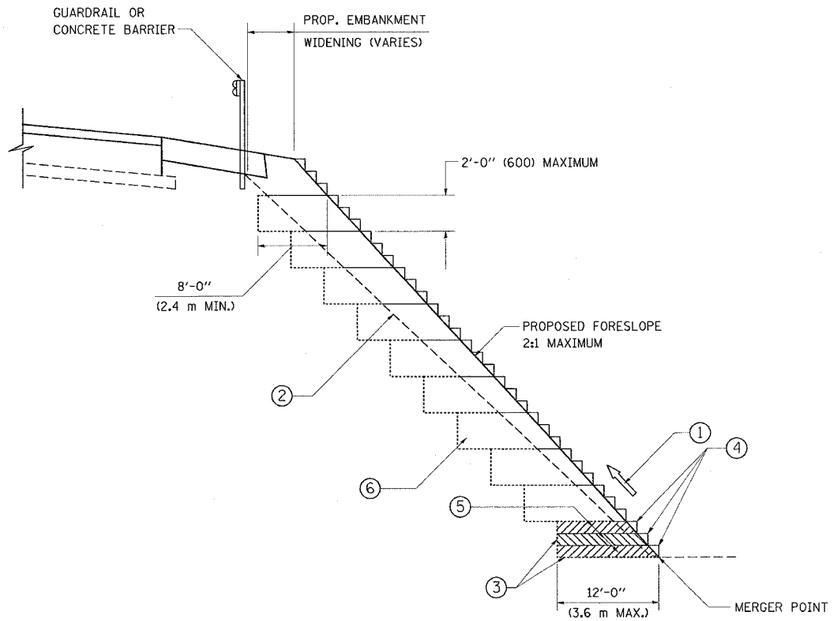
CHECKED BY

BD600-10 (BD 34)

PLOT DATE = 5/3/2007
FILE NAME = \\dist1nfs2\users\abrwash\Desktop\bd34.dgn
PLOT SCALE = 50.0000 '/ IN.
USER NAME = abrwash

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	54
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

REVISIONS NAME	DATE
	06/16/04

ILLINOIS DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL
FOR EMBANKMENT
WIDENING

SCALE: VERT. NONE
HORIZ.

DRAWN BY: CADD
CHECKED BY: S.E.B.

BD-51

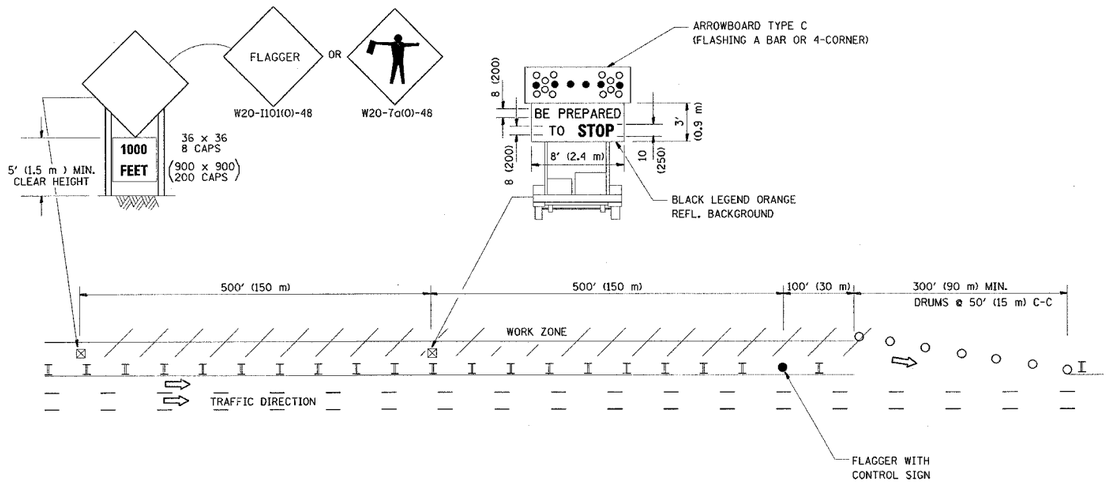
PLOT DATE = 5/3/2007
FILE NAME = \\dist1tf2\users\abreush\Desktop\bd51.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = abreush

CONTRACT NO. 62845

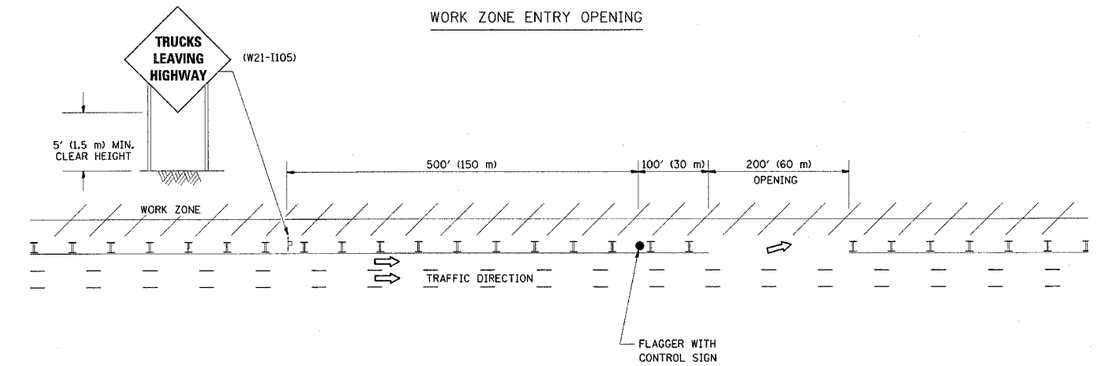
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	55
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

SCALE: NONE

DRAWN BY CADD

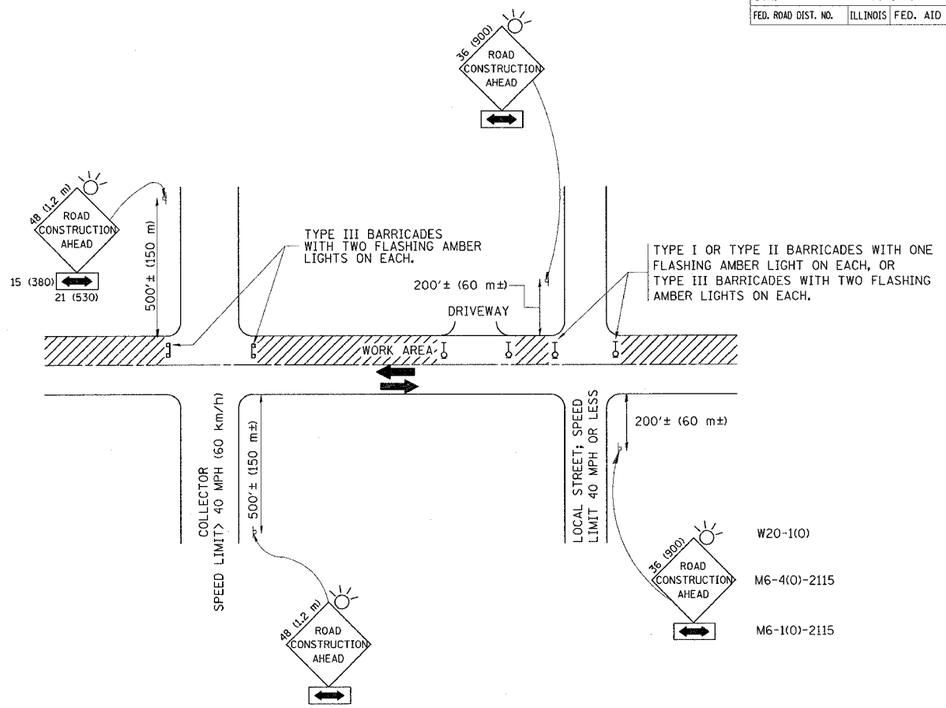
CHECKED BY

TC-18

PLOT DATE = 5/3/2007
FILE NAME = \\distintfs2\users\abreush\Desktop\tc18.dgn
PLOT SCALE = 50.000 ' / IN.
USER NAME = abreush

