

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1926	04-00093-00-BR	UNION	22	1

CONTRACT NO. 99236

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3. EXISTING TYPICAL SECTION
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6. REMOVAL PLAN
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8. EROSION CONTROL PLAN
9. INTERSECTION AND ENTRANCE DETAILS
- 10.-14. BRIDGE PLANS
- 15.-22. CROSS SECTIONS

LIST OF STANDARDS

- | | |
|-------------|--|
| 280001-02 | TEMPORARY EROSION CONTROL SYSTEMS |
| 515001-02 | NAME PLATE FOR BRIDGES |
| 542401 | METAL END SECTION FOR PIPE CULVERTS |
| 630001-06 | STEEL PLATE BEAM GUARDRAIL |
| 631032-02 | TRAFFIC BARRIER TERMINAL, TYPE 6A |
| 635006-02 | REFLECTOR AND TERMINAL MARKER PLACEMENT |
| 635011-01 | REFLECTOR MARKER AND MOUNTING DETAILS |
| 702001-06 | TRAFFIC CONTROL DEVICES |
| 720001 | SIGN PANEL MOUNTING DETAILS |
| 720006 | SIGN PANEL ERECTION DETAILS |
| 720011 | METAL POST FOR SIGNS, MARKERS AND DELINEATORS |
| 729001 | APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS AND MARKERS) |
| B.L.R. 17-3 | TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION |
| B.L.R. 21-6 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS |
| B.L.R. 22-4 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC) |
| B.L.R. 23-1 | TRAFFIC BARRIER TERMINAL, TYPE 1 |

TOLL FREE

JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
(J.U.L.I.E.) TELEPHONE NUMBER
1-800-892-0123

UTILITY NOTE

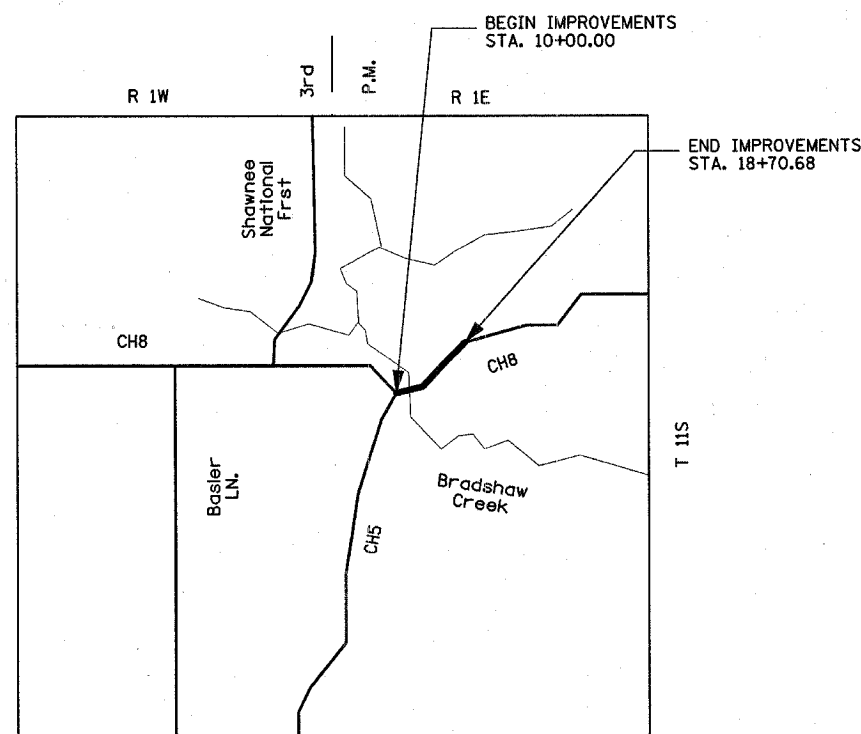
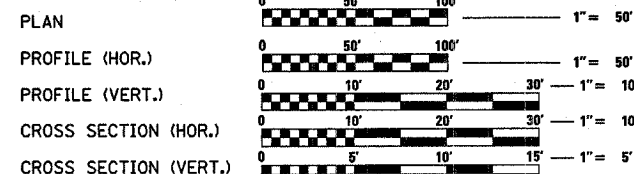
THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED AMONG THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS, ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

ADT (2004) = 250, SU = 4%
HIGHWAY CLASS: MAJOR COLLECTOR (NON-URBAN)
DESIGN SPEED: 30 MPH
DESIGN POLICY: FAPLHI (RURAL)
VARIANCES GRANTED: HORIZONTAL ALIGNMENT WITH 30 MPH DESIGN SPEED
COMMITMENTS: NONE

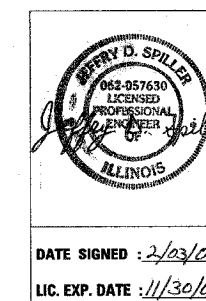
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

**BRIDGE REPLACEMENT AND REHABILITATION PROGRAM
F.A.S. ROUTE 1926
SECTION 04-00093-00-BR
PROJECT COUNTY HIGHWAY 8 OVER BRADSHAW CREEK
UNION COUNTY
PROJECT NO. BRS-1926 (106)
JOB NO. C-99-553-04**



TOTAL AND NET LENGTH OF IMPROVEMENT: 870 FT = 0.17 MILES



Illinois Licensed
Professional Service
Corporation
*184-001084

Hanson Professional Services Inc.
2900 W. Willow Knolls Road
Peoria, Illinois 61614-1129



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED: *February 06, 06*
Bole R. Boyd Jr.
LOCAL AGENCY REPRESENTATIVE

PASSED: *February 7, 2006*
Don W. Hill
ENGINEER OF LOCAL ROADS AND STREETS

APPROVED: *Feb 9, 2006*
Mary C. Lamie
MARY C. LAMIE, P.E.
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

GENERAL NOTES

- THE CONSTRUCTION SHALL BE GOVERNED BY THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", CURRENT EDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES ON SITE PRIOR TO ANY CONSTRUCTION AND WILL BE HELD RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THEIR FACILITIES. THE CONTRACTOR, ON SITE, SHALL DETERMINE THE EXACT LOCATIONS OF THE UTILITIES. THE CONTRACTOR SHALL CALL J.U.L.I.E. @ 1-800-892-0123 FOR UTILITY LOCATIONS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.
- ADJUSTMENTS OF PROPOSED GRADES TO MATCH EXISTING ENTRANCES OR OTHER FIELD CONDITIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
- ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES DURING ALL STAGES OF CONSTRUCTION.
- EXCESS MATERIAL, IF NOT USED FOR OTHER ON-SITE PURPOSES, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- THE WORK AREA SHALL BE POSITIVELY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION, AND TRAFFIC.
- ALL STEEL MEMBERS FROM THE EXISTING STRUCTURE SHALL BE SALVAGED AND STOCKED PILED ON SITE FOR PICK-UP BY UNION COUNTY.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE OWNER RESERVES THE RIGHT TO REDUCE ANY QUANTITY OR DELETE PAY ITEMS FROM THIS CONTRACT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCY IMMEDIATELY.
- APPLICATION RATES:
COURSE AGGREGATE: 2.05 TON/CU YD
TEMPORARY EROSION CONTROL SEEDING: 100 LB/ACRE
RIPRAP: 1.50 TON/CU YD
- SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND APPLICABLE STANDARDS. ALL DEVICES MUST MEET NCHRP 350 REQUIREMENTS.

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE X081-2A

CODE NO.	DESCRIPTION	QUANTITY	UNITS
20100500	TREE REMOVAL, ACRES	ACRE	0.46
20200100	EARTH EXCAVATION	CU YD	11050
25000210	SEEDING, CLASS 2A	ACRE	1.44
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	130
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	130
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	130
25100115	MULCH, METHOD 2	ACRE	1.44
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	432
28000300	TEMPORARY DITCH CHECKS	EACH	52
28100809	STONE DUMPED RIPRAP, CLASS A5	TON	1287
35100100	AGGREGATE BASE COURSE, TYPE A	TON	972
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	145
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	68
50200100	STRUCTURE EXCAVATION	CU YD	46
50300225	CONCRETE STRUCTURES	CU YD	51.2
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2232
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5020
50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT	169
51201600	FURNISHING STEEL PILES, HP 12x53	FOOT	160
51202700	DRIVING STEEL PILES	FOOT	160
51203600	TEST PILE, STEEL HP 12x53	EACH	2
51204600	METAL SHOES	EACH	10
51500100	NAME PLATE	EACH	1
54200640	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 15 IN	FOOT	36
54201483	PIPE CULVERTS, TYPE 2, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18 IN	FOOT	68
54213870	STEEL END SECTIONS, 15"	EACH	2
54213873	STEEL END SECTIONS, 18"	EACH	2
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
72000100	SIGN PANEL - TYPE 1	SQ FT	15
73000100	WOOD SIGN SUPPORT	FOOT	37.5
Z0065000	SETTING PILES IN ROCK	EACH	5
LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4
* SEE SPECIAL PROVISIONS AND/OR DETAILS IN PLANS			
67100100	MOBILIZATION	L SUM	1

EDGE OF PAVEMENT STATION, OFFSET, & ELEVATION

STATION	OFFSET LT.	ELEV. LT.	OFFSET RT.	ELEV. RT.	CL ELEV.
10+54.91	-11.00	460.88	11.00	460.71	460.88
11+00.00	-11.00	461.67	11.00	461.82	461.84
11+50.00	-15.00	462.73	15.00	463.06	462.90
12+00.00	-15.00	463.80	15.00	464.13	463.96
12+50.00	-11.00	464.70	11.00	465.36	465.03
13+00.00	-11.00	465.46	11.00	466.72	466.09
13+50.00	-11.00	466.51	11.00	467.83	467.17
14+00.00	-11.00	467.89	11.00	469.21	468.55
14+50.00	-11.00	469.68	11.00	471.00	470.34
15+00.00	-11.00	471.92	11.00	473.13	472.53
15+50.00	-11.00	474.81	11.00	475.41	475.11
16+00.00	-11.00	478.11	11.00	478.09	478.10
16+50.00	-11.00	481.80	11.00	481.18	481.49
17+00.00	-11.00	485.90	11.00	484.66	485.28
17+50.00	-11.00	489.94	11.00	488.80	489.37
18+00.00	-11.00	493.75	11.00	493.21	493.48
18+40.00	-9.54	496.79	9.64	496.62	496.77

SUGGESTED SEQUENCE OF CONSTRUCTION

- CONSTRUCT TEMPORARY EROSION CONTROL MEASURES.
- CONSTRUCT NEW STRUCTURE.
- BEGIN ROADWAY CONSTRUCTION TO THE ROADWAY SUB GRADE.
- INSTALL TRAFFIC CONTROL FOR ROAD CLOSURE. (NO MARKED DETOUR NEEDED)
- CONTINUE ROADWAY CONSTRUCTION TO THE ROADWAY SUB GRADE.
- CONSTRUCT NEW ROADWAY.
- REMOVE REMAINING EXISTING ROADWAY PAVEMENT.
- FINAL SHAPE AND SEED PROJECT AREA AND FINISH MISCELLANEOUS ROAD WORK ITEMS.
- OPEN ROADWAY TO TRAFFIC.

