76706

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	1

INDEX OF SHEETS

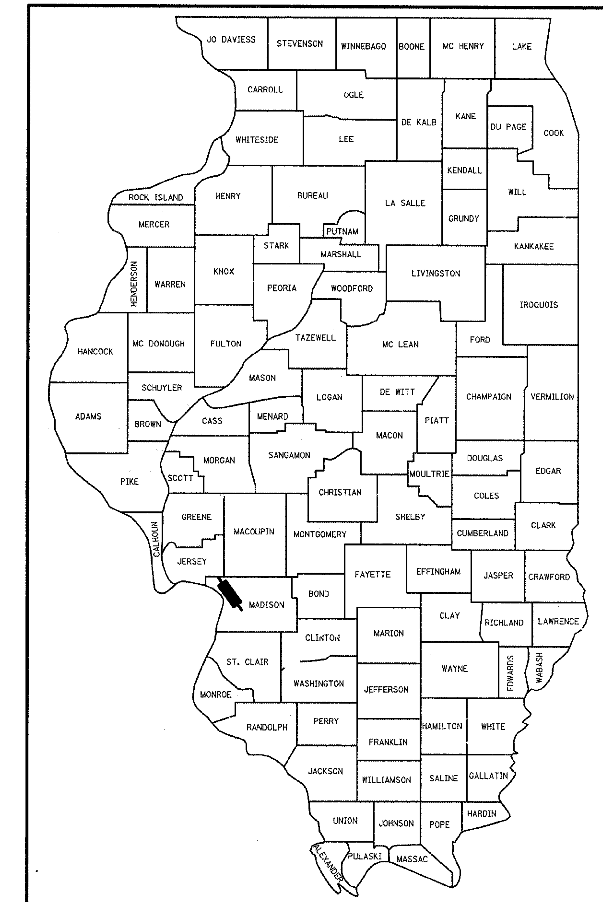
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

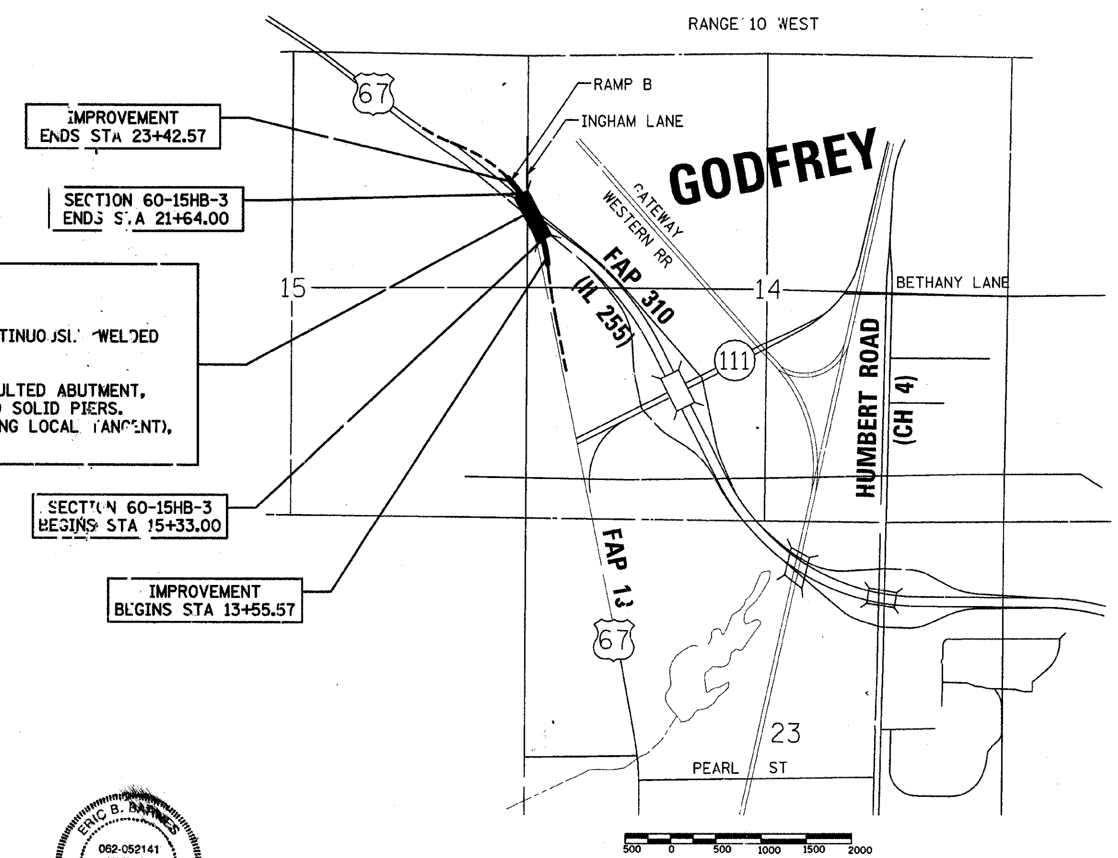
FAP ROUTE 310 (IL ROUTE 255)
SECTION 60–15HB–3
PROJECT ACNHF-0310(140)
MADISON COUNTY
C–98–107–03

CONSTRUCT CURVED STRUCTURE TO CARRY FAP ROUTE 10 (US 67) OVER AND ONTO FAP ROUTE 310 (IL 255)

D–98–038–92



LOCATION OF SECTION INDICATED THUS:–



GRAPHIC SCALE: 1" = 1000'

Latitude : 38.9755
Longitude : 90.1952

GROSS /NET LENGTH OF SECTION 60–15HB–3 = 631.00 FT = 0.120 MILES

DESIGN DESIGNATION
FAP 310: 3350(24) ARTERIAL 7.11 (FD–20)

1000' 2000' 3000' — 1" = 1000'
100' 200' 300' — 1" = 100'
10' 20' 30' — 1" = 10'
50' 100' — 1" = 50'
50' 100' — 1" = 40'
50' 100' — 1" = 30'
50' 100' — 1" = 20'

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. 76706

ERIC B. BARNES 062-052141 LICENSED PROFESSIONAL ENGINEER ILLINOIS

Eric B. Barnes 11-18-08
ERIC B. BARNES DATE
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-052141
LICENSE EXPIRES NOVEMBER 30, 2009

PLANS PREPARED BY:
KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
STATE OF ILLINOIS DESIGN FIRM # 1842738

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 7 2009
Max C Lamm
DEPUTY DIRECTORY OF HIGHWAYS, REGION FIVE ENGINEER

January 29, 2010
Scott E. Stitt P.E. Acting
ENGINEER OF DESIGN AND ENVIRONMENT

January 29, 2010
Christine M. Reed
DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER: PATTI LEBEAU (618)346-3179
SQUAD CONTACT: ARTHUR MUEHLFELD (618)346-3209

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

IDOT HIGHWAY STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
542201-02	REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS, 375mm (15") THRU 900mm (36") DIAMETER SKEWED WITH ROADWAY
701006-03	OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701326-03	LANE CLOSURE 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
B.L.R. 22-6	TWO-LANE TWO WAY RURAL TRAFFIC ROAD CLOSED TO THRU TRAFFIC

601101-01

LEGEND

- TREE TO BE REMOVED (INDIVIDUAL)
- RIPRAP
- TREES TO BE REMOVED (AREA)
- PAVEMENT & DRIVEWAY PAVEMENT REMOVAL
- TBR — ITEM TO BE REMOVED

GENERAL NOTES

1. ALL ELEVATIONS REFER TO USGS MEAN SEA LEVEL DATUM.
2. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE NUMBER LISTED OR THE COPY OF STANDARD INCLUDED IN THESE PLANS. THE STANDARDS AND REVISION NUMBERS SHALL APPLY TO THIS PROJECT.
3. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
5. PROTECTIVE COATING SHALL BE APPLIED TO THE SURFACE OF NEW CONCRETE ACCORDING TO SECTION 503 OF THE STANDARD SPECIFICATIONS.
6. ALL TREES, BRUSH, AND SHRUBS WITHIN THE CONSTRUCTION LIMITS WILL BE REMOVED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. TREES ALONG THE EDGE OF THE RIGHT OF WAY SHALL BE SAVED IF, IN THE OPINION OF THE ENGINEER, THEY DO NOT INTERFERE WITH CONSTRUCTION OPERATIONS. THE CONTRACTOR WILL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.
7. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT ARE AS FOLLOWS:

ABOVE GROUND	BELOW GROUND
•AMEREN UE	•SBC
	•FOSTERBURG WATER
	•IL AMERICAN WATER - ALTON
	•AMEREN UE
	•MCI WORLDCOM
	•AT&T CABLE SERVICES
	•SPRINT
	•VILLAGE OF GODFREY
	•CHARTER COMMUNICATIONS

MEMBERS OF J.U.L.I.E. (800)-892-0123 ARE INDICATED BY •. NON J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

8. SEEDING SHALL BE PLACED ON ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS AS DIRECTED BY THE ENGINEER. SEEDING SHALL BE PAID FOR ONLY WITHIN THE PROPOSED RIGHT-OF-WAY OR EASEMENT LIMITS. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
9. FERTILIZER NUTRIENTS SHALL BE APPLIED TO BOTH THE SEEDED AREAS AND THE AREAS COVERED WITH EROSION CONTROL BLANKET.
10. DO NOT INCLUDE MULCH OR EMULSIFIED ASPHALT ON EROSION CONTROL BLANKET AREAS.

GENERAL NOTES

11. IF ANY UNSUITABLE MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, IT WILL BE NECESSARY TO REMOVE THE UNSUITABLE MATERIAL AND REPLACE IT WITH A SUITABLE MATERIAL AS APPROVED BY THE ENGINEER. THIS WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.
12. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS AND WILL BE CONSIDERED TO BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE IN COLOR.
13. EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION SHALL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER AND WILL BE CONSIDERED TO BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS.
14. ALL EXCAVATED AREAS DUE TO WIDENING OPERATIONS SHALL BE PROTECTED WITH EXTENDED LEG BARRICADES WITH APPROPRIATE LIGHTS.
15. FLAGMEN SHALL BE PRESENT DURING ALL CLOSURE HOURS INCLUDING LUNCH HOUR AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
16. THE PROPOSED EMBANKMENT SHALL BE BENCHED INTO THE EXISTING SLOPES TO THE SATISFACTION OF THE ENGINEER.
17. IF THERE IS A DISCREPANCY BETWEEN THE RIGHT OF WAY SHOWN ON THE PLANS AND THE PLAT OF HIGHWAYS, THE PLAT OF HIGHWAYS ALWAYS TAKES PRECEDENCE.
18. THE REMOVAL AND DISPOSAL OF ABANDONED FENCING, DEBRIS, BRUSH, RIPRAP, STONE, CONCRETE SLABS, TILE, SIDEWALK, ETC. NOT PAID FOR SPECIFICALLY ON THE PLANS WILL BE CONSIDERED TO BE INCLUDED IN THE EARTH EXCAVATION PAY ITEM.
19. GRADING WILL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, EXISTING SHRUBS AND TREES, OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILL OR CUTS ARE ADJACENT TO THE ITEMS. THE ITEMS TO REMAIN IN PLACE WILL BE ACCORDING TO THE ENGINEER. THIS WORK WILL BE CONSIDERED TO BE INCLUDED IN THE EARTH EXCAVATION PAY ITEM.
20. THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05 TONS / CU YD
BITUMINOUS MATERIALS (PRIME COAT) ON AGGREGATE	0.5 GALLONS / SQ YD
AGGREGATE COVER AND SEAL COATS	0.0125 TONS / SQ YD

PERTINENT INFORMATION

1. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER IN WRITING OF THE ANTICIPATED DRIVING AND RE-STRIKE DATE(S) OF THE PILE(S) TO BE DYNAMICALLY MONITORED TO ALLOW THE RESIDENT ENGINEER TO INFORM DR. LONG AT (217-333-2543) AND THE GEOTECHNICAL ENGINEER - VENIECY PEARMAN-GREEN (618-346-3313) OF THE SCHEDULE. THE CONTRACTOR SHALL PROVIDE THE COMPLETED PILE DRIVING EQUIPMENT DATA FORM AND WRITTEN DRIVING AND RE-STRIKE DATES TO THE RESIDENT ENGINEER AND TO DR. LONG A MINIMUM OF TWO WEEKS PRIOR TO DRIVING THE FIRST DYNAMICALLY MONTIORED PILE.

COMMITMENTS

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

REVISIONS NAME	DATE

Rev.

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

4/25/2025
$FILE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE URBAN 80% FEDERAL 20% STATE SEC 60-15HB-3 X271-2A
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	229	229
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	228	228
20100500	TREE REMOVAL, ACRES	ACRE	1.25	1.25
20200100	EARTH EXCAVATION	CU YD	4630	4630
20400800	FURNISHED EXCAVATION	CU YD	12665	12665
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	117	117
25000200	SEEDING, CLASS 2	ACRE	4.50	4.50
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	405	405
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	405	405
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	405	405
25100115	MULCH, METHOD 2	ACRE	4.50	4.50
25100630	EROSION CONTROL BLANKET	SQ YD	2046	2046
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	1800	1800
28000315	AGGREGATE DITCH CHECKS	TON	72	72
28000400	PERIMETER EROSION BARRIER	FOOT	955	955
28000500	INLET AND PIPE PROTECTION	EACH	3	3
28100101	STONE RIPRAP, CLASS A1	SQ YD	218	218
28100105	STONE RIPRAP, CLASS A3	SQ YD	1310	1310
28200200	FILTER FABRIC	SQ YD	1528	1528
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	935	935
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	86	86
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	468	468
40300300	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	GALLON	935	935
40300500	COVER COAT AGGREGATE	TON	12	12
40300600	SEAL COAT AGGREGATE	TON	12	12
44000100	PAVEMENT REMOVAL	SQ YD	1085	1085
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	103	103
50105220	PIPE CULVERT REMOVAL	FOOT	126	126
50200100	STRUCTURE EXCAVATION	CU YD	707	707
50300225	CONCRETE STRUCTURES	CU YD	520.4	520.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	721.1	721.1
50300260	BRIDGE DECK GROOVING	SQ YD	2232	2232
50300285	FORM LINER TEXTURED SURFACE	SQ FT	3380	3380
50300300	PROTECTIVE COAT	SQ YD	2755	2755
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	339	339
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1
50500505	STUD SHEAR CONNECTORS	EACH	4144	4144
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	213650	213650
50800515	BAR SPLICERS	EACH	36	36

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

12/3/2009

FILE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE URBAN 80% FEDERAL 20% STATE SEC 60-15HB-3 X271-2A
51100100	SLOPE WALL 4 INCH	SQ YD	79	79
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	4098	4098
51202305	DRIVING PILES	FOOT	4098	4098
51203200	TEST PILE METAL SHELLS	EACH	5	5
51500100	NAME PLATES	EACH	1	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	34	34
52100520	ANCHOR BOLTS, 1"	EACH	48	48
52100540	ANCHOR BOLTS, 1½"	EACH	60	60
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	37	37
542D0241	PIPE CULVERTS, CLASS D, TYPE 1 36"	FOOT	52	52
542A0241	PIPE CULVERTS, ~~CLASS A, TYPE 1, 36"~~	FOOT	220	220
54215436	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 36"	EACH	2	2
58700300	CONCRETE SEALER	SQ FT	1063	1063
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	43	43
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	93	93
60614600	PAVED DITCH (SPECIAL)	FOOT	182	182
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	16	16
67000600	ENGINEER'S FIELD LABORATORY	CAL MO	16	16
67100100	MOBILIZATION	L SUM	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1
70101835	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 22	L SUM	1	1
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
Z0034806	MODULAR EXPANSION JOINT-SWIVEL 6"	FOOT	37	37
X0325624	HIGH LOAD MULTI-ROTATION BEARINGS, FIXED - 600K	EACH	6	6
X0325639	HIGH LOAD MULTI-ROTATION BEARINGS, GUIDED EXPANSION, 150K	EACH	6	6
X0325640	HIGH LOAD MULTI-ROTATION BEARINGS, GUIDED EXPANSION, 200K	EACH	6	6
X0325645	HIGH LOAD MULTI-ROTATION BEARINGS, GUIDED EXPANSION, 450K	EACH	6	6
X0326837	GRID REINFORCED SLOPE	SQ YD	5585.0	5585.0
⊙ Z0076600	TRAINEES	HOUR	1,000	1,000

⊙Y080

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

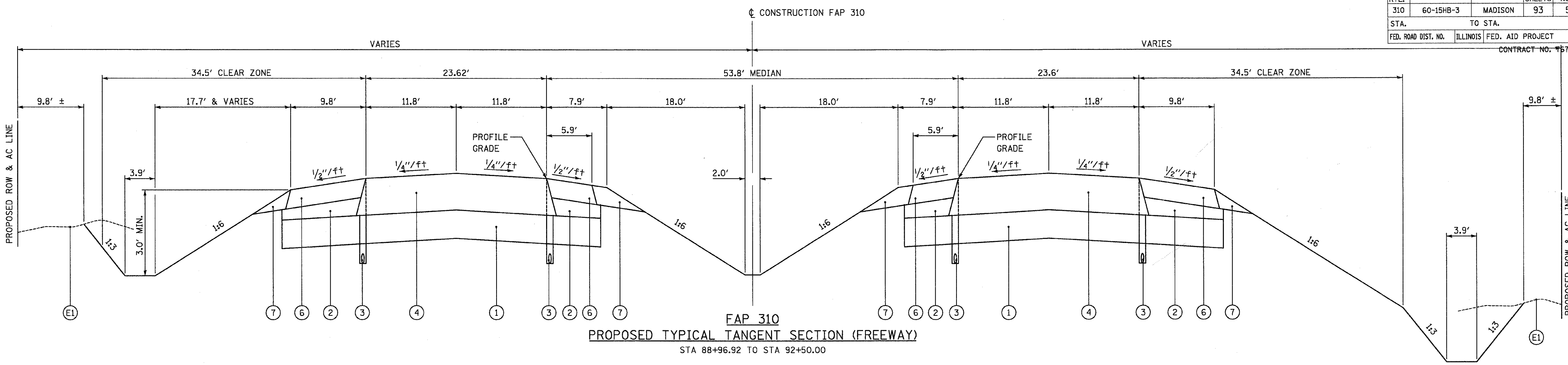
Rev.

4/20/2023

#FILE#

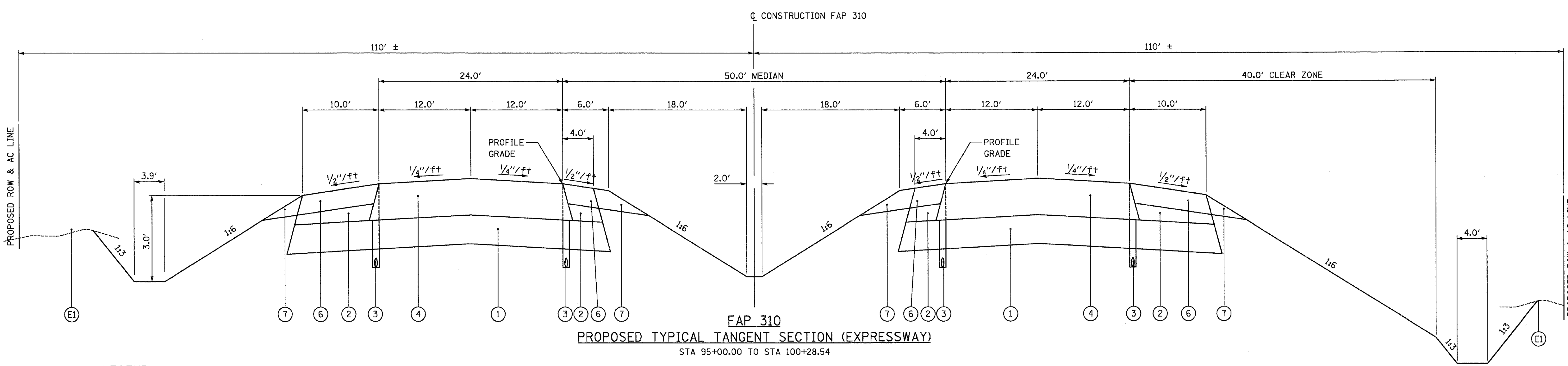
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



FAP 310
PROPOSED TYPICAL TANGENT SECTION (FREEWAY)
STA 88+96.92 TO STA 92+50.00

FAP 310 - TRANSITION FROM FREEWAY TO EXPRESSWAY
STA 92+50.00 TO STA 95+00.00



FAP 310
PROPOSED TYPICAL TANGENT SECTION (EXPRESSWAY)
STA 95+00.00 TO STA 100+28.54

LEGEND

- (E1) EXISTING GROUND
- (1) LIME MODIFIED SOIL 12"
- (2) SUBBASE GRANULAR MATERIAL, TYPE C
- (3) SUB-SURFACE DRAIN, STD 601001
- (4) HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 15¼"
- (6) HOT-MIX ASPHALT SHOULDERS, 8"
- (7) AGGREGATE SHOULDER, TYPE B, 8"

THIS SHEET FOR INFORMATION ONLY
SECTION 60-15 BY OTHERS

FAP 310 (IL 255)

STRUCTURAL DESIGN TRAFFIC: YEAR 2014
PV = 16836 SU = 549 MU = 915
ROAD/STREET CLASSIFICATION: CLASS I
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
P = 32 S = 45 M = 45
TRAFFIC FACTOR: ACTUAL TF = 4.64 AC TYPE = 20
MINIMUM TF = 7.11
AC GRADE: BINDER = PG 58-22 SURFACE = PG 64-22
SUBGRADE SUPPORT RATING:
SSR = POOR

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

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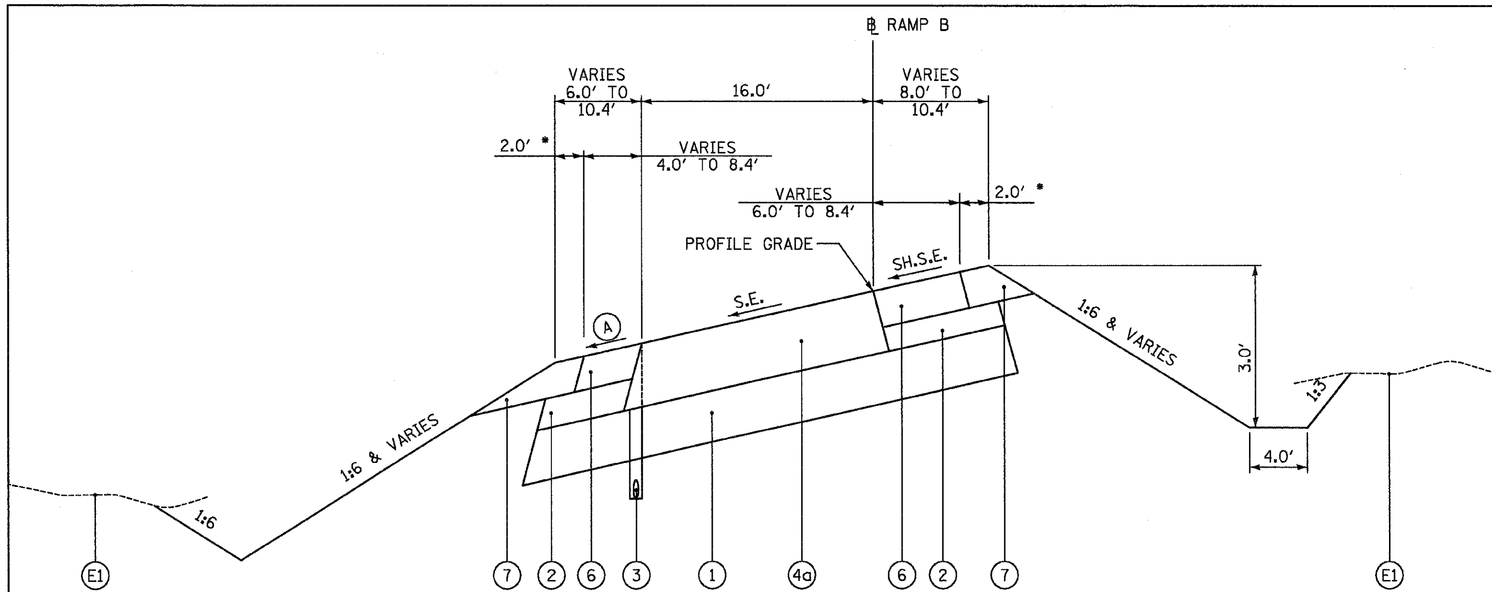


* 4.0' FOR GUARDRAIL

ENTRANCE RAMP "B" PROPOSED TYPICAL SECTION - CONSTRUCTED BY OTHERS

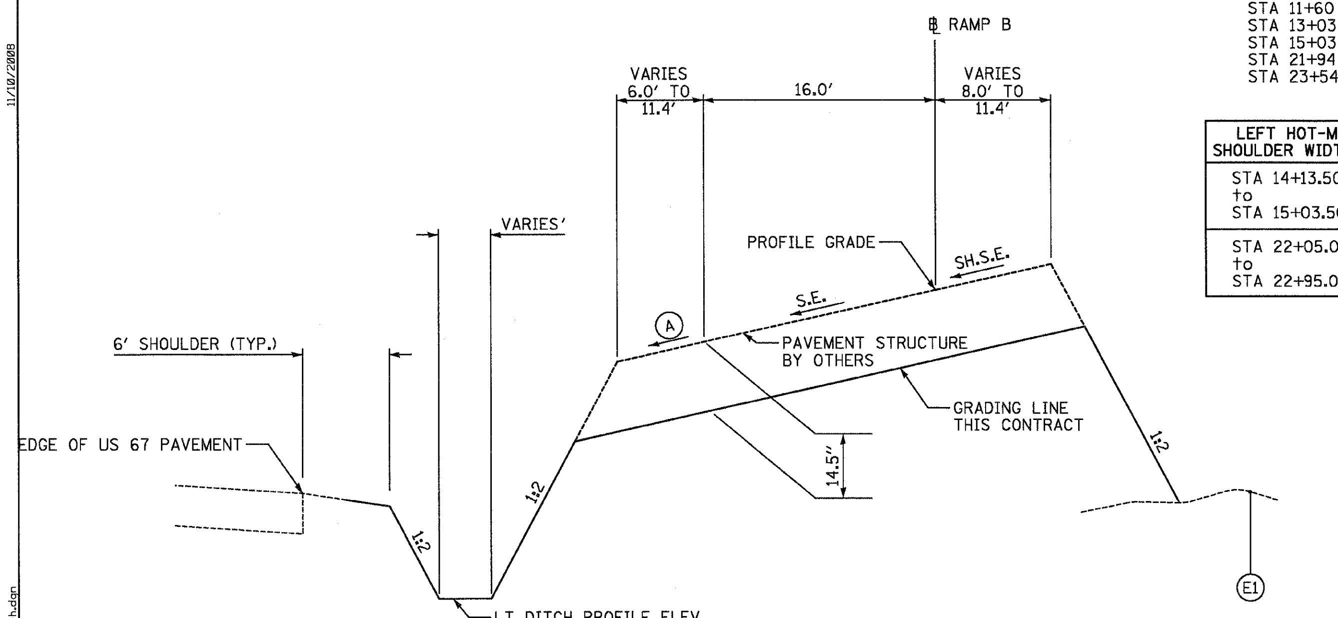
STA 11+60.00 TO STA 14+25.00	SE TRANSITION + 1/4"/ft TO - 3/4"/ft
STA 14+25.00 TO STA 15+03.50	S.E. = 3/4"/ft
STA 15+03.50 TO STA 15+33.50	BRIDGE APPROACH PAVEMENT
STA 15+33.50 TO STA 21+63.46	BRIDGE OMISSION
STA 21+63.46 TO STA 21+93.46	BRIDGE APPROACH PAVEMENT
STA 21+93.46 TO STA 31+08.68	S.E. = 3/4"/ft

RIGHT SHOULDER SUPERELEVATION TRANSITION

STA 11+60 TO STA 13+03	SH.S.E. = - 1/2"/ft
STA 13+03 TO STA 15+03	SH.S.E. TRANSITION
STA 15+03 TO STA 21+94	SH.S.E. = + 3/4"/ft
STA 21+94 TO STA 23+54	SH.S.E. TRANSITION
STA 23+54 TO STA 31+08	SH.S.E. = - 1/2"/ft

LEFT HOT-MIX ASPHALT SHOULDER WIDTH TRANSITION	
STA 14+13.50 to STA 15+03.50	4.0' to 8.4'
STA 22+05.00 to STA 22+95.00	8.4' to 4.0'

RIGHT HOT-MIX ASPHALT SHOULDER WIDTH TRANSITION	
STA 14+53.00 to STA 15+03.00	6.0' to 8.4'
STA 21+90.00 to STA 22+40.00	8.4' to 6.0'



ENTRANCE RAMP "B" PROPOSED GRADING ONLY TYPICAL SECTION

STA 14+73.50 TO STA 15+03.50	S.E. = 3/4"/ft
STA 15+03.50 TO STA 15+33.50	BRIDGE APPROACH PAVEMENT
STA 15+33.50 TO STA 21+63.46	BRIDGE OMISSION
STA 21+63.46 TO STA 21+93.46	BRIDGE APPROACH PAVEMENT
STA 21+93.46 TO STA 22+23.45	S.E. = 3/4"/ft

LEGEND

- (E1) EXISTING GROUND
- (F1) FUTURE SUBBASE GRANULAR MATERIAL
- (F2) FUTURE HOT-MIX ASPHALT SHOULDERS, 8"
- (F3) FUTURE HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 15 1/4"
- (1) LIME MODIFIED SOIL 12"
- (2) SUBBASE GRANULAR MATERIAL, TYPE C
- (3) SUB-SURFACE DRAIN, STD 601001
- (4a) HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14 1/2"
- (6) HOT-MIX ASPHALT SHOULDERS, 8"
- (7) AGGREGATE SHOULDER, TYPE B, 8"
- (8) PAVED DITCH (SPECIAL)

(A) SHOULDER SHALL BE SLOPED THE SAME AS THE S.E. BUT NO LESS THAN 1/2"/ft.

RAMP B

STRUCTURAL DESIGN TRAFFIC: YEAR 2014

PV = 6556 SU = 453 MU = 544

ROAD/STREET CLASSIFICATION: CLASS I

PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:

P = 100 S = 100 M = 100

TRAFFIC FACTOR: ACTUAL TF = 6.47 AC TYPE = 20

MINIMUM TF = 4.74

AC GRADE: BINDER = PG 58-22 SURFACE = PG 64-22

SUBGRADE SUPPORT RATING:

SSR = POOR

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS FAP 310 (ILL 255) SECTION 60-15HB-3 MADISON COUNTY

SCALE: VERT. HORIZ. DRAWN BY

DATE CHECKED BY

11/10/2008

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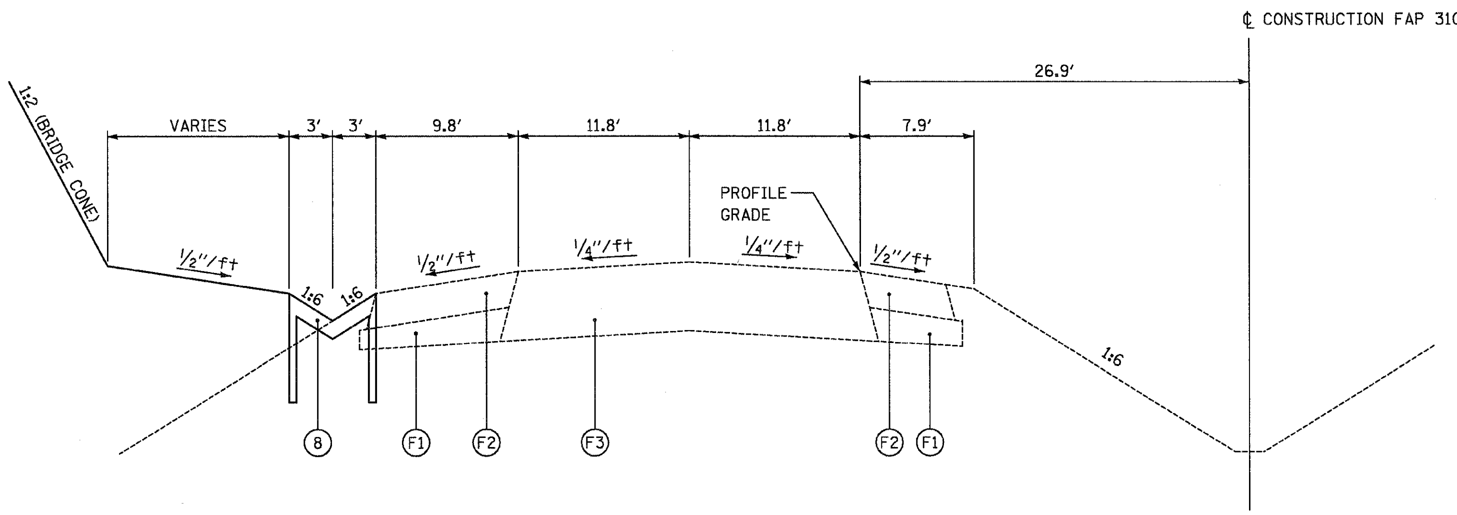
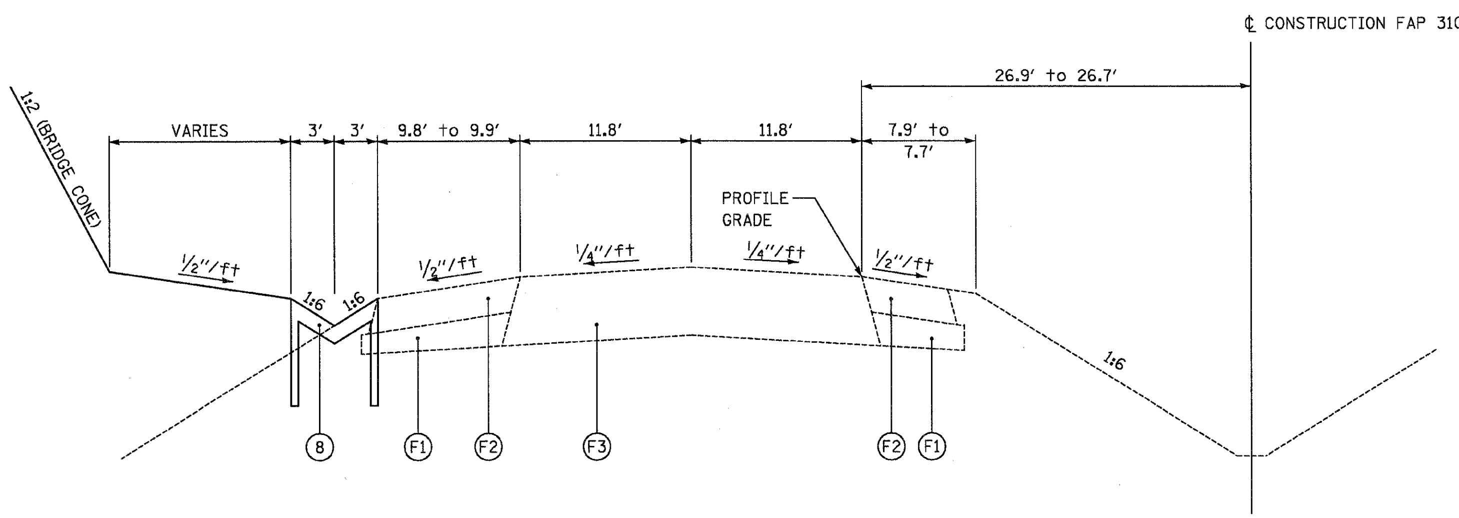


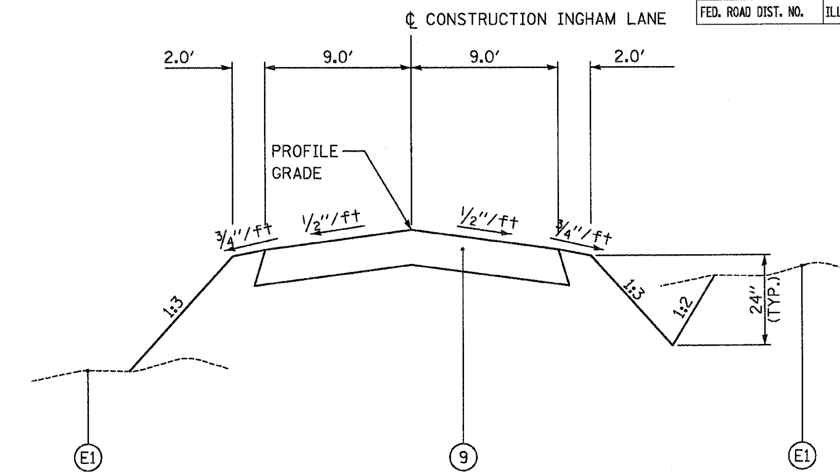
FAP 310
EXISTING TYPICAL TANGENT SECTION
STA 90+85.00 TO STA 92+50.00

NOTE:
A 1:25 SLOPE SHALL BE CONSTRUCTED FROM THE PROPOSED SLOPEWALL TO THE EXISTING GROUND.

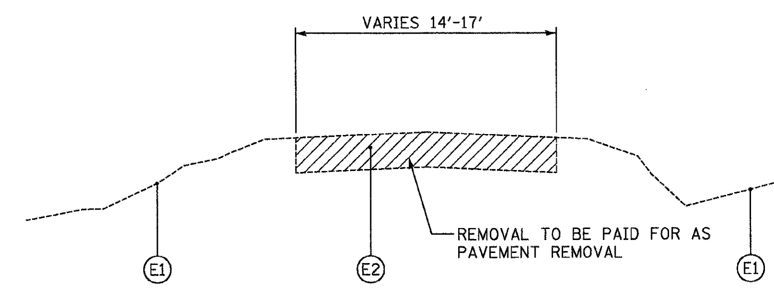


FAP 310
EXISTING TYPICAL TANGENT SECTION
STA 92+50.00 TO STA 92+72.00

NOTE:
A 1:25 SLOPE SHALL BE CONSTRUCTED FROM THE PROPOSED SLOPEWALL TO THE EXISTING GROUND.



INGHAM LANE PROPOSED TYPICAL SECTION
STA 10+00 TO STA 14+60



INGHAM LANE EXISTING TYPICAL SECTION
STA 10+09.1 TO STA 14+60.0

LEGEND

- (E1) EXISTING GROUND
- (E2) EXISTING CRUSHED STONE BASE, (8″ TYP.) WITH ASPHALT & CHIPPED SURFACE
- (F1) FUTURE SUBBASE GRANULAR MATERIAL
- (F2) FUTURE HOT-MIX ASPHALT SHOULDERS, 8″
- (F3) FUTURE HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 15¼″
- (1a) LIME MODIFIED SOIL 12″
- (2) SUBBASE GRANULAR MATERIAL, TYPE C
- (3) SUB-SURFACE DRAIN, STD 601001
- (4a) HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14½″
- (6) HOT-MIX ASPHALT SHOULDERS, 8″
- (7) AGGREGATE SHOULDER, TYPE B, 8″
- (8) PAVED DITCH (SPECIAL)
- (9) AGGREGATE BASE COURSE, TYPE B, 8″ WITH BITUMINOUS SURFACE TREATMENT, CLASS A-2
- (A) SHOULDER SHALL BE SLOPED THE SAME AS THE S.E. BUT NO LESS THAN ½″/ft.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

TREE REMOVAL

STATION	OFFSET	SIDE	6 TO 15 (UNIT)	OVER 15 (UNIT)
FAP 310				
90+31.4	54.8′	RT	5-12	
90+99.5	4.6′	LT	6-12	
91+22.9	5.6′	LT	5-12	
91+69.4	19.5′	RT	12	
91+82.0	3.2′	LT		20
92+08.8	51.7′	RT		42
92+11.8	13.6′	LT		18
96+92.6	162.8′	RT		24
97+17.9	117.0′	RT	15	
97+19.2	143.2′	RT		18
97+42.7	148.0′	RT	10	
97+45.9	120.5′	RT		40
97+73.2	239.4′	RT		30
97+75.4	144.9′	RT		36
TOTAL			229	228

TREE REMOVAL, ACRES

STATION TO STATION		SIDE	WIDTH	ACRE
FAP 310				
89+70	96+10	RT	VARIES	1.02
TOTAL				1.25

EROSION CONTROL BLANKET

STATION TO STATION		SIDE	WIDTH	SQ YD
RAMP B				
13+56.4	15+04.4	RT	14′-55′	640.2
13+70.6	15+25.4	LT	0′-35′	384.1
15+33.6	15+97.1	LT	0′-28′	104.1
21+27.6	22+34.3	RT	0′-42′	560.6
22+05.0	23+21.5	LT	7′-48′	356.7
TOTAL				2045.7
USE				2046

TEMPORARY DITCH CHECKS

STATION TO STATION		SIDE	SPACING	EACH
RAMP B				
13+35	14+94	LT & RT	50′	5
15+25	15+60	LT	30′	1
22+00	23+25	LT	125′	1
INGHAM LANE				
10+35	11+08	RT	23′	3
10+50	11+11	LT	23′	3
11+17	14+60	RT	34′, 245′	5
11+22	14+60	LT	40′, 147′	6
TOTAL				24

PERIMETER EROSION BARRIER

STATION TO STATION		SIDE	FOOT
RAMP B			
13+51	15+97	LT & RT	495
21+18	23+40	LT & RT	460
TOTAL			955

INLET AND PIPE PROTECTION

STATION	SIDE	EACH
FAP 310		
90+37.1	LT	1
94+23.9	RT	1
96+22.7	RT	1
TOTAL		3

PAVEMENT SCHEDULE

STATION TO STATION		SIDE	WIDTH	AGGREGATE BASE COURSE TYPE B 8″ (SQ YD)	BITUMINOUS MATERIALS (PRIME COAT) 1 APPLICATION (GALLON)	BITUMINOUS MATERIALS (COVER AND SEAL COATS) 2 APPLICATION (GALLON)	COVER COAT AGGREGATE (TON)	SEAL COAT AGGREGATE (TON)
INGHAM LANE								
10+11.8	10+41.8	LT & RT	18′-76′	100.7	50.3	100.7	1.3	1.3
10+41.8	14+20.0	LT & RT	18′	756.4	378.2	756.4	9.5	9.5
14+20.0	14+60.0	LT & RT	17′-18′	77.9	38.9	77.9	1.0	1.0
TOTALS				935.0	467.5	935.0	11.7	11.7
USE				935	468	935	12	12

ENTRANCE SCHEDULE

STATION	SIDE	TYPE	WIDTH	LENGTH	AREA (SQ YD)	DEPTH (INCH)	AGGREGATE SURF COURSE TYPE B (TON)
INGHAM LANE							
13+28.0	RT	FE	16′	134.5′	250.2	6	85.5
TOTAL							85.5
USE							86

SEEDING SCHEDULE

STATION TO STATION		SIDE	WIDTH	SEEDING CLASS 2 (ACRE)	NITROGEN FERTILIZER NUTRIENT (POUND)	PHOSPHORUS FERTILIZER NUTRIENT (POUND)	POTASSIUM FERTILIZER NUTRIENT (POUND)	MULCH METHOD 2 (ACRE)
RAMP B								
13+24	23+43	LT & RT	VARIES	4.45	405	405	405	4.45
TOTAL				4.45	405	405	405	4.45
USE				4.50	405	405	405	4.50

EARTHWORK SUMMARY

LOCATION STATION TO STATION		EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJUSTED 25% (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE (CU YD)
FAP 310					
90+00	96+00	1995	1495		1495
RAMP B					
13+25	23+50	1575	1180	15400	(14220)
INGHAM LANE					
10+12	14+60	1060	795	735	60
TOTALS		4630	3470	16135	(12665)

DRAINAGE SCHEDULE

STATION	SIDE	PIPE CULVERTS TYPE 1 RCCP 36″ (FOOT)	PIPE CULVERTS TYPE 1 CLASS D 24″ (FOOT)	PIPE CULVERTS TYPE 1 CLASS D 36″ (FOOT)	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS (EACH)
FAP 310					
91+13.4	LT & RT	220.0			2
INGHAM LANE					
11+13.0	LT & RT			51.6	
13+28.0	RT		36.5		
TOTAL		220.0	36.5	51.6	2
USE		220	37	52	2

QC/QA CONCRETE SCHEDULE

DESCRIPTION	PLAN QUANTITY	CONVERSION FACTOR	CU YD
CONCRETE STRUCTURES	520.4 CU YD	N/A	520.4
CONCRETE SUPERSTRUCTURE	721.1 CU YD	N/A	721.1
SLOPE WALL 4 INCH	79 SQ YD	0.111 CU YD X SQ YD	8.8
PAVED DITCH (SPECIAL)	182 FT	0.074 CU YD X FT	13.5
CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 36″	2 EACH	3.4 CU YD X EACH	6.8
TOTAL			1270.6

PAVEMENT REMOVAL

STATION TO STATION		SIDE	WIDTH	SQ YD
INGHAM LANE				
10+09.1	12+16.8	LT & RT	14′-139′	607.8
12+16.8	14+60.0	LT & RT	14′-17′	477.2
TOTAL				1085.0
USE				1085

DRIVEWAY PAVEMENT REMOVAL

STATION	SIDE	WIDTH	SQ YD
RAMP B			
13+83.6	LT	29′-53′	102.8
TOTAL			102.8
USE			103

PIPE CULVERT REMOVAL

STATION	OFFSET	SIDE	DESCRIPTION	FOOT
FAP 310				
91+88.2	31.9′	LT	18″ CMP	15.6
RAMP B				
13+81.4	57.9′	LT	15″ CMP	51.7
22+36.9	74.4′	LT	6″ CLAY	20.8
INGHAM LANE				
12+27.1	44.5′	LT	24″ STEEL	21.5
13+09.0	10.7′	RT	12″ CMP	16.2
TOTAL				125.8
USE				126

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. DRAWN BY

DATE CHECKED BY

11/10/2008

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

EX US 67 CURVE B1 DATA
PI STA = 67+54.39 (405)
Δ = 44° 30′ 37″ LT
D = 3° 59′ 57″
R = 1,432.70′
T = 586.28′
L = 1,112.99′
E = 115.32′
PC STA = 61+68.11 (404)
PT STA = 72+81.10 (406)

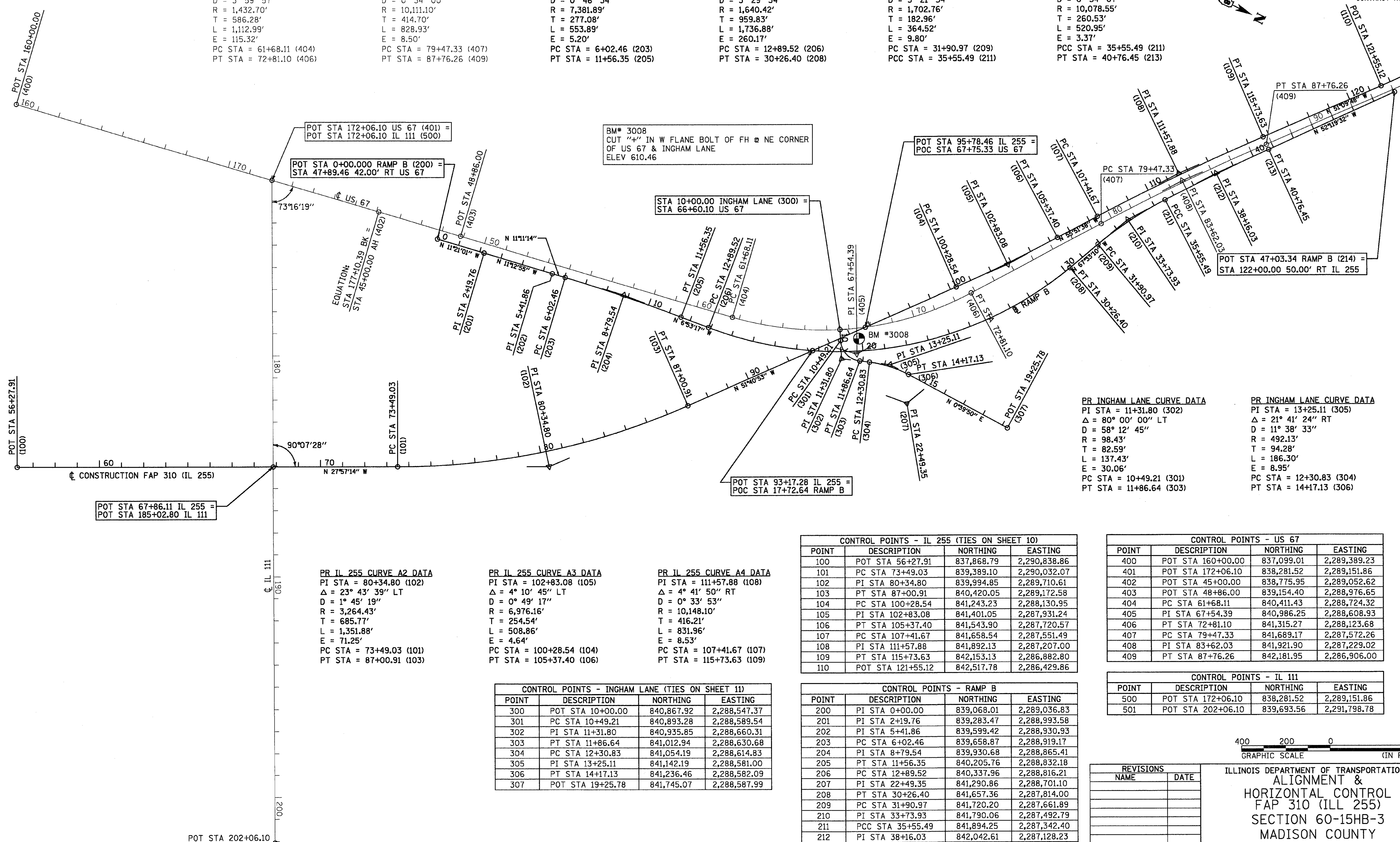
EX US 67 CURVE B2 DATA
PI STA = 83+62.03 (408)
Δ = 4° 41′ 50″ RT
D = 0° 34′ 00″
R = 10,111.10′
T = 414.70′
L = 828.93′
E = 8.50′
PC STA = 79+47.33 (407)
PT STA = 87+76.26 (409)

PR RAMP B CURVE N1 DATA
PI STA = 8+79.54 (204)
Δ = 4° 17′ 57″ RT
D = 0° 46′ 34″
R = 7,381.89′
T = 277.08′
L = 553.89′
E = 5.20′
PC STA = 6+02.46 (203)
PT STA = 11+56.35 (205)

PR RAMP B CURVE N2 DATA
PI STA = 22+49.35 (207)
Δ = 60° 39′ 53″ LT
D = 3° 29′ 34″
R = 1,640.42′
T = 959.83′
L = 1,736.88′
E = 260.17′
PC STA = 12+89.52 (206)
PT STA = 30+26.40 (208)

PR RAMP B CURVE N3 DATA
PI STA = 33+73.93 (210)
Δ = 12° 15′ 57″ RT
D = 3° 21′ 54″
R = 1,702.76′
T = 182.96′
L = 364.52′
E = 9.80′
PC STA = 31+90.97 (209)
PCC STA = 35+55.49 (211)

PR RAMP B CURVE N4 DATA
PI STA = 38+16.03 (212)
Δ = 2° 57′ 42″ RT
D = 0° 34′ 07″
R = 10,078.55′
T = 260.53′
L = 520.95′
E = 3.37′
PCC STA = 35+55.49 (211)
PT STA = 40+76.45 (213)



PR INGHAM LANE CURVE DATA
PI STA = 11+31.80 (302)
Δ = 80° 00′ 00″ LT
D = 58° 12′ 45″
R = 98.43′
T = 82.59′
L = 137.43′
E = 30.06′
PC STA = 10+49.21 (301)
PT STA = 11+86.64 (303)

PR INGHAM LANE CURVE DATA
PI STA = 13+25.11 (305)
Δ = 21° 41′ 24″ RT
D = 11° 38′ 33″
R = 492.13′
T = 94.28′
L = 186.30′
E = 8.95′
PC STA = 12+30.83 (304)
PT STA = 14+17.13 (306)

PR IL 255 CURVE A2 DATA
PI STA = 80+34.80 (102)
Δ = 23° 43′ 39″ LT
D = 1° 45′ 19″
R = 3,264.43′
T = 685.77′
L = 1,351.88′
E = 71.25′
PC STA = 73+49.03 (101)
PT STA = 87+00.91 (103)

PR IL 255 CURVE A3 DATA
PI STA = 102+83.08 (105)
Δ = 4° 10′ 45″ LT
D = 0° 49′ 17″
R = 6,976.16′
T = 254.54′
L = 508.86′
E = 4.64′
PC STA = 100+28.54 (104)
PT STA = 105+37.40 (106)

PR IL 255 CURVE A4 DATA
PI STA = 111+57.88 (108)
Δ = 4° 41′ 50″ RT
D = 0° 33′ 53″
R = 10,148.10′
T = 416.21′
L = 831.96′
E = 8.53′
PC STA = 107+41.67 (107)
PT STA = 115+73.63 (109)

CONTROL POINTS - IL 255 (TIES ON SHEET 10)

POINT	DESCRIPTION	NORTHING	EASTING
100	POT STA 56+27.91	837,868.79	2,290,838.86
101	PC STA 73+49.03	839,389.10	2,290,032.07
102	PI STA 80+34.80	839,994.85	2,289,710.61
103	PT STA 87+00.91	840,420.05	2,289,172.58
104	PC STA 100+28.54	841,243.23	2,288,130.95
105	PI STA 102+83.08	841,401.05	2,287,931.24
106	PT STA 105+37.40	841,543.90	2,287,720.57
107	PC STA 107+41.67	841,658.54	2,287,551.49
108	PI STA 111+57.88	841,892.13	2,287,207.00
109	PT STA 115+73.63	842,153.13	2,286,882.80
110	POT STA 121+55.12	842,517.78	2,286,429.86

CONTROL POINTS - US 67

POINT	DESCRIPTION	NORTHING	EASTING
400	POT STA 160+00.00	837,099.01	2,289,389.23
401	POT STA 172+06.10	838,281.52	2,289,151.86
402	POT STA 45+00.00	838,775.95	2,289,052.62
403	POT STA 48+86.00	839,154.40	2,288,976.65
404	PC STA 61+68.11	840,411.43	2,288,724.32
405	PI STA 67+54.39	840,986.25	2,288,608.93
406	PT STA 72+81.10	841,315.27	2,288,123.68
407	PC STA 79+47.33	841,689.17	2,287,572.26
408	PI STA 83+62.03	841,921.90	2,287,229.02
409	PT STA 87+76.26	842,181.95	2,286,906.00

CONTROL POINTS - IL 111

POINT	DESCRIPTION	NORTHING	EASTING
500	POT STA 172+06.10	838,281.52	2,289,151.86
501	POT STA 202+06.10	839,693.56	2,291,798.78

CONTROL POINTS - INGHAM LANE (TIES ON SHEET 11)

POINT	DESCRIPTION	NORTHING	EASTING
300	POT STA 10+00.00	840,867.92	2,288,547.37
301	PC STA 10+49.21	840,893.28	2,288,589.54
302	PI STA 11+31.80	840,935.85	2,288,660.31
303	PT STA 11+86.64	841,012.94	2,288,630.68
304	PC STA 12+30.83	841,054.19	2,288,614.83
305	PI STA 13+25.11	841,142.19	2,288,581.00
306	PT STA 14+17.13	841,236.46	2,288,582.09
307	POT STA 19+25.78	841,745.07	2,288,587.99

CONTROL POINTS - RAMP B

POINT	DESCRIPTION	NORTHING	EASTING
200	PI STA 0+00.00	839,068.01	2,289,036.83
201	PI STA 2+19.76	839,283.47	2,288,993.58
202	PI STA 5+41.86	839,599.42	2,288,930.93
203	PC STA 6+02.46	839,658.87	2,288,919.17
204	PI STA 8+79.54	839,930.68	2,288,865.41
205	PT STA 11+56.35	840,205.76	2,288,832.18
206	PC STA 12+89.52	840,337.96	2,288,816.21
207	PI STA 22+49.35	841,290.86	2,288,701.10
208	PT STA 30+26.40	841,657.36	2,287,814.00
209	PC STA 31+90.97	841,720.20	2,287,661.89
210	PI STA 33+73.93	841,790.06	2,287,492.79
211	PCC STA 35+55.49	841,894.25	2,287,342.40
212	PI STA 38+16.03	842,042.61	2,287,128.23
213	PT STA 40+76.45	842,201.84	2,286,922.02
214	POT STA 47+03.34	842,584.99	2,286,425.83

400 200 0 400
GRAPHIC SCALE (IN FEET)

REVISIONS	
NAME	DATE

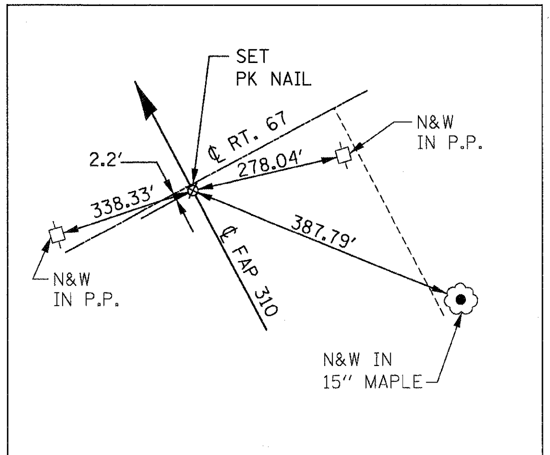
ILLINOIS DEPARTMENT OF TRANSPORTATION

ALIGNMENT & HORIZONTAL CONTROL
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. 1″=200′ DRAWN BY SEB
DATE CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



FAP 310 (IL 255)
POT STA 67+83.55

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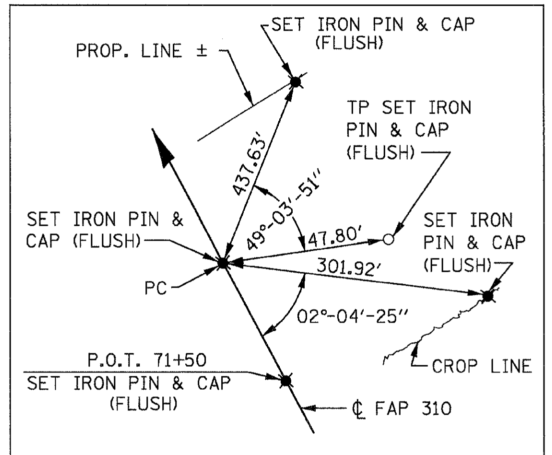

FAP 310 (IL 255)
PC STA 73+49.03

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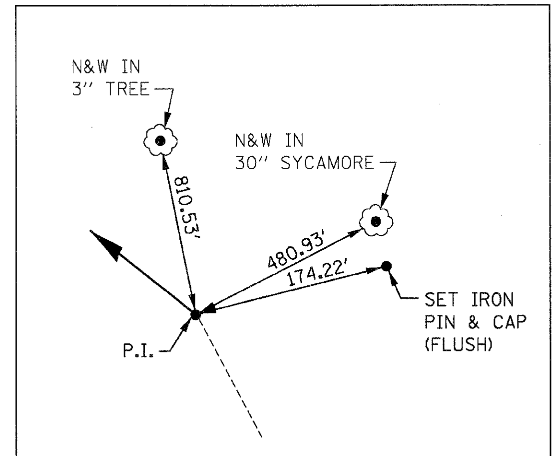

FAP 310 (IL 255)
PI STA 80+34.80

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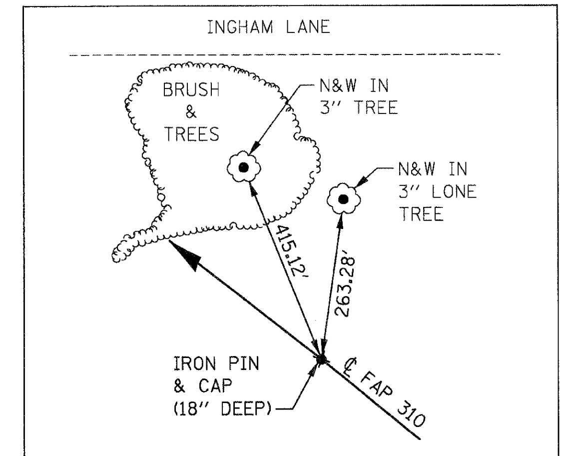

FAP 310 (IL 255)
PT STA 87+00.91

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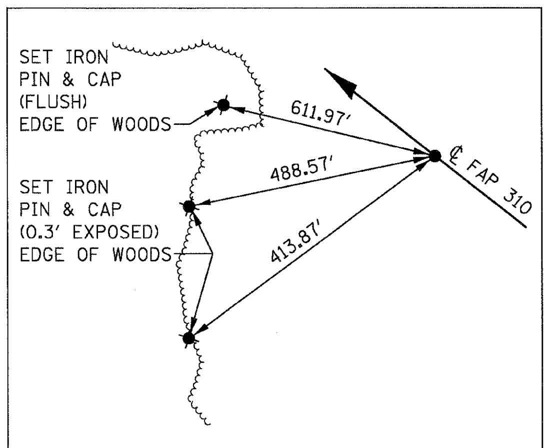

FAP 310 (IL 255)
PC STA 100+28.54

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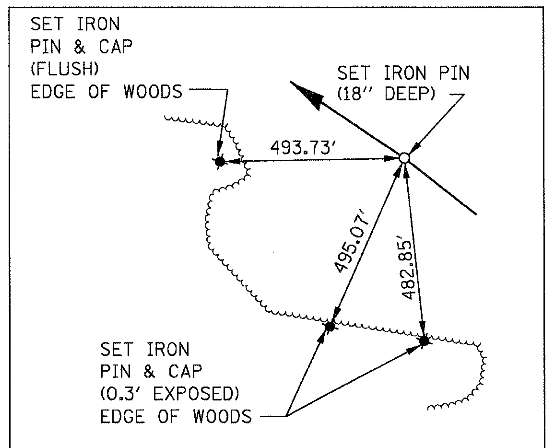

FAP 310 (IL 255)
PI STA 102+83.08

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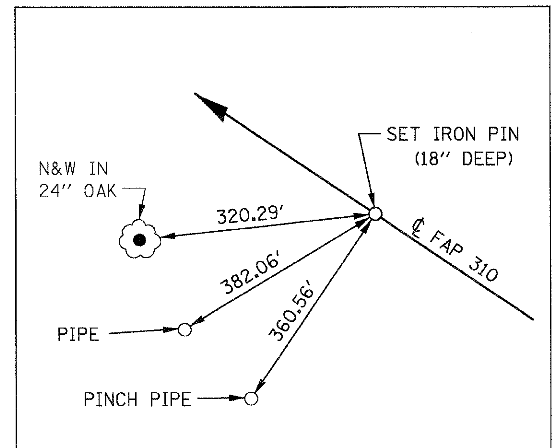

FAP 310 (IL 255)
PT STA 105+37.40

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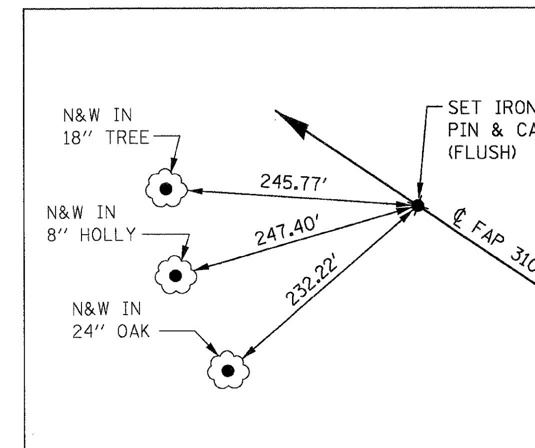

FAP 310 (IL 255)
PC STA 107+41.67

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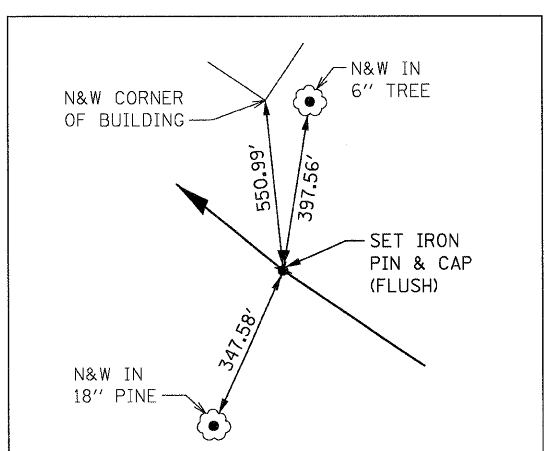

FAP 310 (IL 255)
PI STA 111+57.88

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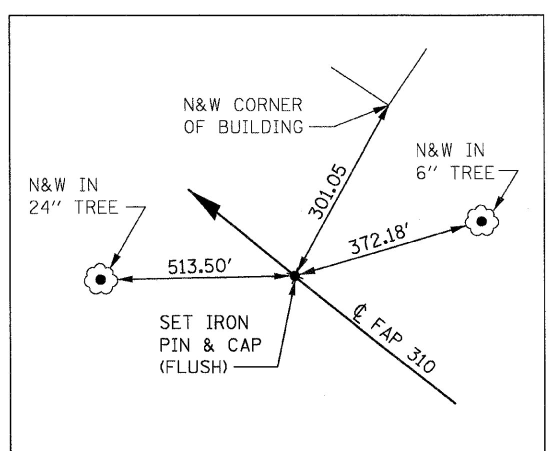
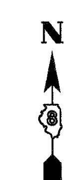


FAP 310 (IL 255)
PT STA 115+73.63

N 842,153.1341 E 2,286,882.7996

NOTES:

1) DIMENSIONS LABELED "HORIZ" ARE HORIZONTAL PULLS.
2) DIMENSIONS NOT LABELED "HORIZ" ARE DIRECT PULLS.



(TYP ALL TIES THIS DWG)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

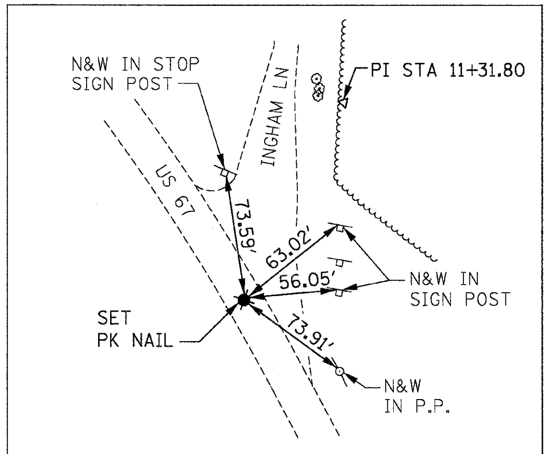
HORIZONTAL CONTROL TIE POINTS
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

11/18/2008

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	11
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



INGHAM LANE
STA 10+00.00

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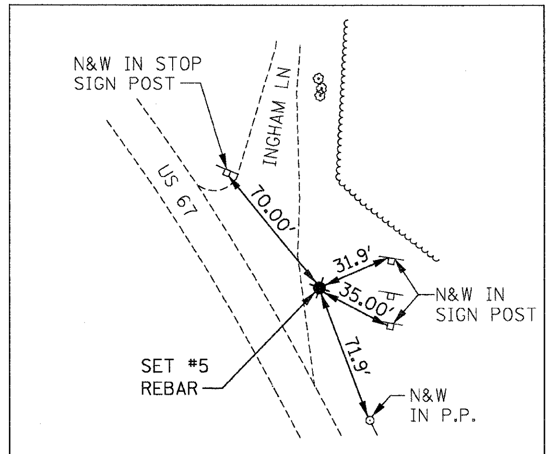
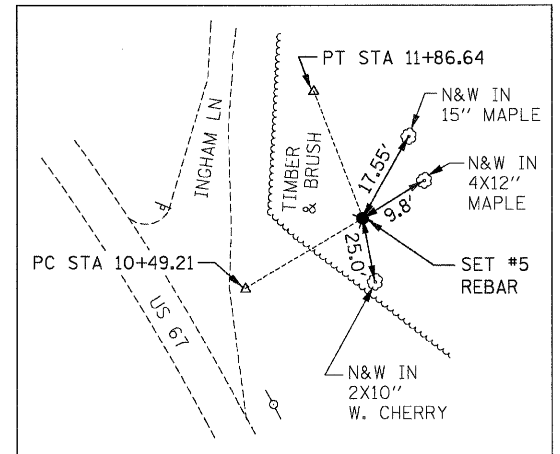


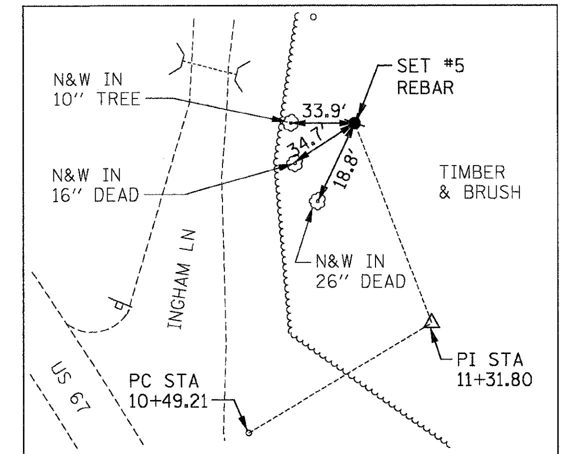
INGHAM LANE
PC STA 10+49.21

N 840,893.2818 E 2,288,589.5391



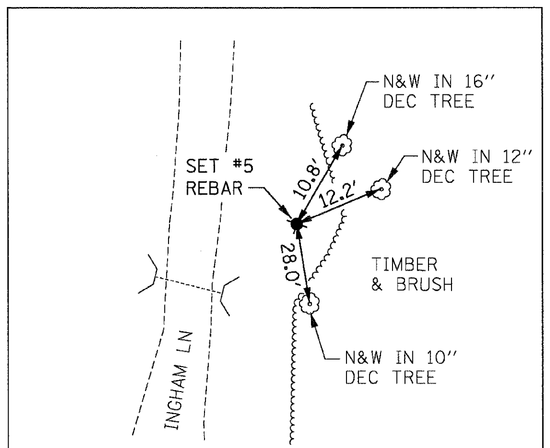
INGHAM LANE
PI STA 11+31.80

N 840,935.8503 E 2,288,660.3120



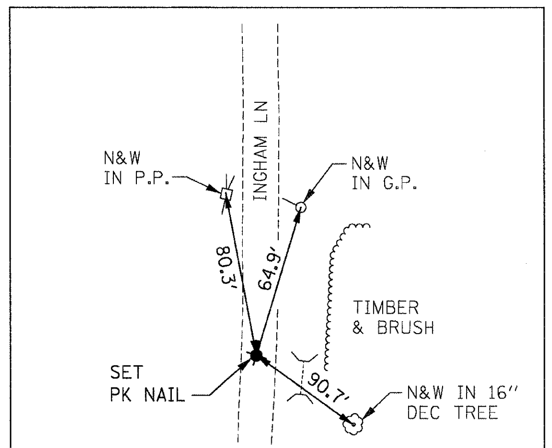
INGHAM LANE
PT STA 11+86.64

N 841,012.9399 E 2,288,630.6799



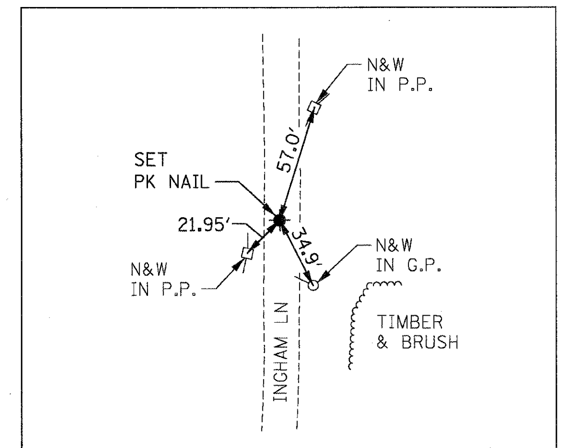
INGHAM LANE
PC STA 12+30.83

N 841,054.1868 E 2,288,614.8251



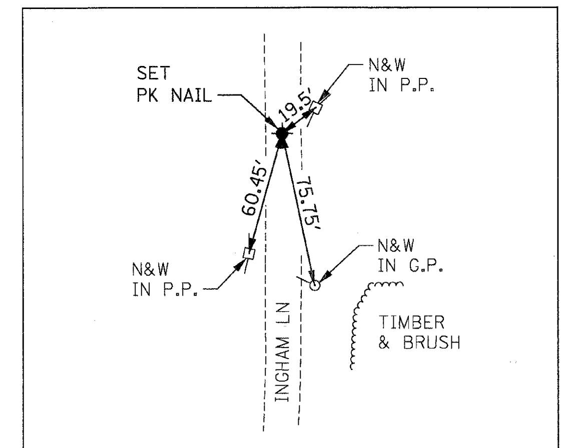
INGHAM LANE
PI STA 13+25.11

N 841,142.1882 E 2,288,580.9987



INGHAM LANE
PT STA 14+17.13

N 841,236.4605 E 2,288,582.0911



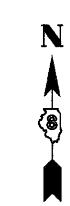
INGHAM LANE
POT (END) STA 14+60

N 841,279.3283 E 2,288,582.5879

NOTES:

1) DIMENSIONS LABELED "HORIZ" ARE HORIZONTAL PULLS.

