

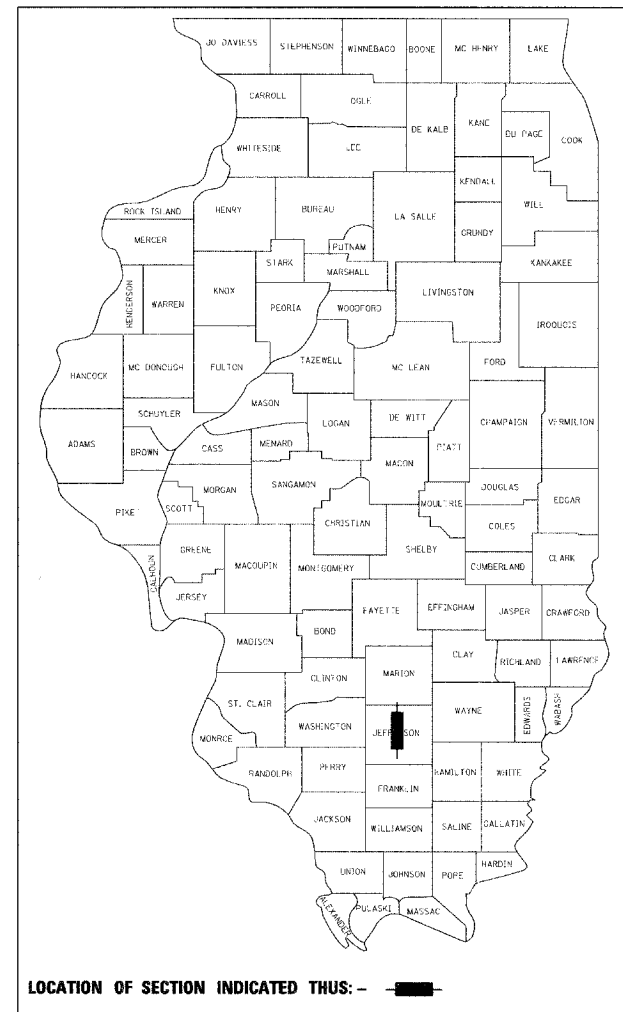
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAS ROUTE 2826 (IL ROUTE 37)
SECTION (110)B-1
C-99-038-07
JEFFERSON COUNTY
PROJECT: ACBRS-2826(105)

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 78013		

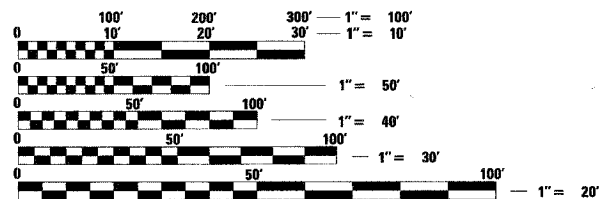
FOR INDEX OF SHEETS, SEE SHEET NO. 2



SECTION (110)B-1
SN 041-0107
STATION 836+80.00
BRIDGE REPLACEMENT
BEGIN IMPROVEMENTS STA 835+70.00
END IMPROVEMENTS STA 837+70.00

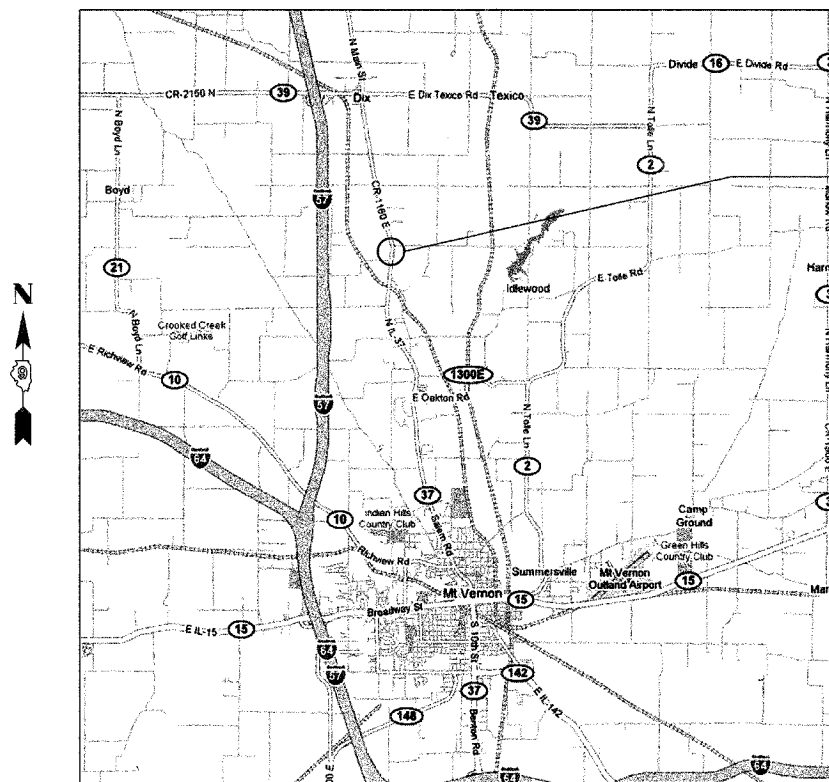
HIGHWAY CLASSIFICATION

ROUTE: F.A.S. 2826 (IL 37)
CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)
A.D.T.: 3550 (2007)
A.D.T.T.: 420 (2007)
D.H.V.: 426 (2007)
DESIGN SPEED: 60 M.P.H.



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
OR 811

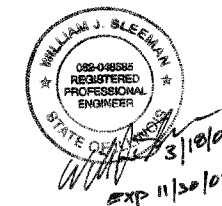


LOCATION MAP
NOT TO SCALE

TOTAL LENGTH OF PROJECT = 200 FT (0.038 MI)
NET LENGTH OF PROJECT = 200 FT (0.038 MI)

PROJECT ENGINEER
PROJECT MANAGER

CONTRACT NO. 78013



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 21, 2008

Christian M. Reed
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 2008
Eric E. Harmon
Interim ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

BA
BENTON & ASSOCIATES, INC.
Consulting Engineers / Land Surveyors
1970 West Lafayette Ave. Jacksonville, IL 62650
Phone: 217-245-4146 Fax: 217-245-4149
IL Design Firm Registration No. 184-000852

GENERAL NOTES

- WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION, AS INDICATED BY THE SUB-NUMBER LISTED IN THE INDEX OF SHEETS, OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- ALL ELEVATIONS SHOWN REFER TO THE U.S.G.S. DATUM AT MEAN SEA LEVEL, UNLESS OTHERWISE NOTED.
- UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION AND THEIR TRUE LOCATION IS NOT GUARANTEED AS SHOWN ON THE PLANS. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND CARRY OUT CONSTRUCTION ACTIVITIES ACCORDINGLY.
- ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA 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 AREA ARE AS FOLLOWS:

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800)892-0123 AND ARE INDICATED BY "M". NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- SAW CUTTING ON ALL EDGES FOR REMOVAL ITEMS SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEMS AS INDICATED AND IN ACCORDANCE WITH SECTION 440 OF THE STANDARD SPECIFICATIONS.
- THE THICKNESS OF THE HOT-MIX ASPHALT SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT IS PLACED.
- THE CONTRACTOR WILL PROVIDE INTERNET ACCESSIBILITY TO THE BITUMINOUS PLANT QUALITY CONTROL LAB SO THAT BITUMINOUS PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL BITUMINOUS ITEMS.
- AGGREGATE SHOULDERS, TYPE B, SHALL BE CRUSHED STONE, OR CRUSHED CONCRETE.
- FOR THE PAY ITEM BITUMINOUS MATERIALS (PRIME COAT), THE CONTRACTOR SHALL USE EITHER RC-70 OR AN EMULSIFIED POLYMER PRIME SS-1HP.

HIGHWAY STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT REBARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
420401-06	BRIDGE APPROACH PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
630001-07	STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701001-01	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 15' FT TO 24" FROM PAVEMENT EDGE
701011-01	OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY FOR SPEEDS >= 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-01	LANE CLOSURE, 2L, 2W SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45MPH
701311-02	LANE CLOSURE, 2L 2W, MOVING OPERATIONS DAY ONLY
701901	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS
BLR 21-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

INDEX OF SHEETS

PAGE	DESCRIPTION
1	COVER
2	GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
5	SCHEDULE OF QUANTITIES
6	ALIGNMENT, TIES & BENCHMARKS
7	DETOUR PLAN
8-9	PLAN & PROFILE SHEETS
10	STRIPING PLAN
11	EROSION CONTROL
12-27	BRIDGE DRAWINGS
28-44	CROSS SECTIONS

THE FOLLOWING HOT-MIX ASPHALT REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

HOT-MIX ASPHALT REQUIREMENTS					
MIXTURE USES	FLEXIBLE CONNECTOR	SURFACE	INCIDENTAL HMA	FULL-DEPTH BINDER	SHOULDERS**
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 58-22
DESIGN AIR VOIDS	4.0% @ NDes = 70	4.0% @ NDes = 70	4.0% @ NDes = 70	4.0% @ NDes = 70	2.0% @ NDes = 30
MIXTURE COMPOSITION	IL - 19.0	IL - 9.5	IL - 19.0	IL - 19.0	B.A.M.
FRICTION AGGREGATE	N/A	MIX "C"	N/A	N/A	N/A

**TOP LIFT SHOULDERS - DESIGN THIS MIX AT 2.0% VOIDS AND ADD ASPHALT TO REDUCE VOIDS TO 1.5%.

APPLICATION RATES	
AGGREGATE (SURFACE, BASE, SUBBASE, OR BACKFILL)	2.05 TON / CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.10 GAL / SQ YD
AGGREGATE (PRIME COAT)	0.002 TON / SQ YD
HOT-MIX ASPHALT SURFACE / BINDER (112 LBS)	0.056 TON / SQ YD * IN
HOT-MIX ASPHALT SURFACE MIX C (120 LBS)	0.060 TON / SQ YD * IN

COMMITMENTS

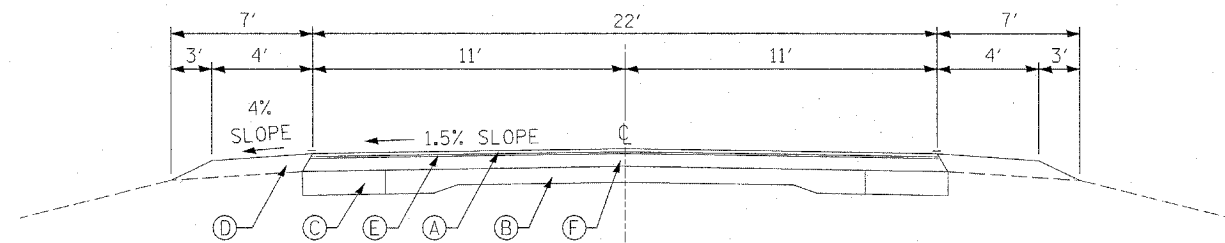
NONE

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	<i>Rev.</i>	
		DRAWN -	REVISED -			2826	(110)B-1	JEFFERSON	44	2		
	PLOT SCALE = 1.0000" / 1"	CHECKED -	REVISED -			SCALE:			SHEET NO. 2 OF 44 SHEETS		STA. TO STA.	
	PLOT DATE = 3/15/2008	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONTRACT NO. 78013						

SUMMARY OF QUANTITIES				X080-2A	
CODE NO.	ITEM	UNITS	TOTAL	CONSTRUCTION TYPE CODE 20% STATE / 80% FEDERAL	
				ROADWAY	BRIDGE
20200100	EARTH EXCAVATION	CU YD	157	157	
20300100	CHANNEL EXCAVATION	CU YD	687	687	
20400800	FURNISHED EXCAVATION	CU YD	1310	1310	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	170		170
25001020	SEEDING, CLASS 2A (SPECIAL)	ACRE	0.4	0.4	
28000300	TEMPORARY DITCH CHECKS	EACH	4	4	
28000400	PERIMETER EROSION BARRIER	FOOT	1110	1110	
28100107	STONE RIP RAP, CLASS A4	SQ YD	638		638
28200200	FILTER FABRIC	SQ YD	638		638
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	11	11	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	SQ YD	49	49	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	4	4	
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	13	13	
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	250	250	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	50	50	
44000100	PAVEMENT REMOVAL	SQ YD	264	264	
44000198	HOT-MIX ASPHALT SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	28	28	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	135	135	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	324	324	
50100200	REMOVAL OF EXISTING STRUCTURES	L SUM	1		1
50200100	STRUCTURE EXCAVATION	CU YD	318		318
50300225	CONCRETE STRUCTURES	CU YD	42.3		42.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	116.6		116.6
50300260	BRIDGE DECK GROOVING	SQ YD	270		270
50300280	CONCRETE ENCASEMENT	CU YD	4.2		4.2
50300300	PROTECTIVE COAT	SQ YD	602	250	352
50400905	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 42 IN.	FOOT	418		418
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	26470		26470
50800515	BAR SPLICERS	EACH	72		72

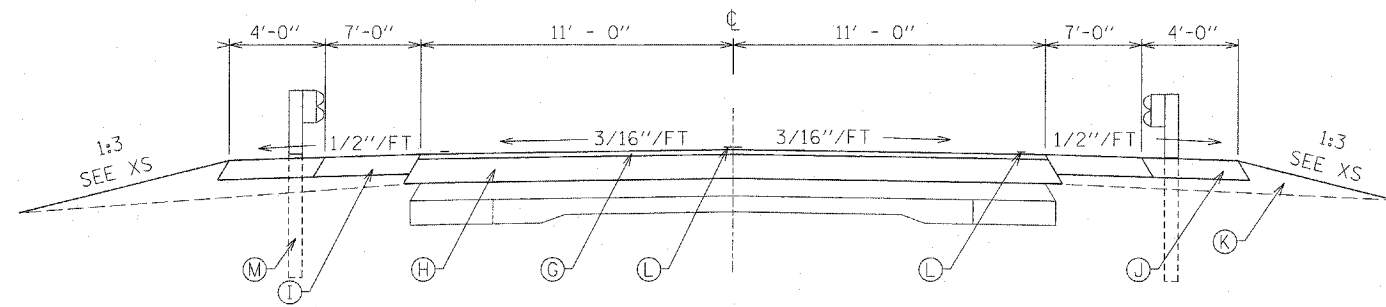
SUMMARY OF QUANTITIES				X080-2A	
CODE NO.	ITEM	UNITS	TOTAL	CONSTRUCTION TYPE CODE 20% STATE / 80% FEDERAL	
				ROADWAY	BRIDGE
51201610	FURNISHING STEEL PILES, HP12 X 63	FOOT	240		240
51202305	DRIVING PILES	FOOT	240		240
51203610	TEST PILE STEEL HP12 X 63	EACH	2		2
51500100	NAME PLATES	EACH	1		1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	94		94
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	164		164
* 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	450	450	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
67100100	MOBILIZATION	L SUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70101800	AND TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5	
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1460	1460	
* 78200410	GUARD RAIL MARKERS, TYPE A	EACH	12	12	
* 78200420	GUARD RAIL MARKERS, TYPE B	EACH	2	2	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
Z0037300	PAVEMENT GROOVING	SQ YD	250	250	

* Speciality Items



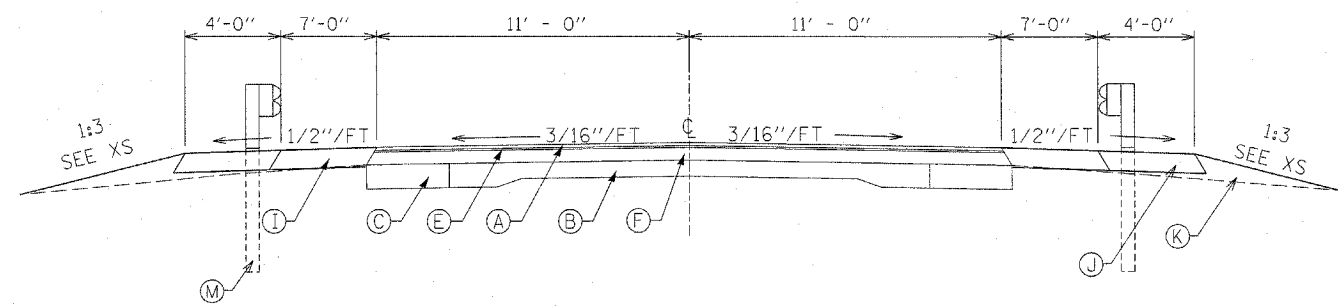
EXISTING ROADWAY TYPICAL SECTION
STATION 829+50 TO STATION 847+00

- LEGEND
- (A) EXISTING 1 1/2" SURFACE
 - (B) EXISTING PAVEMENT
 - (C) EXISTING WIDENING
 - (D) EXISTING EARTH SHOULDER
 - (E) EXISTING LEVELING BINDER
 - (F) EXISTING RESURFACING
 - (G) PROPOSED HMA SURFACE COURSE, MIX "C", N70, 2" DEPTH
 - (H) PROPOSED HMA BINDER COURSE, IL-19.0, N70, VARIABLE DEPTH, STA. 835+91 TO STA. 837+29
 - (I) PROPOSED HMA SHOULDER, 8" DEPTH
 - (J) PROPOSED AGGREGATE SHOULDER, TYPE B, 8"
 - (K) PROPOSED EARTH EMBANKMENT
 - (L) PROPOSED PAINT PAVEMENT MARKING LINE - 4"
 - (M) PROPOSED GUARD RAIL (SEE PLANS)

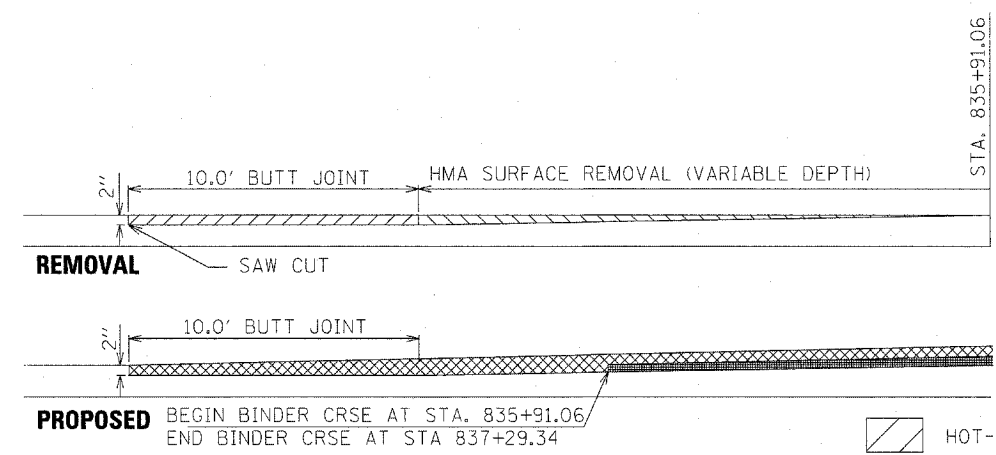


PROPOSED ROADWAY TYPICAL SECTION
STATION 835+70 TO STATION 837+70

BRIDGE OMISSION
STATION 836+44.25 TO STATION 837+15.75



PROPOSED ROADWAY TYPICAL SECTION
STATION 833+90 TO STATION 835+70
STATION 837+70 TO STATION 839+70
• SEE PLANS FOR SHOULDER PLACEMENT (LT & RT)



BUTT JOINT DETAIL
STATION 835+70 TO STATION 835+80
STATION 837+60 TO STATION 837+70

- HOT-MIX SURFACE REMOVAL - BUTT JOINT
- HOT-MIX SURFACE REMOVAL (VARIABLE DEPTH)
- PROPOSED HMA SURFACE COURSE, 2" DEPTH
- PROPOSED HMA BINDER COURSE, VARIABLE DEPTH

FILE NAME =	USER NAME = #USERS	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 4.0000 "/ IN.	CHECKED -	REVISED -
	PLOT DATE = 3/19/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2826	(110)B-1	JEFFERSON	44	4
SCALE: NTS	SHEET NO. 4 OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	4
CONTRACT NO. 78013				

EROSION CONTROL SCHEDULE	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER
LOCATION	EACH	FOOT
SW QUADRANT		230
SE QUADRANT		300
NW QUADRANT		330
NE QUADRANT		250
ENGINEER DISCRETION	4	
TOTAL	4	1110

EARTHWORK SCHEDULE		EARTH EXCAVATION	EMBANKMENT ADJUSTED FOR SHRINKAGE	SHRINKAGE FACTOR	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE	CHANNEL EXCAVATION
STATION TO	STATION	CU YD	CU YD		CU YD	CU YD	CU YD
833+30.00	840+50.00	157	1222	20%	1467	-1310	687
TOTAL		157	1222		1467	-1310	687

AGGREGATE SHOULDER SCHEDULE			AGGREGATE SHOULDERS, TYPE B
STATION TO	STATION		TON
833+56.66	836+32.24	RT	40.5
834+79.07	836+56.26	LT	27.0
837+03.74	838+86.48	RT	27.0
837+26.14	840+03.33	LT	40.5
TOTAL			135

GUARD RAIL SCHEDULE			TRAFFIC BARRIER TERMINAL, TYPE 6 EACH	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT) EACH	STEEL PLATE BEAM GUARDRAIL - TYPE A FT	GUARD RAIL MARKERS TYPE A EACH	GUARD RAIL MARKERS TYPE B EACH	TERMINAL MARKER DIRECT APPLIED EACH
STATION TO	STATION							
833+90.71	834+40.71	RT		1				
835+11.50	835+61.50	LT		1				
837+98.46	838+48.46	RT		1				
839+19.33	839+69.33	LT		1				
833+90.71		RT						1
835+11.50		LT						1
838+48.46		RT						1
839+69.33		LT						1
836+03.21	836+33.86	RT	1					
836+24.00	836+54.65	LT	1					
837+05.31	837+35.96	RT	1					
837+26.18	837+56.83	LT	1					
834+40.71	836+03.21	RT			162.5			
835+61.50	836+24.00	LT			62.5			
837+35.96	837+98.46	RT			62.5			
837+56.83	839+17.33	LT			162.5			
833+90.67	836+33.86	RT				4		
837+26.14	839+69.33	LT				4		
837+05.54	838+48.46	RT				2		
835+11.54	836+54.67	LT				2		
BRIDGE PARAPET		LT					1	
BRIDGE PARAPET		RT					1	
TOTAL			4	4	450	12	2	4

PAVEMENT SCHEDULE		BITUMIONOUS MATERIALS (PRIME COAT)	HMA SURFACE COURSE MIX "C", N70	HMA BINDER COURSE IL-19.0, N70
STATION TO	STATION	GAL	TON	TON
835+80.00	836+17.13 LT & RT	7.6	9.1	
835+91.06	836+10.79	2.6		3.3
837+42.86	837+60.00 LT & RT		3.1	
TOTAL		10.2	12.2	3.3

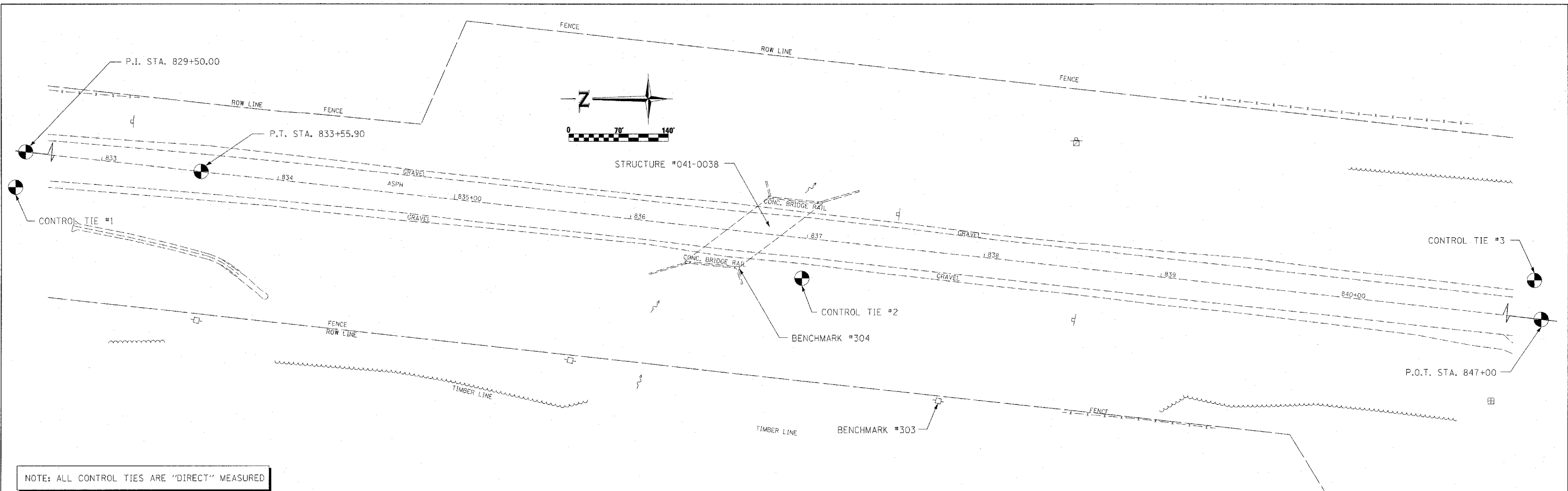
SEEDING SCHEDULE		SEEDING CLASS 2 (SPECIAL)
LOCATION		ACRE
SW QUADRANT		0.11
SE QUADRANT		0.19
NW QUADRANT		0.04
NE QUADRANT		0.04
TOTAL		0.40

HMA SHOULDER			HMA SHOULDER
STATION TO	STATION		TON
833+24.87	833+56.66	RT	6.3
833+56.66	836+00.41	RT	84.9
834+34.24	834+79.07	LT	8.9
834+79.07	836+54.64	LT	61.2
836+00.41	836+04.08	RT	0.6
836+54.64	836+56.26	LT	0.3
837+26.14	837+27.76	LT	0.3
837+27.76	840+03.33	LT	96.0
837+38.82	837+42.86	RT	0.7
837+42.86	838+86.48	RT	50.0
838+86.48	839+28.31	RT	8.3
840+03.33	840+33.41	LT	6.0
TOTAL			324