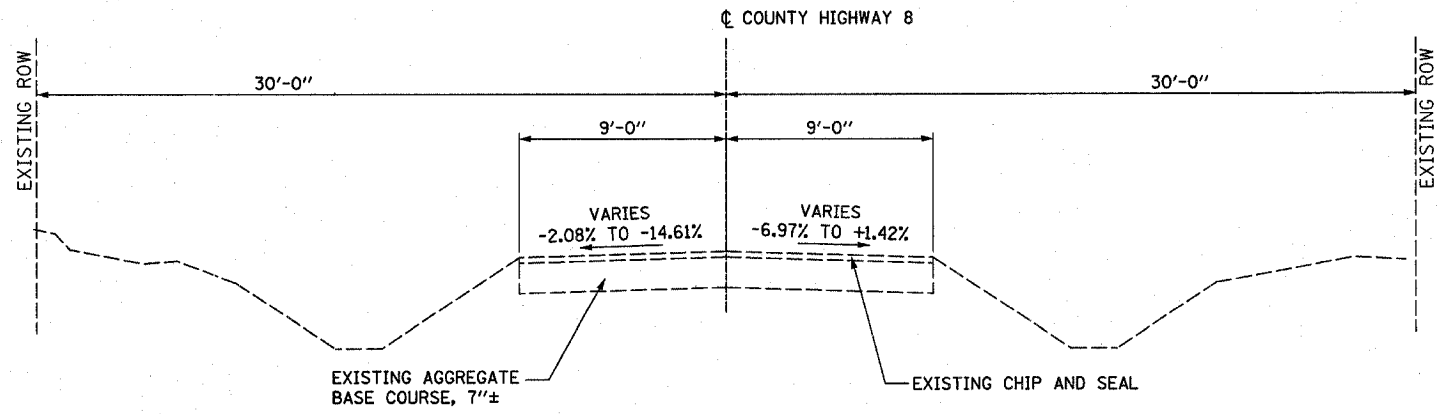


LAYOUT: RLA 01/24/06
 DRAWN: RLA 01/24/06
 REVIEWED: JDS 01/24/06

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.S. 1926
 SECTION 04-00093-00-BR
 COUNTY HIGHWAY 8 OVER BRADSHAW CREEK
**SUMMARY OF QUANTITIES
 AND GENERAL NOTES**
 SCALE: VERT. _____
 HORIZ. _____
 DATE 02/03/06
 DRAWN BY RLA
 CHECKED BY JDS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1926	04-00093-00-BR	UNION	22	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 99236				



EXISTING TYPICAL SECTION



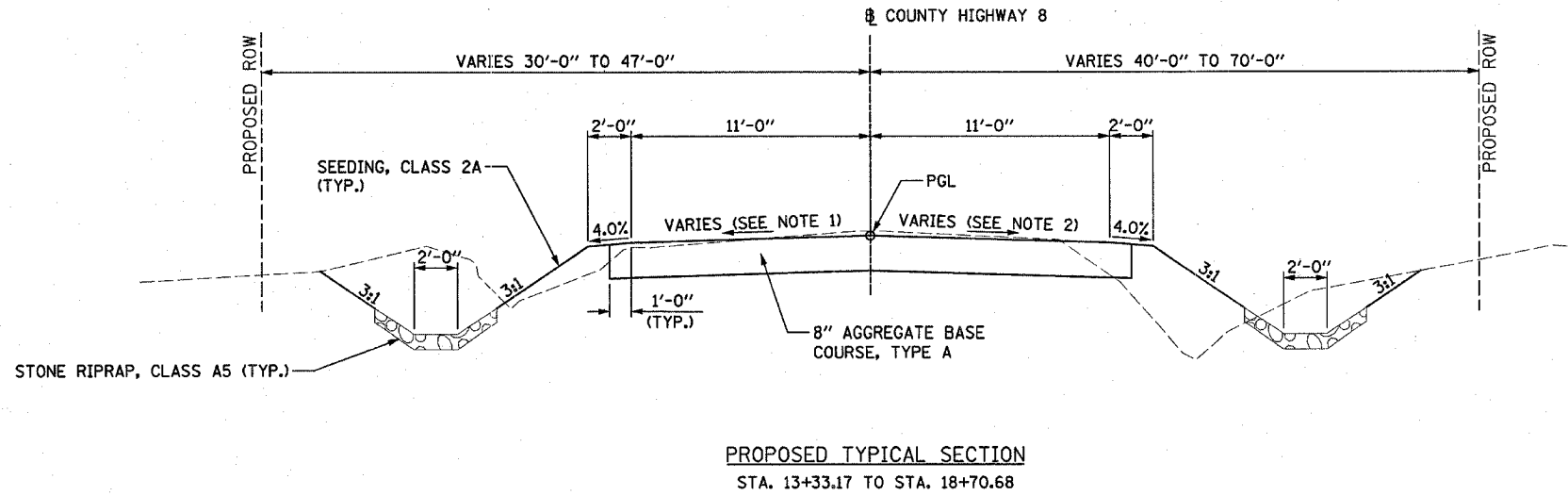
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.S. 1926
 SECTION 04-00093-00-BR
 UNION COUNTY
 COUNTY HIGHWAY 8 OVER BRADSHAW CREEK
 EXISTING TYPICAL SECTION
 SCALE: VERT. DRAWN BY RLA
 HORIZ. CHECKED BY JDS
 DATE 02/03/06

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1926	04-00093-00-BR	UNION	22	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 99236				



NOTE:

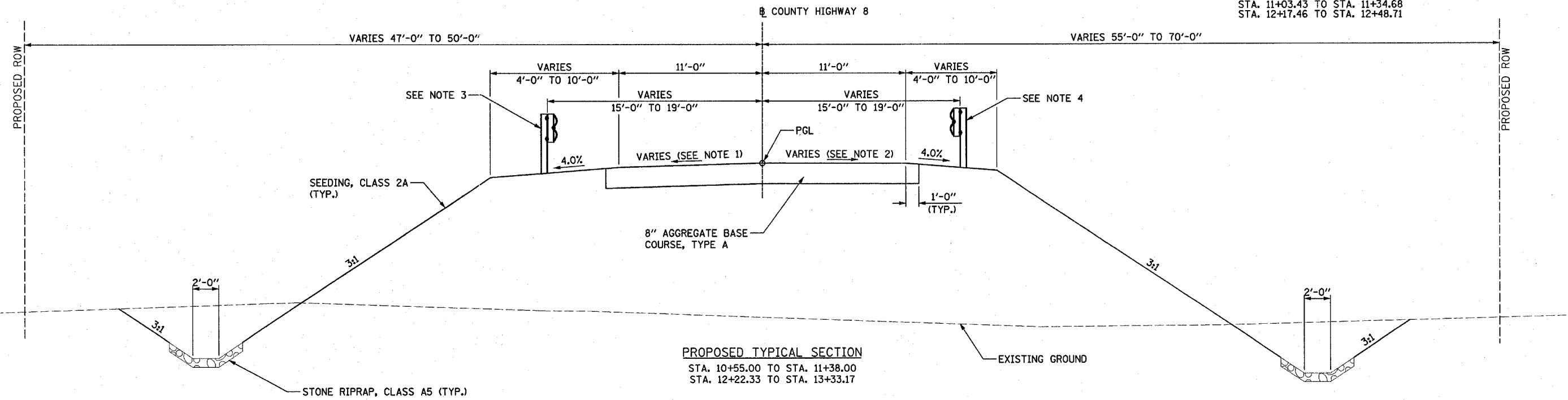
- *LEFT SIDE**
 - STA. 10+54.91 TO STA. 10+80.00 = TRANSITION FROM 0.40% TO -1.50%
 - STA. 10+80.00 TO STA. 12+23.00 = -1.50%
 - STA. 12+23.00 TO STA. 13+04.60 = TRANSITION FROM -1.50% TO -6.00%
 - STA. 13+04.60 TO STA. 14+90.86 = -6.00%
 - STA. 14+90.86 TO STA. 15+98.86 = TRANSITION FROM -6.00% TO 0.00%
 - STA. 15+98.86 TO STA. 17+06.86 = TRANSITION FROM 0.00% TO 6.00%
 - STA. 17+06.86 TO STA. 17+35.68 = 6.00%
 - STA. 17+35.68 TO STA. 18+43.68 = TRANSITION FROM 6.00% TO 0.00%
 - STA. 18+43.68 TO STA. 18+69.94 = TRANSITION FROM 0.00% TO -1.50%

- *RIGHT SIDE**
 - STA. 10+54.91 TO STA. 10+75.00 = -1.50%
 - STA. 10+75.00 TO STA. 11+29.11 = TRANSITION FROM -1.50% TO 1.50%
 - STA. 11+29.11 TO STA. 12+23.00 = 1.50%
 - STA. 12+23.00 TO STA. 13+04.60 = TRANSITION FROM 1.50% TO 6.00%
 - STA. 13+04.60 TO STA. 14+90.86 = 6.00%
 - STA. 14+90.86 TO STA. 15+98.86 = TRANSITION FROM 6.00% TO 0.00%
 - STA. 15+98.86 TO STA. 17+06.86 = TRANSITION FROM 0.00% TO -6.00%
 - STA. 17+06.86 TO STA. 17+35.68 = -6.00%
 - STA. 17+35.68 TO STA. 18+16.68 = TRANSITION FROM -6.00% TO -1.50%
 - STA. 18+16.68 TO STA. 18+69.81 = -1.50%

* PROPOSED CROSS SLOPE SIGNAGE BASED UPON STARTING AT PGL AND MOVING IN DIRECTION INDICATED IN TYPICAL SECTION.

- GUARDRAIL LIMITS**
 - TRAFFIC BARRIER TERMINAL TYPE 1
 - STA. 10+73.96 TO STA. 11+11.46
 - STA. 12+56.76 TO STA. 12+94.26
 - TRAFFIC BARRIER TERMINAL TYPE 5A
 - STA. 11+11.46 TO STA. 11+42.71
 - STA. 12+25.51 TO STA. 12+56.76

- GUARDRAIL LIMITS**
 - TRAFFIC BARRIER TERMINAL TYPE 1
 - STA. 10+65.93 TO STA. 11+03.43
 - STA. 12+48.71 TO STA. 12+86.21
 - TRAFFIC BARRIER TERMINAL TYPE 5A
 - STA. 11+03.43 TO STA. 11+34.68
 - STA. 12+17.46 TO STA. 12+48.71



INTERSECTION OMISSION
STA. 10+00.00 TO STA. 10+55.00

BRIDGE OMISSION
STA. 11+38.00 TO STA. 12+22.33

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 1926
SECTION 04-00093-00-BR
UNION COUNTY
COUNTY HIGHWAY 8 OVER BRADSHAW CREEK

TYPICAL SECTIONS

SCALE: VERT. DRAWN BY RLA
 HORIZ. CHECKED BY JDS
DATE 02/03/06



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LAYOUT	RLA	08/17/04	rd
DRAWN	RLA	01/24/05	07/31/2006
REVIEWED	JDS	01/24/05	1/24/05 04/2005 C:\M\Sheep-C-5177\PC2.dgn

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1926	04-00093-00-BR	UNION	22	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 99236				

SIGN PANEL - TYPE 1

STA. 11+25.00, 21.0' RT	5	SQ FT
STA. 18+68.00, 16.0' LT.	5	SQ FT
STA. 19+19.00, 13.7' LT.	5	SQ FT
TOTAL	15	SQ FT

AGGREGATE SURFACE COURSE, TYPE A

STA. 12+70.23, RT. TO STA. 13+43.68, RT.	248	SQ YD
STA. 17+50.82, RT. TO STA. 18+09.42, RT.	70	SQ YD
TOTAL	318	SQ YD
TOTAL	145	TON

WOOD SIGN SUPPORT

STA. 11+25.00, 21.0' RT	12.5	FEET
STA. 18+68.00, 16.0' LT.	12.5	FEET
STA. 19+19.00, 13.7' LT.	12.5	FEET
TOTAL	37.5	FEET

TRAFFIC BARRIER TERMINAL, TYPE 5A

STA. 11+03.43 TO STA. 11+34.68, RT	1	EACH
STA. 11+11.46 TO STA. 11+42.71, LT	1	EACH
STA. 12+17.46 TO STA. 12+48.71, RT	1	EACH
STA. 12+25.51 TO STA. 12+56.76, LT	1	EACH
TOTAL	4	EACH