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	56
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE

DRAWN BY

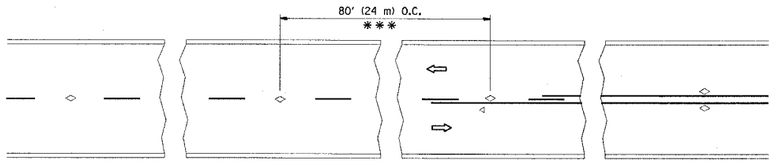
CHECKED BY

TC-10

PLOT DATE = 5/3/2007
FILE NAME = \\dist1nt2\Users\abreuah\Desktop\tc10.dgn
PLOT SCALE = 1.0000 / IN.
USER NAME = abreuah

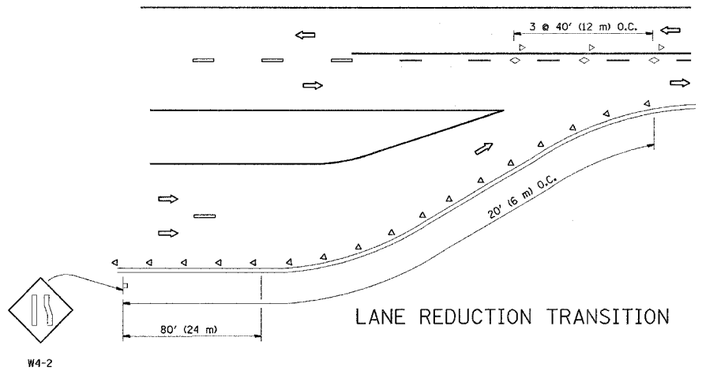
CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	57
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		

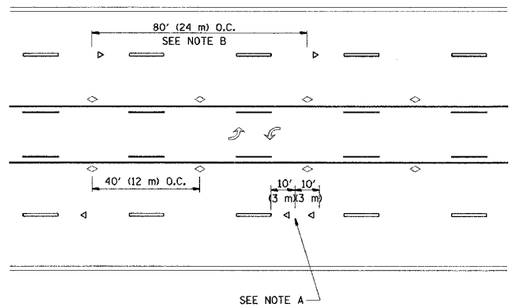


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

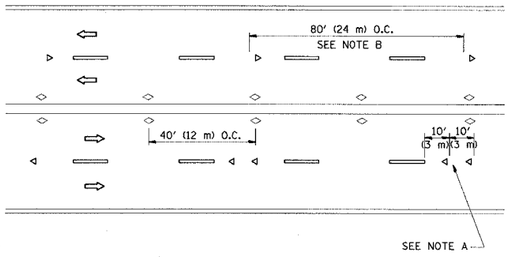
TWO-LANE/TWO-WAY



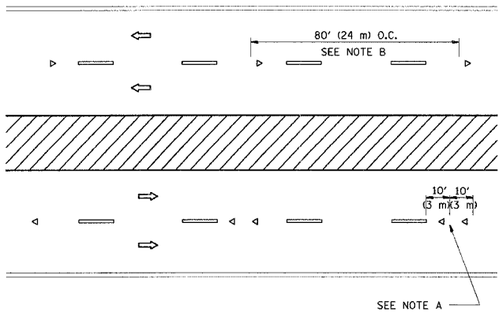
LANE REDUCTION TRANSITION



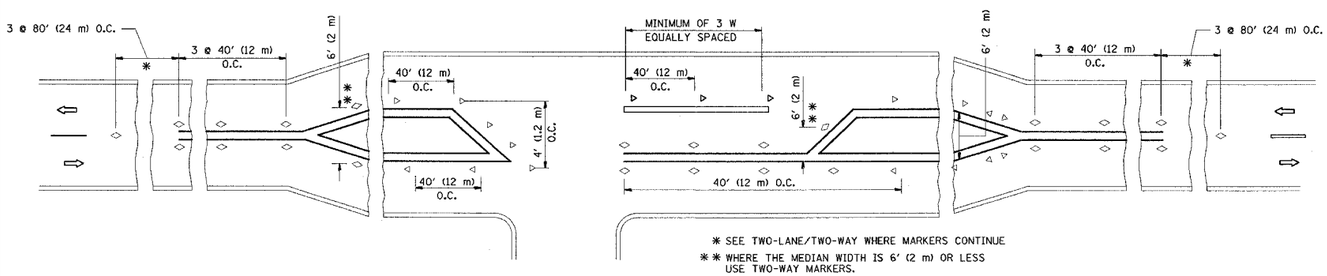
TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

LANE MARKER NOTES

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE

DRAWN BY CADD

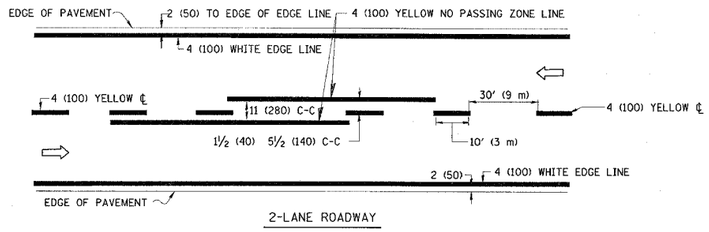
CHECKED BY

TC-11

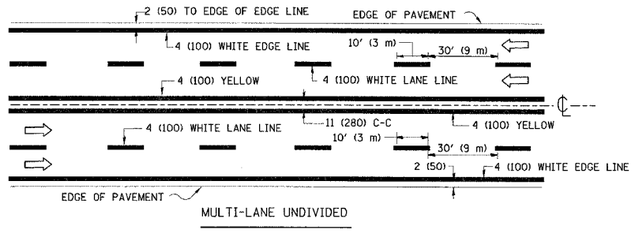
PLOT DATE = 5/3/2007
FILE NAME = S:\PV\PLANPREP\SQUAD_1\Des_DW\cadd standards\tc11.dgn
PLOT SCALE = 50.3008 ' / IN.
USER NAME = dbrwash

