

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	1

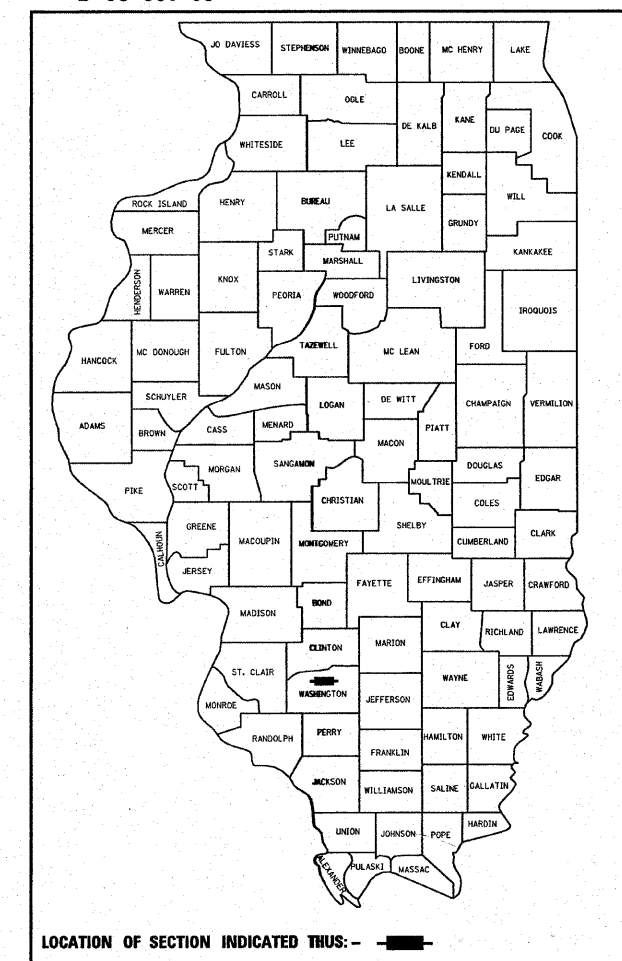
1/98

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAS ROUTE 1832 (IL 160)
SECTION 5BR-2
PROJECT NO. RS-BRS1832 (101)
**STRUCTURE REPLACEMENT OVER PLUM CREEK
& PLUM CREEK BRANCH**
WASHINGTON COUNTY

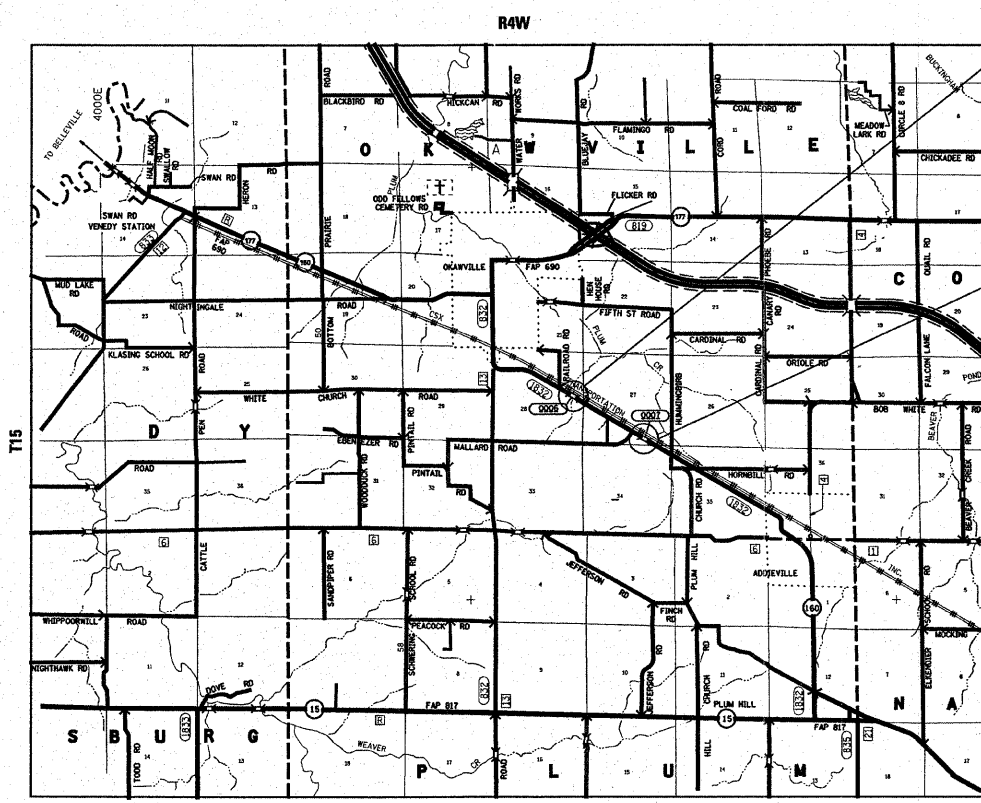
D-98-091-05



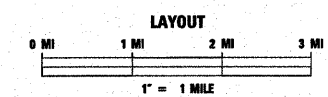
C-98-116-05

PROJECT LOCATION
IL 160 OVER PLUM CREEK
SN 095-0006(E) 0077(P)
STA 1453+15.00

PROJECT LOCATION
IL 160 OVER PLUM CREEK BRANCH
SN 095-0007(E) 0078(P)
STA 1515+00.00



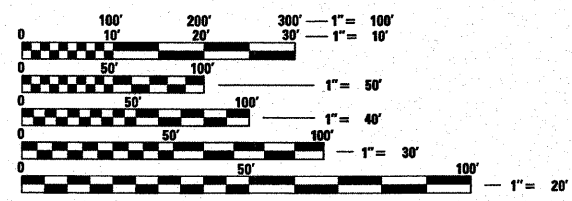
TRAFFIC DATA:
ADT: 1200 (2008)
1600 (2028)
SU: 3.5%
MU: 2.6%



GROSS LENGTH: SN 095-0077 = 64 FT (ABUT. TO ABUT.)
SN 095-0078 = 35 FT (OUT TO OUT OF HEADWALL)

FOR INDEX OF SHEETS, SEE SHEET NO. 2

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



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. 76949

PROJECT ENGINEER: PATTI LeBEAU (618) 346-3179
SQUAD CONTACT: ART MUEHLFELD (618) 346-3209

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 12 20 07
May C. Amis
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

February 1, 20 08
Eric E. Harms
ENGINEER OF DESIGN AND ENVIRONMENT

February 1, 20 08
Christine M. Reed
DIRECTOR, DIVISION OF HIGHWAYS

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

SN 095-0077 LATITUDE: 38.41394 LONGITUDE: 89.53311
SN 095-0078 LATITUDE: 38.40683 LONGITUDE: 89.51794

F.A.S. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	2
SFA		TO STA. _____		
HLL ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

INDEX OF SHEETS

1. COVER PAGE
2. INDEX OF SHEETS/HIGHWAY STANDARDS/GENERAL NOTES & COMMITMENTS
- 3 - 5. SUMMARY OF QUANTITIES
6. TIE POINT & BENCH MARK
7. WIDE LOAD SIGNING
- 8 - 9. STORM WATER POLLUTION PREVENTION PLAN

SN 095-0006(E) 0077(P)

10. TYPICAL SECTIONS & MIXTURE REQUIREMENTS
- 11 - 12. SCHEDULE OF QUANTITIES
13. MAINLINE PLAN AND PROFILE SHEET
- 14 - 19. SUGGESTED STAGES OF CONSTRUCTION & TRAFFIC CONTROL
20. EROSION CONTROL PLAN
- 21 - 22. PLAT OF HIGHWAYS
23. ENTRANCE DETAIL
- 24 - 26. PAVEMENT MARKING SHEETS
- 27 - 43A. STRUCTURE PLANS
- 44 - 48. EXISTING STRUCTURE PLANS
- 49 - 53. MAINLINE CROSS SECTIONS

SN 095-0007(E) 0078(P)

54. TYPICAL SECTIONS, MIXTURE REQUIREMENTS, & HMA SURF. REMOVAL DETAIL
- 55 - 56. SCHEDULE OF QUANTITIES
57. MAINLINE PLAN & PROFILE SHEET
58. CHANNEL PLAN & PROFILE SHEET
- 59 - 64. SUGGESTED STAGES OF CONSTRUCTION & TRAFFIC CONTROL
65. EROSION CONTROL PLAN
- 66 - 67. PLAT OF HIGHWAYS
- 68 - 70. PAVEMENT MARKING SHEETS
- 71 - 82. STRUCTURE PLANS
- 83 - 89. EXISTING STRUCTURE PLANS
- 90 - 93. MAINLINE CROSS SECTIONS
- 94 - 97. CHANNEL CROSS SECTIONS

HIGHWAY STANDARDS

- | | |
|-----------|---|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-01 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH OF A FOOT |
| 280001-04 | TEMPORARY EROSION CONTROL SYSTEMS |
| 420401-06 | BRIDGE APPROACH PAVEMENT |
| 515001-02 | NAME PLATE FOR BRIDGES |
| 630001-07 | STEEL PLATE BEAM GUARDRAIL |
| 630301-04 | SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS |
| 631031-06 | TRAFFIC CONTROL BARRIER TERMINAL, TYPE 6 |
| 631032-03 | TRAFFIC CONTROL BARRIER TERMINAL, TYPE 6A |
| 635006-02 | REFLECTOR AND TERMINAL MARKER PLACEMENT |
| 635011-01 | REFLECTOR MARKER AND MOUNTING DETAILS |
| 666001 | RIGHT OF WAY MARKERS |
| 701006-02 | OFF-ROAD OPERATIONS, 2L, 2W, 4.5m (15') TO 600m (24'') FROM PAVEMENT EDGE |
| 701011-01 | OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY |
| 701311-02 | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY |
| 701321-09 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER |
| 701326-02 | LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH |
| 701901 | TRAFFIC CONTROL DEVICES |
| 704001-04 | TEMPORARY CONCRETE BARRIER |
| 728001 | TYPICAL PAVEMENT MARKINGS |
| 780001-01 | TELESCOPING STEEL SIGN SUPPORT |
| 781001-02 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS |

GENERAL NOTES

1. THE STANDARDS AND REVISION NUMBERS SHALL APPLY TO THIS PROJECT.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
3. THE THICKNESS OF THE HMA MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
4. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING BY CALLING J.U.L.I.E. AND BY NOTIFYING NON-J.U.L.I.E. MEMBERS INDIVIDUALLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
 - AMEREN IP (ELECTRICAL)
 - AMEREN IP (GAS)
 - CHARTER COMMUNICATIONS, INC.
 - FRONTIER COMMUNICATIONS CO. (COMMUNICATIONS)
 - VERIZON NORTH, INC. (COMMUNICATIONS)
 - WASHINGTON COUNTY WATER CO.

MEMBERS OF J.U.L.I.E (800) 892-0123 ARE INDICATED BY *. NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDING, FERTILIZING, AND MULCHING ANY AREAS DISTURBED OUTSIDE THE LIMITS OF CONSTRUCTION. THIS WORK WILL NOT BE MEASURED FOR PAYMENT. THE SEEDING SHALL BE CLASS 1 & 2. THE APPLICATION OF THE SEEDING, FERTILIZER, AND MULCH SHALL BE TO THE SATISFACTION OF THE ENGINEER. FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.
6. IF THE CONTRACTOR REMOVES TREES WITHIN THE RIGHT-OF-WAY LIMITS FOR HIS CONSTRUCTION ACTIVITY, I.E. IN ORDER TO GAIN ACCESS TO THE PROJECT SITE, IT WILL BE HIS RESPONSIBILITY TO REPLACE THE TREES AT A 1:1 RATIO. THE TREES WILL BE REPLACED WITH A 1 GALLON NATIVE ILLINOIS TREE SPECIES AND SHALL BE APPROVED BY THE ENGINEER. THE TREE REMOVAL AND TREE REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND ENDING OF THE PROJECT AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLOURESCENT ORANGE.
8. NO TRENCHES OR OPEN PITS WILL BE PERMITTED ADJACENT TO A TRAFFIC LANE DURING NON-WORKING HOURS. ALL WIDENING TRENCHES SHALL BE BACKFILLED DURING THE SAME WORKING DAY IT WAS EXCAVATED.
9. THE COST OF GRADING AND SHAPING ALONG THE PROPOSED BASE COURSE SHALL BE INCLUDED IN THE COST OF "EARTH EXCAVATION".
10. RIGHT OF WAY MARKERS SHALL BE SET SO THE BACK OF THE POST IS TWELVE (12") INCHES INSIDE THE RIGHT OF WAY BOUNDARY. RIGHT OF WAY PROPERTY CORNERS ARE MARKED BY A 3/8" IRON ROD WITH IDOT ALUMINUM CAP AND SHALL NOT BE REMOVED OR DAMAGED WHEN SETTING THE RIGHT OF WAY MARKERS.

COMMITMENTS

1. PROPERTY OWNER BRAD BARKAU SHALL BE GIVEN A MINIMUM OF 48 HOURS NOTICE PRIOR TO WORK COMMENCING ON HIS ENTRANCE LOCATED AT STATION 1455+97.90. MR BARKAU CAN BE REACHED AT (618) 407-6639.
2. NO VEHICLES ARE TO BE PARKED IN THE THREE (3) PRAIRIE REMNANTS LOCATED WITHIN THE PROJECT LIMITS. THE CONTRACTOR AND RESIDENT ENGINEER SHALL DESIGNATE AN AREA FOR PARKING, SO THERE IS NO MISUNDERSTANDING AS TO PRAIRIE LOCATION.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION INDEX OF SHEETS/HIGHWAY SATNDARDS GENERAL NOTES/COMMITMENTS
NAME	DATE	
		FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY

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

SUMMARY OF QUANTITIES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	4
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE			
CODE NO	ITEM	UNIT		SN 095-0077		SN 095-0078	
				I000-2A FED 80% STATE 20%	X071-2A FED 80% STATE 20%	I000-2A FED 80% STATE 20%	X080-2A FED 80% STATE 20%
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	865	468		397	
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1		1		
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1				1
50105220	PIPE CULVERT REMOVAL	FOOT	25.5	25.5			
50200100	STRUCTURE EXCAVATION	CU YD	505		140		365
50300100	FLOOR DRAINS	EACH	8		8		
50300225	CONCRETE STRUCTURES	CU YD	173.8		28.8		145
50300255	CONCRETE SUPERSTRUCTURE	CU YD	88.1		88.1		
50300260	BRIDGE DECK GROOVING	SQ YD	213		213		
50300280	CONCRETE ENCASEMENT	CU YD	4.2		4.2		
50300300	PROTECTIVE COAT	SQ YD	201		281		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1		
50500505	STUD SHEAR CONNECTORS	EACH	1134		1134		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	28550		21960		6590
50800515	BAR SPLICERS	EACH	313		285		28
50900200	STEEL RAILING, TYPE 2399	FOOT	64				64
58700300	CONCRETE SEALER	SQ FT	144				144
51201600	FURNISHING STEEL PILES HP12X53	FOOT	245		245		
51202305	DRIVING PILES	FOOT	245		245		
51203600	TEST PILE STEEL HP12X53	EACH	1		1		
51500100	NAME PLATES	EACH	2		1		1
52100520	ANCHOR BOLTS, 1"	EACH	24		24		
54213453	END SECTIONS 18"	EACH	2	2			
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	25.5	25.5			
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	51		51		
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	138		138		
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	750	375		375	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4			
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4			4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8	4		4	
63200310	GUARDRAIL REMOVAL	FOOT	1152	559		593	
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	25	12		13	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	4.5		4.5	
67100100	MOBILIZATION	L SUM	1	0.5		0.5	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5		0.5	

*SPECIALTY ITEMS

PLOT DATE = 11/30/2007
 PLOT NAME = \\s010105\plm\plm9105a.dgn
 PLOT SCALE = 50.0000 / IN.
 REFERENCE = #REF#

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

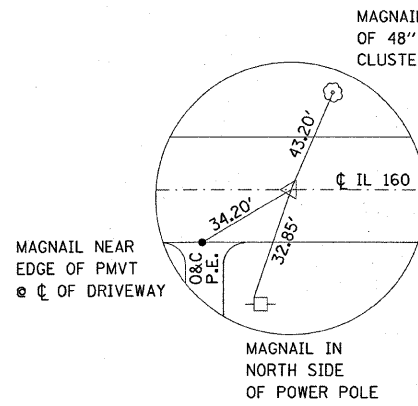
SUMMARY OF QUANTITIES				CONSTRUCTION		TYPE CODE	
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 095-0077		SN 095-0078	
				I000-2A FED 80% STATE 20%	X071-2A FED 80% STATE 20%	I000-2A FED 80% STATE 20%	X080-2A FED 80% STATE 20%
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	2	1		1	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1		1	
70106700	TEMPORARY RUMBLE STRIP	EACH	12	6		6	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	9	4.5		4.5	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	10286	5276		5010	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	3520	1820		1700	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	154	60		94	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	3737	1879		1858	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1840		910		930
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1680		910		770
* 72000100	SIGN PANEL - TYPE 1	SQ FT	20	10		10	
* 72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	48	24		24	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	5825	2694		3131	
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	38			38	
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	279		279		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	31	15		16	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2		2		
78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	4		2		2
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	18	9		9	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	8	4		4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1939	990		949	
X0321099	GEOTEXTILE RETAINING WALL	SQ YD	19.1				19.1
X0323330	PRECAST CONCRETE SUBSTRUCTURE	L SUM	1				1
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	808.4		364.3		444.1
X7200200	WIDE LOAD SIGNING	L SUM	1	0.5		0.5	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4		2		2
Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	3		2		1
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3		2		1
X0325916	THREE-SIDED PRECAST CONCRETE STRUCTURE 28' X 9'	FOOT	37.25				37.25
* 0007600	TRAINEES	HOURL	500	500			

0 Y080 * SPECIALTY ITEMS

PLOT DATE = 11/30/2007
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 PLOT NO = 105 / 10
 REFERENCE = #REF#

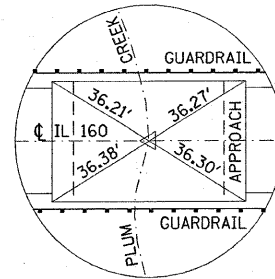
SN 095-0006(E) 0077(P)

NOTE: ALL TIES ARE DIRECT / SLOPE TAPED MEASUREMENTS



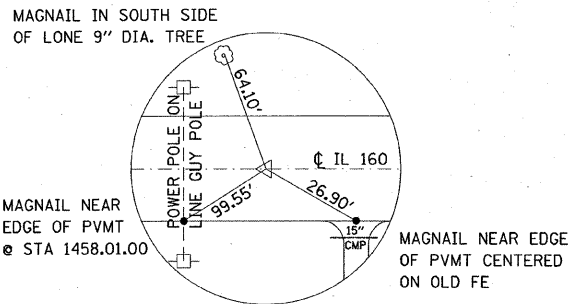
TIE POINT

MAGNAIL 580' TO ϕ OF BRIDGE SN 095-006 OVER PLUM CREEK
STA 1447+34.76



TIE POINT

MAGNAIL ϕ BRIDGE ϕ
STA 1453+15.00



TIE POINT

MAGNAIL 585' FROM CENTER OF BRIDGE OVER PLUM CREEK
 ϕ STA 1459+00.00

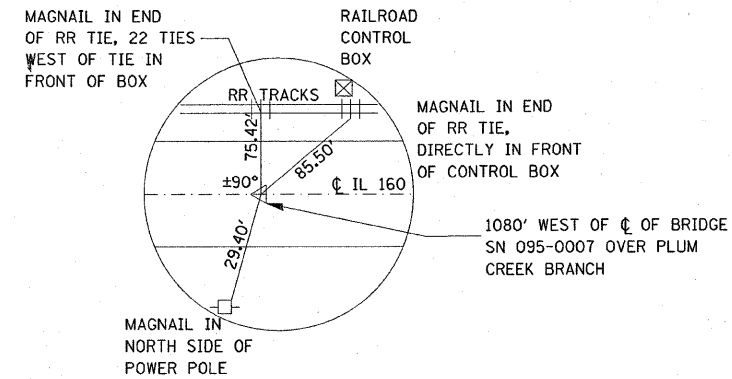
BENCHMARKS

BM 1 - RR SPIKE IN POWER POLE, (MIDDLE POLE OF 3)
 ϕ SE CORNER OF IL 160 & GOLDFINCH RD/RAILROAD RD
STA 1445+90, 30' RT
ELEVATION = 447.09

BM 2 - RR SPIKE IN POWER POLE ϕ THE SOUTH SIDE OF IL 160,
 \pm 400' EAST OF THE CENTER OF SN 095-0006
STA 1458+02, 32' RT
ELEVATION = 444.48

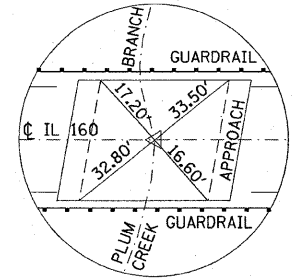
SN 095-0007(E) 0078(P)

NOTE: ALL TIES ARE DIRECT / SLOPE TAPED MEASUREMENTS



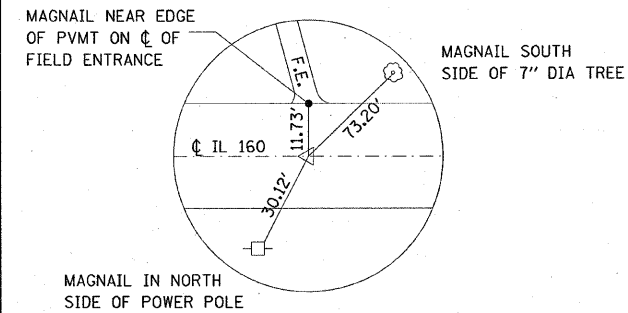
TIE POINT

MAGNAIL ϕ STATION EQUATION 1500+07.63 BACK TO SN 095-0006 = 1500+00.00 FORWARD TO SN 095-0007



TIE POINT

MAGNAIL ϕ BRIDGE ϕ
STA 1510.80.00



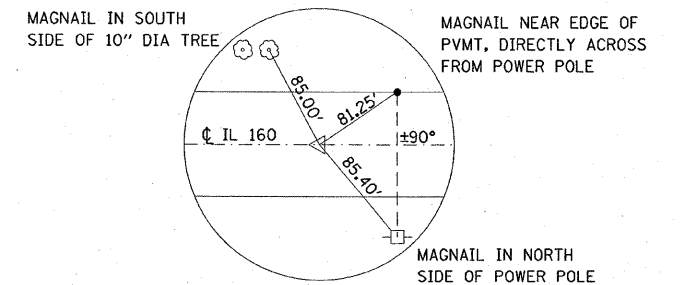
TIE POINT

MAGNAIL 580' FROM CENTER OF BRIDGE SN 095-0007 OVER PLUM CREEK BRANCH
 ϕ STA 1505+00.00

BENCHMARKS

BM 4 - RR SPIKE IN POWER POLE, (NEAR SE CORNER OF CULTIVATED FIELD),
 \pm 250' WEST OF NS 095-0007, \pm 175' SOUTH OF IL 160
STA 1506+77.8, 30' RT
ELEVATION = 451.13

BM 5 - CHISELED " " ON BRIDGE ABUTMENT ϕ NW CORNER OF SN 095-0007
STA 1510+84.7, 18.4' LT
ELEVATION = 445.50



TIE POINT

MAGNAIL 610.5' EAST OF CENTER OF BRIDGE SN 095-0007 OVER PLUM CREEK BRANCH
 ϕ STA 1516+90.54

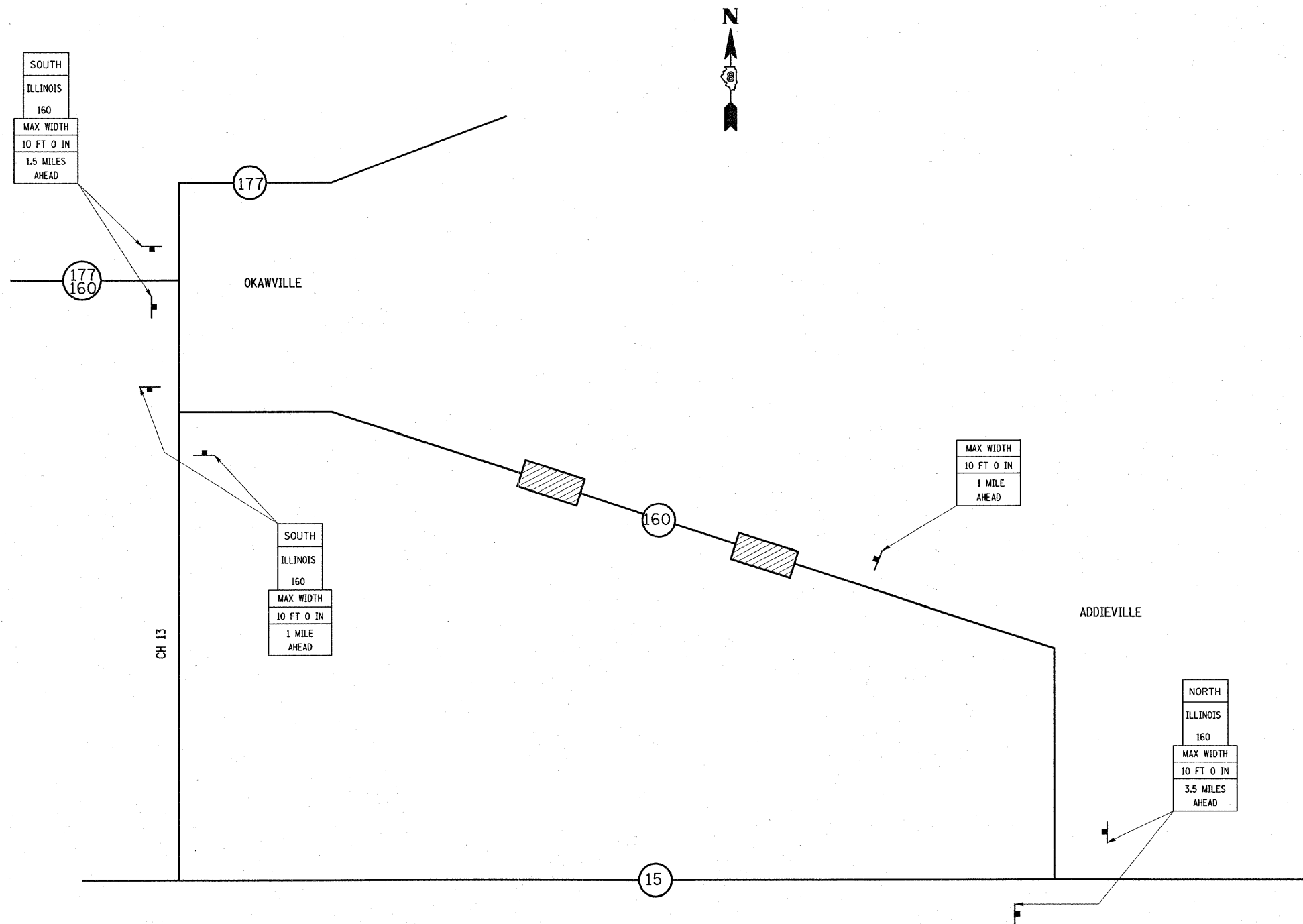
BM 6 - RR SPIKE IN POWER POLE, ϕ SW CORNER OF IL 160 & PLUM HILL CHURCH RD / HUMMINGBIRD RD
STA 1520+20, 30' RT
ELEVATION = 453.68

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION TIES & BENCHMARKS FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY
NAME	DATE	
		SCALE: VERT. HORIZ. DATE
DRAWN BY		CHECKED BY

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	7
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

NOTES

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RE/RT. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE @ (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.



SIGNS REQUIRED			
MAX WIDTH 10 FT 0 IN 1 MILE AHEAD	(3)	NORTH	(2)
MAX WIDTH 10 FT 0 IN 1.5 MILES AHEAD	(2)	SOUTH	(4)
MAX WIDTH 10 FT 0 IN 3.5 MILES AHEAD	(2)	ILLINOIS 160	(6)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
WIDE LOAD SIGNING
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

SCALE: VERT. _____
 HORIZ. _____
 DATE _____

DRAWN BY _____
 CHECKED BY _____

PLOT DATE = 12/7/2007
 FILE NAME = c:\projects\add\1832\plan\p1832.dgn
 PLOTTER = HPGL/2
 PLOT SCALE = 1/8" = 1'-0"

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	11
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT _____		

RESURFACING SCHEDULE

STATION	RT/LT	HOT-MIX ASPHALT BS WIDENING 9" (SQ YD)	AGG. PRIME COAT (TON)	BIT. MAT'L PRIME COAT (TON)	HMA CONC BINDER SUPER. MIX "B" (TON)	HMA CONC SURF CSE., SUPER., MIX "C", N70 (TON)	INCIDENTAL HMA SURF. (TON)	HMA SHOULDERS 8" (SQ YD)	AGG. SHLD TYPE B 6" (SQ YD)	AGG. BASE COURSE TYPE B 6" (SQ YD)
1449+25.00 TO 1450+32.00	RT/LT				11.98					
1449+25.00 TO 1452+49.50	RT									
1449+25.00 TO 1452+83.00	LT	119.33								
1449+25.00 TO 1452+49.50	RT/LT		1.30	0.27		72.69		216.33	216.33	
1450+32.00 TO 1452+49.50	RT/LT				292.32					
1453+47.00 TO 1457+50.00	LT	134.33								
1453+73.50 TO 1457+00.00	RT/LT				341.30					
1453+73.50 TO 1457+50.00	RT									
1453+73.50 TO 1457+50.00	RT/LT		1.51	0.31		84.34		251.00	251.00	
1455+97.90	PE						5.08			45.33
1457+00.00 TO 1457+50.00	RT/LT				5.60					
TOTAL		253.67	2.80	0.58	651.21	157.03	5.08	467.33	467.33	45.33

GUARDRAIL SCHEDULE

STATION	RT/LT	SPBGR (FT)	TBT - T1 (SPECIAL) (EA)	TBT - T6 (EA)	GUARDRAIL MRKS TY-A (EA)	BI-DIREC PRISM BARR REFLEC (EA)
1450+50.50 TO 1452+81.75	RT	137.5	1	1	3	
1451+38.00 TO 1452+81.75	LT	50	1	1	2	
1452+79.50 TO 1453+43.50	RT/LT					2
1453+42.50 TO 1455+73.75	LT	137.5	1	1	3	
1453+42.50 TO 1454+86.25	RT	50	1	1	2	
TOTAL		375	4	4	9	2

TEMPORARY PAVEMENT MARKING SCHEDULE

STATION	RT/LT	PAVEMENT MARKING	PAVEMENT MARKING			WORK ZONE PVMT REMOVAL (SQ FT)	PVMT MRKG REMOVAL (SQ FT)
			LINE 4" PAVEMENT (FT)	LINE 6" (TEMP. BARR.) (FT)	LINE 24" PAVEMENT (FT)		
1446+78.00	RT	STOP BARS			24	48.0	
1446+78.00 TO 1459+97.00	RT/LT	STAGE 1 & 2	5276.00			1758.7	
1446+78.00 TO 1459+97.00	RT/LT						879.3
1446+78.00 TO 1459+97.00	CL						109.9
1448+48.00 TO 1458+27.00	RT/LT	STAGE 1 & 2		1820			
1455+97.90	ENTRANCE	LT STOP BARS			12.0	24.0	
1459+97.00	LT	STOP BARS			24.0	48.0	
SUB-TOTAL							
TOTAL			5276.0	1820.0	60.0	1878.7	989.3

PIPE CULVERT SCHEDULE

LOCATION					DSFL	USFL	CLASS D TYPE 1 18 INCH (FT)	END SECT. 18 INCH (FT)
FROM	OFFSET	TO	OFFSET	RT/LT				
1456+00.20	29	1456+25.70	29	RT	436.44	436.63	25.5	2
TOTAL							25.5	2

REMOVAL SCHEDULE

LOCATION					PVMT REMOVAL		HMA SURF REMOVAL VAR. DEPTH (SQ YD)	SPBGR (FT)	PIPE CULVERT 18 INCH (FT)
FROM	OFFSET	TO	OFFSET	RT/LT	MAINLINE REMOVAL (SQ YD)	WIDENING REMOVAL (SQ YD)			
1449+25.00		1450+32.00		RT/LT			285.33		
1449+25.00		1452+83.00		LT		119.33			
1451+05.00		1452+82.00		RT				177.00	
1451+80.00		1452+82.00		LT				102.00	
1452+49.50		1453+00.50		RT/LT	136.00				
1453+29.00		1453+73.50		RT/LT	118.67				
1453+47.00		1454+49.00		RT				102.00	
1453+47.00		1455+25.00		LT				178.00	
1453+47.00		1457+50.00		LT		134.33			
1456+00.00	25.5	1456+25.40	24.3	RT			88.00		25.50
1457+17.00		1457+50.00		RT/LT					
TOTAL					254.67	253.66	373.33	559.00	25.50
							508.33		

PAVEMENT MARKING SCHEDULE

STATION	RT/LT	PAVEMENT - THERMOPLASTIC			BRIDGE - POLYUREA T-1		
		4" WHITE LINE (FT)	YELLOW SKIP DASH LINE 4" (FT)	DBL AMBER RSD REFL PMK (EA)	4" WHITE LINE (FT)	YELLOW SKIP DASH LINE 4" (FT)	DBL AMBER RSD REFL PMK (EA)
1446+77.00 TO 1452+49.50	CL		143.125	7			
1446+77.00 TO 1452+49.50	RT/LT	1145					
1452+49.50 TO 1453+73.50	CL				31	2	
1452+49.50 TO 1453+73.50	RT/LT				248.00		
1453+73.50 TO 1459+98.00	RT/LT	1249					
1453+73.50 TO 1459+98.00	CL		156.125	8			
SUB-TOTAL		2394.00	299.25	15	248.00	31.00	2
TOTAL			2693.25	15	279		2

S.N. 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	12
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

TREE REMOVAL SCHEDULE

STATION	OFFSET	RT/LT	6 TO 15 UNITS					OVER 15 UNITS						
1450+57.90	32.5	LT				12								
1450+63.50	30.4	LT			10									
1450+63.50	30.3	LT				12								
1450+63.70	28.7	LT			10									
1450+65.90	32.9	LT	6											
1450+82.69	31.2	LT							20					
1450+98.04	31.3	LT				12								
1451+05.00	32.5	LT			10									
1451+08.90	32.8	LT	6											
1451+12.00	28.1	LT					15							
1451+13.30	28.0	LT					15							
1451+29.70	30.1	LT			10									
1451+38.80	34.2	LT					15							
1451+39.67	42.4	LT										36		
1451+40.50	34.8	LT						24						
1451+51.60	46.3	LT							30					
1451+53.20	31.5	LT			10									
1451+53.77	44.1	LT		8										
1451+54.67	31.9	LT						24						
1451+62.24	41.5	LT							30					
1451+63.48	34.5	LT						24						
1451+68.40	33.1	LT	6											
1451+71.60	33.8	LT			10									
1451+73.03	42.3	LT						18						
1451+80.05	34.9	LT	6											
1451+80.90	33.0	LT	6											
1451+84.40	37.0	LT										36		
1451+85.70	28.6	LT						18						
1452+01.20	41.0	LT		8										
1452+03.85	45.4	LT		8										
1452+16.90	38.9	LT										36		
1452+18.40	30.1	LT					18							
1452+19.17	31.3	LT					18							
1452+19.86	30.8	LT							24					
1452+20.50	46.5	LT	6											
1452+22.70	44.7	LT		8										
1452+27.89	46.4	LT		8										
1452+35.77	40.0	LT				15								
1452+36.50	42.2	LT							24					
1452+40.80	44.0	LT	6											
1452+48.92	39.5	LT	6											
1452+51.23	42.0	LT		8										
1452+53.86	40.2	LT		8										
1452+55.64	36.1	LT							24					
1452+62.53	49.4	LT	6											
1452+66.71	47.5	LT	6											
1452+75.03	31.4	LT			10									
1452+75.60	32.5	LT	6											
1452+81.28	46.7	LT			10									
1452+98.54	26.3	LT		8										
1452+99.00	26.2	LT	6											
1454+04.19	33.3	LT										44		
1454+04.64	30.8	LT				15								
1454+06.74	32.6	LT							24					
1454+13.04	31.0	LT	6											
1454+19.94	33.3	LT					18							
1456+85.80	33.0	LT				15								
1457+23.60	30.3	LT											50	
1457+43.90	34.1	LT		8										
SUB-TOTAL			78	72	80	36	90	90	20	168	60	108	44	50
TOTAL			356					540						

SEEDING SCHEDULE

STA	STA	AREA (SQ FT)	SEEDING CLASS 2 (ACRE)	SEEDING CLASS 1 (ACRE)	NITROGEN FERT. NUTR (POUND)	PHOSPHORUS FERT. NUTR (POUND)	POTASSIUM FERT. NUTR (POUND)	MULCH METHOD 1 (ACRE)
1449+25.00 TO	1457+50.00 LT	6370	0.15		13.16	13.16	13.16	0.15
1449+25.00 TO	1452+79.50 RT	2952		0.1	6.10	6.10	6.10	0.07
1455+92.00 TO	1458+00.00 RT	2113		0.1	4.37	4.37	4.37	0.05
1449+25.00 TO	1457+50.00 RT	9568	0.22		19.77	19.77	19.77	0.22
TOTAL			0.37	0.20	43.40	43.40	43.40	0.49

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 1449+25.00 TO STA. 1452+79.50	197.3	147.9	668.1	-520.2
STA. 1453+43.50 TO STA. 1457+50.00	401.3	301.0	435.0	-134.1
TOTAL	598.6	448.9	1103.1	-654.3

EARTHWORK SCHEDULE (WIDENING)

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 1449+25.00 TO STA. 1452+83.00	30.5	22.9	0.0	22.9
STA. 1453+47.00 TO STA. 1457+50.00	34.3	25.7	0.0	25.7
TOTAL	64.8	48.6	0.0	48.6

ROW MARKERS SCHEDULE

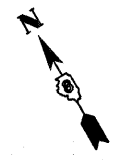
STATION	SIDE	OFFSET	ROW MARKERS (EA)
1449+00.00	29.11	L+	1
1449+00.00	30.89	R+	1
1449+50.00	50.89	R+	1
1450+00.00	39.11	L+	1
1451+00.00	39.12	L+	1
1451+50.00	54.13	L+	1
1453+00.00	54.14	L+	1
1453+50.00	39.14	L+	1
1457+50.00	50.83	R+	1
1458+00.00	30.83	R+	1
1458+00.00	39.17	L+	1
1458+00.00	29.17	L+	1
TOTAL			12

S.N. 095-0077

REVISIONS	
NAME	DATE

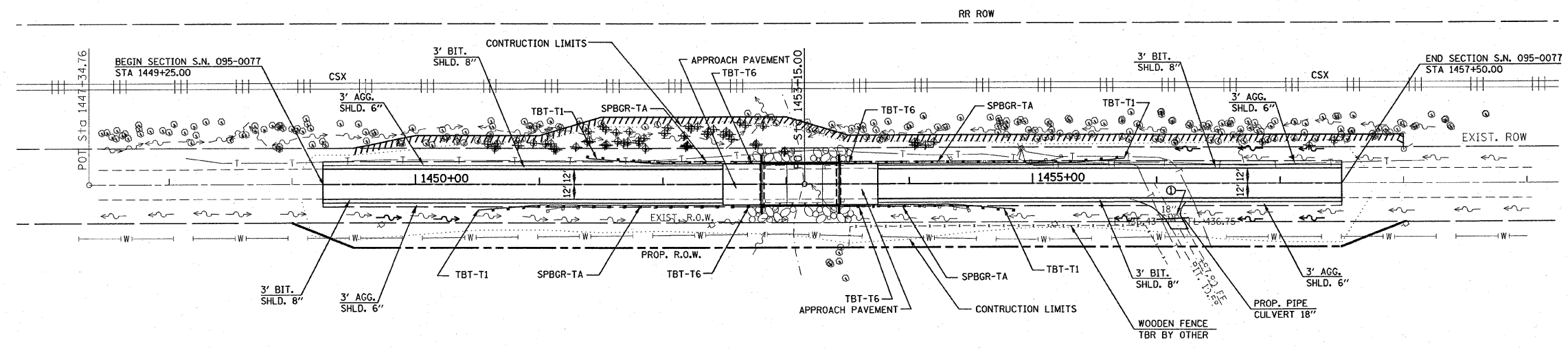
ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

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



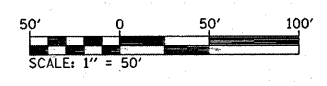
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DATE	
BY	
SURVEYED	
PLotted	
Checked	
RT. OF WAY CHECKED	
NO. OF	
FILE NAME	



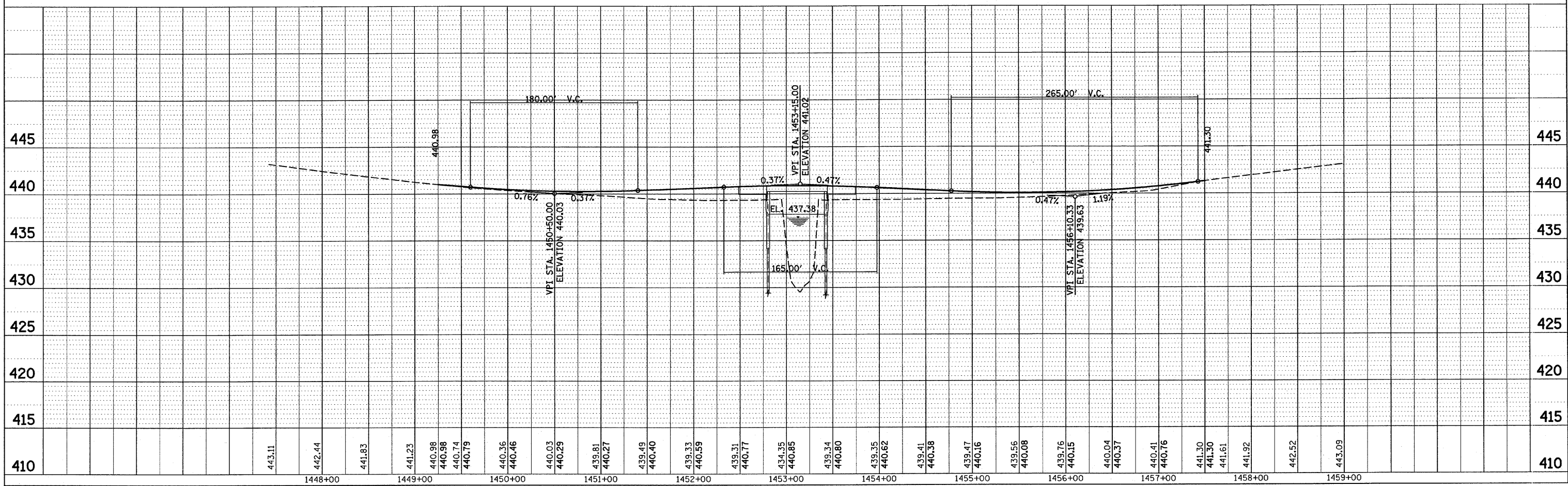
NOTE: PRAIRIE REMNANT IS LOCATED ON THE NORTH SIDE OF THE PROJECT AND EXTENDS FROM THE EDGE OF SHOULDER TO THE EVANSVILLE WESTERN RAILWAY RAILROAD TRACKS. NO VEHICLES ARE TO BE PARKED ON THE NORTH SIDE OF THE PROJECT.

LEGEND
 ○ - 18" CMP TO BE REMOVED
 ⊕ - TREE REMOVAL



PROFILE

DATE	
BY	
SURVEYED	
Plotted	
Checked	
RT. OF WAY CHECKED	
NO. OF	
FILE NAME	



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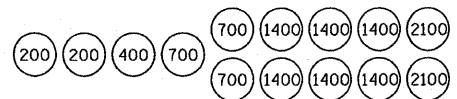
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	57	14
STA. 1444+00.00		TO STA. 1450+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJ. ECT		

PRE-STAGE I CONSTRUCTION:

- PRE-STAGE I CONSTRUCTION SHALL CONSIST OF THE CONSTRUCTION OF THE 3' PAVEMENT WIDENING ON THE NORTHEAST AND NORTHWEST CORNERS OF THE STRUCTURE. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION, STANDARD 701326.

STAGE I CONSTRUCTION:

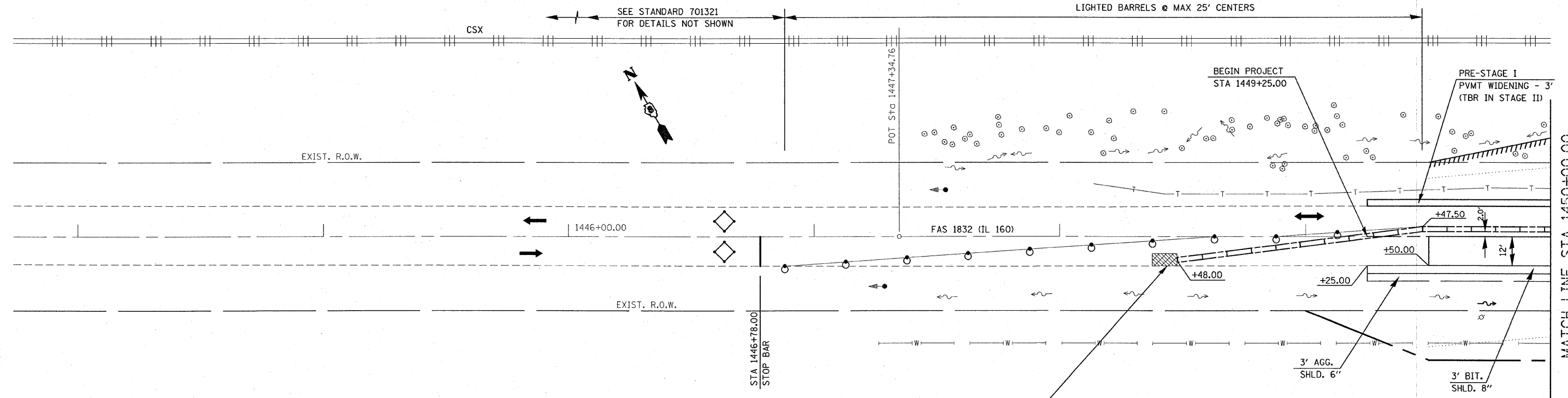
- STAGE I CONSTRUCTION SHALL CONSIST OF STAGE I REMOVAL OF THE EXISTING STRUCTURE, AND STAGE I CONSTRUCTION OF THE REPLACEMENT STRUCTURE, PAVEMENT REMOVAL, PAVEMENT WIDENING ON THE LEFT, GRADING, RESURFACING THE EAST AND WEST SIDES OF THE STRUCTURE, GUARDRAIL, RIPRAP, ETC. STAGE I CONSTRUCTION SHALL BE DONE ACCORDING TO STAGE CONSTRUCTION AS DETAILED IN THE BRIDGE PLANS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321 AND AS DETAILED IN THE STAGE CONSTRUCTION PLANS. THIS TRAFFIC CONTROL SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION 701321 (SPECIAL).



SAND MODULE IMPACT ATTENUATOR LAYOUT (IF OPTION USED)

NOTES:

- THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE AND FIELD ENTRANCES LOCATED WITHIN THE LIMITS OF THE PROJECT.
- TRAFFIC CONTROL & PROTECTION, STANDARD 701321 (SPECIAL) INCLUDES BOTH STAGE I & II AND ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN ON THE STAGE CONSTRUCTION PLANS.
- ALL ADDITIONAL TRAFFIC SIGNAL HEADS, LOOP DETECTORS AND ASSOCIATED EQUIPMENT REQUIRED TO MAINTAIN ACCESS AT THE FIELD AND DRIVEWAY ENTRANCES SHALL BE INCLUDED IN THE COST OF "TEMPORARY BRIDGE TRAFFIC SIGNALS"
- THE COST OF "BARRICADES, TYPE III" SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
- ALL SIDEROADS AND ENTRANCES WITHIN TRAFFIC CONTROL SHALL HAVE "NO RIGHT ON RED" AND "STOP HERE ON RED" SIGNS. THE COST SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".