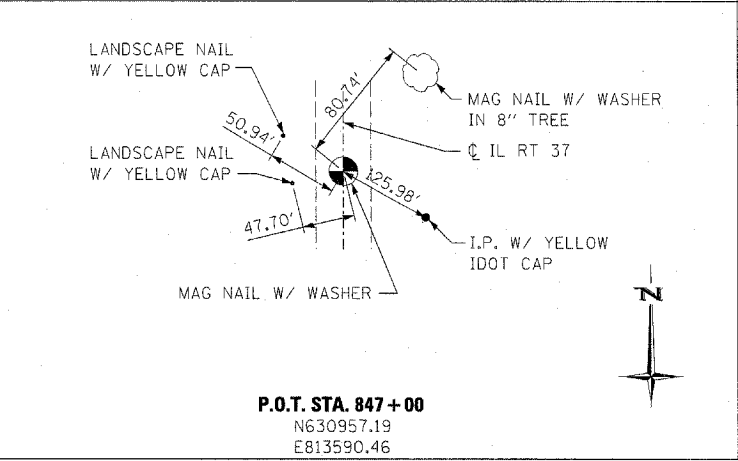
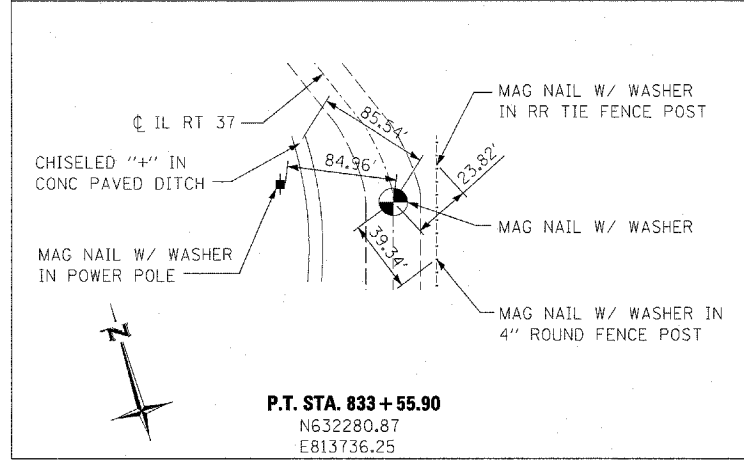
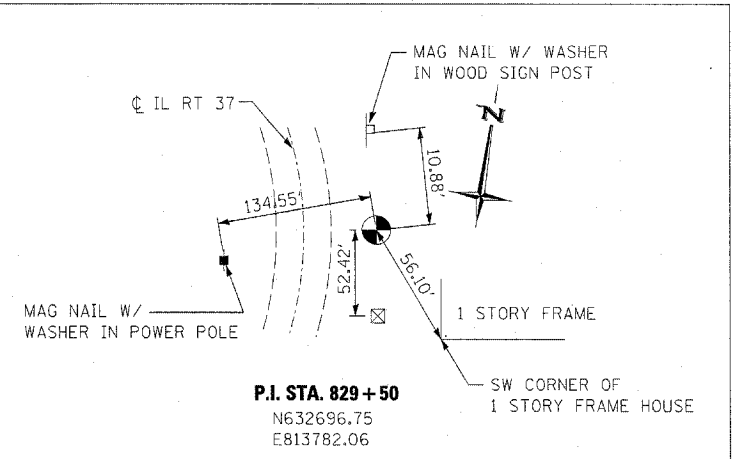
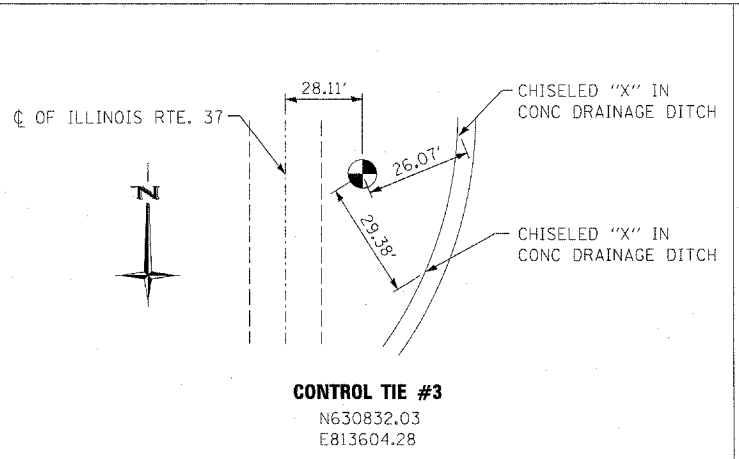
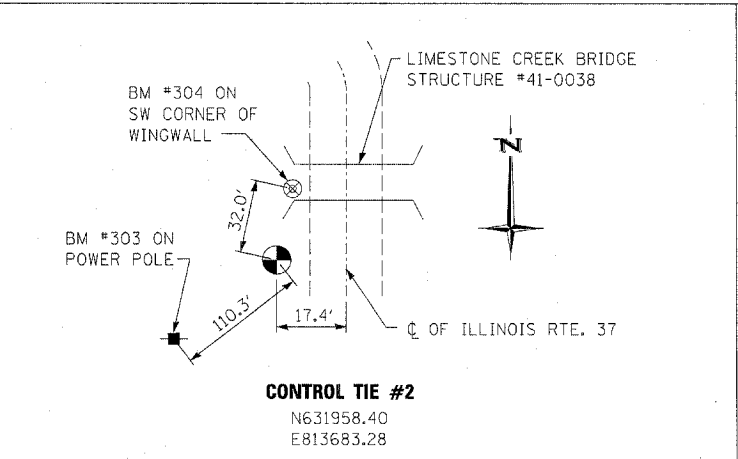
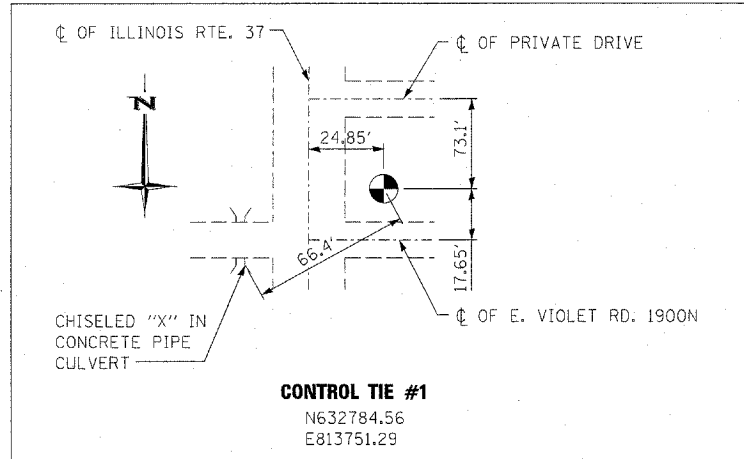
BRIDGE APPROACH PAVEMENT SCHEDULE		BRIDGE APPROACH PAVEMENT	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	PROTECTIVE COAT	PAVEMENT GROOVING
STATION TO	STATION	SQ YD	SQ YD	SQ YD	SQ YD
836+07.89	836+50.57	125	25	125	125
837+09.42	837+54.40	125	25	125	125
TOTAL		250	50	250	250

PAVEMENT REMOVAL SCHEDULE		HMA SURFACE REMOVAL - BUTT JOINT	PAVEMENT REMOVAL	HMA SURFACE REMOVAL - VAR. DEPTH
STATION TO	STATION	SQ YD	SQ YD	SQ YD
835+70.00	835+80.00	CL	24.5	
835+80.00	835+91.06	CL		28
836+04.62	836+66.23	CL		106.9
836+73.47	837+55.84	CL		156.2
837+60.00	837+70.00	CL	24.5	
TOTAL			49.0	263.1
				28.0

PAVEMENT MARKING SCHEDULE		PAINT PAVEMENT MARKING-LINE 4" (YELLOW - SKIP) FOOT	PAINT PAVEMENT MARKING-LINE 4" (WHITE-SOLID) FOOT	PAINT PAVEMENT MARKING-LINE 4" (YELLOW-SOLID) FOOT
STATION TO	STATION			
833+24.81	839+28.27	RT	603.46	
834+28.61	840+33.44	LT	604.83	
835+70.00	837+70.00	CL	50	200
TOTAL			1208.29	200



NOTE: ALL CONTROL TIES ARE "DIRECT" MEASURED



BENCHMARKS

BM #303 - R.R. SPIKE IN POWER POLE 128' SOUTH OF STRUCTURE #041-0038 82' RT. ± 838+00
 ELEV. 490.0943

BM #304 - CUT SQUARE ON THE SW CORNER OF BRIDGE ABUTMENT STRUCTURE #041-0038 22' RT. ± 836+70
 ELEV. 496.3804

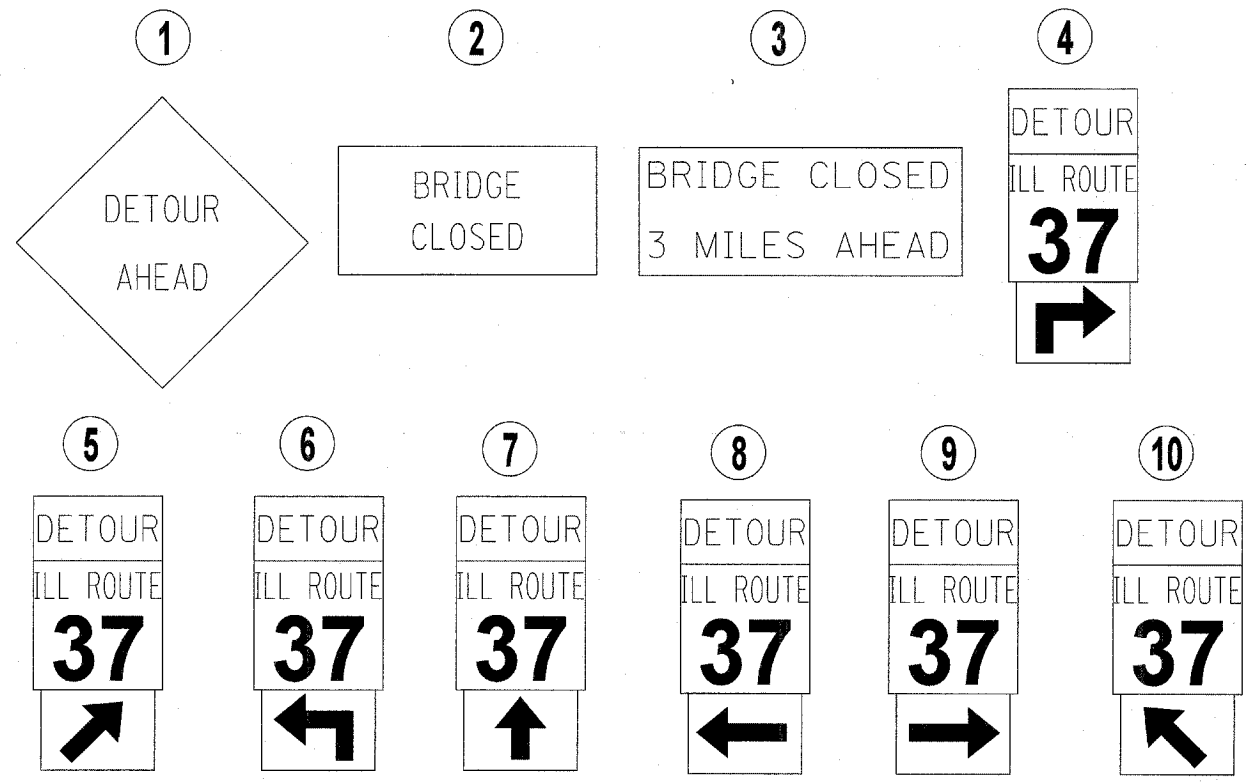
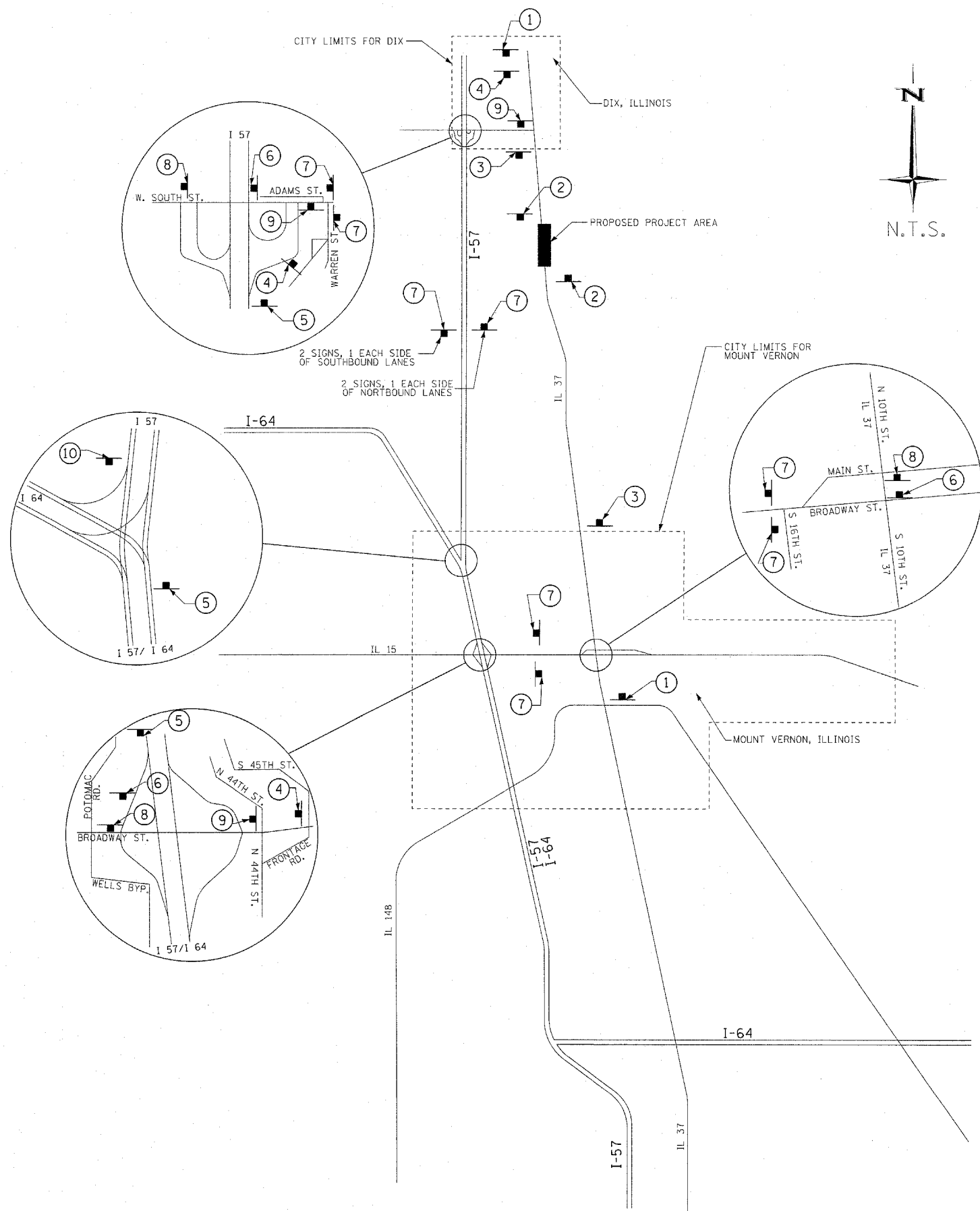
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		DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CONTROL TIES & BENCHMARKS

SCALE: SHEET NO. 6 OF 44 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	6
CONTRACT NO. 78013				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				







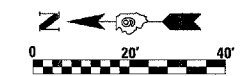
DETOUR SIGNING				SIGN PANEL TYPE 1 (0-9)	SIGN PANEL TYPE 2 (9-24)
SIGN ID NO.	DESCRIPTION	SIGN SIZE	TOTAL SIGNS REQUIRED	(SQ FT)	(SQ FT)
W20-2	DETOUR AHEAD	48" X 48"	2		32
R11-2	BRIDGE CLOSED	48" X 30"	2		20
R11-3B	BRIDGE CLOSED X MILES AHEAD	60" X 30"	2		25
M4-8	DETOUR	12" X 24"	24	48	
M1-4	ILL ROUTE 37	24" X 24"	24	96	
M5-1R		21" X 15"	2	4.375	
M6-2R		21" X 15"	3	6.563	
M6-2L		21" X 15"	1	2.188	
M5-1R		21" X 15"	3	6.563	
M6-3		21" X 15"	10	21.875	
M6-1L		21" X 15"	3	6.563	
M6-1R		21" X 15"	3	6.563	
TOTALS			79	198.69	77

NOTES:

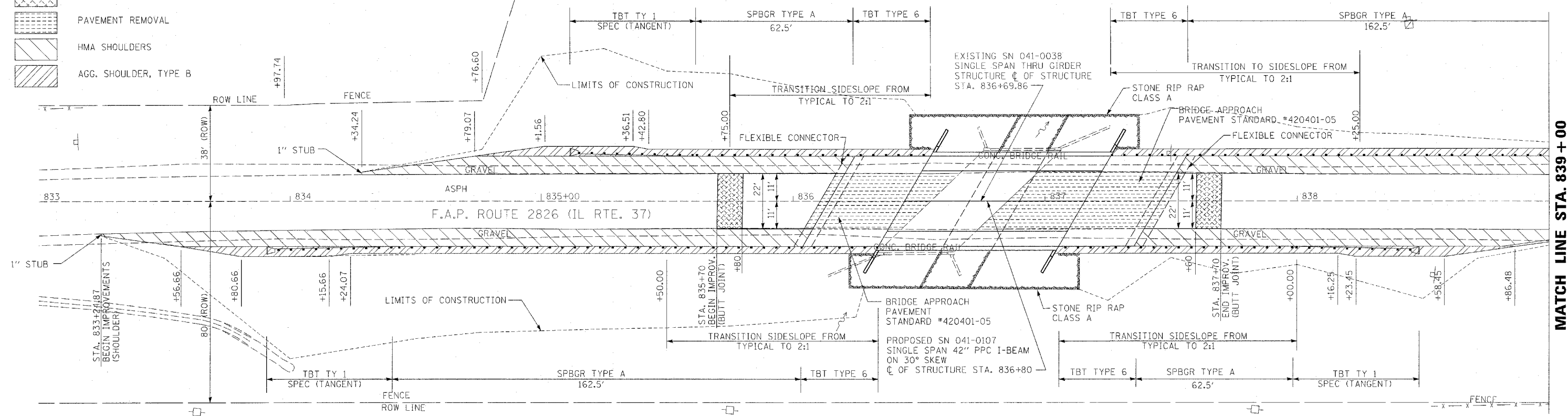
- THE CONTRACTOR SHALL FURNISH POSTS AND BE RESPONSIBLE FOR ERECTING THE SIGNING OF THE ROAD CLOSURE AS SHOWN ON THIS SHEET. PRIOR TO CLOSING THE ROAD, THE DISTRICT 9 BUREAU OF OPERATIONS SHALL BE NOTIFIED AT LEAST TWO (2) WEEKS IN ADVANCE IN ORDER TO FABRICATE THE SIGNS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE ROAD CLOSURE WITH THE DISTRICT BUREAU OF OPERATIONS.
- THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE DISTRICT 9 OFFICE IN CARBONDALE, 2801 WEST MURPHYSBORO ROAD, AND RETURN THEM UPON COMPLETION OF THE PROJECT. CONTACT IS KEVIN CRAMER.
- SIGN SPACING SHALL BE 400' OR TO FIT THE FIELD CONDITIONS, AS REQUIRED BY THE ENGINEER.
- THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.
- THE USE OF BLR-21 AND ALL OTHER TRAFFIC CONTROL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).
- ALL TRAFFIC CONTROL, INCLUDING TYPE III BARRICADES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND NO OTHER COMPENSATION WILL BE ALLOWED.

LEGEND

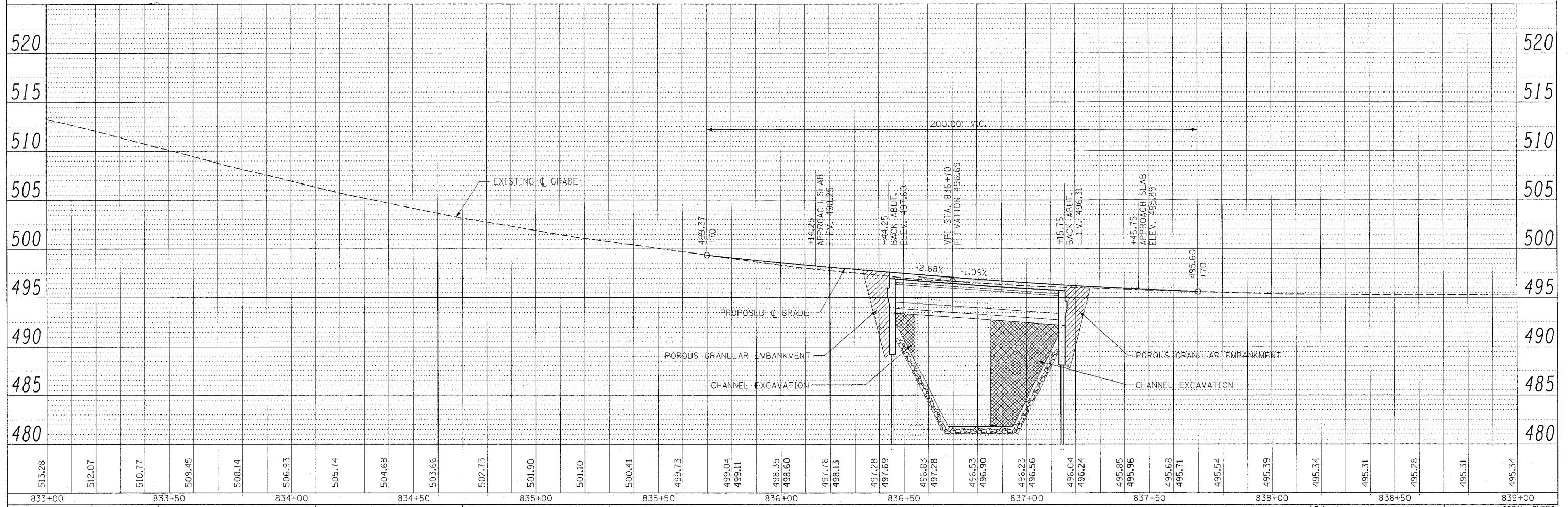
-  HMA SURFACE REMOVAL - BUTT JOINT
-  PAVEMENT REMOVAL
-  HMA SHOULDERS
-  AGG. SHOULDER, TYPE B



DATE	
BY	
NO.	
NO.	
NO.	
NO.	
NO.	



DATE	
BY	
NO.	
NO.	
NO.	
NO.	
NO.	



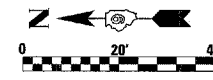
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513.28	512.07	510.77	509.45	508.14	506.93	505.74	504.68	503.66	502.73	501.90	501.10	500.41
499.04	499.11	498.35	498.60	497.76	498.13	497.28	497.69	496.83	497.28	496.53	496.90	496.23
495.34	495.39	495.34	495.31	495.28	495.31	495.34	495.39	495.34	495.31	495.28	495.31	495.34

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

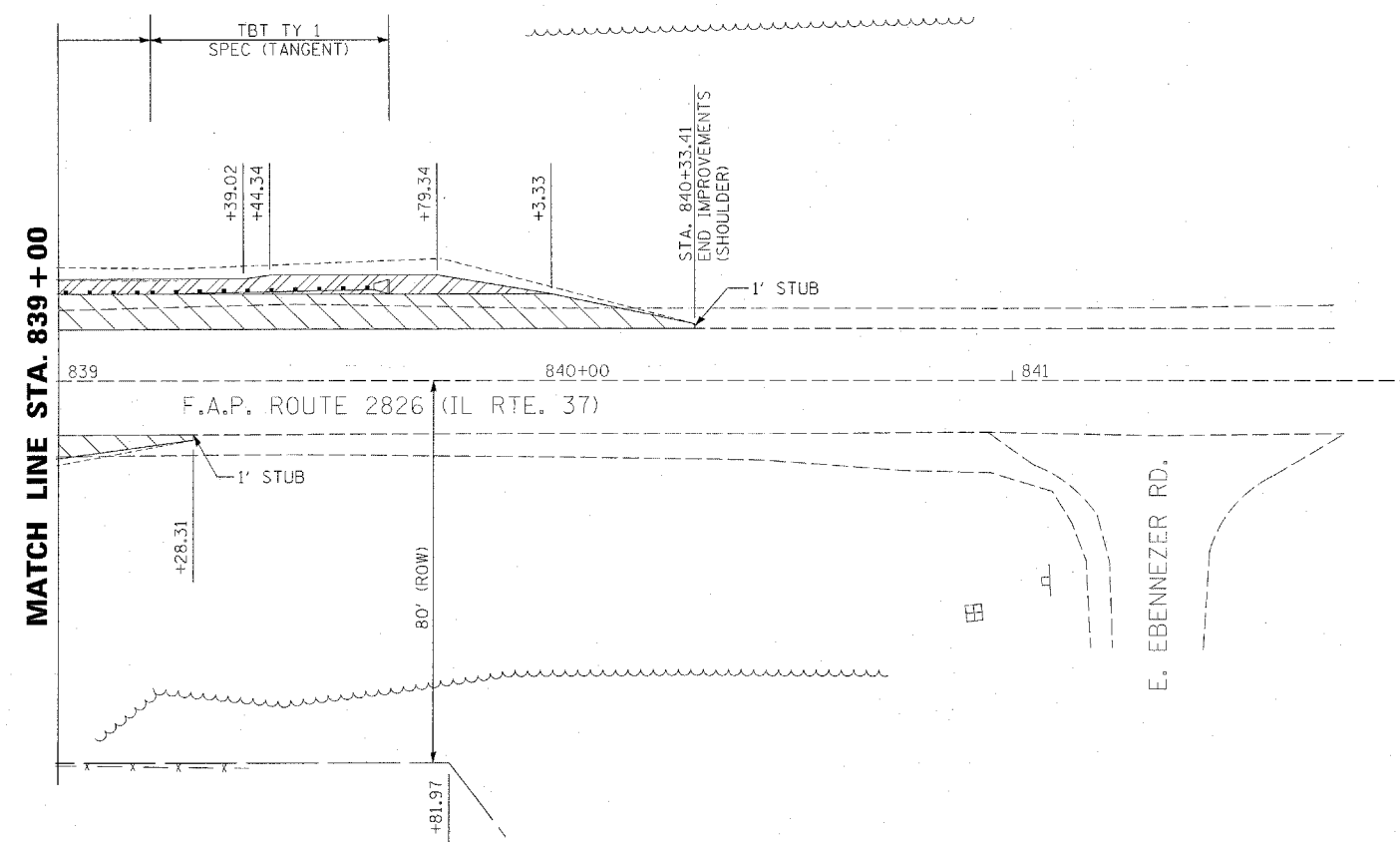
PLAN & PROFILE

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PLOT DATE = 3/19/2008	DATE -	REVISED -	REVISED -

SCALE:	SHEET NO. 8 OF 44 SHEETS	STA.	TO STA.
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.
2826	(110)B-1	JEFFERSON	44 8
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO.	78013



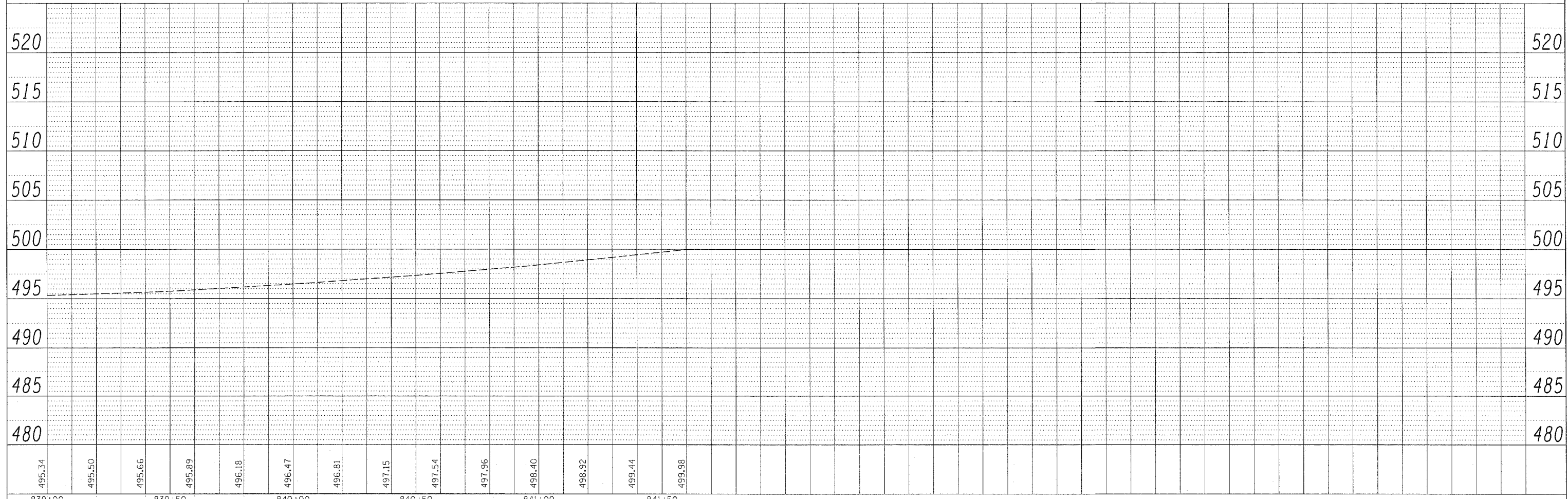
PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	REVISIONS		
	FILE NAME		



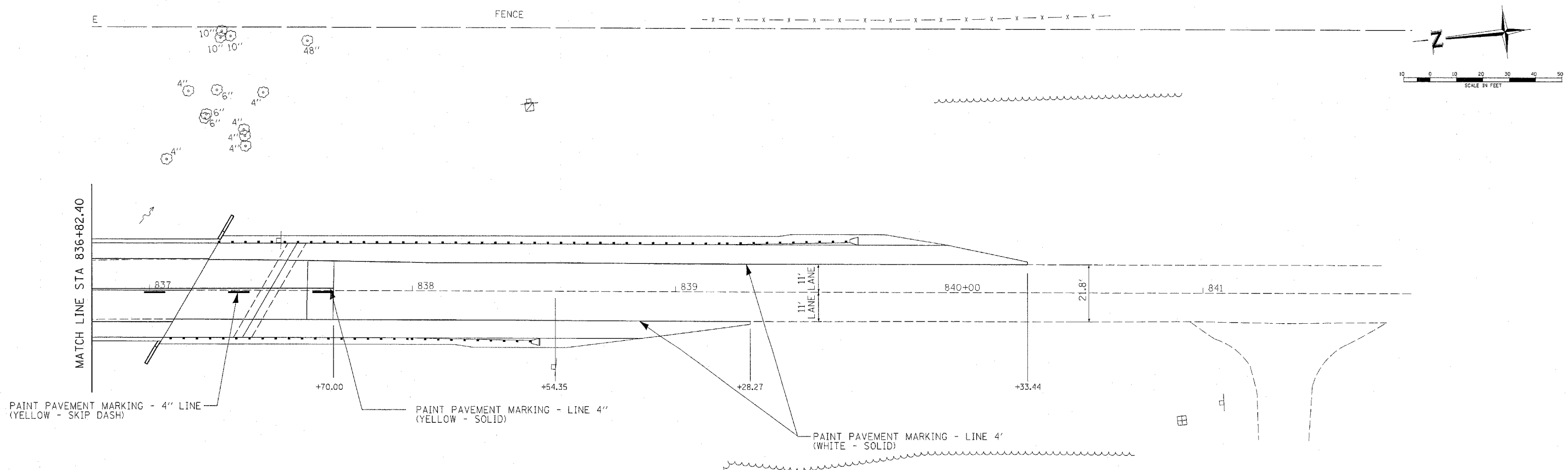
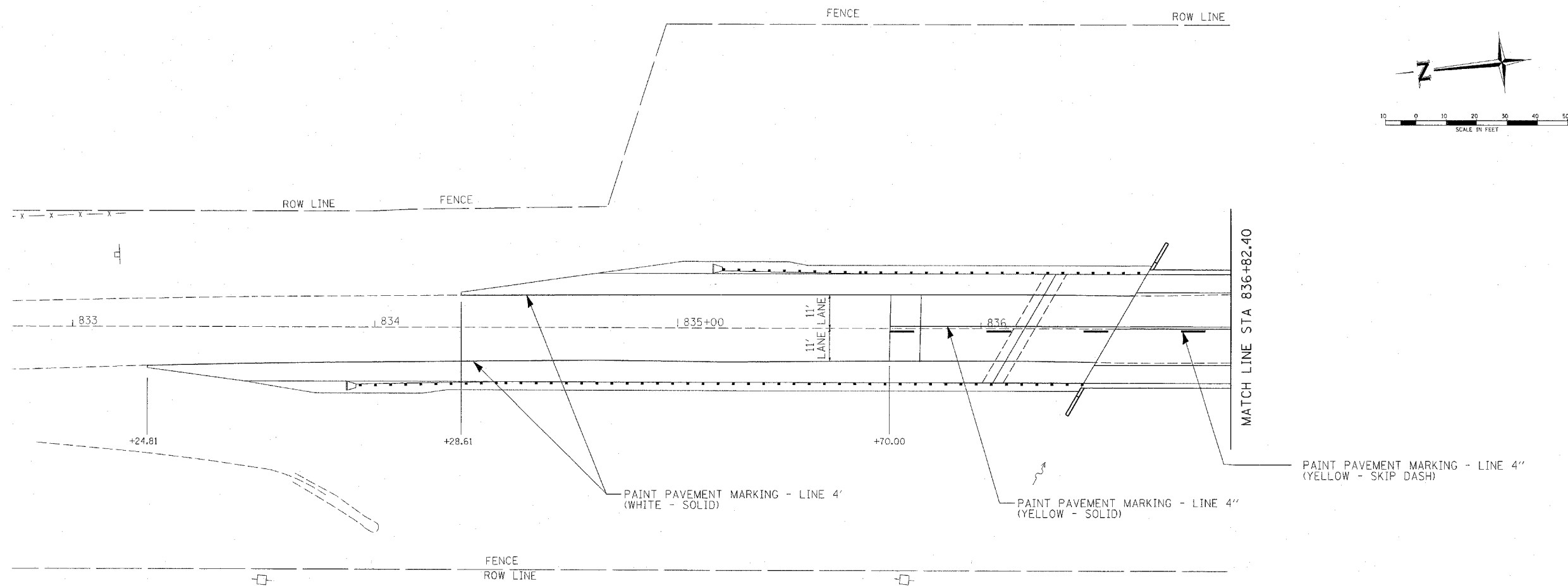
LEGEND

	HMA SURFACE REMOVAL - BUTT JOINT
	PAVEMENT REMOVAL
	HMA SHOULDERS
	AGG. SHOULDER, TYPE B

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	REVISIONS		
	FILE NAME		



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\08E1711-3\100T-Dist7-Var-Var-Design\Plans\08-09 1711-3p&pl.dgn		DRAWN -	REVISED -			2826	(110)B-1	JEFFERSON	44	9
PLOT SCALE = 28,000' / IN.		CHECKED -	REVISED -			CONTRACT NO. 78013				
PLOT DATE = 3/19/2008		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
						SCALE:	SHEET NO. 9 OF 44 SHEETS	STA.	TO STA.	