TEMPORARY EROSION CONTROL SEEDING

1.44 ACRES (100 LB/ACRE) x 3 APPLICATIONS = 432 LB

TOPSOIL, SEEDING & FERTILIZER NUTRIENTS

SEEDING, CLASS 2A (ACRE)	MULCH, METHOD 2 (ACRE)	NITROGEN FERTILIZER NUTRIENT 90 (LB/ACRE) (LB)	PHOSPHORUS FERTILIZER NUTRIENT 90 (LB/ACRE) (LB)	POTASSIUM FERTILIZER NUTRIENT 90 (LB/ACRE) (LB)
TOTAL 1.44	1.44	130	130	130

TREE REMOVAL

STA. 10+20.46, 53.21' RT TO STA. 11+64.61, 39.32' LT	0.23	ACRE
STA. 11+93.95, 48.71' RT TO STA. 12+51.13, 48.96' LT	0.07	ACRE
STA. 13+10.49, 45.89' LT TO STA. 16+50.85, 2.11' RT	0.16	ACRE
TOTAL	0.46	ACRE

TRAFFIC BARRIER TERMINAL, TYPE 1

STA. 10+65.93 TO STA. 11+03.43, RT	1	EACH
STA. 10+73.96 TO STA. 11+11.46, LT	1	EACH
STA. 12+48.71 TO STA. 12+86.21, RT	1	EACH
STA. 12+56.76 TO STA. 12+94.26, LT	1	EACH
TOTAL	4	EACH

STONE DUMPED RIPRAP, CLASS A5

ROADWAY PLANS	720	TON
BRIDGE PLANS	567	TON
TOTAL	1287	TON

TEMPORARY DITCH CHECKS

STA. 12+00.00 TO STA. 15+75.00, RT	11	EACH
STA. 12+00.00 TO STA. 16+00.00, LT	13	EACH
STA. 15+75.00 TO STA. 18+70.68, RT	15	EACH
STA. 16+00.00 TO STA. 18+70.68, LT	13	EACH
TOTAL	52	EACH

PIPE CULVERT REMOVAL

STA. 12+76.10 TO STA. 13+08.86, LT	31	FEET
STA. 17+58.11 TO STA. 17+94.00, LT	37	FEET
TOTAL	68	FEET

AGGREGATE BASE COURSE, TYPE A

STA. 10+00.00 TO STA. 11+38.00	425	SQ YD
STA. 12+22.33 TO STA. 18+70.00	1708	SQ YD
	2133	SQ YD
TOTAL	972	TON

PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 15 IN.

STA.17+62.52, 22.4' LT TO STA. 17+97.28, 20.2' LT	36	FEET
TOTAL	36	FEET

EARTHWORK

A EARTH EXCAVATION (CU YD)	B EMBANKMENT* (CU YD)	C ADJ. EARTH EXCAVATION (Ax(1-0.25)) (CU YD)	D WASTE** (C-B) (CU YD)
TOTAL 11,050	3,250	8,288	5,038

- * NO PAY ITEM FOR FURNISHED EXCAVATION ASSUME EXCAVATED MATERIAL WILL BE USED FOR ALL REQUIRED EMBANKMENT AREAS.
- ** ADJUSTED FILL IS BASED ON 25% SHRINKAGE FACTOR.

EARTH EXCAVATION AND EMBANKMENT QUANTITIES DETERMINED FROM CROSS SECTIONS USING END AREA METHOD.

STEEL END SECTIONS, 15"

STA. 17+62.52, 22.4' LT	1	EACH
STA. 17+97.28, 20.2' LT	1	EACH
TOTAL	2	EACH

PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18 IN.

STA. 12+89.85, 46.9' RT TO STA. 13+47.81, 31.6' RT	68	FEET
TOTAL	68	FEET

STEEL END SECTIONS, 18"

STA. 12+89.85, 46.9' RT	1	EACH
STA. 13+47.81, 31.6' RT	1	EACH
TOTAL	2	EACH

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.S. 1926
 SECTION 04-00093-00-BR
 COUNTY HIGHWAY 8 OVER BRADSHAW CREEK

SCHEDULE OF QUANTITIES

SCALE: VERT. DRAWN BY RLA
 HORIZ. CHECKED BY JDS
 DATE 02/03/06

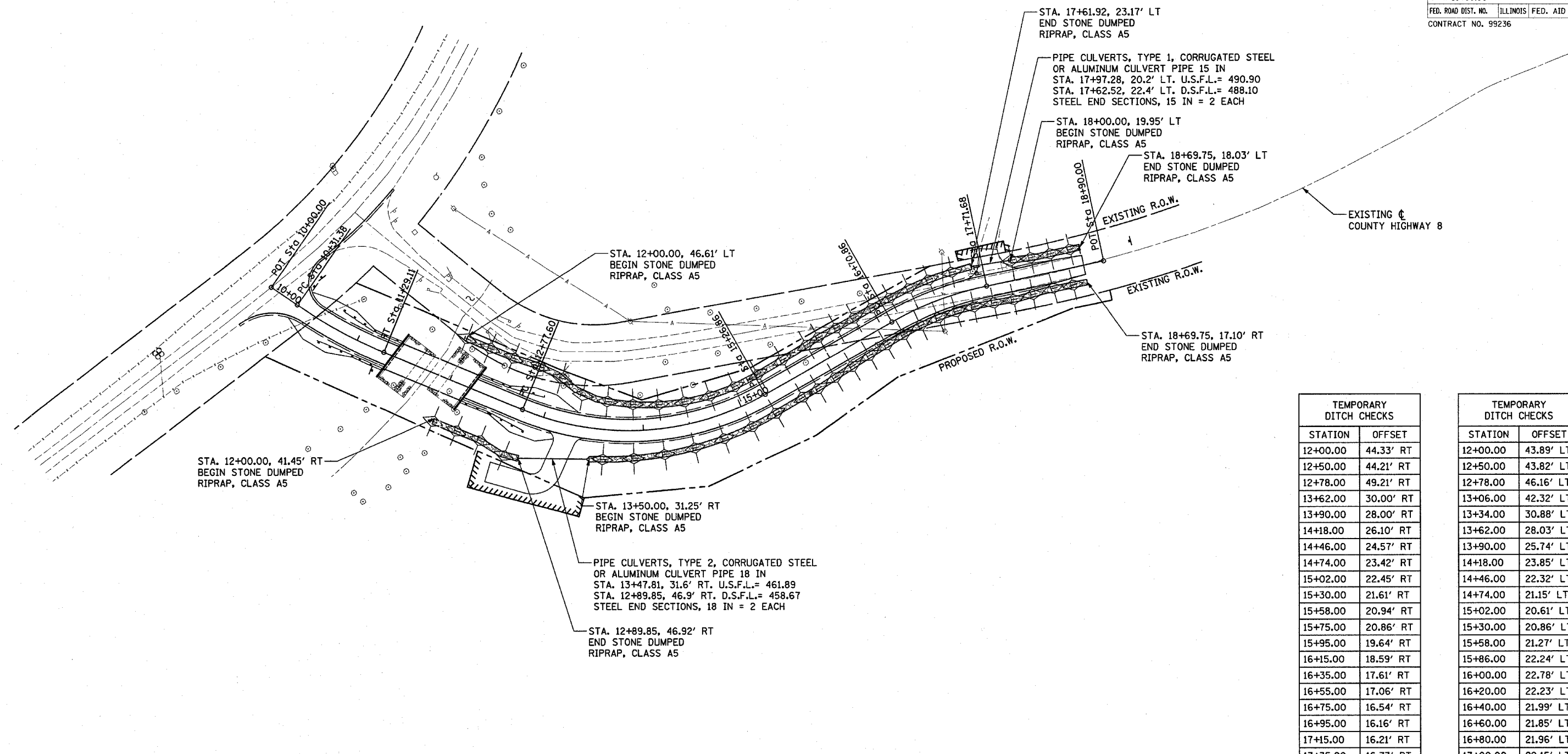


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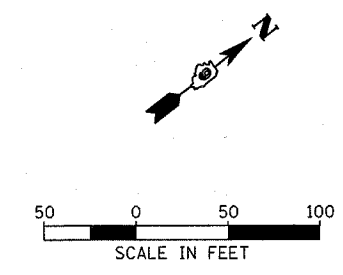
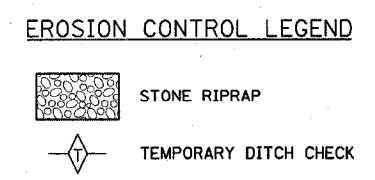
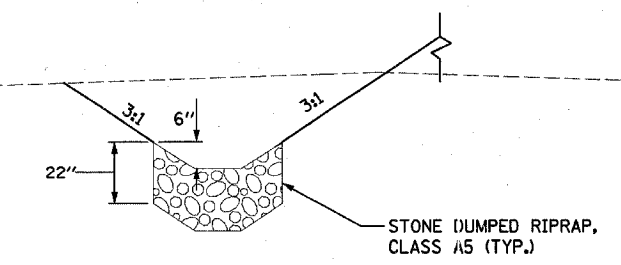
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 DRAWN RLA 01/24/06
 REVIEWED JUS 01/24/06
 NO. 04-00093-00-BR-05-01

F.A. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1926	04-00093-00-BR	UNION	22	8
STA. 10+00.00		TO STA. 18+90.00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 99236				

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TEMPORARY DITCH CHECKS		TEMPORARY DITCH CHECKS	
STATION	OFFSET	STATION	OFFSET
12+00.00	44.33' RT	12+00.00	43.89' LT
12+50.00	44.21' RT	12+50.00	43.82' LT
12+78.00	49.21' RT	12+78.00	46.16' LT
13+62.00	30.00' RT	13+06.00	42.32' LT
13+90.00	28.00' RT	13+34.00	30.88' LT
14+18.00	26.10' RT	13+62.00	28.03' LT
14+46.00	24.57' RT	13+90.00	25.74' LT
14+74.00	23.42' RT	14+18.00	23.85' LT
15+02.00	22.45' RT	14+46.00	22.32' LT
15+30.00	21.61' RT	14+74.00	21.15' LT
15+58.00	20.94' RT	15+02.00	20.61' LT
15+75.00	20.86' RT	15+30.00	20.86' LT
15+95.00	19.64' RT	15+58.00	21.27' LT
16+15.00	18.59' RT	15+86.00	22.24' LT
16+35.00	17.61' RT	16+00.00	22.78' LT
16+55.00	17.06' RT	16+20.00	22.23' LT
16+75.00	16.54' RT	16+40.00	21.99' LT
16+95.00	16.16' RT	16+60.00	21.85' LT
17+15.00	16.21' RT	16+80.00	21.96' LT
17+35.00	16.73' RT	17+00.00	22.15' LT
17+55.00	17.23' RT	17+20.00	22.37' LT
17+75.00	18.03' RT	17+40.00	22.36' LT
17+95.00	18.77' RT	18+00.00	19.91' LT
18+15.00	17.80' RT	18+20.00	18.38' LT
18+35.00	16.11' RT	18+40.00	18.02' LT
18+55.00	17.07' RT	18+60.00	18.02' LT



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 1926
SECTION 04-00093-00-BR
UNION COUNTY
COUNTY HIGHWAY 8 OVER BRADSHAW CREEK

