

76393

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	1
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	18-77

INDEX OF SHEETS

- 1 COVER SHEET
 - 2 GENERAL NOTES
 - 3 SUMMARY OF QUANTITIES
 - 4-5 TYPICAL SECTIONS
 - 6-8 SCHEDULES OF QUANTITIES
 - 9-12 PLAN AND PROFILE SHEETS
 - 13 PAVEMENT MARKING PLAN
 - 14 EROSION CONTROL PLAN
 - 15-19 WIDE LOAD SIGNING/STAGING PLAN
 - 20 ELECTRICAL PLAN SHEET
 - 21-44 BRIDGE PLANS
 - 45-52 CROSS SECTIONS
- 52A-52B For Info Only

STANDARDS

280001-02	701416-05
420401-05	701426-02
606001-02	701701-04
606301-02	702001-06
630001-06	704001-02
630301-03	780001-01
631031-05	781001-02
635006-02	886001
635011-01	886006
701400-02	601101
701401-03	

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

PLAN = 1"=30'
 PROFILE HORIZ. = 1"=30'
 PROFILE VERT. = 1"=5'
 CROSS SECTIONS = 1"=10' HORIZ.
 1"=5' VERT.

FAP ROUTE 805 (IL RTE 161)

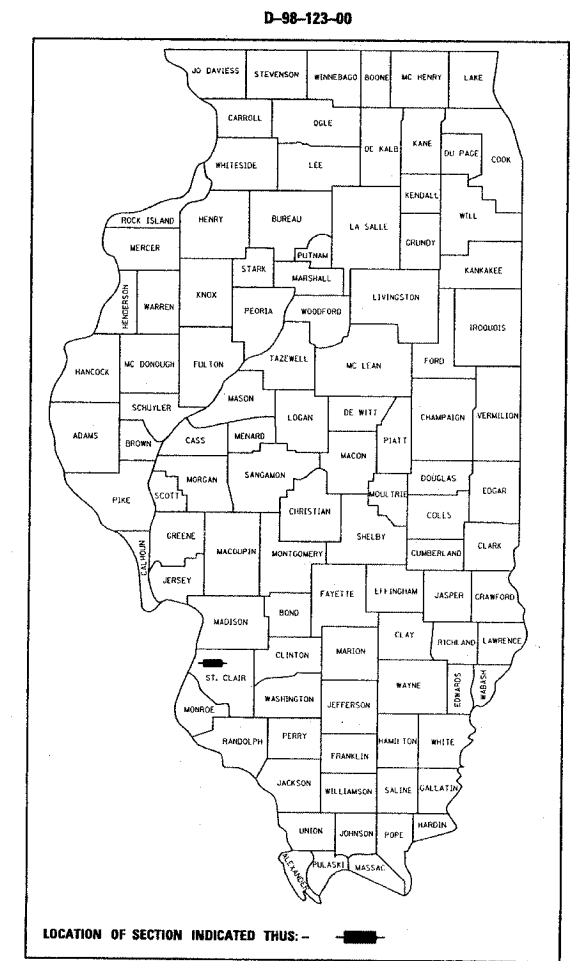
SECTION 147BR

PROJECT NO. BRF-0905(068)

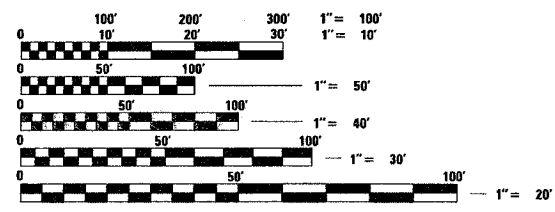
ST. CLAIR COUNTY

STRUCTURE REPLACEMENT

C-98-098-05



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

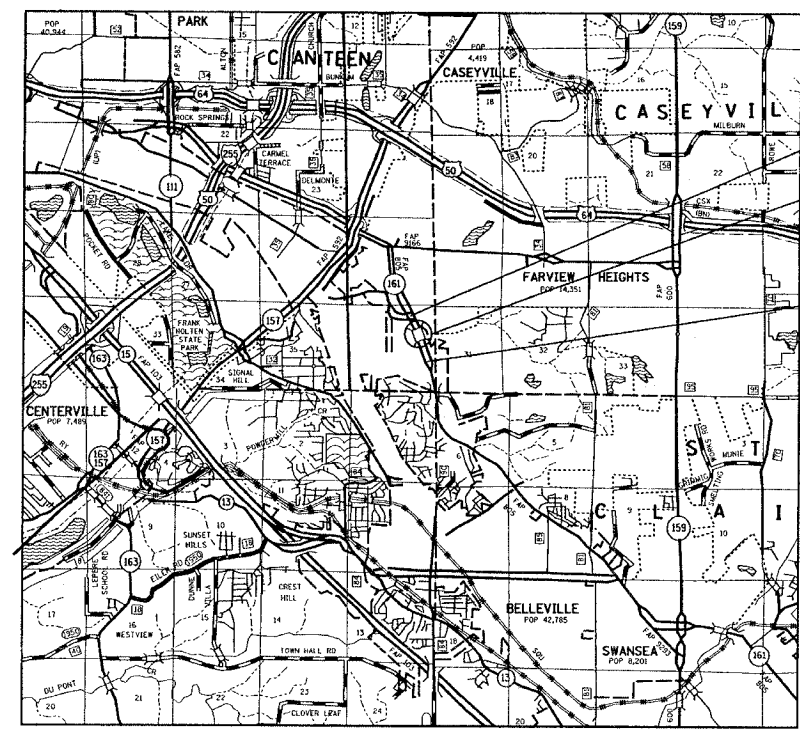


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

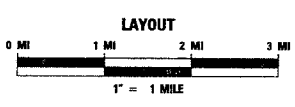
CONTRACT NO. 76393

LENGTH OF PROJECT
 GROSS LENGTH: 1630.05 FT = .31 MILES
 NET LENGTH: 1630.05 FT = .31 MILES



PROJECT BEGIN (APPROX.)
 LATITUDE: 38° 02' 26" N
 LONGITUDE: 90° 02' 18" W

PROJECT END (APPROX.)
 LATITUDE: 38° 02' 18" N
 LONGITUDE: 90° 02' 18" W



2003 ADT = 16,200
 2023 ADT = 21,800

PROJECT BEGIN
 STA. 95 + 77.38

BRIDGE OVER A TRIBUTARY TO SCHOENBERGER CREEK
 STA. 100 + 46.58 TO STA. 101 + 73.75
 S.N. 082-0102 (N.B.)
 S.N. 082-0103 (S.B.)

PROJECT END
 STA. 112 + 07.43

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

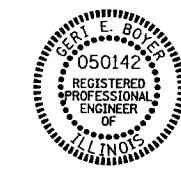
SUBMITTED March 22, 2006

PASSED May 12, 2006

APPROVED May 12, 2006

DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER
 ENGINEER OF DESIGN AND ENVIRONMENT
 DIRECTOR, DIVISION OF HIGHWAYS

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



Gert E. Boyer 03/9/2006
 GERT E. BOYER, P.E.
 LICENSE NO. 062-050142 DATE
 EXPIRES 11-30-2007

PREPARED BY
TWM THOUVENOT, WADE & MOERCHEN, INC.

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

GENERAL NOTES:

1. THE STANDARDS AND REVISIONS NUMBERS LISTED ON THE COVER SHEET SHALL APPLY TO THIS PROJECT.
2. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKINGS 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:
 - AMERITECH (COMMUNICATIONS)
 - BI-STATE DEVELOPMENT AGENCY (ELECTRIC)
 - CHARTER COMMUNICATIONS (COMMUNICATIONS)
 - ILLINOIS AMERICAN WATER CO. (WATER)
 - AMEREN I.P. (GAS, ELECTRIC)

(MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY *. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.)
3. THE THICKNESS OF THE BITUMINOUS MIXTURES SHOWN ON THE PLANS IS A 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 MIXTURE IS PLACED.
4. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT AND AT ALL INTERSECTING SIDE ROADS. COST SHALL BE INCLUDED IN THE VARIOUS TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE.
5. WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE DISTURBED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THE LOCATION.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
7. ALL VERTICAL DROP-OFFS RESULTING FROM ADJUSTMENTS TO THE PROFILE SHALL BE PROTECTED WITH EXTENDED LEG BARRICADES WITH APPROPRIATE LIGHTS. THIS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE CONTRACT.
8. FULL DEPTH SAWCUTS WILL BE REQUIRED AT THE EDGE OF PAVEMENT FOR REMOVAL OF THE COMBINATION CURB AND GUTTER AND ALL OTHER REMOVAL ITEMS. THESE SAW CUTS WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF THE REMOVAL PAY ITEMS.
9. SHORT TERM PAVEMENT MARKINGS SHALL BE APPLIED TO THE PRIMED, BINDER COURSE, AND FINAL SURFACE COURSE. ONLY THE REMOVAL OF THE FINAL SURFACE APPLICATION WILL BE PAID FOR (WORK ZONE PAVEMENT MARKING REMOVAL - SQ FT). AN AMOUNT OF TEMPORARY PAVEMENT MARKING WHICH EQUALS THE AMOUNT OF PERMANENT PAVEMENT MARKING HAS ALSO BEEN ADDED TO THE PLANS.
10. ALL AREAS DISTURBED FOR ANY REASON SHALL BE SEEDED WITH CLASS 2 SEEDING AS DIRECTED BY THE ENGINEER. NUTRIENTS SHALL CONFORM TO ARTICLE 250.04. MULCH SHALL CONFORM TO SECTION 251 OF THE STANDARD SPECIFICATIONS. MULCH UNLESS OTHERWISE PERMITTED BY THE ENGINEER, SHALL CONFORM TO METHOD 2 AS SPECIFIED IN ARTICLE 251.03.
11. PROPOSED #6 TIE BARS, 24" LONG AT 30" SPACING SHALL BE GROUTED IN PLACE TO ANCHOR THE PROPOSED P.C.C. BASE COURSE TO THE EXISTING BASE COURSE OF THE EXISTING PAVEMENT SHALL BE INCLUDED IN THE P.C.C. BASE COURSE WIDENING PAY ITEM AND SHALL BE DONE IN ACCORDANCE WITH ARTICLE 420.10(b).
12. A QUANTITY OF 1 EACH FOR SURVEY MONUMENT COVER ASSEMBLY HAS BEEN INCLUDED IN THIS PROJECT.
13. A MINIMUM OF 4 INCHES OF SUBBASE GRANULAR MATERIAL, TYPE B IS REQUIRED UNDER ALL REPLACED CONCRETE CURB AND GUTTER. ANY ADDITIONAL EXCAVATION REQUIRED TO PROVIDE 4 INCHES OF THICKNESS IS CONSIDERED TO BE INCLUDED IN THE SUBBASE GRANULAR MATERIAL, TYPE B PAY ITEM.
14. VOID AREAS BELOW THE PROPOSED PAVEMENT STRUCTURE CREATED BY THE REMOVAL OF THE EXISTING BRIDGE APPROACH PAVEMENTS SHALL BE FILLED WITH SUBBASE GRANULAR MATERIAL, TYPE B. A QUANTITY OF 218 TONS HAS BEEN INCLUDED IN THE SUBBASE GRANULAR MATERIAL, TYPE B PAY ITEM FOR THIS PURPOSE.
15. FLAGMEN SHALL BE REQUIRED AT ALL TIMES DURING PATCHING OPERATIONS.
16. THE LOCATION OF ALL DETECTOR LOOPS SHALL BE APPROVED BY THE ENGINEER BEFORE ANY SLOTS ARE SAWED IN THE PAVEMENT.
17. DETECTOR LOOP LEAD-IN SPLICES SHALL BE MADE IN A HANDHOLE PER ARTICLE 873.03 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARD DRAWING 886001. CONDUCTORS SHALL BE SPLICED IN A RIGID MOLD. ROSIN-CORE SOLDER SHALL BE USED.
18. THE B6.24 AND M6.24 GUTTER FLAG VARIES FROM 2' TO 3' IN THE AREAS OF THE PCC BASE COURSE WIDENING. THE VARIABLE WIDTH WILL BE INCLUDED IN THE B6.24 AND M6.24 CURB AND GUTTER PAY ITEM.
19. SHOULDER RESURFACING WILL BE PAID FOR IN ACCORDANCE WITH PAVEMENT PAY ITEMS AS SHOWN ON PROPOSED TYPICAL SECTIONS. SHOULDER MIXTURE REQUIREMENTS ARE AS SHOWN IN MIXTURE REQUIREMENTS TABLE.

EROSION AND SEDIMENT CONTROL NOTES:

1. PLANS INCLUDE ESTIMATED QUANTITIES FOR TEMPORARY EROSION AND SEDIMENT CONTROL. THESE ARE WORST CASE ESTIMATES. DISTURBANCE OF AREAS BEYOND THE LIMITS OF ACTUAL IMPROVEMENT IS TO BE HELD TO A MINIMUM.
2. TEMPORARY SEEDING AND MULCH SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND SHALL BE IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS EXCEPT THAT MULCH AND TEMPORARY SEEDING SHALL BE PAID FOR AS TEMPORARY EROSION CONTROL SEEDING AND NO OTHER PAYMENT WILL BE PERMITTED.
3. ALL AREAS DISTURBED FOR ANY REASON SHALL BE SEEDED WITH CLASS 2 SEEDING AS DIRECTED BY THE ENGINEER. NUTRIENTS SHALL CONFORM TO ARTICLE 250.04.
4. CLASS 2 SEEDING AND EROSION CONTROL BLANKET IS TO BE PLACED AS SOON AS EARTHWORK IS COMPLETED.
5. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO 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 RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.
6. EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
7. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR 'EARTH EXCAVATION' AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
8. STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER, AND SILT FENCES WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, URETHANE FOAM/GEOTEXTILE (SILT WEDGES), EARTH MEDIAN AND/OR OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.
9. FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE	SURFACE	LEVEL BINDER	BINDER
AC/PG	SBS PG 70-22	PG 64-22	PG 64-22
RAP % (MAX)	0%	10%	10%
DESIGN AIR VOIDS	4.0% @ Ndes=90	4.0% @ Ndes=90	4.0% @ Ndes=90
MIX COMPOSITION			
(GRADATION MIXTURE)			
FRICITION AGG	MIXTURE D	MIXTURE "C"	MIXTURE "B"

MIXTURE USE	SHOULDERS	TOP LIFT SHOULDERS	BRIDGE APPROACH PAV. CONNECTOR (FLEX)
AC/PG	PG 58-22	PG 58-22	PG 64-22
RAP % (MAX)	30%	30%	10%
DESIGN AIR VOIDS	2.0% @ Ndes=30	••2.0% @ Ndes=30	4.0% @ Ndes=90
MIX COMPOSITION			
(GRADATION MIXTURE)			
FRICITION AGG	BAM	BAM	MIXTURE "B"

•• Top Lift Shoulders - Design this mix at 2.0% voids and add asphalt to reduce voids to 1.5%.

Plan quantities for Bituminous Concrete Surface Course Items are calculated using a unit weight of 112 lb/sq yd/in (59.8 kg/sq m/25 mm thickness).

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 76393				

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		GENERAL NOTES
DRAWN BY:		FAP ROUTE 805 SECTION 147BR ST. CLAIR COUNTY

PLOT DATE: •DATE-TIME•

SUMMARY OF QUANTITIES

MAP SHEET	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	3
STA.	TO STA.			

EXISTING CONDITIONS:

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X071-2A	X071-2A	SFTY-3N
20200100	EARTH EXCAVATION	CU YD	1045	1045		
20201500	SUB-BASE GRANULAR MATERIAL, TYPE B	TON	414		414	
20400800	FURNISHED EXCAVATION	CU YD	94	94		
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	448		448	
25000200	SEEDING, CLASS 2	ACRE	0.3	0.3		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	54	54		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	54	54		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	54	54		
25100115	MULCH, METHOD 2	ACRE	0.3	0.3		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	34	34		
28000400	PERIMETER EROSION BARRIER	FOOT	814	814		
28100109	STONE RIPRAP, CLASS A5	SQ YD	266		266	
28200200	FILTER FABRIC	SQ YD	266		266	
35400520	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 12"	SQ YD	416	416		
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	3.6	3.6		
40600300	AGGREGATE (PRIME COAT)	TON	17	17		
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	427	427		
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	640	640		
40600990	TEMPORARY RAMP	SQ YD	148	148		
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	544		544	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	109		109	
44000100	PAVEMENT REMOVAL	SQ YD	1413		1413	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	3022		3022	
44000700	APPROACH SLAB REMOVAL	SQ YD	287		287	
44002020	CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	3915	3915		
44004250	PAVED SHOULDER REMOVAL	SQ YD	160	160		
44200120	PAVEMENT PATCHING, TYPE II, 10 INCH	SQ YD	264	264		
44200164	PAVEMENT PATCHING, TYPE I, 14 INCH	SQ YD	156	156		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	81	81		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
50200100	STRUCTURE EXCAVATION	CU YD	623		623	
50300225	CONCRETE STRUCTURES	CU YD	87		87	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	410.8		410.8	
50300260	BRIDGE DECK GROOVING	SQ YD	1074		1074	
50300300	PROTECTIVE COAT	SQ YD	1343		1343	

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X071-2A	X071-2A	SFTY-3N
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1	
50500505	STUD SHEAR CONNECTORS	EACH	2916		2916	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	95100		95100	
51201800	FURNISHING STEEL PILES HP14X73	FOOT	2064		2064	
51202700	DRIVING STEEL PILES	FOOT	2064		2064	
51203800	TEST PILE STEEL HP14X73	EACH	4		4	
51205200	TEMPORARY SHEET PILING	SQ FT	678		678	
51500100	NAME PLATES	EACH	2		2	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	219		219	
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	325		325	
60605200	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (DOWELLED)	FOOT	1140	1140		
60610600	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.24 (DOWELLED)	FOOT	1723	1723		
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	5838	5838		
60625900	P.C.C. RAMPED MEDIAN TERMINAL	EACH	2	2		
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	250	250		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4		
63200305	STEEL PLATE BEAM GUARD RAIL REMOVAL	FOOT	222	222		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12		
67100100	MOBILIZATION	L SUM	1	1		
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1		1	
70101210	TRAFFIC CONTROL AND PROTECTION, STANDARD 701416 (SPECIAL)	EACH	1		1	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	180	180		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	864	864		
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	47	47		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	7294	7294		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	6310	6310		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1389		1389	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1219		1219	
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	47	47		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	6445	6445		

* SPECIALTY ITEMS

DATE: 3/20/2006
 C:\p\j\j\12300\plan\plan04.dgn
 -REF-

SUMMARY OF QUANTITIES

MAP SHEET	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	3A
STA.		TO STA.		
EXISTING CONDITIONS:				

SUMMARY OF QUANTITIES			801 FED. 201 STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X071-2A	X071-2A	SFTY-3N
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	1635	1635		
* 78008270	POLYUREA PAVEMENT MARKING TYPE I - LINE 24"	FOOT	36	36		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	49	49		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8		
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	8		8	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	891	891		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	49	49		
* 81012300	CONDUIT IN TRENCH, 1" DIA., PVC	FOOT	10	10		
* 81012500	CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	20	20		
* 81100500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL	FOOT	115	115		
* 81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	30	30		
* 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	362	362		
* 88600100	DETECTOR LOOP, TYPE I	FOOT	97	97		
* 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	385	385		
X0322050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	17	17		
X4066528	POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N90	TON	1089	1089		
X4066618	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N90	TON	1441	1441		
X4066775	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N90	TON	645	645		
X7200200	WIDE LOAD SIGNING	L SUM	1	1		
* X7800455	POLYUREA PAVEMENT MARKING TYPE 1, RAISED MEDIAN	SQ FT	164	164		
Z0002600	BAR SPLICERS	EACH	160		160	
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	3			3
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	3			3
* Z0049100	RAISED PAVEMENT MARKER REFLECTOR REPLACEMENT	EACH	17	17		
Z0070100	SURVEY MONUMENT COVER ASSEMBLY	EACH	1	1		

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

* SPECIALTY ITEMS

3/20/2006
c:\p\jests\ad2300\plan\plan048.dgn
REF

F.A.P. RT.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 76393				

NOTE: PROPOSED BITUMINOUS BINDER MATERIAL OF VARIABLE THICKNESS (0 IN.-6.75 IN.) IS REQUIRED TO ADJUST THE EXISTING PROFILE GRADE BETWEEN LEFT STA. 97+44.70 - STA. 103+90.88 AND RIGHT STA. 96+98.16 - STA. 102+96.36. BINDER MATERIAL SHOULD BE USED IN LIEU OF LEVEL BINDER FOR THICKNESS GREATER THAN 2".

* LEFT TURN LANE VARIES 12' TO 4' THRU ENTRANCE TAPER STA. 98+48 TO STA. 99+69.87 EOP VARIES FROM 1' RT TO 7' LT

** 10' AND VARIABLE STA. 98+48 TO STA. 100+09.21

*** BEGIN SOUTHBOUND LEFT EOP TRANSITION AND PCC BASE COURSE WIDENING AT STA. 97+56. VARIES FROM 0' TO 4'-10".

- LEGEND**
- ① EXISTING PCC PAVEMENT, 10"
 - ② EXISTING STABILIZED SUB-BASE, 4"
 - ③ EXISTING BITUMINOUS OVERLAYED PAVEMENT, 4" AND VARIES
 - ④ EXISTING PIPE UNDERDRAINS
 - ⑤ EXISTING BITUMINOUS SHOULDERS, 8"
 - ⑥ EXISTING BITUMINOUS SHOULDERS, 10"
 - ⑦ EXISTING AGGREGATE SHOULDER
 - ⑧ EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24
 - ⑨ EXISTING CONCRETE MEDIAN SURFACE, 4"
 - ⑩ EXISTING BITUMINOUS BASE COURSE WIDENING, 9"
 - ⑪ PROPOSED COMBINATION CURB AND GUTTER, TYPE B-6.24
 - ⑫ PROPOSED COMBINATION CURB AND GUTTER, TYPE M-6.24
 - ⑬ PROPOSED POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, 1.5"
 - ⑭ PROPOSED BITUMINOUS CONCRETE LEVEL BINDER SUPERPAVE, 1.0"
 - ⑮ PROPOSED BITUMINOUS CONCRETE BINDER COURSE SUPERPAVE, VARIABLE
 - ⑯ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
 - ⑰ PROPOSED AGGREGATE (PRIME COAT)
 - ⑱ PROPOSED PCC MEDIAN SURFACE, 4"
 - ⑲ PROPOSED AGGREGATE SHOULDER
 - ⑳ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B - 4"
 - ㉑ PROPOSED PCC BASE COURSE WIDENING-12"
 - ㉒ PROPOSED TIE BARS

**** END NORTHBOUND RIGHT EOP TRANSITION AND PCC BASE COURSE WIDENING AT STA. 104+99.58. VARIES FROM 4'-8" TO 0'.

END SOUTHBOUND LEFT EOP TRANSITION AND PCC BASE COURSE WIDENING AT STA. 104+93.20. VARIES FROM 4'-2" TO 0'

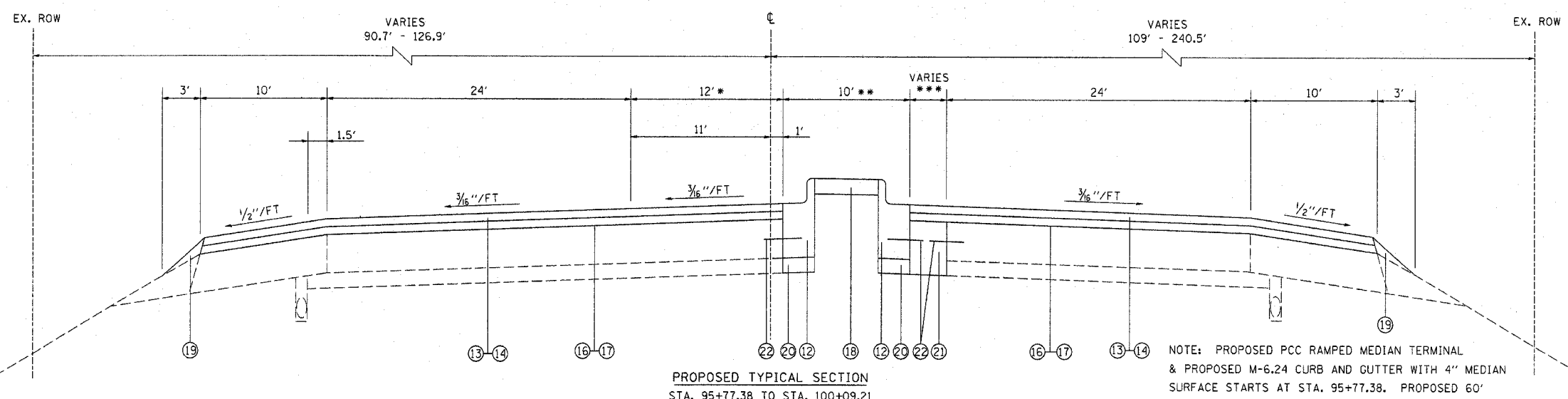
***** LEFT TURN LANE VARIES 0' TO 12' THRU ENTRANCE TAPER STA. 107+66 TO STA. 109+96 EOP VARIES FROM 11' RT TO 1' LT

***** VARIES 22' TO 10' STA. 107+66 TO STA. 109+96

REVISIONS	
NAME	DATE

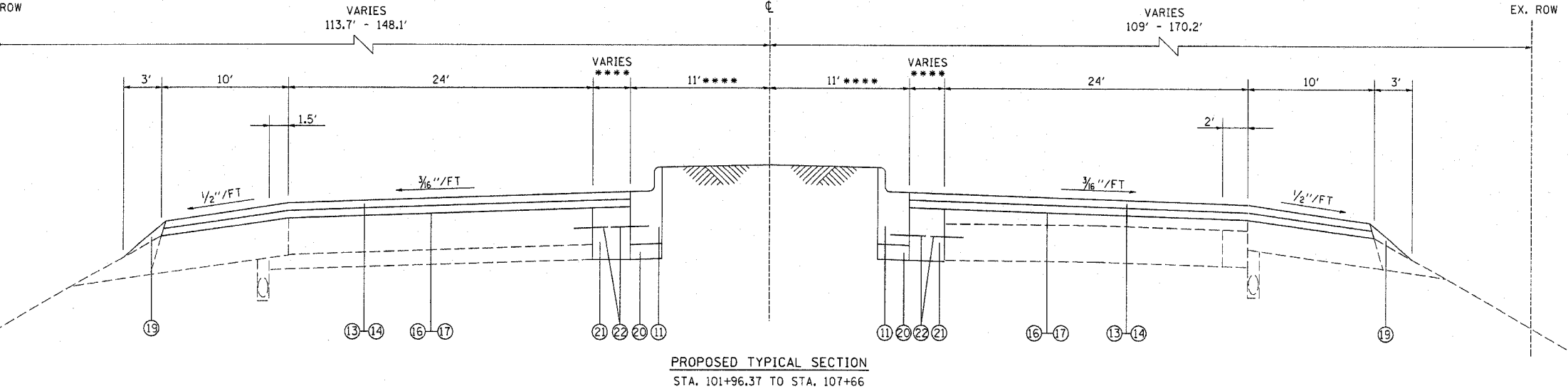
ILLINOIS DEPARTMENT OF TRANSPORTATION
**PROPOSED ROADWAY
 TYPICAL SECTIONS**
 FAP ROUTE 805
 SECTION 147BR
 ST. CLAIR COUNTY

DRAWN BY:

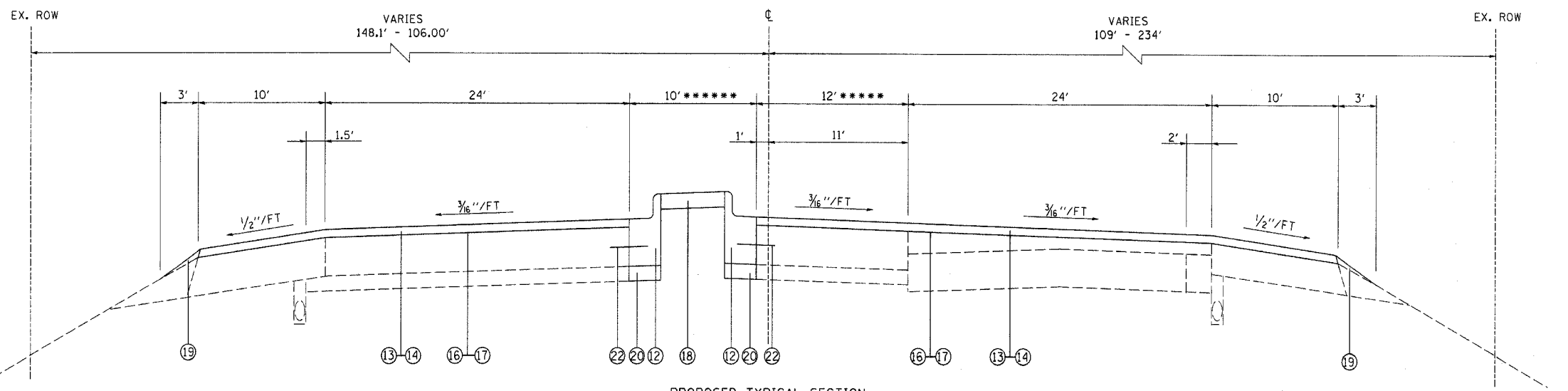


PROPOSED TYPICAL SECTION
 STA. 95+77.38 TO STA. 100+09.21

NOTE: PROPOSED PCC RAMPED MEDIAN TERMINAL & PROPOSED M-6.24 CURB AND GUTTER WITH 4" MEDIAN SURFACE STARTS AT STA. 95+77.38. PROPOSED 60' BUTT JOINT FROM STA. 96+93.19 TO STA. 97+53.13.



PROPOSED TYPICAL SECTION
 STA. 101+96.37 TO STA. 107+66



PROPOSED TYPICAL SECTION
 STA. 107+66 TO STA. 112+07.43

NOTE: PROPOSED 60' BUTT JOINT FROM STA. 111+30.43 TO STA. 111+90.43. PCC RAMPED MEDIAN TERMINAL FROM STA. 111+90.43 TO STA. 112+07.43.

SURVEYED
 ALIGNED
 CHECKED
 PLOTTED
 NO.

DATE
 TIME
 REF.
 FILE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 76393				

PAVING SCHEDULE																
STATION	TO	STATION	LENGTH	PAVEMENT WIDTH	AGGREGATE SHOULDERS TYPE B	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE MIX D N90	P. C. C. BASE COURSE WIDENING 12"	BITUMINOUS CONCRETE BINDER COURSE SUPERPAVE 1L-19.0, N90	LEVELING BINDER (MACHINE METHOD) SUPERPAVE N90	BRIDGE APPROACH PAVEMENT	BRIDGE APPROACH PVT. CONNECTOR (FLEX.)	SUB-BASE GRANULAR MATERIAL, TYPE B	TEMPORARY RAMP	
																FEET
96+07.00	TO	100+49.95	TEMP. CROSS OVER													36.97
96+93.19	TO	97+01.52	8.33	80.0												277.67
96+41.60	TO	97+56.00	SB	114.40	24.0											17.09
96+84.80	TO	98+48.00	NB	163.20	36.0	0.1	0.46									36.56
96+41.60	TO	99+87.00	RT	345.40	3.0	0.2	0.98									54.84
96+41.60	TO	99+89.62	SB	345.14	10.0											21.47
96+84.80	TO	100+31.00	LT	346.20	3.0	7.14	0.12	0.58								32.21
96+84.80	TO	100+31.19	NB	346.39	10.0											21.37
97+56.00	TO	100+06.00	SB	241.81	26.2	8.21	0.12	0.57								39.4
97+56.00	TO	100+09.21	SB	253.21	2.7											6.36
98+00.00	TO	100+07.86	NB													75.68
98+00.00	TO	99+97.21	SB			16.8										186.96
98+48.00	TO	99+69.87	NB	121.87	32.2											163.69
99+69.87	TO	100+29.57	NB	50.22	28.5	0.14	0.65									24.44
99+87.22	TO	100+17.22	SB	30.00	40.8	0.05	0.24									8.89
100+31.19	TO	100+61.19	NB	30.00	40.8							136.10	27.22	65.00		
102+08.36	TO	104+00	NB									136.10	27.22	54.00		
101+97.71	TO	103+00	SB													116.22
101+69.07	TO	107+45.00	TEMP. CROSS OVER													19.33
101+74.00	TO	111+90.43	RT	1016.43	3.0											676.82
101+96.37	TO	107+66.00	SB	569.63	2.7	24.72										14.20
101+99.58	TO	104+99.58	NB	291.81	26.2		0.03	0.14								170.26
101+96.37	TO	107+66.00	NB	569.63	2.7		0.27	1.27								71.82
101+44.38	TO	101+74.38	SB	30.00	40.8		0.03	0.13								14.20
101+76.77	TO	111+90.43	SB	1016.55	10.0											170.26
101+88.36	TO	102+18.36	NB	30.00	40.8											9.53
101+93.20	TO	104+93.20	SB	308.22	26.2		0.35	1.69								47.88
102+15.96	TO	111+90.43	NB	971.59	10.0											71.82
102+18.00	TO	111+90.43	LT	972.43	3.0											14.20
104+93.20	TO	107+66.00	SB	272.80	24.0		0.28	1.35								9.53
104+99.58	TO	111+90.43	NB	690.85	24.0		0.34	1.62								136.10
107+66.00	TO	109+96.00	SB	230.00	30.0											27.22
109+96.00	TO	111+90.43	SB	194.43	36.0											51.00
111+82.10	TO	111+90.43	8.33	80.0												48.00
TOTAL:					81	3.56	17	1089.30	416	1440.69	645.13	544	109	218	148	

PATCHING SCHEDULE			
LOCATION		PAVEMENT PATCHING, CLASS B, TYPE II, 10 INCH	PAVEMENT PATCHING, CLASS B, TYPE II, 14 INCH
97+28.00	SB	10.66	
97+53.00	NB	10.66	
97+77.00	SB	10.66	
98+31.00	NB	16.00	
98+75.00	SB	10.66	
98+79.00	NB	16.00	
99+23.00	NB	14.44	
99+27.00	SB	10.66	
99+53.00	SB	10.66	
99+53.00	NB	10.66	
99+81.00	NB	13.33	
100+03.00	NB	10.66	
102+22.00	SB		10.66
102+66.00	SB		10.66
102+77.00	NB	10.66	
103+29.00	NB	10.66	
103+76.00	SB		13.34
103+79.00	NB	10.66	
104+19.00	NB	10.66	
104+72.00	NB	10.66	
104+76.00	SB		16.00
105+70.00	NB	10.66	
105+78.00	SB		10.66
106+19.00	NB	10.66	
106+77.00	SB		10.66
107+77.00	SB		13.34
108+77.00	SB		20.44
110+77.00	SB		10.66
111+78.00	SB		13.34
SUBTOTAL		220	130
ANTICIPATED FAILURES		20%	20%
TOTAL:		264	156

CURB AND GUTTER SCHEDULE							
LOCATION	TO	STATION	COMB. CONC. C&G TYPE B-6, 24 (DOWELLED)	COMB. CONC. C&G TYPE M-6, 24 (DOWELLED)	CONCRETE MEDIAN SURFACE, 4"	SUB-BASE GRANULAR MATERIAL, TYPE B	P. C. C. RAMPED MEDIAN TERMINAL
95+77.38	TO	95+83.38					1
95+83.38	TO	100+07.11	SB	424		29.34	
95+83.38	TO	100+11.30	NB	428		29.61	
95+86.38	TO	95+97.38			42.13		
95+97.38	TO	97+56.00			739.17		
97+56.00	TO	98+48.00			355.12		
98+48.00	TO	99+69.87			704.41		
99+69.87	TO	100+39.00			587.61		
101+94.27	TO	107+66.00	SB	572		38.24	
101+98.47	TO	107+66.00	NB	568		37.97	
107+66.00	TO	109+96.00			2451.80		
107+66.00	TO	112+01.43	SB			30.14	
107+66.00	TO	112+01.43	NB			30.14	
109+96.00	TO	112+01.43			957.30		
112+01.43	TO	112+07.43					1
TOTAL:			1140	1722	5838	195.44	2

PAVEMENT REMOVAL SCHEDULE									
STATION	TO	STATION	LENGTH	PAVEMENT WIDTH	PAVEMENT REMOVAL	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	P. C. C. SURFACE REMOVAL - BUTT JOINT	PAVED SHOULDER REMOVAL	APPROACH SLAB REMOVAL
96+07.00	TO	100+49.95	TEMP. CROSS OVER			372.21			
96+93.19	TO	97+53.19	NB, SB	60	20	133.33			
96+93.19	TO	97+53.19	SB	60	24		160.00		
96+93.19	TO	97+53.19	NB	30	36		240.00		
101+69.07	TO	107+45.00	TEMP. CROSS OVER			905.94			
111+30.43	TO	111+90.43	NB	60	10	66.67			
111+30.43	TO	111+90.43	SB	60	34	226.67			
111+30.43	TO	111+90.43	SB	60	12		80.00		
111+30.43	TO	111+90.43	NB	60	24		160.00		
EXISTING BRIDGE APPROACH		SB	30	10	30			40.00	
EXISTING BRIDGE APPROACH		SB	30	10	36			40.00	
EXISTING BRIDGE APPROACH		NB	30	10	45			40.00	
EXISTING BRIDGE APPROACH		NB	30	10	24			40.00	
EXISTING BRIDGE APPROACH		NB	26.93	24					143.62
EXISTING BRIDGE APPROACH		SB	26.93	24					143.62
TOTAL:					1413	427	640	160	287

CURB AND GUTTER REMOVAL SCHEDULE				
LOCATION	TO	STATION	COMB. CONC. C&G REMOVAL	CONCRETE MEDIAN SURFACE REMOVAL
95+77.38	TO	95+90.00		46.17
95+77.38	TO	97+00.00	RT	122.6
95+77.38	TO	97+00.00	LT	122.6
95+90.00	TO	98+48.00		1248.72
97+00.00	TO	98+48.00	LT	148
97+00.00	TO	100+39.00	RT	339
98+48.00	TO	99+43.00		744.80
98+48.00	TO	100+15.00	LT	167
100+15.00	TO	100+47.00	LT	32
101+57.20	TO	106+00.00	RT	443
101+69.00	TO	106+00.00	LT	431
106+00.00	TO	107+65.00	RT	165
106+00.00	TO	112+08.00	LT	608
107+65.00	TO	110+00.00	RT	236
108+81.00	TO	109+96.00		901.60
109+96.00	TO	111+90.00		938.96
110+00.00	TO	112+08.00	RT	208
111+90.00	TO	112+00.00		34.20
TOTAL:			3022	3915

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULES OF QUANTITIES FAP ROUTE 805 SECTION 147BR ST. CLAIR COUNTY
NAME	DATE	
DRAWN BY:		