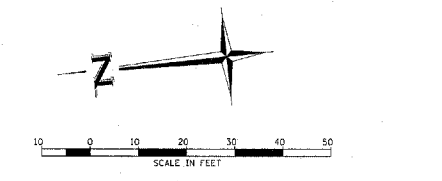
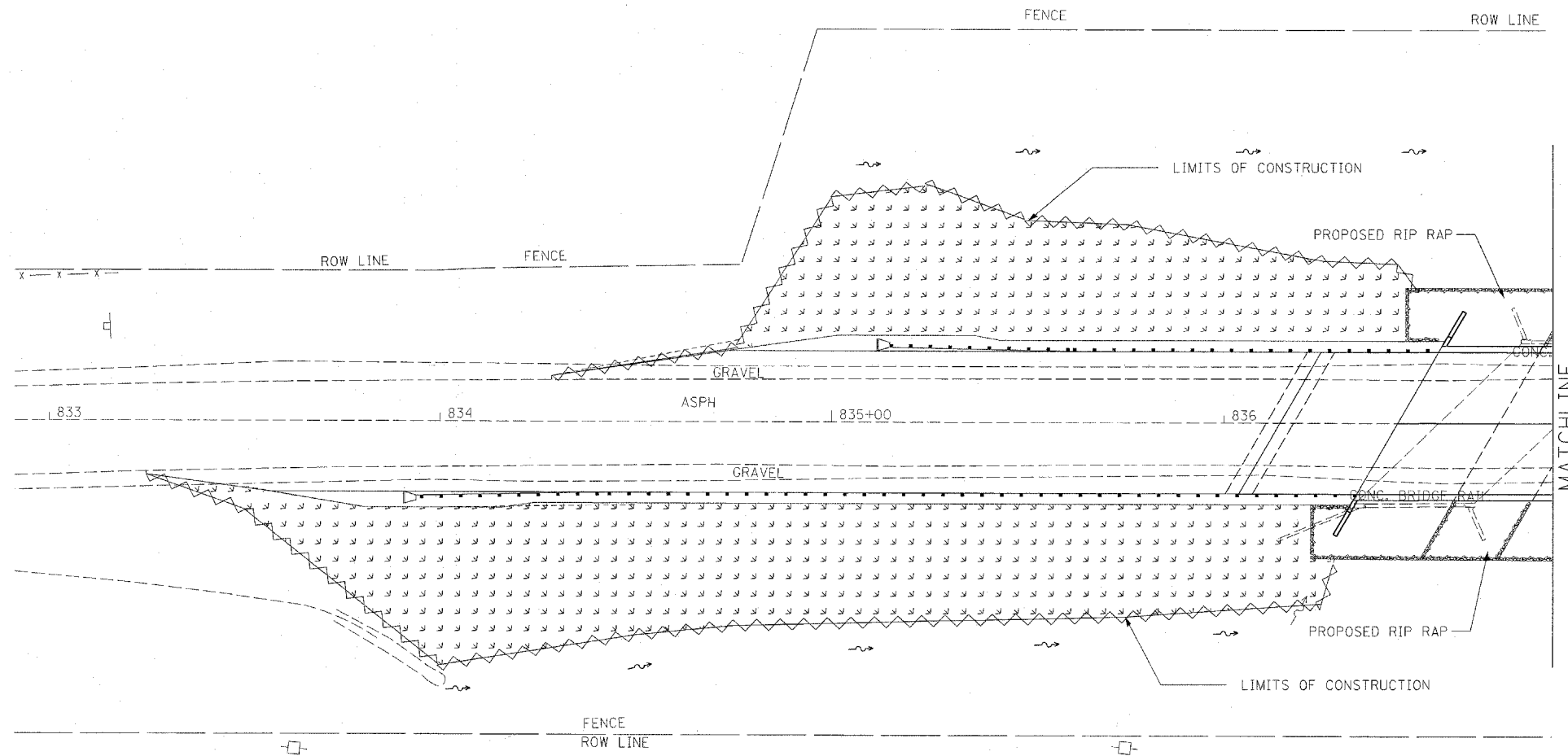
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PLOT DATE = 3/19/2008		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

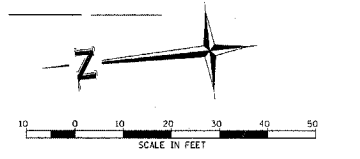
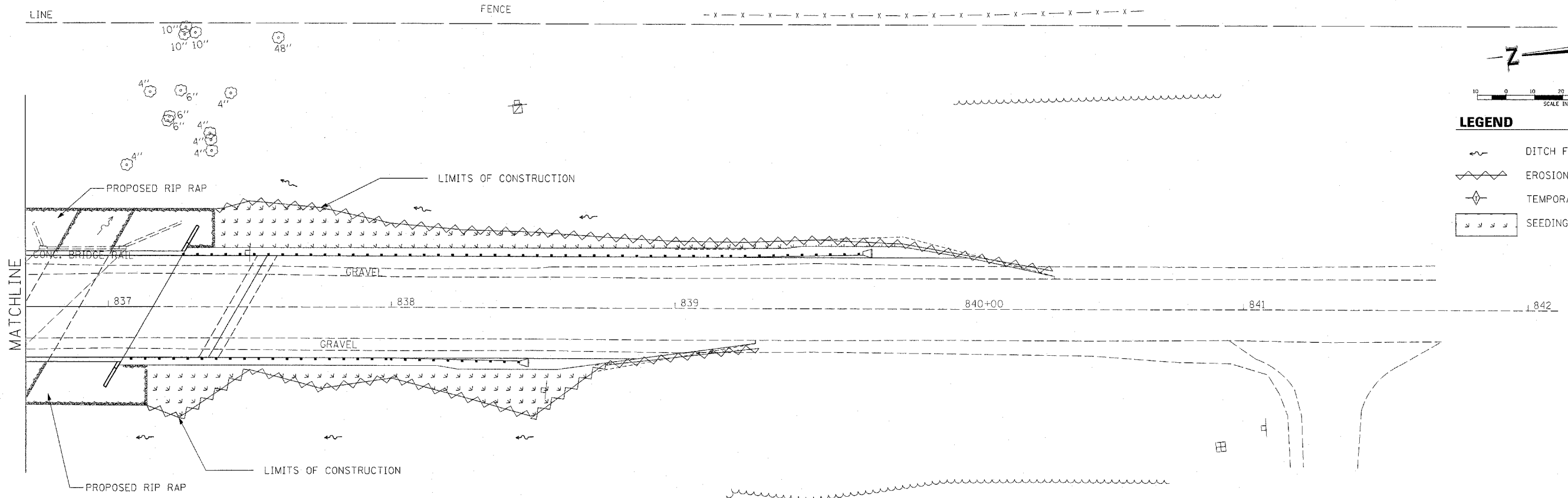
STRIPING PLAN

SCALE: SHEET NO. 10 OF 44 SHEETS STA. TO STA.

F.A.S. RTE. 2826	SECTION (110)B-1	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET NO. 10
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 78013				



- LEGEND**
- DITCH FLOW LINE
 - EROSION CONTROL FENCE
 - TEMPORARY DITCH CHECK
 - SEEDING & MULCHING AREA



- LEGEND**
- DITCH FLOW LINE
 - EROSION CONTROL FENCE
 - TEMPORARY DITCH CHECK
 - SEEDING & MULCHING AREA

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	PLOT DATE = 3/19/2008	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EROSION CONTROL PLAN

SCALE: SHEET NO. 11 OF 44 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	11
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78013	

B.M. Chiseled Square on top of Southwest Wingwall of Structure 041-0038, Elev. 496.38

Existing Structure: SN 041-0038, built in 1930 as SBI-142 Section 110B at Station 836+70. The existing structure is a single span concrete slab bridge on closed abutments with timber piles, 30'-10" bk.-to-bk. of abutts, 42'-2" o.-o. of deck with a clear roadway width of 40'-0". Wearing surface consists of a 3" bituminous overlay on top of the original 4" concrete overlay. The existing structure will be removed and replaced with a new single-span bridge.

Traffic to be detoured during construction.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

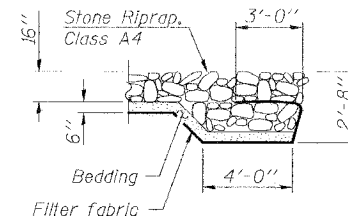
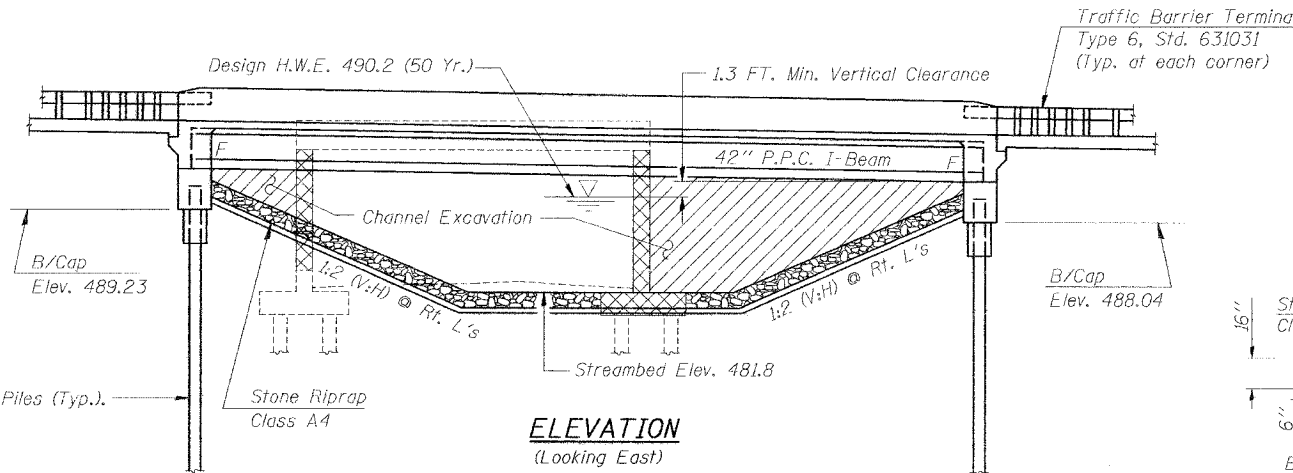
- 1 General Plan & Elevation
- 2-3 Top of Slab Elevations
- 4 Top of North Approach Slab Elevation
- 5 Top of South Approach Slab Elevation
- 6 Superstructure
- 7-8 Superstructure Details
- 9 Framing Plan
- 10 42" PPC I-Beam
- 11 42" PPC I-Beam Details
- 12 North Abutment
- 13 South Abutment
- 14 Pile Details
- 15 Bar Splicer Assembly Details
- 16 Boring Logs

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
F.A.S. 2826	110B-1	JEFFERSON	11	12	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract 78013

TOTAL BILL OF MATERIAL

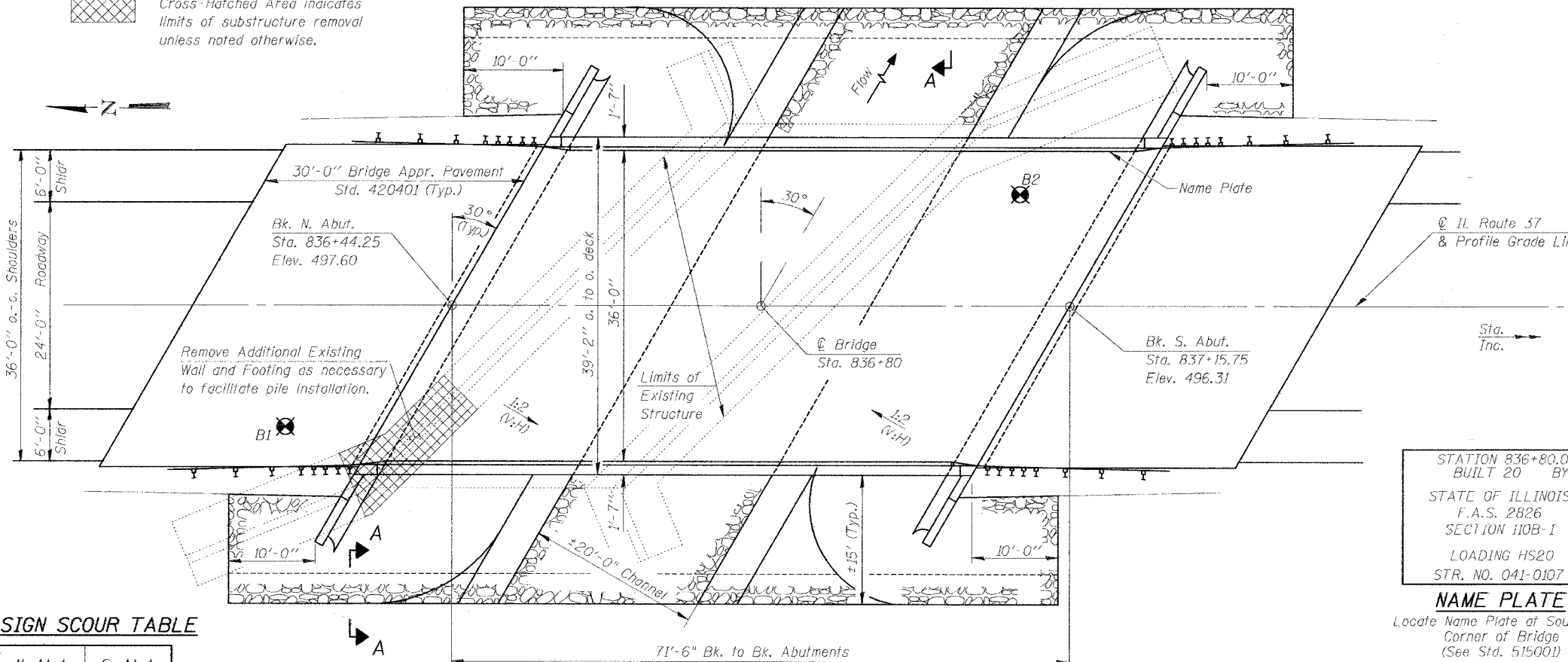
Item	Unit	Super	Sub.		Total
			Piers	Abutts.	
Removal of Existing Structures	Each	--	--	--	1
Concrete Structures	Cu. Yd.	--	--	42.3	42.3
Concrete Superstructure	Cu. Yd.	116.6	--	--	116.6
Bridge Deck Grooving	Sq. Yd.	270	--	--	270
Protective Coat	Sq. Yd.	352	--	--	352
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42 In.	Foot	418	--	--	418
Reinforcement Bars, Epoxy Coated	Pound	20,930	--	5,540	26,470
Bar Splicers	Each	72	--	--	72
Furnishing Steel Piles HP12x63	Foot	--	--	240	240
Driving Piles	Foot	--	--	240	240
Test Pile Steel HP12x63	Each	--	--	2	2
Name Plates	Each	1	--	--	1
Concrete Encasement	Cu. Yd.	--	--	4.2	4.2
Stone Riprap, Class A4	Sq. Yd.	--	--	--	638
Filter Fabric	Sq. Yd.	--	--	--	638
Structure Excavation	Cu. Yd.	--	--	318	318
Porous Granular Embankment (Special)	Cu. Yd.	--	--	170	170
Geocomposite Wall Drain	Sq. Yd.	--	--	94	94
Pipe Underdrains for Structures 4"	Foot	--	--	164	164



SECTION A-A

Hatched Area Indicates limits of Channel Excavation.

Cross-Hatched Area Indicates limits of substructure removal unless noted otherwise.



PLAN

WATERWAY INFORMATION

Existing Low Grade Elevation: 495.2 ft. @ Sta. 838+70
Proposed Low Grade Elevation: 495.2 ft. @ Sta. 838+70

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	1262	151	310	490.2	1.7	0.7	491.9	490.9
Base	100	1437	155	320	490.4	2.1	0.8	492.5	491.2
Max. Calc.	500	1849	161	340	490.7	3.2	1.1	493.9	491.8

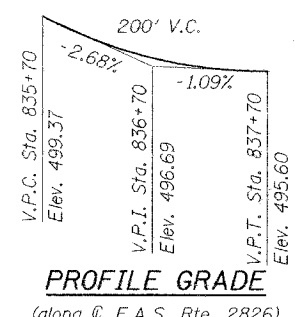
DESIGN SCOUR TABLE

N. Abut.	S. Abut.
489.2	488.0

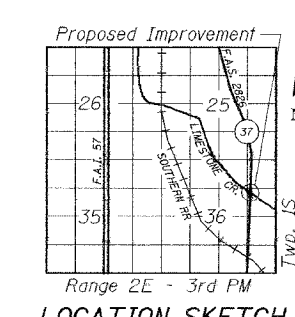
DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM



Toni M. McDonough
Licensed Structural Engineer
State of Illinois No. 81-5025
License Expires 11/30/08
Date 3-6-08



PROFILE GRADE
(along F.A.S. Rte. 2826)



LOCATION SKETCH

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. The Contractor shall drive 2 HP 12 test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
5. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.
6. Slipforming of the parapets is not allowed.

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 50#/Sq. Ft. for future wearing surface

APPROVED FOR STRUCTURAL ADEQUACY ONLY

Relief E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (1/2" low lax. strands)
fsi = 201,960 psi (1/2" low lax. strands)

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.098g
Site Coefficient (S) = 1.5

GENERAL PLAN & ELEVATION
IL ROUTE 37 OVER LIMESTONE CREEK

F.A.S. ROUTE 2826 SECTION 110B-1

JEFFERSON COUNTY

STA. 836+80

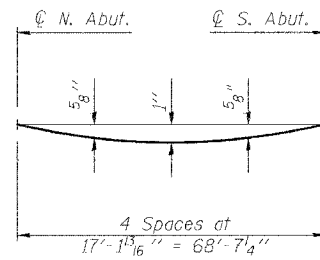
S.N. 041-0107

McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
138 East Wood Street
Hillsboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN NO. 164-092794

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

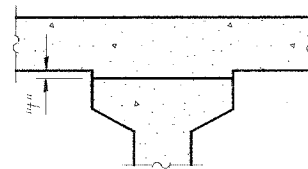
ROUTE NO. F.A.S. 2826	SECTION (110B)-1	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET 13	SHEET NO. 2 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #8013



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on this sheet and on sheet 3 of 16.



BEAM 1

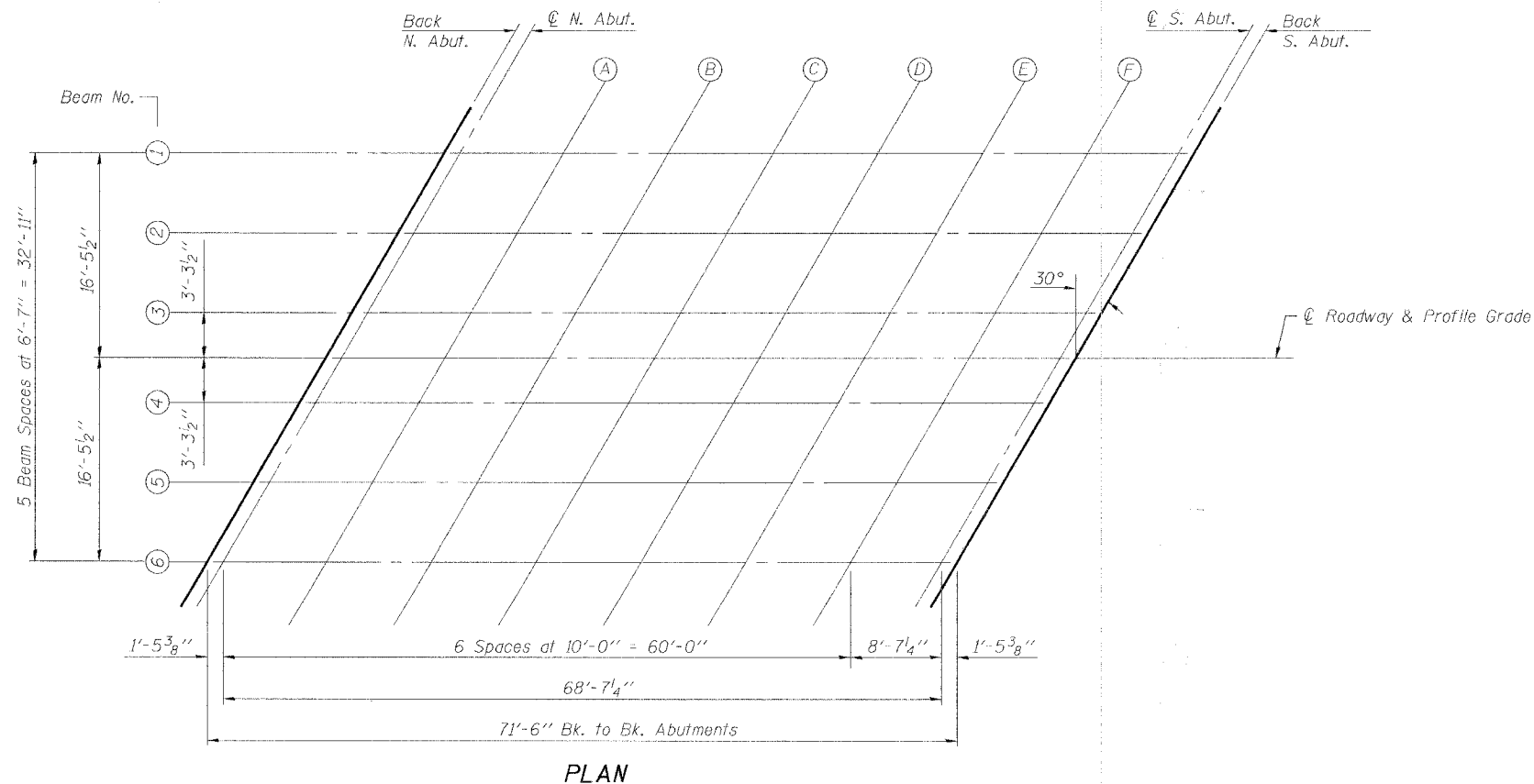
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	836+53.75	-16.46	497.12	497.12
☉ N. Abut.	836+55.20	-16.46	497.09	497.09
A	836+65.20	-16.46	496.90	496.93
B	836+75.20	-16.46	496.71	496.77
C	836+85.20	-16.46	496.53	496.61
D	836+95.20	-16.46	496.36	496.43
E	837+05.20	-16.46	496.19	496.25
F	837+15.20	-16.46	496.04	496.07
☉ S. Abut.	837+23.81	-16.46	495.91	495.91
Bk. S. Abut.	837+25.25	-16.46	495.89	495.89

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	836+49.95	-9.88	497.33	497.33
☉ N. Abut.	836+51.39	-9.88	497.30	497.30
A	836+61.39	-9.88	497.10	497.13
B	836+71.39	-9.88	496.91	496.97
C	836+81.39	-9.88	496.72	496.80
D	836+91.39	-9.88	496.55	496.63
E	837+01.39	-9.88	496.38	496.44
F	837+11.39	-9.88	496.22	496.25
☉ S. Abut.	837+20.01	-9.88	496.09	496.09
Bk. S. Abut.	837+21.45	-9.88	496.07	496.07

To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on this sheet and on sheet 3 of 16, minus slab thickness, equals the fillet heights "f" above top flanges of beams.

FILLET HEIGHTS



Note:
Work this sheet with sheet 3 of 16.

TOP OF SLAB ELEVATIONS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
138 East Wood Street
Hillsboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.4300
PROFESSIONAL DESIGN NO. 184-002754

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 2826	SECTION 110B-1	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET NO. 14	SHEET NO. 3 16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract 78013

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	836+46.15	-3.29	497.51	497.51
@ N. Abut.	836+47.59	-3.29	497.48	497.48
A	836+57.59	-3.29	497.28	497.31
B	836+67.59	-3.29	497.08	497.15
C	836+77.59	-3.29	496.90	496.97
D	836+87.59	-3.29	496.72	496.79
E	836+97.59	-3.29	496.55	496.61
F	837+07.59	-3.29	496.38	496.41
@ S. Abut.	837+16.21	-3.29	496.25	496.25
Bk. S. Abut.	837+17.65	-3.29	496.23	496.23

CL ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	836+44.25	0	497.60	497.60
@ N. Abut.	836+45.69	0	497.57	497.57
A	836+55.69	0	497.37	497.40
B	836+65.69	0	497.17	497.23
C	836+75.69	0	496.98	497.06
D	836+85.69	0	496.80	496.88
E	836+95.69	0	496.63	496.69
F	837+05.69	0	496.47	496.50
@ S. Abut.	837+14.31	0	496.33	496.33
Bk. S. Abut.	837+15.75	0	496.31	496.31

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	836+42.35	3.29	497.59	497.59
@ N. Abut.	836+43.79	3.29	497.56	497.56
A	836+53.79	3.29	497.35	497.39
B	836+63.79	3.29	497.15	497.22
C	836+73.79	3.29	496.97	497.04
D	836+83.79	3.29	496.78	496.86
E	836+93.79	3.29	496.61	496.67
F	837+03.79	3.29	496.44	496.48
@ S. Abut.	837+12.41	3.29	496.31	496.31
Bk. S. Abut.	837+13.85	3.29	496.29	496.29

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	836+38.55	9.88	497.57	497.57
@ N. Abut.	836+39.99	9.88	497.53	497.53
A	836+49.99	9.88	497.33	497.36
B	836+59.99	9.88	497.13	497.19
C	836+69.99	9.88	496.93	497.01
D	836+79.99	9.88	496.75	496.83
E	836+89.99	9.88	496.57	496.63
F	836+99.99	9.88	496.40	496.43
@ S. Abut.	837+08.61	9.88	496.26	496.26
Bk. S. Abut.	837+10.05	9.88	496.24	496.24

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	836+34.75	16.46	497.52	497.52
@ N. Abut.	836+36.19	16.46	497.49	497.49
A	836+46.19	16.46	497.28	497.31
B	836+56.19	16.46	497.07	497.14
C	836+66.19	16.46	496.88	496.96
D	836+76.19	16.46	496.69	496.77
E	836+86.19	16.46	496.51	496.57
F	836+96.19	16.46	496.34	496.37
@ S. Abut.	837+04.80	16.46	496.20	496.20
Bk. S. Abut.	837+06.25	16.46	496.18	496.18

Note:
Work this sheet with sheet 2 of 16.