CONTRACT NO. 62845

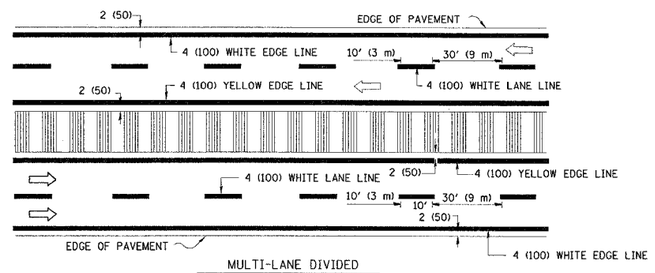
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	58
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		



2-LANE ROADWAY



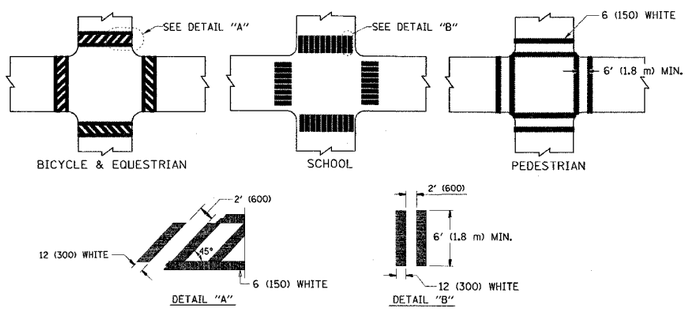
MULTI-LANE UNDIVIDED



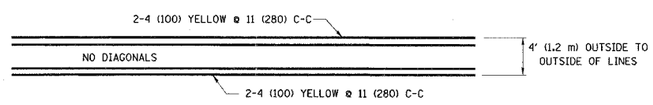
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

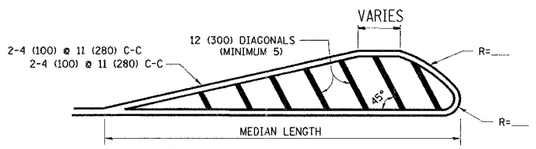
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



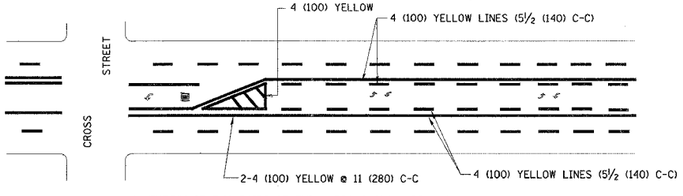
4' (1.2 m) WIDE MEDIANS ONLY



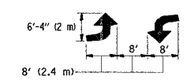
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

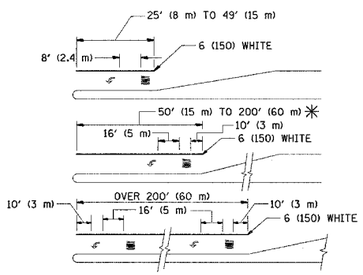


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

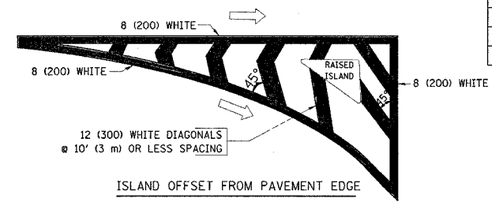


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

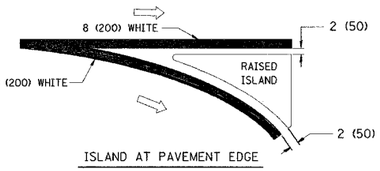
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 ⌀ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ⌀ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⌀ 6 (150) 12 (300) ⌀ 45° 12 (300) ⌀ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⌀ 4 (100) WITH 12 (300) DIAGONALS ⌀ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⌀ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) ⌀ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CADD

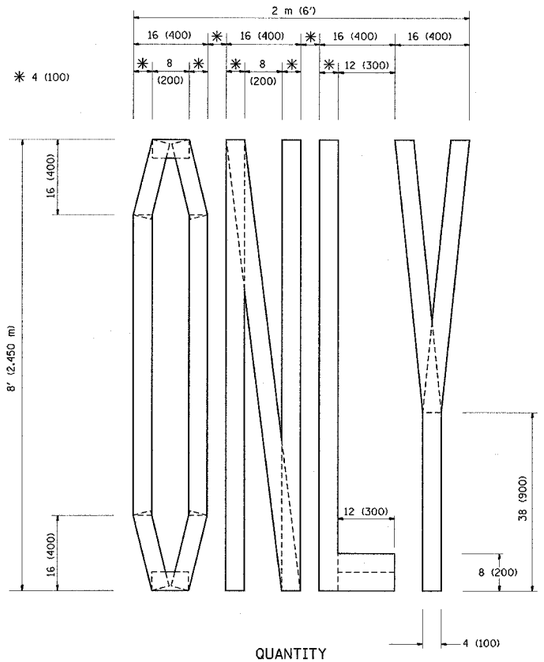
CHECKED BY

TC-13

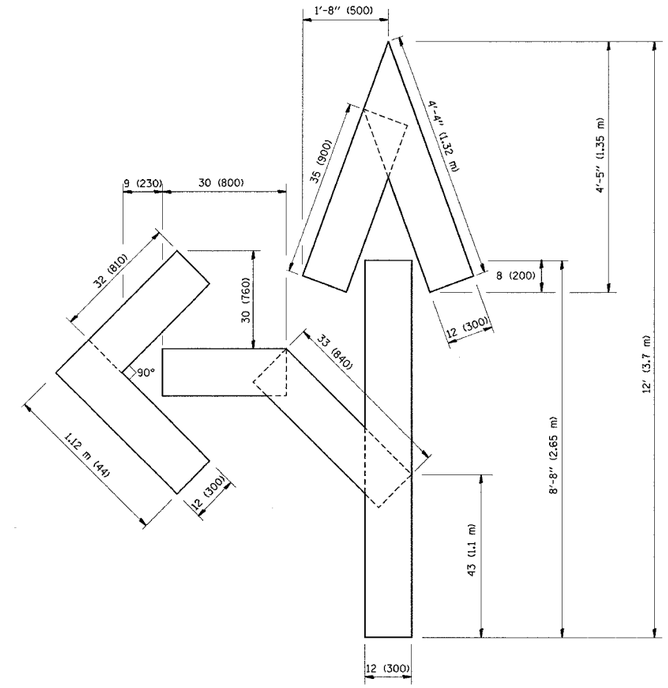
PLOT DATE = 5/3/2007
FILE NAME = S:\WP\PLANPREP\SQUADLIVE\s_DV\cadd standards\tc13.dgn
PLOT SCALE = 50.000 ' / IN.
USER NAME = abr-wuh