PLOT DATE: *DATE-TIME*

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 76393				

THERMOPLASTIC PAVEMENT MARKING SCHEDULE								
STATION TO STATION		4" MARKINGS				LETTERS & SYMBOLS	REMARKS	PAVEMENT MARKING REMOVAL
		SOLID WHITE 4"	SKIP-DASH WHITE 4"	2'-6" SKIP DASH WHITE 4"	MEDIAN SOLID YELLOW 4"			
		FOOT	FOOT	FOOT	FOOT	SO FT		SO FT
84+12.00	TO	90+67.00	SB					53.33
90+50.00	TO	92+50.00	SB					16.67
93+55.00	TO	94+25.00	SB					6.67
		94+70.00	NB					72
95+80.00	TO	100+44.00	SB					309.3
96+41.60	TO	100+06.00	SB	364.4	90			
96+41.6	TO	100+06.00	SB			364.4		
96+41.6	TO	100+06.00	SB					
96+84.80	TO	100+12.38	NB		80			
96+84.80	TO	100+12.38	NB	327.58				
96+84.80	TO	98+48.00	NB	163.2				
96+84.80	TO	100+12.38	NB			327.58		
96+84.80	TO	98+48.00	NB				15.6	1 LARGE LT TURN ARROW
98+48.00	TO	100+40.85	NB					
101+65.00	TO	107+45.00	SB					386.63
101+93.20	TO	111+90.43	SB		250			
101+93.20	TO	111+90.43	SB	997.23				
101+93.20	TO	111+90.43	SB			997.23		
101+99.58	TO	111+90.43	NB		250			
101+99.58	TO	111+90.43	NB	990.85				
101+99.58	TO	111+90.43	NB			990.85		
109+96.00	TO	112+00.00	SB	204				
109+96.00	TO	111+90.43	SB				31.2	2 LARGE LT TURN ARROW
123+37.00	TO	117+97.00	NB					46.66
SUBTOTAL:				3047.26	670	48	2680.06	
TOTAL:					6445		46.8	891

POLYUREA PAVEMENT MARKING TYPE 1 SCHEDULE						
STATION TO STATION		4" MARKINGS			24" MARKINGS	POLYUREA PAVEMENT MARKING, TYPE 1 RAISED MEDIAN
		SOLID WHITE 4"	SKIP-DASH WHITE 4"	MEDIAN SOLID YELLOW 4"	STOP BAR 24"	
		FOOT	FOOT	FOOT	FOOT	SQ. FOOT
84+12.00	TO	90+67.00	SB			
90+50.00	TO	92+50.00	SB	160		
93+55.00	TO	94+25.00	SB	50		
				20		
		94+70.00	NB			
95+77.38	TO	96+84.80	SB			34
95+77.38	TO	96+84.80	SB			
95+77.38	TO	96+84.80	SB	107.42		
95+94.38	TO	96+66.38	SB		214.84	
100+06.00	TO	101+93.20	SB	187.2		
100+06.00	TO	101+93.20	SB			48
100+06.00	TO	101+93.20	SB			
100+06.00	TO	101+93.20	SB	187.2		
100+12.38	TO	101+99.58	NB			
100+12.38	TO	101+99.58	NB			
100+12.38	TO	101+99.58	NB	187.2		
100+12.38	TO	101+99.58	NB		187.2	
100+12.38	TO	101+99.58	NB	50		
111+90.43	TO	112+07.43	NB		34	
111+90.43	TO	111+18.43	NB			48
		112+07.43	NB			34
117+97.00	TO	123+37.00	NB			
SUBTOTAL:				481.82	530	623.24
TOTAL:					1635	36

TEMPORARY PAVEMENT MARKING SCHEDULE						
STATION TO STATION		SHORT - TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL	TEMP. PAINT PAVEMENT MARKING - LINE 4"	TEMP. PAINT PAVEMENT MARKING - LETTERS & SYMBOLS	REMARKS
		FOOT	SQ FT	FOOT	SQ FT	
95+80.00	TO	111+90.43	SB	320	106.66	
96+41.60	TO	111+90.43	SB	120	40.00	
96+84.80	TO	98+48.00	NB		15.60	1 LARGE LT TURN ARROW
96+41.60	TO	111+90.43	SB		1088.98	3267.26
96+84.80	TO	111+90.43	NB	120	40.00	
96+84.80	TO	111+90.43	NB	304	101.32	
96+84.80	TO	111+90.43	NB		1059.25	3178.06
100+06.00	TO	101+93.20	SB		141.45	424.4
100+12.38	TO	101+99.58	NB		141.45	424.4
109+96.00	TO	111+90.43	SB		31.20	31.2
STAGE 1						
85+27	TO	93+55			275.97	
94+25	TO	94+64			13.00	
95+50	TO	96+07			19.00	
96+52	TO	107+17			354.97	
96+07	TO	107+17			369.96	
100+57	TO	123+37			759.92	
STAGE 2						
84+12	TO	90+50			212.65	
92+50	TO	94+70			146.65	
96+02	TO	102+05			200.98	
97+45	TO	107+45			333.30	
97+65	TO	123+37			857.25	
TOTAL:				864	6310	7294

RAISED REFLECTIVE PAVEMENT MARKERS						
STATION TO STATION		1-WAY CRYSTAL (EACH)	SPACING (FEET)	RRPM REFLECTOR REPLACEMENT	RRPM REFLECTOR REMOVAL	RRPM REMOVAL
				EACH	EACH	EACH
84+12.00	TO	90+67.00	SB	9	9	
96+41.60	TO	111+90.43	SB			
96+84.80	TO	111+90.43	NB	20	80	
96+93.19	TO	98+48.00	NB	4	40	
96+41.60	TO	111+90.43	SB			20
96+84.80	TO	111+90.43	NB			20
96+93.19	TO	98+48.00	NB			4
109+96.00	TO	111+90.43	SB	5	40	
109+96.00	TO	111+90.43	SB			5
117+97.00	TO	123+37.00	NB	8	8	
TOTAL:				49	17	49

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

FAP ROUTE 805
SECTION 147BR
ST. CLAIR COUNTY

DRAWN BY: _____

LOCATION		STAGE I	STAGE II	TEMP. CONC. BARRIER	RELOCATE TEMP. CONC. BARRIER	IMPACT ATTENUATOR, RELOC. (NON-REDIR.), TEST LEVEL 2	IMPACT ATTENUATORS, TEMP. (NON-REDIR.) TEST LEVEL 2
				FEET	FEET	EACH	EACH
			X				1
96+44.92	TO	96+07.00	X	1034			
		106+79.08					
		97+65.00				1	•
		97+65.00					
97+82.92	TO	107+07.08	X		924		1
		97+84.00	X				
98+21.92	TO	101+77.00	X	355			
101+75.00	TO	104+70.00			295		
		104+70.00				1	•
		107+17.00	X				1
		107+17.00	X				
		107+45.00				1	•
TOTAL:				1389	1219	3	3

• SHALL BE REUSED FOR STAGE II TRAFFIC CONTROL

LOCATION		SB	NB	SPBGR, TYPE A	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 1, SPEC. (TANGENT)	SPBGR REMOVAL	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL MARKER, TYPE A	
				FEET	EACH	EACH	FEET	EACH	MONO DIR. SILVER	MONO DIR. AMBER
ILL. 161 OUTSIDE		X							2	
ILL. 161 INSIDE		X								2
ILL. 161 OUTSIDE			X						2	
ILL. 161 INSIDE			X							2
98+85.97		X						1		
98+85.97	TO	99+23.47	X			1				
99+06.34		X						1		
99+06.34	TO	99+43.84	X			1				
99+06.61	TO	100+17.49	X				111			
99+23.47	TO	99+83.82	X	62.5						
99+43.84	TO	100+04.19	X	62.5						
100+04.19	TO	100+37.34	X		1					
100+04.19	TO	100+37.34	X		1					
101+68.24	TO	102+01.39	X		1					
101+87.63	TO	102+20.78	X		1					
101+89.43	TO	103+00.58	X				111			
102+01.39	TO	102+61.74	X	62.5						
102+20.78	TO	102+81.13	X	62.5						
102+61.74	TO	102+99.24	X			1				
102+81.13	TO	103+18.63	X			1				
102+99.24			X					1		
103+18.63			X					1		
SUBTOTAL				250.0	4	4	222	4	4	4
TOTAL:				250.0	4	4	222	4	8	4

SEEDING SCHEDULE								
STATION	TO	STATION	SEEDING CLASS 2	TEMP. EROSION CONTROL SEEDING	NUTRIENTS			MULCH METHOD 2
			ACRE	POUND	NITROGEN FERT. NUTR. POUND	PHOSPHORUS FERT. NUTR. POUND	POTASSIUM FERT. NUTR. POUND	ACRE
95+77.38		112+07.43	0.30	34.00	54	54	54	0.3
TOTAL:			0.3	34.0	54.0	54.0	54.0	0.3

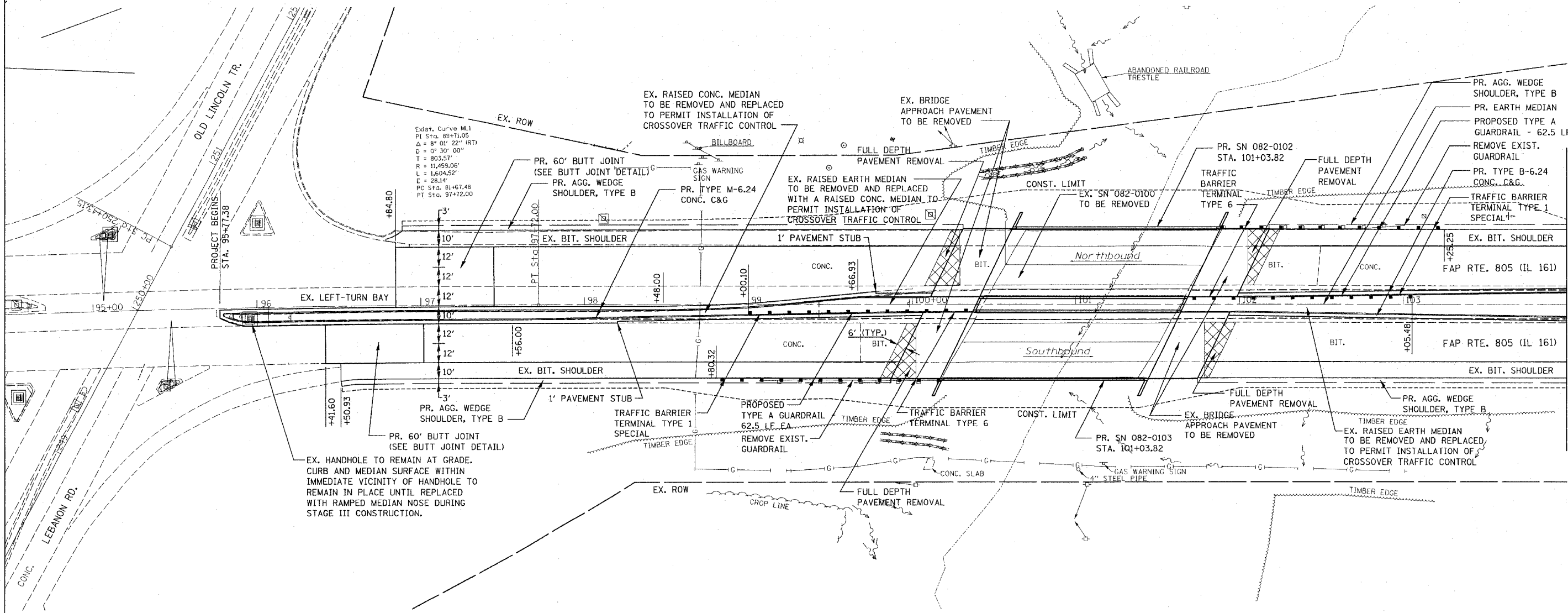
EARTHWORK SCHEDULE						
STATION	TO	STATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE FACTOR	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
			CU YD	CU YD	CU YD	CU YD
STA 95+77.38 LT & RT	TO	STA 112+07.43 LT & RT	1045	784	878	0
TOTAL:			1045	784	878	-94

REVISIONS	
NAME	DATE

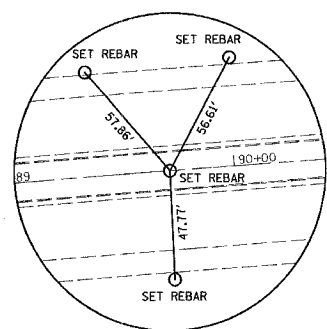
ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULES OF QUANTITIES
 FAP ROUTE 805
 SECTION 147BR
 ST. CLAIR COUNTY

DRAWN BY:

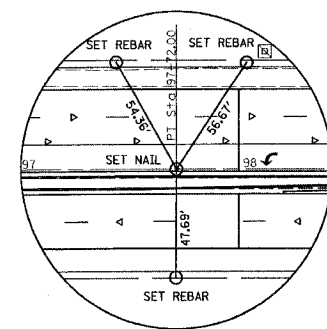
DATE: _____
 BY: _____
 SURVEYED: _____
 PLAN: _____
 NOTE BOOK: _____
 ALIGNMENT CHECKED: _____
 FIELD OF DATA CHECKED: _____
 PLOTTING FILE NAME: _____



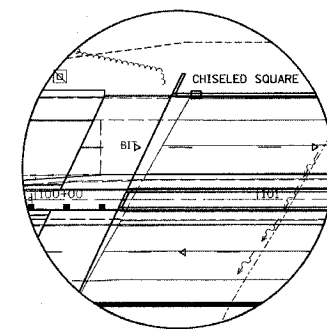
Exist. Curve M11
 PI Sta. 89+71.05
 $\Delta = 8^\circ 01' 22''$ (RT)
 $D = 9^\circ 30' 00''$
 $T = 803.51'$
 $R = 11,459.06'$
 $L = 1,604.52'$
 $E = 28.14'$
 PC Sta. 81+41.48
 PT Sta. 97+72.00



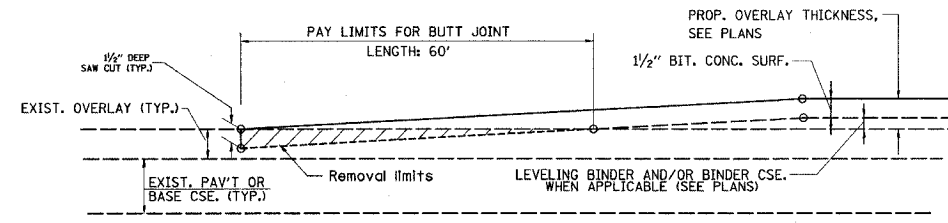
ALIGNMENT TIE
 PI STA. 89+71.05



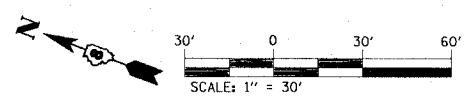
ALIGNMENT TIE
 PT STA. 97+72.00



BENCHMARK
 CHISELED SQUARE ON TOP OF CONCRETE
 PARAPET N.E. CORNER OF SN. 082-0100 (EXIST.)
 ELEVATION 465.39



BUTT JOINT DETAIL



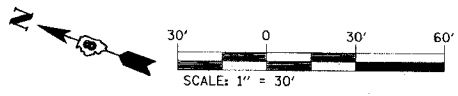
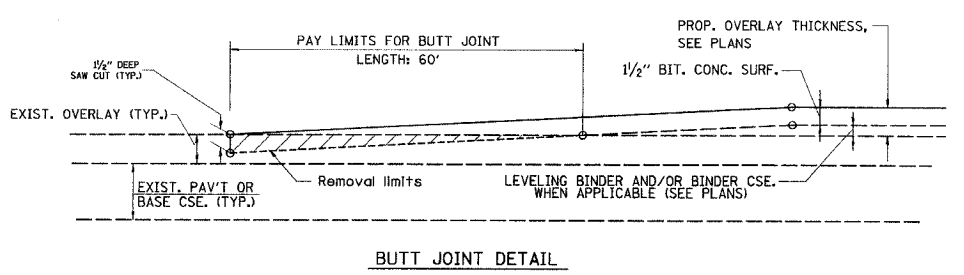
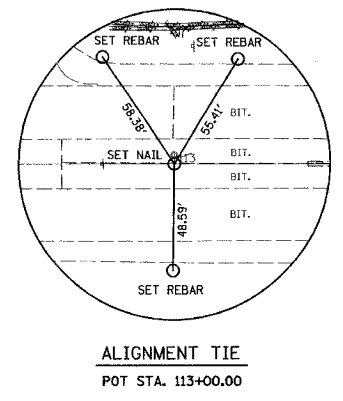
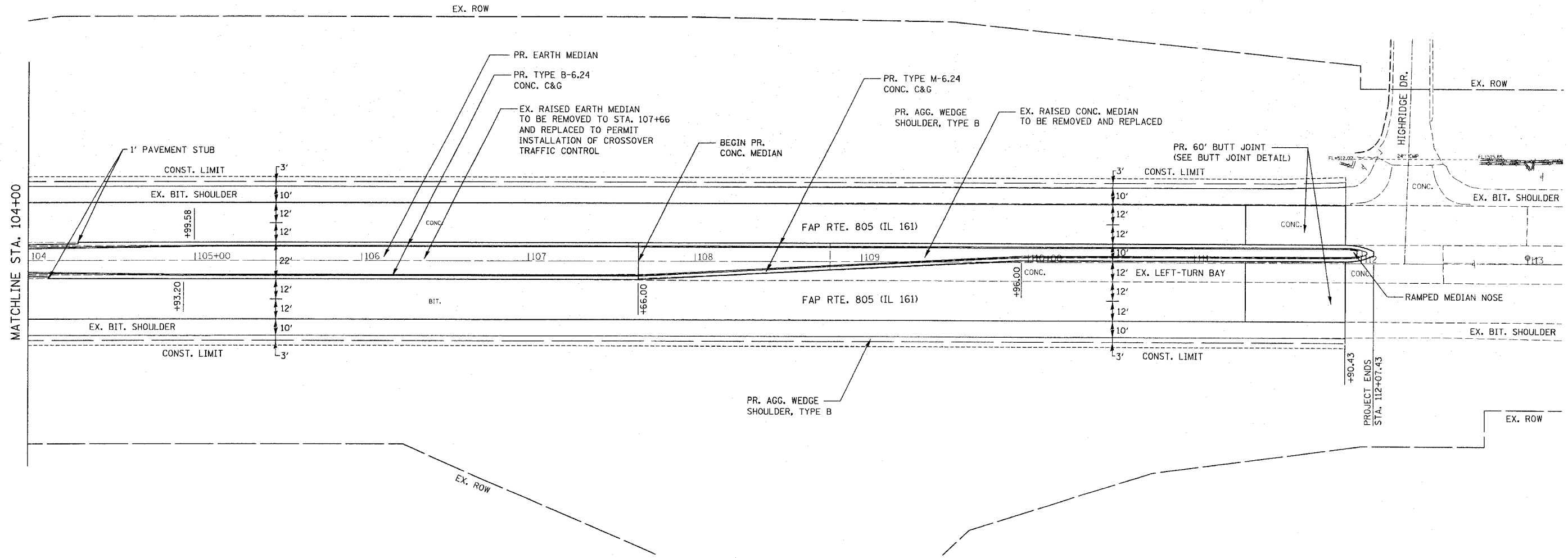
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN SHEET
 FAP ROUTE 805
 SECTION 147BR
 ST. CLAIR COUNTY
 DRAWN BY: _____
 PLOT DATE: *DATE-TIME*

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	10
STA. TO STA.		EXISTING CONDITIONS:		

CONTRACT NO. 76393

PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	NO.	
	FILE NAME	



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN SHEET
 FAP ROUTE 805
 SECTION 147BR
 ST. CLAIR COUNTY

DRAWN BY:

PLOT DATE: *DATE-TIME*

LEFT PGL

PLAN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
805	147BR	ST. CLAIR	52	11

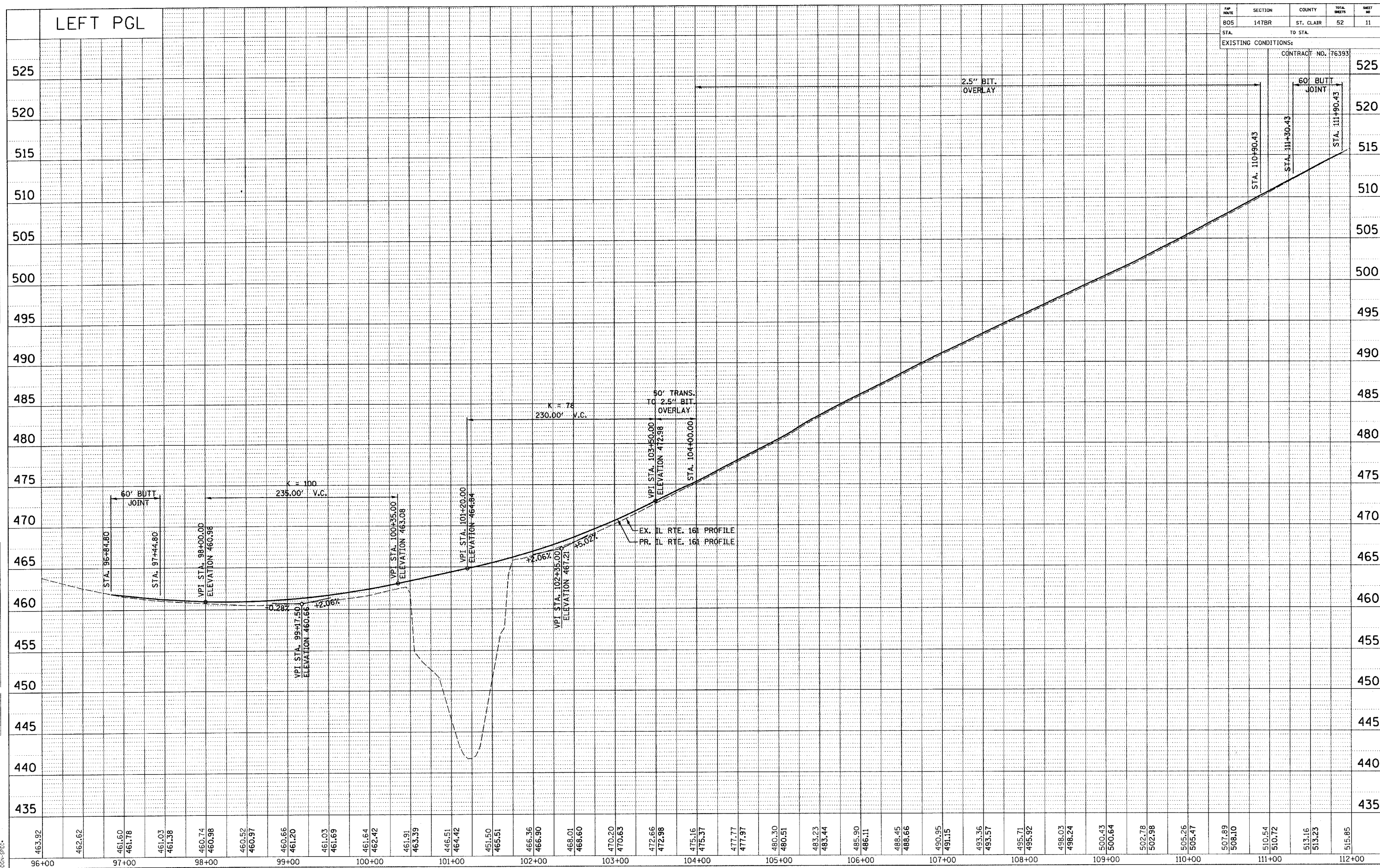
EXISTING CONDITIONS:

CONTRACT NO. 76393

PLAN SURVEYED BY DATE
 NOTE BOOK NO. CHECKED
 ALIGNMENT CHECKED
 ADD FILE NAME

PROFILE SURVEYED BY DATE
 NOTE BOOK NO. CHECKED
 GRADES CHECKED
 DATE NOTES OK'D

DATE PLOT
 DATE TIME
 USER



PLOT DATE: *DATE-TIME*

RIGHT PGL

FAP NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	12

STA. TO STA.
EXISTING CONDITIONS:

CONTRACT NO. 76393

PLAN

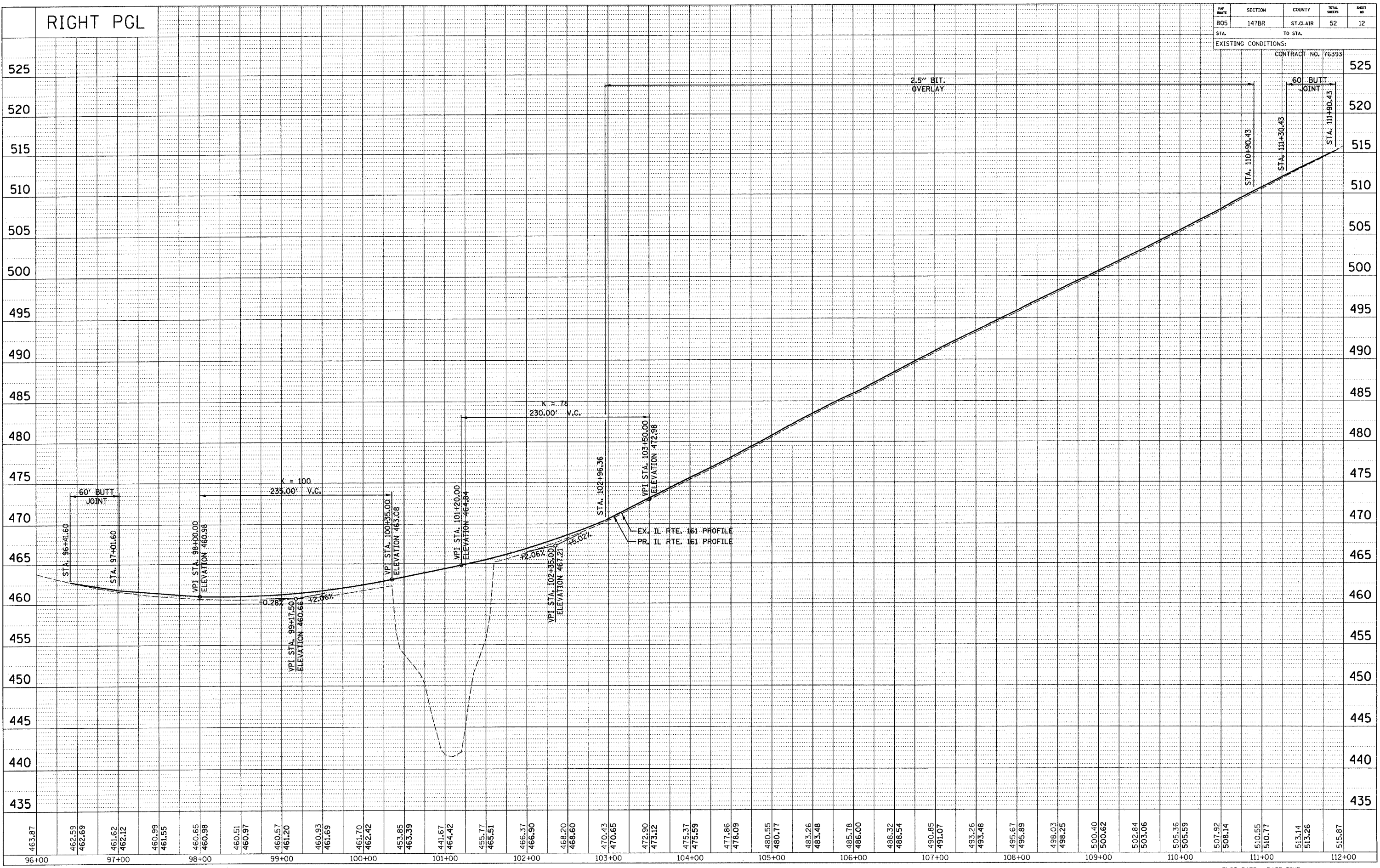
DATE	BY

SURVEYED
 PLOTTED
 CHECKED
 DATE
 NO.

PROFILE

DATE	BY

SURVEYED
 PLOTTED
 CHECKED
 DATE
 NO.



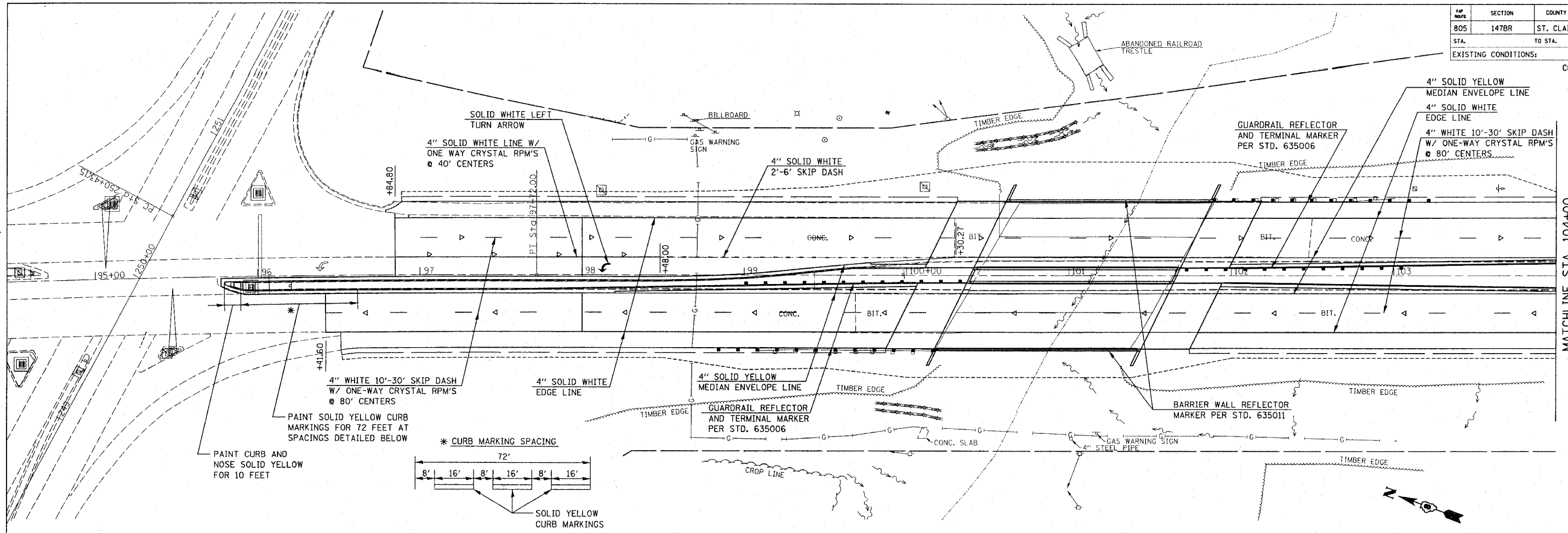
DATE
 DATE-TIME
 JOB-SPEC

PLOT DATE: *DATE-TIME*

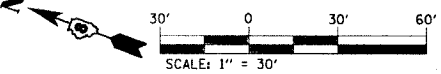
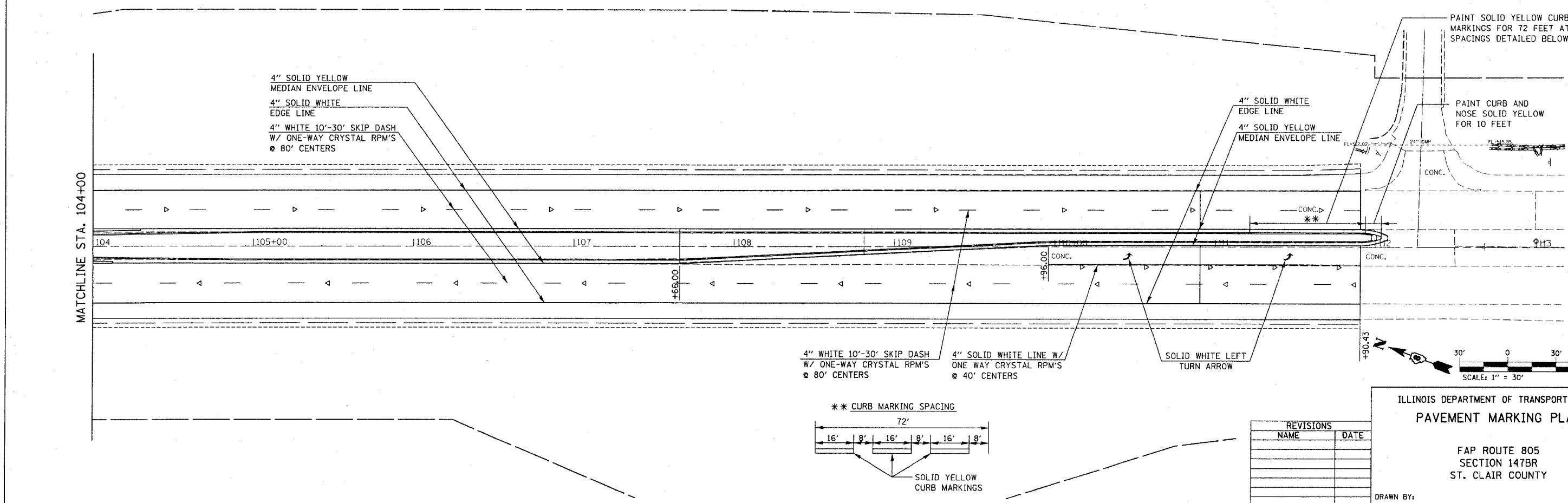
FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	13
STA.	TO STA.			
	EXISTING CONDITIONS:			

CONTRACT NO. 76393

PLAN	SURVEYED	BY	DATE
	NOTED		
	DESIGNED		
	CHECKED		
	BY		
	NO.		



MATCHLINE STA. 104+00



ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING PLAN

FAP ROUTE 805
SECTION 147BR
ST. CLAIR COUNTY

REVISIONS	
NAME	DATE

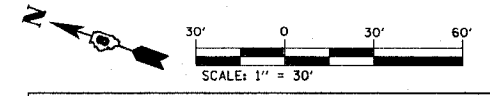
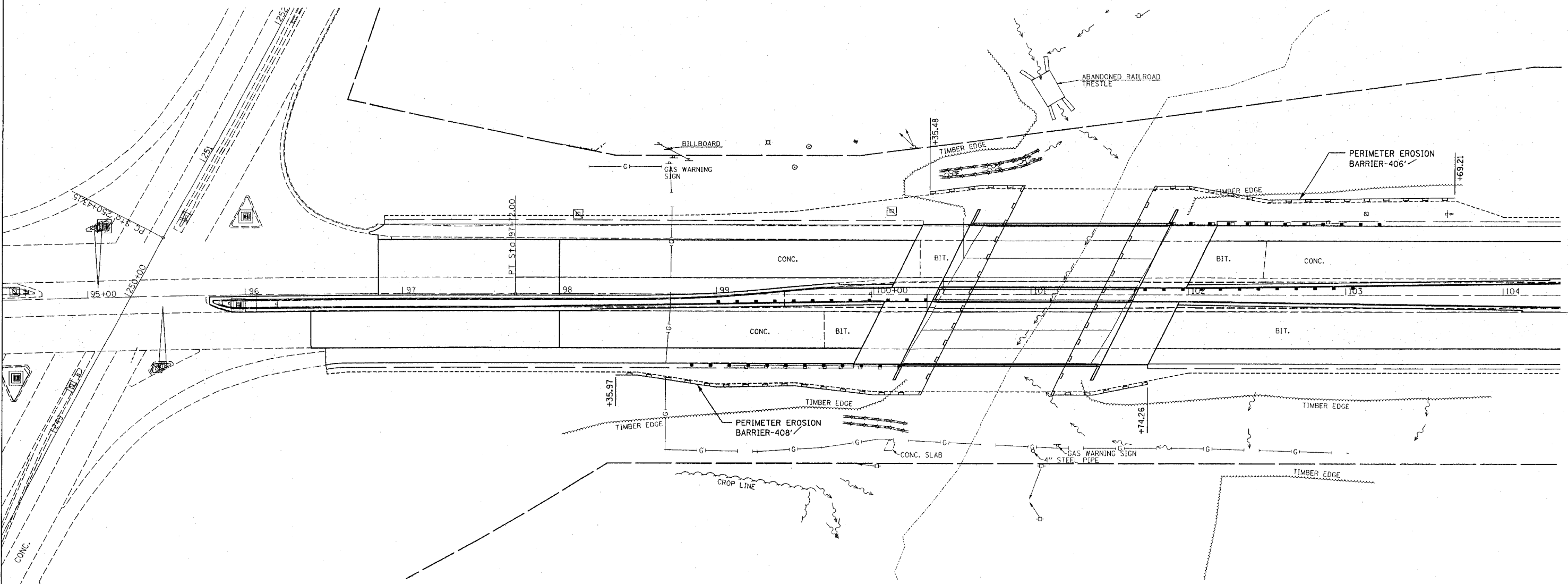
DRAWN BY:
PLOT DATE: *DATE-TIME*

2008 SPEC
2008 REF

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	14
STA.		TO STA.		
EXISTING CONDITIONS:				

CONTRACT NO. 76393

PLAN	DATE
BY	
CHECKED	
APPROVED	
NO.	



ILLINOIS DEPARTMENT OF TRANSPORTATION
EROSION CONTROL PLAN

FAP ROUTE 805
SECTION 147BR
ST. CLAIR COUNTY

REVISIONS	
NAME	DATE

DRAWN BY:

PLOT DATE: *DATE-TIME*

UNDESIGNED
*REF.
*REF.

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
805	147BR	ST. CLAIR	52	15
STA.	TO STA.			