TOP OF SLAB ELEVATIONS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

McDonough-Whitlow, P.C.
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138 East Wood Street
Hillsboro, IL 62049
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PROFESSIONAL DESIGN No. 184-002754

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 2826	SECTION (110)B-1	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET NO. 15	SHEET NO. 4 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract 78013

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Approach Pav't	836+24.88	-18.42	497.71
A	836+34.88	-18.42	497.48
B	836+44.88	-18.42	497.27
Back N. Abutment	836+54.88	-18.42	497.07

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Approach Pav't	836+21.18	-12.00	497.92
A	836+31.18	-12.00	497.70
B	836+41.18	-12.00	497.48
Back N. Abutment	836+51.18	-12.00	497.28

☉ ROADWAY & PROFILE GRADE

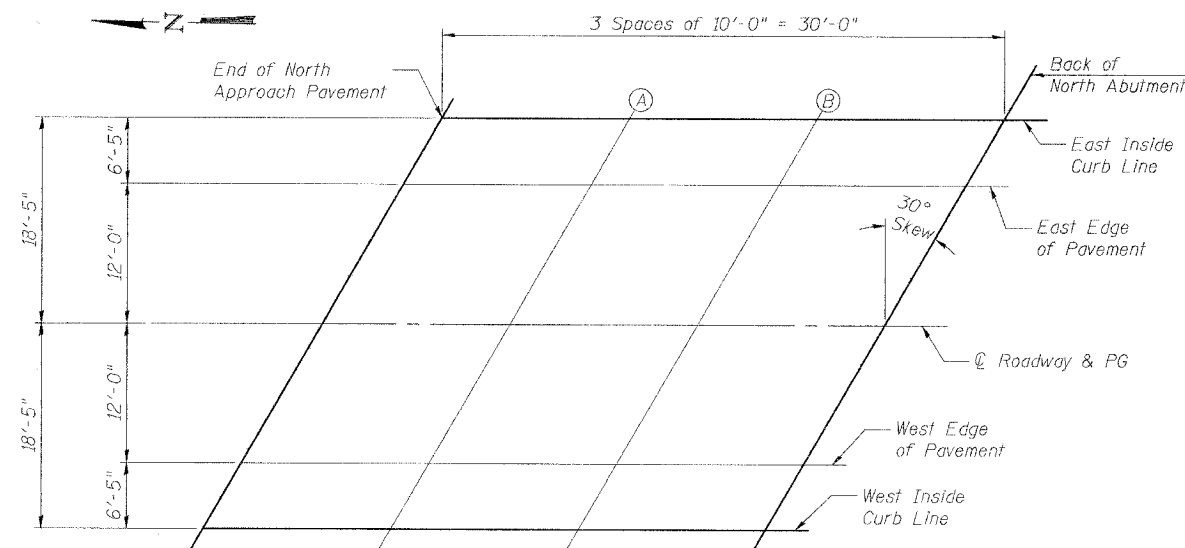
Location	Station	Offset	Theoretical Grade Elevations
End N. Approach Pav't	836+14.25	0.00	498.26
A	836+24.25	0.00	498.03
B	836+34.25	0.00	497.81
Back N. Abutment	836+44.25	0.00	497.60

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Approach Pav't	836+07.32	12.00	498.25
A	836+17.32	12.00	498.01
B	836+27.32	12.00	497.78
Back N. Abutment	836+37.32	12.00	497.57

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Approach Pav't	836+03.62	18.42	498.20
A	836+13.62	18.42	497.96
B	836+23.62	18.42	497.73
Back N. Abutment	836+33.62	18.42	497.51



PLAN

TOP OF NORTH APPROACH SLAB ELEVATIONS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

DESIGNED	CMF
CHECKED	KCM
DRAWN	EJR
CHECKED	TMM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 2826	SECTION (110B)-1	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET NO. 16	SHEET NO. 5 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract 8013

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back S. Abutment	837+26.38	-18.42	495.84
A	837+36.38	-18.42	495.70
B	837+46.38	-18.42	495.57
End S. Approach Pav't	837+56.38	-18.42	495.44

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back S. Abutment	837+22.68	-12.00	496.02
A	837+32.68	-12.00	495.88
B	837+42.68	-12.00	495.75
End S. Approach Pav't	837+52.68	-12.00	495.62

☉ ROADWAY & PROFILE GRADE

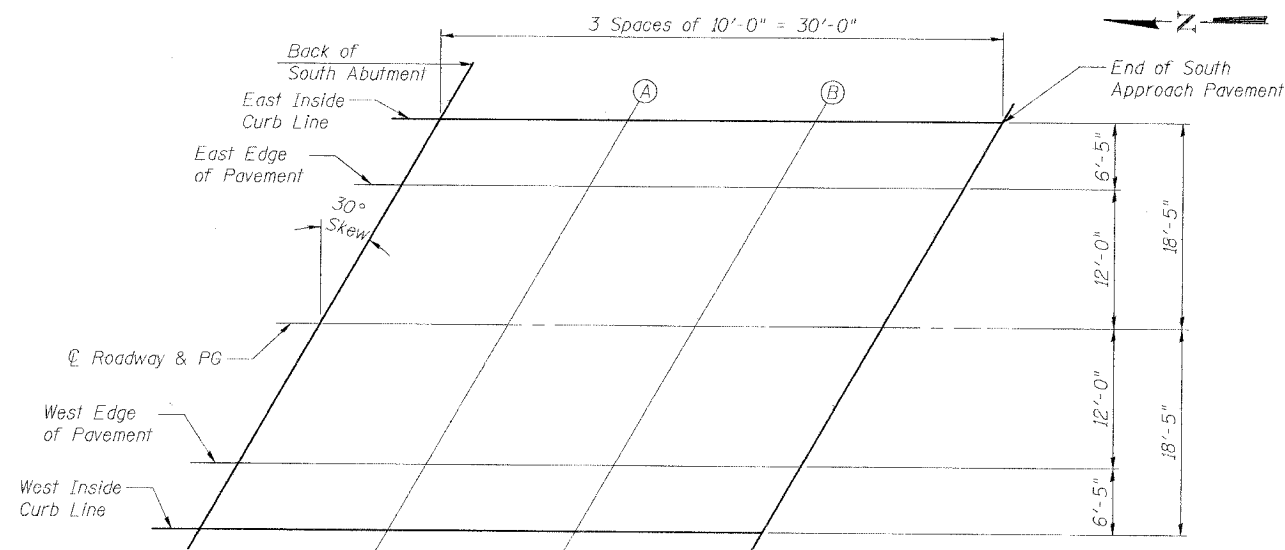
Location	Station	Offset	Theoretical Grade Elevations
Back S. Abutment	837+15.75	0.00	496.31
A	837+25.75	0.00	496.16
B	837+35.75	0.00	496.02
End S. Approach Pav't	837+45.75	0.00	495.89

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back S. Abutment	837+08.82	12.00	496.24
A	837+18.82	12.00	496.08
B	837+28.82	12.00	495.94
End S. Approach Pav't	837+38.82	12.00	495.80

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back S. Abutment	837+05.12	18.42	496.16
A	837+15.12	18.42	496.00
B	837+25.12	18.42	495.86
End S. Approach Pav't	837+35.12	18.42	495.71



PLAN

TOP OF SOUTH APPROACH SLAB ELEVATIONS

IL ROUTE 37 OVER LIMESTONE CREEK

F.A.S. ROUTE 2826 SECTION 110B-1

JEFFERSON COUNTY

STA. 836+80

S.N. 041-0107

DESIGNED	CMF
CHECKED	KCM
DRAWN	EJR
CHECKED	TMM

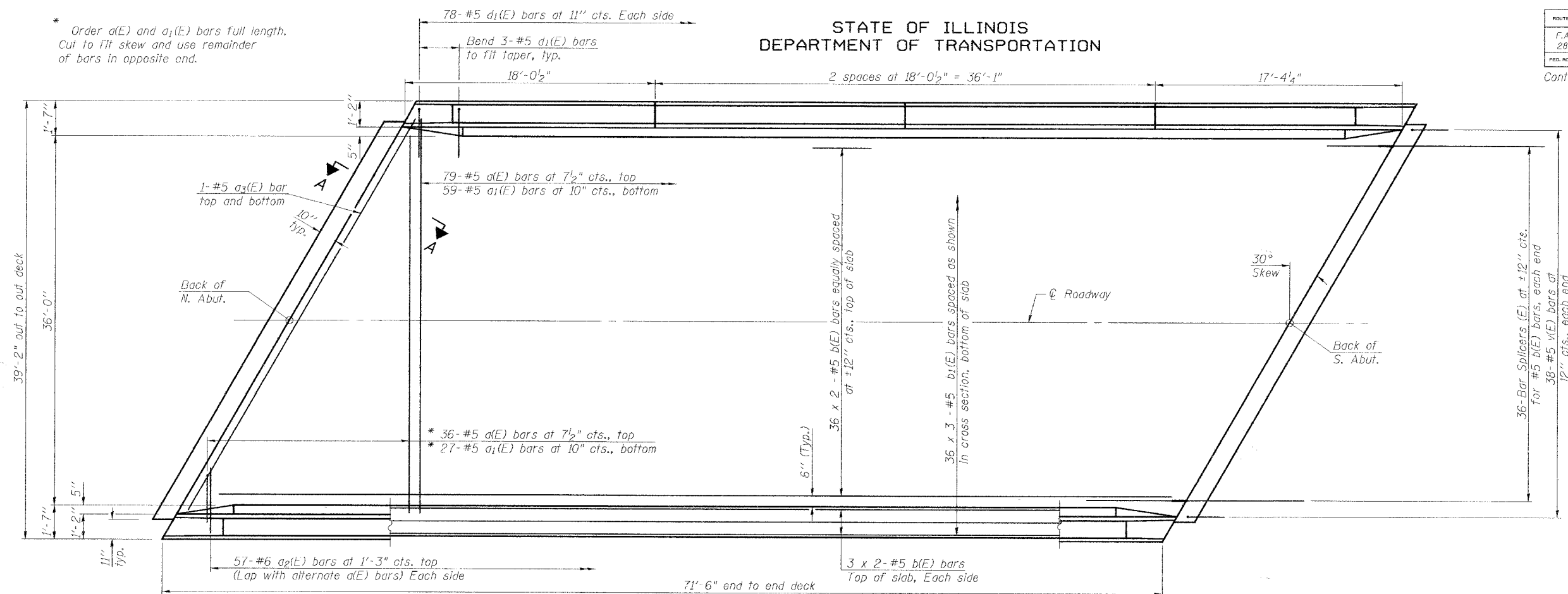
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Phone: 217.532.9233
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PROFESSIONAL DESIGN NO. 184-002754

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DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 2826	SECTION (110B)-1	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET NO. 17	SHEET NO. 6 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract 78013

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

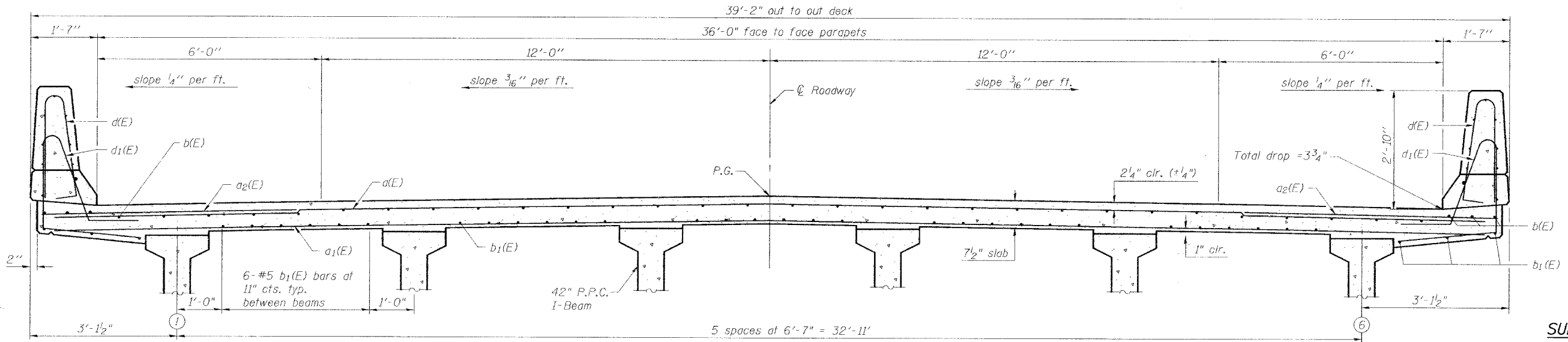


PLAN

Notes:
See Sheet 7 of 16 for superstructure details and Bill of Material.
Bars indicated thus 36 x 2-#5 etc. indicates 36 lines of bars with 2 lengths per line.
See Sheet 7 of 16 for parapet reinforcement.
See Sheet 15 of 16 for Bar Splicer Details.
See Sheet 8 of 16 for Section A-A.
Work this sheet with sheets 7 and 8 of 16.

MINIMUM BAR LAP

#5 bar = 1'-8"



CROSS SECTION
(Looking South)

SUPERSTRUCTURE
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

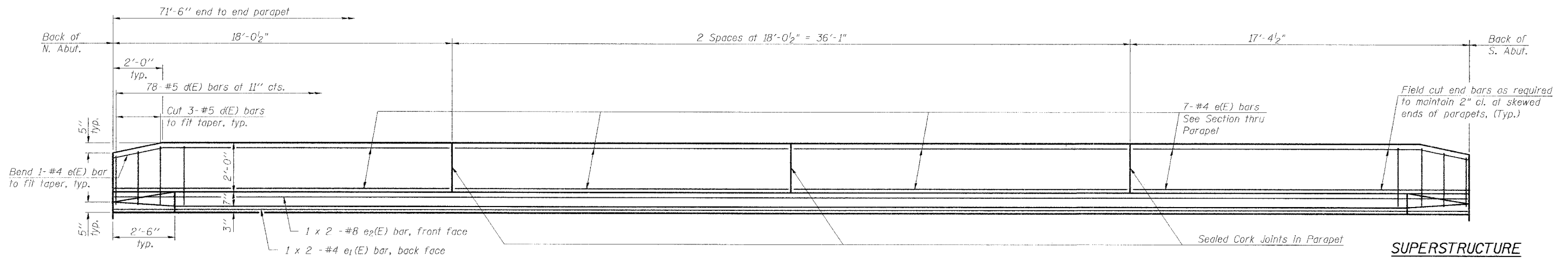
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CHECKED	TMM

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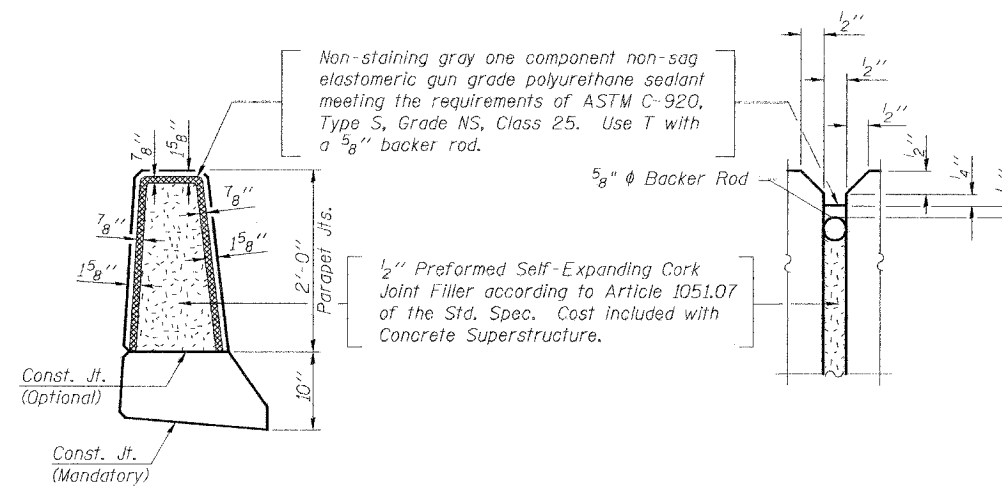
ROUTE NO. F.A.S. 2826	SECTION 110B-1	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET NO. 18	SHEET NO. 7 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract 78013



INSIDE ELEVATION OF PARAPET

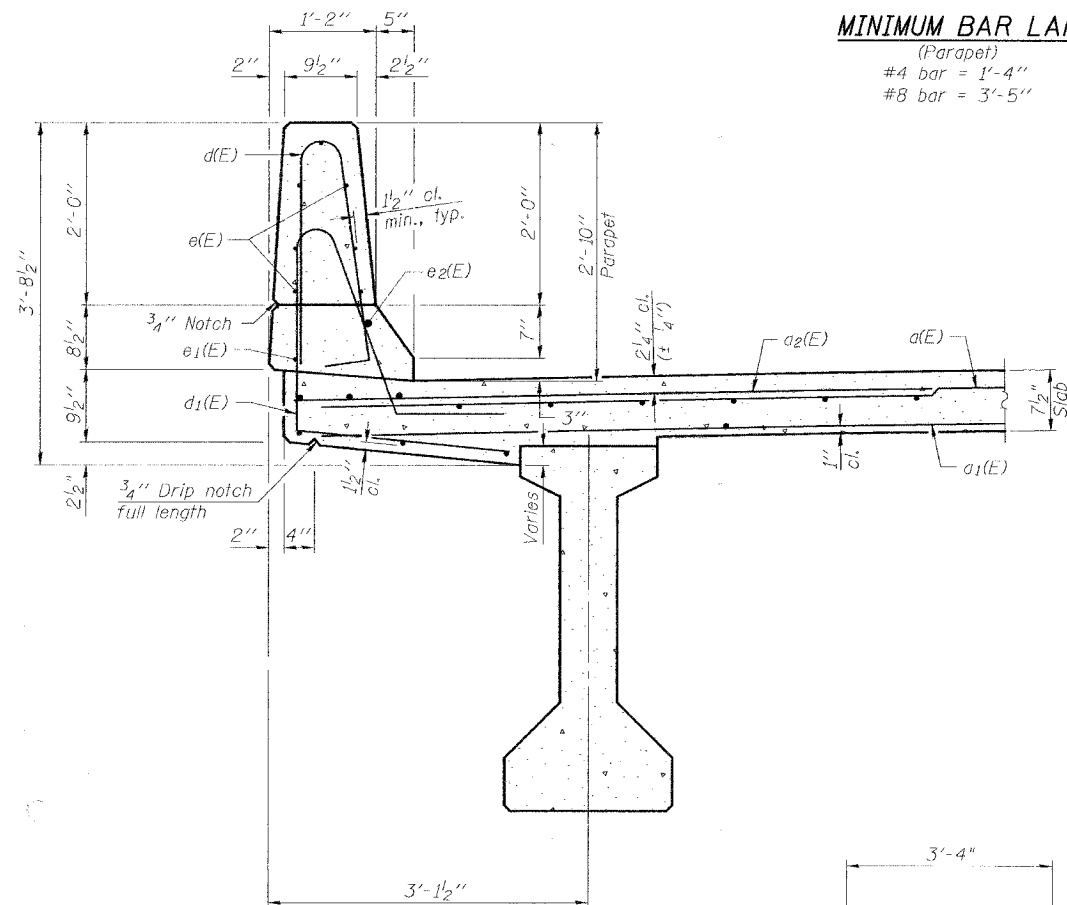
Dim. along curb at inside base of Parapet.
East Parapet Shown / West Similar



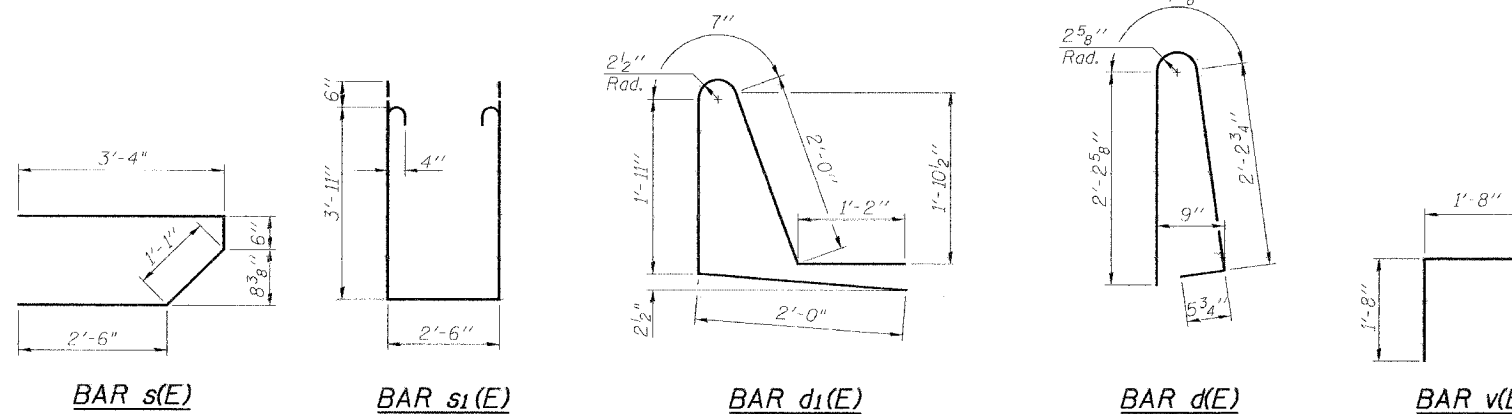
PARAPET JOINT DETAILS

MINIMUM BAR LAP

(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



SECTION THRU PARAPET



**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	115	#5	37'-11"	—
a1(E)	86	#5	37'-11"	—
a2(E)	114	#6	6'-6"	—
a3(E)	4	#5	42'-3"	—
b(E)	84	#5	36'-5"	—
b1(E)	108	#5	24'-10"	—
d(E)	156	#5	5'-7"	┌
d1(E)	156	#5	7'-8"	┌
e(E)	56	#4	17'-8"	—
e1(E)	4	#4	36'-3"	—
e2(E)	4	#8	37'-4"	—
m(E)	4	#6	42'-8"	—
m1(E)	6	#6	44'-10"	—
m2(E)	24	#6	9'-10"	—
m3(E)	10	#6	5'-2"	—
m4(E)	4	#6	2'-3"	—
s(E)	72	#5	7'-5"	└
s1(E)	62	#4	11'-4"	└
v(E)	76	#5	3'-4"	└
Reinforcement Bars, Epoxy Coated			Lbs.	20,930
Concrete Superstructure			Cu. Yds.	116.6

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.
Work this sheet with sheets 6 and 8 of 16.

SUPERSTRUCTURE DETAILS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

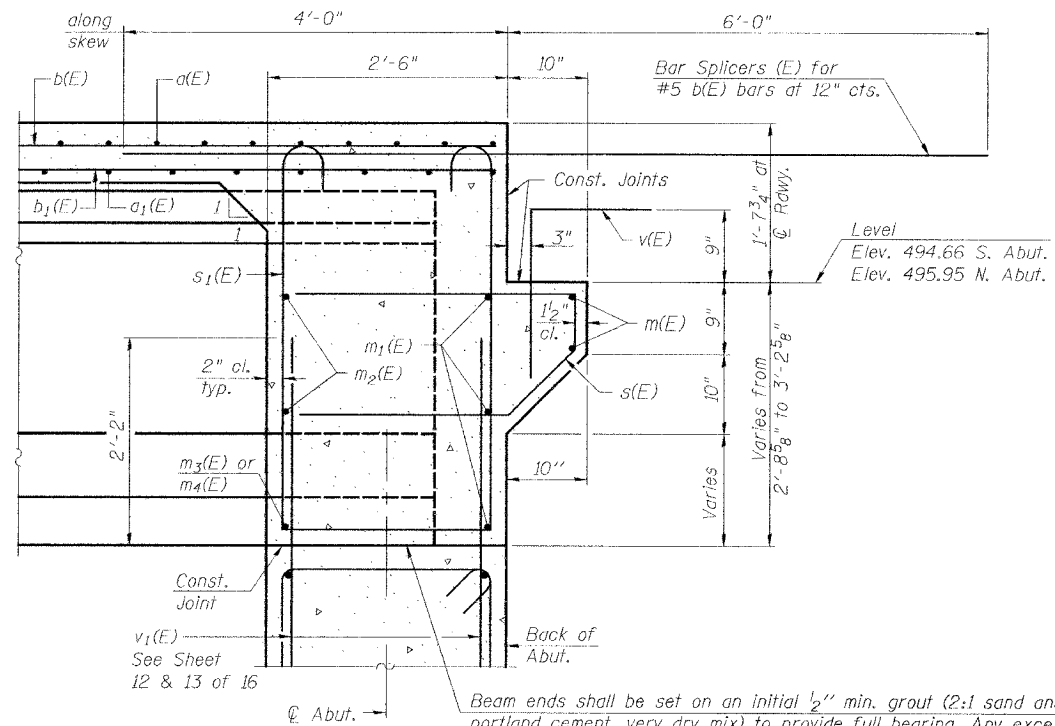
DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

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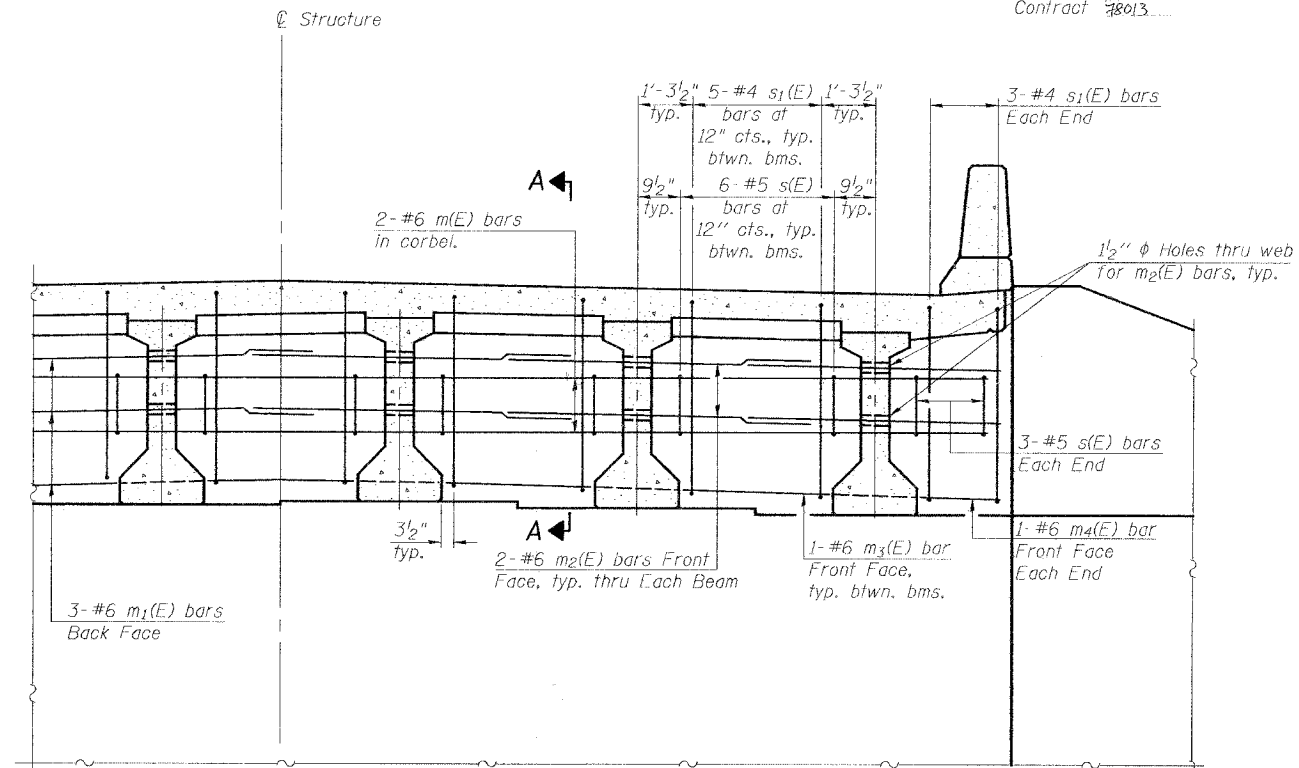
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F.A.S. 2826	110B-1	JEFFERSON	44	19	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #8013



SECTION A-A

Dimensions at right angles to abutment, except as shown.