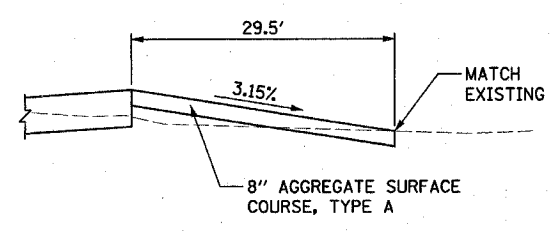
EROSION CONTROL PLAN

SCALE: VERT. 1"=50'
HORIZ. 1"=50'
DATE 02/03/06

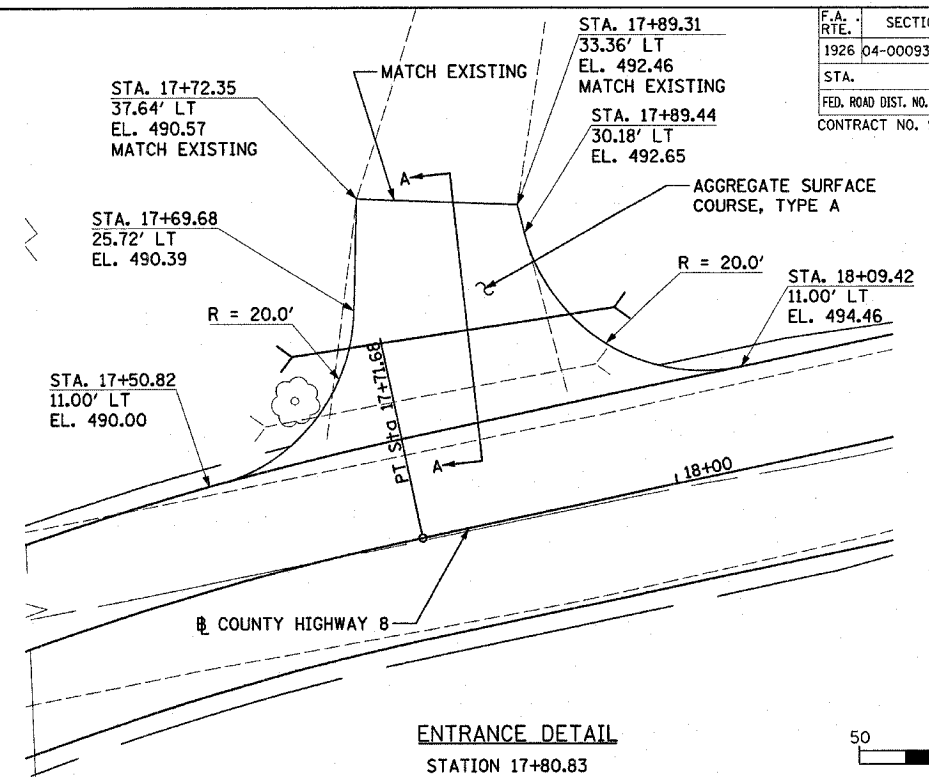
DRAWN BY RLA
CHECKED BY JDS

LAYOUT RLA 08/17/04 Hc
DRAWN RLA 01/24/05 JDS
REVIEWED JDS 01/24/05 JDS
02/03/06 JDS

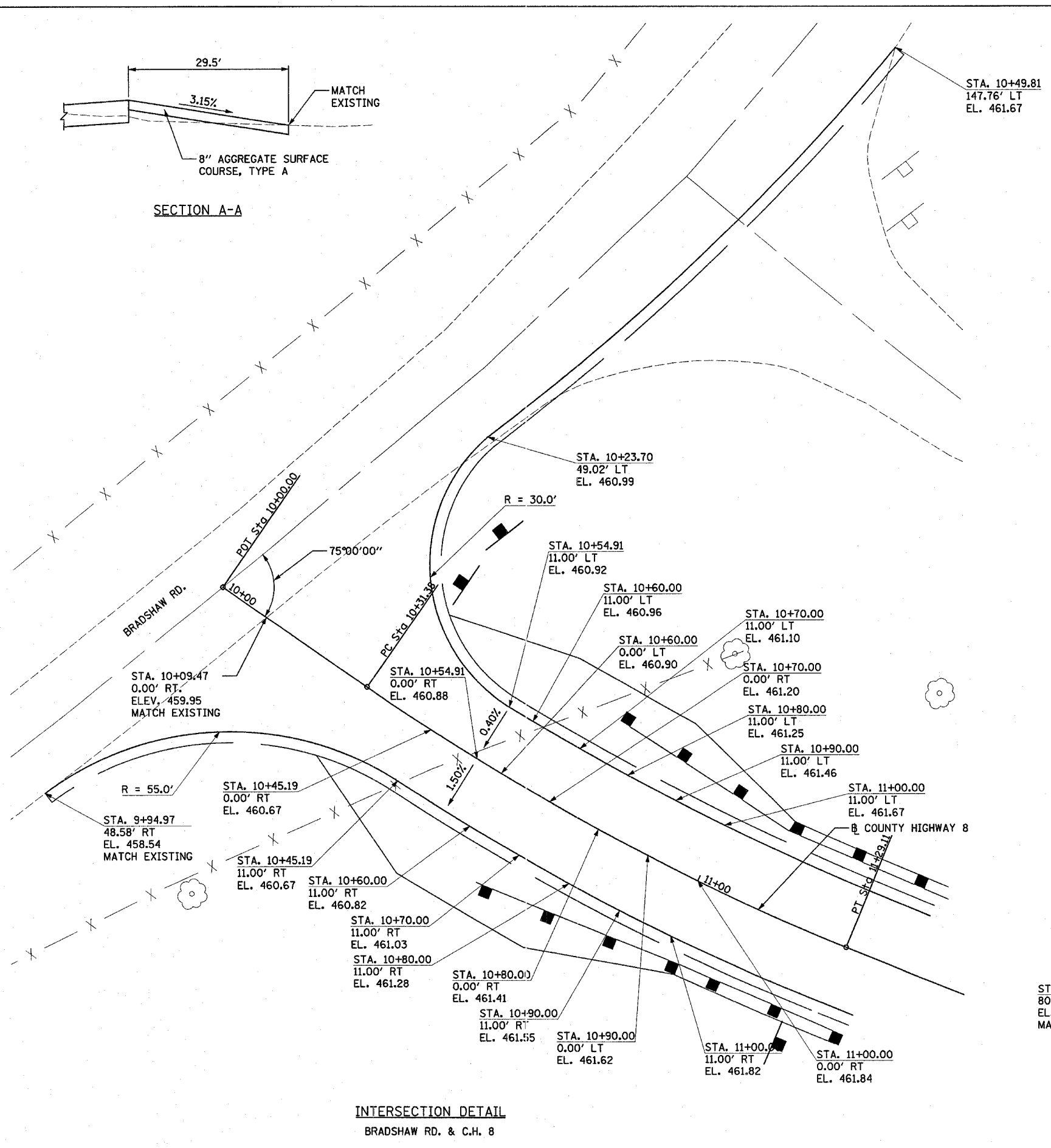
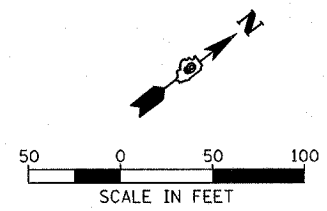
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1926	04-00093-00-BR	UNION	22	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 99236				



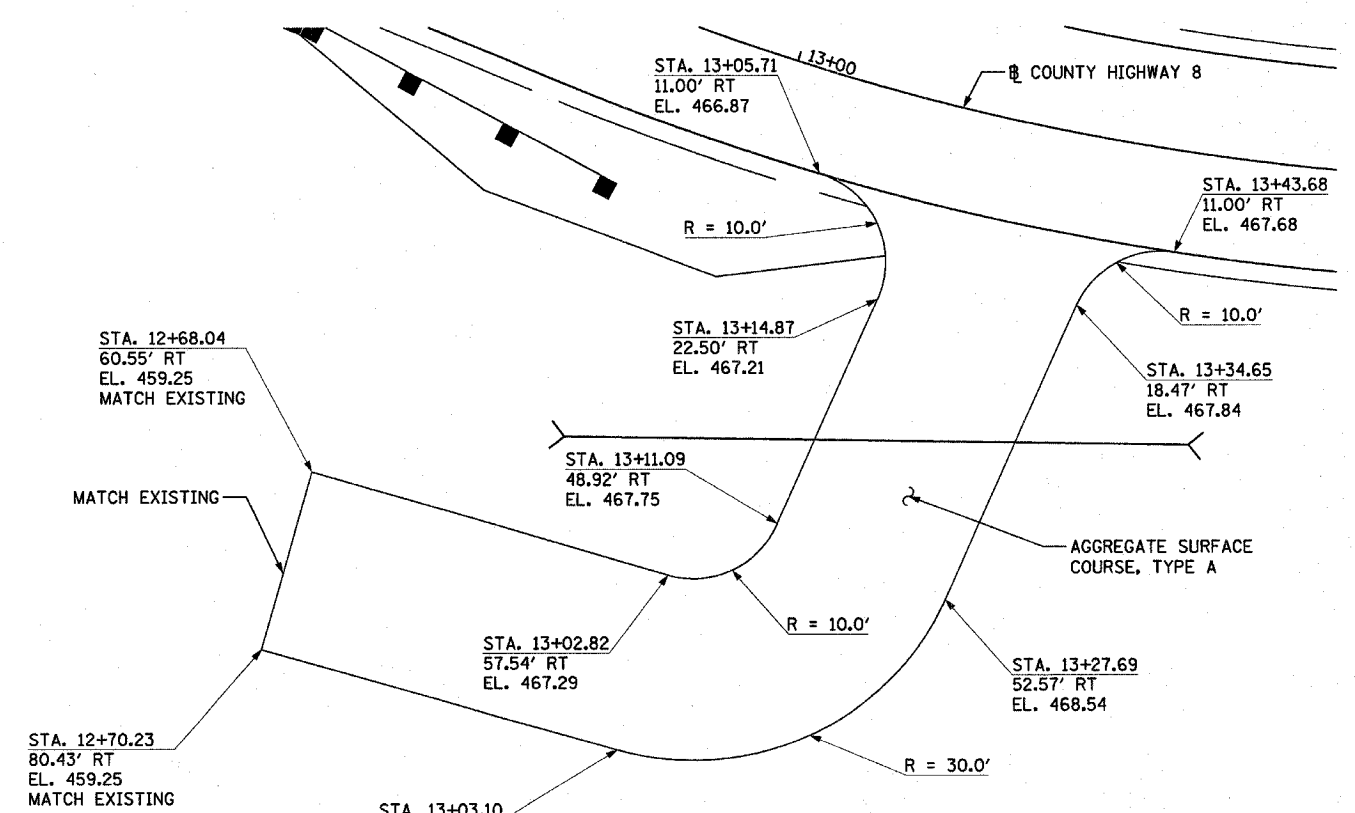
SECTION A-A



ENTRANCE DETAIL
STATION 17+80.83



INTERSECTION DETAIL
BRADSHAW RD. & C.H. 8



ENTRANCE DETAIL
STATION 13+25.00

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 1926
SECTION 04-00093-00-BR
UNION COUNTY
COUNTY HIGHWAY 8 OVER BRADSHAW CREEK

INTERSECTION AND
ENTRANCE DETAILS

SCALE: VERT. DRAWN BY RLA
 HORIZ. CHECKED BY JDS
 DATE 02/03/06

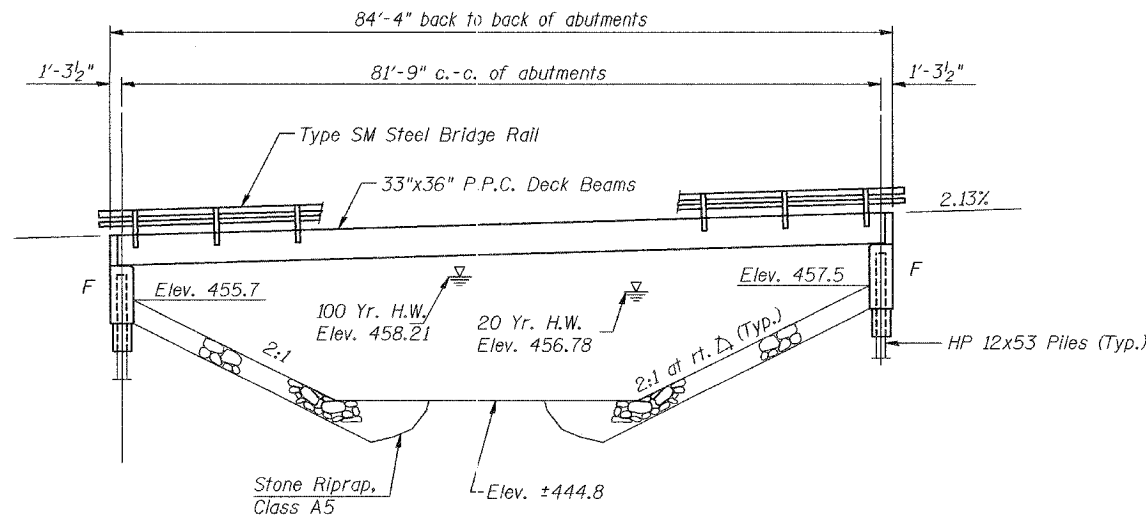
HANSON Professional Services Inc. Copyright Hanson Professional Services Inc. 2006
 LAYOUT RLA 10/07/05 rld
 DRAWN RLA 10/24/05 rld
 REVIEWED JDS 10/24/05 rld
 04-00093-00-BR-09