EXISTING CONDITIONS:
CONTRACT NO. 76393



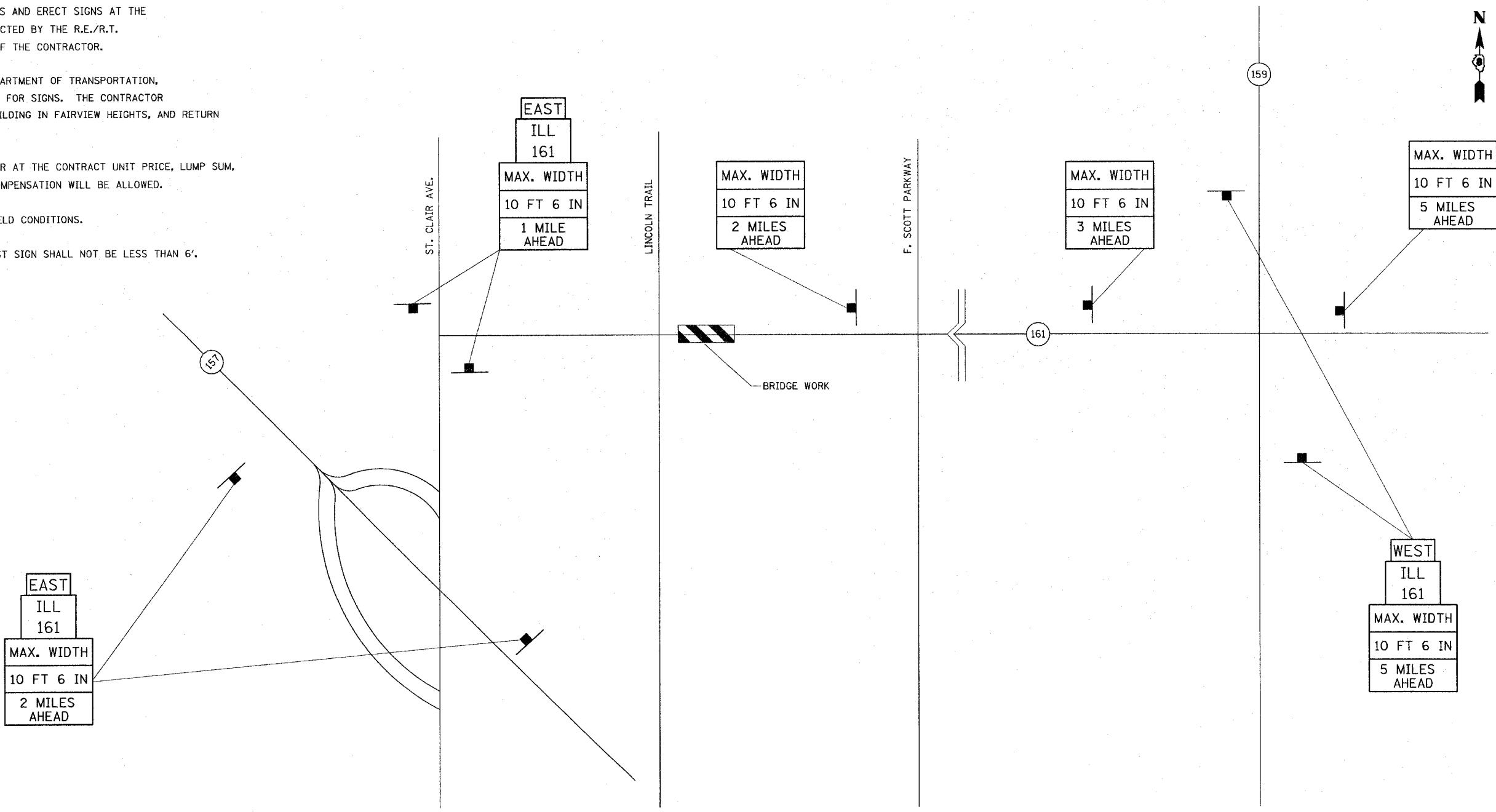
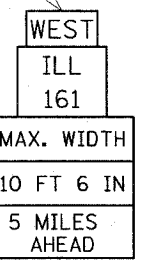
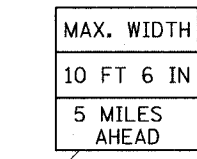
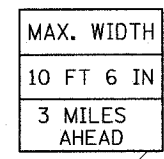
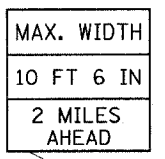
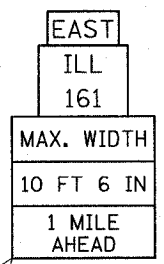
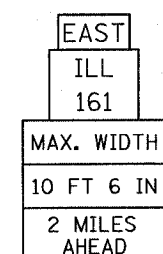
NOTES:

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

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

SIGNS REQUIRED

24"	WEST 12"	(2)
30"	EAST ILL 161	(4)
24"	ILL 161	(6)
48"	MAX. WIDTH 10 FT 6 IN	(2)
48"	1 MILE AHEAD	
	MAX. WIDTH 10 FT 6 IN	(3)
	2 MILES AHEAD	
	MAX. WIDTH 10 FT 6 IN	(1)
	3 MILES AHEAD	
	MAX. WIDTH 10 FT 6 IN	(3)
	5 MILES AHEAD	



NOT TO SCALE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
WIDE LOAD SIGNING PLAN

FAP ROUTE 805
SECTION 147BR
ST. CLAIR COUNTY

DRAWN BY: SGK

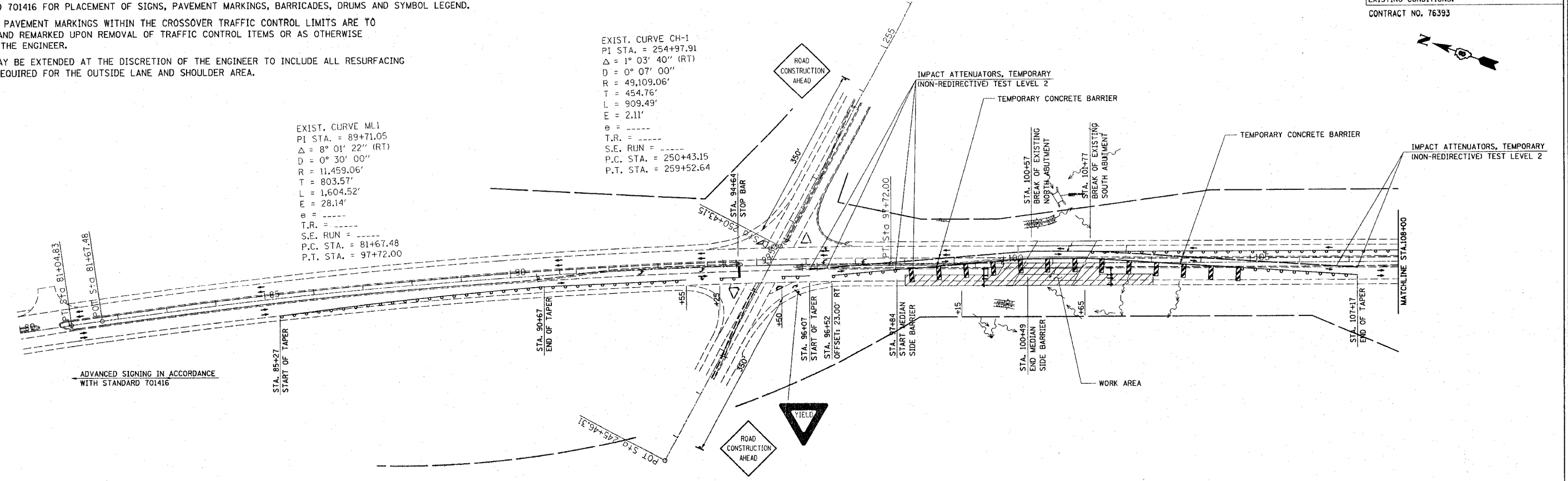
PLOT DATE: *DATE-TIME*

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	16

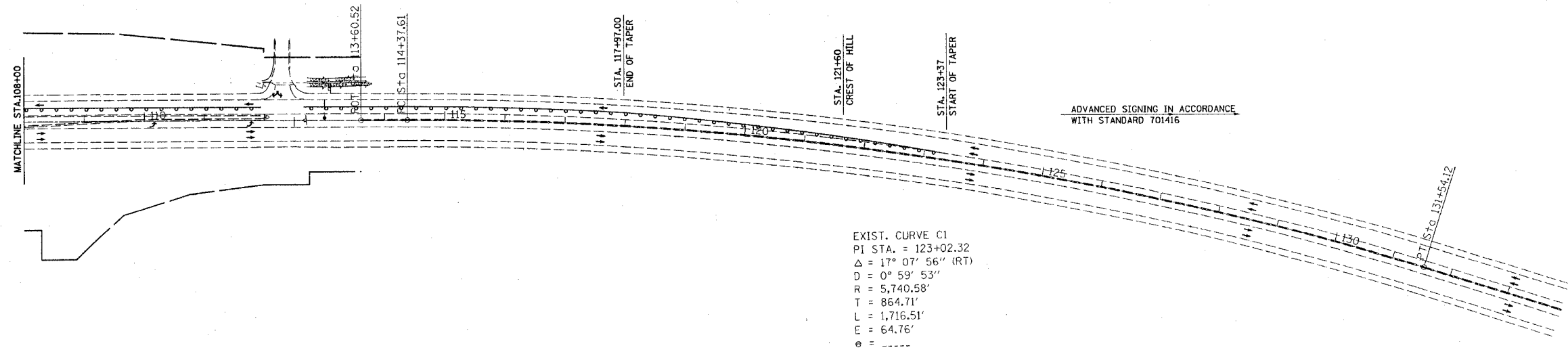
EXISTING CONDITIONS:
CONTRACT NO. 76393

- NOTES:**
- LANE DESIGNATION ARROWS ARE FOR INFORMATION AND SHEET CLARITY ONLY.
 - SEE STANDARD 701416 FOR PLACEMENT OF SIGNS, PAVEMENT MARKINGS, BARRICADES, DRUMS AND SYMBOL LEGEND.
 - ALL EXISTING PAVEMENT MARKINGS WITHIN THE CROSSOVER TRAFFIC CONTROL LIMITS ARE TO BE REMOVED AND REMARKED UPON REMOVAL OF TRAFFIC CONTROL ITEMS OR AS OTHERWISE DIRECTED BY THE ENGINEER.
 - WORK AREA MAY BE EXTENDED AT THE DISCRETION OF THE ENGINEER TO INCLUDE ALL RESURFACING OPERATIONS REQUIRED FOR THE OUTSIDE LANE AND SHOULDER AREA.

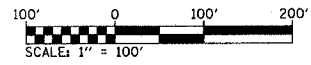
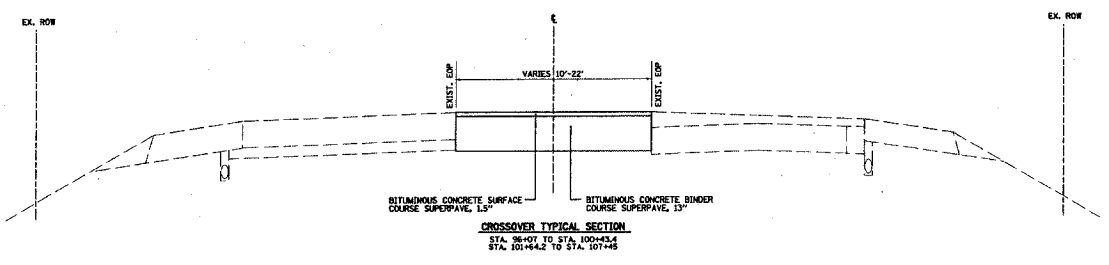
PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	CAD FILE NAME	
	NO.	



OPERATIONS REQUIRED FOR THE OUTSIDE LANE AND SHOULDER AREA.



EXIST. CURVE C1
PI STA. = 123+02.32
 $\Delta = 17^\circ 07' 56''$ (RT)
 $D = 0^\circ 59' 53''$
 $R = 5,740.58'$
 $T = 864.71'$
 $L = 1,716.51'$
 $E = 64.76'$
 $\theta = \dots$
T.R. = \dots
S.E. RUN = \dots
P.C. STA. = 114+37.61
P.T. STA. = 131+54.12



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE CONSTRUCTION PLAN SHEET
STAGE I
FAP ROUTE 805
SECTION 147BR
ST. CLAIR COUNTY

DRAWN BY:

PLOT DATE: *DATE-TIME*

CON-SPEC
REF

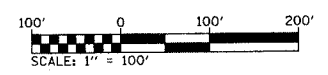
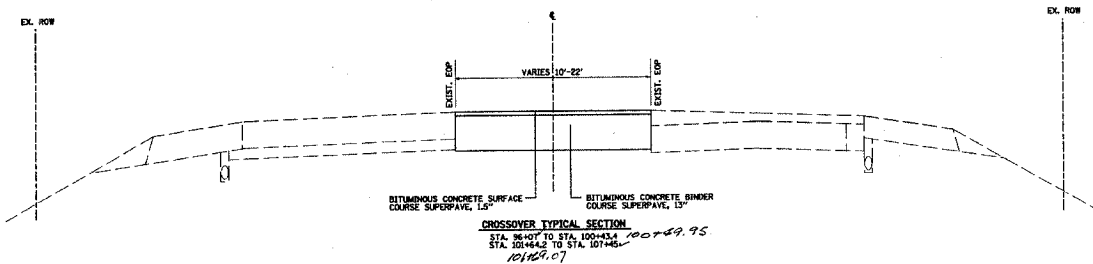
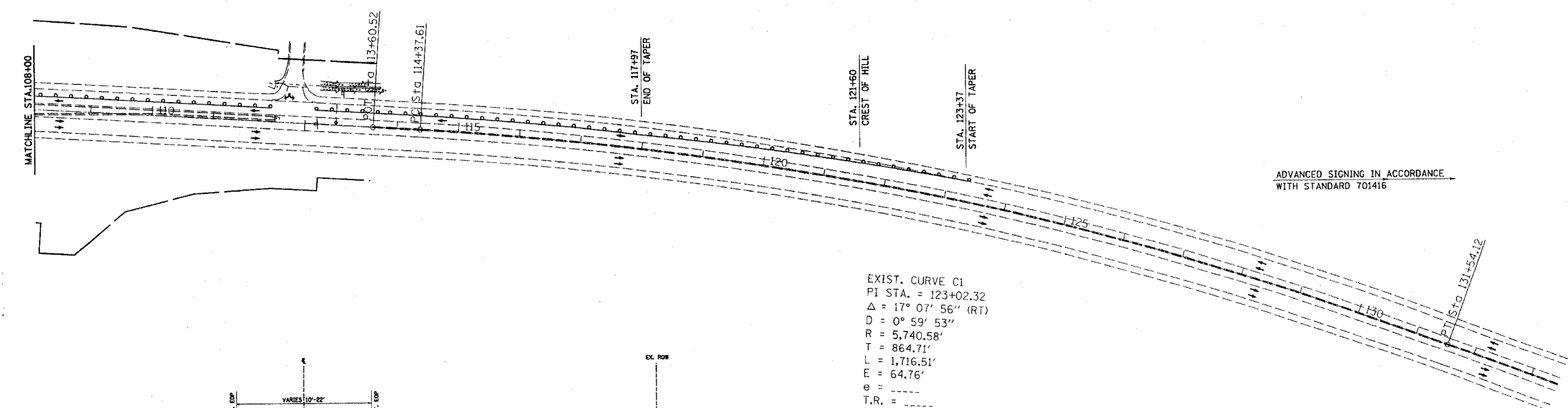
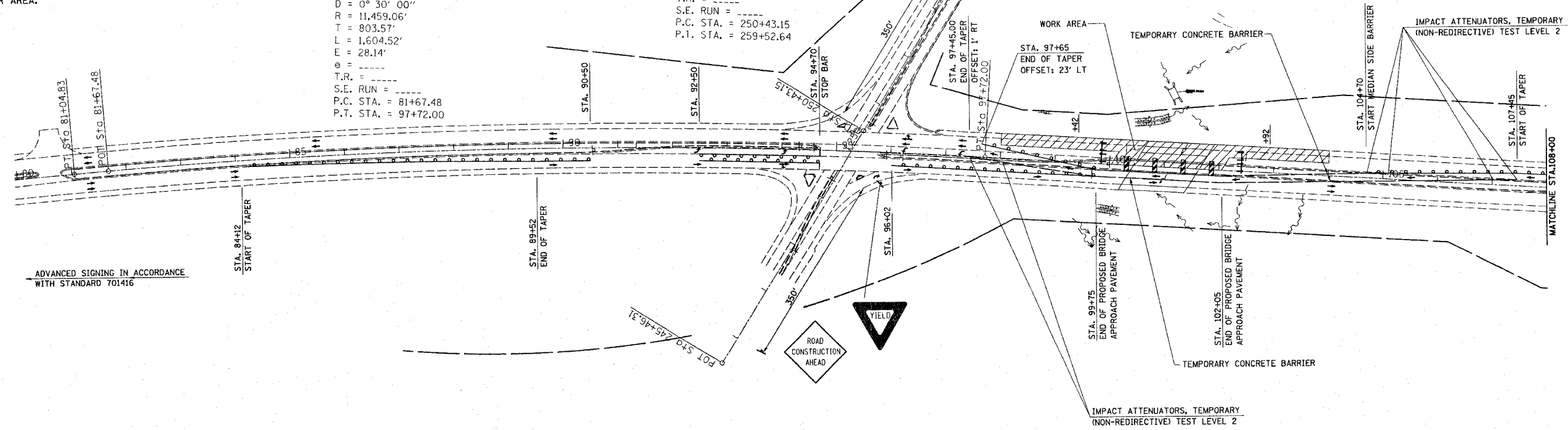
FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	17
STA.		TO STA.		
EXISTING CONDITIONS:				
CONTRACT NO. 76393				

- NOTES:**
- LANE DESIGNATION ARROWS ARE FOR INFORMATION AND SHEET CLARITY ONLY.
 - SEE STANDARD 701416 FOR PLACEMENT OF SIGNS, PAVEMENT MARKINGS, BARRICADES, DRUMS AND SYMBOL LEGEND.
 - ALL EXISTING PAVEMENT MARKINGS WITHIN THE CROSSOVER TRAFFIC CONTROL LIMITS ARE TO BE REMOVED AND REMARKED UPON REMOVAL OF TRAFFIC CONTROL ITEMS OR AS OTHERWISE DIRECTED BY THE ENGINEER.
 - WORK AREA MAY BE EXTENDED AT THE DISCRETION OF THE ENGINEER TO INCLUDE ALL RESURFACING OPERATIONS REQUIRED FOR THE OUTSIDE LANE AND SHOULDER AREA.

EXIST. CURVE ML1
 PI STA. = 89+71.05
 $\Delta = 8^{\circ} 01' 22''$ (RT)
 $D = 0^{\circ} 30' 00''$
 $R = 11,459.06'$
 $T = 803.57'$
 $L = 1,604.52'$
 $E = 28.14'$
 $e = \dots$
 T.R. = \dots
 S.E. RUN = \dots
 P.C. STA. = 81+67.48
 P.T. STA. = 97+72.00

EXIST. CURVE CH-1
 PI STA. = 254+97.91
 $\Delta = 1^{\circ} 03' 40''$ (RT)
 $D = 0^{\circ} 07' 00''$
 $R = 49,109.06'$
 $T = 454.76'$
 $L = 909.49'$
 $E = 2.11'$
 $e = \dots$
 T.R. = \dots
 S.E. RUN = \dots
 P.C. STA. = 250+43.15
 P.T. STA. = 259+52.64

EXIST. CURVE C1
 PI STA. = 123+02.32
 $\Delta = 17^{\circ} 07' 56''$ (RT)
 $D = 0^{\circ} 59' 53''$
 $R = 5,740.58'$
 $T = 864.71'$
 $L = 1,716.51'$
 $E = 64.76'$
 $e = \dots$
 T.R. = \dots
 S.E. RUN = \dots
 P.C. STA. = 114+37.61
 P.T. STA. = 131+54.12



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 STAGE CONSTRUCTION PLAN SHEET
 STAGE II
 FAP ROUTE 805
 SECTION 147BR
 ST. CLAIR COUNTY

DRAWN BY: _____
 PLOT DATE: DATE-TIME

PLAN	DATE
BY	
REVISIONS	
NOTE BOOK	
NO.	

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
805	147BR	ST. CLAIR	52	18

EXISTING CONDITIONS:
 STA. TO STA.
 CONTRACT NO. 76393



NOTES:

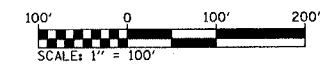
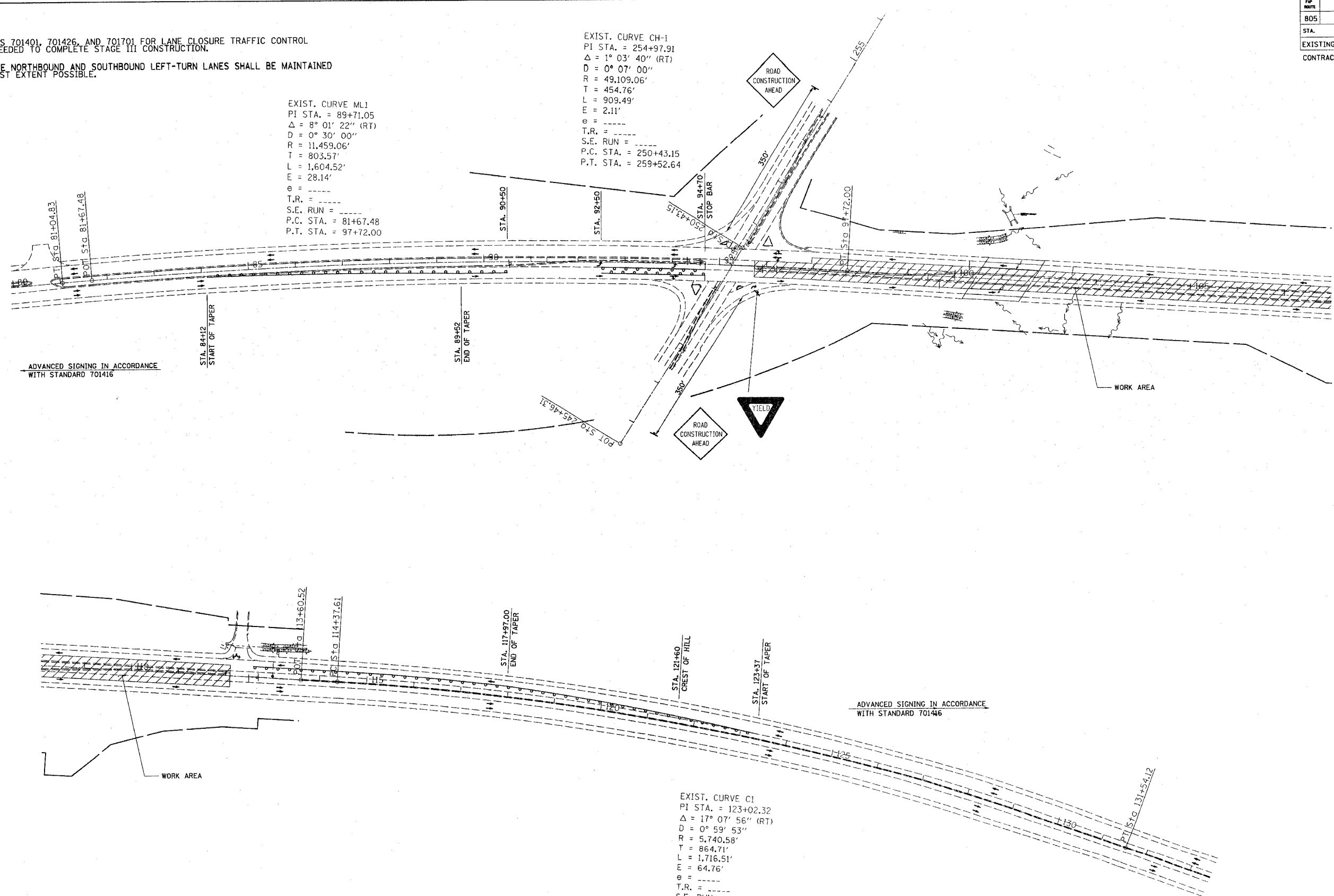
1. SEE STANDARDS 701401, 701426, AND 701701 FOR LANE CLOSURE TRAFFIC CONTROL DETAILS AS NEEDED TO COMPLETE STAGE III CONSTRUCTION.
2. ACCESS TO THE NORTHBOUND AND SOUTHBOUND LEFT-TURN LANES SHALL BE MAINTAINED TO THE FULLEST EXTENT POSSIBLE.

EXIST. CURVE ML1
 PI STA. = 89+71.05
 Δ = 8° 01' 22" (RT)
 D = 0° 30' 00"
 R = 11,459.06'
 T = 803.57'
 L = 1,604.52'
 E = 28.14'
 e = -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 81+67.48
 P.T. STA. = 97+72.00

EXIST. CURVE CH-1
 PI STA. = 254+97.91
 Δ = 1° 03' 40" (RT)
 D = 0° 07' 00"
 R = 49,109.06'
 T = 454.76'
 L = 909.49'
 E = 2.11'
 e = -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 250+43.15
 P.T. STA. = 259+52.64

EXIST. CURVE C1
 PI STA. = 123+02.32
 Δ = 17° 07' 56" (RT)
 D = 0° 59' 53"
 R = 5,740.58'
 T = 864.71'
 L = 1,716.51'
 E = 64.76'
 e = -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 114+37.61
 P.T. STA. = 131+54.12

DATE	BY
DATE	BY
DATE	BY
DATE	BY
DATE	BY
DATE	BY



REVISIONS	
NAME	DATE

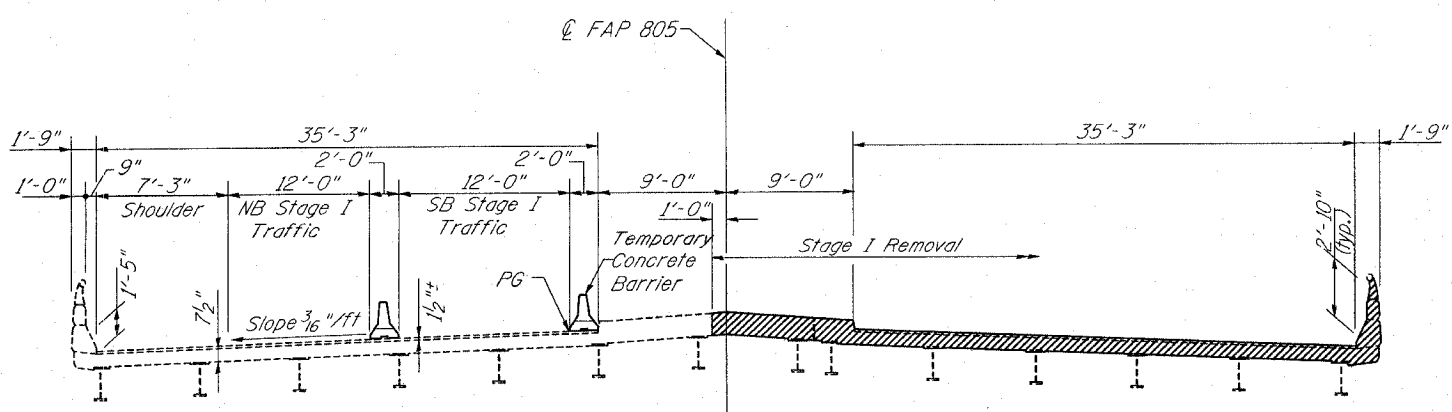
ILLINOIS DEPARTMENT OF TRANSPORTATION
 STAGE CONSTRUCTION PLAN SHEET
 STAGE III
 FAP ROUTE 805
 SECTION 147BR
 ST. CLAIR COUNTY

DRAWN BY:
 PLOT DATE: •DATE-TIME•

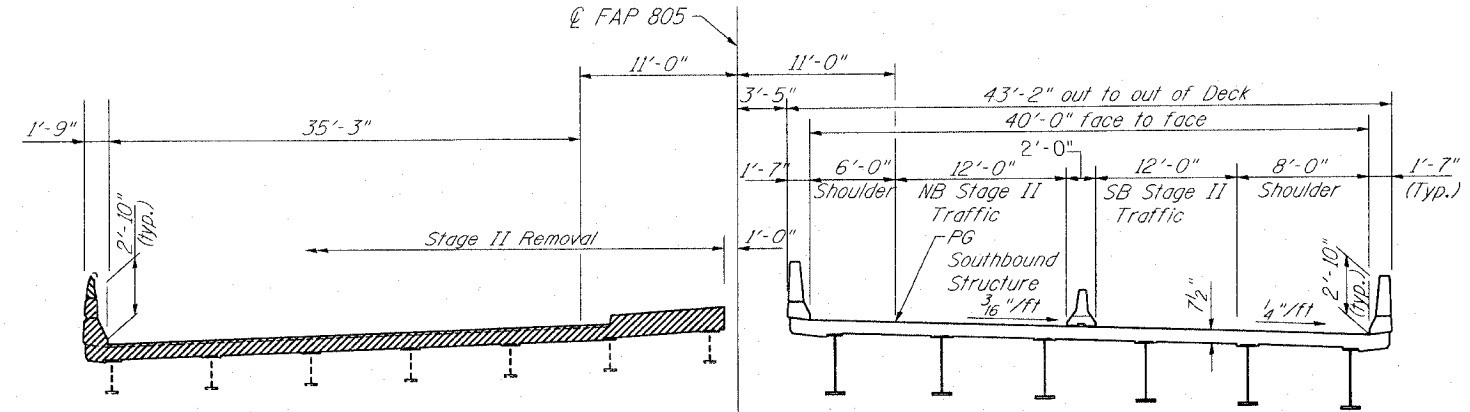
•CON•SPEC•
 •REF•

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	19
STA.	TO STA.			
EXISTING CONDITIONS:				
CONTRACT NO. 76393				

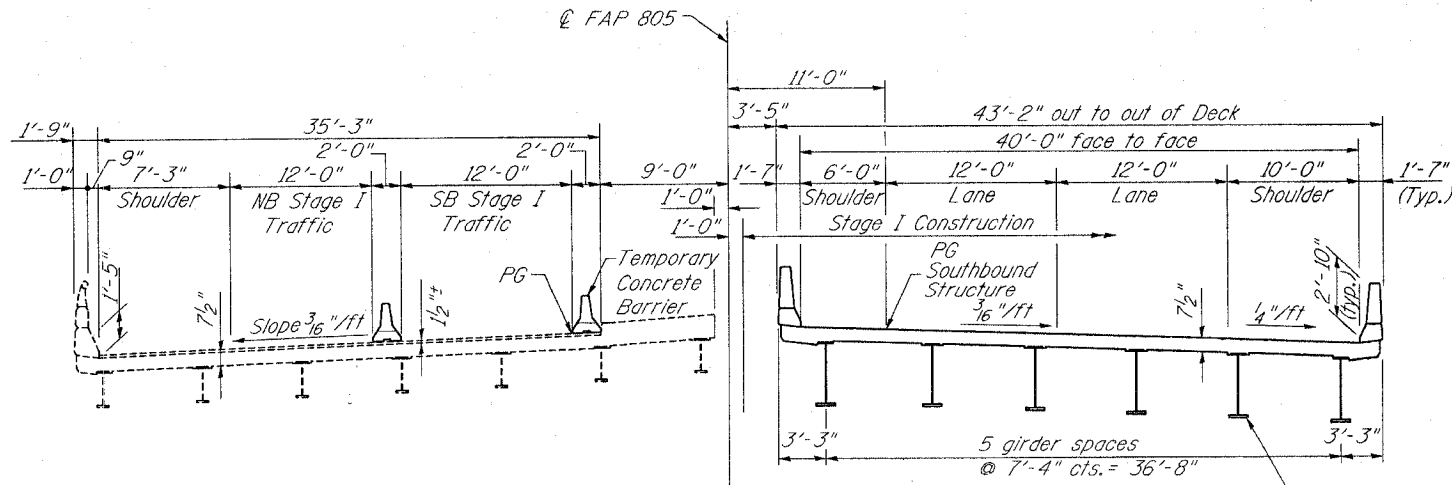
PLAN	DATE
REVISIONS	BY
NOTED	
CHANGED	
BY	
DATE	
NO. OF SHEETS	
NO. OF SHEETS CHECKED	
FILE NAME	



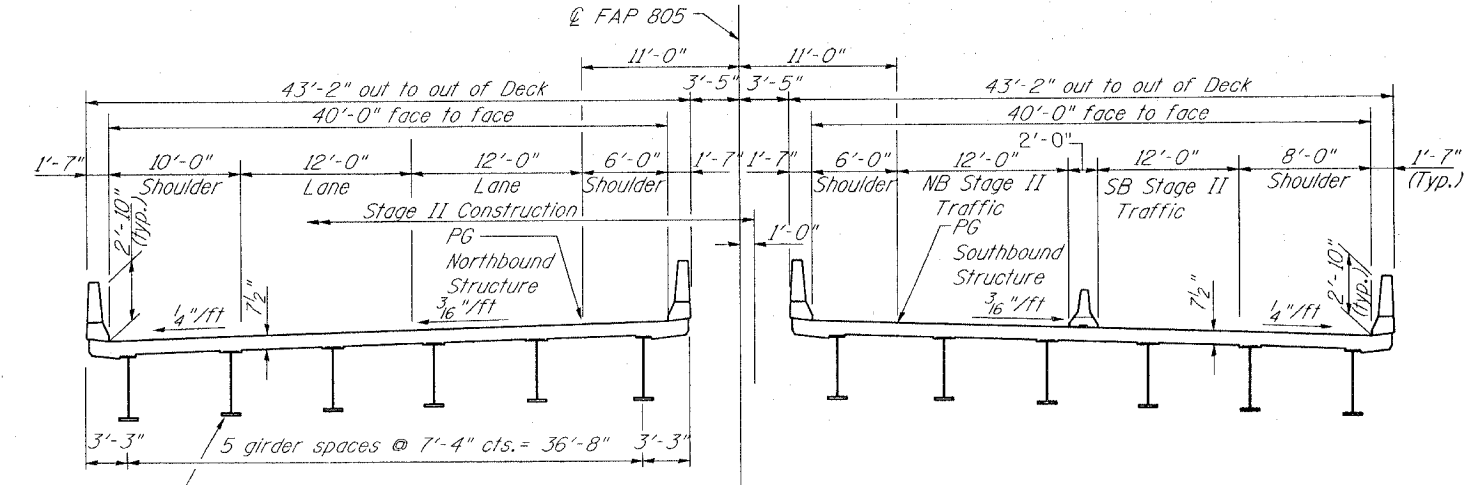
STAGE I REMOVAL
(Looking South)



STAGE II REMOVAL
(Looking South)



STAGE I CONSTRUCTION
(Looking South)



STAGE II CONSTRUCTION
(Looking South)

REVISIONS	
NAME	DATE

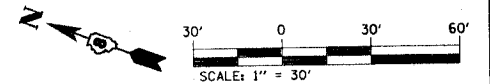
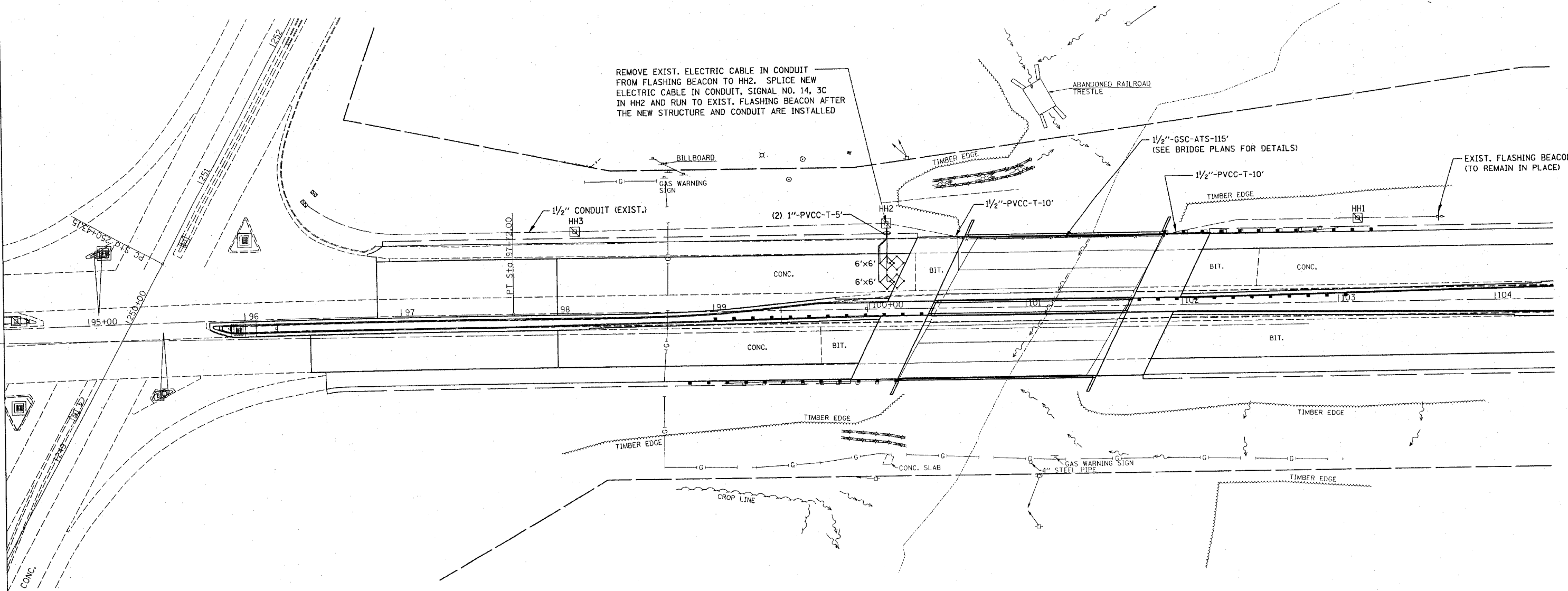
ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE CONSTRUCTION PLAN SHEET
 TYPICAL SECTION
 STAGE I AND II
 FAP ROUTE 805
 SECTION 147BR
 ST. CLAIR COUNTY

DRAWN BY:

PLOT DATE: *DATE-TIME*

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
805	147BR	ST. CLAIR	52	20
STA.		TO STA.		
EXISTING CONDITIONS:				
CONTRACT NO. 76393				

PLAN	SURVEYED	BY	DATE
	ADJUSTMENT CHECKED		
	PT. OF NEW CHECKED		
	NO. FILE NAME		



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ELECTRICAL PLAN SHEET
 FAP ROUTE 805
 SECTION 147BR
 ST. CLAIR COUNTY
 DRAWN BY:
 PLOT DATE: *DATE-TIME*

BOOK SPEC
 REF.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	21
SHEET NO. 1				
24 SHEETS				

BENCHMARK

Bench Mark: Chiseled square on top of concrete parapet, N.E. corner of SN. 082-0100. Elev. 465.39

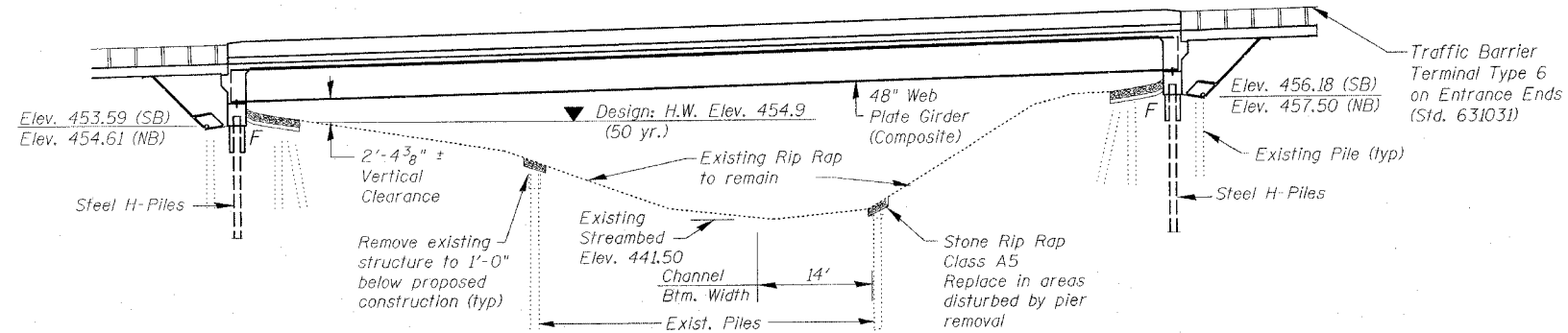
EXISTING STRUCTURE

Existing Structure: S.N. 082-0100 was built as F.A.S. Rte. 840, Sec. 146B in 1950 (S.B.) and widened as F.A.P. Rte. 805, Sec. 147-B-1 in 1976 (N.B.). The structure consists of a three-span, continuous, non-composite, steel wide flange superstructure on pile bent piers and abutments. The structure is 122'-5" back to back of abutments and 92'-0" out to out with a 22'-0" concrete median separating the northbound and southbound roadway.