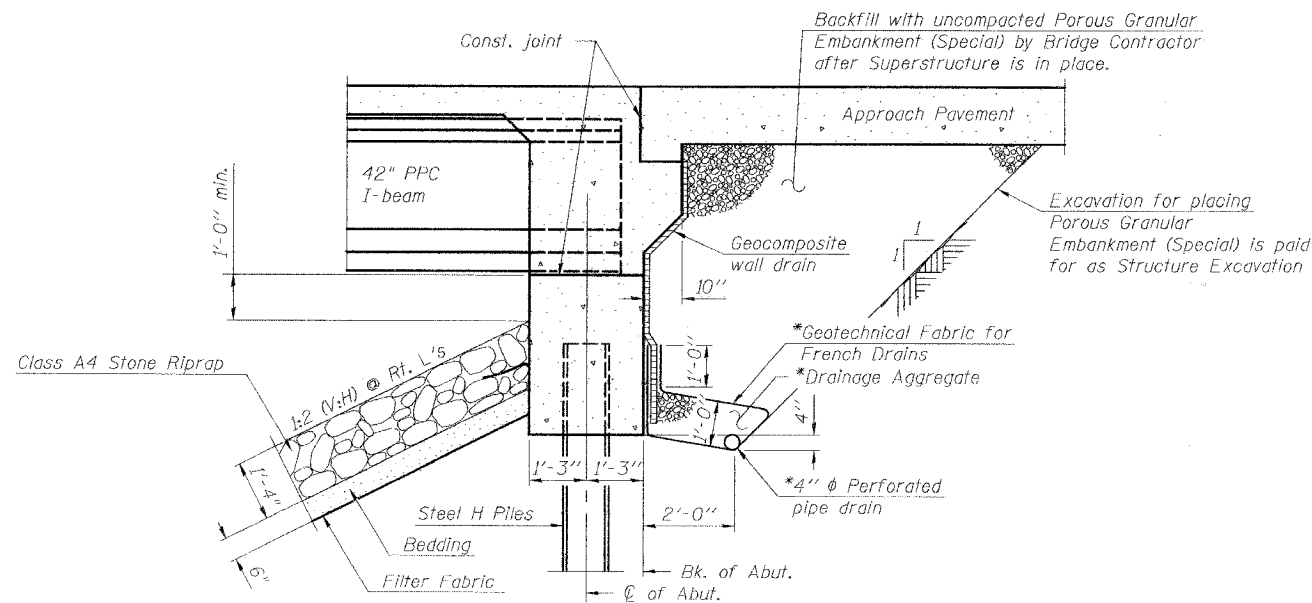
DIAPHRAGM ELEVATION AT ABUTMENT

(Looking South)
South Abut. Shown / North Similar

MINIMUM BAR LAP

#6 bar = 2'-9"

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 7 of 16.
Concrete in diaphragm is included with Concrete Superstructure on sheet 7 of 16.
For details of bars s(E) and s1(E) see sheet 7 of 16.
The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Work this sheet with sheets 6 and 7 of 16.
See Sheet 15 of 16 for Bar Splicer Details.



SECTION THRU INTEGRAL ABUTMENT

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

* Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601.101).

DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

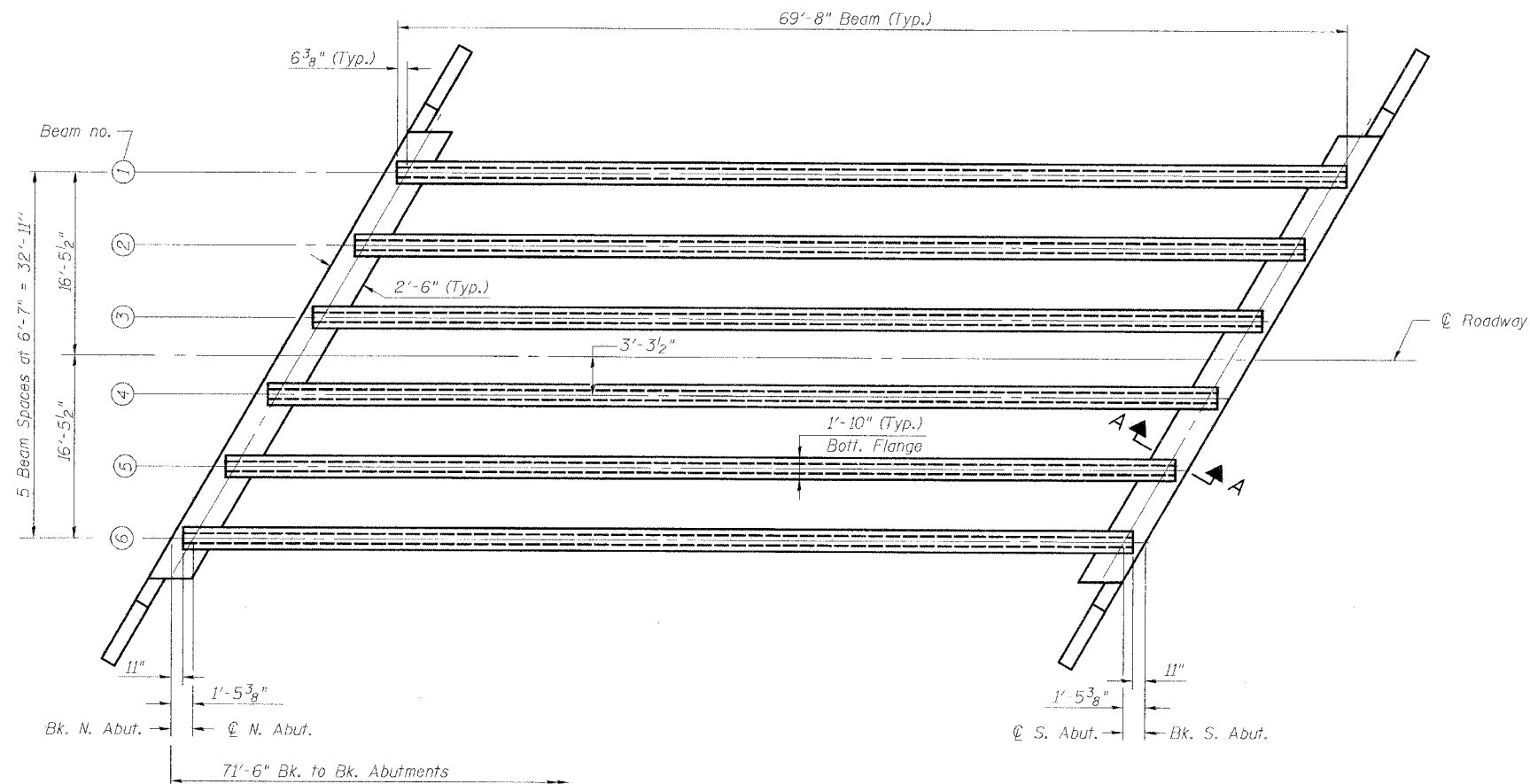
SUPERSTRUCTURE DETAILS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 2826	SECTION 110B-1	COUNTY JEFFERSON	TOTAL SHEETS 11	SHEET NO. 20	SHEET NO. 9 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract 78013



FRAMING PLAN

		0.5 Span
I	(in^4)	90956
I'	(in^4)	274044
S_b	(in^3)	5153
S_b'	(in^3)	8695
S_t	(in^3)	3736
S_t'	(in^3)	26143
Q	(k/ft)	1.127
M_Q	(k)	676
s_Q	(k/ft)	0.450
$M_s Q$	(k)	270
M_L	(k)	590
M (Imp)	(k)	152

		Abut's.
R_Q	(k)	39.3
$R_s Q$	(k)	15.7
R_L	(k)	37.3
Imp.	(k)	9.6
R (Total)	(k)	101.8

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

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

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

Q : Un-factored non-composite dead load (kips/ft.).

M_Q : is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.

s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s Q$: is the moment due to dead loads on the composite section.

M_L : is the moment due to live load on the composite section.

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

Notes:

See sheet 8 of 16 for Section A-A.

FRAMING PLAN
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

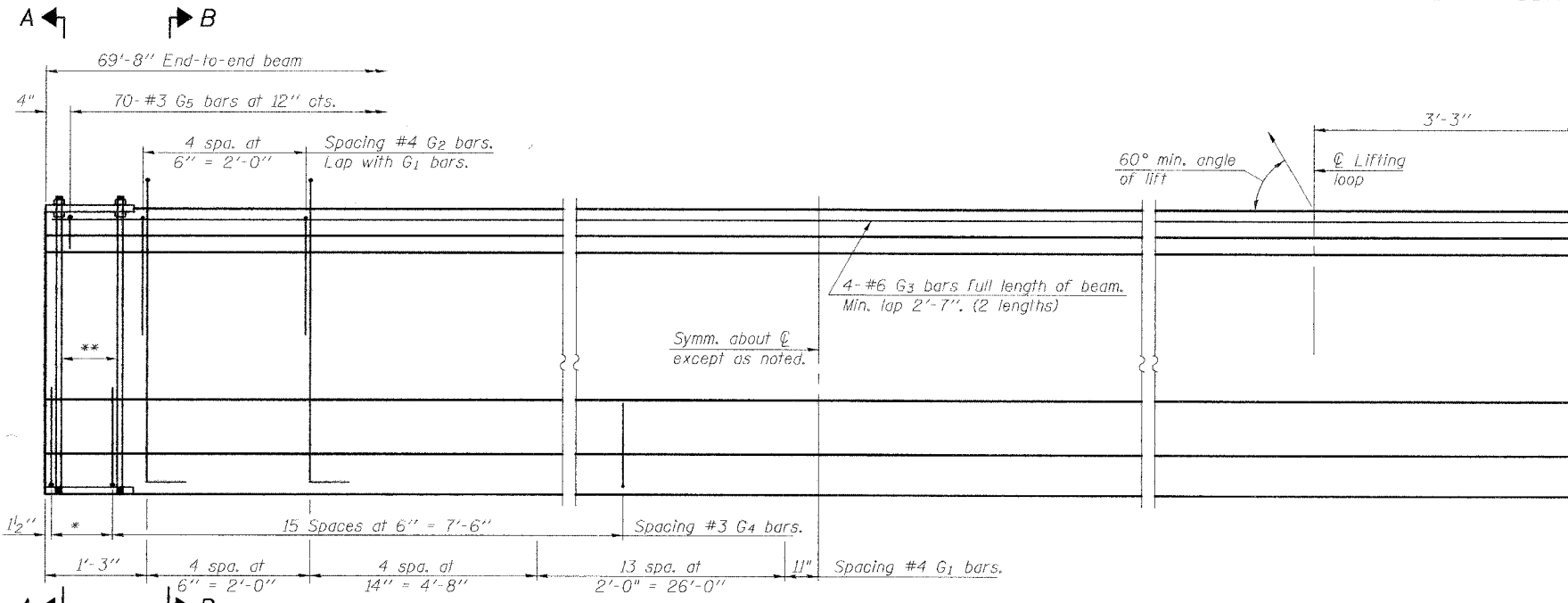
DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.S. 2826	110B-1	JEFFERSON	14	21	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

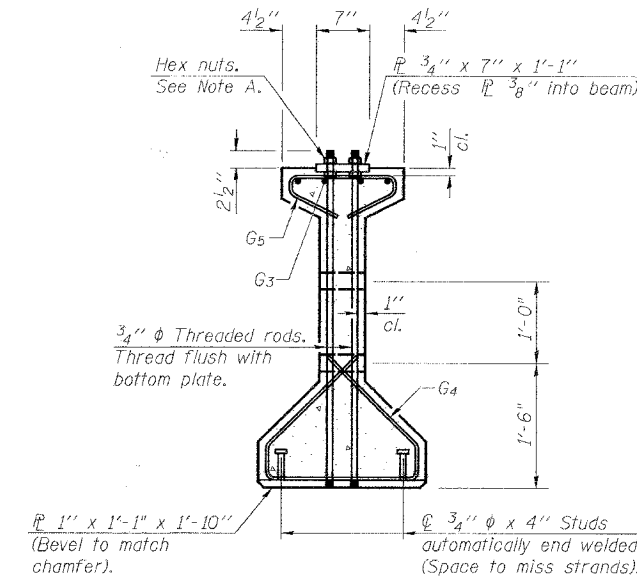
Contract 28013



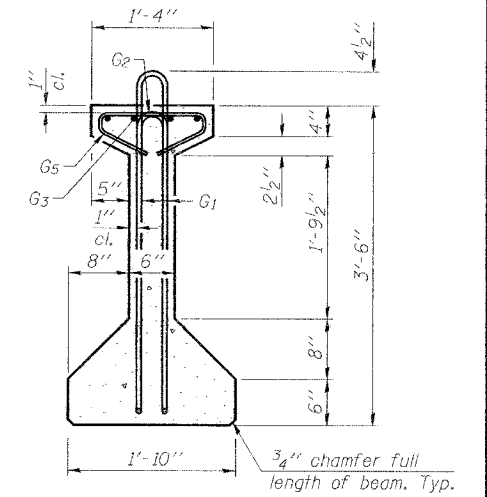
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

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

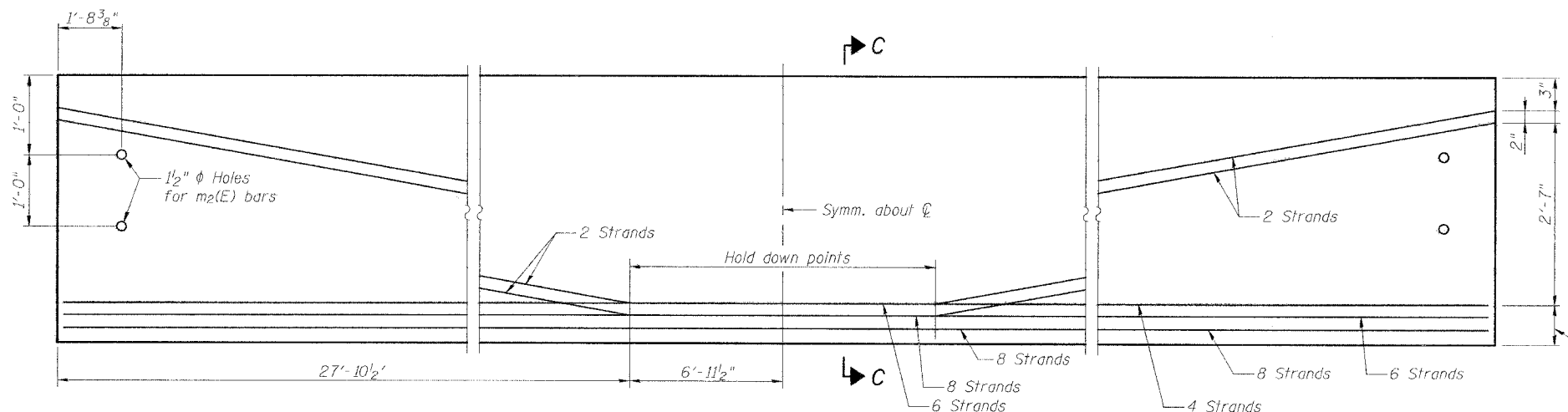
* 3 spaces at 3" = 9".
** 4-3/4" diameter threaded dowel rods at 3" centers, each face.



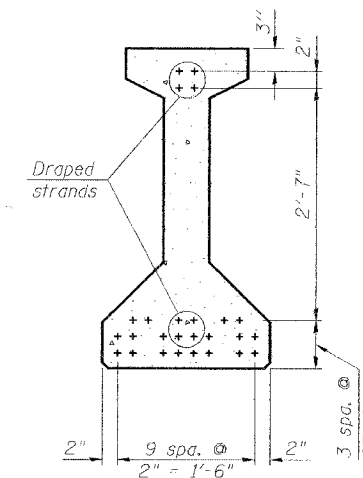
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



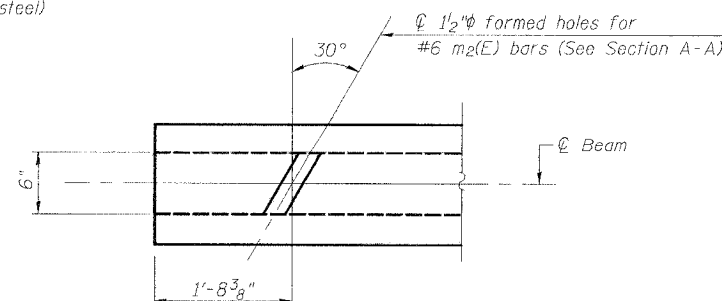
SECTION C-C

BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G1	44	#4	8'-5"	⌢
G2	10	#4	4'-4"	⌢
G3	8	#6	36'-0"	—
G4	38	#3	4'-11"	⌢
G5	70	#3	2'-6"	⌢

Notes:
See sheet 11 of 16 for additional details, notes, and Bill of Material.
Required release strength, f'ci, shall be 5000 psi.

42" PPC I-BEAM
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107



END OF BEAM PLAN

DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

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Hillsboro, IL 62049
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 2826	SECTION (110B-1)	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET NO. 22	SHEET NO. 11 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract 78013

NOTES

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

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

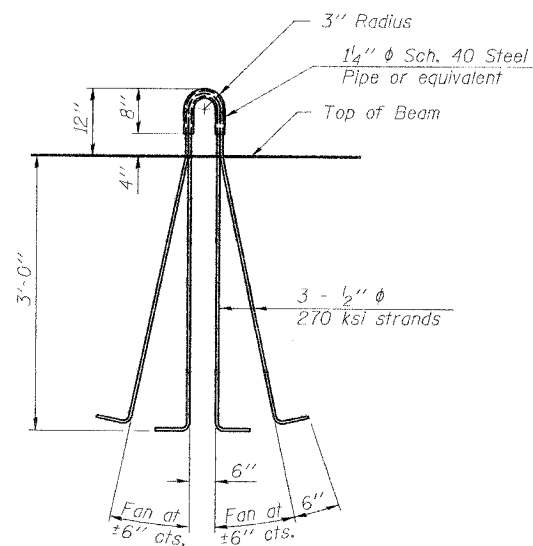
Non-prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

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

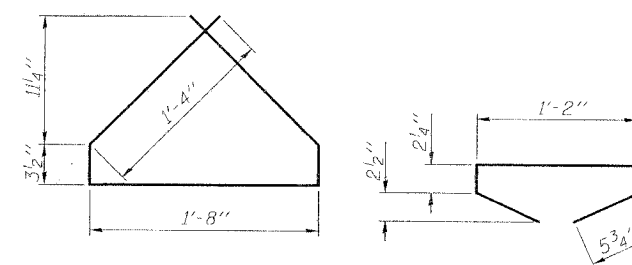
The bottom plates and studs shall be galvanized according to AASHTO M111.

Threaded rods shall be ASTM F 1554 Grade 55.

All embedded and separate bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 (as applicable).



LIFTING LOOP DETAIL

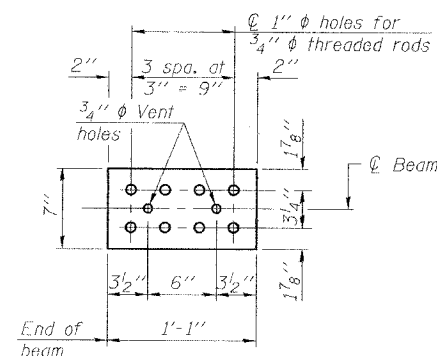


BAR G4

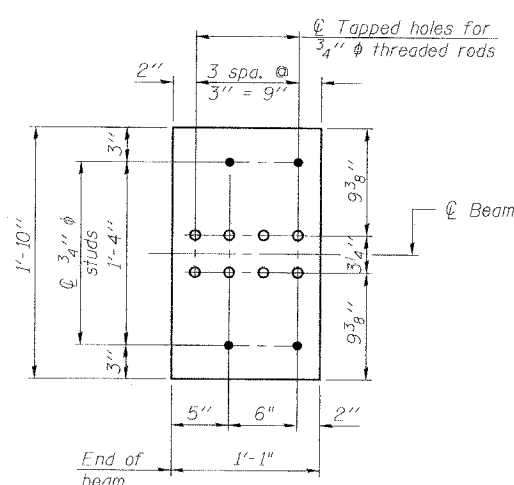
BAR G5

BILL OF MATERIAL

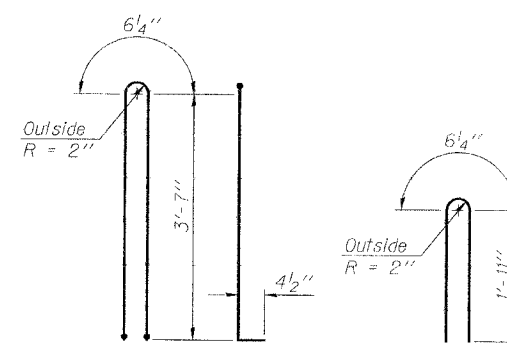
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	ft.	418



TOP PLATE



BOTTOM PLATE



BAR G1

BAR G2

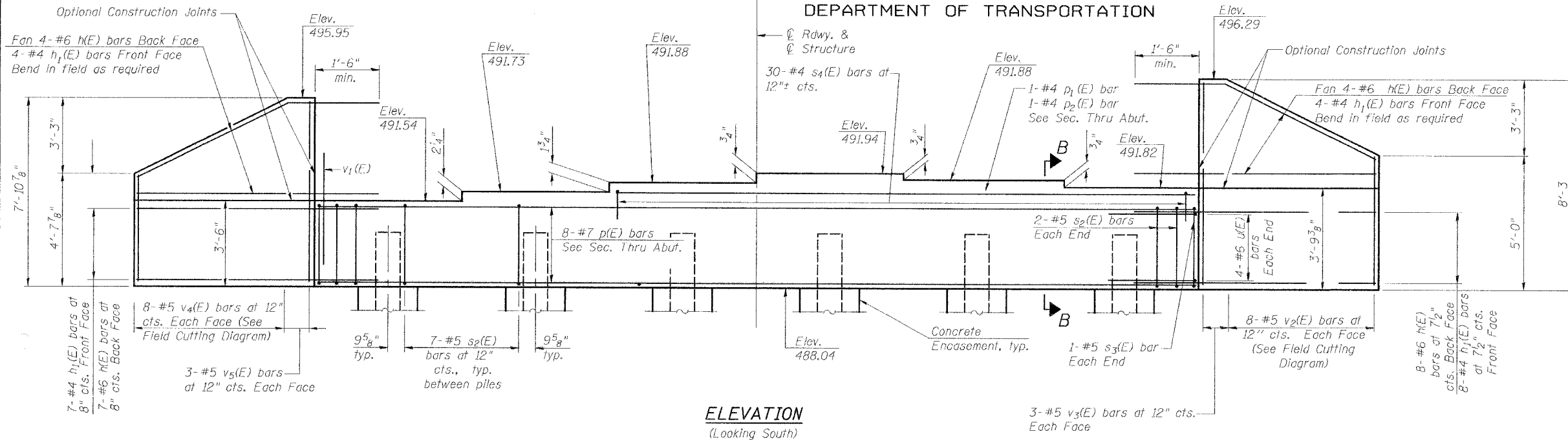
DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

42" PPC I-BEAM DETAILS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

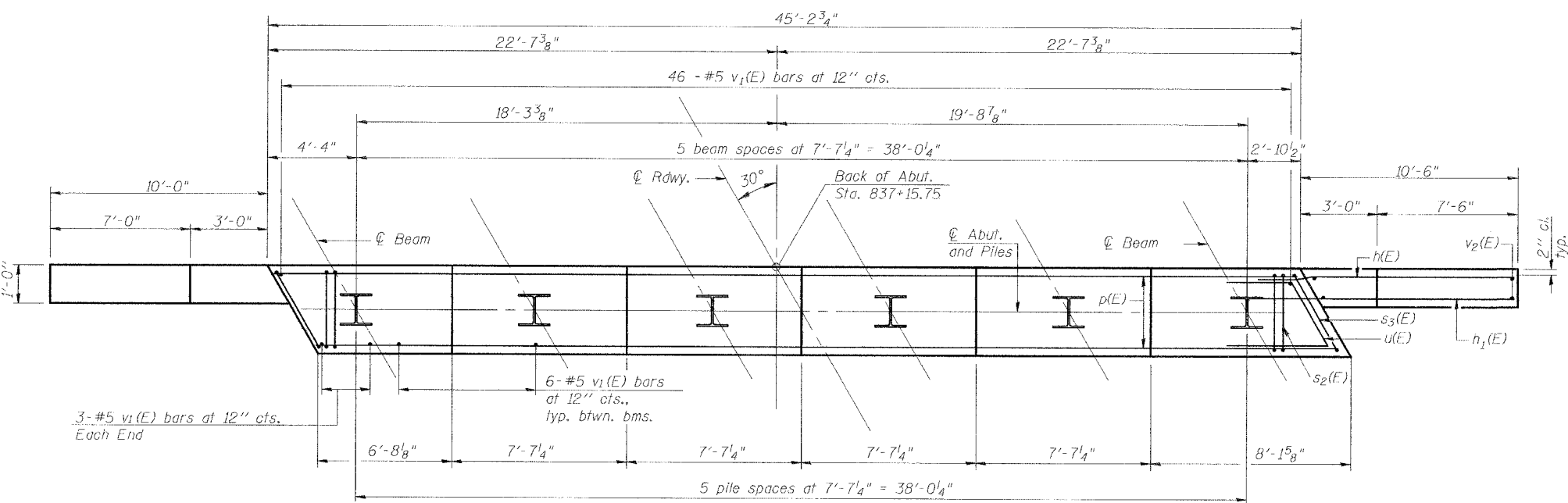
McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
138 East Wood Street
Hillsboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN No. 184-002754

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
F.A.S. 2826	110B-1	JEFFERSON	44	24	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



ELEVATION
(Looking South)

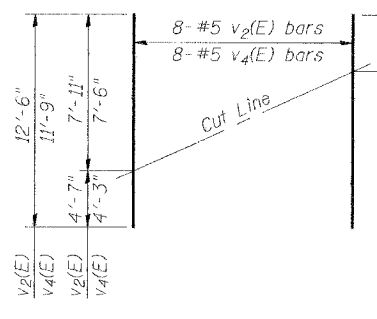


PLAN

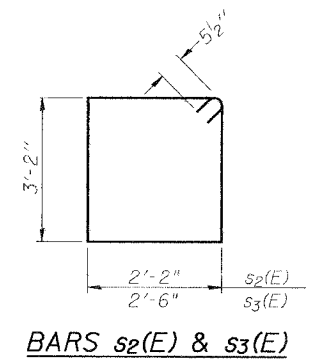
PILE DATA

Type: Steel HP 12x63
Nominal Required Bearing: 497 Kips
Allowable Resistance Available: 166 Kips
Est. Length: 24 ft
No. Production Piles: 5
No. Test Piles: 1

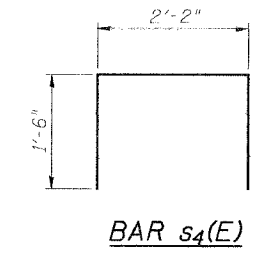
DESIGNED	CMF
CHECKED	KCM
DRAWN	EJR
CHECKED	TMM



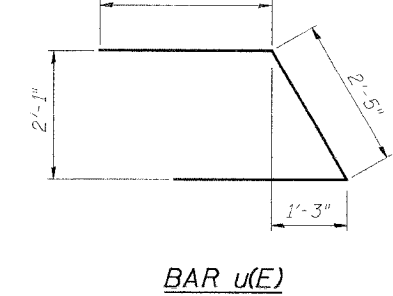
FIELD CUTTING DIAGRAM
Order v2(E) and v4(E) full length. Cut as shown and use remainder of bars in opposite face.



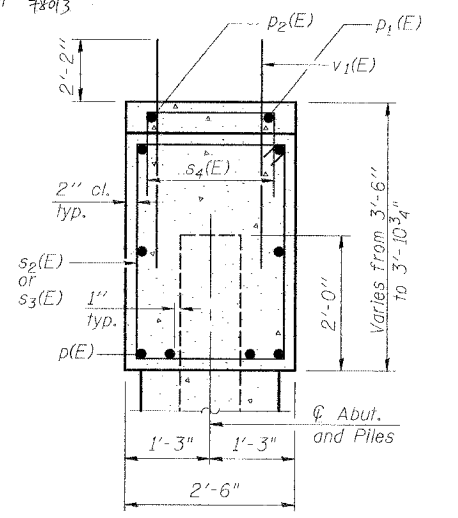
BARS s2(E) & s3(E)



BAR s4(E)



BAR u(E)



SEC. B-B THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	23	#6	12'-9"	—
h1(E)	23	#4	12'-9"	—
p(E)	8	#7	44'-10"	—
p1(E)	1	#4	30'-7"	—
p2(E)	1	#4	29'-1"	—
s2(F)	39	#5	11'-7"	□
s3(E)	2	#5	12'-3"	□
s4(E)	30	#4	5'-2"	□
u(E)	8	#6	7'-7"	∇
v1(E)	82	#5	4'-4"	—
v2(F)	8	#5	12'-6"	—
v3(E)	6	#5	7'-11"	—
v4(E)	8	#5	11'-9"	—
v5(E)	6	#5	7'-7"	—
Structure Excavation		Cu. Yd.	166	
Concrete Structures		Cu. Yd.	21.0	
Reinforcement Bars, Epoxy Coated		Pound	2,770	
Furnishing Steel Piles HP12x63		Foot	120	
Driving Piles		Foot	120	
Test Pile Steel HP12x63		Each	1	
Concrete Encasement		Cu. Yd.	2.1	

Notes
Pour steps monolithically with cap.
The steel H-Piles shall be according to AASHTO M270 Grade 50.
The test pile(s) shall be driven to 110 percent of the Nominal Required Bearing indicated on the pile data information.