2) DIMENSIONS NOT LABELED "HORIZ" ARE DIRECT PULLS.



(TYP ALL TIES THIS DWG)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HORIZONTAL CONTROL TIE POINTS
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

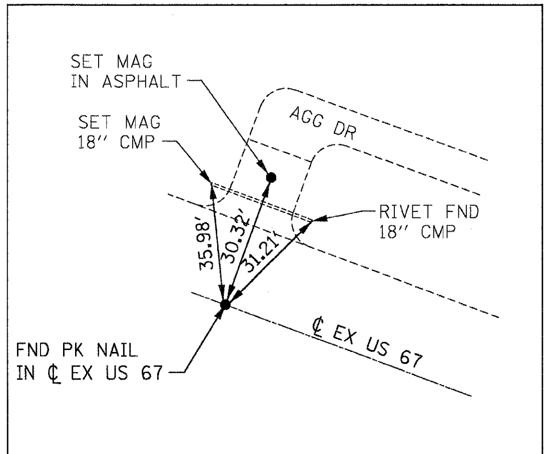
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

11/18/2008

p:\00files\200824\dflyover-bridge\road-plans\frontsheets\ties015.dgn

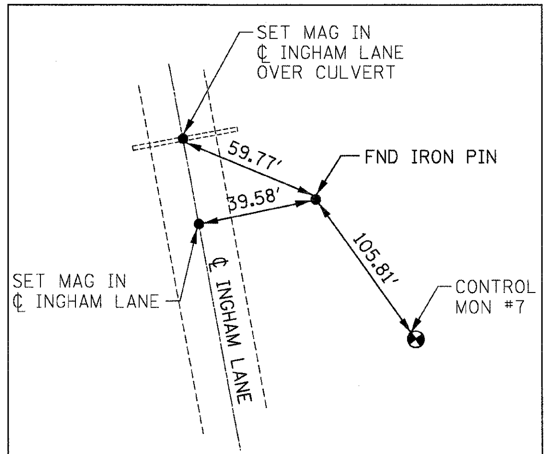
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



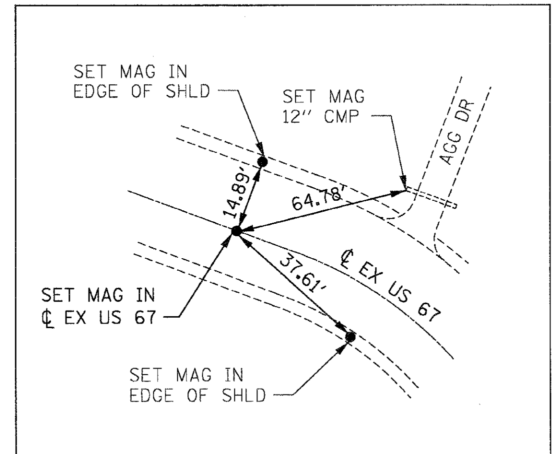
EXIST US 67
PC STA 61+68.11

N 840,411.4300 E 2,288,724.3186



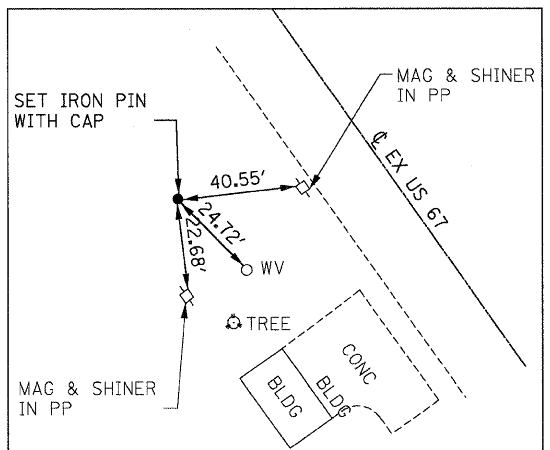
EXIST US 67
PI STA 67+54.39

N 840,986.2463 E 2,288,608.9334



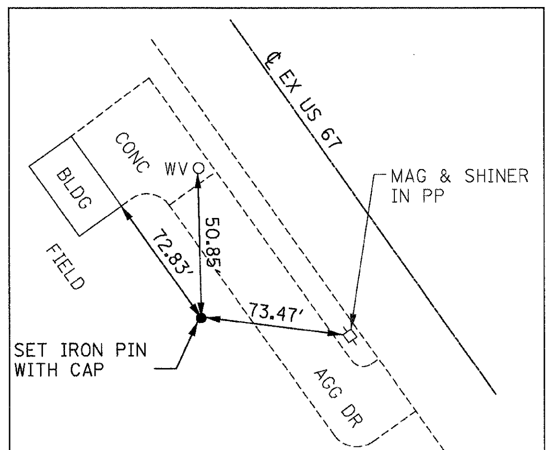
EXIST US 67
PT STA 72+81.10

N 841,315.2728 E 2,288,123.6818



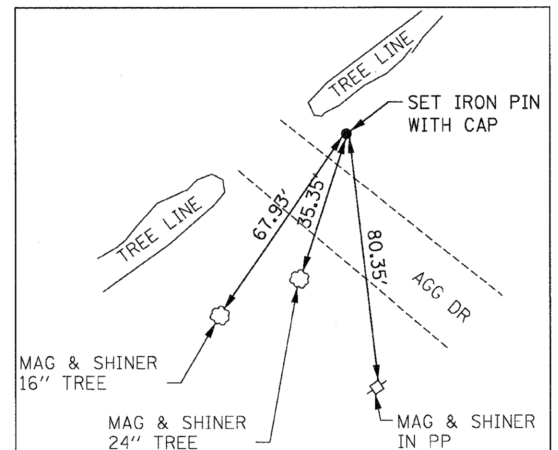
RAMP B
PT STA 11+56.35

N 840,205.7590 E 2,288,832.1842



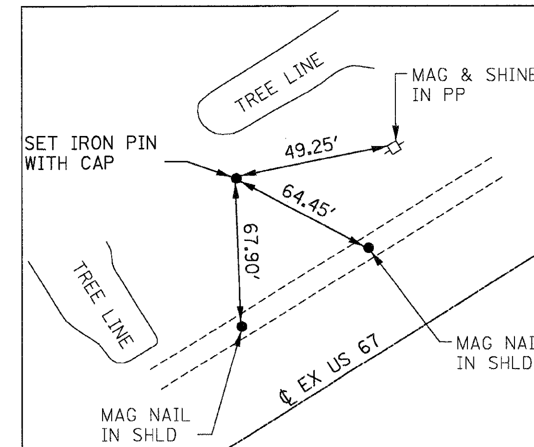
RAMP B
PC STA 12+89.52

N 840,337.9647 E 2,288,816.2133



RAMP B
PT STA 30+26.40

N 841,657.3561 E 2,287,813.9962



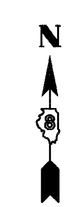
RAMP B
PT STA 31+90.97

N 841,720.1954 E 2,287,661.8919

NOTES:

1) DIMENSIONS LABELED "HORIZ" ARE HORIZONTAL PULLS.

2) DIMENSIONS NOT LABELED "HORIZ" ARE DIRECT PULLS.



(TYP ALL TIES THIS DWG)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

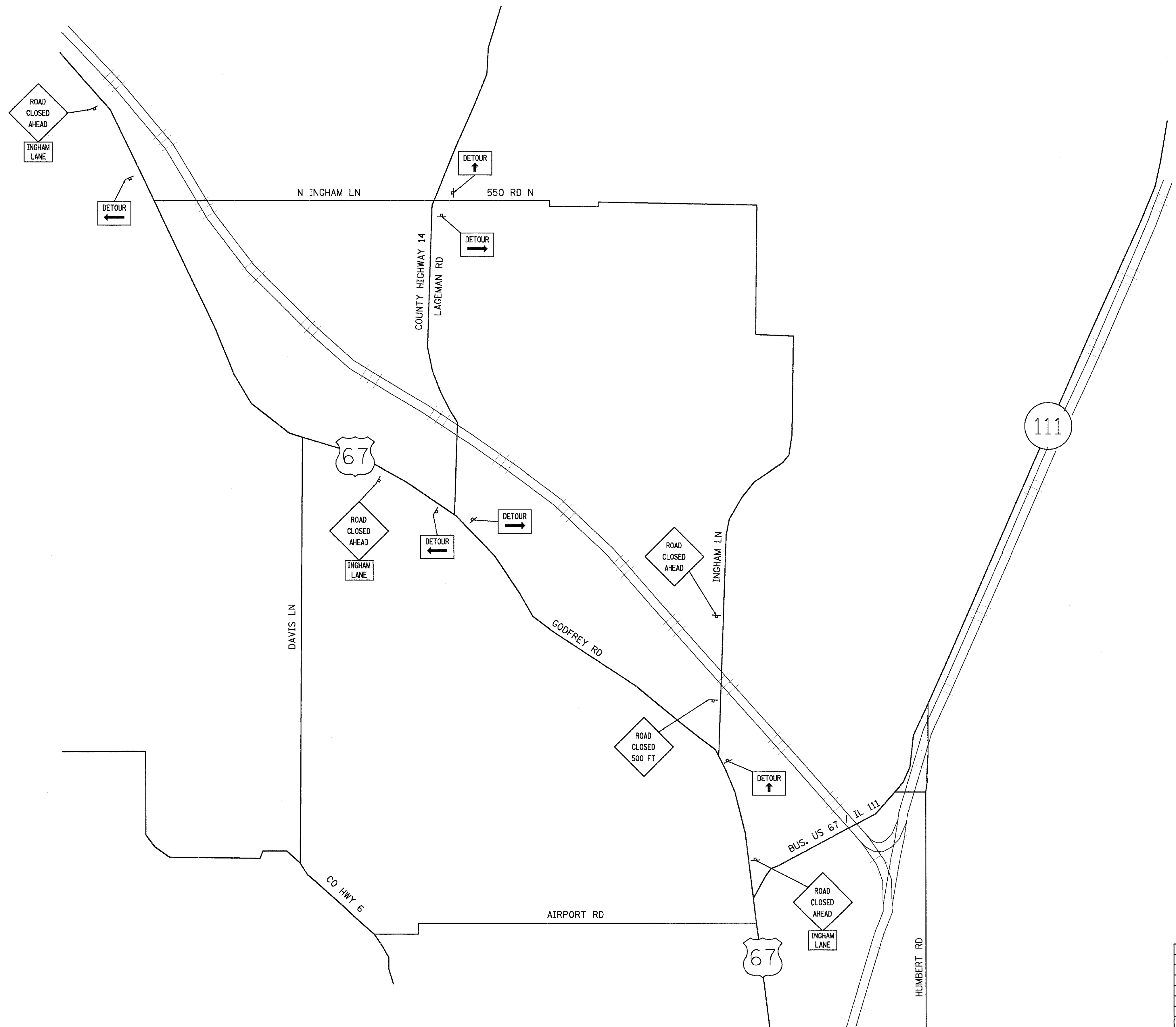
HORIZONTAL CONTROL TIE POINTS
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

11/18/2008

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	13
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



NOTES:

1) INGHAM LANE SHALL BE CLOSED TO THRU TRAFFIC TO REMOVE AND RELOCATE THE EXISTING ROADWAY. THE CLOSURE SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF STANDARD BLR 22 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LUMP SUM FOR "TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 22."

2) DURING THE CLOSURE OF INGHAM LANE FOR REMOVAL AND RECONSTRUCTION, TRAFFIC WILL BE DETOURED AS SHOWN ON THIS SHEET. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR."

3) THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

4) THE CONTRACTOR SHALL NOTIFY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS , AT LEAST TWO WEEKS PRIOR TO NEEDING THE SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE TRAFFIC MAINTENANCE BUILDING IN FAIRVIEW HEIGHTS AND RETURN THEM UPON COMPLETION OF THE CONTRACT.

5) THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.

6) ALL SIGNS SHOWN SHALL BE POST MOUNTED, SHALL BE ON A FLOURESCENT ORANGE REFLECTIVE BACKGROUND, AND SHALL BE REMOVED WHEN NOT REQUIRED FOR FUTURE USE.

7) ALL "ROAD CLOSED AHEAD" AND "ROAD CLOSED 500 FT" SIGNS ARE TO BE PROVIDED BY THE CONTRACTOR.

N

0 1/4 MILE 1/2 MILE 3/4 MILE 1 MILE

APPROX. SCALE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

11/18/2008
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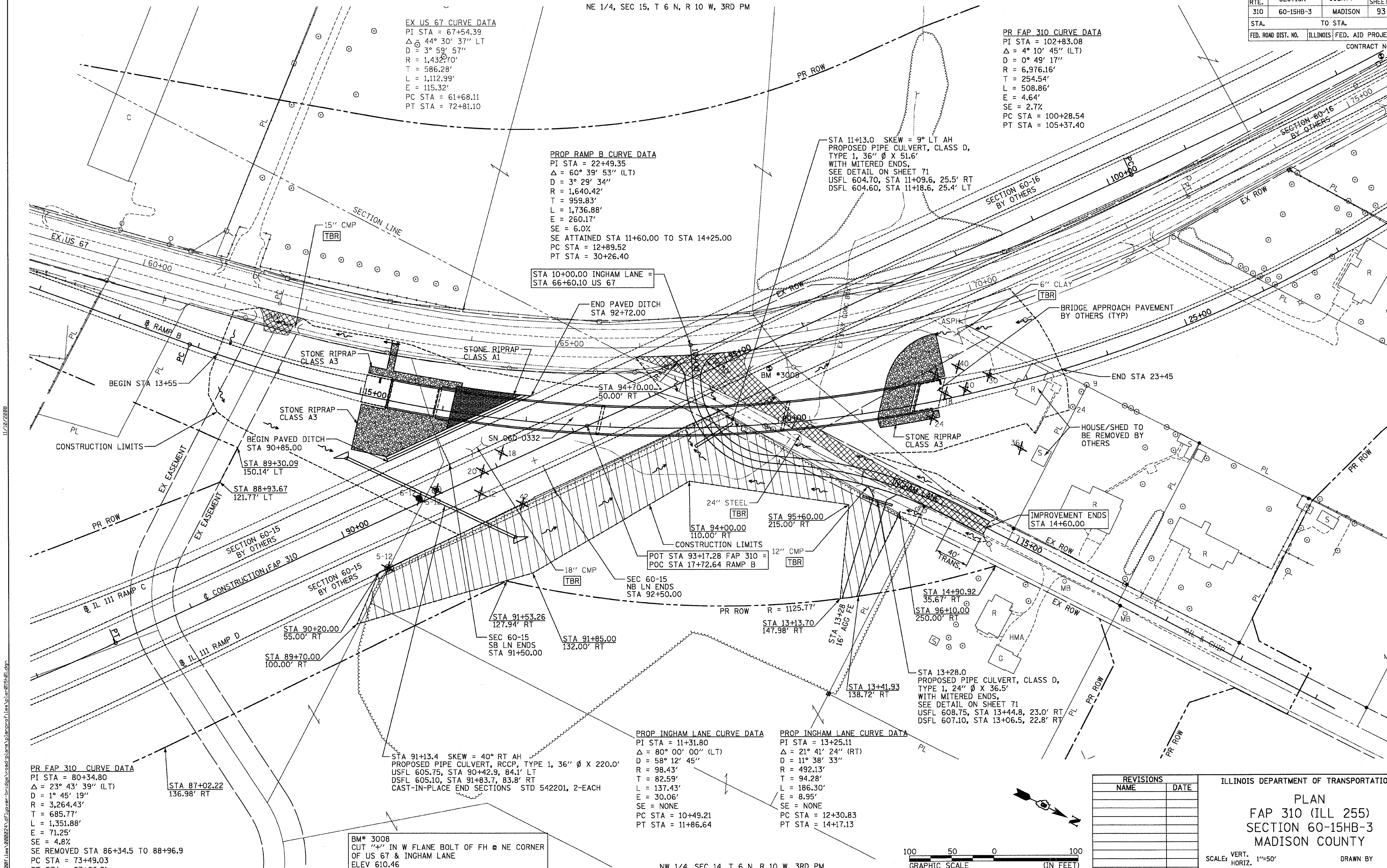
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	14
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

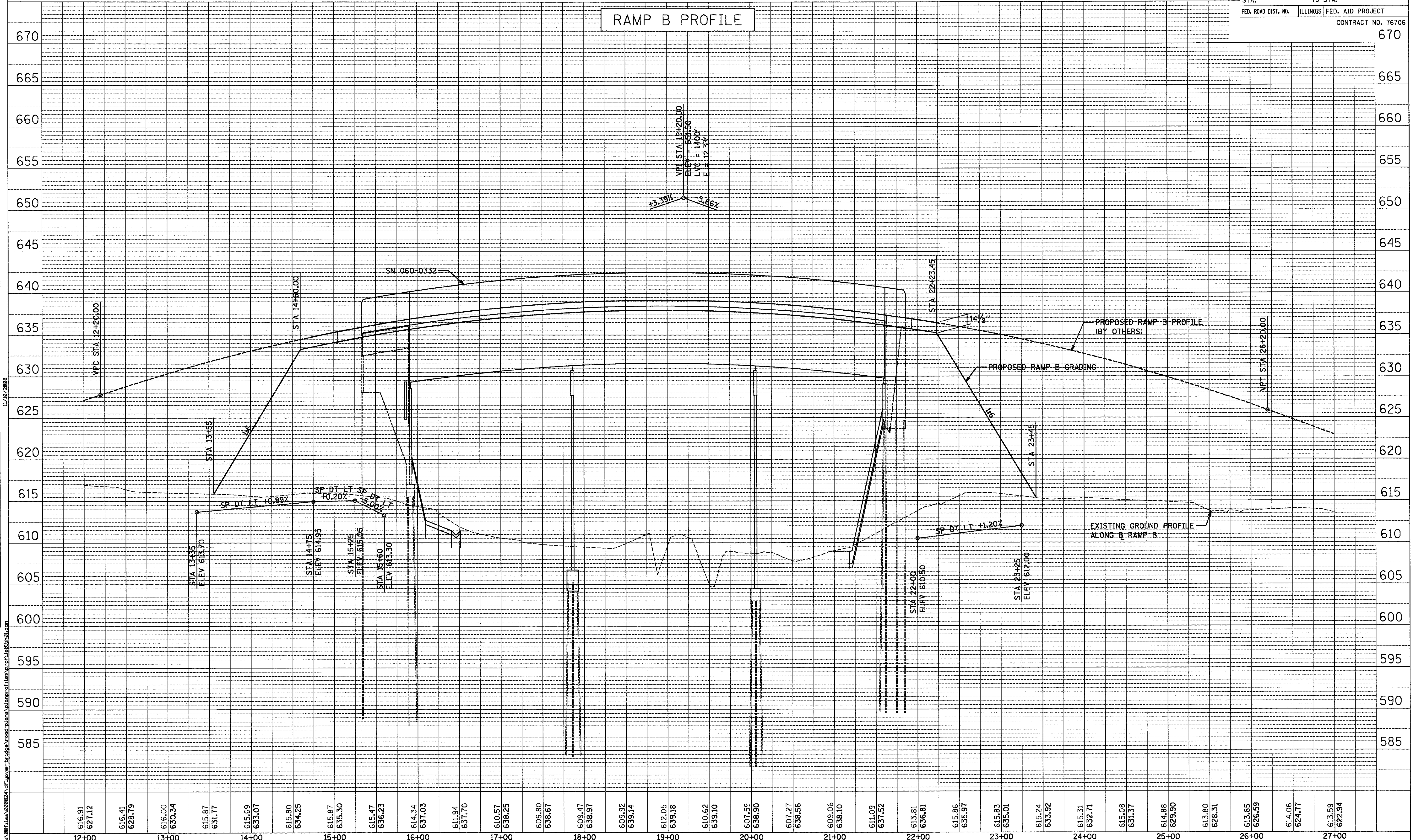
PLAN
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. 1"=50'
DATE
DRAWN BY
CHECKED BY

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	15
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

RAMP B PROFILE



RAMP B OVER FAP 310, STA 12+00 TO STA 27+00

PLAN — NOTE BOOK NO. — SURVEYED / PLOTTED / ALIGNMENT / P.I. OF R&T CHECKED / CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK NO. — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD — BY — DATE

11/10/2008

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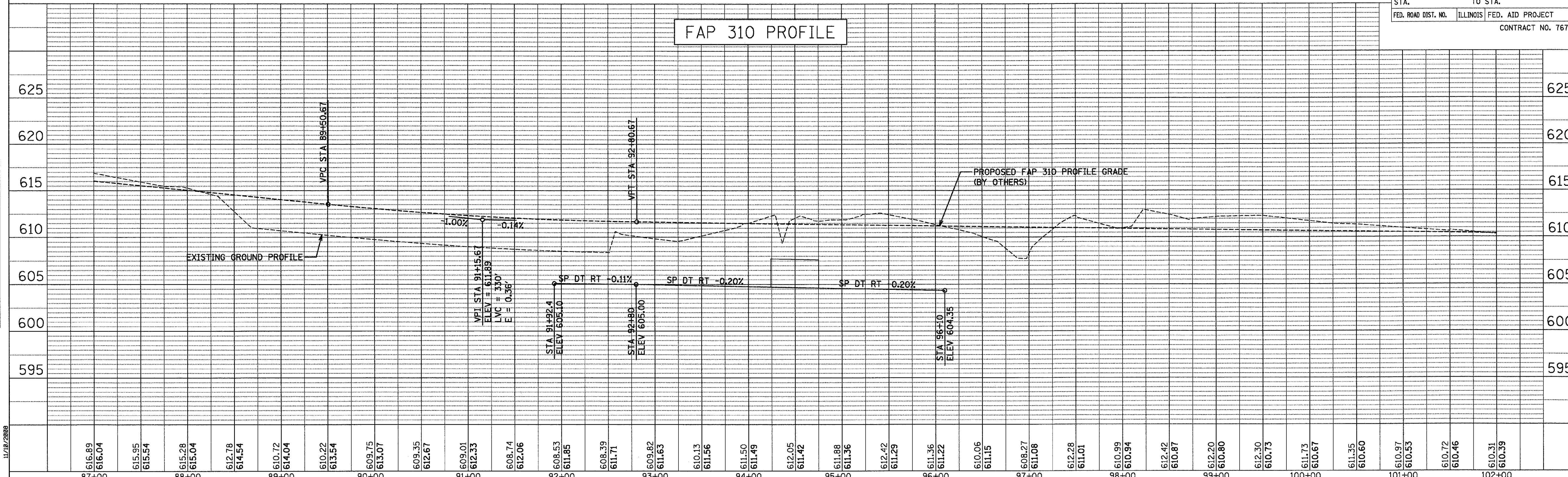
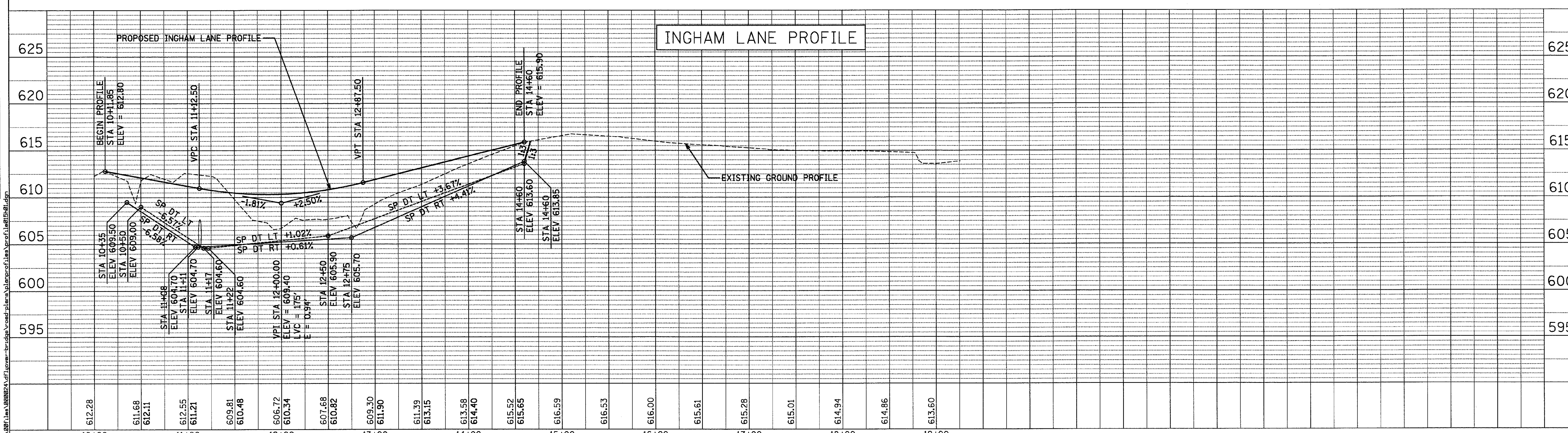
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT NO. 76706		

FAP 310 PROFILE



INGHAM LANE PROFILE



PLAN | NOTE BOOK | NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | BY | DATE

PROFILE | NOTE BOOK | NO. | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTAT'NS CH'KD | BY | DATE

11/10/2008

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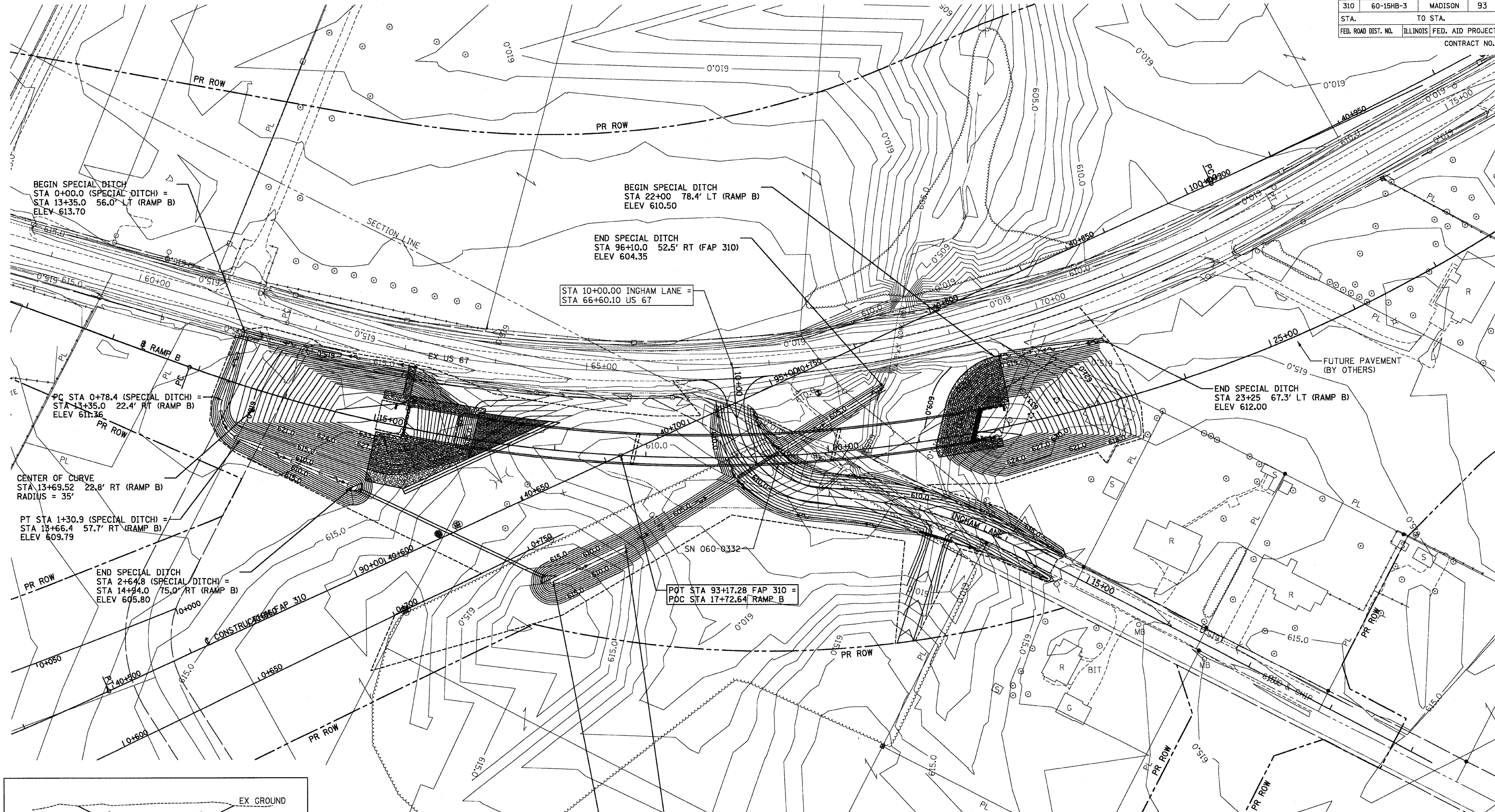
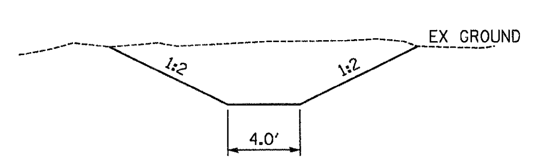
FAP 310, STA 87+00 TO STA 102+00, INGHAM LANE, STA 10+00 TO STA 19+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706





SPECIAL DITCH SECTION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GRADING PLAN
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. 1"=50'

DATE

DRAWN BY

CHECKED BY

11/18/2008

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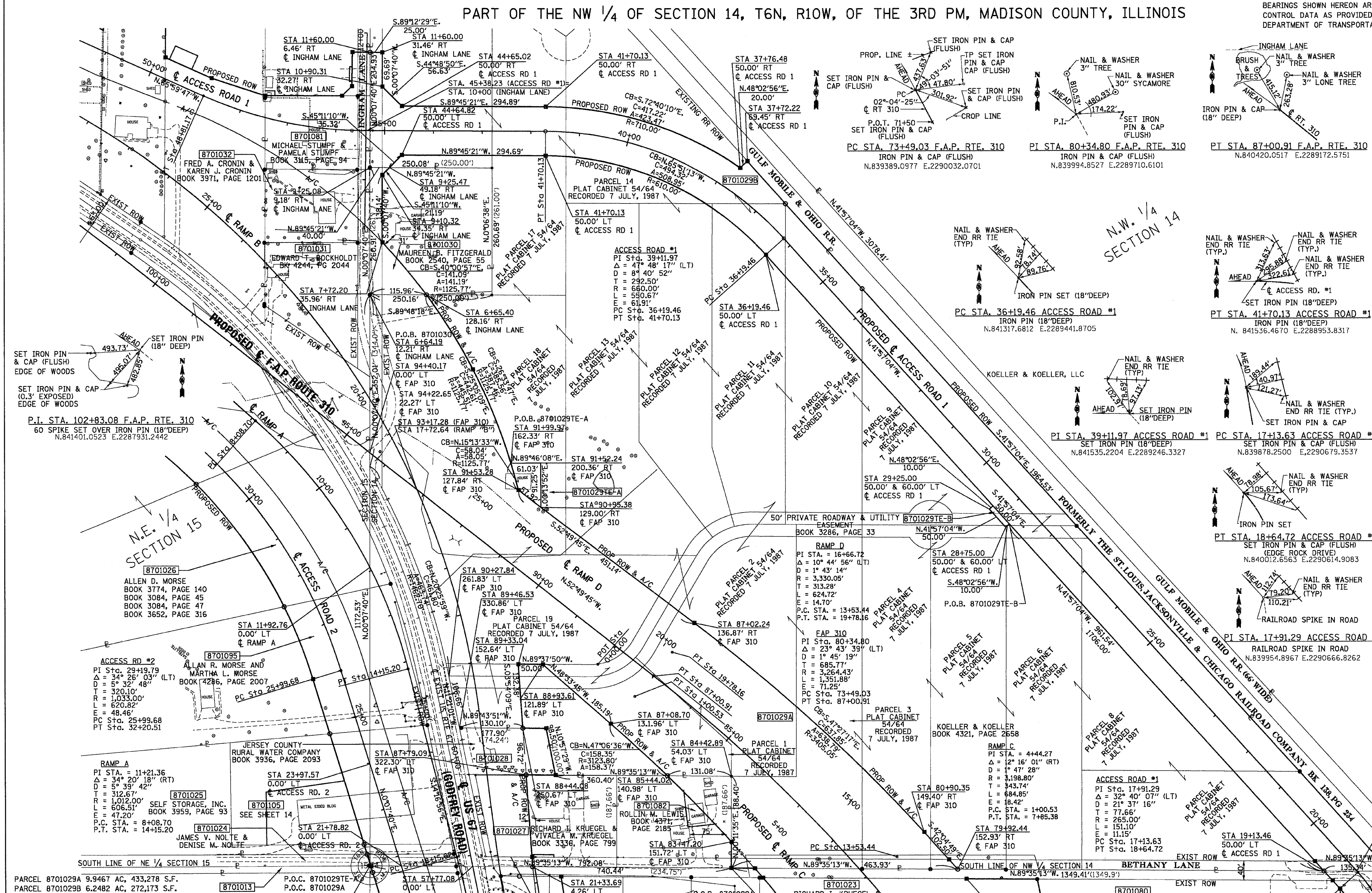
PART OF THE NW 1/4 OF SECTION 14, T6N, R10W, OF THE 3RD PM, MADISON COUNTY, ILLINOIS



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

LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- PROPOSED CENTERLINE
- A/C — ACCESS CONTROL & PROPOSED RIGHT OF WAY LINE
- A/C — ACCESS CONTROL 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
- 121.45 — MEASURED DIMENSION
- 123.45 (COMP) — COMPUTED DIMENSION
- (123.45) — RECORDED DIMENSION
- ● FOUND IRON PIPE OR IRON ROD
- ○ SET 5/8 INCH IRON ROD
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- + CUT CROSS FOUND OR SET
- SAME OWNERSHIP

■ STAKING OF PROPOSED RIGHT OF WAY. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 5/8 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)
) SS
COUNTY OF)

THIS IS TO CERTIFY THAT I, JEFFREY B. MEYER AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAS SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 14, TOWNSHIP 6 NORTH, RANGE 10 WEST, OF THE THIRD PRINCIPAL MERIDIAN, MADISON COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED

JEFFREY B. MEYER, PLS No. 035-002977

POINT OF ACCESS		
PARCEL	STATION	TYPE

PARCEL 8701029A 9.9467 AC, 433,278 S.F.
PARCEL 8701029B 6.2482 AC, 272,173 S.F.
PARCEL 8701029TE-A 0.0871 AC, 3,796 S.F.
PARCEL 8701029TE-B 0.0115 AC, 500 S.F.
PREV. DEDICATED PARCEL 8701029 NORTH 0.1969 AC, 8,578 S.F.
PREV. DEDICATED PARCEL 8701029 SOUTH 0.4058 AC, 17,647 S.F.
REMAINDER PARCEL 8701029 NORTH 5.9682 AC, 259,973 S.F.
REMAINDER PARCEL 8701029 SOUTH 26.2418 AC, 1,143,095 S.F.

PARCEL NO.	OWNER/TITLE REPORT NO.	TOTAL HOLDING	R.O.W. REQUIRED	PREVIOUSLY DEDICATED	REMAINDER	EASEMENTS		EASEMENT PURPOSE	PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
						TEMP	PERM			
8701029	KOELLER & KOELLER, LLC MA-1362	48.4049 AC 2,108,519 SF	16.1949 AC 705,451 SF	0.6027 AC 26,252 SF	32.2101 AC 1,403,074 SF	0.0986 AC 4,296 SF	N/A	ENTRANCE CONST	24-1-01-14-00-000-004	
8701030	MAUREEN B. FITZGERALD MA-1365	1.4975 AC 65,231 SF	0.2696 AC 11,744 SF	0.1497 AC 6,522 SF	1.2279 AC 53,487 SF	N/A	N/A	ENTRANCE CONST	24-1-01-14-00-000-003	

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

COORDINATE TABLE											
STATION	OFFSET	NORTH	EAST	STATION	OFFSET	NORTH	EAST	STATION	OFFSET	NORTH	EAST
6+64.19	12.21' RT	841202.0943	2288593.2954	89+33.04	152.64' LT	840444.2284	2288895.8105	41+70.13	50.00' LT	841486.4675	2288953.6184
9+25.08	9.18' RT	841463.0005	2288593.8776	88+44.08	250.67' LT	840312.1511	2288904.8201	44+64.82	50.00' LT	841487.7235	2288658.9330
9+25.47	49.18' RT	841462.8300	2288633.8774	89+46.53	330.86' LT	840312.7626	2288774.7230	11+60.00	6.46' RT	841697.9323	2288594.4019
9+10.32	34.35' RT	841447.8940	2288618.8440	90+27.84	261.83' LT	840417.3342	2288753.7319	11+60.00	31.46' RT	841697.5868	2288619.4012
7+72.20	35.96' RT	847328.1141	2283134.4090	94+22.65	22.27' LT	840850.0822	2288592.5098	10+90.31	32.27' RT	841627.8939	2288619.2457
6+65.40	128.16' RT	841201.6994	2288709.2594	6+65.40	128.16' RT	841201.6994	2288709.2594	44+65.02	50.00' RT	841587.7234	2288659.1561
79+92.44	152.93' RT	840020.8870	2289795.0223	91+53.28	127.84' RT	840800.8364	2288896.9166	41+70.13	50.00' RT	841586.4666	2288954.0446
83+07.31	189.94' LT	840024.2320	2289331.1034	87+02.24	136.87' RT	840528.2612	2289256.3992	37+76.48	50.00' RT	841462.1834	2289352.3210
83+47.20	151.72' LT	840077.9815	2289331.2845	80+90.35	147.22' RT	840096.9686	2289726.3248	37+72.22	69.45' RT	841475.5533	2289367.1953
85+44.02	140.98' LT	840213.5737	2289202.6608	18+29.22	52.85' RT	840014.5026	2290680.4788	13+53.44	0.00' PC	840046.7024	2289670.6623
87+08.70	131.96' LT	840321.3472	2289084.6418	19+13.46	50.00' LT	840015.4784	2290545.1415	19+78.16	0.00' PT	840468.5035	2289211.0780
88+93.61	121.89' LT	840443.9061	2288945.8094	36+19.46	50.00' LT	841284.2563	2289404.6848	16+66.72	0.00' PI	840279.22100	2289460.71100

HR
HURST-ROSCHE ENGINEERS INC.
1400 E. TREMONT STREET
P.O. BOX 130
HILLSBORO, ILLINOIS 62049
PH. 217 532-3959
FAX 217 532-3212

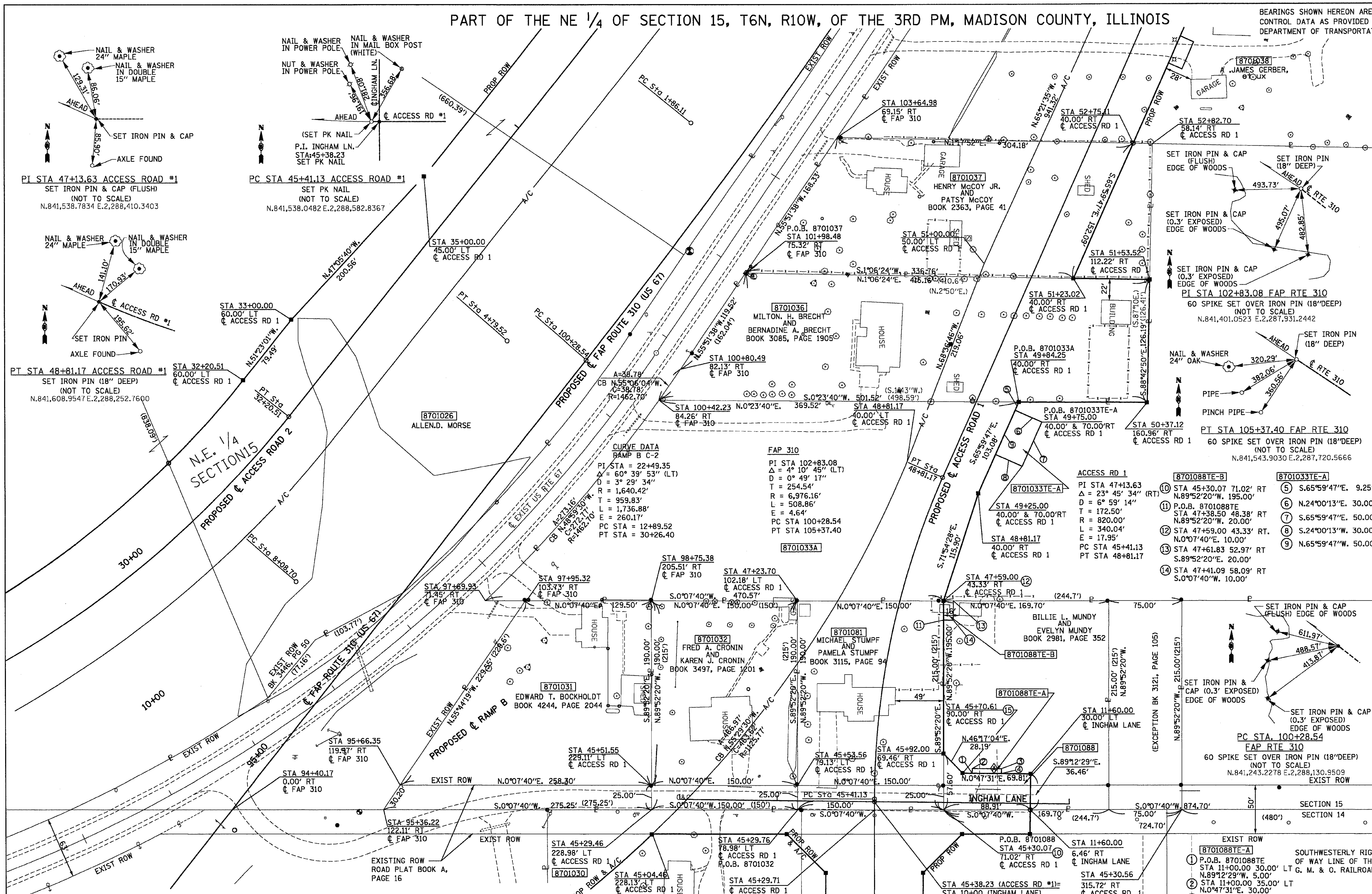
ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 310 (US 67)
SECTION 60-16, 60-15
MADISON COUNTY
JOB NO. R-98-001-97/R-98-039-92
STATION 81+00 TO STATION 100+00
100' 0 100' 200'
SCALE: 1" = 100'

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

DATE 3-28-01
3-28-04-12:00
DGN-SPEC
*REF-ROW100 *REF-CLRAMPS100
*REF-PR-ROW100 *REF-EXCL
*REF-CL100 *REF-SETPIN
*REF-ROW100TX9
*REF-CONST
*REF-TOPO

PART OF THE NE 1/4 OF SECTION 15, T6N, R10W, OF THE 3RD PM, MADISON COUNTY, ILLINOIS

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



LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- PROPOSED CENTERLINE
- A/C — ACCESS CONTROL & PROPOSED RIGHT OF WAY LINE
- A/C — ACCESS CONTROL 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
- 121.45 — MEASURED DIMENSION
- 123.45 (COMP) — COMPUTED DIMENSION
- (123.45) — RECORDED DIMENSION
- ● — FOUND IRON PIPE OR IRON ROD
- ○ — SET 5/8 INCH IRON ROD
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- + — CUT CROSS FOUND OR SET
- SAME OWNERSHIP

■ STAKING OF PROPOSED RIGHT OF WAY. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 5/8 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)
) SS
COUNTY OF)

THIS IS TO CERTIFY THAT I, JEFFREY B. MEYER AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAS SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 15, TOWNSHIP 6 NORTH, RANGE 10 WEST, OF THE THIRD PRINCIPAL MERIDIAN, MADISON COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED ____________________

JEFFREY B. MEYER, PLS No. 035-002977

POINT OF ACCESS		
PARCEL	STATION	TYPE
8701088	LT STA 11+16 (INGHAM LN)	Ⓐ

Ⓐ THE EXISTING DIRECT ACCESS ENTRANCE AT THE DESIGNATED STATION SHOWN HEREON SHALL REMAIN IN EFFECT AND OPERATION ONLY SO LONG AS SAID ENTRANCE IS USED FOR FARMING PURPOSES OR FOR ONE SINGLE FAMILY RESIDENCE OR BOTH, AND SO LONG AS SAID ENTRANCE IS NOT USED FOR ACCESS TO A COMMERCIAL ENTERPRISE OTHER THAN FARMING.

Ⓑ A DIRECT ACCESS ENTRANCE SHALL BE PROVIDED AT THE DESIGNATED STATION SHOWN HEREON, SAID ENTRANCE SHALL REMAIN IN EFFECT AND OPERATION ONLY SO LONG AS SAID ENTRANCE IS USED FOR FARMING PURPOSES OR FOR ONE SINGLE FAMILY RESIDENCE OR BOTH, AND SO LONG AS SAID ENTRANCE IS NOT USED FOR ACCESS TO A COMMERCIAL ENTERPRISE OTHER THAN FARMING.

PARCEL 8701088TE-A 0.0034 AC OR 150 S.F.
PARCEL 8701088TE-B 0.0046 AC OR 200 S.F.

PARCEL NO.	OWNER/TITLE REPORT NO.	TOTAL HOLDING	R.O.W. REQUIRED	PREVIOUSLY DEDICATED	REMAINDER	EASEMENTS TEMP	EASEMENTS PERM	EASEMENT PURPOSE	PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
8701031	EDWARD T. BOCKHOLDT MA-1382	0.9989 AC 43,511 SF	0.9989 AC 43,511 SF	0.1531 AC 6,669 SF	0.00 SF	N/A	N/A	N/A	24-1-01-15-02-201-018	
8701032	FRED A. CRONIN AND KAREN J. CRONIN MA-1383	0.7404 AC 32,250 SF	0.7404 AC 32,250 SF	0.0861 AC 3,750 SF	0.00 SF	N/A	N/A	N/A	24-1-01-15-02-201-017	
8701036	MILTON H., BERNADINE A. BRECHT BERNADINE A. POSTLEWAIT MA-1381	1.3567 AC 59,094 SF	1.3567 AC 59,094 SF	N/A	0.00 SF	N/A	N/A	N/A	24-1-01-15-02-201-010.001	
8701037	HENRY McCOY JR. AND PATSY McCOY MA-1380	1.1931 AC 51,970 SF	1.0354 AC 45,101 SF	N/A	0.1577 AC 6,869 SF	N/A	N/A	N/A	24-1-01-15-02-201-009	
8701081	MICHAEL STUMPF AND PAMELA STUMPF MA-1384	0.7404 AC 32,250 SF	0.7404 AC 32,250 SF	0.0861 AC 3,750 SF	0.00 SF	N/A	N/A	N/A	24-1-01-15-02-201-016	
8701088	BILLIE L. MUNDY AND EVELYN MUNDY MA-1385	0.8376 AC 36,485 SF	0.0802 AC 3,492 SF	0.0511 AC 2,226 SF	0.7574 AC 32,993 SF	0.0080 AC 350 SF	N/A	ENTRANCE CONST	24-1-01-15-02-201-015	

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

COORDINATE TABLE

STATION	OFFSET	NORTH	EAST	STATION	OFFSET	NORTH	EAST	STATION	OFFSET	NORTH	EAST
47+13.63	17.95' RT	841,538.7834	2,288,410.3403	45+30.07	71.02' RT	841,609.0226	2,288,594.2035	11+60.00	6.46' RT	841,697.9323	2,288,594.4019
45+41.13	0.00'	841,538.0482	2,288,582.8367	103+64.98	69.15' RT	841,501.6457	2,287,902.2734	11+60.00	30.00' RT	841,698.4363	2,288,557.9470
48+81.17	0.00'	841,608.9547	2,288,252.7600	101+98.48	75.32' RT	841,407.1776	2,288,041.5960	45+70.61	90.00' RT	841,628.6310	2,288,556.9820
48+81.17	40.00' RT	841,645.4962	2,288,269.0300	100+80.49	82.13' RT	841,340.1031	2,288,140.5181	45+92.00	69.46' RT	841,609.1511	2,288,536.6085
102+83.08	4.64' RT	841,401.0523	2,287,931.2442	100+42.23	84.26' RT	841,317.9186	2,288,172.3201	11+00.00	30.00' LT	841,638.4420	2,288,557.1176
100+28.54	0.00'	841,243.2278	2,288,130.9509	47+59.00	43.33' RT	841,609.5024	2,288,379.2040	11+00.00	35.00' LT	841,638.5111	2,288,552.1181
105+37.40	0.00'	841,543.9030	2,287,720.5666	47+23.70	102.18' LT	841,459.5028	2,288,378.8693	11+30.00	35.00' LT	841,668.5083	2,288,552.5328
45+29.46	228.98' LT	841,309.0233	2,288,593.5340	98+75.38	205.51' RT	841,309.5031	2,288,378.5345	11+30.00	30.00' LT	841,668.4392	2,288,557.5323
95+36.22	122.11' RT	841,033.7740	2,288,592.9197	51+23.02	40.00' RT	841,743.8774	2,288,048.0999	50+37.12	160.96' RT	841,819.4299	2,288,175.7728
97+95.32	103.73' RT	841,180.0035	2,288,378.2455	52+75.11	40.00' RT	841,805.7469	2,287,909.1626	51+53.52	112.22' RT	841,822.1362	2,288,049.4762
45+29.76	78.98' LT	841,459.0230	2,288,593.8688	49+84.25	40.00' RT	841,687.4288	2,288,174.8641	97+69.93	71.45' RT	841,138.9372	2,288,378.1539

HR
HURST-ROSCHE ENGINEERS INC.
1400 E. TREMONT STREET
P.O. BOX 130
HILLSBORO, ILLINOIS 62049
PH. 217 532-3959
FAX 217 532-3212

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 310 (US 67)
SECTION 60-16, 60-15
MADISON COUNTY
JOB NO. R-98-001-97/R-98-039-92

STATION 94+00 TO STATION 104+00

SCALE: 1" = 50'   SHEET 19 OF 93

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

DATE 3-28-01
*REF-EXCL *REF-SETPIN *REF-PR-ROW50 *REF-CL50 *REF-ROW50TX18 *REF-CONST *REF-TOPO

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	20
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ON MAY 30, 2003 FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES. THIS PLAN HAS ALSO BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF NPDES PERMIT NUMBER ILR40 FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS IF CHECKED BELOW.

NPDES PERMITS ASSOCIATED WITH THIS PROJECT:

☐ ILR10
☒ ILR40 PERMIT NO. 0493

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

MARY C. LAMIE — PRINT NAME
Mary C Lamie — SIGNATURE

DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER — TITLE
Dec 7, 2009 — DATE

IL DEPT. OF TRANSPORTATION — AGENCY

I. SITE DESCRIPTION:

A. THE FOLLOWING IS A DESCRIPTION OF THE PROJECT LOCATION:

THE PROPOSED PROJECT CONSISTS OF CONSTRUCTING A 3 SPAN CONTINUOUSLY WELDED CURVED PLATE GIRDER BRIDGE TO CARRY US 67 (FAP 10) OVER AND ONTO IL 255 (FAP 310).

B. THE FOLLOWING IS A DESCRIPTION OF THE CONSTRUCTION ACTIVITY WHICH IS THE SUBJECT OF THIS PLAN:

CONSTRUCTION INCLUDES CONSTRUCTING THE BRIDGE STRUCTURE, BRIDGE EMBANKMENT CONES, GRADING DITCHES, CONSTRUCTING CULVERTS, SEEDING, EROSION CONTROL, AND OTHER MISCELLANEOUS ITEMS. OTHER WORK ITEMS INCLUDE REALIGNMENT CONSTRUCTION OF INGHAM LANE.

C. THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE, SUCH AS GRUBBING, EXCAVATION AND GRADING:

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. TREE REMOVAL WILL BE COMPLETED.
2. EXCAVATION WILL BE COMPLETED ALONG THE MAJORITY OF THE PROJECT TO GRADE OUT FOR PROPOSED ROADWAY DITCHES AND WATERWAYS.
3. EMBANKMENT WILL BE COMPLETED TO FILL AREAS TO RAISE THE EXISTING GROUND ELEVATION TO MEET THE PROPOSED ROADWAY FORESLOPE AND BACKSLOPE.
4. DRAINAGE STRUCTURES WILL BE INSTALLED BEFORE AND/OR DURING THE CONSTRUCTION OF THE EXCAVATION AND EMBANKMENT TO MAINTAIN ACCEPTABLE DRAINAGE.
5. PLACEMENT, MAINTENANCE, REMOVAL, AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL, SUCH AS PERIMETER EROSION BARRIER, TEMPORARY DITCH CHECKS, TEMPORARY SEEDING, ETC.
6. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS RIPRAP DITCH LINING, RIPRAP STILLING BASINS, EXCELSIOR BLANKET, SEEDING, ETC.
7. FINAL GRADING, CLEAN UP, AND OTHER MISCELLANEOUS ITEMS.

D. THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 7.2 ACRES.

THE TOTAL AREA OF THE SITE THAT IS ESTIMATED WILL BE DISTURBED BY EXCAVATION, GRADING OR OTHER ACTIVITIES IS 4.4 ACRES.

E. THE FOLLOWING IS A WEIGHTED AVERAGE OF THE RUNOFF COEFFICIENT FOR THIS PROJECT AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED: 0.50

F. THE FOLLOWING IS A DESCRIPTION OF THE SOIL TYPES FOUND AT THE PROJECT SITE FOLLOWED BY INFORMATION REGARDING THEIR EROSIVITY:

THREE SOIL TYPES ARE LOCATED WITHIN THE PROJECT AREA. THESE ARE:

CASEYVILLE SILT LOAM (267A) - A SOMEWHAT POORLY DRAINED SOIL WITH MODERATE PERMEABILITY. THIS SOIL HAS SLOPES BETWEEN ZERO AND TWO PERCENT.

CASEYVILLE SILT LOAM (267B) - A SOMEWHAT POORLY DRAINED SOIL WITH MODERATE PERMEABILITY. THIS SOIL HAS SLOPES BETWEEN TWO AND FIVE PERCENT.

WINFIELD SILTY CLAY LOAM (477C3) - A MODERATELY WELL DRAINED SOIL WITH MODERATE PERMEABILITY AND IS SUSCEPTIBLE TO EROSION. THIS SOIL HAS SLOPES BETWEEN FIVE AND TEN PERCENT.

G. THE FOLLOWING IS A DESCRIPTION OF POTENTIALLY EROSIVE AREAS ASSOCIATED WITH THIS PROJECT:

THERE ARE NO POTENTIALLY CRITICAL EROSIVE AREAS WITHIN THE PROJECT AREA.

H. THE FOLLOWING IS A DESCRIPTION OF SOIL DISTURBING ACTIVITIES, THEIR LOCATIONS, AND THEIR EROSIVE FACTORS (E.G. STEEPNESS OF SLOPES, LENGTH OF SLOPES, ETC):

THE NATURE AND PURPOSE OF LAND DISTURBING ACTIVITIES ON THIS PROJECT IS TO CONSTRUCT A STRUCTURE TO CARRY US RTE 67 OVER AND ONTO IL RTE 255 AND TO REHABILITATE PART OF INGHAM LANE. PROPOSED RIGHT-OF-WAY WILL BE REQUIRED TO ACCOMMODATE CONSTRUCTION OF THE IMPROVEMENTS. THERE ARE NO SCHEDULED ACTIVITIES THAT WILL AFFECT THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND NO OFF-SITE LAND DISTURBING ACTIVITIES.

ONE SOIL TYPES HAS EROSIVE CHARACTERISTICS - WINFIELD SILTY CLAY LOAM (477C3) IS HIGHLY SUSCEPTIBLE TO WATER EROSION. HOWEVER, SUSCEPTIBILITY TO WATER WILL BE LIMITED WITHIN THE PROJECT AREA DUE TO MODERATE SLOPES ONLY.

I. SEE THE EROSION CONTROL PLANS AND/OR DRAINAGE PLANS FOR THIS CONTRACT FOR INFORMATION REGARDING DRAINAGE PATTERNS, APPROXIMATE SLOPES ANTICIPATED BEFORE AND AFTER MAJOR GRADING ACTIVITIES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AND CONTROLS TO PREVENT OFF SITE SEDIMENT TRACKING (TO BE ADDED AFTER CONTRACTOR IDENTIFIES LOCATIONS), AREAS OF SOIL DISTURBANCE, THE LOCATION OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS IDENTIFIED IN THE PLAN, THE LOCATION OF AREAS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR, SURFACE WATERS (INCLUDING WETLANDS) AND LOCATIONS WHERE STORM WATER IS DISCHARGED TO SURFACE WATER INCLUDING WETLANDS.

J. THE FOLLOWING IS A LIST OF RECEIVING WATER(S) AND THE ULTIMATE RECEIVING WATER(S), AND AERIAL EXTENT OF WETLAND ACREAGE AT THE SITE. THE LOCATION OF THE RECEIVING WATERS CAN BE FOUND ON THE EROSION AND SEDIMENT CONTROL PLANS:

1. SOUTH BRANCH OF PIASA CREEK
2. MISSISSIPPI RIVER

K. THE FOLLOWING POLLUTANTS OF CONCERN WILL BE ASSOCIATED WITH THIS CONSTRUCTION PROJECT: (CHECK ALL THAT APPLY)

☒ SOIL SEDIMENT	☒ PETROLEUM (GAS, DIESEL, OIL, KEROSENE, HYDRAULIC OIL/FLUIDS)
☒ CONCRETE	☒ ANTIFREEZE / COOLANTS
☒ CONCRETE TRUCK WASTE	☒ WASTE WATER FROM CLEANING CONSTRUCTION EQUIPMENT
☒ CONCRETE CURING COMPOUNDS	☐ OTHER (SPECIFY)________
☒ SOLID WASTE DEBRIS	☐ OTHER (SPECIFY)________
☐ PAINTS	☐ OTHER (SPECIFY)________
☐ SOLVENTS	☐ OTHER (SPECIFY)________
☐ FERTILIZERS / PESTICIDES	☐ OTHER (SPECIFY)________

II. CONTROLS

THIS SECTION OF THE PLAN ADDRESSES THE CONTROLS THAT WILL BE IMPLEMENTED FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES DESCRIBED IN I.C. ABOVE AND FOR ALL USE AREAS, BORROW SITES, AND WASTE SITES. FOR EACH MEASURE DISCUSSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR ITS IMPLEMENTATION AS INDICATED. THE CONTRACTOR SHALL PROVIDE TO THE RESIDENT ENGINEER A PLAN FOR THE IMPLEMENTATION OF THE MEASURES INDICATED. THE CONTRACTOR, AND SUBCONTRACTORS, WILL NOTIFY THE RESIDENT ENGINEER OF ANY PROPOSED CHANGES, MAINTENANCE, OR MODIFICATIONS TO KEEP CONSTRUCTION ACTIVITIES COMPLIANT WITH THE PERMIT. EACH SUCH CONTRACTOR HAS SIGNED THE REQUIRED CERTIFICATION ON FORMS WHICH WILL BE PROVIDED AT THE PRE-CONSTRUCTION CONFERENCE, AND ARE A PART OF, THIS PLAN:

A. EROSION AND SEDIMENT CONTROL

1. STABILIZED PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF INTERIM AND PERMANENT STABILIZATION PRACTICES, INCLUDING SITE SPECIFIC SCHEDULING OF THE IMPLEMENTATION OF THE PRACTICES. SITE PLANS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SODDING, VEGETATIVE BUFFER STRIPS, PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION, AND OTHER APPROPRIATE MEASURES. EXCEPT AS PROVIDED BELOW IN II(A)(1)(c) AND II(A)(3), STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASES ON ALL DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDAR DAYS.

c. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE THEREAFTER.

THE FOLLOWING STABILIZATION PRACTICES WILL BE USED FOR THIS PROJECT: (CHECK ALL THAT APPLY)

☐ PRESERVATION OF MATURE VEGETATION	☒ EROSION CONTROL BLANKET / MULCHING
☐ VEGETATED BUFFER STRIPS	☐ SODDING
☒ PROTECTION OF TREES	☐ GEOTEXTILES
☒ TEMPORARY EROSION CONTROL SEEDING	☐ OTHER (SPECIFY)________
☐ TEMPORARY TURF (SEEDING, CLASS 7)	☐ OTHER (SPECIFY)________
☐ TEMPORARY MULCHING	☐ OTHER (SPECIFY)________
☒ PERMANENT SEEDING	☐ OTHER (SPECIFY)________

DESCRIBE HOW THE STABILIZATION PRACTICES LISTED ABOVE WILL BE UTILIZED:

1. TEMPORARY EROSION CONTROL SEEDING - THIS ITEM WILL BE APPLIED TO ALL BARE AREAS EVERY SEVEN DAYS TO MINIMIZE THE AMOUNT OF EXPOSED SURFACE AREAS.

EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN 14 DAYS.

WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.

BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN 7 DAYS.

2. PERMANENT SEEDING - SEEDING, CLASS 2 WILL BE INSTALLED PER IDOT SPECIFICATIONS.

3. EROSION CONTROL BLANKETS/MULCHING - EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES AND IN HIGH VELOCITY AREAS (I.E. DITCHES) THAT HAVE BEEN BROUGHT TO FINAL GRADE AND SEEDED TO PROTECT SLOPES FROM EROSION AND ALLOW SEEDS TO GERMINATE. MULCH, METHOD 2 WILL BE APPLIED IN RELATIVELY FLAT AREAS TO PROTECT THE DISTURBED AREAS AND PREVENT FURTHER EROSION.

MULCH AS APPLIED TO TEMPORARY EROSION CONTROL SEEDING SHALL BE BY THE METHOD SPECIFIED IN THE CONTRACT AND AT THE DIRECTION OF THE ENGINEER. MULCH WILL BE PAID SEPARATELY AND SHALL CONFORM TO SECTION 251 OF THE STANDARD SPECIFICATIONS.

4. PERMANENT STABILIZATION - ALL AREAS DISTURBED BY CONSTRUCTION WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING THE FINISHED GRADING. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW SEED TO GERMINATE PROPERLY. MULCH, METHOD 2 WILL BE USED ON RELATIVELY FLAT AREAS.

2. STRUCTURAL PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF STRUCTURAL PRACTICES THAT WILL BE IMPLEMENTED, TO THE DEGREE ATTAINABLE, TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SUCH PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: PERIMETER EROSION BARRIER, EARTH DIKES, DRAINAGE SWALES, SEDIMENT TRAPS, DITCH CHECKS, SUBSURFACE DRAINS, PIPE SLOPE DRAINS, LEVEL SPREADERS, STORM DRAIN INLET PROTECTION, ROCK OUTLET PROTECTION, REINFORCED SOIL RETAINING SYSTEMS, GABIONS, AND TEMPORARY OR PERMANENT SEDIMENT BASINS. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

THE FOLLOWING STRUCTURAL PRACTICES WILL BE USED FOR THIS PROJECT:(CHECK ALL THAT APPLY)

☒ PERIMETER EROSION BARRIER	☐ ROCK OUTLET PROTECTION
☒ TEMPORARY DITCH CHECK	☒ RIPRAP
☒ STORM DRAIN INLET PROTECTION	☐ GABIONS
☐ SEDIMENT TRAP	☐ SLOPE MATTRESS
☐ TEMPORARY PIPE SLOPE DRAIN	☐ RETAINING WALLS
☐ TEMPORARY SEDIMENT BASIN	☐ SLOPE WALLS
☐ TEMPORARY STREAM CROSSING	☐ CONCRETE REVETMENT MATS
☐ STABILIZED CONSTRUCTION EXITS	☐ LEVEL SPREADERS
☐ TURF REINFORCEMENT MATS	☐ OTHER (SPECIFY)________
☐ PERMANENT CHECK DAMS	☐ OTHER (SPECIFY)________
☐ PERMANENT SEDIMENT BASIN	☐ OTHER (SPECIFY)________
☐ AGGREGATE DITCH	☐ OTHER (SPECIFY)________
☐ PAVED DITCH	☐ OTHER (SPECIFY)________

DESCRIBE HOW THE STRUCTURAL PRACTICES LISTED ABOVE WILL BE UTILIZED:

1. PERIMETER EROSION BARRIER - SILT FENCES WILL BE PLACED IN AN EFFORT TO CONTAIN SILT AND RUNOFF FROM LEAVING THE SITE.

CONSTRUCT AT BEGINNING OF CONSTRUCTION. REMOVE AT END OF CONSTRUCTION.

2. STORM DRAIN INLET PROTECTION - INLET AND PIPE PROTECTION WILL BE PROVIDED FOR STORM SEWERS AND CULVERTS. SEDIMENT FILTERS WILL BE PLACED IN ALL INLETS, CATCH BASINS AND MANHOLES DURING CONSTRUCTION AND WILL BE CLEANED ON A REGULAR BASIS.

3. TEMPORARY DITCH CHECKS - DITCH CHECKS WILL BE PLACED IN SWALES WHERE RUNOFF VELOCITY IS HIGH. ALL STRUCTURAL PRACTICES ARE SHOWN IN DETAIL ON THE EROSION CONTROL PLANS.

TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 2 FT. FALL/RISE IN DITCH GRADE.

TEMPORARY DITCH CHECKS, AGGREGATE USES GRADING NO. 3- REMOVE AT END OF CONSTRUCTION.

STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCE WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE (IF SPECIFIED), ENVIROBERM, TRIANGULAR SILT DIKES, GEORIDGE AND ROLLED EXCELSIOR.

4. RIPRAP - STONE RIPRAP WITH FILTER FABRIC WILL BE USED AS PROTECTION AT THE DISCHARGE END OF ALL CULVERT END SECTIONS AND AS INLET/OUTLET PROTECTION TO PREVENT SCOURING AT THE END OF PIPES AND PREVENT DOWNSTREAM EROSION.

AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS, INLET AND PIPE PROTECTION, AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.

ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN GENERAL NOTES
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. NONE — DRAWN BY SEB
DATE — CHECKED BY

11/10/2008

3. STORM WATER MANAGEMENT: PROVIDED BELOW IS A DESCRIPTION OF MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

a. SUCH PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: STORM WATER DETENTION STRUCTURES (INCLUDING WET PONDS), STORM WATER RETENTION STRUCTURES, FLOW ATTENUATION BY USE OF OPEN VEGETATED SWALES AND NATURAL DEPRESSIONS, INFILTRATION OF RUNOFF ON SITE, AND SEQUENTIAL SYSTEMS (WHICH COMBINE SEVERAL PRACTICES). THE PRACTICES SELECTED FOR IMPLEMENTATION WERE DETERMINED ON THE BASIS OF THE TECHNICAL GUIDANCE IN SECTION 59-8 (EROSION AND SEDIMENT CONTROL) IN CHAPTER 59 (LANDSCAPE DESIGN AND EROSION CONTROL) OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION BUREAU OF DESIGN AND ENVIRONMENT MANUAL. IF PRACTICES OTHER THAN THOSE DISCUSSED IN SECTION 59-8 ARE SELECTED FOR IMPLEMENTATION OR IF PRACTICES ARE APPLIED TO SITUATIONS DIFFERENT FROM THOSE COVERED IN SECTION 59-8, THE TECHNICAL BASIS FOR SUCH DECISIONS WILL BE EXPLAINED BELOW.

b. VELOCITY DISSIPATION DEVICES WILL BE PLACED AT DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL AS NECESSARY TO PROVIDE A NON-EROSIVE VELOCITY FLOW FROM THE STRUCTURE TO A WATER COURSE SO THAT THE NATURAL PHYSICAL AND BIOLOGICAL CHARACTERISTICS AND FUNCTIONS ARE MAINTAINED AND PROTECTED (E.G. MAINTENANCE OF HYDROLOGIC CONDITIONS SUCH AS THE HYDROPERIOD AND HYDRODYNAMICS PRESENT PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES).

DESCRIPTION OF STORM WATER MANAGEMENT CONTROLS:

SEE THE STORM WATER POLLUTION PREVENTION PLANS.

4. OTHER CONTROLS:

a. VEHICLE ENTRANCES AND EXITS - STABILIZED CONSTRUCTION ENTRANCES AND EXITS MUST BE CONSTRUCTED TO PREVENT TRACKING OF SEDIMENTS ONTO ROADWAYS.

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER WITH A WRITTEN PLAN IDENTIFYING THE LOCATION OF STABILIZED ENTRANCES AND EXITS AND THE PROCEDURES (S)HE WILL USE TO CONSTRUCT AND MAINTAIN THEM.

b. MATERIAL DELIVERY, STORAGE, AND USE - THE FOLLOWING BMPS SHALL BE IMPLEMENTED TO HELP PREVENT DISCHARGES OF CONSTRUCTION MATERIALS DURING DELIVERY, STORAGE, AND USE:

- ALL PRODUCTS DELIVERED TO THE PROJECT SITE MUST BE PROPERLY LABELED.
- WATER TIGHT SHIPPING CONTAINERS AND/OR SEMI TRAILERS SHALL BE USED TO STORE HAND TOOLS, SMALL PARTS, AND MOST CONSTRUCTION MATERIALS THAT CAN BE CARRIED BY HAND, SUCH AS PAINT CANS, SOLVENTS, AND GREASE.
- A STORAGE/CONTAINMENT FACILITY SHOULD BE CHOSEN FOR LARGER ITEMS SUCH AS DRUMS AND ITEMS SHIPPED OR STORED ON PALLETS. SUCH MATERIAL IS TO BE COVERED BY A TIN ROOF OR LARGE SHEETS OF PLASTIC TO PREVENT PRECIPITATION FROM COMING IN CONTACT WITH THE PRODUCTS BEING STORED.
- LARGE ITEMS SUCH AS LIGHT STANDS, FRAMING MATERIALS AND LUMBER SHALL BE STORED IN THE OPEN IN A GENERAL STORAGE AREA. SUCH MATERIAL SHALL BE ELEVATED WITH WOOD BLOCKS TO MINIMIZE CONTACT WITH STORM WATER RUNOFF.
- SPILL CLEAN-UP MATERIALS, MATERIAL SAFETY DATA SHEETS, AN INVENTORY OF MATERIALS, AND EMERGENCY CONTACT NUMBERS SHALL BE MAINTAINED AND STORED IN ONE DESIGNATED AREA AND EACH CONTRACTOR IS TO INFORM HIS/HER EMPLOYEES AND THE RESIDENT ENGINEER OF THIS LOCATION.

c. STOCKPILE MANAGEMENT - BMPS SHALL BE IMPLEMENTED TO REDUCE OR ELIMINATE POLLUTION OF STORM WATER FROM STOCKPILES OF SOIL AND PAVING MATERIALS SUCH AS BUT NOT LIMITED TO PORTLAND CEMENT CONCRETE RUBBLE, ASPHALT CONCRETE, ASPHALT CONCRETE RUBBLE, AGGREGATE BASE, AGGREGATE SUB BASE, AND PRE-MIXED AGGREGATE. THE FOLLOWING BMPS MAY BE CONSIDERED:

- PERIMETER EROSION BARRIER
- TEMPORARY SEEDING
- TEMPORARY MULCH
- PLASTIC COVERS
- SOIL BINDERS
- STORM DRAIN INLET PROTECTION

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER WITH A WRITTEN PLAN OF THE PROCEDURES (S)HE WILL USE ON THE PROJECT AND HOW THEY WILL BE MAINTAINED.

d. WASTE DISPOSAL. NO MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED INTO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

e. THE PROVISIONS OF THIS PLAN SHALL ENSURE AND DEMONSTRATE COMPLIANCE WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

f. THE CONTRACTOR SHALL PROVIDE A WRITTEN AND GRAPHIC PLAN TO THE RESIDENT ENGINEER IDENTIFYING WHERE EACH OF THE ABOVE AREAS WILL BE LOCATED AND HOW THEY ARE TO BE MANAGED.

5. APPROVED STATE OR LOCAL LAWS

THE MANAGEMENT PRACTICES, CONTROLS AND PROVISIONS CONTAINED IN THIS PLAN WILL BE IN ACCORDANCE WITH IDOT SPECIFICATIONS, WHICH ARE AT LEAST AS PROTECTIVE AS THE REQUIREMENTS CONTAINED IN THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S ILLINOIS URBAN MANUAL, 1995. PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SEDIMENT AND EROSION SITE PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS SHALL BE DESCRIBED OR INCORPORATED BY REFERENCE IN THE SPACE PROVIDED BELOW. REQUIREMENTS SPECIFIED IN SEDIMENT AND EROSION SITE PLANS, SITE PERMITS, STORM WATER MANAGEMENT SITE PLANS OR SITE PERMITS APPROVED BY LOCAL OFFICIALS THAT ARE APPLICABLE TO PROTECTING SURFACE WATER RESOURCES ARE, UPON SUBMITTAL OF AN NOI, TO BE AUTHORIZED TO DISCHARGE UNDER PERMIT ILR10 INCORPORATED BY REFERENCE AND ARE ENFORCEABLE UNDER THIS PERMIT EVEN IF THEY ARE NOT SPECIFICALLY INCLUDED IN THE PLAN.

DESCRIPTION OF PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SEDIMENT AND EROSION SITE PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS:

ALL MANAGEMENT PRACTICES, CONTROLS, AND OTHER PROVISIONS PROVIDED IN THIS PLAN ARE IN ACCORDANCE WITH "IDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND THE ILLINOIS URBAN MANUAL".