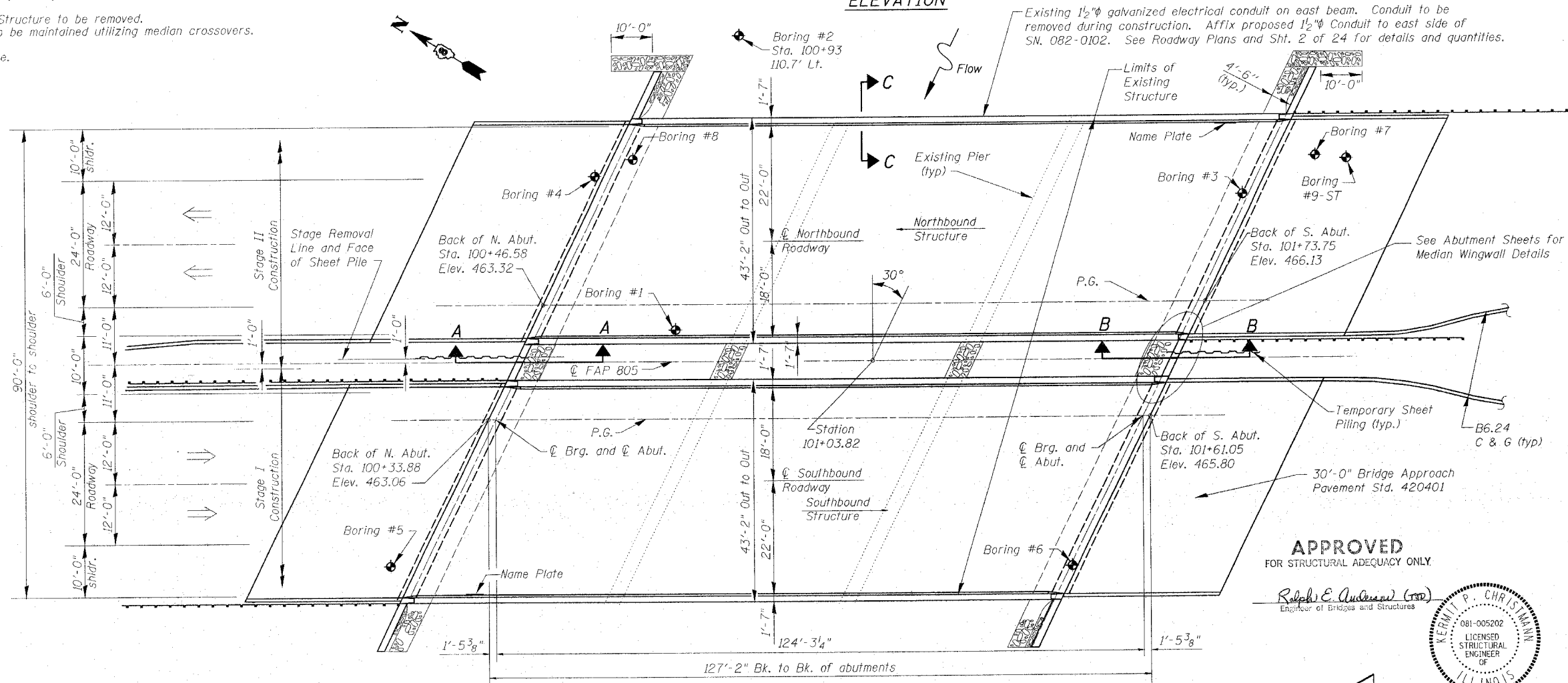
The existing structure has translated to the north and rotated counterclockwise. These movements are discussed in Appendix E of the Revised Geotechnical Study prepared by Shivoly Geotechnical, Inc. and dated June 22, 2004.

Existing Structure to be removed.
Traffic to be maintained utilizing median crossovers.

No Salvage.



ELEVATION



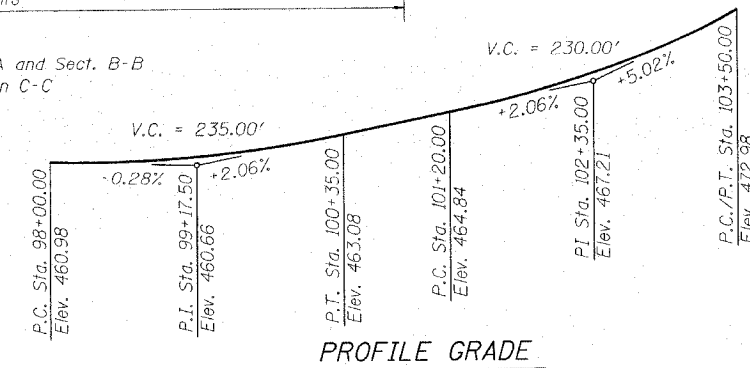
PLAN

See Sht. 3 of 23 for Sect. A-A and Sect. B-B
See Sht. 2 for Section C-C

WATERWAY INFORMATION

Drainage Area = 5.53 sq. mi.		Low Grade Elev. 461.15* @ Sta. 98+46.85*							
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	3391	488.2	513.8	454.9	1.7	1.6	456.6	456.5
Base	100	3950	548.0	576.0	455.6	1.8	1.6	457.4	457.2
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	5314	662.4	695.0	456.9	2.2	2.1	459.1	459.0

* Low Grade Elevation of Existing Raised Concrete Median



PROFILE GRADE

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (reinf.)
fy = 50,000 psi (M270 Grade 50)

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.1lg
Site Coefficient (S) = 1.5

STATION 101+03.82
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 805 SEC. 147BR
LOADING HS20
STR. NO. 082-0103

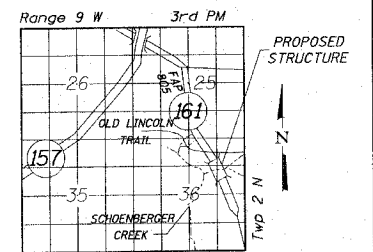
NAME PLATE

SOUTH BOUND
See Std. 515001

STATION 101+03.82
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 805 SEC. 147BR
LOADING HS20
STR. NO. 082-0102

NAME PLATE

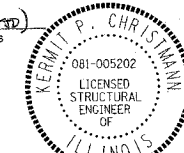
NORTH BOUND
See Std. 515001



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY.

Ralph E. Anderson (SE)
Engineer of Bridges and Structures



Kermit P. Christman
Exp. 11/30/06

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

GENERAL PLAN & ELEVATION

DATE: 08/25/06 PLOTTED BY: JLS/SES FILE LOCATION: S:\FILES

THOUVENOT, WADE & MOERCHEN, INC.

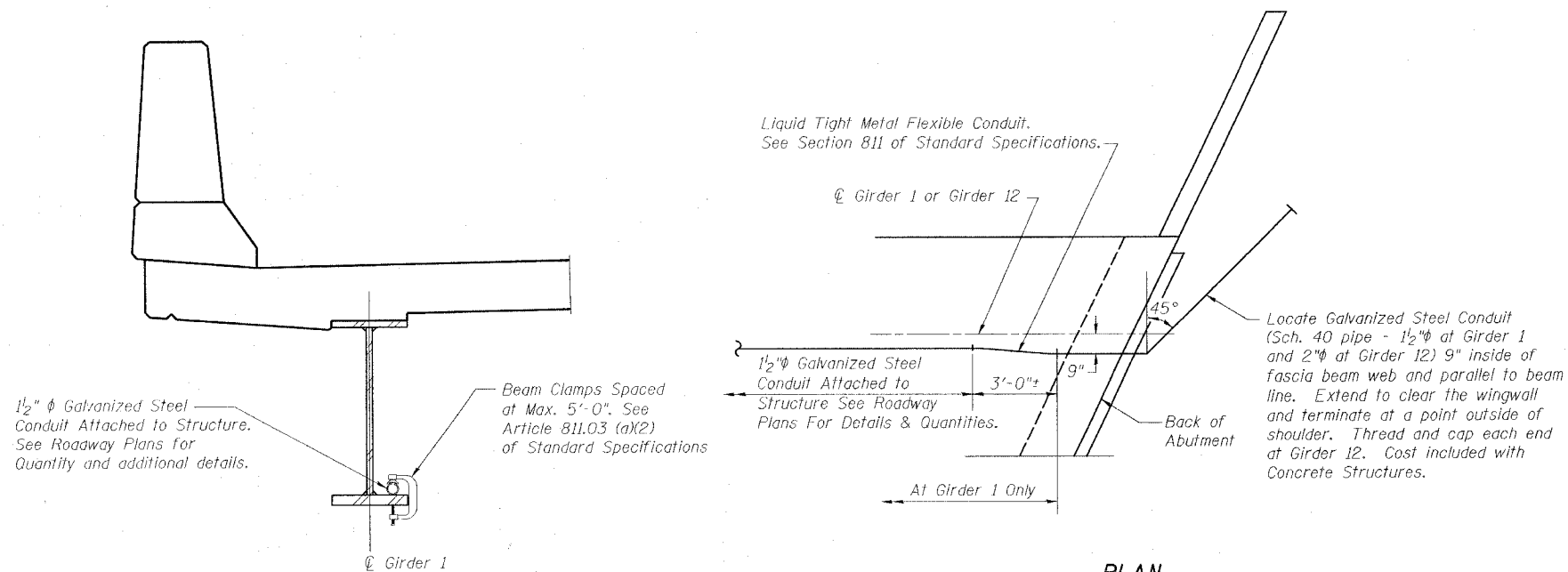


DESIGNED	ALN
CHECKED	KPC, BWP
DRAWN	JMI, DEH
CHECKED	ALN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	22
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Contract No. 76393



SECTION C-C

PLAN

(Showing Typical Outside Corner)

ELECTRICAL CONDUIT DETAILS

GENERAL NOTES

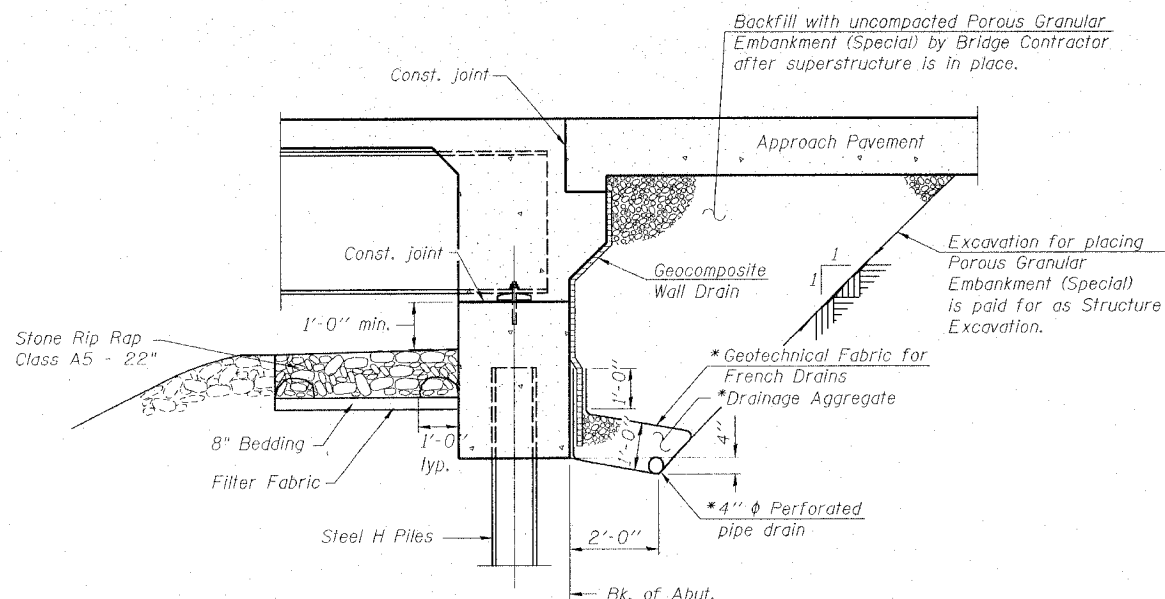
- Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " ϕ , open holes $\frac{15}{16}$ " ϕ , unless otherwise noted.
- Calculated weight of Structural Steel = 336,690 Lbs.
- Field welding of construction accessories will not be permitted to beams or girders.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges and webs.
- Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.2 Grade 60.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The Contractor shall drive 1-Steel HP14x73 test pile in a permanent location at each abutment as directed by the Engineer before ordering the remainder the piles.
- All Construction joints shall be bonded.
- In addition to all other requirements of section 512 of the Standard Specifications, splices for Steel H-piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- The inorganic rich primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See Special provision for "Cleaning and Painting New Metal Structures."

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		448	448
Stone Riprap, Class A5	Sq. Yd.		266	266
Filter Fabric	Sq. Yd.		266	266
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		623	623
Concrete Structures	Cu. Yd.		87.0	87.0
Concrete Superstructure	Cu. Yd.	410.8		410.8
Bridge Deck Grooving	Sq. Yd.	1074		1074
Protective Coat	Sq. Yd.	1343		1343
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	2916		2916
Reinforcement Bars, Epoxy Coated	Pound	83700	11400	95100
Furnishing Steel Piles HP 14 x 73	Foot		2064	2064
Driving Steel Piles	Foot		2064	2064
Test Pile Steel HP 14 x 73	Each		4	4
Temporary Sheet Piling	Sq. Ft.		678	678
Name Plates	Each			2
Geocomposite Wall Drain	Sq. Yd.		219	219
Pipe Underdrains for Structures, 4"	Foot		325	325
Bar Splicers	Each	160		160

INDEX OF SHEETS

- General Plan & Elevation
- General Notes, Total Bill of Material & Misc. Details
- Stage Construction & Misc. Details
- Substructure Layout
- Deck Elevations
- Deck Plan and Cross Section
- Diaphragm Details
- Superstructure Details
- Structural Steel Framing
- Structural Steel Details
- NB Structure, North Abutment
- NB Structure, South Abutment
- SB Structure, North Abutment
- SB Structures, South Abutment
- Temporary Concrete Barrier
- Bar Splicer Assembly Details
- Anchor Bolt Details
- Boring Logs



SECTION THRU INTEGRAL ABUTMENT

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

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

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	- ALN
CHECKED	- BWP
DRAWN	- JMI, DEH
CHECKED	- ALN

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

GENERAL NOTES, TOTAL BILL
OF MATERIAL, & MISC. DETAILS

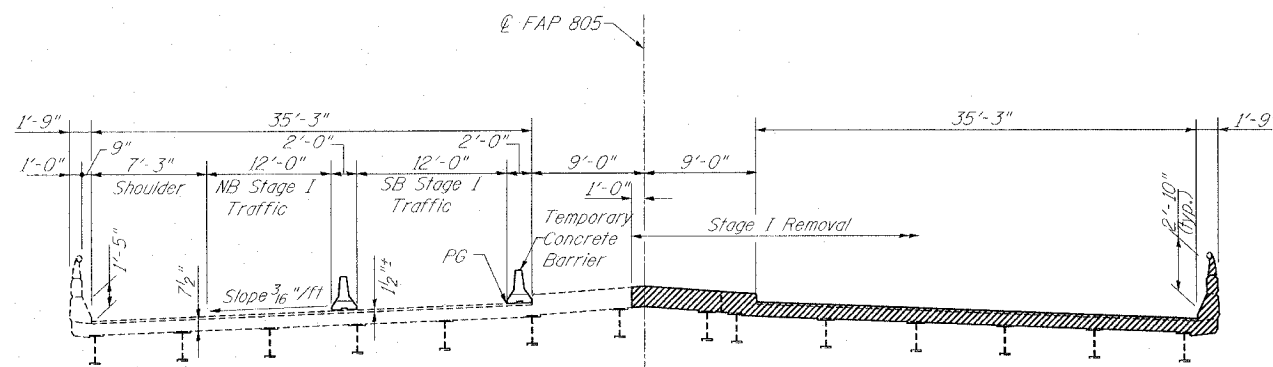
DATE: #DATE# TIME: #TIME# PLOTTED BY: #USER# FILE LOCATION: #FILE#

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

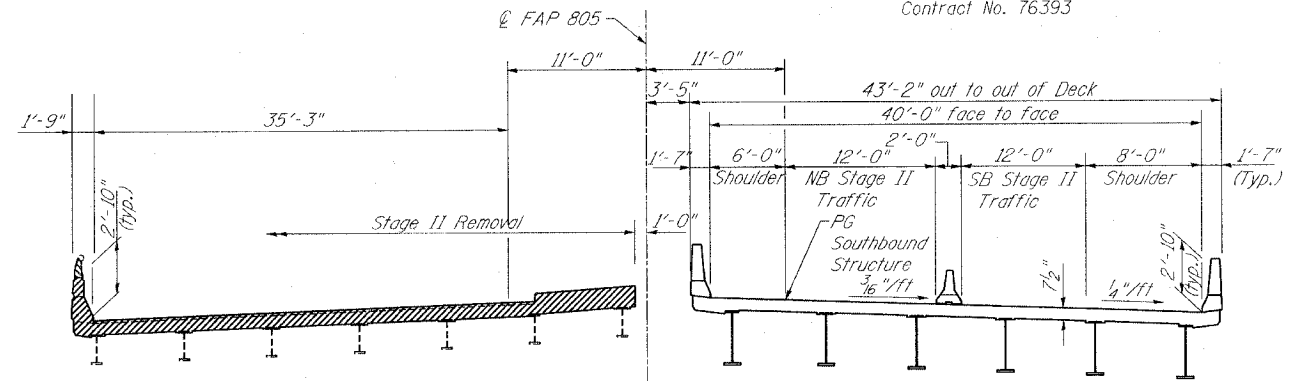
F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	23
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

Contract No. 76393

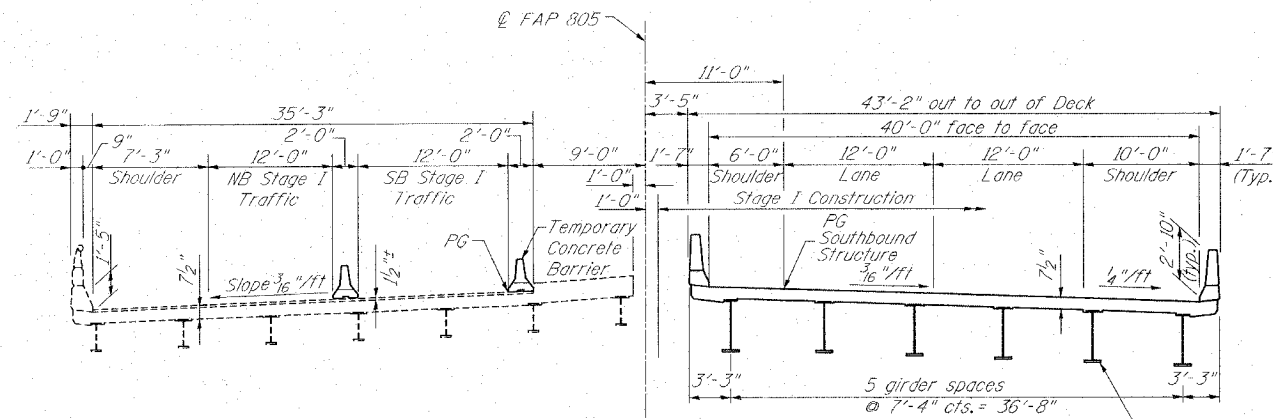
24 SHEETS



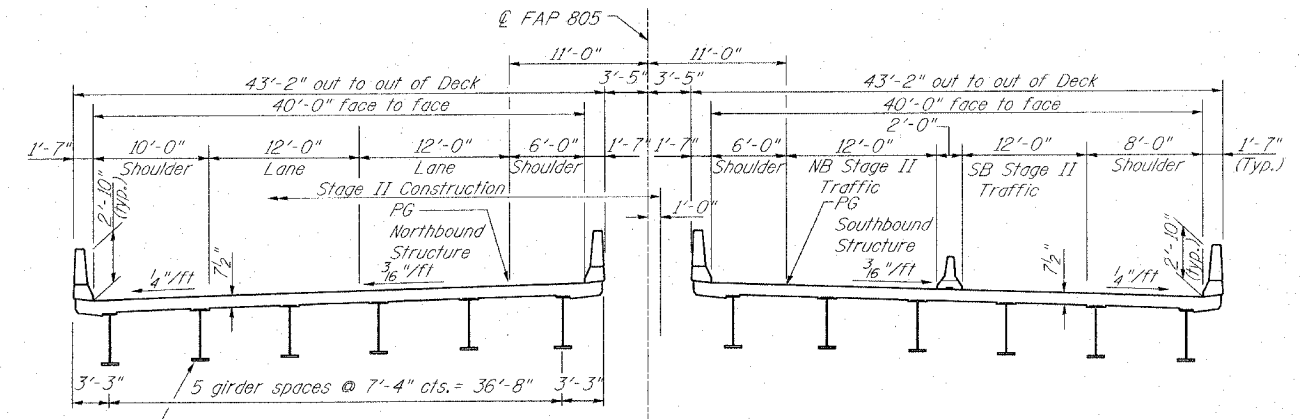
STAGE I REMOVAL
(Looking South)



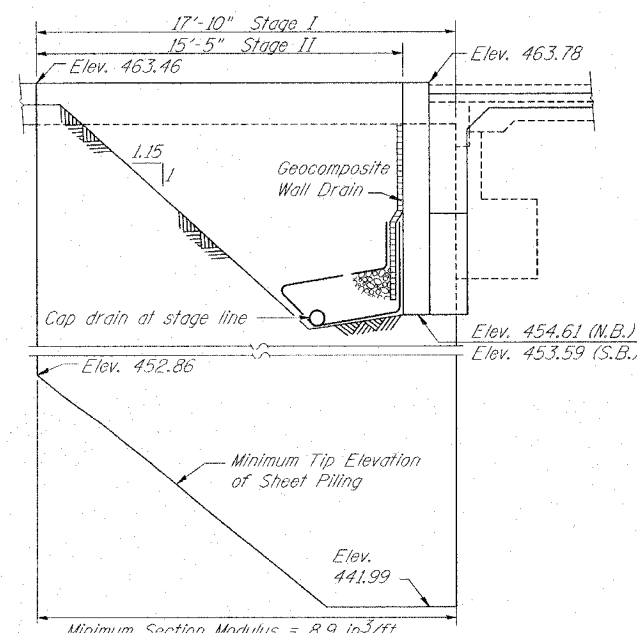
STAGE II REMOVAL
(Looking South)



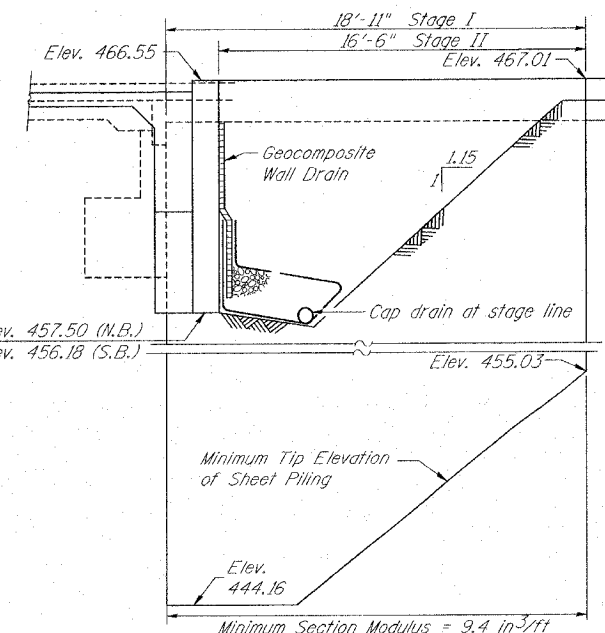
STAGE I CONSTRUCTION
(Looking South)



STAGE II CONSTRUCTION
(Looking South)



SECTION A-A



SECTION B-B

TEMPORARY SHEET PILING
(See Sheet 1 of 24 for location)

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

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	ALN
CHECKED	BWP
DRAWN	JMJ, DEH
CHECKED	ALN

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

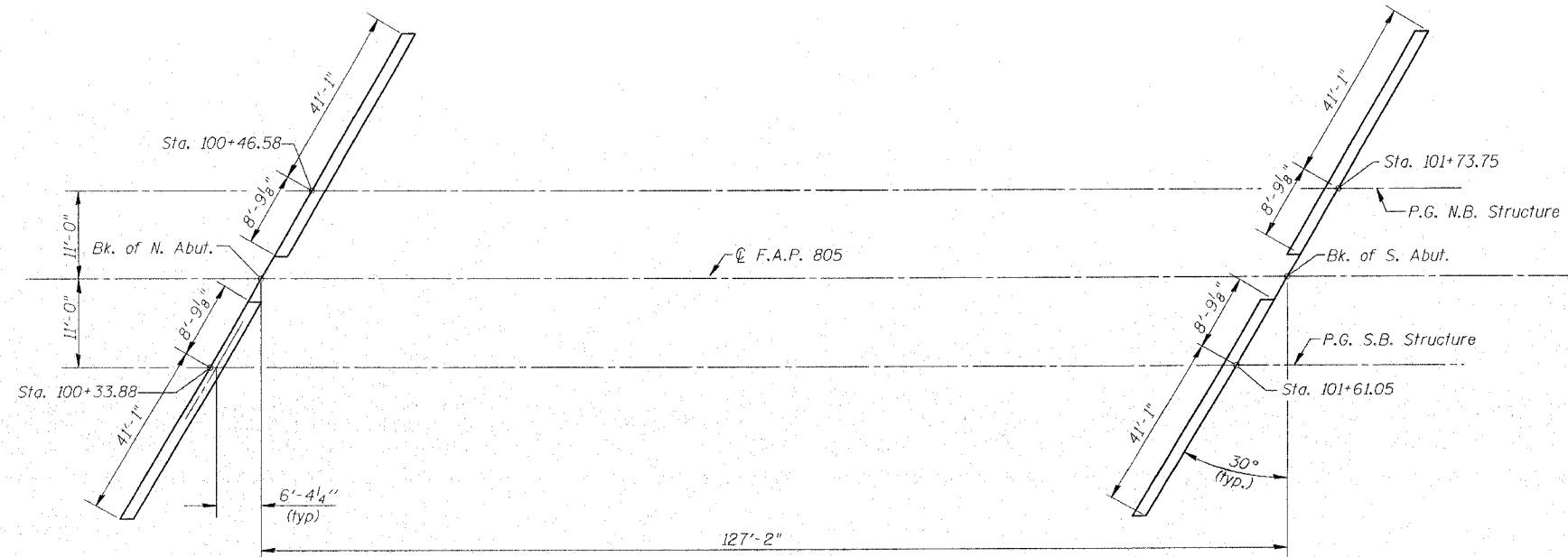
STAGE CONSTRUCTION & MISC. DETAILS

FILE LOCATION: #FILE#
DATE: #DATE#
TIME: #TIME#
PLOTTED BY: #USER#

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	24	24 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

Contract No. 76393



SUBSTRUCTURE LAYOUT

FILE LOCATION: \$FILE\$
DATE: \$DATE\$
TIME: \$TIME\$
PLOTTED BY: \$USER\$

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

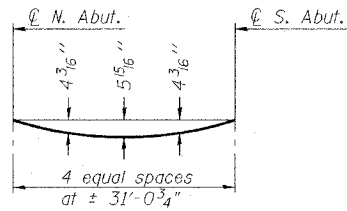
ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

SUBSTRUCTURE LAYOUT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	25	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

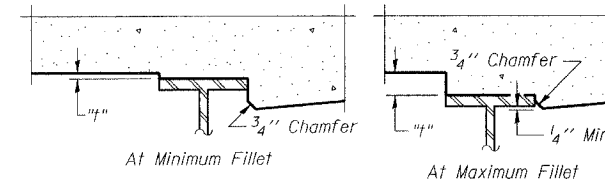
Contract No. 76393



DEAD LOAD DEFLECTION DIAGRAM

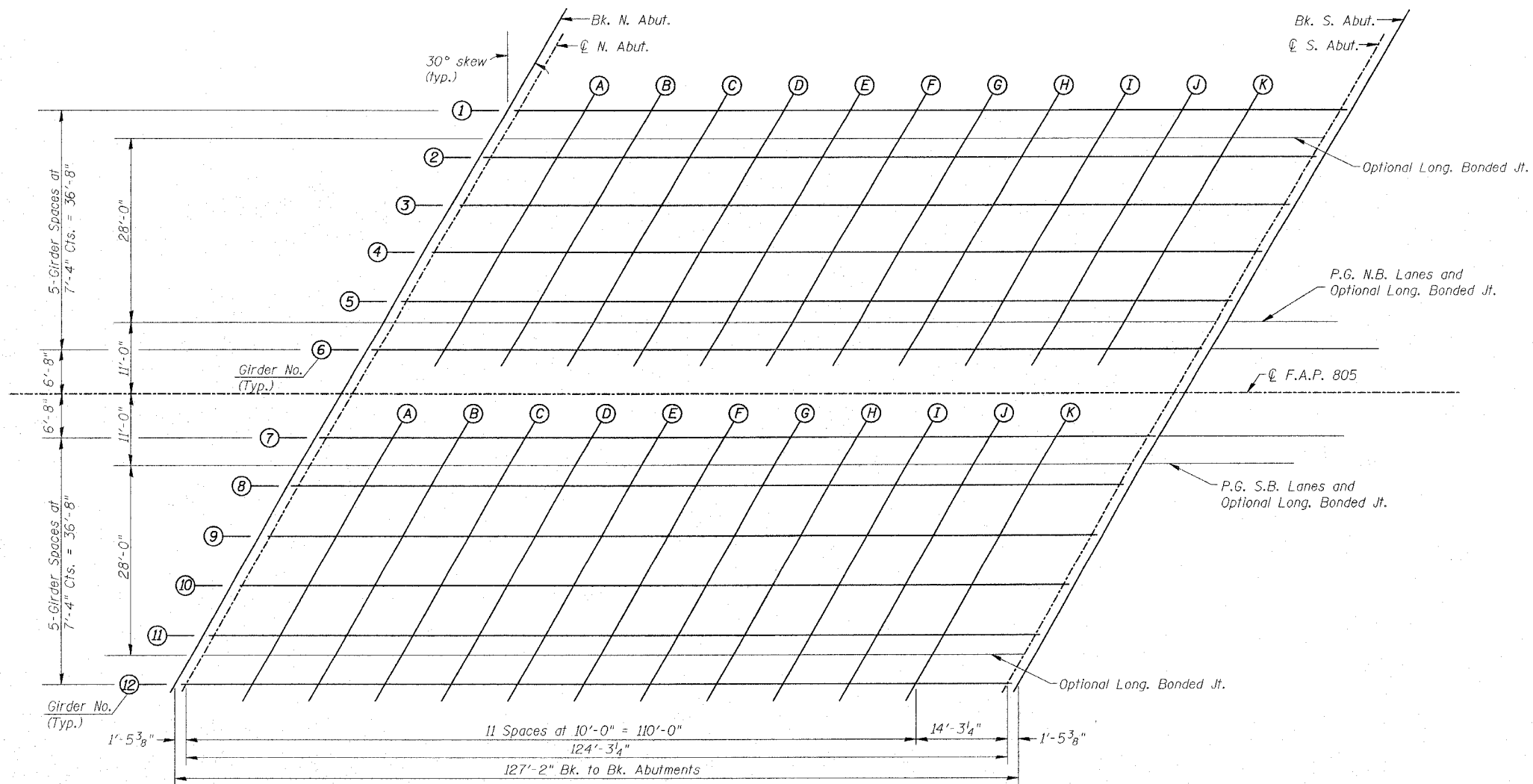
(Includes weight of concrete only.)

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 in the tables.



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

FILLET HEIGHTS



FILE LOCATION: #FILES
DATE: #DATE\$
TIME: #TIME\$
PLOTTED BY: #USER\$

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

E-S 4-30-97



PLAN

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

DECK ELEVATIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	26
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
24 SHEETS

Contract No. 76393

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	100 + 65.25	-43.333	463.155	463.155
CL N. Abut.	100 + 66.70	-43.333	463.184	463.184
A	100 + 76.70	-43.333	463.390	463.515
B	100 + 86.70	-43.333	463.696	463.838
C	100 + 96.70	-43.333	463.802	464.143
D	101 + 06.70	-43.333	464.008	464.428
E	101 + 16.70	-43.333	464.214	464.684
F	101 + 26.70	-43.333	464.432	464.924
G	101 + 36.70	-43.333	464.653	465.137
H	101 + 46.70	-43.333	464.887	465.332
I	101 + 56.70	-43.333	465.134	465.512
J	101 + 66.70	-43.333	465.394	465.680
K	101 + 76.70	-43.333	465.666	465.843
CL S. Abut.	101 + 90.97	-43.333	466.077	466.077
Bk. S. Abut.	101 + 92.41	-43.333	466.121	466.121

E. LONG. BONDED JT. - N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	100 + 62.75	-39.000	463.193	463.193
CL N. Abut.	100 + 64.19	-39.000	463.223	463.223
A	100 + 74.19	-39.000	463.429	463.553
B	100 + 84.19	-39.000	463.635	463.877
C	100 + 94.19	-39.000	463.841	464.182
D	101 + 04.19	-39.000	464.047	464.466
E	101 + 14.19	-39.000	464.253	464.723
F	101 + 24.19	-39.000	464.469	464.961
G	101 + 34.19	-39.000	464.687	465.170
H	101 + 44.19	-39.000	464.918	465.363
I	101 + 54.19	-39.000	465.161	465.540
J	101 + 64.19	-39.000	465.418	465.704
K	101 + 74.19	-39.000	465.687	465.864
CL S. Abut.	101 + 88.46	-39.000	466.094	466.094
Bk. S. Abut.	101 + 89.91	-39.000	466.136	466.136

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	100 + 61.01	-36.000	463.220	463.220
CL N. Abut.	100 + 62.46	-36.000	463.250	463.250
A	100 + 72.46	-36.000	463.456	463.580
B	100 + 82.46	-36.000	463.662	463.904
C	100 + 92.46	-36.000	463.868	464.209
D	101 + 02.46	-36.000	464.074	464.493
E	101 + 12.46	-36.000	464.280	464.750
F	101 + 22.46	-36.000	464.495	464.987
G	101 + 32.46	-36.000	464.711	465.194
H	101 + 42.46	-36.000	464.939	465.384
I	101 + 52.46	-36.000	465.181	465.559
J	101 + 62.46	-36.000	465.435	465.722
K	101 + 72.46	-36.000	465.702	465.879
CL S. Abut.	101 + 86.73	-36.000	466.105	466.105
Bk. S. Abut.	101 + 88.18	-36.000	466.148	466.148

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	100 + 56.78	-28.667	463.253	463.253
CL N. Abut.	100 + 58.23	-28.667	463.282	463.282
A	100 + 68.23	-28.667	463.488	463.613
B	100 + 78.23	-28.667	463.694	463.936
C	100 + 88.23	-28.667	463.900	464.241
D	100 + 98.23	-28.667	464.106	464.526
E	101 + 08.23	-28.667	464.312	464.782
F	101 + 18.23	-28.667	464.518	465.010
G	101 + 28.23	-28.667	464.738	465.221
H	101 + 38.23	-28.667	464.961	465.406
I	101 + 48.23	-28.667	465.197	465.575
J	101 + 58.23	-28.667	465.445	465.732
K	101 + 68.23	-28.667	465.707	465.884
CL S. Abut.	101 + 82.50	-28.667	466.103	466.103
Bk. S. Abut.	101 + 83.95	-28.667	466.144	466.144

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	100 + 52.55	-21.333	463.280	463.280
CL N. Abut.	100 + 53.99	-21.333	463.310	463.310
A	100 + 63.99	-21.333	463.516	463.640
B	100 + 73.99	-21.333	463.722	463.963
C	100 + 83.99	-21.333	463.928	464.269
D	100 + 93.99	-21.333	464.134	464.553
E	101 + 03.99	-21.333	464.340	464.810
F	101 + 13.99	-21.333	464.546	465.037
G	101 + 23.99	-21.333	464.762	465.245
H	101 + 33.99	-21.333	464.979	465.424
I	101 + 43.99	-21.333	465.210	465.588
J	101 + 53.99	-21.333	465.453	465.740
K	101 + 63.99	-21.333	465.709	465.886
CL S. Abut.	101 + 78.26	-21.333	466.097	466.097
Bk. S. Abut.	101 + 79.71	-21.333	466.138	466.138

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	100 + 48.31	-14.000	463.307	463.307
CL N. Abut.	100 + 49.76	-14.000	463.337	463.337
A	100 + 59.76	-14.000	463.543	463.667
B	100 + 69.76	-14.000	463.749	463.991
C	100 + 79.76	-14.000	463.955	464.296
D	100 + 89.76	-14.000	464.161	464.580
E	100 + 99.76	-14.000	464.367	464.837
F	101 + 09.76	-14.000	464.573	465.065
G	101 + 19.76	-14.000	464.779	465.263
H	101 + 29.76	-14.000	465.000	465.445
I	101 + 39.76	-14.000	465.225	465.604
J	101 + 49.76	-14.000	465.463	465.750
K	101 + 59.76	-14.000	465.714	465.891
CL S. Abut.	101 + 74.03	-14.000	466.094	466.094
Bk. S. Abut.	101 + 75.48	-14.000	466.134	466.134

PROFILE GRADE -- N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	100 + 46.58	-11.000	463.319	463.319
CL N. Abut.	100 + 48.03	-11.000	463.348	463.348
A	100 + 58.03	-11.000	463.554	463.679
B	100 + 68.03	-11.000	463.760	464.002
C	100 + 78.03	-11.000	463.966	464.307
D	100 + 88.03	-11.000	464.172	464.592
E	100 + 98.03	-11.000	464.378	464.848
F	101 + 08.03	-11.000	464.584	465.076
G	101 + 18.03	-11.000	464.790	465.274
H	101 + 28.03	-11.000	465.010	465.455
I	101 + 38.03	-11.000	465.232	465.611
J	101 + 48.03	-11.000	465.468	465.755
K	101 + 58.03	-11.000	465.716	465.893
CL S. Abut.	101 + 72.30	-11.000	466.093	466.093
Bk. S. Abut.	101 + 73.75	-11.000	466.133	466.133

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	100 + 44.08	-6.667	463.335	463.335
CL N. Abut.	100 + 45.53	-6.667	463.365	463.365
A	100 + 55.53	-6.667	463.571	463.695
B	100 + 65.53	-6.667	463.777	464.018
C	100 + 75.53	-6.667	463.983	464.323
D	100 + 85.53	-6.667	464.189	464.608
E	100 + 95.53	-6.667	464.395	464.865
F	101 + 05.53	-6.667	464.601	465.092
G	101 + 15.53	-6.667	464.807	465.290
H	101 + 25.53	-6.667	465.024	465.469
I	101 + 35.53	-6.667	465.243	465.621
J	101 + 45.53	-6.667	465.475	465.762
K	101 + 55.53	-6.667	465.721	465.897
CL S. Abut.	101 + 69.80	-6.667	466.093	466.093
Bk. S. Abut.	101 + 71.25	-6.667	466.132	466.132

FILE LOCATION: \$FILE\$
DATE: \$DATE\$
TIME: \$TIME\$
PLOTTED BY: \$USER\$

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

Note:
Longitudinal Bonded Joints are optional. Elevation information is provided at the locations noted on the "Deck Elevation" Plan.