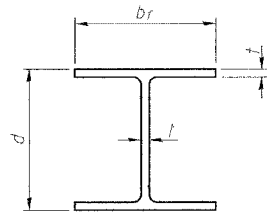
SOUTH ABUTMENT
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

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PROFESSIONAL DESIGN No. 184-002754

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

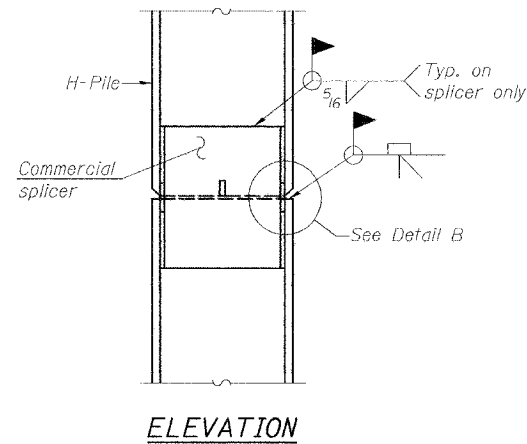
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14 16 SHEETS
F.A.S. 2826	110B-1	JEFFERSON	11	25	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract 78013

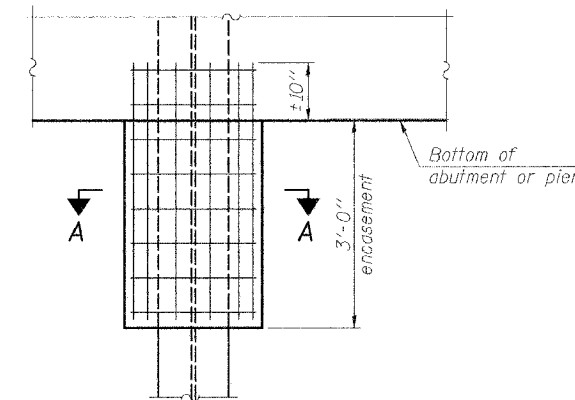


STEEL PILE TABLE

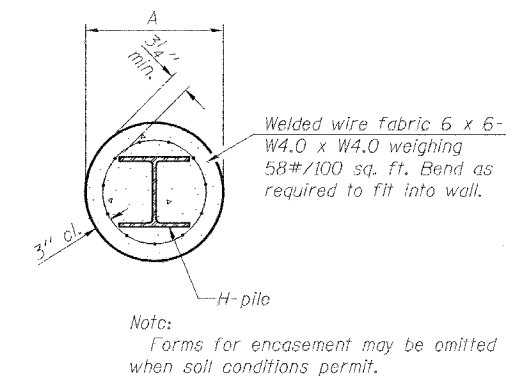
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 3/8"	1/2"	24"
x53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



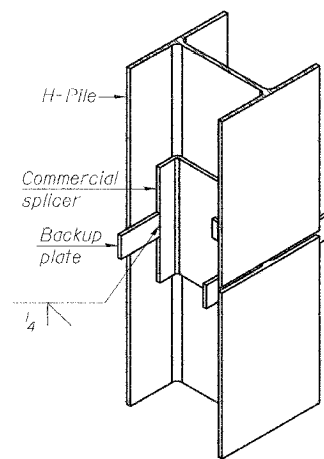
ELEVATION



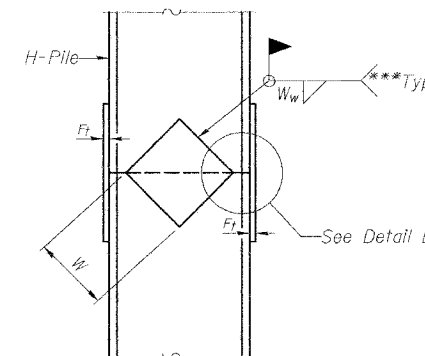
ELEVATION



SECTION A-A

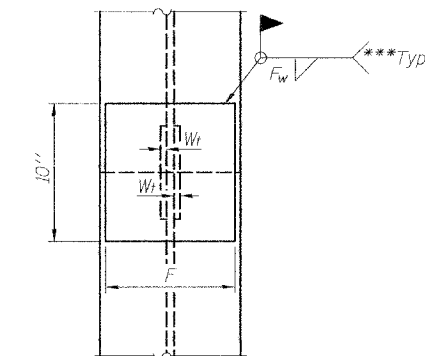


ISOMETRIC VIEW

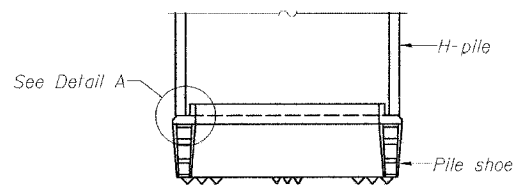


ELEVATION

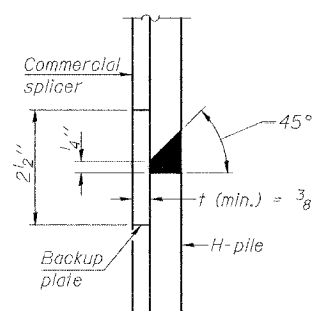
PILE ENCASEMENT



END VIEW

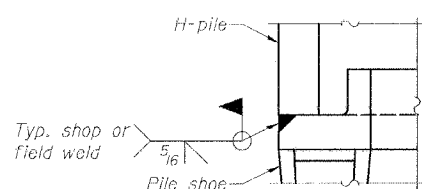


ELEVATION



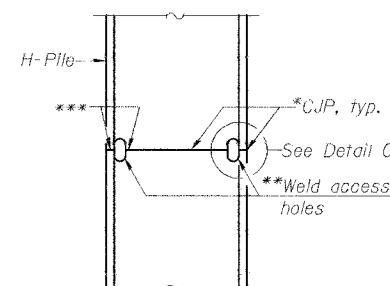
DETAIL "B"

WELDED COMMERCIAL SPLICE



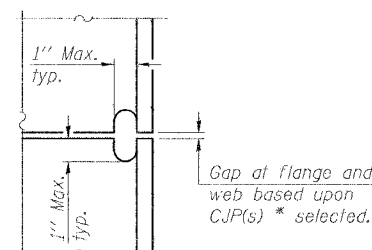
DETAIL A

H-PILE SHOE ATTACHMENT

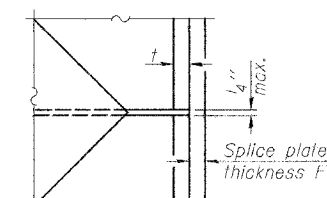


ELEVATION

COMPLETE PENETRATION WELD SPLICE



DETAIL C



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 8/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

PILE DETAILS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

DESIGNED	CMF
CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

F-HP

9-3-07

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

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

***Interrupt welds 1/4" from end of each pile.

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

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Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN NO. 184-002754

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 2826	SECTION (110) 1	COUNTY JEFFERSON	SHEET NO. 11	SHEET 26	SHEET NO. 15 16 SHEETS
FEDERAL AID DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract 78013		

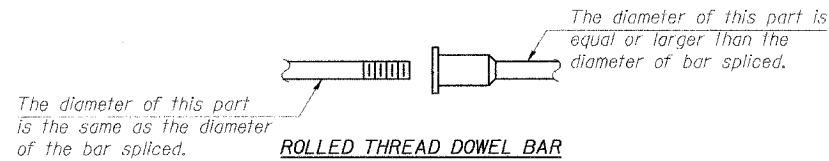
NOTES

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

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

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

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



ROLLED THREAD DOWEL BAR



** ONE PIECE

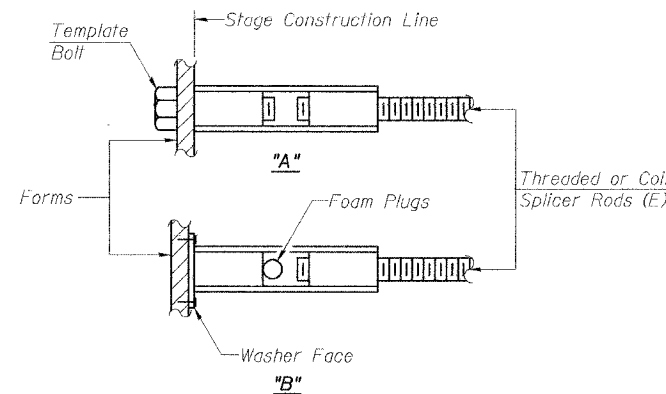
Wire Connector



WELDED SECTIONS

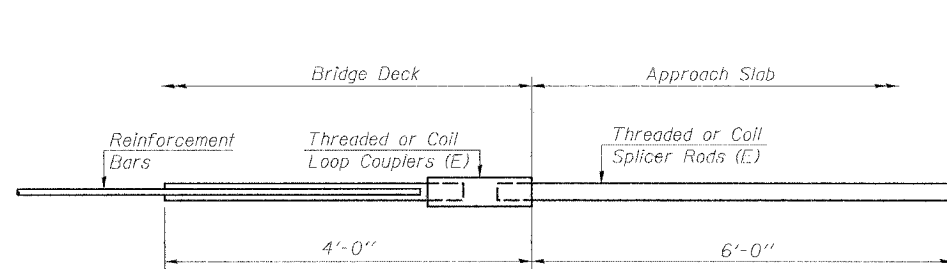
BAR SPLICER ASSEMBLY ALTERNATIVES

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



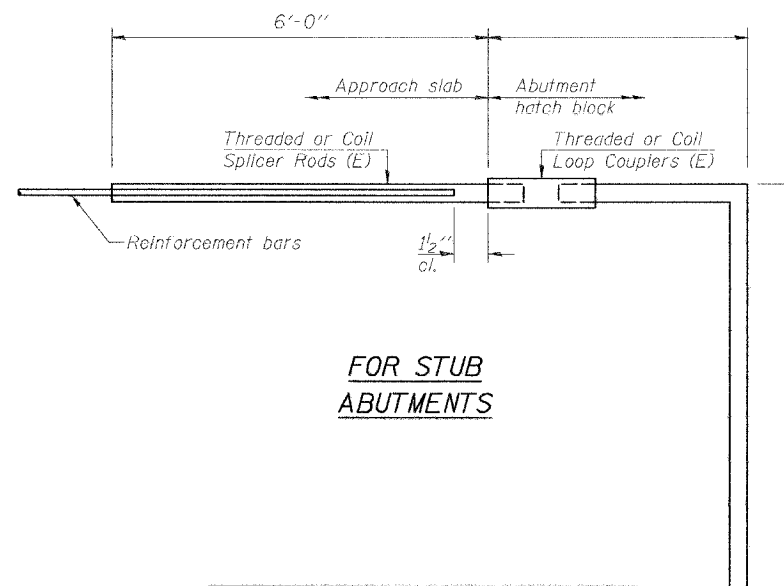
INSTALLATION AND SETTING METHODS

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



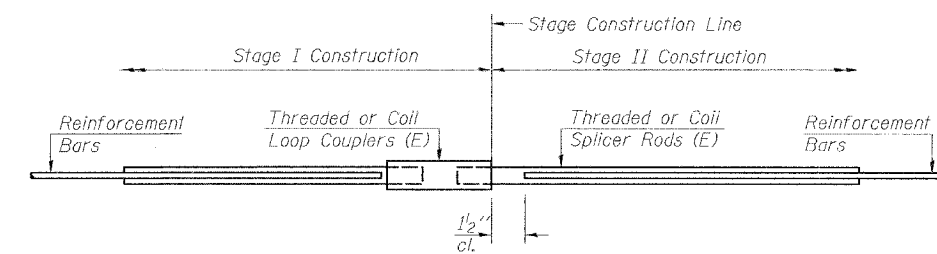
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 72



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location

BAR SPLICER ASSEMBLY DETAILS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

DESIGNED	CMF
CHECKED	KCM
DRAWN	EJR
CHECKED	TMM

BSD-1

11-1-06

McDonough-Whitlow, P.C.
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Hillsboro, IL 62049
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PROFESSIONAL DESIGN NO. 184-002754

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
Ill. Dept. of Trans. 0-7

SOIL BORING LOG Page 1 of 1
Date 9/28/05

ROUTE FAS 2826 (IL 37) DESCRIPTION Un-named Stream LOGGED BY E. Sandschafer
SECTION 110B-1 LOCATION NE 1/4, SEC. 36, TWP. 1 S, RNG. 2 E, 3 PM
COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0038
Station _____
BORING NO. 1
Station 836+25
Offset 14.00# RL
Ground Surface Elev. 497.28 ft (R) (ft) (tsf) (%)

DEPTH (ft)	DESCRIPTION	DRILLING METHOD	HAMMER TYPE	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After 48 Hrs. (ft)	(ft) (ft) (tsf) (%)
0	5' Mixture of aggregate shoulder and dark brown Clay. Silty, damp, red mottled gray, CLAY.			498.88						2 0.5 25
2										2 0.5 25
4	One 2" piece of hard, Sandy Clay Shale.		PP							1 2 0.1 27
4										3 B
2										7
2	Tan mottled gray, w/ thin, black cinder partings.		PP							50 5" 50/7"
3										6
1										41
1	Tan mottled gray, w/ trace fine gravel.		PP							50/3" 50/3"
2										7
1										
2										
1										
2	Medium to very soft, very damp to wet, gray, SANDY LOAM.		B							
4										
2										
2			PP							
2										
0										
0			B							
0										
3										
5	Rod, w/ fine gravel.		S							
3										
0										

Surface Water Elev. 493.98 ft
Stream Bed Elev. 481.93 ft
Groundwater Elev.:
First Encounter 492.9 ft
Upon Completion Caved @ 10.5 ft
After 48 Hrs. 487.3 ft

Soft to medium, damp, gray, CLAY w/ Silt. (continued)
Very soft, very damp, red, SANDY LOAM.
Very dense, moist, gray, CLAY SHALE. Samples pockerchipped.
Extent of exploration.
Benchmark: BM 304 chiseled square on top of SW wingwall of existing bridge = 496.38

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
Ill. Dept. of Trans. 0-7

SOIL BORING LOG Page 1 of 1
Date 9/28/05

ROUTE FAS 2826 (IL 37) DESCRIPTION Un-named Stream LOGGED BY E. Sandschafer
SECTION 110B-1 LOCATION NE 1/4, SEC. 36, TWP. 1 S, RNG. 2 E, 3 PM
COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0038
Station _____
BORING NO. 2
Station 837+10
Offset 13.00# RL
Ground Surface Elev. 495.87 ft (R) (ft) (tsf) (%)

DEPTH (ft)	DESCRIPTION	DRILLING METHOD	HAMMER TYPE	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After 48 Hrs. (ft)	(ft) (ft) (tsf) (%)
0	4' Mixture of aggregate shoulder and brown Sandy Clay. Very stiff, damp, brown mottled red, CLAY w/ trace gravel.			495.47						3 0.2 20
3										3 0.2 20
4			PP							2 3 0.4 18
4										3 S
3										2
3										7 1.7 29
5			PP							41 B
2										50/4"
4										50/5"
5			PP							50/11"
2										
4										
2										
4										
0										
4			B							
5										
3										
3										
4			B							
2										
2										
0										
3										
3										
1										
2										
3										
0										

Surface Water Elev. 483.98 ft
Stream Bed Elev. 481.93 ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion Caved @ 4.6 ft
After 48 Hrs. 494.8 ft

Very soft, very damp, reddish gray, SANDY LOAM. (continued)
Stiff, damp, gray CLAY.
Very dense, moist, gray, CLAY SHALE.
1" layer of brown, CHERT.
Extent of exploration.
Benchmark: BM 304 chiseled square on top of SW wingwall of existing bridge = 466.38

*Note: 48 hour water level collected by rain event and subsequent runoff, final elevation in question.

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)

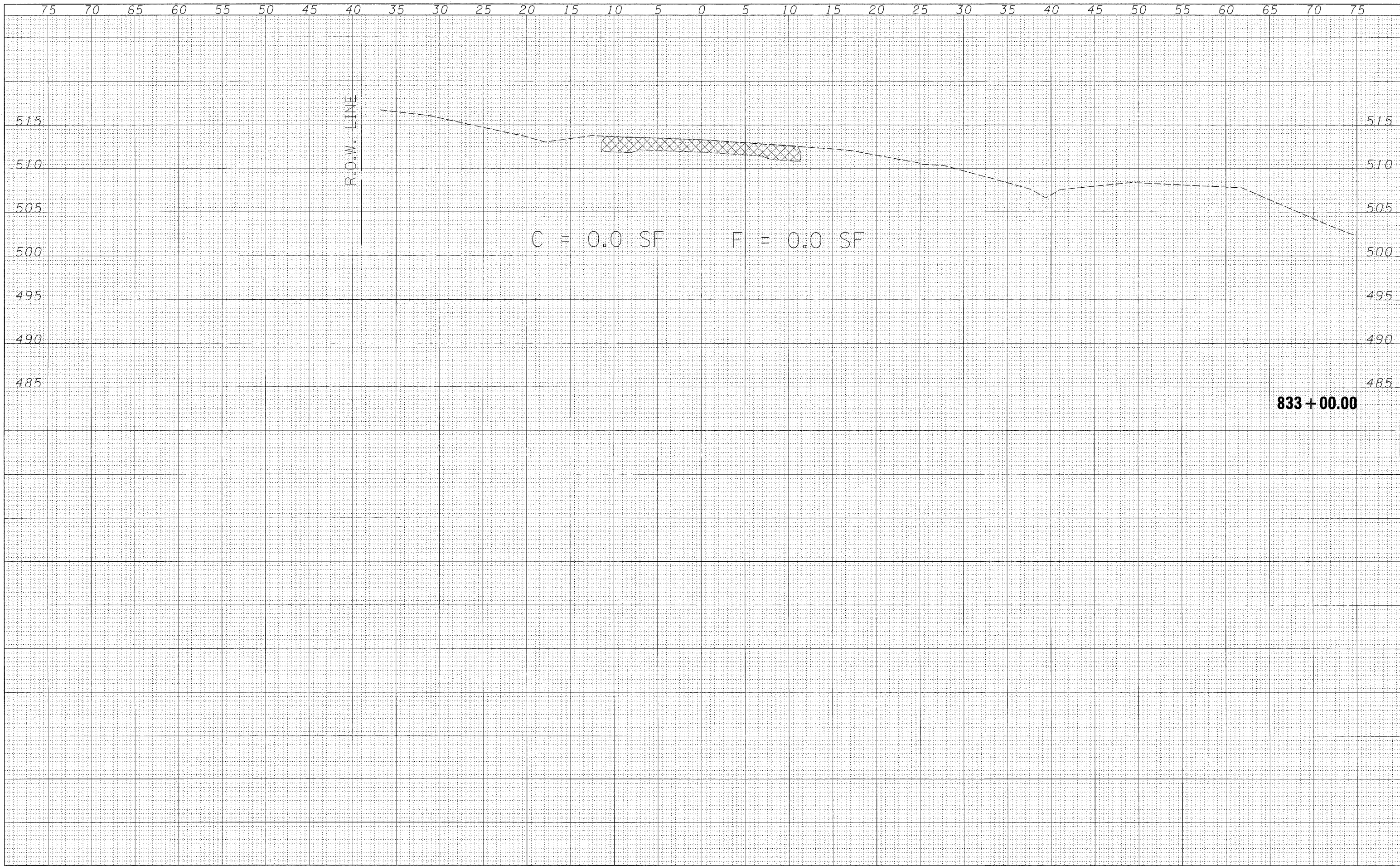
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CHECKED	KCM
DRAWN	JLM
CHECKED	TMM

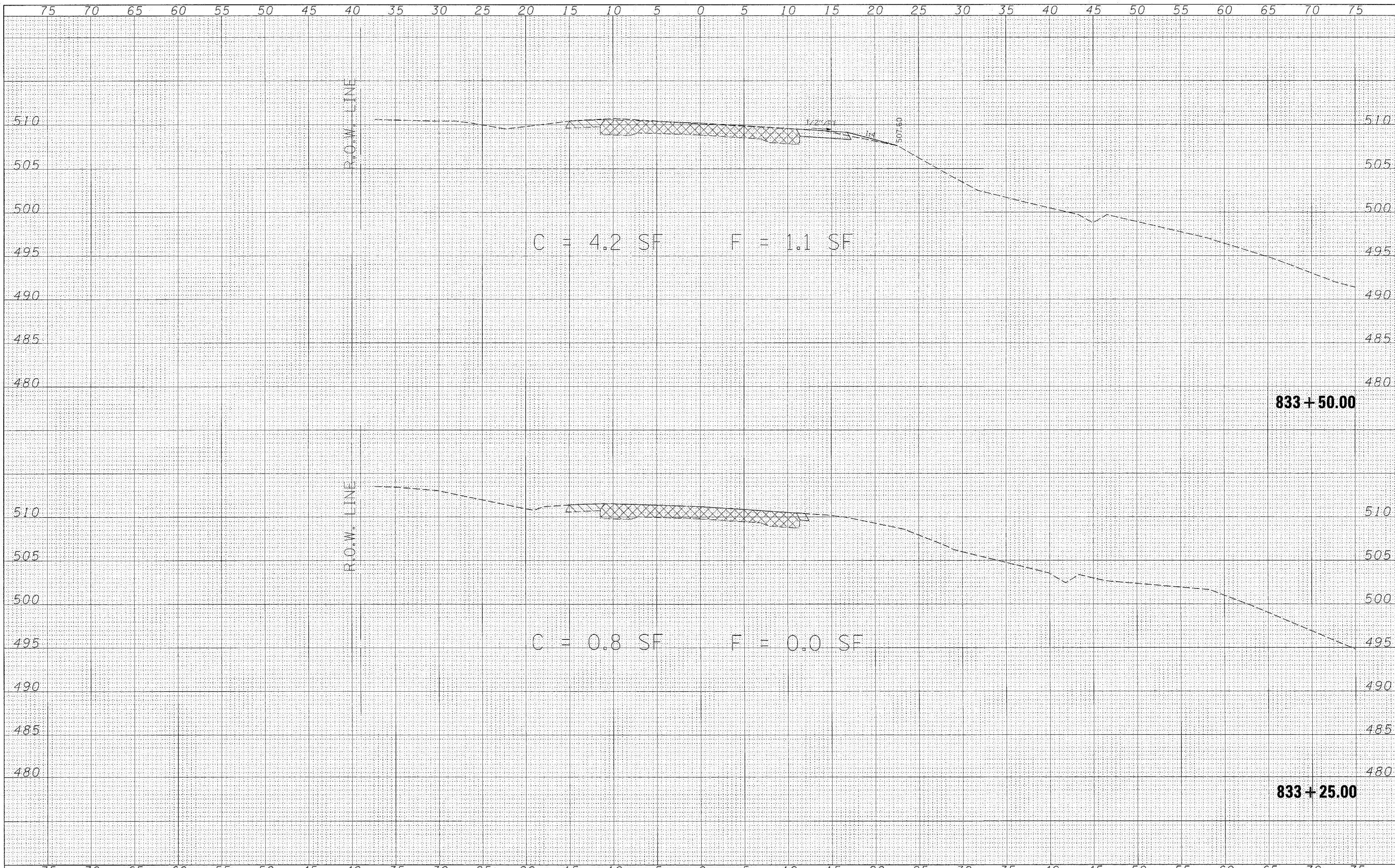
BORING LOGS
IL ROUTE 37 OVER LIMESTONE CREEK
F.A.S. ROUTE 2826 SECTION 110B-1
JEFFERSON COUNTY
STA. 836+80
S.N. 041-0107

McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
138 East Wood Street
Hillsboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN No. 194-002754

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

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





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

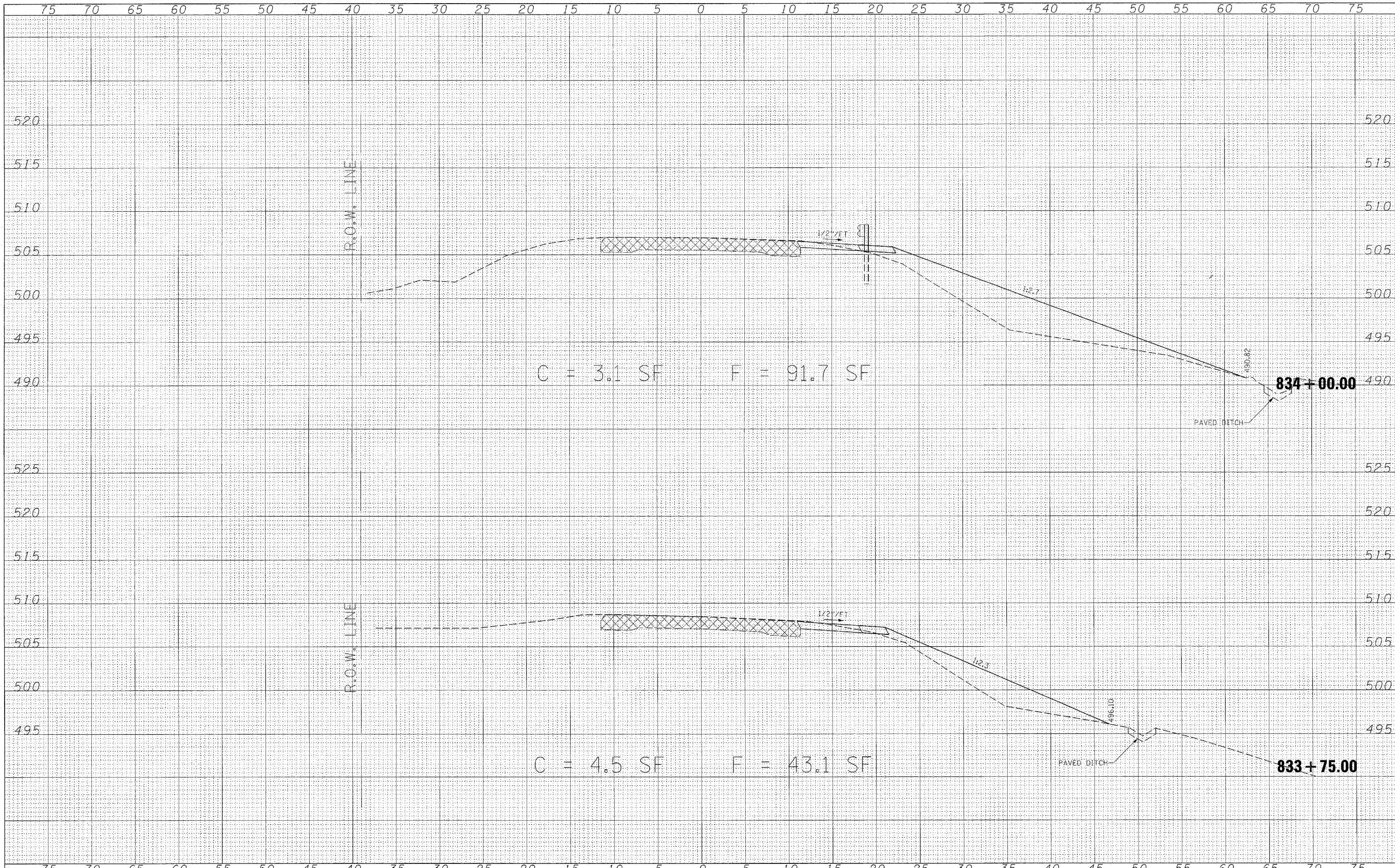
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BY	
ORIGINAL SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -
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PLOT SCALE = 5.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 3/19/2006		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS	
SCALE:	SHEET NO. 29 OF 44 SHEETS
STA. 833+25.00 TO STA. 833+50.00	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	29
FED. ROAD DIST. NO.			CONTRACT NO. 78013	
ILLINOIS			FED. AID PROJECT	