III. MAINTENANCE:

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT WILL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, THE VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN.

1. SEEDING - ALL ERODIBLE BARE EARTH WILL BE TEMPORARILY SEEDED ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE WITHIN THE CONTRACT LIMITS.

2. PERIMETER EROSION BARRIER - SEDIMENT WILL BE REMOVED IF THE INTEGRITY OF THE FENCING IS IN JEOPARDY AND ANY FENCING KNOCKED DOWN WILL BE REPAIRED IMMEDIATELY.

3. EROSION CONTROL BLANKET/MULCHING - ANY AREAS THAT FAIL WILL BE REPAIRED IMMEDIATELY.

4. PROTECTION OF TREES/TEMPORARY TREE PROTECTION - ANY PROTECTIVE MEASURES WHICH ARE KNOCKED DOWN WILL BE REPAIRED IMMEDIATELY.

5. DITCH CHECKS - SEDIMENT WILL BE REMOVED IF THE INTEGRITY OF THE DITCH CHECK IS IN JEOPARDY. ANY DITCH CHECKS WHICH FAIL WILL BE REPAIRED OR REPLACED IMMEDIATELY.

THE RESIDENT ENGINEER WILL PROVIDE MAINTENANCE GUIDES TO THE CONTRACTOR FOR THESE PRACTICES. ALL MAINTENANCE OF EROSION CONTROL SYSTEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND ACCEPTED BY IDOT AFTER FINAL INSPECTION. ALL LOCATIONS WHERE VEHICLES ENTER AND EXIT THE CONSTRUCTION SITE AND ALL OTHER AREAS SUBJECT TO EROSION SHOULD ALSO BE INSPECTED PERIODICALLY.

INSPECTION OF THESE AREAS SHALL BE MADE AT LEAST ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF THE END OF EACH 0.5 INCHES OR GREATER RAINFALL, OR AN EQUIVALENT SNOWFALL. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.

THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE TEMPORARY EROSION CONTROL SYSTEM.

IV. INSPECTIONS

QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE WHICH HAVE NOT YET BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES AND EQUIPMENT ENTER AND EXIT THE SITE. SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL.

A. DISTURBED AREAS, USE AREAS (STORAGE OF MATERIALS, STOCKPILES, MACHINE MAINTENANCE FUELING, ETC.), BORROW SITES, AND WASTE SITES SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS OR POINTS THAT ARE ACCESSIBLE, SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF SITE SEDIMENT TRACKING.

B. BASED ON THE RESULTS OF THE INSPECTION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED IN SECTION I ABOVE AND POLLUTION PREVENTION MEASURES IDENTIFIED IN SECTION II ABOVE SHALL BE REVISED AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. ANY CHANGES TO THIS PLAN RESULTING FROM THE REQUIRED INSPECTIONS SHALL BE IMPLEMENTED WITHIN 1/2 HOUR TO 1 WEEK BASED ON THE URGENCY OF THE SITUATION. THE RESIDENT ENGINEER WILL NOTIFY THE CONTRACTOR OF THE TIME REQUIRED TO IMPLEMENT SUCH ACTIONS THROUGH THE WEEKLY INSPECTION REPORT.

C. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH SECTION IV(B) SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE (3) YEARS AFTER THE DATE OF THE INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI. G OF THE GENERAL PERMIT.

D. IF ANY VIOLATION OF THE PROVISIONS OF THIS PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE RESIDENT ENGINEER SHALL COMPLETE AND FILE AN "INCIDENCE OF NONCOMPLIANCE" (ION) REPORT FOR THE IDENTIFIED VIOLATION. THE RESIDENT ENGINEER SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI. G OF THE GENERAL PERMIT. THE INCIDENCE OF NONCOMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
ATTN: COMPLIANCE ASSURANCE SECTION
1021 NORTH GRAND EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

V. NON-STORM WATER DISCHARGES:

EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON-STORM WATER THAT IS COMBINED WITH STORM WATER DISCHARGES ASSOCIATED WITH THE INDUSTRIAL ACTIVITY ADDRESSED IN THIS PLAN MUST BE DESCRIBED BELOW. APPROPRIATE POLLUTION PREVENTION MEASURES, AS DESCRIBED BELOW, WILL BE IMPLEMENTED FOR THE NON-STORM WATER COMPONENT(S) OF THE DISCHARGE.

A. SPILL PREVENTION AND CONTROL - BMPS SHALL BE IMPLEMENTED TO CONTAIN AND CLEAN-UP SPILLS AND PREVENT MATERIAL DISCHARGES TO THE STORM DRAIN SYSTEM. THE CONTRACTOR SHALL PRODUCE A WRITTEN PLAN STATING HOW HIS/HER COMPANY WILL PREVENT, REPORT, AND CLEAN UP SPILLS AND PROVIDE A COPY TO ALL OF HIS/HER EMPLOYEES AND THE RESIDENT ENGINEER. THE CONTRACTOR SHALL NOTIFY ALL OF HIS/HER EMPLOYEES ON THE PROPER PROTOCOL FOR REPORTING SPILLS. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY SPILLS IMMEDIATELY.

B. CONCRETE RESIDUALS AND WASHOUT WASTES - THE FOLLOWING BMPS SHALL BE IMPLEMENTED TO CONTROL RESIDUAL CONCRETE, CONCRETE SEDIMENTS, AND RINSE WATER:

1. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED FOR RINSING OUT CONCRETE TRUCKS. SIGNS SHALL BE INSTALLED DIRECTING CONCRETE TRUCK DRIVERS WHERE DESIGNATED WASHOUT FACILITIES ARE LOCATED.

2. THE CONTRACTOR SHALL HAVE THE LOCATION OF TEMPORARY CONCRETE WASHOUT FACILITIES APPROVED BY THE RESIDENT ENGINEER.

3. ALL TEMPORARY CONCRETE WASHOUT FACILITIES ARE TO BE INSPECTED BY THE CONTRACTOR AFTER EACH USE AND ALL SPILLS MUST BE REPORTED TO THE RESIDENT ENGINEER AND CLEANED UP IMMEDIATELY.

4. CONCRETE WASTE SOLIDS/LIQUIDS SHALL BE DISPOSED OF PROPERLY.

C. LITTER MANAGEMENT - A PROPER NUMBER OF DUMPSTERS SHALL BE PROVIDED ON SITE TO HANDLE DEBRIS AND LITTER ASSOCIATED WITH THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING HIS/HER EMPLOYEES PLACE ALL LITTER INCLUDING MARKING PAINT CANS, SODA CANS, FOOD WRAPPERS, WOOD LATHE, MARKING RIBBON, CONSTRUCTION STRING, AND ALL OTHER CONSTRUCTION RELATED LITTER IN THE PROPER DUMPSTERS.

D. VEHICLE AND EQUIPMENT CLEANING - VEHICLES AND EQUIPMENT ARE TO BE CLEANED IN DESIGNATED AREAS ONLY, PREFERABLY OFF SITE.

E. VEHICLE AND EQUIPMENT FUELING - A VARIETY OF BMPS CAN BE IMPLEMENTED DURING FUELING OF VEHICLES AND EQUIPMENT TO PREVENT POLLUTION. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER AS TO WHICH BMPS WILL BE USED ON THE PROJECT. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER HOW (S)HE WILL BE INFORMING HIS/HER EMPLOYEES OF THESE BMPS (I.E. SIGNS, TRAINING, ETC.). BELOW ARE A FEW EXAMPLES OF THESE BMPS:

1. CONTAINMENT
2. SPILL PREVENTION AND CONTROL
3. USE OF DRIP PANS AND ABSORBENTS
4. AUTOMATIC SHUT-OFF NOZZLES
5. TOPPING OFF RESTRICTIONS
6. LEAK INSPECTION AND REPAIR

F. VEHICLE AND EQUIPMENT MAINTENANCE - ON SITE MAINTENANCE MUST BE PERFORMED IN ACCORDANCE WITH ALL ENVIRONMENTAL LAWS SUCH AS PROPER STORAGE AND NO DUMPING OF OLD ENGINE OIL OR OTHER FLUIDS ON SITE.

VI. FAILURE TO COMPLY:

FAILURE TO COMPLY WITH ANY PROVISIONS OF THIS STORM WATER POLLUTION PREVENTION PLAN WILL RESULT IN THE IMPLEMENTATION OF AN EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION AGAINST THE CONTRACTOR AND/OR PENALTIES UNDER THE NPDES PERMIT WHICH COULD BE PASSED ONTO THE CONTRACTOR.

LEGEND

- TEMPORARY DITCH CHECK - ROLLED EXCELSIOR, SILT WEDGES/PANELS
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
- INLET AND PIPE PROTECTION - STRAW BALES, FILTER FABRIC, AGGREGATE
- AGGREGATE EROSION CONTROL (AGGREGATE DITCH CHECK)
- EARTH EXCAVATION FOR EROSION CONTROL - SEDIMENT BASIN (STD 280001)

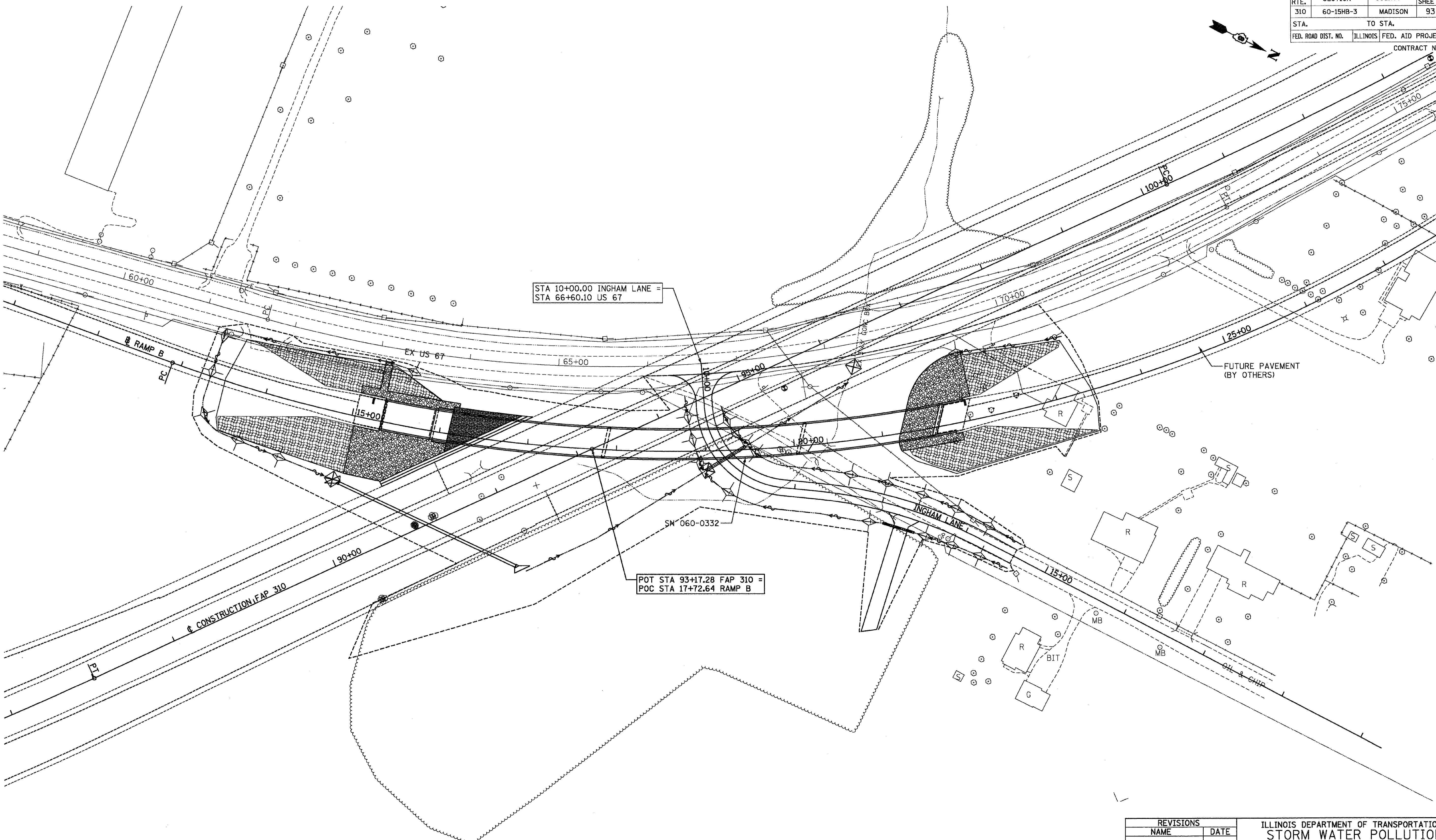
REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STORM WATER POLLUTION PREVENTION PLAN GENERAL NOTES
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. NONE
DATE
DRAWN BY SEB
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	22
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



GRAPHIC SCALE 100 50 0 100 (IN FEET)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. 1"=50'
DRAWN BY
DATE
CHECKED BY

B.M. #3008 - Cut "+" in West Flange Bolt of Fire Hydrant at Northeast Corner of US 67 and Ingham Lane, FAP 310 Sta. 95+59, 51' Rt., Elev. 610.46

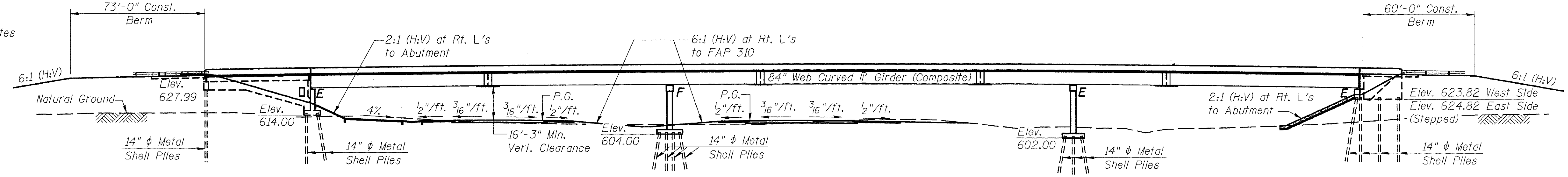
Existing Structure: None

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	93	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
47 SHEETS

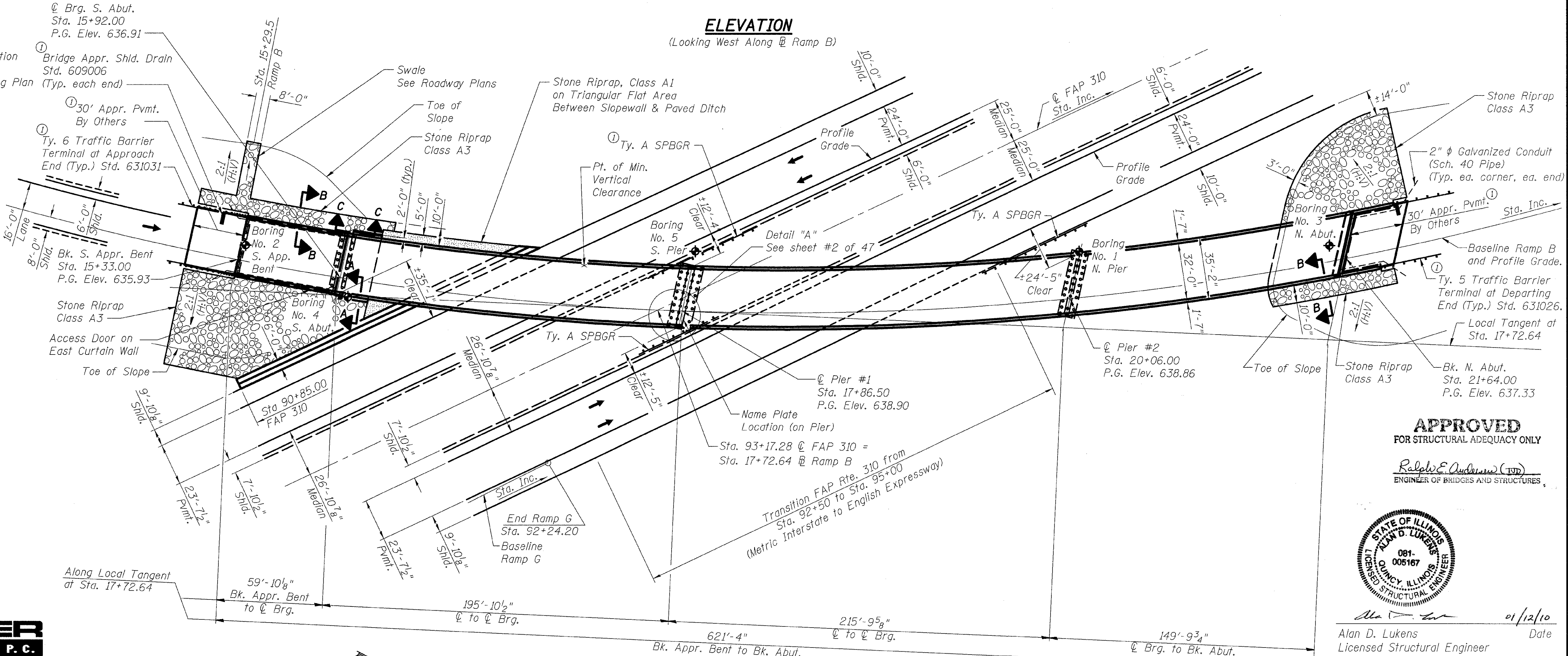
* 60-15HB-3 Contract No. 76706

INDEX OF SHEETS



ELEVATION

(Looking West Along ℄ Ramp B)



PLAN

CURVE DATA
℄ RAMP B

PI Sta. = 22+49.35
Δ = 60° 39' 53" (LT)
D = 3° 29' 34"
R = 1,640.42'
T = 959.83'
L = 1,736.88'
E = 260.17'
P.C. Sta. = 12+89.52
P.T. Sta. = 30+26.40
SE = 6.0%

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
www.klingner.com
STATE OF ILLINOIS DESIGN FIRM # 1842738

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ/ADL
CHECKED	WLW

Notes:

The width between the guardrails shall be the width between bridge parapets which will require approach shoulder widening.

See Sheet #3 of 47 for Sections A-A, B-B & C-C.

⊕ Indicates Boring Location

① Traffic Barrier Terminals, Approach Pavement, Approach Shoulder drains and Ty. A SPBGR are not included in this contract.

DESIGN SPECIFICATIONS

AASHTO Standard Specification for Highway Bridges (2002)
AASHTO Guide Specifications for Horizontally Curved Bridges (1993)

LOADING HS20-44

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

SEISMIC DATA

Seismic Performance Category (SPC)= A
Bedrock Acceleration Coefficient (A)= 0.080g
Site Coefficient (S)= 1.0

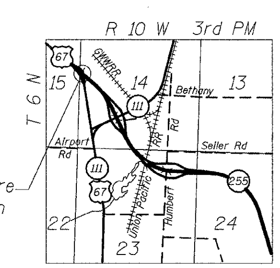
DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 50,000 psi (M270 Grade 50)
f_y = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f'_s = 270,000 psi (½" ϕ Low Relaxation Strands)
f_{si} = 201,960 psi (½" ϕ Low Relaxation Strands)



LOCATION SKETCH

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

STATE OF ILLINOIS ALAN D. LUKENS 081-005167 QUINCY, ILLINOIS LICENSED STRUCTURAL ENGINEER

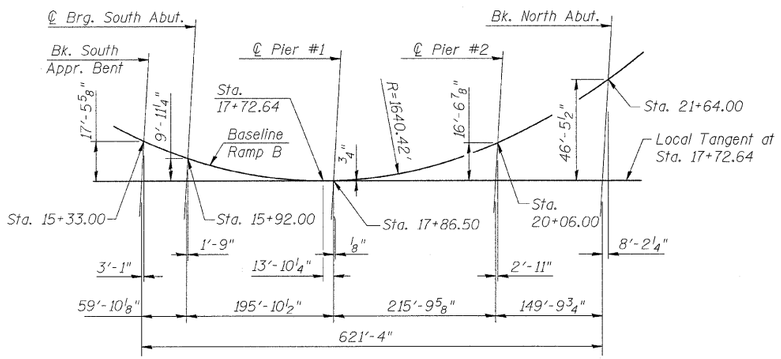
01/12/10

Alan D. Lukens
Licensed Structural Engineer
State of Illinois No. 081-005167
License Expires 11/30/10

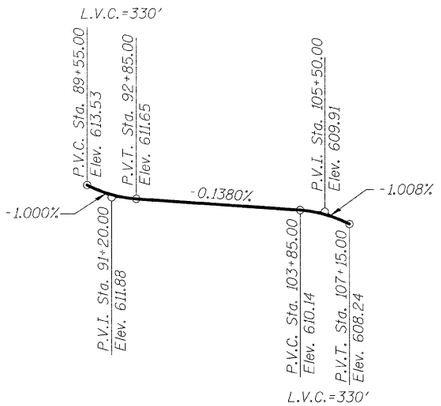
Date

GENERAL PLAN and ELEVATION
RAMP B OVER FAP RTE. 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

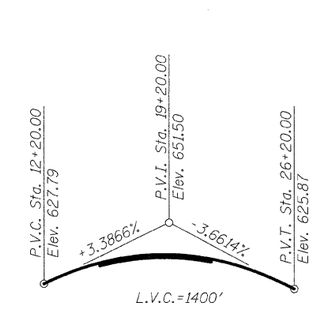


OFFSET SKETCH



PROFILE GRADE FAP RTE. 310

(Along Median Edge)



PROFILE GRADE RAMP B (FLYOVER)

(Along Baseline)

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Furnishing and Erecting Structural Steel	LUMP SUM	1		1
	Stud Shear Connectors	EACH	4144		4144
	Test Pile Metal Shells	EACH		5	5
	Name Plates	EACH		1	1
	Porous Granular Embankment (Special)	CU YD		117	117
	Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36 in.	FOOT	339		339
***	Stone Riprap, Class A3	SQ YD		1310	1310
	Stone Riprap, Class A1	SQ YD		218	218
**	Filter Fabric	SQ YD		1528	1528
	Protective Coat	SQ YD	2755		2755
	Structure Excavation	CU YD		707	707
	Preformed Joint Strip Seal	FOOT	34		34
	Modular Expansion Joint - Swivel 6"	FOOT	37		37
	Concrete Structures	CU YD		520.4	520.4
	Concrete Superstructure	CU YD	721.1		721.1
	Bridge Deck Grooving	SQ YD	2232		2232
	Reinforcement Bars, Epoxy Coated	POUND	162,880	50,770	213,650
	Bar Splicers	EACH		36	36
	Furnishing Metal Shell Piles 14" x 0.250"	FOOT		4098	4098
	Driving Piles	FOOT		4098	4098
	Concrete Sealer	SQ FT		1063	1063
	Slope Wall 4 inch	SQ YD		79	79
	HLMR Bearings, Fixed - 600K	EACH	6		6
	HLMR Bearings, Guided Expansion, 200K	EACH	6		6
	HLMR Bearings, Guided Expansion, 450K	EACH	6		6
	HLMR Bearings, Guided Expansion, 150K	EACH	6		6
	Form Liner Textured Surface	SQ FT		3380	3380
	Paved Ditch (Special)	FOOT		182	182
	Geocomposite Wall Drain	SQ YD		43	43
	Pipe Underdrain for Structures, 4"	FOOT		93	93
	Anchor Bolts, 1"	EACH		48	48
	Anchor Bolts, 1 1/2"	EACH		60	60

** Filter Fabric shall be used under Stone Riprap Class A1 & A3. See details on sheets 2 & 3 of 47.

*** Class A1 bedding under Stone Riprap, Class A3 is included in the cost of "Stone Riprap, Class A3"

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts.
Bolts 7/8-in. ϕ, holes 15/16-in. ϕ, unless otherwise noted.
Calculated weight of Structural Steel = 1,449,980 lbs. (M270 Grade 50)
5,220 lbs. (M270 Grade 36)

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 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 girders shall be Reddish Brown, Munsell No. 2.5 YR 3/4. See special provision for "Cleaning and Painting New Metal Structures".

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.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the designated areas of the South & North abutments.

Concrete slope wall & paved ditch shall be reinforced with welded wire fabric, 6"x6"-W4.0xW4.0, weighing 58 lbs. per 100 sq. ft.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

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

All test piles shall accommodate dynamic pile monitoring per special provision cost included with "Test Pile Metal Shells".

All cross Frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

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.

Piles shall be driven through 15" diameter precored holes extending to elevation 615.00 at the South Approach Bent and elevation 611.00 at the North Abutment according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.

When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the Deck Pouring Sequence as shown on sheet #10 of 47, the next pour shall not be made until both of the following requirements are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

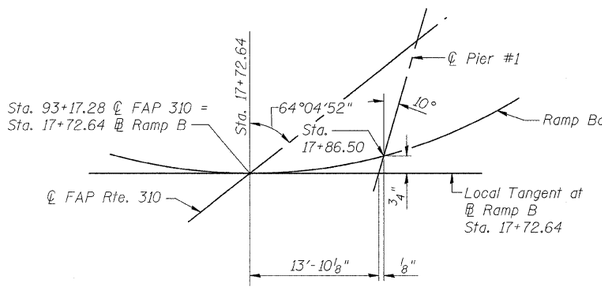
All construction joints shall be bonded.

The steel plate girders and cross frames shall be detailed, fabricated and erected such that the girders are plumb following erection of all structural steel.

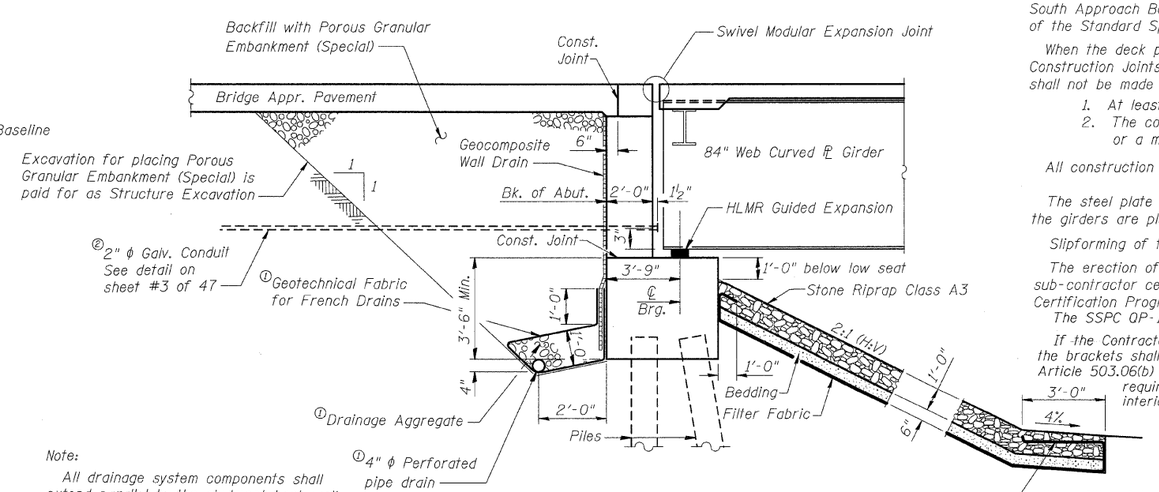
Slipforming of the parapets is not allowed.

The erection of the structural steel shall be accomplished by a steel erection contractor or sub-contractor certified as an Advanced Certified Steel Erector (ACSE), by the AISC Certification Program. See special provision for Erection of Curved Steel Superstructures. The SSPC QP-1 Painting Contractor Certification will be required for this Contract.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.



DETAIL "A"



SECTION THRU NORTH ABUTMENT

(Dimensions are at Rt. ℄'s to abutment, unless noted)

① Included in the cost of Pipe Underdrains for Structures, 4".
② Cost included with "Concrete Structures"

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls. The pipe shall extend under the wingwall, until intersecting the sides slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

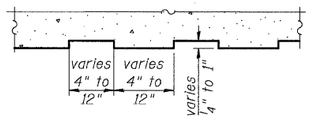
STATION 93+17.28
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 310 SEC. 60-15HB-3
LOADING HS20
STR. NO. 060-0332

NAME PLATE

See Std. 515001
(1 Required)

TOTAL BILL OF MATERIAL, GENERAL NOTES AND DETAILS RAMP B OVER FAP RTE. 310 SECTION 60-15HB-3 MADISON COUNTY STATION 17+72.64 (RAMP B) SN 060-0332

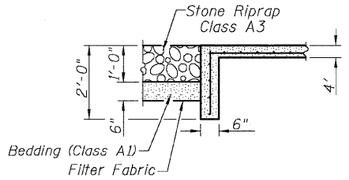
Klingner & Assoc., P.C.



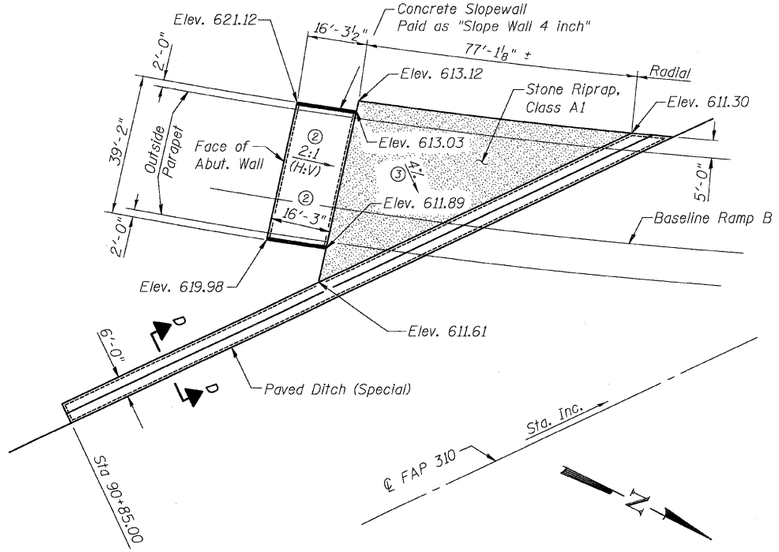
RANDOM WIDTH BOARDMARK CONCRETE DETAIL

Wood Grain, Hi-Lo, Rough Sawn Cedar
Random Widths Min. 4", Max. 12"
Random Lengths: Min. 10'-0", Max. 20'-0"
Board thicknesses varying from 1/4" to 1" should be used in a random pattern.

Note:
Boardmark Concrete surfaces will be paid as "Form Liner Textured Surface".

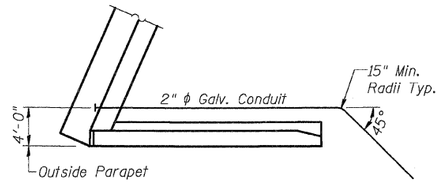


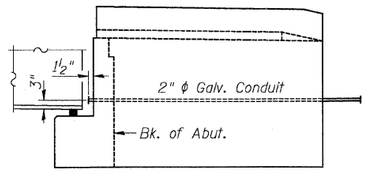
SECTION C-C SECTION BETWEEN RIPRAP AND CONCRETE SLOPEWALL



SLOPEWALL AND PAVED DITCH PLAN AT SOUTH ABUTMENT

Dimensions are measured horizontally.
② Rt. L's to Abut.
③ At Rt. L's to FAP 310





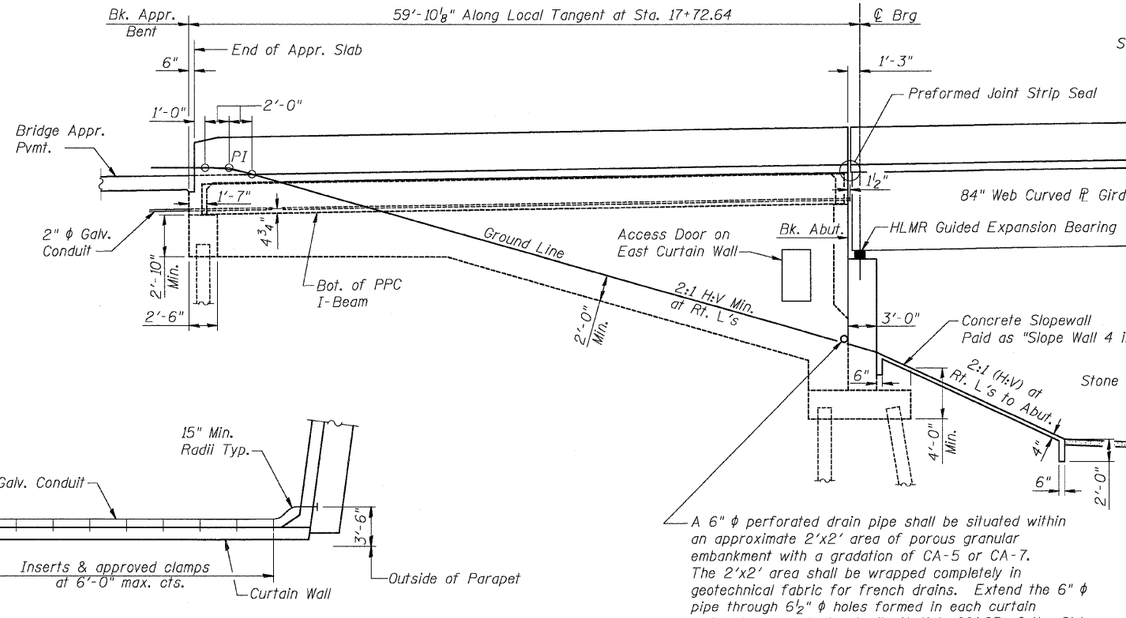
Notes:
2" ϕ Galv. Conduit shall be Sch. 40 pipe. Extend to clear the wingwall and terminate at a point outside of shoulder.
Cost included with "Concrete Structures"
See Section Thru North Abutment detail on Sheet # 2 of 47.

PARTIAL PLAN AND ELEVATION OF NORTH ABUTMENT

Showing Electrical Conduit

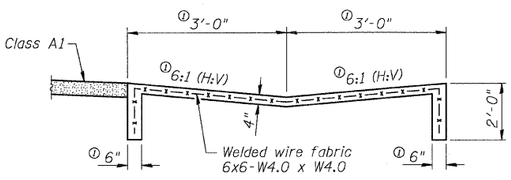
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. F. 310	*	MADISON	93	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
47 SHEETS
* 60-15HB-3 Contract No. 76706



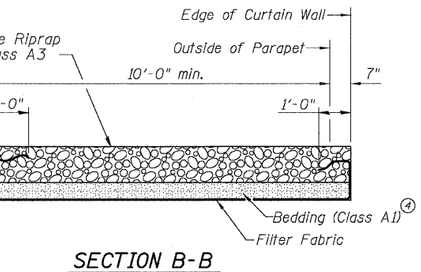
DETAIL OF VAULTED ABUTMENT & SLOPE WALL

(Dimensions are at Rt. L's to Abutment, Unless Noted)



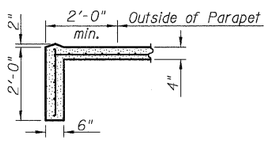
SECTION D-D PAVED DITCH (SPECIAL)

① at Rt. L's to FAP 310



SECTION B-B

④ Cost is included with "Stone Riprap, Class A3"



SECTION A-A

Notes:
2" ϕ Galv. Conduit shall be Sch. 40 pipe.
Extend to clear Appr. Bent at a point outside of the shoulder.
Cost included with "Concrete Structures"
See Sections A-A and B-B on sheet #14 of 47 for more detail on placement of 2" ϕ Galvanized Conduit.
See Detail of Vaulted Abutment & Slope Wall on this sheet.

PARTIAL PLAN OF SOUTH VAULTED ABUTMENT

Showing Electrical Conduit

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

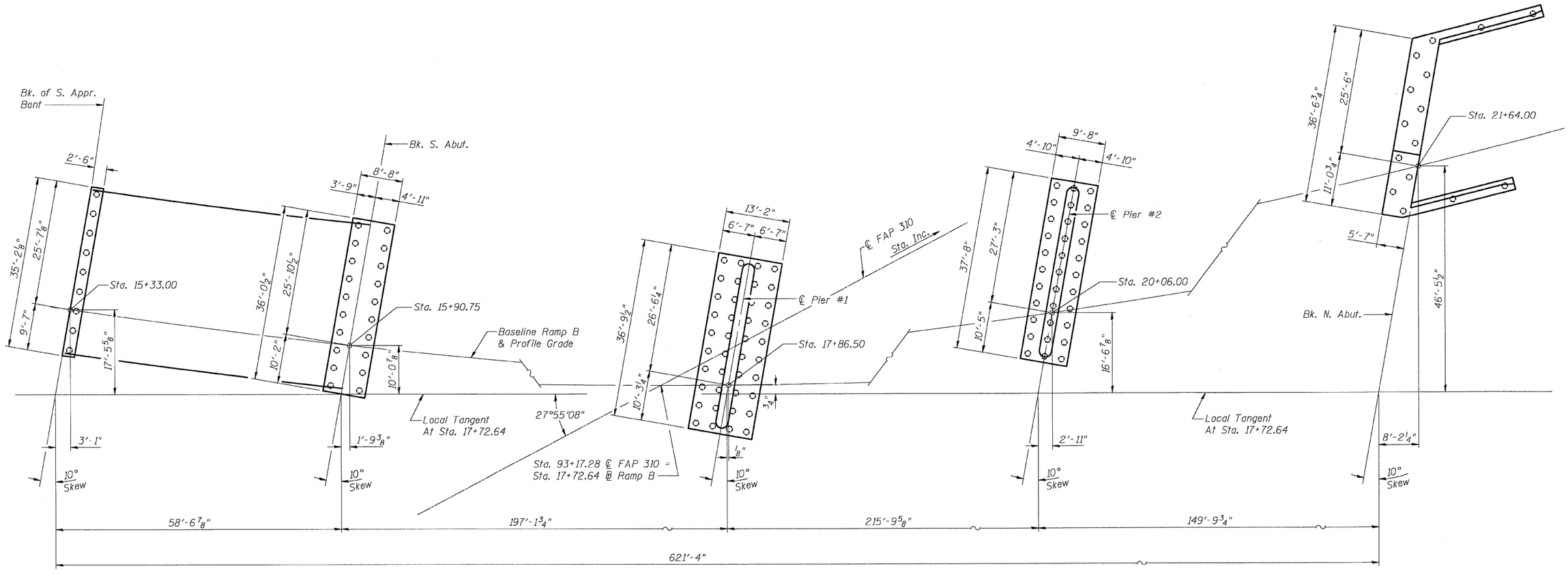
DETAILS RAMP B OVER FAP RTE. 310 SECTION 60-15HB-3 MADISON COUNTY STATION 17+72.64 (RAMP B) SN 060-0332

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
47 SHEETS

* 60-15HB-3 Contract No. 76706



SOUTH ABUTMENT | PIER #1 | PIER #2 | NORTH ABUTMENT

FOOTING LAYOUT PLAN

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

FOOTING LAYOUT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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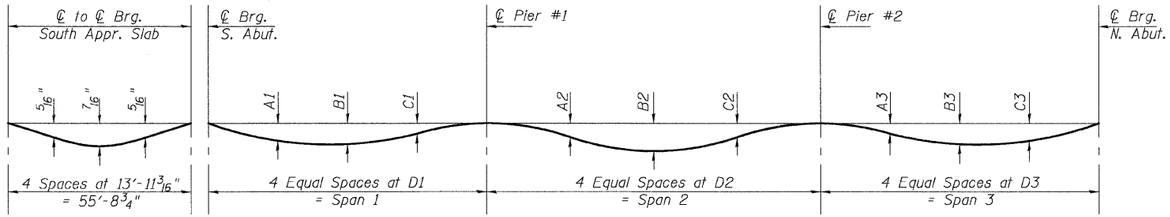
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	93	27
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
47 SHEETS

* 60-15HB-3 Contract No. 76706

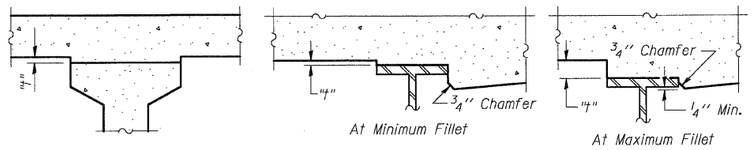


Location	A1	B1	C1	D1	Span 1	A2	B2	C2	D2	Span 2	A3	B3	C3	D3	Span 3
Girder 7	1 13/16"	2 1/16"	15/16"	48'-7 5/8"	194'-6 1/2"	7/8"	1 13/16"	1 3/16"	54'-11 1/8"	219'-8 1/2"	5/16"	7/8"	3/4"	38'-6 5/8"	154'-2 3/4"
Girder 8	1 15/16"	2 1/4"	1 1/16"	48'-7 5/8"	194'-6 3/8"	7/8"	1 13/16"	1 3/16"	55'-0"	219'-7 7/8"	3/8"	7/8"	13/16"	38'-6 3/8"	154'-1 3/4"
Girder 9	2 1/16"	2 7/16"	1 1/8"	48'-7 5/8"	194'-6 1/4"	7/8"	1 7/8"	1 3/16"	54'-10 3/4"	219'-7 1/4"	3/8"	15/16"	13/16"	38'-6 1/8"	154'-0 3/4"
Girder 10	2 1/4"	2 5/8"	1 1/4"	48'-7 1/2"	194'-6 1/8"	7/8"	1 7/8"	1 1/4"	54'-10 5/8"	219'-6 1/2"	3/8"	15/16"	7/8"	38'-5 7/8"	153'-11 3/4"
Girder 11	2 3/8"	2 13/16"	1 5/16"	48'-7 1/2"	194'-6"	13/16"	1 15/16"	1 1/4"	54'-10 1/2"	219'-5 7/8"	3/8"	1"	7/8"	38'-5 3/4"	153'-10 3/4"
Girder 12	2 9/16"	3"	1 7/16"	48'-7 1/2"	194'-5 7/8"	13/16"	1 15/16"	1 5/16"	54'-10 3/8"	219'-5 1/4"	3/8"	1 1/16"	15/16"	38'-5 1/2"	153'-9 7/8"
Baseline Ramp B & Profile Grade	2 3/8"	2 13/16"	1 5/16"	48'-7 1/2"	194'-6"	13/16"	1 15/16"	1 1/4"	54'-10 1/2"	219'-6"	3/8"	1"	7/8"	38'-5 3/4"	153'-10 7/8"

DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

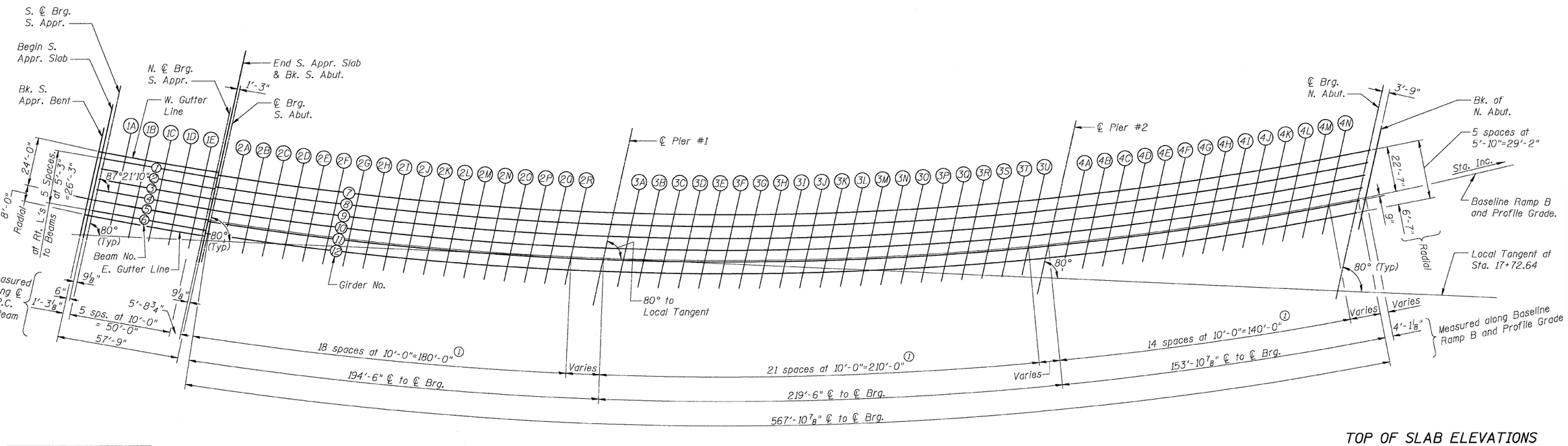
Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets #6, #7 and #8 of 47.



To determine "t": After all structural steel and precast prestressed beams have been erected, elevations of the top flanges of the beams and girders shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets #6, #7 and #8 of 47, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

Notes:
1. *Screed points are located at 10'-0" intervals along each girder, and along Baseline Ramp B.*
2. *Offsets are measured perpendicular to Baseline Ramp B.*



PLAN

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

TOP OF SLAB ELEVATIONS RAMP B OVER FAP RTE 310 SECTION 60-15HB-3 MADISON COUNTY STATION 17+72.64 (RAMP B) SN 060-0332

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	93	28
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 6
47 SHEETS

* 60-15HB-3 Contract No. 76706

PROFILE GRADE & BASELINE RAMP B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+33.000	0.000	635.928	635.928
Begin S. Appr. Slab	15+33.500	0.000	635.937	635.937
S. ℄ Brg. S. Appr. Slab	15+34.257	0.000	635.951	635.951
1A	15+44.252	0.000	636.129	636.151
1B	15+54.248	0.000	636.301	636.338
1C	15+64.248	0.000	636.469	636.510
1D	15+74.249	0.000	636.632	636.664
1E	15+84.255	0.000	636.790	636.803
N. ℄ Brg. S. Appr. Slab	15+89.989	0.000	636.878	636.878
End S. Appr. Slab	15+90.748	0.000	636.890	636.890
℄ Brg. S. Abut.	15+92.000	0.000	636.909	636.909
2A	16+02.000	0.000	637.058	637.107
2B	16+12.000	0.000	637.201	637.295
2C	16+22.000	0.000	637.340	637.476
2D	16+32.000	0.000	637.474	637.647
2E	16+42.000	0.000	637.603	637.805
2F	16+52.000	0.000	637.726	637.950
2G	16+62.000	0.000	637.845	638.083
2H	16+72.000	0.000	637.959	638.202
2I	16+82.000	0.000	638.067	638.306
2J	16+92.000	0.000	638.171	638.399
2K	17+02.000	0.000	638.269	638.478
2L	17+12.000	0.000	638.363	638.549
2M	17+22.000	0.000	638.451	638.608
2N	17+32.000	0.000	638.535	638.663
2O	17+42.000	0.000	638.613	638.709
2P	17+52.000	0.000	638.686	638.753
2Q	17+62.000	0.000	638.755	638.794
2R	17+72.000	0.000	638.818	638.837
℄ Pier #1	17+86.500	0.000	638.901	638.901
3A	17+96.500	0.000	638.952	638.950
3B	18+06.500	0.000	638.998	639.005
3C	18+16.500	0.000	639.039	639.059
3D	18+26.500	0.000	639.074	639.113
3E	18+36.500	0.000	639.105	639.164
3F	18+46.500	0.000	639.131	639.213
3G	18+56.500	0.000	639.152	639.255
3H	18+66.500	0.000	639.167	639.291
3I	18+76.500	0.000	639.178	639.318
3J	18+86.500	0.000	639.184	639.337
3K	18+96.500	0.000	639.184	639.345
3L	19+06.500	0.000	639.180	639.342
3M	19+16.500	0.000	639.171	639.329
3N	19+26.500	0.000	639.156	639.305
3O	19+36.500	0.000	639.136	639.269
3P	19+46.500	0.000	639.112	639.227
3Q	19+56.500	0.000	639.082	639.174
3R	19+66.500	0.000	639.048	639.118
3S	19+76.500	0.000	639.008	639.053
3T	19+86.500	0.000	638.963	638.989
3U	19+96.500	0.000	638.914	638.924
℄ Pier #2	20+06.000	0.000	638.862	638.862
4A	20+16.000	0.000	638.802	638.803
4B	20+26.000	0.000	638.737	638.745
4C	20+36.000	0.000	638.668	638.689
4D	20+46.000	0.000	638.593	638.628
4E	20+56.000	0.000	638.514	638.565
4F	20+66.000	0.000	638.429	638.494
4G	20+76.000	0.000	638.339	638.416
4H	20+86.000	0.000	638.244	638.329
4I	20+96.000	0.000	638.144	638.232
4J	21+06.000	0.000	638.040	638.127
4K	21+16.000	0.000	637.930	638.010
4L	21+26.000	0.000	637.815	637.883
4M	21+36.000	0.000	637.695	637.746
4N	21+46.000	0.000	637.570	637.602
℄ Brg. N. Abut.	21+59.908	0.000	637.388	637.388
Bk. N. Abut.	21+64.000	0.000	637.332	637.332

WEST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+33.693	-24.000	634.500	634.500
Begin S. Appr. Slab	15+34.200	-24.000	634.510	634.510
S. ℄ Brg. S. Appr. Slab	15+34.969	-24.000	634.524	634.524
1A	15+45.112	-24.000	634.704	634.704
1B	15+55.258	-24.000	634.879	634.879
1C	15+65.406	-24.000	635.048	635.048
1D	15+75.557	-24.000	635.213	635.213
1E	15+85.711	-24.000	635.373	635.373
N. ℄ Brg. S. Appr. Slab	15+91.530	-24.000	635.462	635.462
End S. Appr. Slab	15+92.300	-24.000	635.473	635.473

BEAM NO. 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+33.605	-20.992	634.679	634.679
Begin S. Appr. Slab	15+34.112	-21.001	634.688	634.688
S. ℄ Brg. S. Appr. Slab	15+34.880	-21.014	634.701	634.701
1A	15+45.009	-21.149	634.873	634.891
1B	15+55.139	-21.222	635.043	635.074
1C	15+65.271	-21.234	635.212	635.246
1D	15+75.402	-21.184	635.379	635.405
1E	15+85.531	-21.072	635.545	635.556
N. ℄ Brg. S. Appr. Slab	15+91.334	-20.980	635.640	635.640
End S. Appr. Slab	15+92.101	-20.966	635.652	635.652

BEAM NO. 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+33.452	-15.739	634.992	634.992
Begin S. Appr. Slab	15+33.957	-15.747	635.000	635.000
S. ℄ Brg. S. Appr. Slab	15+34.722	-15.760	635.013	635.013
1A	15+44.819	-15.896	635.185	635.207
1B	15+54.916	-15.971	635.354	635.391
1C	15+65.015	-15.984	635.523	635.564
1D	15+75.113	-15.936	635.690	635.722
1E	15+85.210	-15.826	635.855	635.868
N. ℄ Brg. S. Appr. Slab	15+90.994	-15.735	635.949	635.949
End S. Appr. Slab	15+91.759	-15.722	635.962	635.962

BEAM NO. 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+33.301	-10.485	635.304	635.304
Begin S. Appr. Slab	15+33.804	-10.494	635.313	635.313
S. ℄ Brg. S. Appr. Slab	15+34.566	-10.507	635.326	635.326
1A	15+44.630	-10.644	635.497	635.519
1B	15+54.696	-10.720	635.666	635.703
1C	15+64.761	-10.735	635.834	635.875
1D	15+74.827	-10.688	636.000	636.032
1E	15+84.892	-10.579	636.165	636.178
N. ℄ Brg. S. Appr. Slab	15+90.658	-10.490	636.259	636.259
End S. Appr. Slab	15+91.419	-10.477	636.271	636.271

BEAM NO. 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+33.149	-5.232	635.617	635.617
Begin S. Appr. Slab	15+33.652	-5.241	635.625	635.625
S. ℄ Brg. S. Appr. Slab	15+34.412	-5.254	635.638	635.638
1A	15+44.443	-5.392	635.808	635.830
1B	15+54.476	-5.469	635.977	636.014
1C	15+64.510	-5.485	636.144	636.185
1D	15+74.542	-5.440	636.310	636.342
1E	15+84.575	-5.334	636.475	636.488
N. ℄ Brg. S. Appr. Slab	15+90.322	-5.245	636.569	636.569
End S. Appr. Slab	15+91.082	-5.232	636.581	636.581

BEAM NO. 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+32.999	0.022	635.929	635.929
Begin S. Appr. Slab	15+33.500	0.013	635.938	635.938
S. ℄ Brg. S. Appr. Slab	15+34.257	0.000	635.951	635.951
1A	15+44.257	-0.140	636.120	636.142
1B	15+54.257	-0.218	636.288	636.325
1C	15+64.259	-0.236	636.455	636.496
1D	15+74.261	-0.192	636.621	636.653
1E	15+84.260	-0.088	636.785	636.798
N. ℄ Brg. S. Appr. Slab	15+89.989	0.000	636.878	636.878
End S. Appr. Slab	15+90.747	0.013	636.890	636.890

BEAM NO. 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+32.850	5.275	636.242	636.242
Begin S. Appr. Slab	15+33.350	5.267	636.250	636.250
S. ℄ Brg. S. Appr. Slab	15+34.104	5.253	636.263	636.263
1A	15+44.072	5.113	636.432	636.450
1B	15+54.041	5.033	636.600	636.631
1C	15+64.010	5.014	636.766	636.800
1D	15+73.979	5.056	636.931	636.957
1E	15+83.948	5.159	637.095	637.106
N. ℄ Brg. S. Appr. Slab	15+89.658	5.245	637.188	637.188
End S. Appr. Slab	15+90.413	5.258	637.200	637.200

EAST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	15+32.774	8.000	636.404	636.404
Begin S. Appr. Slab	15+33.271	8.000	636.413	636.413
S. ℄ Brg. S. Appr. Slab	15+34.025	8.000	636.426	636.426
1A	15+43.970	8.000	636.604	636.604
1B	15+53.919	8.000	636.776	636.776
1C	15+63.869	8.000	636.943	636.943
1D	15+73.823	8.000	637.105	637.105
1E	15+83.780	8.000	637.263	637.263
N. ℄ Brg. S. Appr. Slab	15+89.485	8.000	637.350	637.350
End S. Appr. Slab	15+90.240	8.000	637.362	637.362

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

TOP OF SLAB ELEVATIONS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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GIRDER NO. 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	15+93.477	-22.583	635.576	635.576
2A	16+03.616	-22.583	635.726	635.763
2B	16+13.756	-22.583	635.871	635.942
2C	16+23.896	-22.583	636.011	636.113
2D	16+34.035	-22.583	636.146	636.275
2E	16+44.175	-22.583	636.275	636.426
2F	16+54.314	-22.583	636.399	636.567
2G	16+64.454	-22.583	636.518	636.696
2H	16+74.594	-22.583	636.632	636.813
2I	16+84.733	-22.583	636.741	636.920
2J	16+94.873	-22.583	636.845	637.015
2K	17+05.012	-22.583	636.943	637.099
2L	17+15.152	-22.583	637.036	637.174
2M	17+25.292	-22.583	637.124	637.240
2N	17+35.431	-22.583	637.207	637.301
2O	17+45.571	-22.583	637.285	637.355
2P	17+55.710	-22.583	637.357	637.405
2Q	17+65.850	-22.583	637.425	637.452
2R	17+75.990	-22.583	637.487	637.499
℄ Pier #1	17+90.739	-22.583	637.568	637.568
3A	18+00.878	-22.583	637.618	637.619
3B	18+11.018	-22.583	637.662	637.674
3C	18+21.157	-22.583	637.701	637.726
3D	18+31.297	-22.583	637.735	637.779
3E	18+41.437	-22.583	637.764	637.827
3F	18+51.576	-22.583	637.787	637.871
3G	18+61.716	-22.583	637.806	637.909
3H	18+71.855	-22.583	637.819	637.940
3I	18+81.995	-22.583	637.827	637.962
3J	18+92.135	-22.583	637.830	637.975
3K	19+02.274	-22.583	637.827	637.978
3L	19+12.414	-22.583	637.820	637.971
3M	19+22.553	-22.583	637.807	637.953
3N	19+32.693	-22.583	637.790	637.927
3O	19+42.832	-22.583	637.767	637.890
3P	19+52.972	-22.583	637.738	637.844
3Q	19+63.112	-22.583	637.705	637.790
3R	19+73.251	-22.583	637.666	637.731
3S	19+83.391	-22.583	637.623	637.665
3T	19+93.530	-22.583	637.574	637.598
3U	20+03.670	-22.583	637.520	637.530
℄ Pier #2	20+13.513	-22.583	637.462	637.462
4A	20+23.652	-22.583	637.398	637.398
4B	20+33.792	-22.583	637.329	637.335
4C	20+43.931	-22.583	637.254	637.271
4D	20+54.071	-22.583	637.174	637.205
4E	20+64.211	-22.583	637.089	637.133
4F	20+74.350	-22.583	636.999	637.056
4G	20+84.490	-22.583	636.904	636.971
4H	20+94.629	-22.583	636.803	636.877
4I	21+04.769	-22.583	636.698	636.775
4J	21+14.909	-22.583	636.587	636.662
4K	21+25.048	-22.583	636.471	636.541
4L	21+35.188	-22.583	636.350	636.409
4M	21+45.327	-22.583	636.223	636.268
4N	21+55.467	-22.583	636.092	636.120
℄ Brg. N. Abut.	21+69.890	-22.583	635.896	635.896
Bk. N. Abut.	21+74.050	-22.583	635.837	635.837

GIRDER NO. 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	15+93.091	-16.750	635.920	635.920
2A	16+03.195	-16.750	636.070	636.110
2B	16+13.298	-16.750	636.215	636.292
2C	16+23.401	-16.750	636.354	636.465
2D	16+33.504	-16.750	636.489	636.630
2E	16+43.607	-16.750	636.618	636.783
2F	16+53.710	-16.750	636.742	636.924
2G	16+63.814	-16.750	636.861	637.054
2H	16+73.917	-16.750	636.975	637.172
2I	16+84.020	-16.750	637.084	637.278
2J	16+94.123	-16.750	637.187	637.372
2K	17+04.226	-16.750	637.286	637.456
2L	17+14.329	-16.750	637.379	637.529
2M	17+24.433	-16.750	637.467	637.593
2N	17+34.536	-16.750	637.550	637.652
2O	17+44.639	-16.750	637.628	637.704
2P	17+54.742	-16.750	637.701	637.753
2Q	17+64.845	-16.750	637.768	637.798
2R	17+74.948	-16.750	637.831	637.845
℄ Pier #1	17+89.632	-16.750	637.912	637.912
3A	17+99.736	-16.750	637.962	637.963
3B	18+09.839	-16.750	638.007	638.018
3C	18+19.942	-16.750	638.047	638.071
3D	18+30.045	-16.750	638.081	638.124
3E	18+40.148	-16.750	638.110	638.172
3F	18+50.251	-16.750	638.134	638.218
3G	18+60.355	-16.750	638.153	638.256
3H	18+70.458	-16.750	638.167	638.289
3I	18+80.561	-16.750	638.176	638.312
3J	18+90.664	-16.750	638.180	638.327
3K	19+00.767	-16.750	638.178	638.331
3L	19+10.870	-16.750	638.171	638.325
3M	19+20.973	-16.750	638.160	638.309
3N	19+31.077	-16.750	638.143	638.283
3O	19+41.180	-16.750	638.121	638.247
3P	19+51.283	-16.750	638.093	638.202
3Q	19+61.386	-16.750	638.061	638.148
3R	19+71.489	-16.750	638.024	638.090
3S	19+81.592	-16.750	637.981	638.024
3T	19+91.696	-16.750	637.933	637.958
3U	20+01.799	-16.750	637.880	637.890
℄ Pier #2	20+11.551	-16.750	637.824	637.824
4A	20+21.654	-16.750	637.761	637.761
4B	20+31.757	-16.750	637.693	637.699
4C	20+41.861	-16.750	637.620	637.638
4D	20+51.964	-16.750	637.541	637.573
4E	20+62.067	-16.750	637.458	637.504
4F	20+72.170	-16.750	637.369	637.428
4G	20+82.273	-16.750	637.275	637.345
4H	20+92.376	-16.750	637.176	637.253
4I	21+02.480	-16.750	637.072	637.152
4J	21+12.583	-16.750	636.963	637.041
4K	21+22.686	-16.750	636.848	636.920
4L	21+32.789	-16.750	636.729	636.790
4M	21+42.892	-16.750	636.604	636.651
4N	21+52.995	-16.750	636.474	636.503
℄ Brg. N. Abut.	21+67.283	-16.750	636.282	636.282
Bk. N. Abut.	21+71.425	-16.750	636.224	636.224

GIRDER NO. 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	15+92.709	-10.917	636.264	636.264
2A	16+02.776	-10.917	636.414	636.457
2B	16+12.843	-10.917	636.558	636.641
2C	16+22.910	-10.917	636.698	636.818
2D	16+32.977	-10.917	636.832	636.984
2E	16+43.044	-10.917	636.961	637.138
2F	16+53.111	-10.917	637.085	637.282
2G	16+63.178	-10.917	637.204	637.412
2H	16+73.245	-10.917	637.317	637.530
2I	16+83.312	-10.917	637.426	637.635
2J	16+93.379	-10.917	637.530	637.730
2K	17+03.446	-10.917	637.628	637.811
2L	17+13.513	-10.917	637.722	637.884
2M	17+23.580	-10.917	637.810	637.947
2N	17+33.647	-10.917	637.893	638.004
2O	17+43.714	-10.917	637.971	638.053
2P	17+53.781	-10.917	638.044	638.101
2Q	17+63.848	-10.917	638.112	638.145
2R	17+73.915	-10.917	638.175	638.190
℄ Pier #1	17+88.534	-10.917	638.257	638.257
3A	17+98.601	-10.917	638.307	638.307
3B	18+08.668	-10.917	638.352	638.362
3C	18+18.735	-10.917	638.392	638.414
3D	18+28.802	-10.917	638.427	638.469
3E	18+38.869	-10.917	638.457	638.518
3F	18+48.936	-10.917	638.482	638.565
3G	18+59.003	-10.917	638.501	638.604
3H	18+69.070	-10.917	638.516	638.639
3I	18+79.137	-10.917	638.525	638.663
3J	18+89.204	-10.917	638.529	638.678
3K	18+99.271	-10.917	638.529	638.685
3L	19+09.338	-10.917	638.523	638.679
3M	19+19.405	-10.917	638.512	638.664
3N	19+29.472	-10.917	638.496	638.639
3O	19+39.539	-10.917	638.475	638.603
3P	19+49.606	-10.917	638.448	638.559
3Q	19+59.673	-10.917	638.417	638.506
3R	19+69.740	-10.917	638.380	638.447
3S	19+79.807	-10.917	638.339	638.382
3T	19+89.874	-10.917	638.292	638.317
3U	19+99.941	-10.917	638.240	638.250
℄ Pier #2	20+09.604	-10.917	638.186	638.186
4A	20+19.671	-10.917	638.124	638.125
4B	20+29.738	-10.917	638.057	638.064
4C	20+39.805	-10.917	637.985	638.004
4D	20+49.872	-10.917	637.908	637.941
4E	20+59.939	-10.917	637.826	637.873
4F	20+70.006	-10.917	637.738	637.799
4G	20+80.073	-10.917	637.646	637.718
4H	20+90.140	-10.917	637.549	637.628
4I	21+00.207	-10.917	637.446	637.529
4J	21+10.274	-10.917	637.338	637.419
4K	21+20.341	-10.917	637.225	637.299
4L	21+30.408	-10.917	637.107	637.170
4M	21+40.475	-10.917	636.984	637.032
4N	21+50.542	-10.917	636.856	636.885
℄ Brg. N. Abut.	21+64.695	-10.917	636.668	636.668
Bk. N. Abut.	21+68.820	-10.917	636.611	636.611

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

TOP OF SLAB ELEVATIONS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

GIRDER NO. 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	15+92.329	-5.083	636.609	636.609
2A	16+02.360	-5.083	636.758	636.804
2B	16+12.391	-5.083	636.902	636.991
2C	16+22.422	-5.083	637.041	637.169
2D	16+32.453	-5.083	637.175	637.338
2E	16+42.484	-5.083	637.304	637.494
2F	16+52.515	-5.083	637.428	637.639
2G	16+62.546	-5.083	637.546	637.769
2H	16+72.578	-5.083	637.660	637.888
2I	16+82.609	-5.083	637.769	637.994
2J	16+92.640	-5.083	637.872	638.086
2K	17+02.671	-5.083	637.971	638.168
2L	17+12.702	-5.083	638.064	638.239
2M	17+22.733	-5.083	638.153	638.300
2N	17+32.764	-5.083	638.236	638.355
2O	17+42.795	-5.083	638.314	638.403
2P	17+52.826	-5.083	638.387	638.449
2Q	17+62.857	-5.083	638.455	638.491
2R	17+72.888	-5.083	638.518	638.535
℄ Pier #1	17+87.444	-5.083	638.601	638.601
3A	17+97.475	-5.083	638.652	638.651
3B	18+07.506	-5.083	638.697	638.705
3C	18+17.537	-5.083	638.738	638.759
3D	18+27.568	-5.083	638.773	638.814
3E	18+37.599	-5.083	638.803	638.863
3F	18+47.630	-5.083	638.829	638.912
3G	18+57.662	-5.083	638.849	638.952
3H	18+67.693	-5.083	638.864	638.987
3I	18+77.724	-5.083	638.874	639.013
3J	18+87.755	-5.083	638.879	639.030
3K	18+97.786	-5.083	638.879	639.037
3L	19+07.817	-5.083	638.874	639.033
3M	19+17.848	-5.083	638.864	639.019
3N	19+27.879	-5.083	638.849	638.995
3O	19+37.910	-5.083	638.828	638.958
3P	19+47.941	-5.083	638.803	638.916
3Q	19+57.972	-5.083	638.773	638.863
3R	19+68.003	-5.083	638.737	638.805
3S	19+78.035	-5.083	638.696	638.740
3T	19+88.066	-5.083	638.651	638.676
3U	19+98.097	-5.083	638.600	638.610
℄ Pier #2	20+07.672	-5.083	638.547	638.547
4A	20+17.703	-5.083	638.486	638.487
4B	20+27.734	-5.083	638.421	638.428
4C	20+37.765	-5.083	638.350	638.370
4D	20+47.797	-5.083	638.274	638.308
4E	20+57.828	-5.083	638.193	638.242
4F	20+67.859	-5.083	638.108	638.171
4G	20+77.890	-5.083	638.017	638.091
4H	20+87.921	-5.083	637.920	638.002
4I	20+97.952	-5.083	637.819	637.904
4J	21+07.983	-5.083	637.713	637.797
4K	21+18.014	-5.083	637.602	637.679
4L	21+28.045	-5.083	637.486	637.551
4M	21+38.076	-5.083	637.364	637.413
4N	21+48.107	-5.083	637.238	637.268
℄ Brg. N. Abut.	21+62.128	-5.083	637.053	637.053
Bk. N. Abut.	21+66.236	-5.083	636.996	636.996

GIRDER NO. 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	15+91.952	0.750	636.953	636.953
2A	16+01.947	0.750	637.102	637.151
2B	16+11.943	0.750	637.246	637.341
2C	16+21.938	0.750	637.384	637.521
2D	16+31.933	0.750	637.518	637.692
2E	16+41.929	0.750	637.647	637.851
2F	16+51.924	0.750	637.770	637.996
2G	16+61.920	0.750	637.889	638.129
2H	16+71.915	0.750	638.003	638.248
2I	16+81.911	0.750	638.111	638.352
2J	16+91.906	0.750	638.215	638.445
2K	17+01.901	0.750	638.313	638.524
2L	17+11.897	0.750	638.407	638.595
2M	17+21.892	0.750	638.495	638.653
2N	17+31.888	0.750	638.579	638.708
2O	17+41.883	0.750	638.657	638.754
2P	17+51.879	0.750	638.731	638.799
2Q	17+61.874	0.750	638.799	638.839
2R	17+71.869	0.750	638.862	638.881
℄ Pier #1	17+86.362	0.750	638.945	638.945
3A	17+96.357	0.750	638.996	638.994
3B	18+06.353	0.750	639.042	639.049
3C	18+16.348	0.750	639.083	639.103
3D	18+26.343	0.750	639.119	639.158
3E	18+36.339	0.750	639.150	639.209
3F	18+46.334	0.750	639.176	639.258
3G	18+56.330	0.750	639.196	639.299
3H	18+66.325	0.750	639.212	639.336
3I	18+76.321	0.750	639.223	639.363
3J	18+86.316	0.750	639.229	639.382
3K	18+96.311	0.750	639.229	639.390
3L	19+06.307	0.750	639.225	639.387
3M	19+16.302	0.750	639.216	639.374
3N	19+26.298	0.750	639.201	639.350
3O	19+36.293	0.750	639.182	639.315
3P	19+46.289	0.750	639.157	639.272
3Q	19+56.284	0.750	639.128	639.220
3R	19+66.279	0.750	639.093	639.163
3S	19+76.275	0.750	639.054	639.099
3T	19+86.270	0.750	639.009	639.035
3U	19+96.266	0.750	638.960	638.970
℄ Pier #2	20+05.755	0.750	638.908	638.908
4A	20+15.750	0.750	638.849	638.850
4B	20+25.745	0.750	638.784	638.792
4C	20+35.741	0.750	638.715	638.736
4D	20+45.736	0.750	638.640	638.675
4E	20+55.732	0.750	638.561	638.612
4F	20+65.727	0.750	638.476	638.541
4G	20+75.723	0.750	638.387	638.464
4H	20+85.718	0.750	638.292	638.377
4I	20+95.713	0.750	638.192	638.281
4J	21+05.709	0.750	638.088	638.175
4K	21+15.704	0.750	637.978	638.058
4L	21+25.700	0.750	637.863	637.931
4M	21+35.695	0.750	637.743	637.794
4N	21+45.691	0.750	637.619	637.651
℄ Brg. N. Abut.	21+59.581	0.750	637.437	637.437
Bk. N. Abut.	21+63.671	0.750	637.382	637.382

GIRDER NO. 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	15+91.577	6.583	637.297	637.297
2A	16+01.537	6.583	637.446	637.499
2B	16+11.497	6.583	637.589	637.691
2C	16+21.457	6.583	637.728	637.875
2D	16+31.417	6.583	637.861	638.048
2E	16+41.377	6.583	637.990	638.209
2F	16+51.337	6.583	638.113	638.355
2G	16+61.297	6.583	638.232	638.489
2H	16+71.257	6.583	638.345	638.607
2I	16+81.217	6.583	638.454	638.713
2J	16+91.177	6.583	638.557	638.804
2K	17+01.137	6.583	638.656	638.883
2L	17+11.097	6.583	638.750	638.952
2M	17+21.057	6.583	638.838	639.008
2N	17+31.018	6.583	638.922	639.060
2O	17+40.978	6.583	639.000	639.104
2P	17+50.938	6.583	639.074	639.147
2Q	17+60.898	6.583	639.142	639.185
2R	17+70.858	6.583	639.206	639.227
℄ Pier #1	17+85.287	6.583	639.289	639.289
3A	17+95.247	6.583	639.341	639.338
3B	18+05.207	6.583	639.387	639.393
3C	18+15.167	6.583	639.428	639.446
3D	18+25.127	6.583	639.465	639.502
3E	18+35.087	6.583	639.496	639.553
3F	18+45.047	6.583	639.523	639.604
3G	18+55.007	6.583	639.544	639.647
3H	18+64.967	6.583	639.560	639.685
3I	18+74.927	6.583	639.572	639.714
3J	18+84.887	6.583	639.578	639.734
3K	18+94.847	6.583	639.580	639.744
3L	19+04.807	6.583	639.576	639.742
3M	19+14.767	6.583	639.567	639.729
3N	19+24.728	6.583	639.554	639.707
3O	19+34.688	6.583	639.535	639.672
3P	19+44.648	6.583	639.512	639.631
3Q	19+54.608	6.583	639.483	639.577
3R	19+64.568	6.583	639.450	639.521
3S	19+74.528	6.583	639.411	639.457
3T	19+84.488	6.583	639.368	639.394
3U	19+94.448	6.583	639.319	639.329
℄ Pier #2	20+03.851	6.583	639.269	639.269
4A	20+13.811	6.583	639.211	639.211
4B	20+23.771	6.583	639.147	639.155
4C	20+33.731	6.583	639.079	639.100
4D	20+43.691	6.583	639.006	639.042
4E	20+53.651	6.583	638.928	638.980
4F	20+63.611	6.583	638.844	638.912
4G	20+73.571	6.583	638.756	638.837
4H	20+83.531	6.583	638.663	638.752
4I	20+93.491	6.583	638.565	638.658
4J	21+03.452	6.583	638.462	638.553
4K	21+13.412	6.583	638.354	638.438
4L	21+23.372	6.583	638.240	638.311
4M	21+33.332	6.583	638.122	638.176
4N	21+43.292	6.583	637.999	638.032
℄ Brg. N. Abut.	21+57.054	6.583	637.821	637.821
Bk. N. Abut.	21+61.127	6.583	637.766	637.766

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

TOP OF SLAB ELEVATIONS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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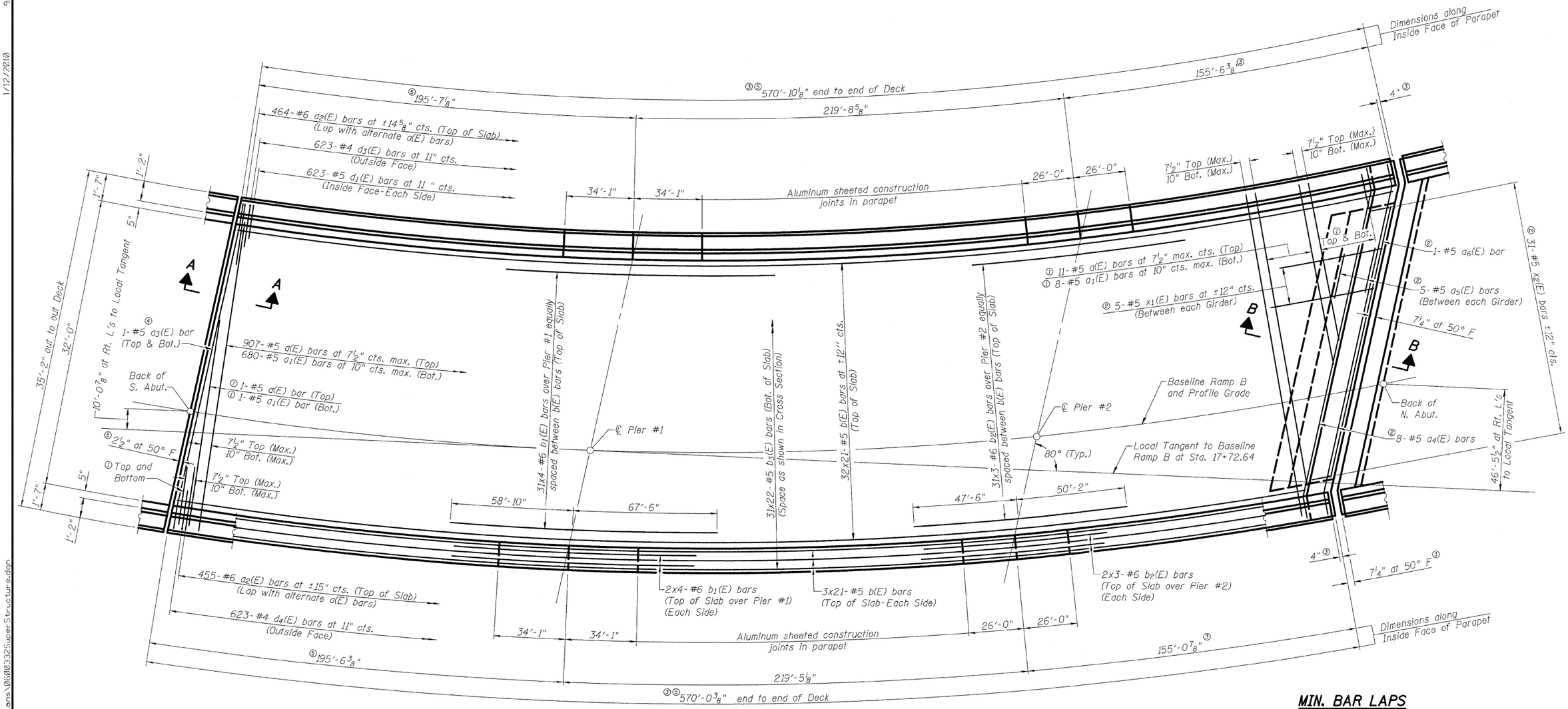
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
47 SHEETS

* 60-15HB-3 Contract No. 76706



PLAN

① Order a(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in same end.