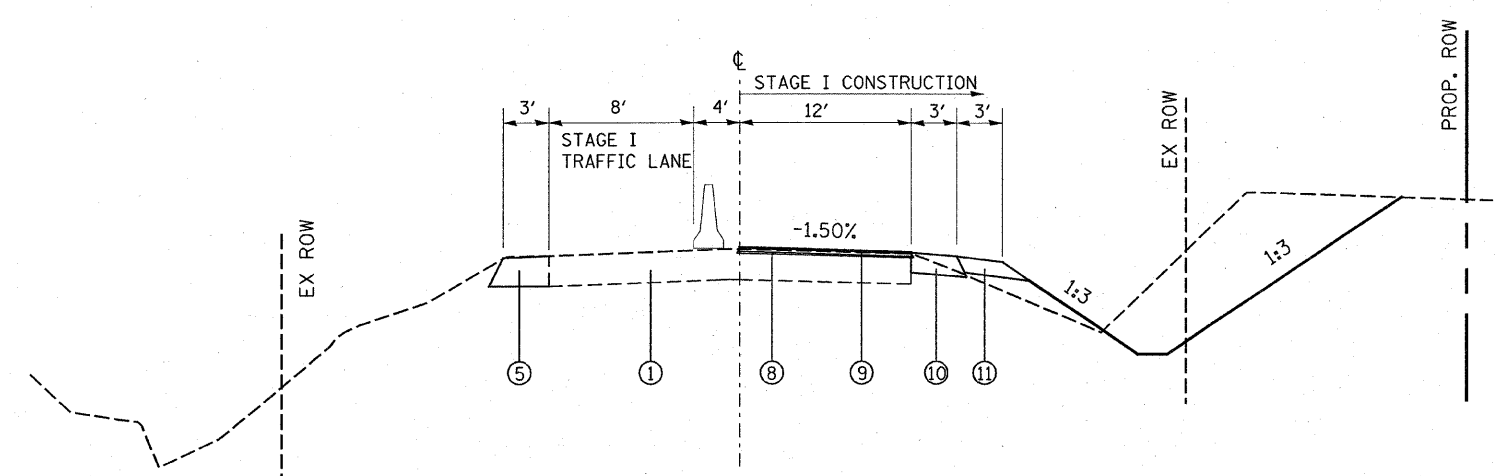
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 1 EACH

LEGEND:

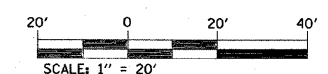
	STRUCTURE REMOVAL
	PAVEMENT REMOVAL
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	INDUCTION LOOP DETECTOR
	DRUM WITH STEADY BURNING LIGHT
	SIGNALIZED TWO-WAY TRAFFIC LANE
	TEMPORARY BRIDGE TRAFFIC SIGNAL
	TYPE III BARRICADE

LEGEND

- EXISTING PAVEMENT
- PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
- PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
- PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
- PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- PROPOSED AGGREGATE SHOULDER 6"



STAGE I TYPICAL SECTION
STA. 1449+25.0 TO STA. 1450+50.0
(NTS)



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED STAGE I CONSTRUCTION
S.N. 095-0077
FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

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

SN 095-0077

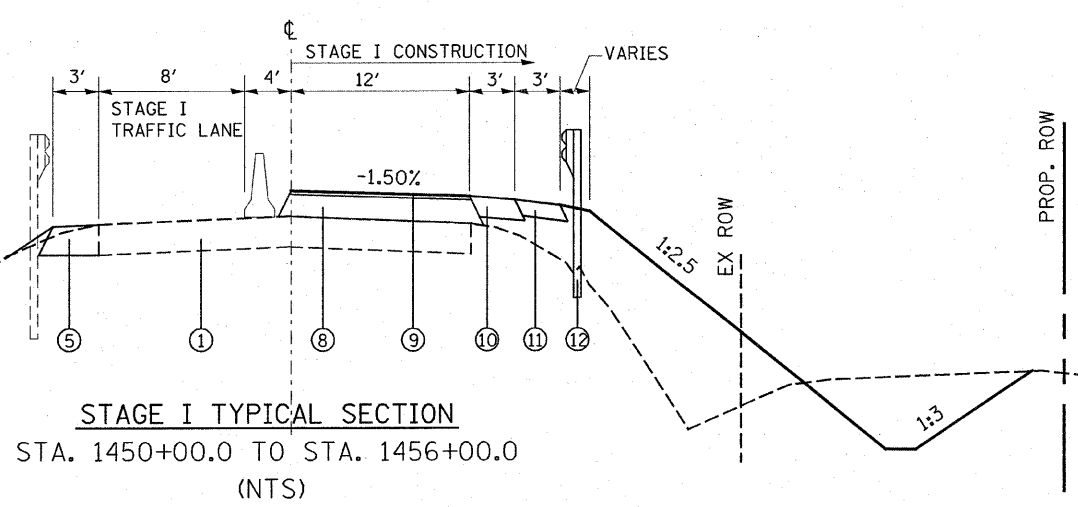
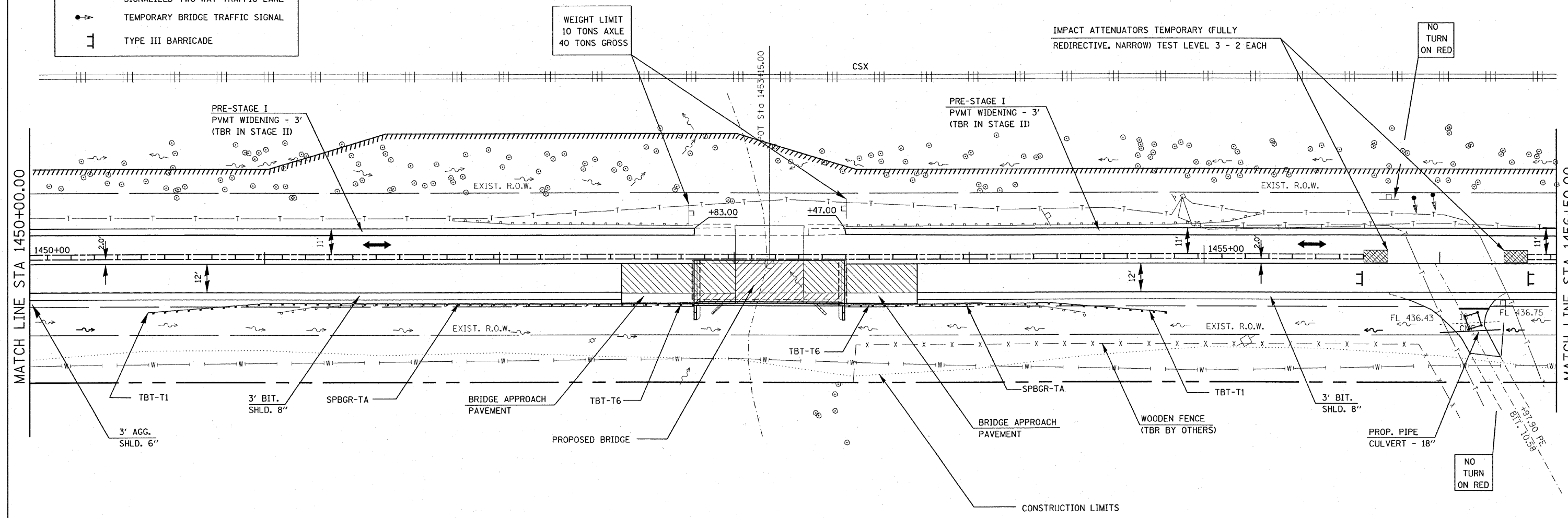
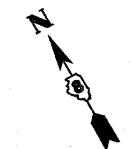
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	15
STA. 1450+00.00		TO STA. 1456+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

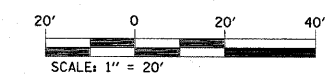
LEGEND:

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- NOTES:**
1. THE COST OF "WEIGH LIMIT 10 TONS AXLE 40 TONS GROSS" SIGN SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).
 2. THE CONTRACTOR SHALL PLACE 1 SIGN EACH SIDE OF BRIDGE, DURING STAGE I ONLY



- LEGEND**
- ① EXISTING PAVEMENT
 - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
 - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15')
 - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
 - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
 - ⑪ PROPOSED AGGREGATE SHOULDER 6"
 - ⑫ PROPOSED GUARDRAIL
 -



REVISIONS	
NAME	DATE

SN 095-0077

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGE I CONSTRUCTION

FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

SCALE: VERT. 1" = 20'
HORIZ. 1" = 40'

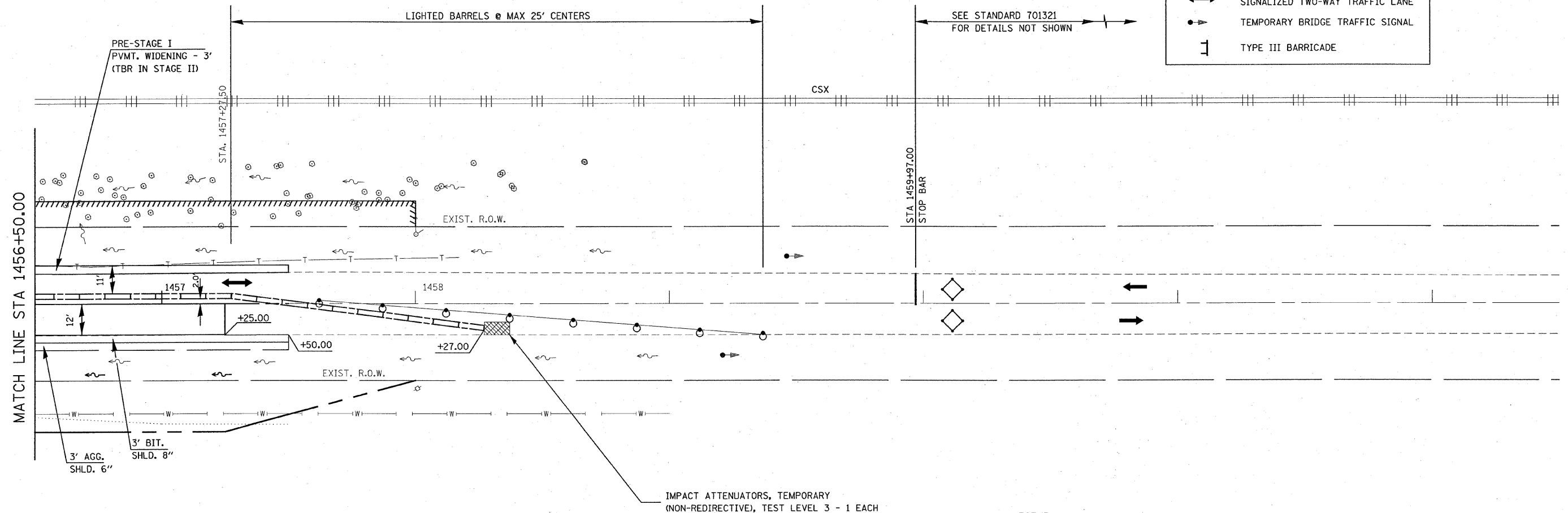
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CHECKED BY: _____

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	16
STA. 1456+50.00		TO STA. 1462+00.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

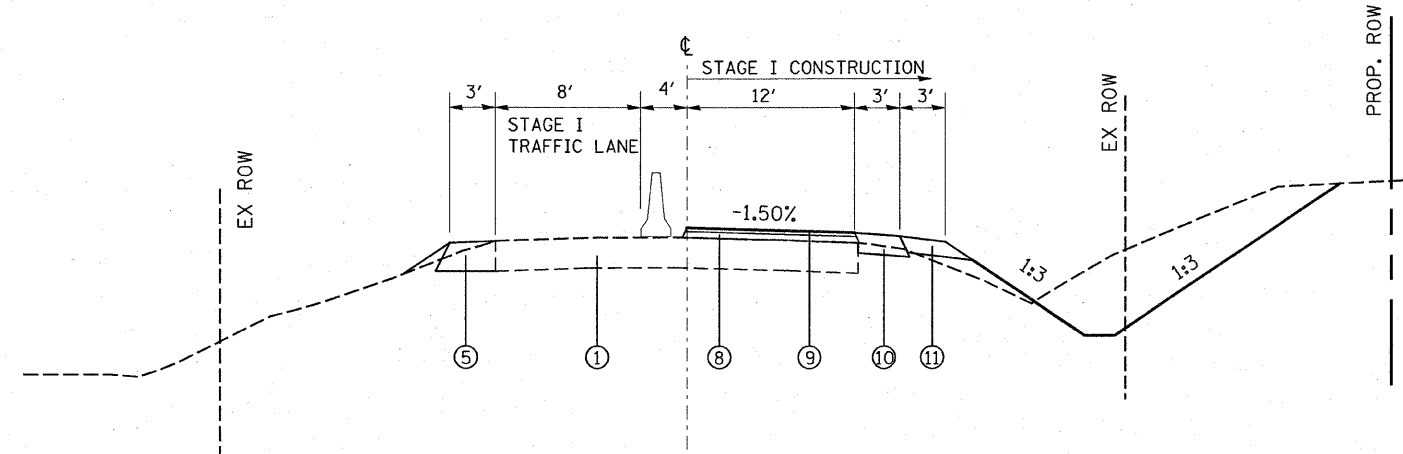
LEGEND:

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

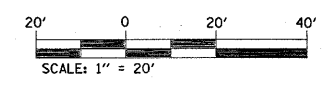


IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 1 EACH

- LEGEND**
- ① EXISTING PAVEMENT
 - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
 - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
 - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
 - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
 - ⑪ PROPOSED AGGREGATE SHOULDER 6"



STAGE I TYPICAL SECTION
STA. 1456+50.0 TO STA. 1457+50.0
(NTS)



SN 095-0077

REVISIONS	
NAME	DATE

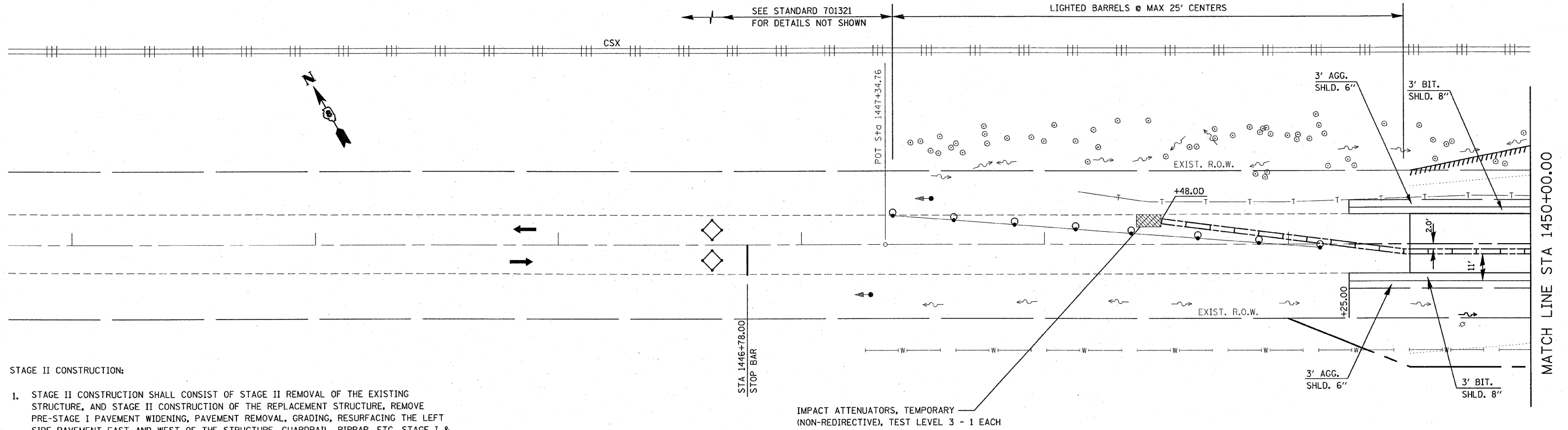
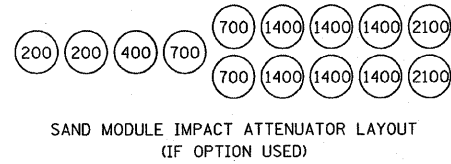
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED STAGE I CONSTRUCTION
FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	17
STA. 1444+00.00		TO STA. 1450+00.00		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE AND FIELD ENTRANCES LOCATED WITHIN THE LIMITS OF THE PROJECT.
2. TRAFFIC CONTROL & PROTECTION, STANDARD 701321 (SPECIAL) INCLUDES BOTH STAGE I & II AND ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN ON THE STAGE CONSTRUCTION PLANS.
3. ALL ADDITIONAL TRAFFIC SIGNAL HEADS, LOOP DETECTORS AND ASSOCIATED EQUIPMENT REQUIRED TO MAINTAIN ACCESS AT THE FIELD AND DRIVEWAY ENTRANCES SHALL BE INCLUDED IN THE COST OF "TEMPORARY BRIDGE TRAFFIC SIGNALS"
4. THE COST OF "BARRICADES, TYPE III" SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
5. ALL SIDEROADS AND ENTRANCES WITHIN TRAFFIC CONTROL SHALL HAVE "NO TURN ON RED" AND "STOP HERE ON RED" SIGNS. THE COST SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".



STAGE II CONSTRUCTION:

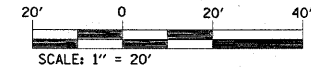
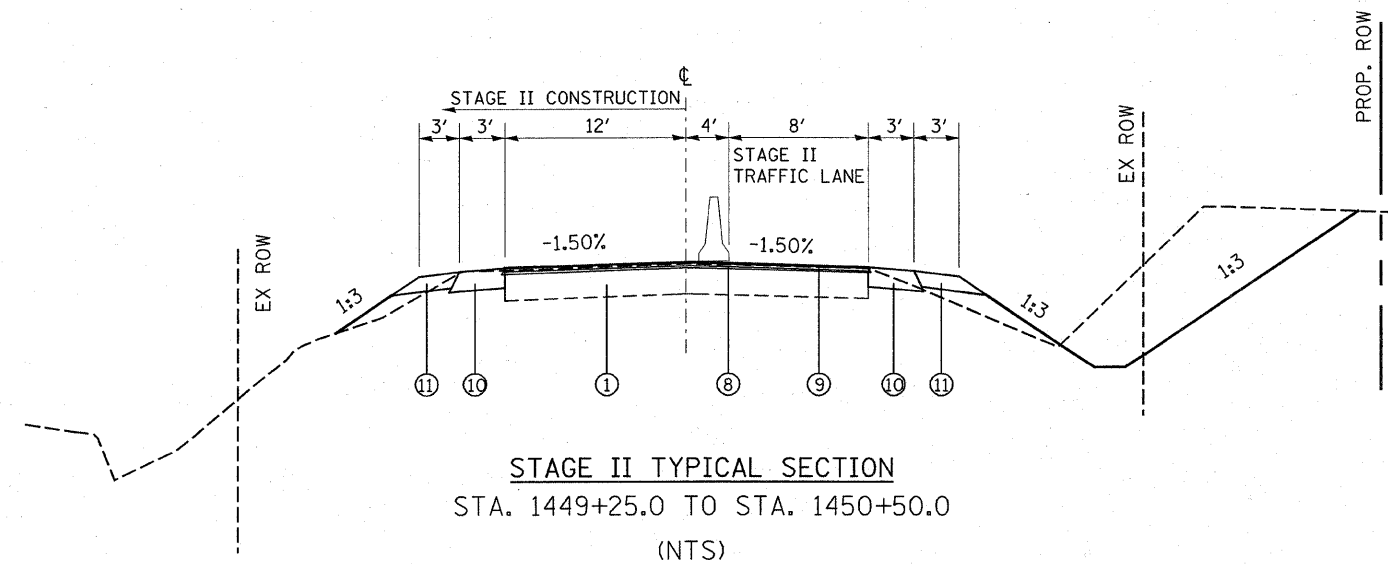
1. STAGE II CONSTRUCTION SHALL CONSIST OF STAGE II REMOVAL OF THE EXISTING STRUCTURE, AND STAGE II CONSTRUCTION OF THE REPLACEMENT STRUCTURE, REMOVE PRE-STAGE I PAVEMENT WIDENING, PAVEMENT REMOVAL, GRADING, RESURFACING THE LEFT SIDE PAVEMENT EAST AND WEST OF THE STRUCTURE, GUARDRAIL, RIPRAP, ETC. STAGE I & II. CONSTRUCTION SHALL BE DONE ACCORDING TO STAGE CONSTRUCTION AS DETAILED IN THE BRIDGE PLANS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321 AND AS DETAILED IN THE STAGE CONSTRUCTION PLANS. THIS TRAFFIC CONTROL SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION 701321 (SPECIAL).

LEGEND:

	STRUCTURE REMOVAL
	PAVEMENT REMOVAL
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	INDUCTION LOOP DETECTOR
	DRUM WITH STEADY BURNING LIGHT
	SIGNALIZED TWO-WAY TRAFFIC LANE
	TEMPORARY BRIDGE TRAFFIC SIGNAL
	TYPE III BARRICADE

LEGEND

- ① EXISTING PAVEMENT
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER 6"



REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGE II CONSTRUCTION

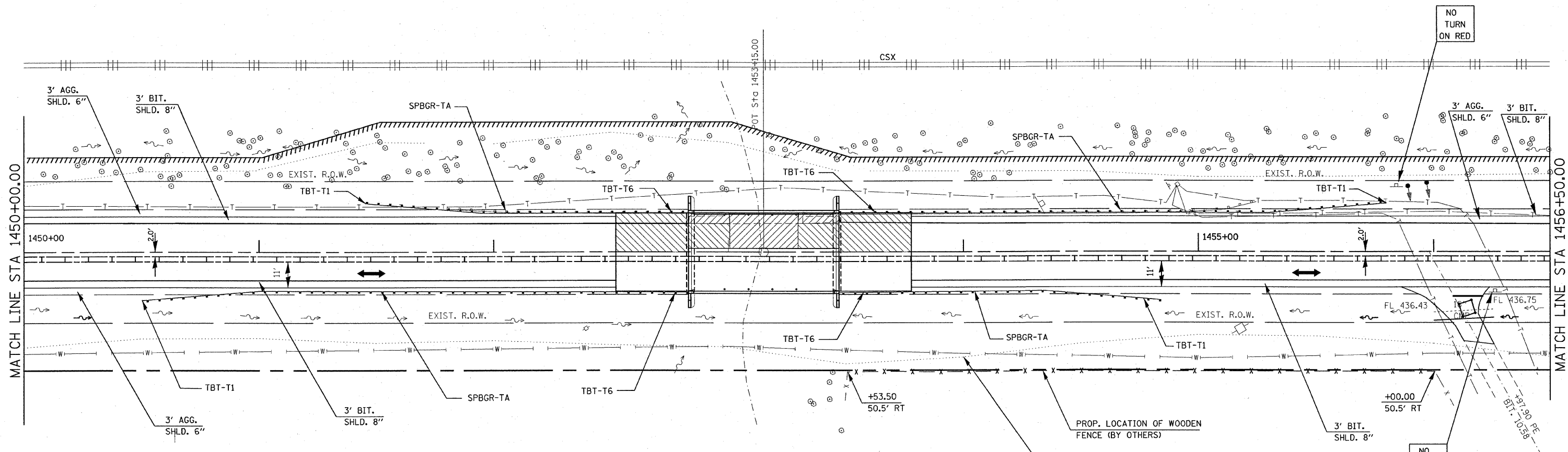
FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

SCALE: VERT. DATE
HORIZ. DRAWN BY
CHECKED BY

SN 095-0077

PLOT DATE = 12/7/2007
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PLOT SCALE = 20,0000 / IN.
USER NAME = gelink

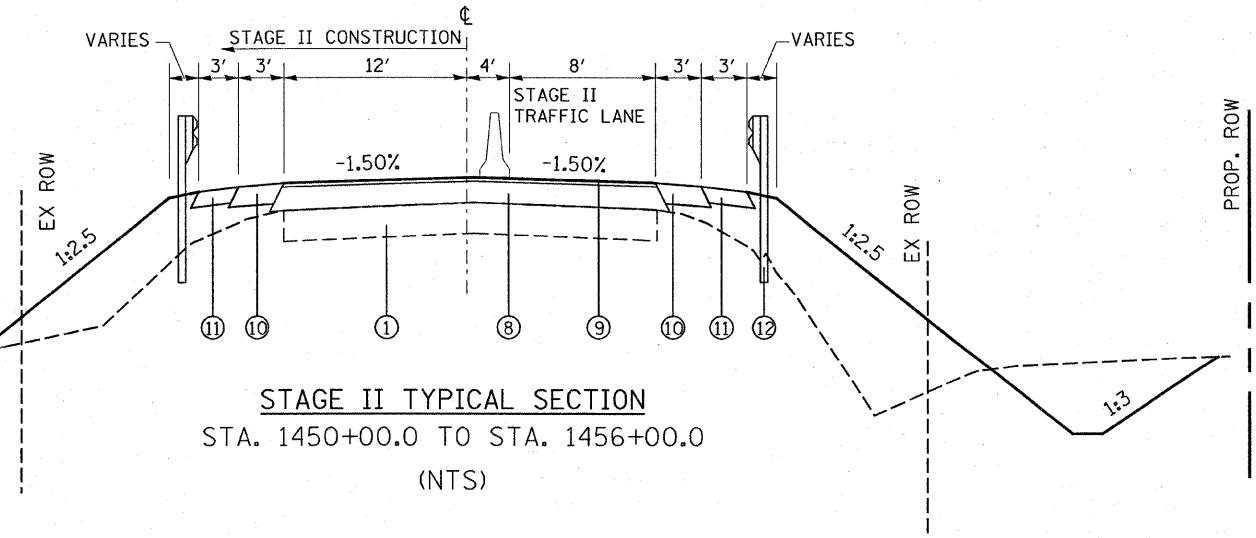
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	18
STA. 1450+00.00 TO STA. 1456+50.00				
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		



LEGEND:

	STRUCTURE REMOVAL
	PAVEMENT REMOVAL
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	INDUCTION LOOP DETECTOR
	DRUM WITH STEADY BURNING LIGHT
	SIGNALIZED TWO-WAY TRAFFIC LANE
	TEMPORARY BRIDGE TRAFFIC SIGNAL
	TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
 - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
 - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
 - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
 - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
 - ⑪ PROPOSED AGGREGATE SHOULDER 6"
 - ⑫ PROPOSED GUARDRAIL



REVISIONS	
NAME	DATE

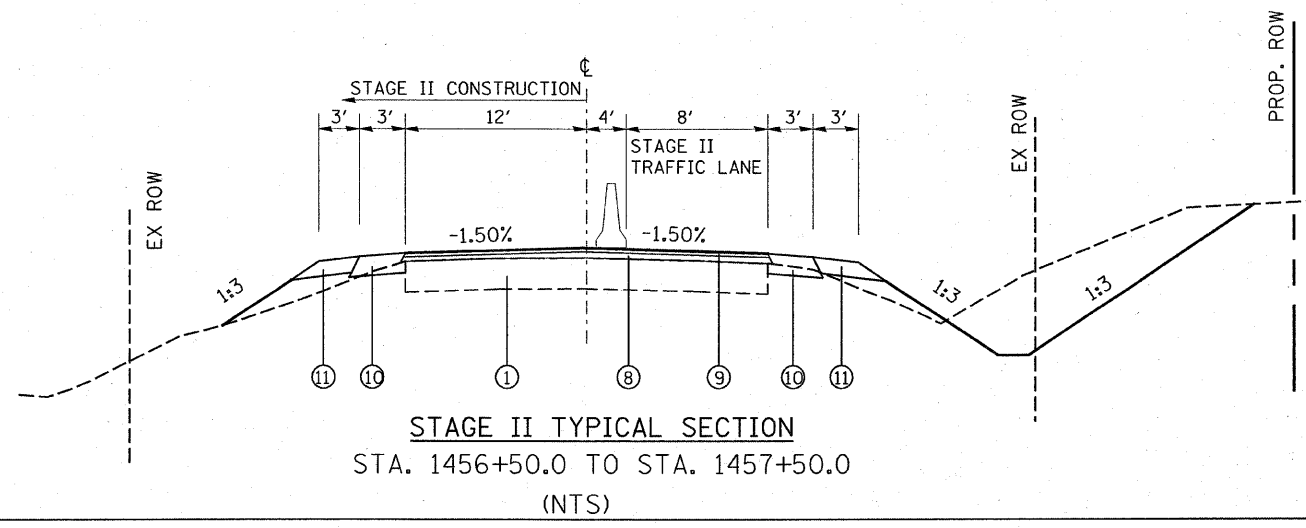
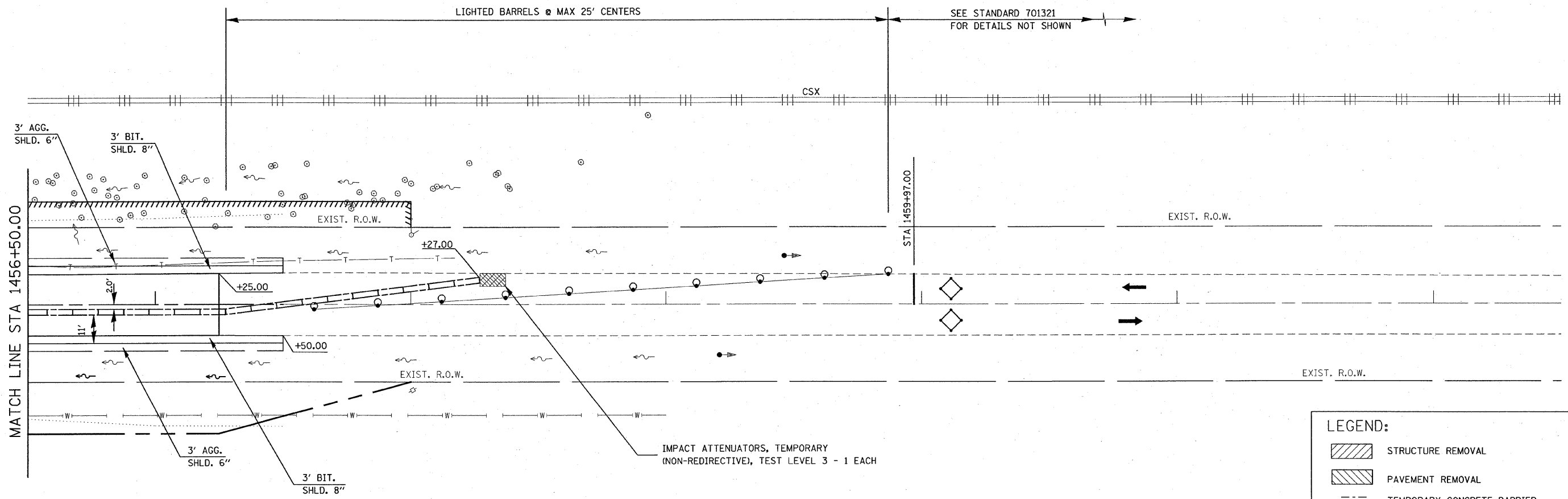
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED STAGE II CONSTRUCTION
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

SCALE: VERT. _____
 HORIZ. _____
 DATE _____

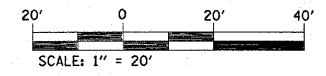
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 CHECKED BY _____

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 USER NAME = gmlm

SN 095-0077



- LEGEND**
- ① EXISTING PAVEMENT
 - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
 - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
 - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
 - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
 - ⑪ PROPOSED AGGREGATE SHOULDER 6"



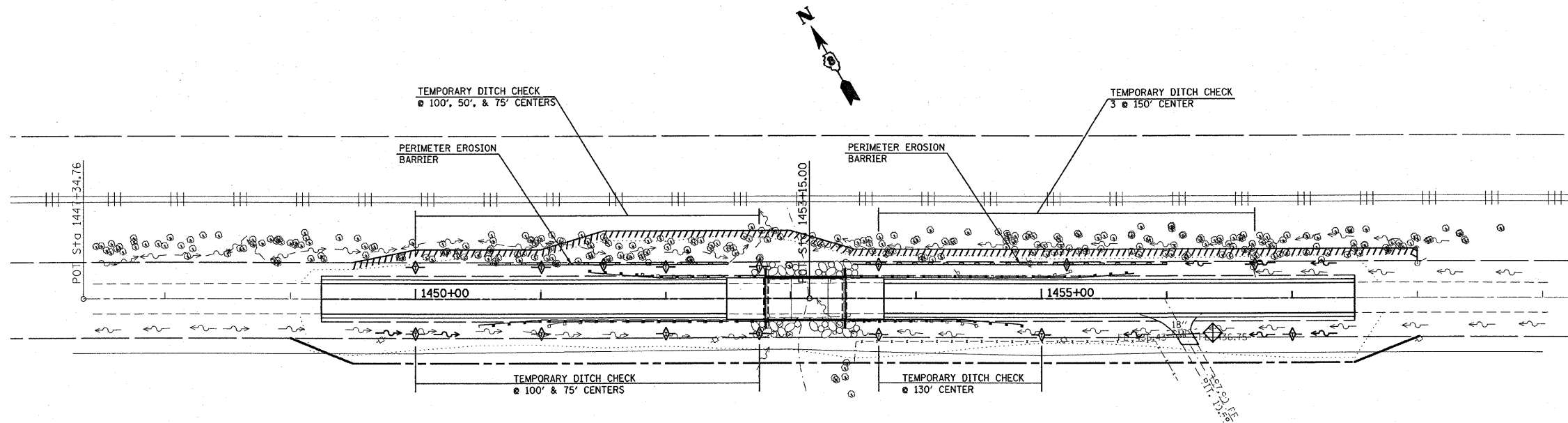
SN 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED STAGE II CONSTRUCTION
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY
 SCALE: VERT. _____
 HORIZ. _____
 DATE _____
 DRAWN BY _____
 CHECKED BY _____

PLOT DATE = 12/7/2007
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	20
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

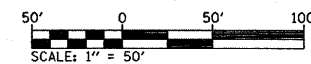


LEGEND

- INLET AND PIPE PROTECTION - STRAW BALES, FILTER FABRIC, AGGREGATES, TREE REMOVAL
- TEMPORARY DITCH CHECK - ROLLED EXCELSTOR, SILT WEDGES/PANELS
- PERIMETER EROSION BARRIER- SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

TEMPORARY EROSION CONTROL SCHEDULE

LOCATION	RT/LT	TEMP. EROSION CONTROL SEEDING (POUND)	MULCH METHOD 1 (ACRE)	PERIMETER EROSION BARRIER (FOOT)	TEMP. DITCH CHECK (EACH)	INLET AND PIPE PROTECTION (EACH)
1449+25.00 TO 1457+50.00	LT	31.50	0.35			
1449+25.00 TO 1457+50.00	RT	39.60	0.44			
1450+00.00 TO 1452+75.00	LT				5	
1450+00.00 TO 1452+75.00	RT				4	
1450+50.00 TO 1452+50.00	LT			200		
1453+50.00 TO 1456+00.00	LT			250		
1453+70.00 TO 1456+70.00	LT				3	
1453+70.00 TO 1457+00.00	RT				3	
1455+97.00	PE					1
TOTAL		71.10	0.79	450	15	1



S.N. 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EROSION CONTROL PLAN
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY
 SCALE: VERT. _____
 DATE _____ HORIZ. _____
 DRAWN BY _____
 CHECKED BY _____

PLOT DATE = 12/7/2007
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 REFERENCE = REF#

PART OF THE EAST HALF OF SECTION 28, T.1S., R.4W., OF THE 3RD PM, WASHINGTON COUNTY, ILLINOIS

BEARINGS SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5BR-2	WASHINGTON	97	21

STA. 1449+00.00 TO STA. 1458+00.00
CONTRACT NO.:

STATION	OFFSET	NORTH	EAST
1447+34.76	0.00	637315.2900	477389.6300
1449+00.00	0.00	637231.8631	477532.2631
1449+00.00	30.89 RT	637205.1952	477516.6676
1449+00.00	29.11 LT	637256.9887	477546.9667
1449+50.00	50.89 RT	637162.6887	477549.7325
1450+00.00	39.11 LT	637215.1391	477638.3274
1451+00.00	39.12 LT	637164.6572	477724.6500
1451+50.00	54.13 LT	637152.3647	477775.3835
1453+00.00	54.14 LT	637076.6419	477904.8673
1453+07.90	50.86 RT	636982.0185	477858.6751
1453+08.05	30.86 RT	636999.2065	477868.9023
1453+15.00	0.00	637022.3385	477890.4826
1453+50.00	39.14 LT	637038.4526	477940.4563
1455+92.47	30.84 RT	636855.6256	478114.4215
1456+03.76	50.84 RT	636832.6639	478114.0673
1456+27.47	30.84 RT	636837.9570	478144.6344
1456+38.76	50.84 RT	636814.9952	478144.2802
1457+50.00	50.83 RT	636758.8348	478240.3128
1458+00.00	29.17 LT	636802.6519	478323.8596
1458+00.00	39.17 LT	636811.2842	478328.9078
1458+00.00	30.83 RT	636750.8584	478293.5705
1458+89.87	172.42 LT	636880.9286	478473.7602
NE COR. NE 1/4, SE 1/4, SEC. 28		637026.9990	477912.3500
SW COR. NE 1/4, SEC. 28		636996.2460	475818.5710
NE COR. SE 1/4, NE 1/4, SEC. 28		638214.2070	478494.7490
SE COR. SE 1/4, SEC. 28		634214.3430	478431.5261
SW COR. NE 1/4, NE 1/4, SEC. 28		638271.3190	477162.3850

LEGEND

PR PROPOSED
EX EXISTING
P.O.L. POINT ON LINE

EXISTING CENTERLINE
EXISTING RIGHT OF WAY LINE
EXISTING EASEMENT 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
PROPERTY (DEED) LINE
APPARENT PROPERTY LINE

MEASURED DIMENSION
COMPUTED DIMENSION
RECORDED DIMENSION
FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
SET 5/8 INCH IRON ROD AT CORNER UNLESS OTHERWISE NOTED
PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
CUT CROSS FOUND OR SET

SAME OWNERSHIP

EXISTING BUILDING

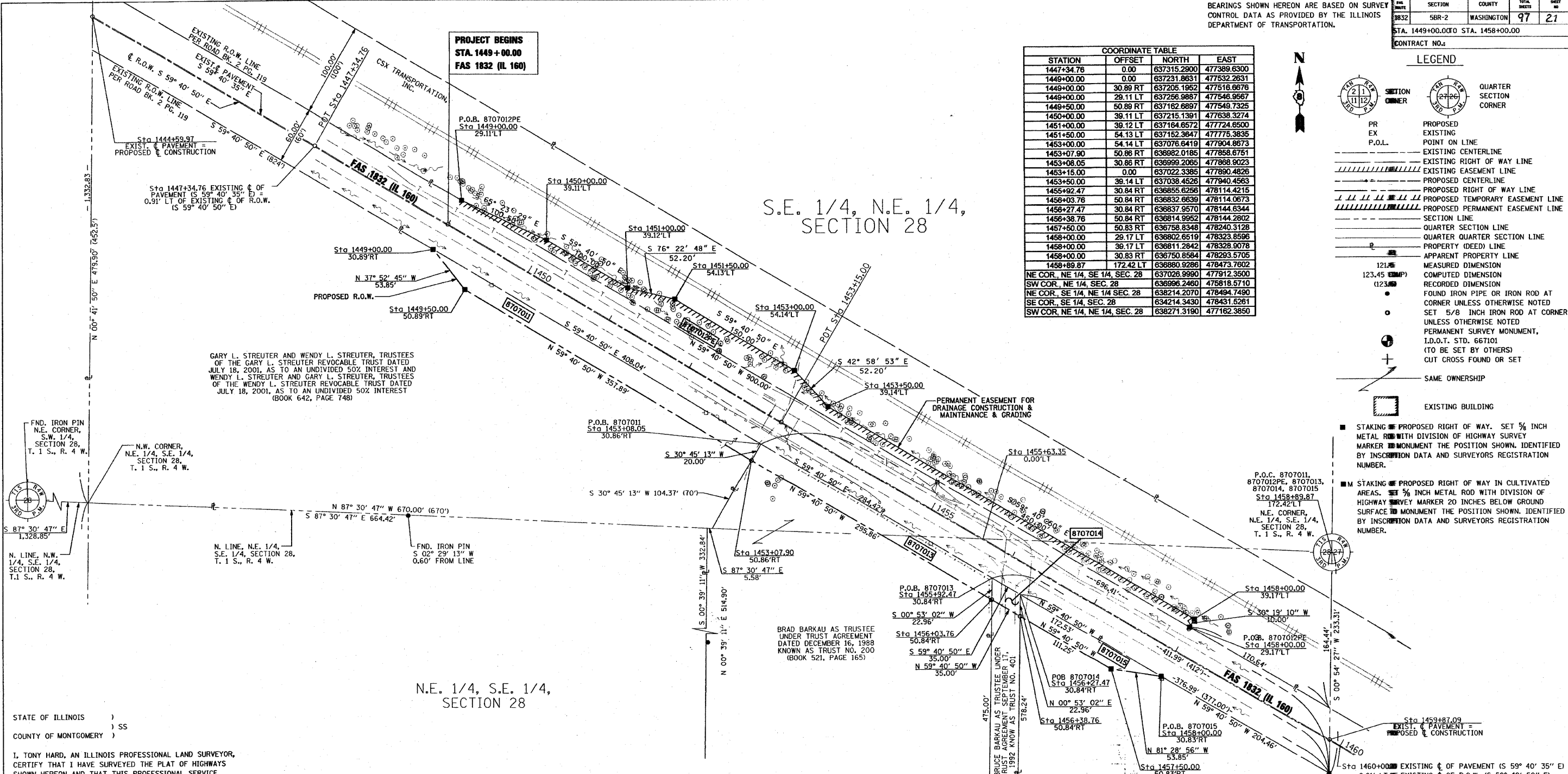
STAKING PROPOSED RIGHT OF WAY. SET 1/4 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

STAKING PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 1/4 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

S.E. 1/4, N.E. 1/4, SECTION 28

N.E. 1/4, S.E. 1/4, SECTION 28

SEE SHEET 4 FOR TOTAL HOLDINGS AND TIES



NO.	DATE	DESCRIPTION	BY

STATE OF ILLINOIS)
) SS
COUNTY OF MONTGOMERY)

I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCELS TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.



TONY HARD, PLS NO. 2953
LICENSE EXPIRATION DATE: 11/30/2008

PARCEL NO.	OWNER	TOTAL HOLDING ACRES	GROSS		NET		REMAINDER ACRES	EASEMENTS		PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
			ACRES	SO. FT.	ACRES	SO. FT.		PE = PERMANENT	TE = TEMPORARY		
8707011	GARY L. STREUTER AND WENDY L. STREUTER, TRUSTEES OF THE GARY L. STREUTER REVOCABLE TRUST DATED JULY 18, 2001, AS TO AN UNDIVIDED 50% INTEREST AND WENDY L. STREUTER AND GARY L. STREUTER, TRUSTEES OF THE WENDY L. STREUTER REVOCABLE TRUST DATED JULY 18, 2001, AS TO AN UNDIVIDED 50% INTEREST (BOOK 642, PAGE 748)	4.6838	0.1758	7,659			4.5080			12-06-28-200-005	
8707012	CSX TRANSPORTATION, INC. WA-374.0							0.2640	11,500	12-06-28-502-003 12-06-28-502-002	DRAINAGE CONSTRUCTION & MAINTENANCE & GRADING
8707013	BRAD BARKAU AS TRUSTEE UNDER TRUST AGREEMENT DATED DECEMBER 16, 1988 KNOWN AS TRUST NO. 200 WA-369.0	3.7993	0.1332	5,803			3.6661			12-06-28-200-006 12-06-28-400-011	
8707014	BRUCE BARKAU AS TRUSTEE UNDER TRUST AGREEMENT DATED SEPTEMBER 17, 1992 KNOWN AS TRUST #401	11.8128	0.0161	700			11.7967			12-06-28-400-008	
8707015	BRAD BARKAU AND DEBORAH L. BARKAU, HUSBAND AND WIFE, AS JOINT TENANTS WA-375.0	3.6822	0.0651	2,838			3.6171			12-06-28-400-007	

COMPLETION DATE OF FIELD WORK PERFORMED
LAND SURVEY: 3/29/07
RIGHT OF WAY STAKING:

McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
188 East Wood Street
Isisboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN NO. 184-002754

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAS 1832 (IL 160)
SECTION 5BR-2
WASHINGTON COUNTY
JOB NO. R-98-007-07
STATION 1449+00.00 TO STATION 1458+00.00
SCALE: 1" = 50'
SHEET 2 OF 5
ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
MILLINSVILLE, ILLINOIS 62234-6198
SHEET 1 IS A COVER SHEET

PART OF THE N.E. 1/4 OF THE N.E. 1/4 OF SECTION 34 AND PART OF THE S.E. 1/4 OF SECTION 27, T. 1 S., R. 4 W., OF THE 3RD PM, WASHINGTON COUNTY, ILLINOIS

S.E. 1/4, SECTION 27

BEARINGS SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	22

STA. 1506+37.55 TO STA. 1514+50.00
CONTRACT NO.:

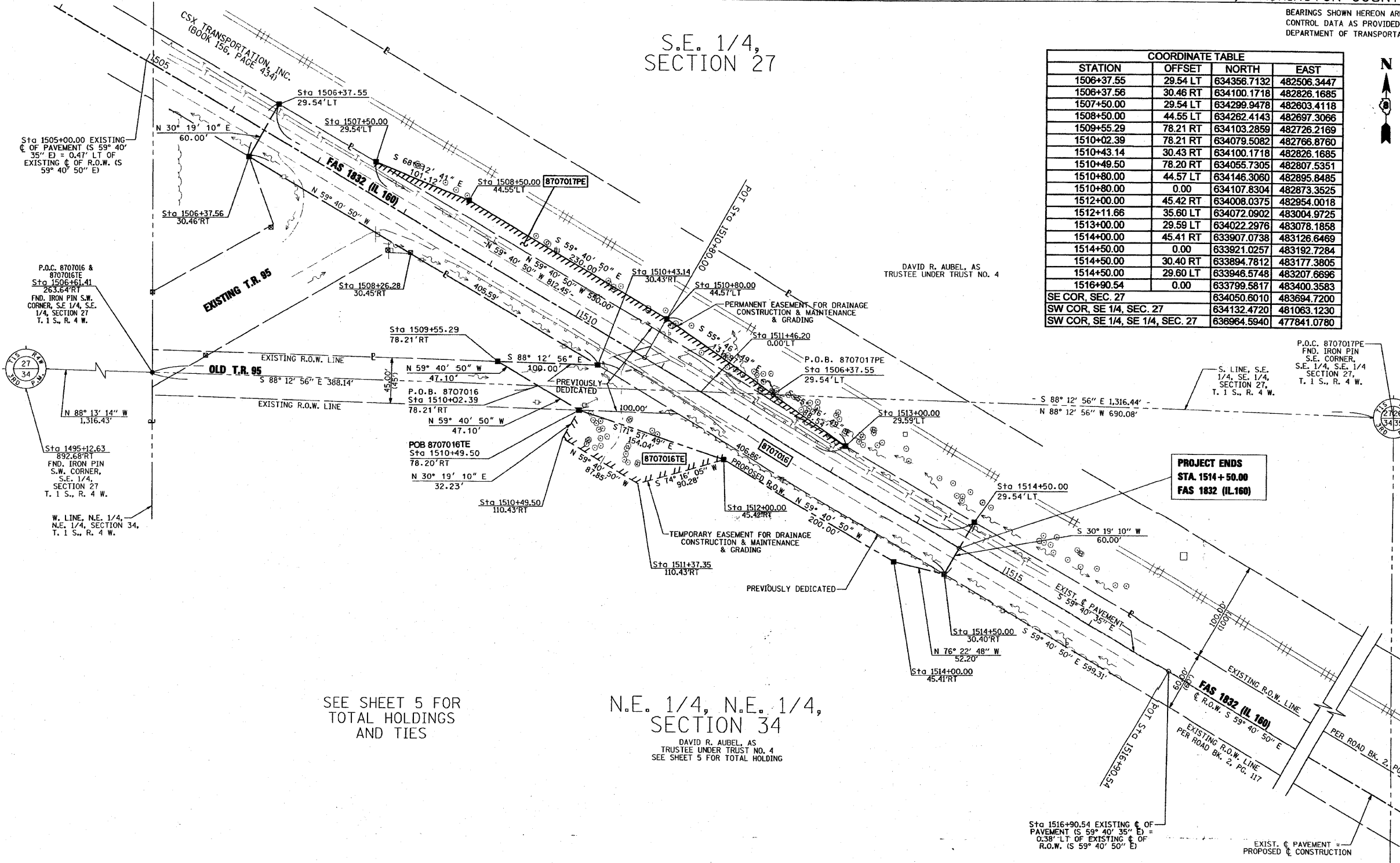
STATION	OFFSET	NORTH	EAST
1506+37.55	29.54 LT	634358.7132	482506.3447
1506+37.56	30.46 RT	634100.1718	482826.1685
1507+50.00	29.54 LT	634299.9478	482603.4118
1508+50.00	44.55 LT	634262.4143	482697.3066
1509+55.29	78.21 RT	634103.2859	482726.2169
1510+02.39	78.21 RT	634079.5082	482766.8760
1510+43.14	30.43 RT	634100.1718	482826.1685
1510+49.50	78.20 RT	634055.7305	482807.5351
1510+80.00	44.57 LT	634146.3060	482895.8485
1510+80.00	0.00	634107.8304	482873.3525
1512+00.00	45.42 RT	634008.0375	482954.0018
1512+11.66	35.60 LT	634072.0902	483004.9725
1513+00.00	29.59 LT	634022.2976	483078.1858
1514+00.00	45.41 RT	633907.0738	483126.6469
1514+50.00	0.00	633921.0257	483192.7284
1514+50.00	30.40 RT	633894.7812	483177.3805
1514+50.00	29.60 LT	633946.5748	483207.6696
1516+90.54	0.00	633799.5817	483400.3583
SE COR, SEC. 27		634050.6010	483694.7200
SW COR, SE 1/4, SEC. 27		634132.4720	481063.1230
SW COR, SE 1/4, SE 1/4, SEC. 27		636964.5940	477841.0780

LEGEND

- PR EX P.O.L. PROPOSED EXISTING POINT ON LINE
- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT 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
- PROPERTY (DEED) LINE
- APL APPARENT PROPERTY LINE
- 123.45 MEASURED DIMENSION
- 123.45 (COMP) COMPUTED DIMENSION
- 123.45 RECORDED DIMENSION
- FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- SET 5/8 INCH IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
- CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- EXISTING BUILDING

STAKING OF PROPOSED RIGHT OF WAY. SET 3/4 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 3/4 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.