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

DECK ELEVATIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 7 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	27	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

Contract No. 76393

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	100 + 36.38	6.667	463.176	463.176
CL N. Abut.	100 + 37.83	6.667	463.206	463.206
A	100 + 47.83	6.667	463.412	463.536
B	100 + 57.83	6.667	463.618	463.860
C	100 + 67.83	6.667	463.824	464.165
D	100 + 77.83	6.667	464.030	464.449
E	100 + 87.83	6.667	464.236	464.706
F	100 + 97.83	6.667	464.442	464.934
G	101 + 07.83	6.667	464.648	465.131
H	101 + 17.83	6.667	464.854	465.299
I	101 + 27.83	6.667	465.073	465.451
J	101 + 37.83	6.667	465.295	465.582
K	101 + 47.83	6.667	465.531	465.708
CL S. Abut.	101 + 62.10	6.667	465.889	465.889
Bk. S. Abut.	101 + 63.55	6.667	465.927	465.927

PROFILE GRADE -- S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	100 + 33.88	11.000	463.048	463.048
CL N. Abut.	100 + 35.33	11.000	463.087	463.087
A	100 + 45.33	11.000	463.293	463.417
B	100 + 55.33	11.000	463.499	463.740
C	100 + 65.33	11.000	463.705	464.046
D	100 + 75.33	11.000	463.911	464.330
E	100 + 85.33	11.000	464.117	464.587
F	100 + 95.33	11.000	464.323	464.814
G	101 + 05.33	11.000	464.529	465.012
H	101 + 15.33	11.000	464.735	465.180
I	101 + 25.33	11.000	464.952	465.330
J	101 + 35.33	11.000	465.171	465.458
K	101 + 45.33	11.000	465.403	465.580
CL S. Abut.	101 + 59.60	11.000	465.757	465.757
Bk. S. Abut.	101 + 61.05	11.000	465.794	465.794

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	100 + 32.15	14.000	462.966	462.966
CL N. Abut.	100 + 33.60	14.000	462.966	462.966
A	100 + 43.60	14.000	463.210	463.334
B	100 + 53.60	14.000	463.416	463.658
C	100 + 63.60	14.000	463.622	463.963
D	100 + 73.60	14.000	463.828	464.247
E	100 + 83.60	14.000	464.034	464.504
F	100 + 93.60	14.000	464.240	464.732
G	101 + 03.60	14.000	464.446	464.930
H	101 + 13.60	14.000	464.652	465.097
I	101 + 23.60	14.000	464.868	465.246
J	101 + 33.60	14.000	465.085	465.372
K	101 + 43.60	14.000	465.315	465.492
CL S. Abut.	101 + 57.87	14.000	465.665	465.665
Bk. S. Abut.	101 + 59.31	14.000	465.702	465.702

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	100 + 27.91	21.333	462.767	462.767
CL N. Abut.	100 + 29.36	21.333	462.795	462.795
A	100 + 39.36	21.333	463.008	463.133
B	100 + 49.36	21.333	463.214	463.456
C	100 + 59.36	21.333	463.420	463.761
D	100 + 69.36	21.333	463.626	464.046
E	100 + 79.36	21.333	463.832	464.302
F	100 + 89.36	21.333	464.038	464.530
G	100 + 99.36	21.333	464.244	464.728
H	101 + 09.36	21.333	464.450	464.895
I	101 + 19.36	21.333	464.656	465.035
J	101 + 29.36	21.333	464.877	465.164
K	101 + 39.36	21.333	465.102	465.278
CL S. Abut.	101 + 53.63	21.333	465.444	465.444
Bk. S. Abut.	101 + 55.08	21.333	465.480	465.480

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	100 + 23.68	28.667	462.569	462.569
CL N. Abut.	100 + 25.13	28.667	462.597	462.597
A	100 + 35.13	28.667	462.807	462.931
B	100 + 45.13	28.667	463.013	463.254
C	100 + 55.13	28.667	463.219	463.569
D	100 + 65.13	28.667	463.425	463.844
E	100 + 75.13	28.667	463.631	464.101
F	100 + 85.13	28.667	463.837	464.328
G	100 + 95.13	28.667	464.043	464.526
H	101 + 05.13	28.667	464.249	464.694
I	101 + 15.13	28.667	464.455	464.833
J	101 + 25.13	28.667	464.671	464.958
K	101 + 35.13	28.667	464.890	465.067
CL S. Abut.	101 + 49.40	28.667	465.225	465.225
Bk. S. Abut.	101 + 50.85	28.667	465.261	465.261

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	100 + 19.45	36.000	462.367	462.367
CL N. Abut.	100 + 20.89	36.000	462.395	462.395
A	100 + 30.89	36.000	462.592	462.716
B	100 + 40.89	36.000	462.806	463.047
C	100 + 50.89	36.000	463.012	463.352
D	100 + 60.89	36.000	463.218	463.637
E	100 + 70.89	36.000	463.424	463.894
F	100 + 80.89	36.000	463.630	464.121
G	100 + 90.89	36.000	463.836	464.319
H	101 + 00.89	36.000	464.042	464.487
I	101 + 10.89	36.000	464.248	464.626
J	101 + 20.89	36.000	464.463	464.749
K	101 + 30.89	36.000	464.676	464.853
CL S. Abut.	101 + 45.17	36.000	465.003	465.003
Bk. S. Abut.	101 + 46.61	36.000	465.038	465.038

W. LONG. BONDED JT. -- S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	100 + 17.71	39.000	462.272	462.272
CL N. Abut.	100 + 19.16	39.000	462.299	462.299
A	100 + 29.16	39.000	462.495	462.619
B	100 + 39.16	39.000	462.707	462.949
C	100 + 49.16	39.000	462.913	463.254
D	100 + 59.16	39.000	463.119	463.539
E	100 + 69.16	39.000	463.325	463.795
F	100 + 79.16	39.000	463.531	464.023
G	100 + 89.16	39.000	463.737	464.221
H	100 + 99.16	39.000	463.943	464.388
I	101 + 09.16	39.000	464.149	464.528
J	101 + 19.16	39.000	464.355	464.642
K	101 + 29.16	39.000	464.576	464.752
CL S. Abut.	101 + 43.43	39.000	464.900	464.900
Bk. S. Abut.	101 + 44.88	39.000	464.934	464.934

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	100 + 15.21	43.333	462.135	462.135
CL N. Abut.	100 + 16.66	43.333	462.162	462.162
A	100 + 26.66	43.333	462.355	462.479
B	100 + 36.66	43.333	462.566	462.807
C	100 + 46.66	43.333	462.772	463.112
D	100 + 56.66	43.333	462.978	463.397
E	100 + 66.66	43.333	463.184	463.654
F	100 + 76.66	43.333	463.390	463.881
G	100 + 86.66	43.333	463.596	464.079
H	100 + 96.66	43.333	463.802	464.247
I	101 + 06.66	43.333	464.008	464.386
J	101 + 16.66	43.333	464.214	464.500
K	101 + 26.66	43.333	464.431	464.608
CL S. Abut.	101 + 40.93	43.333	464.751	464.751
Bk. S. Abut.	101 + 42.38	43.333	464.785	464.785

FILE LOCATION: #FILES*
DATE: #DATE*
TIME: #TIME*
PLOTTED BY: #USER*

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

Note:
Longitudinal Bonded Joints are optional. Elevation information is provided at the locations noted on the "Deck Elevation" Plan.

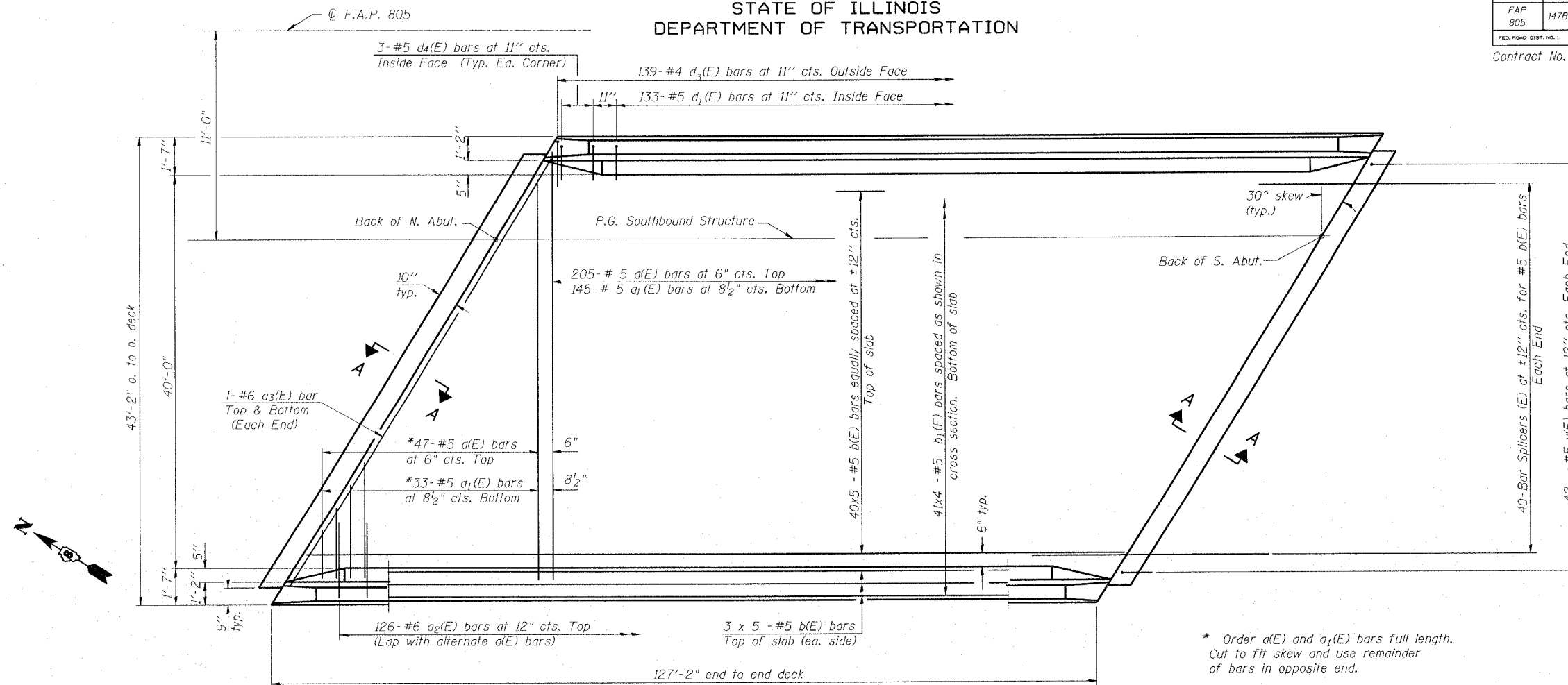
ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

DECK ELEVATIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	28
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

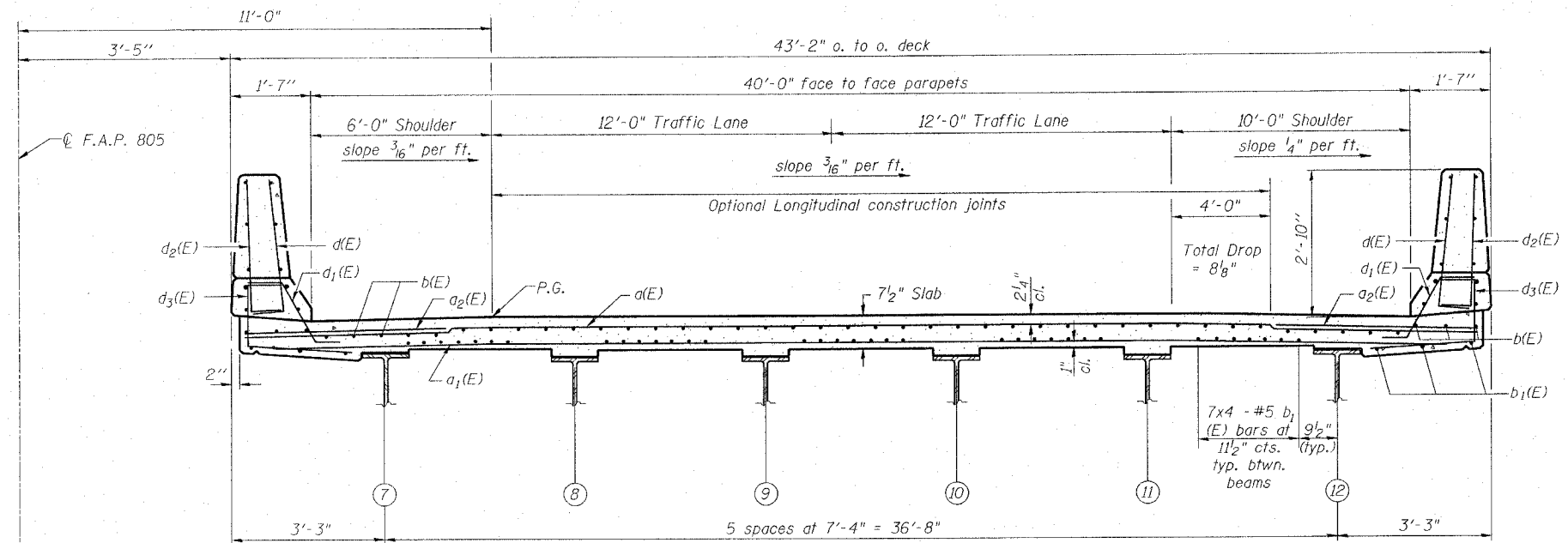
Contract No. 76393



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

PLAN

(Southbound Structure shown. Northbound similar by 180° rotation)



CROSS SECTION

(Looking South. Southbound Structure, Northbound Structure symmetrical about F.A.P. 805)

Notes:
See Sheet 10 of 24 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 10 of 24 for parapet reinforcement.
See Sheet 9 of 24 for Section A-A.

MIN. BAR LAP
#5 - 1'-8"

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

DECK PLAN & CROSS SECTION

FILE LOCATION: \$FILES\$
DATE: \$DATES\$
TIME: \$TIMES\$
PLOTTED BY: \$USERS\$

THOUVENOT, WADE & MOERCHEN, INC.



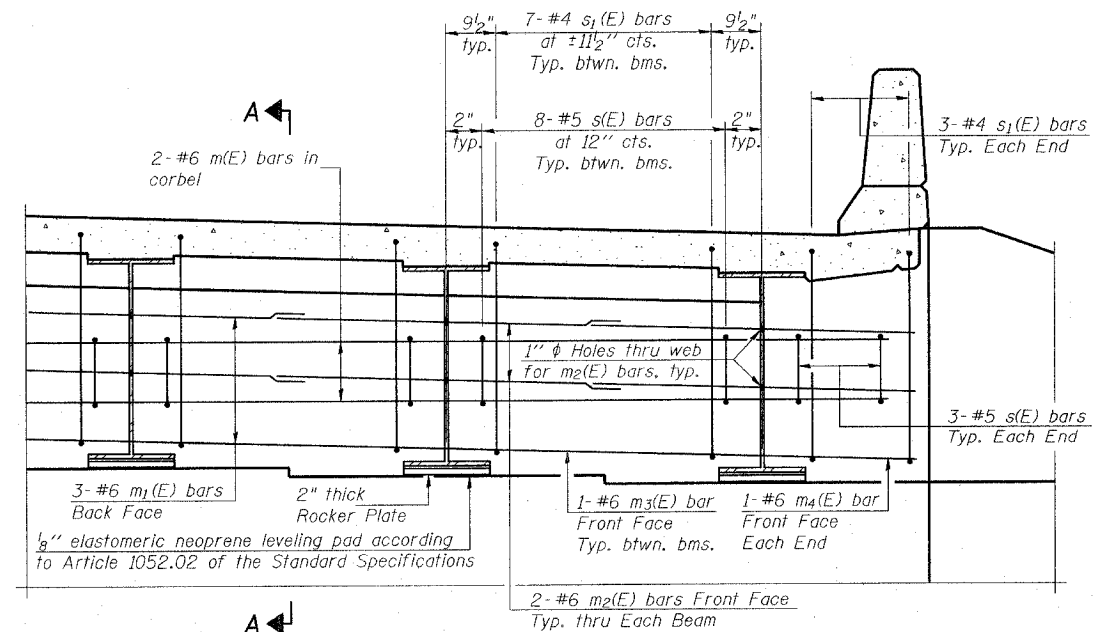
DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

SI-1-L 9-01-03

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	29	24 SHEETS
FED. ROAD DIST. NO. 1		BLDG. NO.	FED. AID PROJECT		

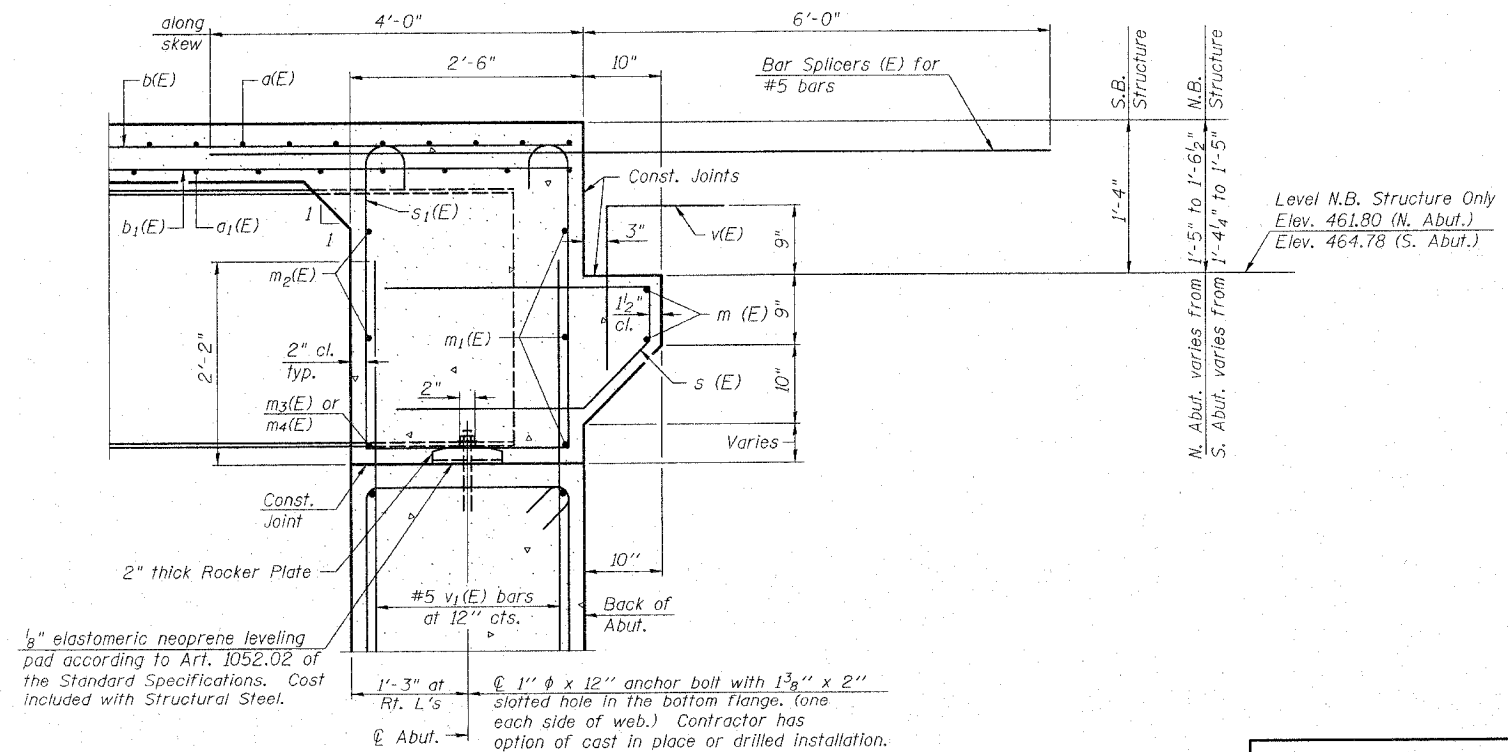
Contract No. 76393



DIAPHRAGM ELEVATION AT ABUTMENT

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 24.
Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 24.
For details of bars s(E) & s₁(E) see sheet 10 of 24.
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.
For anchor bolt details see sheet 19 of 24.

MIN. BAR LAP
#6 bar = 2'-9"



SECTION A-A

Dimensions at right angles to abutment, except as shown.
* Cost included with Concrete Superstructure.

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

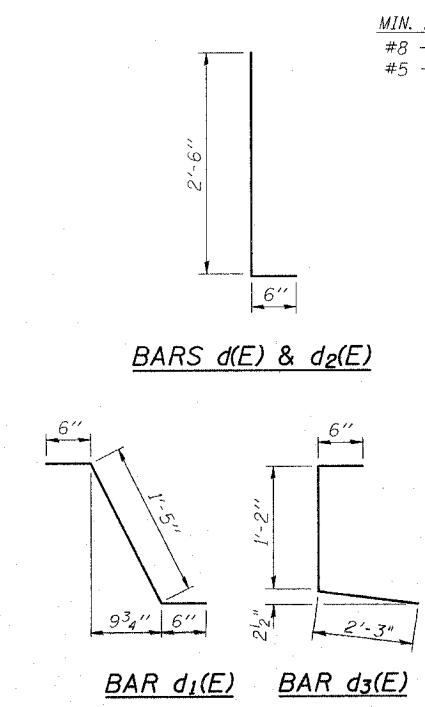
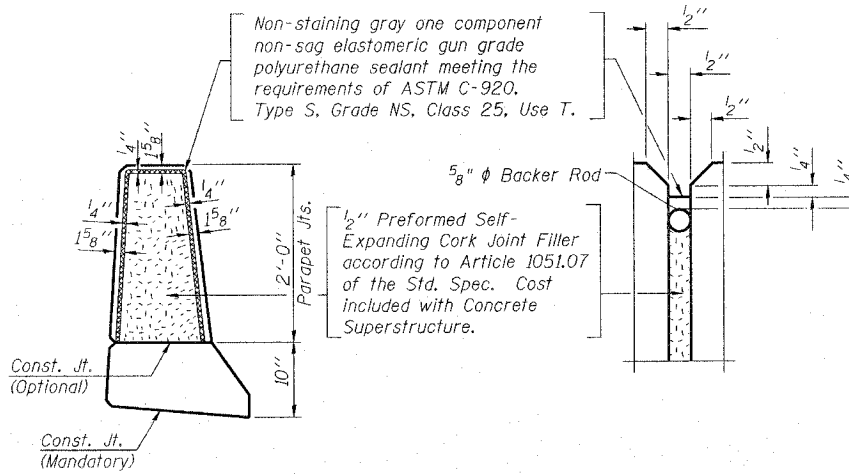
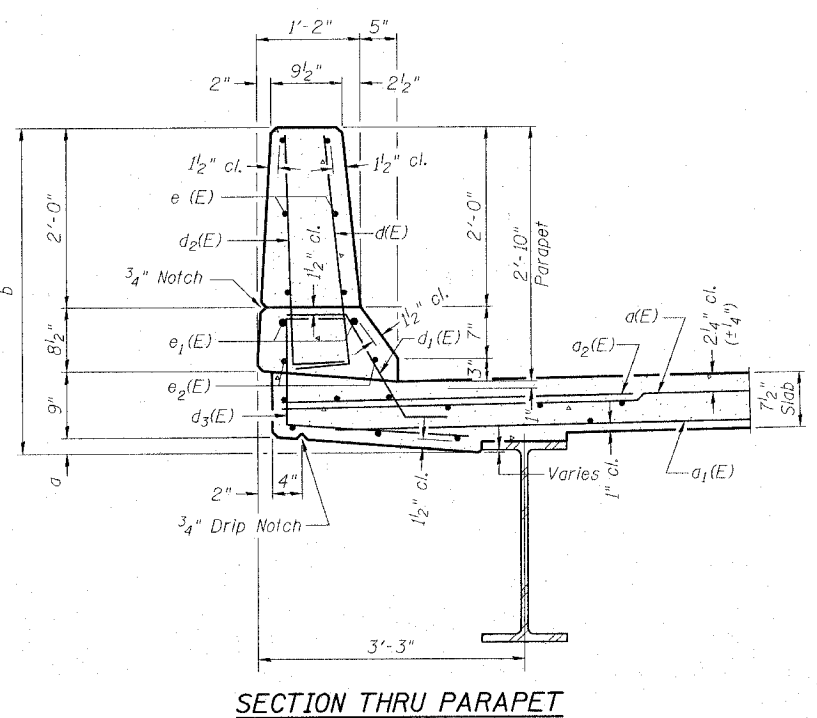
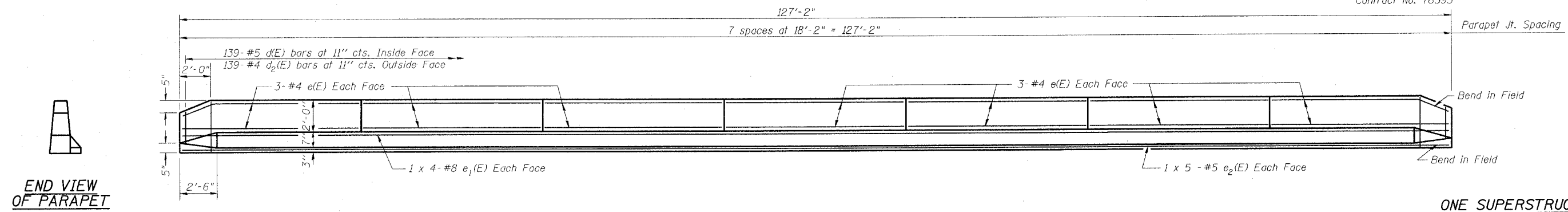
SI-DS1 9-01-03

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

DIAPHRAGM DETAILS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	30	
FED. ROAD DIST. NO. 1	ILL. PROJ. NO.	FED. AID PROJECT NO.	Contract No. 76393		



MIN. BAR LAP
#8 - 4'-6"
#5 - 2'-2"

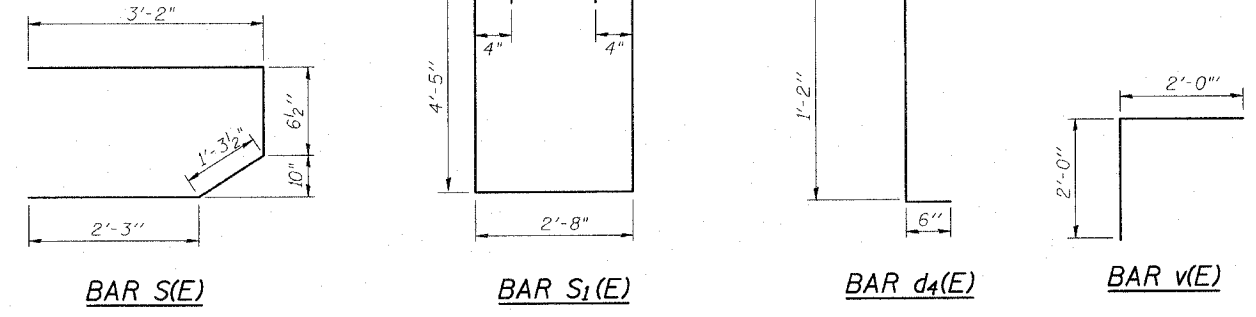
ONE SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	252	#5	42'-10"	—
a1(E)	178	#5	41'-2"	—
a2(E)	252	#6	4'-6"	—
a3(E)	4	#6	48'-2"	—
b(E)	230	#5	26'-9"	—
b1(E)	164	#5	33'-0"	—
d(E)	278	#5	3'-0"	┌
d1(E)	266	#5	2'-5"	┌
d2(E)	278	#4	3'-0"	┌
d3(E)	278	#4	3'-11"	┌
d4(E)	12	#5	2'-2"	┌
e(E)	84	#4	17'-11"	—
e1(E)	16	#8	35'-1"	—
e2(E)	20	#5	27'-2"	—
m(E)	4	#6	47'-9"	—
m1(E)	6	#6	49'-6"	—
m2(E)	24	#6	10'-6"	—
m3(E)	10	#6	8'-0"	—
m4(E)	4	#6	3'-5"	—
s(E)	92	#5	7'-3"	┌
s1(E)	82	#4	12'-4"	┌
v(E)	84	#5	4'-0"	┌
Reinforcement Bars, Epoxy Coated		Found	41850	
Concrete Superstructure		Cu. Yds.	205.4	

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 5-#5 etc. indicates 1 line of bars with 5 lengths per line.

PARAPET DIMENSIONS

Location	a	b
Girder 1	3'-9"	3'-9 1/8"
Girder 6	3'-5"	3'-9 1/8"
Girder 7	2'-5"	3'-8"
Girder 12	2'-5"	3'-8"



THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	- ALN
CHECKED	- BWP
DRAWN	- JMI, DEH
CHECKED	- ALN

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

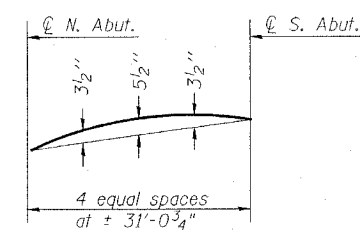
SUPERSTRUCTURE DETAILS

FILE LOCATION: \$FILE\$ DATE: \$DATE\$ TIME: \$TIME\$ PLOTTED BY: \$USER\$

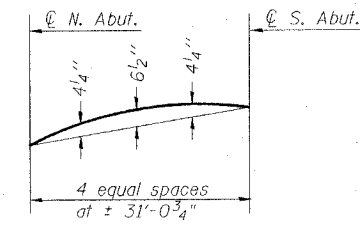
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	31	
FED. ROAD DIST. NO. 1	BLANDS	FED. AID PROJECT			

Contract No. 76393



N.B. - GIRDERS 1-6



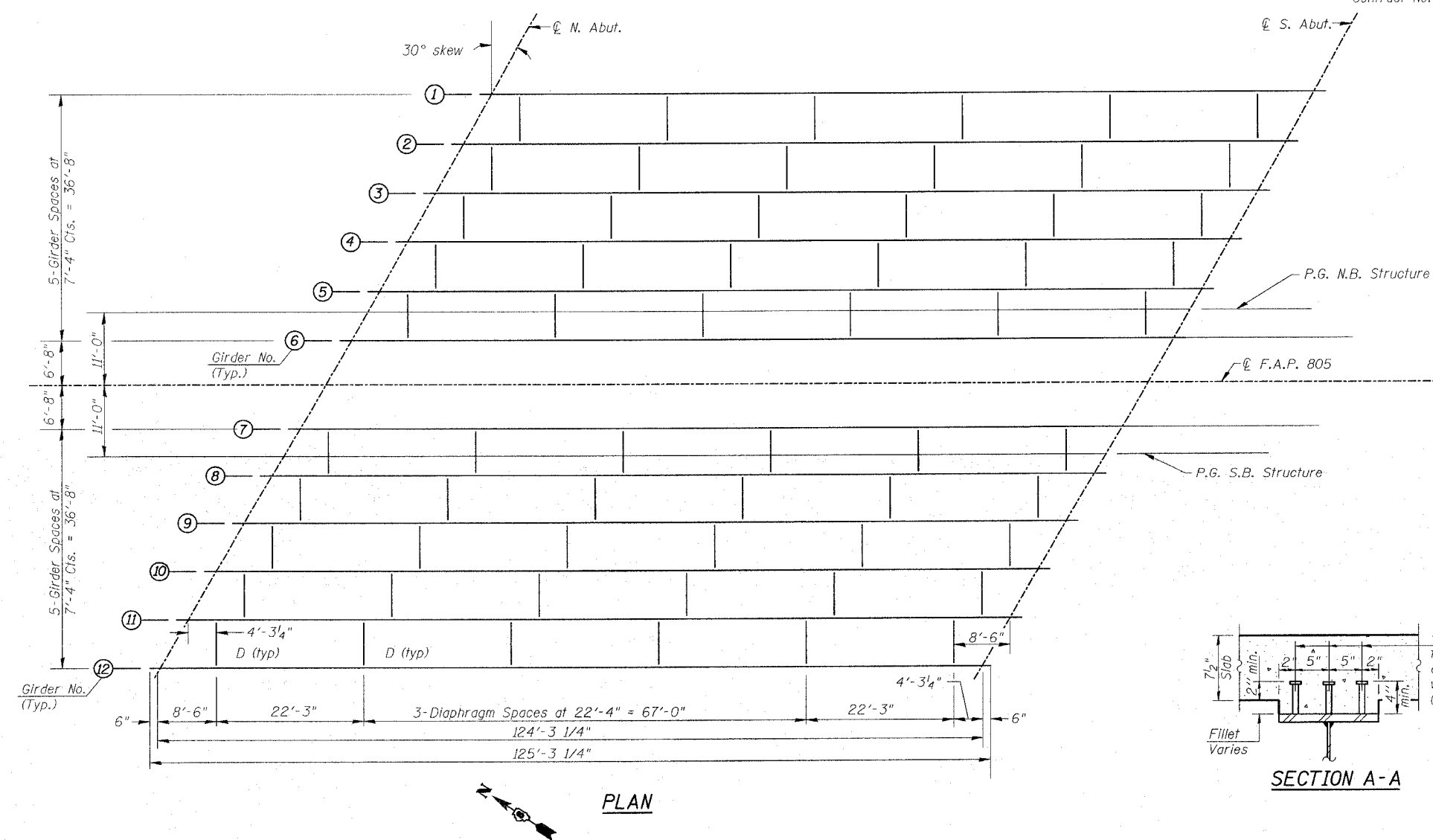
S.B. - GIRDERS 7-12

CAMBER DIAGRAMS

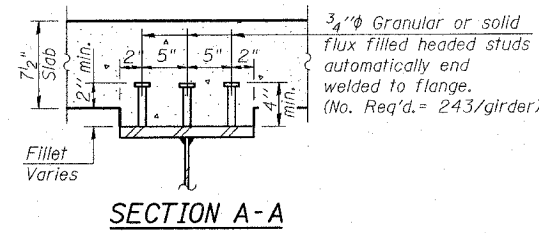
TOP OF WEB ELEVATIONS

Girder No.	℄ N. Abut.	℄ S. Abut.
1	462.43	465.32
2	462.50	465.35
3	462.53	465.35
4	462.56	465.34
5	462.58	465.34
6	462.61	465.34
7	462.45	465.14
8	462.24	464.91
9	462.04	464.69
10	461.84	464.47
11	461.64	464.25
12	461.41	464.00

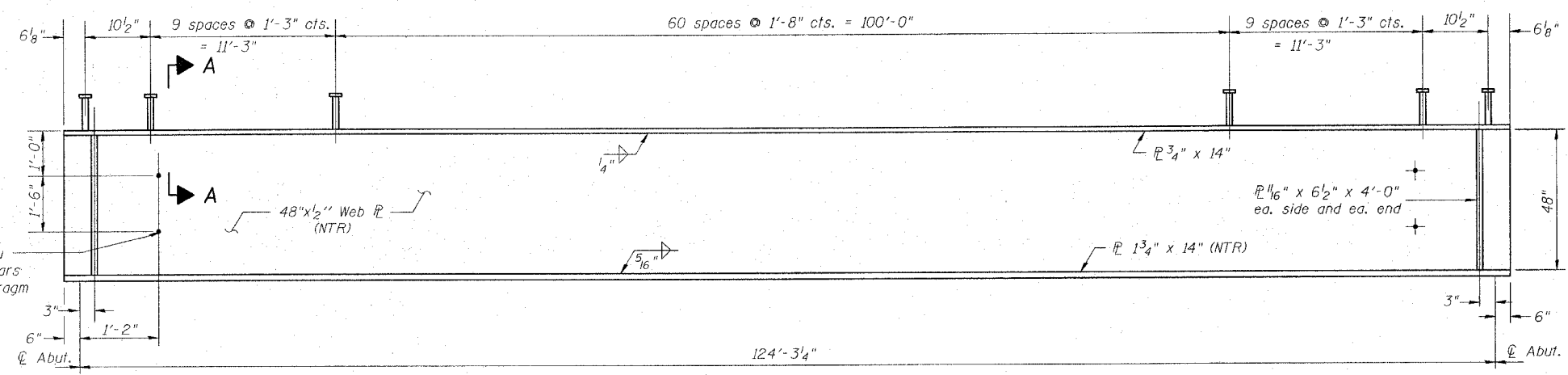
(For Fabrication Use Only)



PLAN



SECTION A-A



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

Notes:
All Steel for girder webs and flanges shall be M270 Gr. 50.

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

STRUCTURAL STEEL FRAMING

FILE LOCATION: #FILES
DATE: #DATE#
TIME: #TIME#
PLOTTED BY: #USERS#

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	- ALN
CHECKED	- BWP
DRAWN	- JMI, DEH
CHECKED	- ALN

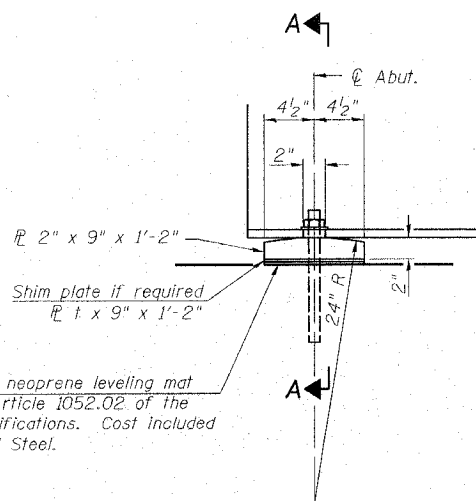
G-1 4-30-99

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 12
805	147BR	ST. CLAIR	52	32	24 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		

Contract No. 76393

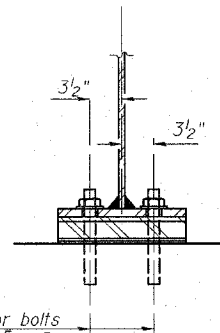
SHIM PLATE THICKNESS, t		
Abutment	Girder No.	t
North	3	1/2"
North	5	3/8"
South	2	3/8"
South	3	3/8"
South	4	1/4"
South	5	1/4"
South	6	1/4"



ELEVATION AT ABUTMENT

FIXED BEARING

Notes: Anchor bolts at fixed bearings may be built into the masonry. See sheet 19 of 23 for Anchor Bolt installation.



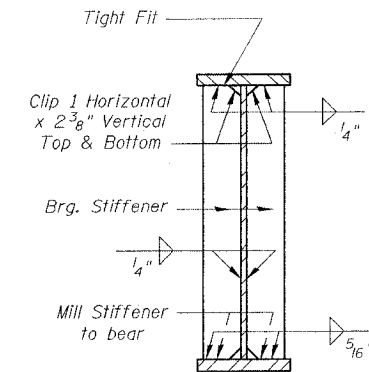
SECTION A-A

1" ϕ x 12" anchor bolts with 2 1/4" x 2 1/4" x 5/16" \bar{P} washer under nut. 1 3/8" x 2" slotted hole in flange. 1/2" ϕ holes in bearing plate.