② See Section B-B on sheet #12 of 47 for spacing of x1(E), x2(E), a4(E), a5(E) and a6(E).

③ Dimensions are based on the D.S. Brown DS160B Swivel Modular Expansion Joint. If a different model or manufacturer is used, the dimensions may require adjustment as approved by the Engineer.

④ Field bend a3(E) under parapet, if required.

⑤ Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 15 of 47.

Notes:
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
Place transverse bars radially and longitudinal bars parallel to girders.
Transverse dimensions are given radially unless noted.
Adjust spacing of bars in the North end of deck to miss swivel modular expansion joint.
See sheet #10 of 47 for Cross Section and Deck Pouring Sequence.
See sheet #11 of 47 for Parapet Elevations with reinforcement and Parapet Joint Detail.
See sheet #12 of 47 for Section thru West and East Parapets, Section A-A, Section B-B, and Superstructure Bill of Material.

MIN. BAR LAPS

#5 bar - 2'-2"
#6 bar - 2'-7"

DESIGNED	ADL
CHECKED	WLW
DRAWN	RLW
CHECKED	WLW

SUPERSTRUCTURE
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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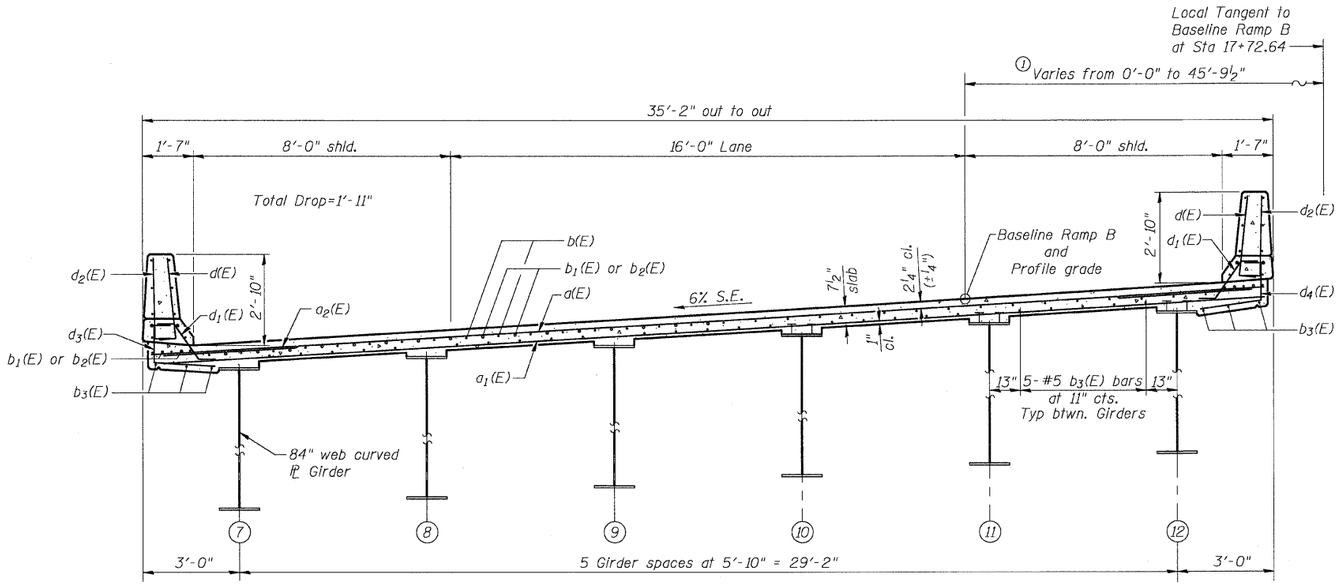
ROUTE ND.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
47 SHEETS

* 60-15HB-3 Contract No. 76706



NEAR PIER **NEAR ABUTMENT & MIDSPAN**

CROSS SECTION

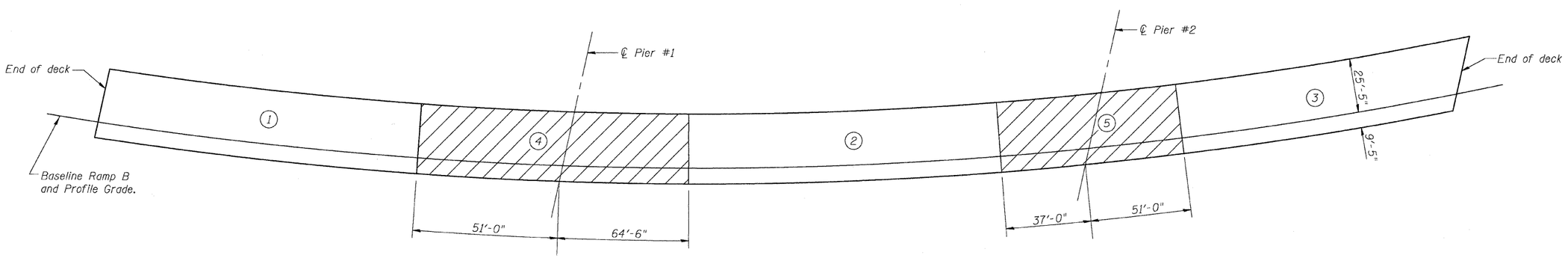
(Looking North)

(Horizontal Dimensions are at Rt. ∟'s to Baseline Ramp B, unless noted)

① Dimensions at Rt. ∟'s to Local Tangent

Notes:

See Sheet #9 of 47 for plan and notes and sheet #12 of 47 for Superstructure Bill of Material.



DECK POURING SEQUENCE

Dimensions along outside edge of deck. All transverse construction joints are radial. See General Notes on sheet #2 of 47. An alternate pour sequence may be used with the approval of the engineer.

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SUPERSTRUCTURE DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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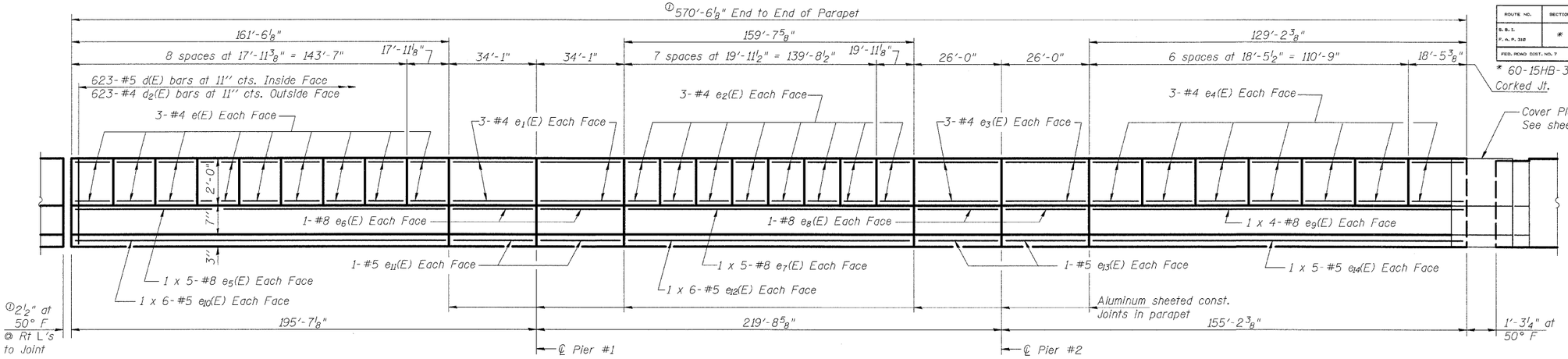
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 11
47 SHEETS

* 60-15HB-3 Contract No. 76706

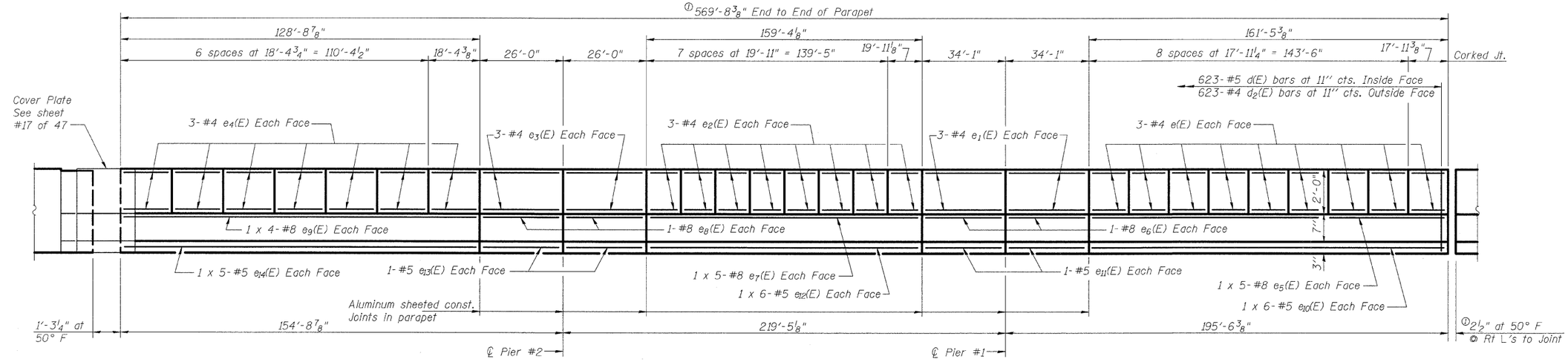


INSIDE ELEVATION OF WEST PARAPET

(Looking West)

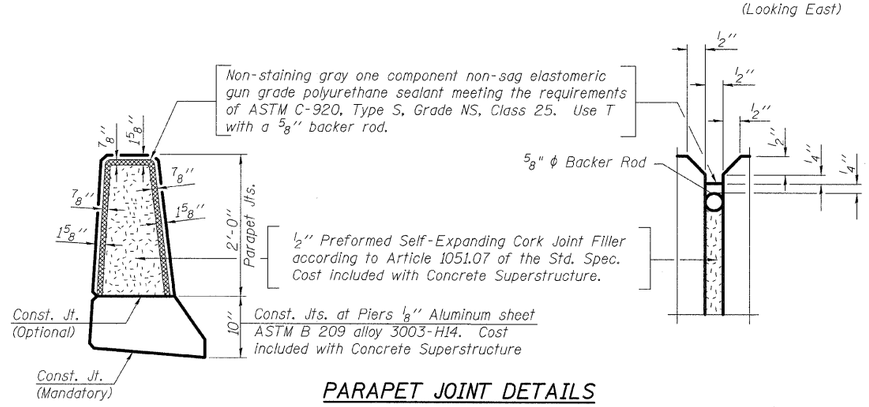
MIN. BAR LAPS FOR PARAPETS

#4 bar = 1'-8"
#5 bar = 2'-2"
#8 bar = 4'-6"



INSIDE ELEVATION OF EAST PARAPET

(Looking East)



PARAPET JOINT DETAILS

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

① Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 15 of 47.

Notes:

See Sheet #9 of 47 for plan and notes and sheet #12 of 47 for Superstructure Bill of Material.

Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

SUPERSTRUCTURE DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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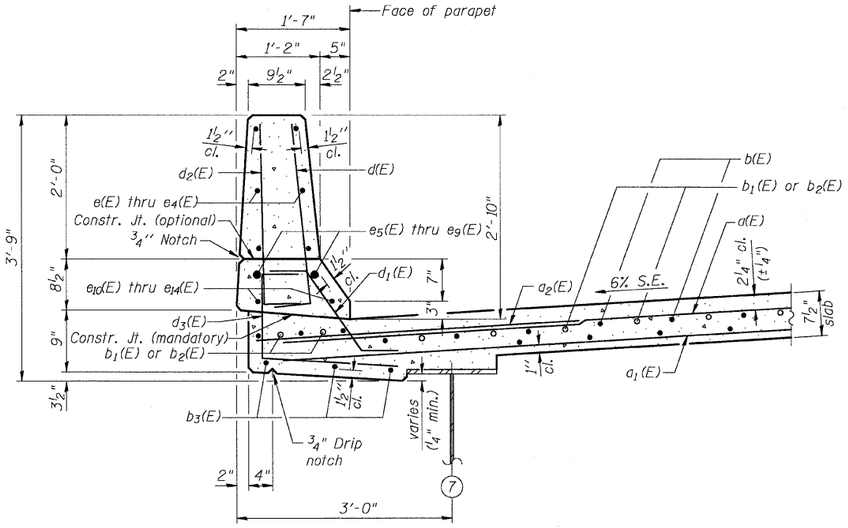
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	34
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

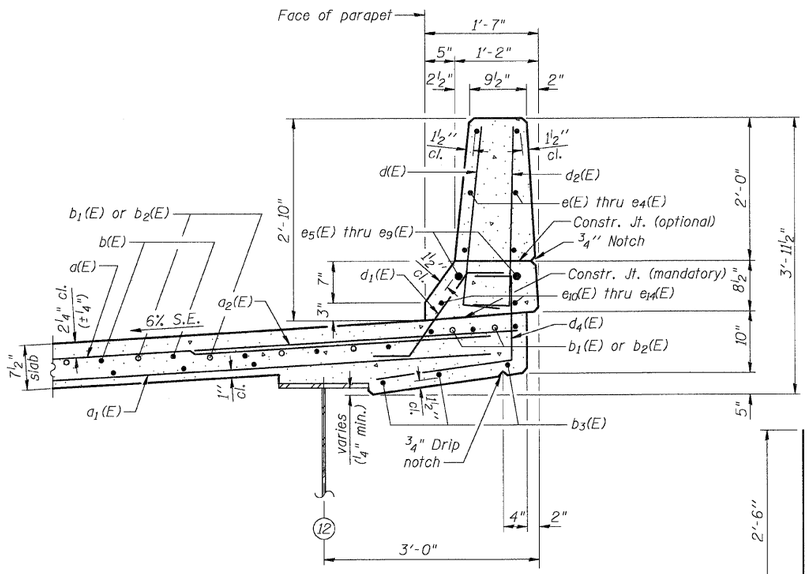
SHEET NO. 12
47 SHEETS

* 60-15HB-3 Contract No. 76706



SECTION THRU WEST PARAPET

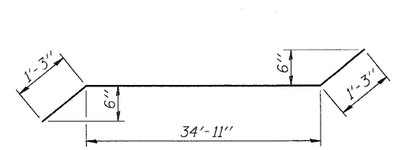
(Horizontal Dimensions are at Rt. L's to Baseline Ramp B, unless noted)



SECTION THRU EAST PARAPET

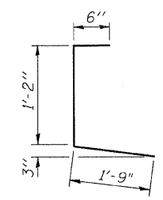
(Horizontal Dimensions are at Rt. L's to Baseline Ramp B, unless noted)

BARS d(E) & d₂(E)

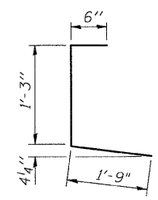


BARS a₄(E)

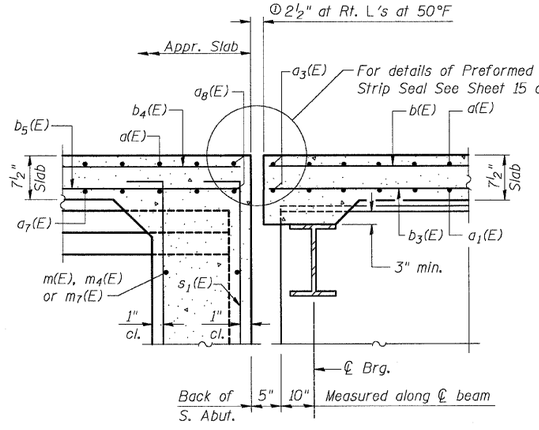
BAR d₁(E)



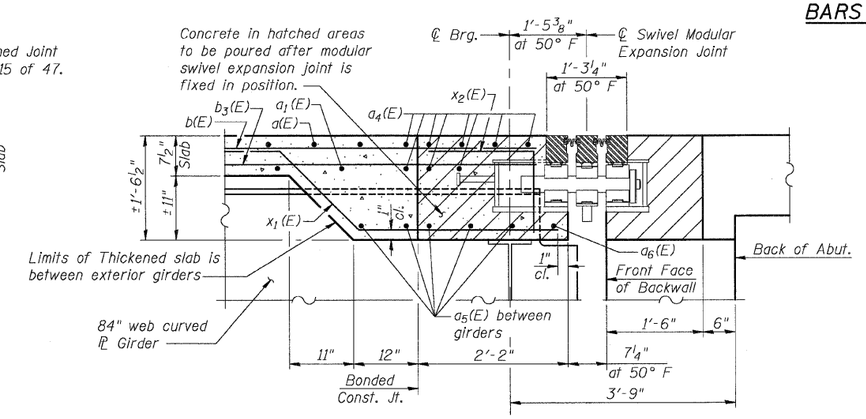
BAR d₃(E)



BAR d₄(E)



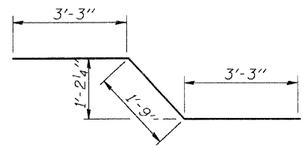
SECTION A-A



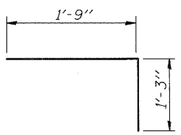
SECTION B-B

(Horizontal Dimensions are at Rt. L's to joint, unless noted)

BARS x₁(E)



BARS x₂(E)



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	919	#5	33'-10"	——
d_1(E)	689	#5	33'-10"	——
d_2(E)	919	#6	6'-0"	——
d_3(E)	2	#5	34'-7"	——
d_4(E)	8	#5	37'-5"	⌐—
d_5(E)	25	#5	6'-0"	——
d_6(E)	1	#5	31'-6"	——
b(E)	798	#5	29'-3"	——
b_1(E)	140	#6	33'-7"	——
b_2(E)	105	#6	34'-4"	——
b_3(E)	682	#5	28'-0"	——
d(E)	1246	#5	3'-0"	⌐⌐
d_1(E)	1246	#5	2'-5"	⌐
d_2(E)	1246	#4	3'-0"	⌐⌐
d_3(E)	623	#4	3'-5"	⌐
d_4(E)	623	#4	3'-6"	⌐
e(E)	108	#4	17'-8"	——
e_1(E)	24	#4	33'-10"	——
e_2(E)	96	#4	19'-8"	——
e_3(E)	24	#4	25'-9"	——
e_4(E)	84	#4	18'-1"	——
e_5(E)	20	#8	35'-11"	——
e_6(E)	8	#8	33'-10"	——
e_7(E)	20	#8	35'-6"	——
e_8(E)	8	#8	25'-9"	——
e_9(E)	16	#8	35'-8"	——
e_{10}(E)	24	#5	28'-9"	——
e_{11}(E)	8	#5	33'-10"	——
e_{12}(E)	24	#5	28'-5"	——
e_{13}(E)	8	#5	25'-9"	——
e_{14}(E)	20	#5	27'-7"	——
x_1(E)	25	#5	8'-3"	⌐—
x_2(E)	31	#5	3'-0"	⌐
Reinforcement Bars, Epoxy Coated		POUND	148,680	
Concrete Superstructure		CU YD	650.0	
Protective Coating		SQ YD	2504	
Bridge Deck Grooving		SQ YD	2028	

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

① Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet #15 of 47.

Notes:
See Sheet #9 of 47 for plan and notes.

SUPERSTRUCTURE DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

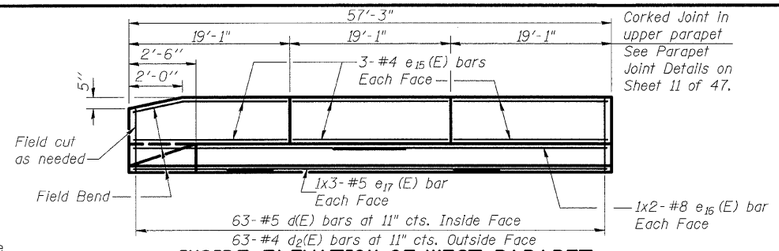
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13
47 SHEETS

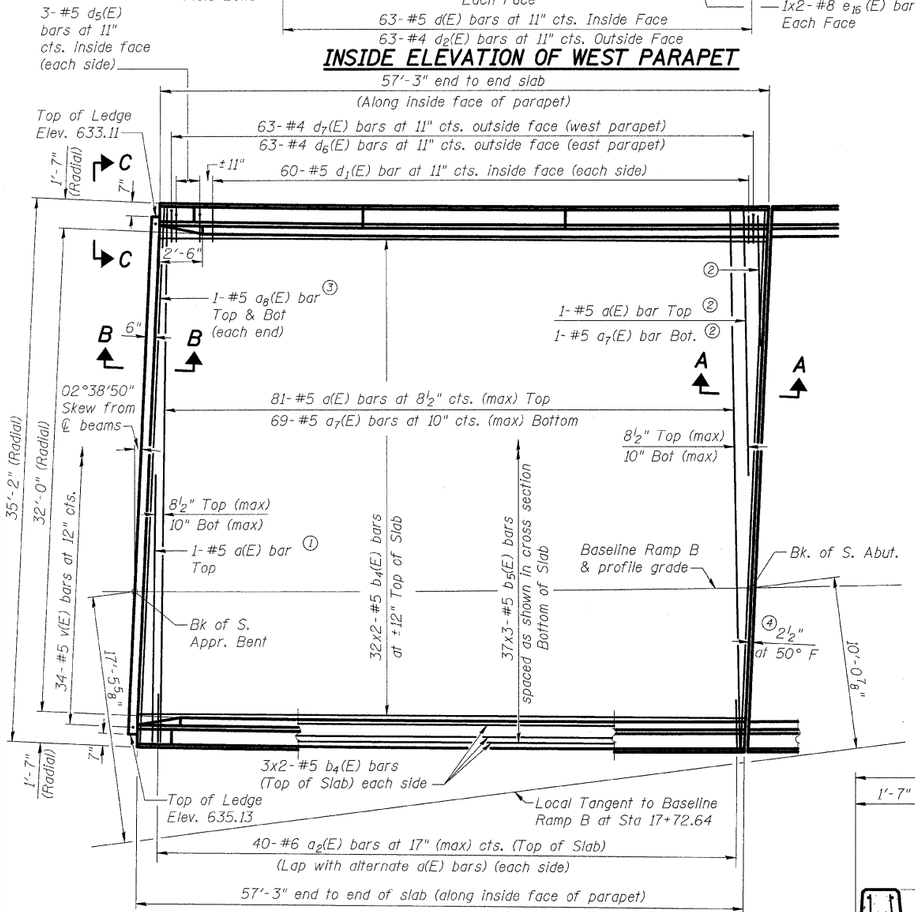
* 60-15HB-3 Contract No. 76706

MIN. BAR LAPS

#4 bar = 1'-8"
#5 bar = 2'-2"
#8 bar = 4'-6"



INSIDE ELEVATION OF WEST PARAPET



PLAN

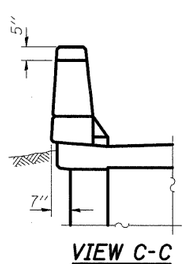
① Order a(E) bar full length. Cut in half and use remainder of bar in bottom of same end.

② Order a(E) & a_7(E) bars full length. Cut to fit skew and use remainder of bars in same end.

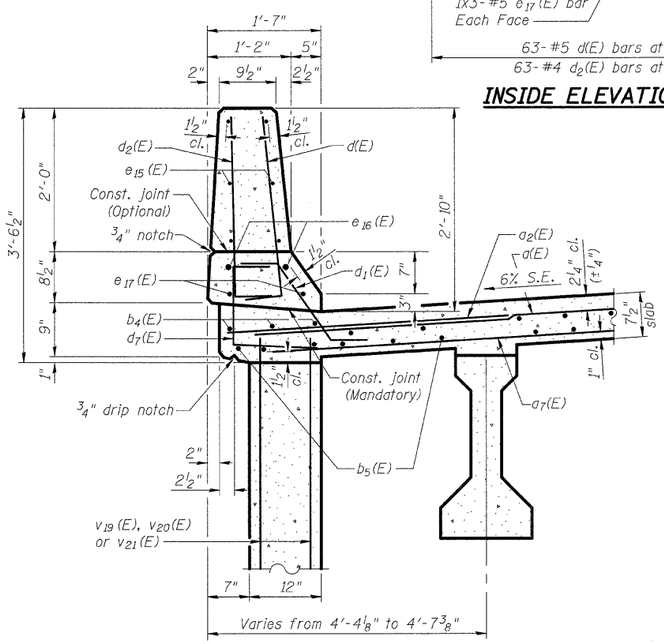
③ Field bend a_8(E) under parapet if required.

④ Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 15 of 47.

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

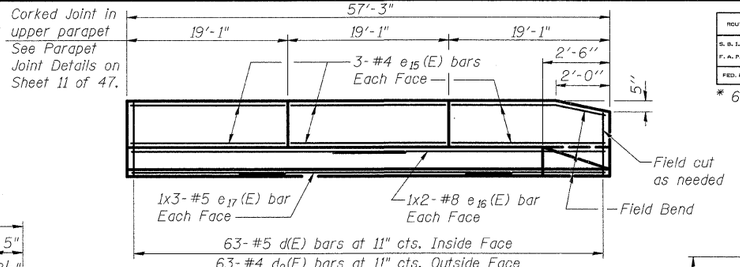


VIEW C-C

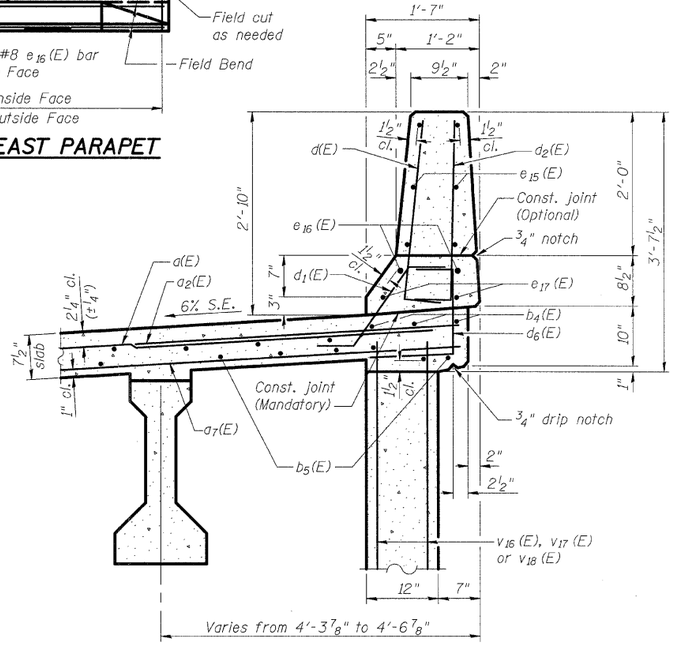


SECTION THRU WEST PARAPET

(Horizontal dimensions are at Rt. L's to Baseline Ramp B, unless noted)



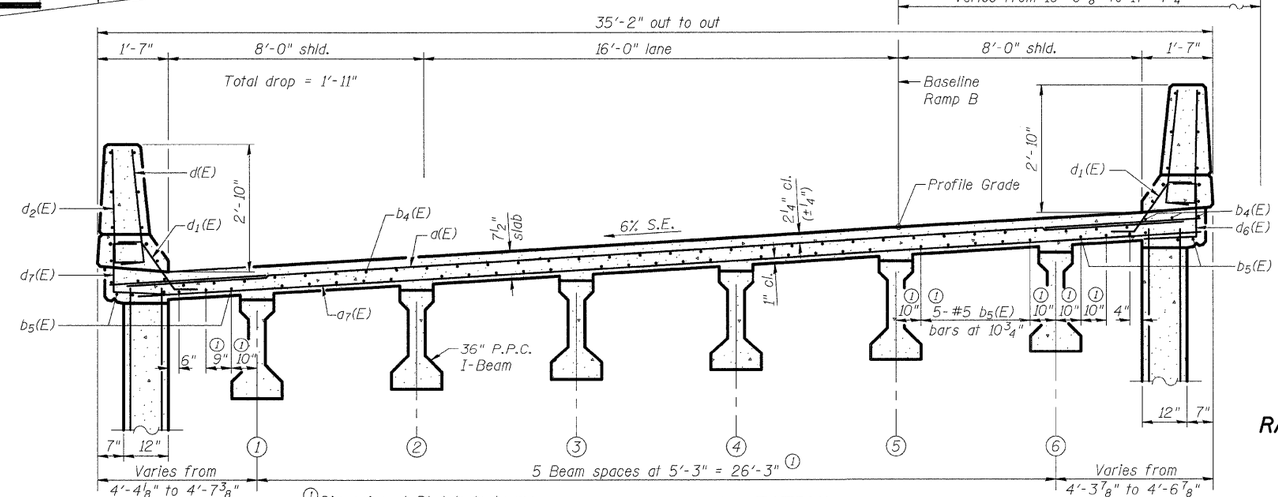
INSIDE ELEVATION OF EAST PARAPET



SECTION THRU EAST PARAPET

(Horizontal dimensions are at Rt. L's to Baseline Ramp B, unless noted)

Notes:
See sheets #31, #32 and #33 of 47 for v_{16}(E) thru v_{21}(E) bars.
Work this sheet with sheet #14 of 47.
See sheet #14 of 47 for Sections A-A & B-B.
Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.



① Dimension at Rt. L's to beams
② Dimension at Rt. L's to local tangent

CROSS SECTION

(Looking North)
(Horizontal dimensions are at Rt. L's to Baseline Ramp B, unless noted)

SOUTH APPROACH SLAB
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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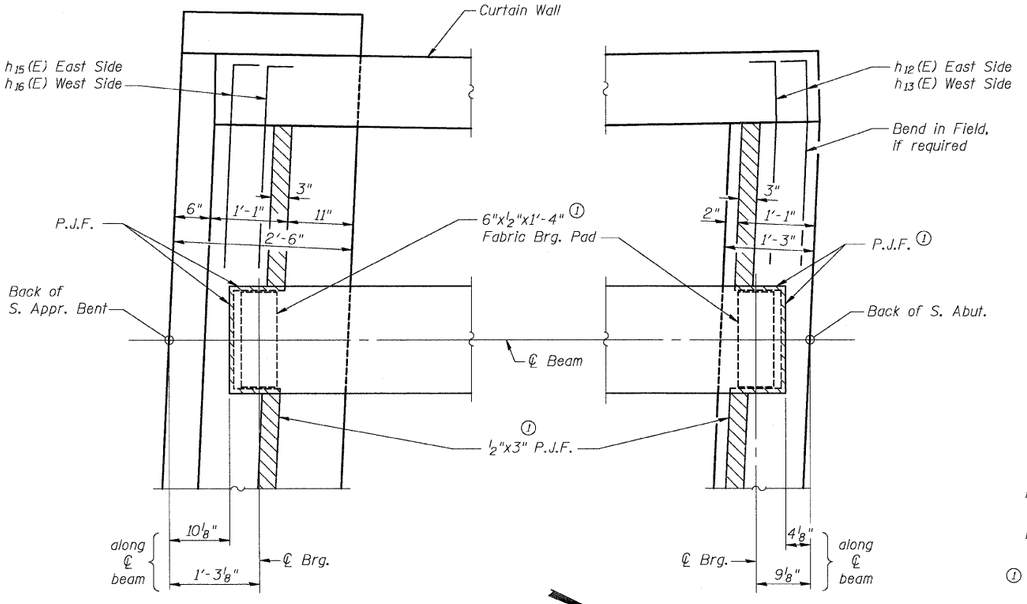
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

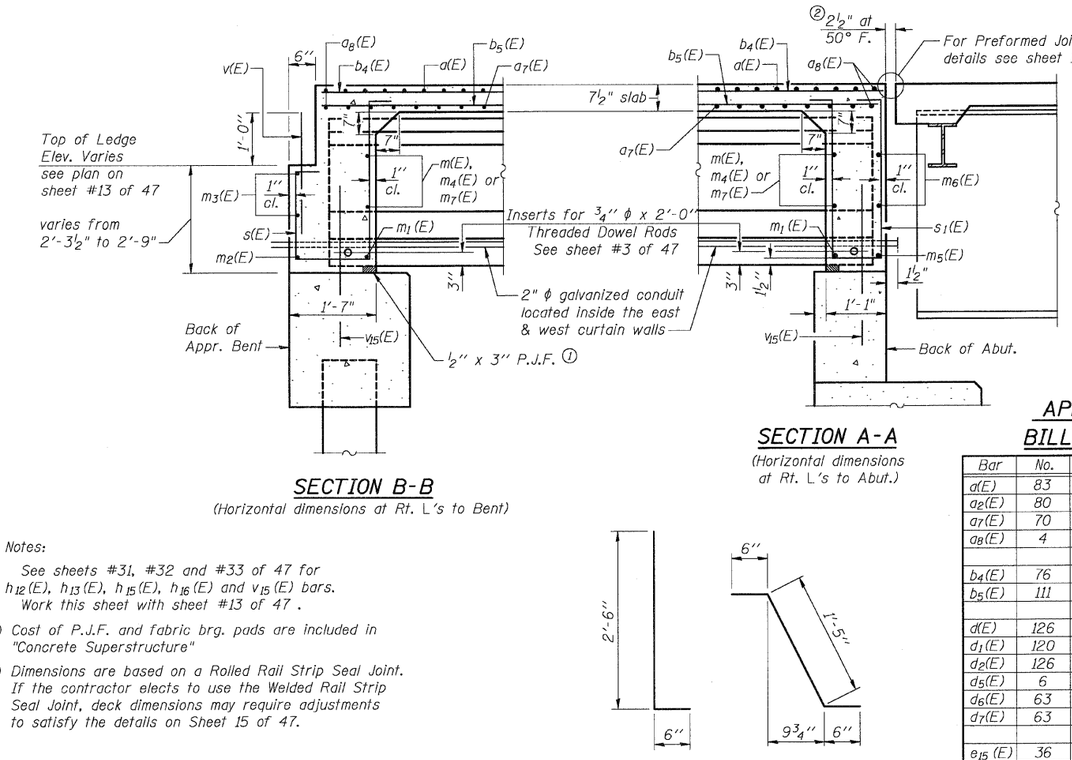
SHEET NO. 14
47 SHEETS

* 60-15HB-3 Contract No. 76706



PARTIAL PLAN

(Dimensions are at Rt. L's to Bent or Abut., unless noted)



SECTION B-B

(Horizontal dimensions at Rt. L's to Bent)

SECTION A-A

(Horizontal dimensions at Rt. L's to Abut.)

Notes:

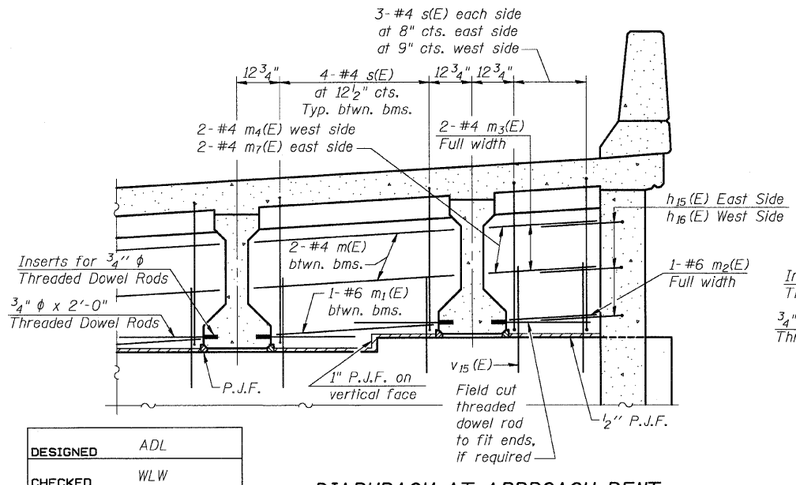
See sheets #31, #32 and #33 of 47 for $h_{12}(E)$, $h_{13}(E)$, $h_{15}(E)$, $h_{16}(E)$ and $v_{15}(E)$ bars. Work this sheet with sheet #13 of 47 .

① Cost of P.J.F. and fabric brg. pads are included in "Concrete Superstructure"

② Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 15 of 47.

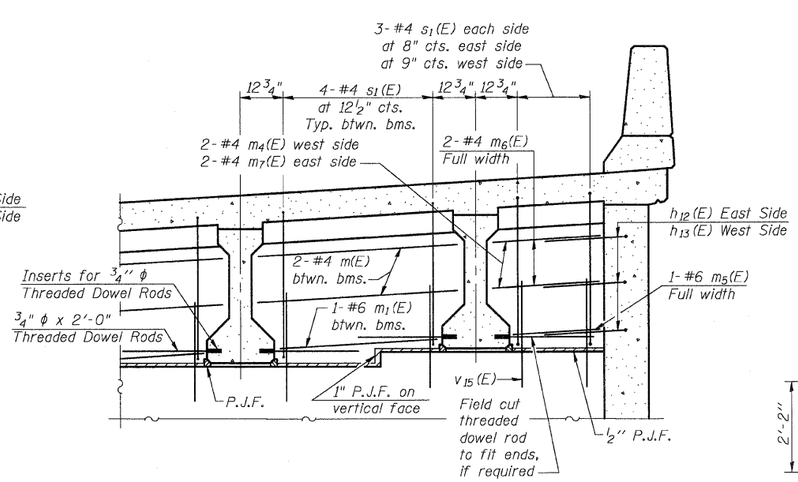
APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	83	#5	33'-10"	——
d_2(E)	80	#6	6'-0"	——
a_7(E)	70	#5	33'-4"	——
a_8(E)	4	#5	34'-6"	——
b_4(E)	76	#5	29'-8"	——
b_5(E)	111	#5	20'-7"	——
d(E)	126	#5	3'-0"	⌐
d_1(E)	120	#5	2'-5"	⌐
d_2(E)	126	#4	3'-0"	⌐
d_5(E)	6	#5	2'-8"	⌐
d_6(E)	63	#4	2'-10"	⌐
d_7(E)	63	#4	2'-9"	⌐
e_{15}(E)	36	#4	18'-10"	——
e_{16}(E)	8	#8	30'-10"	——
e_{17}(E)	12	#5	20'-7"	——
m(E)	20	#4	4'-7"	——
m_1(E)	10	#6	3'-7"	——
m_2(E)	1	#6	33'-10"	——
m_3(E)	2	#4	33'-10"	——
m_4(E)	4	#4	2'-7"	——
m_5(E)	1	#6	31'-10"	——
m_6(E)	2	#4	31'-10"	——
m_7(E)	4	#4	2'-4"	——
s(E)	26	#4	7'-11"	⌐
s_1(E)	26	#4	8'-7"	⌐
v(E)	34	#5	2'-6"	——
Reinforcement Bars, Epoxy Coated		POUND	14,200	
Concrete Superstructure		CU YD	71.1	
Protective Coat		SQ YD	251	
Bridge Deck Grooving		SQ YD	204	



DIAPHRAGM AT APPROACH BENT

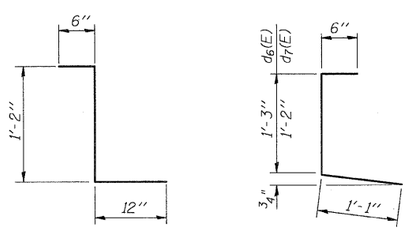
For location of m(E), m_1(E), m_2(E), m_3(E), m_4(E) and m_7(E) bars see Section B-B on this sheet.
Horizontal dimensions are at Rt. L's to beams.



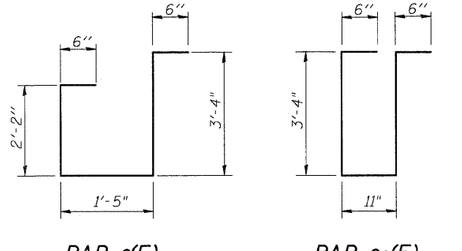
DIAPHRAGM AT ABUTMENT

For location of m(E), m_1(E), m_4(E), m_5(E), m_6(E) and m_7(E) bars see Section A-A on this sheet.
Horizontal dimensions are at Rt. L's to beams.

BARS d(E) & d_2(E) BAR d_1(E)



BAR d_5(E) BARS d_6(E) & d_7(E)



BAR s(E) BAR s_1(E)

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SOUTH APPROACH SLAB
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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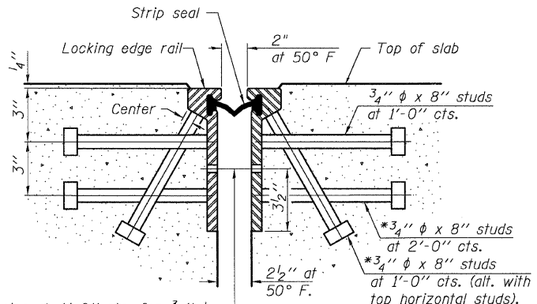
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

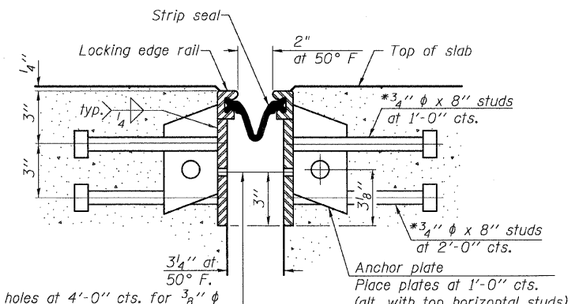
SHEET NO. 15
47 SHEETS

* 60-15HB-3 Contract No. 76706

**Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.*

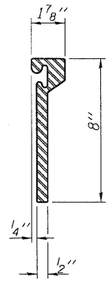


7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

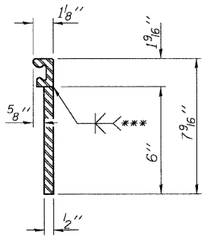


7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

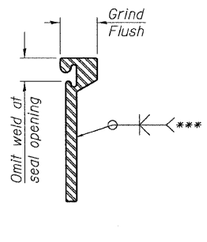
SECTION THRU ROLLED RAIL JOINT



ROLLED (EXTRUDED) RAIL



WELDED RAIL

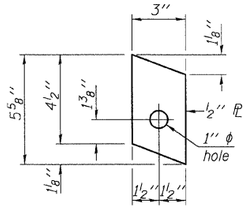


LOCKING EDGE RAIL SPLICE

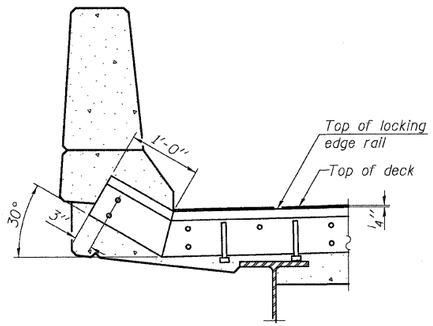
The inside of the locking edge rail groove shall be free of weld residue.

***Back gouge not required if complete joint penetration is verified by mock-up.

SECTION THRU WELDED RAIL JOINT



ANCHOR PL
(for welded rail)



AT PARAPET

TYPICAL END TREATMENT

LOCKING EDGE RAILS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	34

DESIGNED	ADL
CHECKED	WLW
DRAWN	RLW
CHECKED	WLW

EJ-SSJ 9-3-07

PREFORMED JOINT STRIP SEAL
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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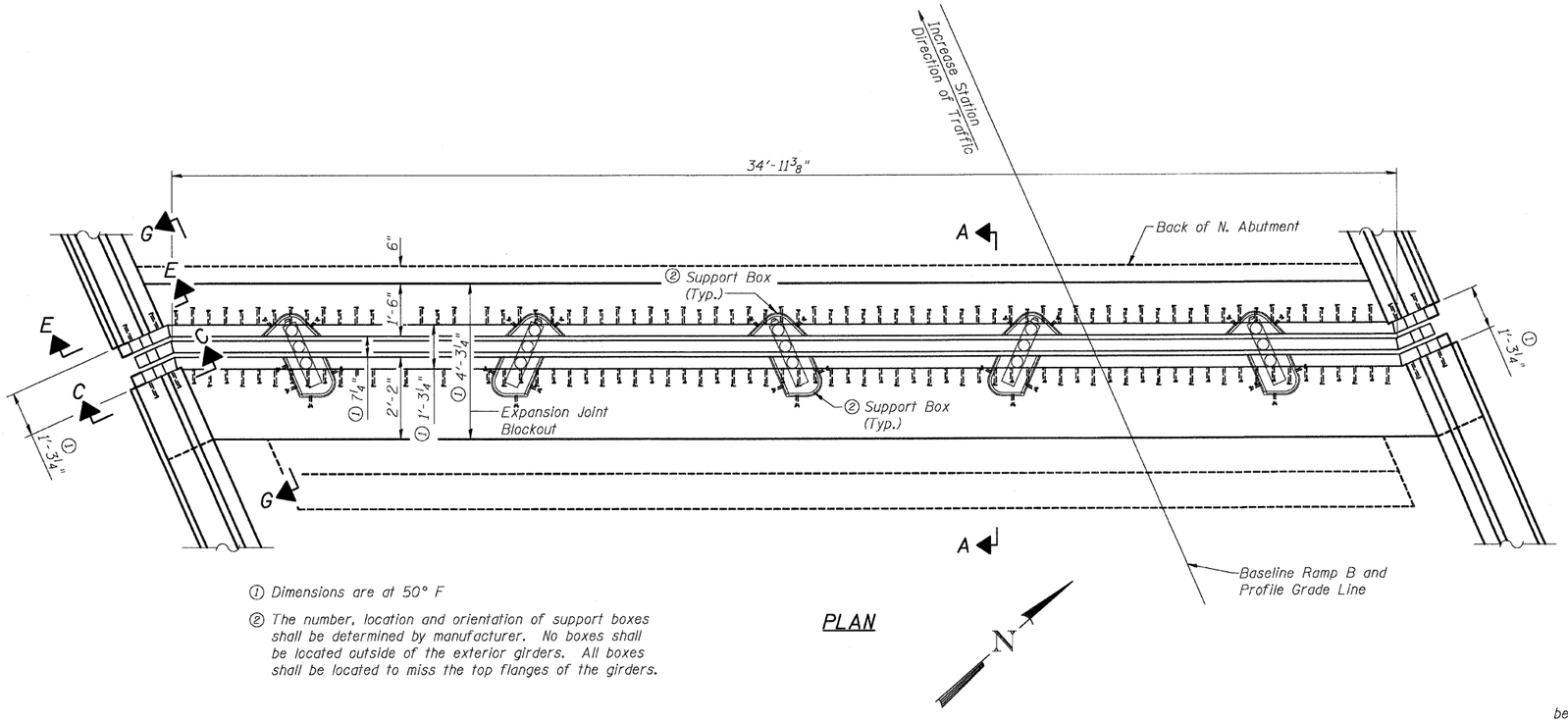
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
E. B. I. F. A. P. 318	*	MADISON	93	38
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 16
47 SHEETS

* 60-15HB-3 Contract No. 76706

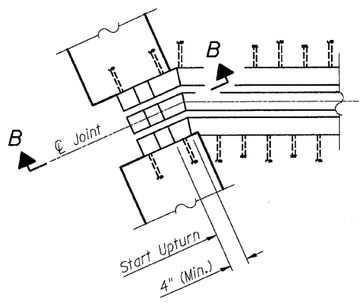


PLAN

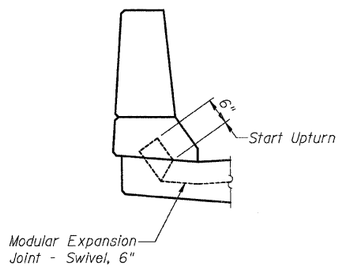
① Dimensions are at 50° F

② The number, location and orientation of support boxes shall be determined by manufacturer. No boxes shall be located outside of the exterior girders. All boxes shall be located to miss the top flanges of the girders.

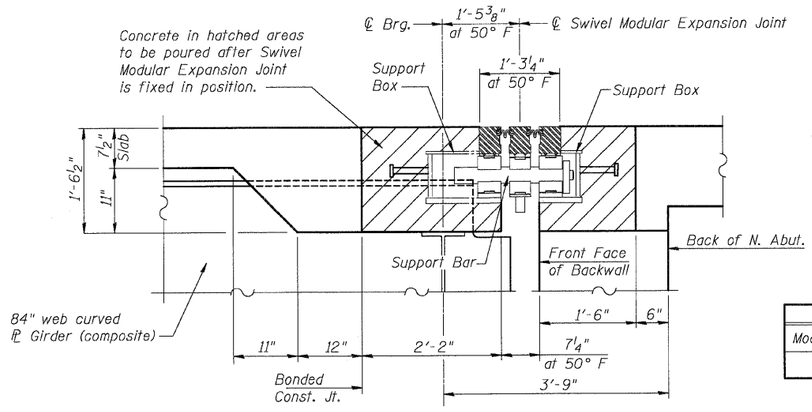
Notes:
Work this sheet with sheet #17 of 47.
See sheet #17 of 47 for Sections C-C and E-E.
See sheet #17 of 47 for Elevation G-G.
See notes on sheet #17 of 47.
Support Boxes shall be rigidly attached to cross frames, beams and abutment backwall by adjustable brackets, stools or shims. Cost of attachment included in "Modular Expansion Joint - Swivel 6" ".



MITERED RAILS AT PARAPETS



SECTION B-B



SECTION A-A
Dimensions are at Rt. L's to Joint.

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint - Swivel 6"	FOOT	37

DESIGNED	ADL
CHECKED	WLW
DRAWN	RLW
CHECKED	WLW

SWIVEL MODULAR EXPANSION JOINT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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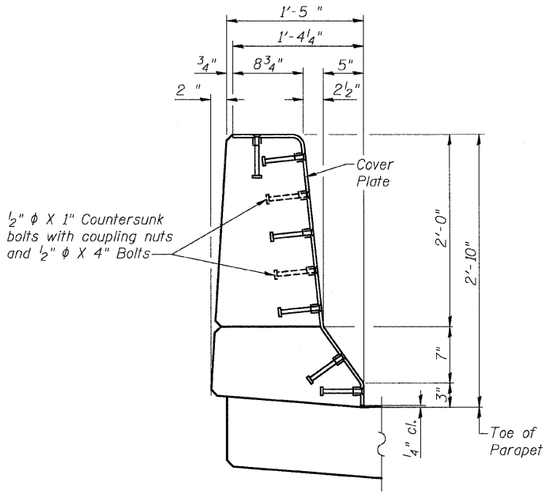
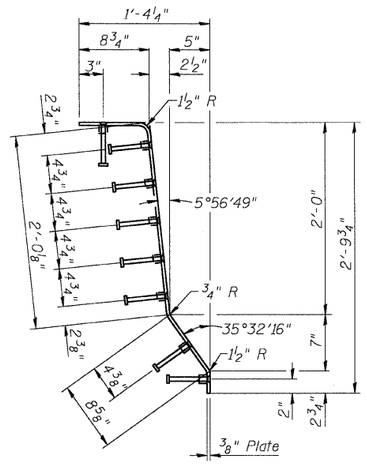
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. R. A. P. 318	*	MADISON	93	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 17
47 SHEETS

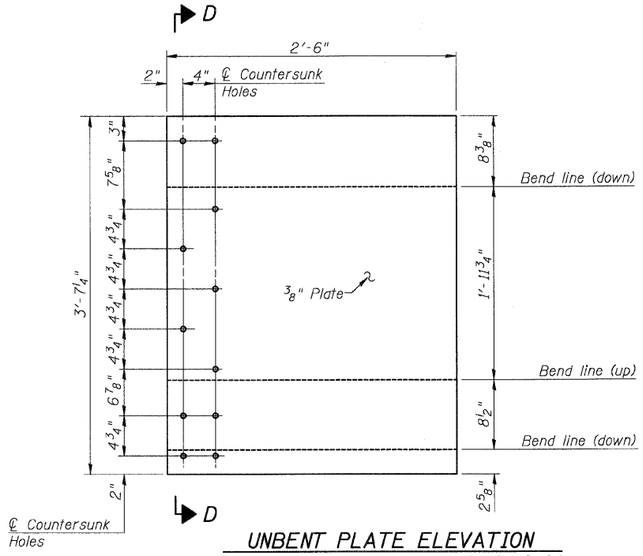
* 60-15HB-3 Contract No. 76706



SECTION C-C

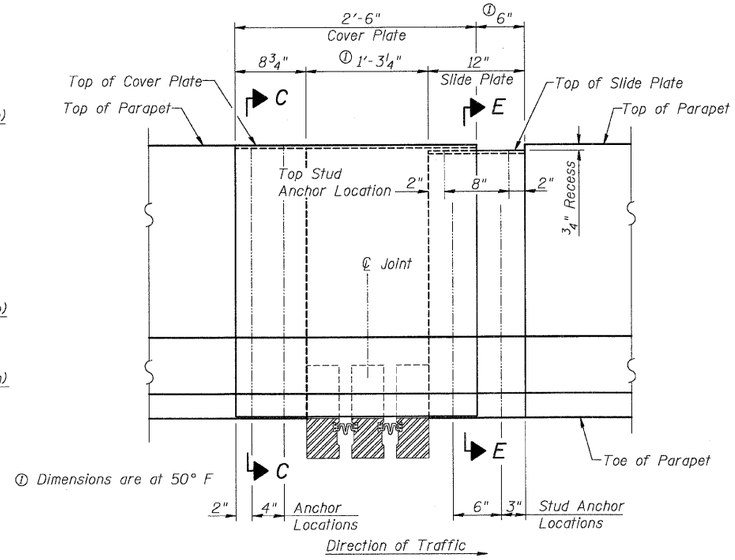


SECTION D-D



UNBENT PLATE ELEVATION

Vertical dimensions are along neutral axis of plate.

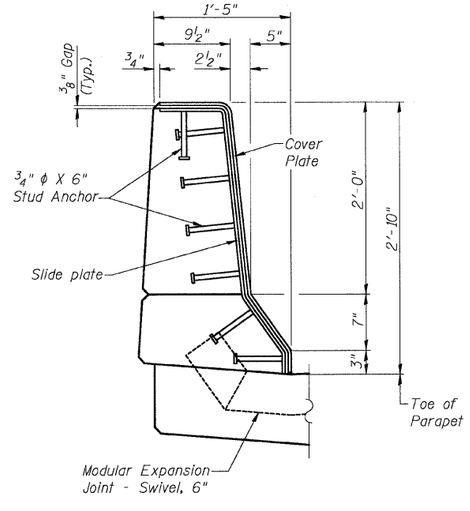


① Dimensions are at 50° F

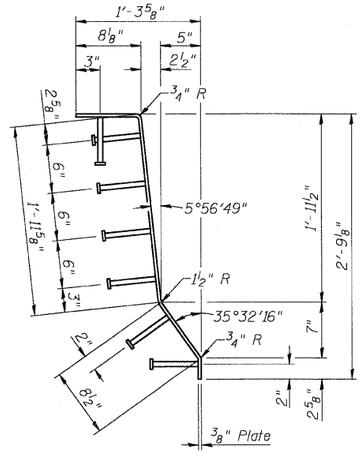
PLATE ELEVATION G-G

COVER PLATE BEND DETAILS

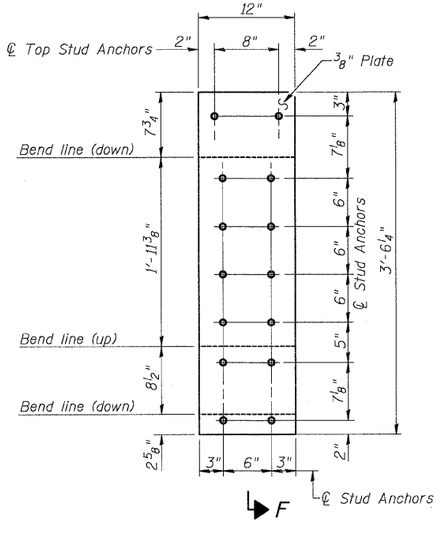
(2-plates required)



SECTION E-E



SECTION F-F



UNBENT PLATE ELEVATION

Vertical dimensions are along neutral axis of plate.

SLIDE PLATE BEND DETAILS

(2-plates required)

DESIGNED	ADL
CHECKED	WLW
DRAWN	RLW
CHECKED	WLW

Notes:

The Swivel Modular Expansion Joint shall be either MAURER Swivel system by D.S. Brown Co. or the WABO X-CEL system by Watson Bowman Acme Corporation. The joint shall provide the following movements:

Location	Longitudinal Movement (inch)	Differential Non-Parallel Long. Movement (inch)	Size (inch)
N. Abut.	4 3/4"	3 1/4"	6"

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the blockout is cast at an ambient temperature other than 50° F.

Cover plates and slide plates shall be AASHTO M270 Grade 36 steel, and hot-dipped galvanized according to AASHTO M111 after fabrication.

Countersunk Cap Screws and Concrete Inserts shall be Hot-dipped galvanized according to AASHTO M232.

The cost of furnishing the Cover Plates, Slide Plates, Countersunk Cap Screws, Stud Anchors, and the Installation of these items shall be included with "Modular Expansion Joint - Swivel 6".

Cover Plates shall be mounted using 1/2" ϕ Countersunk Cap Screws with Hex Coupling Nuts and 1/2" ϕ X 4" long bolts.

Cover Plates shall be mounted towards oncoming traffic.

For Reinforcing at Expansion Joint see sheet #12 of 47.

Dimensions are based on the D.S. Brown DS160B Swivel Modular Expansion Joint. If a different model or manufacture is used, the dimensions may require adjustment as approved by the engineer.

Work this sheet with sheet #16 of 47.

SWIVEL MODULAR EXPANSION JOINT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 18
47 SHEETS

* 60-15HB-3 Contract No. 76706

Notes:

All longitudinal dimensions are along ℄ girder except "X".

All transverse dimensions are given radially except "Y".

Dimensions "X" are measured parallel to the Local Tangent to Girder at Sta. 17+72.64.

Dimensions "Y" are measured perpendicular to the Local Tangent to Girder at Sta. 17+72.64.

Interior Cross Frames, CF3, shall be placed radially.

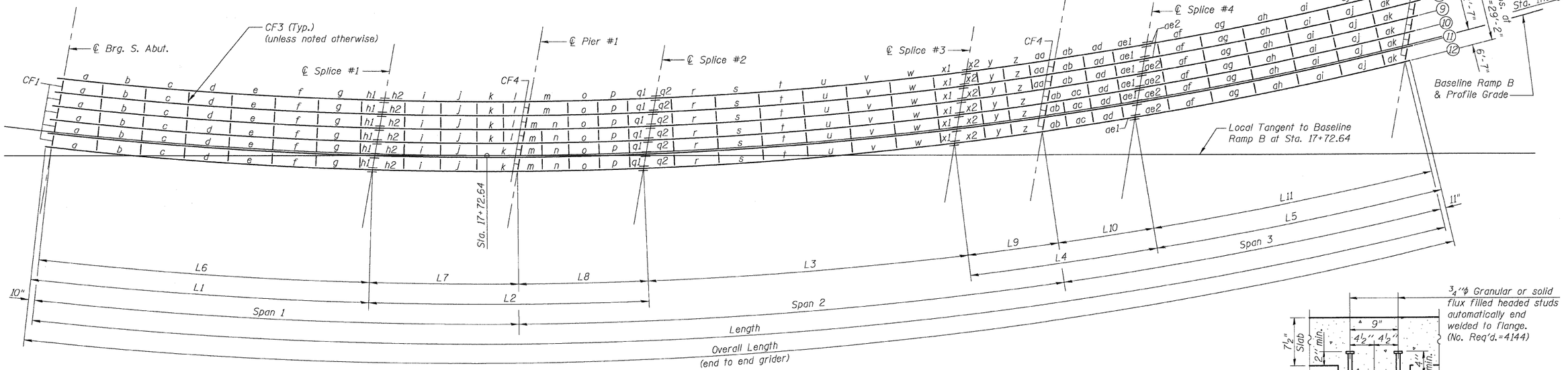
Girders shall be fabricated to their respective radius.

Top Flange Plates, Web Plates, Bottom Flange Plates and Brg. Stiffener Plates shall be AASHTO M270 Grade 50.

N.T.R. denotes plates which Notch Toughness Requirements are applicable.

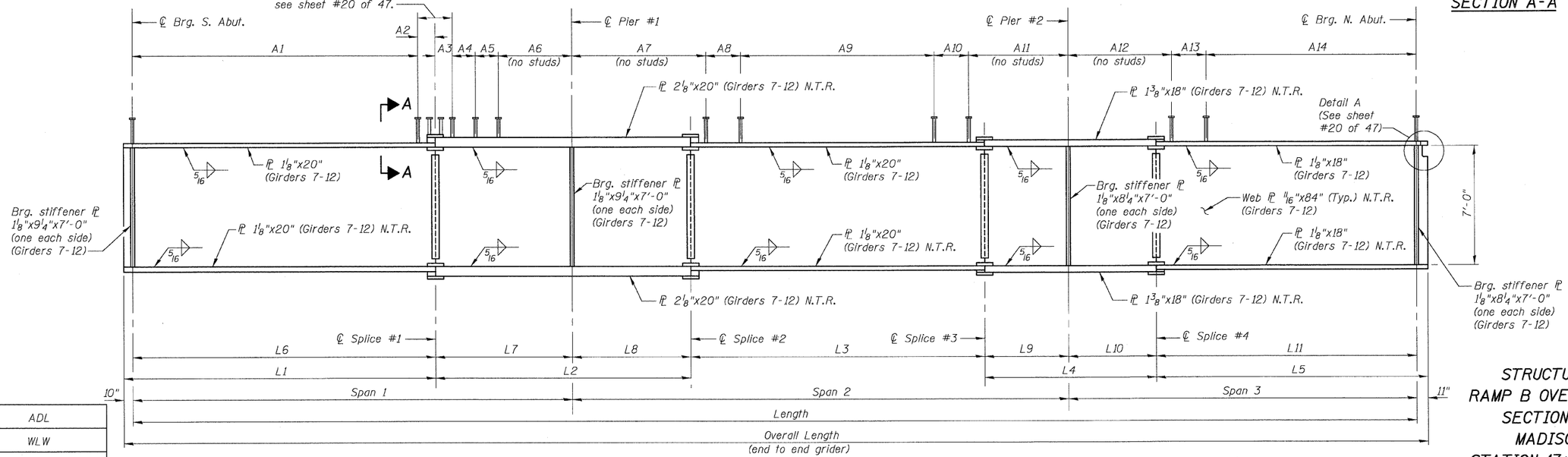
All connection plates for Interior Cross Frames, CF3, shall be placed radially.

See sheet #19 of 47 for Girder dimensions, Cross Frame spacing dimensions, Stud Shear Connector spacing dimensions and "X" and "Y" offset dimensions.
See sheet #21 of 47 for Cross Frame details.
See sheet #20 of 47 for Brg. Stiffener details.
See sheet #22 & #23 of 47 for Splice details.
See sheet #24 of 47 for Camber details.
See sheet #25 & #26 of 47 for Moment & Reaction tables.



FRAMING PLAN

SECTION A-A



GIRDER ELEVATION

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

STRUCTURAL STEEL RAMP B OVER FAP RTE 310 SECTION 60-15HB-3 MADISON COUNTY STATION 17+72.64 (RAMP B) SN 060-0332

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	41
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 19
47 SHEETS

* 60-15HB-3 Contract No. 76706

① GIRDER DIMENSIONS

Girder No.	Span 1	Span 2	Span 3	Length	Overall Length	Radius	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11
7	194'-6 1/2"	219'-8 1/2"	154'-2 3/4"	568'-5 3/4"	570'-2 3/4"	1617'-10"	134'-10"	113'-0"	130'-0"	76'-0"	116'-4 3/4"	134'-0"	60'-6 1/2"	52'-5 1/2"	37'-3"	38'-9"	115'-5 3/4"
8	194'-6 3/8"	219'-7 7/8"	154'-1 3/4"	568'-3 7/8"	570'-0 7/8"	1623'-8"	134'-10"	113'-0"	130'-0"	76'-0"	116'-2 7/8"	134'-0"	60'-6 3/8"	52'-5 5/8"	37'-2 1/4"	38'-9 3/4"	115'-3 7/8"
9	194'-6 1/4"	219'-7 1/4"	154'-0 3/4"	568'-2 1/8"	569'-11 1/8"	1629'-6"	134'-10"	113'-0"	130'-0"	76'-0"	116'-1 1/8"	134'-0"	60'-6 1/4"	52'-5 3/4"	37'-1 1/2"	38'-10 1/2"	115'-2 1/8"
10	194'-6 1/8"	219'-6 1/2"	153'-11 3/4"	568'-0 3/8"	569'-9 3/8"	1635'-4"	134'-10"	113'-0"	130'-0"	76'-0"	115'-11 3/8"	134'-0"	60'-6 1/8"	52'-5 7/8"	37'-0 5/8"	38'-11 3/8"	115'-0 3/8"
11	194'-6"	219'-5 7/8"	153'-10 3/4"	567'-10 5/8"	569'-7 5/8"	1641'-2"	134'-10"	113'-0"	130'-0"	76'-0"	115'-9 5/8"	134'-0"	60'-6"	52'-6"	36'-11 7/8"	39'-0 1/8"	114'-10 5/8"
12	194'-5 7/8"	219'-5 1/4"	153'-9 7/8"	567'-9"	569'-6"	1647'-0"	134'-10"	113'-0"	130'-0"	76'-0"	115'-8"	134'-0"	60'-5 7/8"	52'-6 1/8"	36'-11 1/8"	39'-0 7/8"	114'-9"

① CROSS FRAME SPACING

Girder No.	a	b	c	d	e	f	g	h1	h2	i	j	k	l	m	n	o	p	q1	q2	r	s	t	u	v	w	x1	x2	y	z
7	16'-6 1/2"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	9'-5 1/2"	8'-6 1/2"	15'-0"	15'-0"	11'-0"	11'-0"	15'-9 1/2"	—	12'-5 1/2"	12'-5 1/2"	11'-9"	6'-6"	18'-3"	18'-3"	18'-3"	18'-3"	18'-3"	18'-3"	14'-0"	4'-3"	11'-0"	11'-0"
8	16'-11 7/8"	18'-0 3/4"	18'-0 3/4"	18'-0 3/4"	18'-0 3/4"	18'-0 3/4"	18'-0 3/4"	8'-7 1/2"	9'-5 1/4"	15'-0 5/8"	15'-0 5/8"	11'-0 1/2"	9'-11 3/8"	16'-11 1/4"	—	12'-6"	12'-6"	10'-6 1/4"	7'-9 5/8"	18'-3 3/4"	18'-3 3/4"	18'-3 3/4"	18'-3 3/4"	18'-3 3/4"	18'-3 3/4"	12'-3 5/8"	6'-0 1/8"	11'-0 1/2"	11'-0 1/2"
9	17'-5 1/8"	18'-1 1/2"	18'-1 1/2"	18'-1 1/2"	18'-1 1/2"	18'-1 1/2"	18'-1 1/2"	7'-9 1/2"	10'-4"	15'-1 1/4"	15'-1 1/4"	11'-1"	8'-10 5/8"	7'-0 1/8"	11'-1"	12'-6 5/8"	12'-6 5/8"	9'-3 1/2"	9'-1 1/8"	18'-4 5/8"	18'-4 5/8"	18'-4 5/8"	18'-4 5/8"	18'-4 5/8"	18'-4 5/8"	10'-7 3/8"	7'-9 1/4"	11'-1"	11'-1"
10	17'-10 3/8"	18'-2 3/8"	18'-2 3/8"	18'-2 3/8"	18'-2 3/8"	18'-2 3/8"	18'-2 3/8"	6'-11 1/2"	11'-2 3/4"	15'-2"	15'-2"	11'-1 3/8"	7'-10"	8'-1 1/2"	11'-1 3/8"	12'-7 1/8"	12'-7 1/8"	8'-0 5/8"	10'-4 5/8"	18'-5 3/8"	18'-5 3/8"	18'-5 3/8"	18'-5 3/8"	18'-5 3/8"	18'-5 3/8"	8'-11 3/8"	9'-6 1/4"	11'-1 3/8"	16'-5"
11	18'-3 3/4"	18'-3 1/8"	18'-3 1/8"	18'-3 1/8"	18'-3 1/8"	18'-3 1/8"	18'-3 1/8"	6'-1 5/8"	12'-1 1/2"	15'-2 5/8"	15'-2 5/8"	17'-11 1/4"	—	9'-2 7/8"	11'-1 7/8"	12'-7 5/8"	12'-7 5/8"	6'-9 7/8"	11'-8 1/4"	18'-6 1/8"	18'-6 1/8"	18'-6 1/8"	18'-6 1/8"	18'-6 1/8"	18'-6 1/8"	7'-2 3/4"	11'-3 3/8"	11'-1 7/8"	14'-6 5/8"
12	18'-9"	18'-3 7/8"	18'-3 7/8"	18'-3 7/8"	18'-3 7/8"	18'-3 7/8"	18'-3 7/8"	5'-3 5/8"	13'-0 1/4"	15'-3 1/4"	15'-3 1/4"	16'-11 7/8"	—	10'-4 1/4"	11'-2 3/8"	12'-8 1/4"	12'-8 1/4"	5'-7 1/8"	12'-11 3/4"	18'-7"	18'-7"	18'-7"	18'-7"	18'-7"	18'-7"	5'-6 1/2"	13'-0 3/8"	11'-2 3/8"	12'-8 3/8"

① STUD SHEAR CONNECTOR SPACING

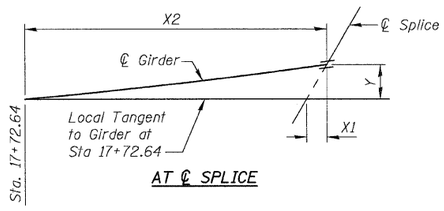
Girder No.	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14
7	112 sps. at 1'-2"=130'-8"	3'-4"	3'-0"	3 sps. at 1'-1"=3'-3"	7 sps. at 4" =2'-4"	51'-11 1/2"	55'-9 7/8"	7 sps. at 4" =2'-4"	102 sps. at 1'-2"=119'-0"	7 sps. at 4" =2'-4"	40'-2 5/8"	43'-4 3/4"	7 sps. at 4" =2'-4"	93 sps. at 1'-2"=108'-6"
8	112 sps. at 1'-2"=130'-8"	3'-4"	3'-0"	3 sps. at 1'-1"=3'-3"	7 sps. at 4" =2'-4"	51'-11 3/8"	56'-11 1/2"	7 sps. at 4" =2'-4"	101 sps. at 1'-2"=117'-10"	7 sps. at 4" =2'-4"	40'-2 3/8"	43'-3 3/4"	7 sps. at 4" =2'-4"	93 sps. at 1'-2"=108'-6"
9	112 sps. at 1'-2"=130'-8"	3'-4"	3'-0"	3 sps. at 1'-1"=3'-3"	7 sps. at 4" =2'-4"	51'-11 1/4"	58'-0 1/2"	7 sps. at 4" =2'-4"	100 sps. at 1'-2"=116'-8"	7 sps. at 4" =2'-4"	40'-2 3/4"	43'-2 3/4"	7 sps. at 4" =2'-4"	93 sps. at 1'-2"=108'-6"
10	112 sps. at 1'-2"=130'-8"	3'-4"	3'-0"	3 sps. at 1'-1"=3'-3"	7 sps. at 4" =2'-4"	51'-11 1/8"	58'-4 1/2"	7 sps. at 4" =2'-4"	100 sps. at 1'-2"=116'-8"	7 sps. at 4" =2'-4"	39'-10"	43'-1 3/4"	7 sps. at 4" =2'-4"	93 sps. at 1'-2"=108'-6"
11	112 sps. at 1'-2"=130'-8"	3'-4"	3'-2"	3 sps. at 12"=3'-0"	7 sps. at 4" =2'-4"	52'-0"	59'-5 5/8"	7 sps. at 4" =2'-4"	99 sps. at 1'-2"=115'-6"	7 sps. at 4" =2'-4"	39'-10 1/4"	43'-0 3/4"	7 sps. at 4" =2'-4"	93 sps. at 1'-2"=108'-6"
12	112 sps. at 1'-2"=130'-8"	3'-4"	3'-2"	3 sps. at 12"=3'-0"	7 sps. at 4" =2'-4"	51'-11 7/8"	60'-5 1/4"	7 sps. at 4" =2'-4"	98 sps. at 1'-2"=114'-4"	7 sps. at 4" =2'-4"	40'-0"	42'-11 7/8"	7 sps. at 4" =2'-4"	93 sps. at 1'-2"=108'-6"

① CROSS FRAME SPACING (CONT.)