SEE SHEET 5 FOR TOTAL HOLDINGS AND TIES

N.E. 1/4, N.E. 1/4, SECTION 34
DAVID R. AUBEL, AS TRUSTEE UNDER TRUST NO. 4
SEE SHEET 5 FOR TOTAL HOLDING

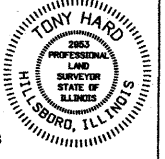
PROJECT ENDS
STA. 1514+50.00
FAS 1832 (IL 160)

STATE OF ILLINOIS))
COUNTY OF MONTGOMERY))

I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED _____

TONY HARD, PLS. NO. 2953
LICENSE EXPIRATION DATE: 11/30/2008



McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
138 East Wood Street
Hillsboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN NO. 184-002754

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAS RTE 1832 (IL 160)
SECTION 5BR-2
WASHINGTON COUNTY
JOB NO. R-98-007

STATION 1506+37.55 TO STATION 1514+50.00
SCALE: 1" = 50'

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINGSVILLE, ILLINOIS 62234-6198

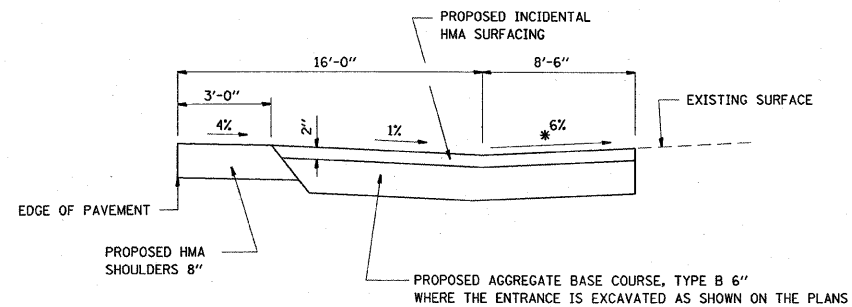
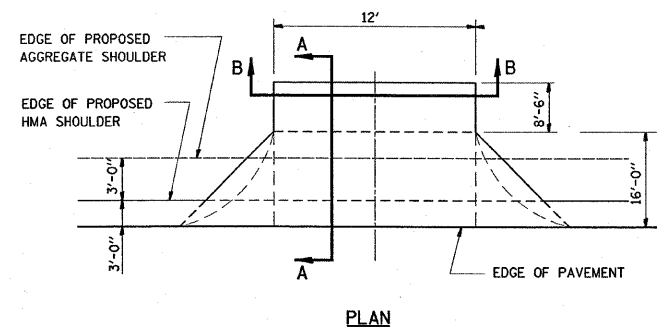
PARCEL NO.	OWNER	TOTAL HOLDING ACRES	FEE SIMPLE ACQUISITION				REMAINDER ACRES	EASEMENTS		PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY			
			GROSS ACRES	PREVIOUSLY DEDICATED ACRES	NET ACRES	ACRES		PE = PERMANENT TE = TEMPORARY	EASEMENT PURPOSE					
8707016	DAVID R. AUBEL, AS TRUSTEE UNDER TRUST NO. 4	35.2542	1.3601	53,247	1.2224	53,246	0.1377	6,000	33.8941	0.1212	5,281	DRAINAGE CONSTRUCTION & MAINTENANCE & GRADING	12-06-34-200-002	
8707017	CSX TRANSPORTATION, INC.									0.1343	5,850	DRAINAGE CONSTRUCTION & MAINTENANCE & GRADING	12-06-27-502-002 12-06-34-502-001	

COMPLETION DATE OF FIELD WORK PERFORMED
LAND SURVEY: 3/29/07
RIGHT OF WAY STAKING:

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	23
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

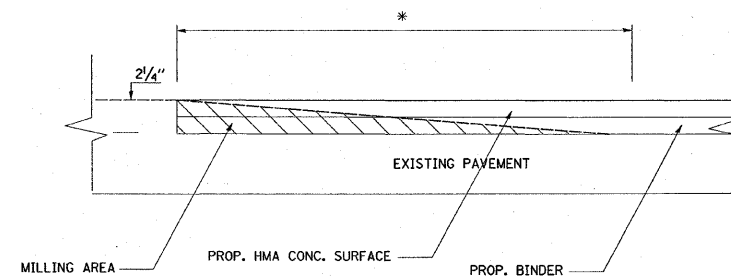
DETAIL OF HMA ENTRANCES

P.E. AT STA. 1455+97.90

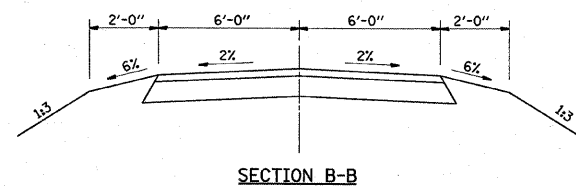


SECTION A-A WITH POSITIVE GRADE

* SEE CROSS SECTIONS FOR SLOPES



HMA SURFACE REMOVAL DETAIL
 * BEGINNING STA. 1449+25.0 TO STA. 1450+31.88
 ENDING STA. 1457+19.35 TO STA. 1457+00.00
 S.N. 095-0077



SECTION B-B

S.N. 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ENTRANCE DETAILS

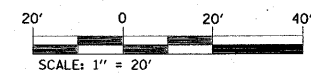
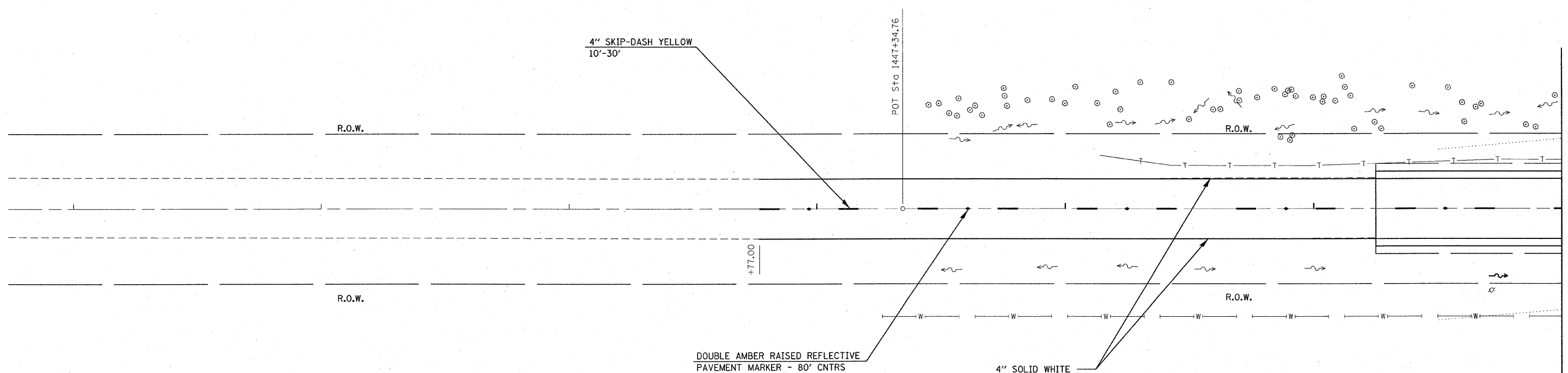
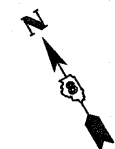
FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

SCALE: VERT.
 HORIZ.
 DATE

DRAWN BY
 CHECKED BY

DRAWING NOT TO SCALE

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	24
STA. 1444+00.00		TO STA. 1450+00.00		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT	



SN 095-0077

REVISIONS	
NAME	DATE

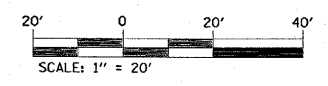
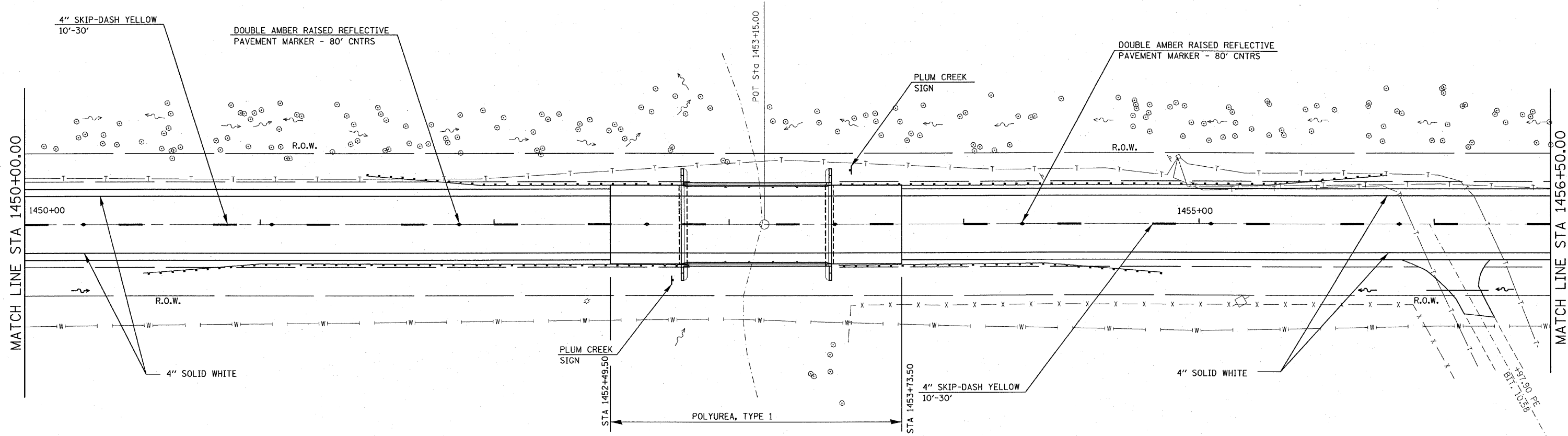
ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING PLANS
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

SCALE: VERT. _____
 DATE _____

DRAWN BY _____
 CHECKED BY _____

PLOT DATE = 12/7/2007
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 USER NAME = gelun

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	25
STA. 1450+00.00		TO STA. 1456+50.00		
FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT		



SN 095-0077

REVISIONS	
NAME	DATE

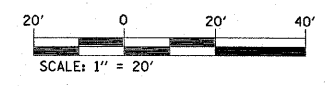
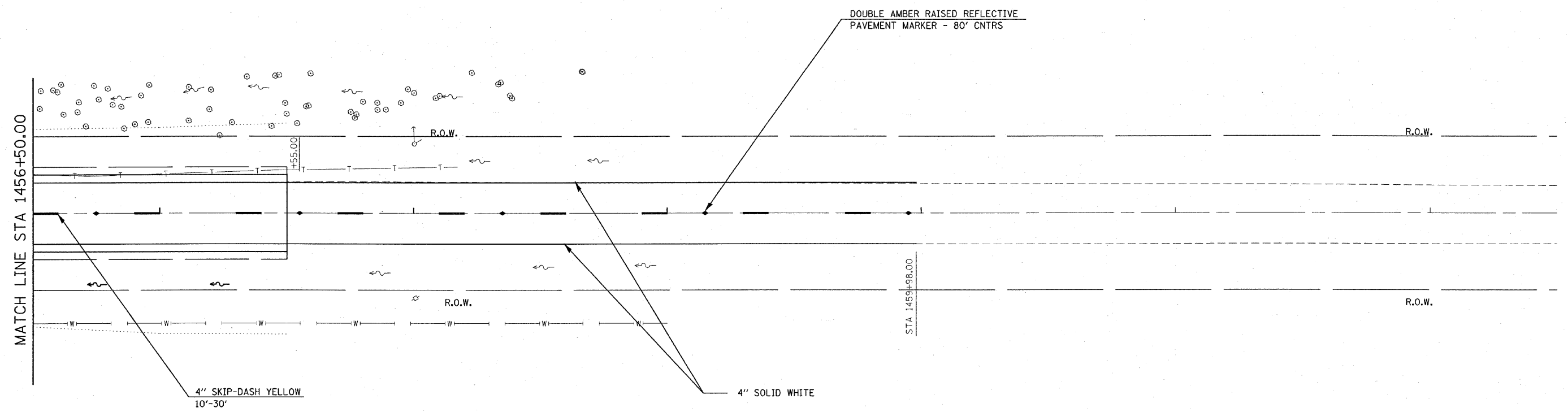
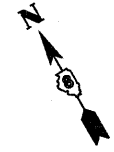
ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING PLANS
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

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 USER NAME = gellum

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	26
STA. 1456+50.00		TO STA. 1462+00.00		
FED. ROAD DIST. NO. -		ILLINOIS	FED. AID PROJECT	



SN 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING PLANS
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

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 USER NAME = galim

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 1832	5BR-2	WASHINGTON	97	27
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 1

18 SHEETS

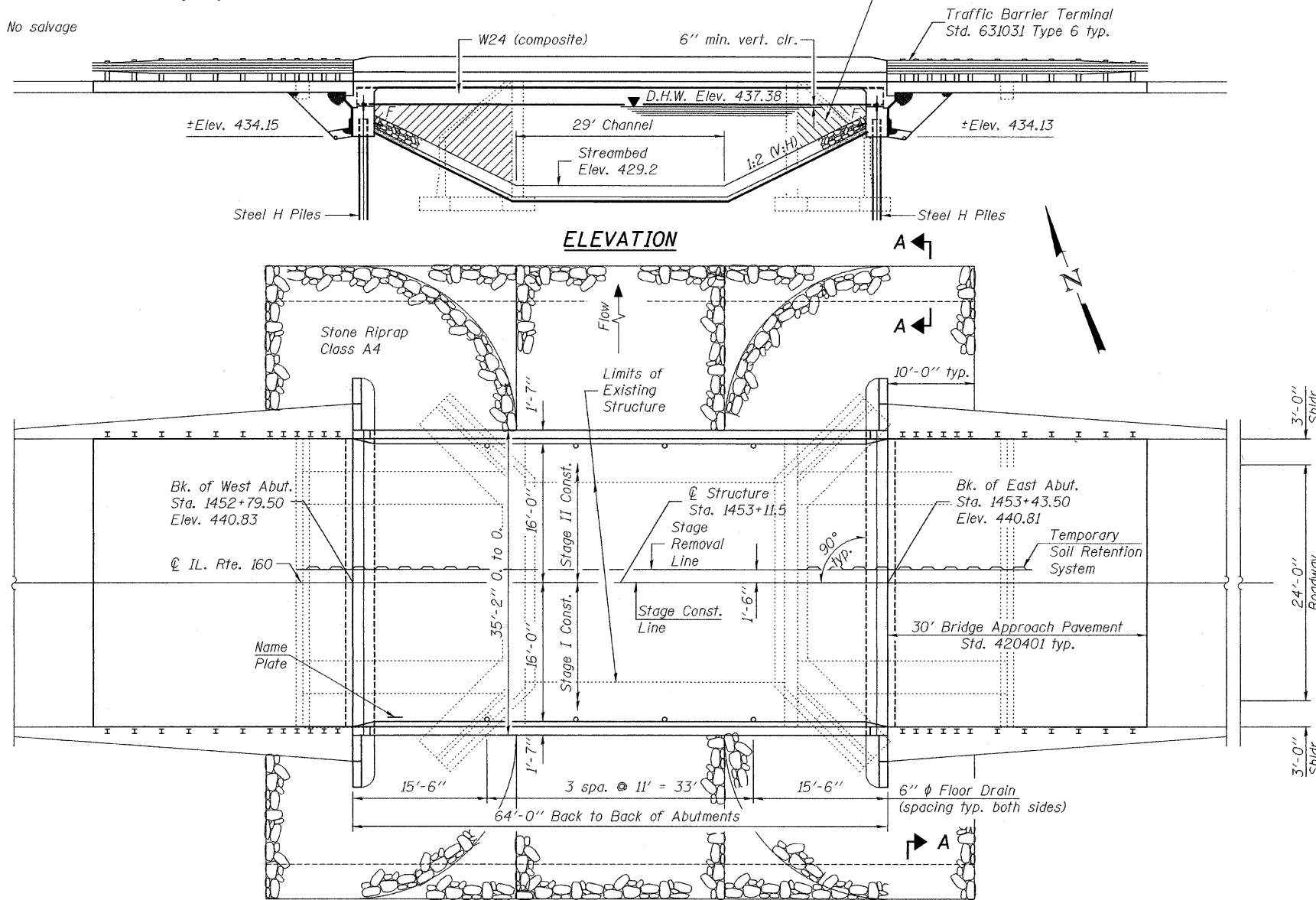
Contract #76949

Bench Mark: R.R. spike in power pole on the south side of IL. 160, ±440' east of the center of structure 095-0006; Station 1458+02, 32' Rt. Elevation 444.48.

Existing Structure: S.N. 095-0006 Built 1921 as F.A. Route 16, Section 5BR-1 at Station 1453+15.0. A reinforced concrete slab bridge, 33'-0" bk.-to-bk. abutments supported on spread footing. Superstructure replacement & widening in 1971 with PPC deck beams and bituminous wearing surface. Existing bridge to be removed and replaced. Traffic maintained utilizing stage construction.

Hatched areas indicate excavation between existing abutments and the new abutments. For quantities of Pavement Removal and Excavation, see Roadway Plans.

No salvage



INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 Stage Construction Details
- 3 Temporary Concrete Barrier
- 4-7 Top of Slab Elevations
- 8 Superstructure
- 9 Superstructure Details
- 10 Diaphragm Details
- 11 Structural Steel
- 12 Structural Steel Details
- 13 West Abutment
- 14 East Abutment
- 15 Pile Data
- 16 Cantilever Forming Brackets
- 17 Bar Splicer Details
- 18 Soil Boring Logs

GENERAL NOTES

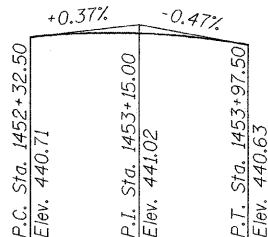
Fasteners shall be AASHTO M164 Type I, mechanically galvanized bolts. Bolts 3/4 in. φ, holes 5/8 in. φ, unless otherwise noted. Calculated weight of Structural Steel = 59280 lb. No field welding is permitted except as specified in the contract documents. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures". 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. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments. Slip forming of the parapets is not allowed. 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

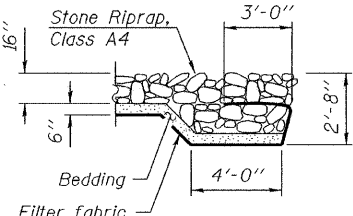
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		86	86
Stone Riprap, Class A4	Sq. Yd.			525
Filter Fabric	Sq. Yd.			525
Removal of Existing Structures No. 1	Each			1
Structure Excavation	Cu. Yd.		140	140
Concrete Structures	Cu. Yd.		28.8	28.8
Concrete Superstructure	Cu. Yd.	88.1		88.1
Bridge Deck Grooving	Sq. Yd.	213		213
Protective Coat	Sq. Yd.	281		281
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1134		1134
Reinforcement Bars, Epoxy Coated	Pound	18200	3760	21960
Bar Splicers	Each	267	18	285
Driving Piles	Foot		245	245
Test Pile Steel, HP12x53	Each		1	1
Furnishing Steel Piles, HP12x53	Foot		245	245
Name Plates	Each		1	1
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		51	51
Pipe Underdrains for Structures 4"	Foot		138	138
Floor Drains	Each		8	8
Temporary Soil Retention System	Sq. Ft.			364.3
Concrete Encasement	Cu. Yd.		4.2	4.2

STATION
BUILT 20 BY
STATE OF ILLINOIS
F.A.S. RT. 1832 SEC.5BR-2
LOADING HL93
STRUCTURE NO. 095-0077

NAME PLATE
See Std. 515001



PROFILE GRADE
(F.A.S. Rte. 1832)



SECTION A-A

DESIGNED	[Signature]
CHECKED	[Signature]
DRAWN	[Signature]
CHECKED	[Signature]

EXAMINED [Signature] January 29, 2007
ENGINEER OF BRIDGE DESIGN
PASSED [Signature]
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2008

DESIGN SCOUR TABLE

Design Scour Elevation	W. Abut.	E. Abut.
	434.15	434.13

WATERWAY INFORMATION

Drainage Area = 1.68 sq. mi. Low Grade Elev. 439.98' @ Sta. 1455+50'

Flood Yr.	Freq.	Q	Opening C.F.S.	Sq. Ft. Exist.	Sq. Ft. Prop.	Nat. H.W.E. Exist.	Nat. H.W.E. Prop.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	993	189.37	330.47	437.38	0.52	0.46	437.90	437.84		
Base	100	1,148	189.37	330.47	437.64	1.08	0.68	438.72	438.32		
Exist. Overtop.	185**	1,300	189.37	N/A	437.89	1.41	N/A	439.30			
Max. Calc.	500	1,523	N/A	330.47	437.96	N/A	1.30		439.26		
Scour	10	632	168.35	289.84	436.60	0.03	-0.04	436.63	436.56		

*Proposed Condition (Existing Low Grade Elevation: 439.30 ft. @ Sta. 1453+44.76)
**The Proposed Condition Yielded No Overtopping through the 500-Year Frequency

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 LRFD Bridge Design Specifications 4th Edition

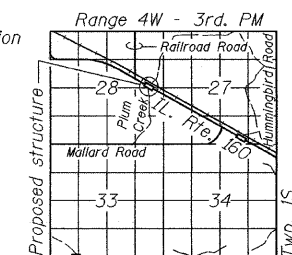
DESIGN STRESSES

FIELD UNITS

$f_c = 3,500$ psi
 $f_y = 50,000$ psi (structural steel)
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

Seismic Performance Category (SPC) = 2
Bedrock Acceleration Coefficient (A) = .11g
Site Coefficient (S) = 1.5



LOCATION SKETCH

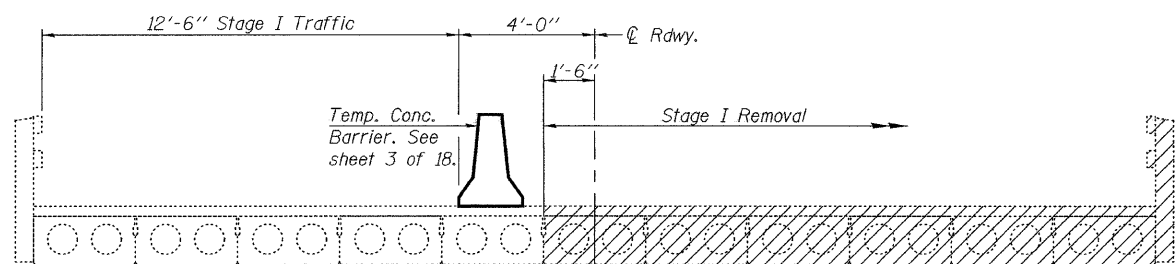
GENERAL PLAN
IL. RTE. 160 OVER PLUM CREEK
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON CO.
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

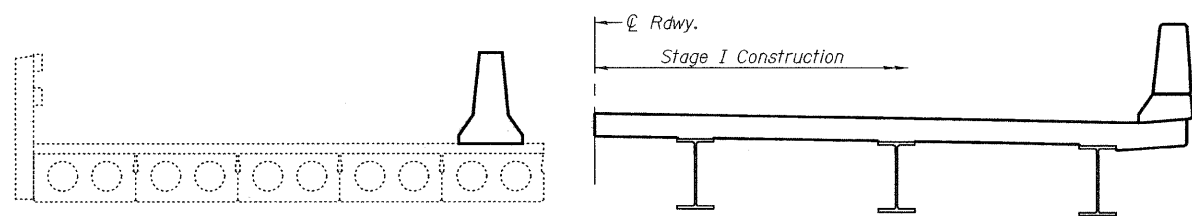
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F.A.S. 1832	5BR-2	WASHINGTON	97	28
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
18 SHEETS

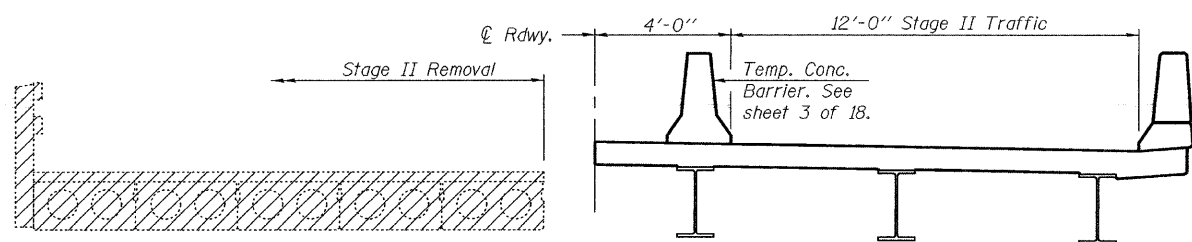
Contract #76949



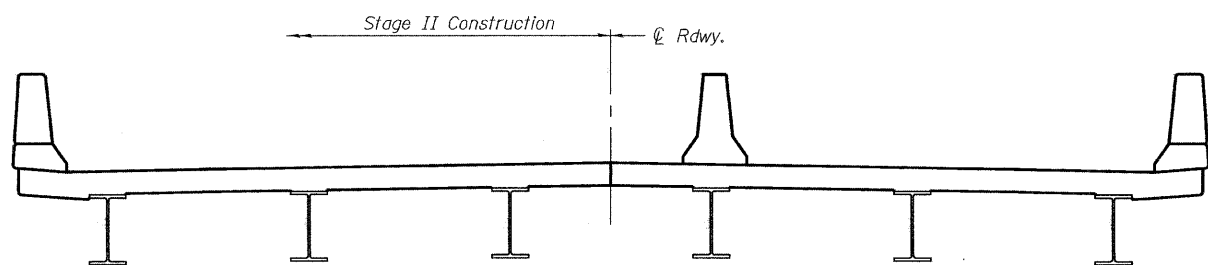
STAGE I REMOVAL



STAGE I CONSTRUCTION

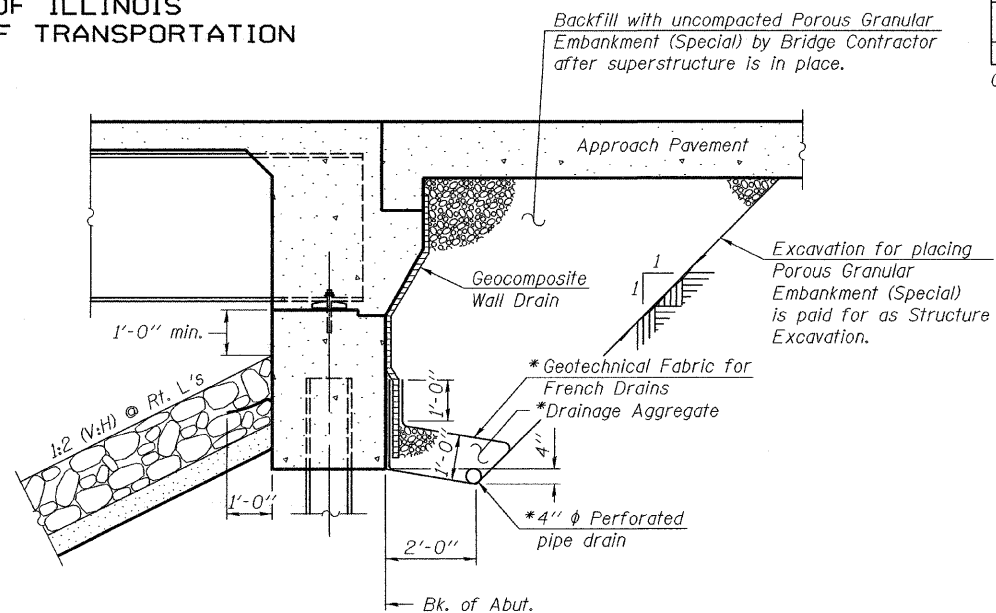


STAGE II REMOVAL



STAGE II CONSTRUCTION

Notes: All staging sections are looking East.
For quantity of Temporary Concrete Barrier, see Roadway Plans.
Hatched areas indicate removal of existing structure.



SECTION THRU INTEGRAL ABUTMENT

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

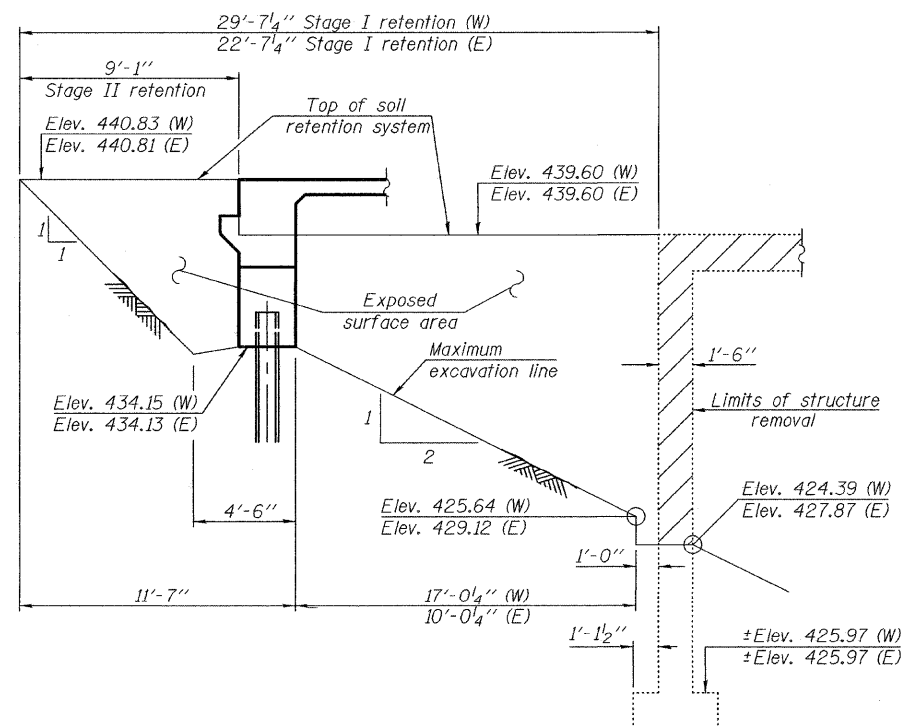
* Included in the cost of Pipe Underdrains for Structures.

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).

Note:

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



TEMPORARY SOIL RETENTION
FOR STAGE CONSTRUCTION

STAGE CONSTRUCTION DETAILS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED	Thomas J. Donagale	January 23, 2008
PASSED	Ralph E. Anderson	

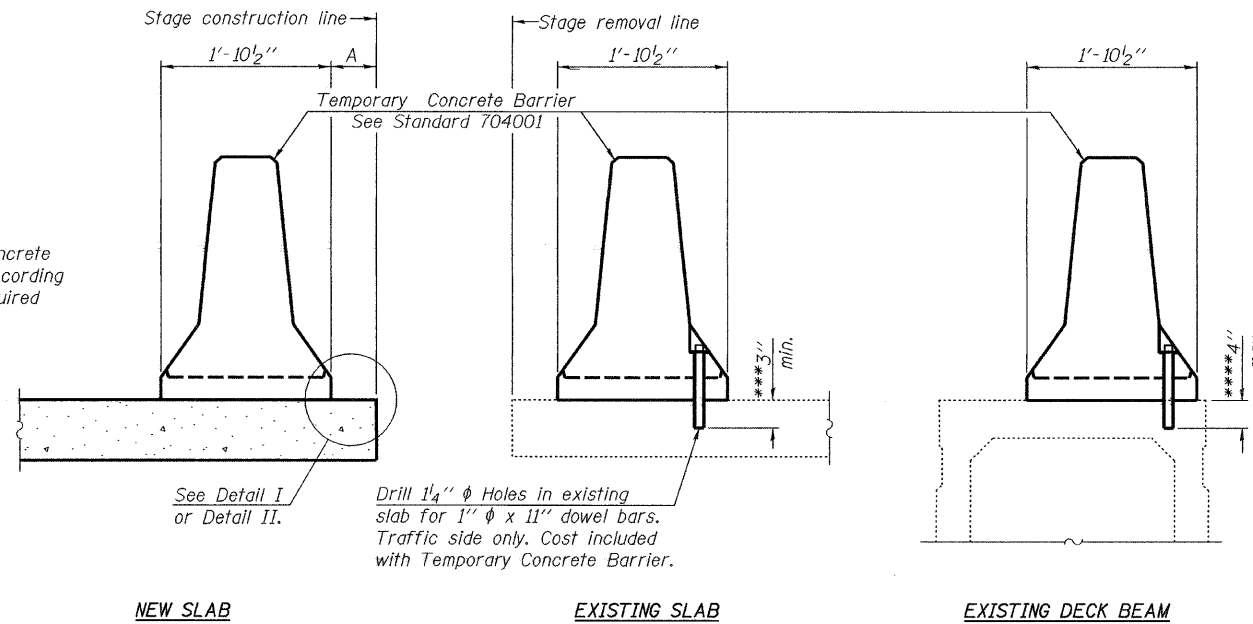
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
18 SHEETS

Contract #76949

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

EXISTING DECK BEAM

See Detail I or Detail II.

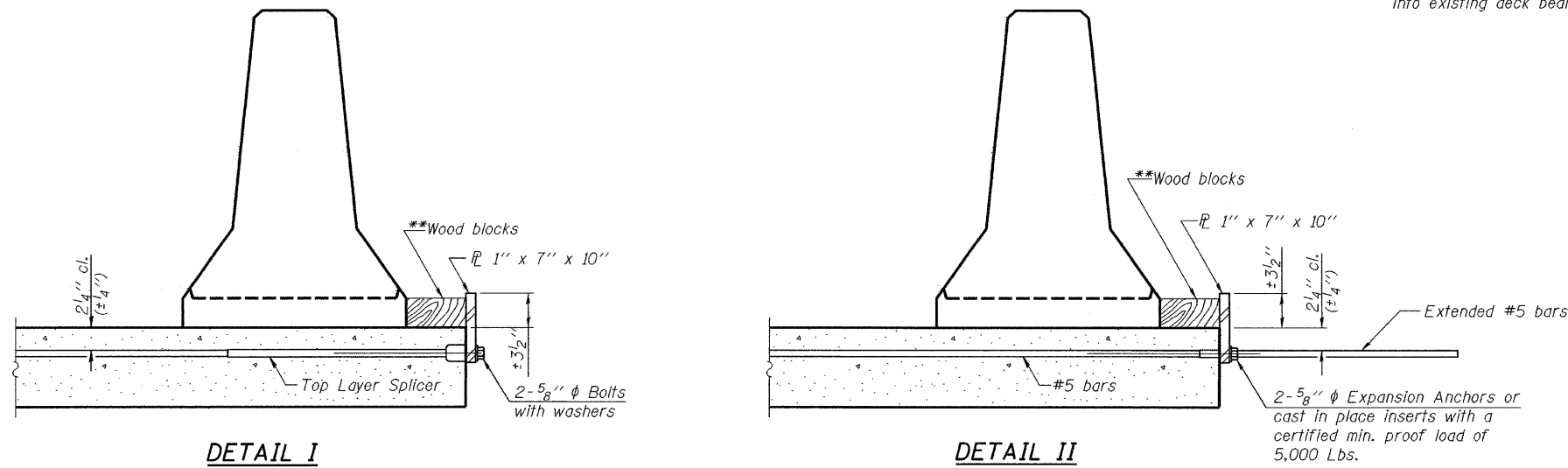
Drill 1 1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

SECTIONS THRU SLAB OR DECK BEAM

NOTES

- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

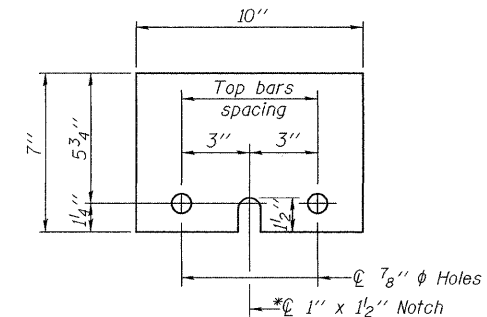
- ***Dimension shown is minimum required embedment into concrete.
If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- ***If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I

DETAIL II

**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 \bar{L} 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

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

R-27

9-3-07

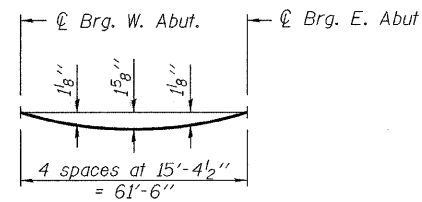
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DISTRICT	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	30
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 4

18 SHEETS

Contract #76949

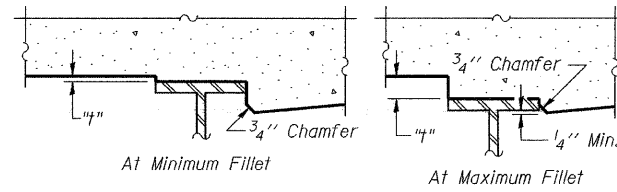


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

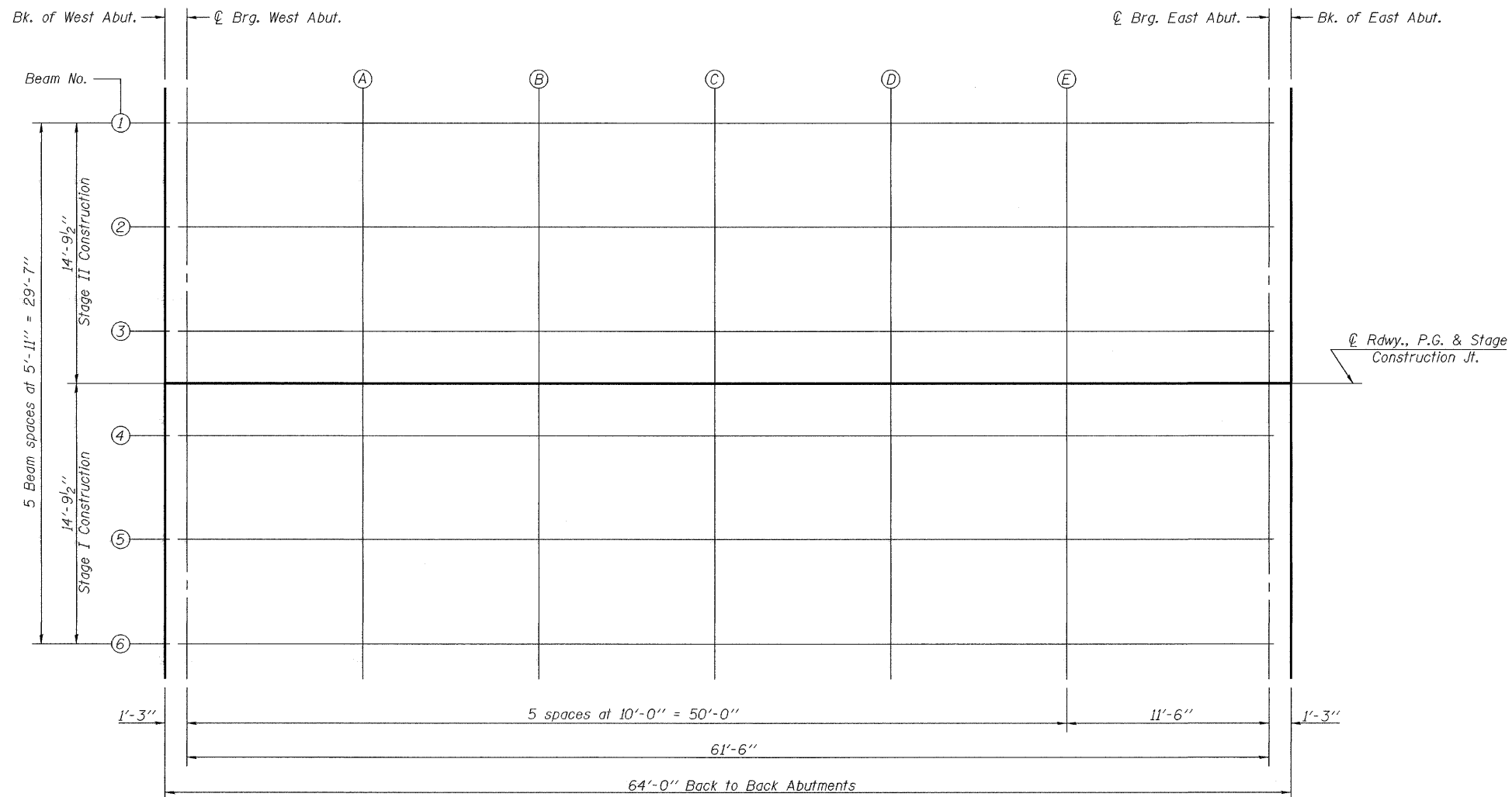
Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on page 5 of 18.



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

FILLET HEIGHTS



PLAN

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5

18 SHEETS

Contract #76949

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	-14.79	440.59	440.59
⊕ Brg. W. Abut.	145280.75	-14.79	440.59	440.59
A	145290.75	-14.79	440.60	440.66
B	145300.75	-14.79	440.60	440.71
C	145310.75	-14.79	440.60	440.73
D	145320.75	-14.79	440.60	440.71
E	145330.75	-14.79	440.59	440.66
⊕ Brg. E. Abut.	145342.25	-14.79	440.57	440.57
Bk. E. Abut.	145343.50	-14.79	440.57	440.57

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	-8.87	440.69	440.69
⊕ Brg. W. Abut.	145280.75	-8.87	440.70	440.70
A	145290.75	-8.87	440.71	440.77
B	145300.75	-8.87	440.71	440.82
C	145310.75	-8.87	440.71	440.84
D	145320.75	-8.87	440.70	440.81
E	145330.75	-8.87	440.69	440.76
⊕ Brg. E. Abut.	145342.25	-8.87	440.68	440.68
Bk. E. Abut.	145343.50	-8.87	440.67	440.67

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	-2.96	440.79	440.79
⊕ Brg. W. Abut.	145280.75	-2.96	440.79	440.79
A	145290.75	-2.96	440.80	440.86
B	145300.75	-2.96	440.80	440.91
C	145310.75	-2.96	440.80	440.93
D	145320.75	-2.96	440.80	440.91
E	145330.75	-2.96	440.79	440.86
⊕ Brg. E. Abut.	145342.25	-2.96	440.77	440.77
Bk. E. Abut.	145343.50	-2.96	440.77	440.77

⊕ RDWY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	0.00	440.83	440.83
⊕ Brg. W. Abut.	145280.75	0.00	440.83	440.83
A	145290.75	0.00	440.84	440.91
B	145300.75	0.00	440.85	440.95
C	145310.75	0.00	440.85	440.98
D	145320.75	0.00	440.84	440.95
E	145330.75	0.00	440.83	440.90
⊕ Brg. E. Abut.	145342.25	0.00	440.81	440.81
Bk. E. Abut.	145343.50	0.00	440.81	440.81

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	2.96	440.79	440.79
⊕ Brg. W. Abut.	145280.75	2.96	440.79	440.79
A	145290.75	2.96	440.80	440.86
B	145300.75	2.96	440.80	440.91
C	145310.75	2.96	440.80	440.93
D	145320.75	2.96	440.80	440.91
E	145330.75	2.96	440.79	440.86
⊕ Brg. E. Abut.	145342.25	2.96	440.77	440.77
Bk. E. Abut.	145343.50	2.96	440.77	440.77

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	8.88	440.69	440.69
⊕ Brg. W. Abut.	145280.75	8.88	440.70	440.70
A	145290.75	8.88	440.71	440.77
B	145300.75	8.88	440.71	440.82
C	145310.75	8.88	440.71	440.84
D	145320.75	8.88	440.70	440.81
E	145330.75	8.88	440.69	440.76
⊕ Brg. E. Abut.	145342.25	8.88	440.68	440.68
Bk. E. Abut.	145343.50	8.88	440.67	440.67

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	14.79	440.59	440.59
⊕ Brg. W. Abut.	145280.75	14.79	440.59	440.59
A	145290.75	14.79	440.60	440.66
B	145300.75	14.79	440.60	440.71
C	145310.75	14.79	440.60	440.73
D	145320.75	14.79	440.60	440.71
E	145330.75	14.79	440.59	440.66
⊕ Brg. E. Abut.	145342.25	14.79	440.57	440.57
Bk. E. Abut.	145343.50	14.79	440.57	440.57

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008
 EXAMINED *Thomas J. Demagala*
 ENGINEER OF BRIDGE DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON CO.
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	TOTAL SHEETS 97	SHEET NO. 32	SHEET NO. 6 18 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #76949

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	-16.00	440.50
A	145259.50	-16.00	440.53
B	145269.50	-16.00	440.55
Back of W. Abutment	145279.50	-16.00	440.56

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	-12.00	440.58
A	145259.50	-12.00	440.61
B	145269.50	-12.00	440.63
Back of W. Abutment	145279.50	-12.00	440.64

☉ ROADWAY, P.G. & STAGE CONST. JOINT

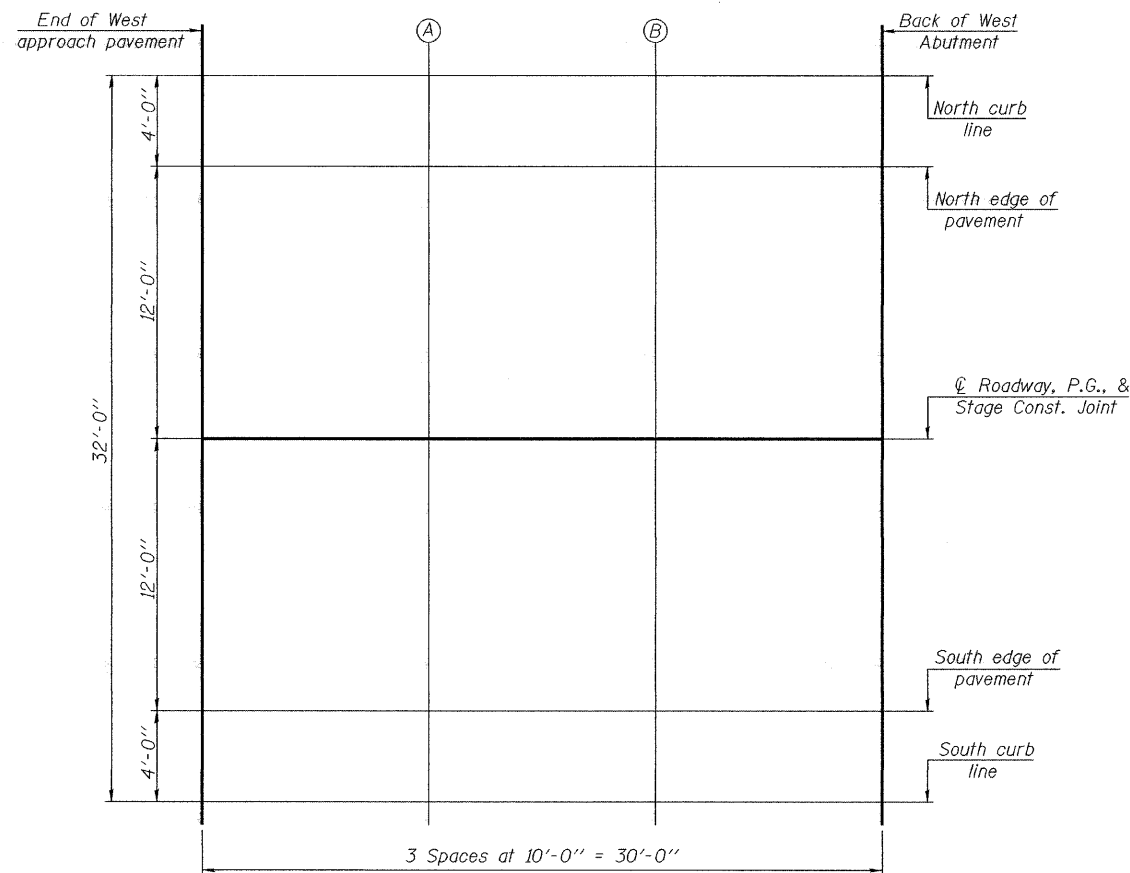
Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	0.00	440.77
A	145259.50	0.00	440.80
B	145269.50	0.00	440.82
Back of W. Abutment	145279.50	0.00	440.83

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	12.00	440.58
A	145259.50	12.00	440.61
B	145269.50	12.00	440.63
Back of W. Abutment	145279.50	12.00	440.64

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	16.00	440.50
A	145259.50	16.00	440.53
B	145269.50	16.00	440.55
Back of W. Abutment	145279.50	16.00	440.56



PLAN

DESIGNED Phillip R. Litchfield	EXAMINED Thomas J. Domagala
CHECKED Nicholas R. Barnett	PASSED Ralph E. Anderson
DRAWN Gregory D. Farmer	
CHECKED PRL/NRB	

January 26, 2009
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF WEST APPROACH
SLAB ELEVATIONS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7
F.A.S. 1832	5BR-2	WASHINGTON	91	33	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	-16.00	440.54
A	145353.50	-16.00	440.52
B	145363.50	-16.00	440.49
End of E. Appr. Pavement	145373.50	-16.00	440.46

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	-12.00	440.62
A	145353.50	-12.00	440.60
B	145363.50	-12.00	440.58
End of E. Appr. Pavement	145373.50	-12.00	440.54

☉ ROADWAY, P.G., & STAGE CONST. JOINT

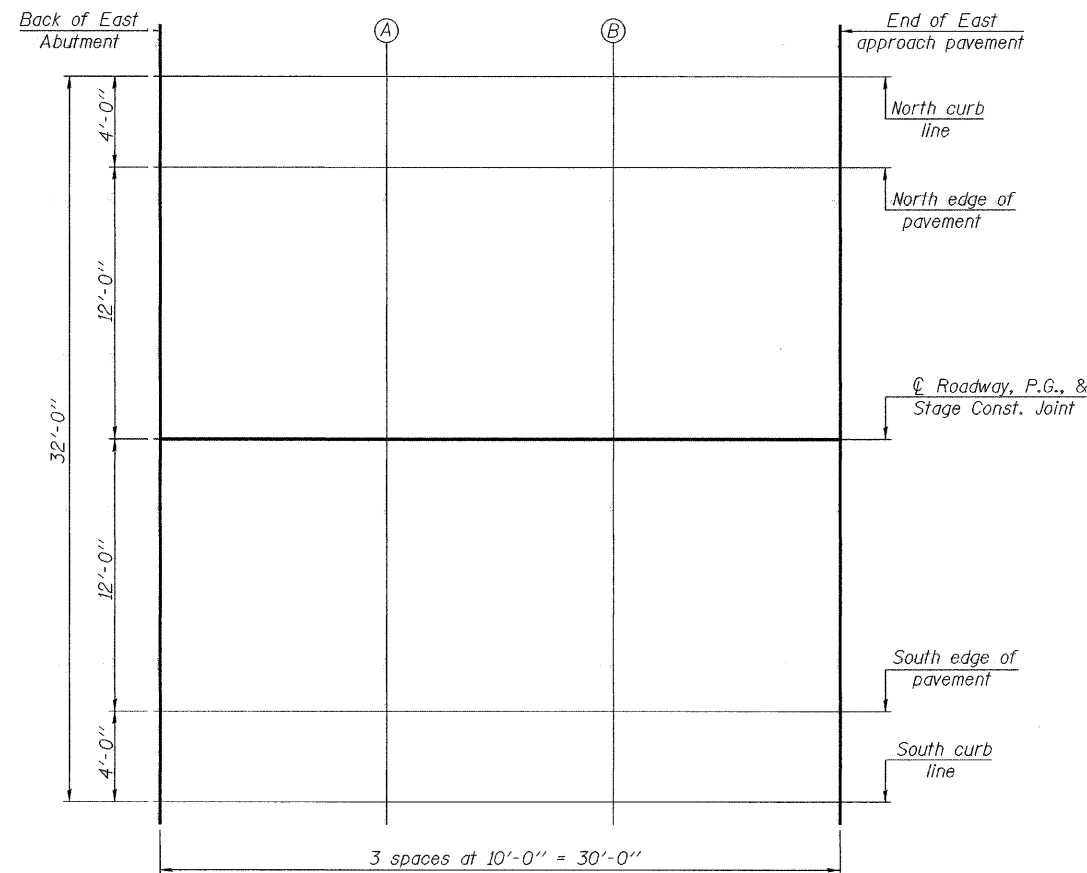
Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	0.00	440.81
A	145353.50	0.00	440.79
B	145363.50	0.00	440.76
End of E. Appr. Pavement	145373.50	0.00	440.73

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	12.00	440.62
A	145353.50	12.00	440.60
B	145363.50	12.00	440.58
End of E. Appr. Pavement	145373.50	12.00	440.54

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	16.00	440.54
A	145353.50	16.00	440.52
B	145363.50	16.00	440.49
End of E. Appr. Pavement	145373.50	16.00	440.46



PLAN

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

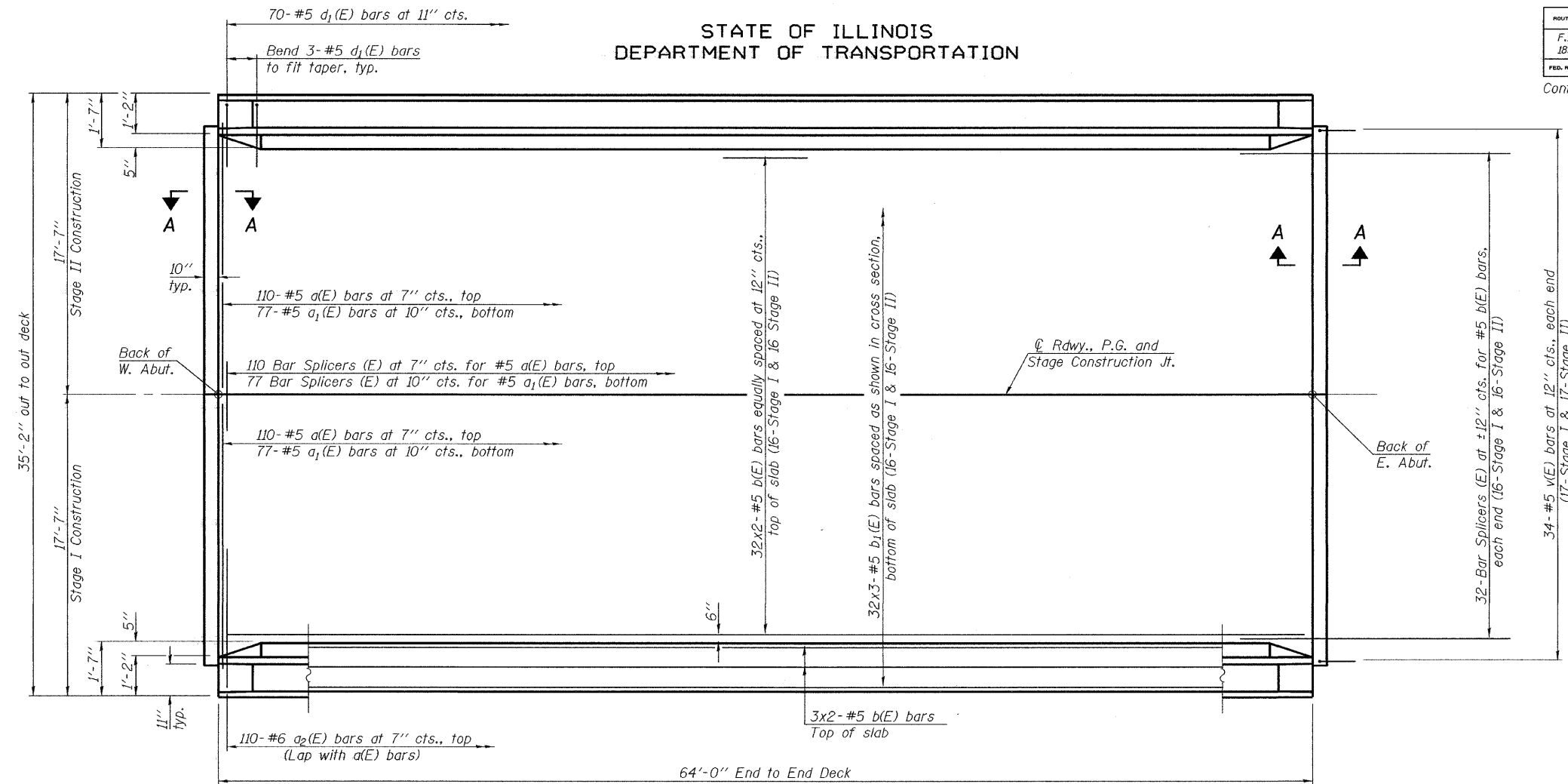
TOP OF EAST APPROACH
SLAB ELEVATIONS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	SHEET NO. 97	SHEET NO. 34
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 8
18 SHEETS

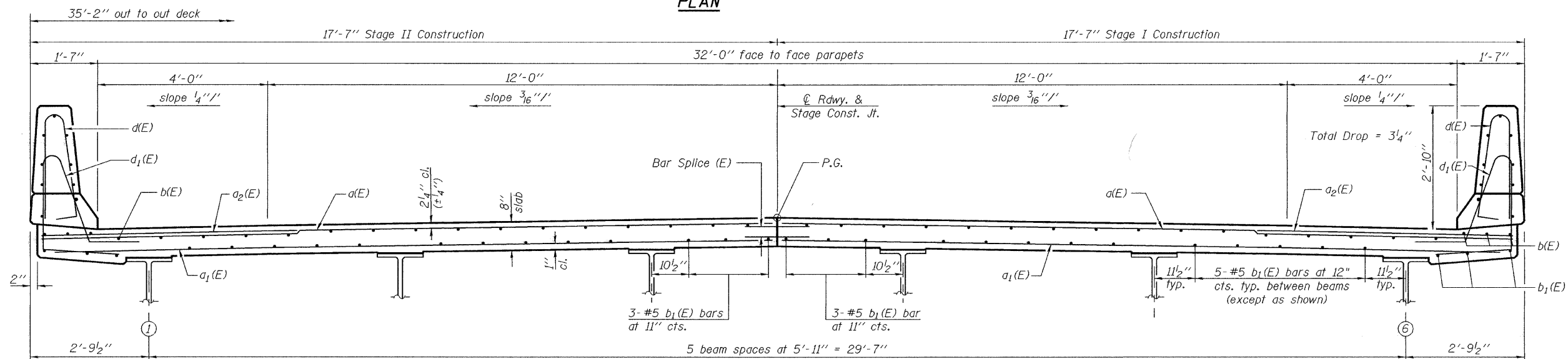
Contract #76949



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

Notes:
See Sheet 9 of 18 for superstructure details and Bill of Material.
Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.
See Sheet 9 of 18 for parapet reinforcement.
Section A-A shown on sheet 10 of 18.