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

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
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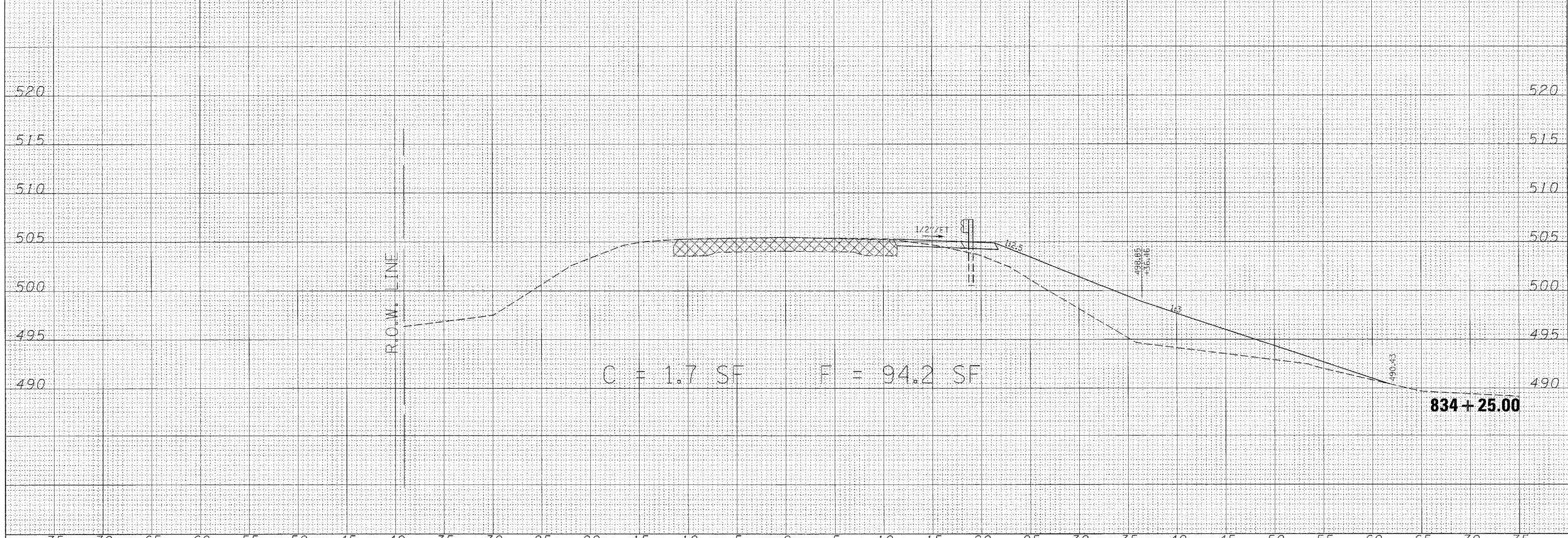
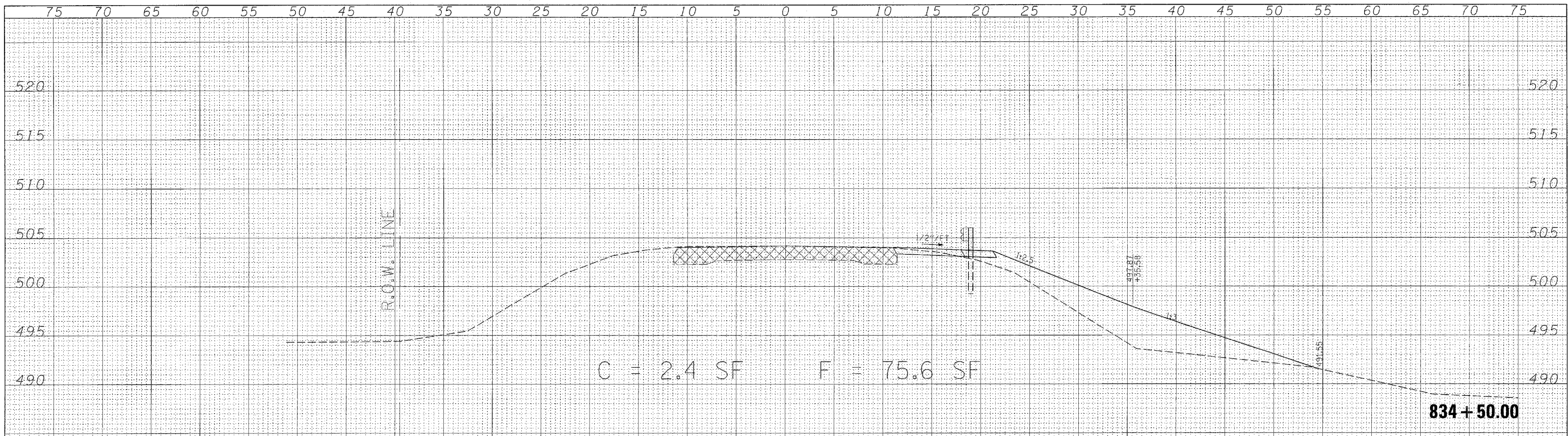
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 PLOT DATE = 3/19/2008

DESIGNED -	REVISD -
DRAWN -	REVISD -
CHECKED -	REVISD -
DATE -	REVISD -

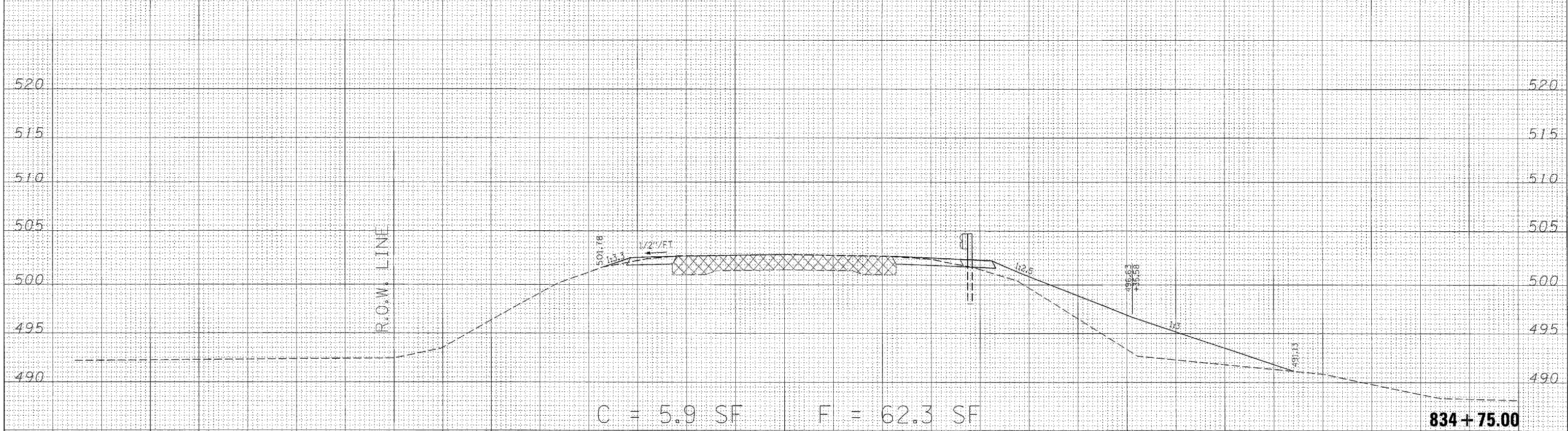
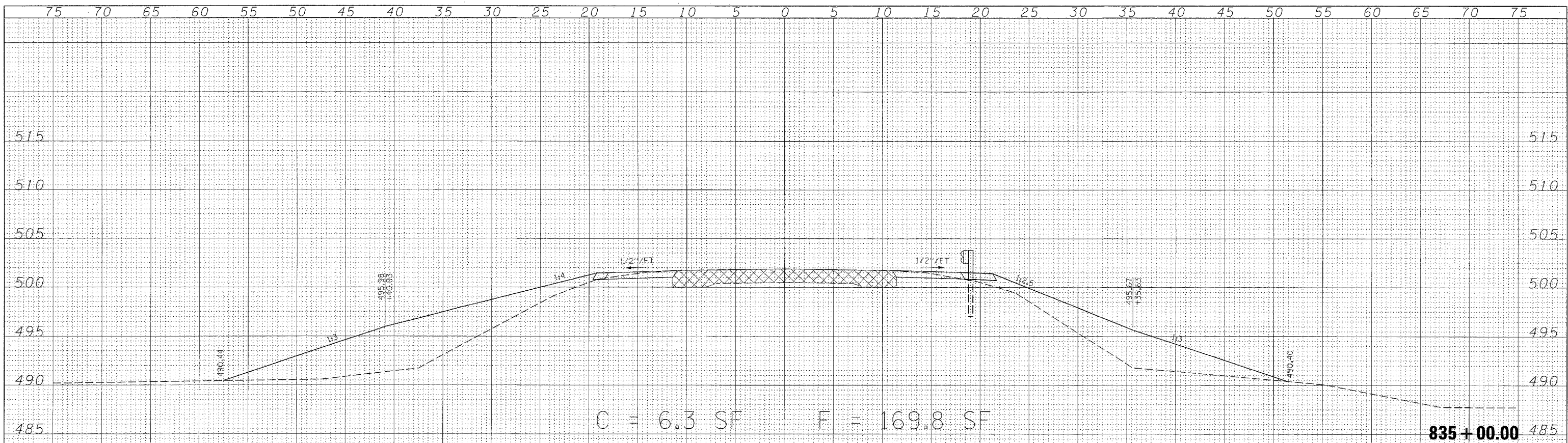
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS	
SCALE:	SHEET NO. 30 OF 44 SHEETS
STA. 833+75.00 TO STA. 834+00.00	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	30
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 78013		



FILE NAME =	USER NAME = #USERS	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
P:\06E1711-3\1DOT-Dist7-Var-Var\Design\Plans\20-44-limestone xsections.dgn		DRAWN -	REVISED -		SCALE:	SHEET NO. 31 OF 44 SHEETS	STA. 834+25.00 TO STA. 834+50.00	2826	(110)B-1	JEFFERSON	44	31
PLOT SCALE = 5.0000' / IN.		CHECKED -	REVISED -		CONTRACT NO. 78013							
PLOT DATE = 3/19/2008		DATE -	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT							



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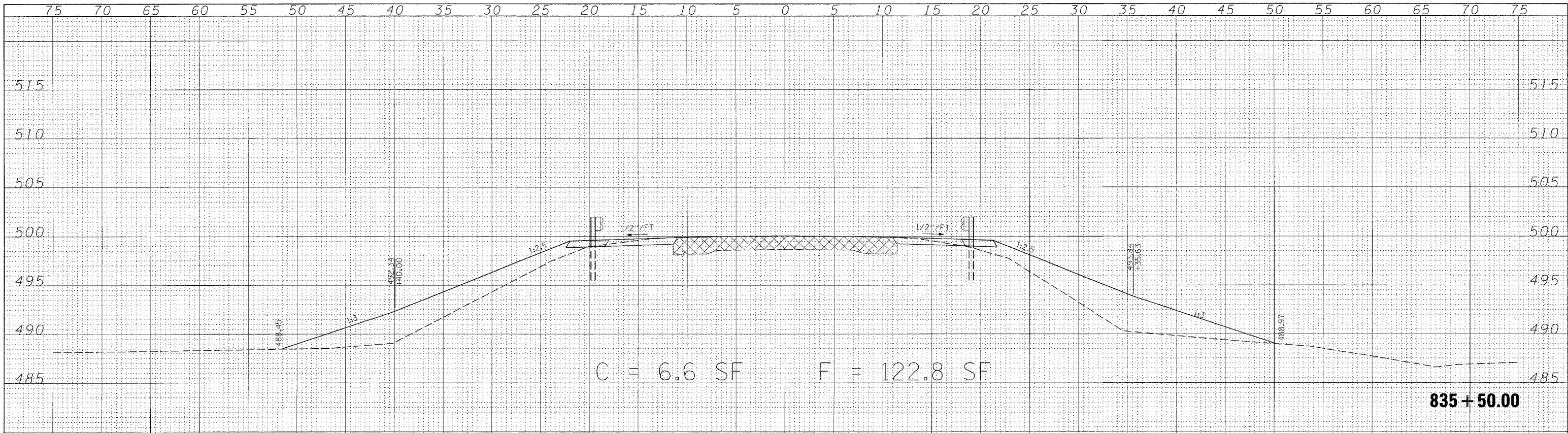
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

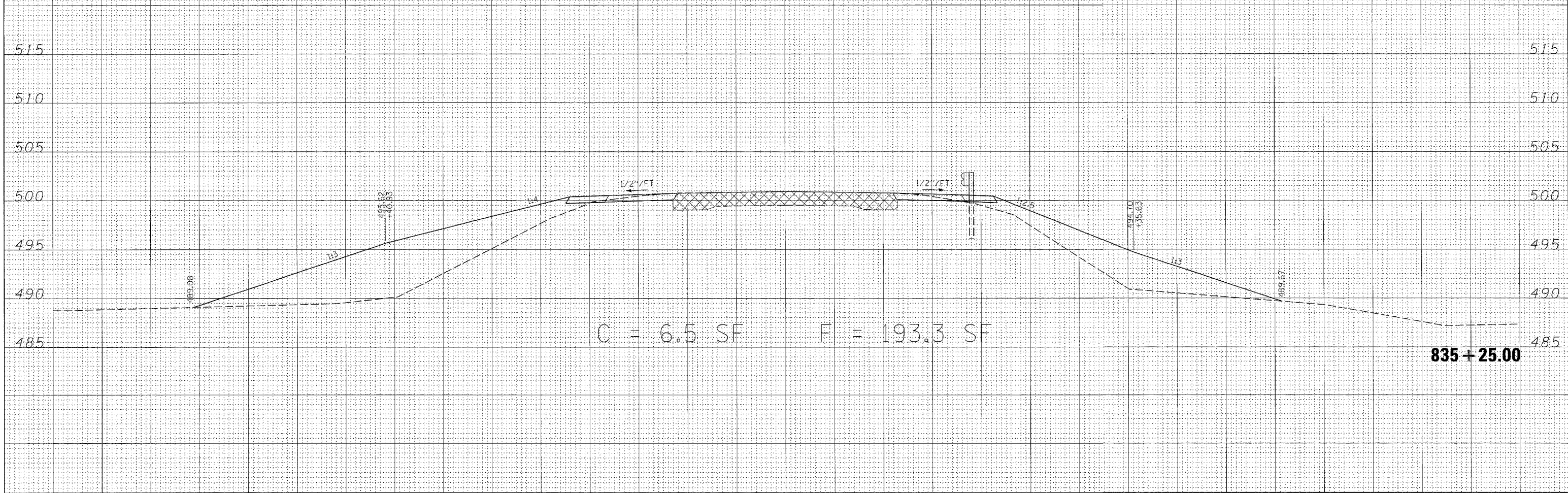
CROSS SECTIONS
 SCALE: SHEET NO. 32 OF 44 SHEETS STA. 834+75.00 TO STA. 835+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	32
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78013	

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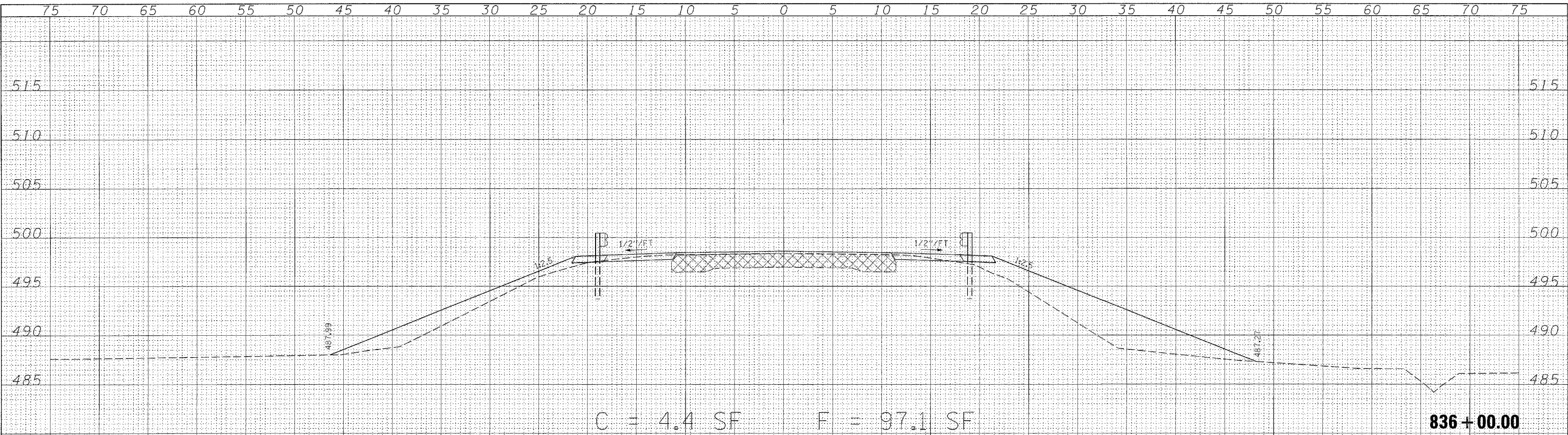


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TEMPLATE	
NOTE BOOK	
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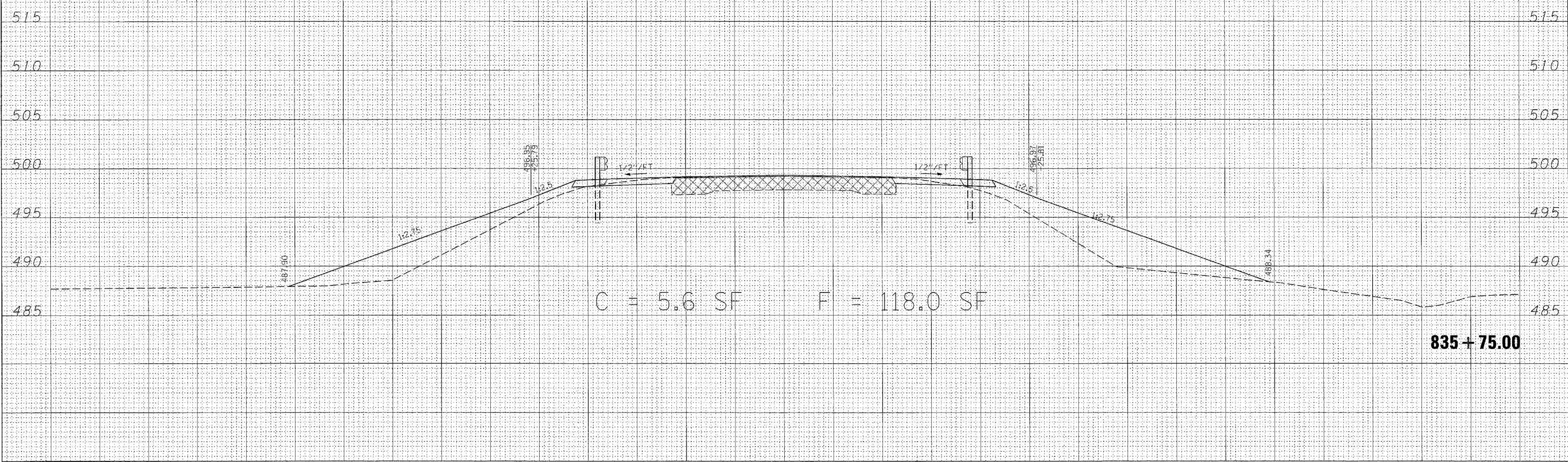


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PLOT SCALE = 5,0000' / IN.		DRAWN -	REVISED -		SCALE:	SHEET NO. 33 OF 44 SHEETS	STA. 835+25.00 TO STA. 835+50.00	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 78013
PLOT DATE = 3/19/2008		CHECKED -	REVISED -								
		DATE -	REVISED -								

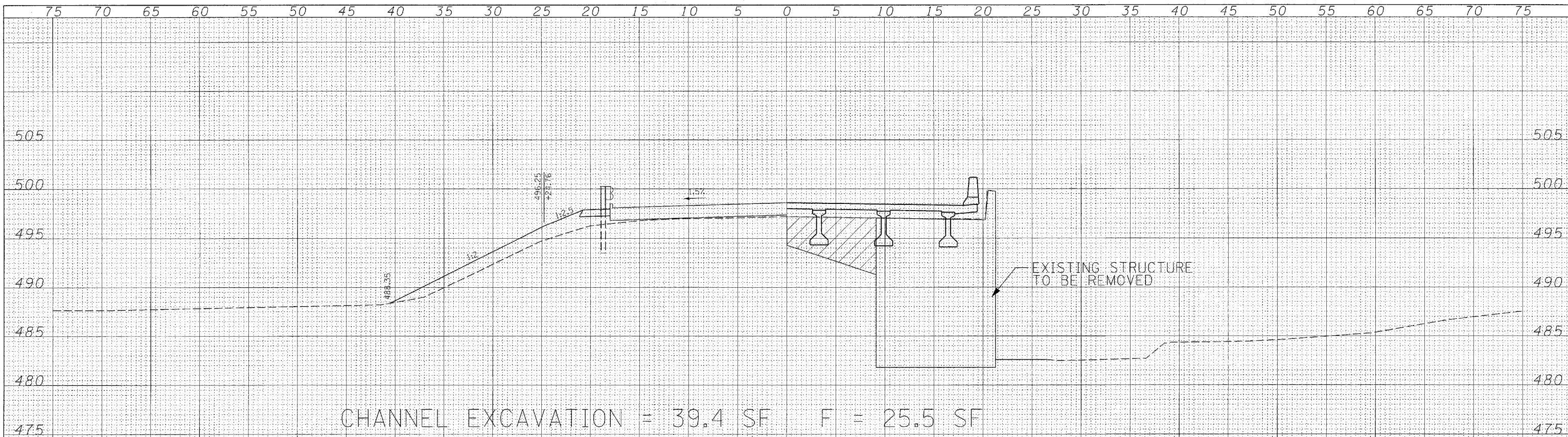
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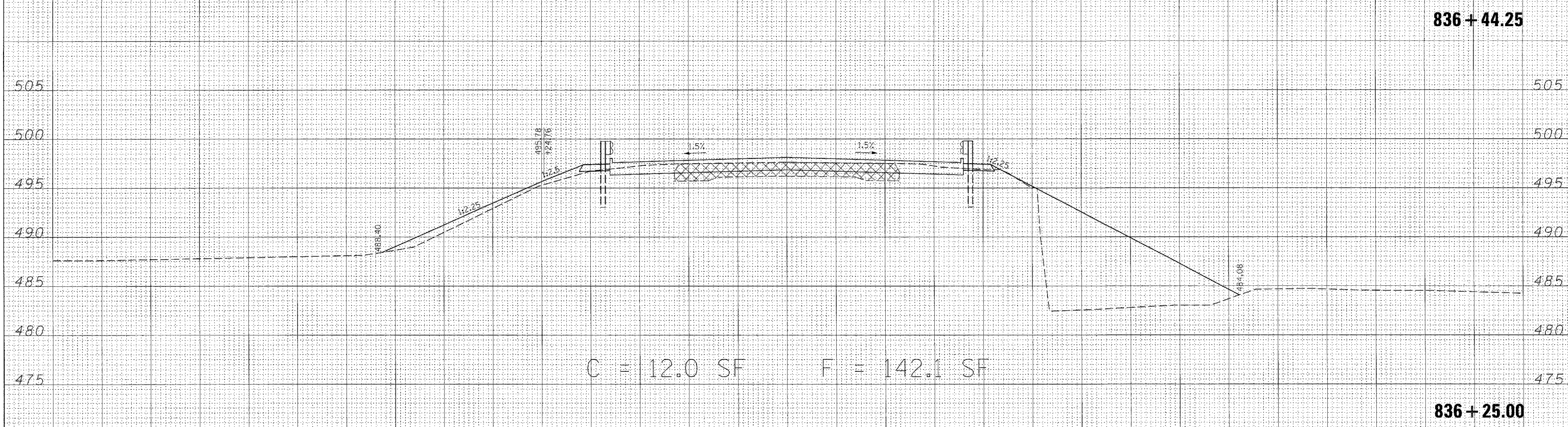


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836 + 44.25

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
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NOTE BOOK	
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836 + 25.00

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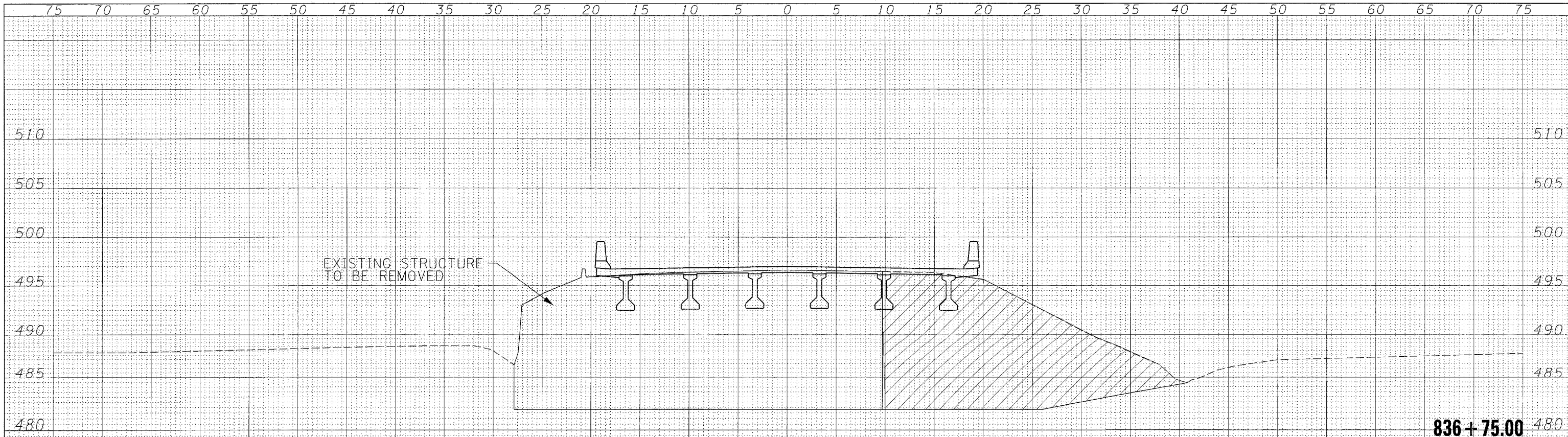
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

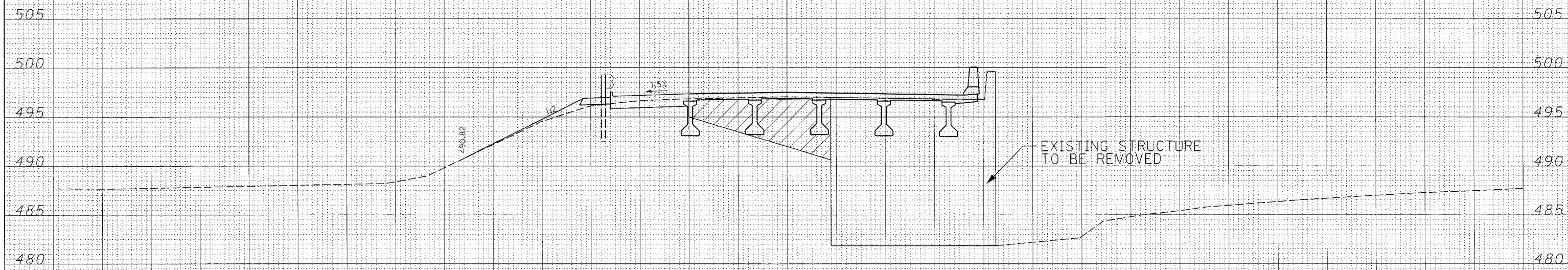
SCALE: SHEET NO. 35 OF 44 SHEETS STA. 836+25.00 TO STA. 836+44.25

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	35
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78013	



CHANNEL EXCAVATION = 294.8 SF

836+75.00

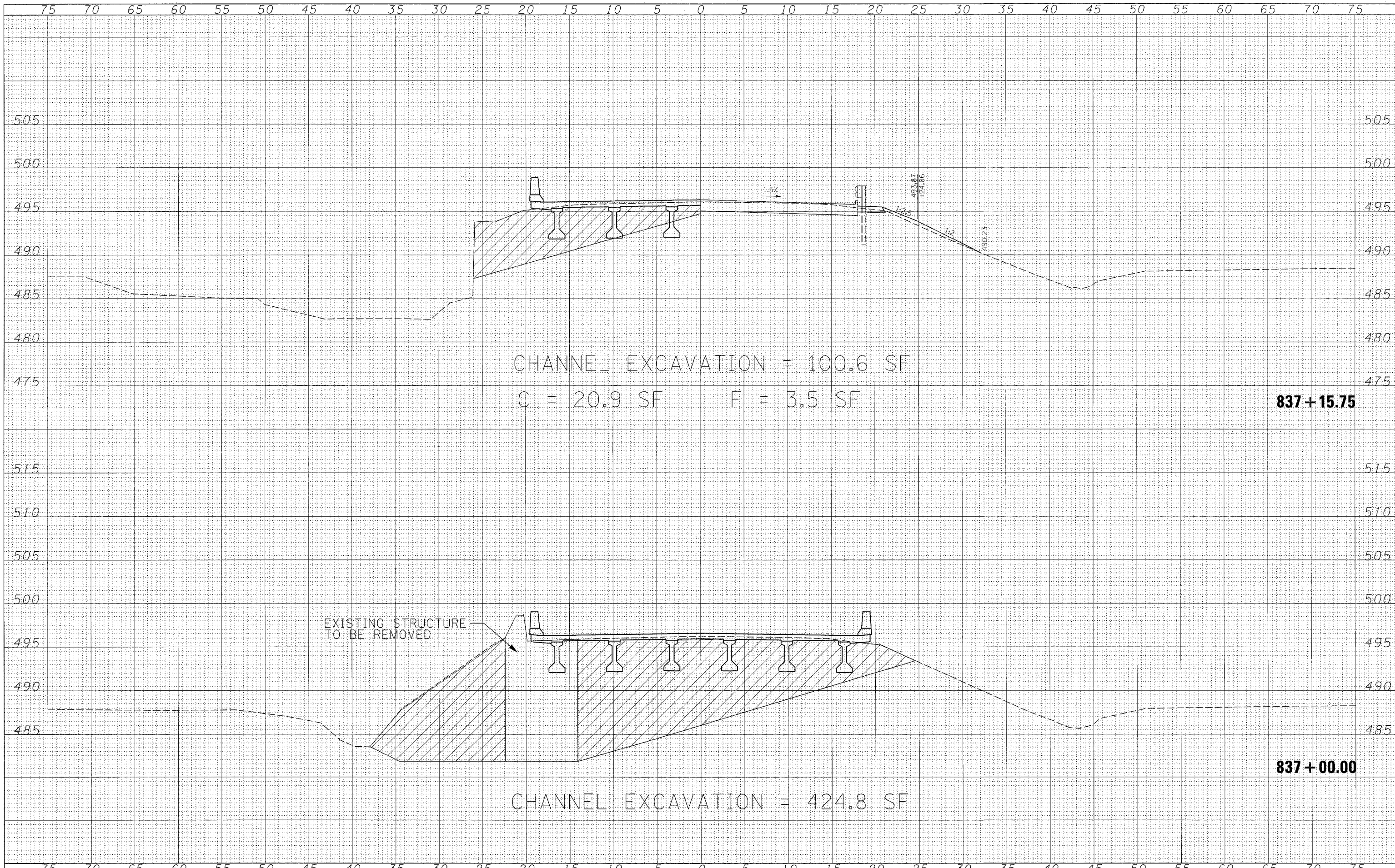


CHANNEL EXCAVATION = 49.5 SF
 C = 5.6 SF F = 3.5 SF

836+50.00

DATE	
BY	
FINAL SURVEY	
SURVEYED	
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NOTE BOOK	
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NOTE BOOK	
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CHANNEL EXCAVATION = 100.6 SF
 C = 20.9 SF F = 3.5 SF