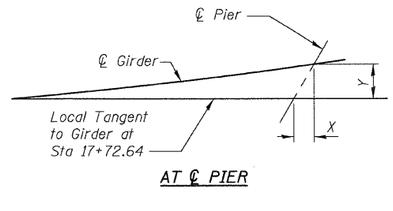
Girder No.	aa	ab	ac	ad	ae1	ae2	af	ag	ah	ai	aj	ak
7	11'-0"	11'-9"	—	12'-6"	14'-6"	4'-6"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	20'-11 3/4"
8	9'-1 1/8"	13'-8 3/4"	—	12'-6 1/2"	12'-6 3/8"	6'-6 3/8"	18'-0 3/4"	18'-0 3/4"	18'-0 3/4"	18'-0 3/4"	18'-0 3/4"	18'-5 5/8"
9	7'-2 3/8"	15'-8 5/8"	—	12'-7 1/8"	10'-6 7/8"	8'-6 7/8"	18'-1 1/2"	18'-1 1/2"	18'-1 1/2"	18'-1 1/2"	18'-1 1/2"	15'-11 5/8"
10	—	6'-7"	11'-1 3/8"	12'-7 5/8"	8'-7 1/4"	10'-7 1/4"	18'-2 3/8"	18'-2 3/8"	18'-2 3/8"	18'-2 3/8"	18'-2 3/8"	13'-5 5/8"
11	—	8'-6 1/4"	11'-1 7/8"	12'-8 1/8"	6'-7 3/4"	12'-7 5/8"	18'-3 1/8"	18'-3 1/8"	18'-3 1/8"	18'-3 1/8"	18'-3 1/8"	10'-11 1/2"
12	—	10'-5 5/8"	11'-2 3/8"	12'-8 3/4"	4'-8 1/4"	14'-7 7/8"	18'-3 7/8"	18'-3 7/8"	18'-3 7/8"	18'-3 7/8"	18'-3 7/8"	8'-5 5/8"

① Measured along girder centerline.

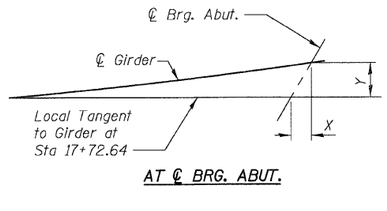
Notes:
See sheet #18 of 47 for Framing Plan and Girder Elevation.



AT ℄ SPLICE



AT ℄ PIER



AT ℄ BRG. ABUT.

"X" and "Y" OFFSET DIMENSIONS

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

"X" and "Y" OFFSET DIMENSIONS

Girder No.	℄ Brg. S. Abut.		℄ Splice #1			℄ Pier #1		℄ Splice #2			℄ Splice #3			℄ Pier #2		℄ Splice #4			℄ Brg. N. Abut.	
	"X"	"Y"	"X1"	"X2"	"Y"	"X"	"Y"	"X1"	"X2"	"Y"	"X1"	"X2"	"Y"	"X"	"Y"	"X1"	"X2"	"Y"	"X"	"Y"
7	1'-8 3/8"	9'-7 5/8"	1 1/8"	42'-8 1/4"	6 3/4"	1/4"	1 1/8"	3 1/8"	70'-3 3/8"	1'-6 3/8"	2'-1"	199'-9 1/2"	12'-4 5/8"	3'-0 7/8"	17'-4 7/8"	3'-10 1/4"	274'-11 1/2"	23'-6 1/2"	8'-3 7/8"	47'-2 1/2"
8	1'-8 1/2"	9'-8 5/8"	1 1/4"	43'-8 1/2"	7"	1/8"	1"	3 1/8"	69'-3 1/8"	1'-5 3/4"	2'-0 5/8"	198'-9 3/8"	12'-2 5/8"	3'-0 3/8"	17'-2 1/4"	3'-9 3/4"	273'-11 5/8"	23'-3 3/8"	8'-3"	46'-9 1/8"
9	1'-8 3/4"	9'-9 1/2"	1 1/4"	44'-8 3/4"	7 3/8"	1/8"	7/8"	3"	68'-3"	1'-5 1/8"	2'-0 1/4"	197'-9 1/4"	12'-0 1/2"	2'-11 7/8"	16'-11 5/8"	3'-9 1/4"	272'-11 5/8"	23'-0 3/8"	8'-2"	46'-3 3/4"
10	1'-8 7/8"	9'-10 3/8"	1 3/8"	45'-9"	7 5/8"	1/8"	3/4"	2 7/8"	67'-2 3/4"	1'-4 5/8"	2'-0"	196'-9 1/4"	11'-10 5/8"	2'-11 1/2"	16'-9 1/8"	3'-8 3/4"	271'-11 3/4"	22'-9 1/4"	8'-1 1/8"	45'-10 1/2"
11	1'-9"	9'-11 3/8"	1 3/8"	46'-9 1/8"	8"	1/8"	3/4"	2 3/4"	66'-2 1/2"	1'-4"	1'-11 5/8"	195'-9 1/8"	11'-8 5/8"	2'-11"	16'-6 1/2"	3'-8 1/4"	270'-11 3/4"	22'-6 1/4"	8'-0 1/8"	45'-5 3/8"
12	1'-9 1/4"	10'-0 1/4"	1 1/2"	47'-9 3/8"	8 3/8"	1/8"	5/8"	2 5/8"	65'-2 1/4"	1'-3 1/2"	1'-11 1/4"	194'-9"	11'-6 5/8"	2'-10 1/2"	16'-4"	3'-7 3/4"	269'-11 7/8"	22'-3 3/8"	7'-11 1/4"	45'-0 1/4"

STRUCTURAL STEEL DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

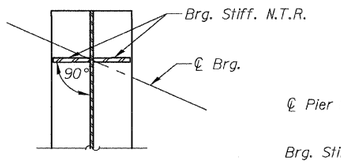
Klingner & Assoc., P.C.

11/10/2008 4:33:55 PM

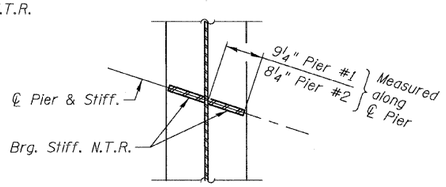
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	42
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 20
47 SHEETS

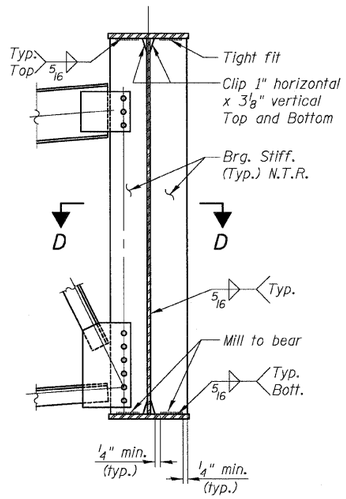
* 60-15HB-3 Contract No. 76706



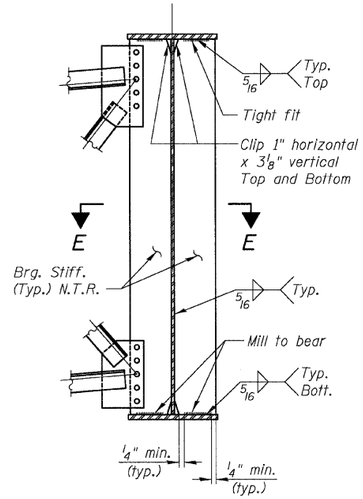
SECTION D-D



SECTION E-E

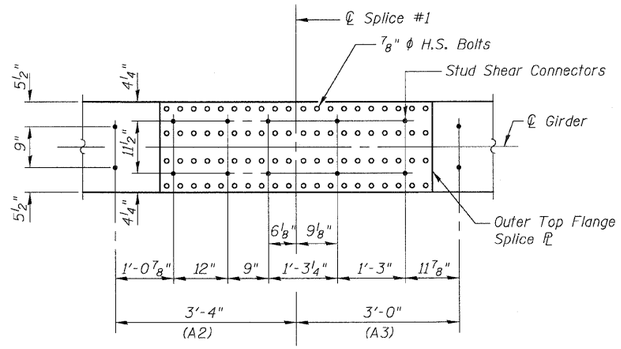


AT ABUTMENTS

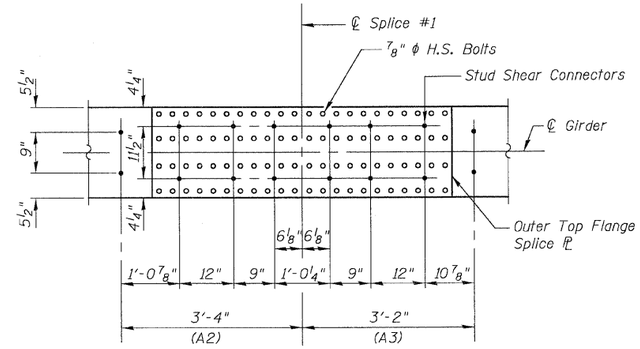


AT PIERS

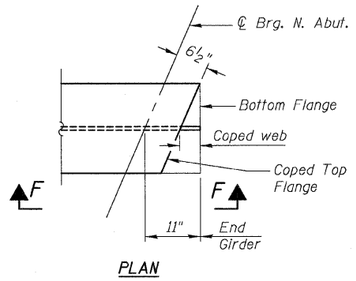
BEARING STIFFENERS



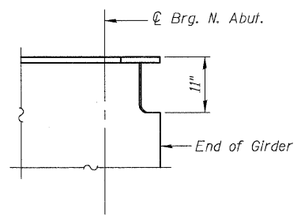
STUD SHEAR CONNECTOR SPACING ON SPLICE #1 (GIRDERS 7-10)



STUD SHEAR CONNECTOR SPACING ON SPLICE #1 (GIRDERS 11-12)



PLAN



ELEVATION F-F

DETAIL A

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

STRUCTURAL STEEL DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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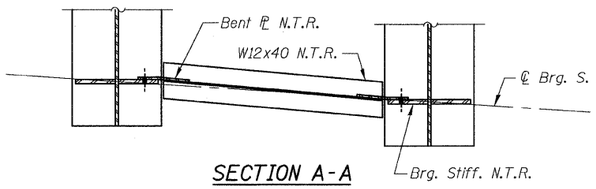
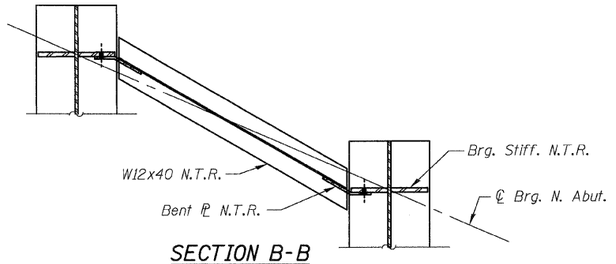
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 21
47 SHEETS

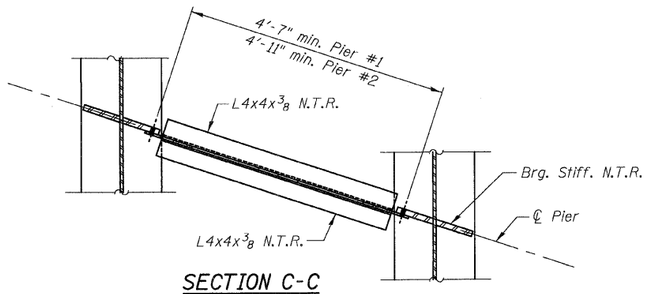
* 60-15HB-3 Contract No. 76706



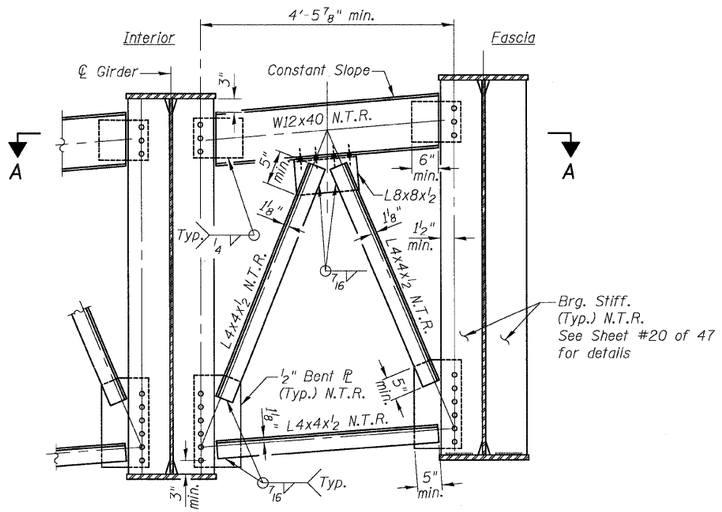
SECTION A-A



SECTION B-B

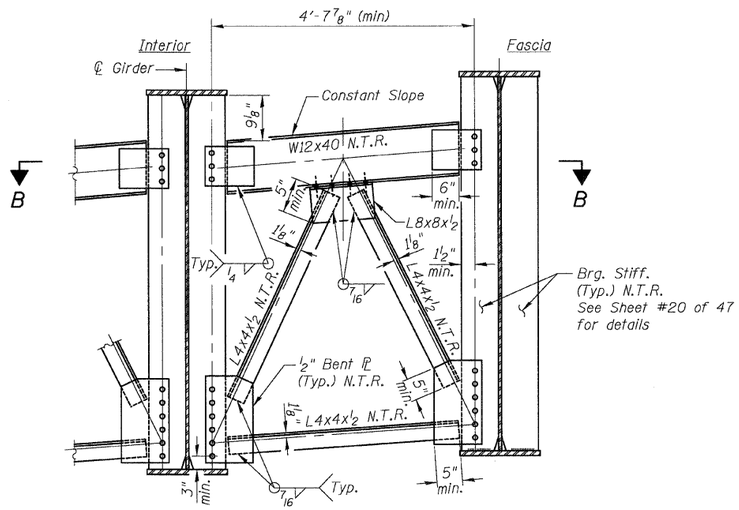


SECTION C-C



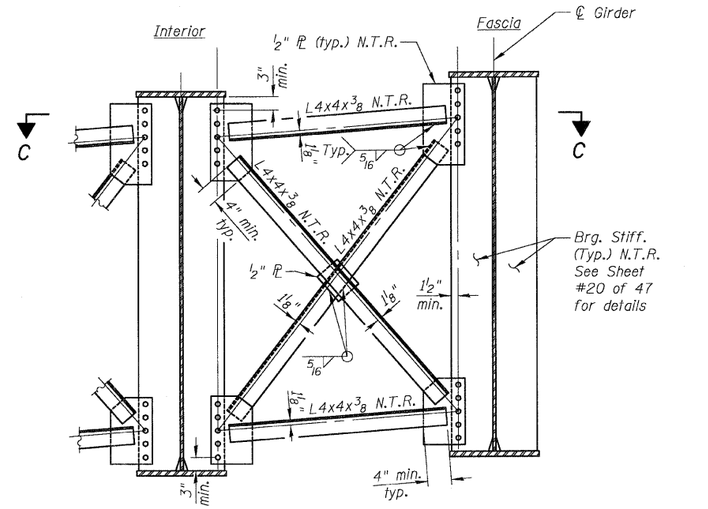
END CROSS FRAME (CF1)

(5 required)



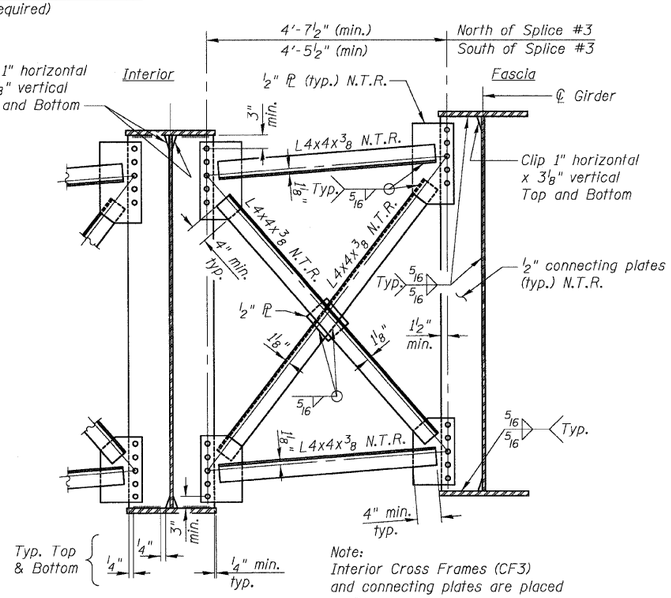
END CROSS FRAME (CF2)

(5 required)



INTERIOR CROSS FRAME (CF4)

(10 required)



Note:
Interior Cross Frames (CF3) and connecting plates are placed at Rt. L's to girders.

INTERIOR CROSS FRAME (CF3)

(160 required)

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

Notes:

All bolts in cross frames shall be 7/8" ϕ H.S. bolts.

Detail 15/16" ϕ holes for all 7/8" ϕ H.S. bolts unless noted otherwise.

All cross frames and connection plates shall be AASHTO M270 Grade 50 steel, and shall comply with Notch Toughness Requirements (N.T.R.).

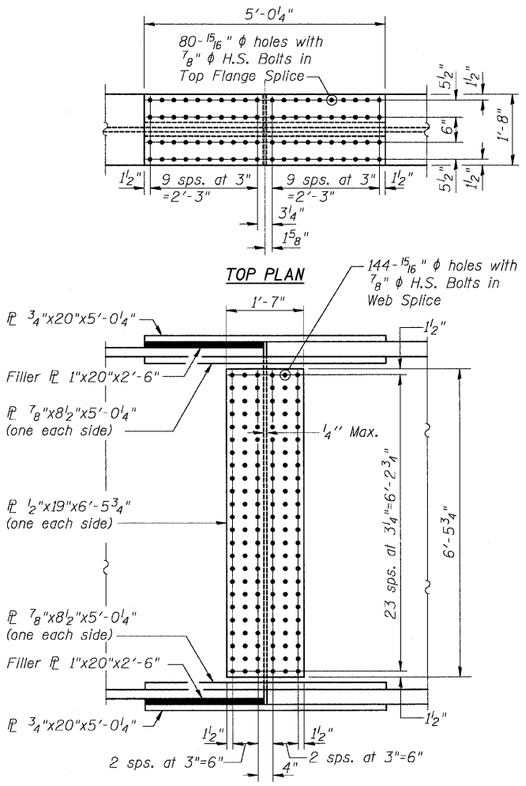
CROSS FRAME DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

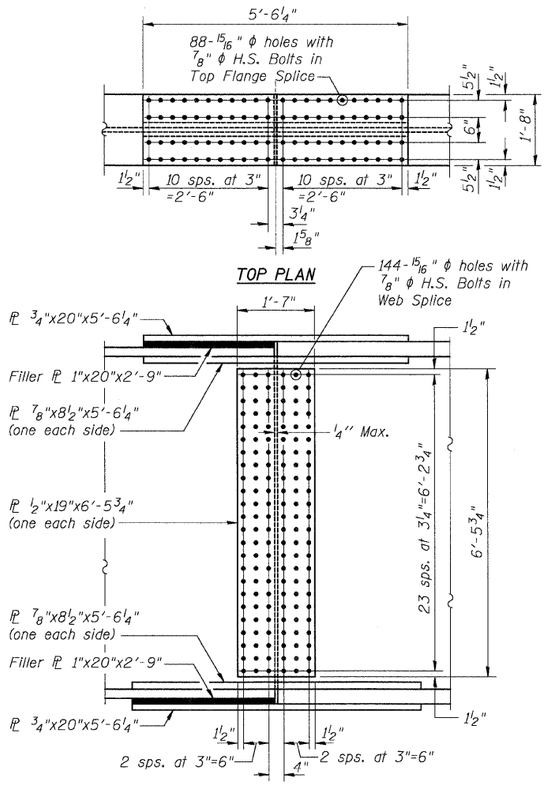
Klingner & Assoc., P.C.

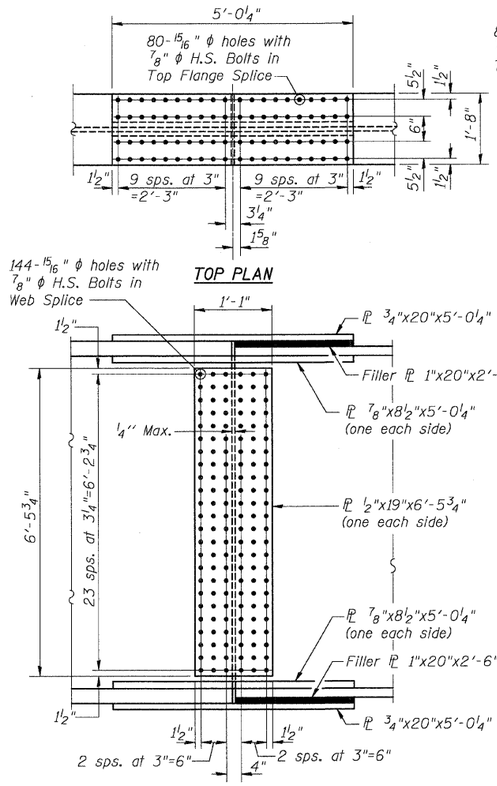
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

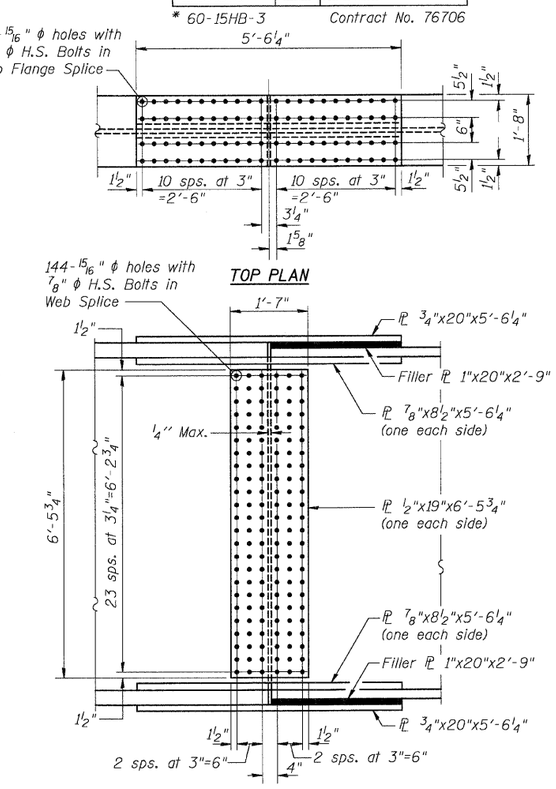
SHEET NO. 22
47 SHEETS

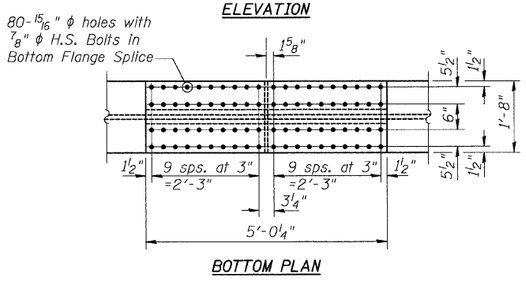
* 60-15HB-3 Contract No. 76706



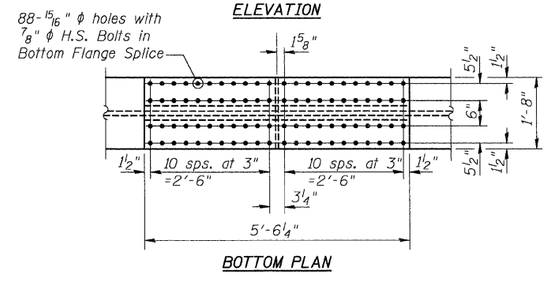




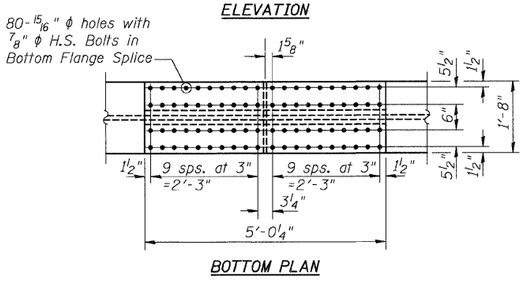




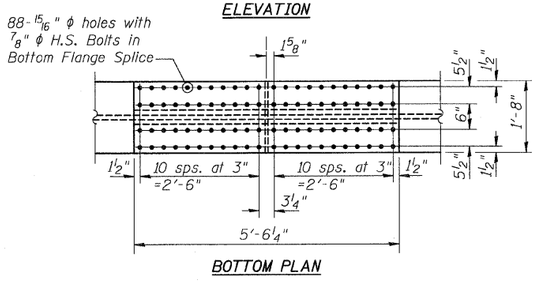
SPLICE #1
(FOR GIRDERS 7, 8, 9 & 10)



SPLICE #1
(FOR GIRDERS 11 & 12)



SPLICE #2
(FOR GIRDERS 7, 8, 9 & 10)



SPLICE #2
(FOR GIRDERS 11 & 12)

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

Notes:
All splice plates shall be AASHTO M270 Grade 50 steel, except for filler plates.
All splice plates shall conform to Notch Toughness Requirements (N.T.R.), except for filler plates.

SPLICE DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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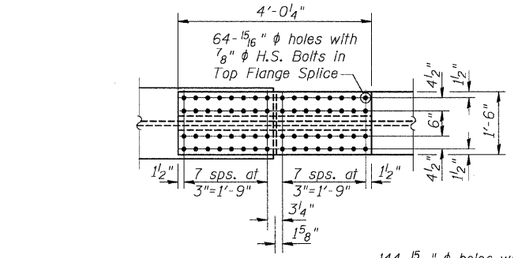
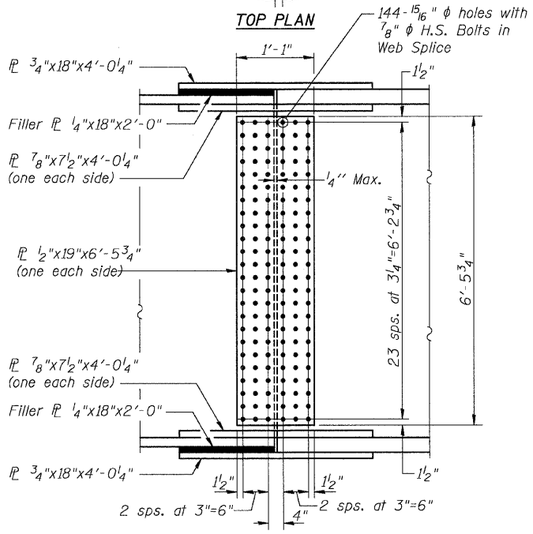
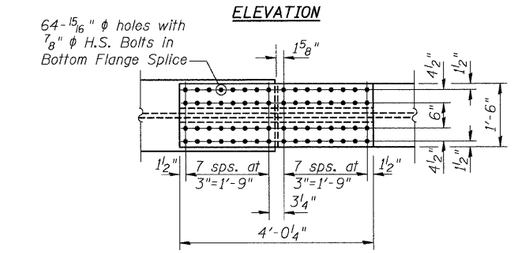
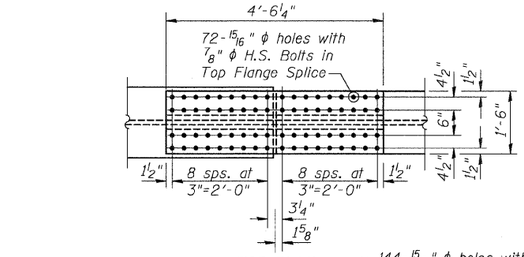
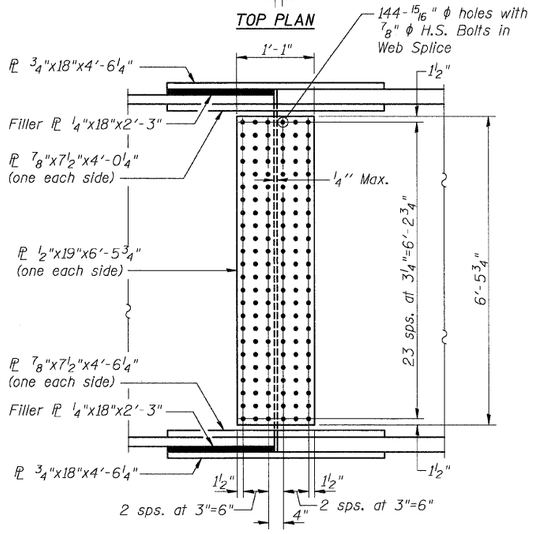


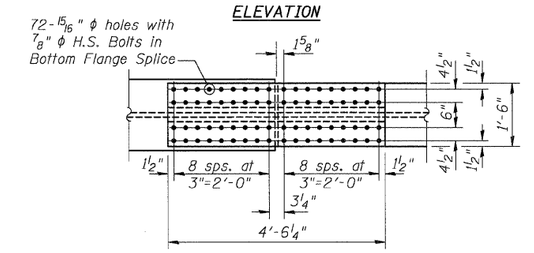




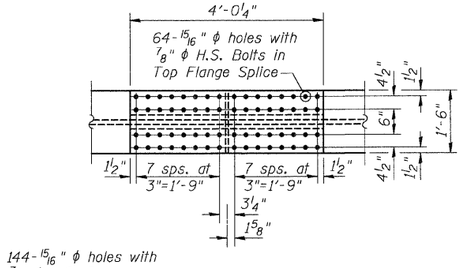
SPLICE #3
(FOR GIRDERS 7, 8, 9 & 10)

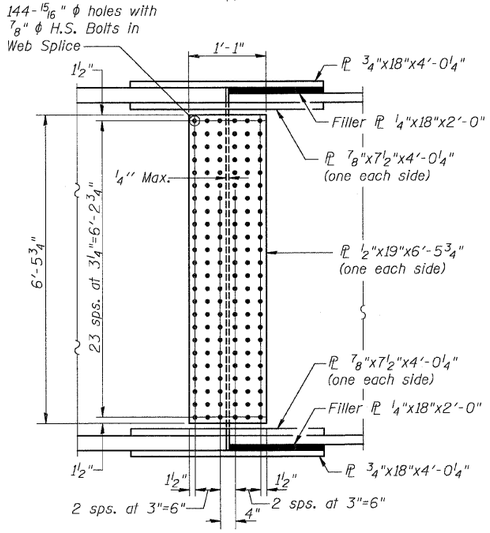


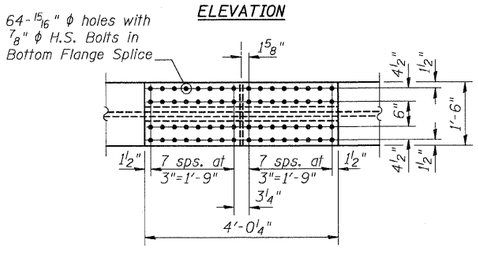




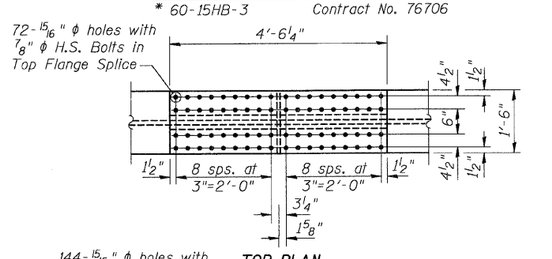
SPLICE #3
(FOR GIRDERS 11 & 12)

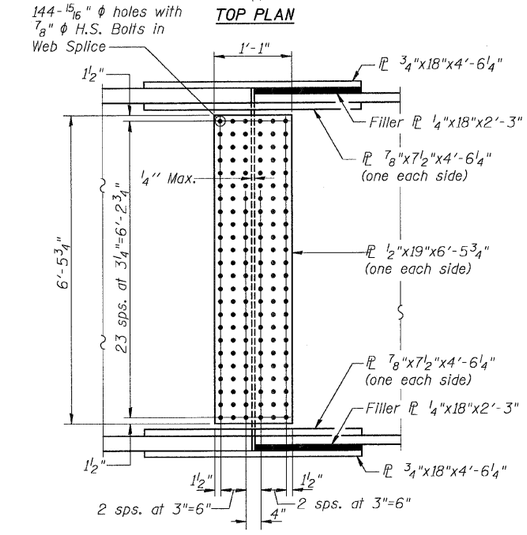


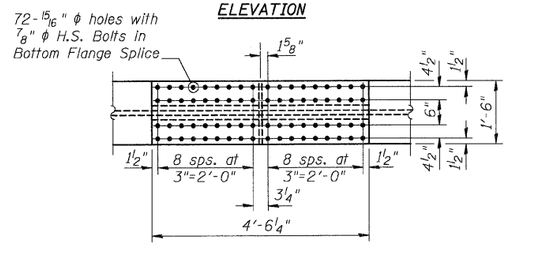




SPLICE #4
(FOR GIRDERS 7, 8, 9 & 10)







SPLICE #4
(FOR GIRDERS 11 & 12)

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

Notes:

All splice plates shall be AASHTO M270 Grade 50 steel, except for filler plates.

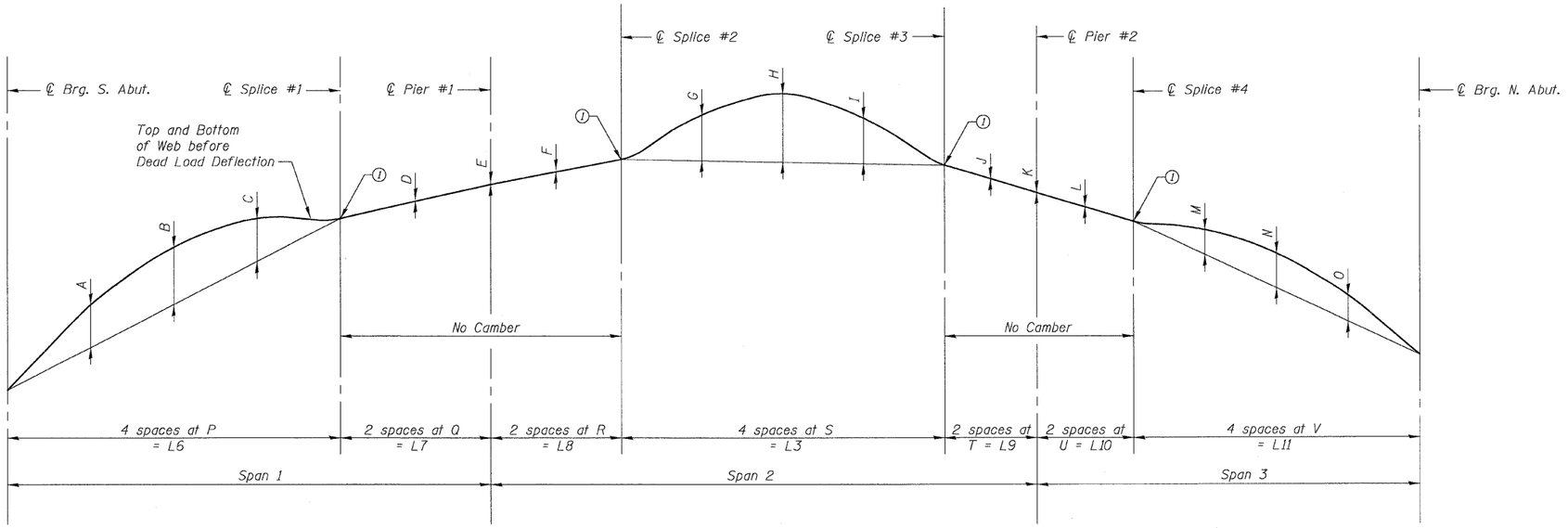
All splice plates shall conform to Notch Toughness Requirements (N.T.R.), except for filler plates.

SPLICE DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 24
47 SHEETS

* 60-15HB-3 Contract No. 76706



CAMBER DIAGRAM

① Theoretical elevation before dead load deflection

CAMBER DIAGRAM DIMENSIONS

Girder No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
7	$2\frac{1}{2}$"	$3\frac{7}{16}$"	$2\frac{9}{16}$"	0"	0"	0"	$2\frac{11}{16}$"	$4\frac{1}{16}$"	$2\frac{5}{8}$"	0"	0"	0"	$1\frac{1}{2}$"	$2\frac{1}{16}$"	$1\frac{1}{2}$"	33'-6"	30'-3¼"	26'-2¾"	32'-6"	18'-7½"	19'-4"	28'-10⅜"
8	$2\frac{9}{16}$"	$3\frac{9}{16}$"	$2\frac{11}{16}$"	0"	0"	0"	$2\frac{11}{16}$"	$4\frac{1}{8}$"	$2\frac{11}{16}$"	0"	0"	0"	$1\frac{1}{2}$"	$2\frac{1}{16}$"	$1\frac{1}{2}$"	33'-6"	30'-3¼"	26'-2¾"	32'-6"	18'-7⅛"	19'-4⅞"	28'-10"
9	$2\frac{11}{16}$"	$3\frac{3}{4}$"	$2\frac{3}{4}$"	0"	0"	0"	$2\frac{11}{16}$"	$4\frac{1}{8}$"	$2\frac{11}{16}$"	0"	0"	0"	$1\frac{1}{2}$"	$2\frac{1}{16}$"	$1\frac{9}{16}$"	33'-6"	30'-3⅛"	26'-2⅞"	32'-6"	18'-6¾"	19'-5¼"	28'-9½"
10	$2\frac{13}{16}$"	$3\frac{15}{16}$"	$2\frac{7}{8}$"	0"	0"	0"	$2\frac{11}{16}$"	$4\frac{3}{16}$"	$2\frac{3}{4}$"	0"	0"	0"	$1\frac{1}{2}$"	$2\frac{1}{8}$"	$1\frac{9}{16}$"	33'-6"	30'-3"	26'-3"	32'-6"	18'-6⅜"	19'-5⅝"	28'-9⅛"
11	$2\frac{15}{16}$"	$4\frac{1}{16}$"	3"	0"	0"	0"	$2\frac{3}{4}$"	$4\frac{3}{16}$"	$2\frac{3}{4}$"	0"	0"	0"	$1\frac{9}{16}$"	$2\frac{1}{8}$"	$1\frac{9}{16}$"	33'-6"	30'-3"	26'-3"	32'-6"	18'-6"	19'-6"	28'-8⅝"
12	$3\frac{1}{16}$"	$4\frac{1}{4}$"	$3\frac{1}{8}$"	0"	0"	0"	$2\frac{3}{4}$"	$4\frac{1}{4}$"	$2\frac{13}{16}$"	0"	0"	0"	$1\frac{9}{16}$"	$2\frac{3}{16}$"	$1\frac{5}{8}$"	33'-6"	30'-2⅞"	26'-3⅛"	32'-6"	18'-5⅝"	19'-6⅜"	28'-8¼"

②③ TOP OF WEB ELEVATIONS

Girder No.	℄ Brg. S. Abut.	℄ Splice #1	℄ Pier #1	℄ Splice #2	℄ Splice #3	℄ Pier #2	℄ Splice #4	℄ Brg. N. Abut.
7	634.745	636.332	636.628	636.884	636.828	636.575	636.312	635.070
8	635.089	636.688	636.978	637.229	637.186	636.939	636.681	635.456
9	635.433	637.045	637.328	637.574	637.544	637.302	637.049	635.841
10	635.777	637.402	637.679	637.918	637.902	637.665	637.416	636.226
11	636.122	637.759	638.029	638.263	638.260	638.028	637.783	636.611
12	636.466	638.118	638.380	638.607	638.618	638.390	638.149	636.994

② For fabrication only
③ Theoretical elevations before dead load deflection

Notes:
See sheet #19 of 47 for dimensions Span 1, Span 2, Span 3, L6, L7, L8, L3, L9, L10 and L11.

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

GIRDER CAMBER DIAGRAM
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

GIRDER NO. 7 MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
Is	(in^4)	115482	191611	115482	124165	107330
Ic (n)	(in^4)	200151	—	200151	—	190621
Ic (3n)	(in^4)	152658	—	152658	—	144237
Ss	(in^3)	2678	4342	2678	2863	2489
Sc (n)	(in^3)	3315	—	3315	—	3132
Sc (3n)	(in^3)	3011	—	3011	—	2829
Sbi	(in^3)	75.0	141.7	75.0	74.3	60.8
D	(k/')	0.96	1.52	0.96	1.40	0.95
MD	('k)	1993	6887	1578	4389	1294
sD	(k/')	0.42	—	0.42	—	0.42
MsD	('k)	894	—	750	—	602
ML	('k)	1441	1915	1397	1353	1031
M (Imp)	('k)	225	288	203	217	185
5/3[ML+M(Imp)]	('k)	2782	3679	2672	2621	2031
Ma	('k)	7371	13735	6499	9113	5104
Mbi	('k)	7	17	0	8	2
fsD (non-comp)	(ksi)	8.9	19.0	7.1	18.4	6.2
fsD (comp)	(ksi)	3.6	—	3.0	—	2.6
fs5/3[ML+M(Imp)]	(ksi)	10.1	10.2	9.7	11.0	7.8
fw	(ksi)	1.2	1.5	0.0	1.4	0.3
fs+fw (Overload)	(ksi)	23.5	28.1	19.8	28.3	16.8
fs (Total)	(ksi)	29.3	38.0	25.6	38.2	21.5
fs (Total)+fw	(ksi)	30.5	36.5	25.7	36.8	21.9
VR	(k)	71.2	—	70.6	—	60.5
Fb	(ksi)	50.0	47.6	50.0	48.4	50.0

GIRDER NO. 8 MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
Is	(in^4)	115482	191611	115482	124165	107330
Ic (n)	(in^4)	200151	—	200151	—	190621
Ic (3n)	(in^4)	152658	—	152658	—	144237
Ss	(in^3)	2678	4342	2678	2863	2489
Sc (n)	(in^3)	3315	—	3315	—	3132
Sc (3n)	(in^3)	3011	—	3011	—	2829
Sbi	(in^3)	75.0	141.7	75.0	74.3	60.8
D	(k/')	0.96	1.52	0.96	1.40	0.95
MD	('k)	2180	6908	1638	4514	1348
sD	(k/')	0.42	—	0.42	—	0.42
MsD	('k)	975	—	788	—	626
ML	('k)	1246	1568	1199	1186	915
M (Imp)	('k)	195	236	174	190	164
5/3[ML+M(Imp)]	('k)	2406	3012	2293	2298	1803
Ma	('k)	7229	12897	6135	8856	4909
Mbi	('k)	6	16	3	8	5
fsD (non-comp)	(ksi)	9.8	19.1	7.3	18.9	6.5
fsD (comp)	(ksi)	3.9	—	3.1	—	2.7
fs5/3[ML+M(Imp)]	(ksi)	8.7	8.3	8.3	9.6	6.9
fw	(ksi)	1.0	1.4	0.5	1.3	0.9
fs+fw (Overload)	(ksi)	23.1	26.3	19.2	27.5	16.8
fs (Total)	(ksi)	29.1	35.6	24.4	37.1	20.9
fs (Total)+fw	(ksi)	30.1	34.3	24.9	35.8	21.8
VR	(k)	61.6	—	63.7	—	61.4
Fb	(ksi)	50.0	47.3	50.0	47.8	50.0

GIRDER NO. 9 MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
Is	(in^4)	115482	191611	115482	124165	107330
Ic (n)	(in^4)	200151	—	200151	—	190621
Ic (3n)	(in^4)	152658	—	152658	—	144237
Ss	(in^3)	2678	4342	2678	2863	2489
Sc (n)	(in^3)	3315	—	3315	—	3132
Sc (3n)	(in^3)	3011	—	3011	—	2829
Sbi	(in^3)	75.0	141.7	75.0	74.3	60.8
D	(k/')	0.96	1.52	0.96	1.40	0.95
MD	('k)	2357	7298	1686	4367	1396
sD	(k/')	0.42	—	0.42	—	0.42
MsD	('k)	1050	—	821	—	646
ML	('k)	1170	1464	1115	1054	881
M (Imp)	('k)	183	221	162	169	158
5/3[ML+M(Imp)]	('k)	2259	2814	2132	2042	1734
Ma	('k)	7366	13145	6030	8332	4909
Mbi	('k)	5	6	6	8	5
fsD (non-comp)	(ksi)	10.6	20.2	7.6	18.3	6.7
fsD (comp)	(ksi)	4.2	—	3.3	—	2.7
fs5/3[ML+M(Imp)]	(ksi)	8.2	7.8	7.7	8.6	6.6
fw	(ksi)	0.9	0.5	0.9	1.2	1.1
fs+fw (Overload)	(ksi)	23.6	27.6	19.2	25.9	16.9
fs (Total)	(ksi)	29.8	36.3	24.1	34.9	21.0
fs (Total)+fw	(ksi)	30.7	35.8	25.0	33.7	22.0
VR	(k)	66.0	—	66.8	—	58.5
Fb	(ksi)	50.0	49.3	50.0	47.1	50.0

GIRDER NO. 7 REACTION TABLE

		S. Abut.	Pier 1	Pier 2	N. Abut.
RD	(k)	84.0	379.7	286.3	71.5
RL	(k)	39.5	60.0	88.3	33.9
Imp.	(k)	6.2	54.2	8.9	6.1
R (Total)	(k)	129.7	493.9	383.5	111.5

GIRDER NO. 8 REACTION TABLE

		S. Abut.	Pier 1	Pier 2	N. Abut.
RD	(k)	92.2	321.6	277.1	72.7
RL	(k)	38.9	45.5	75.2	35.8
Imp.	(k)	6.1	41.1	7.6	6.4
R (Total)	(k)	137.2	408.2	359.9	114.9

GIRDER NO. 9 REACTION TABLE

		S. Abut.	Pier 1	Pier 2	N. Abut.
RD	(k)	97.6	363.8	260.7	76.4
RL	(k)	40.6	50.2	74.7	40.2
Imp.	(k)	6.3	45.3	7.5	7.2
R (Total)	(k)	144.5	459.3	342.9	123.8

Notes:

Fb - Maximum allowable stress Fbu or Fby computed according to AASHTO [Guide Specifications for Horizontally Curved Highway Bridges Section 2.12(B) and 2.16].

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

$Ic_{(n)}$ and $Sc_{(n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

$Ic_{(3n)}$ and $Sc_{(3n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment)=1.3[MD + MsD + 5/3(ML + M (Imp))].

(fs + fw) (Overload) is the sum of the stress due to MD + MsD + 5/3(ML + M (Imp)) + (Mbi / 1.3)

fs (Total) is the sum of the stress due to 1.3[MD + MsD + 5/3(ML + M (Imp))].

Sbi is the section modulus for one flange plate for lateral flange bending.

Mbi is the lateral bending moment for flange plate (factored).

fw is the calculated normal stress at the edge of flange due to lateral bending (factored).

ML and RL include the effects of centrifugal force and superelevation.

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

GIRDER MOMENT AND REACTION TABLES
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

GIRDER NO. 10 MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
Is	(in^4)	115482	191611	115482	124165	107330
Ic (n)	(in^4)	200151	—	200151	—	190621
Ic (3n)	(in^4)	152658	—	152658	—	144237
Ss	(in^3)	2678	4342	2678	2863	2489
Sc (n)	(in^3)	3315	—	3315	—	3132
Sc (3n)	(in^3)	3011	—	3011	—	2829
Sbi	(in^3)	75.0	141.7	75.0	74.3	60.8
$\frac{D}{L}$	(k/')	0.96	1.52	0.96	1.40	0.95
MℓL	('k)	2528	7539	1727	4672	1447
sℓL	(k/')	0.42	—	0.42	—	0.42
MsℓL	('k)	1123	—	852	—	666
MℓT	('k)	1257	1573	1165	1164	917
M (Imp)	('k)	197	237	169	187	164
$\frac{5}{3}$[MℓT+M(Imp)]	('k)	2428	3022	2228	2255	1806
Ma	('k)	7902	13729	6248	9005	5094
Mbi	('k)	4	6	7	8	4
fsℓL(non-comp)	(ksi)	11.3	20.8	7.7	19.6	7.0
fsℓL(comp)	(ksi)	4.5	—	3.4	—	2.8
$fs\frac{5}{3}$[MℓT+M(Imp)]	(ksi)	8.8	8.4	8.1	9.5	6.9
fw	(ksi)	0.7	0.5	1.1	1.4	0.8
fs+fw (Overload)	(ksi)	25.1	28.8	20.1	28.0	17.4
fs (Total)	(ksi)	32.0	37.9	25.0	37.7	21.7
fs (Total)+fw	(ksi)	32.7	37.4	26.1	36.4	22.6
VR	(k)	66.0	—	68.6	—	64.2
Fb	(ksi)	50.0	49.4	50.0	46.9	50.0

GIRDER NO. 11 MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
Is	(in^4)	115482	191611	115482	124165	107330
Ic (n)	(in^4)	200151	—	200151	—	190621
Ic (3n)	(in^4)	152658	—	152658	—	144237
Ss	(in^3)	2678	4342	2678	2863	2489
Sc (n)	(in^3)	3315	—	3315	—	3132
Sc (3n)	(in^3)	3011	—	3011	—	2829
Sbi	(in^3)	75.0	141.7	75.0	74.3	60.8
$\frac{D}{L}$	(k/')	0.96	1.52	0.96	1.40	0.95
MℓL	('k)	2709	7787	1777	4802	1512
sℓL	(k/')	0.42	—	0.42	—	0.42
MsℓL	('k)	1201	—	886	—	692
MℓT	('k)	1567	1839	1450	1338	1090
M (Imp)	('k)	245	277	211	215	195
$\frac{5}{3}$[MℓT+M(Imp)]	('k)	3027	3534	2773	2592	2147
Ma	('k)	9017	14717	7066	9612	5657
Mbi	('k)	3	19	8	9	1
fsℓL(non-comp)	(ksi)	12.1	21.5	8.0	20.1	7.3
fsℓL(comp)	(ksi)	4.8	—	3.5	—	2.9
$fs\frac{5}{3}$[MℓT+M(Imp)]	(ksi)	11.0	9.8	10.0	10.9	8.2
fw	(ksi)	0.5	1.6	1.3	1.4	0.1
fs+fw (Overload)	(ksi)	28.2	30.1	22.5	29.9	18.6
fs (Total)	(ksi)	36.2	40.7	28.0	40.3	24.0
fs (Total)+fw	(ksi)	36.7	39.1	29.3	38.8	24.1
VR	(k)	70.6	—	67.5	—	61.9
Fb	(ksi)	50.0	47.0	50.0	47.5	50.0

GIRDER NO. 12 MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
Is	(in^4)	115482	191611	115482	124165	107330
Ic (n)	(in^4)	200151	—	200151	—	190621
Ic (3n)	(in^4)	152658	—	152658	—	144237
Ss	(in^3)	2678	4342	2678	2863	2489
Sc (n)	(in^3)	3315	—	3315	—	3132
Sc (3n)	(in^3)	3011	—	3011	—	2829
Sbi	(in^3)	75.0	141.7	75.0	74.3	60.8
$\frac{D}{L}$	(k/')	0.96	1.52	0.96	1.40	0.95
MℓL	('k)	2907	7839	1846	4770	1594
sℓL	(k/')	0.42	—	0.42	—	0.42
MsℓL	('k)	1287	—	929	—	728
MℓT	('k)	2015	2208	1864	1680	1395
M (Imp)	('k)	315	332	271	269	250
$\frac{5}{3}$[MℓT+M(Imp)]	('k)	3891	4242	3564	3256	2747
Ma	('k)	10511	15706	8241	10433	6589
Mbi	('k)	1	20	8	10	7
fsℓL(non-comp)	(ksi)	13.0	21.7	8.3	20.0	7.7
fsℓL(comp)	(ksi)	5.1	—	3.7	—	3.1
$fs\frac{5}{3}$[MℓT+M(Imp)]	(ksi)	14.1	11.7	12.9	13.6	10.5
fw	(ksi)	0.1	1.7	1.3	1.6	1.3
fs+fw (Overload)	(ksi)	32.3	32.1	25.9	32.4	22.3
fs (Total)	(ksi)	41.9	43.4	32.3	43.7	27.7
fs (Total)+fw	(ksi)	42.0	41.7	33.6	42.2	29.0
VR	(k)	73.8	—	84.3	—	66.8
Fb	(ksi)	50.0	47.3	50.0	48.1	50.0

GIRDER NO. 10 REACTION TABLE

		S. Abut.	Pier 1	Pier 2	N. Abut.
RℓL	(k)	102.4	353.1	288.8	77.6
RℓT	(k)	44.4	57.2	87.1	40.3
Imp.	(k)	7.0	51.7	8.7	7.2
R (Total)	(k)	153.8	462.0	384.6	125.1

GIRDER NO. 11 REACTION TABLE

		S. Abut.	Pier 1	Pier 2	N. Abut.
RℓL	(k)	108.7	384.4	300.0	79.2
RℓT	(k)	53.2	130.0	110.2	37.9
Imp.	(k)	8.3	12.1	11.1	6.8
R (Total)	(k)	170.2	526.5	421.3	123.9

GIRDER NO. 12 REACTION TABLE

		S. Abut.	Pier 1	Pier 2	N. Abut.
RℓL	(k)	114.9	324.8	263.0	86.0
RℓT	(k)	50.1	52.5	92.1	46.3
Imp.	(k)	7.9	47.3	9.3	8.3
R (Total)	(k)	172.9	424.6	364.4	140.6

Notes:

Fb - Maximum allowable stress Fbu or Fby computed according to AASHTO [Guide Specifications for Horizontally Curved Highway Bridges Section 2.12(B) and 2.16].

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

$Ic_{(n)}$ and $Sc_{(n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

$Ic_{(3n)}$ and $Sc_{(3n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment)=1.3[MℓL + MsℓL + $\frac{5}{3}$(MℓT + M (Imp))].

(fs + fw) (Overload) is the sum of the stress due to MℓL + MsℓL + $\frac{5}{3}$(MℓT + M (Imp)) + (Mbi / 1.3)

fs (Total) is the sum of the stress due to 1.3[MℓL + MsℓL + $\frac{5}{3}$(MℓT + M (Imp))].

Sbi is the section modulus for one flange plate for lateral flange bending.

Mbi is the lateral bending moment for flange plate (factored).

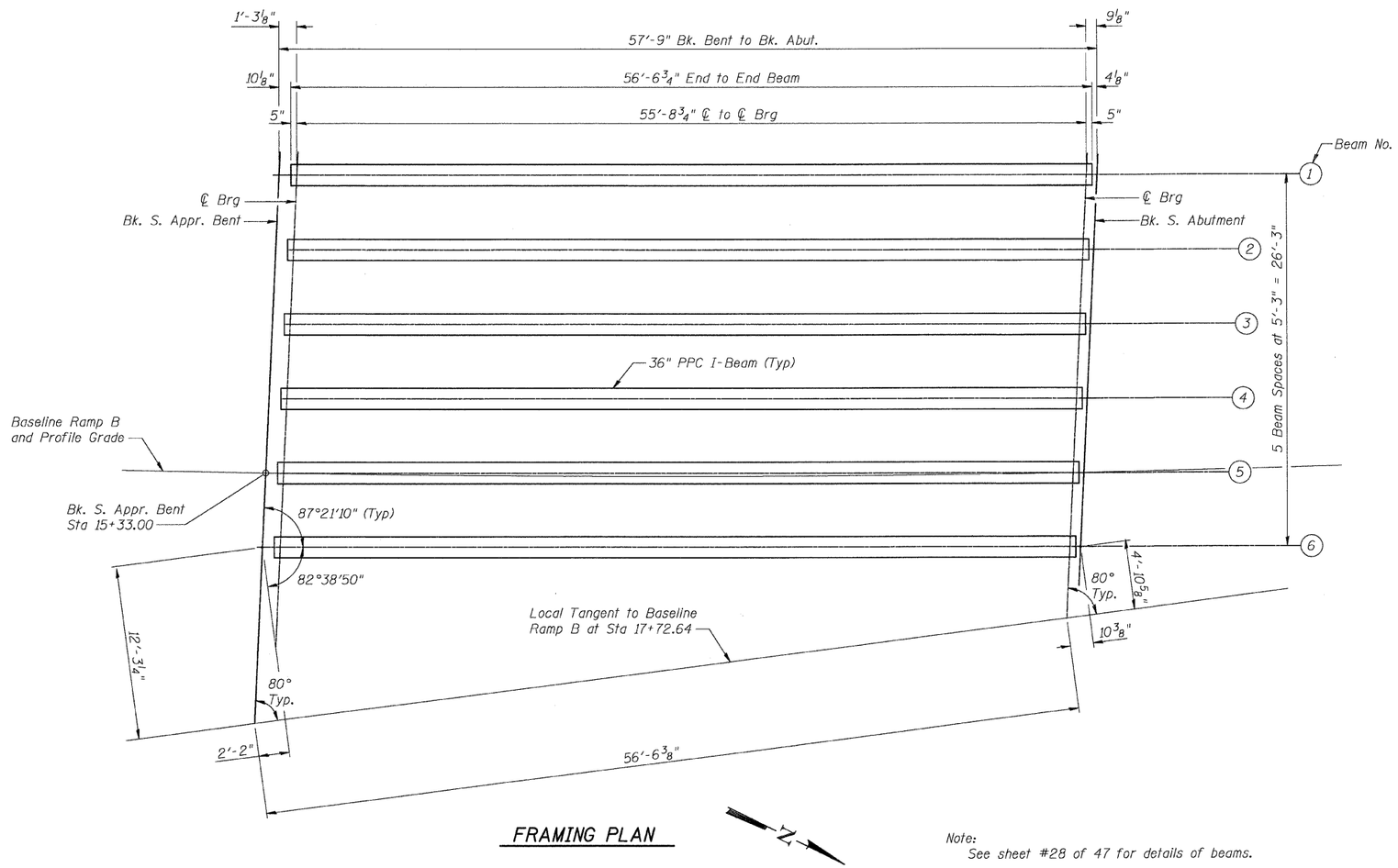
fw is the calculated normal stress at the edge of flange due to lateral bending (factored).

MℓT and RℓT include the effects of centrifugal force and superelevation.

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

GIRDER MOMENT & REACTION TABLES
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Kilngner & Assoc., P.C.



FRAMING PLAN

Note:
See sheet #28 of 47 for details of beams.

INTERIOR BEAM MOMENT TABLE		
		0.5 Span 1
I	(in^4)	48,648
I'	(in^4)	157,013
S_b	(in^3)	3,165
S_b'	(in^3)	5,683
S_t	(in^3)	2,358
S_t'	(in^3)	18,751
$\mathcal{D}$	(k/')	0.892
$M\mathcal{D}$	('k)	346
$s\mathcal{D}$	(k/')	0.263
$Ms\mathcal{D}$	('k)	102
$M\mathcal{L}$	('k)	396
M (Imp)	('k)	96

I and I' are the moment of inertia and composite moment of interia of the beam section.

S_b and S_b' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.

S_t and S_t' are the non-composite and composite section modulus for the top fiber of the prestressed beam.

$M\mathcal{D}$ is the moment due to dead loads on the non-composite prestressed beam.

$Ms\mathcal{D}$ is the moment due to dead loads on the composite section.

$M\mathcal{L}$ is the moment due to live load on the composite section.

M (Imp) is the moment due to live load impact on the composite section.

INTERIOR BEAM REACTION TABLE		
		at bent & Abutments
$R\mathcal{D}$	(k)	24.9
$R_s\mathcal{D}$	(k)	7.3
$R\mathcal{L}$	(k)	32.9
Imp.	(k)	7.9
R (Total)	(k)	73.0

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

36" PPC I-BEAM FRAMING PLAN
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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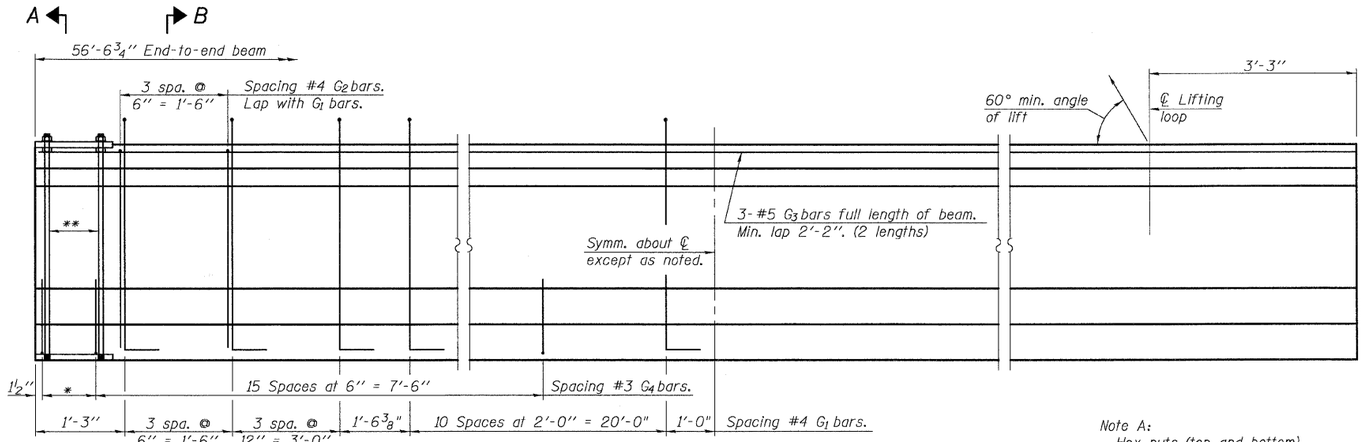
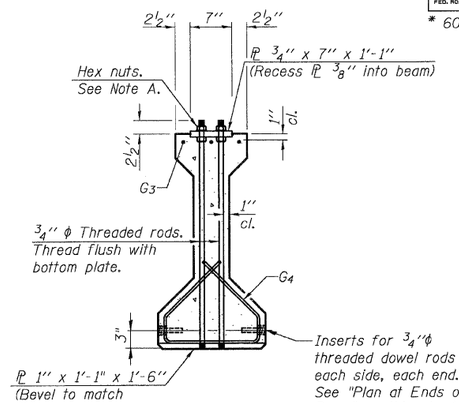


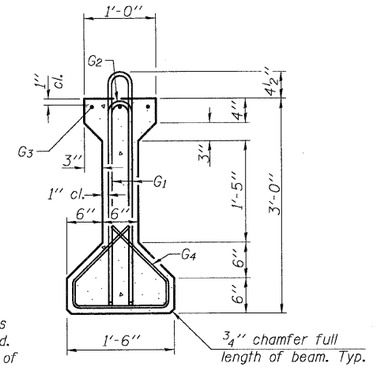
*3 spaces at 3" = 9".
**4-3/4" ϕ threaded dowel rods at 3" cts., Each Face.

ELEVATION OF BEAM
(Showing reinforcement & dimensions)

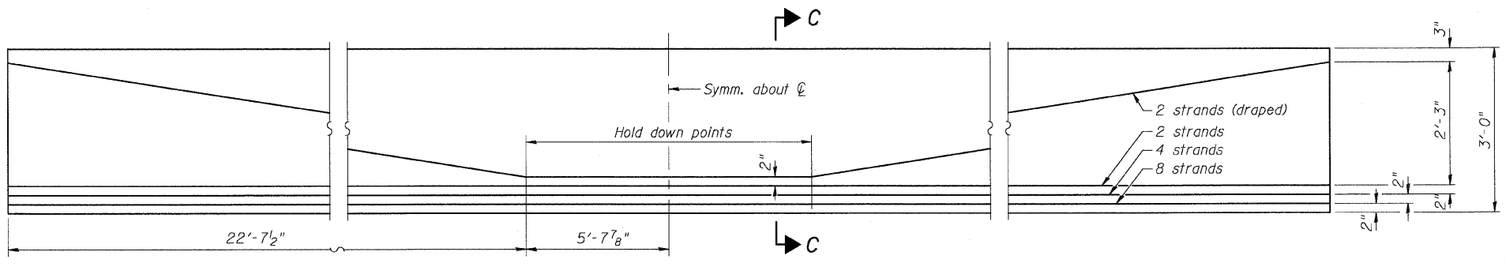
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



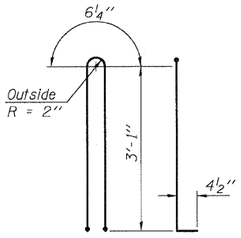
SECTION A-A



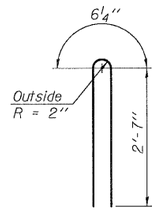
SECTION B-B



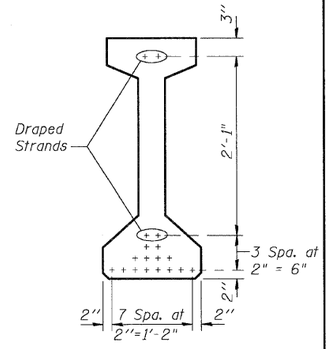
ELEVATION OF BEAM
(Showing Prestressing Steel)



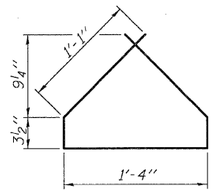
BAR G1



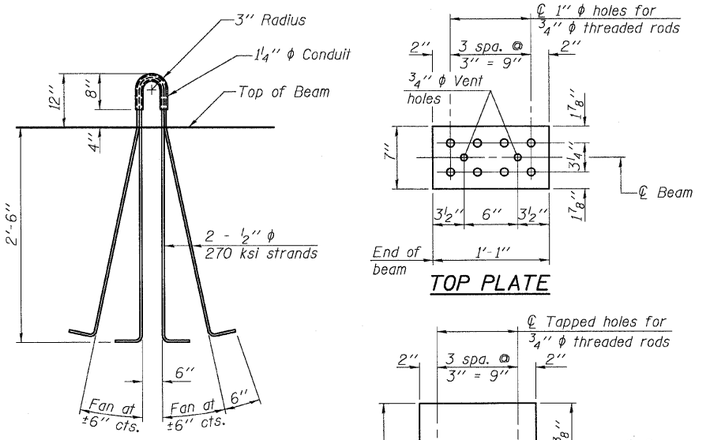
BAR G2



SECTION C-C



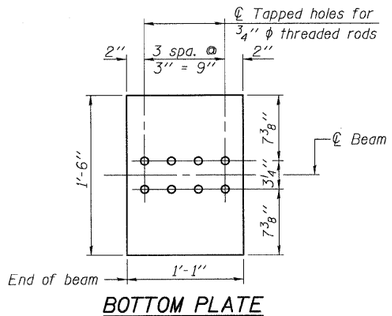
BAR G4



LIFTING LOOP DETAIL

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

TOP PLATE



BOTTOM PLATE
See bearing details for pintle hole locations when required.

NOTES

All inserts and threaded dowel rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per foot of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36 in."

See sheet #27 of 47 for P.P.C. I-Beam Framing Plan, Interior Beam Moment Table & Interior Beam Reaction Table.

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.

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

The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

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

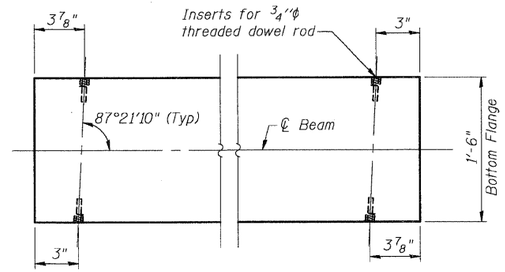
A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270 Grade 50.

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

Threaded rods shall be ASTM F 1554 Grade 55.

Required release strength, f'ci, shall be 5000 psi.



PLAN AT ENDS OF BEAM
(Showing Inserts)

***BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G1	36	#4	7'-5"	⌐L
G2	8	#4	5'-8"	⌐
G3	6	#5	29'-4"	—
G4	38	#3	4'-1"	⌓

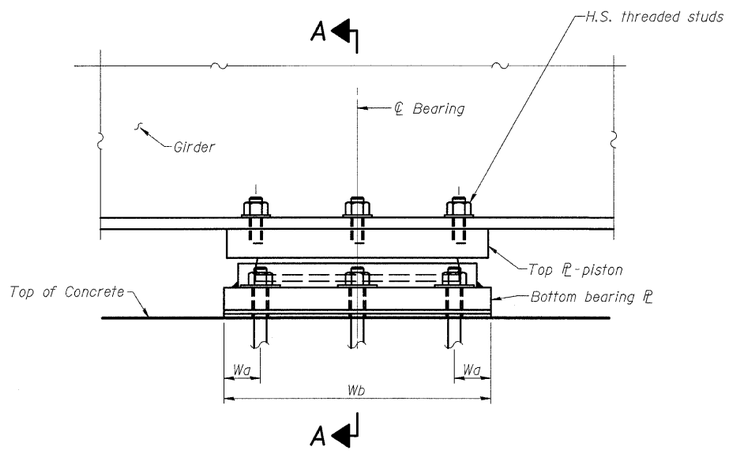
***For information only

BILL OF MATERIAL

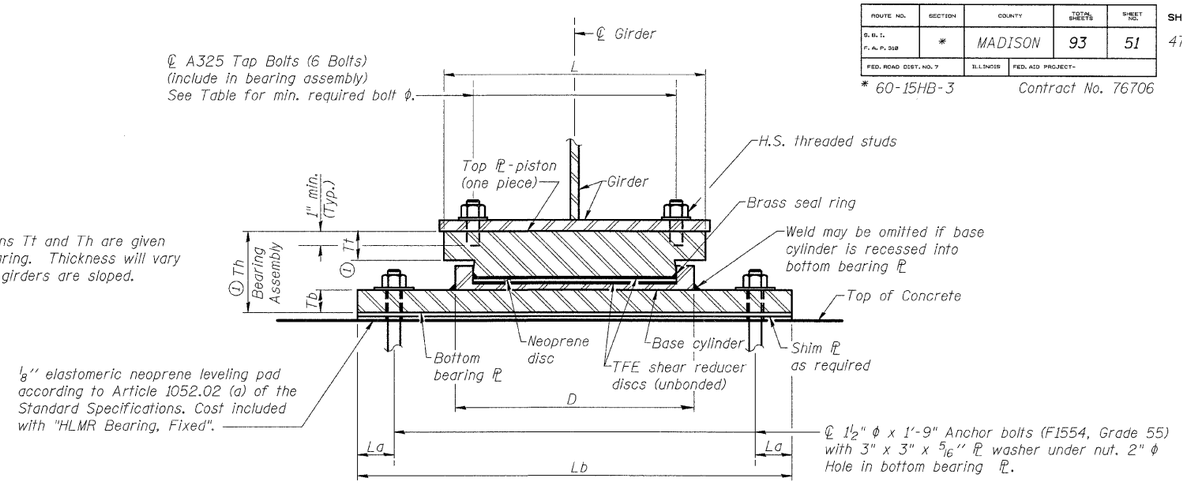
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36 in.	FOOT	339

36" PPC I-BEAM DETAILS (SOUTH APPROACH)
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

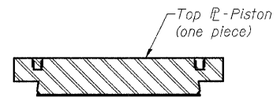


ELEVATION
HLMR BEARING, FIXED

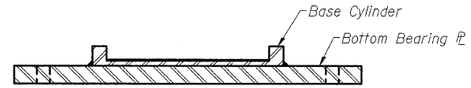


① Dimensions Tt and Th are given at ℄ bearing. Thickness will vary because girders are sloped.