PLAN



CROSS SECTION

(Looking East)

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008
EXAMINED *Thomas J. Donagalski*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

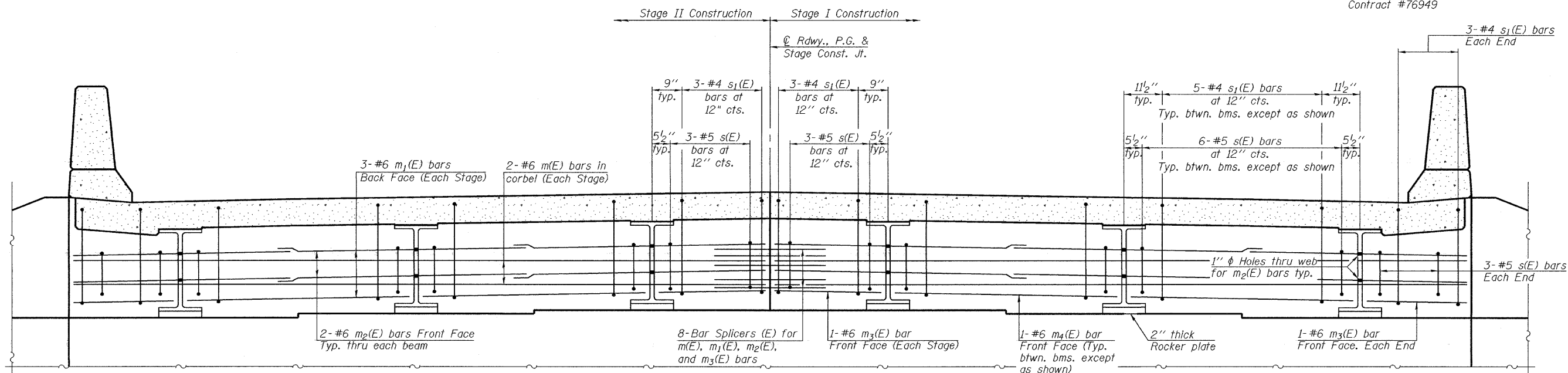
SUPERSTRUCTURE
F.A.S. RTE. 1832 - SEC 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	TOTAL SHEETS 97	SHEET NO. 36	SHEET NO. 10 18 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #76949



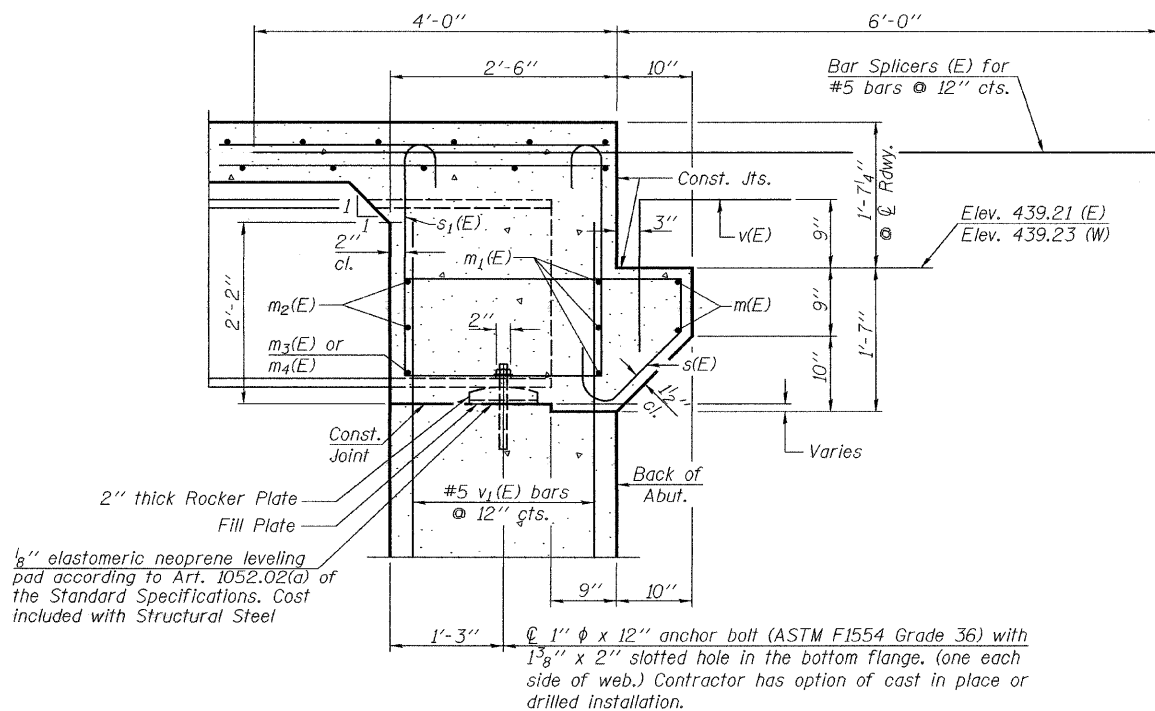
DIAPHRAGM ELEVATION AT ABUTMENT

(East diaphragm shown, looking East. West diaphragm similar)

MIN. BAR LAP

#6 Bar = 2'-9"

Notes: Reinforcement bars in diaphragm are billed with Superstructure on sheet 9 of 18.
Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 18.
For detail of s(E) and s₁(E) bars see sheet 9 of 18.
The s(E) and s₁(E) bars shall be placed parallel to the beam.



SECTION A-A

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

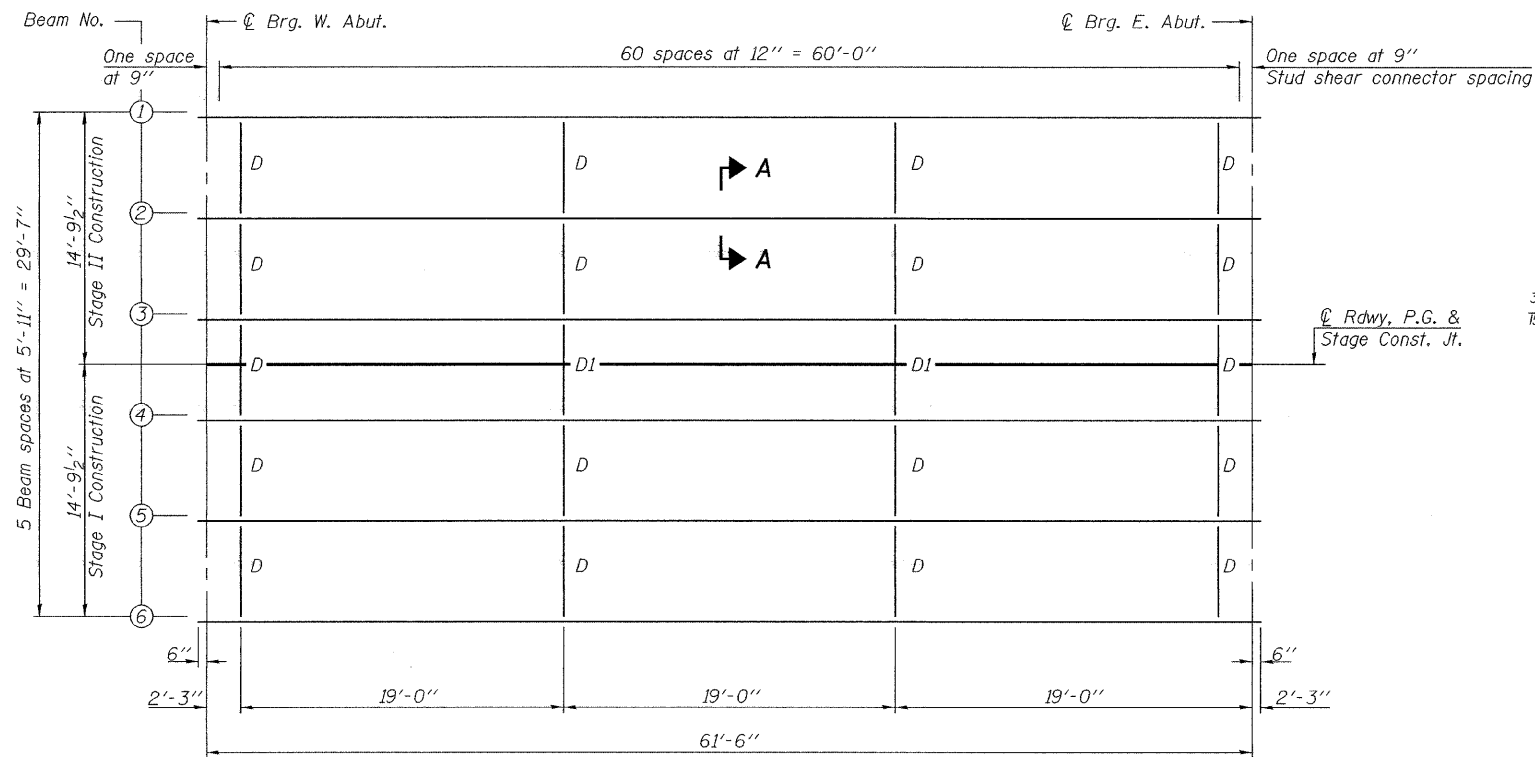
January 28, 2008
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

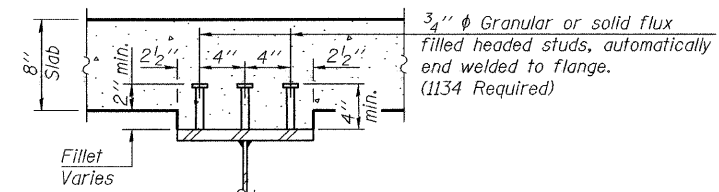
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	37
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #76949



FRAMING PLAN

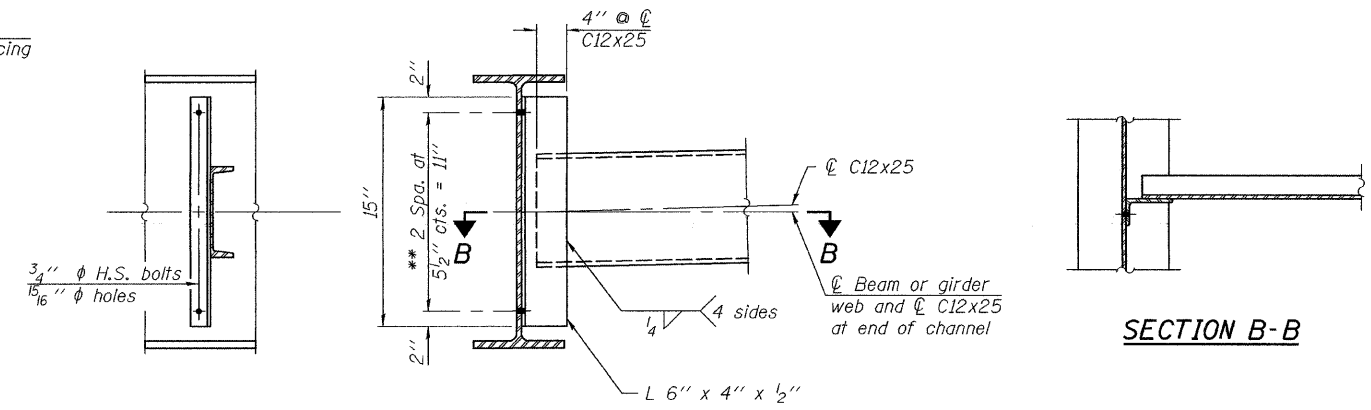
(All beams are W24x146, NTR, and AASHTO M270 Gr. 50)



SECTION A-A

DESIGNED Phillip R. Litchfield
CHECKED Nicholas R. Barnett
DRAWN Gregory D. Farmer
CHECKED PRL/NRB

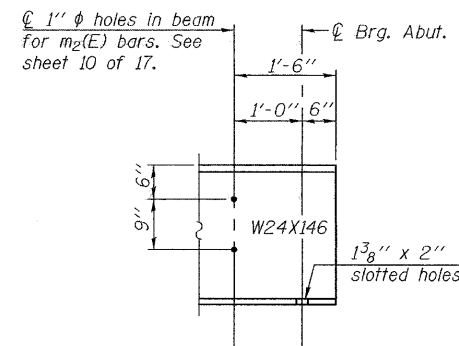
EXAMINED Thomas J. Domagala
PASSED Ralph E. Anderson
January 28, 2008
ENGINEER OF BRIDGES AND STRUCTURES



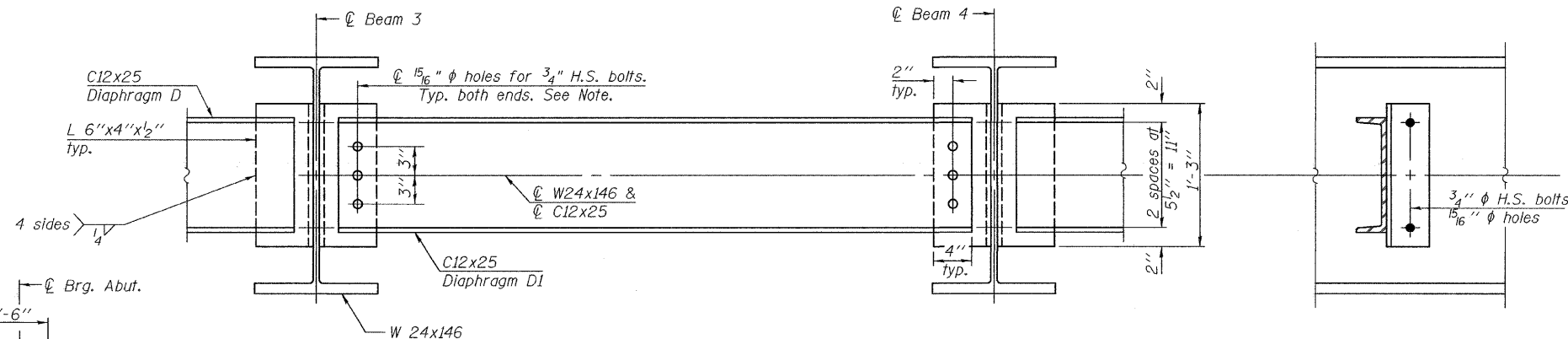
DIAPHRAGM D

(18 Required)

Note:
Two hardened washers required for each set of oversized holes.
** 3/4" ϕ HS bolts, 15/16" ϕ holes



TYP. END OF BEAM ELEVATION



DIAPHRAGM D1

(2 Required)

Note: Install only the center bolt at each end of Diaphragm D1. The bolts shall be finger tightened prior to deck pour to permit rotation of Diaphragm D1. Install the remaining bolts and fully tighten after stage two deck pour is complete.
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

STRUCTURAL STEEL
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

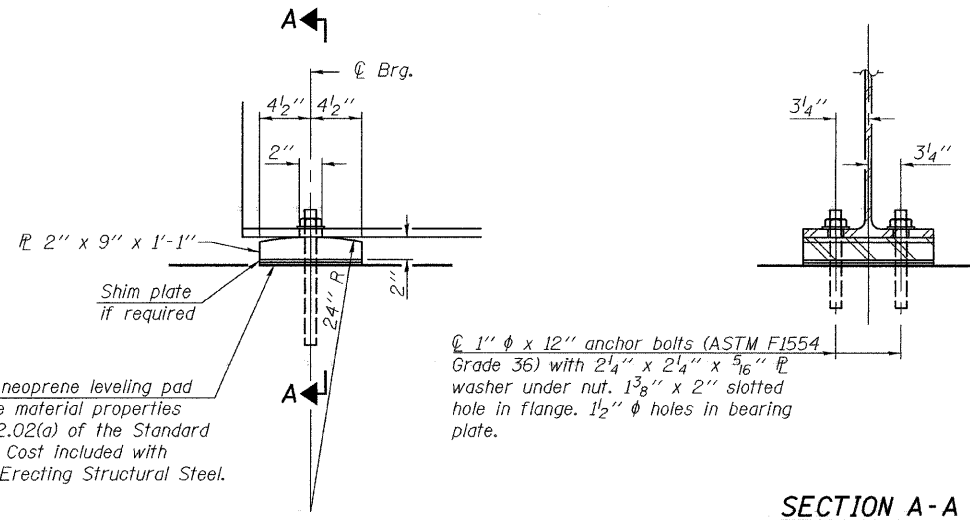
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12

18 SHEETS

Contract #76949



ELEVATION AT ABUTMENT

FIXED BEARING

Notes:

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

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

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

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

		0.5 Sp.
I_s	(in ⁴)	4580
$I_o(n)$	(in ⁴)	12183
$I_o(3n)$	(in ⁴)	8715
S_s	(in ³)	371
$S_o(n)$	(in ³)	544
$S_o(3n)$	(in ³)	487
DC1	(k/')	0.773
MDC1	(k)	365.5
DC2	(k/')	0.150
MDC2	(k)	70.9
DW	(k/')	0.296
MDW	(k)	139.8
$M\ddot{L} + Imp$	(k)	708.3
$M_u(\text{Strength I})$	(k)	1994.7
$\phi_r M_n$	(k)	2567.3
f_s DC1	(ksi)	11.82
f_s DC2	(ksi)	1.75
f_s DW	(ksi)	3.44
f_s 1.3(L+I)	(ksi)	20.31
f_s (Service II)	(ksi)	37.32
f_s (Total)(Strength I)	(ksi)	-
V_r	(k)	21.7

		Abut.
R_{DC1}	(k)	23.8
R_{DC2}	(k)	4.6
R_{DW}	(k)	9.1
$R\ddot{L} + Imp$	(k)	67.0
R_{Total}	(k)	104.5

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).
- $I_o(n), S_o(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in⁴ and in³).
- $I_o(3n), S_o(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- DC1: Un-factored non-composite dead load (kips/ft.).
- MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M\ddot{L} + Imp$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M\ddot{L} + Imp$
- $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).
- f_s (Service II): Sum of stresses as computed from the moments below (ksi).
 $M_{DC1} + M_{DC2} + M_{DW} + 1.3 M\ddot{L} + Imp$
- f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M\ddot{L} + Imp$
- V_r : Factored shear range in span computed according to Article 6.10.10.

*TOP OF BEAM ELEVATIONS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
West Abut.	439.88	439.99	440.08	440.08	439.99	439.88
East Abut.	439.86	439.97	440.06	440.06	439.97	439.86

*For Fabrication only

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

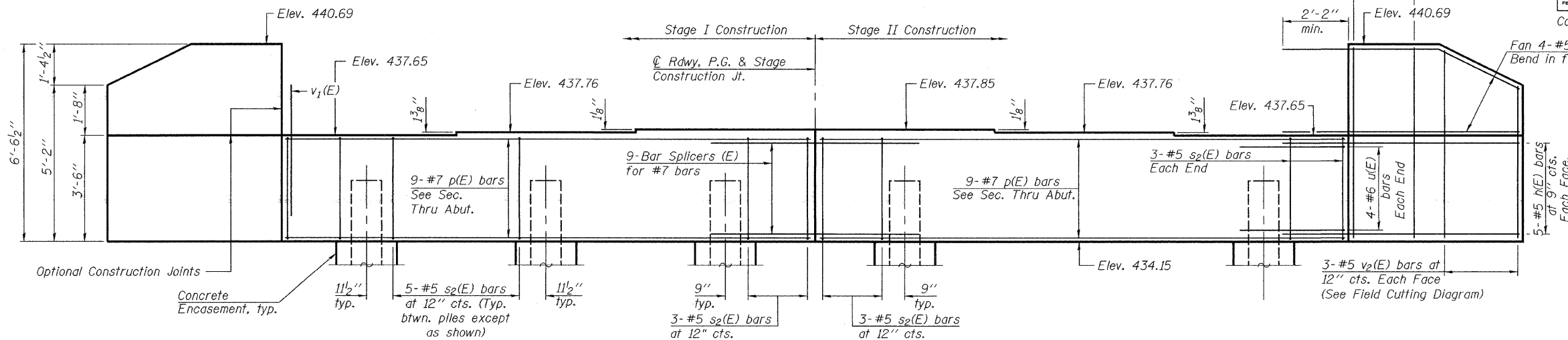
January 28, 2008
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL DETAILS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	39
SHEET NO. 13				
18 SHEETS				
Contract #76949				

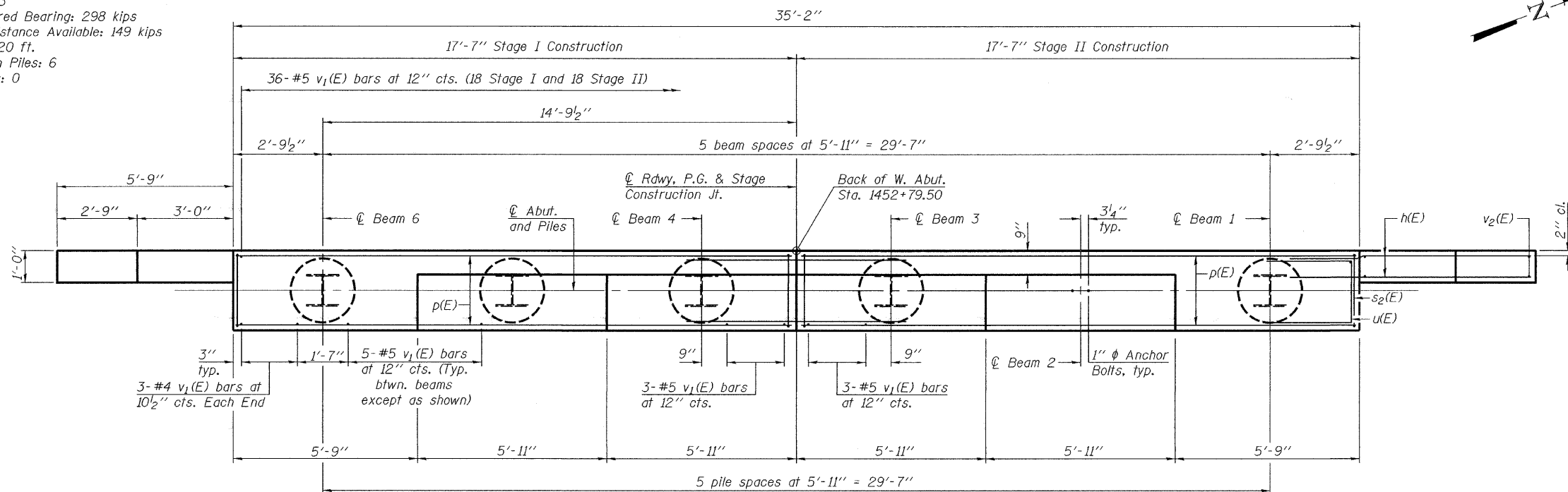
Notes: Four steps monolithically with cap.



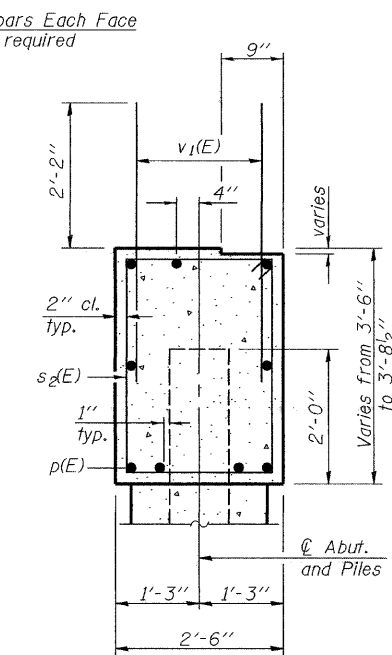
ELEVATION

PILE DATA

Type: HP12x53
Nominal Required Bearing: 298 kips
Factored Resistance Available: 149 kips
Est. Length: 20 ft.
No. Production Piles: 6
No. Test Piles: 0



PLAN



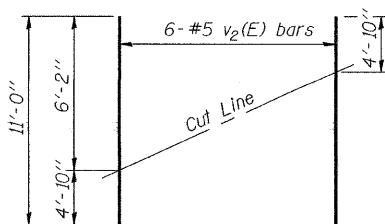
SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#5	8'-1"	—
p(E)	18	#7	17'-3"	—
s2(E)	32	#5	11'-7"	□
u(E)	8	#6	8'-1"	□
v1(E)	68	#5	4'-4"	—
v2(E)	6	#5	11'-0"	—
v3(E)	12	#5	6'-2"	—
Structure Excavation			Cu. Yd.	70
Concrete Structures			Cu. Yd.	14.4
Reinforcement Bars, Epoxy Coated			Pound	1880
Furnishing Steel Piles HP12x53			Foot	120
Driving Piles			Foot	120
Concrete Encasement			Cu. Yd.	2.1

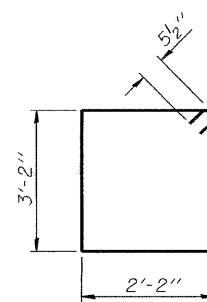
For details of Bar Splicers, see sheet 17 of 18.
For details of piles and Concrete Encasement, see sheet 15 of 18.

Note:
If h(E) bars interfere with Steel H-Piles, cut h(E) bars to fit and maintain min. 2'-2" embedment.

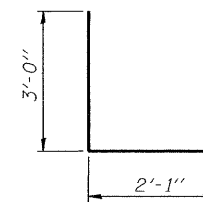


FIELD CUTTING DIAGRAM

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



BAR s2(E)



BAR u(E)

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

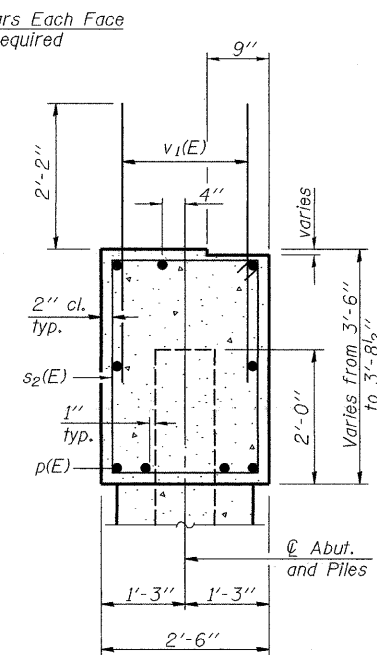
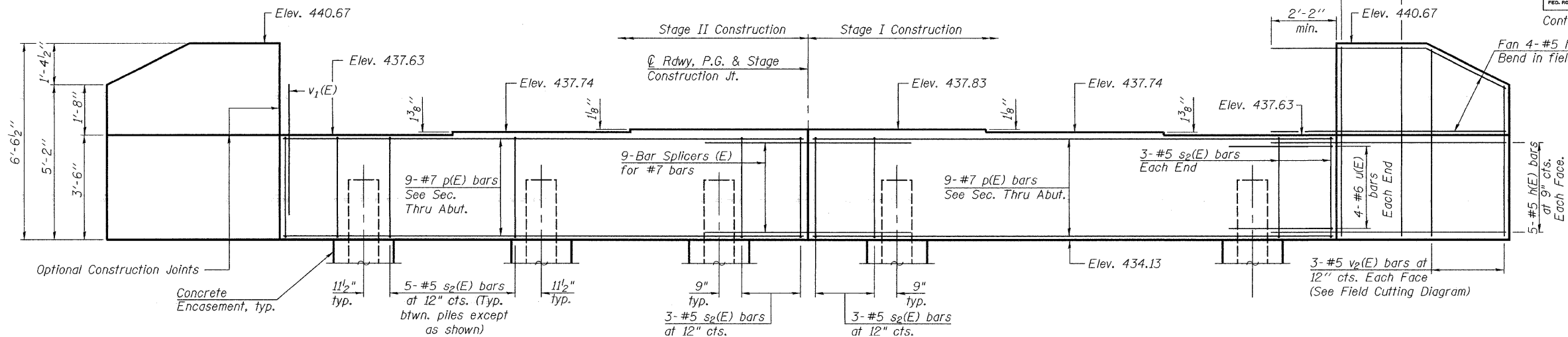
WEST ABUTMENT
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	4b
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

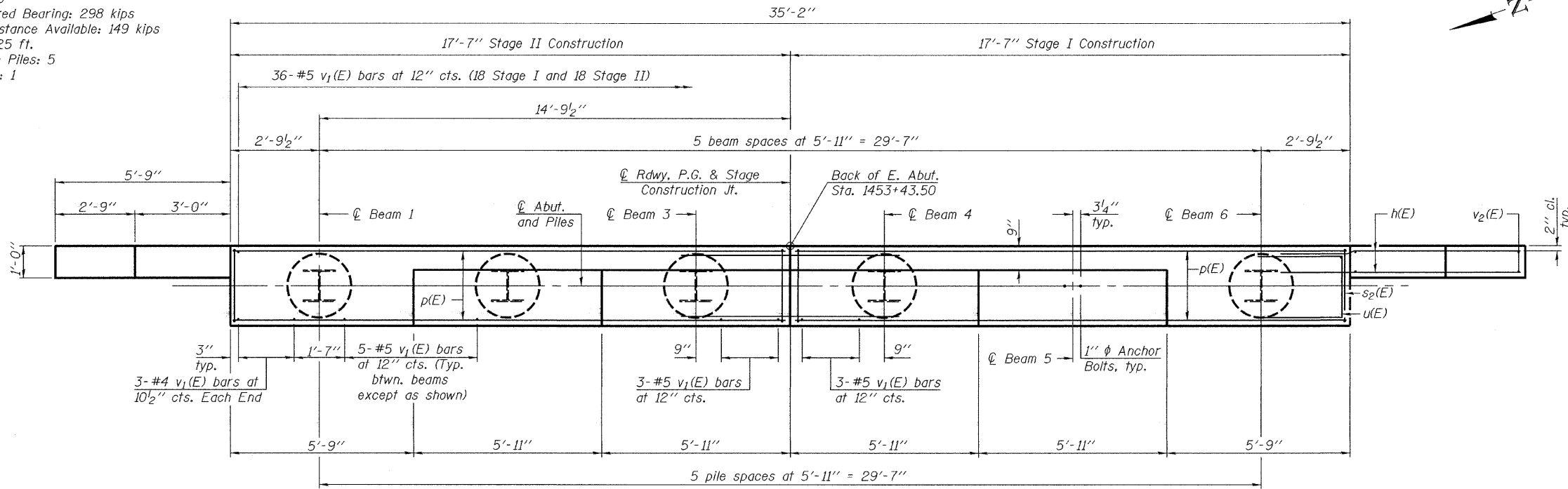
Contract #76949

Notes: Four steps monolithically with cap.



PILE DATA

Type: HP12x53
Nominal Required Bearing: 298 kips
Factored Resistance Available: 149 kips
Est. Length: 25 ft.
No. Production Piles: 5
No. Test Piles: 1

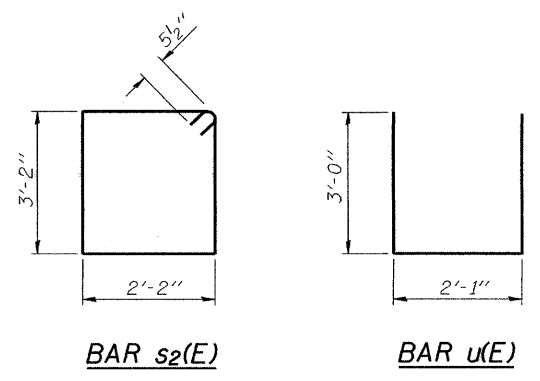
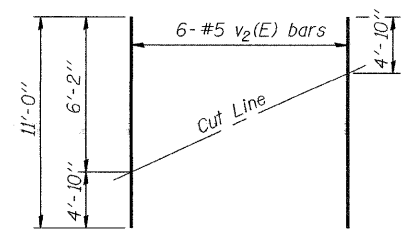


BILL OF MATERIAL

Bar No.	Size	Length	Shape
h(E)	36 #5	8'-1"	—
p(E)	18 #7	17'-3"	—
s ₂ (E)	32 #5	11'-7"	□
u(E)	8 #6	8'-1"	—
v ₁ (E)	68 #5	4'-4"	—
v ₂ (E)	6 #5	11'-0"	—
v ₃ (E)	12 #5	6'-2"	—
Structure Excavation	Cu. Yd.	70	
Concrete Structures	Cu. Yd.	14.4	
Reinforcement Bars, Epoxy Coated	Pound	1880	
Furnishing Steel Piles, HP12x53	Foot	125	
Driving Piles	Foot	125	
Test Pile Steel, HP12x53	Each	1	
Concrete Encasement	Cu. Yd.	2.1	

For details of Bar Splicers, see sheet 17 of 18.
For details of piles and Concrete Encasement, see sheet 15 of 18.

Note: If h(E) bars interfere with Steel H-Piles, cut h(E) bars to fit and maintain min. 2'-2" embedment.



DESIGNED	Phillip R. Litchfield	EXAMINED	Thomas J. Domagala
CHECKED	Nicholas R. Barnett	PASSED	Ralph E. Anderson
DRAWN	Gregory D. Farmer	ENGINEER OF BRIDGES AND STRUCTURES	
CHECKED	PRL/NRB		

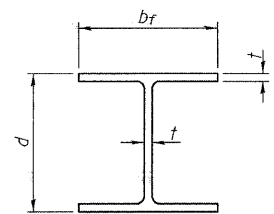
January 28, 2008

EAST ABUTMENT
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

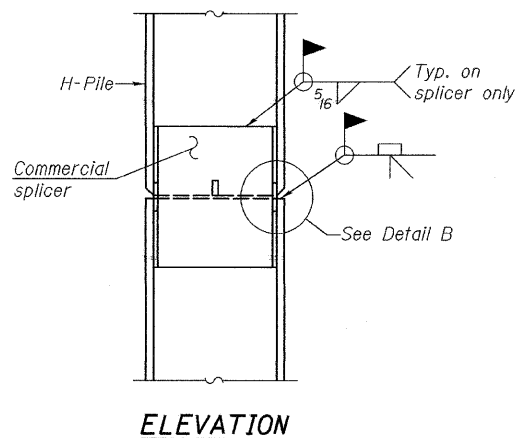
ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	TOTAL SHEETS 97	SHEET NO. 41	SHEET NO. 15 18 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #76949

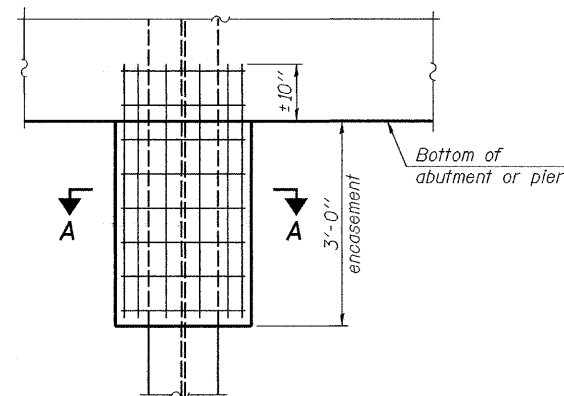


STEEL PILE TABLE

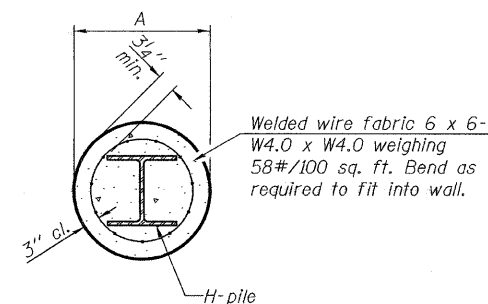
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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



ELEVATION



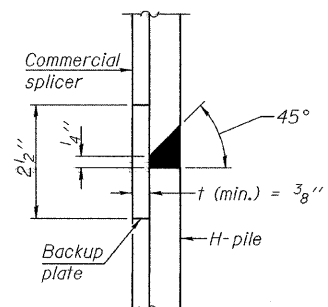
ELEVATION



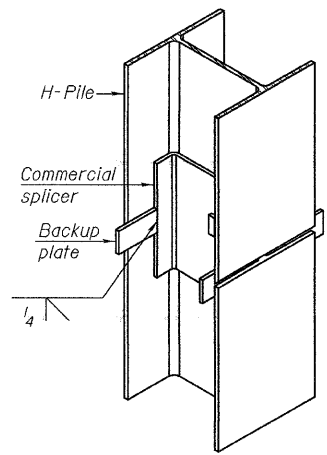
SECTION A-A

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

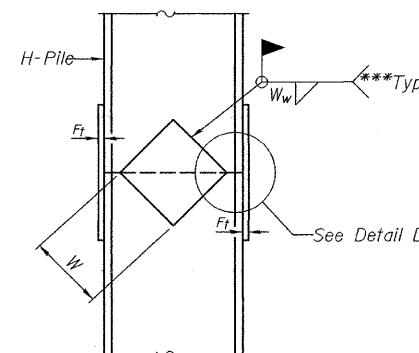
PILE ENCASEMENT



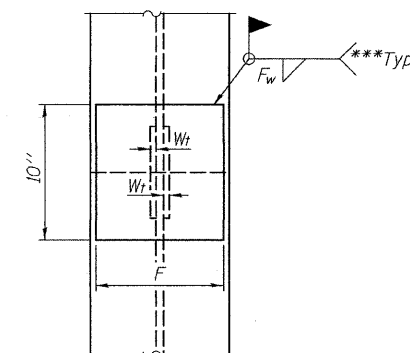
DETAIL "B"



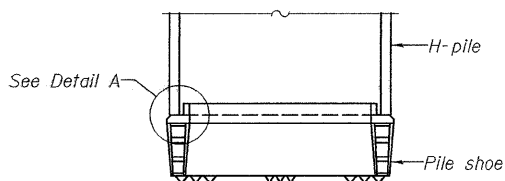
ISOMETRIC VIEW



ELEVATION

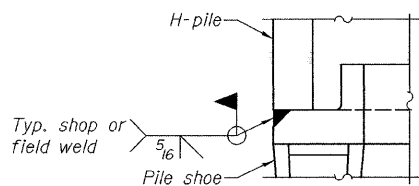


END VIEW



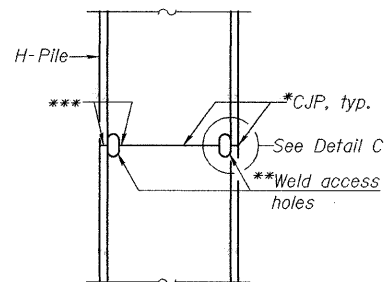
ELEVATION

WELDED COMMERCIAL SPLICE

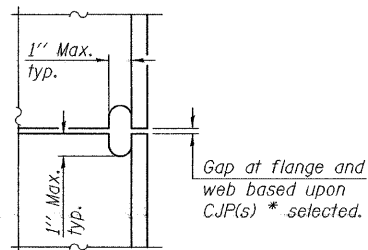


DETAIL A

H-PILE SHOE ATTACHMENT

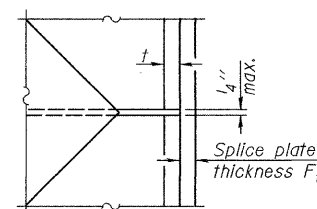


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

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

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 3/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 3/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 3/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 3/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 3/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 3/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

PILE DATA

F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 16

18 SHEETS

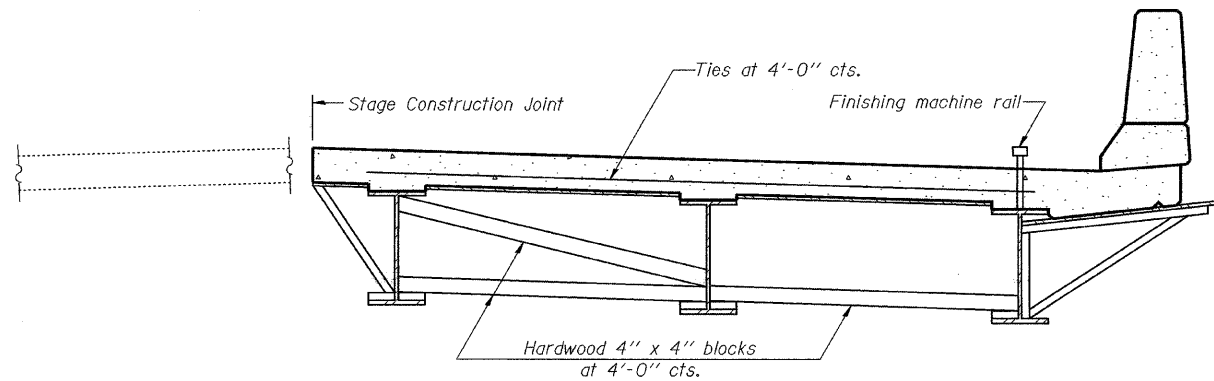
Contract #76949

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

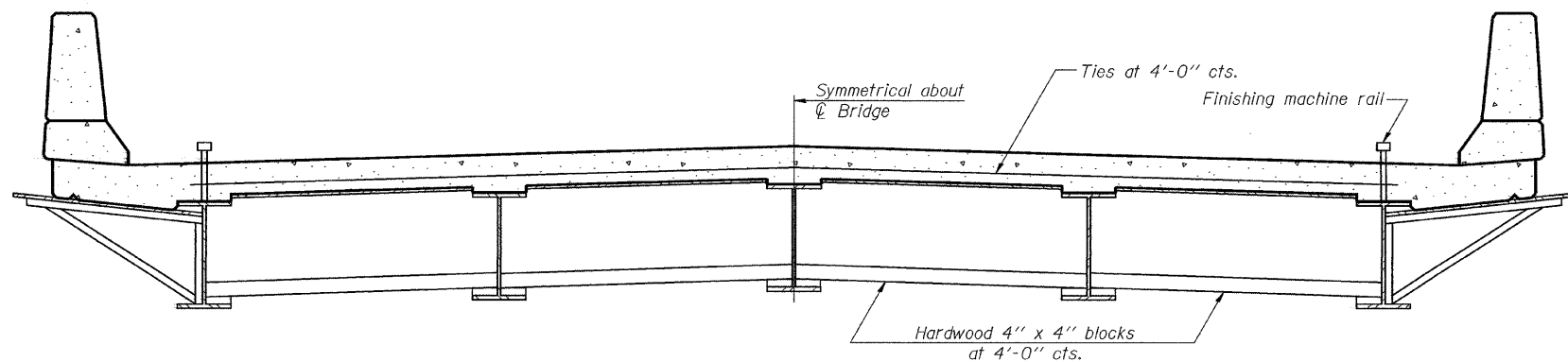
The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR
STAGE CONSTRUCTION**



**FORM BRACES FOR
STANDARD CONSTRUCTION**

DESIGNED Phillip R. Litchfield
CHECKED Nicholas R. Barnett
DRAWN Gregory D. Farmer
CHECKED PRL/NRB

January 28, 2008
EXAMINED Thomas J. Donagalski
PASSED Ralph E. Anderson

SB-1

11-1-06

CANTILEVER FORMING BRACKETS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1453+11.50
STRUCTURE NO. 095-0077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 17
18 SHEETS

Contract #76949

NOTES

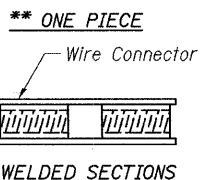
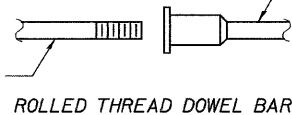
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the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

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

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

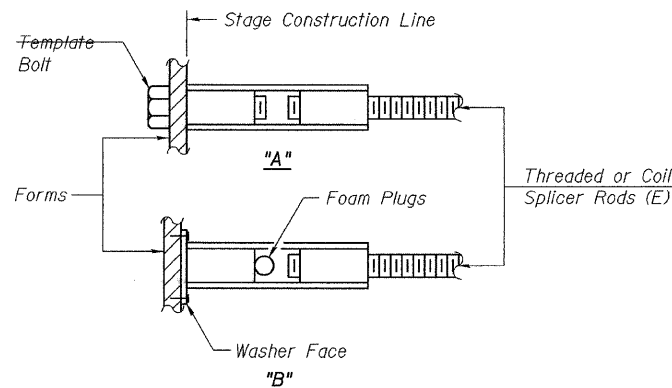
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

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



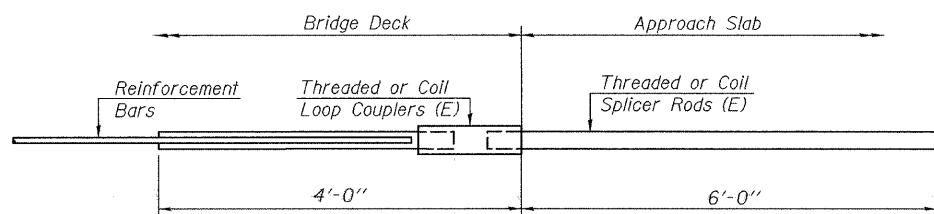
BAR SPLICER ASSEMBLY ALTERNATIVES

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



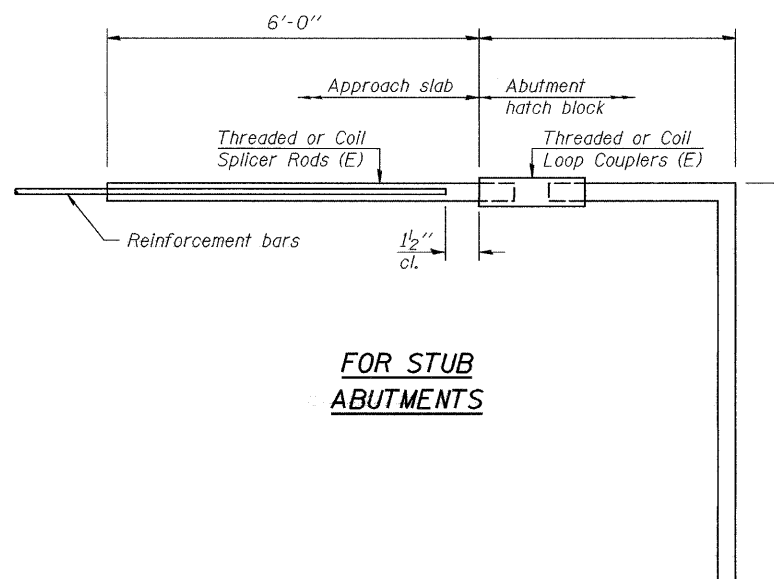
INSTALLATION AND SETTING METHODS

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



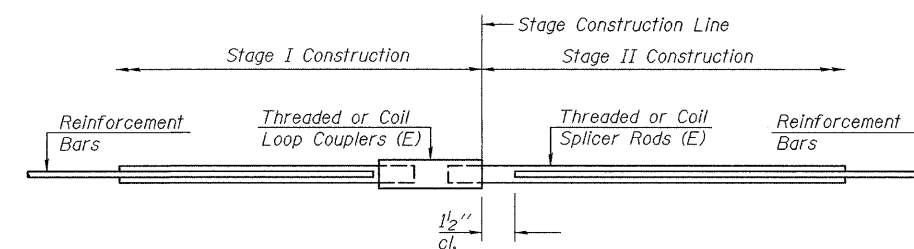
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#6	16	Diaphragm
#5	187	Deck
#7	18	Abutment

BAR SPLICER ASSEMBLY DETAILS

F.A.S. RTE. 1832 - SEC. 5BR-2

WASHINGTON COUNTY

STATION 1453+11.50

STRUCTURE NO. 095-0077

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED	Thomas J. Domagala	January 28, 2006
PASSED	Ralph E. Anderson	

BSD-1

11-1-06

F.A.S. SITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	44
STA. _____ TO STA. _____				
ILLINOIS FED. AID PROJECT				

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

BM: Chiseled 'D' on Top of Northwest abutment wingwall
16' 4" 30' - 1452136 - Elev. 32.00
Existing Structure: 1 span P.C. Thru Gider @ 23' 0" D.C. & BK
Built in 1921 as SBR 15, Sec. 5-B @ Sta. 1453115.
Existing deck to be removed by bridge contractor.

SHEET NO. 1
OF 2 SHEETS

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Portland Cement Concrete Pavement	Sq. Yds	27		27
Pavement Fabric	Sq. Yds	27		27
Concrete Removal	Cu. Yds		9	9
Expansion Belts (2" x 1/2")	Each	40	32	72
Class X Concrete	Cu. Yds	1.6	13.2	14.8
Precast Prestressed Conc. Deck Slab	Sq. Ft.	100.3		100.3
Precast Concrete Bridge Slab	Sq. Ft.	239		239
Steel Rebar, Type N	Lin. Ft.	130		130
Reinforcement Bars	Lbs.		1730	1730
Form Concrete P.C. Replacement (2")	Sq. Yds		2	2
Removal of Existing Superstructures	Each			1
Coal Tar Interlayer Protective Coat	Sq. Yds	120		120
Bit. Concrete Surf. Co. as Class I	Ton	37		37

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameter, unless otherwise shown.

It shall be the responsibility of the contractor to verify all dimensions and conditions existing in the field prior to construction and ordering materials.

An alternate strand pattern using Extra High Strength Prestressing Strand (270 k.s.i.) is permitted.

Expansion belts shall consist of self drilling expansion anchors and 3/4" hooked bolts. Hooked bolts shall extend a minimum of 12" into new concrete unless otherwise shown.

Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.

Limits of Coal Tar Interlayer Protective Coat shall be back to back of abutments.

PLAN 2'-0" Pavement Removal
1" P.C. Replacement

PRECAST PRESTRESSED UNITS

f_c = 5,000 psi
f_{ci} = 4,000 psi
f_s = 248,000 psi (7 strands)
f_s = 173,800 psi (4 strands)

FIELD UNITS

f_c = 1,000 psi (11 days)
W = 75 Facking
f_s = 20,000 psi (Paint)
a = 10

Allow 25% for future W.S.
Loading HS 20-44

LOCATION SKETCH

DESIGNED: H.Y. Lee
CHECKED: G.M. Lee
DRAWN: G.M. Lee
CHECKED: G.M. Lee

EXAMINED: [Signature]
PASSED: H.C. [Signature]
APPROVED: [Signature]

JANUARY 26 1971

See Sheet #3 for Resurfacing Taper

PLAN 2'-0" Pavement Removal
1" P.C. Replacement

REVISIONS

NO.	DESCRIPTION	DATE

FOR INFORMATION ONLY

S.N. 095-0077

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING STRUCTURE PLANS

FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

SCALE: VERT. _____
 HORIZ. _____
DATE: _____

DRAWN BY _____
CHECKED BY _____

PLOT DATE = 11/29/2007
 PLOT SCALE = 50.0000 / IN.
 REFERENCE = #REF#

F.A.S. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5BR-2	WASHINGTON	97	45	
STA. _____		TO STA. _____		
ILL. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

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

SHEET NO. 2
6 SHEETS

ELEVATION

15'-11" total length
4'-11 1/4" left side
3'-1 1/4" right side
1" Post spaces at 7'-10"
Furnish 2 Right Hand Units & 2 Left Hand Units
See Rail Post Insert Details on Sheet # 4
2-3/4" x 1'-6" Dowel Bars Each End
Class X Concrete Appr. Cap to be poured against Undisturbed Embankment

SECTION A-A

Elev. 94.53
Edge of Existing Pavement
Pavement Fabric See Std. 215-2
10" Portland Cement Concrete Pavement
3/4" P.I.F.
3/4" Expansion Bolts
3/4" Threaded Inserts for 12" hooked bolts
4" x 7 1/2" Fabric Bearing Pads Each End

SECTION THRU PRECAST UNIT

PARTIAL PLAN OF APPROACH

10-3/4" Expansion Bolts at 18" cts.
10-3/4" Threaded inserts with 12" hooked bolts at 18" cts.
Edge of Existing Pavement
1" P.I.F.
2" Holes for 3/4" Dowel Bars
Location of Lifting Loops - 2 Each End
15'-11"

LONGITUDINAL SECTION

2-#4 B bars
12-#3.5 bar spaces at 12" cts.
4-#1 Wires at all dowel holes
2-#4 B bars

SLAB REINFORCEMENT

2'-#4 A bars at 9" cts. Top
4'-#4 A bars at 48" cts. Bottom

LIFTING LOOP DETAIL

Top of Slab
Forming Loop
Cable Clamp

Bar No.	Size	Length	Shape
A	4.5	#4	3'-3"
A ₁	1	#4	4'-0"
B	10	#4	15'-9"
B ₁	6	#4	3'-6"
G	4	#10	15'-3"
S	3.2	#3	3'-4"

NOTES

Unless otherwise approved by the Engineer, lifting loops shall be 1/4" Ex 19 class wire rope with fiber core and shall have a minimum ultimate strength of 18,700 lbs. Loops shall be buried off after slab has been erected. Holes shall be drilled and anchor dowels grouted in place. Cost of reinforcement and accessories cast into the slab unit, bearing pads, furnishing, drilling for, placing and grouting anchor dowels and 3/4" hooked bolts is included in unit bid price for "Precast Concrete Bridge Slab". The Precast Concrete Bridge Slab shall be erected and aligned with the exterior face of the exterior Deck Beam after Deck Beams are in final position.

Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq. Ft.	239
Portland Cement Concrete Pavement (10")	Sq. Yds.	27
Pavement Fabric	Sq. Yds.	27
Expansion Bolts 3/4"	Each	40
Class X Concrete	Cu. Yds.	1.6

STRESSES

f_c = 4,500 psi
f_c = 1,800 psi
f_s = 20,000 psi
n = 8
LOADING, HS-20

APPROACH DETAILS
FA, RT 16, SEC 3-BR1
WASHINGTON COUNTY
STA. 1453+15

AP-1 20 Precast Appr Unit (R.L.)

PLOT DATE = 11/29/2007
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FOR INFORMATION ONLY

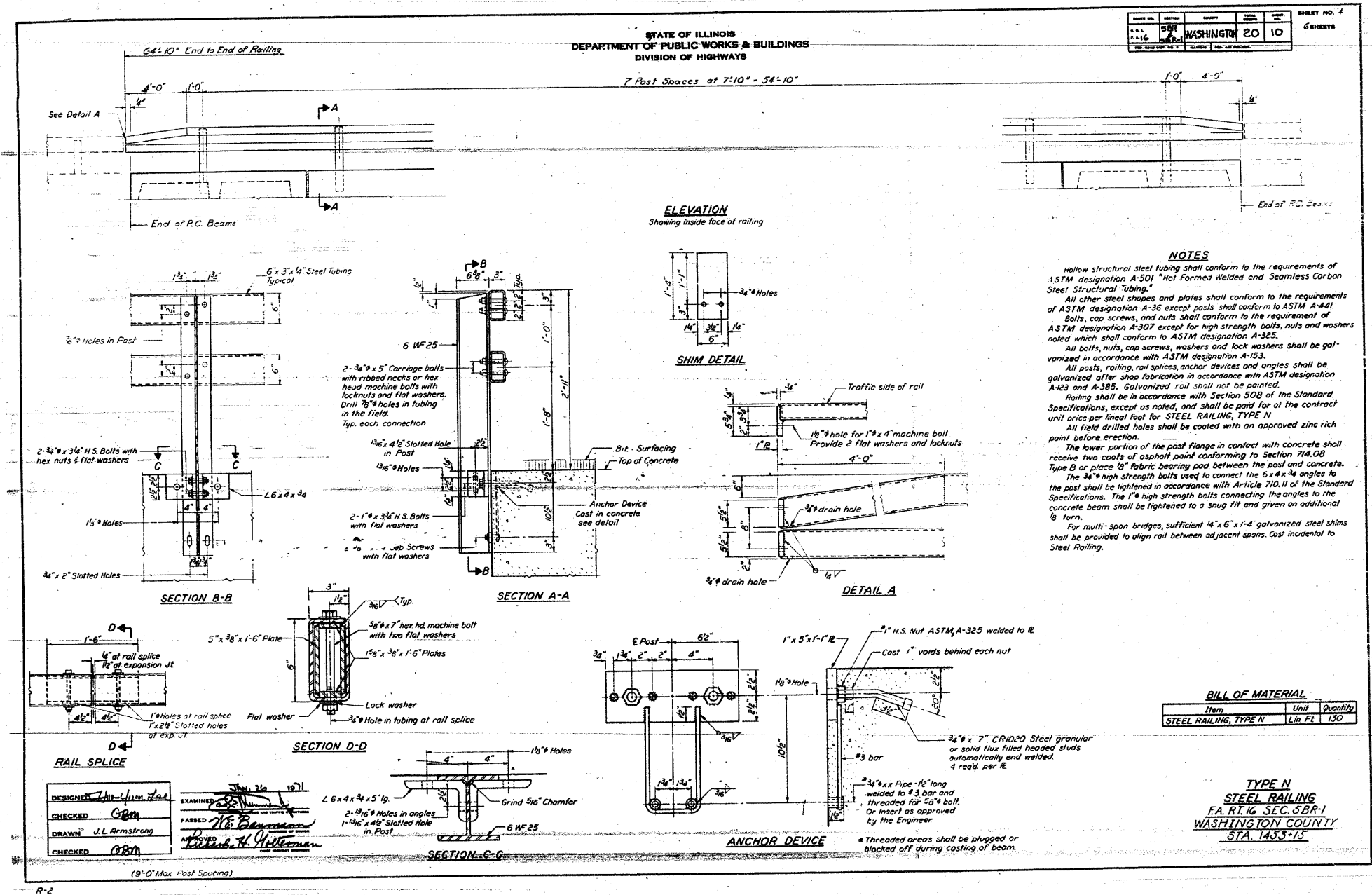
S.N. 095-0077

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING STRUCTURE PLANS
NAME	DATE	

FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

SCALE: VERT. _____
HORIZ. _____
DATE _____

DRAWN BY _____
CHECKED BY _____



FOR INFORMATION ONLY

S.N. 095-0077

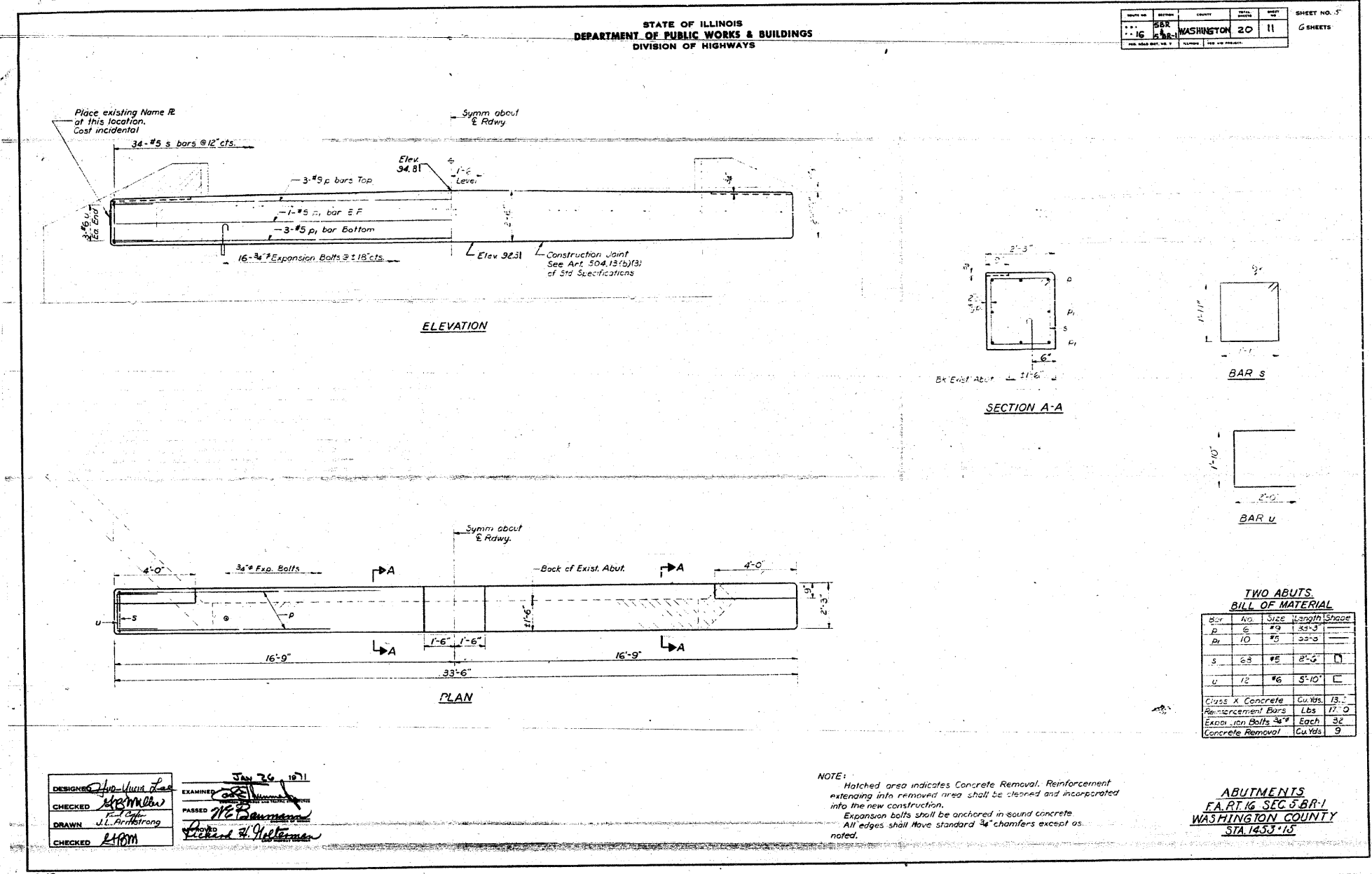
REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING STRUCTURE PLANS
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY
 SCALE: VERT. HORIZ.
 DATE
 DRAWN BY
 CHECKED BY

PLOT DATE = 11/29/71
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 PLOT SCALE = 5/8" = 1'-0"
 REFERENCE = \$REF\$

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

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
16	5BR-2	WASHINGTON	20	11
SHEET NO. 5 G SHEETS				



**TWO ABUTS.
BILL OF MATERIAL**

Bar	No.	Size	Length	Space
P	6	#9	25'-3"	
R	10	#5	33'-0"	
S	63	#5	2'-0"	1"
U	12	#6	5'-10"	1"
Class X Concrete		Cu. Yds.	18.5	
Reinforcement Bars		Lbs.	17,100	
Expansion Bolts #3		Each	32	
Concrete Removal		Cu. Yds.	9	

ABUTMENTS
F.A.R.T. 16 SEC. 5-BR-1
WASHINGTON COUNTY
STA. 1433+10

NOTE:
Hatched area indicates Concrete Removal. Reinforcement extending into removal area shall be cleared and incorporated into the new construction.
Expansion bolts shall be anchored in sound concrete. All edges shall have standard 3/4" chamfers except as noted.

DESIGNED: J. H. ...
CHECKED: J. H. ...
DRAWN: J. L. ...
CHECKED: J. H. ...
EXAMINED: J. H. ...
PASSED: J. H. ...
DATE: July 26, 1971

A-10

FOR INFORMATION ONLY

S.N. 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING STRUCTURE PLANS

FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

SCALE: VERT. _____
HORIZ. _____
DATE _____

DRAWN BY _____
CHECKED BY _____

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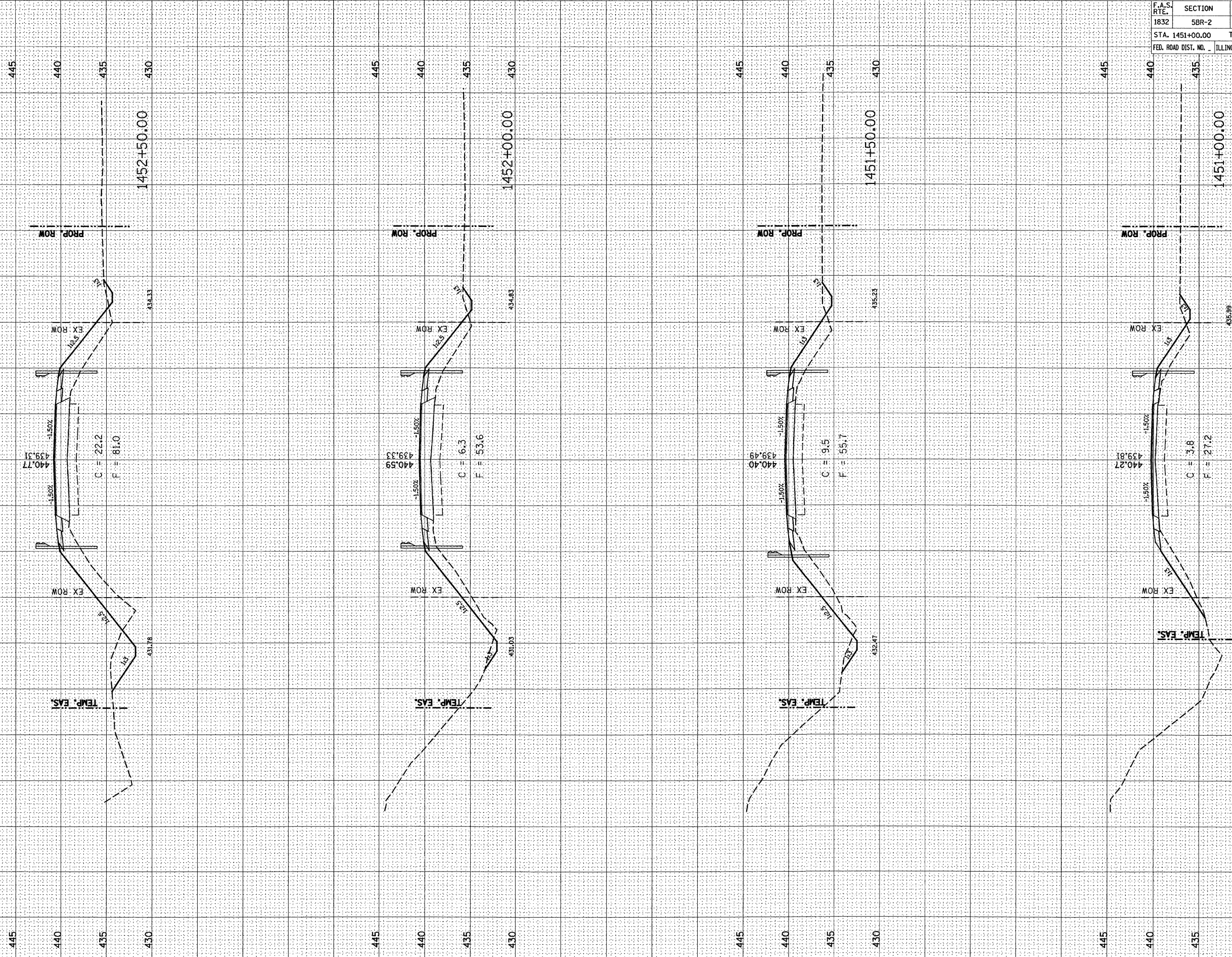
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 PLOT SCALE = 10.00000 / IN.
 USER NAME = gauri

ORIGINAL SURVEY SURVEYED PLOTTED
 SURVEY SURVEYED PLOTTED
 NOTE BOOK TEMPLATE AREAS CHECKED
 NO. AREAS CHECKED

FINAL SURVEY SURVEYED PLOTTED
 SURVEY SURVEYED PLOTTED
 NOTE BOOK TEMPLATE AREAS CHECKED
 NO. AREAS CHECKED

BY: _____
 DATE: _____

STRUCTURE STA 1453+11.5



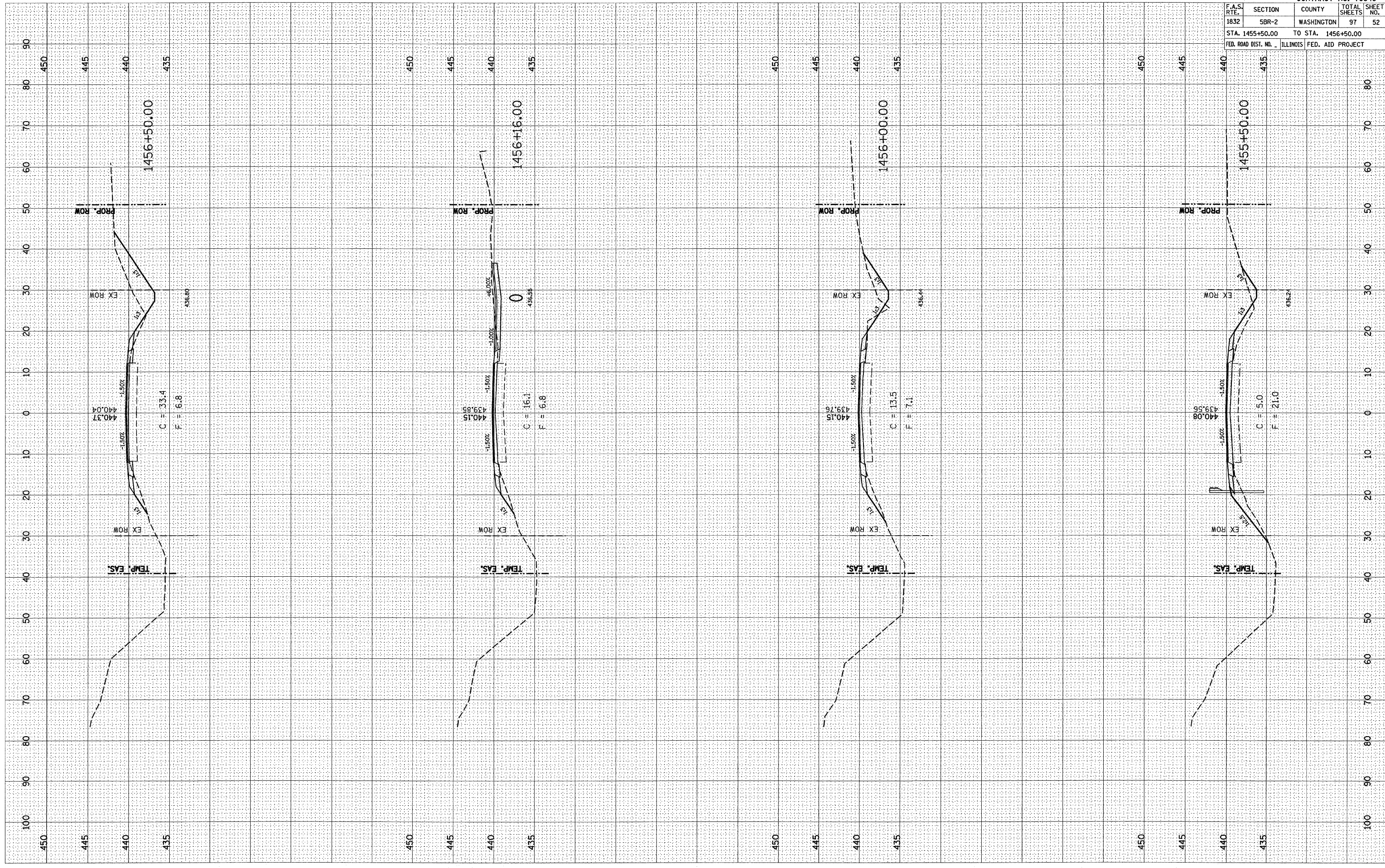
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	50
STA. 1451+00.00 TO STA. 1452+50.00		ILLINOIS FED. AID PROJECT		

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	52
STA. 1455+50.00		TO STA. 1456+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	BT	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
AREAS		
CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
AREAS		
CHECKED		
NO.		

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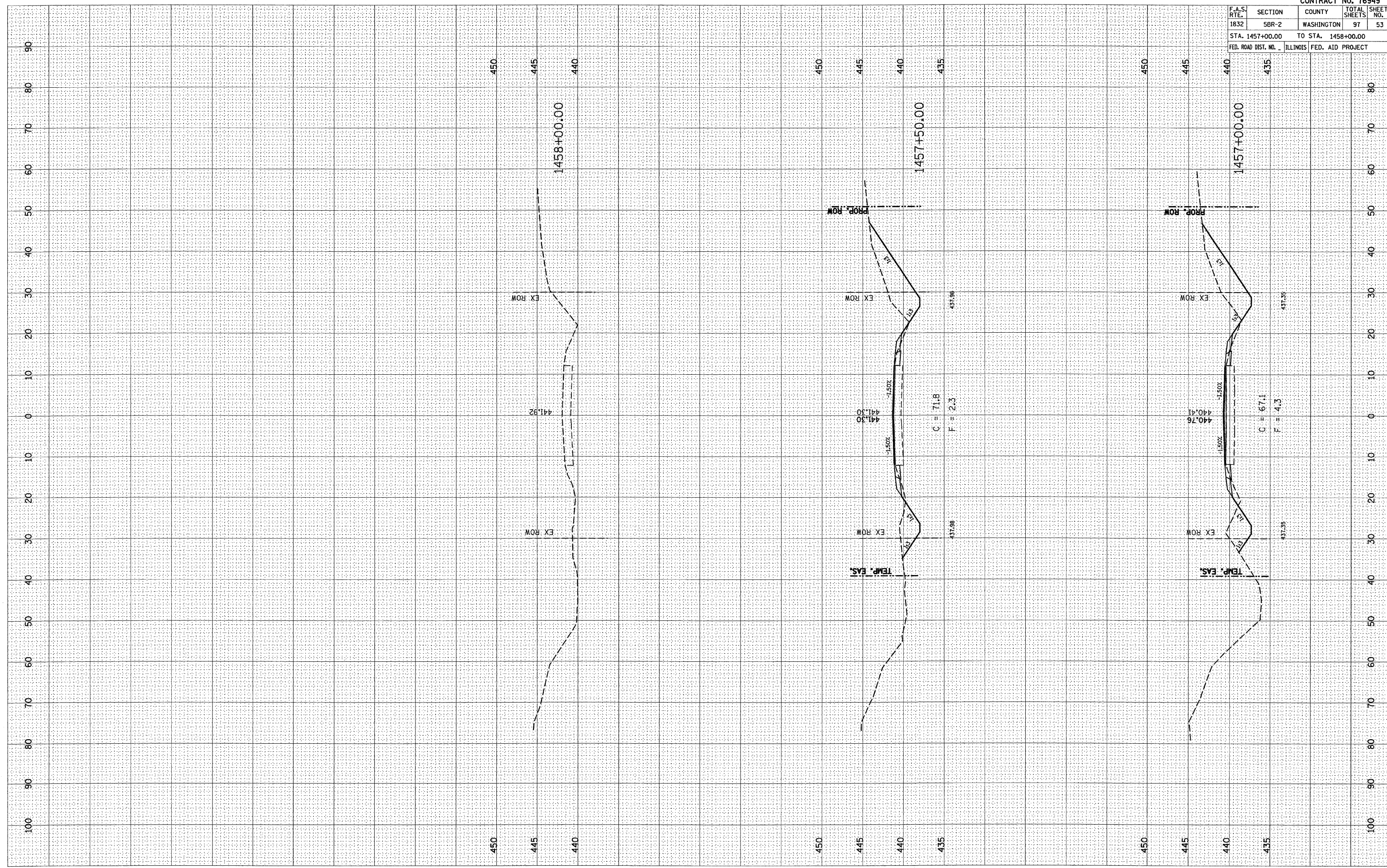


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	53
STA. 1457+00.00		TO STA. 1458+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

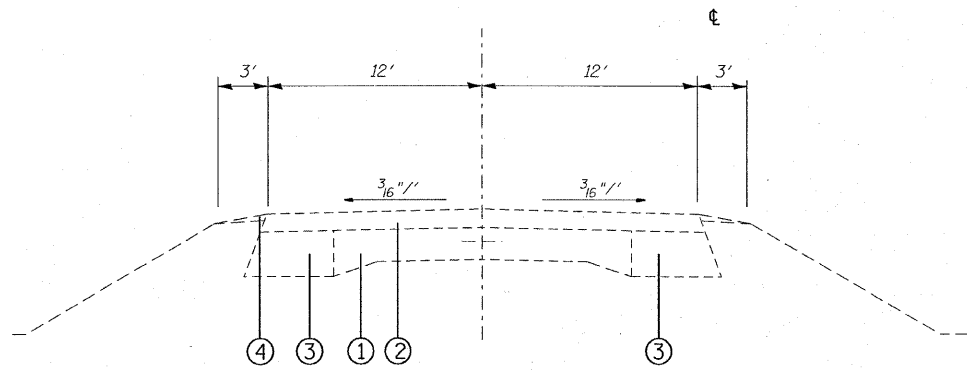
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NO.	AREAS CHECKED	

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NOTE BOOK	PLOTTED	BY
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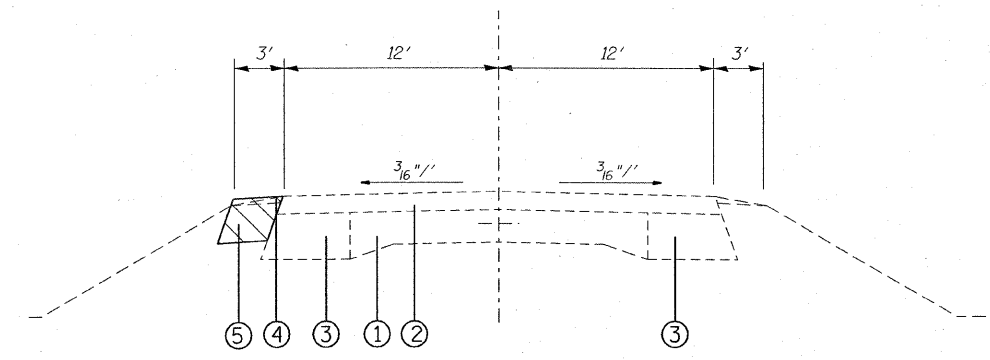
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	54
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TYPICAL SECTION
STA. 1505+00.00 TO STA. 1517+00.00

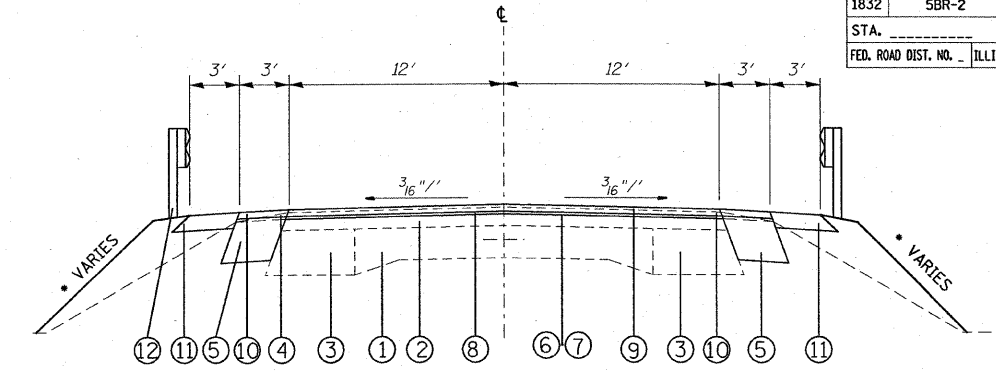


TYPICAL SECTION
STA. 1507+75.00 TO STA. 1514+25.00 - LT

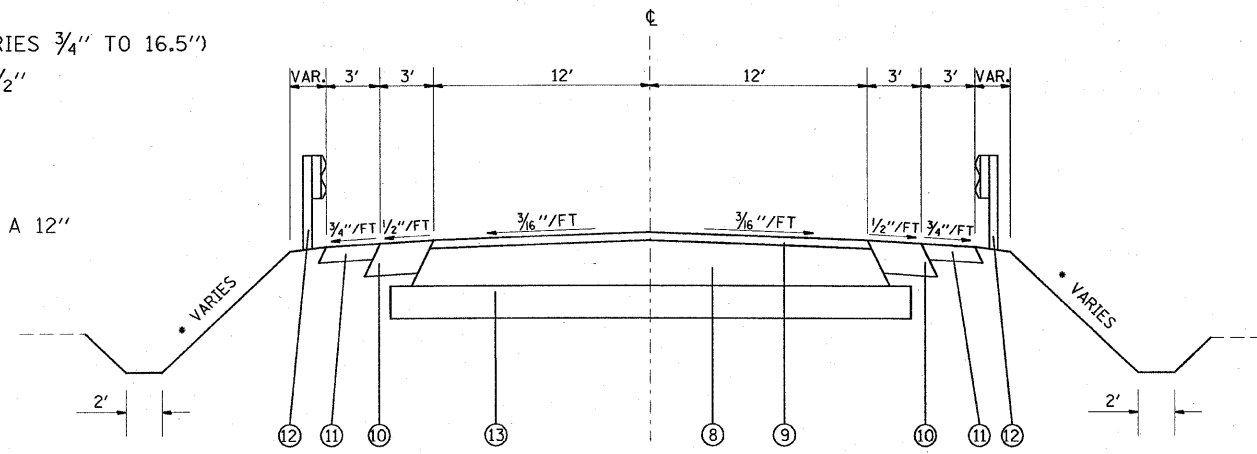


LEGEND

- ① EXISTING P.C.C. PAVEMENT 9-6-9
- ② EXISTING BITUMINOUS OVERLAY 6" (±)
- ③ EXISTING BASE COURSE WIDENING 8"
- ④ EXISTING AGGREGATE SHOULDERS
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 9"
- ⑥ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑦ PROPOSED AGGREGATE (PRIME COAT)
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 3/4" TO 16.5")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1/2"
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDER, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER, TYPE B 6"
- ⑫ PROPOSED GUARDRAIL
- ⑬ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE A 12"



TYPICAL SECTION
STA. 1507+75.00 TO STA. 1510+84.00
STA. 1511+16.16 TO STA. 1514+25.00

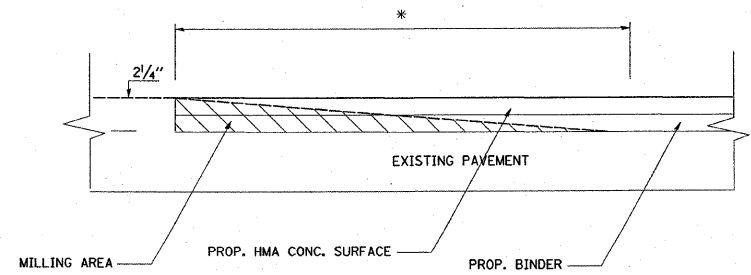


PROPOSED TYPICAL SECTION
STA. 1510+67.40 TO STA. 1510+84.90

MIXTURE REQUIREMENTS

MIXTURE USE	SURFACE	BINDER	WIDENING COURSE	SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 58-22
RAP % (MAX)	10%	15%	15%	30%
DESIGN AIR VOIDS	4.0% @ Ndes= 70	4.0% @ Ndes= 70	4.0% @ Ndes= 70	2.0% @ Ndes=30
MIX COMPOSITION (GRADATION MIXTURE)				
FRICTION AGG	MIXTURE "D"	MIXTURE "B"	MIXTURE "B"	BAM

PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN (59.8 KG/SQ M/25 MM THICKNESS).



HMA SURFACE REMOVAL DETAIL
* BEGINNING STA. 1508+00.00 TO STA. 1508+89.34
ENDING STA. 1315+00.69 TO STA. 1514+25.00
S.N. 095-0078

DRAWING NOT TO SCALE

REVISIONS	
NAME	DATE

S.N. 095-0078
ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS MIXTURE REQUIREMENT & HMA REM. DETAIL
FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY
SCALE: VERT. / HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = 12/7/2007
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	55
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

RESURFACING SCHEDULE

STATION	RT/LT	HOT-MIX ASPHALT BS WIDENING 9" (SQ YD)	AGGREGATE PRIME COAT (TON)	BIT. MAT'L PRIME COAT (TON)	HMA CONC BINDER SUPER, MIX "B" (TON)	HMA CONC SURF CSE, SUPER, MIX "C", N70 (TON)	SUB-BASE GRANULAR MATERIAL TY-A 12" (SQ YD)	HMA SHOULDERS 8" (SQ YD)	AGG. SHLD TYPE B 6" (SQ YD)
1508+00.00 TO 1508+90.00	RT/LT				10.08				
1507+75.00 TO 1510+52.50	RT								
1507+75.00 TO 1510+68.30	LT	97.77							
1508+00.00 TO 1510+86.00	RT/LT		1.14	0.24		64.06		190.67	190.67
1508+90.00 TO 1510+86.00	RT/LT				307.33				
1510+67.40 TO 1510+84.00	RT/LT						50.56		
1511+18.90 TO 1514+25.00	LT	102.03							
1511+16.00 TO 1513+15.00	RT/LT				312.03				
1511+09.00 TO 1514+25.00	RT								
1511+16.00 TO 1514+25.00	RT/LT		1.24	0.26		69.22		206.00	206.00
1513+15.00 TO 1514+25.00	RT/LT				12.32				
TOTAL		199.80	2.38	0.50	641.76	133.28	50.56	396.67	396.67

GUARDRAIL SCHEDULE

STATION	RT/LT	SPBGR (FT)	TBT - T1 (SPECIAL) (EA)	TBT - T6A (EA)	GUARDRAIL MRKS TY-A (EA)	BI-DIREC PRISM BARR REFLEC (EA)
1508+45.25 TO 1510+76.50	RT	137.5	1	1	3	
1509+45.25 TO 1510+89.00	LT	50	1	1	2	
1510+86.00 TO 1511+16.00	RT/LT					2
1511+22.25 TO 1513+53.50	LT	137.5	1	1	3	
1511+11.00 TO 1512+54.75	RT	50	1	1	2	
TOTAL		375	4	4	9	2

PAVEMENT MARKING SCHEDULE

STATION		PAVEMENT - THERMOPLASTIC				
		4" WHITE LINE (FT)	4" YELLOW LINE (FT)	YELLOW SKIP DASH LINE 4" (FT)	DBL AMBER RSD REFL PKM (EA)	24" WHITE LINE (FT)
1504+69.00 TO 1517+36.00	CL			316.75	16	
1504+69.00 TO 1517+36.00	RT/LT	2414				
1507+51.24 TO 1513+00.00	RT		400.0			38
1509+00.00 TO 1513+00.00	CL			316.75	16	
SUB-TOTAL		2414	400.00	316.75	16	
TOTAL			3130.75		16	38

TEMPORARY PAVEMENT MARKING SCHEDULE

STATION		PAVEMENT MARKING			WORK ZONE PVMT REMOVAL (SQ FT)	PVMT MRKG REMOVAL (SQ FT)	
		LINE 4" PAVEMENT (FT)	LINE 6" (TEMP. BARR.) (FT)	LINE 24" PAVEMENT (FT)			
1504+95.00	RT	STOP BAR		12	24.0		
1504+70.00	LT	STOP BAR		12	24.0		
1504+70.00	1517+35.00	STAGE 2	2530		843.3		
1504+95.00 TO 1517+35.00		STAGE 1	2480		826.7		
1504+70.00 TO 1517+35.00	RT/LT				843.3		
1504+70.00 TO 1517+35.00	CL				105.4		
1507+95.00 TO 1515+64.50		STAGE 1		770			
1506+40.50 TO 1515+69.50		STAGE 2		930			
1507+51.24	MALLARD RT			46	92.0		
1517+35.00	LT	STOP BARS		24	48.0		
SUB-TOTAL							
TOTAL			5010	1700	94	1858.0	948.7

S.N. 095-0078

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF QUANTITIES FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY
NAME	DATE	
		SCALE: VERT. HORIZ. DATE
DRAWN BY		CHECKED BY

PLOT DATE = 12/7/2007
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	56
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

TREE REMOVAL SCHEDULE

STATION	OFFSET	RT/LT	6 TO 15 UNITS	OVER 15 UNITS
1510+86.70	40.5	LT		16
1510+97.80	61.2	RT	12	
1510+98.40	59.5	RT	10	
1511+27.20	33.5	LT		24
SUB-TOTAL			10	12
TOTAL			22	40

SEEDING SCHEDULE

STA	STA	AREA SQ FT	SEEDING CLASS 2 (ACRE)	NITROGEN FERT. NUTR (POUND)	PHOSPHORUS FERT. NUTR (POUND)	POTASSIUM FERT. NUTR (POUND)	MULCH METHOD 1 (ACRE)
1507+75.00 TO	1513+50.00	LT	5005	0.12	10.34	10.34	10.34
1507+75.00 TO	1513+50.00	RT	5824	0.13	12.03	12.03	12.03
TOTAL				0.25	22.37	22.37	22.37

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 1507+75.00 TO STA. 1510+86.00	352.5	264.4	262.5	1.9
STA. 1511+16.00 TO STA. 1514+25.00	188.5	141.4	236.7	-95.3
TOTAL	541.0	405.8	499.2	-93.4

REMOVAL SCHEDULE

LOCATION					PVMT REMOVAL		HMA SURF REMOVAL VAR. DEPTH (SQ YD)	SPBGR (FT)
FROM	OFFSET	TO	OFFSET	RT/LT	MAINLINE REMOVAL (SQ YD)	WIDENING REMOVAL (SQ YD)		
1507+75.00		1510+68.30		LT		97.77		
1508+00.00		1508+90.00		RT/LT			240.00	
1508+59.00		1510+36.00		RT			177.00	
1509+54.00		1510+83.00		LT			129.00	
1510+86.50		1511+87.50		RT			101.00	
1510+93.25		1511+17.90		RT/LT	68.14			
1511+09.50		1512+95.50		LT			186.00	
1511+18.90		1514+25.00		LT		102.03		
1512+27.00	20.6	1512+44.50	26.6	RT				
1513+00.00		1514+25.00		RT/LT			333.33	
TOTAL					68.14	199.80	573.33	593.00
					267.94			

EARTHWORK SCHEDULE (WIDENING)

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 1507+75.00 TO STA. 1510+68.30	25.0	18.7	0.0	18.7
STA. 1511+18.90 TO STA. 1514+25.00	26.1	19.6	0.0	19.6
TOTAL	51.1	38.3	0.0	38.3

ROW MARKERS SCHEDULE

LOCATION			ROW MARKERS (EA)
STATION	SIDE	OFFSET	
1506+37.55	29.54	L+	1
1506+37.56	30.46	R+	1
1507+50.00	29.54	L+	1
1508+50.00	44.55	L+	1
1509+55.29	78.21	R+	1
1510+43.14	30.43	R+	1
1510+49.50	78.2	R+	1
1510+80.00	44.57	L+	1
1512+00.00	45.42	R+	1
1513+00.00	29.59	L+	1
1514+00.00	45.41	R+	1
1514+50.00	30.4	R+	1
1514+50.00	29.54	L+	1
TOTAL			13

EARTHWORK SCHEDULE (CHANNEL)

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 0+40.00 TO STA. 1+80.00	632.4	474.3	241.5	232.8
TOTAL	632.4	474.3	241.5	232.8

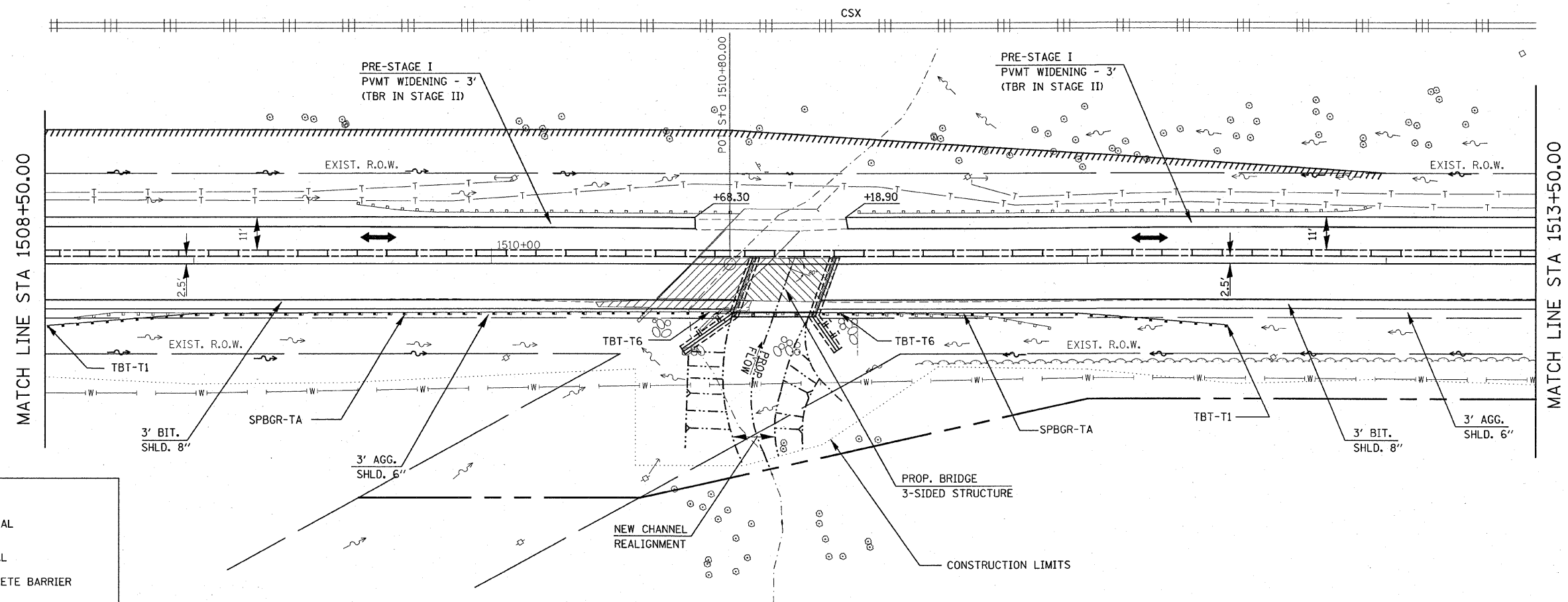
S.N. 095-0078

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

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

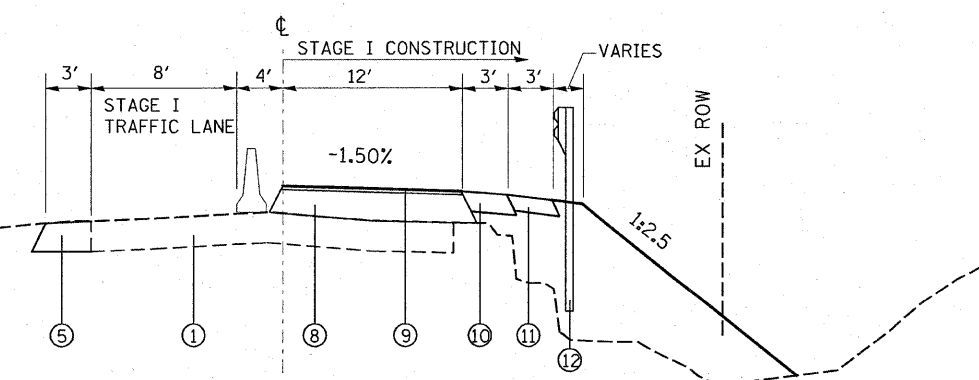
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1832	5BR-2	WASHINGTON	97	60
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



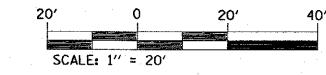
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- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
 - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
 - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
 - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
 - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
 - ⑪ PROPOSED AGGREGATE SHOULDER 6"
 - ⑫ PROPOSED GUARDRAIL



STAGE I TYPICAL SECTION
STA. 1508+50.0 TO STA. 1513+50.0
(NTS)



REVISIONS	
NAME	DATE

SN 095-0078

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGE I CONSTRUCTION

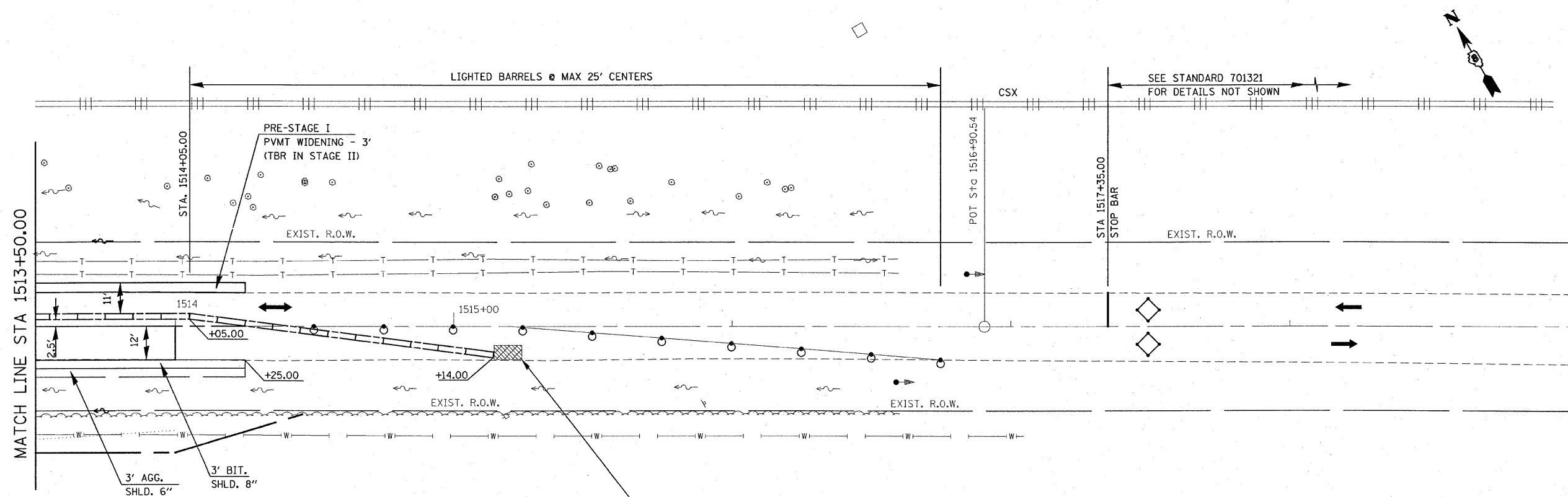
FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

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DATE _____

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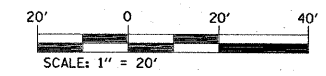
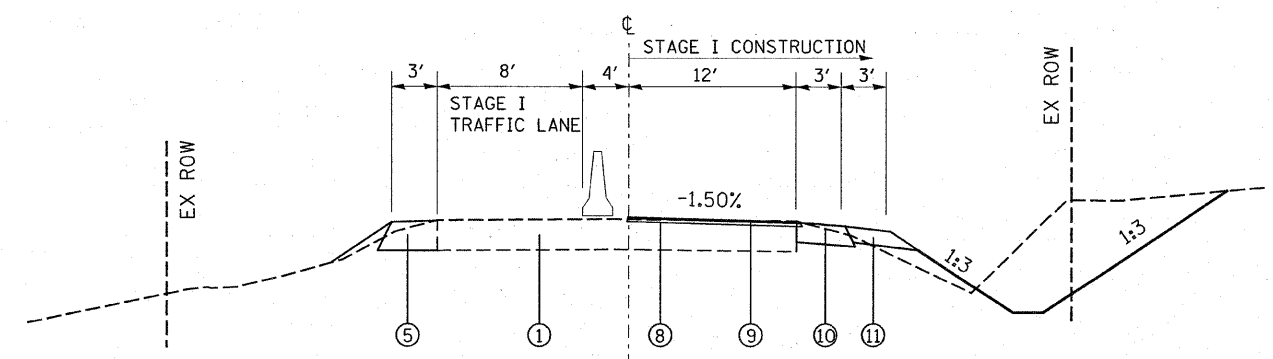
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	61
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



LEGEND:

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
 - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
 - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
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 - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
 - ⑪ PROPOSED AGGREGATE SHOULDER 6"



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED STAGE I CONSTRUCTION
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

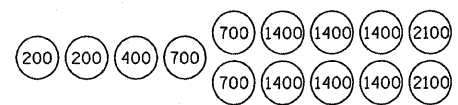
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SN 095-0078

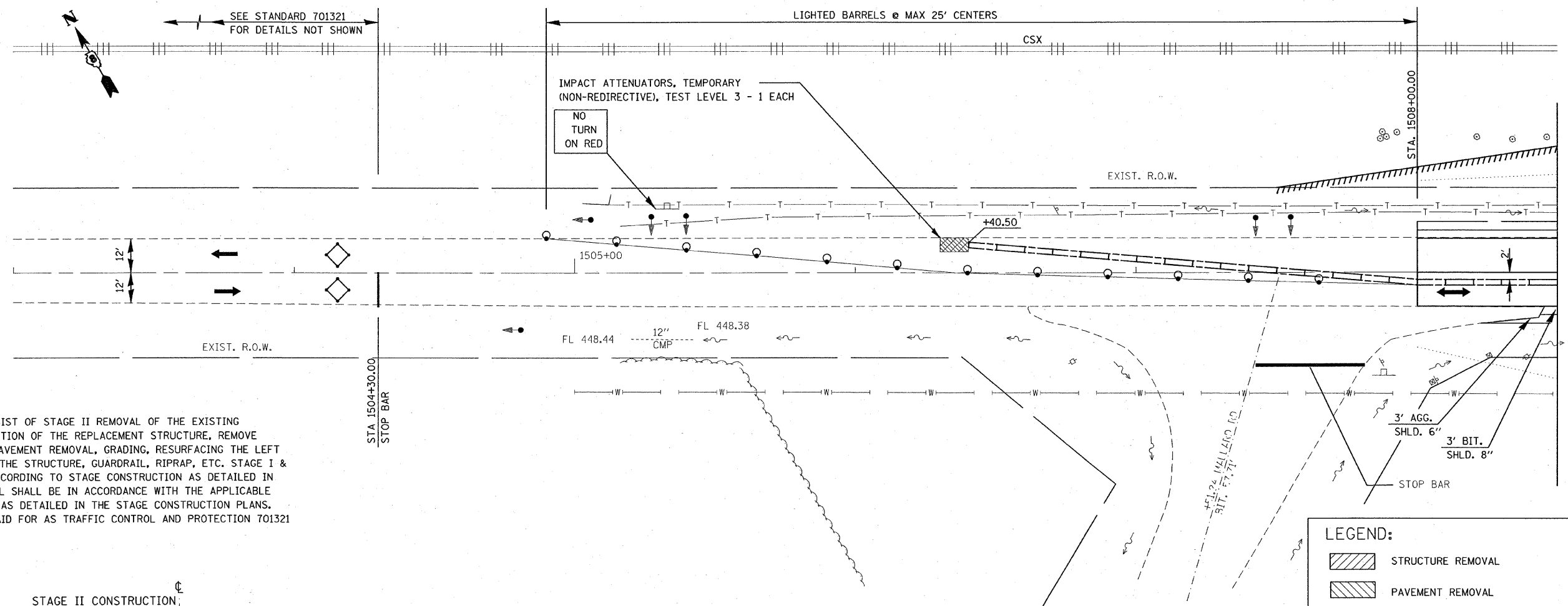
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	62
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)

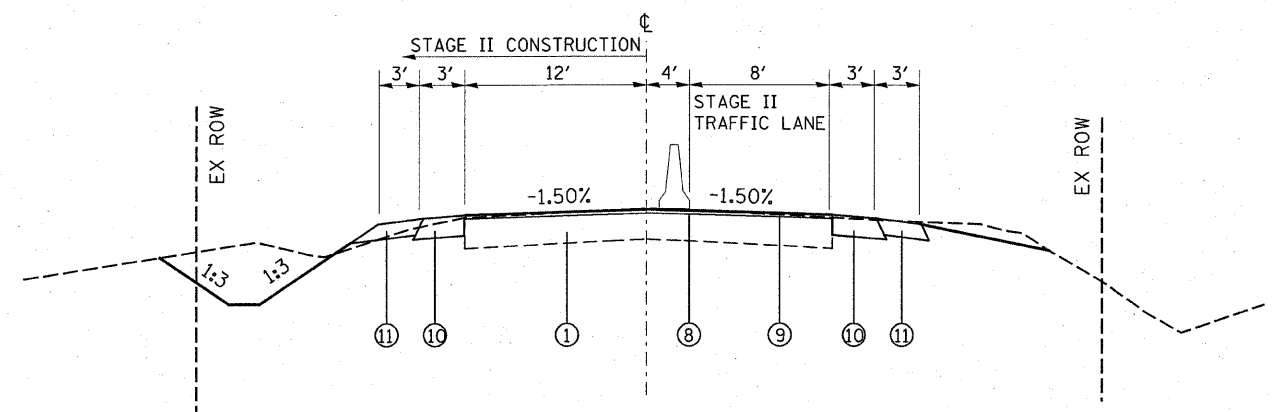
NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE AND FIELD ENTRANCES LOCATED WITHIN THE LIMITS OF THE PROJECT.
2. TRAFFIC CONTROL & PROTECTION, STANDARD 701321 (SPECIAL) INCLUDES BOTH STAGE I & II AND ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN ON THE STAGE CONSTRUCTION PLANS.
3. ALL ADDITIONAL TRAFFIC SIGNAL HEADS, LOOP DETECTORS AND ASSOCIATED EQUIPMENT REQUIRED TO MAINTAIN ACCESS AT THE FIELD AND DRIVEWAY ENTRANCES SHALL BE INCLUDED IN THE COST OF "TEMPORARY BRIDGE TRAFFIC SIGNALS"
4. THE COST OF "BARRICADES, TYPE III" SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
5. ALL SIDEROADS AND ENTRANCES WITHIN TRAFFIC CONTROL SHALL HAVE "NO RIGHT TURN ON RED" AND "STOP HERE ON RED" SIGNS. THE COST SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".