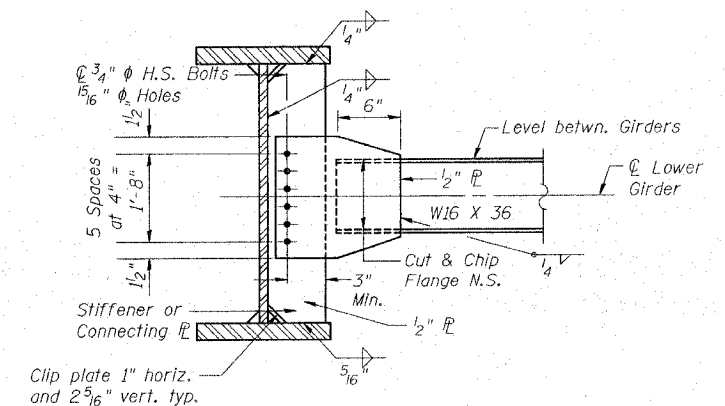
INTERIOR GIRDER MOMENT TABLE	
	0.5 Sp. 1
I_s	(in ⁴) 23895
$I_c(n)$	(in ⁴) 63135
$I_c(3n)$	(in ⁴) 44571
S_s	(in ³) 1209.3
$S_c(n)$	(in ³) 1624.3
$S_c(3n)$	(in ³) 1492.7
Z	(in ³) ----
\bar{D}	(K/ft.) 0.947
$M\bar{P}$	(K) 1828.9
$M_s\bar{P}$	(K/ft.) 0.483
$M_s\bar{P}$	(K) 932.8
$M\bar{L}$	(K) 1304.9
M (Imp)	(K) 261.0
$S_3(M\bar{L}+I)$	(K) 2609.8
M_a	(K) 6983.0
M_u	(K) 7834.0
$f_s\bar{P}$ non-comp(k.s.i.)	18.1
$f_s\bar{P}$ (comp)	(k.s.i.) 7.5
$f_s S_3(L+I)$	(k.s.i.) 19.3
f_s (Overload)	(k.s.i.) 44.3
f_s (Total)	(k.s.i.) ----
VR	(K) 59.0

INTERIOR GIRDER REACTION TABLE	
	Abut.
$R\bar{P}$	(K) 88.9
$R\bar{L}$	(K) 49.2
Imp.	(K) 9.8
R (Total)	(K) 147.9

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 $I_c(3n)$ and $S_c(3n)$ 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.
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
 M_a (Applied Moment) = $1.3[M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + M(Imp))]$.
 The Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 f_s (Overload) is the sum of the stresses due to $M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + M(Imp))$.
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + M(Imp))]$.



SECTION AT ABUTMENT



DIAPHRAGM D

Note: Two hardened washers shall be required over all oversized holes.

FILE LOCATION: \$FILE\$
DATE: \$DATE\$
TIME: \$TIME\$
PLOTTED BY: \$USER\$

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

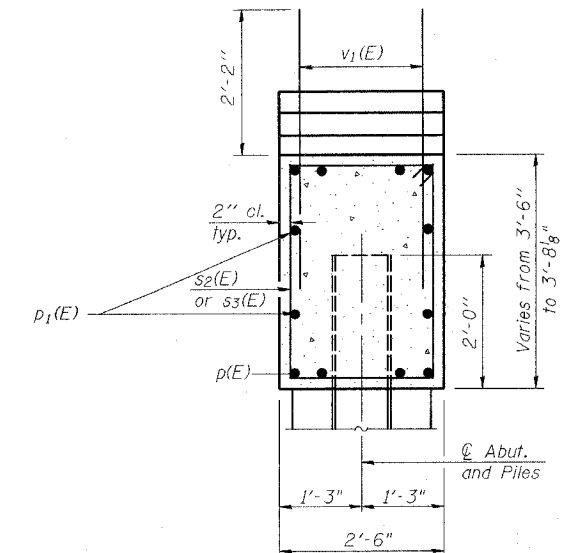
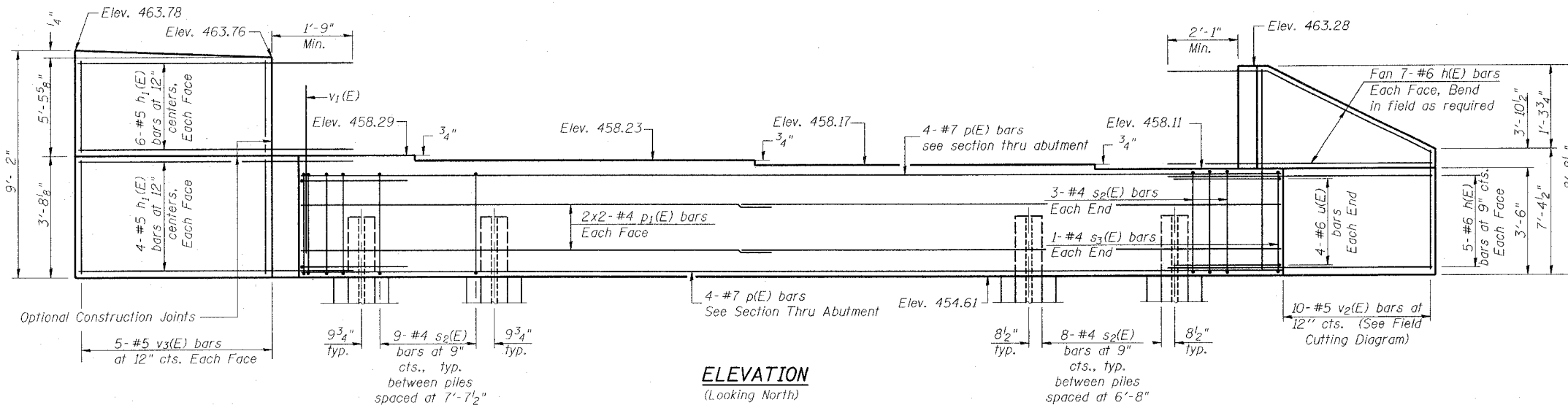
ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

STRUCTURAL STEEL DETAILS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 13
FAP 805	147BR	ST. CLAIR	52	33	24 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

Contract No. 76393



SEC. THRU ABUT.

BILL OF MATERIAL

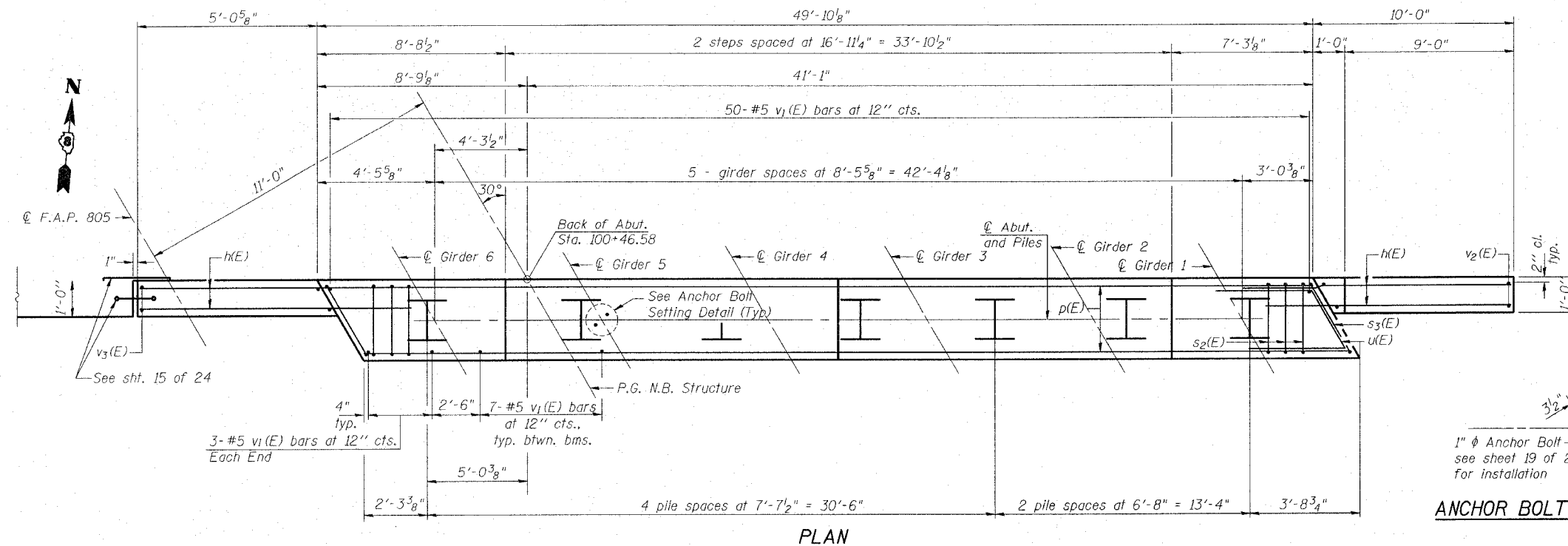
Bar	No.	Size	Length	Shape
h(E)	24	#6	12'-0"	—
h1(E)	20	#5	6'-8"	—
p(E)	8	#7	49'-6"	—
p1(E)	8	#4	25'-8"	—
s2(E)	58	#4	11'-5"	□
s3(E)	2	#4	12'-1"	□
u(E)	8	#6	9'-6"	∟
v1(E)	91	#5	4'-4"	—
v2(E)	10	#5	15'-4"	—
v3(E)	10	#5	8'-8"	—
Concrete Structures	Cu. Yd.	21.2		
Reinforcement Bars, Epoxy Coated	Pound	2750		
Structure Excavation	Cu. Yd.	175		
Steel Piles HP 14x73	Ln. Ft.	522		
Test Pile HP 14x73	Each	1		

MIN. BAR LAP

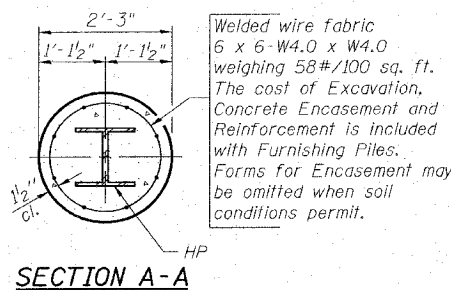
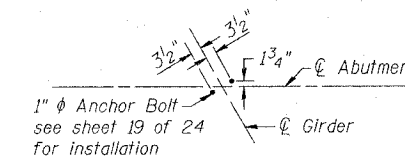
#4 Bars 1'-10"

PILE DATA

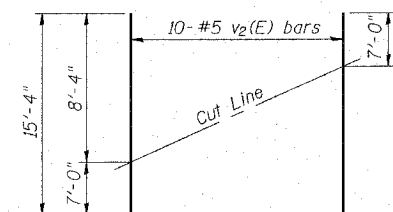
Type: HP 14x73
Capacity: Drive to Refusal
Est. Length: 87'
No. Required: 6+1 Test Pile



ANCHOR BOLT SETTING DETAIL

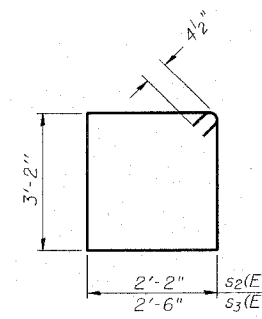


TYPICAL HP PILE ENCASEMENT DETAIL

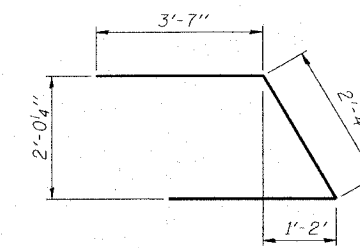


FIELD CUTTING DIAGRAM

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



BARS s2(E) & s3(E)



BAR u(E)

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	ALN, BWP
CHECKED	ALN, BWP
DRAWN	JMI, DEH
CHECKED	ALN, BWP

AI-L 9-01-03

Notes:

Pour steps monolithically with cap.

Reinforcement bars designated (E) shall be epoxy coated.

Space reinforcement in cap to miss anchor bolts.

Bars designated thus 2x2-#4 etc. indicates 2 lines of bars with 2 lengths per line

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

NB STRUCTURE, NORTH ABUTMENT

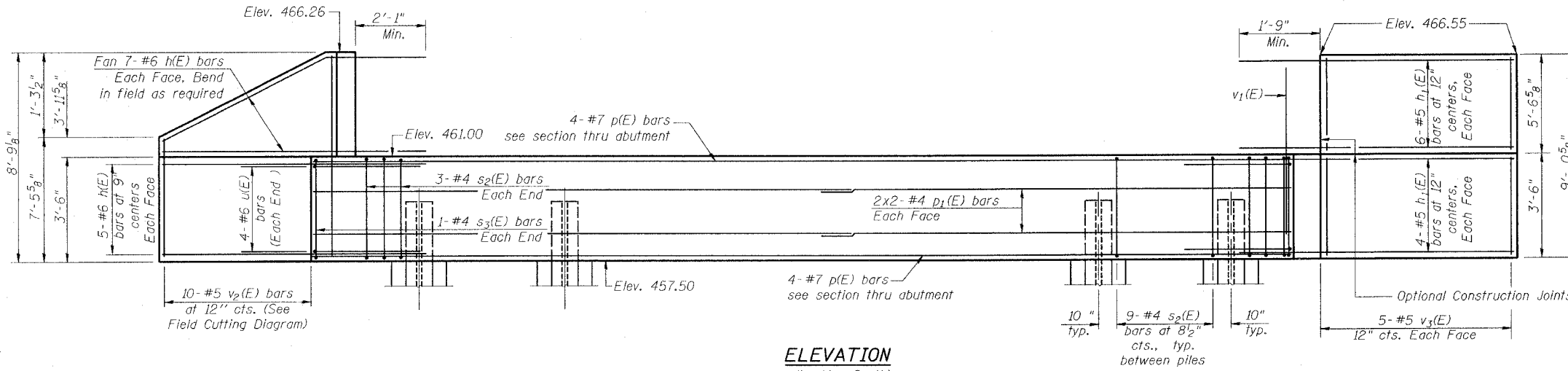
FILE LOCATION: #FILES#
DATE: #DATE#
TIME: #TIME#
PLOTTED BY: #USER#

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

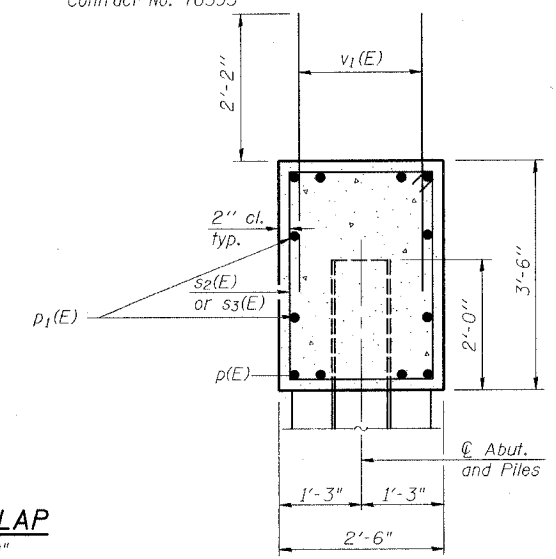
F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	34
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

SHEET NO. 14
24 SHEETS

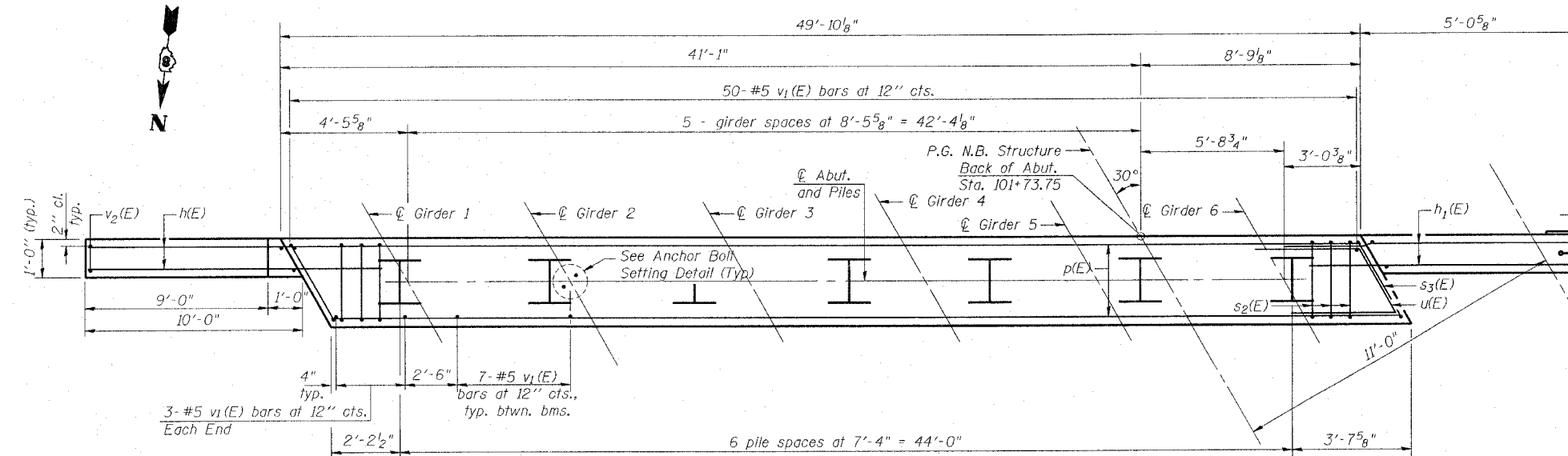
Contract No. 76393



ELEVATION
(Looking South)



SEC. THRU ABUT.



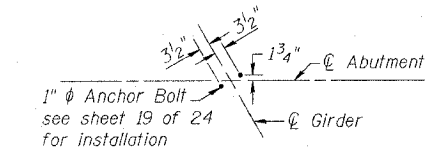
PLAN

MIN. BAR LAP
#4 Bars 1'-10"

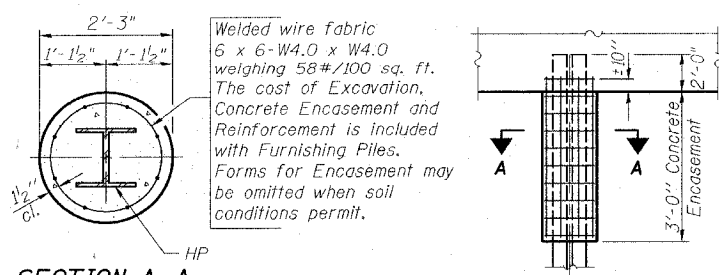
PILE DATA
Type: HP 14x73
Capacity: Drive to Refusal
Est. Length: 86'
No. Required: 6+1 Test Pile

BILL OF MATERIAL

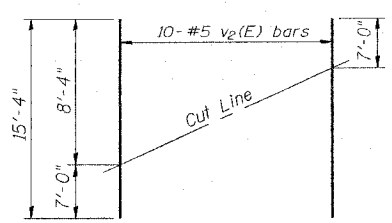
Bar	No.	Size	Length	Shape
h(E)	24	#6	12'-0"	
h1(E)	20	#5	6'-8"	
p(E)	8	#7	49'-6"	
p1(E)	8	#4	25'-8"	
s2(E)	60	#4	11'-5"	□
s3(E)	2	#4	12'-1"	□
u(E)	8	#6	9'-6"	∇
v1(E)	91	#5	4'-4"	
v2(E)	10	#5	15'-4"	
v3(E)	10	#5	8'-8"	
Concrete Structures		Cu. Yd.	20.7	
Reinforcement Bars, Epoxy Coated		Pound	2770	
Structure Excavation		Cu. Yd.	175	
Steel Piles HP 14x73		Ln. Ft.	516	
Test Pile HP 14x73		Each	1	



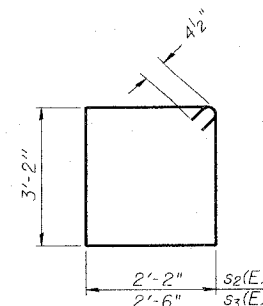
ANCHOR BOLT SETTING DETAIL



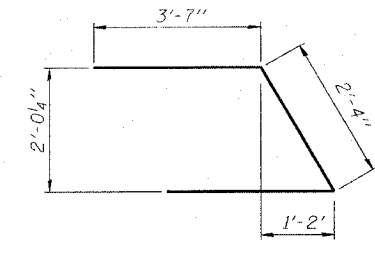
SECTION A-A
TYPICAL HP PILE ENCASEMENT DETAIL



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



BARs s2(E) & s3(E)



BAR u(E)

Notes:
Four steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
Space reinforcement in cap to miss anchor bolts.
Bars designated thus 2x2-#4 etc. indicates 2 lines of bars with 2 lengths per line

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

NB STRUCTURE, SOUTH ABUTMENT

THOUVENOT, WADE & MOERCHEN, INC.

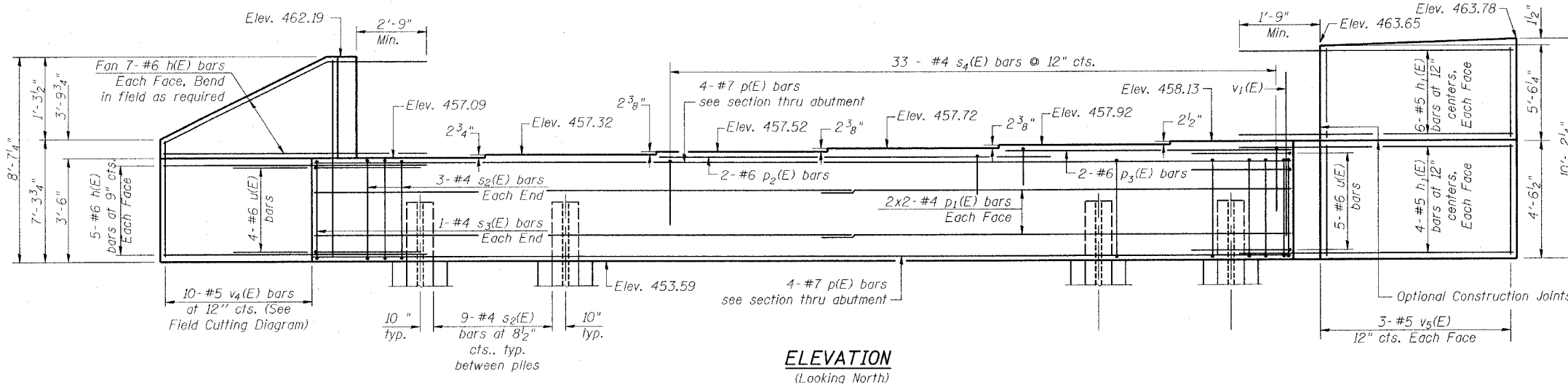


DESIGNED	ALN, BWP
CHECKED	ALN, BWP
DRAWN	JMI, DEH
CHECKED	ALN, BWP

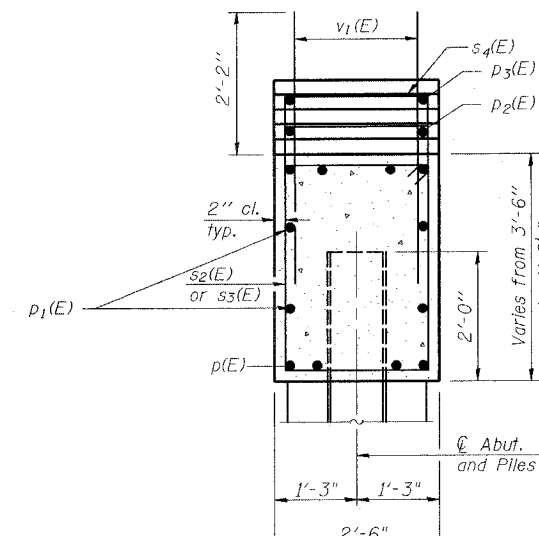
FILE LOCATION: #FILE#
DATE: #DATE#
TIME: #TIME#
PLOTTED BY: #USER#

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	35	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	Contract No. 76393		



ELEVATION
(Looking North)



SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#6	12'-0"	—
h1(E)	20	#5	4'-5"	—
p(E)	8	#7	49'-6"	—
p1(E)	8	#4	25'-8"	—
p2(E)	2	#6	17'-0"	—
p3(E)	2	#6	15'-4"	—
s2(E)	60	#4	11'-5"	□
s3(E)	2	#4	12'-1"	□
s4(E)	33	#4	6'-2"	□
u(E)	9	#6	9'-6"	—
v1(E)	91	#5	4'-4"	—
v4(E)	10	#5	15'-3"	—
v5(E)	6	#5	9'-10"	—
Concrete Structures		Cu. Yd.	22.4	
Reinforcement Bars, Epoxy Coated		Pound	2940	
Structure Excavation		Cu. Yd.	180	
Steel Piles HP 14x73		Ln. Ft.	516	
Test Pile HP 14x73		Each	1	

Notes:
Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
Space reinforcement in cap to miss anchor bolts.
Bars designated thus 2x2-#4 etc. indicates 2 lines of bars with 2 lengths per line

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

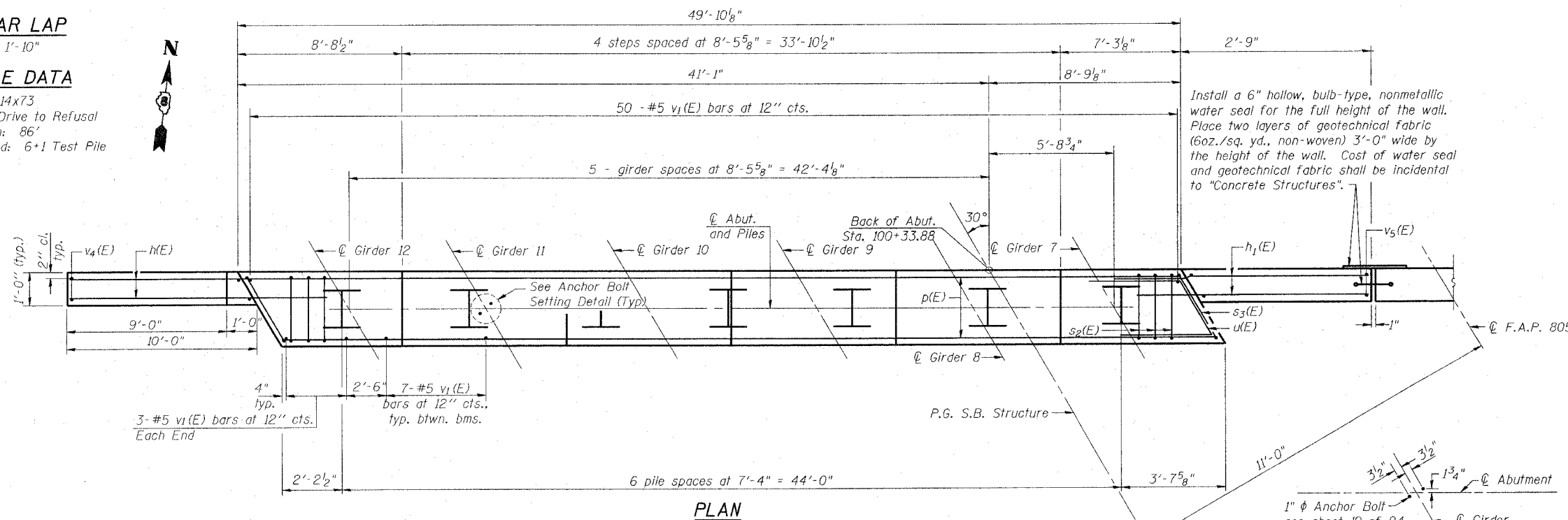
SB STRUCTURE, NORTH ABUTMENT

MIN. BAR LAP

#4 Bars 1'-10"

PILE DATA

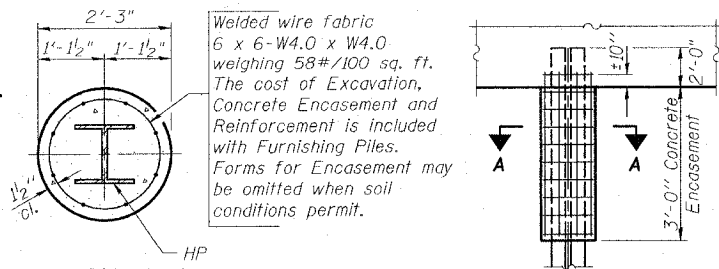
Type: HP 14x73
Capacity: Drive to Refusal
Est. Length: 86'
No. Required: 6+1 Test Pile



PLAN

ANCHOR BOLT SETTING DETAIL

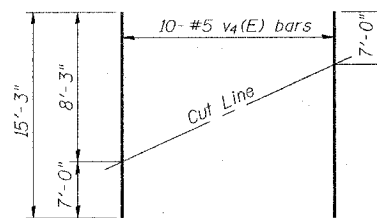
1" φ Anchor Bolt - see sheet 19 of 24.



SECTION A-A

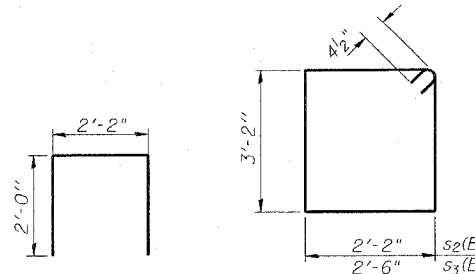
TYPICAL HP PILE ENCASEMENT DETAIL

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.

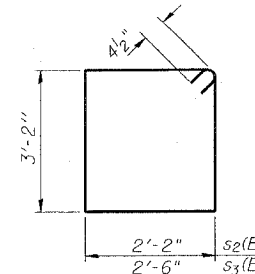


FIELD CUTTING DIAGRAM

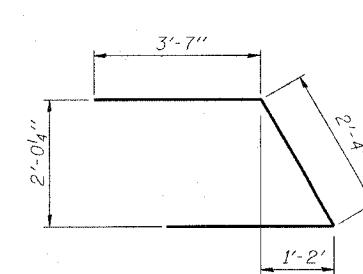
Order v4(E) full length. Cut as shown and use half of bars in each face.



BAR S4(E)



BARS S2(E) & S3(E)



BAR U(E)

FILE LOCATION: \$FILE\$
DATE: \$DATE\$
TIME: \$TIME\$
PLOTTER BY: \$USER\$

THOUVENOT, WADE & MOERCHEN, INC.



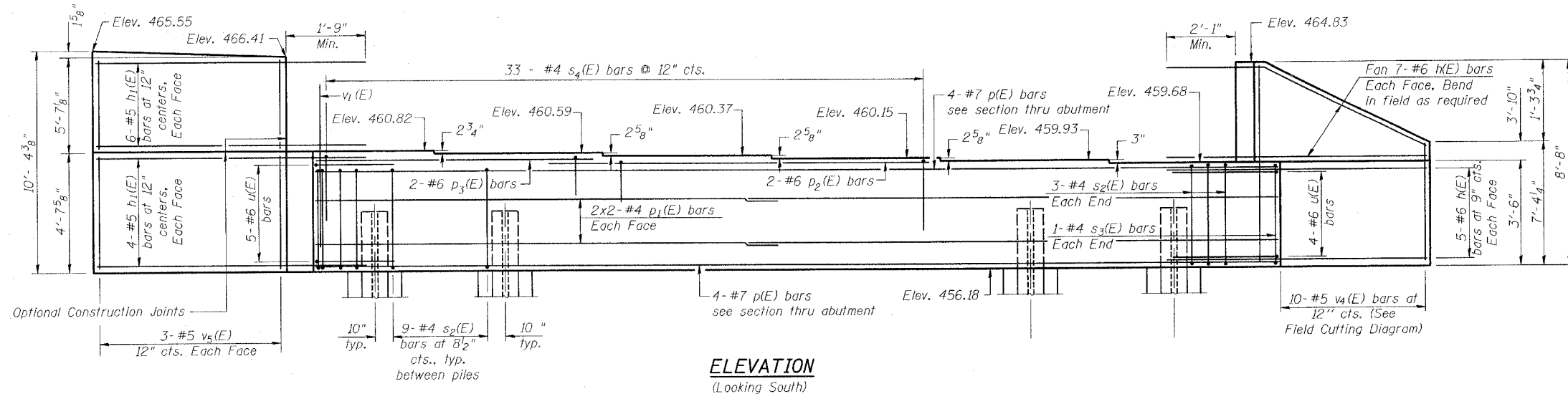
DESIGNED -	ALN, BWP
CHECKED -	ALN, BWP
DRAWN -	JMI, DEH
CHECKED -	ALN, BWP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

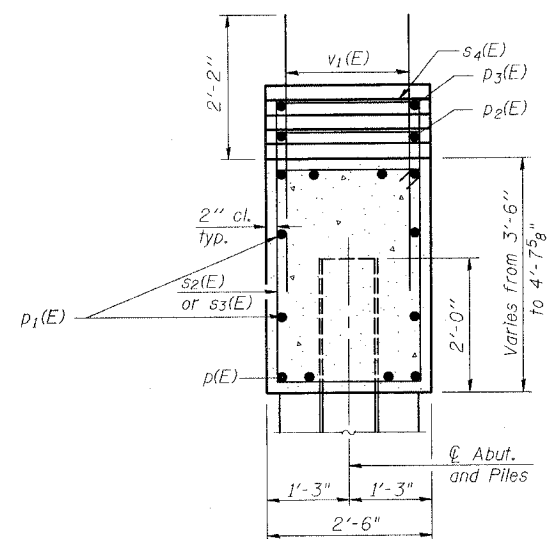
SEC. THRU ABUT.

F.A.P. ROUTE	SECTION	COUNT	TOTAL SHEETS	SHEET NO.	SHEET NO. 16 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	36	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

Contract No. 76393



ELEVATION
(Looking South)



SEC. THRU ABUT.

MIN. BAR LAP
#4 Bars 1'-10"

PILE DATA

Type: HP 14x73
Capacity: Drive to Refusal
Est. Length: 85'
No. Required: 6+1 Test Pile

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#6	12'-0"	—
h1(E)	20	#5	4'-5"	—
p(E)	8	#7	49'-6"	—
p1(E)	8	#4	25'-8"	—
p2(E)	2	#6	17'-0"	—
p3(E)	2	#6	15'-4"	—
s2(E)	60	#4	11'-5"	□
s3(E)	2	#4	12'-1"	□
s4(E)	33	#4	6'-2"	□
u(E)	9	#6	9'-6"	∟
v1(E)	91	#5	4'-4"	—
v4(E)	10	#5	15'-3"	—
v5(E)	6	#5	9'-10"	—
Concrete Structures		Cu. Yd.	22.7	
Reinforcement Bars, Epoxy Coated		Pound	2940	
Structure Excavation		Cu. Yd.	184	
Steel Piles HP 14x73		Ln. Ft.	510	
Test Pile HP 14x73		Each	1	

Notes:

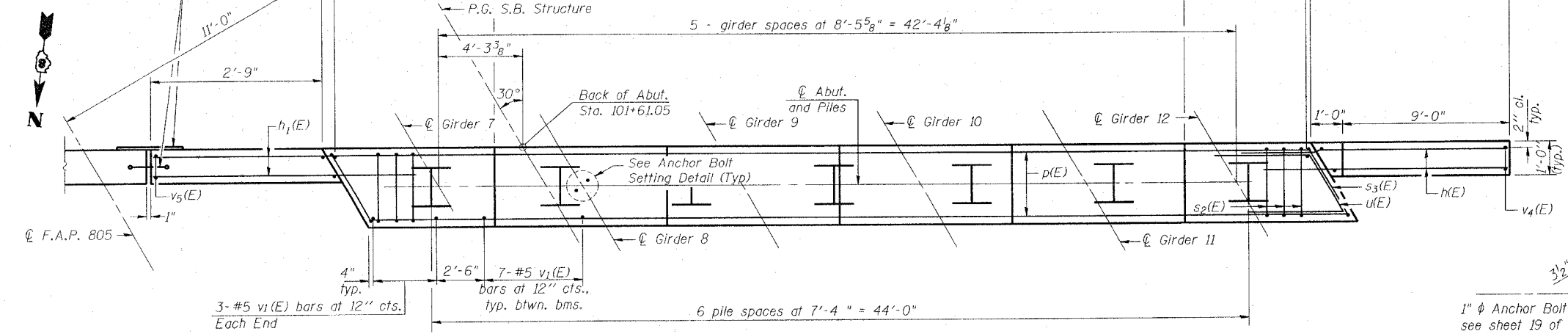
- Pour steps monolithically with cap.
- Reinforcement bars designated (E) shall be epoxy coated.
- Space reinforcement in cap to miss anchor bolts.

Bars designated thus 2x2-#4 etc. indicates 2 lines of bars with 2 lengths per line

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

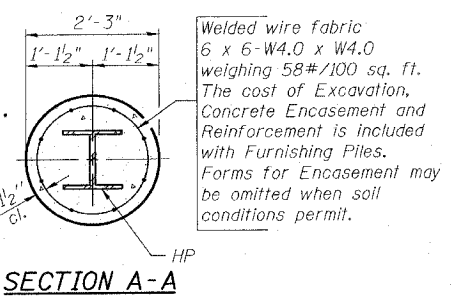
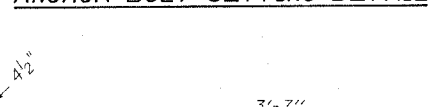
SB STRUCTURE, SOUTH ABUTMENT

Install a 6" hollow, bulb-type, nonmetallic water seal for the full height of the wall. Place two layers of geotechnical fabric (6oz./sq. yd., non-woven) 3'-0" wide by the height of the wall. Cost of water seal and geotechnical fabric shall be incidental to "Concrete Structures".



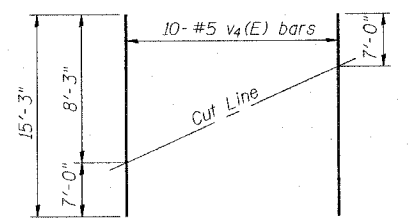
PLAN

ANCHOR BOLT SETTING DETAIL



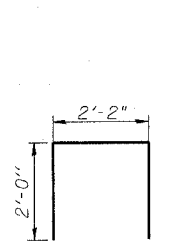
SECTION A-A

TYPICAL HP PILE ENCASEMENT DETAIL

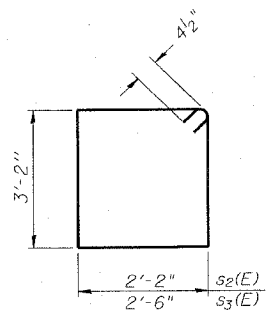


FIELD CUTTING DIAGRAM

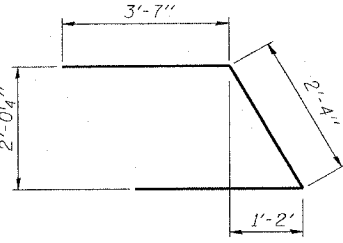
Order v4(E) full length. Cut as shown and use half of bars in each face.



BAR S4(E)



BARS S2(E) & S3(E)



BAR U(E)

THOUVENOT, WADE & MOERCHEN, INC.