CONTRACT NO. 62845

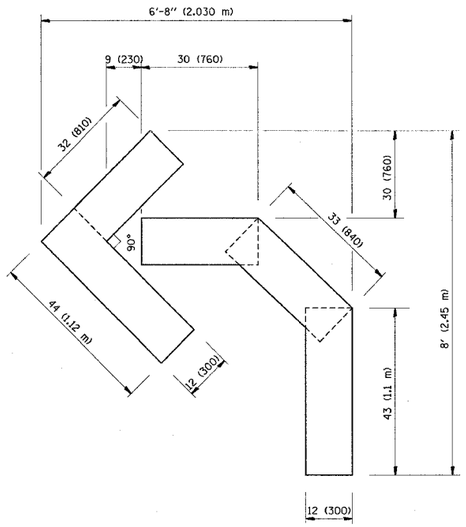
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	59
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/98
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

SCALE: NONE

DRAWN BY CADD

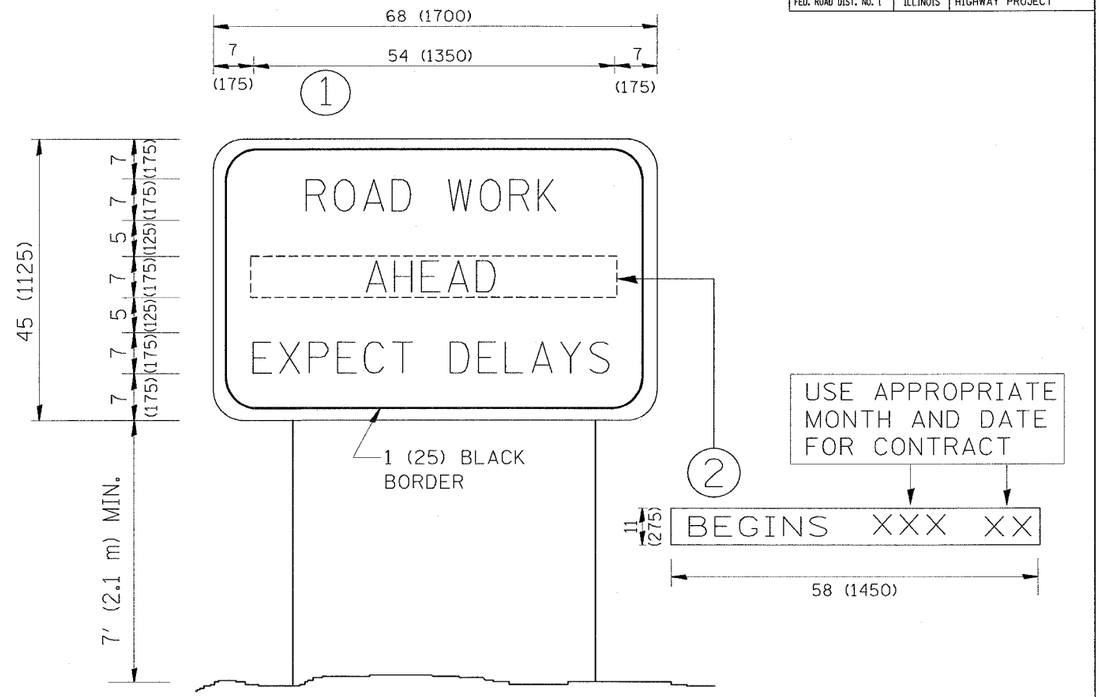
CHECKED BY

TC-16

PLOT DATE = 5/3/2007
FILE NAME = S:\WP\PLANPREP\SQUAD.11\Dse_DW\cadd standards\tc16.dgn
PLOT SCALE = 50.0000 '/ IN.
USER NAME = abr-dush

CONTRACT NO. 62845

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	18 B-5-R-2	WILL	66	60
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE