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1926	04-00093-00-BR	UNION	22	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

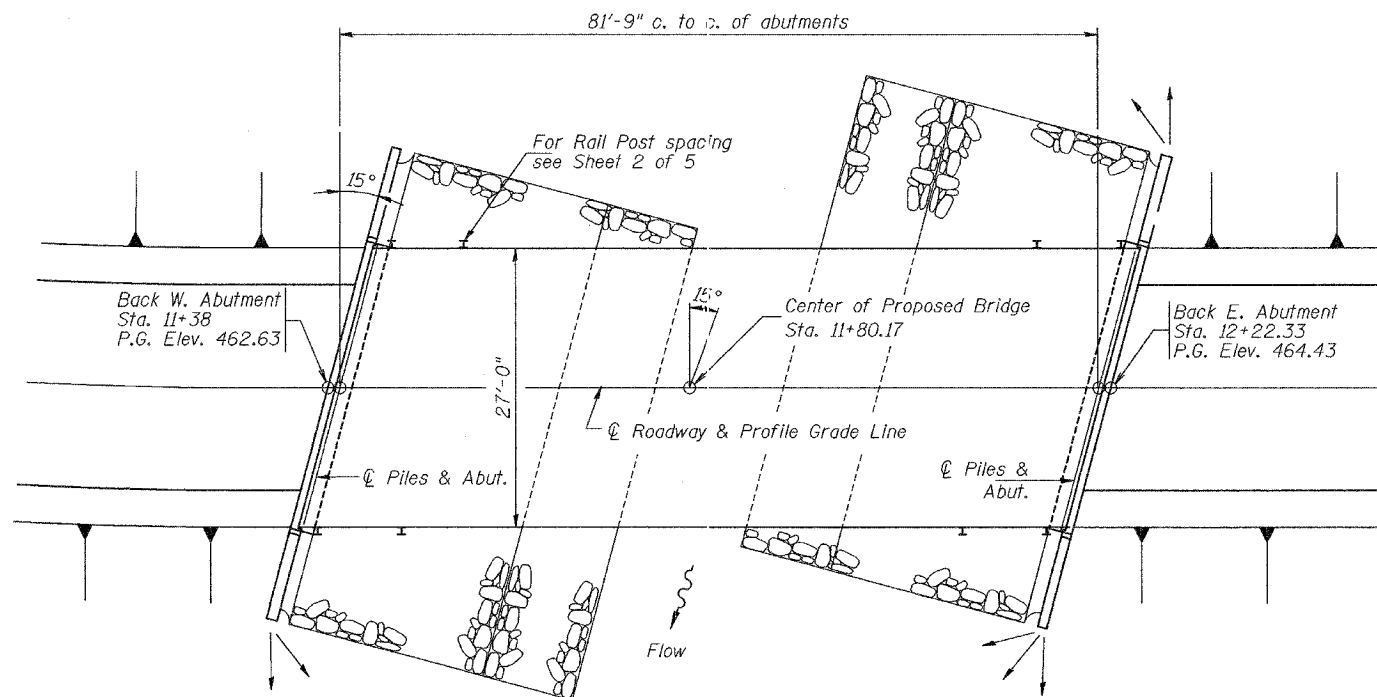
BENCHMARK:
Mag. nail over washers on Northeast wingwall of the existing bridge over Bradshaw Creek. Elev. 464.19'

EXISTING STRUCTURE:
The existing bridge is a single span timber deck structure, 57.8' back to back of closed concrete abutments, 19.7' out to out of deck.

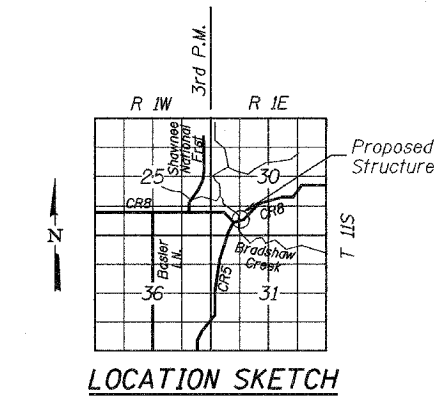
SALVAGE:
Existing structural steel beams to be stock piled for pick-up by the County.



ELEVATION



PLAN

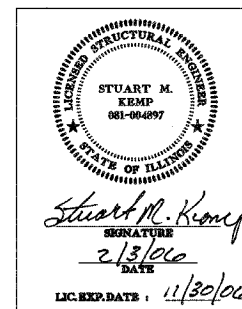


LOCATION SKETCH

BRADSHAW CREEK
BUILT 200_ BY
UNION COUNTY
SEC. 04-00093-00-BR
F.A.S. RT. 1926 STA. 11+80
STR. NO. 091-3220 LOADING HS20

NAME PLATE

Locate Name Plate at Southeast Corner of Bridge (See Std. 515001-02)



"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges.'"

NOTES:

- The Contractor shall drive 2 test piles (1 at each abutment) in a permanent location as directed by the Engineer before ordering the remainder of piles.
- A Calcium Nitrite Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The top surface of the beams shall be finished according to Article 504.06 of the Standard Specifications. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a min. of 1/4".
- All construction joints shall be bonded.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Ton	—	567	567
Removal of Existing Structures	Each	—	—	1
Concrete Structures	Cu. Yd.	—	51.2	51.2
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2232	—	2232
Steel Bridge Railing, Type SM	Foot	169	—	169
Reinforcement Bars, Epoxy Coated	Pound	—	5020	5020
Furnishing Steel Piles HP 12 x 53	Foot	—	160	160
Driving Steel Piles	Foot	—	160	160
Test Pile Steel HP 12 x 53	Each	—	2	2
Metal Shoes	Each	—	10	10
Name Plates	Each	—	—	1
Structure Excavation	Cu. Yd.	—	46	46
Set Piles in Rock	Each	—	5	5

INDEX OF SHEETS

- General Plan and Elevation
- P.P.C. Deck Beam Superstructure
- P.P.C. Deck Beam Details
- Type SM Steel Rail
- Pile Bent Abutments

DESIGN STRESSES

Super: $f'_c = 6,000$ p.s.i.
 $f'_{ci} = 5,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. (1/2" ϕ Strand)
 $f'_{si} = 201,960$ p.s.i. (1/2" ϕ Strand)
 $f_y = 60,000$ p.s.i.

Sub: $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i.

LOADING HS20

25 psf allowance for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.15g
Site Coefficient (S) = 1.0

DESIGN SPECIFICATIONS

2002 (17th Edition) AASHTO Standard Specifications for Highway Bridges

WATERWAY INFORMATION

Drainage Area = 8.63 Sq Mi. Low Grade Elev. 462.63 @ Sta. 11+38

Flood	Freq. Yr.	Q		Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
		C.F.S.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	20	3250	519	560	456.96	456.78	0.18	-0.06	457.14	456.72	
Base	100	4587	628	604	458.21	458.12	0.47	0.13	458.68	458.25	

REVISIONS	
NAME	DATE

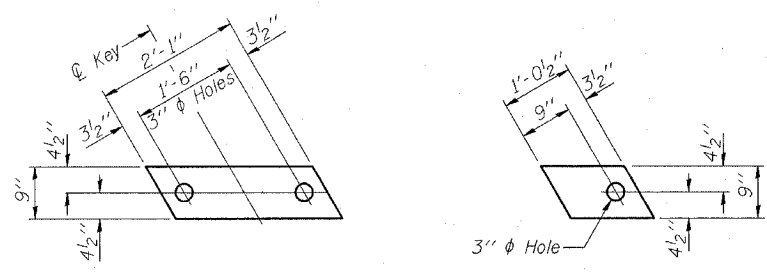
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 1926
SECTION 04-00093-00-BR
UNION COUNTY
COUNTY HIGHWAY 8 OVER BRADSHAW CREEK
GENERAL PLAN AND ELEVATION

SCALE: VERT. -
HORIZ. -
DATE 02/03/06
DRAWN BY MGM
CHECKED BY SMK

SHEET NO. 1
5 SHEETS

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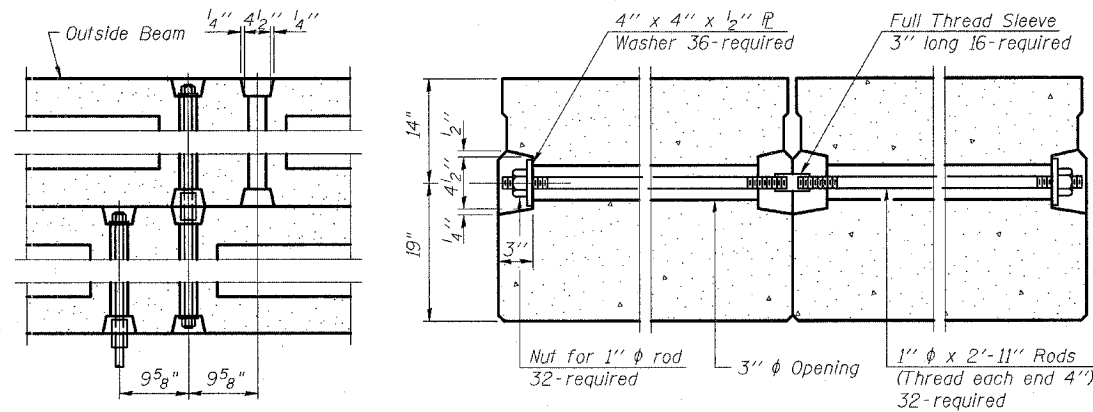
LAYOUT: SMK 12/01/04
DRAWN: MGM 01/19/05
REVIEWED: SMK 01/19/05
1:100 Job# 04-2005-Struct/bridge plans.dgn



FABRIC BEARING PAD
(Interior)

FIXED

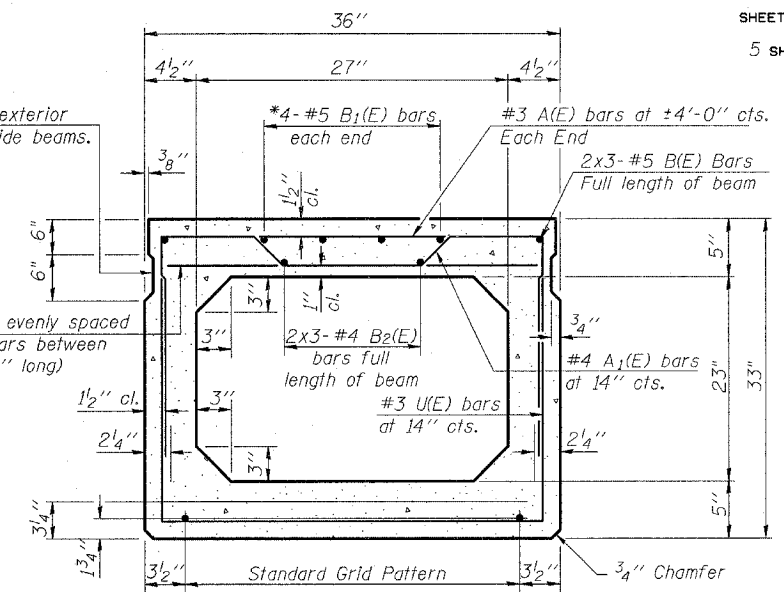
FABRIC BEARING PAD
(Exterior)



TYPICAL TRANSVERSE TIE ASSEMBLY

Omit key on exterior face of outside beams.