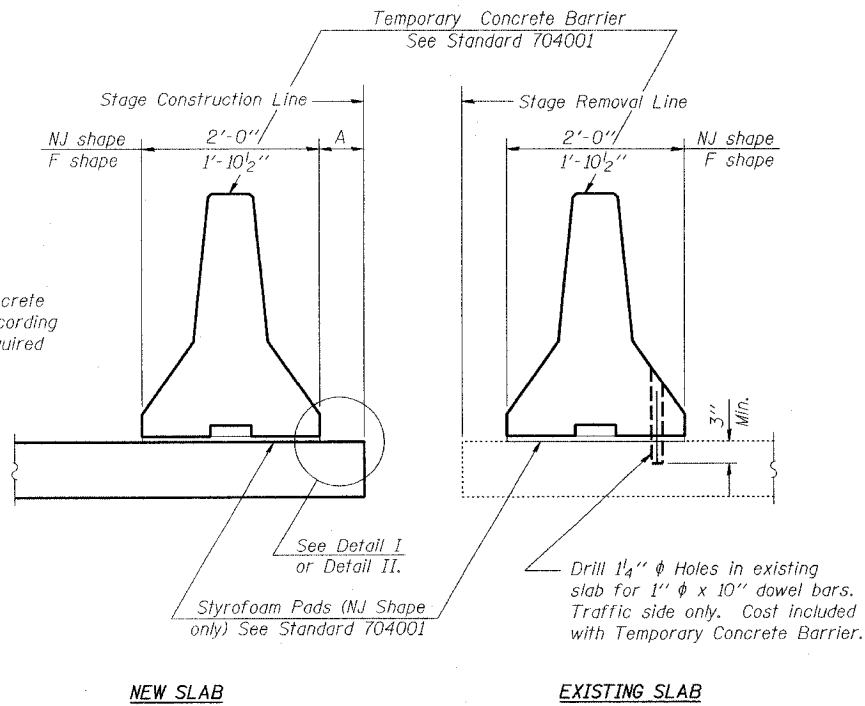
DESIGNED	ALN, BWP
CHECKED	ALN, BWP
DRAWN	JMI, DEH
CHECKED	ALN, BWP

PLOTTED BY: \$USER\$
 TIME: \$TIME\$
 DATE: \$DATE\$
 FILE LOCATION: \$FILE\$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	STATION	SHEET	SHEET NO. 17 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	37	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		

Contract No. 76393

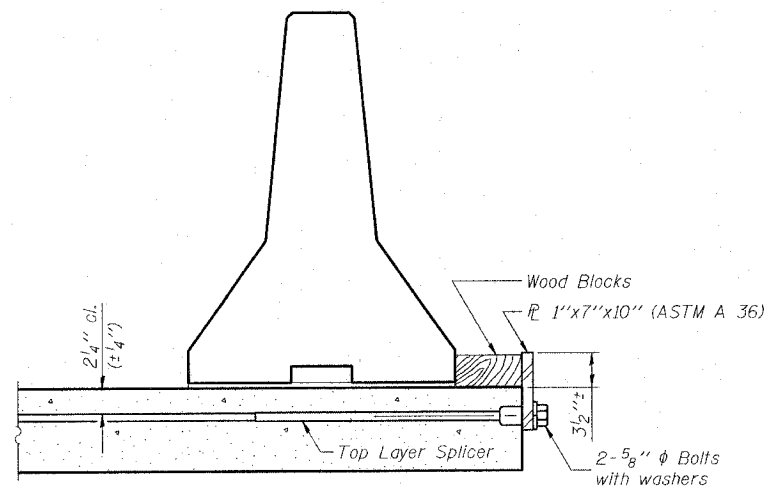


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

NOTES

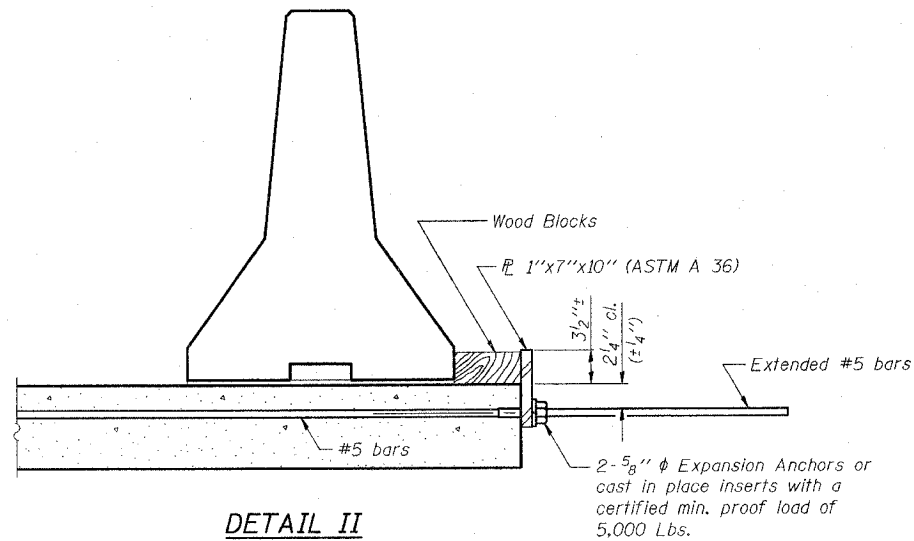
- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.

SECTIONS THRU SLAB



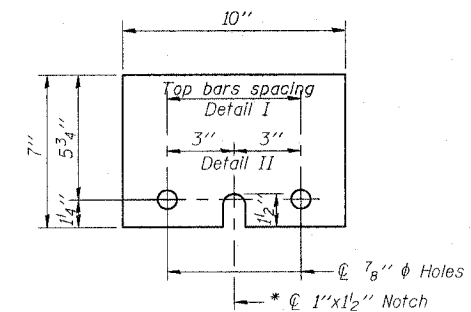
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



1" x 7" x 10"

* Required only with Detail II

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION**

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

R-27 9-01-03

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

TEMPORARY CONCRETE BARRIER

DATE: \$DATE\$ TIME: \$TIME\$ PLOTTED BY: \$USER\$ FILE LOCATION: \$FILE\$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 18 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	38	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

Contract No. 76393

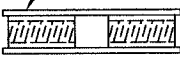
The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

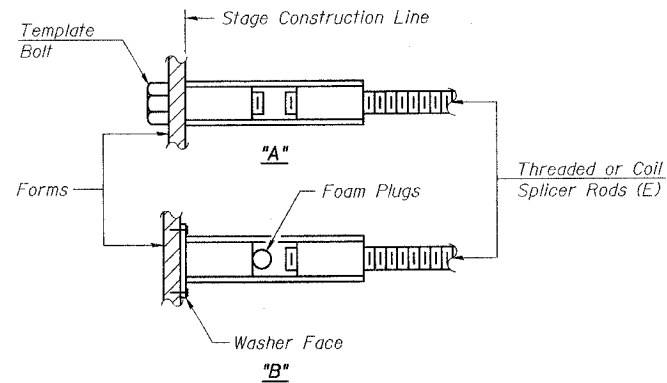
Wire Connector



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.

NOTES

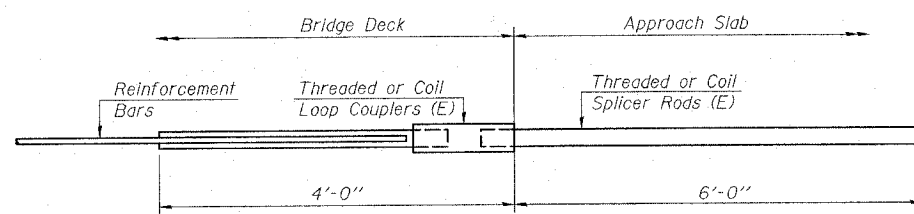
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the 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 = $1.25 \times f_y \times A_l$
(Tension in kips)
- ② Minimum *Pull-out Strength = $1.25 \times f_{s_{allow}} \times A_l$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s_{allow}}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_l = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

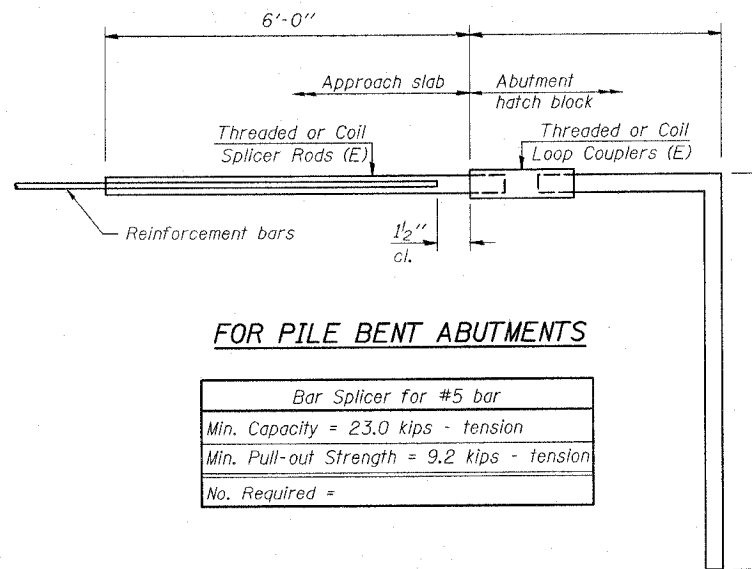
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



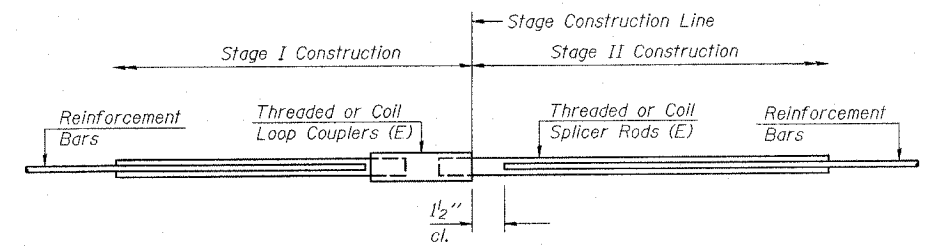
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 80 (NB) ; 80 (SB)



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location

PLOTTED BY: #USER#
TIME: #TIME#
DATE: #DATE#

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	-	ALN
CHECKED	-	BWP
DRAWN	-	JMI, DEH
CHECKED	-	ALN

BSD-1 9-01-03

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

BAR SPLICER ASSEMBLY DETAILS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

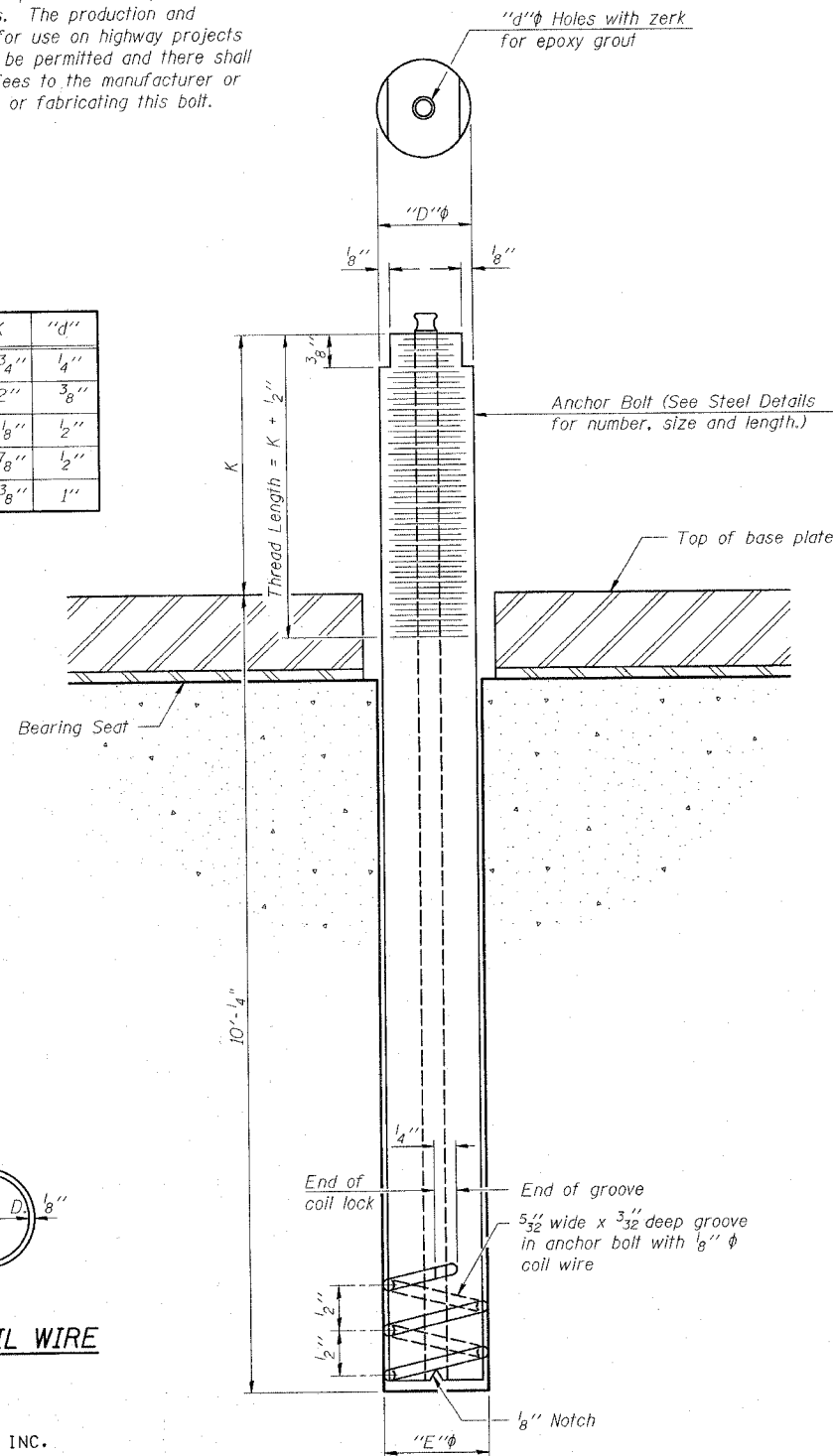
MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.
The coil wire shall be made of any suitable soft steel wire.
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

D	E	H	K	"d"
1"	1 1/8"	3 1/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

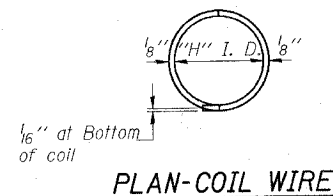
1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abuts.	ASTM A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.



PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	- ALN
CHECKED	- BWP
DRAWN	- JMI, DEH
CHECKED	- ALN

ABB-1 4-30-99

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

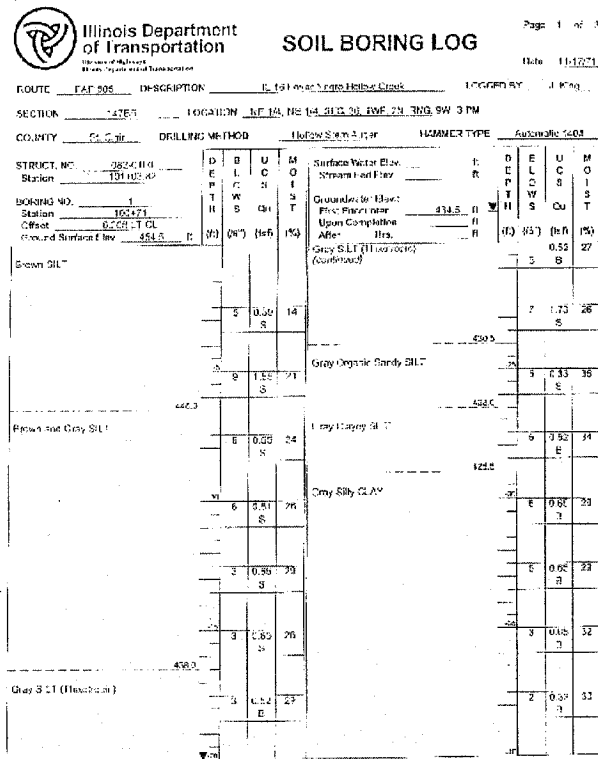
ANCHOR BOLT DETAILS

PLOTTED BY: \$USER\$ DATE: \$DATE\$ TIME: \$TIME\$ FILE: \$FILE\$

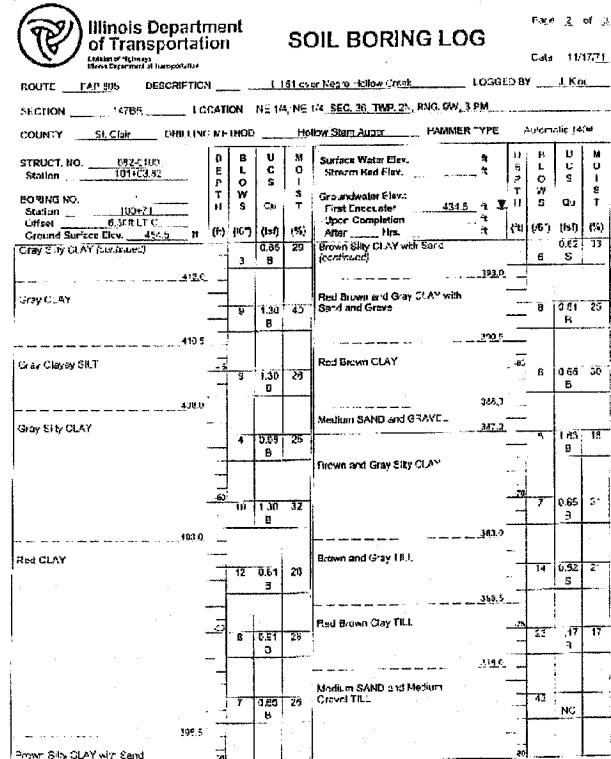
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	40
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

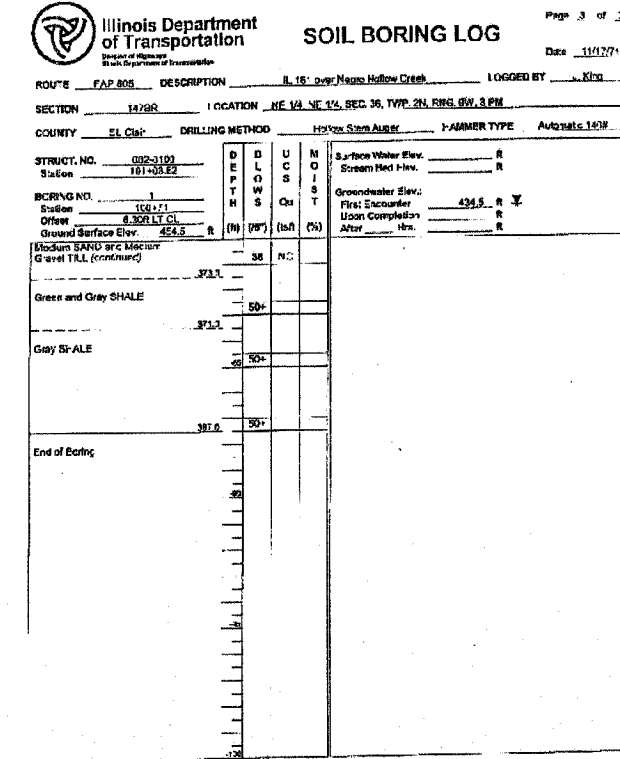
Contract No. 76393



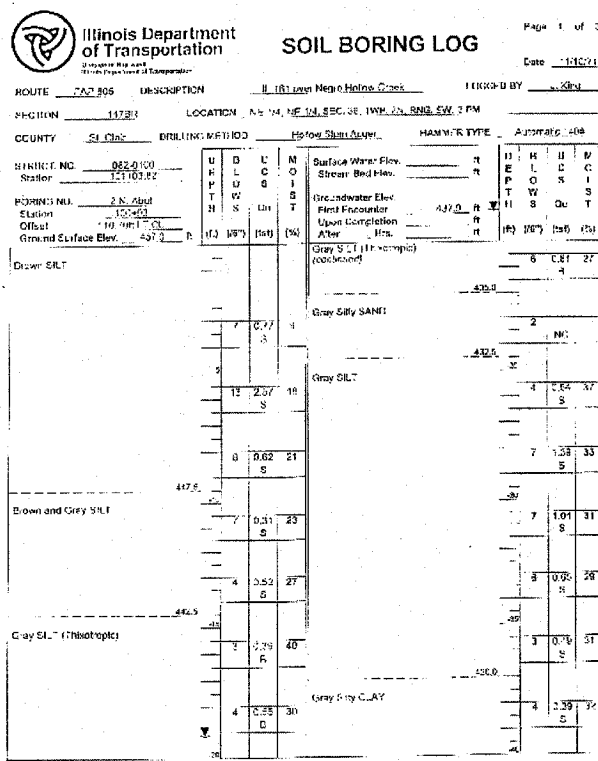
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Parabola)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)
RBS, from 137 (Rev. 8-92)



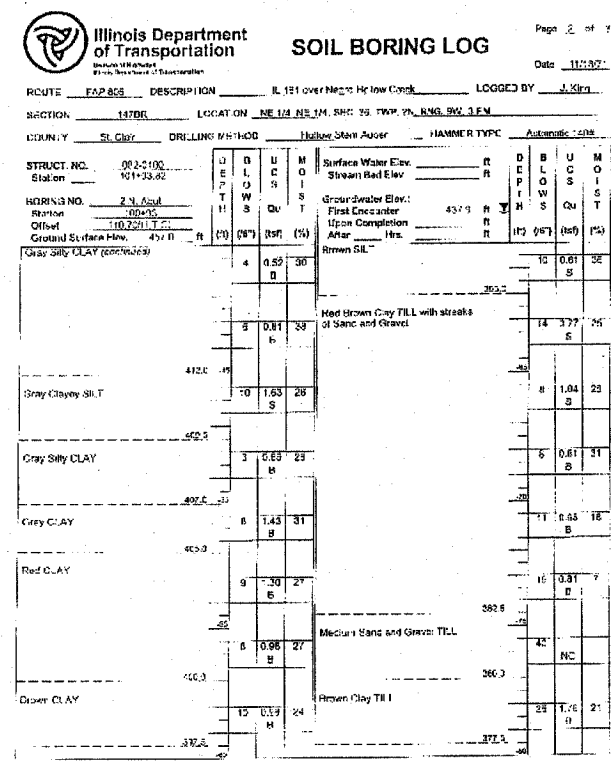
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Parabola)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)
RBS, from 137 (Rev. 8-92)



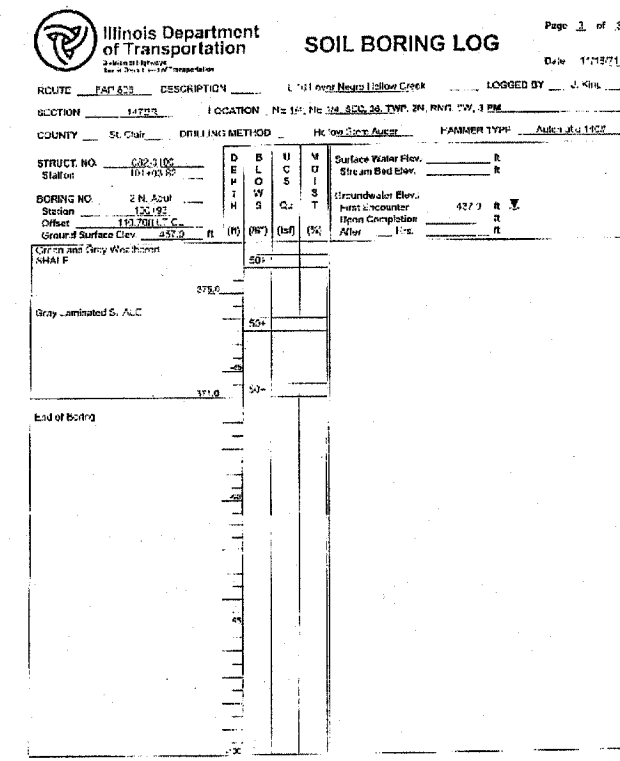
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Parabola)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)
RBS, from 137 (Rev. 8-92)



The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Parabola)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)
RBS, from 137 (Rev. 8-92)



The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Parabola)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)
RBS, from 137 (Rev. 8-92)



The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Parabola)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)
RBS, from 137 (Rev. 8-92)

DESIGNED ALN
CHECKED BWP
DRAWN DEH
CHECKED ALN

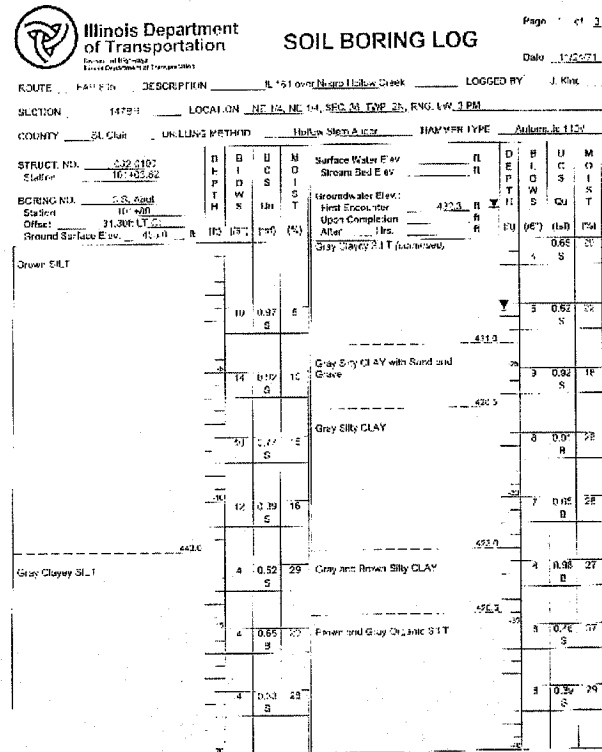
ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

BORING LOGS

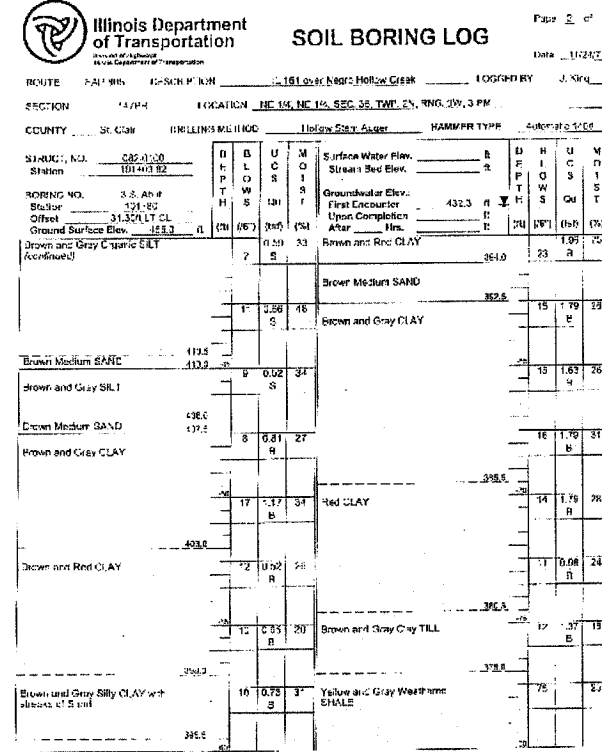
FILE LOCATION: \$FILES\$
DATE: \$DATES\$
TIME: \$TIME\$
PLOTTED BY: \$USERS\$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

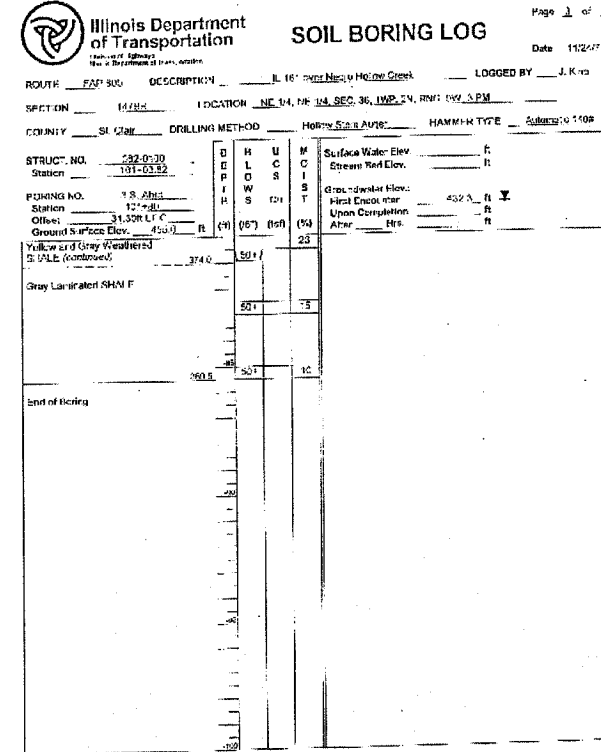
F.A.P. ROUTE	SECTION	COUNTY	DATE	SHEET	SHEET NO. 21 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	41	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT		Contract No. 76393



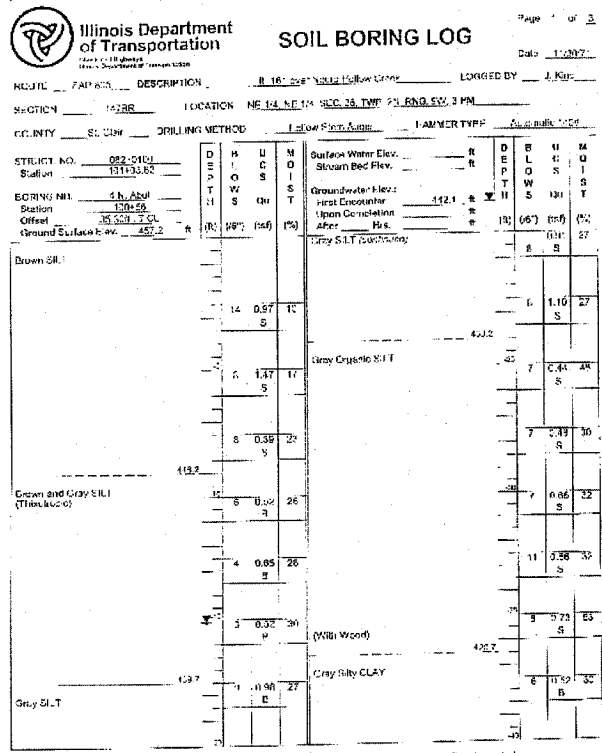
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer). The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T228). DSS, from 137 (Rev. 5-79)



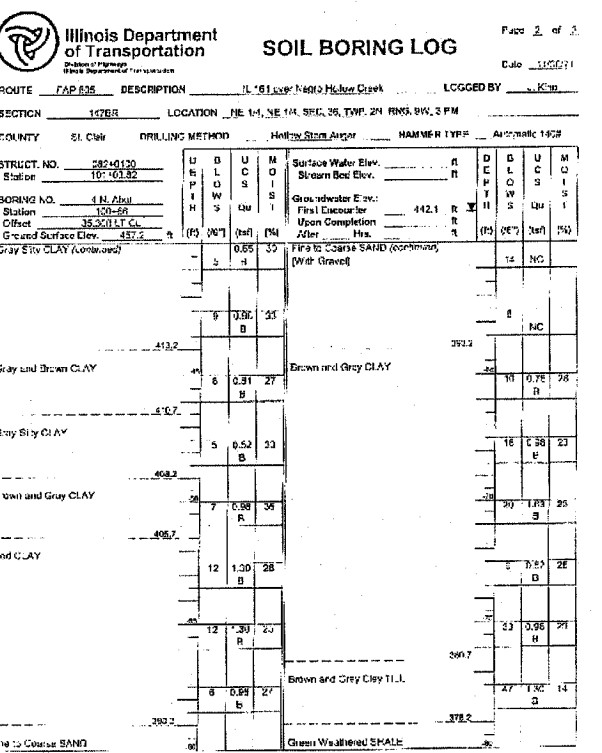
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer). The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T228). DSS, from 31 (Rev. 8-86)



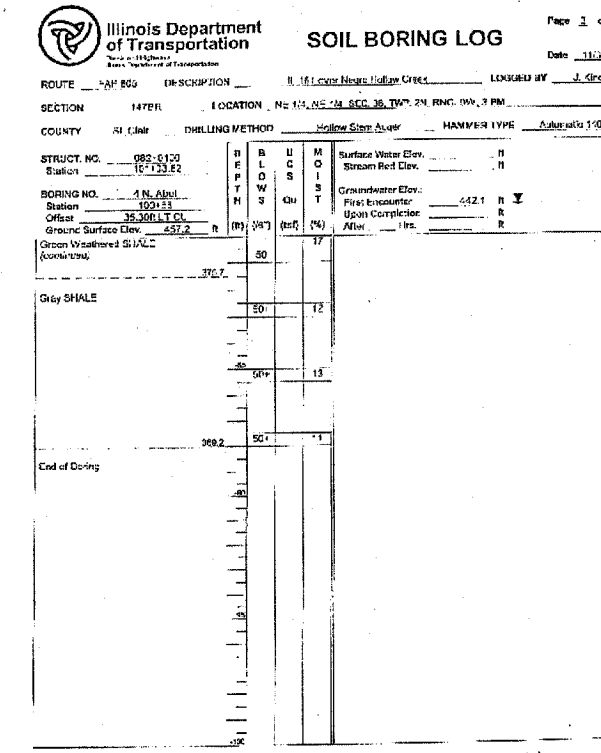
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer). The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T228). DSS, from 137 (Rev. 8-89)



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 T228). DSS, from 137 (Rev. 8-79)



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 T228). DSS, from 137 (Rev. 8-79)



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 T228). DSS, from 137 (Rev. 8-79)

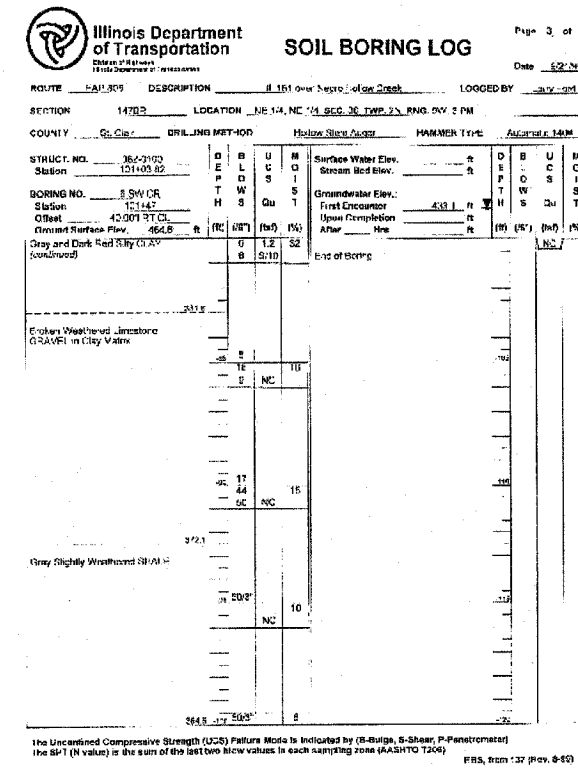
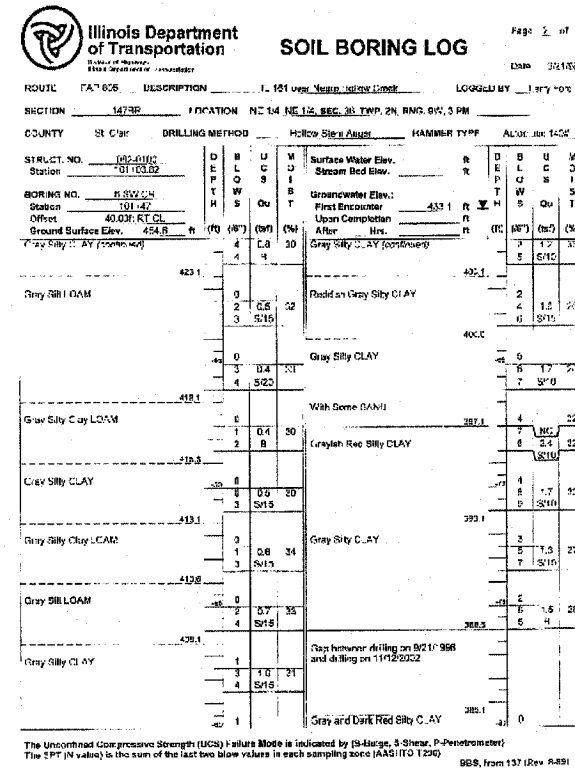
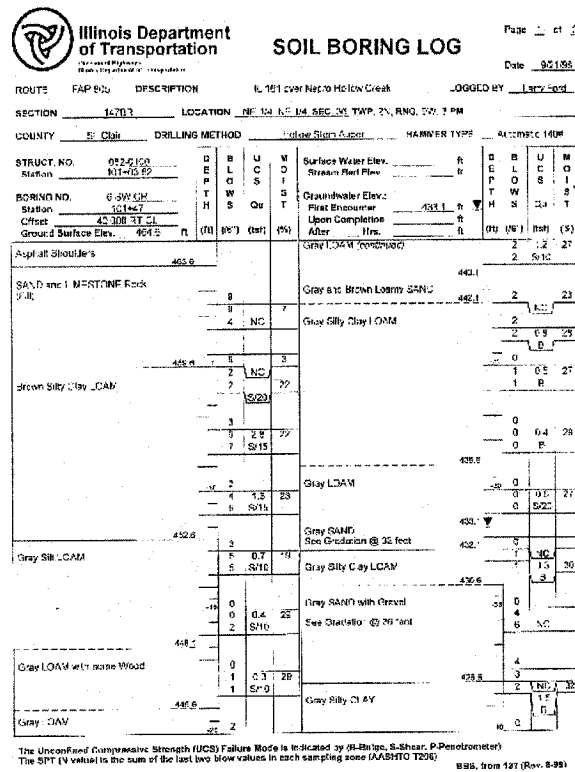
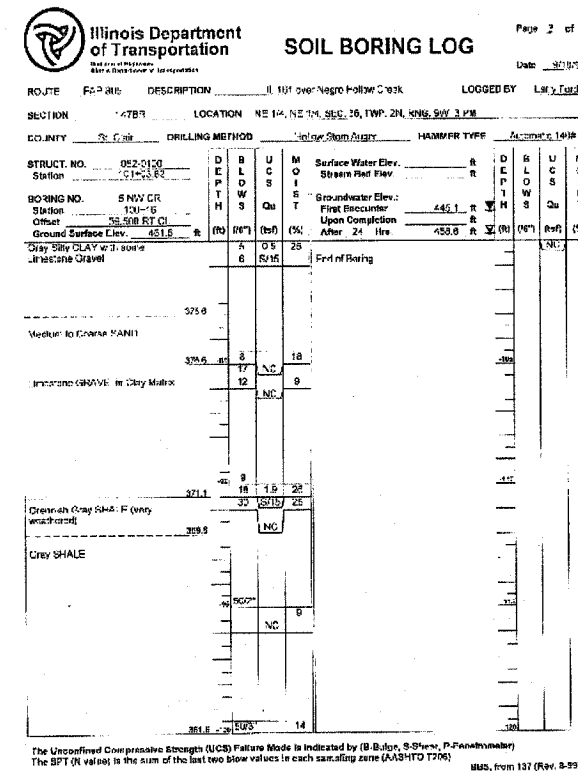
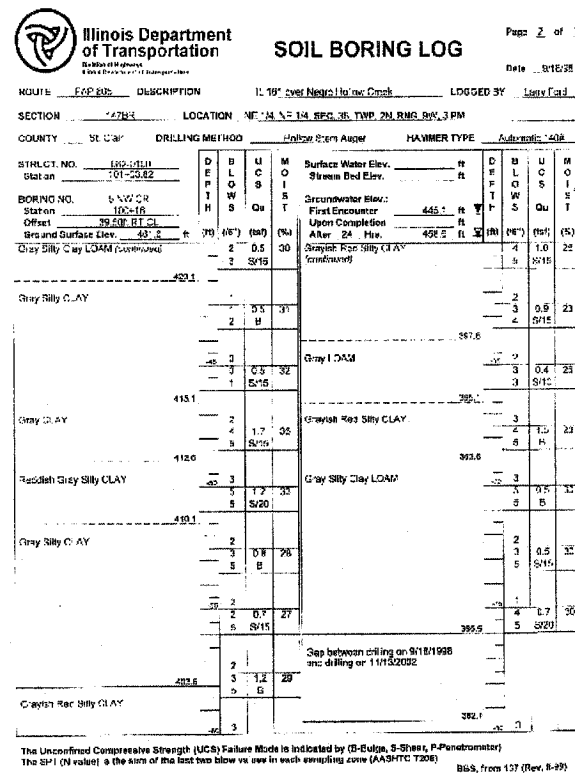
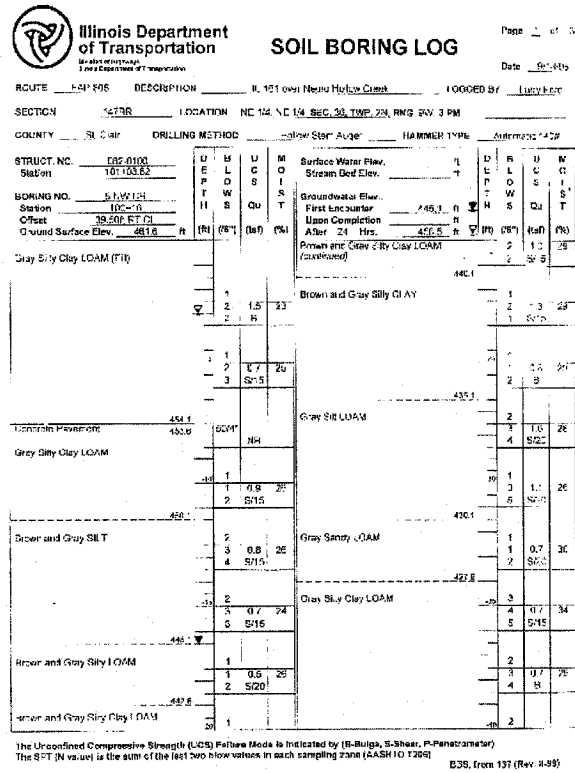
DESIGNED	ALN
CHECKED	BWP
DRAWN	DEH
CHECKED	ALN