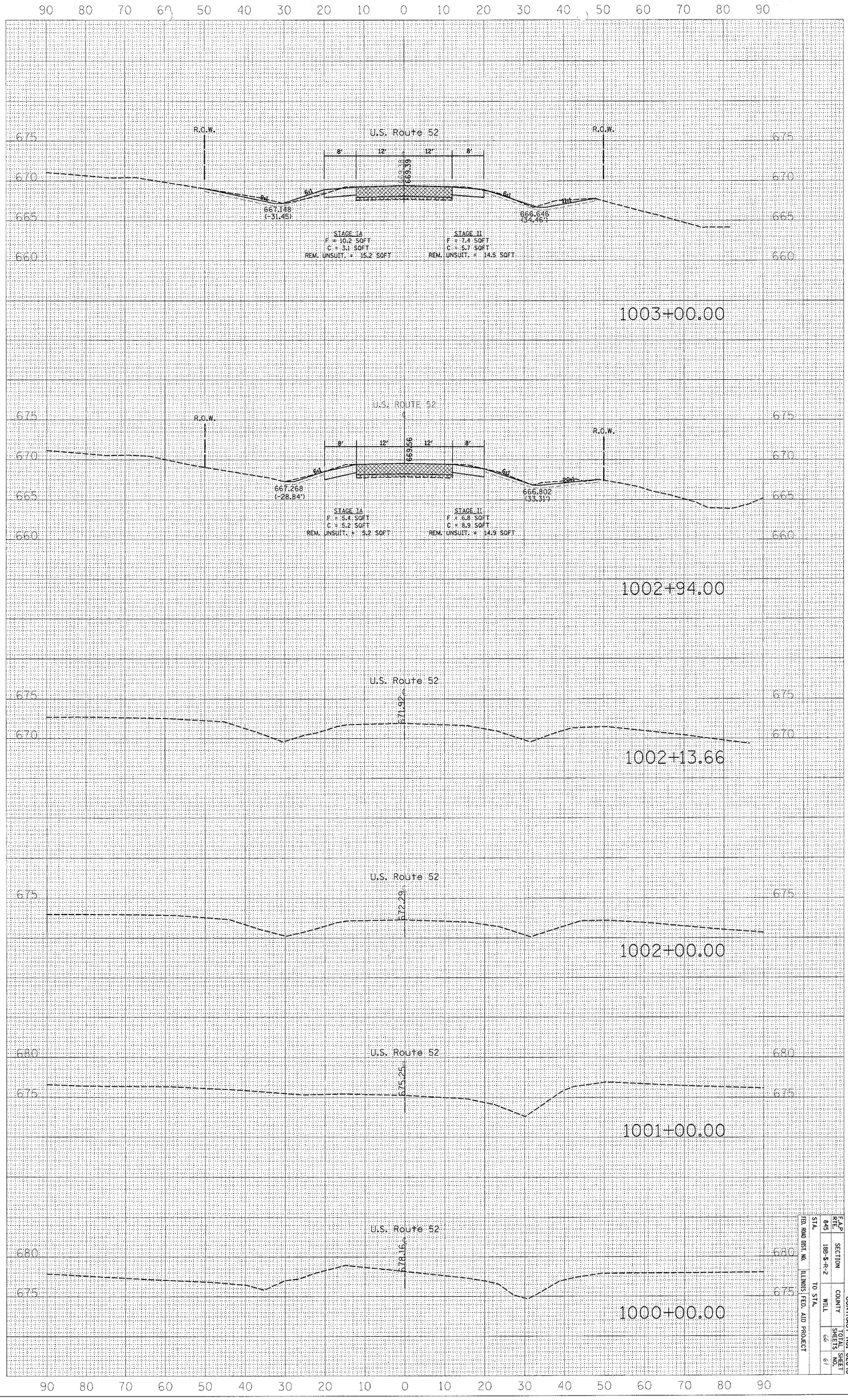
DRAWN BY DESIGN

CHECKED BY

TC22

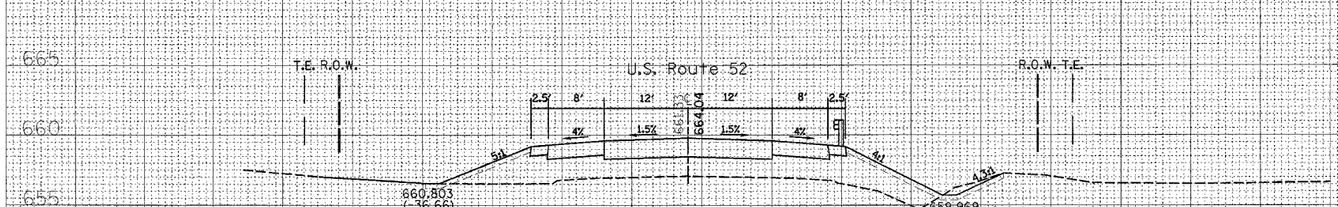
PLOT DATE = 5/3/2007
FILE NAME = s:\VP\PLANPREP\SQUAD_1\Des_DW\cadd standards\tc22.dgn
PLOT SCALE = 50.000 '/ IN.
USER NAME = dbreuah

FILE NAME = c:\projects\pl49801\xs_us52_sh.m32
PLOT SCALE = 10.0000 ' / IN.
USER NAME = sbreuah

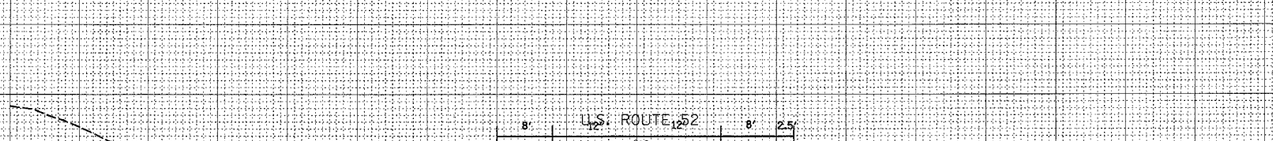


F.A.P. RTE.	SECTION	CONTRACT NO. 62845
845	108-S-R-2	
RTE.	COUNTY	TOTAL SHEETS
	WILL	64
RTE.	ILLINOIS FED. AID PROJECT	SHEET NO.
		61
STA.	TO STA.	
FED. ROAD DIST. NO.		

FILE NAME = o:\projects\p149801\xs.us52.shm32
PLOT SCALE = 10.0000 ' / IN.
USER NAME = obrwuah



1006+00.00



1005+20.00

1005+00.00

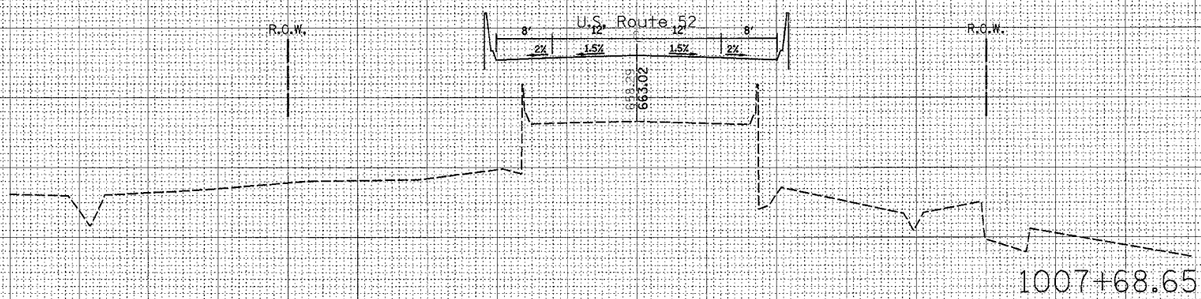
1004+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
852	188-5 -R-2	WILL	69	62

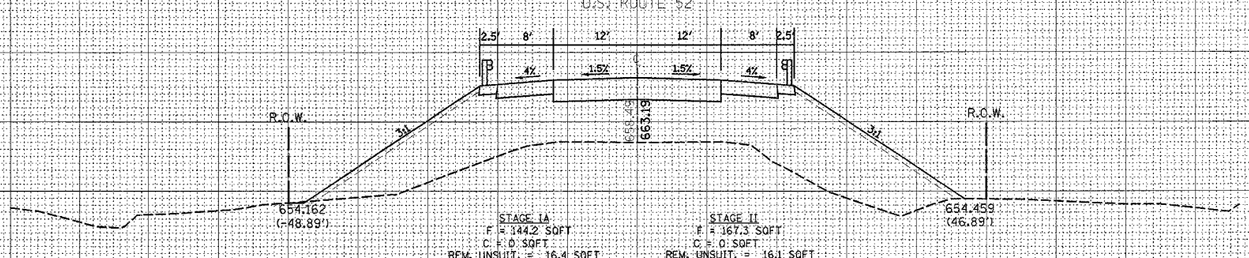
CONTRACT NO. 62845

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

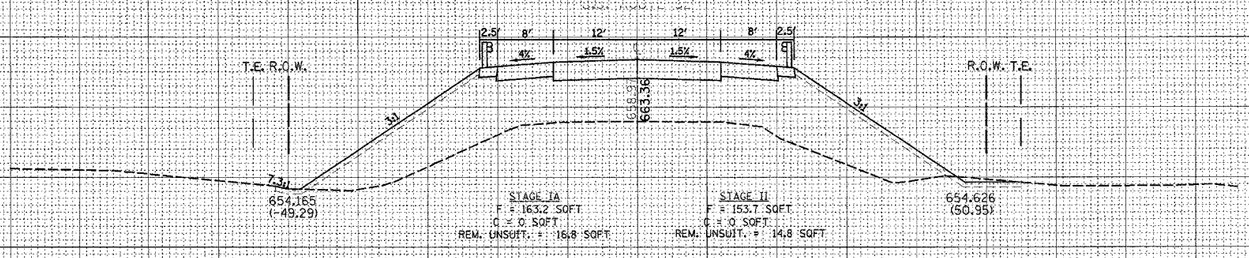
FILE NAME = o:\projects\pl49801\xs_us52_sh.m32
PLOT SCALE = 10.0000 ' / IN.
USER NAME = abreuah