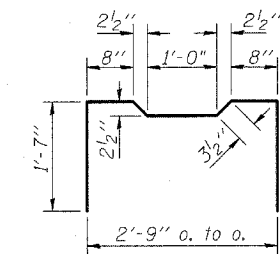
2-#3 A(E) bars evenly spaced between A₁(E) bars between end blocks (2'-8" long)



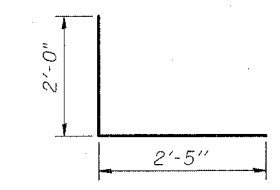
TYPICAL SECTION

19-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
7-Strands 1 3/4" up, 6-Strands 3 1/4" up, 2-Strands 6" up,
2-Strands 9" up, 2-Strands 12" up

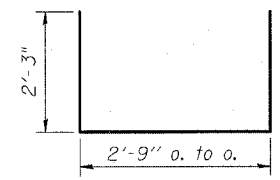
Note:
Place strands symmetrically about ϕ of beam.



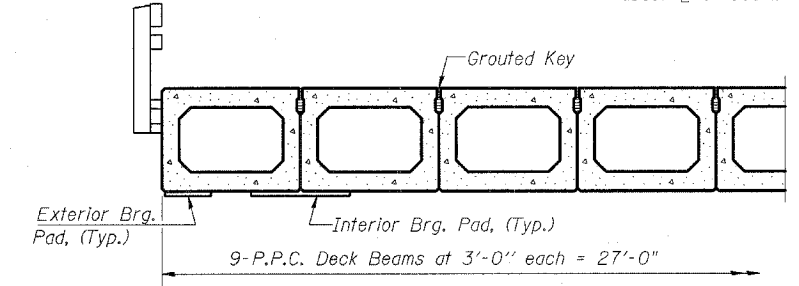
BAR A₁(E)



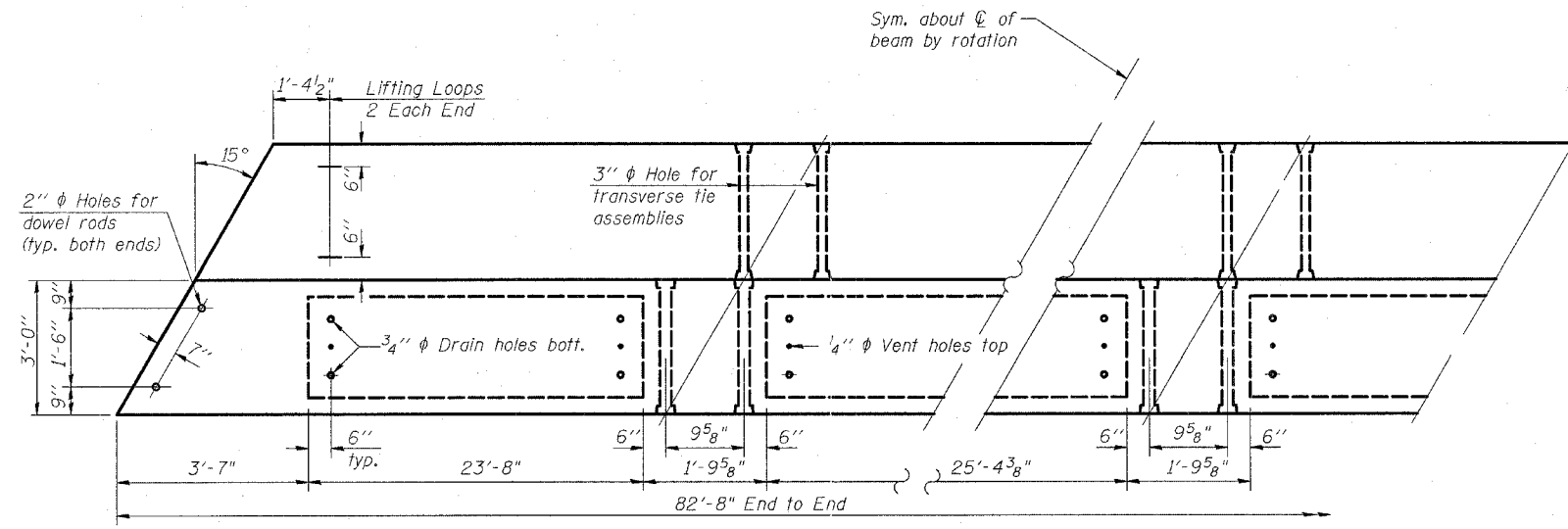
BAR D



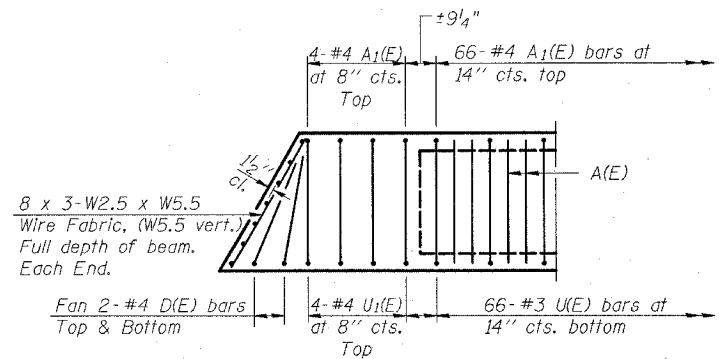
BARS U & U₁



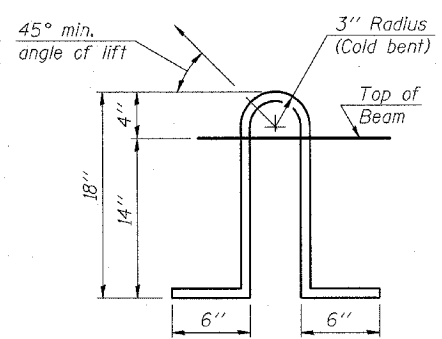
PARTIAL CROSS SECTION



PLAN



END PLAN



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 3-1/2" ϕ 270 ksi strands, as shown.
The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Non prestressing steel shall conform to ASTM A706 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
Required Release Strength, f'ci, shall be 5,000 p.s.i.

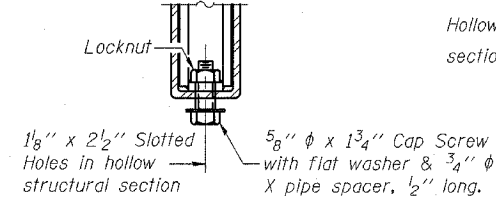
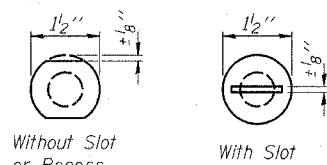
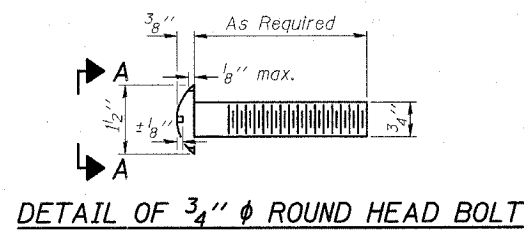
BILL OF MATERIAL
(One Beam)

Bar	No.	Size	Length	Shape
A(E)	132	#3	2'-8"	—
A ₁ (E)	74	#4	6'-1"	—
B(E)	6	#5	29'-6"	—
B ₁ (E)	8	#5	16'-7"	—
B ₂ (E)	6	#4	28'-7"	—
D(E)	8	#4	4'-5"	—
U(E)	66	#3	7'-3"	—
U ₁ (E)	8	#4	7'-3"	—

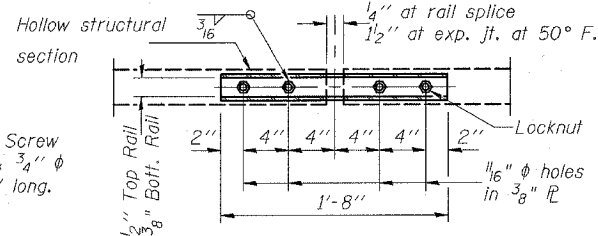
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 1926
SECTION 04-00093-00-BR
COUNTY HIGHWAY 8 OVER BRADSHAW CREEK
P.P.C. DECK BEAM
DETAILS

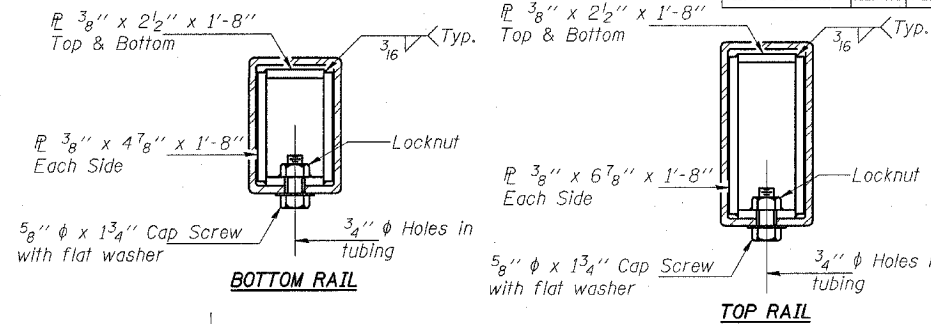
SCALE: VERT. HORIZ. DATE 02/03/06 DRAWN BY MGM CHECKED BY SMK



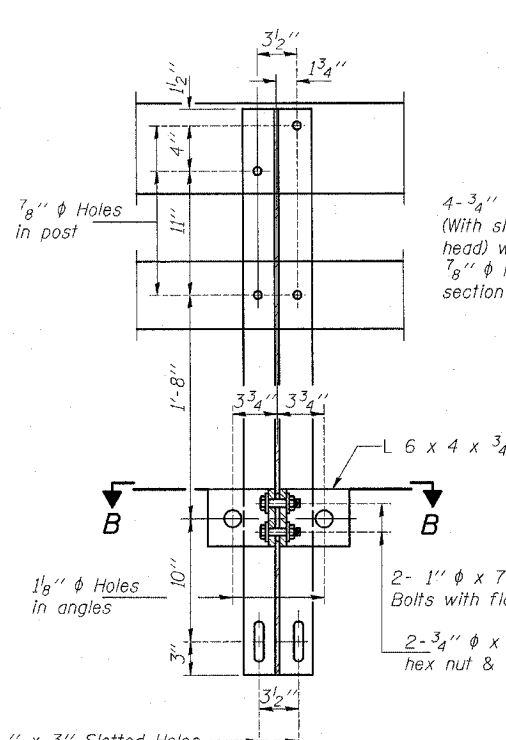
RAIL SPLICE CONNECTION AT EXPANSION JT.