STAGE II CONSTRUCTION:

1. STAGE II CONSTRUCTION SHALL CONSIST OF STAGE II REMOVAL OF THE EXISTING STRUCTURE, AND STAGE II CONSTRUCTION OF THE REPLACEMENT STRUCTURE, REMOVE PRE-STAGE I PAVEMENT WIDENING, PAVEMENT REMOVAL, GRADING, RESURFACING THE LEFT SIDE PAVEMENT EAST AND WEST OF THE STRUCTURE, GUARDRAIL, RIPRAP, ETC. STAGE I & II CONSTRUCTION SHALL BE DONE ACCORDING TO STAGE CONSTRUCTION AS DETAILED IN THE BRIDGE PLANS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321 AND AS DETAILED IN THE STAGE CONSTRUCTION PLANS. THIS TRAFFIC CONTROL SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION 701321 (SPECIAL).



STAGE II TYPICAL SECTION
STA. 1507+75.0 TO STA. 1508+50.0
(NTS)

LEGEND:

	STRUCTURE REMOVAL
	PAVEMENT REMOVAL
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	INDUCTION LOOP DETECTOR
	DRUM WITH STEADY BURNING LIGHT
	SIGNALIZED TWO-WAY TRAFFIC LANE
	TEMPORARY BRIDGE TRAFFIC SIGNAL
	TYPE III BARRICADE

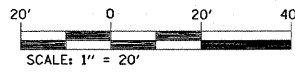
LEGEND

- ① EXISTING PAVEMENT
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER 6"

SN 095-0078

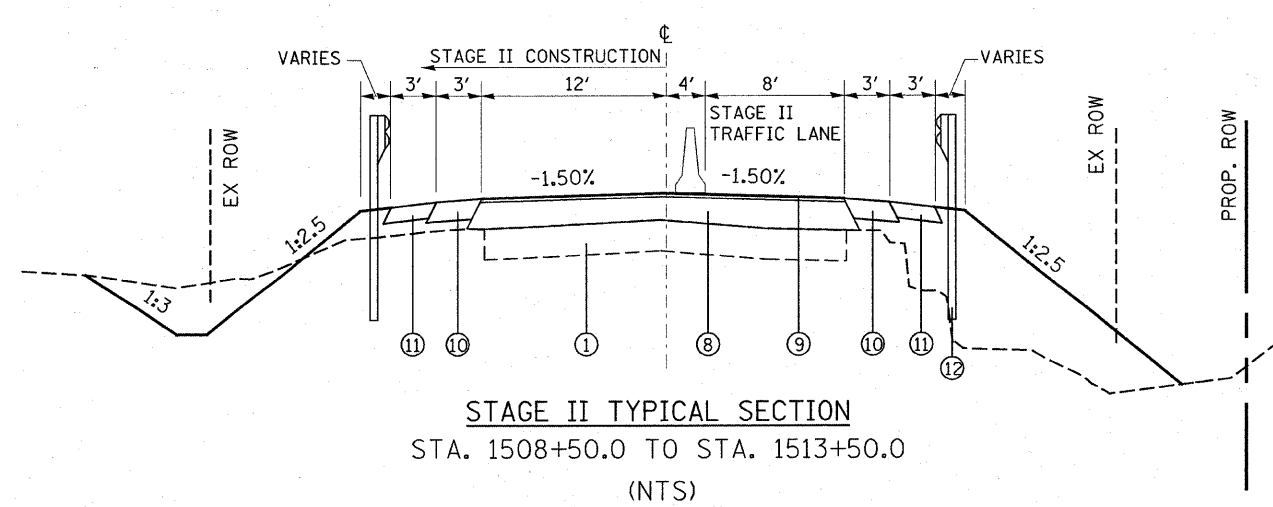
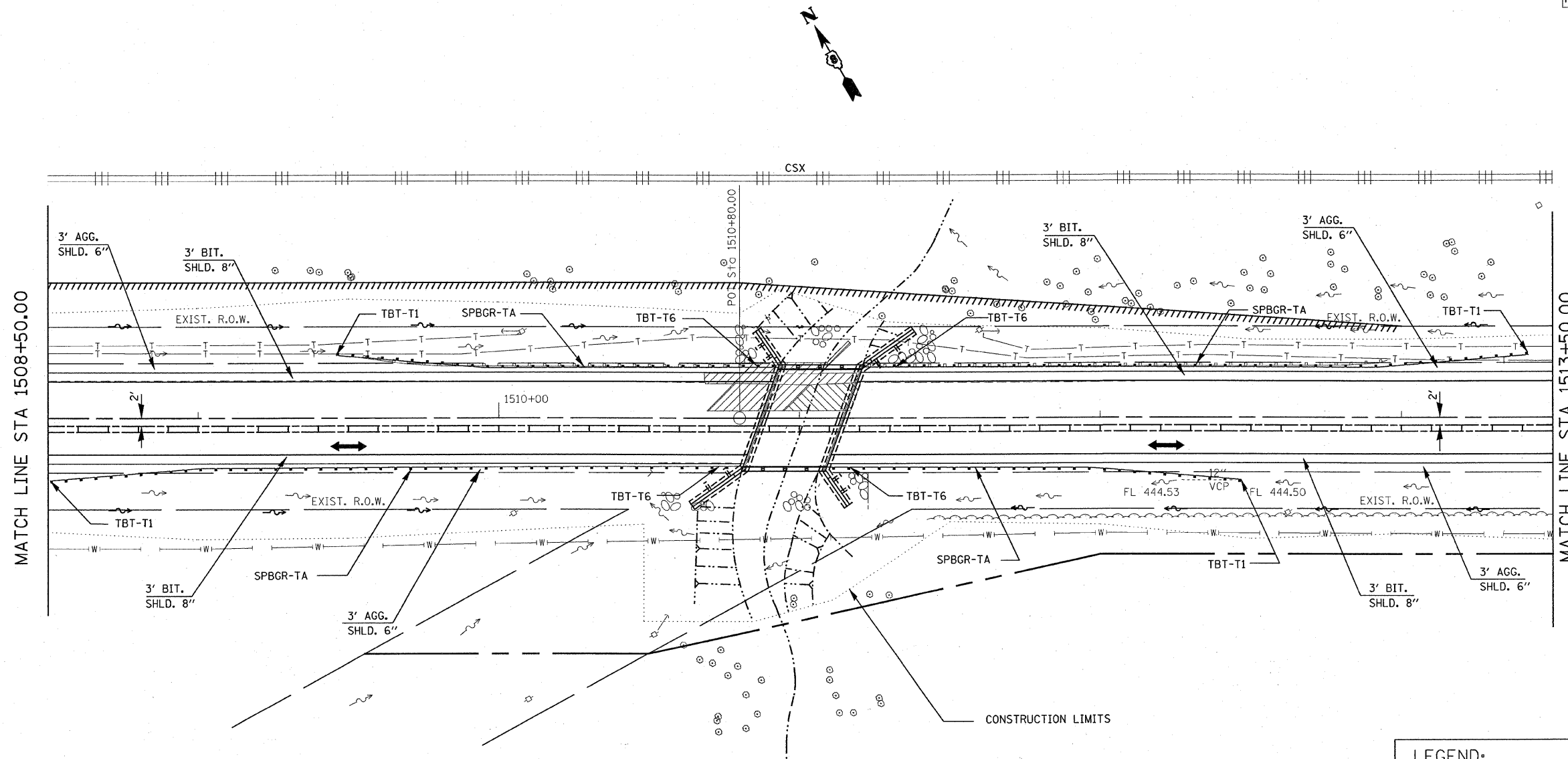
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED STAGE II CONSTRUCTION
FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY
SCALE: VERT. _____
HORIZ. _____
DATE _____ DRAWN BY _____
CHECKED BY _____



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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	63
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



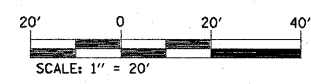
- LEGEND**
- ① EXISTING PAVEMENT
 - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
 - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15')
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 - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
 - ⑪ PROPOSED AGGREGATE SHOULDER 6"
 - ⑫ PROPOSED GUARDRAIL

- LEGEND:**
- STRUCTURE REMOVAL
 - PAVEMENT REMOVAL
 - TEMPORARY CONCRETE BARRIER
 - IMPACT ATTENUATOR
 - INDUCTION LOOP DETECTOR
 - DRUM WITH STEADY BURNING LIGHT
 - SIGNALIZED TWO-WAY TRAFFIC LANE
 - TEMPORARY BRIDGE TRAFFIC SIGNAL
 - TYPE III BARRICADE

SN 095-0078

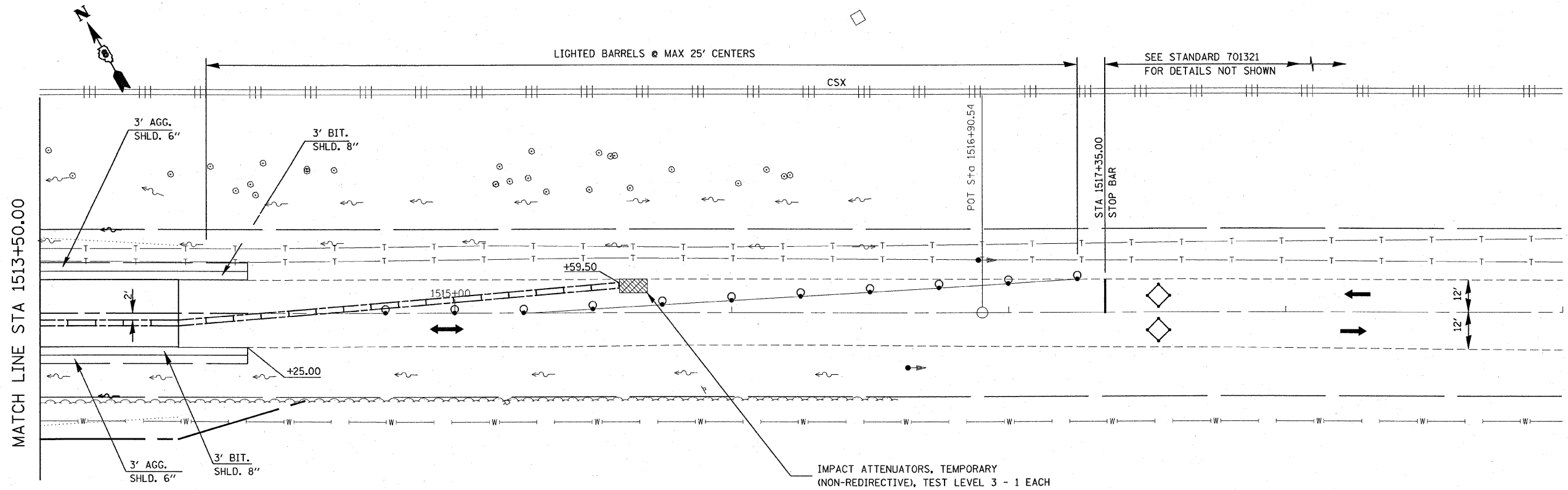
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED STAGE II CONSTRUCTION
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY
 SCALE: VERT. _____
 DATE _____ HORIZ. _____
 DRAWN BY _____
 CHECKED BY _____



PLOT DATE = 12/7/2007
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 PLOT SCALE = 20.00000 / IN.
 USER NAME = gelich

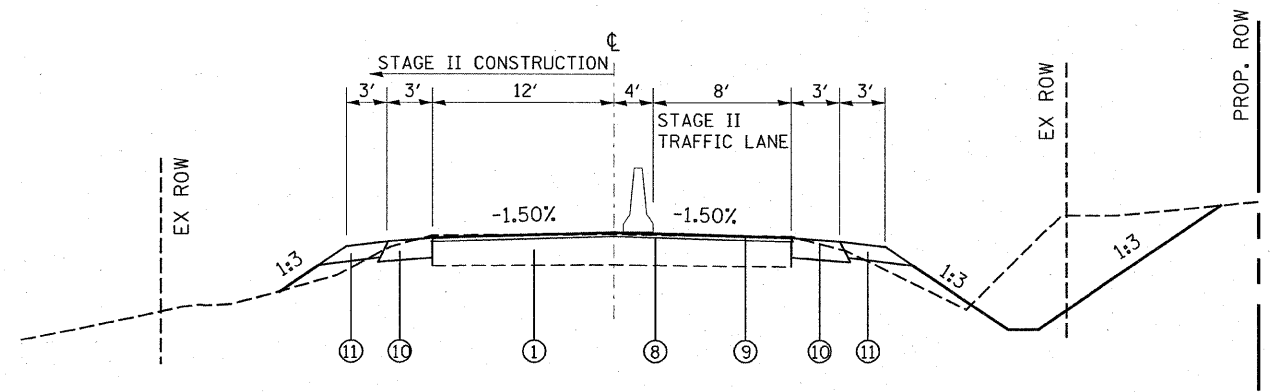
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	64
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



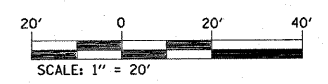
LEGEND:

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
 - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
 - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
 - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
 - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
 - ⑪ PROPOSED AGGREGATE SHOULDER 6"



STAGE II TYPICAL SECTION
STA. 1513+50.0 TO STA. 1514+25.0
(NTS)



REVISIONS	
NAME	DATE

SN 095-0078

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGE II CONSTRUCTION

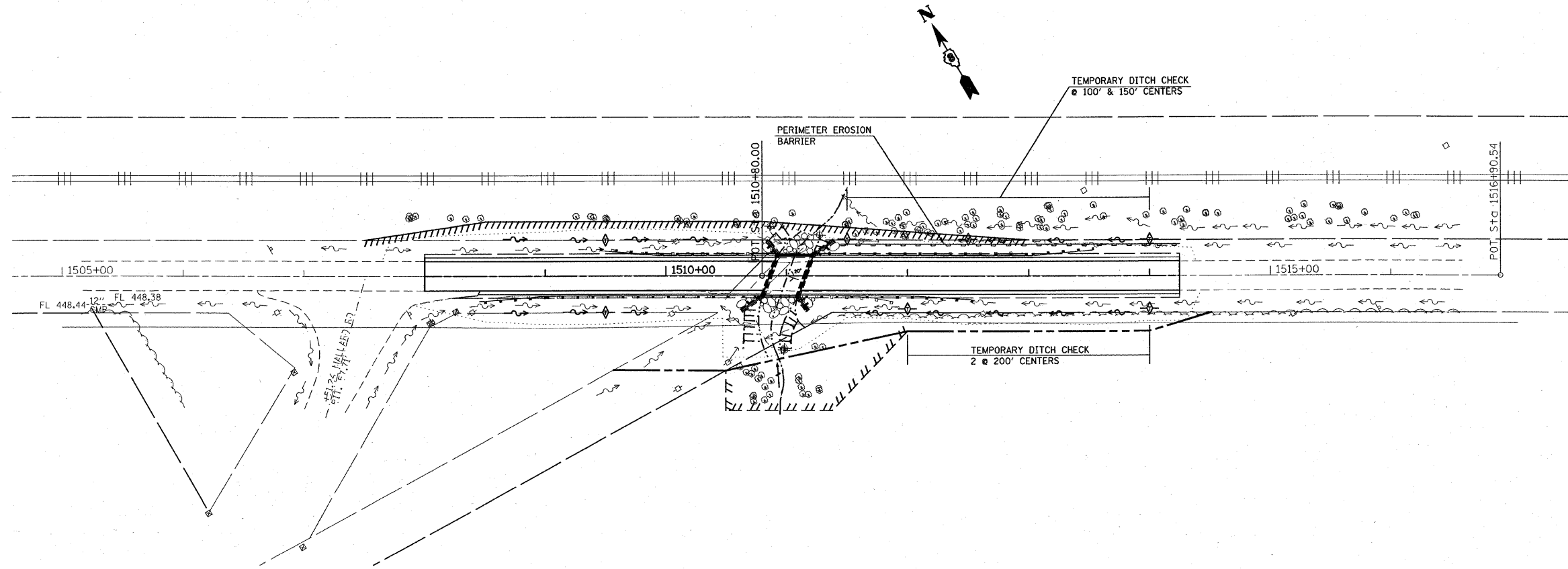
FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

SCALE: VERT. _____
HORIZ. _____

DATE _____ DRAWN BY _____
CHECKED BY _____

PLOT DATE = 12/7/2007
PLOT SCALE = 20.0000 / IN.
USER NAME = gclink

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

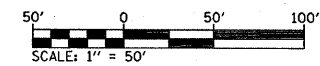


LEGEND

- ◆ INLET AND PIPE PROTECTION - STRAW BALES, FILTER FABRIC, AGGREGATES, TREE REMOVAL
- ◆ TEMPORARY DITCH CHECK - ROLLED EXCELSIOR, SILT WEDGES/PANELS
- PERIMETER EROSION BARRIER- SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

TEMPORARY EROSION CONTROL SCHEDULE

LOCATION	RT/LT	TEMP EROSION CONTROL SEEDING (POUND)	MULCH METHOD 1 (ACRE)	PERIMETER EROSION BARRIER (FOOT)	TEMP DITCH CHECK (EACH)
1507+75.00 TO 1514+25.00	LT	18.90	0.21		
1507+75.00 TO 1514+25.00	RT	32.40	0.36		
1509+50.00	RT/LT				2
1511+45.00 TO 1514+25.00	LT			280	
1511+50.00 TO 1514+00.00	LT				3
1512+00.00 TO 1514+00.00	RT				2
TOTAL		51.30	0.57	280	7



S.N. 095-0078

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

FAS ROUTE 1832
SECTION 5BR-2
WASHINGTON COUNTY

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY

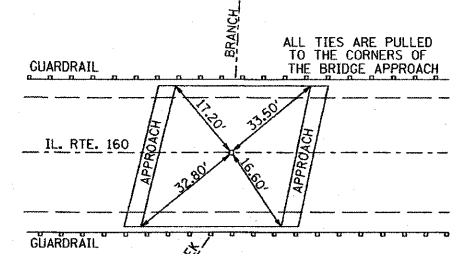
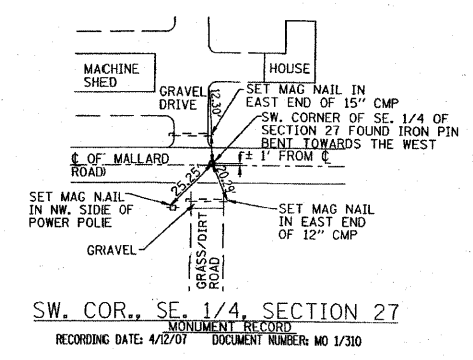
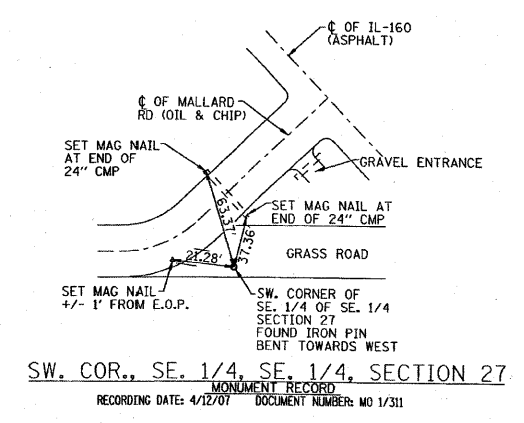
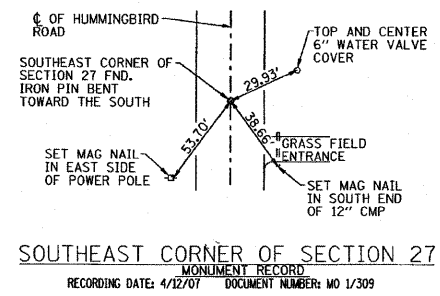
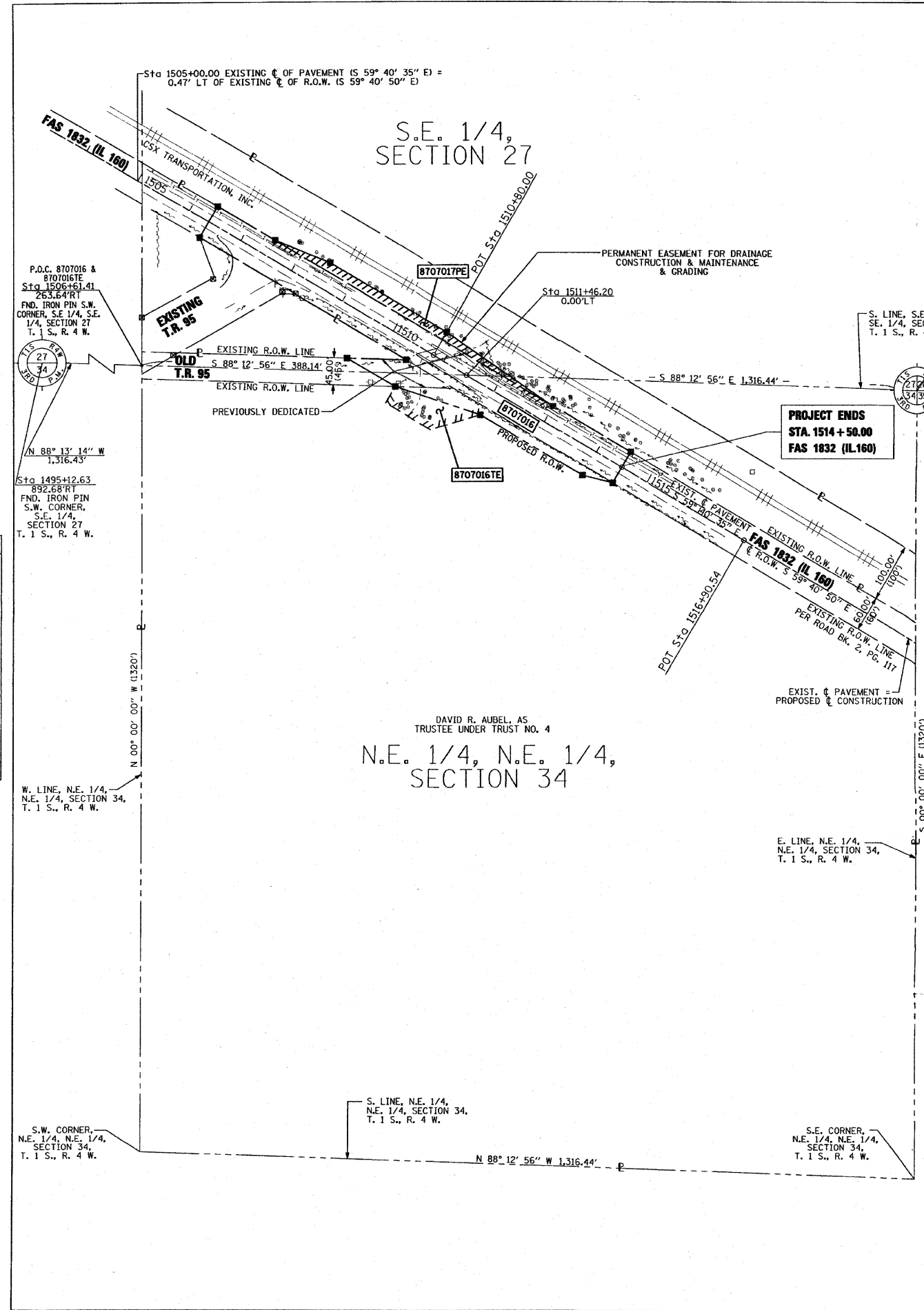
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SCALE = 1" = 50'
REFERENCE = 89254

PART OF THE N.E. 1/4 OF THE N.E. 1/4 OF SECTION 34 AND PART OF THE S.E. 1/4 OF SECTION 27, T. 1 S., R. 4 W., OF THE 3RD PM, WASHINGTON COUNTY, ILLINOIS

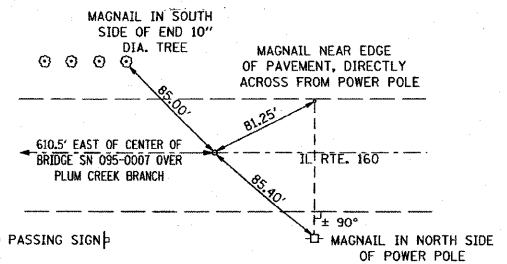
BEARINGS SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5BR-2	WASHINGTON	97	67

STA. 1506+37.55 TO STA. 1514+50.00
CONTRACT NO.:



P.O.T.
Ties Provided by IDOT
Sta 1510+80 0.00' LT
N 634107.8304 E 2482873.3525



P.O.T.
Ties Provided by IDOT
Sta 1516+90.54 0.00' LT
N 633799.5817 E 2483400.3583

LEGEND

	SECTION CORNER		QUARTER SECTION CORNER
	PROPOSED EXISTING POINT ON LINE		EXISTING CENTERLINE
	EXISTING RIGHT OF WAY LINE		EXISTING EASEMENT LINE
	PROPOSED CENTERLINE		PROPOSED RIGHT OF WAY LINE
	PROPOSED TEMPORARY EASEMENT LINE		PROPOSED PERMANENT EASEMENT LINE
	SECTION LINE		QUARTER SECTION LINE
	PROPERTY (DEED) LINE		APPARENT PROPERTY LINE
	MEASURED DIMENSION		COMPUTED DIMENSION
	RECORDED DIMENSION		FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
	SET 5/8 INCH IRON ROD AT CORNER UNLESS OTHERWISE NOTED		PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
	CUT CROSS FOUND OR SET		SAME OWNERSHIP
	EXISTING BUILDING		STAKING OF PROPOSED RIGHT OF WAY. SET 3/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
	STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 3/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.		

STATE OF ILLINOIS)
COUNTY OF MONTGOMERY)

I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED _____

TONY HARD, PLS NO. 2953
LICENSE EXPIRATION DATE: 11/30/2008



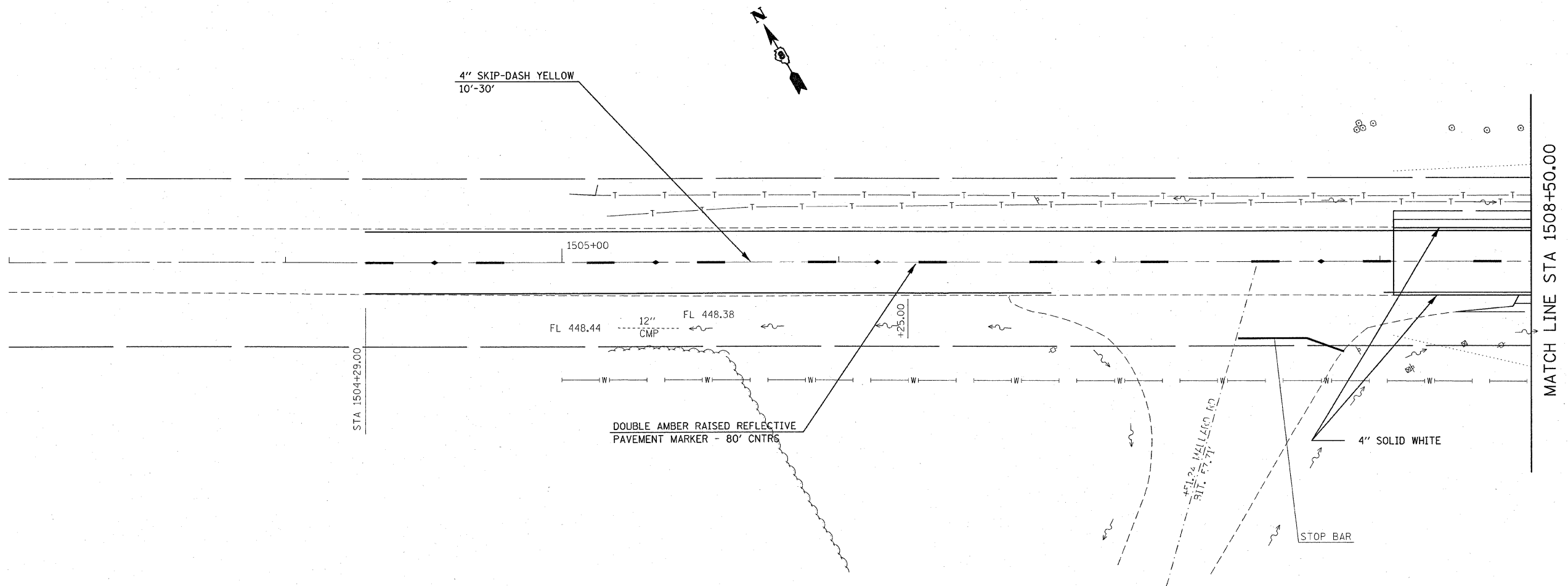
McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
138 East Wood Street
Hillboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN NO. 184-002754

ILLINOIS DEPARTMENT OF TRANSPORTATION
TOTAL HOLDING
FAS RTE 1832 (IL 160)
SECTION 5BR-2
WASHINGTON COUNTY
JOB NO. R-98-007

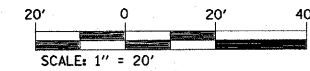
STATION 1506+37.55 TO STA. 1514+50.00
SCALE: 1" = 100'

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 8
1002 EASTPORT PLAZA DRIVE
COLLINGSVILLE, ILLINOIS 62234-6198

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	68
STA. 1503+00.00		TO STA. 1508+50.00		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT	



PLOT DATE = 12/7/2007
 PLOT SCALE = 24.0000 / IN.
 USER NAME = gelnh

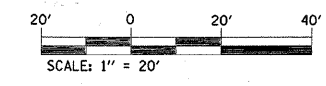
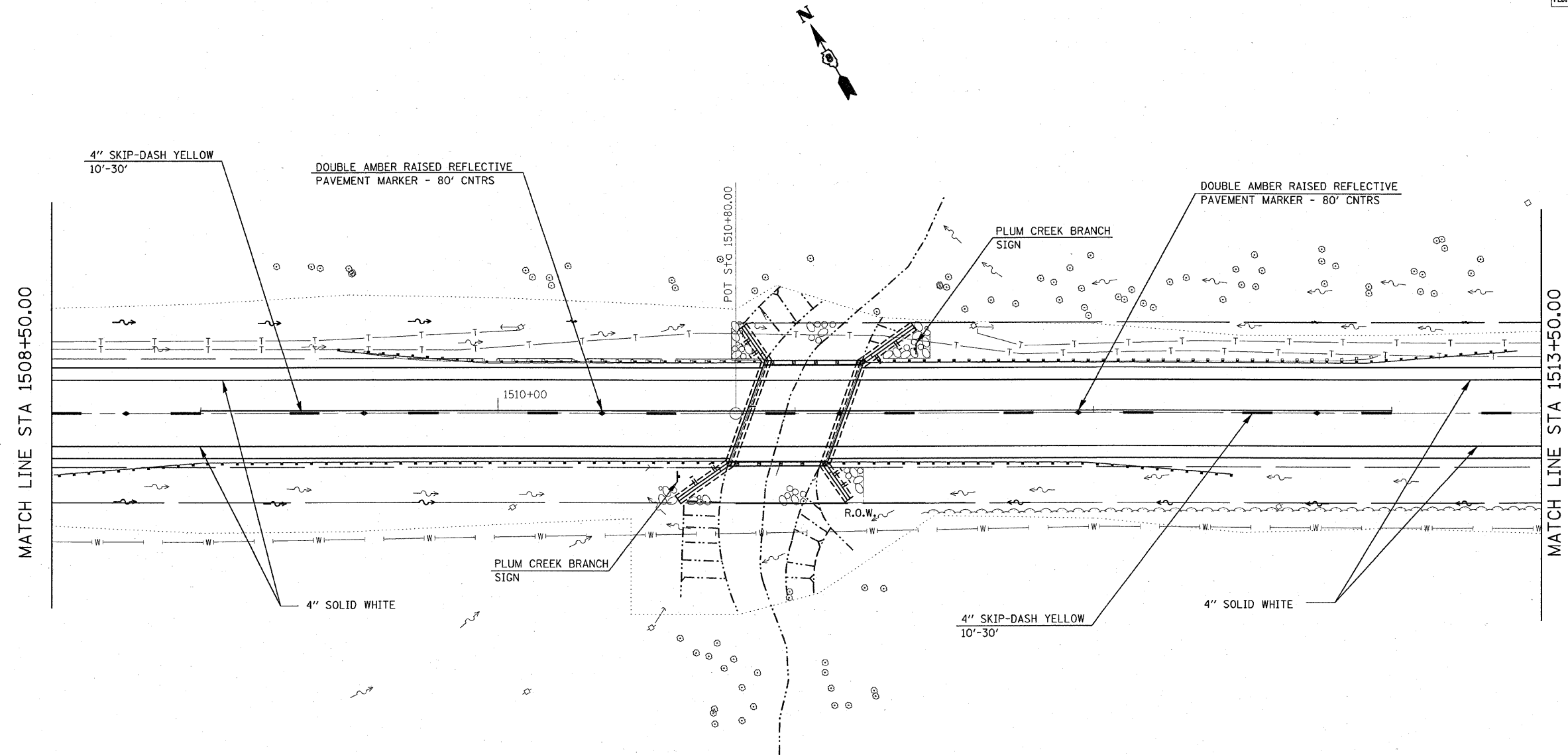


SN 095-0078

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING PLANS
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY
 SCALE: VERT. _____
 HORIZ. _____
 DATE _____
 DRAWN BY _____
 CHECKED BY _____

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	69
STA. 1508+50.00		TO STA. 1513+50.00		
FED. ROAD DIST. NO. -		ILLINOIS FED. AID PROJECT		



SN 095-0078

REVISIONS	
NAME	DATE

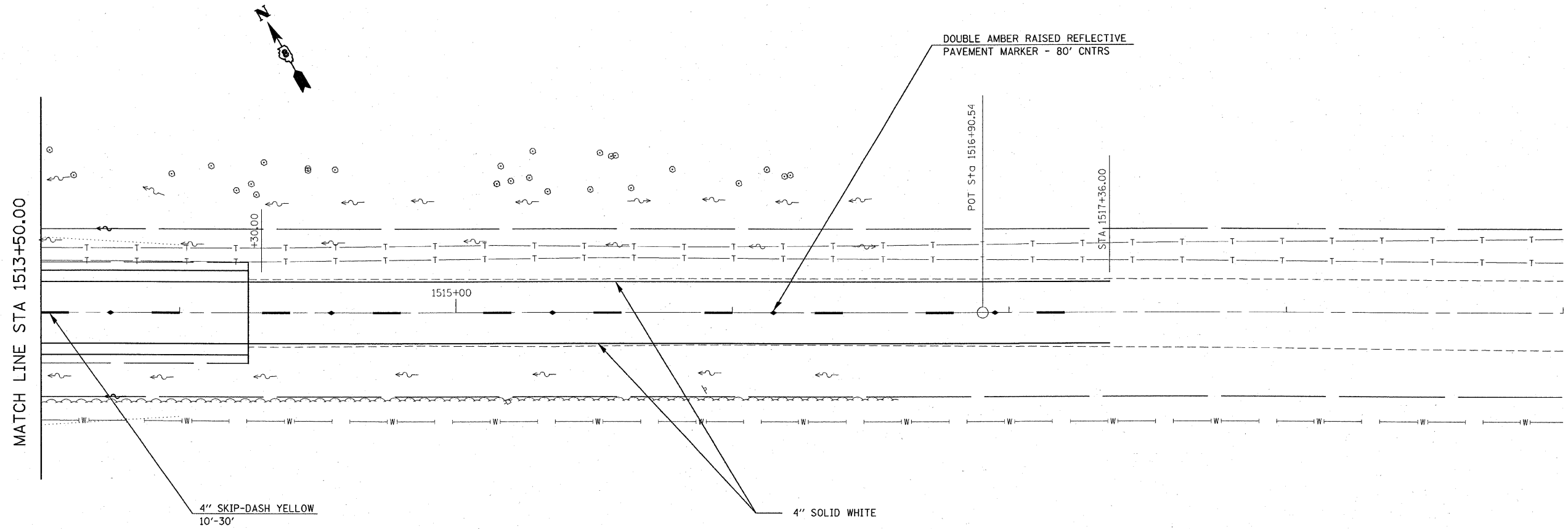
ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING PLANS
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

SCALE: VERT. _____
 HORIZ. _____

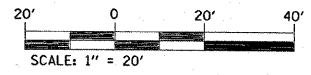
DATE _____ DRAWN BY _____
 CHECKED BY _____

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 USER NAME = gellih

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	70
STA. 1513+50.00		TO STA. 1519+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PLOT DATE = 12/7/2007
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SN 095-0078

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING PLANS
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY

SCALE: VERT.
 HORIZ.
 DATE

DRAWN BY
 CHECKED BY

Bench Mark: Chiseled square on bridge abutment @ NW corner of structure 095-0007
Sta. 1510+84.7, 18.4 ft. Left, Elev. 445.40

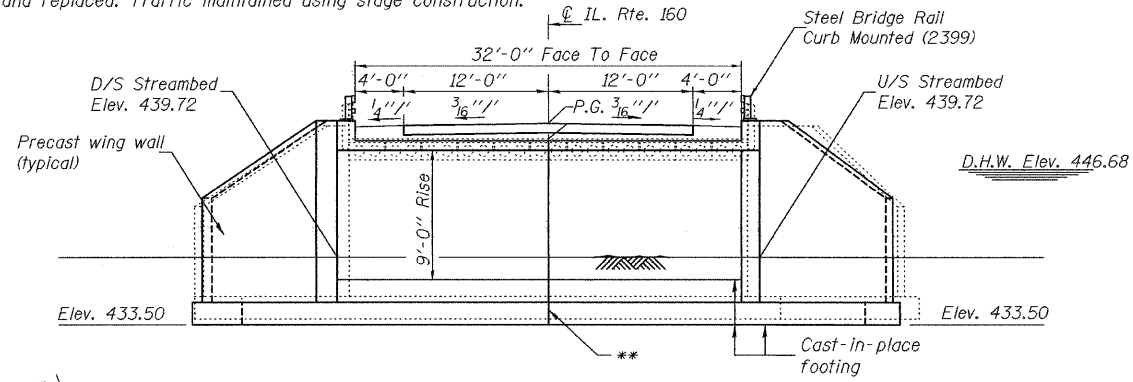
Existing Structure: S.N. 095-0007 Built in 1921 as S.B.I. Route 15, Section 5B at Station 1510+80 as a 1 span RC slab bridge. Closed abutments on spread footings. 1971 superstructure replacement, and widening, with PPC deck beams. Existing bridge to be removed and replaced. Traffic maintained using stage construction.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

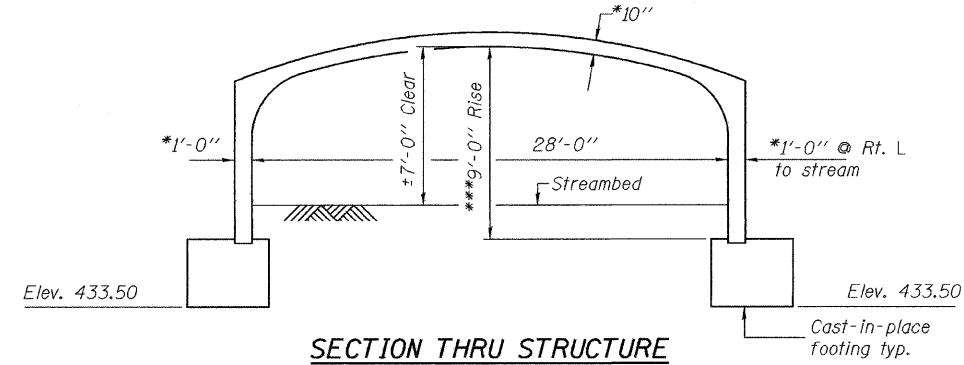
ROUTE NO.	SECTION	COUNTY	DISTRICT	SHEET NO.	SHEET NO. 1
F.A.S. 1832	5BR-2	WASHINGTON	97	71	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949

No salvage



LONGITUDINAL SECTION



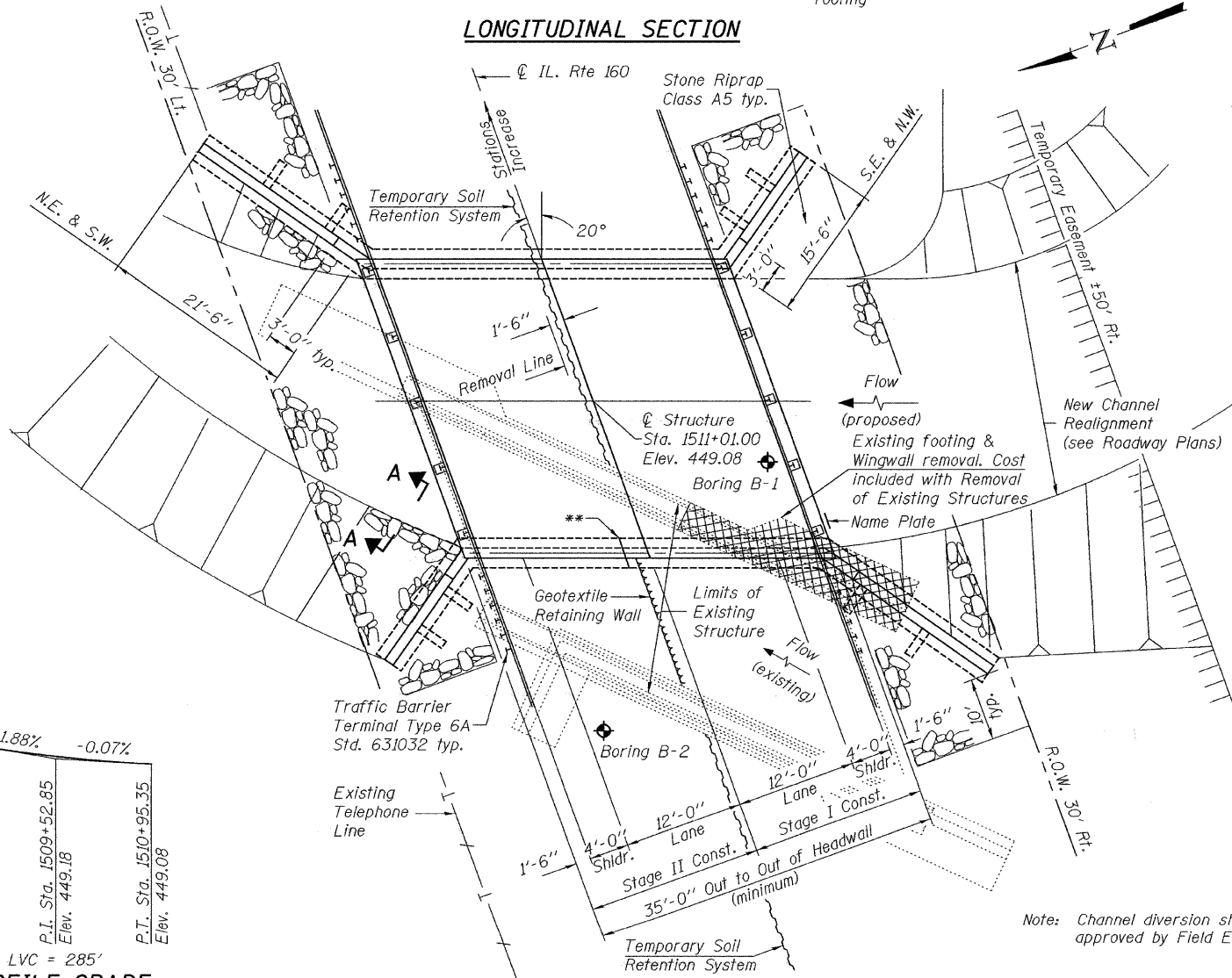
SECTION THRU STRUCTURE

*Slab and wall thickness and shape may vary as per manufacturer's design.
**Stage I west footing to be constructed $\pm 2'$ into Stage II Construction
***Based on Con Span sections that have a minimum rise of 9'-0".

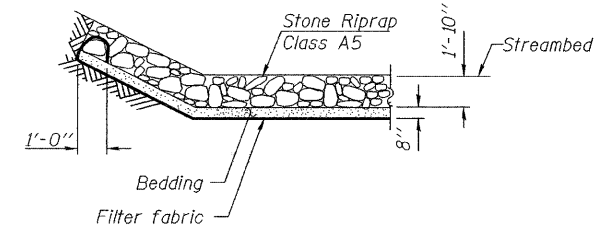
Note: The selected structure by the contractor shall provide a hydraulically equivalent waterway opening specified in the waterway information table.

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 Stage Construction Details
- 3 Temporary Soil Retention System
- 4 Geotextile Retaining Wall
- 5 Temporary Concrete Barrier
- 6-7 Footing Details
- 8 Wingwall Details
- 9 Headwall Details
- 10 Bar Splicer Details
- 11 Steel Bridge Rail Details
- 12 Soil Boring Logs



PLAN



SECTION A-A

DESIGN SCOUR
ELEVATION TABLE

Design Scour Elev. (ft.)	D.S. 437.72	U.S. 437.72
--------------------------	-------------	-------------

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = .11g
Site Coefficient (S) = 1.5

LOADING HS20

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)

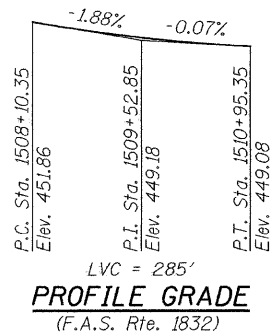
PRECAST UNITS

$f'_c = 5,000$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 65,000$ psi (welded wire fabric)

STATION 1511+01.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.S. RTE 1832 - SEC. 5BR-2
LOADING HS20
STRUCTURE NO. 095-0078

NAME PLATE

See Std. 515001



PROFILE GRADE
(F.A.S. Rte. 1832)

DESIGNED	James R. Bond
CHECKED	[Signature]
DRAWN	Yang J. J. [Signature]
CHECKED	NRB/GMA

January 29, 2007
EXAMINED [Signature]
PASSED [Signature]
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

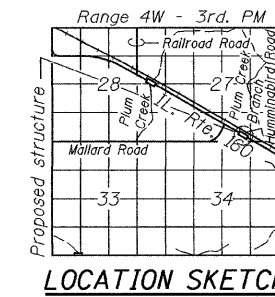


EXPIRES 11-30-2008

WATERWAY INFORMATION

Drainage Area = 0.87 sq. mi. Low Grade Elev. 447.49 ft. @ Sta. 1510+95

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	741	79.84	139.00	446.68	1.54	1.16	448.22	447.84
Base	100	860	79.84	139.00	446.85	1.58	1.52	448.43	448.37
Exist. Overtop.	15	516	79.84	N/A	446.17	1.32	N/A	447.49	N/A
Prop. Overtop.	35	670	N/A	139.00	446.54	N/A	0.95	N/A	447.49
Scour	10	466	79.84	139.00	446.03	1.08	0.48	447.11	446.51



GENERAL PLAN AND ELEVATION
IL. RTE. 160 OVER
PLUM CREEK BRANCH
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON CO.
STATION 1511+01.00
STRUCTURE NO. 095-0078

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

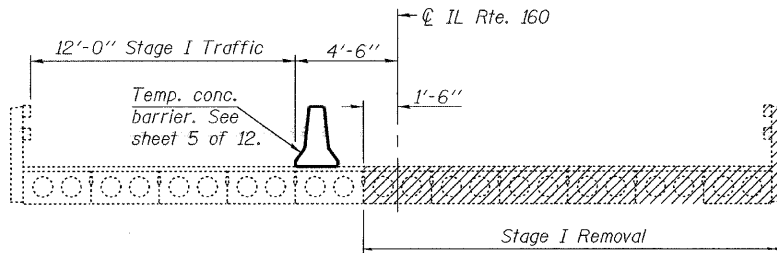
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	72
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
12 SHEETS

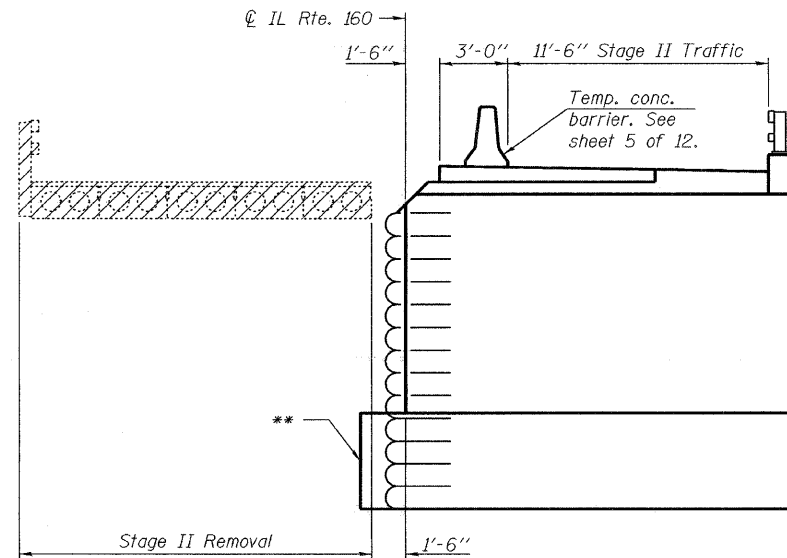
Contract #76949

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.
The option of using a precast footing is not allowed.
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
After the keyways have been grouted and cured, the joints on the three sides of the structure shall be externally sealed using 13" wide external sealing bands conforming to Article 1057.01. Cost included with Three-Sided Precast Concrete Structures.
The footing design is based on the following maximum reactions applied at the top of the footing:
Vertical 15.4 k/ft
Horizontal 6.3 k/ft
The contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete footing design with calculations, details, signed and sealed by an Illinois Licensed Structural Engineer shall be submitted for review and approval.
All construction joints shall be bonded.
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.
Dimensions for the Three-Sided Precast are for a Con Span section. Hy-Span, REDI-SPAN Bridge System and BEB0-Arch System are also acceptable, but dimensions may vary.
It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with the cost of "Concrete Structures".
Structural Seal does not include design of Precast elements.
For backfilling and embankment, see Standard Specifications.
All exposed edges shall be chamfered 3/4".
Allowable Bearing Pressure for Footing = 4 ksf.