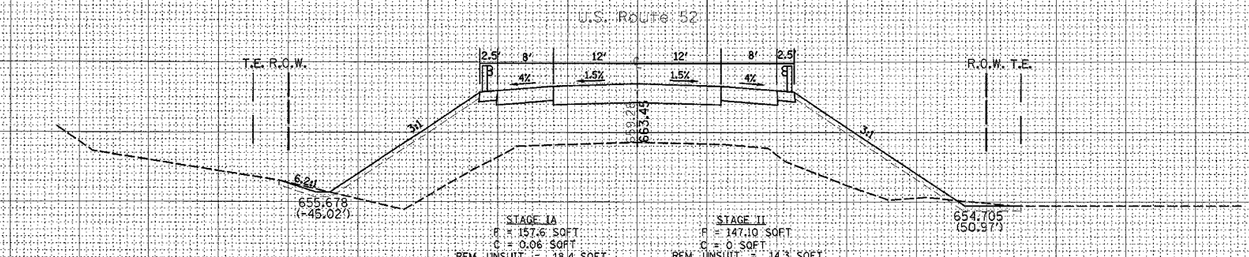
1007+68.65



1007+45.00



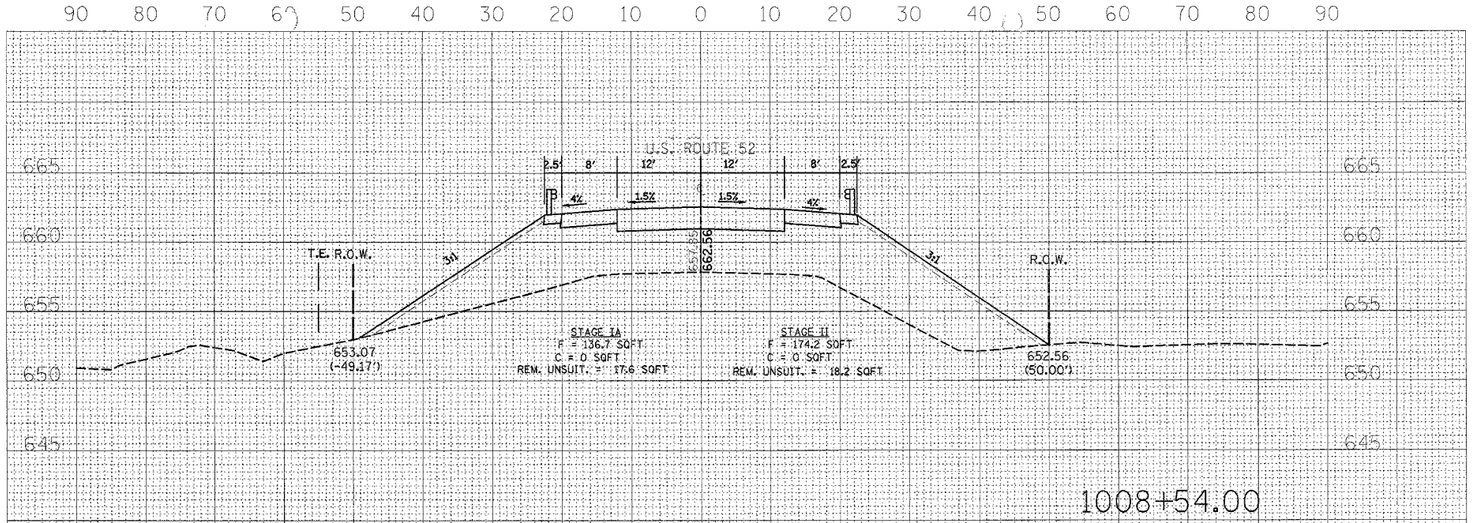
1007+15.71



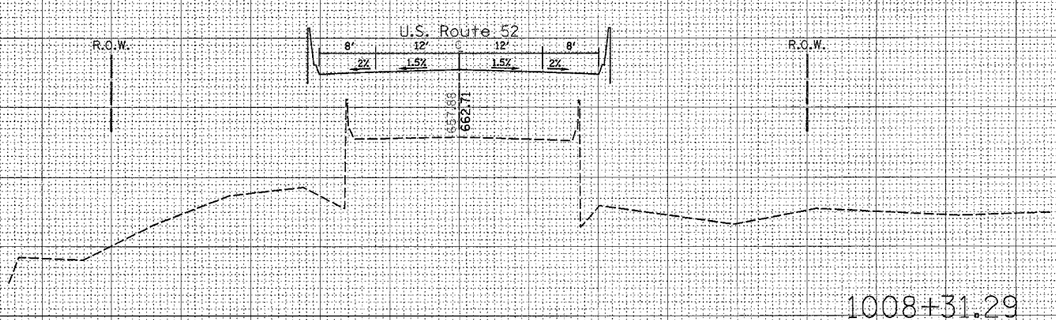
1007+00.00

F.A.P. RTE.	852	CONTRACT NO. 62845	
SECTION	188-5-R-2		
COUNTY	WILL	TOTAL SHEETS	64
		SHEET NO.	63
STA.			
TO STA.			
ILLINOIS FED. AID PROJECT			
FED. ROAD DIST. NO.			

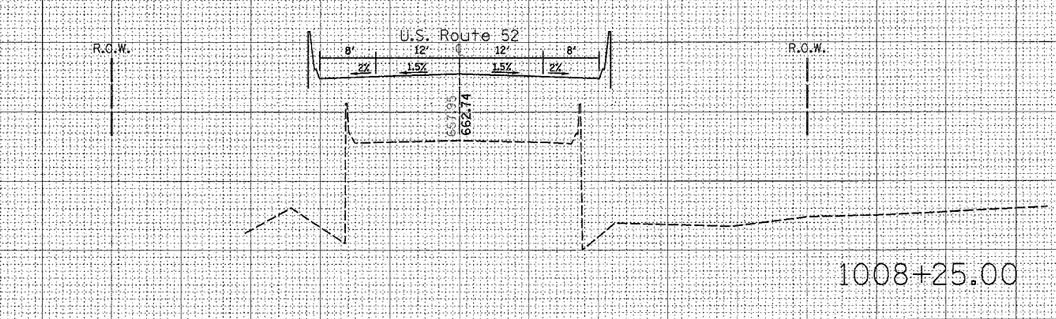
PLOT DATE = 8/28/2007
FILE NAME = c:\projects\pl49801\xs_us52_sh_m32
PLOT SCALE = 10.0000 ' / IN.
USER NAME = abreuah