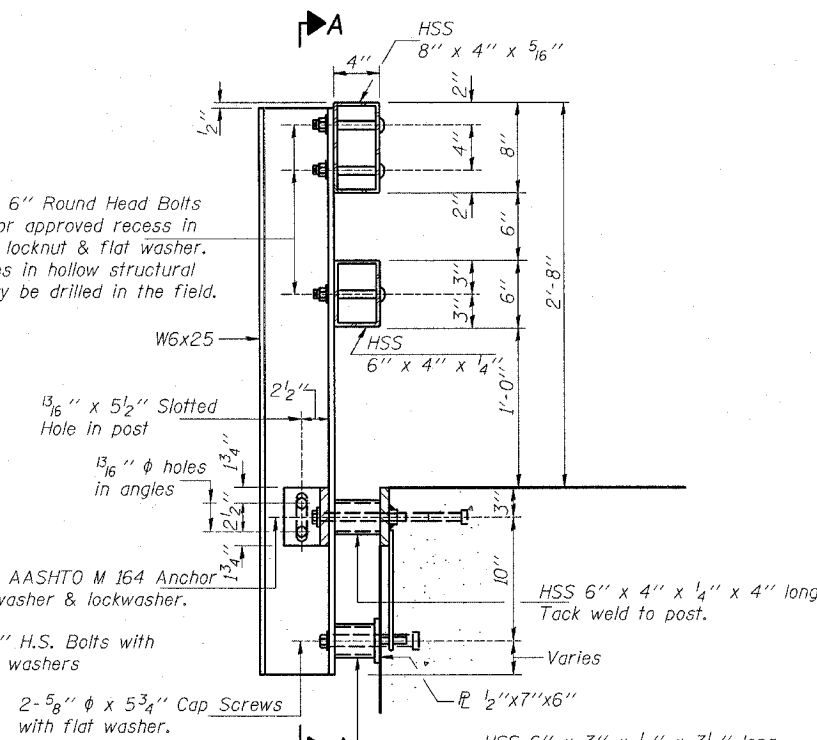
PLAN-BOTT. SPLICE TYPICAL



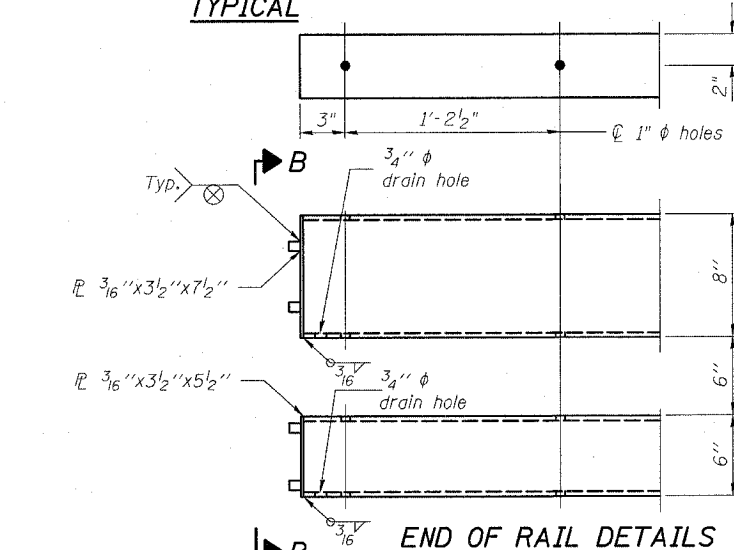
SECTIONS AT RAIL SPLICE



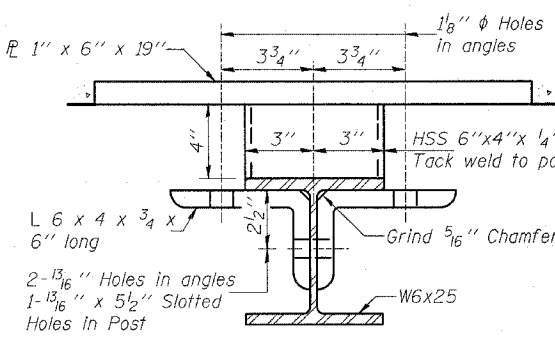
SECTION A-A



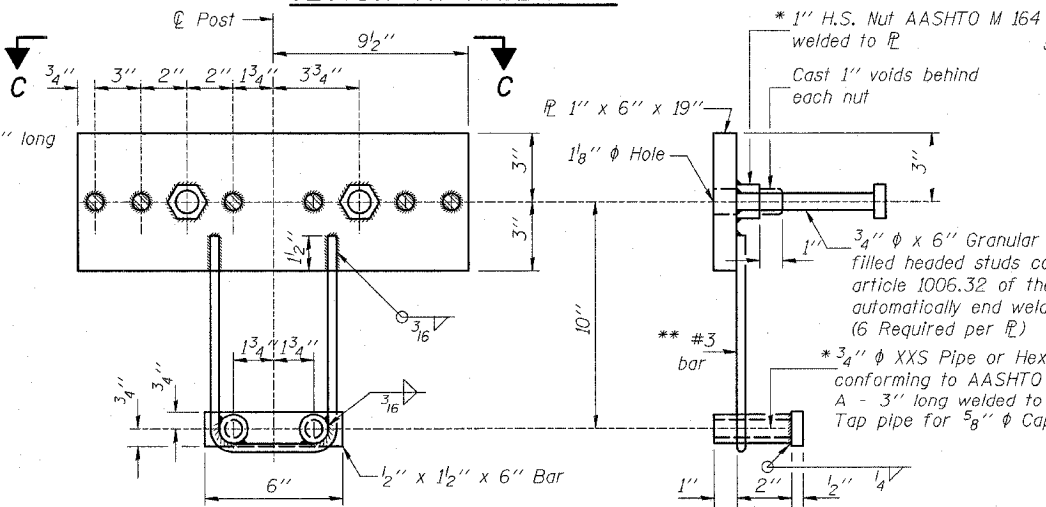
SECTION AT RAIL POST



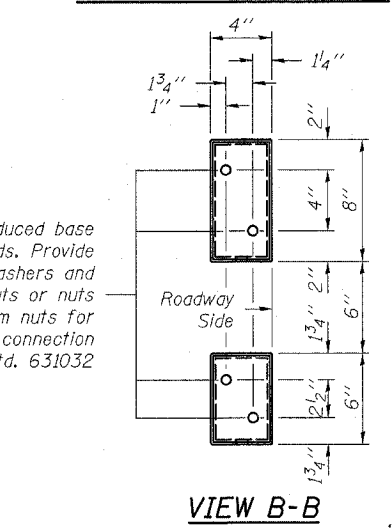
END OF RAIL DETAILS



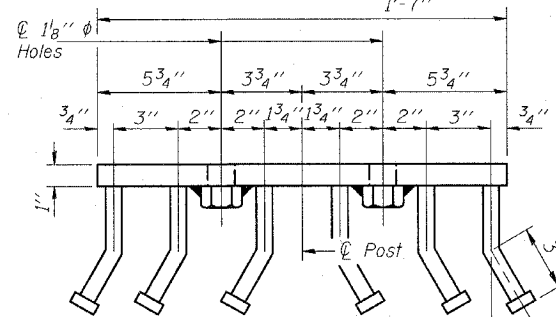
SECTION B-B



ANCHOR DEVICE



VIEW B-B



VIEW C-C

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.

The 1/2" x 7" x 6" plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8" fabric bearing pads between the plates and concrete.

The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing Type SM	Foot	169

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 1926
SECTION 04-00093-00-BR
UNION COUNTY
COUNTY HIGHWAY 8 OVER BRADSHAW CREEK
**TYPE SM STEEL RAIL
SIDE MOUNTED**

SCALE: VERT. _____
HORIZ. _____
DATE 02/03/06
DRAWN BY MGM
CHECKED BY SMK

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 8 04-00093-00-BR	UNION	ILLINOIS	22	15
STA. 10+55.00 TO STA. 12+50.00		FED. AID PROJECT		
CONTRACT NO. 99236				