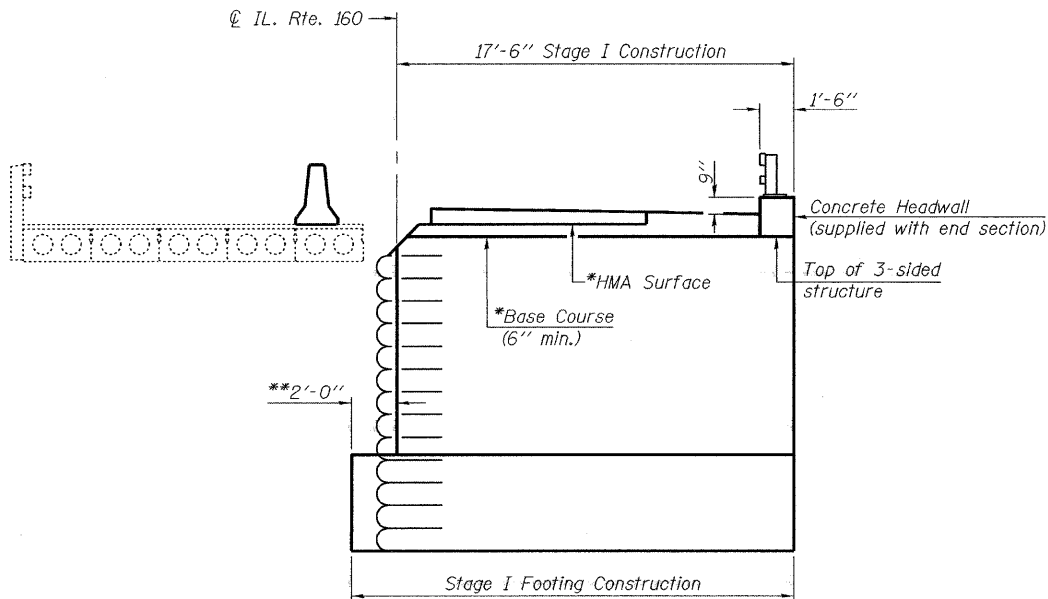


STAGE I REMOVAL



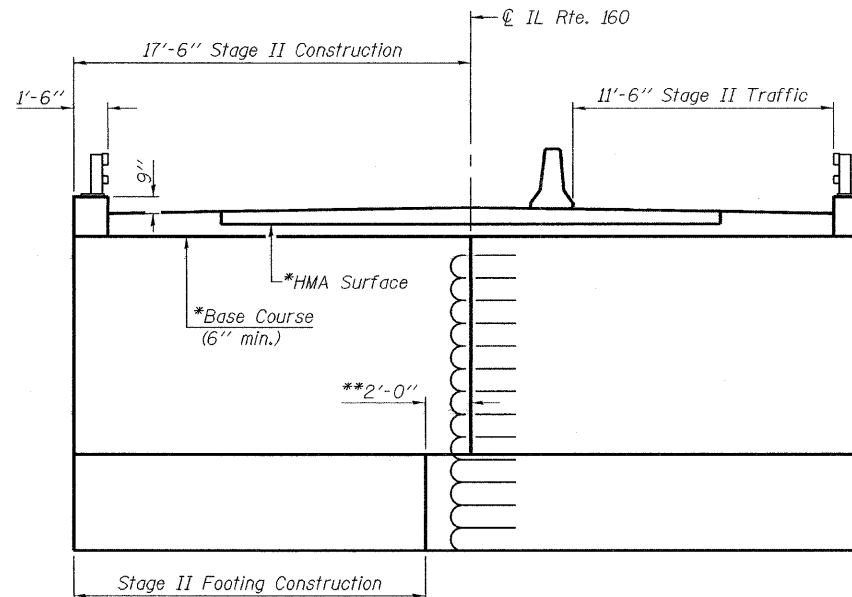
STAGE II REMOVAL

(Looking East at New West footing at Rt. L to Footing)



STAGE I CONSTRUCTION

(Looking East at New West footing at Rt. L to Footing)



STAGE II CONSTRUCTION

(Looking East at New West footing at Rt. L to Footing)

*For quantities of HMA Surface and Base Course, see Roadway Plans.
**Stage I west footing to be constructed 2'-0" @ Rt. L to CL IL Rte. 160 into Stage II Construction.

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 2	Each			1
Name Plates	Each	1		1
Stone Riprap, Class A5	Sq. Yd.			340
Filter Fabric	Sq. Yd.			340
Concrete Structures	Cu. Yd.		145.0	145.0
Reinforcement Bars, Epoxy Coated	Pound		6590	6590
Bar Splicers	Each		28	28
Structure Excavation	Cu. Yd.		365	365
Three Sided Precast Concrete Structure, 28' x 9'	Foot	37.25		37.25
Temporary Soil Retention System	Sq. Ft.			444.1
Steel Rail, Type 2399	Foot	64		64
Geotextile Retaining Wall	Sq. Yd.			19.1
Precast Concrete Substructure	L. Sum		1	1
Concrete Sealer	Sq. Ft.	144		144

STAGE CONSTRUCTION DETAILS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-0078

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

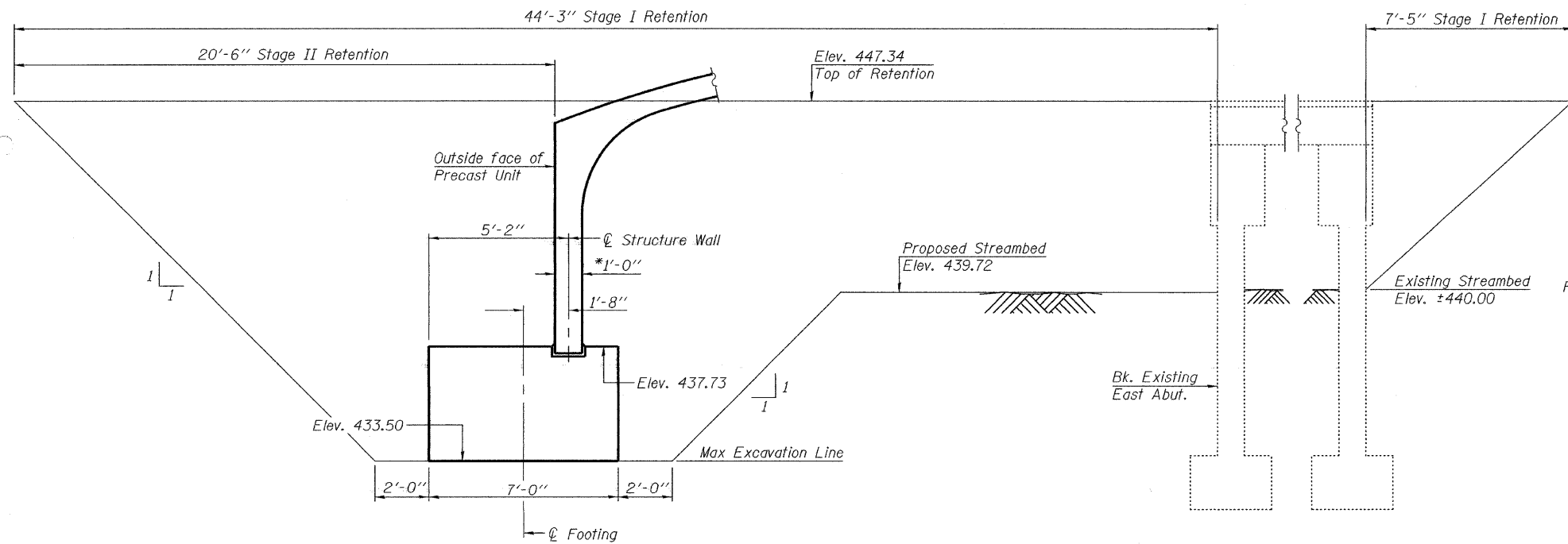
EXAMINED	January 28 2008
PASSED	Thomas J. Domagala ENGINEER OF BRIDGE DESIGN
	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

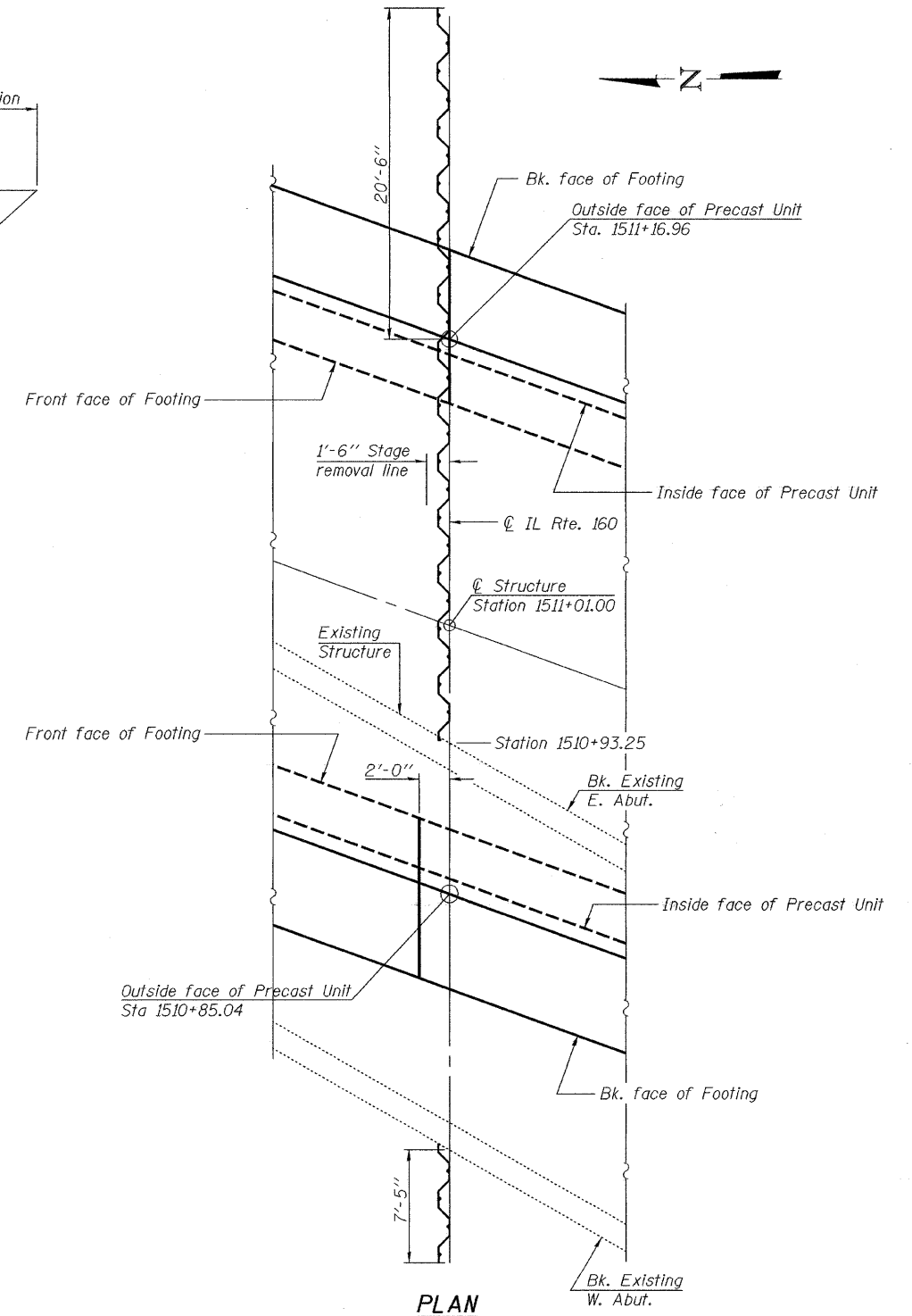
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	73
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #76949

SHEET NO. 3
12 SHEETS



TEMPORARY SOIL RETENTION SYSTEM
(Looking South at East Footing)



PLAN

DESIGNED	Nicholas R. Barnett
CHECKED	Roy Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

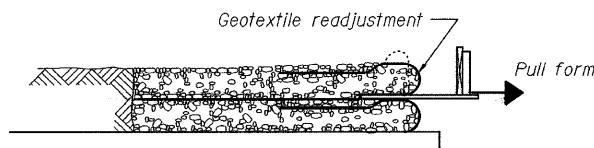
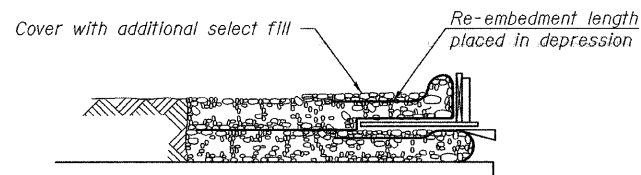
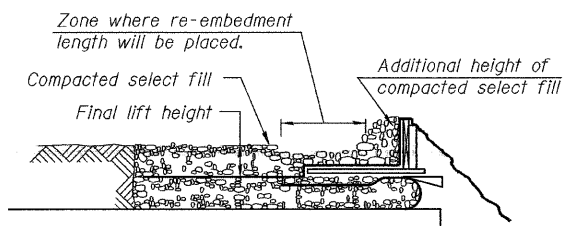
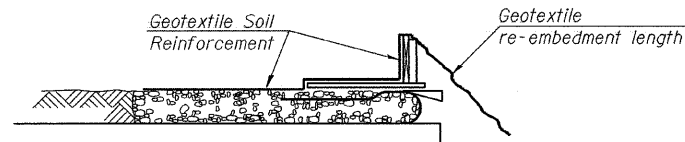
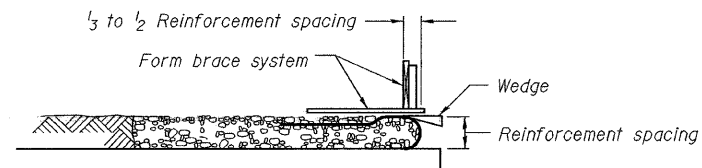
EXAMINED	Thomas J. Domagalaki	January 28, 2008
PASSED	Ralph E. Anderson	

TEMPORARY SOIL RETENTION SYSTEM
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-0078

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DIST.	SHEET NO.	SHEET NO. 4 12 SHEETS
F.A.S. 1832	5BR-2	WASHINGTON	97	74	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

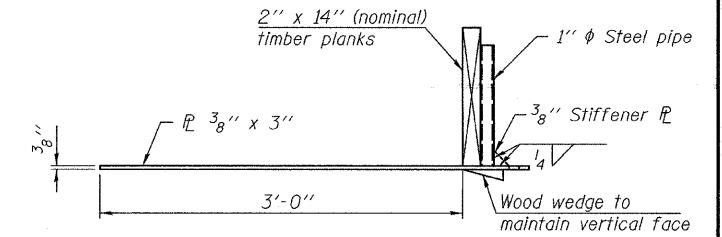
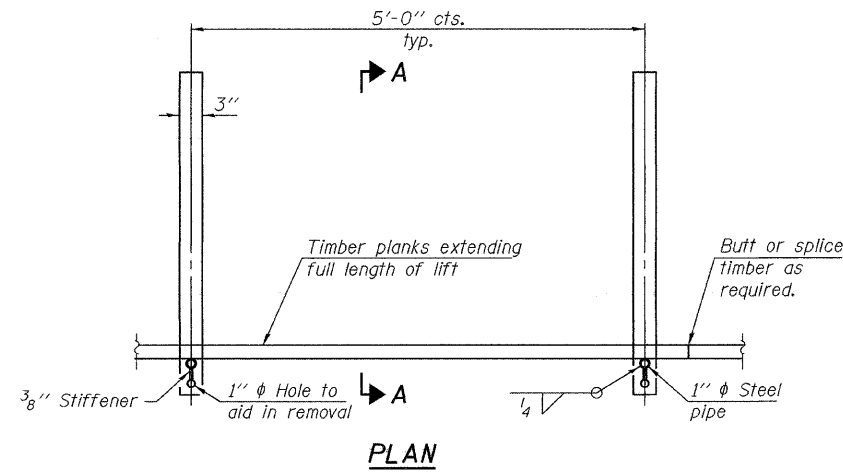
Contract #76949



**GEOTEXTILE WALL
CONSTRUCTION SEQUENCE**

Note:
The geotextile soil reinforcement shall have a minimum allowable tensile strength (T min.) of 50 lb./in. as determined by the procedure described in the Special Provision. The computations supporting the determination of (T min.) shall be submitted to the engineer for approval.

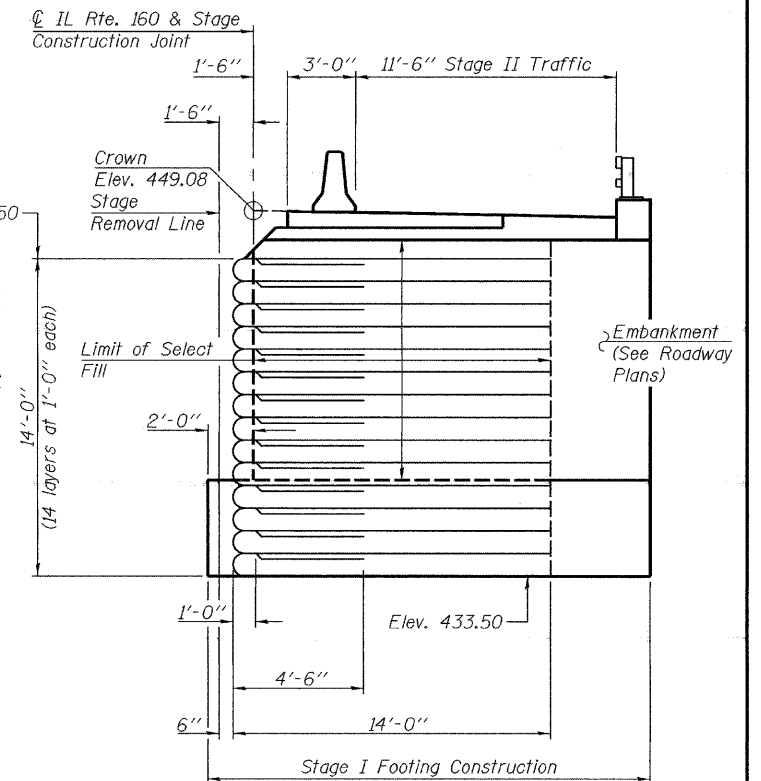
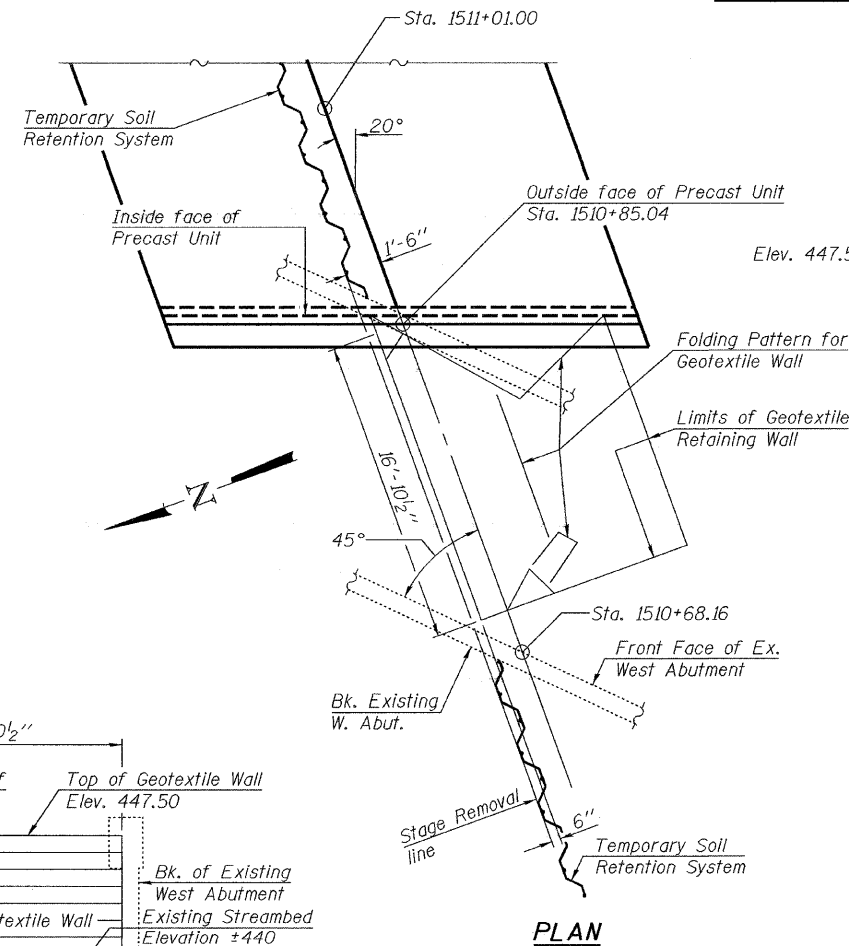
1. Place form brace system on completed reinforcement level; back from the finished fabric face a distance of 1/3 to 1/2 the geotextile reinforcement spacing.
2. Position fabric so that the required geotextile re-embedment length extends over the top of the form brace and the design reinforcement width is placed with no slack against the previous level.
3. Compact select fill material in lifts to final lift height, create (+3") depression in zone where re-embedment length will be located and place additional height of compacted select fill against form brace.
4. Fold geotextile re-embedment length back over form brace into zone where depression was made in select fill and place additional select fill (+3") to embed geotextile and bring to final lift height.
5. Pull form brace outward allowing geotextile face to slightly readjust to form tight round face level with plan reinforcement spacing.



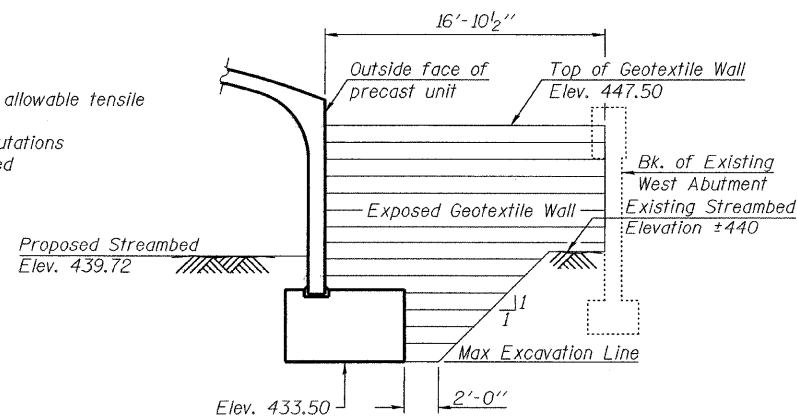
SECTION A-A

Note:
This is a suggested detail, the Contractor is responsible for the design of the form brace system to be used.

**GEOTEXTILE WALL
FORM BRACE DETAIL**



CROSS SECTION



ELEVATION

(Looking South at West Footing)

**GEOTEXTILE RETAINING WALL
F.A.S. RTE. 1832 - SECT. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-0078**

DESIGNED	Nicholas R. Barnett
CHECKED	Roy Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

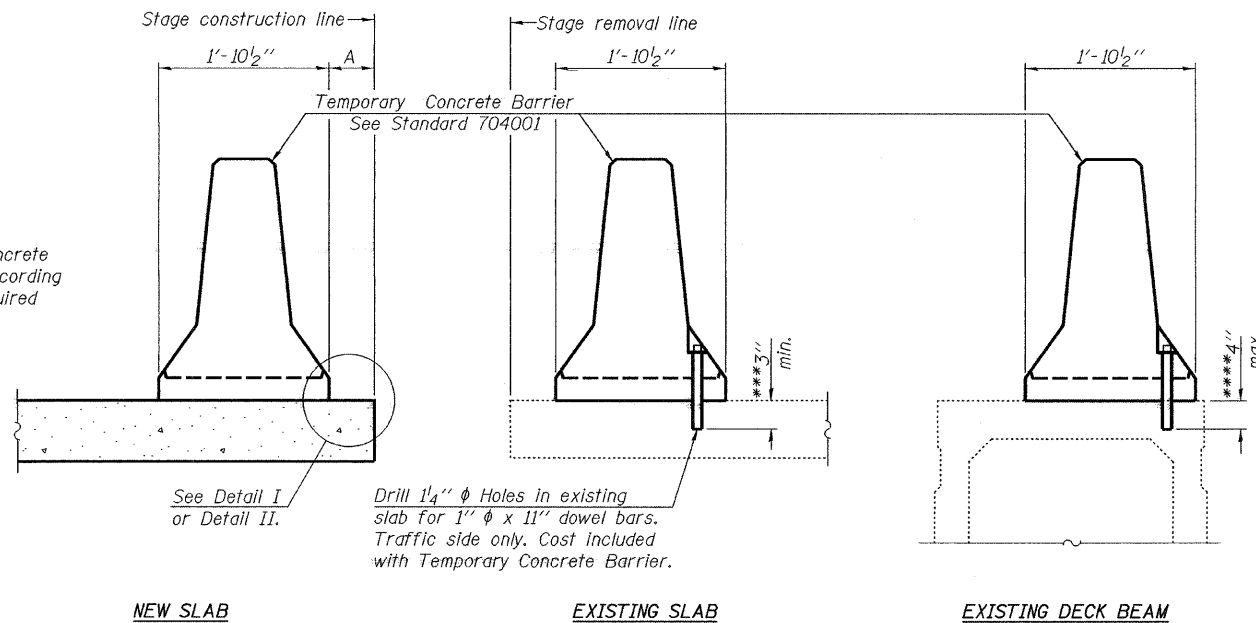
EXAMINED	Thomas J. Domagalaki	January 28 2008
PASSED	Ralph E. Anderson	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 12 SHEETS
F.A.S. 1832	5BR-2	WASHINGTON	97	75	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #76949

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

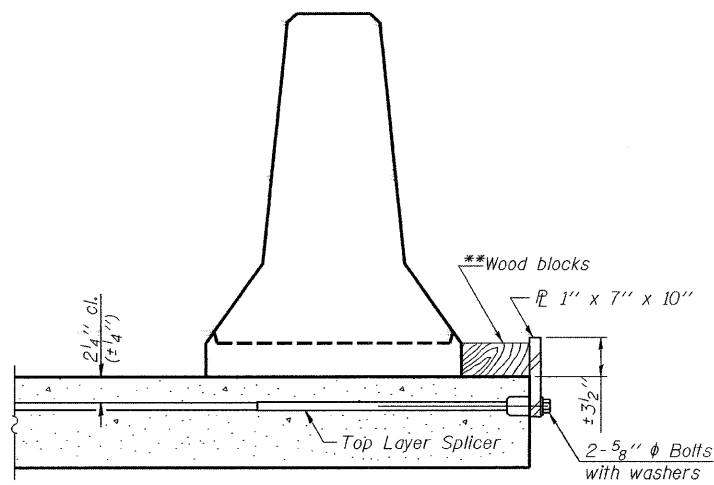
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

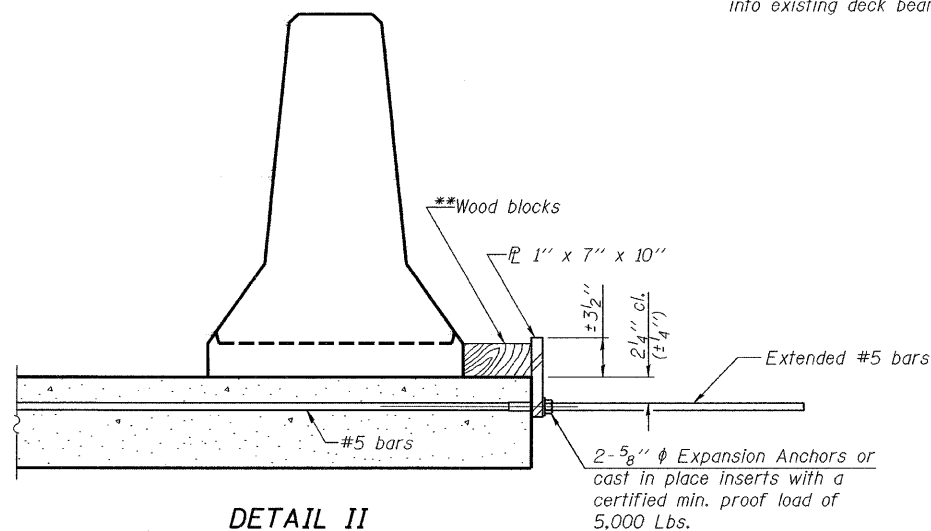
NOTES

- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

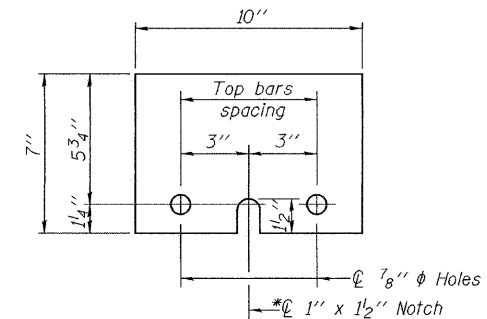
- ***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- ****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

* Required only with Detail II

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

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

EXAMINED	Thomas J. Domagala	January 28 2008
PASSED	Ralph E. Anderson	

R-27

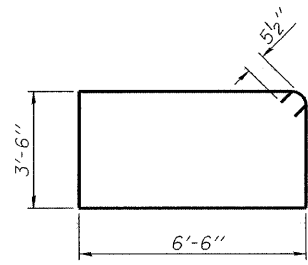
9-3-07

TEMPORARY CONCRETE BARRIER
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-0078

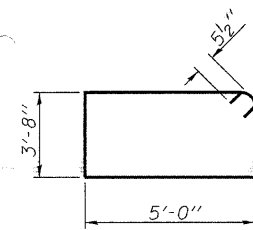
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO. 6
F.A.S. 1832	5BR-2	WASHINGTON	97	7b	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

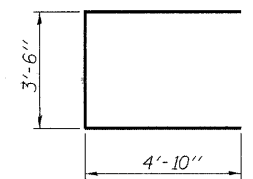
Contract #76949



BAR s(E)



BAR s1(E)



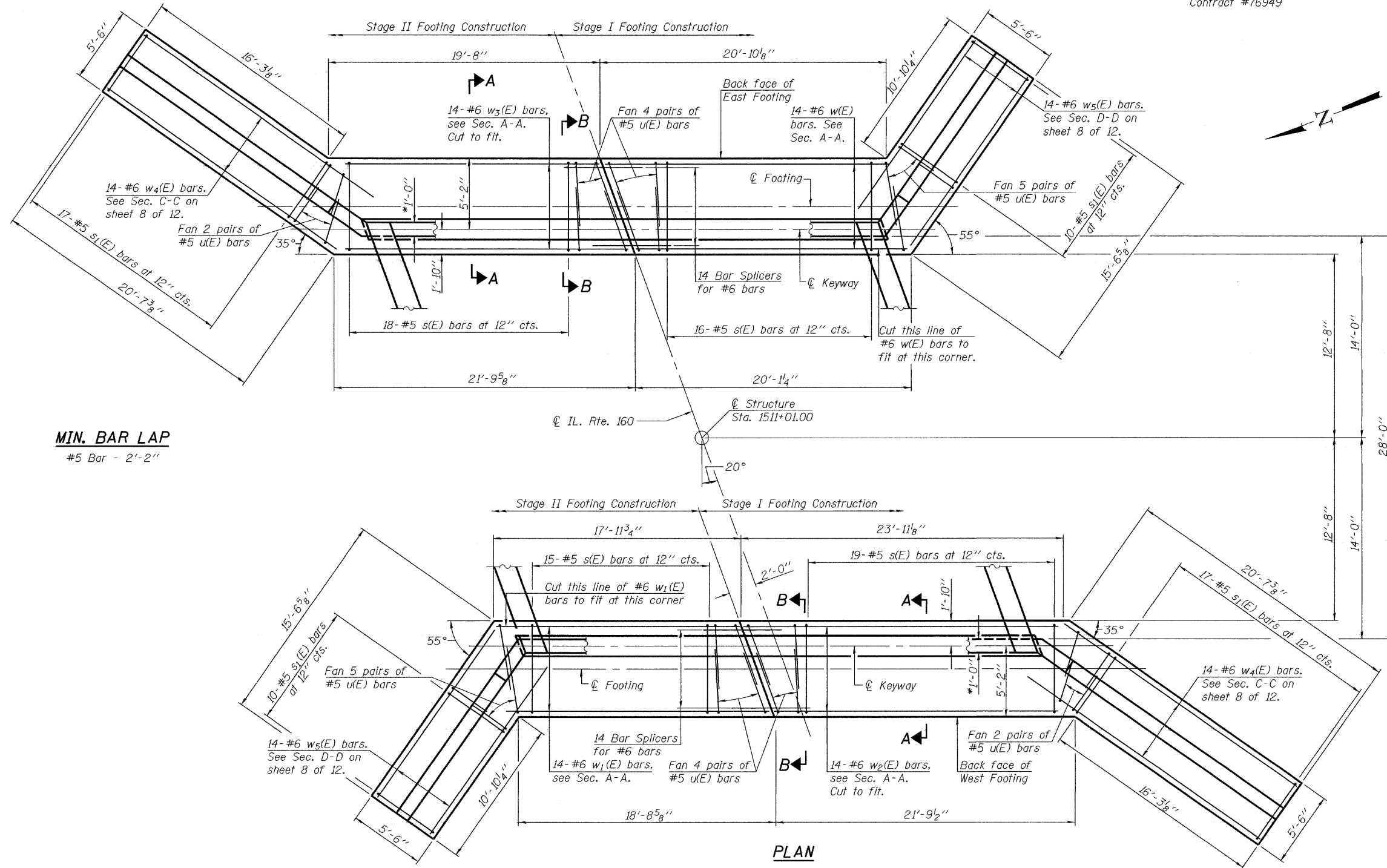
BAR u(E)

MIN. BAR LAP
#5 Bar - 2'-2"

BILL OF MATERIAL

Structure Footing and Wingwall Footings

Bar	No.	Size	Length	Shape
s(E)	68	#5	20'-11"	
s1(E)	54	#5	18'-3"	
w(E)	14	#6	20'-6"	
w1(E)	14	#6	18'-5"	
w2(E)	14	#6	23'-7"	
w3(E)	14	#6	21'-5"	
w4(E)	28	#6	20'-3"	
w5(E)	28	#6	15'-3"	
u(E)	60	#5	13'-2"	
Concrete Structures		Cu. Yd.	145	
Reinforcement Bars, Epoxy Coated		Pound	6590	
Structure Excavation		Cu. Yd.	365	



PLAN

Notes:
For Section A-A and Section B-B,
see sheet 7 of 12.
Minimum spacing between pairs of
4-#5 u(E) bars shall be 2'-2".

*Slab and wall thickness and shape may vary as per manufacturer's design.

DESIGNED	Nicholas R. Barnett
CHECKED	Roy Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

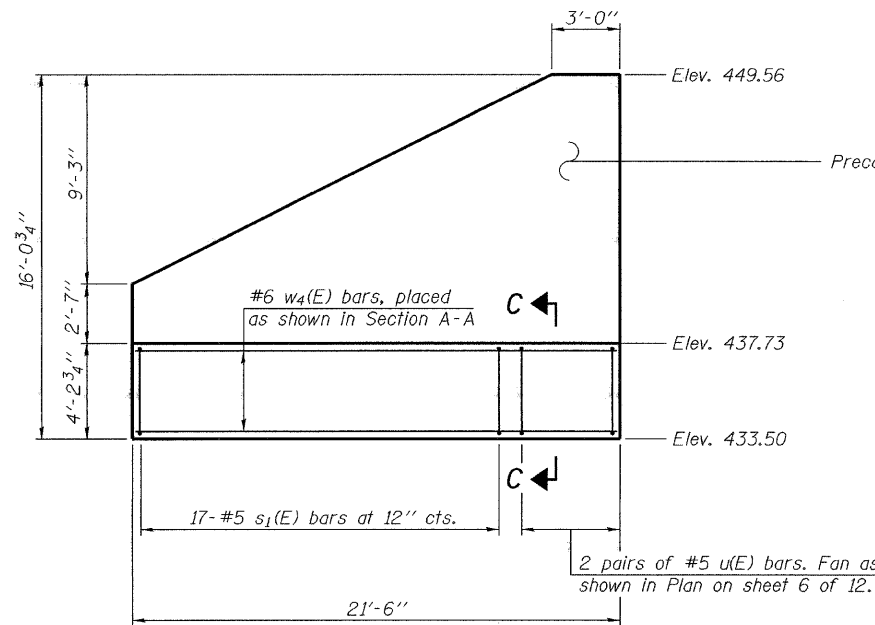
EXAMINED	Thomas J. Domagala	January 28 2008
PASSED	Ralph E. Anderson	

FOOTING DETAILS
F.A.S. RTE. 1832 - SECT. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-0078

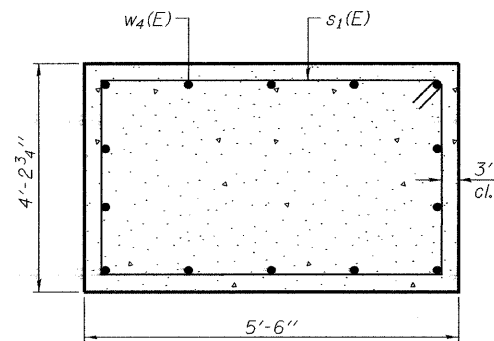
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	78
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

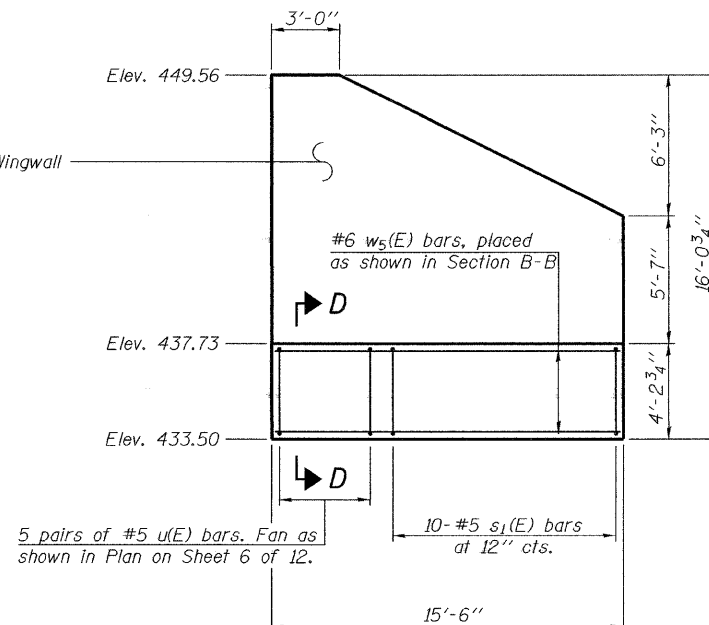
Contract #76949



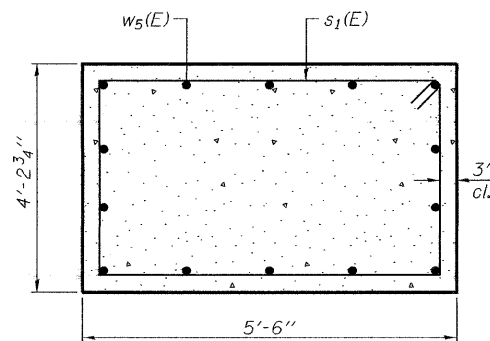
NORTHEAST AND SOUTHWEST WINGWALLS
(Looking Inside Face)



SECTION C-C

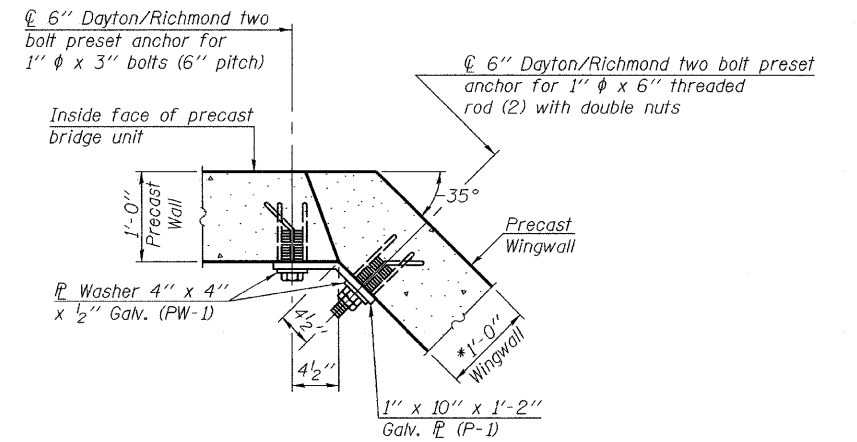


NORTHWEST AND SOUTHWEST WINGWALLS
(Looking Inside Face)

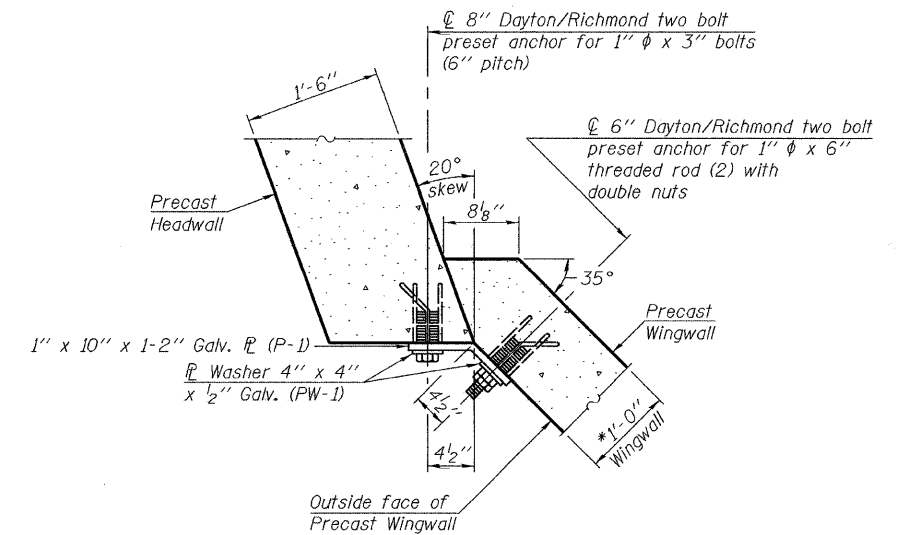


SECTION D-D

Note: Reinforcement for wingwalls is to be determined by the fabricator.
Precast Wingwall & associated hardware is billed as Precast Concrete Substructure, L. Sum.



DETAIL B
(At Unit Leg; S.W. or N.E.)



DETAIL B
(At Headwall; S.W. or N.E.)

Note: Connection P (P-1) shall be positioned with small diameter holes toward precast headwall.

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

EXAMINED	January 28, 2008
PASSED	Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN
	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

PRECAST WINGWALL DETAILS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-0078

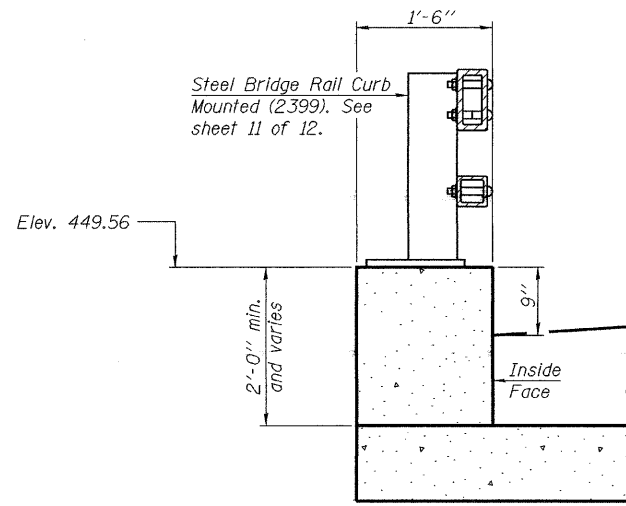
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DISTRICT	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	79
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9

12 SHEETS

Contract #76949



Steel Bridge Rail Curb Mounted (2399). See sheet 11 of 12.

Elev. 449.56

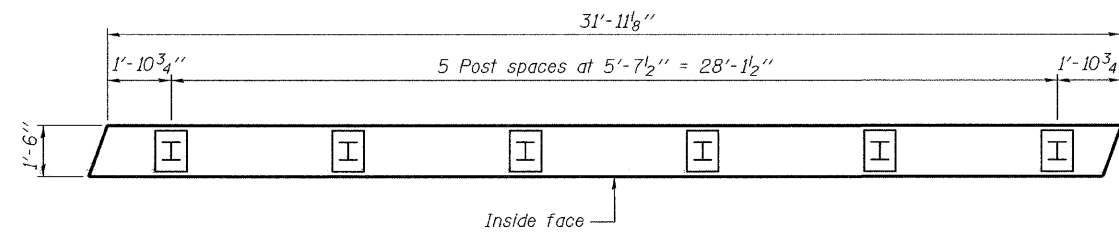
2'-0" min. and varies

9"

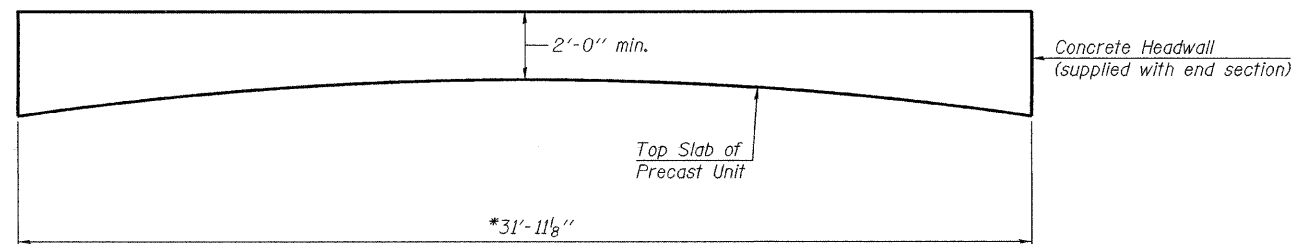
Inside Face

Note: Headwall to be designed by precast provider. Concrete Sealer shall be applied to top and inside exposed face of Precast Headwall. Headwall shall be designed per AASHTO Art. 2.7 of Standard Specifications.

SECTION THRU HEADWALL



PLAN OF HEADWALL POST LAYOUT



PRECAST HEADWALL ELEVATION

*Dimension measured along Inside Face of headwall

DESIGNED	Nicholas R. Barnett
CHECKED	Roy Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

January 28 2008
EXAMINED *Thomas J. Demagaleki*
PASSED *Ralph E. Anderson*

HEADWALL DETAILS
F.A.S. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-0078

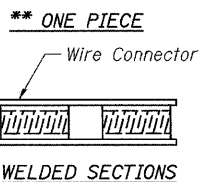
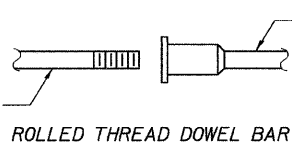
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10
F.A.S. 1832	5BR-2	WASHINGTON	97	80	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949

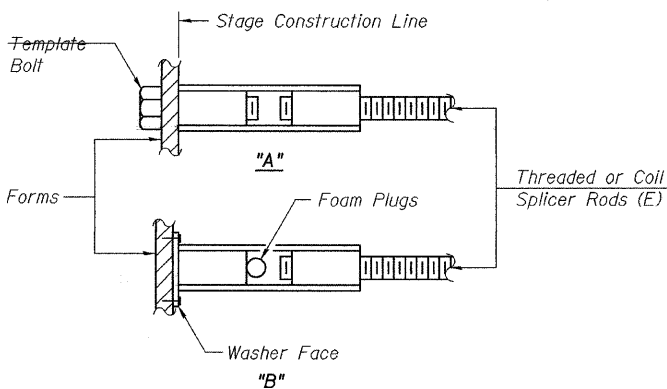
The diameter of this part is the same as the diameter of the bar spliced.