SECTION A-A



SECTION B-B



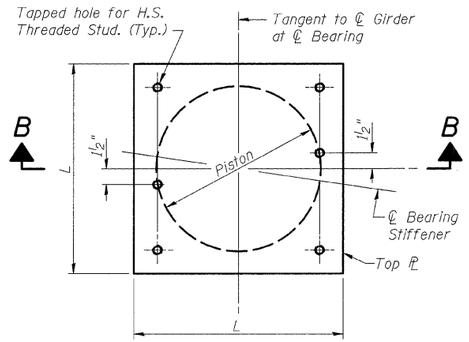
SECTION C-C

SCHEDULE

Location	Type	Vertical Design Load kips	Total Vertical Reaction kips	Slope of Top of Top ℄ (%)	LL Rotation Range Radians	Positive Angle of Thermal Movement	Total Required Movement -30°F to +130° F
S. Abutment	HLMR Bearing, Guided Expansion	200	166.4	1.51	-0.0009 to 0.0024	3°24'49"	2½"
② Pier 1	HLMR Bearing, Fixed	600	553.1	0.53	-0.0016 to 0.0016	—	—
Pier 2	HLMR Bearing, Guided Expansion	450	442.2	0.58	-0.0016 to 0.0012	3°51'13"	2¾"
N. Abutment	HLMR Bearing, Guided Expansion	150	131.1	1.36	-0.0017 to 0.0009	6°33'24"	4¾"

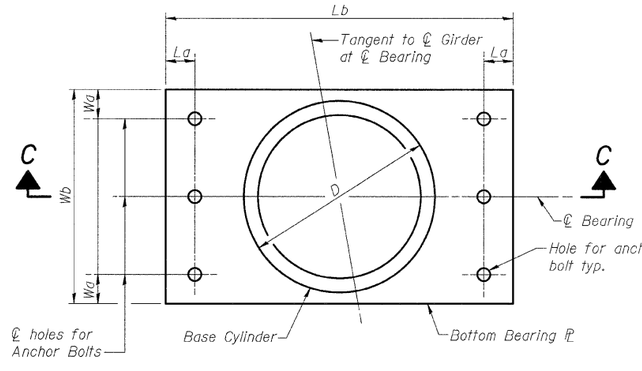
Location	Top Plate Assembly				Bottom Plate Assembly						Total Bearing Height Th
	Tt	L	E	Min. ϕ H.S. Threaded Studs	Tb	Wb	Lb	Wa	La	D	
S. Abutment	2¼"	10"	2¼"	1"	2¼"	14"	27½"	1¾"	1¾"	10"	8"
Pier 1	3¼"	20"	—	1½"	2½"	21"	30"	2⅝"	2⅝"	19"	9¼"
Pier 2	2½"	16¼"	2⅜"	1¼"	2½"	18¼"	28"	2⅝"	2⅝"	16¼"	9½"
N. Abutment	2¼"	10"	3⅜"	1"	2"	14"	25½"	1¾"	1¾"	9¾"	7¾"

② HLMR Bearing, Fixed, at Pier 1 shall have a Design Longitudinal Reaction of 190 kips, and a Design Lateral Reaction of 85 Kips. These reactions need not act simultaneously.



TOP ℄-PISTON PLAN
FOR HLMR BEARING, FIXED

Girder not shown for clarity.
Plan Dimensions of Top Plate
not shown in schedule to be
determined by Bearing Fabrication.



BOTTOM BEARING ℄ AND
BASE CYLINDER PLAN
FOR HLMR BEARING, FIXED

Notes:

The ⅛" TFE sheet shall be bonded directly to the piston with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type 1. The bond agent shall be applied to the full area of the contact surface.

Actual total bearing heights (Th) may differ from contract plans. Contractor to verify bearing heights and adjust girder seat elevations if required.

All structural steel for bearings shall be AASHTO M270, Grade 50.

"Total Vertical Reaction" in table is the actual controlling vertical service load.

Inverted HLMR bearing configurations are not permitted.

Work this sheet with sheet #30 of 47.

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 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.

BILL OF MATERIAL

Item	Unit	Total
HLMR Bearing, Fixed - 600K	Each	6
HLMR Bearing, Guided Expansion, 200K	Each	6
HLMR Bearing, Guided Expansion, 450K	Each	6
HLMR Bearing, Guided Expansion, 150K	Each	6

DESIGNED	ADL
CHECKED	WLW
DRAWN	RLW
CHECKED	WLW

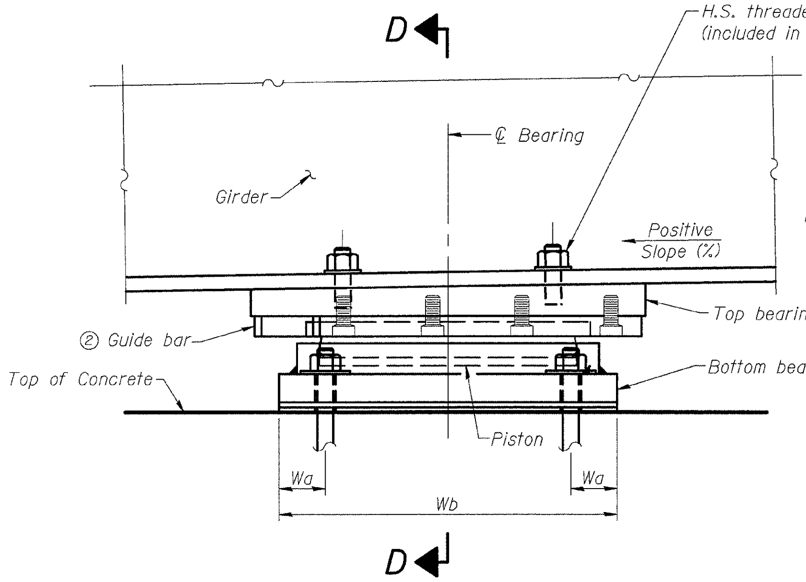
HLMR BEARING DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	93	52
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

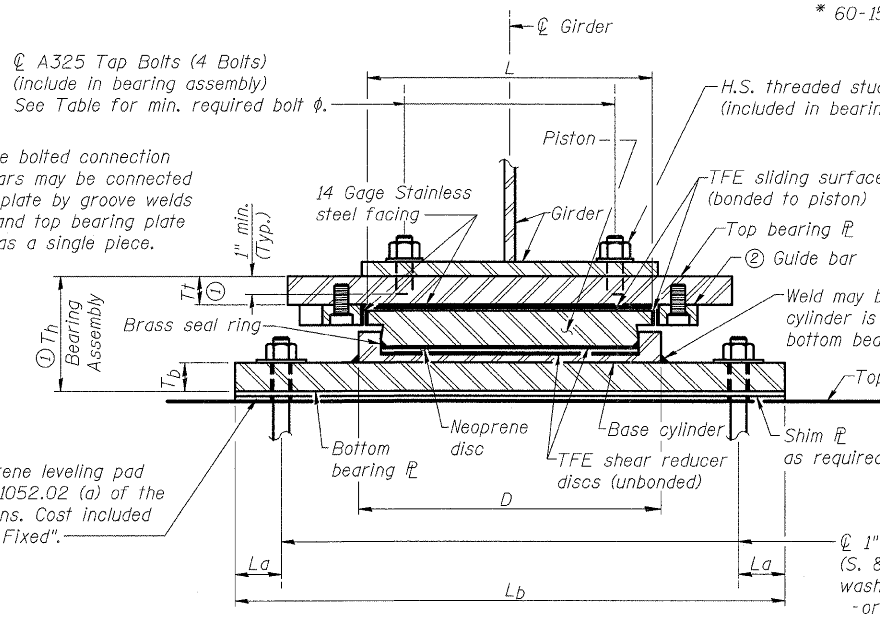
SHEET NO. 30
47 SHEETS

* 60-15HB-3   Contract No. 76706

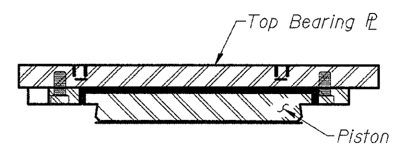


Note: Top of top bearing ℗ is sloped. Bottom of top bearing ℗ is to be level.

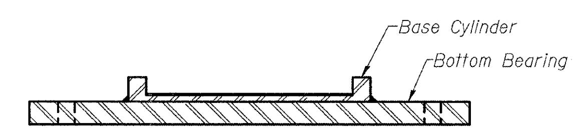
ELEVATION
HLMR BEARING, GUIDED EXPANSION



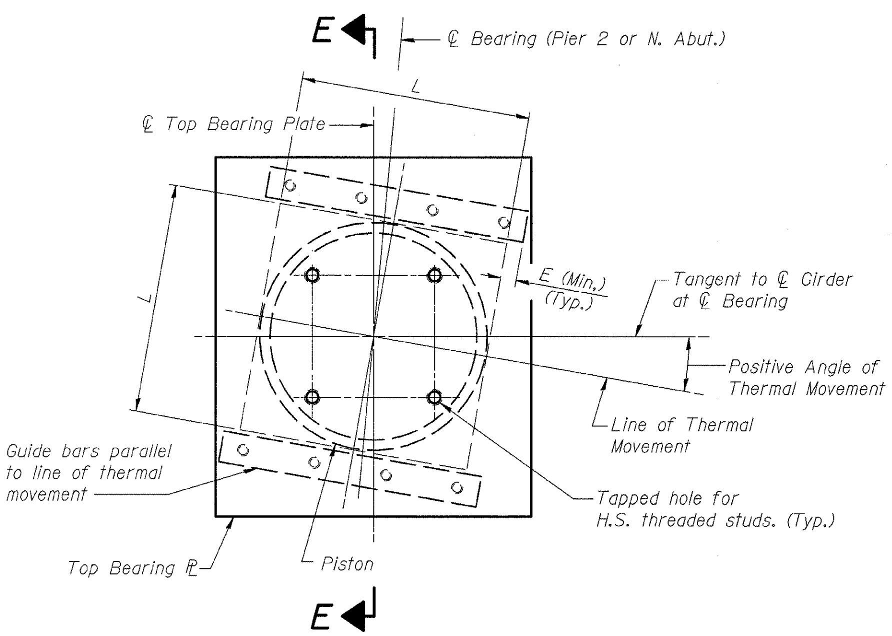
SECTION D-D



SECTION E-E



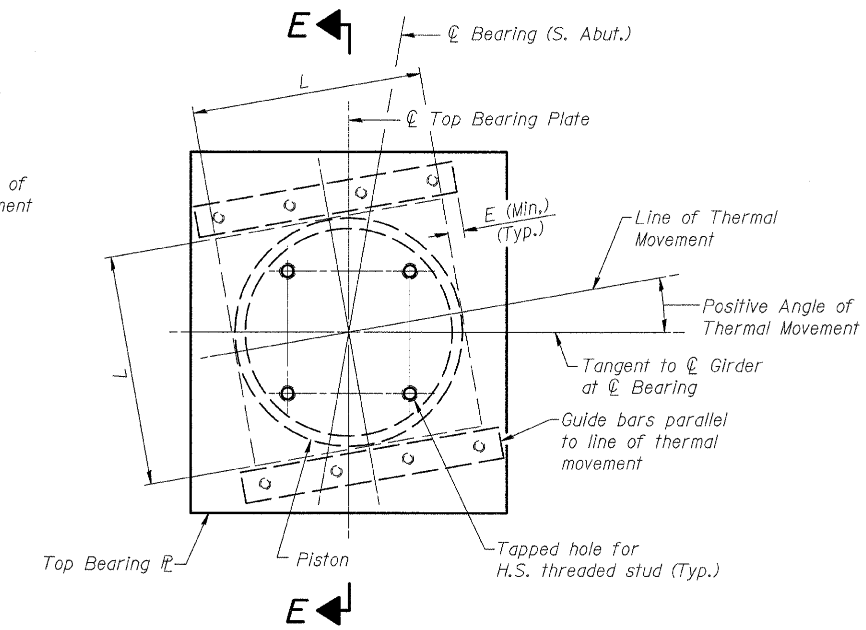
SECTION F-F



TOP BEARING ℗ AND PISTON PLAN
FOR HLMR BEARING, GUIDED EXPANSION

at Pier 2 and North Abutment

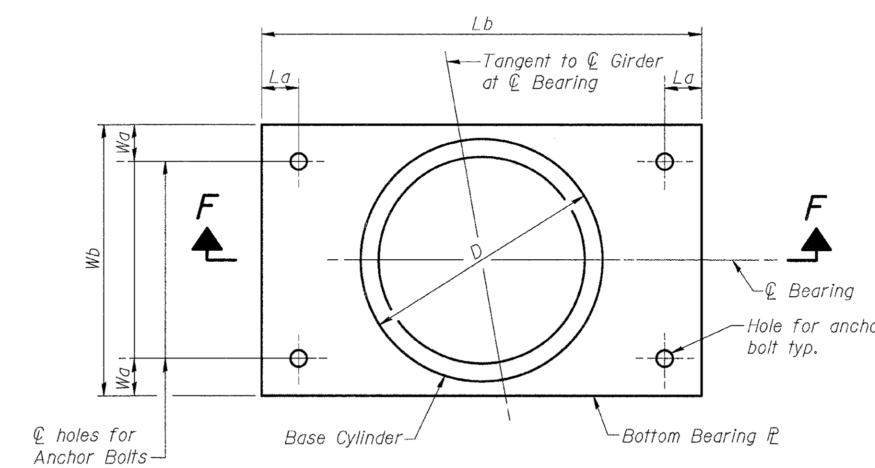
Girder not shown for clarity.
Plan Dimensions of Top Plate and Guide bars not shown in schedule to be determined by Bearing Fabricator.



TOP BEARING ℗ AND PISTON PLAN
FOR HLMR BEARING, GUIDED EXPANSION

at South Abutment

Girder not shown for clarity.
Plan Dimensions of Top Plate and Guide bars not shown in schedule to be determined by Bearing Fabricator.



BOTTOM BEARING ℗ AND BASE CYLINDER PLAN
FOR HLMR BEARING, GUIDED EXPANSION

DESIGNED	ADL
CHECKED	WLW
DRAWN	RLW
CHECKED	WLW

Notes:

Work this sheet with sheet #29 of 47.

See sheet #29 of 47 for Schedule, Notes, and Bill of Material

HLMR BEARING DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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Notes:
Space reinforcement in cap to miss anchor bolts.

Work this sheet with sheets #32 & #33 of 47.

Pour steps monolithically.

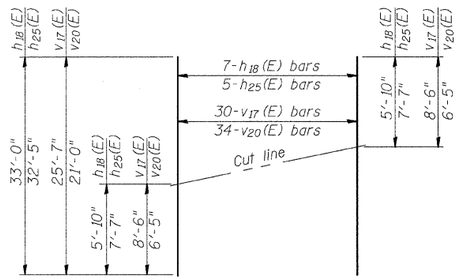
Exposed concrete surfaces on the face of the abutment backwall, the abutment bearing seats, and the vertical surfaces on the front and sides of the abutment wall shall be treated with concrete sealer.

APPR. BENT-PILE DATA

Type & Size: Metal Shell - 14 in. dia x 0.250 in. walls
Nominal Required Bearing: 330 kips
Allowable Resistance Available: 110 kips
Est. Length: 54 ft
No. Req'd.: 8+1 Test Pile

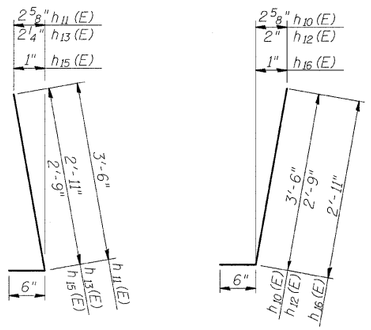
ABUT.-PILE DATA

Type & Size: Metal Shell - 14 in. dia x 0.250 in. walls
Nominal Required Bearing: 330 kips
Allowable Resistance Available: 110 kips
Est. Length: 47 ft
No. Req'd.: 19+1 Test Pile



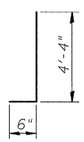
FIELD CUTTING DIAGRAM

Order $h_{18}(E)$, $h_{25}(E)$, $v_{17}(E)$ and $v_{20}(E)$ bars full length. Cut to fit and use remainder of bars in opposite face of curtain wall.



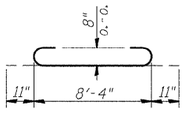
BARS $h_{11}(E)$, $h_{13}(E)$ & $h_{15}(E)$

BARS $h_{10}(E)$, $h_{12}(E)$ & $h_{16}(E)$

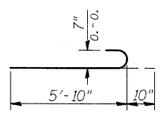


BAR $h_{14}(E)$

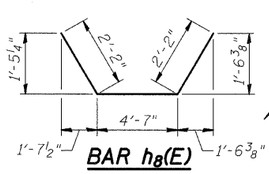
DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW



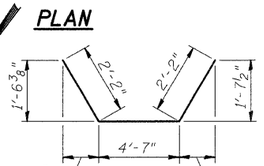
BAR t(E)



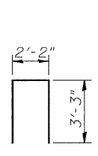
BAR n(E)



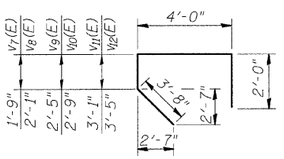
BAR $h_8(E)$



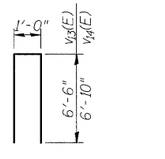
BAR $h_9(E)$



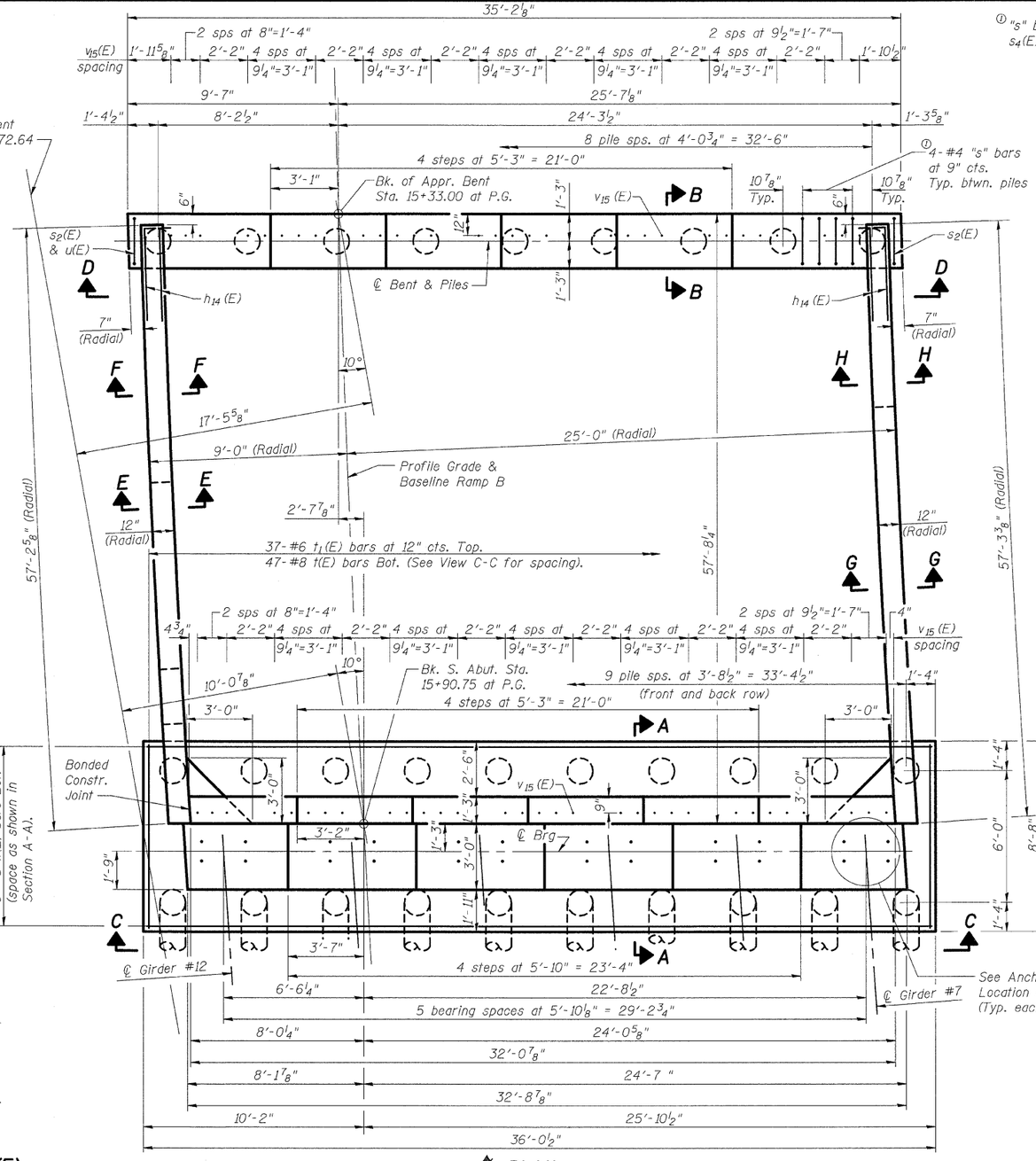
BAR u(E)



BARS $v_7(E)$ thru $v_{12}(E)$

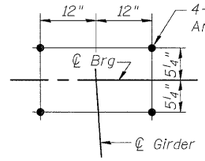


BARS $v_{13}(E)$ & $v_{14}(E)$

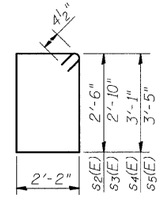


PLAN

① "s" bars include $s_2(E)$, $s_3(E)$, $s_4(E)$ or $s_5(E)$. See View D-D.



ANCHOR BOLT LOCATION DETAIL



BARS $s_2(E)$ thru $s_5(E)$

Bar	No.	Size	Length (m)	Shape
$v_{12}(E)$	5	#5	13'-1"	
$v_{13}(E)$	6	#5	14'-0"	
$v_{14}(E)$	26	#5	14'-8"	
$v_{15}(E)$	70	#5	3'-0"	
$v_{16}(E)$	8	#5	19'-6"	
$v_{17}(E)$	30	#5	25'-7"	
$v_{18}(E)$	48	#5	8'-3"	
$v_{19}(E)$	8	#5	17'-8"	
$v_{20}(E)$	34	#5	21'-0"	
$v_{21}(E)$	40	#5	6'-4"	
$w(E)$	18	#5	35'-8"	
Concrete Structures		CU YD	145.1	
Reinforcement Bars, Epoxy Coated		POUND	14,730	
Structure Excavation		CU YD	272	
Furnishing Metal Shell Piles 14"		FOOT	1325	
Driving Piles		FOOT	1325	
Concrete Sealer		SQ FT	560	
Test Pile Metal Shells		EACH	2	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	53
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 31
47 SHEETS

* 60-15HB-3

Contract No. 76706

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	32'-5"	
$h_1(E)$	16	#5	8'-0"	
$h_2(E)$	2	#5	16'-0"	
$h_3(E)$	4	#5	4'-4"	
$h_4(E)$	8	#5	31'-9"	
$h_5(E)$	2	#5	8'-5"	
$h_6(E)$	8	#5	7'-5"	
$h_7(E)$	2	#5	4'-7"	
$h_8(E)$	16	#5	8'-11"	
$h_9(E)$	16	#5	8'-11"	
$h_{10}(E)$	18	#5	4'-0"	
$h_{11}(E)$	14	#5	4'-0"	
$h_{12}(E)$	6	#5	3'-3"	
$h_{13}(E)$	6	#5	3'-5"	
$h_{14}(E)$	16	#5	4'-10"	
$h_{15}(E)$	6	#5	3'-3"	
$h_{16}(E)$	6	#5	3'-5"	
$h_{17}(E)$	14	#5	3'-6"	
$h_{18}(E)$	7	#5	33'-0"	
$h_{19}(E)$	2	#5	30'-9"	
$h_{20}(E)$	2	#5	34'-3"	
$h_{21}(E)$	24	#5	28'-9"	
$h_{22}(E)$	32	#5	29'-9"	
$h_{23}(E)$	3	#8	25'-9"	
$h_{24}(E)$	3	#8	37'-2"	
$h_{25}(E)$	5	#5	32'-5"	
$h_{26}(E)$	2	#5	29'-1"	
$h_{27}(E)$	2	#5	33'-5"	
$h_{28}(E)$	2	#5	37'-9"	
$h_{29}(E)$	3	#8	22'-2"	
$h_{30}(E)$	6	#8	22'-5"	
n(E)	82	#7	6'-8"	
p(E)	6	#7	34'-10"	
$p_1(E)$	10	#6	7'-10"	
$p_2(E)$	2	#6	21'-10"	
$p_3(E)$	3	#6	6'-1"	
$p_4(E)$	1	#6	10'-4"	
$s_2(E)$	19	#4	10'-1"	
$s_3(E)$	5	#4	10'-9"	
$s_4(E)$	4	#4	11'-3"	
$s_5(E)$	6	#4	11'-11"	
t(E)	47	#8	8'-4"	
$t_1(E)$	37	#6	8'-4"	
u(E)	11	#4	8'-8"	
$v_1(E)$	10	#7	9'-4"	
$v_2(E)$	12	#7	9'-8"	
$v_3(E)$	12	#7	10'-0"	
$v_4(E)$	12	#7	10'-4"	
$v_5(E)$	10	#7	10'-8"	
$v_6(E)$	10	#7	11'-0"	
$v_7(E)$	5	#5	11'-5"	
$v_8(E)$	6	#5	11'-9"	
$v_9(E)$	6	#5	12'-1"	
$v_{10}(E)$	6	#5	12'-5"	
$v_{11}(E)$	5	#5	12'-9"	

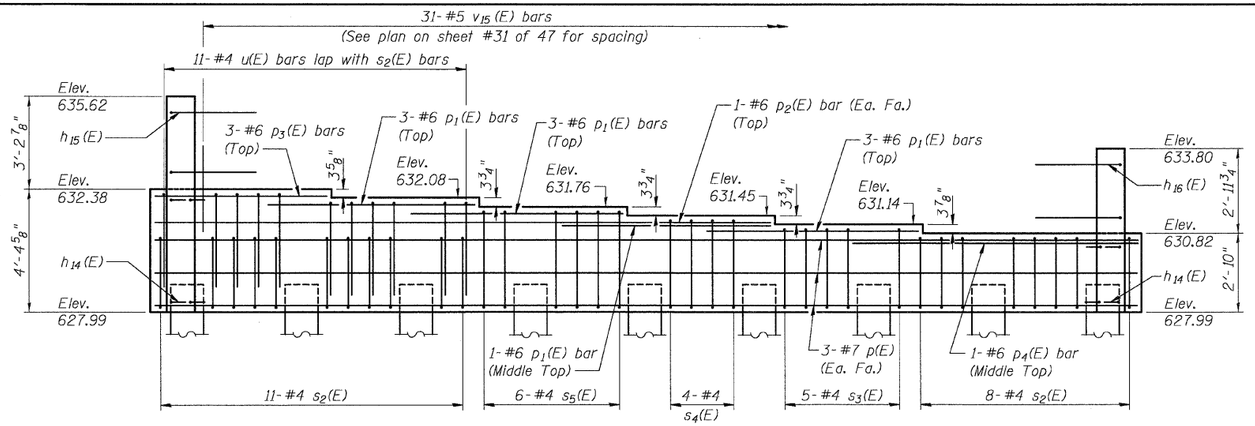
SOUTH ABUTMENT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G. B. I. F. A. P. 318	*	MADISON	93	54
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

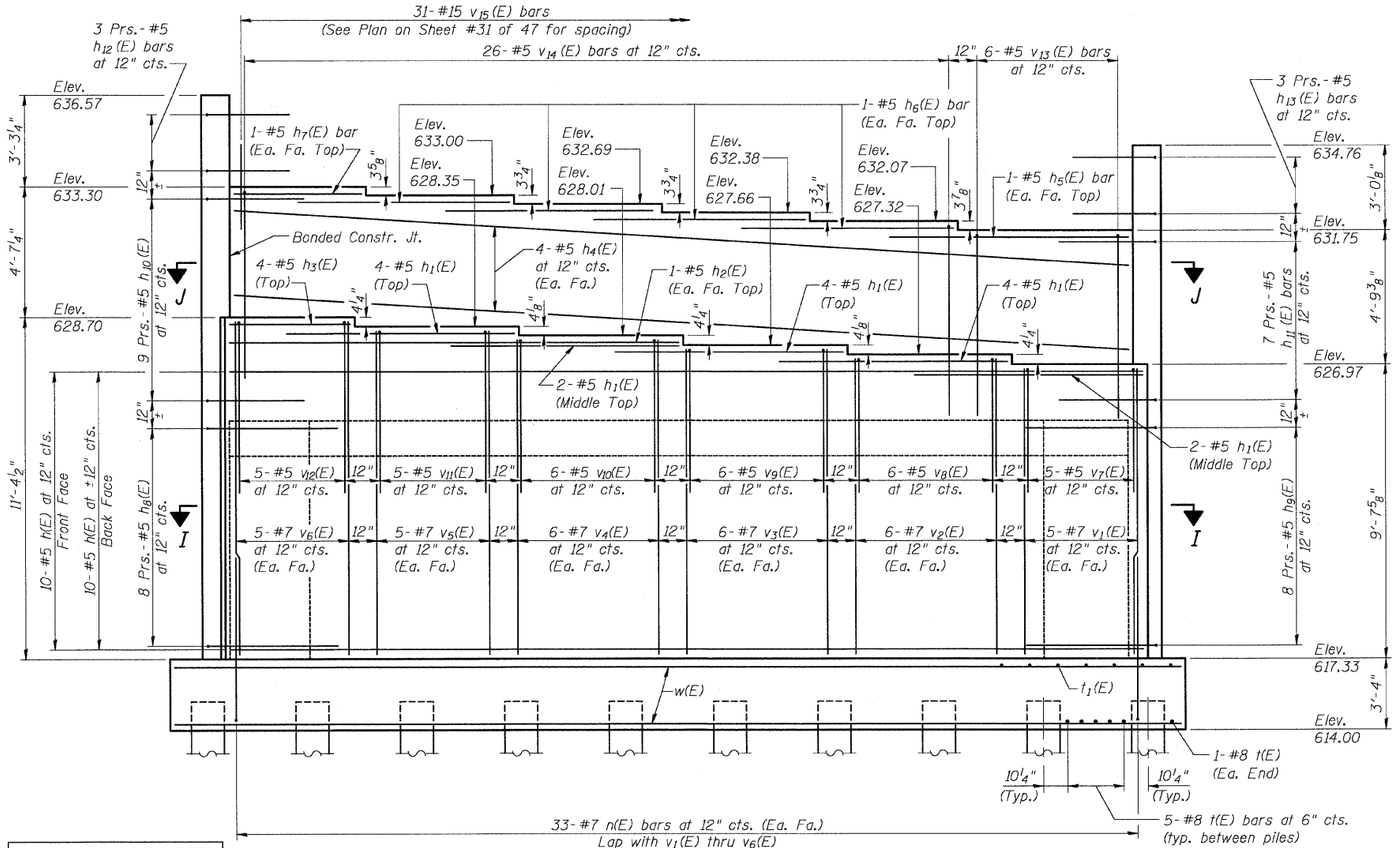
SHEET NO. 32
47 SHEETS

* 60-15HB-3 Contract No. 76706



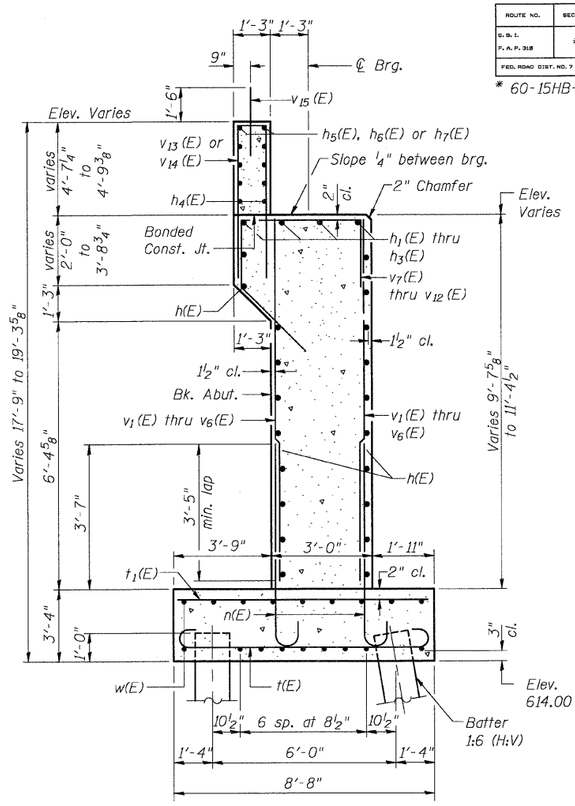
VIEW D-D

See Plan on Sheet #31 of 47 for spacing of s_2(E) thru s_5(E)



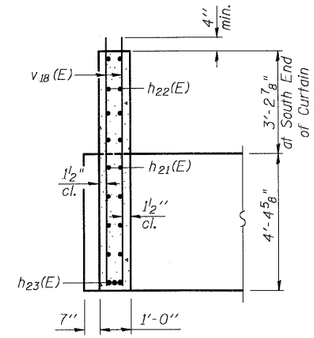
VIEW C-C

Notes:
Work this sheet with sheets #31 & #33 of 47.

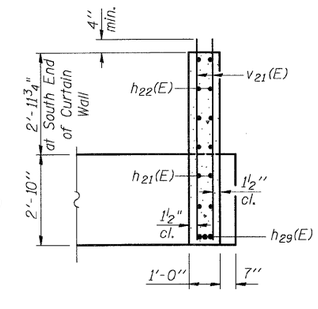


SECTION A-A

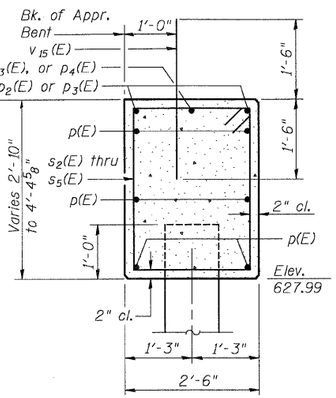
(thru Abutment)



SECTION F-F

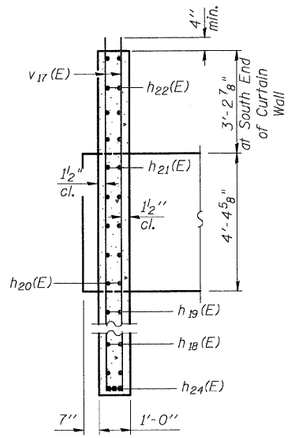


SECTION H-H

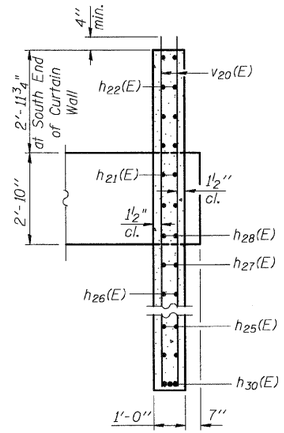


SECTION B-B

(thru Approach Bent)



SECTION E-E



SECTION G-G

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SOUTH ABUTMENT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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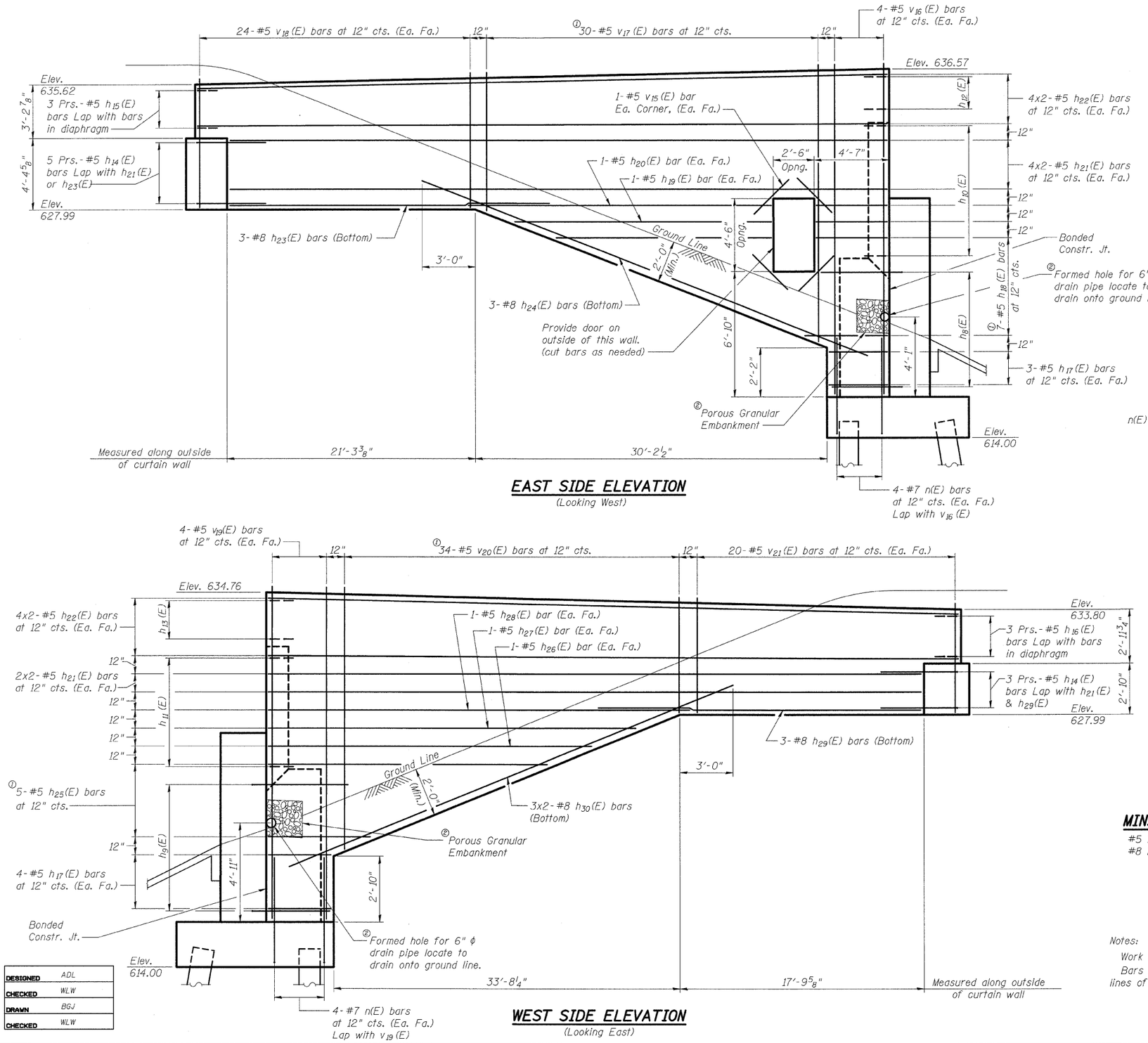
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U. S. 1 F. A. P. 310	*	MADISON	93	55
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

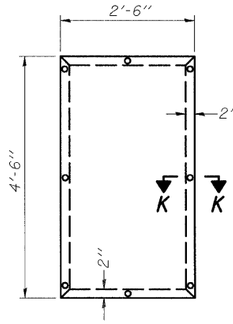
SHEET NO. 33
47 SHEETS

* 60-15HB-3 Contract No. 76706



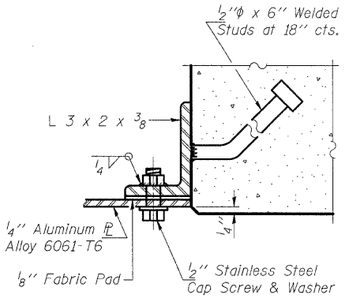
EAST SIDE ELEVATION

(Looking West)

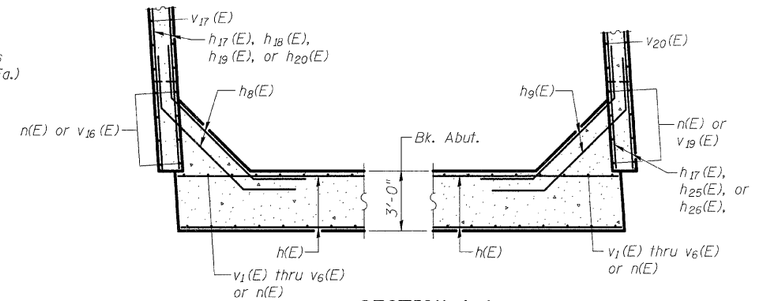


DOOR ELEVATION

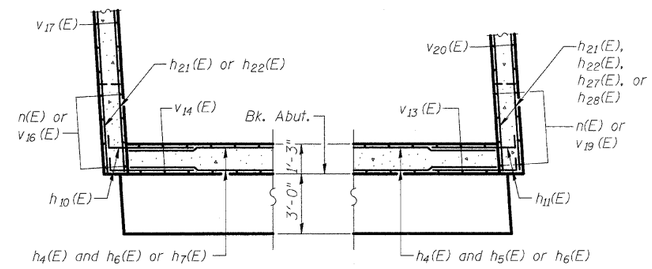
Cost of door and frame are included with "Concrete Structures".



SECTION K-K



SECTION J-J



SECTION I-I

WEST SIDE ELEVATION

(Looking East)

MIN. BAR LAP

#5 Bar = 2'-2"
#8 Bar = 4'-6"

① Order h_{18}(E), h_{25}(E), v_{17}(E) & v_{20}(E) bars full length cut to fit as shown and use remainder of bars in opposite face of curtain wall. See Field Cutting Diagram on Sheet #31 of 47.

② See Vaulted Abutment & Slopewall Detail on sheet #3 of 47.

Notes:

Work this sheet with sheets #31 & #32 of 47.
Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SOUTH ABUTMENT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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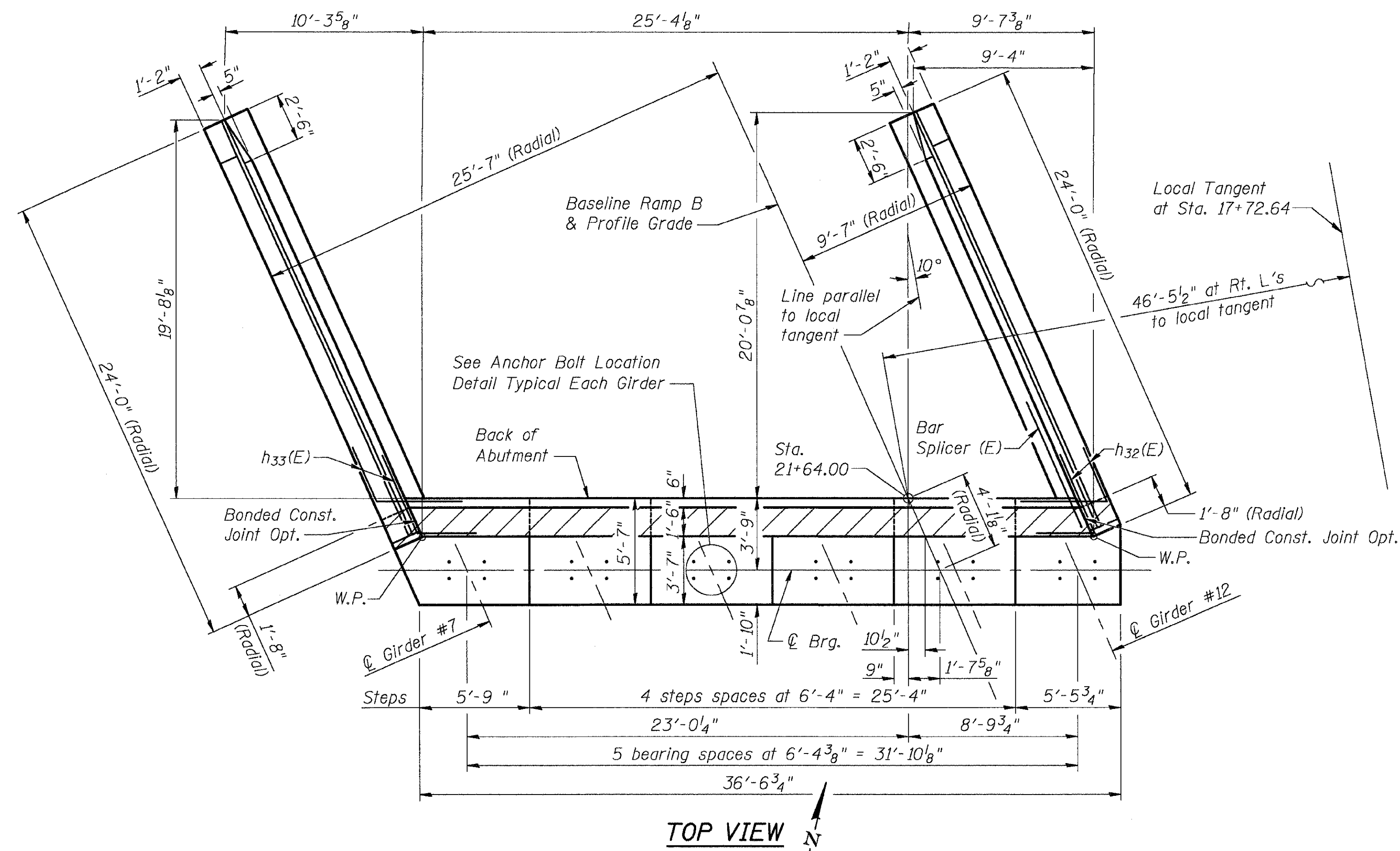
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	93	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

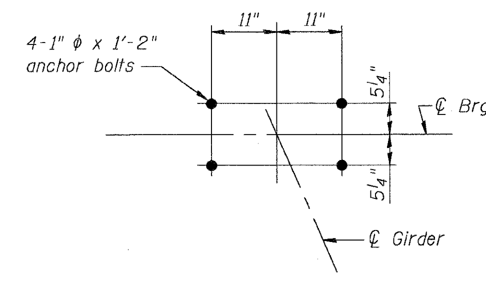
SHEET NO. 34
47 SHEETS

* 60-15HB-3 Contract No. 76706

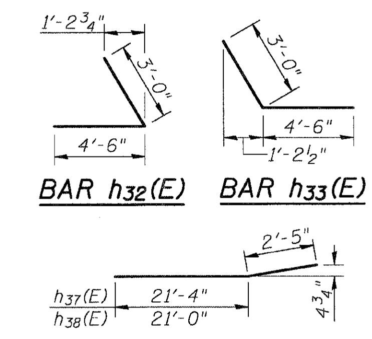
11/18/2008 4:37:22 PM



TOP VIEW

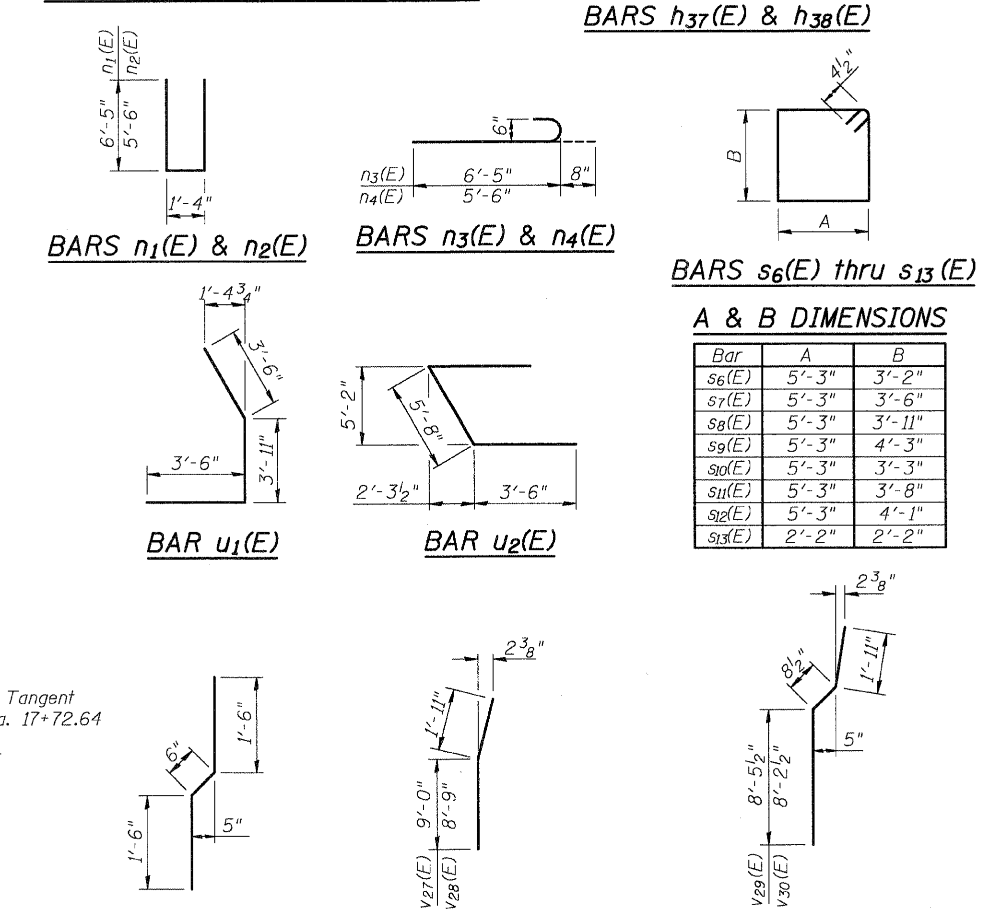


ANCHOR BOLT LOCATION DETAIL



BAR $h_{32}(E)$ BAR $h_{33}(E)$

BARS $h_{37}(E)$ & $h_{38}(E)$



BARS $n_1(E)$ & $n_2(E)$ BARS $n_3(E)$ & $n_4(E)$ BARS $s_6(E)$ thru $s_{13}(E)$

BAR $u_1(E)$ BAR $u_2(E)$

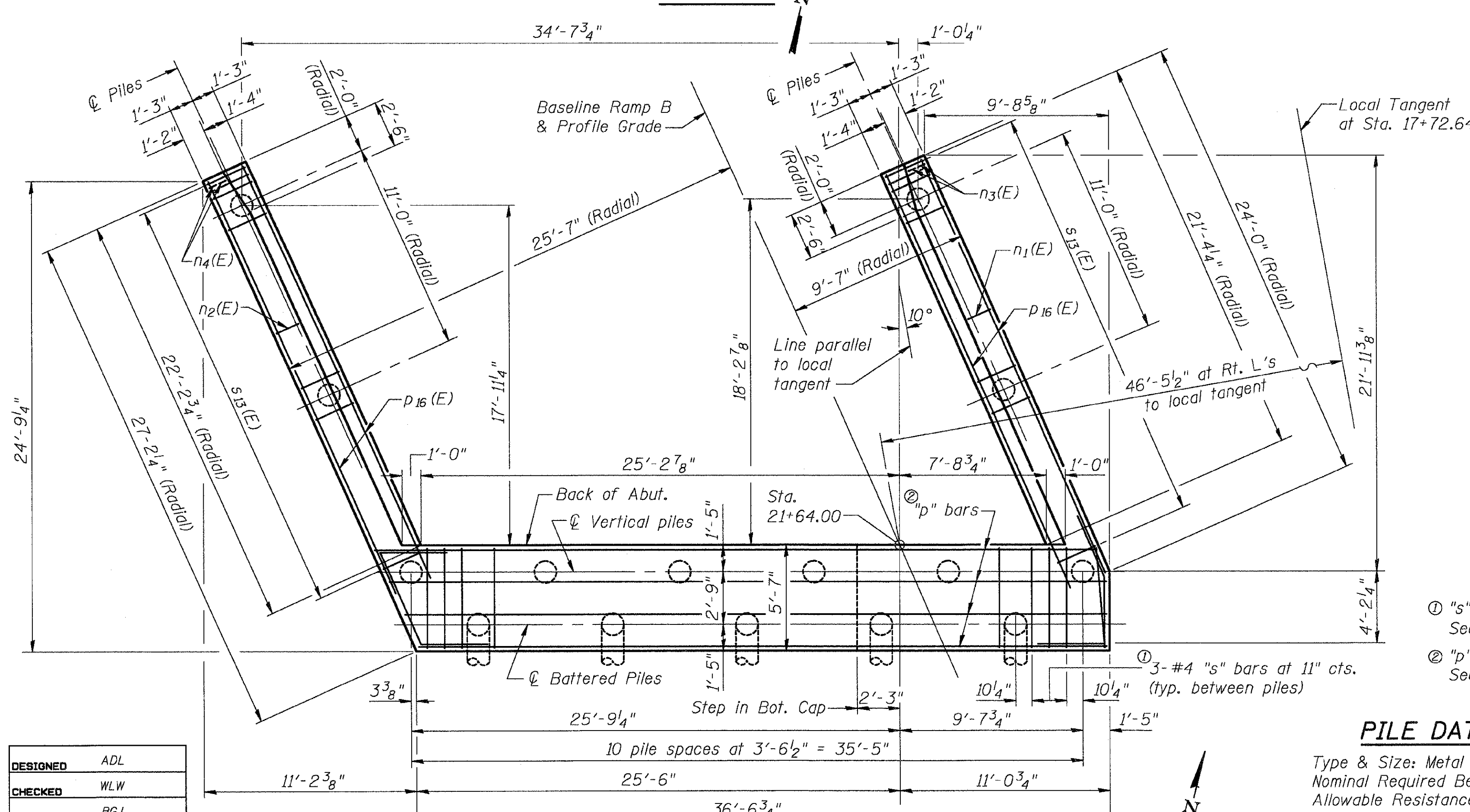
BAR $v_{23}(E)$ BARS $v_{27}(E)$ & $v_{28}(E)$ BARS $v_{29}(E)$ & $v_{30}(E)$

A & B DIMENSIONS

Bar	A	B
$s_6(E)$	5'-3"	3'-2"
$s_7(E)$	5'-3"	3'-6"
$s_8(E)$	5'-3"	3'-11"
$s_9(E)$	5'-3"	4'-3"
$s_{10}(E)$	5'-3"	3'-3"
$s_{11}(E)$	5'-3"	3'-8"
$s_{12}(E)$	5'-3"	4'-1"
$s_{13}(E)$	2'-2"	2'-2"

NORTH ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{31}(E)$	16	#5	34'-9"	
$h_{32}(E)$	20	#5	7'-6"	
$h_{33}(E)$	20	#5	7'-6"	
$h_{34}(E)$	4	#6	34'-9"	
$h_{35}(E)$	21	#4	23'-9"	
$h_{36}(E)$	10	#4	23'-5"	
$h_{37}(E)$	21	#4	23'-9"	
$h_{38}(E)$	2	#4	23'-5"	
$n_1(E)$	22	#6	14'-2"	
$n_2(E)$	22	#6	12'-4"	
$n_3(E)$	6	#6	7'-1"	
$n_4(E)$	6	#6	6'-2"	
$p_5(E)$	4	#7	16'-11"	
$p_6(E)$	1	#7	23'-0"	
$p_7(E)$	1	#7	23'-11"	
$p_8(E)$	1	#7	24'-5"	
$p_9(E)$	1	#7	25'-3"	
$p_{10}(E)$	2	#6	36'-4"	
$p_{11}(E)$	2	#6	38'-0"	
$p_{12}(E)$	3	#7	5'-1"	
$p_{13}(E)$	1	#7	4'-7"	
$p_{14}(E)$	16	#7	9'-9"	
$p_{15}(E)$	4	#7	11'-7"	
$p_{16}(E)$	12	#7	23'-10"	
$s_6(E)$	5	#4	17'-7"	
$s_7(E)$	6	#4	18'-3"	
$s_8(E)$	5	#4	19'-1"	
$s_9(E)$	4	#4	19'-9"	
$s_{10}(E)$	1	#4	17'-9"	
$s_{11}(E)$	6	#4	18'-7"	
$s_{12}(E)$	4	#4	19'-5"	
$s_{13}(E)$	48	#4	9'-5"	
$u_1(E)$	4	#6	10'-11"	
$u_2(E)$	4	#6	12'-8"	
$v_{22}(E)$	72	#5	10'-2"	
$v_{23}(E)$	36	#4	3'-6"	
$v_{24}(E)$	36	#5	2'-6"	
$v_{25}(E)$	25	#6	10'-11"	
$v_{26}(E)$	25	#6	10'-8"	
$v_{27}(E)$	3	#6	10'-11"	
$v_{28}(E)$	3	#6	10'-8"	
$v_{29}(E)$	22	#6	11'-1"	
$v_{30}(E)$	22	#6	10'-10"	
Concrete Structures			CU YD	87.0
Reinforcement Bars, Epoxy Coated			POUND	7,970
Bar Splicers			EACH	36
Structure Excavation			CU YD	154
Furnishing Metal Shell Piles 14"			FOOT	728
Driving Piles			FOOT	728
Concrete Sealer			SQ FT	503
Test Pile Metal Shells			EACH	1
Porous Granular Embankment (Special)			CU YD	117



PLAN PILE - CAP

① "s" bars include $s_6(E)$ thru $s_{12}(E)$. See Elevation on sheet #35 of 47.

② "p" bars include $p_5(E)$ thru $p_{15}(E)$. See Elevation on sheet #35 of 47.

PILE DATA

Type & Size: Metal Shell - 14 in. dia x 0.250 in. walls
Nominal Required Bearing: 330 kips
Allowable Resistance Available: 110 kips
Est. Length: 52 ft
No. Required: 14 + 1 Test Pile

Notes:

Work this sheet with sheets #35, #36 & #37 of 47.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
All edges shall have standard ¾" chamfer, unless noted otherwise.
See sheet #36 & #37 of 47 for Wing Wall Details.
For anchor bolt installation see details on sheet #40 of 47.
For details of bar splicers, see sheet #41 of 47.
See sheet #35 of 47 for Elevation of Abutment and Section thru Abutment.
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with concrete superstructure on sheet #12 of 47.
Exposed concrete surfaces on the face of the abutment backwall, the abutment bearing seats, and the vertical surfaces on the front and sides of the abutment cap shall be treated with concrete sealer.

NORTH ABUTMENT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

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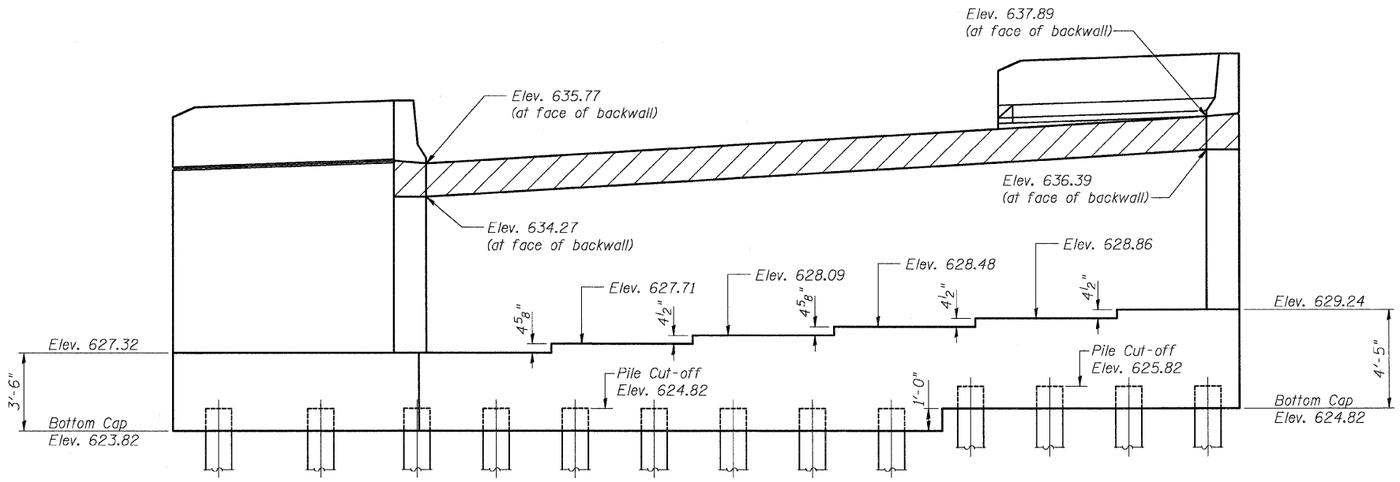
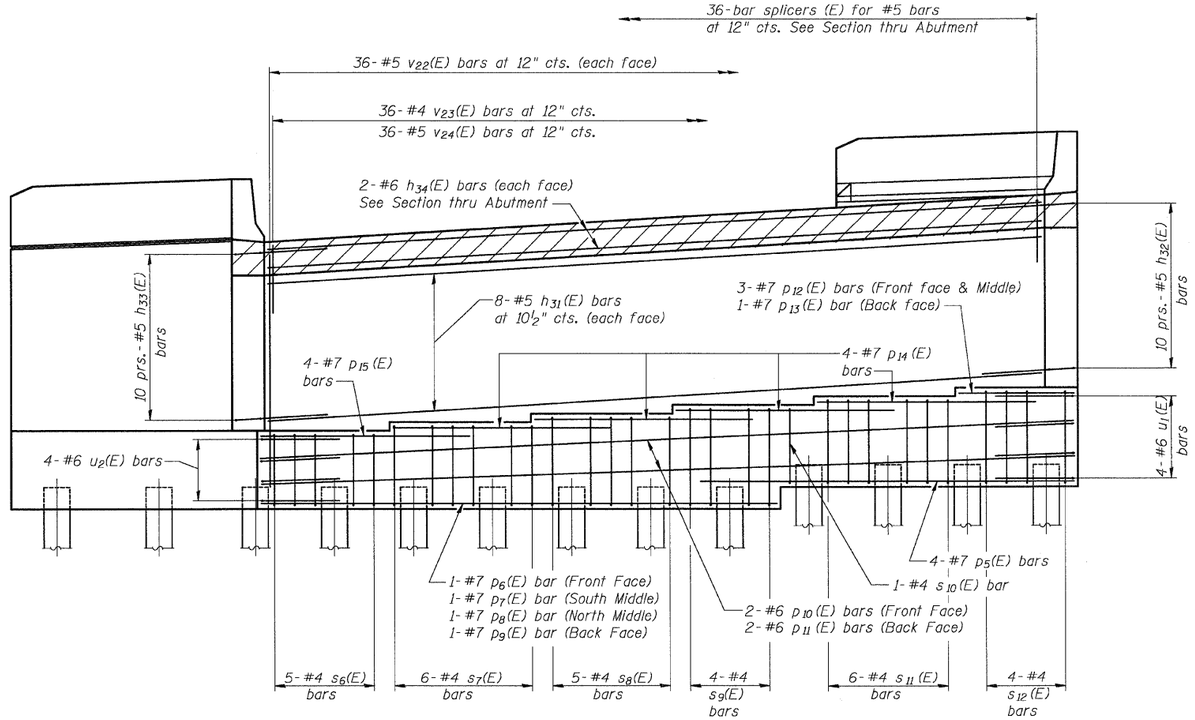
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 312	*	MADISON	93	57
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 35
47 SHEETS

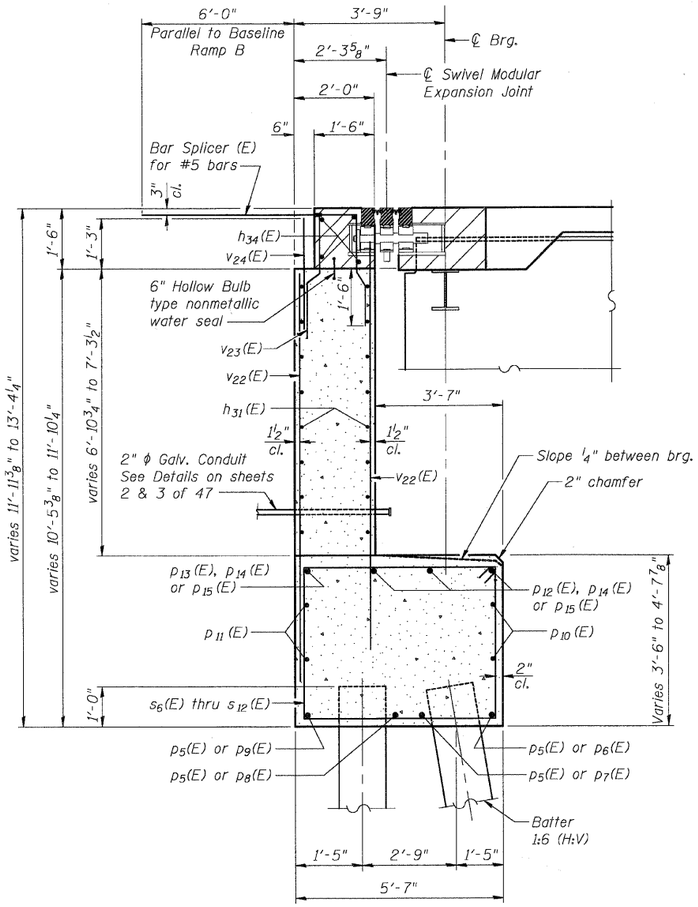
* 60-15HB-3 Contract No. 76706



ELEVATION
(Looking North)
Showing Dimensions



ELEVATION
(Looking North)
Showing Reinforcement



SECTION THRU ABUTMENT
(Dimensions at Rt. L's to Abutment, unless noted)

Notes:

Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure on sheet #12 of 47.

Reinforcement in cap to miss swivel modular expansion joint.

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

NORTH ABUTMENT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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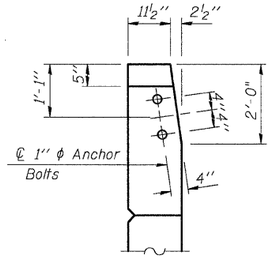
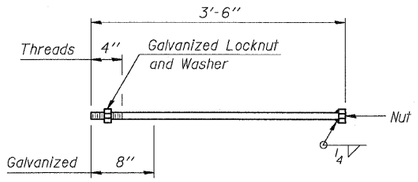
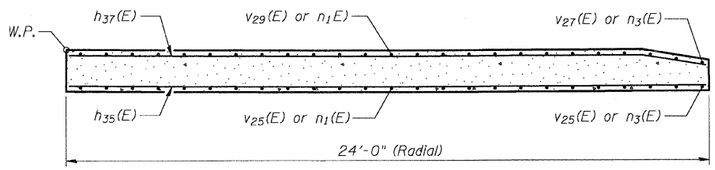


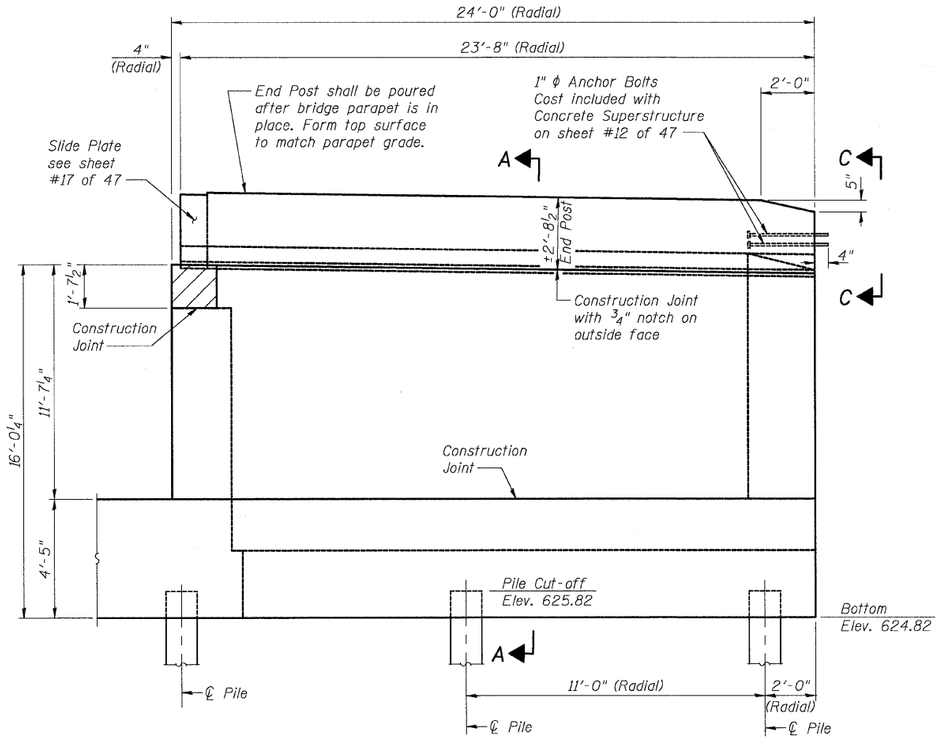
SECTION C-C



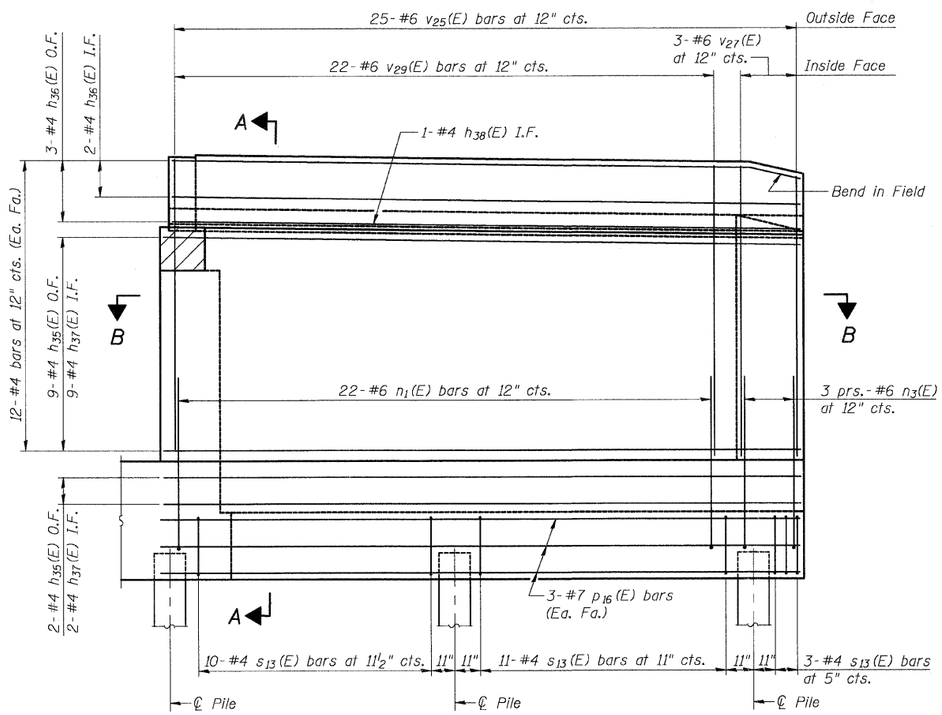
1" ϕ ANCHOR BOLT



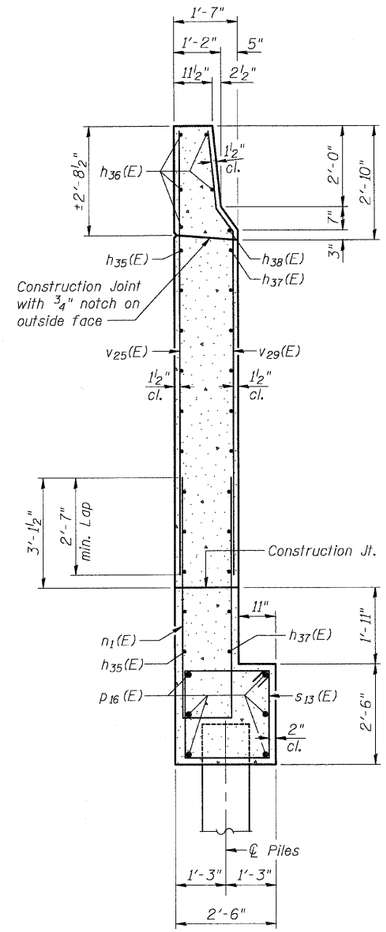
SECTION B-B



EAST WING WALL ELEVATION
(Looking West)
Showing Dimensions



EAST WING WALL ELEVATION
(Looking West)
Showing Reinforcement



SECTION A-A

MIN. BAR LAP
#6 bar - 2'-7"

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

Notes:
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure on sheet #12 of 47.

Quantity of concrete in end post included with Concrete Superstructure on sheet #12 of 47.