837+15.75

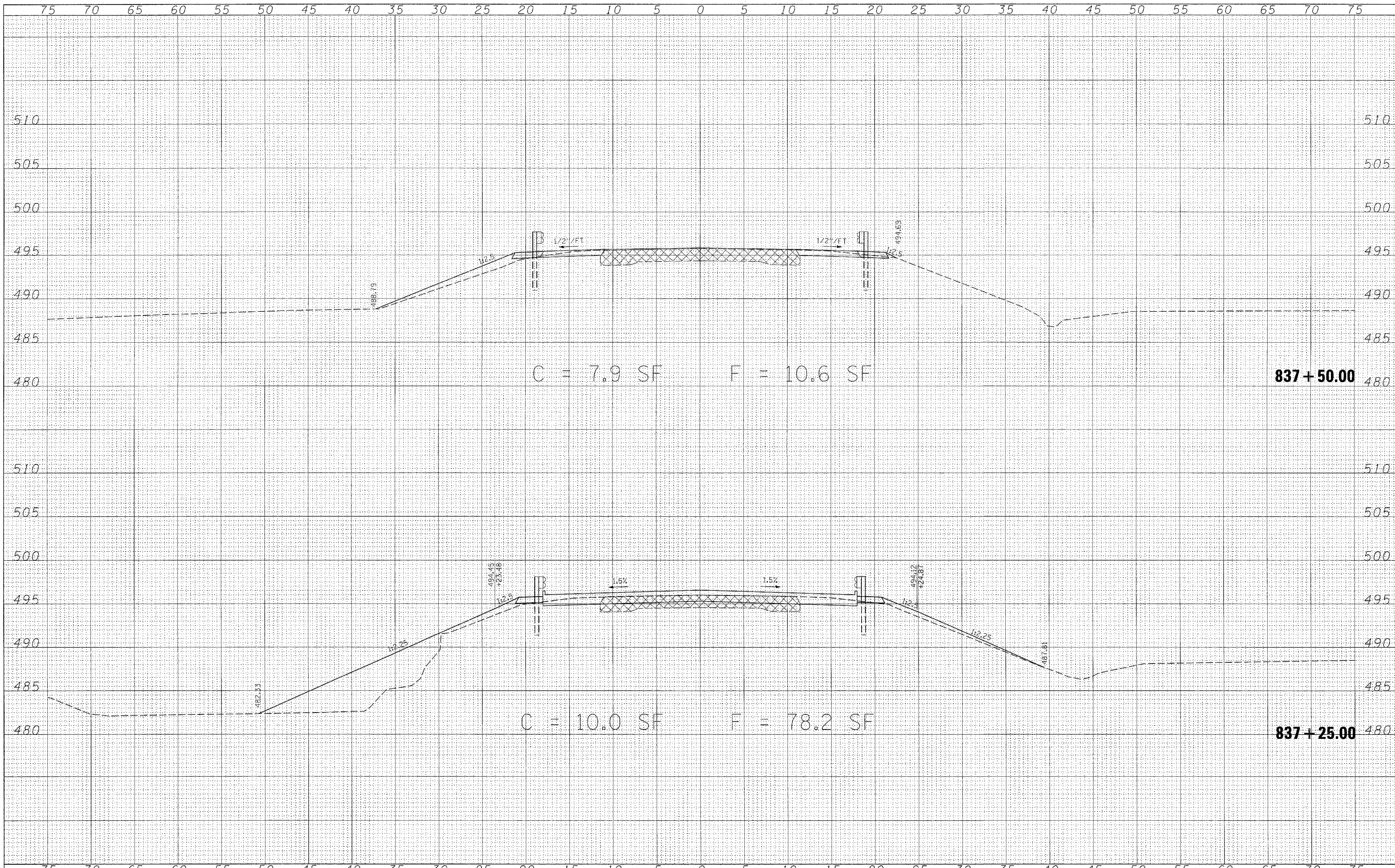
EXISTING STRUCTURE
 TO BE REMOVED

CHANNEL EXCAVATION = 424.8 SF

837+00.00

DATE	
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NOTE BOOK	PLOTTED
AREAS CHECKED	TEMPLATE

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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
AREAS CHECKED	TEMPLATE



C = 7.9 SF F = 10.6 SF

837+50.00

C = 10.0 SF F = 78.2 SF

837+25.00

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: SHEET NO. 38 OF 44 SHEETS STA. 837+25.00 TO STA. 837+50.00

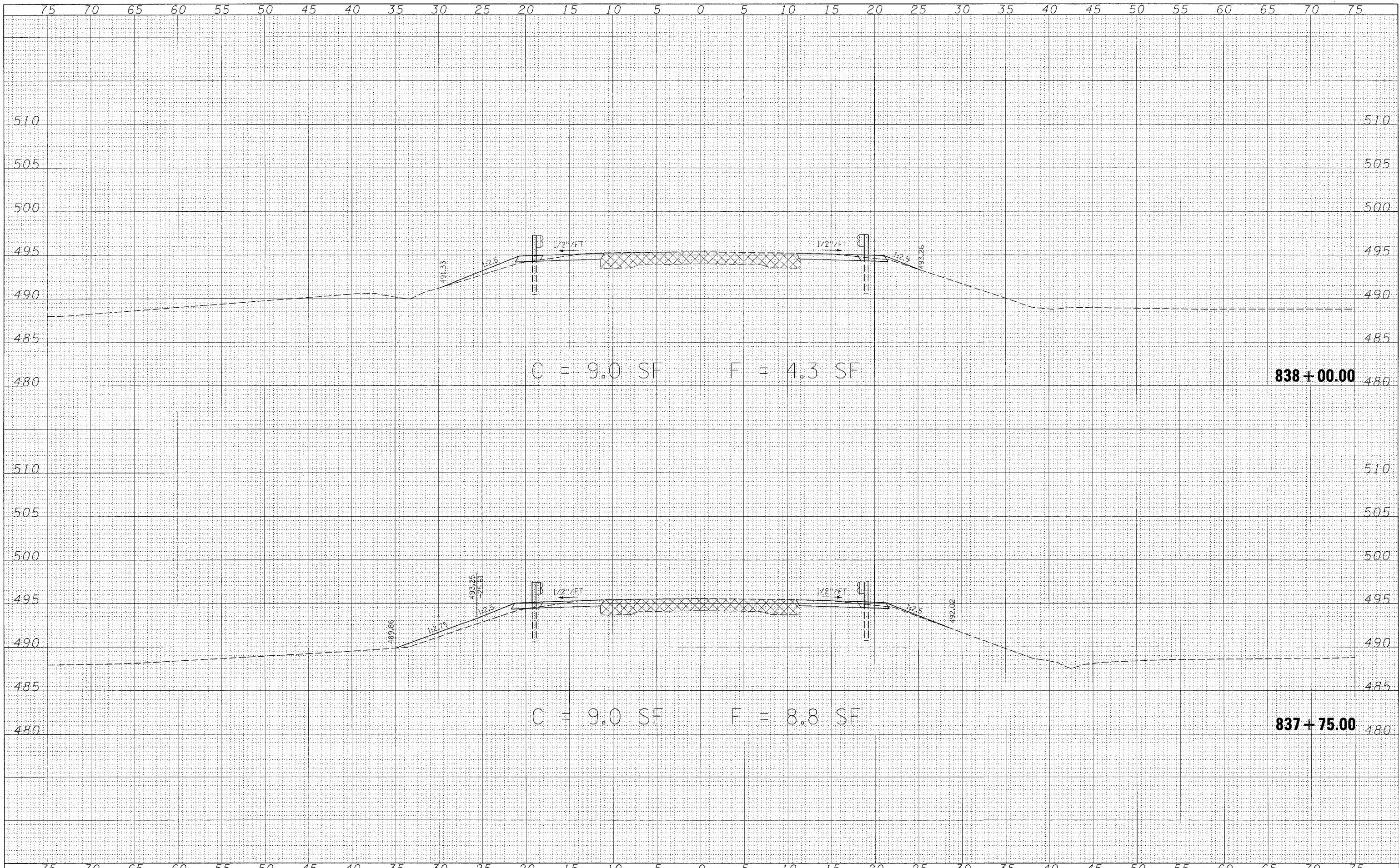
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	38
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 78013	

DATE
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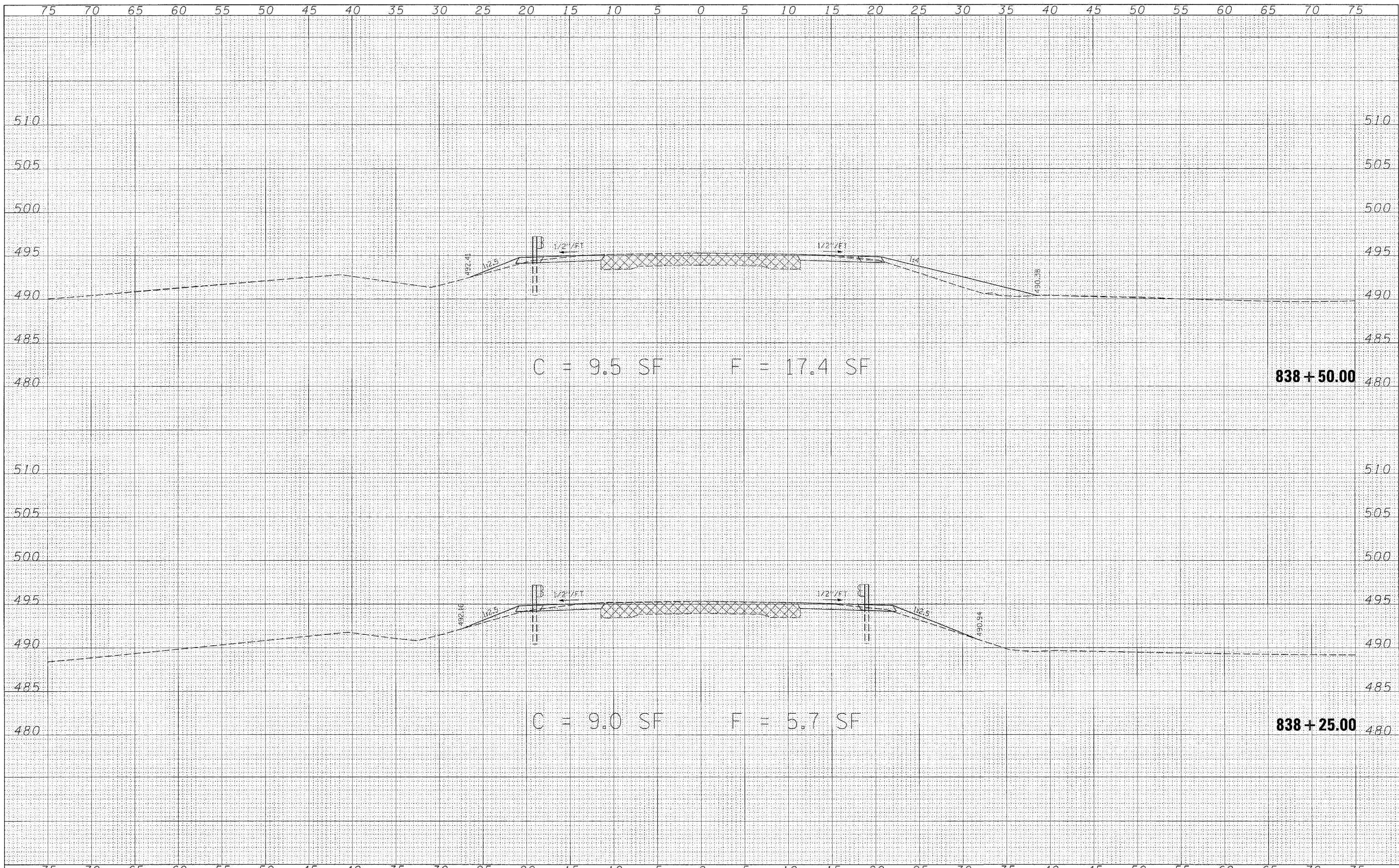
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FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\06E1711-3\100T-01st7-Var\Var\Design\Plans\28-44-limestone xsections.dgn		DRAWN -	REVISED -		2826	(110)B-1	JEFFERSON	44	39		
PLOT SCALE = 5.0002 ' / IN.		CHECKED -	REVISED -		CONTRACT NO. 78013						
PLOT DATE = 3/19/2008		DATE -	REVISED -		SCALE:	SHEET NO. 39 OF 44 SHEETS	STA. 837+75.00 TO STA. 838+00.00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

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 PLOT DATE = 3/19/2008

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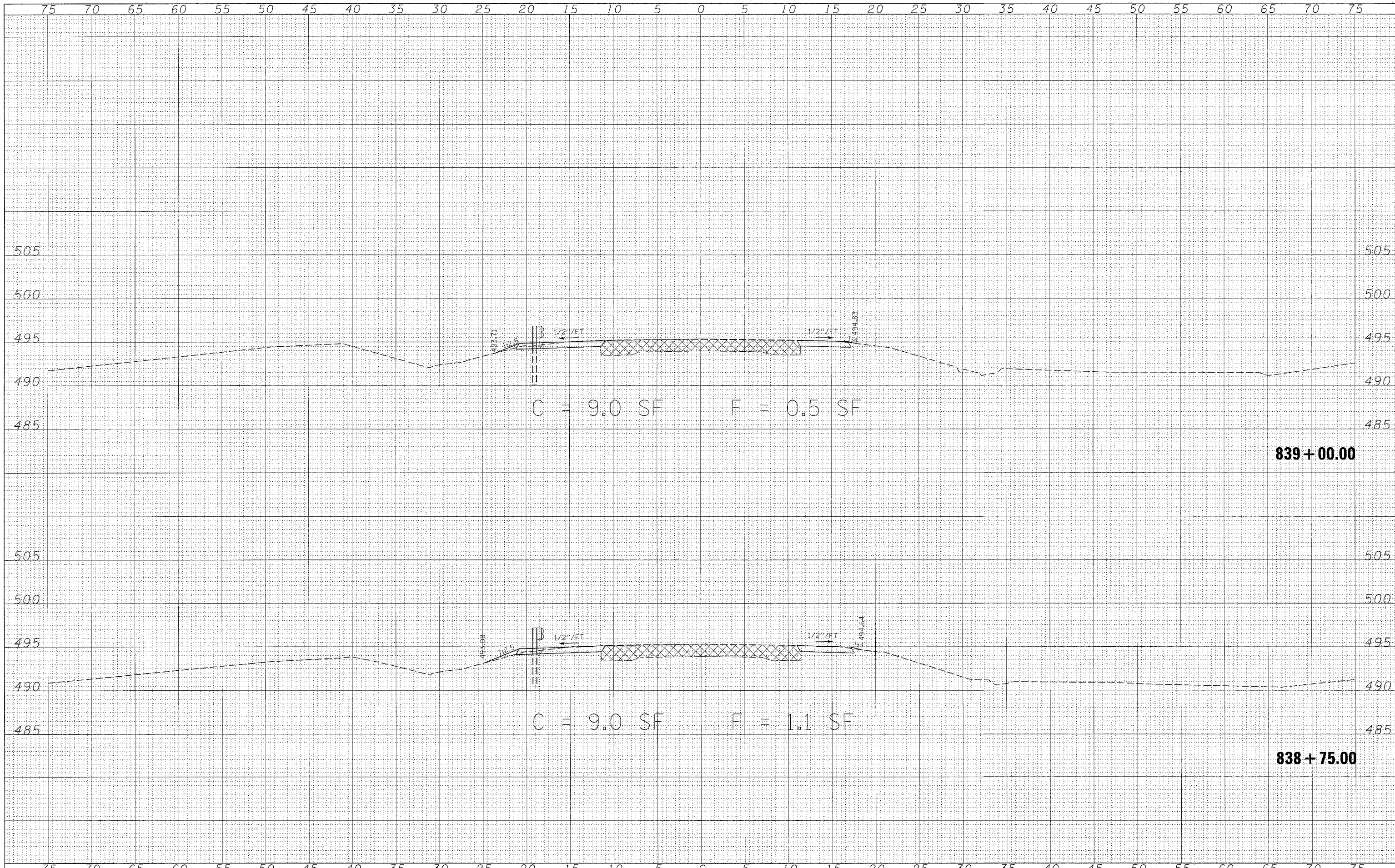
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET NO. 40 OF 44 SHEETS STA. 838+25.00 TO STA. 838+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	40
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78013	



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 PLOT DATE = 3/19/2008

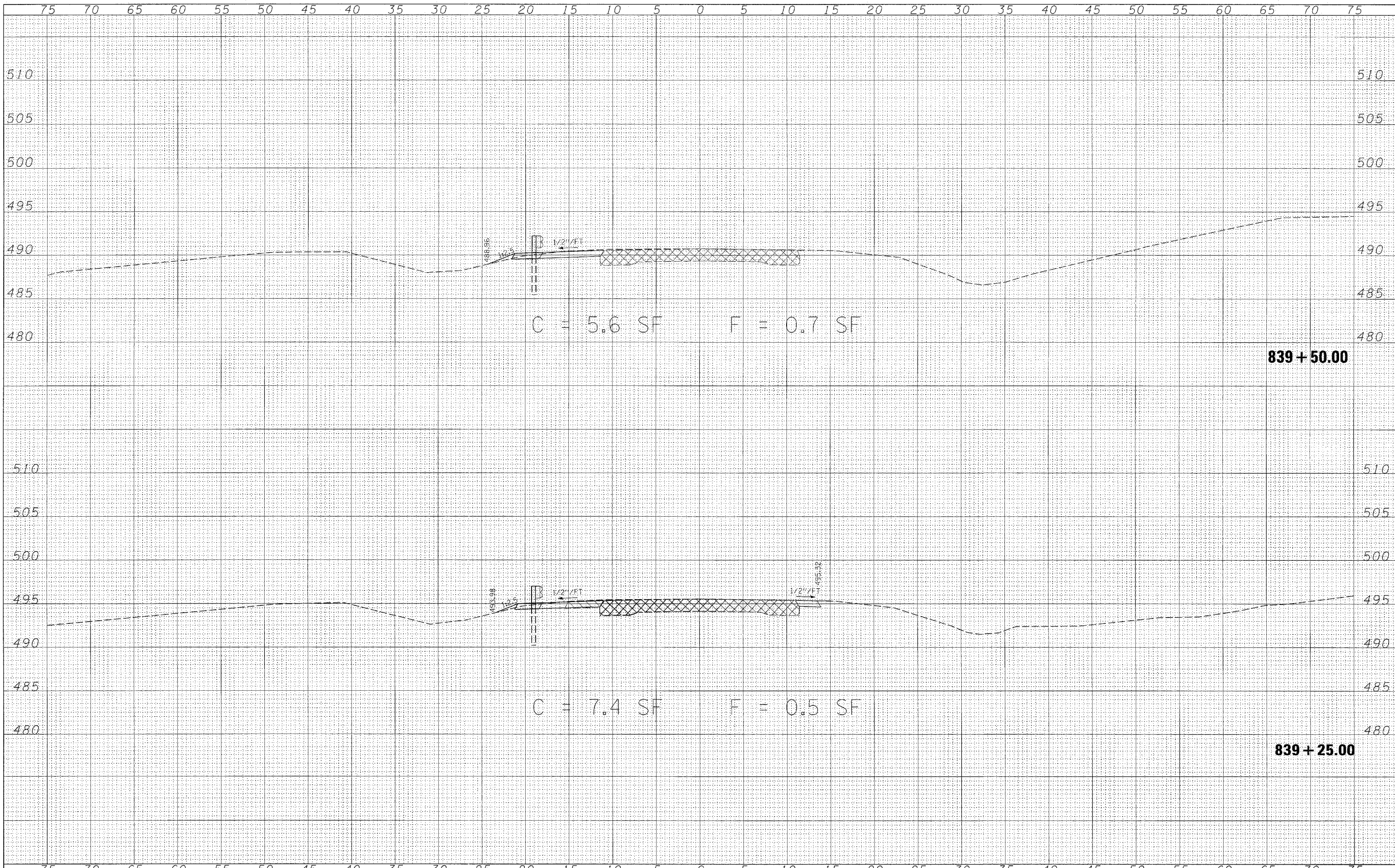
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DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET NO. 41 OF 44 SHEETS STA. 838+75.00 TO STA. 839+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2826	(110)B-1	JEFFERSON	44	41
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78013	

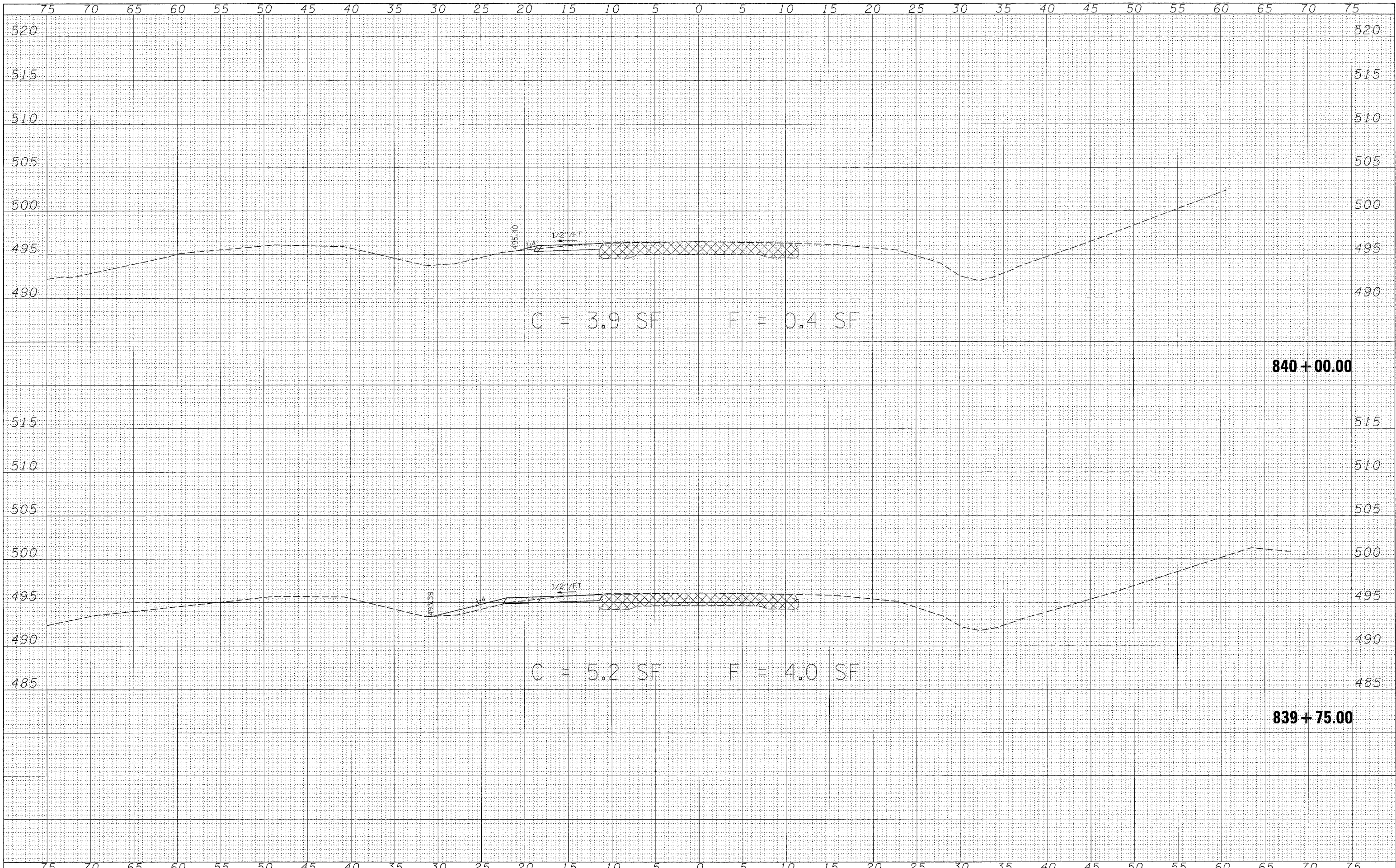


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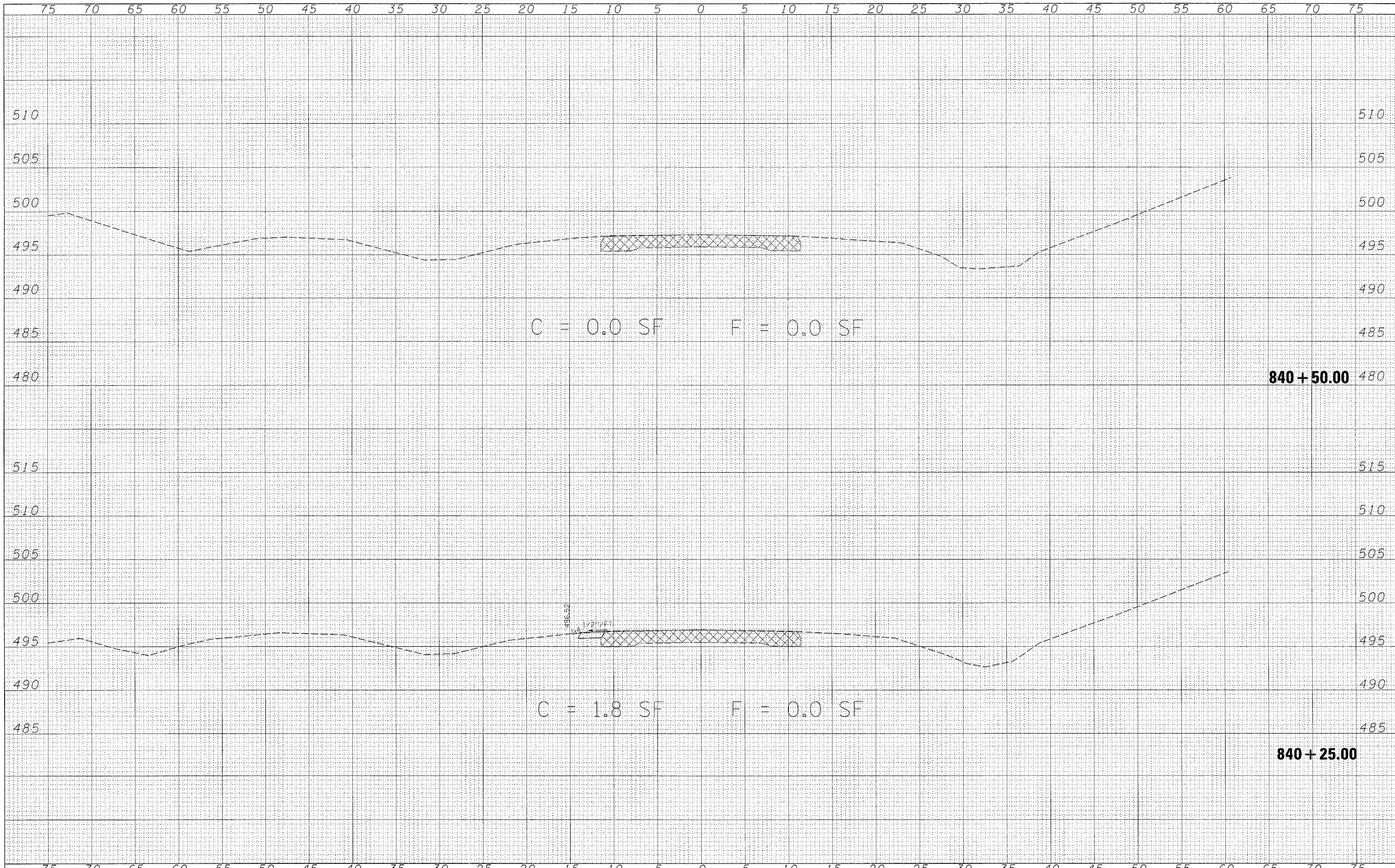
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FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Pr\08E1711-3\IDOT-Dist7-Var\Var\Design\Plans\28-44-limestone.xsections.dgn		DRAWN -	REVISIONS -		SCALE:	SHEET NO. 43 OF 44 SHEETS	STA. 839+75.00 TO STA. 840+00.00	2626	(110)B-1	JEFFERSON	44	43
PLOT SCALE = 5.0002' / IN.		CHECKED -	REVISIONS -									
PLOT DATE = 3/19/2008		DATE -	REVISIONS -					FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



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	CHECKED -	REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET NO. 44 OF 44 SHEETS STA. 840+25.00 TO STA. 840+50.00

F.A. RTE. 2826	SECTION (110)B-1	COUNTY JEFFERSON	TOTAL SHEETS 44	SHEET NO. 44
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 78013	