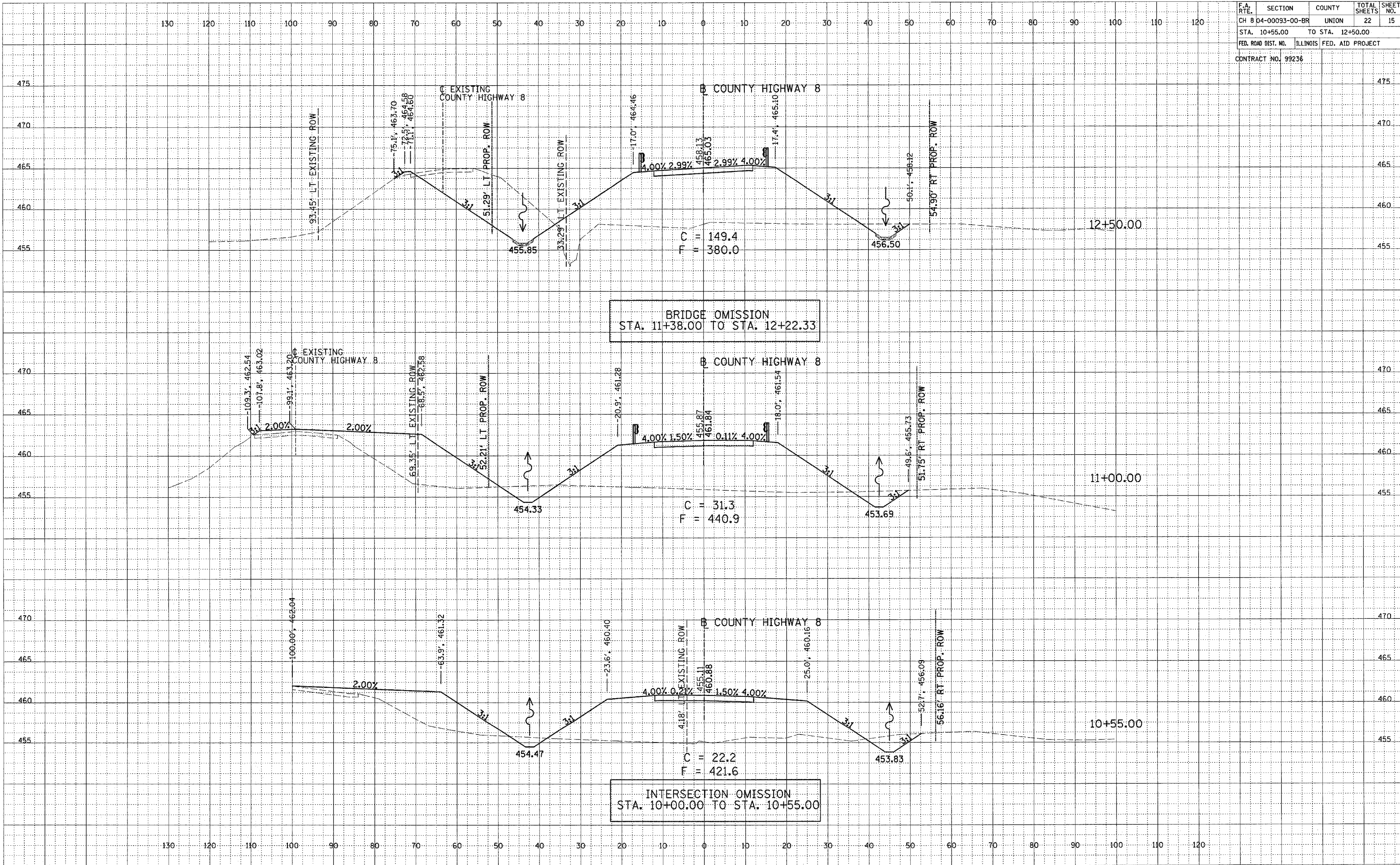
BY	DATE

SURVEYED: _____
 CHECKED: _____
 FINAL SURVEY: _____
 NOTE BOOK: _____
 NO. _____
 AREAS CHECKED: _____

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BY	DATE

SURVEYED: _____
 CHECKED: _____
 ORIGINAL SURVEY: _____
 NOTE BOOK: _____
 NO. _____
 AREAS CHECKED: _____

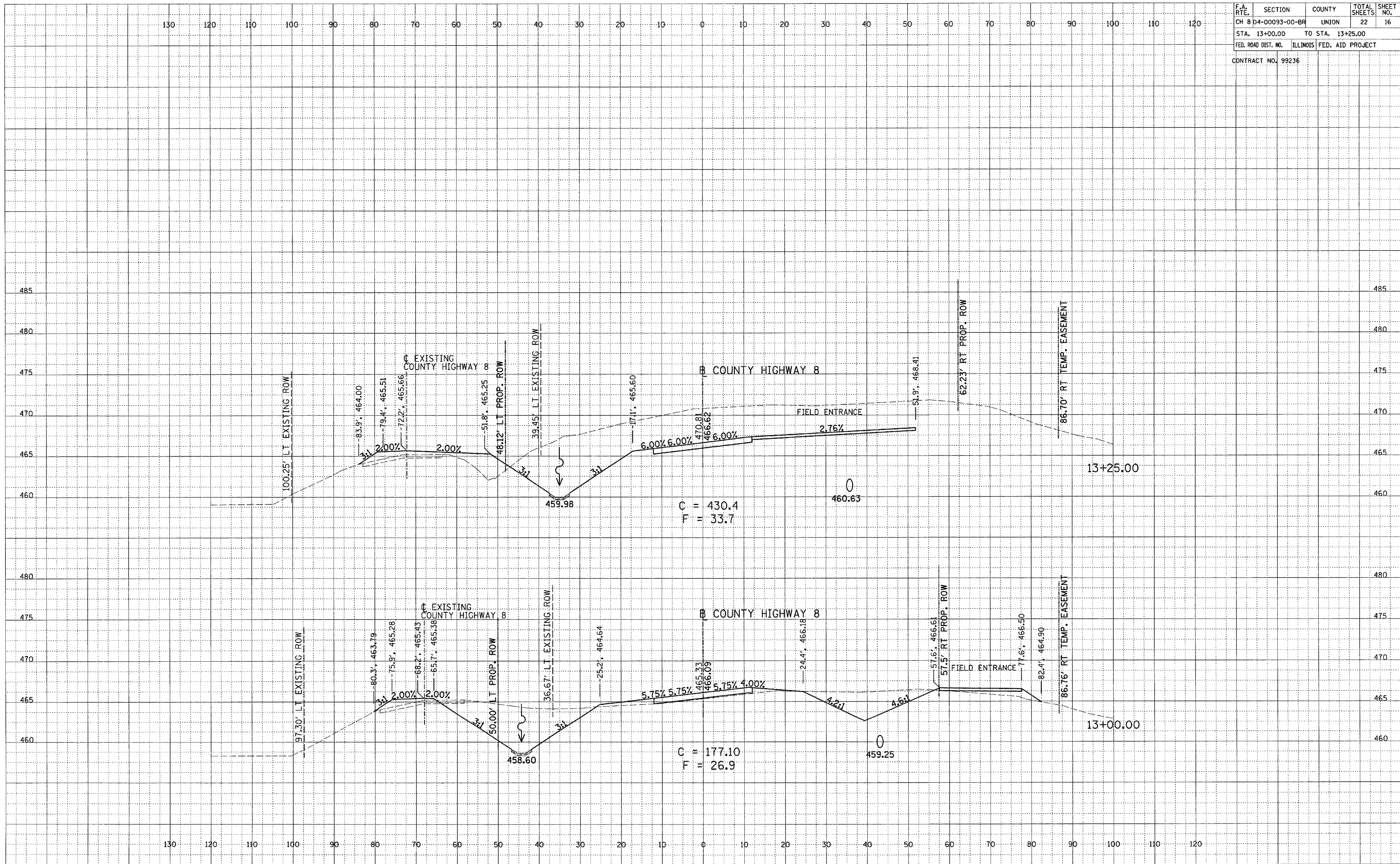


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 8 04-00093-00-BR	UNION		22	16
STA. 13+00.00		TO STA. 13+25.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 99236				

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

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

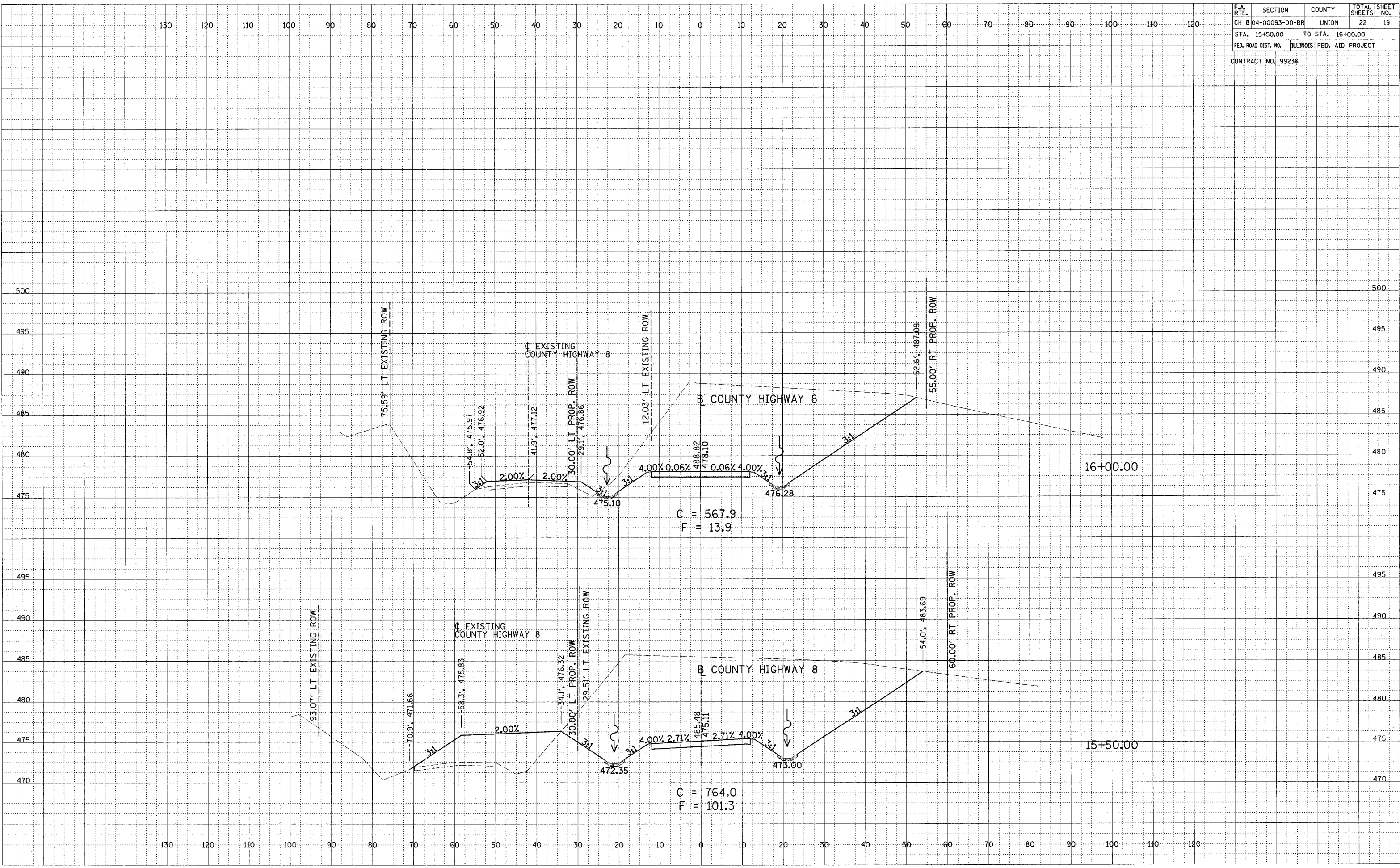


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 8	04-00093-00-BR	UNION	22	19
STA. 15+50.00		TO STA. 16+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 99236				

FINAL SURVEY	DATE
BY	
NO.	

ORIGINAL SURVEY	DATE
BY	
NO.	

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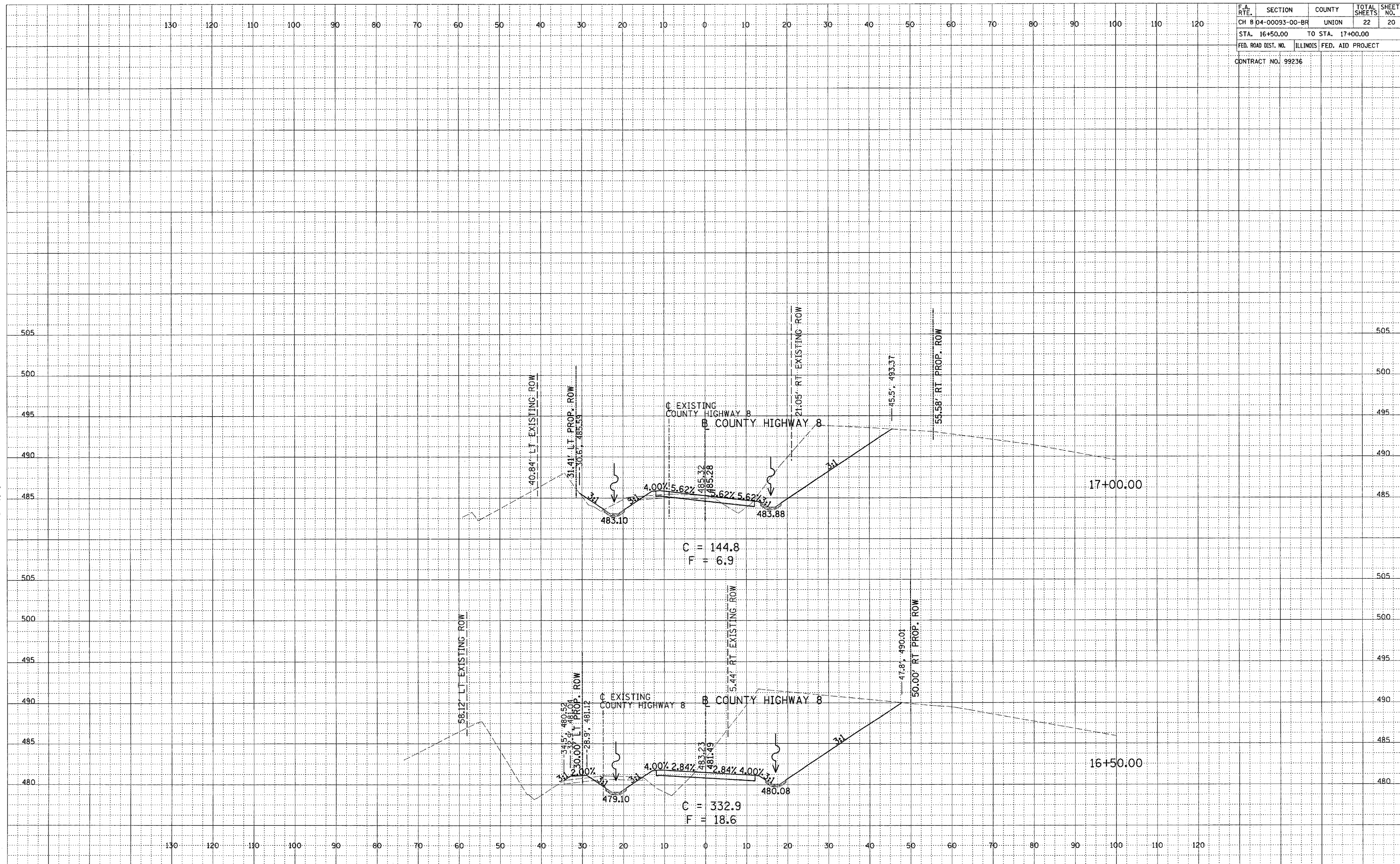


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 8 04-00093-00-BR	UNION	UNION	22	20
STA. 16+50.00		TO STA. 17+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 99236				

FINAL SURVEY	BY	DATE
REVISION		
SCOTTED		
NOTE BOOK		
TEMPLATE		
AREAS CHECKED		
NO.		

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ORIGINAL SURVEY	BY	DATE
REVISION		
SCOTTED		
NOTE BOOK		
TEMPLATE		
AREAS CHECKED		
NO.		



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 8 04-00093-00-BR	UNION		22	21
STA. 17+50.00	TO STA. 17+80.83			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 99236				

FINAL SURVEY	DATE
SURVEYED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

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ORIGINAL SURVEY	DATE
SURVEYED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