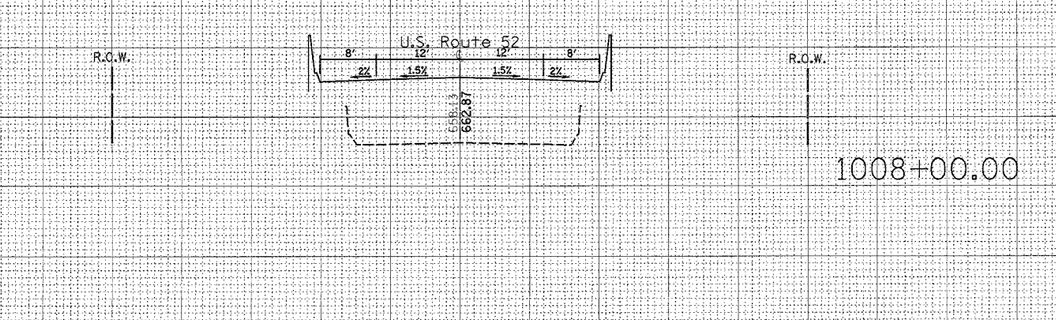
1008+54.00



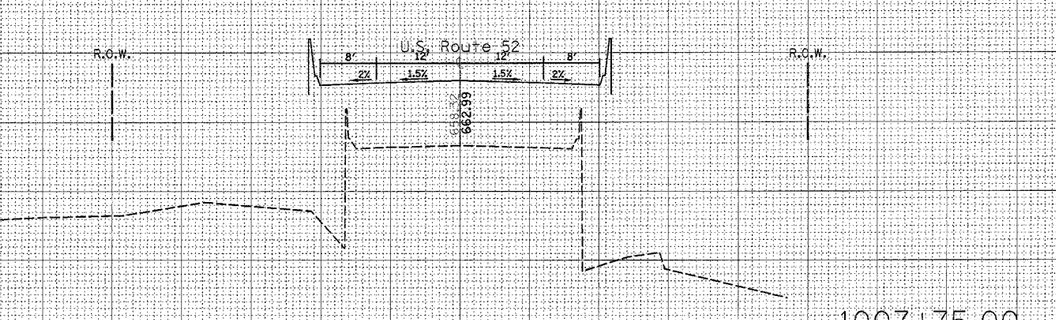
1008+31.29



1008+25.00



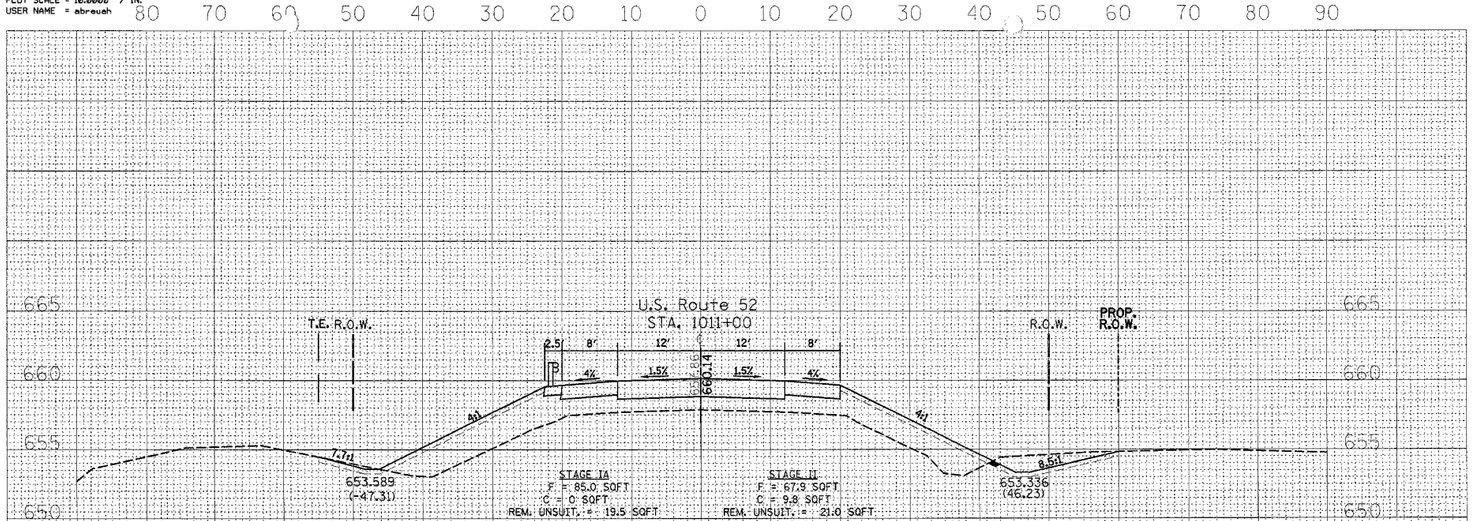
1008+00.00

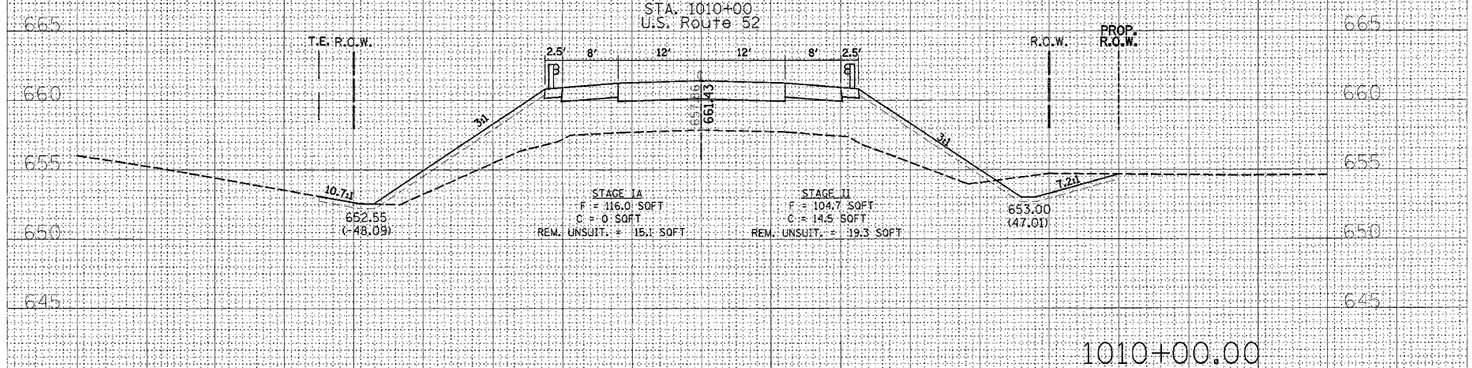


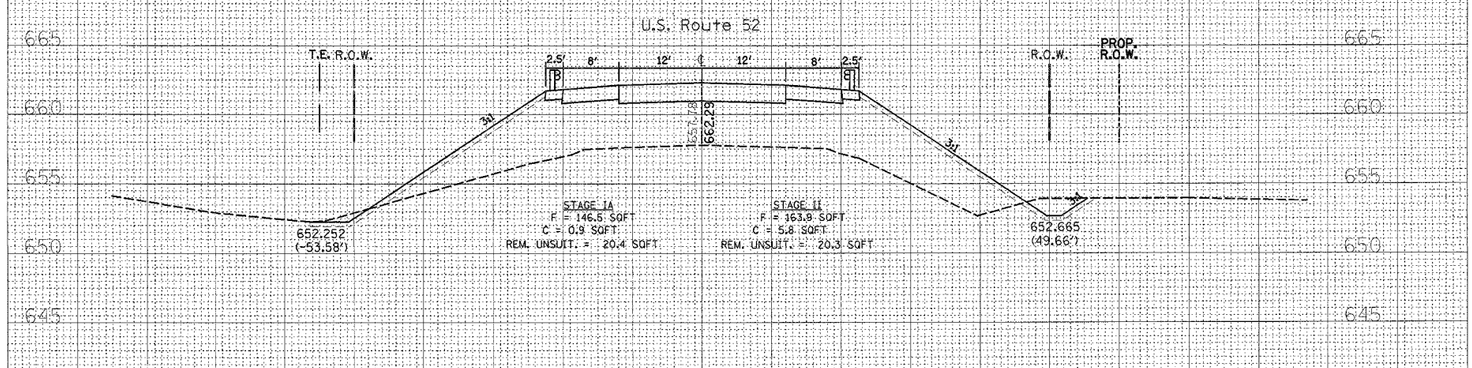
1007+75.00

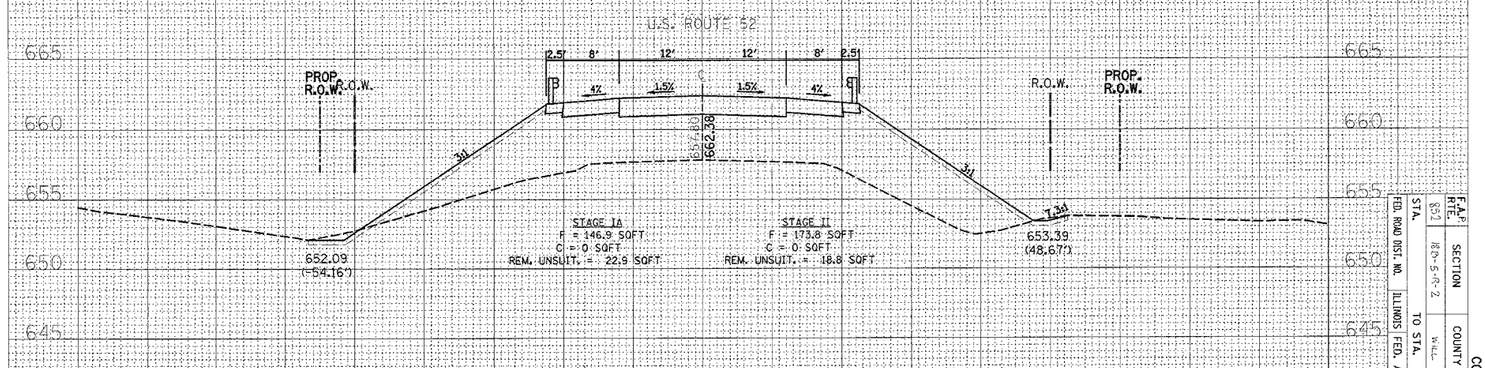
F.A.P. RTE. 652	SECTION 188-5-R-2	COUNTY WILL	CONTRACT NO. 62845
STA.			TOTAL SHEETS 44
TO STA.			SHEET NO. 34
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

PLOT DATE = 8/28/2007
FILE NAME = c:\projects\pl49801\xs_us52_sh.m32