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



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

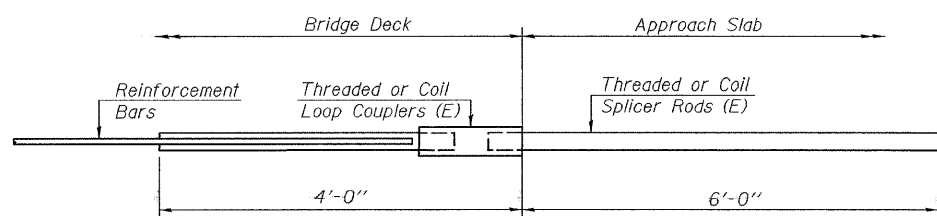
"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

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:

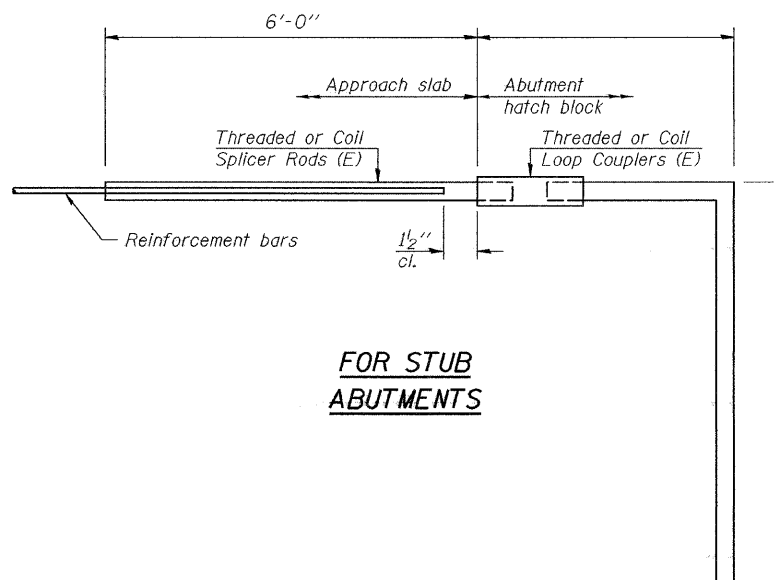
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

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



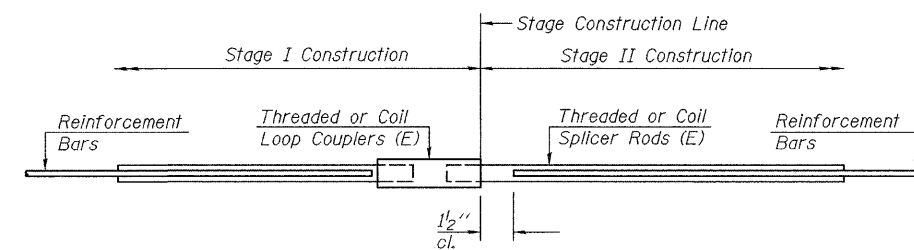
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#6	28	Footing

BAR SPLICER ASSEMBLY DETAILS
 F.A.S. 1832 - SEC. 5BR-2
 WASHINGTON COUNTY
 STATION 1511+01.00
 STRUCTURE NO. 095-0078

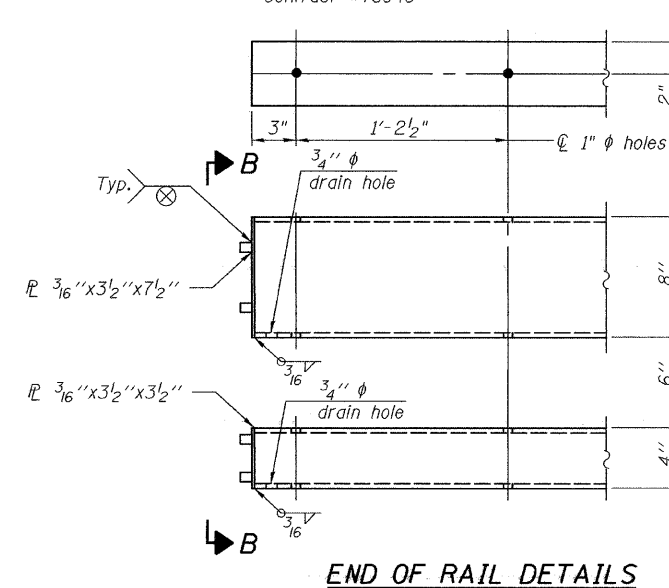
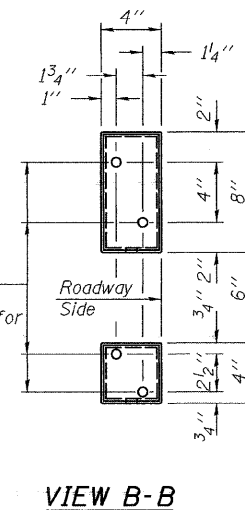
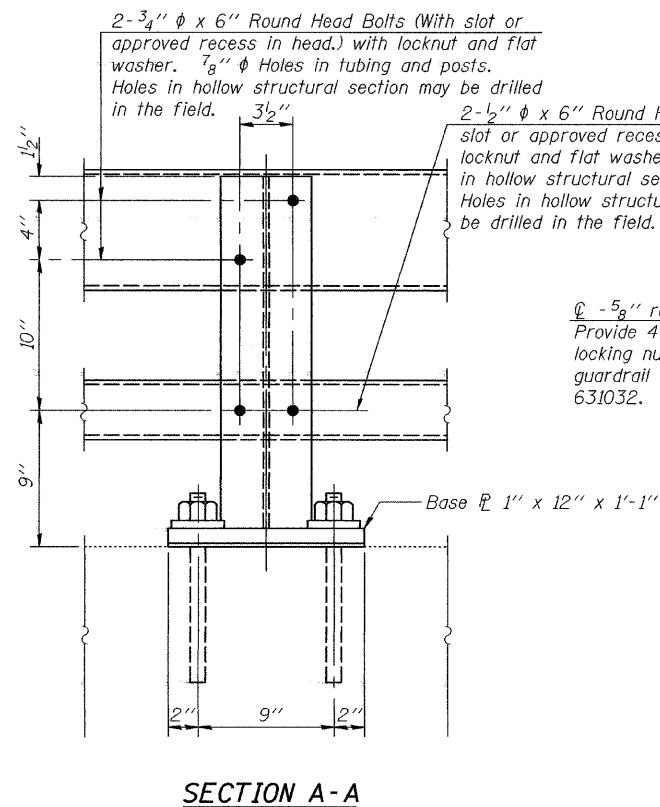
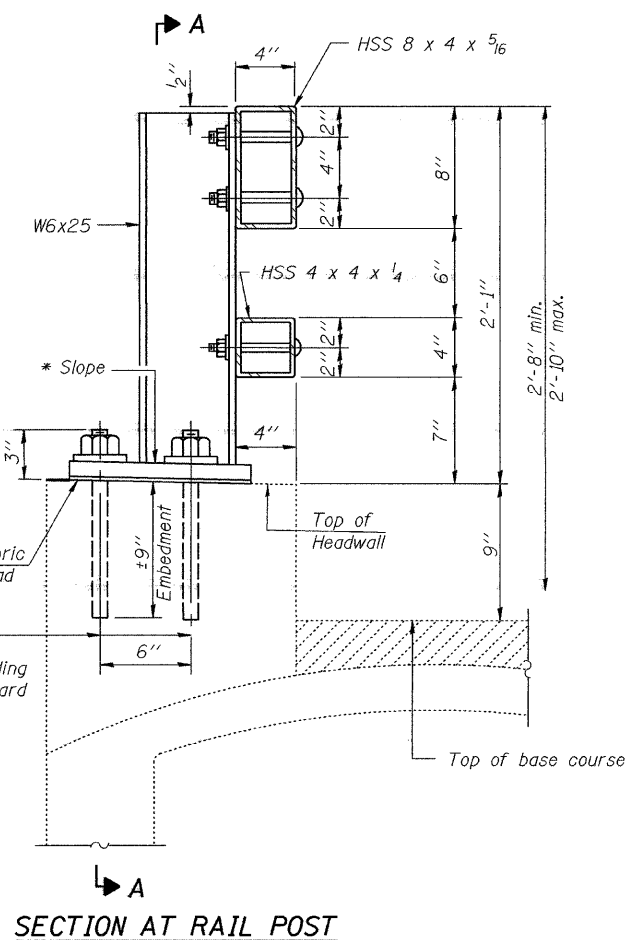
DESIGNED Nicholas R. Barnett
 CHECKED Ray Ahanchi
 DRAWN Gregory D. Farmer
 CHECKED NRB/GRA

January 28 2008
 EXAMINED Thomas J. Domagala
 PASSED Ralph E. Anderson

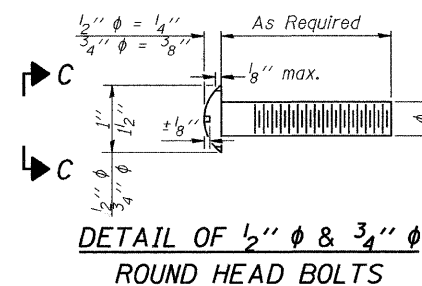
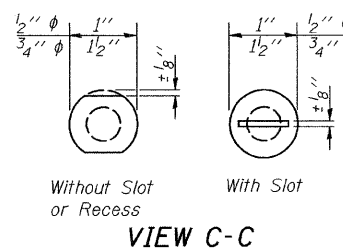
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	DATE 97	SHEET NO. 81	SHEET NO. 11 12 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #76949



Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



BILL OF MATERIAL

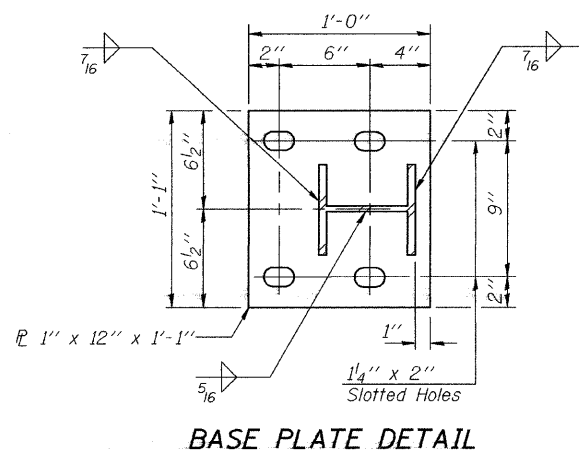
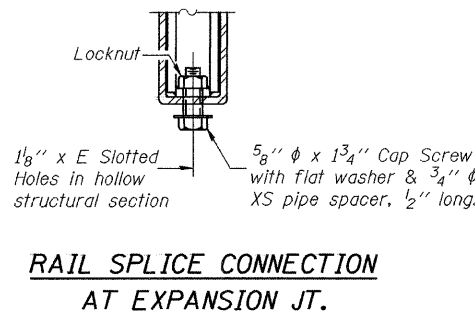
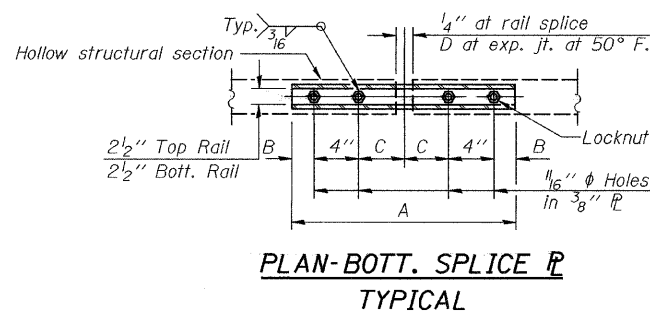
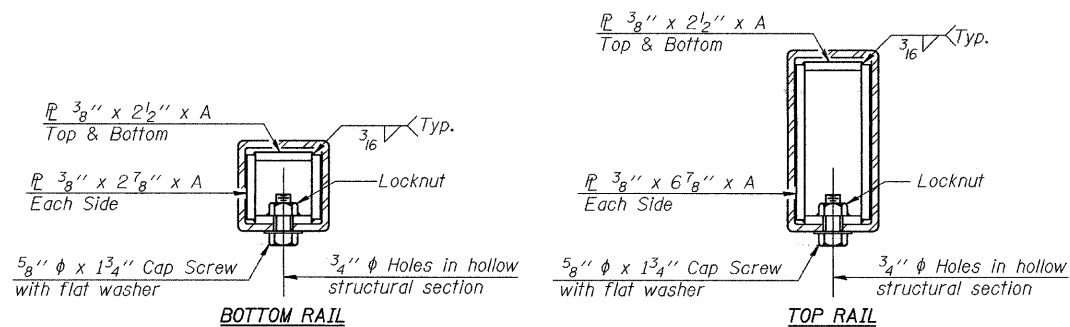
Item	Unit	Quantity
Steel Railing, Type 2399	Foot	64'-0"

SPLICE DIMENSIONS

T	D	A	B	C	E
≤4"	2 1/2"	1'-8"	2"	4"	2 1/2"
>4" ≤6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
>6 1/2" ≤9"	5"	2'-4"	3 1/2"	6 1/2"	9"
>9" ≤13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

SECTIONS AT RAIL SPLICE



DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

EXAMINED	Thomas J. Domagala	January 28, 2008
PASSED	Ralph E. Anderson	

STEEL RAILING, TYPE 2399
F.A.S. RTE 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-0078

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	82
FED. ROAD DEST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #76949

Illinois Department of Transportation
Division of Highways
District - Materials

SOIL BORING LOG

Page 1 of 1
Date 2/25/11

ROUTE FAS 1832 DESCRIPTION IL 160 over Branch of Plum Creek LOGGED BY J. King

SECTION 5BR-2 LOCATION SE 1/4, SE 1/4, SEC. 27, TWP. 15, RNG. 4W, 3 PM

COUNTY Washington DRILLING METHOD Hollow Stem Auger HAMMER TYPE HOB Automatic

STRUCT. NO. 095-007 (E) / 095-007B (P) Station 1511+80

BORING NO. 1 E. Abut Station 1511+80
Offset 15,000 Right
Ground Surface Elev. 448.72 ft

DEPTH (ft)	DRILLING METHOD	HAMMER TYPE	SOIL DESCRIPTION	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter Upon Completion After (Hrs.)
0	(H)	(A)	Gray SHALE (continued)				
3	(H)	(A)	Brown SILT				
7	(H)	(A)	Gray LIMESTONE				
10	(H)	(A)	Brown and Gray Clay TILL				
15	(H)	(A)	Gray Clay TILL				
20	(H)	(A)	Brown and Gray Clay TILL				
25	(H)	(A)	Gray SHALE				

NOTE: Value in Blows/6" Column is the N-Value of the Sample

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulk, (S)-Shear, (P)-Penetrometer
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, Form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District - Materials

SOIL BORING LOG

Page 1 of 1
Date 2/25/11

ROUTE FAS 1832 DESCRIPTION IL 160 over Branch of Plum Creek LOGGED BY J. King

SECTION 5BR-2 LOCATION SE 1/4, SE 1/4, SEC. 27, TWP. 15, RNG. 4W, 3 PM

COUNTY Washington DRILLING METHOD Hollow Stem Auger HAMMER TYPE HOB Automatic

STRUCT. NO. 095-007 (E) / 095-007B (P) Station 1511+80

BORING NO. 2 W. Abut Station 1511+70
Offset 15,000 Left
Ground Surface Elev. 448.52 ft

DEPTH (ft)	DRILLING METHOD	HAMMER TYPE	SOIL DESCRIPTION	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter Upon Completion After (Hrs.)
0	(H)	(A)	Gray Laminated SHALE (continued)				
3	(H)	(A)	Brown Silty CLAY				
10	(H)	(A)	Brown and Gray Clay TILL				
15	(H)	(A)	Gray TILL				
20	(H)	(A)	Gray Laminated SHALE				

NOTE: Value in Blows/6" Column is the N-Value of the Sample

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulk, (S)-Shear, (P)-Penetrometer
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, Form 137 (Rev. 8-99)

DESIGNED Nicholas R. Barnett
CHECKED Ray Ahanchi
DRAWN Gregory D. Farmer
CHECKED NRB/GRA

January 28 2008
EXAMINED Thomas J. Donagalski
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

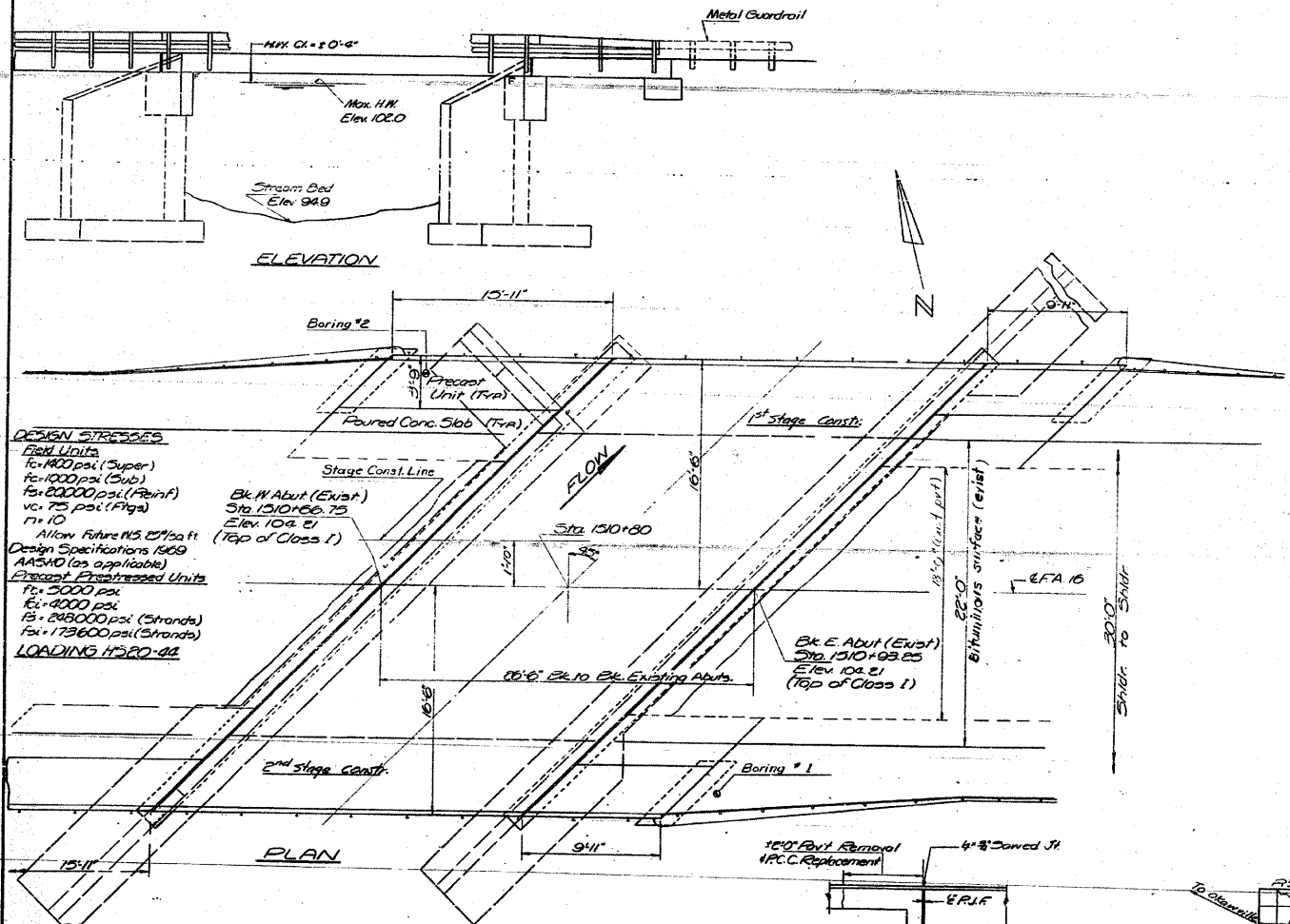
SOIL BORING LOGS
F.A.S. RTE. 1832 - SEC. 5BR-2
WASHINGTON COUNTY
STATION 1511+01.00
STRUCTURE NO. 095-007B

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	83
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	83

B.M. Spike in power pole 35' right Sta. 1509+82 Elev. 102.93
Existing Structure: Built as SBR 13 Sec 5B Sta. 1510+80
in 1961 Superstr. concrete abut. subst. RC closed abut.
Contractor shall remove exist superstr. & traffic shall
be maintained using stage construction.
No Salvage.



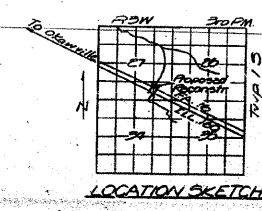
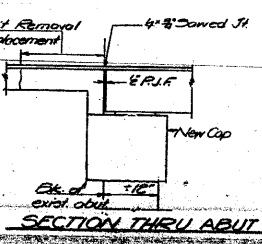
GENERAL NOTES
All reinforcement bars shall be lapped 2d diameters unless otherwise shown.
It shall be the responsibility of the contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
An alternate strand pattern using Extra High Strength Prestressing Strand (E70ksi) is permitted.
Expansion bolts shall consist of self-drilling expansion anchors and 3/4" hooked bolts. Hooked bolts shall extend a minimum of 12" into new concrete unless otherwise shown.
Shoulder transition to wing wall shall be shaped with broken concrete. Coat Incidental.
Limits of Coal Tar Interlayer Protective Coat shall be back to back of abutments.

DESIGN STRESSES
Field Units
F_c = 4000 psi (Super)
F_c = 3000 psi (Sub)
F_s = 20000 psi (Reinf)
v_c = 75 psi (Frg)
m = 10
Allow. Fibers 15.5 @ 20 ft
Design Specifications 1989
AASHTO (as applicable)
Precast Prestressed Units
F_c = 5000 psi
E_c = 4000 psi
F_s = 24000 psi (Strands)
F_s = 173600 psi (Strands)
LOADING HS20-44

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
PCC Pavement (10")	Sq. Yds	5		5
Pavement Fabric	Sq. Yds	5		5
Concrete Removal	Cu. Yds		12	12
Expansion Bolts (3/4")	Each	32	47	79
Class X Concrete	Cu. Yds		29.3	29.3
Precast Concrete Bridge Slab	Sq. Ft.	135		135
PCC Deck Beams (17")	Sq. Ft.	670		670
Steel Railing Type W	Lin. Ft.	100		100
Reinforcement Bars	Lbs.		3680	3680
Rem of Exist Superstructures	Each			1
Coal Tar Interlayer Prot Coat	Sq. Yds	37		37
Bifuminous Conc Surf Co. Cl. I	Sq. Yds	13		13
Temp Guard Rail	Lin. Ft.	27		27

DESIGNED: W. Henry
CHECKED: Fred Coffin
DRAWN: Fred Coffin
CHECKED: W.H.
EXAMINED: M. J. Bennett
PASSED: M. J. Bennett
DATE: March 24, 1971



GENERAL PLAN & ELEVATION
EA. BR. 10 SECTION 5BR
WASHINGTON COUNTY
STATION 1510+80

Rev. 4-7-71 W.H. Stage Const. 1:100 1" = 10' 1/2" Scale of PCC Dept. Type 6000 from 1" = 10' 1/2" Scale

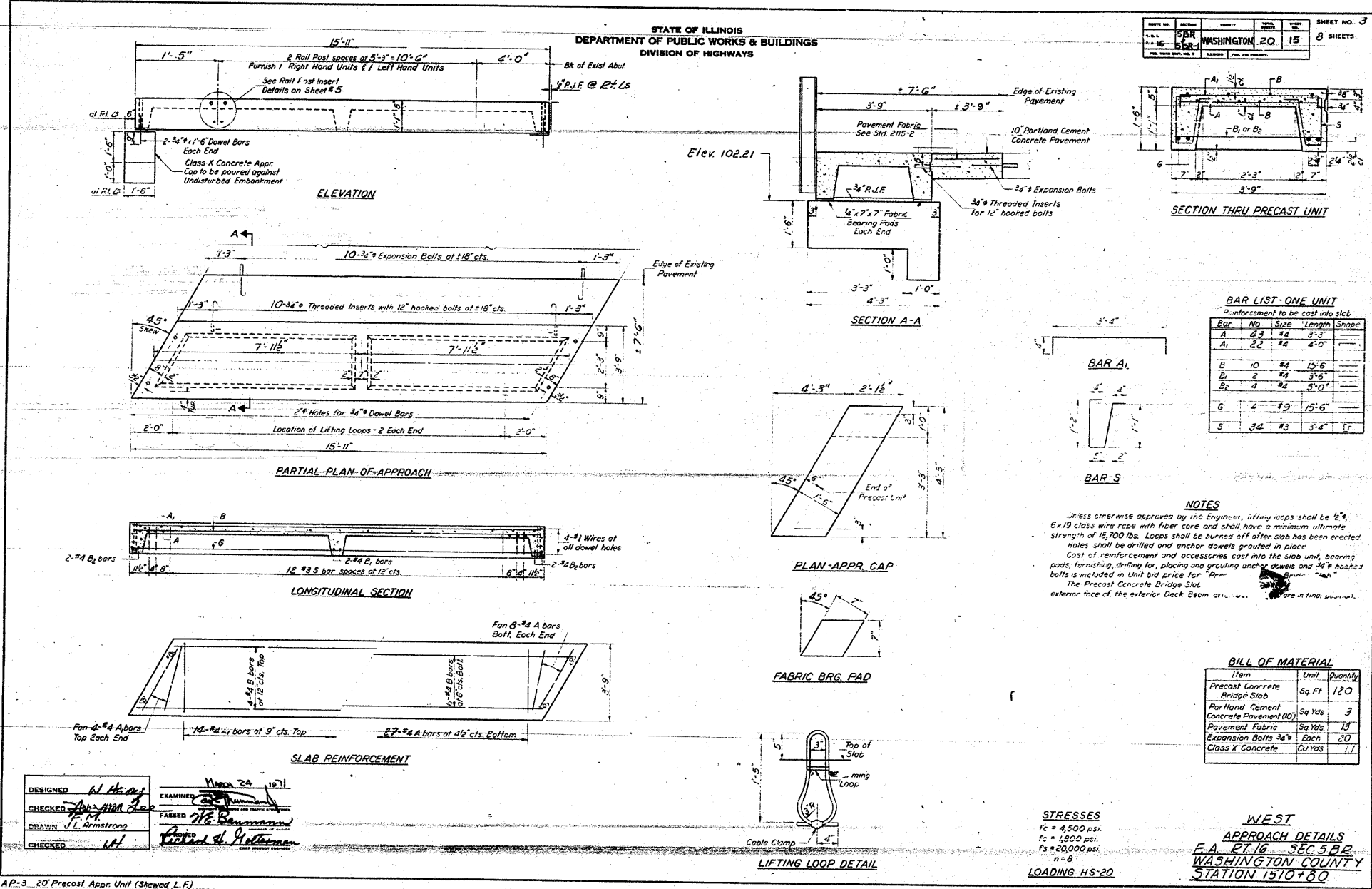
En. 11-5-71

S.N. 095-0078

FOR INFORMATION ONLY

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING STRUCTURE PLANS
NAME	DATE	
		FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY
SCALE: VERT. _____	HORIZ. _____	DRAWN BY _____
DATE _____		CHECKED BY _____

F.A.S. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
302	5BR-2	WASHINGTON	97	85
STA.	TO STA.			
ILL. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



DESIGNED: *W. H. ...*
 CHECKED: *J. L. ...*
 DRAWN: *J. L. ...*
 EXAMINED: *...*
 TAGED: *...*
 CHECKED: *...*

STRESSES
 f_c = 4,500 psi.
 f_s = 20,000 psi.
 n = 8
 LOADING HS-20

WEST
 APPROACH DETAILS
 F.A. RT. 1832 SEC. 5 BR.
 WASHINGTON COUNTY
 STATION 1510+80

AP-3 20' Precast Appr. Unit (Stewed L.F.)

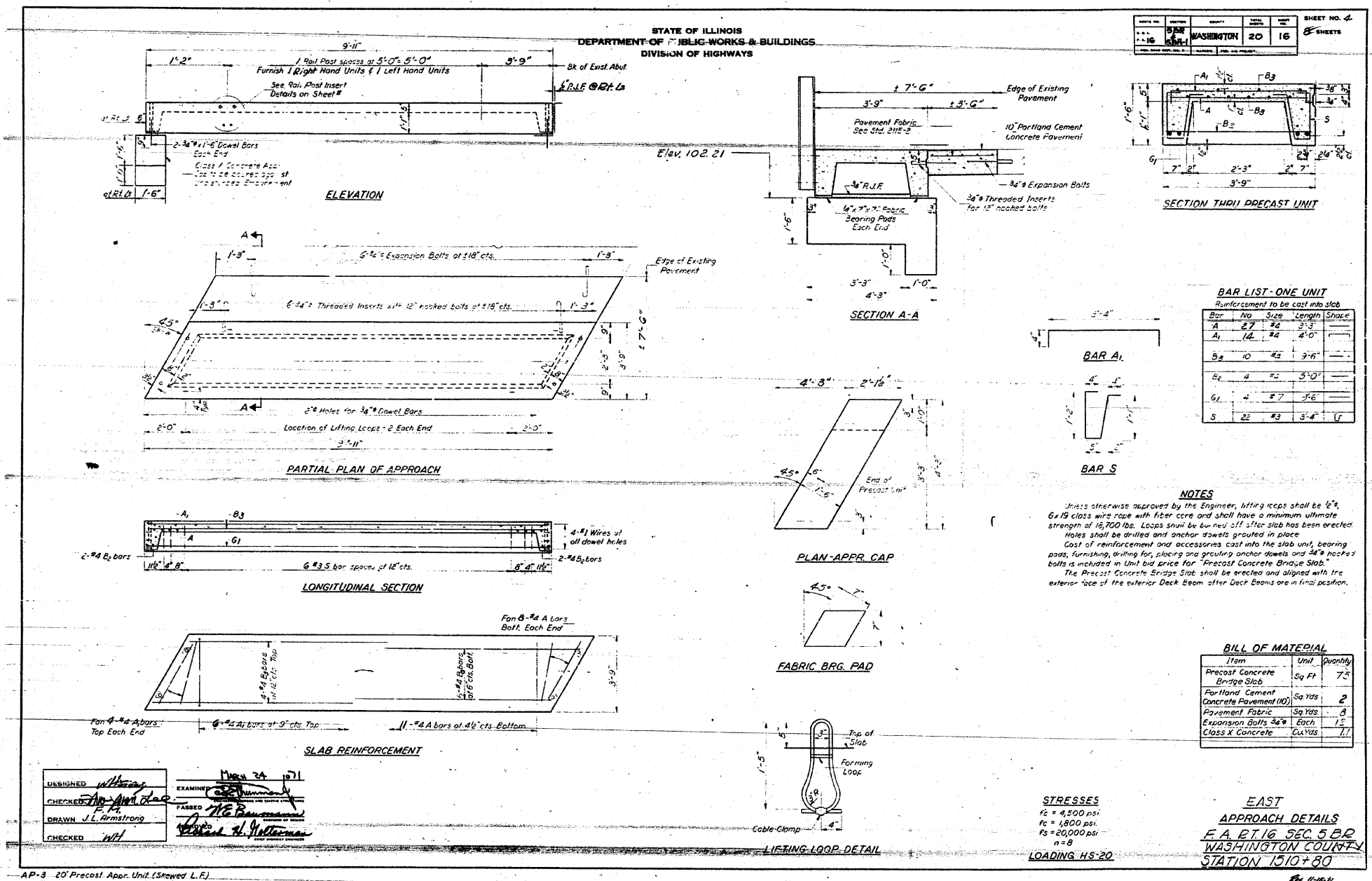
FOR INFORMATION ONLY

S.N. 095-0078

REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING STRUCTURE PLANS
 FAS ROUTE 1832
 SECTION 5BR-2
 WASHINGTON COUNTY
 SCALE: VERT. DRAWN BY
 DATE HORIZ. CHECKED BY

PLOT DATE = 11/29/2007
 FILE NAME = c:\projects\76949\plans\ap3\ap3.dgn
 PLOT DEVICE = HPGL2
 REFERENCE = #REF#



AP-3 20' Precast Appr. Unit (Showed L.F.)

DESIGNED: *W. H. ...*
CHECKED: *J. L. Armstrong*
DRAWN: *J. L. Armstrong*
CHECKED: *W. H. ...*

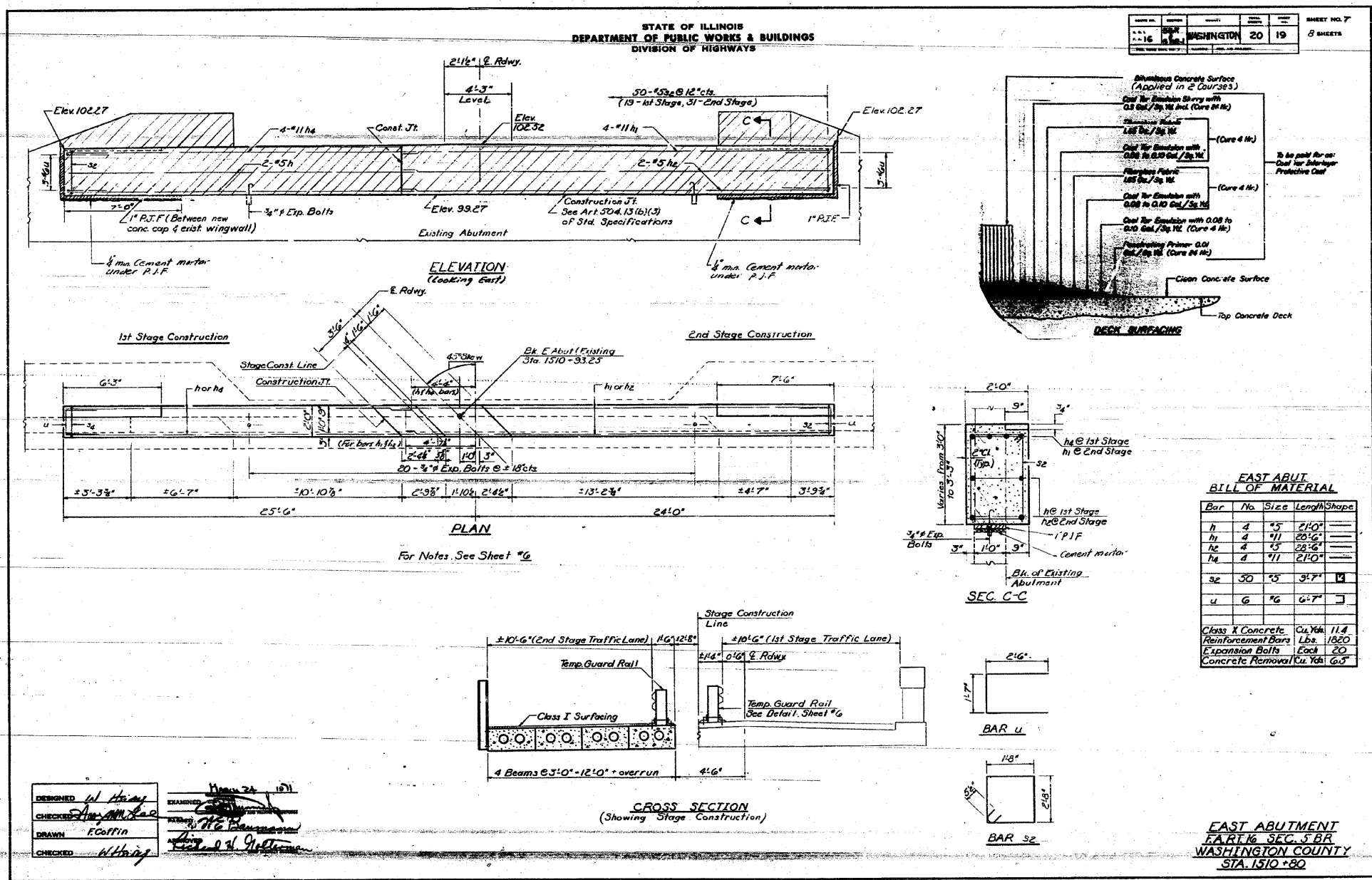
EXAMINED: *...*
FASSED: *...*
CHECKED: *...*

FOR INFORMATION ONLY

S.N. 095-0078

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING STRUCTURE PLANS
NAME	DATE	
		FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY SCALE: VERT. _____ DATE _____ HORIZ. _____ DRAWN BY _____ CHECKED BY _____

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PLOT SCALE = 50.0000' / 1" = REF



FOR INFORMATION ONLY

S.N. 095-0078

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		EXISTING STRUCTURE PLANS FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY SCALE: VERT. _____ DATE _____ DRAWN BY _____ CHECKED BY _____

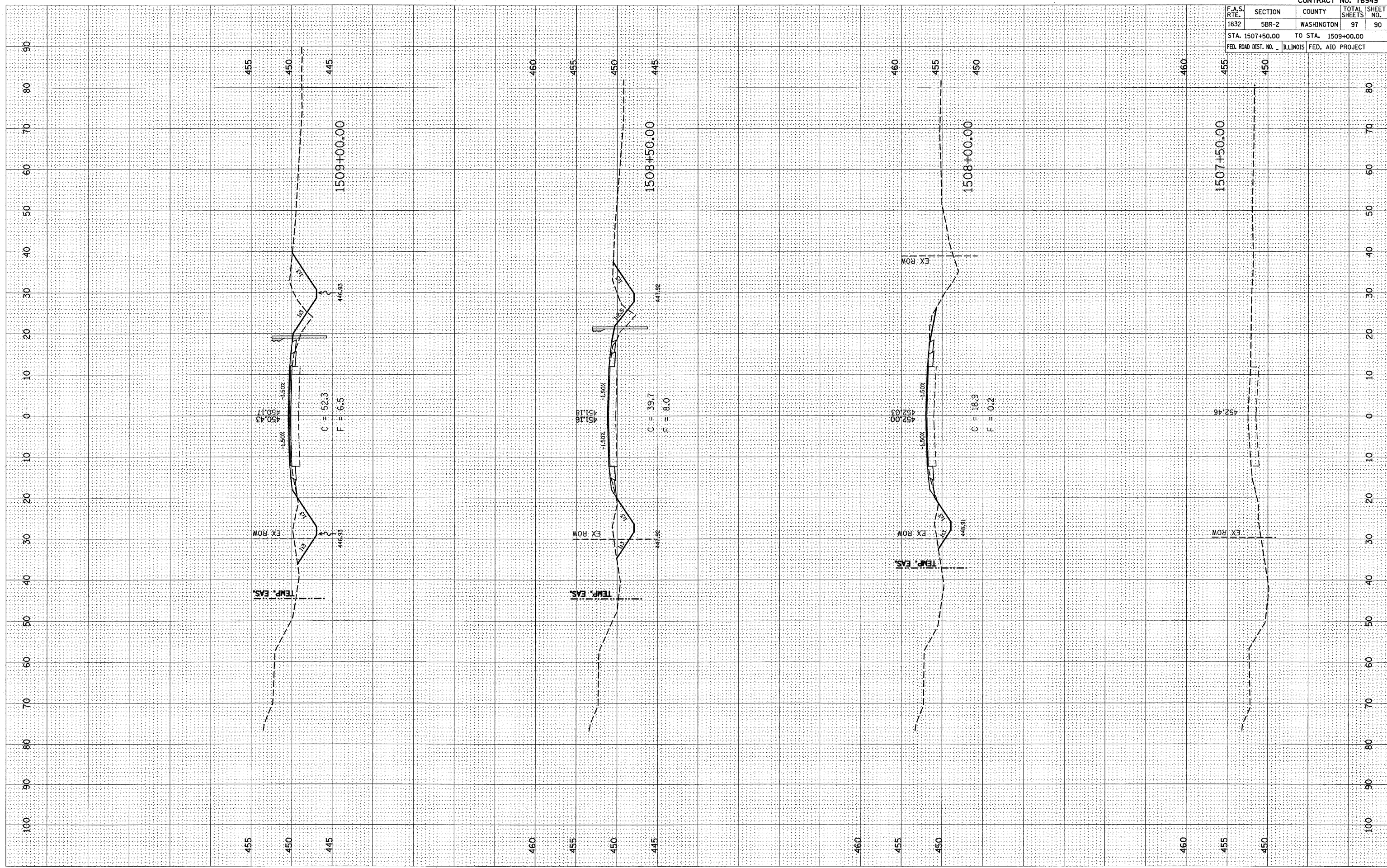
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 REFERENCE = 000000 / IN

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1832	5BR-2	WASHINGTON	97	90
STA. 1507+50.00		TO STA. 1509+00.00		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY NO.	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS CHECKED		
AREAS CHECKED		

ORIGINAL SURVEY NO.	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS CHECKED		
AREAS CHECKED		

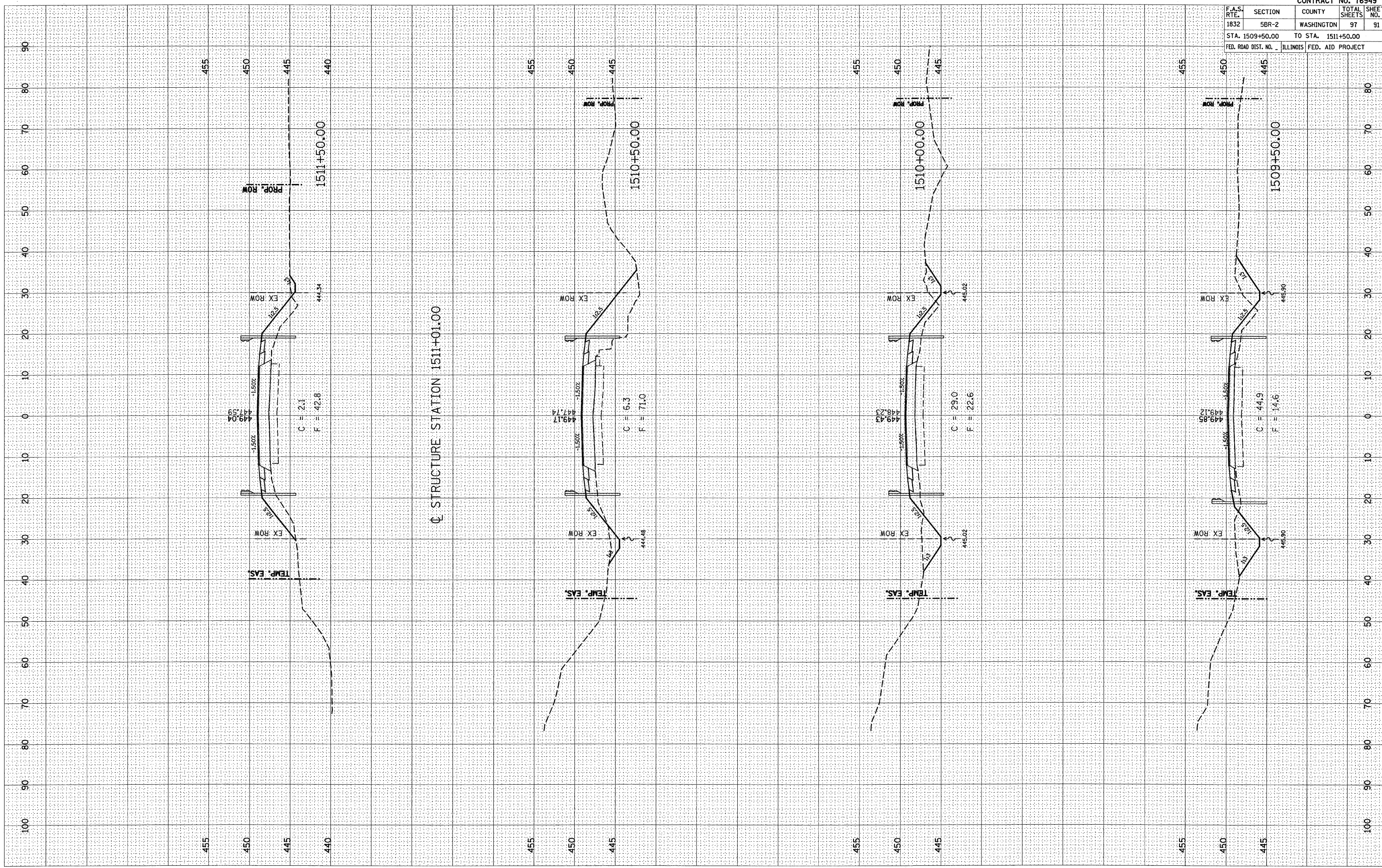
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 USER NAME = gbrun



PLOT DATE = 12/7/2007
 FILE NAME = c:\projects\ed09105\plan\wash\1511\1511.dwg
 PLOT SCALE = 1/8" = 1' IN.
 USER NAME = gplinh

ORIGINAL SURVEY NO. _____
 SURVEYED BY _____ DATE _____
 NOTE BOOK NO. _____
 TEMPLATE AREAS CHECKED _____

FINAL SURVEY NO. _____
 SURVEYED BY _____ DATE _____
 NOTE BOOK NO. _____
 TEMPLATE AREAS CHECKED _____



STRUCTURE STATION 1511+01.00

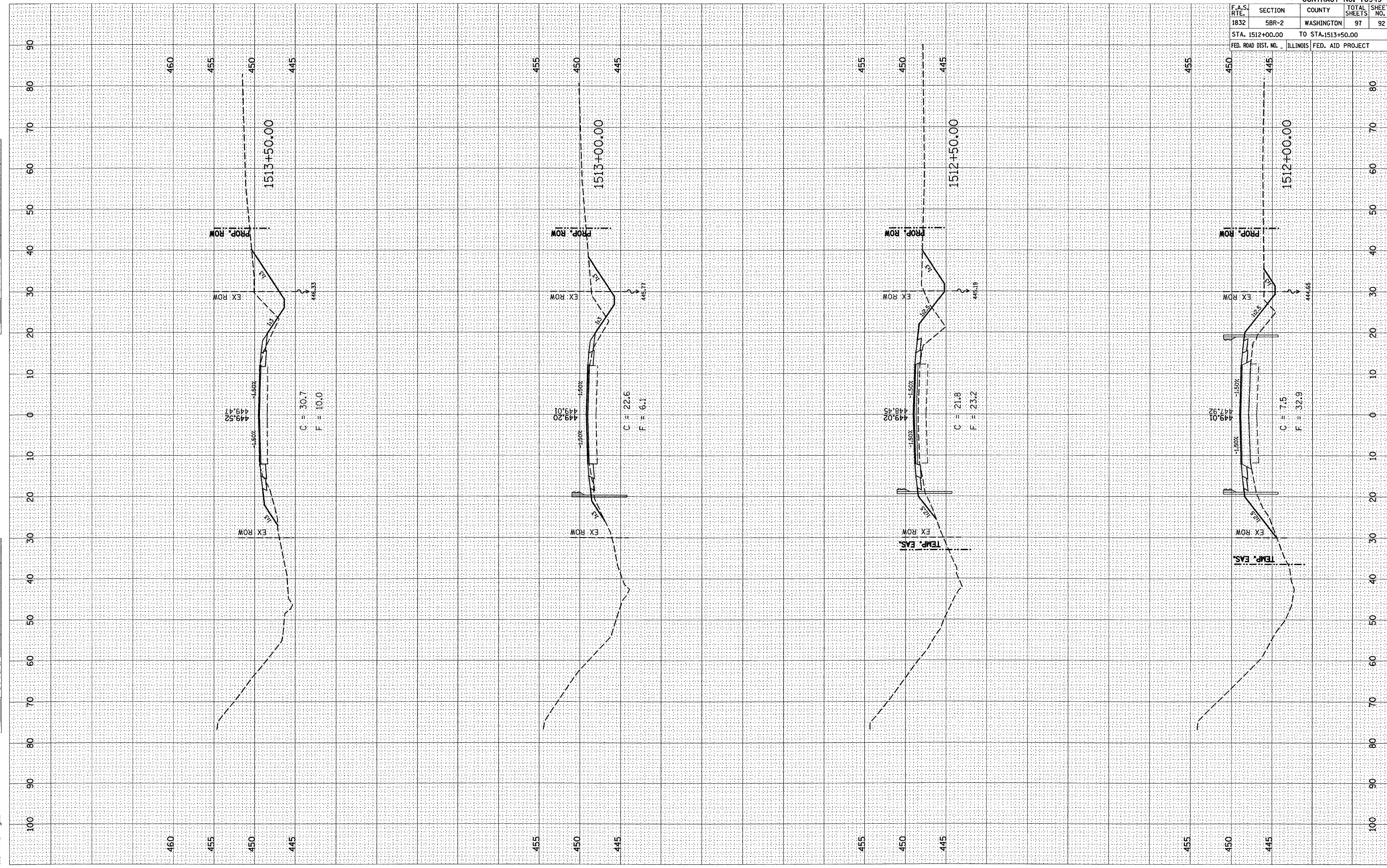
CONTRACT NO. 76949			
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS
1832	5BR-2	WASHINGTON	97
STA. 1509+50.00		TO STA.	1511+50.00
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT	

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	92
STA. 1512+00.00 TO STA. 1513+50.00				
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

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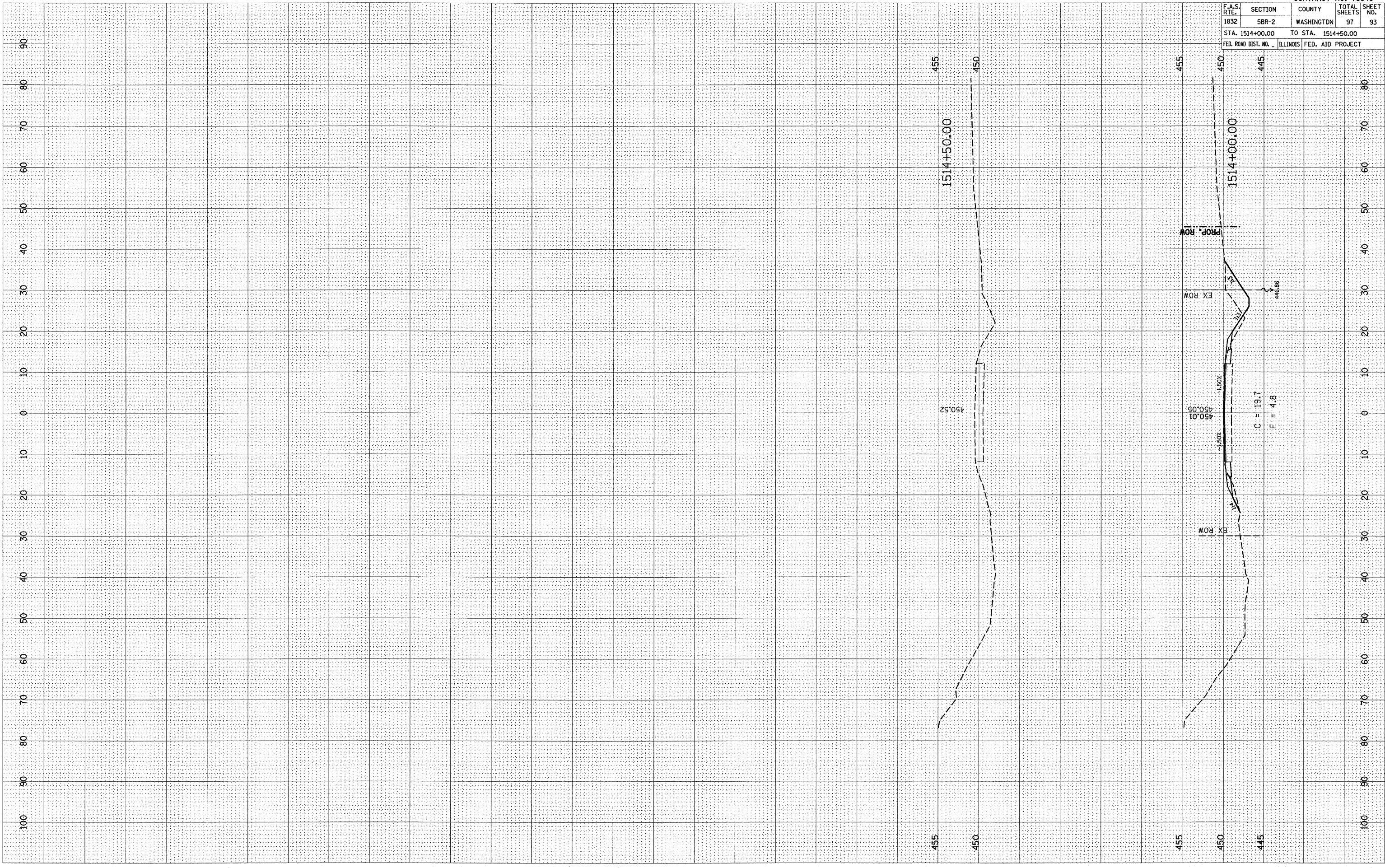


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	93
STA. 1514+00.00		TO STA. 1514+50.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

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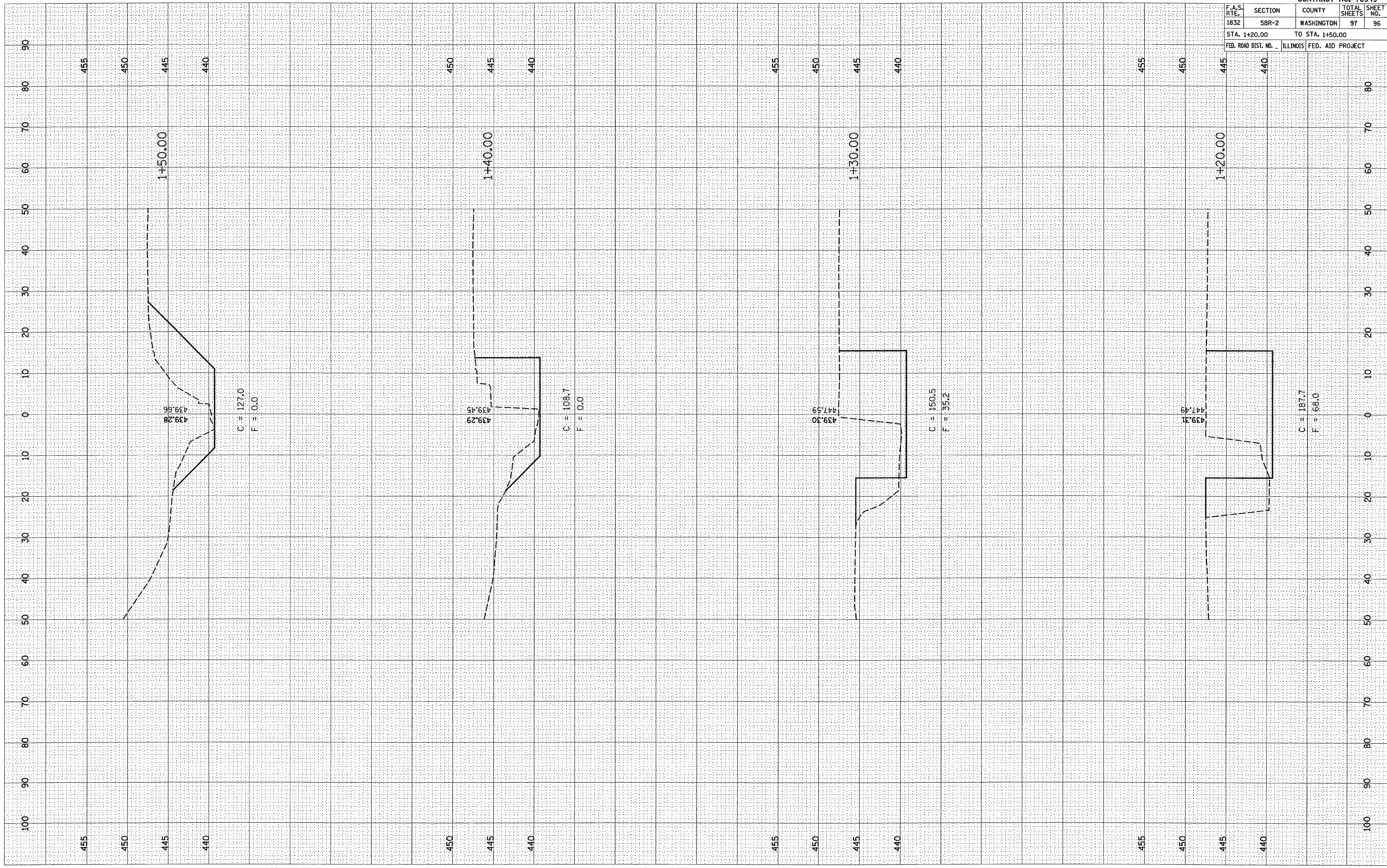


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	58R-2	WASHINGTON	97	96
STA. 1+20.00		TO STA. 1+50.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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

ORIGINAL SURVEY SURVEYED _____ DATE _____
 SURVEY PLOTTED _____ BY _____
 NOTE BOOK _____
 AREAS CHECKED _____
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 USER NAME = galink



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	97
STA. 1+60.00 TO STA. 1+80.00				
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT	

FINAL SURVEY NO. _____

DATE _____

BY _____

SURVEYED _____

TEMPERATURE _____

AREAS CHECKED _____

ORIGINAL SURVEY NO. _____

DATE _____

BY _____

SURVEYED _____

TEMPERATURE _____

AREAS CHECKED _____

PLOT DATE = 12/7/2007

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USER NAME = gpluh