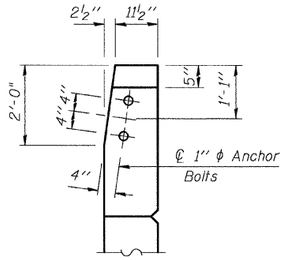
NORTH ABUTMENT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

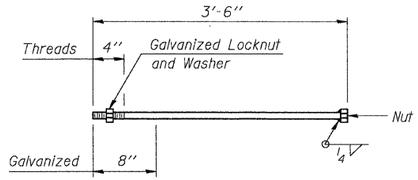
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 318	*	MADISON	93	59
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 37
47 SHEETS

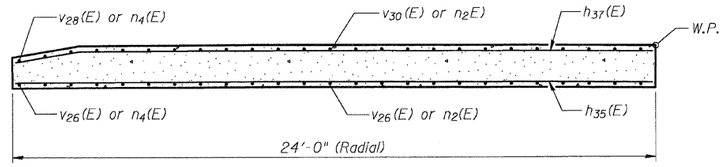
* 60-15HB-3 Contract No. 76706



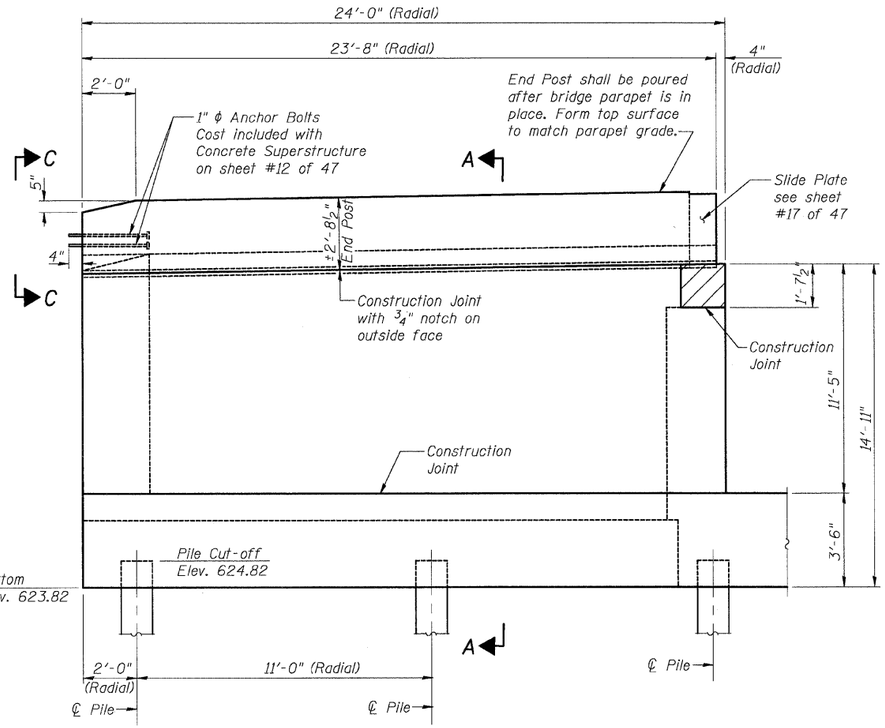
SECTION C-C



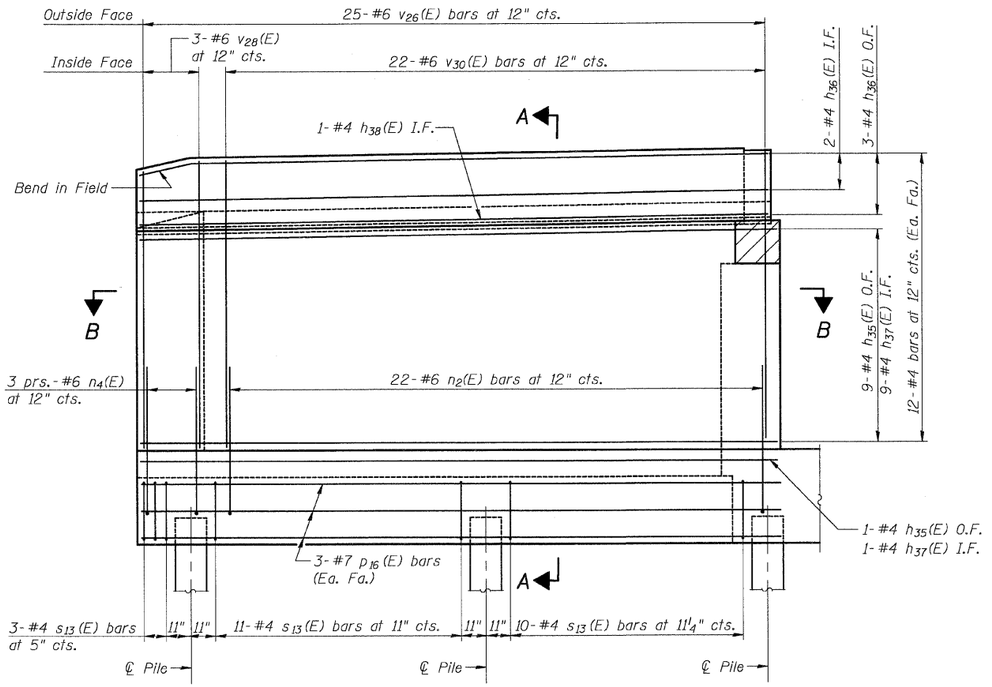
1" ϕ ANCHOR BOLT



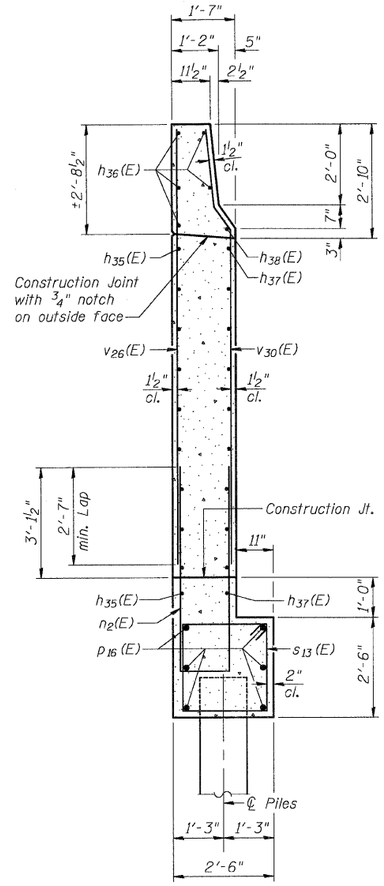
SECTION B-B



WEST WING WALL ELEVATION
(Looking East)
Showing Dimensions



WEST WING WALL ELEVATION
(Looking East)
Showing Reinforcement



SECTION A-A

MIN. BAR LAP
#6 bar - 2'-7"

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

Notes:
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure on sheet #12 of 47.
Quantity of concrete in end post included with Concrete Superstructure on sheet #12 of 47.

NORTH ABUTMENT
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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

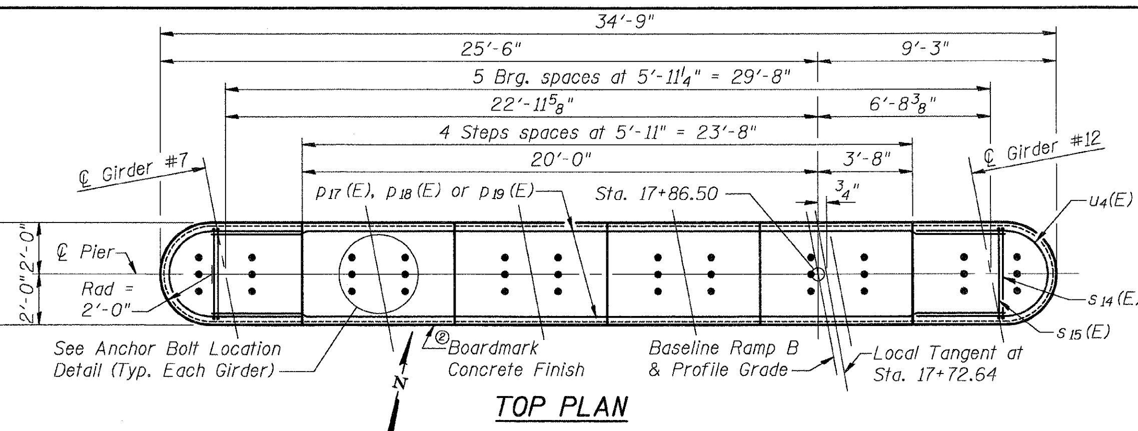
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	93	60
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 38
47 SHEETS

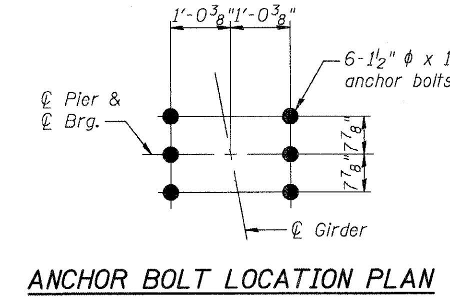
* 60-15HB-3 Contract No. 76706

PILE DATA

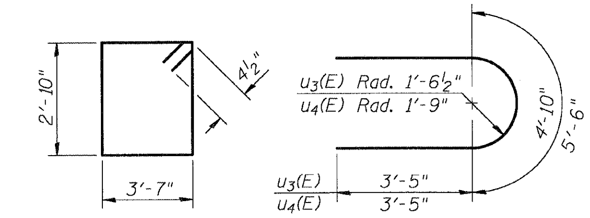
Type & Size: Metal Shell - 14 in. dia x 0.250 in. walls
Nominal Required Bearing: 330 kips
Allowable Resistance Available: 110 kips
Est. Length: 27 ft
No. Req'd: 39 + 1 Test Pile



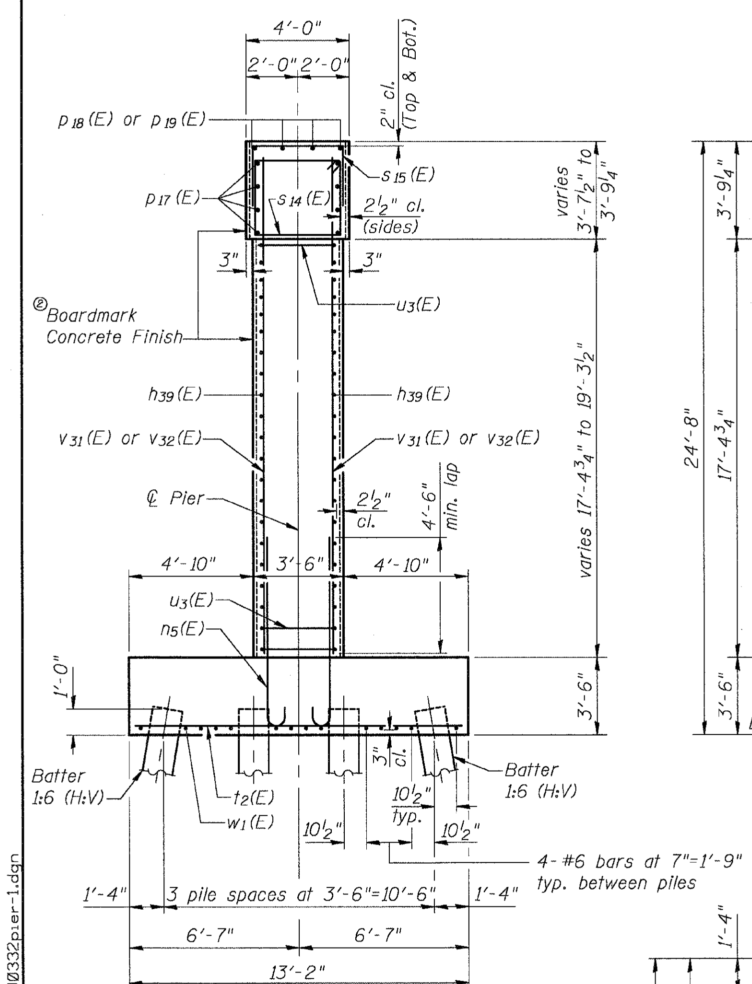
TOP PLAN



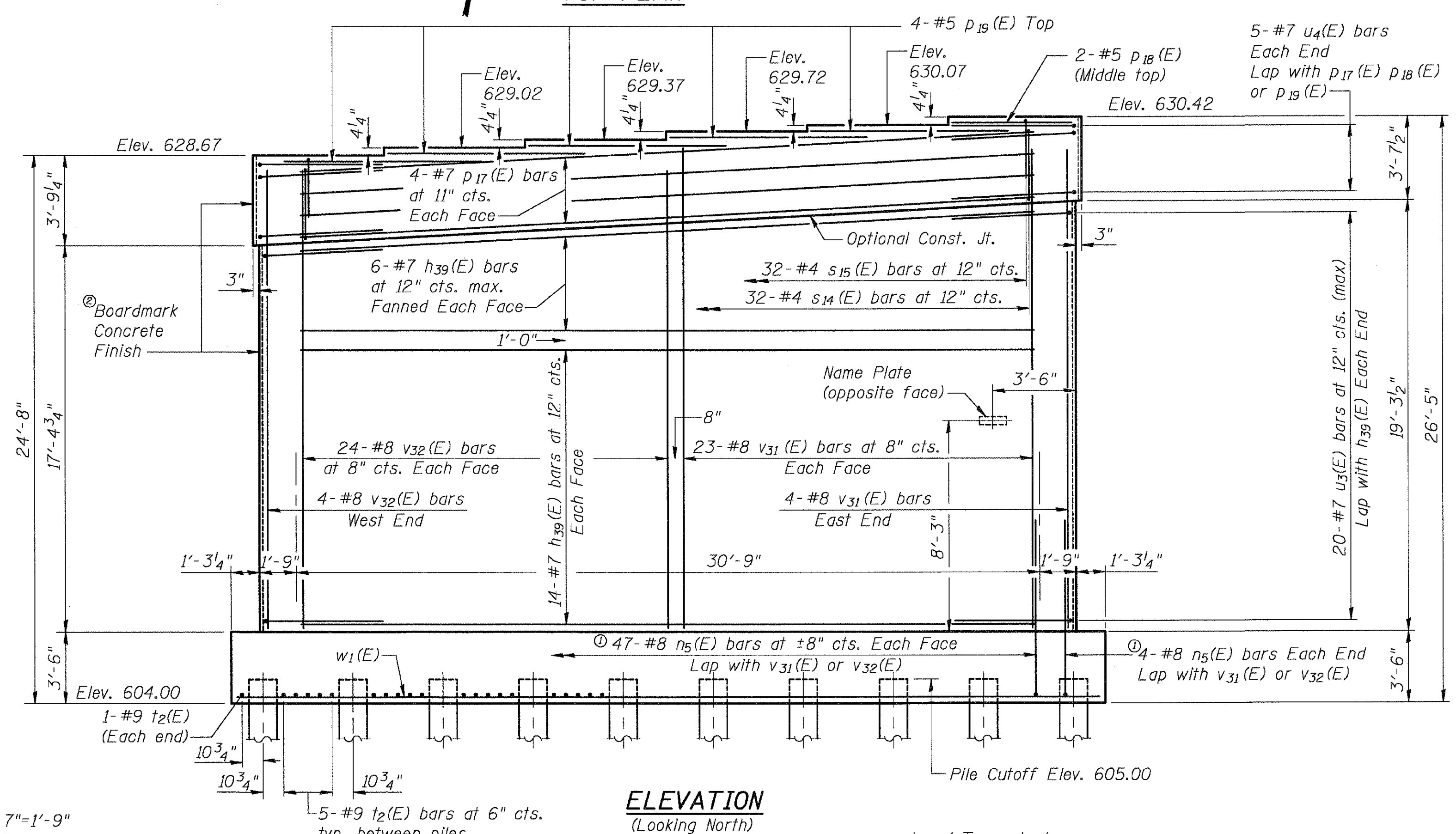
ANCHOR BOLT LOCATION PLAN



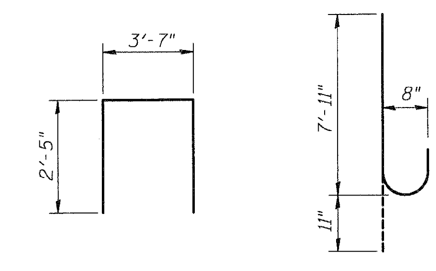
BAR s_{14}(E) BARS u_3(E) & u_4(E)



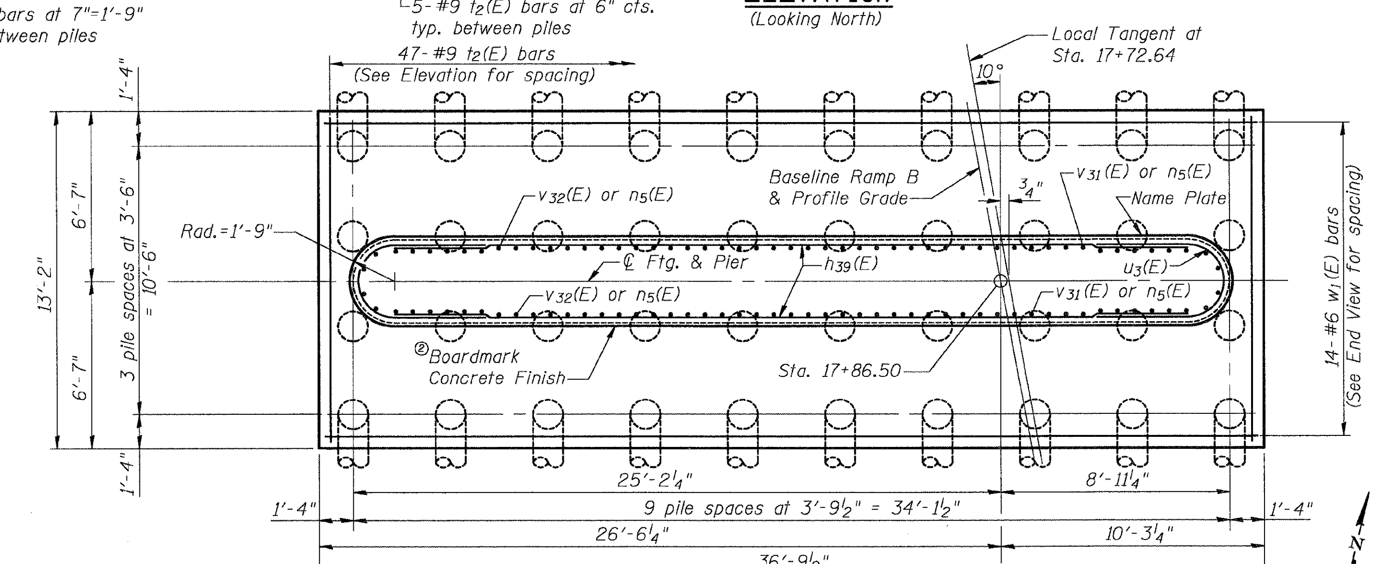
END VIEW



ELEVATION
(Looking North)



BAR s_{15}(E) BAR n_5(E)



FOOTING PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{39}(E)	40	#7	30'-9"	—
n_5(E)	102	#8	8'-10"	⊃
p_{17}(E)	8	#7	30'-9"	—
p_{18}(E)	2	#5	5'-0"	—
p_{19}(E)	20	#5	8'-3"	—
s_{14}(E)	32	#4	13'-7"	□
s_{15}(E)	32	#4	8'-5"	⊓
t_2(E)	47	#9	12'-8"	—
u_3(E)	40	#7	11'-8"	⊃
u_4(E)	10	#7	12'-4"	⊃
v_{31}(E)	50	#8	21'-3"	—
v_{32}(E)	52	#8	20'-5"	—
w_1(E)	14	#6	36'-4"	—

Item	Unit	Quantity
Concrete Structures	CU YD	161.0
Reinforcement Bars, Epoxy Coated	POUND	15,740
Structure Excavation	CU YD	157
Form Liner Textured Surface	SQ FT	1,604
Furnishing Metal Shell Piles 14"	FOOT	1,053
Driving Piles	FOOT	1,053
Test Pile Metal Shells	EACH	1

① Adjust spacing of n_5(E) bars as needed to miss piles

② Random width Boardmark Concrete Finish on faces and ends of cap & wall (See Sheet #3 of 47 for details)

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

PC-1 4-30-99

PIER #1
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

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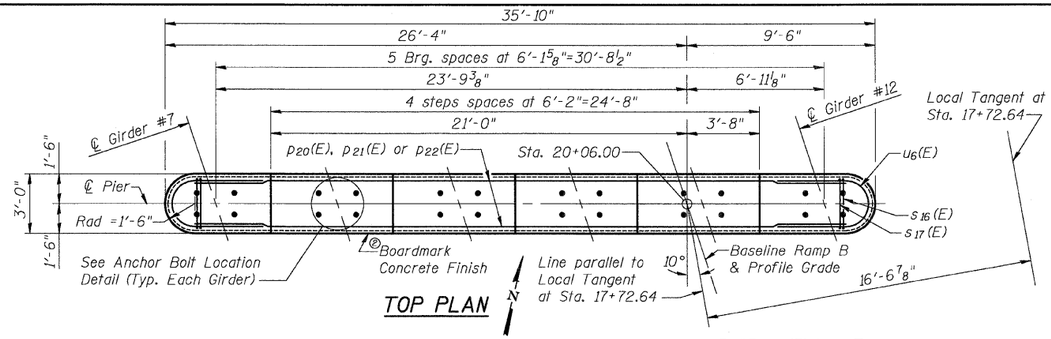
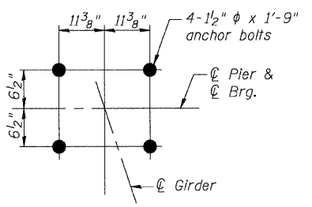
Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.

PILE DATA

Type & Size: Metal Shell - 14 in. dia x 0.250 in. walls
Nominal Required Bearing: 330 kips
Allowable Resistance Available: 110 kips
Est. Length: 31 ft
No. Req'd: 32 + 1 Test Pile



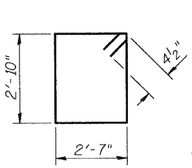
TOP PLAN



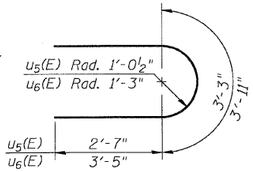
ANCHOR BOLT LOCATION PLAN

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
E. B. I. F. A. P. 318	*	MADISON	93	61
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

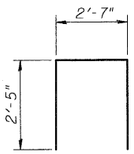
SHEET NO. 39
47 SHEETS
* 60-15HB-3
Contract No. 76706



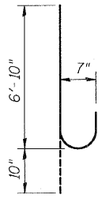
BAR s_{16}(E)



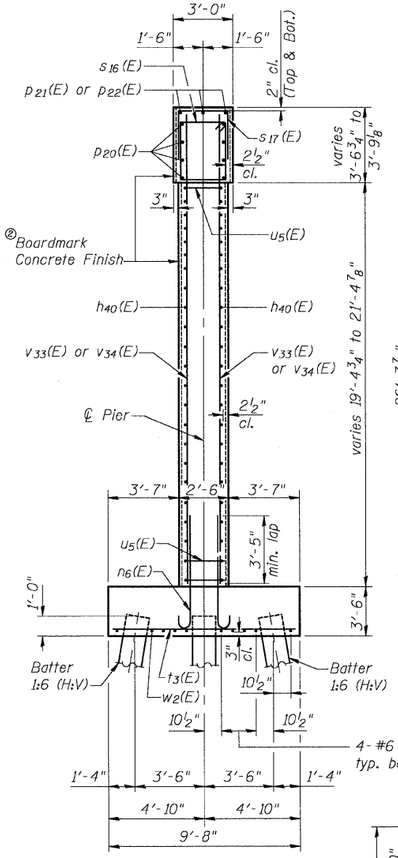
BARS u_5(E) & u_6(E)



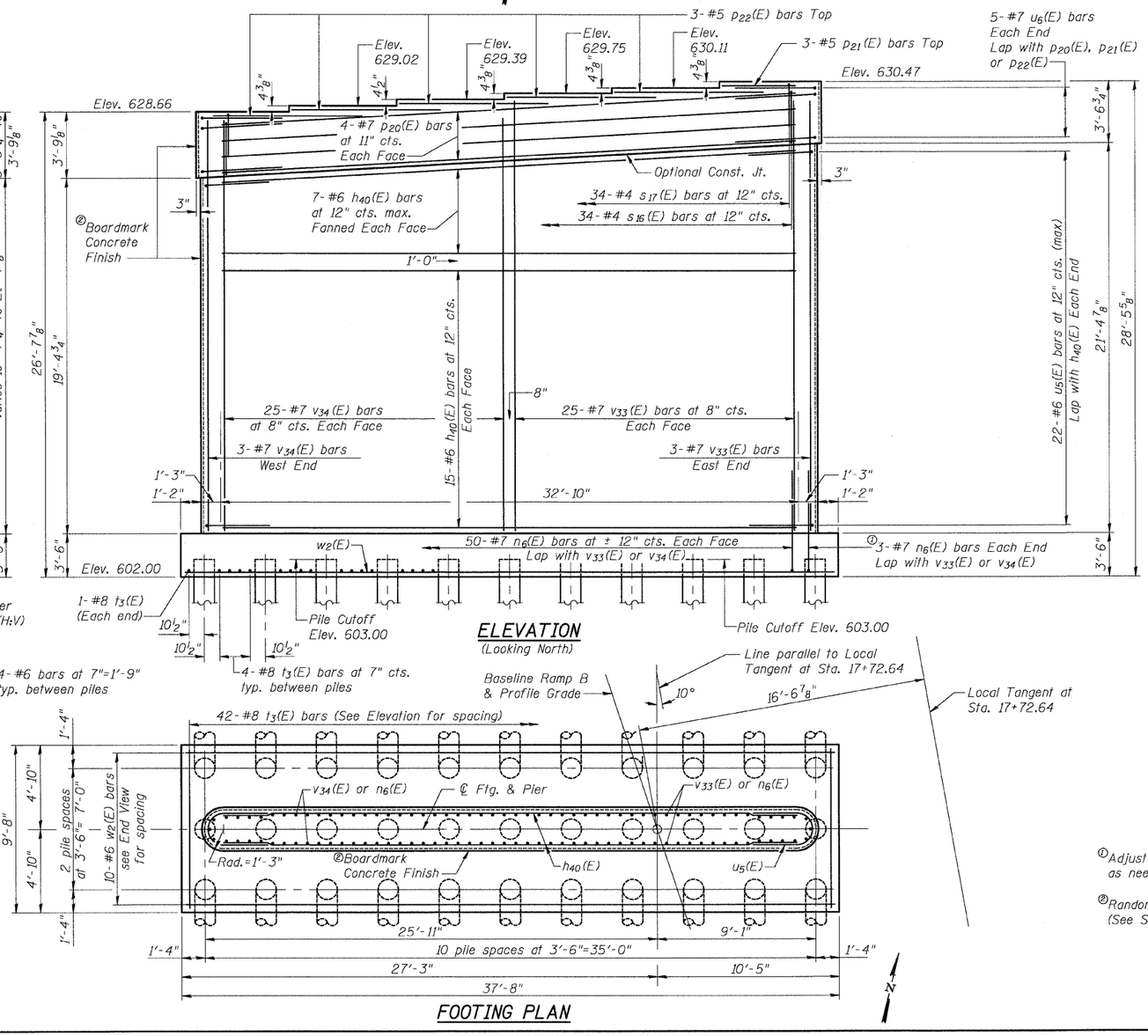
BAR s_{17}(E)



BAR n_6(E)



END VIEW



ELEVATION
(Looking North)

FOOTING PLAN

①Adjust spacing of n_6(E) bars as needed to miss piles

②Random width Boardmark Concrete Finish (See Sheet #3 of 47 for details)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{40}(E)	44	#6	32'-10"	——
n_6(E)	106	#7	7'-8"	⊃
p_{20}(E)	8	#7	32'-10"	——
p_{21}(E)	3	#5	4'-2"	——
p_{22}(E)	15	#5	8'-6"	——
s_{16}(E)	34	#4	11'-7"	□
s_{17}(E)	34	#4	7'-5"	⊓
t_3(E)	42	#8	9'-2"	——
u_5(E)	44	#6	8'-5"	⊃
u_6(E)	10	#7	10'-9"	⊃
v_{33}(E)	53	#7	23'-8"	——
v_{34}(E)	53	#7	22'-8"	——
w_2(E)	10	#6	37'-2"	——
Concrete Structures			CU YD	127.3
Reinforcement Bars, Epoxy Coated			POUND	12,330
Structure Excavation			CU YD	124
Form Liner Textured Surface			SQ FT	1,776
Furnishing Metal Shell Piles 14"			FOOT	992
Driving Piles			FOOT	992
Test Pile Metal Shells			EACH	1

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

PC-1 4-30-99

PIER #2
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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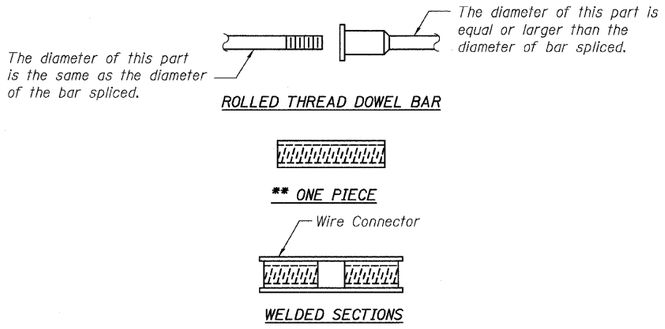
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	62
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 40
47 SHEETS

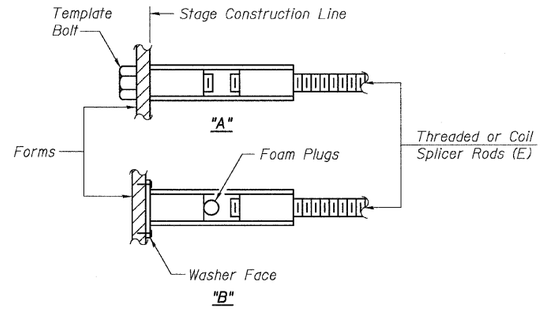
* 60-15HB-3 Contract No. 76706

SHEET INTENTIONALLY LEFT BLANK



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.

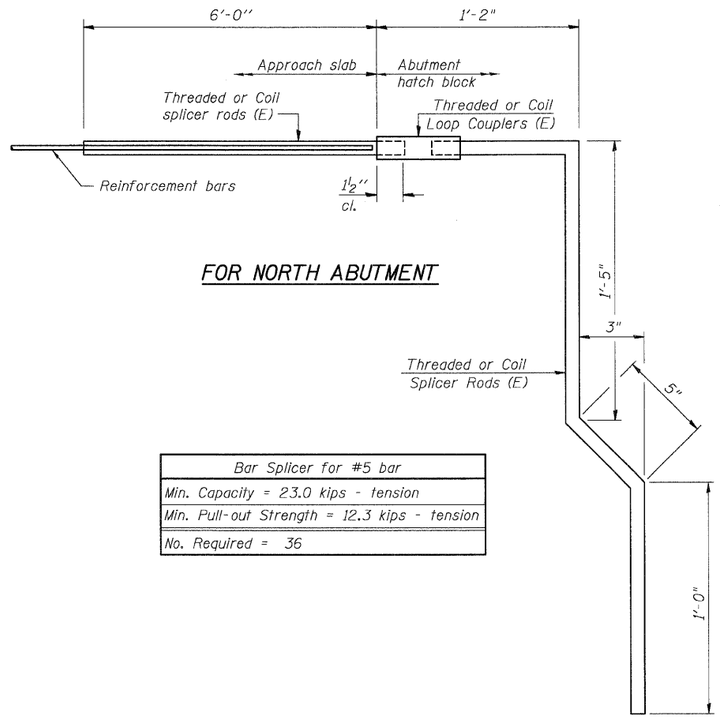
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

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 NORTH ABUTMENT

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 36

DESIGNED	ADL
CHECKED	WLW
DRAWN	RLW
CHECKED	WLW

BAR SPLICER ASSEMBLY DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

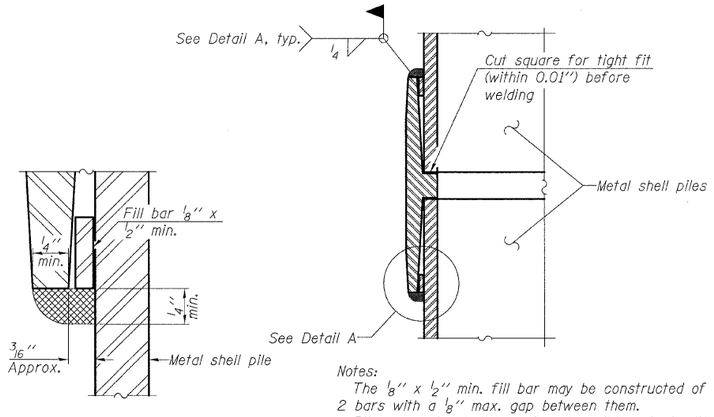
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	93	64
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 42
47 SHEETS

* 60-15HB-3 Contract No. 76706

METAL SHELL PILE TABLE

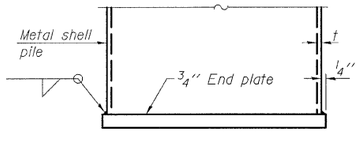
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



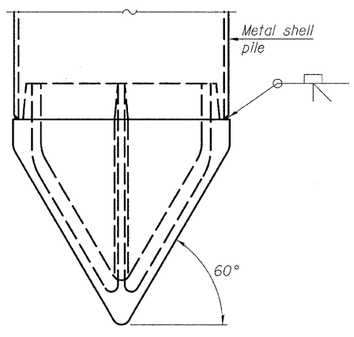
DETAIL A

Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



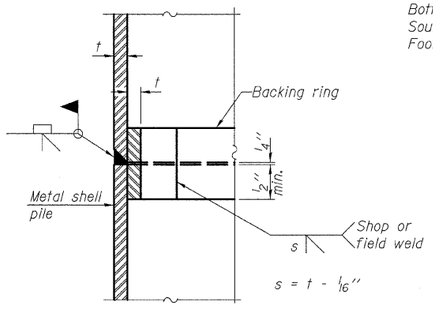
END PLATE ATTACHMENT



Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

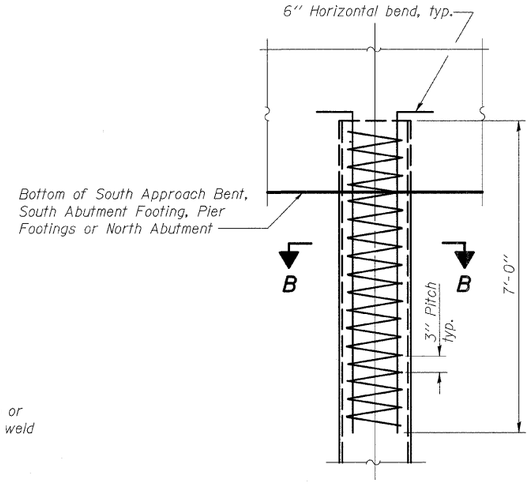
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

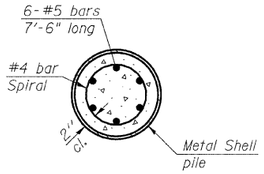


COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

Note:
Cost of reinforcement and filling shell piles are included with "Driving Piles".

METAL SHELL REINFORCEMENT

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

PILE DETAILS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	65
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 43
47 SHEETS

* 60-15HB-3 Contract No. 76706

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 2/22/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 1 N. Pier
Station 20+14
Offset 26.00ft LT BL
Ground Surface Elev. 608.3 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 596.8 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown SILT			
	7		
	8	1.5	
604.8	6	S/5	19
Brown Silty CLAY			
-5	4		
	5	2.6	
602.3	8	S/10	22
Brown Clay LOAM			
	5		
	6	3.1	
	8	S/10	21
-10	3		
	4	1.6	
	3	S/10	21
	4		
	9	3.3	
	12	S/15	14
-15	7		
	10	2.8	
	12	S/10	13
591.8			
Bray Clay LOAM with Limestone Gravel	6		
	7	3.1	
	11	S/15	12
-20			
Bray Clay LOAM with Limestone Gravel (continued)			
	6	4.9	
	8	S/15	11
	15		
	8		
	30	4.5	
584.3	33	S/5	11
Gray Fine Silty Sand			
-25	17		
	18		
	21	NC	20
	8		
580.3	26		21
	25	NC	11
Gray Clay LOAM		5.0 S/15	
-30	17		
	24	7.7	
	33	S/10	11
576.3			
Gray SAND			
573.3 -35	3	NC	17
	18		
Gray Clay LOAM	24	4.1 B	13
-40			

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

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 2

Date 2/22/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 1 N. Pier
Station 20+14
Offset 26.00ft LT BL
Ground Surface Elev. 608.3 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 596.8 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Clay LOAM (continued)	5	3.3	
	9	B	14
	14		
-45	5		
	8	2.8	
	10	S/15	17
-50	4		
	6	1.9	
	10	S/15	20
556.3			
Gray Silty CLAY			
-55	6		
	13	4.4	
	16	S/10	23
551.8			
Gray Clay LOAM			
-60			
Gray Clay LOAM (continued)	6	3.6	
547.3	12	S/15	22
	18		
End of Boring			
-65			
-70			
-75			
-80			

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

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SOIL BORING LOGS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. R. N. P. 312	*	MADISON	93	66
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 44
47 SHEETS

* 60-15HB-3 Contract No. 76706

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 2/25/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 2 S. App. Bent
Station 15+36
Offset 9.00ft LT BL
Ground Surface Elev. 616.4 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 607.4 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
0				Silty CLAY
	3			
	4	1.5		
	5	S/10	27	
-5	3			
610.9	6	1.7	27	
	7	S/15	25	Brown and Gray Silty Clay LOAM
609.9		1.5		
		S/15		
	2			Brown Silt LOAM
	3	1.0		
	4	S/15	25	
-10 ▼	3			
	4	2.1		
	5	S/15	23	
604.9				
	2			Brown Clay LOAM
	5	2.4		
	7	S/15	21	
-15	4			
	5	2.0		
	6	S/15	24	
	4			
	4	1.4		
-20	4	S/15	23	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	2	0.9		Brown Clay LOAM (continued)
	3		16	
	6			
	6			
	10	2.1		
	13	S/15	13	
592.4				
-25	0			Brown SAND
590.9	3		18	
	8	NC	13	Brown and Gray Clay LOAM
		2.8		
		S/10		
	3			
	5	1.9		
	8	S/15	12	
-30	3			
	6	1.7		
	8	S/15	12	
584.4				
				Gray Gravelly SAND
-35	10			
	16			
	24	NC	14	
579.4				
				Gray Clay LOAM
-40				

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 2

Date 2/25/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 2 S. App. Bent
Station 15+36
Offset 9.00ft LT BL
Ground Surface Elev. 616.4 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 607.4 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	8	3.8		Gray Clay LOAM (continued)
	10	B	12	
	12			
-45	5			
	8	2.8		
	11	S/15	14	
-50	5			
	6	2.3		
	10	S/15	15	
-55	6			
	7	1.9		
	8	S/15	18	
559.4				
				Gray Silty CLAY
-60				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	5	2.4		Gray Silty CLAY (continued)
	8	S/15	22	
	12			
-65	7			
	17	4.2		
	18	B	22	
-70	10			
	15	3.9		
	17	B	22	
-75	20			
	30	3.5		
	38	S/15	22	
538.9				
				Top of Formation
				LIMESTONE (Drilled Hard)
537.9				
				Auger Refusal on Limestone
				End of Boring
-80				

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

BBS, from 137 (Rev. 8-99)

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SOIL BORING LOGS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/1/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 3 N. Abut.
Station 21+56
Offset 9.00ft LT BL
Ground Surface Elev. 610.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 597.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Gray Silty Clay LOAM
	3			
	3	1.3		
	3	S/15	25	
-5	4			
	4	1.5		
604.5	6	S/15	22	
				Gray and Brown Clay LOAM
	3			
	5	2.4		
	5	S/10	21	
-10	4			
	6	2.9		
	7	S/10	19	
	4			
	5	1.9		
▼	6	S/15	20	
-15	3			
	3	1.2		
	2	S/10	18	
	3			
	7	2.6		
	14	S/15	12	
-20				
	7	3.1		Gray and Brown Clay LOAM (continued)
	11	S/15	13	
589.0	16			
	6			Gray Clay LOAM
	7	2.2		
	12	S/15	11	
586.5				
-25	7			
	9			Gray Silty SAND with Silt Lenses
	12	NC	13	See Gradation @ 23.0 ft.
	13			
	16			
	20	NC	12	
-30	12			
	21			
	23	NC	15	
-35	24			
	31			
	40	NC	16	
573.5				
				Gray Clay LOAM
-40				

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

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/1/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 3 N. Abut.
Station 21+56
Offset 9.00ft LT BL
Ground Surface Elev. 610.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 597.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	10	6.2		Gray Clay LOAM (continued)
	18	B	11	
	30			
-45	10			
	18	2.9		
	24	S/15	14	
-50	5			
	9	2.1		
	17	S/15	15	
558.5				
				Gray Silty CLAY
-55	6			
	8	3.9		
	16	B	20	
-60				
	5	3.6		Gray Silty CLAY (continued)
	9	S/15	22	
	10			
-65	7			
	11	3.9		
	15	S/10	23	
543.0				
				Gray LIMESTONE with Seams (Drilled - Very Hard)
541.0	10	NP		
-70				End of Boring
-75				
-80				

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

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SOIL BORING LOGS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. P. 310	*	MADISON	93	68
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 46
47 SHEETS

* 60-15HB-3 Contract No. 76706

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 3/13/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 4 S. Abut.
Station 15+98
Offset 10.00ft RT BL
Ground Surface Elev. 615.4 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 601.4 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray Silty Clay LOAM			
	2		
	3	0.8	
	3	S/10	26
611.4			
Brown Silty CLAY with Iron Oxide Pellets/Granuals	3		
	7	1.3	
	11	S/10	29
	5		
	6	1.1	
	7	S/10	22
606.4			
Brown Clay LOAM	4		
	4	1.5	
	5	S/10	20
	3		
	4	1.6	
	5	S/10	22
601.4 ▼			
(Semi-Saturated Zone)	1		
599.9	3	NC	23
Brown Clay LOAM	7	0.8	15
		S/15	
	5		
	6	1.8	
	8	S/10	15
Brown Clay LOAM (continued)			
	10	4.1	
	16	S/5	10
	27		
	11		
	13	3.1	
	15	S/15	12
591.4			
Gray Clay LOAM	7		
	7	3.3	
	10	S/5	11
587.9	8	3.8	12
	28	B	
Gray SILT	24	2.9	18
586.4		S/5	
Gray Clay LOAM	8		
	9	5.4	
	14	S/15	12
	6		
	11	3.8	
	15	S/15	12
–20			
–40			

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

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 2

Date 3/13/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 4 S. Abut.
Station 15+98
Offset 10.00ft RT BL
Ground Surface Elev. 615.4 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 601.4 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Clay LOAM (continued)			
	7	3.3	
	16	B	12
	17		
–45	9		
	17	5.7	
	27	B	11
–50	5		
	10	2.7	
	13	S/15	15
–55	5		
	7	2.0	
	12	B	16
558.4			
Gray Silty CLAY			
–60			
Gray Silty CLAY (continued)			
	5	3.5	
554.4	11	S/15	24
	13		
End of Boring			
–65			
–70			
–75			
–80			

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

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SOIL BORING LOGS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 318	*	MADISON	93	69
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 47
47 SHEETS

* 60-15HB-3 Contract No. 76706

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 3/4/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 5 S. Pier
Station 17+92.8
Offset 34.00ft LT BL
Ground Surface Elev. 610.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 606.5 ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty LOAM				
		3		
		4	1.1	
	607.0	3	S/10	25
Brown Silty CLAY				
	-5	2		
		3	1.8	
		5	S/10	27
	604.0			
Brown Clay LOAM		3		
		4	2.7	
		8	S/10	21
	-10	4		
		6	2.4	
		7	S/10	21
		5		
		5	1.7	
		6	S/15	18
	-15	3	1.2	
		7	S/15	21
	595.0	19	NC	19
Brown Silty SAND	594.0			
Gray Clay LOAM		8	3.1	
	592.5	14	S/10	16
Brown SAND with Gravel		20	NC	18
See Gradation @ 20.5 ft.	-20			
Brown SAND with Gravel		8		
		14	NC	16
See Gradation @ 20.5 ft. (continued)	589.0	16		
Gray Silty SAND with Silt Lenses		12		
		20		
See Gradation @ 35.5 ft.		27	NC	14
	-25	17		
		27		
		37	NC	17
		10		
		25		
		31	NC	14
	-30	14		
		24		
		26	NC	14
	-35	24		
		43		
		50	NC	16
	573.5			
Gray Clay LOAM				
	-40			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 2

Date 3/4/02

ROUTE FAP 310 DESCRIPTION US 67 Flyover Structure for IL 255 Ramp B LOGGED BY Larry Ford

SECTION 60-15HB-3 LOCATION , SEC. 15, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0332
Station

BORING NO. 5 S. Pier
Station 17+92.8
Offset 34.00ft LT BL
Ground Surface Elev. 610.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 606.5 ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Clay LOAM (continued)		40	6.6	
		50/4"	S/10	11
(Very Gravelly)	565.5 -45	65/4"		15
			NC	
End of Boring				
	-50			
	-55			
	-60			

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

BBS, from 137 (Rev. 8-99)

DESIGNED	ADL
CHECKED	WLW
DRAWN	BGJ
CHECKED	WLW

SOIL BORING LOGS
RAMP B OVER FAP RTE 310
SECTION 60-15HB-3
MADISON COUNTY
STATION 17+72.64 (RAMP B)
SN 060-0332

Klingner & Assoc., P.C.

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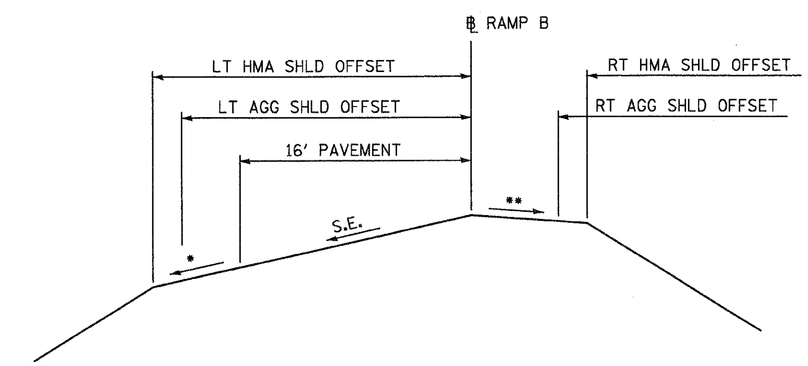
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	70
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

RAMP B

STATION	LEFT SHOULDER					PAVEMENT			RIGHT SHOULDER				
	SE (%)	AGG SHLD OFFSET	AGG SHLD ELEV	HMA SHLD OFFSET	HMA SHLD ELEV	LT EOP ELEV	SE (%)	RT EOP (℄) ELEV	SE (%)	HMA SHLD OFFSET	HMA SHLD ELEV	AGG SHLD OFFSET	AGG SHLD ELEV
11+60.00	-4.00	24.000' LT	625.682	20.000' LT	625.842	626.002	+1.50	625.762	-4.00	6.000' RT	625.522	10.000' RT	625.362
11+75.00	-4.00	24.000' LT	626.122	20.000' LT	626.282	626.442	+1.08	626.270	-4.00	6.000' RT	626.030	10.000' RT	625.870
12+00.00	-4.00	24.000' LT	626.856	20.000' LT	627.016	627.176	+0.37	627.117	-4.00	6.000' RT	626.877	10.000' RT	626.717
12+25.00	-4.00	24.000' LT	627.588	20.000' LT	627.748	627.908	-0.34	627.963	-4.00	6.000' RT	627.723	10.000' RT	627.563
12+50.00	-4.00	24.000' LT	628.300	20.000' LT	628.460	628.620	-1.05	628.787	-4.00	6.000' RT	628.547	10.000' RT	628.387
12+75.00	-4.00	24.000' LT	628.980	20.000' LT	629.140	629.300	-1.75	629.581	-4.00	6.000' RT	629.341	10.000' RT	629.181
13+00.00	-4.00	24.000' LT	629.628	20.000' LT	629.788	629.948	-2.46	630.342	-4.00	6.000' RT	630.102	10.000' RT	629.942
13+03.00	-4.00	24.000' LT	629.704	20.000' LT	629.864	630.024	-2.55	630.432	-4.00	6.000' RT	630.192	10.000' RT	630.032
13+25.00	-4.00	24.000' LT	630.245	20.000' LT	630.405	630.565	-3.17	631.073	-2.90	6.000' RT	630.899	10.000' RT	630.783
13+50.00	-4.00	24.000' LT	630.831	20.000' LT	630.991	631.151	-3.88	631.771	-1.65	6.000' RT	631.672	10.000' RT	631.606
13+54.33	-4.00	24.000' LT	630.929	20.000' LT	631.089	631.249	-4.00	631.889	-1.43	6.000' RT	631.803	10.000' RT	631.746
13+75.00	-4.58	24.000' LT	631.338	20.000' LT	631.522	631.705	-4.58	632.439	-0.40	6.000' RT	632.415	10.000' RT	632.399
14+00.00	-5.29	24.000' LT	631.804	20.000' LT	632.016	632.228	-5.29	633.074	0.85	6.000' RT	633.125	10.000' RT	633.159
14+13.50	-5.67	24.000' LT	632.043	20.000' LT	632.270	632.497	-5.67	633.405	1.53	6.000' RT	633.496	10.000' RT	633.557
14+25.00	-6.00	24.565' LT	632.205	20.565' LT	632.445	632.719	-6.00	633.679	2.10	6.000' RT	633.805	10.000' RT	633.889
14+50.00	-6.00	25.793' LT	632.704	21.793' LT	632.944	633.292	-6.00	634.252	3.35	6.000' RT	634.453	10.000' RT	634.587
14+53.00	-6.00	25.940' LT	632.762	21.940' LT	633.002	633.358	-6.00	634.318	3.50	6.000' RT	634.528	10.000' RT	634.668
14+75.00	-6.00	27.020' LT	633.172	23.020' LT	633.412	633.833	-6.00	634.793	4.60	7.065' RT	635.118	11.065' RT	635.302
15+00.00	-6.00	28.248' LT	633.608	24.248' LT	633.848	634.343	-6.00	635.303	5.85	8.275' RT	635.787	12.275' RT	636.021
15+03.00	-6.00	28.395' LT	633.658	24.395' LT	633.898	634.402	-6.00	635.362	6.00	8.420' RT	635.867	12.420' RT	636.107
15+03.50	-6.00	28.420' LT	633.667	24.420' LT	633.907	634.412	-6.00	635.372	6.00	8.420' RT	635.879	12.420' RT	636.120
15+25.00	-6.00	28.420' LT	634.076	24.420' LT	634.316	634.822	-6.00	635.782	6.00	8.420' RT	636.287	12.420' RT	636.527
B R I D G E O M I S S I O N													
21+75.00	-6.00	28.420' LT	635.474	24.420' LT	635.714	636.219	-6.00	637.179	6.00	8.420' RT	637.684	12.420' RT	637.924
21+90.00	-6.00	28.420' LT	635.255	24.420' LT	635.495	636.000	-6.00	636.960	6.00	8.420' RT	637.465	12.420' RT	637.705
21+94.00	-6.00	28.420' LT	635.195	24.420' LT	635.435	635.940	-6.00	636.900	6.00	8.226' RT	637.393	12.226' RT	637.633
22+00.00	-6.00	28.420' LT	635.103	24.420' LT	635.343	635.848	-6.00	636.808	5.70	7.936' RT	637.260	11.936' RT	637.488
22+05.00	-6.00	28.420' LT	635.025	24.420' LT	635.265	635.770	-6.00	636.730	5.45	7.694' RT	637.149	11.694' RT	637.367
22+25.00	-6.00	27.438' LT	634.759	23.438' LT	634.999	635.445	-6.00	636.405	4.45	6.726' RT	636.705	10.726' RT	636.883
22+40.00	-6.00	26.701' LT	634.547	22.701' LT	634.787	635.189	-6.00	636.149	3.70	6.000' RT	636.371	10.000' RT	636.519
22+50.00	-6.00	26.210' LT	634.399	22.210' LT	634.639	635.011	-6.00	635.971	3.20	6.000' RT	636.163	10.000' RT	636.291
22+75.00	-6.00	24.982' LT	634.007	20.982' LT	634.247	634.546	-6.00	635.506	1.95	6.000' RT	635.623	10.000' RT	635.701
22+95.00	-6.00	24.000' LT	633.671	20.000' LT	633.911	634.151	-6.00	635.111	0.95	6.000' RT	635.168	10.000' RT	635.206
23+00.00	-6.00	24.000' LT	633.569	20.000' LT	633.809	634.049	-6.00	635.009	0.70	6.000' RT	635.051	10.000' RT	635.079
23+25.00	-6.00	24.000' LT	633.041	20.000' LT	633.281	633.521	-6.00	634.481	-0.55	6.000' RT	634.448	10.000' RT	634.426
23+50.00	-6.00	24.000' LT	632.481	20.000' LT	632.721	632.961	-6.00	633.921	-1.80	6.000' RT	633.813	10.000' RT	633.741
23+54.00	-6.00	24.000' LT	632.388	20.000' LT	632.628	632.868	-6.00	633.828	-2.00	6.000' RT	633.708	10.000' RT	633.628
23+75.00	-6.00	24.000' LT	631.890	20.000' LT	632.130	632.370	-6.00	633.330	-2.00	6.000' RT	633.210	10.000' RT	633.130
24+00.00	-6.00	24.000' LT	631.267	20.000' LT	631.507	631.747	-6.00	632.707	-2.00	6.000' RT	632.587	10.000' RT	632.507



AGG SHOULDER WIDTH ASSUMES GUARDRAIL INSTALLATION
• LEFT SHOULDER CROSS SLOPE
•• RIGHT SHOULDER CROSS SLOPE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

RAMP B
SUPERELEVATION TABLE
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

11/18/2008

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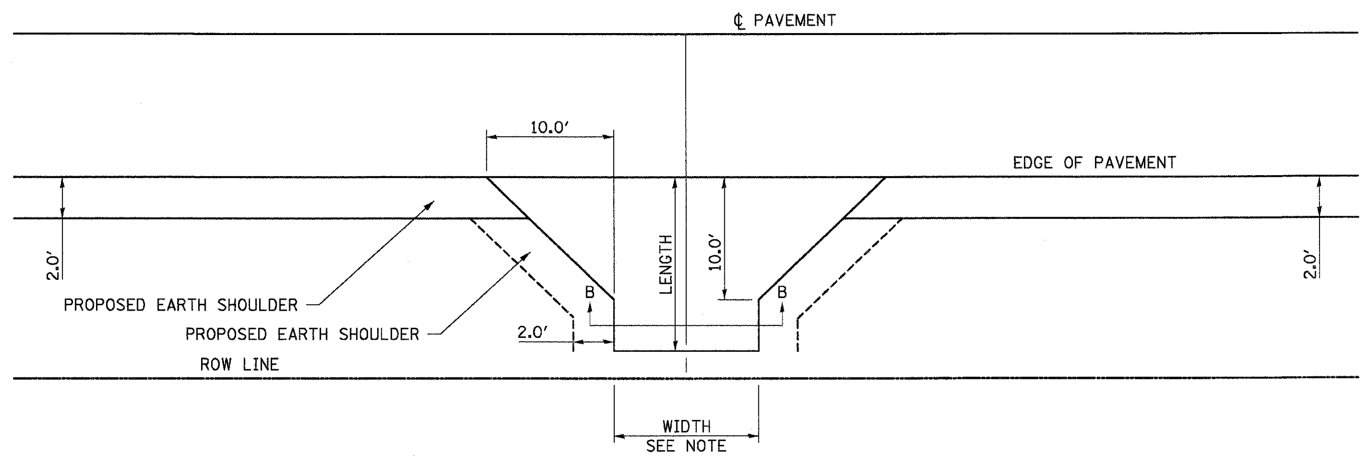
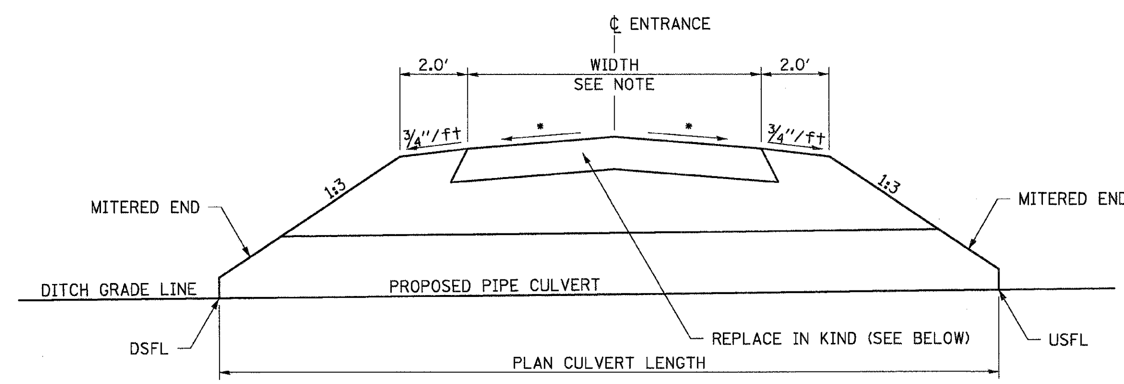
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	71
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



WIDTH NOTE:
12.0' MINIMUM TO 24.0' MAXIMUM FOR PE
16.0' MINIMUM TO 35.0' MAXIMUM FOR CE & FE

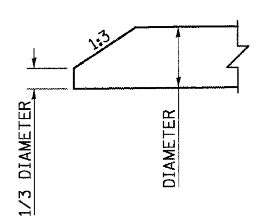
PLAN - ENTRANCE



SECTION B-B ENTRANCE TYPICAL SECTION

- • 1/2"/ft FOR AGGREGATE
  1/4"/ft FOR HOT-MIX ASPHALT & CONCRETE

EXISTING	PROPOSED
AGGREGATE	AGGREGATE SURFACE COURSE, TYPE B 6" - PE & FE
EARTH	AGGREGATE SURFACE COURSE, TYPE B 6" - PE & FE
HOT-MIX ASPHALT	AGGREGATE BASE COURSE, TYPE B 8" - PE WITH INCIDENTAL HOT-MIX ASPHALT SURFACING, 3"
CONCRETE	PCC DRIVEWAY PAVEMENT 6" - PE
ANY	PCC DRIVEWAY PAVEMENT 6" - CE



SECTION VIEW OF MITERED END

MITERED ENDS TO BE INCLUDED
IN THE TOTAL LENGTH OF THE PIPE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

11/18/2008

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	72

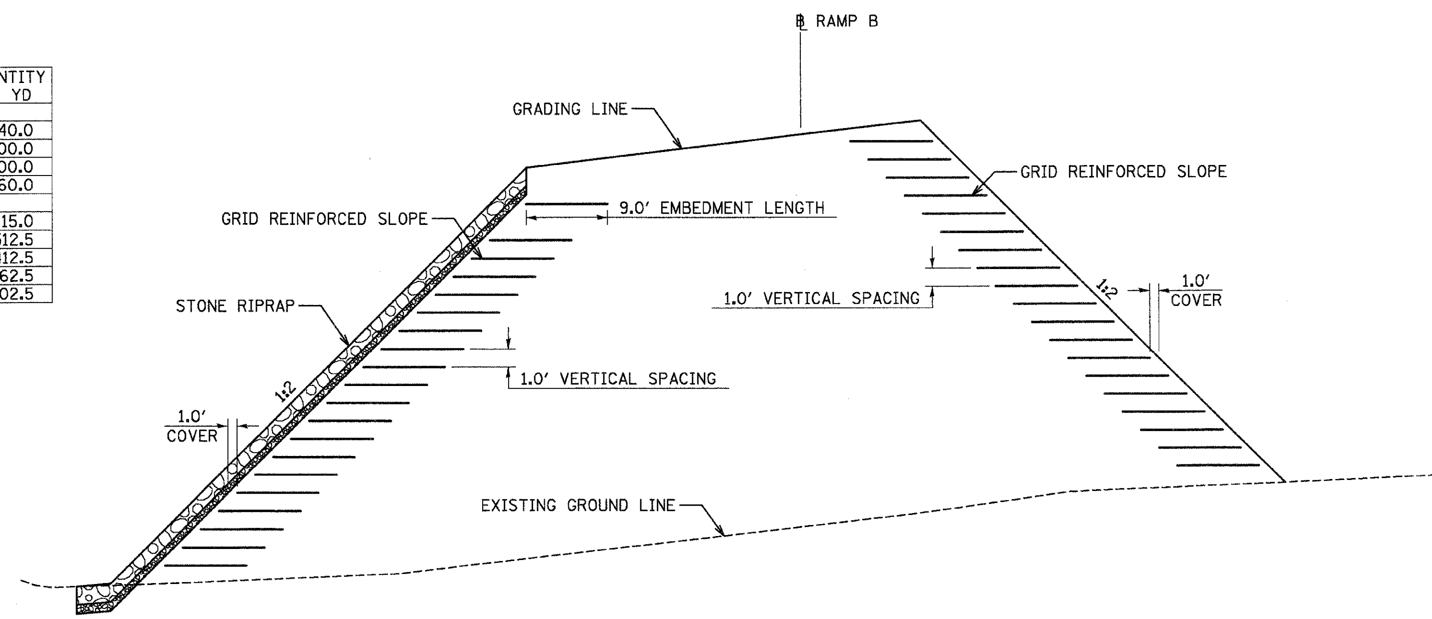
STA. TO STA.

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

CONTRACT NO. 76706

GRID REINFORCED SLOPE SCHEDULE

STATION TO STATION		SIDE	LENGTH FOOT	WIDTH FOOT	AREA SQ FT	NUMBER	QUANTITY SQ YD
RAMP B							
14+60	14+75	LT	15	9	135	16	240.0
14+75	15+00	LT	25	9	225	16	400.0
15+00	15+25	LT	25	9	225	16	400.0
15+25	15+35	LT	10	9	90	16	160.0
21+85	22+00	LT	15	9	135	21	315.0
22+00	22+25	LT	25	9	225	20.5	512.5
22+25	22+50	LT	25	9	225	16.5	412.5
22+50	22+75	LT	25	9	225	6.5	162.5
TOTAL LEFT SIDE							2602.5



GRID REINFORCED SLOPE DETAIL

GRID REINFORCED SLOPE SCHEDULE

STATION TO STATION		SIDE	LENGTH FOOT	WIDTH FOOT	AREA SQ FT	NUMBER	QUANTITY SQ YD
RAMP B							
14+60	14+75	RT	15	9	135	17	255.0
14+75	15+00	RT	25	9	225	17	425.0
15+00	15+25	RT	25	9	225	17	425.0
15+25	15+35	RT	10	9	90	17	170.0
21+85	22+00	RT	15	9	135	19	285.0
22+00	22+25	RT	25	9	225	18.5	462.5
22+25	22+50	RT	25	9	225	16	400.0
22+50	22+75	RT	25	9	225	12	300.0
22+75	23+00	RT	25	9	225	8	200.0
23+00	23+10	RT	10	9	90	6	60.0
TOTAL RIGHT SIDE							2982.5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

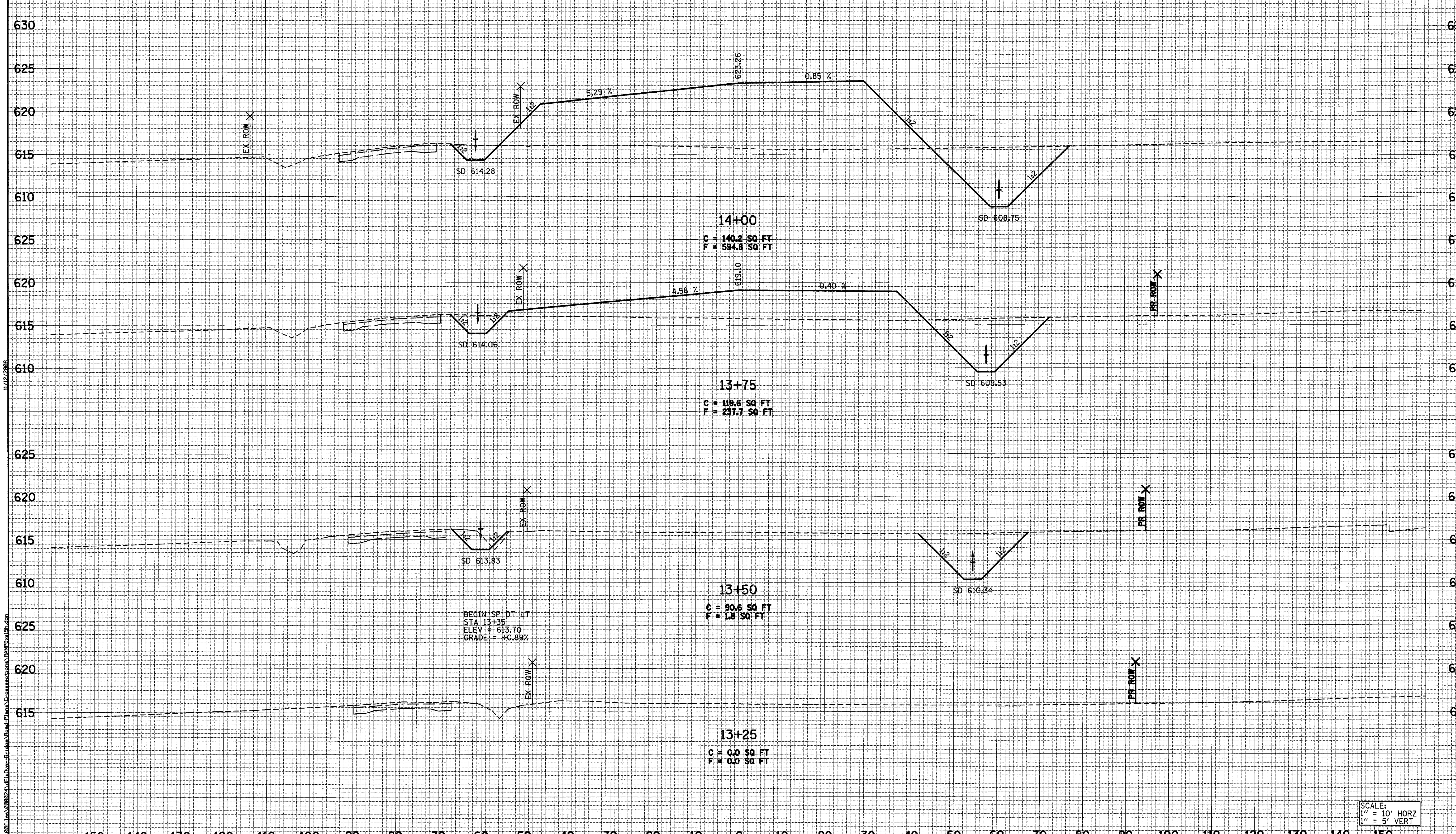
DETAILS
FAP 310 (ILL 255)
SECTION 60-15HB-3
MADISON COUNTY

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

11/10/2008

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	73
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

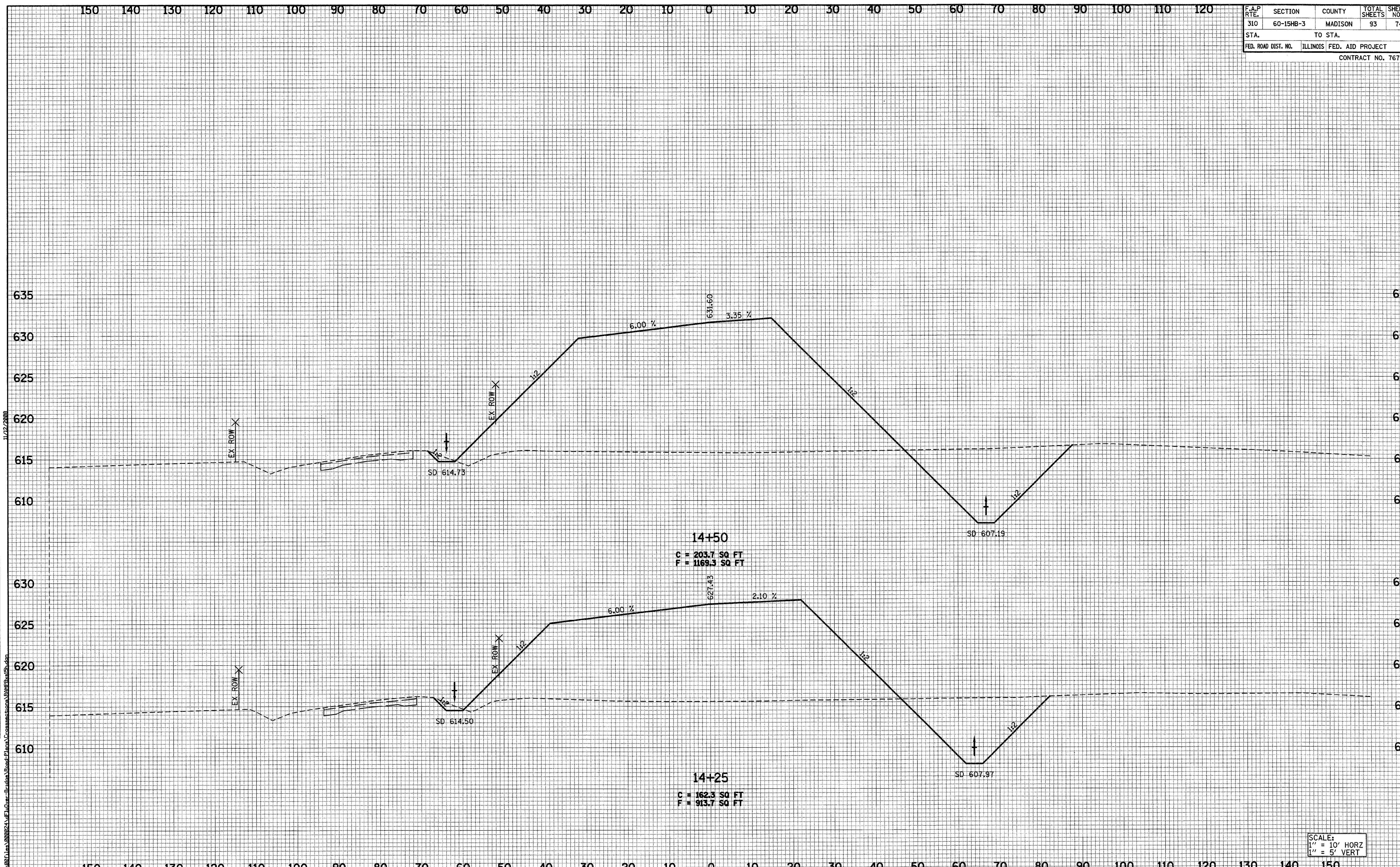


RAMP B STA 13+25 TO STA 14+00

11/12/2008

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	74
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

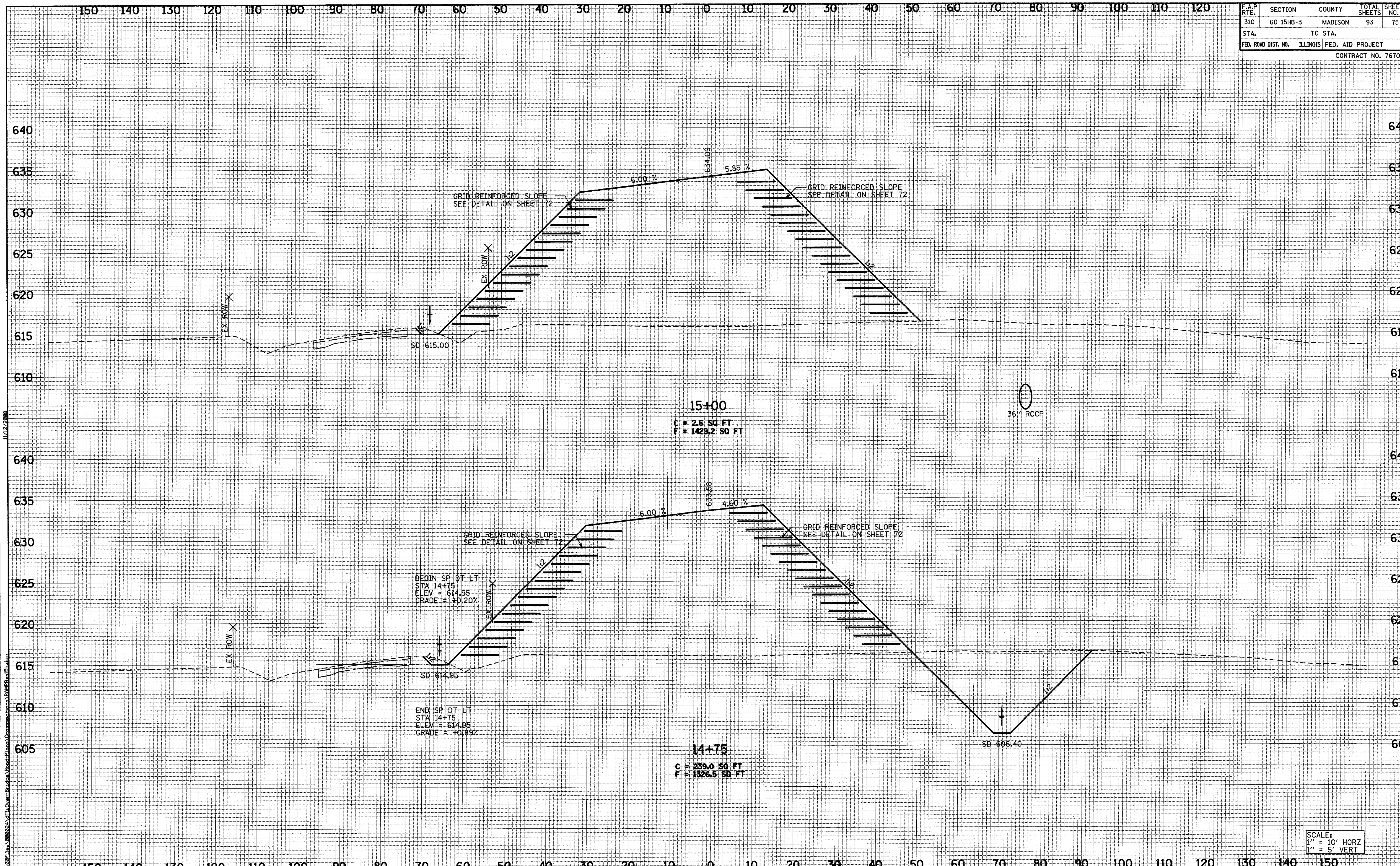
CONTRACT NO. 76706



RAMP B STA 14+25 TO STA 14+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	75
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