PLOT SCALE = 10.0000 ' / IN.
USER NAME = abreuch





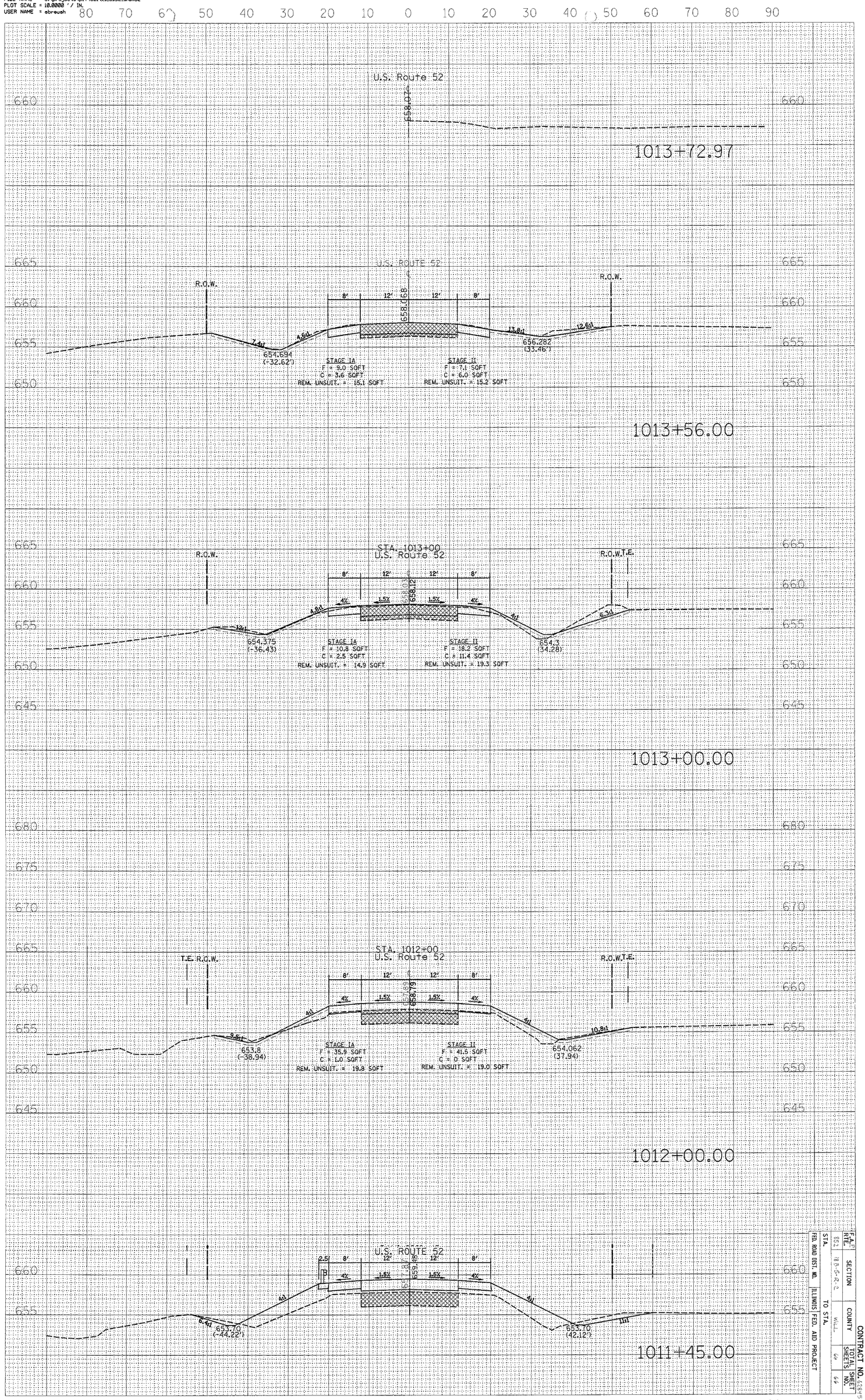




F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
6(2)	18-5-5R-2	WILL	66
STA.	TO STA.	ILLINOIS FED. AID PROJECT	FED. ROAD DIST. NO.

CONTRACT NO. 62845

PLOT DATE = 8/28/2007
FILE NAME = c:\projects\pl49881\xs_us52_shm32
PLOT SCALE = 10.0000 ' / IN.
USER NAME = obreush



F.A.P. RTE.	SECTION		
STA.	882-5-R-2	COUNTY	WILL
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	TOTAL SHEETS	64
TO STA.		SHEET NO.	60

CONTRACT NO. 65815