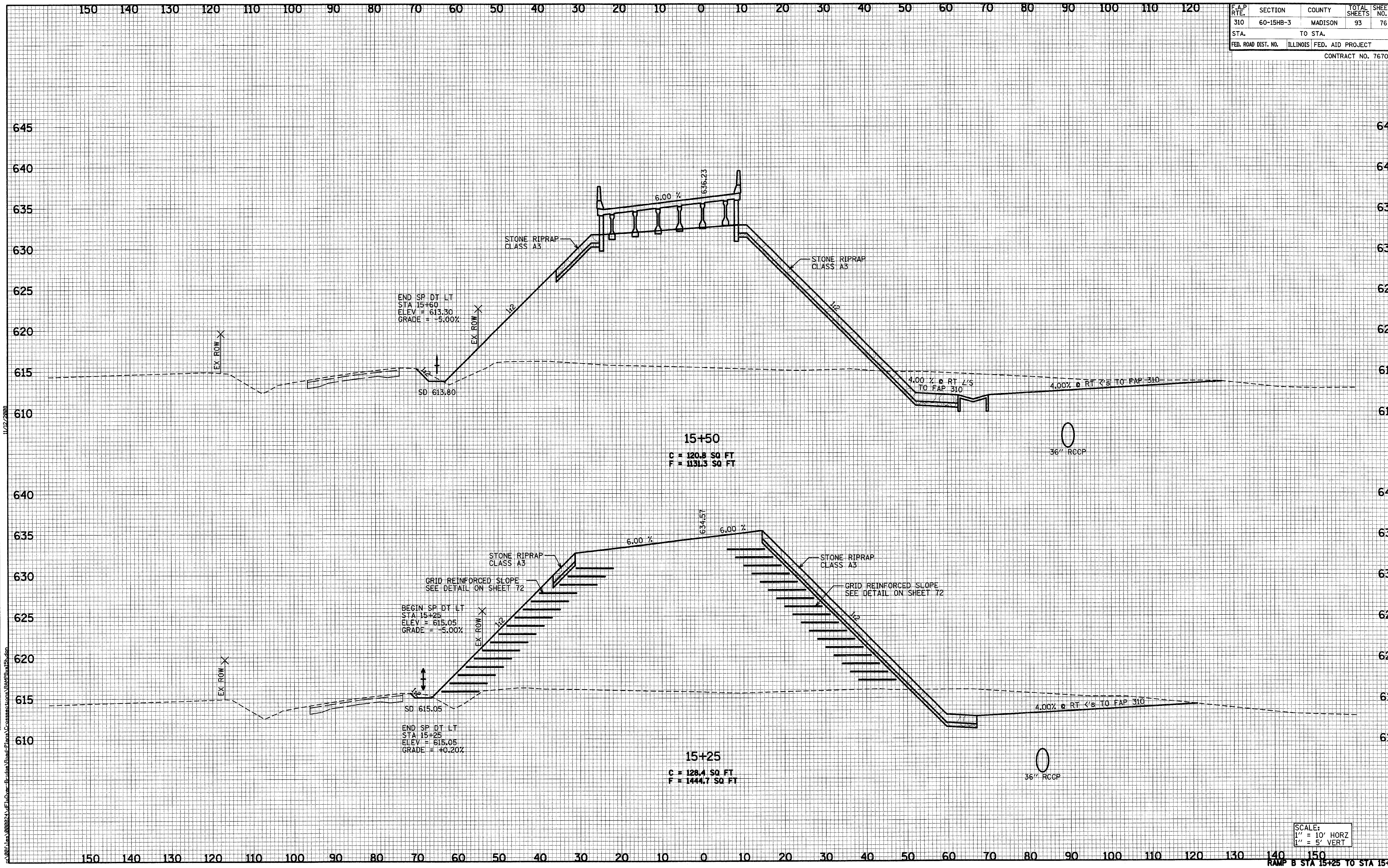
CONTRACT NO. 76706



RAMP B STA 14+75 TO STA 15+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	76
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

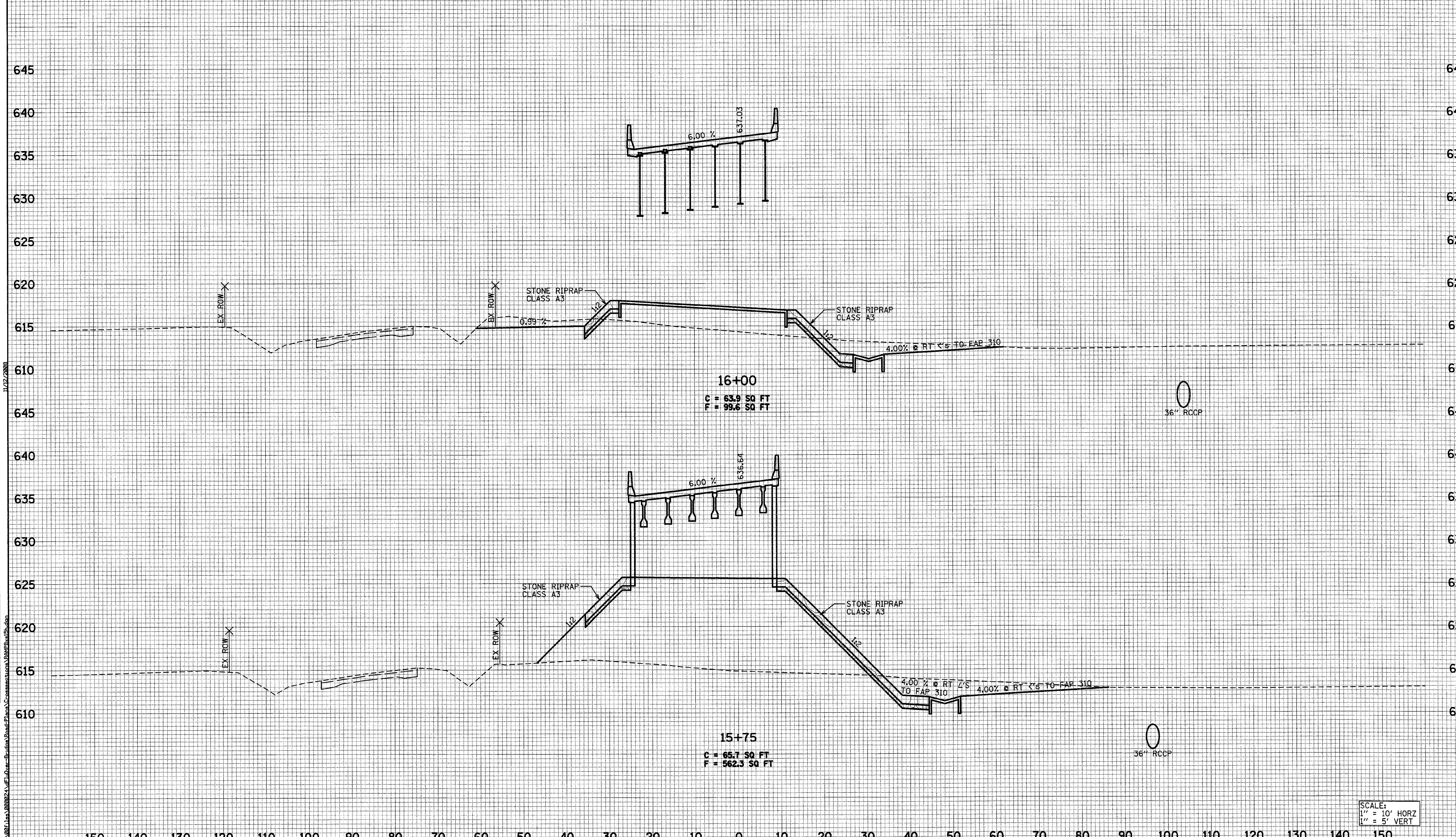
CONTRACT NO. 76706



RAMP B STA 15+25 TO STA 15+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	77
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

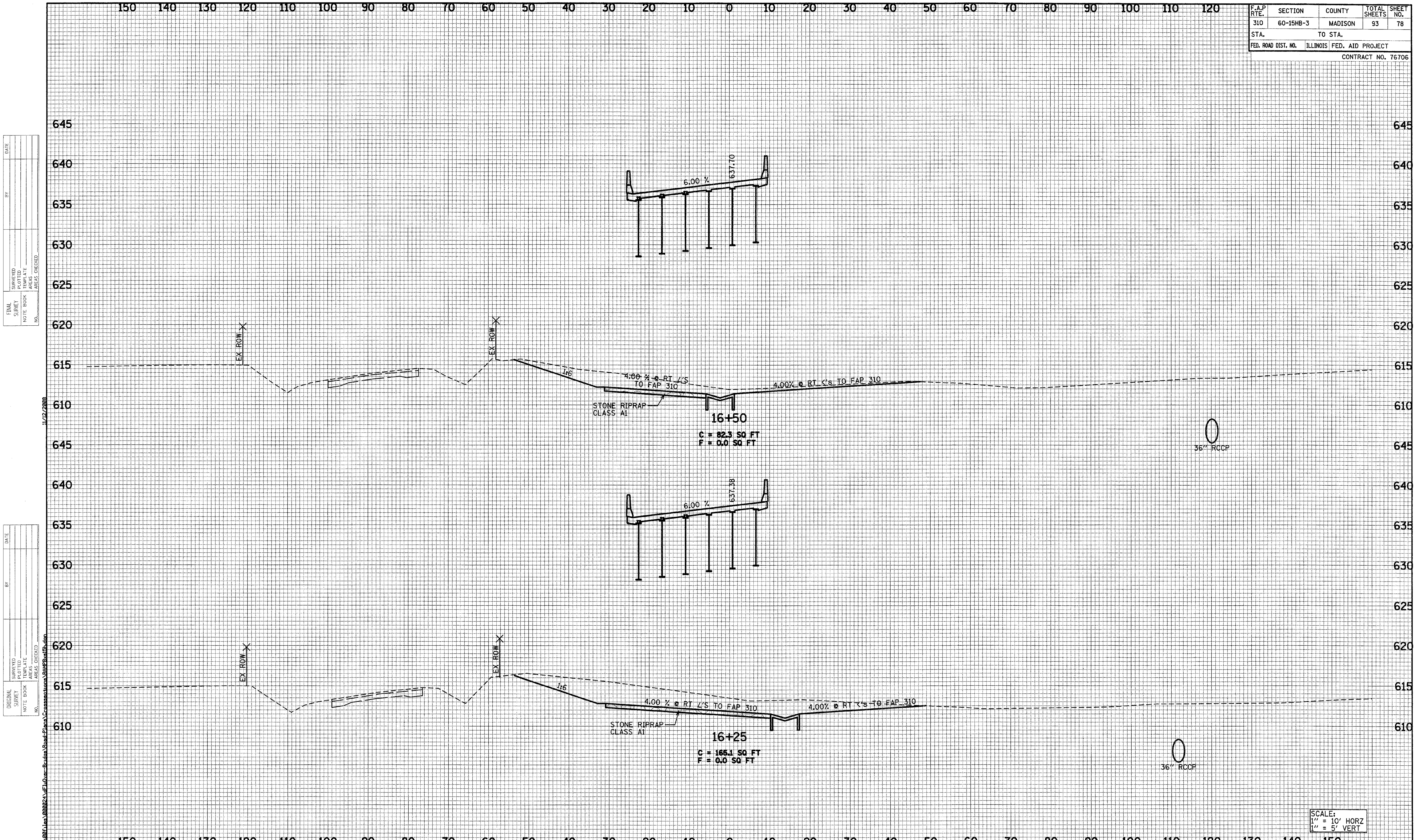
CONTRACT NO. 76706



RAMP B STA 15+75 TO STA 16+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	78
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



11/12/2008

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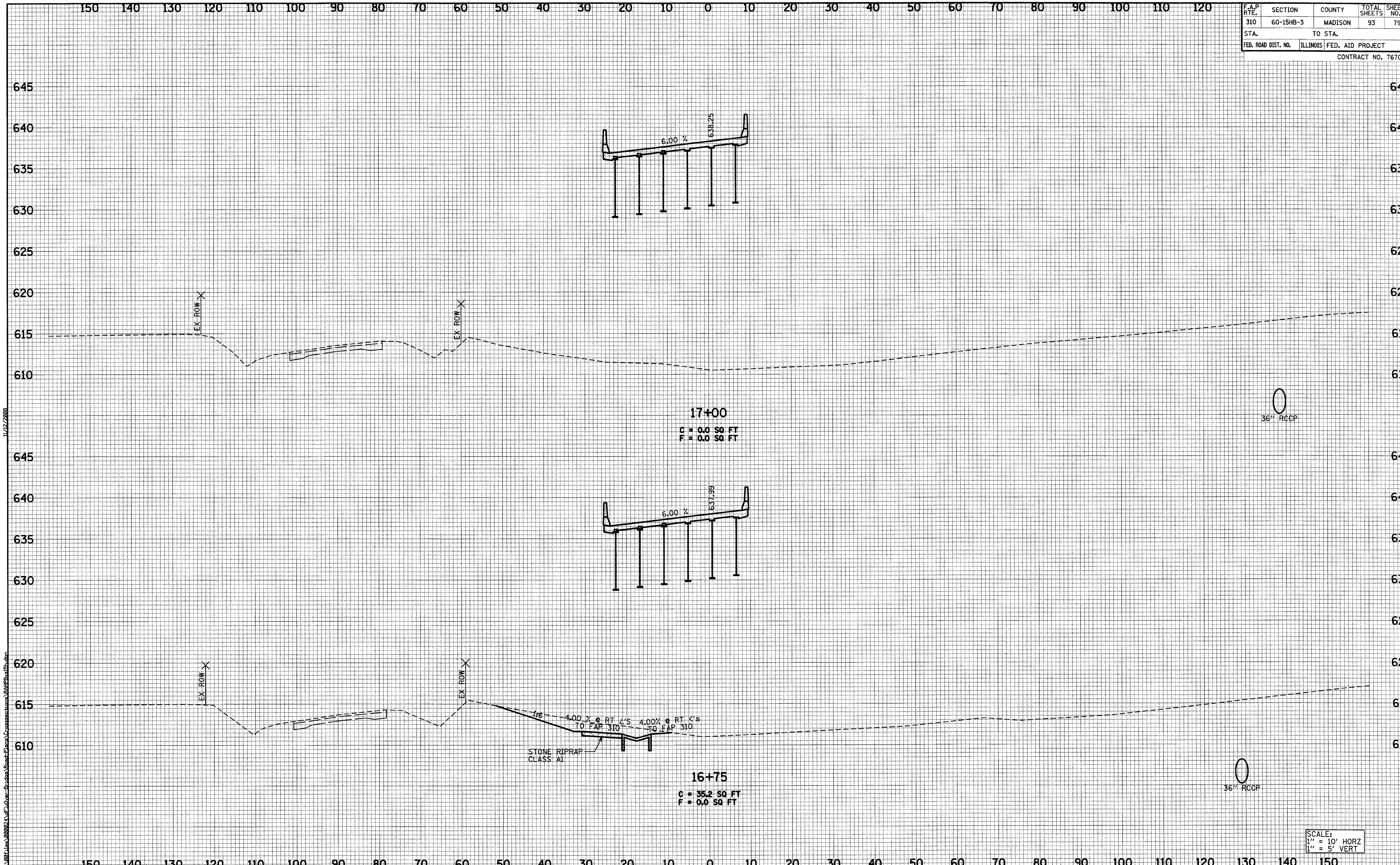
RAMP B STA 16+25 TO STA 16+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	79
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



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

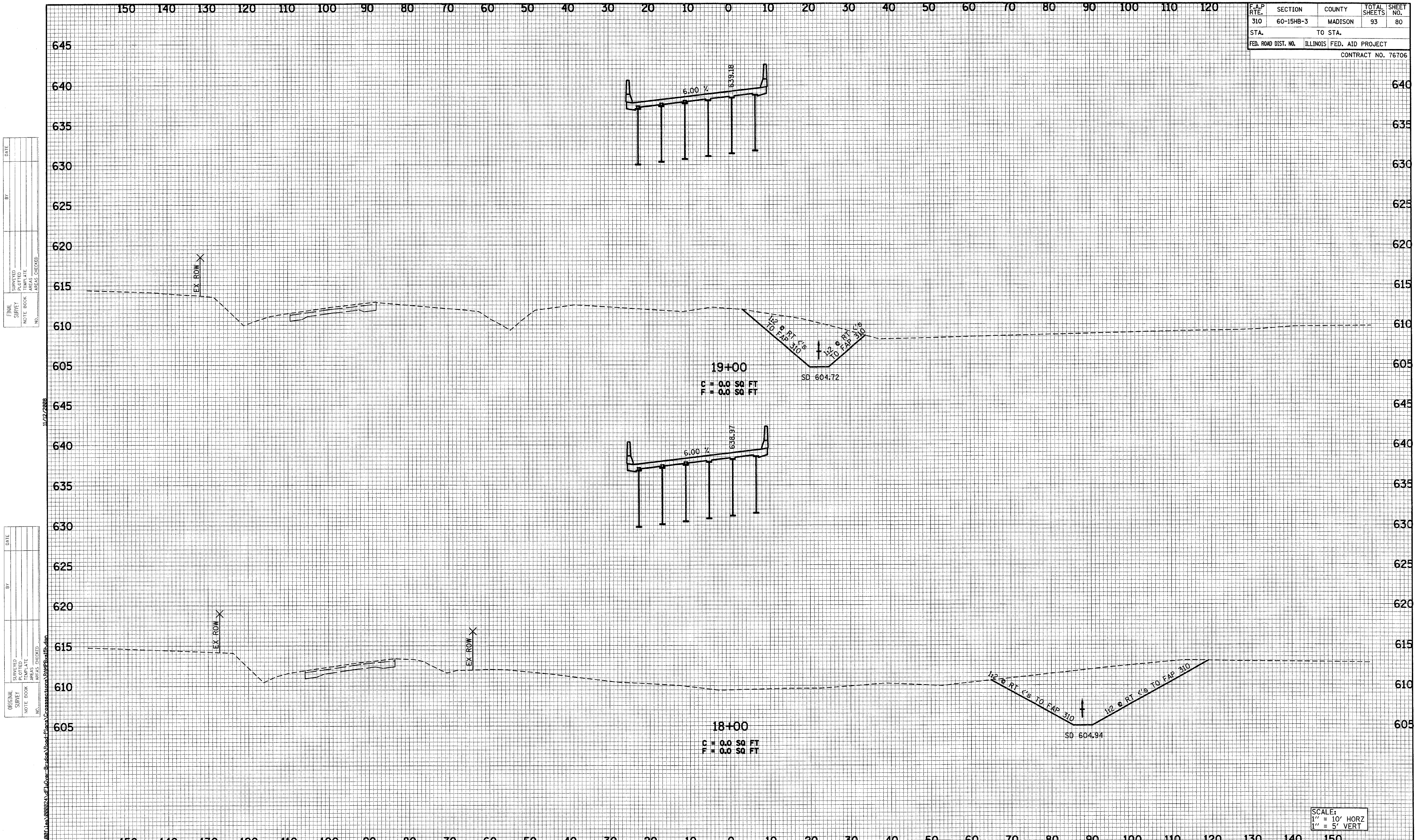
ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

11/12/2008

RAMP B STA 16+75 TO STA 17+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	80
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



RAMP B STA 18+00 TO STA 19+00

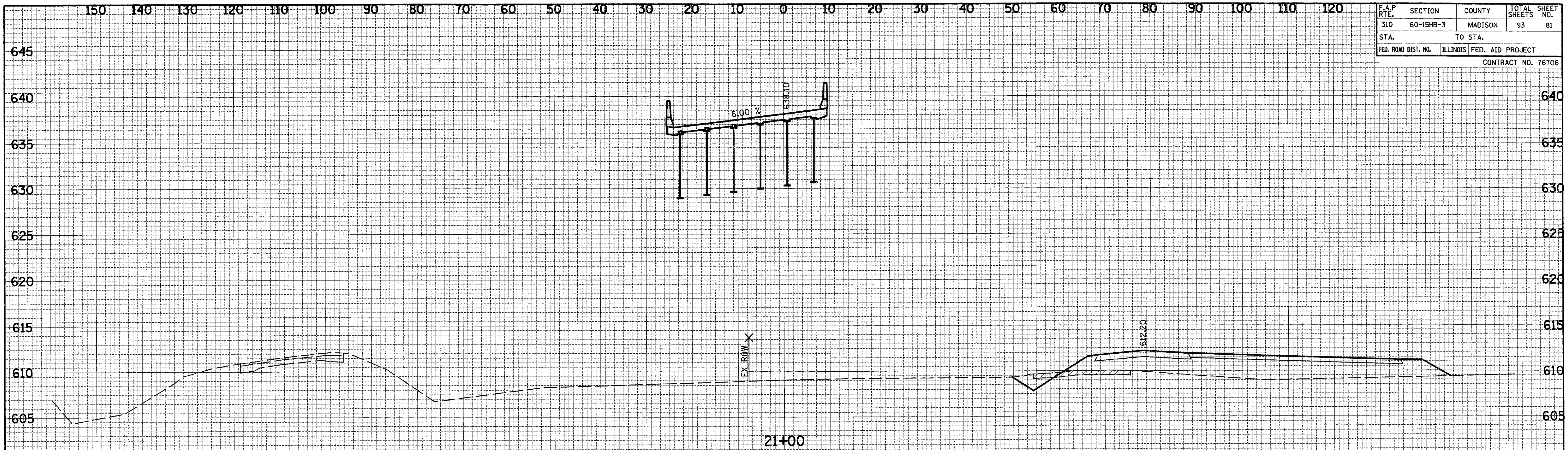
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	81
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

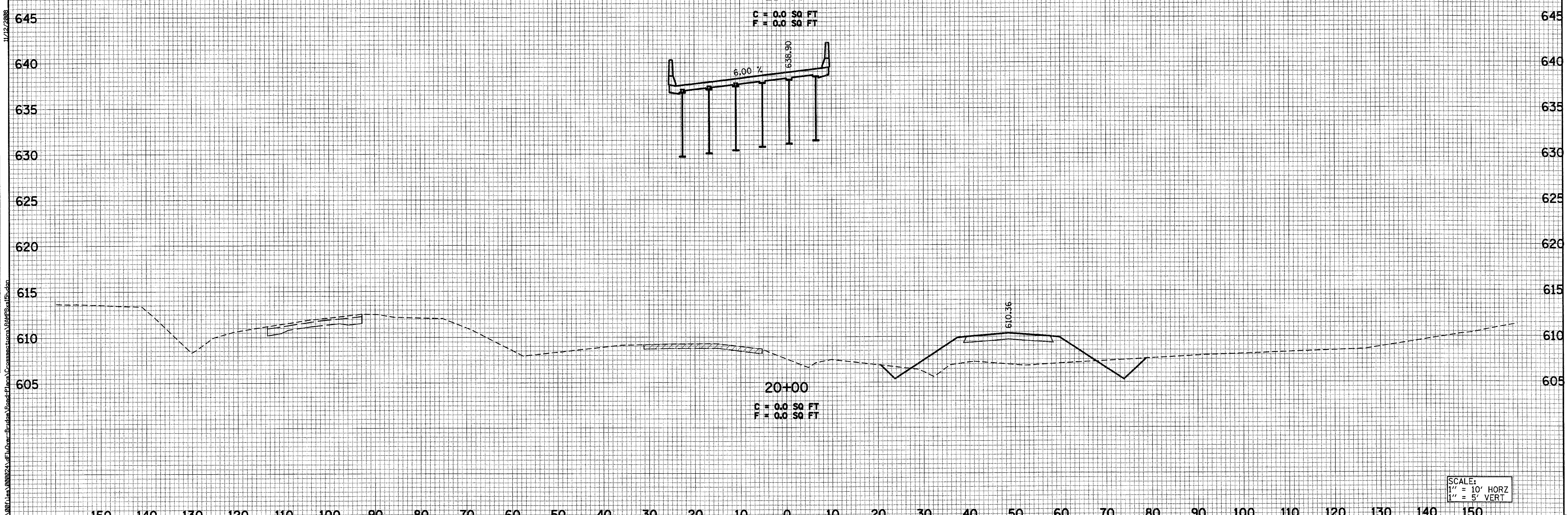
CONTRACT NO. 76706

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

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

11/12/2008





SCALE:
1" = 10' HORZ
1" = 5' VERT

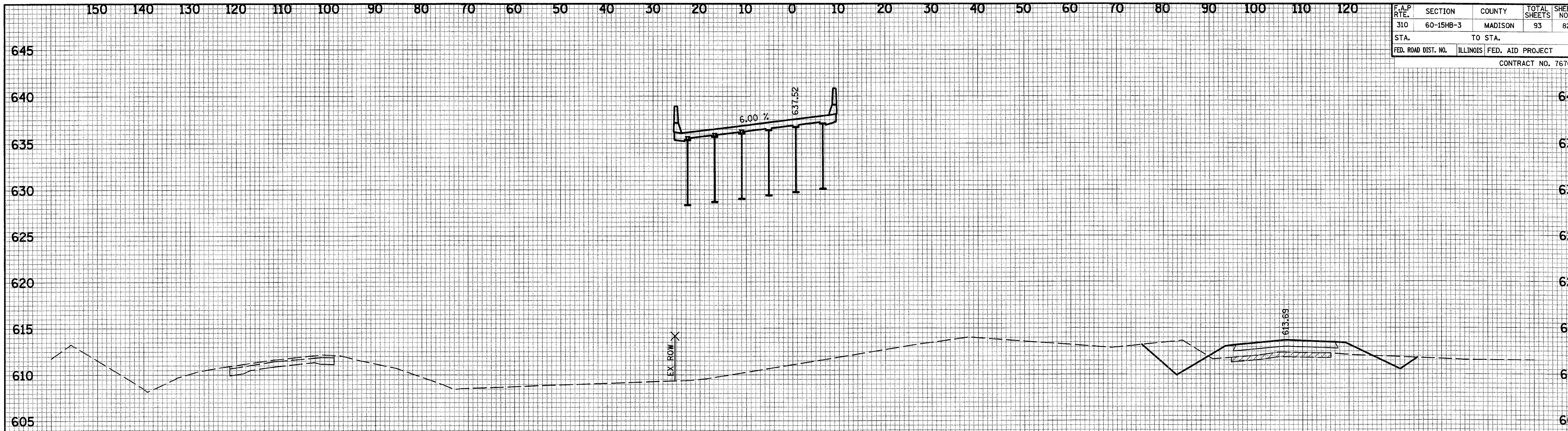
RAMP B STA 20+00 TO STA 21+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	82
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

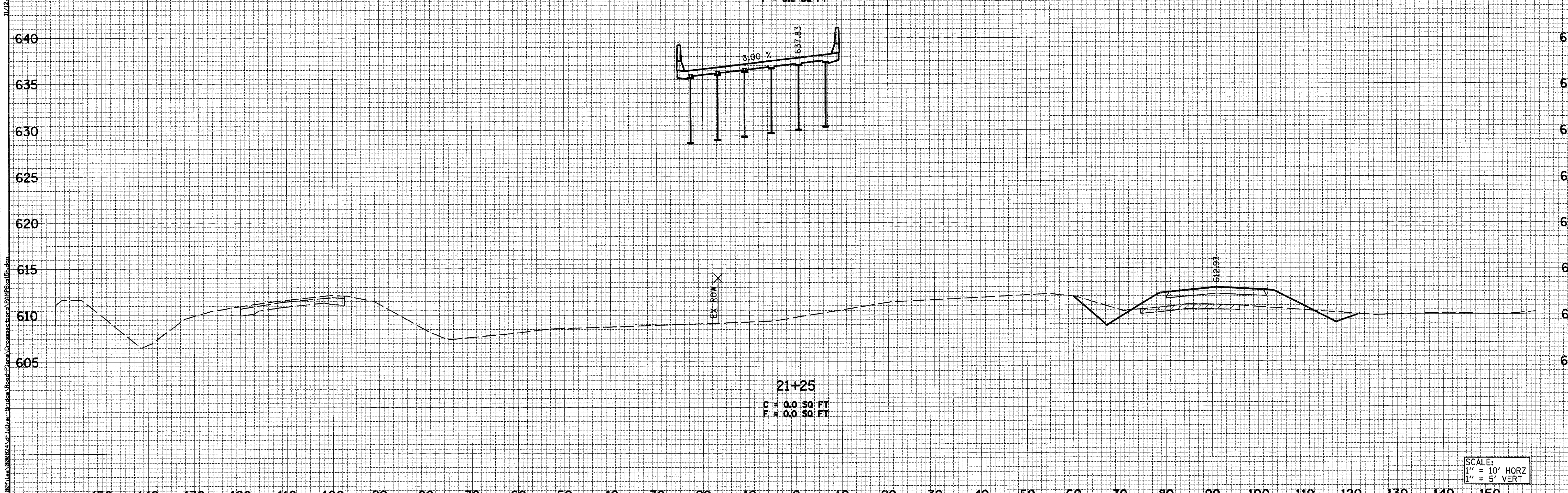
FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

11/02/2008



21+50

C = 0.0 SQ FT
F = 0.0 SQ FT



21+25

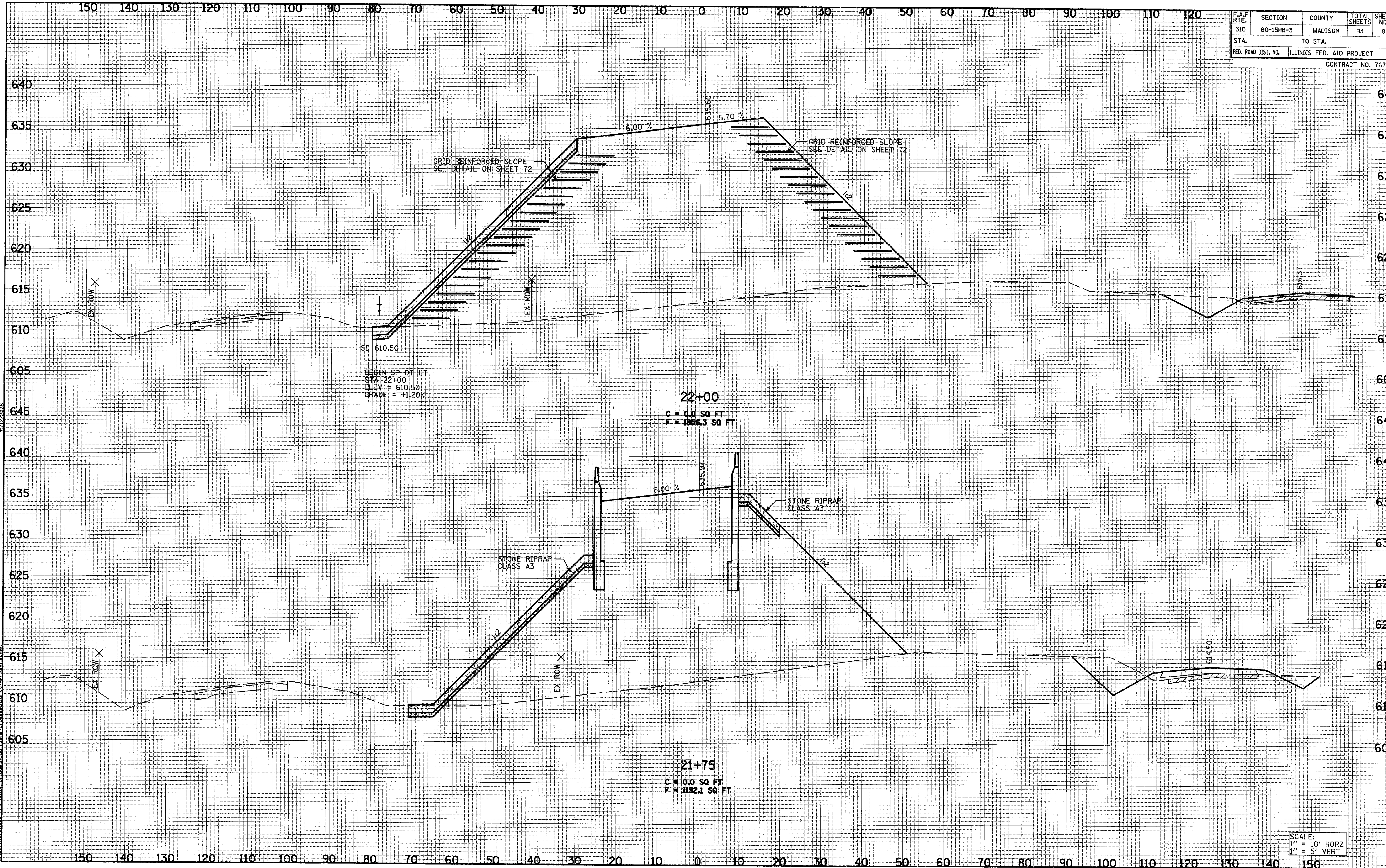
C = 0.0 SQ FT
F = 0.0 SQ FT

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

SCALE:
1" = 10' HORZ
1" = 5' VERT

RAMP B STA 21+25 TO STA 21+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	83
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT NO. 76706		



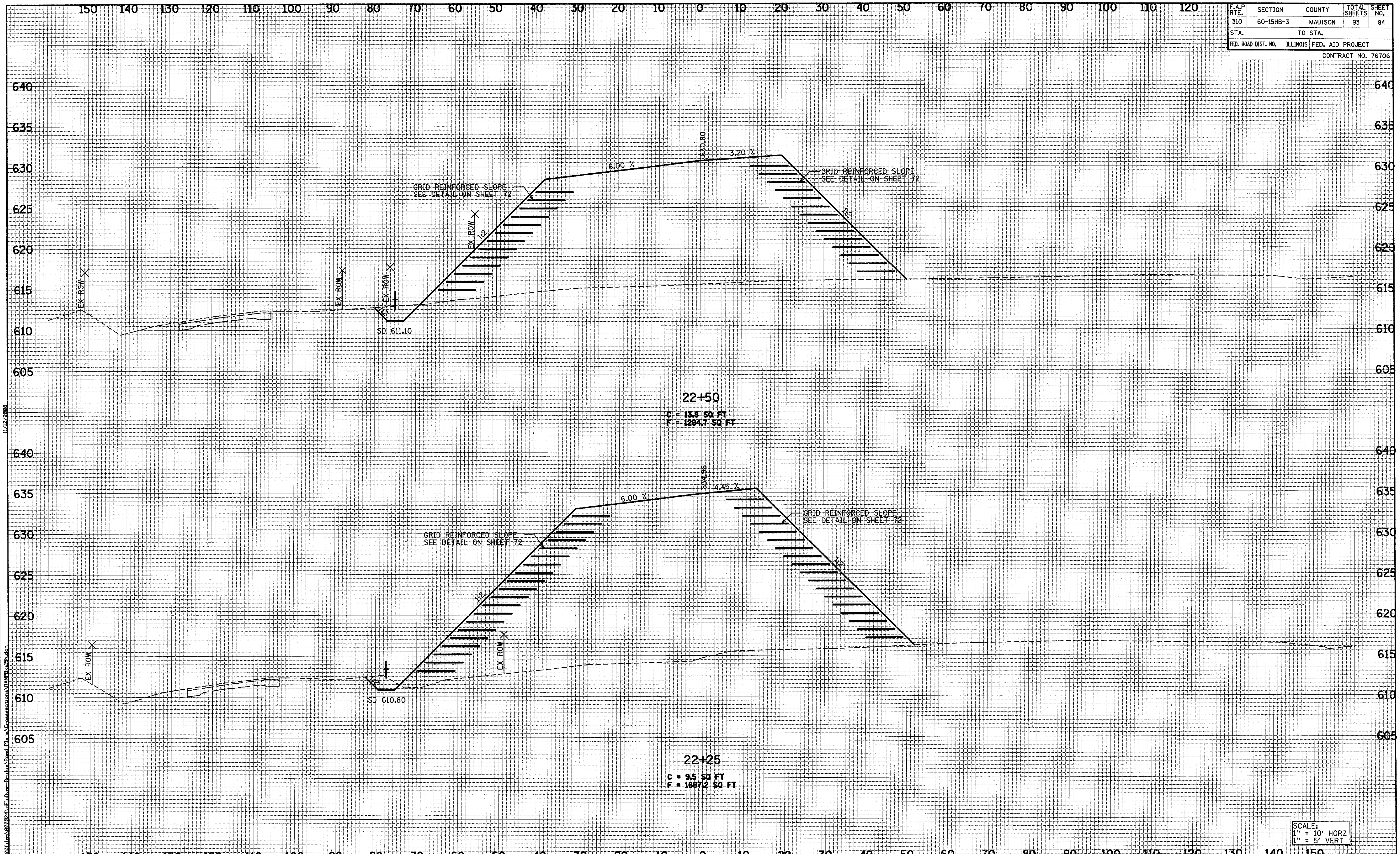
FINAL SURVEY / ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK, NO., BY, DATE

11/12/2008

RAMP B STA 21+75 TO STA 22+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	84
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

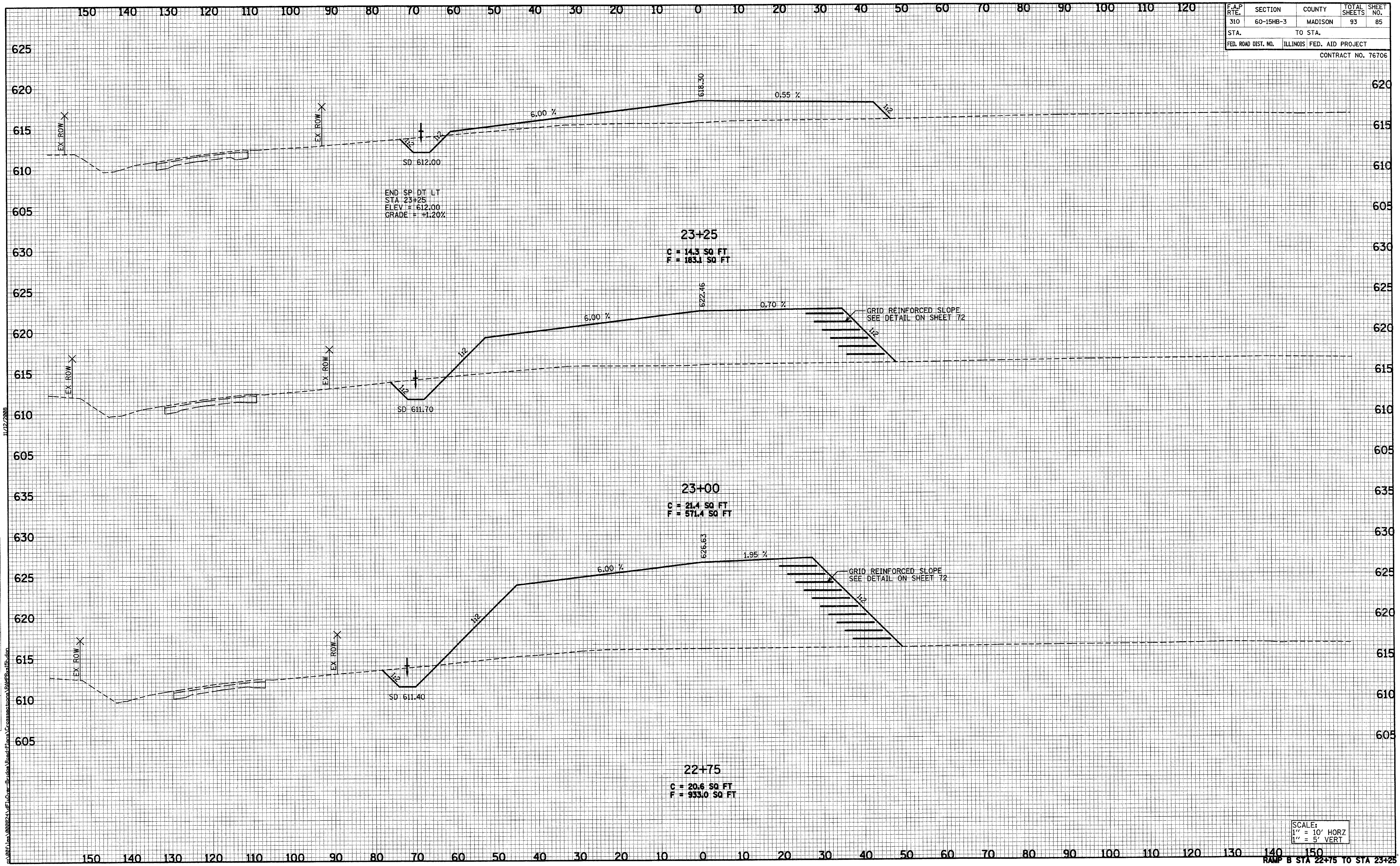
CONTRACT NO. 76706



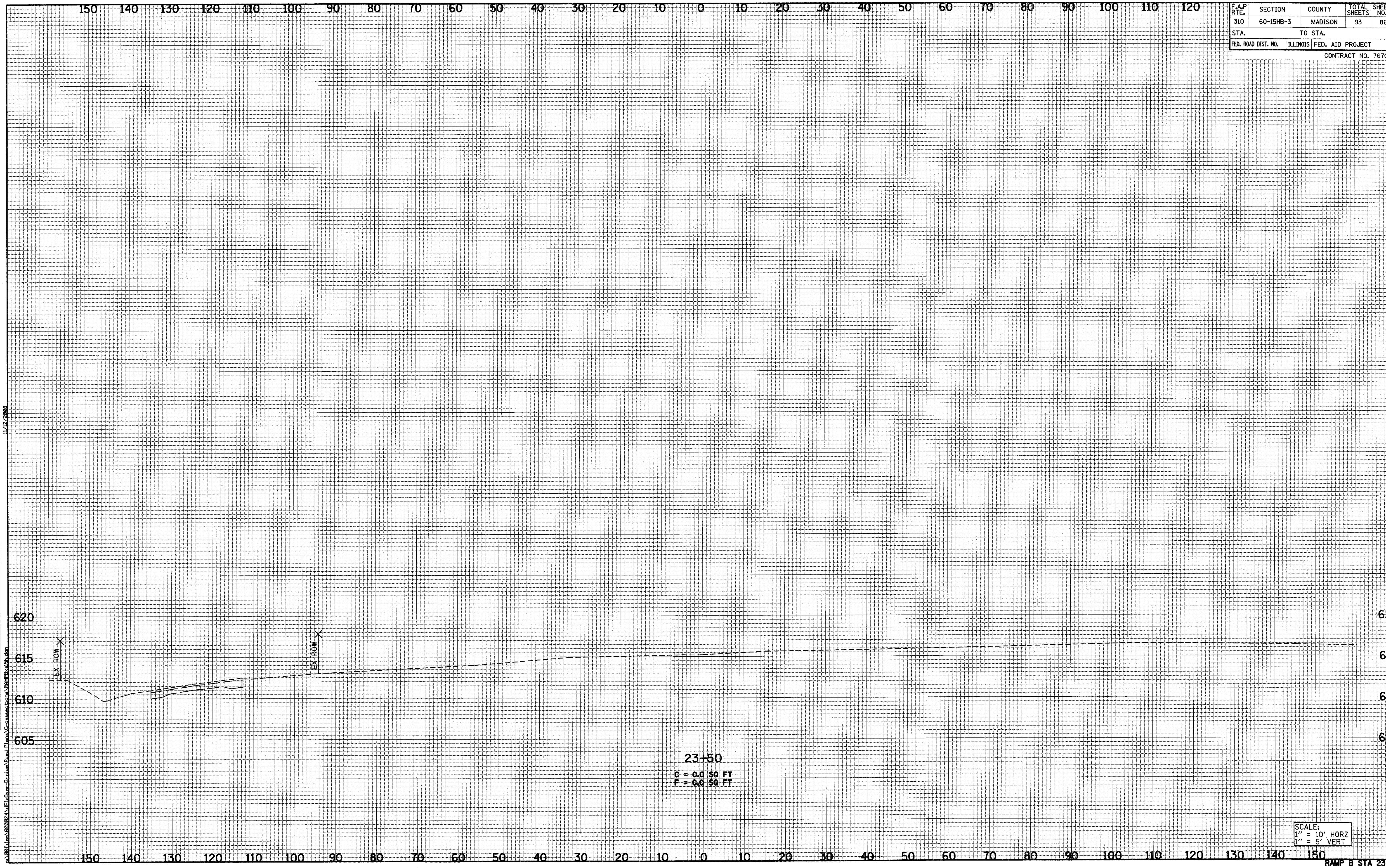
RAMP B STA 22+25 TO STA 22+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	85
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	86
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT NO. 76706		



SCALE:
1" = 10' HORZ
1" = 5' VERT

RAMP B STA 23+50

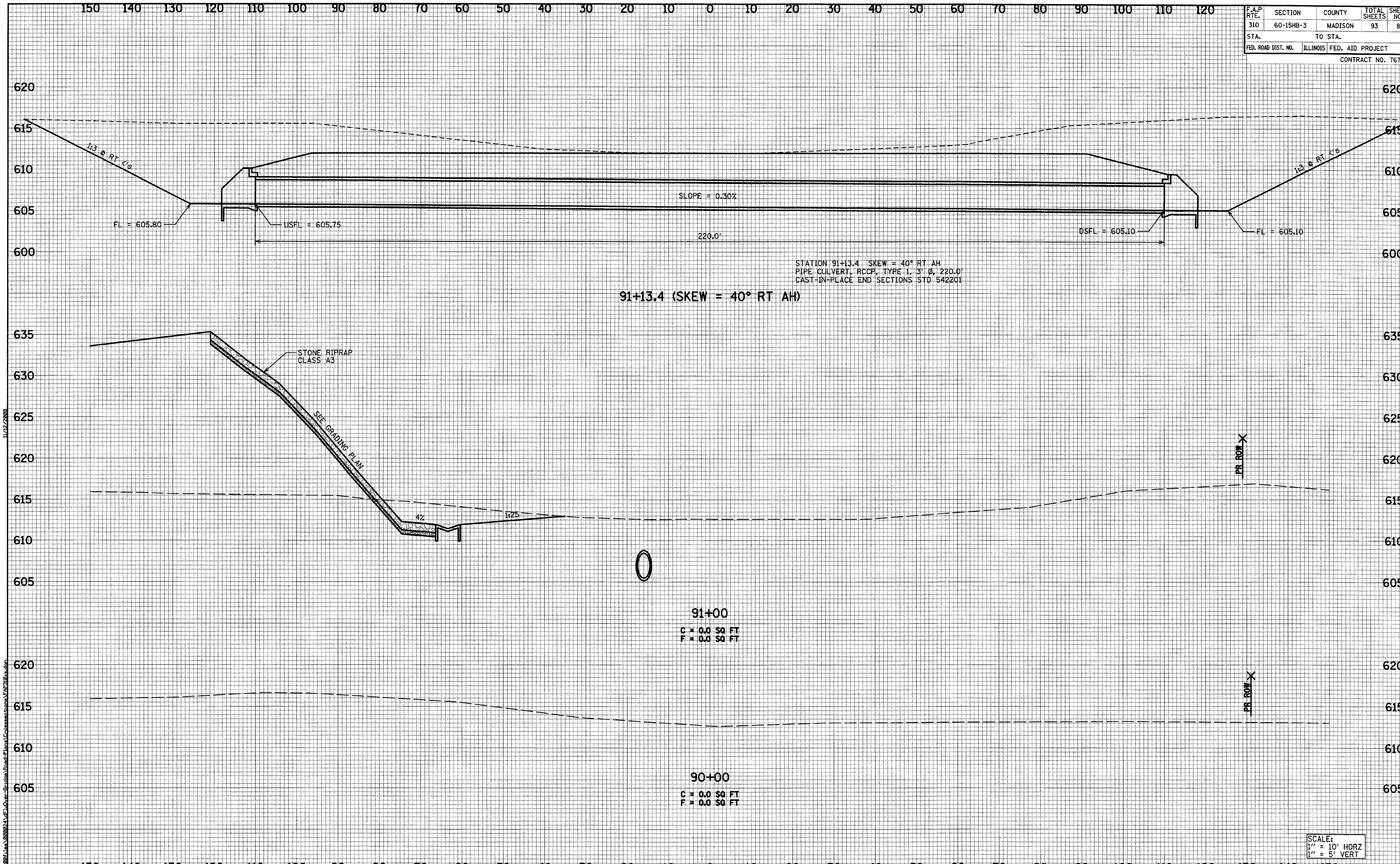
FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

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

11/12/2008

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	87
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



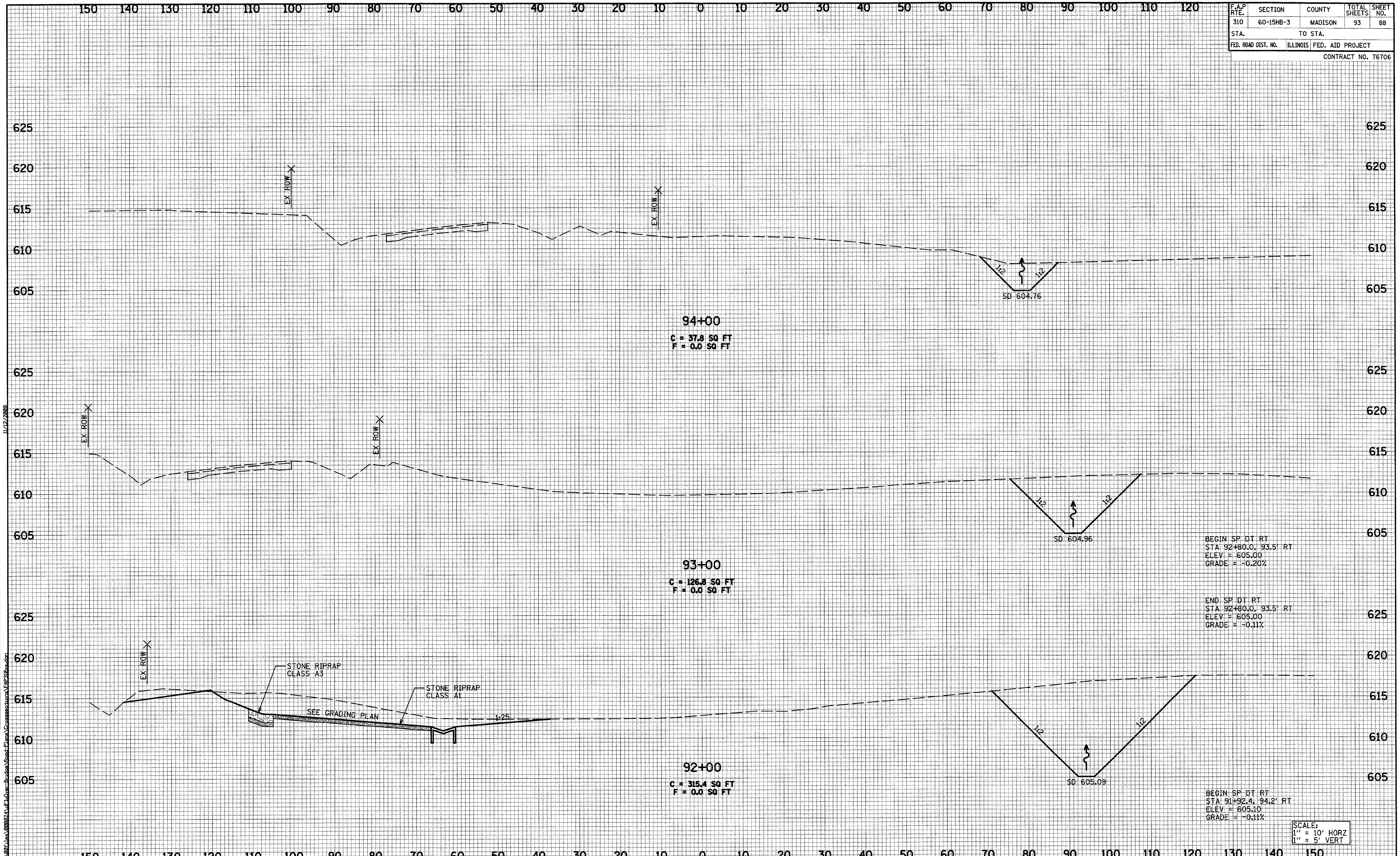
FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

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

11/12/2008

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	88
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706



FAP 310 STA 92+00 TO STA 94+00

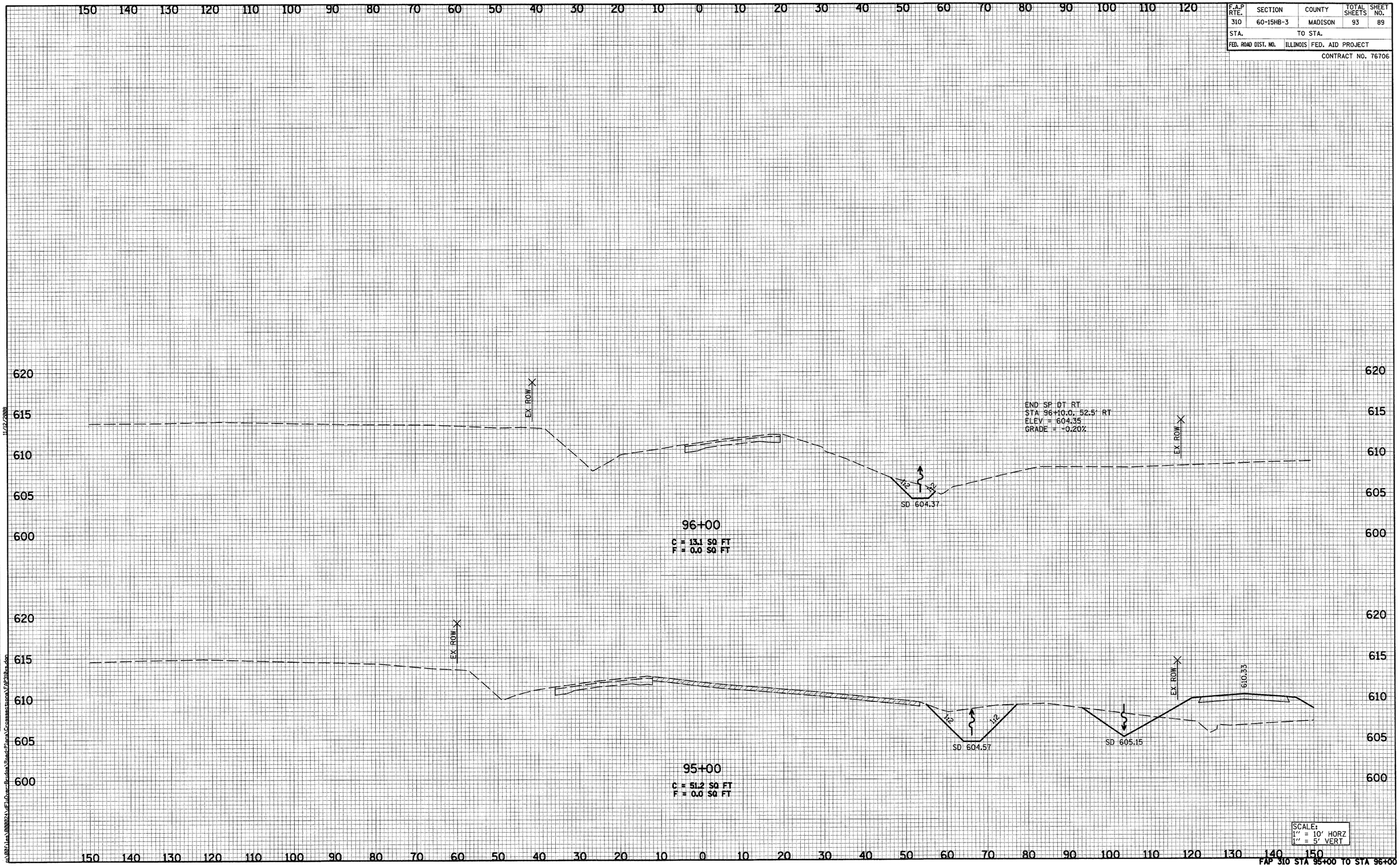
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	89
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

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

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

11/12/2008



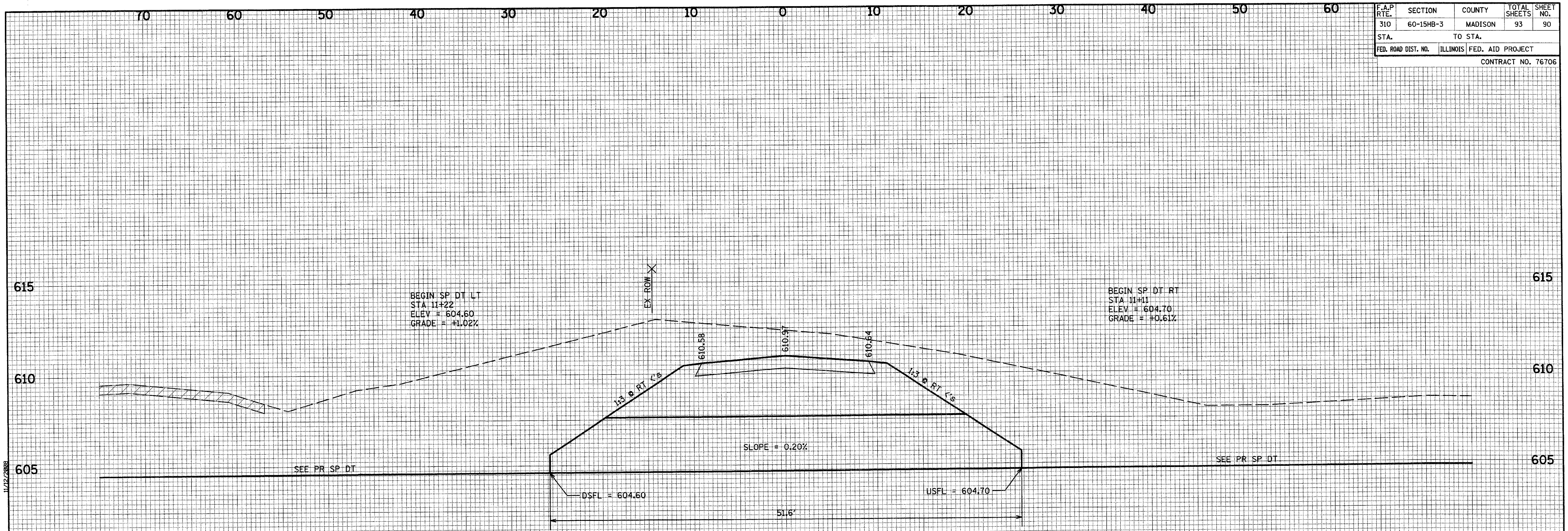
FAP 310 STA 95+00 TO STA 96+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	90

STA. TO STA.

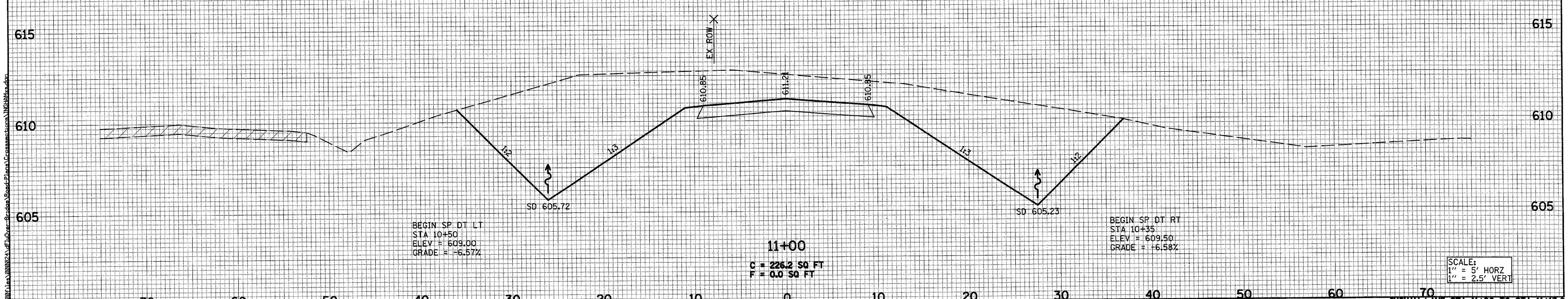
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

CONTRACT NO. 76706



11+13.0 (SKEW = 9° LT AH)

C = 245.0 SQ FT
F = 0.0 SQ FT



BEGIN SP DT LT
STA 10+50
ELEV = 609.00
GRADE = -6.57%

11+00

C = 226.2 SQ FT
F = 0.0 SQ FT

BEGIN SP DT RT
STA 10+35
ELEV = 609.50
GRADE = +6.58%

SCALE:
1" = 5' HORZ
1" = 2.5' VERT

INGHAM LANE STA 11+00 TO STA 11+13.0

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

ORIGINAL SURVEY	
	SURVEYED
	PLOTTED
NOTE BOOK	AREAS
NO.	AREAS CHECKED

BY DATE

11/12/2008

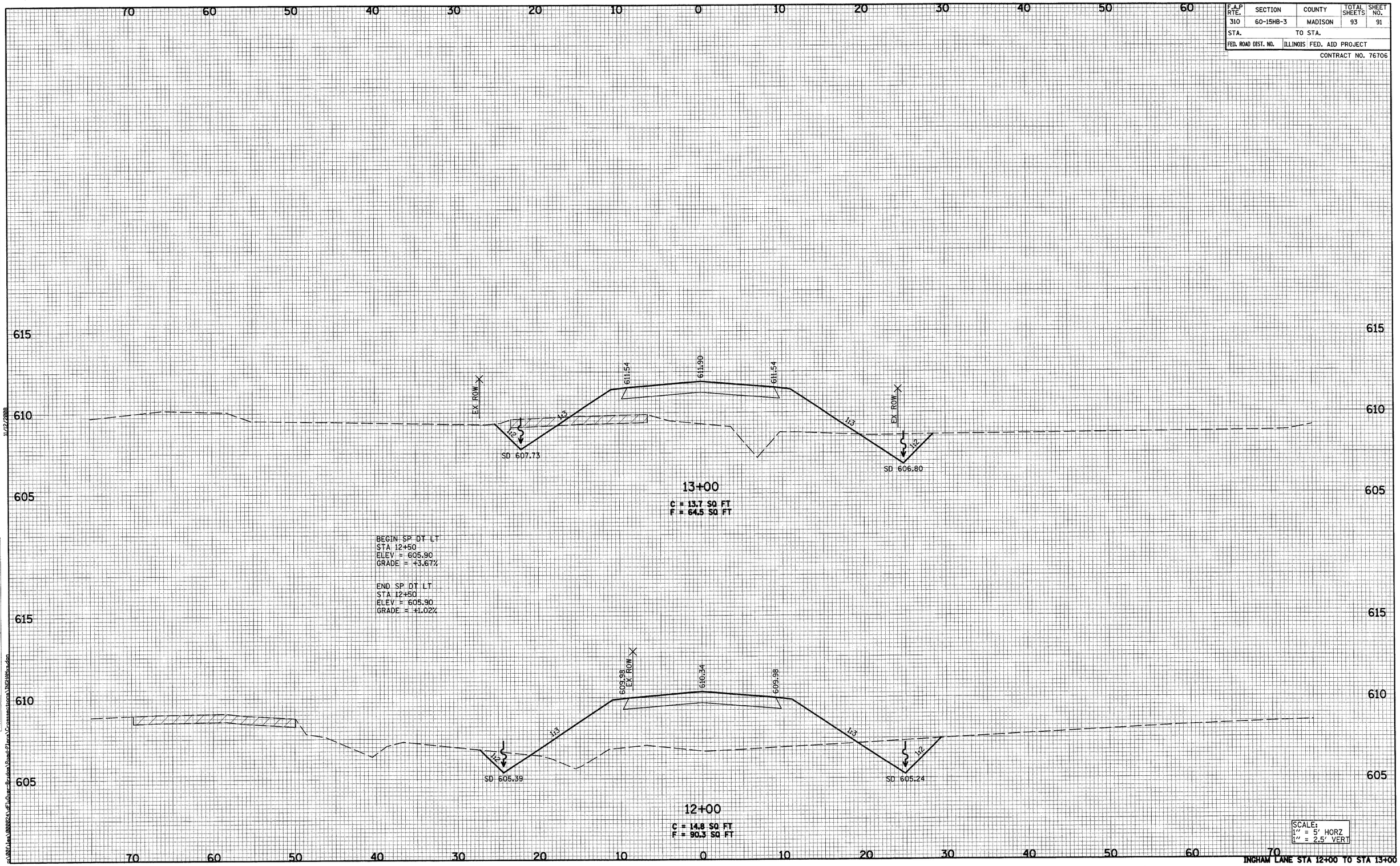
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	91
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76706

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

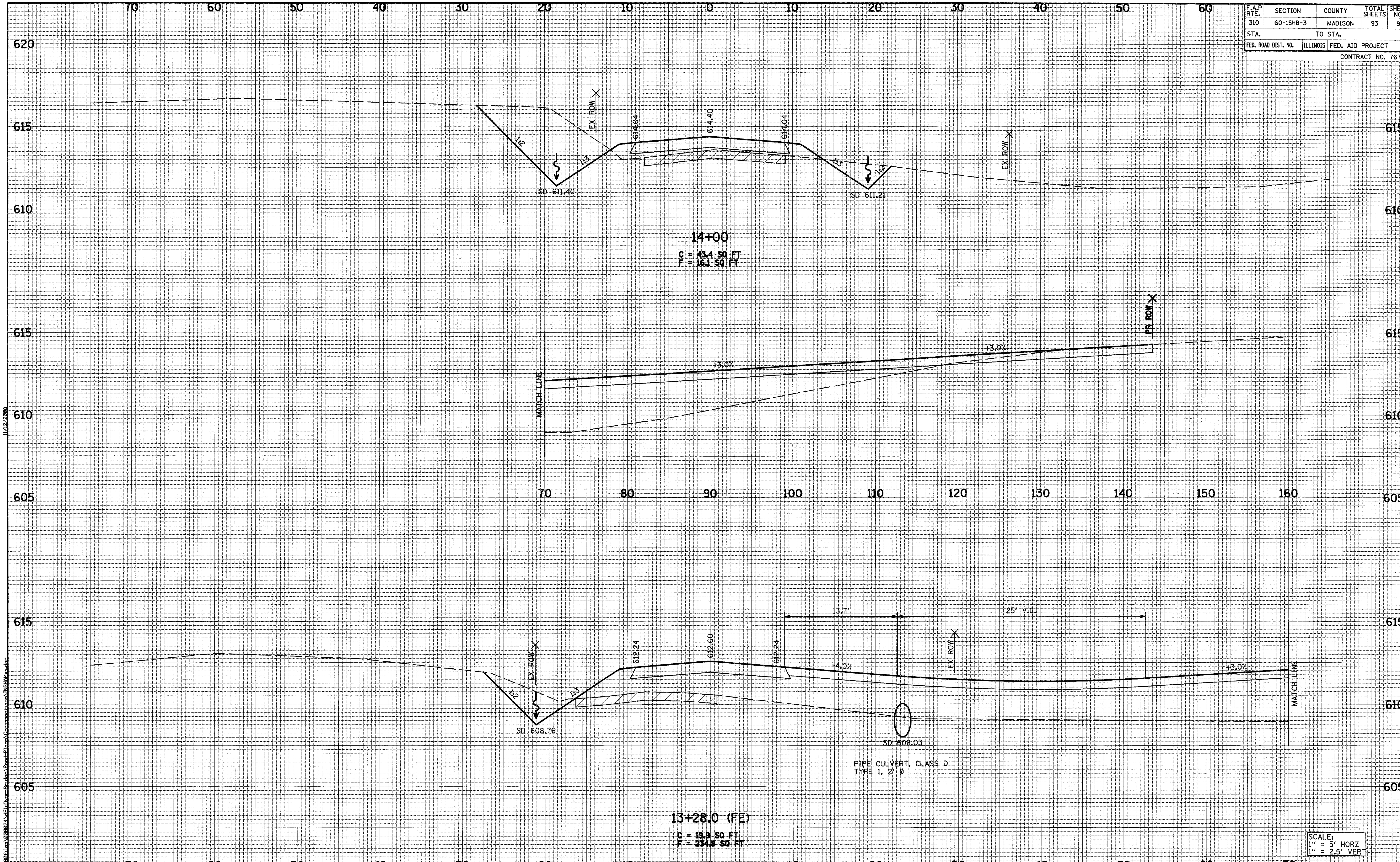
ORIGINAL SURVEY	SURVEYED	BY
NOTE BOOK	PLOTTED	DATE
NO.	TEMPLATE	
	AREAS	
	AREAS CHECKED	

1/12/2208



INGHAM LANE STA 12+00 TO STA 13+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	92
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT NO. 76706		



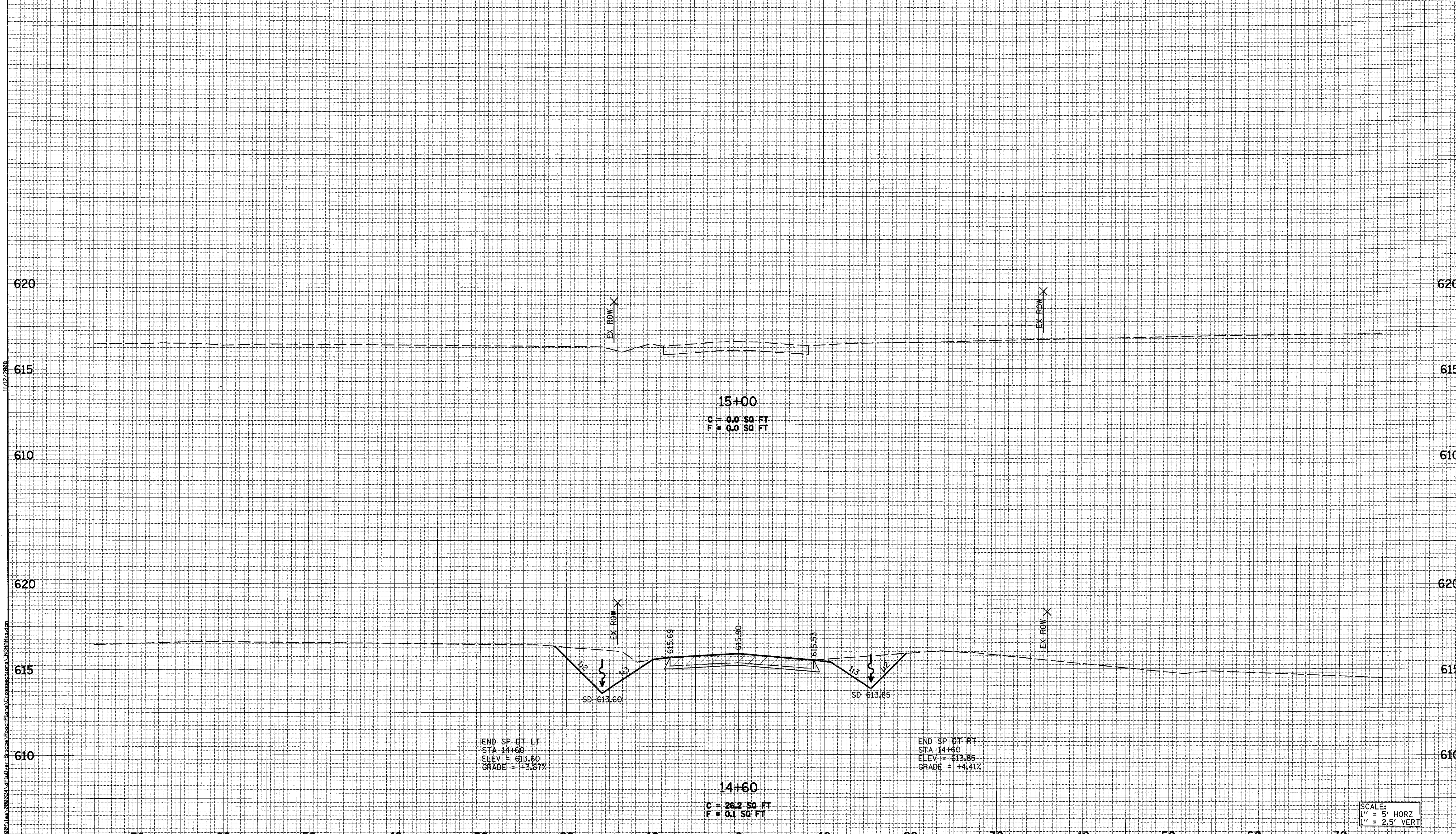
FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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

11/12/2008

INGHAM LANE STA 13+28 TO STA 14+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15HB-3	MADISON	93	93
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT NO. 76706		



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

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

11/12/2008

INGHAM LANE STA 14+60 TO STA 15+00