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

BORING LOGS

FILE LOCATION: #FILES#
DATE: #DATE#
TIME: #TIME#
PLOTTED BY: #USER#

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



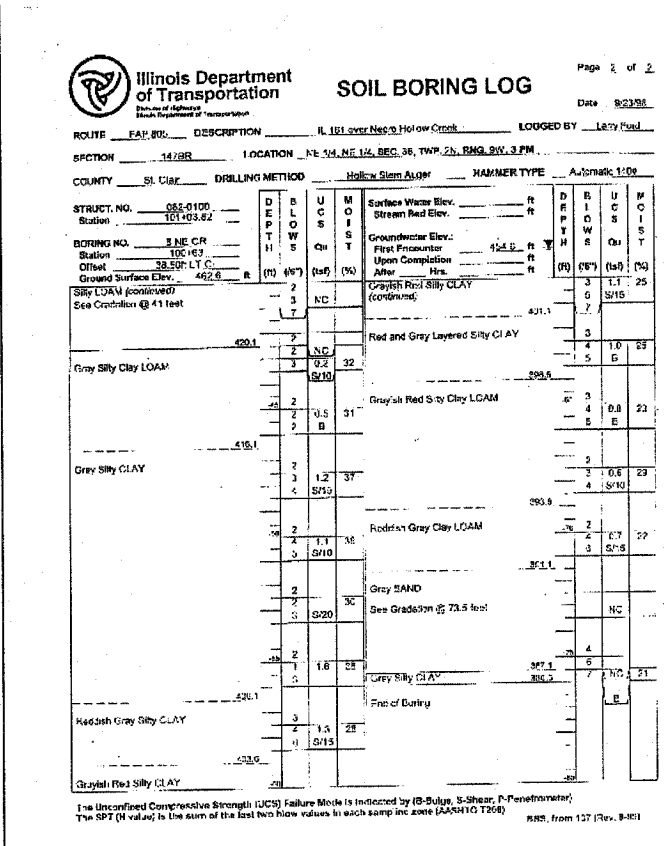
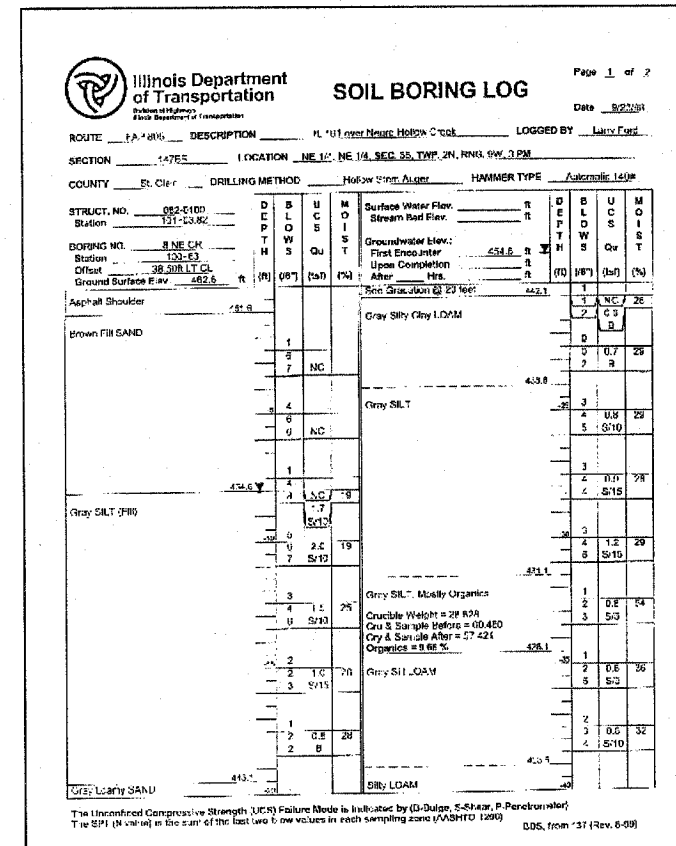
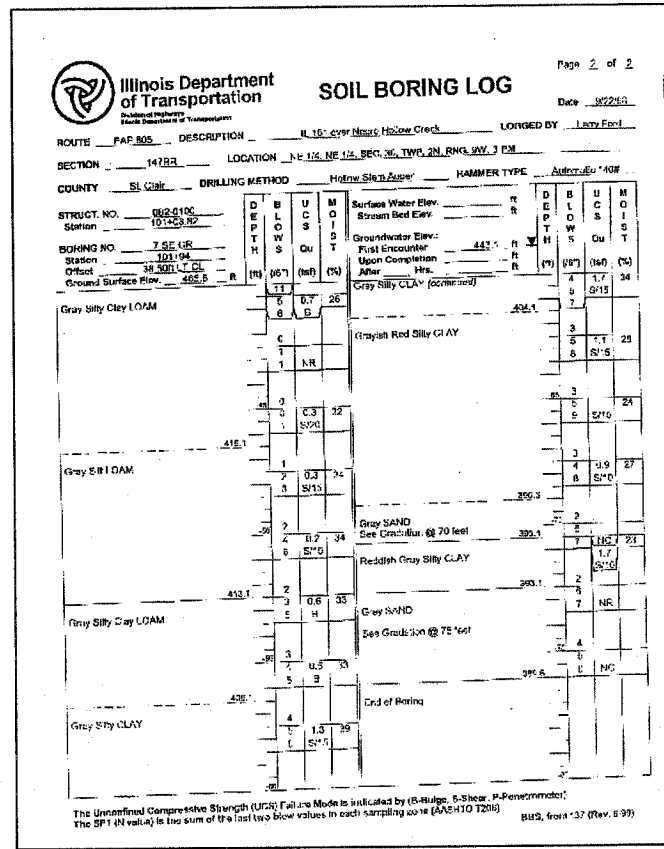
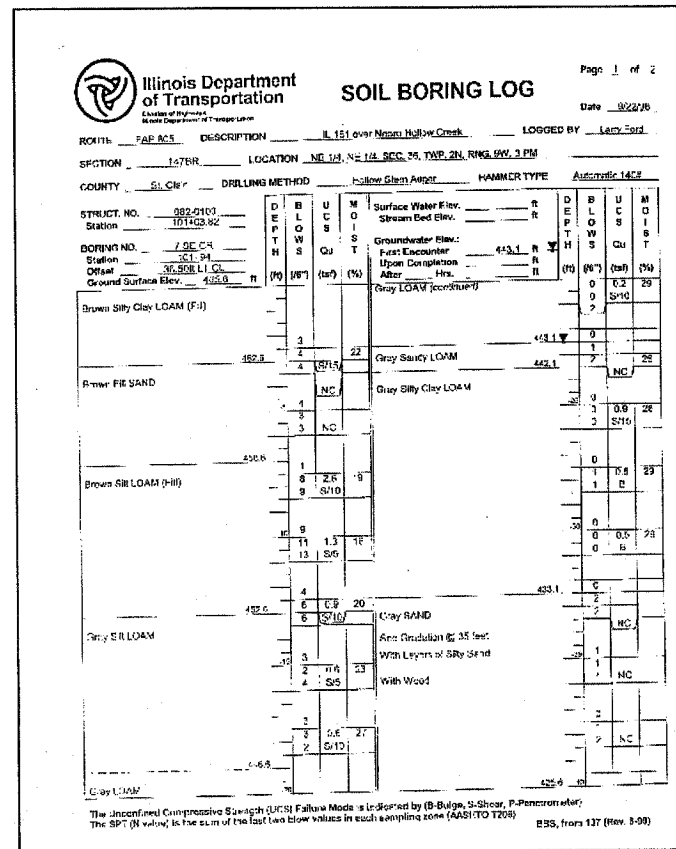
FILE LOCATION: #FILES DATE: #DATES TIME: #TIMES PLOTTED BY: #USERS

DESIGNED	ALN
CHECKED	BWP
DRAWN	DEH
CHECKED	ALN

**ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)**

BORING LOGS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGNED ALN
CHECKED BWP
DRAWN DEH
CHECKED ALN

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

FILE LOCATION: \$FILES DATE: \$DATE TIME: \$TIME PLOTTED BY: \$USER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 24 24 SHEETS
FAP 805	147BR	ST. CLAIR	52	44	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

Contract No. 76393

Lab# 02025
Date: 05-16-2003

Lab# 02025
Date: 05-16-2003

SHELBY TUBE TEST DATA
Route FAP-805 Section 147BR County St. Clair
Boring 9-ST Station 102+00 Offset 38 FL Lt. Cl. Structure # 082-0100 (Existing)
Ground Surface Elevation 465.3 Job No. D-98-123-00

SHELBY TUBE TEST DATA
Route FAP-805 Section 147BR County St. Clair
Boring 9-ST Station 102+00 Offset 38 FL Lt. Cl. Structure # 082-0100 (Existing)
Ground Surface Elevation 465.3 Job No. D-98-123-00

Specimen	Depth (ft)	Compressive Strength (tsf)	Water %	Wet Weight lbs./cu. ft.	Description
	0				Not Sampled - Fill Material
	1				↓
	1				↓
	12.0				↓
1-1	12.33		17.7		Brown Silt w/isolated SIC Pockets
1-2	12.96	2.03	19.5	123.6	Brown SIL w/SIC Pockets
1-3	13.58	0.88	20.8	117.5	Same
1-4	14.21	0.76	18.9	116.1	Brown SIL w/Silt Lenses and Pockets
2-1	14.75		21.6		Same
2-2	15.38	0.32	23.2	108.5	↓
2-3	16.00	0.47	25.0	113.4	↓
2-4	16.63	0.71	26.7	116.5	Same
3-1	17.25		24.8		Gray SIL w/Sand Pockets and Lenses
3-2	17.88	CONS	24.2	117.5	Gray SIL w/Sand Pockets
3-3	18.50	TX	25.7	117.8	Alternating Fine Layer of Gray SIL, Loam and Tan Sand
3-4	19.13	0.41	32.2	113.0	Gray SIL w/Silt Lenses, Organic Pockets and Wood Chips
	20.13				No Sample
	20.75				↓
	21.38				↓
	22.00				↓
4-1	22.50	0.43	23.5	120.7	Gray SIL w/Large Tan Sil Pockets
4-2	23.13	0.74	28.1	121.8	Greenish-Gray Clayey SIL
4-3	23.75	TX	27.1	123.7	Same
4-4	24.50				No Recovery
5-1	24.92		28.0		Greenish-Gray Clayey SIL
5-2	25.54	TX	27.6	120.9	Same
5-3	26.17	CONS	27.7	122.6	Gray Clayey SIL
5-4	26.79		24.4		Greenish-Gray Clayey SIL

Page 1 of 4

Specimen	Depth (ft)	Compressive Strength (tsf)	Water %	Wet Weight lbs./cu. ft.	Description
	27.63				No Sample
	28.25				↓
	28.88				↓
	29.50				↓
	30.13				↓
	30.75				↓
	31.38				↓
	32.00				↓
6-1	32.33		26.3		Gray SIL w/Silt Lenses
6-2	32.96				No Recovery
6-3	33.58				↓
6-4	34.50				↓
7-1	34.83		30.5		Gray Loam w/Sand and Organic Pockets
7-2	35.46	CONS	24.9	119.8	Alternating Layers of Sil and SIL
7-3	36.08	0.17	27.7	118.7	Same, Plus Organic Seams and Pockets
7-4	36.71	TX	18.0	113.2	Gray Sil w/Loam Layer
	37.63				No Sample
	38.25				↓
	38.88				↓
	39.50				↓
8-1	39.83		27.4		Gray Clayey Silt w/Organic Pockets
8-2	40.46	0.84	29.7	116.0	Same
8-3	41.08	0.76	27.7	118.7	Same
8-4	41.71	1.02	27.9	120.9	Same
9-1	42.82	0.77	19.4	125.7	Gray Silt w/Small Gravel
9-2	43.25	1.23	31.6	108.8	Gray-Brown Silt w/SIC Seams and Organic Pockets
9-3	43.88	1.27	28.7	119.2	Gray SIL
9-4	44.50				No Recovery

Page 2 of 4

Lab# 02025
Date: 05-16-2003

Lab# 02025
Date: 05-16-2003

SHELBY TUBE TEST DATA
Route FAP-805 Section 147BR County St. Clair
Boring 9-ST Station 102+00 Offset 38 FL Lt. Cl. Structure # 082-0100 (Existing)
Ground Surface Elevation 465.3 Job No. D-98-123-00

SHELBY TUBE TEST DATA
Route FAP-805 Section 147BR County St. Clair
Boring 9-ST Station 102+00 Offset 38 FL Lt. Cl. Structure # 082-0100 (Existing)
Ground Surface Elevation 465.3 Job No. D-98-123-00

Specimen	Depth (ft)	Compressive Strength (tsf)	Water %	Wet Weight lbs./cu. ft.	Description
10-1	44.83		27.3		Gray SIL
10-2	45.46	CONS	29.0	121.0	Gray SIL
10-3	46.08	TX	26.8	123.2	Same
10-4	47.00				No Recovery
11-1	47.62	0.68	26.3	121.5	Gray Silt
11-2	48.25	0.85	25.9	124.9	Same
11-3	48.88	0.67	27.9	122.7	Same
11-4	49.50				No Recovery
12-1	50.12	0.79	27.2	120.1	Gray-Brown SIL
12-2	50.75	CONS	30.0	120.7	Gray SIL w/Silt Lenses - Organic Specks
12-3	51.38	TX	28.3	120.5	Gray SIL w/SIC Seams and Pockets
12-4	52.00				No Recovery
13-1	52.33		28.0		Gray Silt w/Sand Lenses and Organic Seams
13-2	52.96	1.00	27.8	118.3	Gray Silt w/isolated SIC Pockets
13-3	53.58	0.98	27.2	113.3	Gray Silt w/SIC Seams
13-4	54.21	1.09	28.0	118.4	Gray Silt
14-1	55.12	TX	26.9	121.9	Brown SIL, Top 1/4, to Gray SIL w/SIC Seams
14-2	55.75	TX	28.8	121.1	Gray and Red Clay, Top 2/3, to All Fine Layers of Silt, SIL, and SIC
14-3	56.38	TX	27.6	121.1	Gray SIL w/SIC Seams
14-4	57.00				No Recovery
15-1	57.33		32.3		Brown Silt w/Calcareous Specks
15-2	57.96	TX	28.6	119.6	Brown SIL, Top 1/2, to Gray SIL
15-3	58.58	CONS	27.8	122.4	Blue-Gray Clay
15-4	59.50				No Recovery
16-1	59.83		35.7		Blue-Gray Clay w/Brown SIL Pockets
16-2	60.46	TX	33.6	116.7	Blue-Gray Clay w/Silt Lenses Lower 1/2
16-3	61.08	1.10	34.5	110.7	Reddish-Gray Clay w/Silt Seams and Pockets
16-4	62.00				No Recovery

Page 3 of 4

Specimen	Depth (ft)	Compressive Strength (tsf)	Water %	Wet Weight lbs./cu. ft.	Description
U.U. TRIAXIAL ANALYSIS					
		c(psf)	ø"		
3-3	18.50	600	12		
4-3	23.75	800	8		
5-2	25.54	600	5		
7-4	36.71	600	24		
10-3	46.08	600	6		
12-3	51.38	1200	6		
14-1	55.12	800	3		
14-2	55.75	1400	2		
14-3	56.38	1200	11		
15-2	57.96	800	3		
16-2	60.46	1800	1		

Page 4 of 4

DESIGNED	ALN
CHECKED	BWP
DRAWN	DEH
CHECKED	ALN

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

BORING LOGS

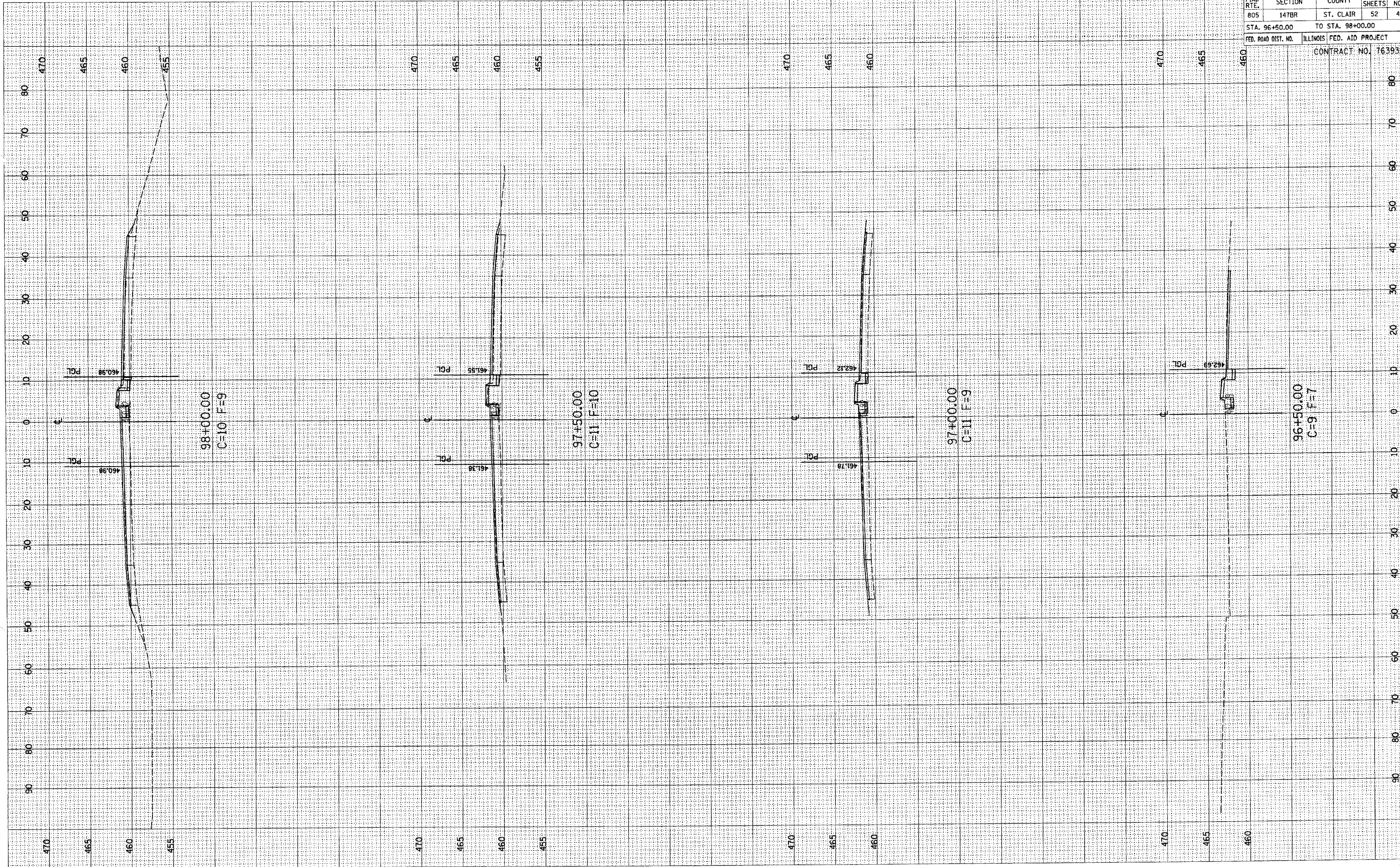
FILE LOCATION: \$FILE\$ DATE: \$DATE\$ TIME: \$TIME\$ PLOTTED BY: \$USER\$

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

ORIGINAL SURVEY
 SURVEYED PLOTTED
 NOTE BOOK TEMPLATE
 AREAS CHECKED
 NO.

BY _____ DATE _____

BY _____ DATE _____

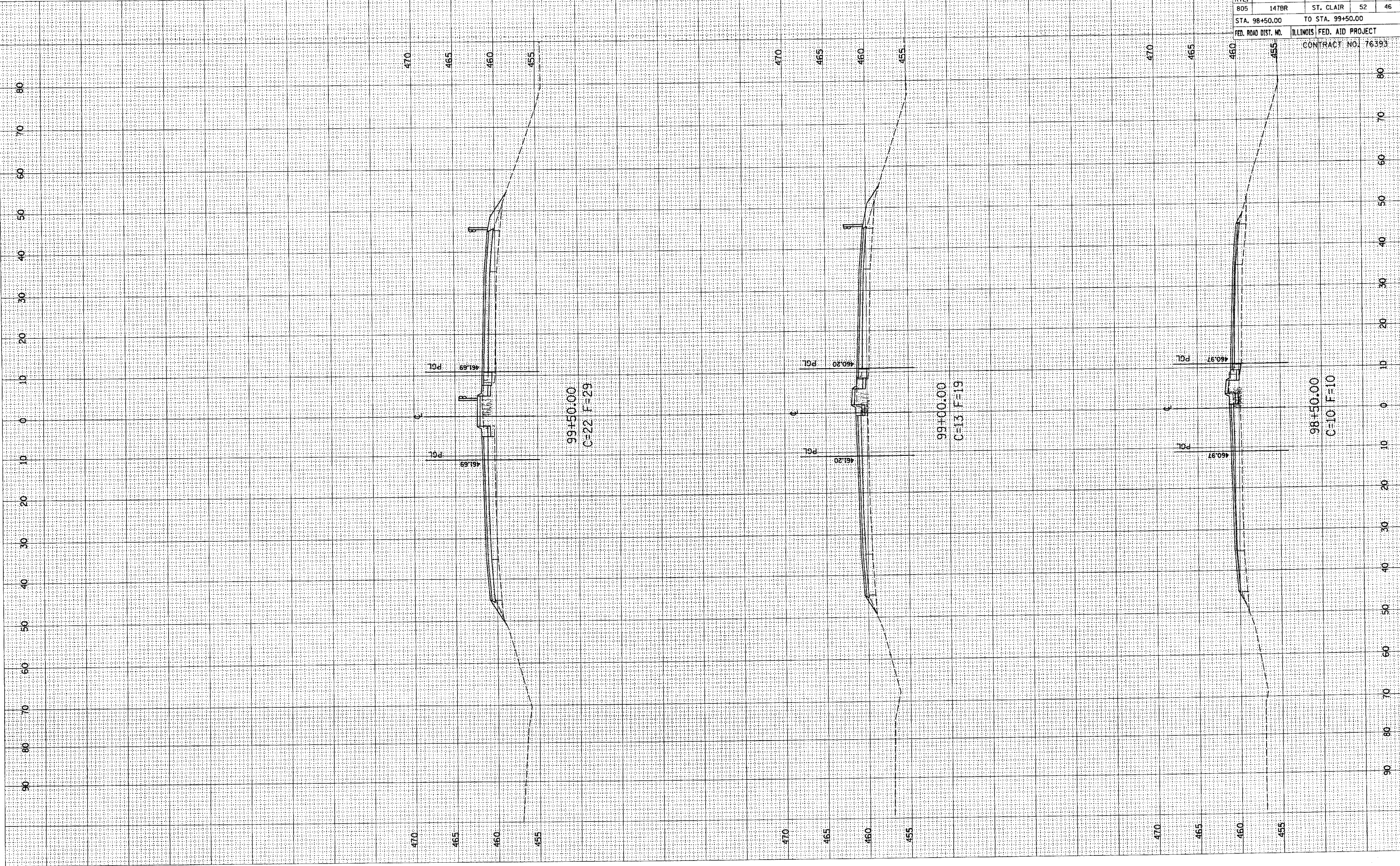


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	45
STA. 96+50.00		TO STA. 98+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
				CONTRACT NO. 76393

FINAL SURVEY
 * SURVEY
 FROM
 NOTE BOOK
 AREAS CHECKED
 NO.

ORIGINAL SURVEY
 PLOTTED
 TEMPLATE
 NOTE BOOK
 AREAS CHECKED
 NO.

BY _____ DATE _____

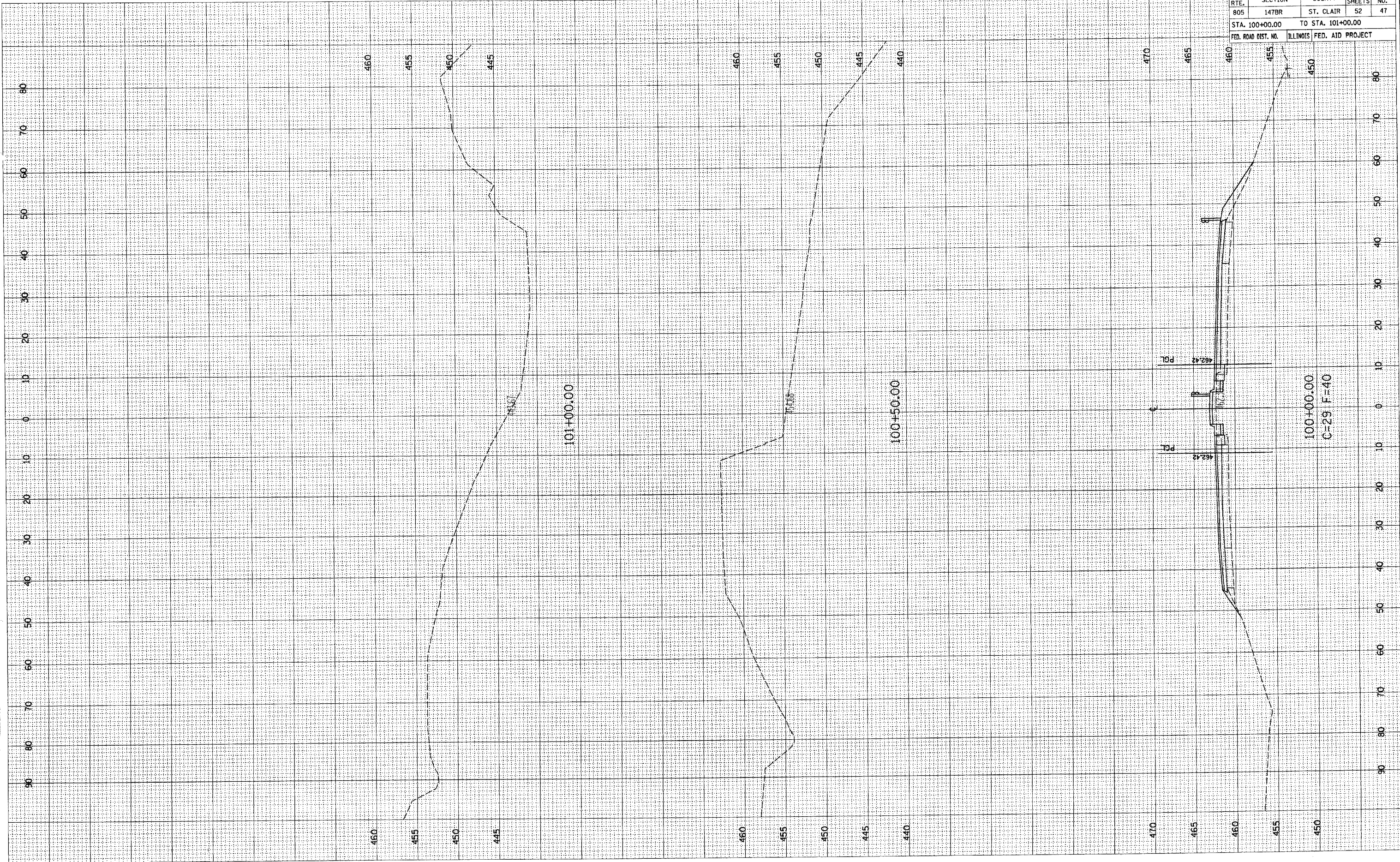


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	46
STA. 98+50.00		TO STA. 99+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		CONTRACT NO. 76393

FINAL SURVEY
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 TEMPLATE _____
 AREAS CHECKED _____
 BY _____
 DATE _____

ORIGINAL SURVEY
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 TEMPLATE _____
 AREAS CHECKED _____
 BY _____
 DATE _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	47
STA. 100+00.00		TO STA. 101+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



100+00.00
 C-29 F=40

PCL

PCL

462.42

462.42

470

465

460

455

450

80

70

60

50

40

30

20

10

0

10

20

30

40

50

60

70

80

460

455

450

445

101+00.00

460

455

450

445

440

100+50.00

460

455

450

445

460

455

450

445

440

470

465

460

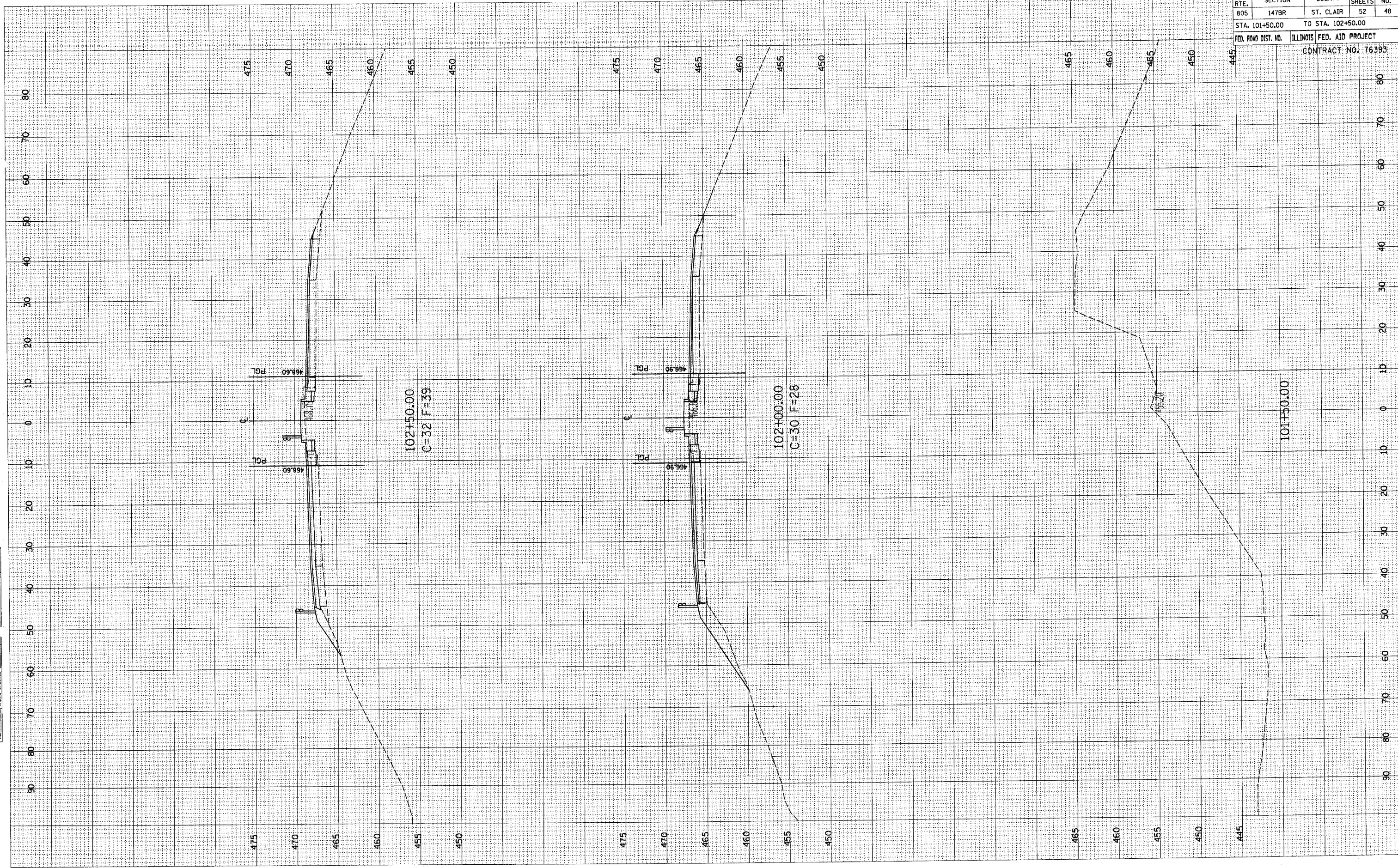
455

450

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

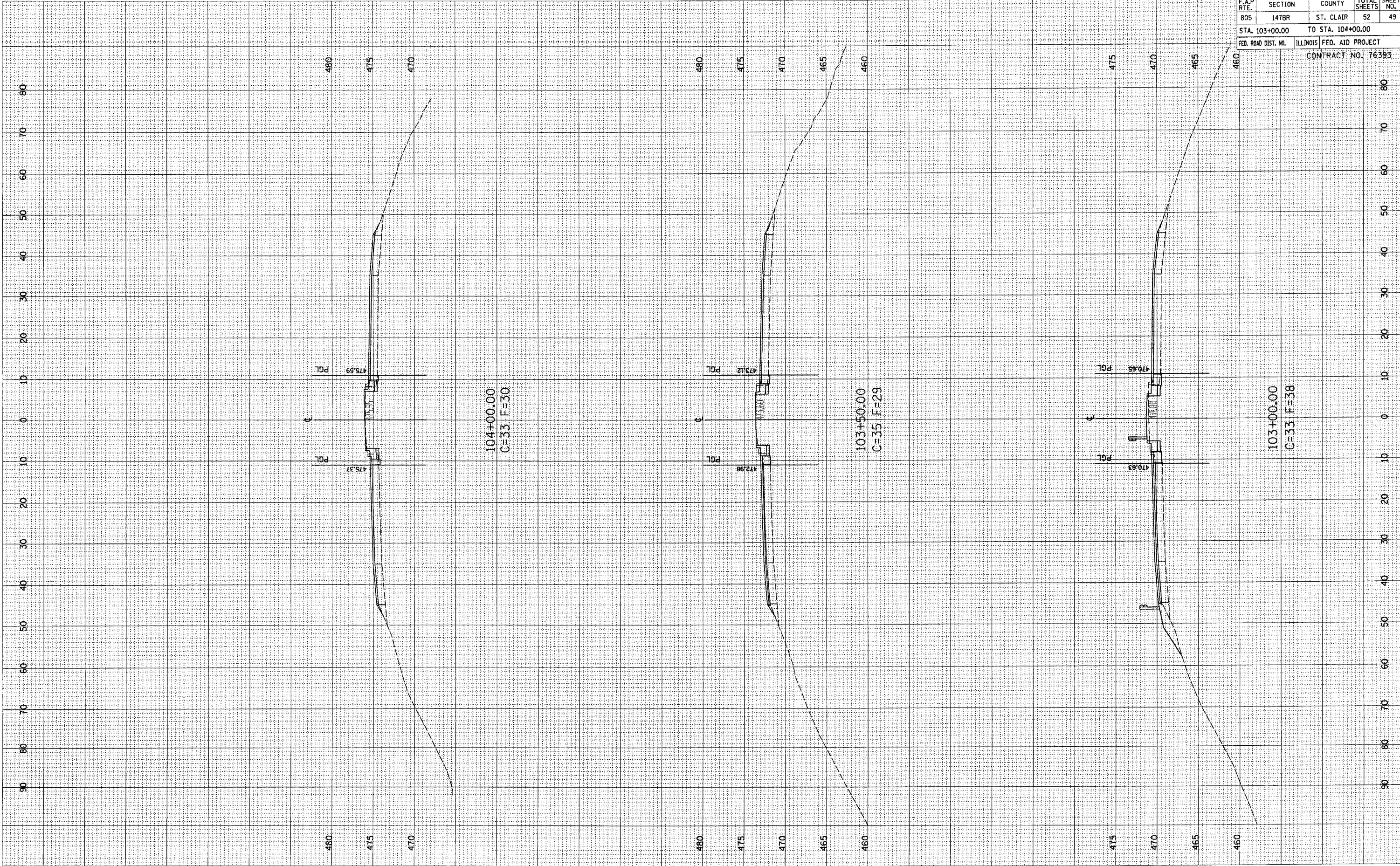
BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 ORIGINAL SURVEY NOTE BOOK NO. _____
 TEMPLATE _____
 AREAS CHECKED _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	48
STA. 101+50.00		TO STA. 102+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 76393				



DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____



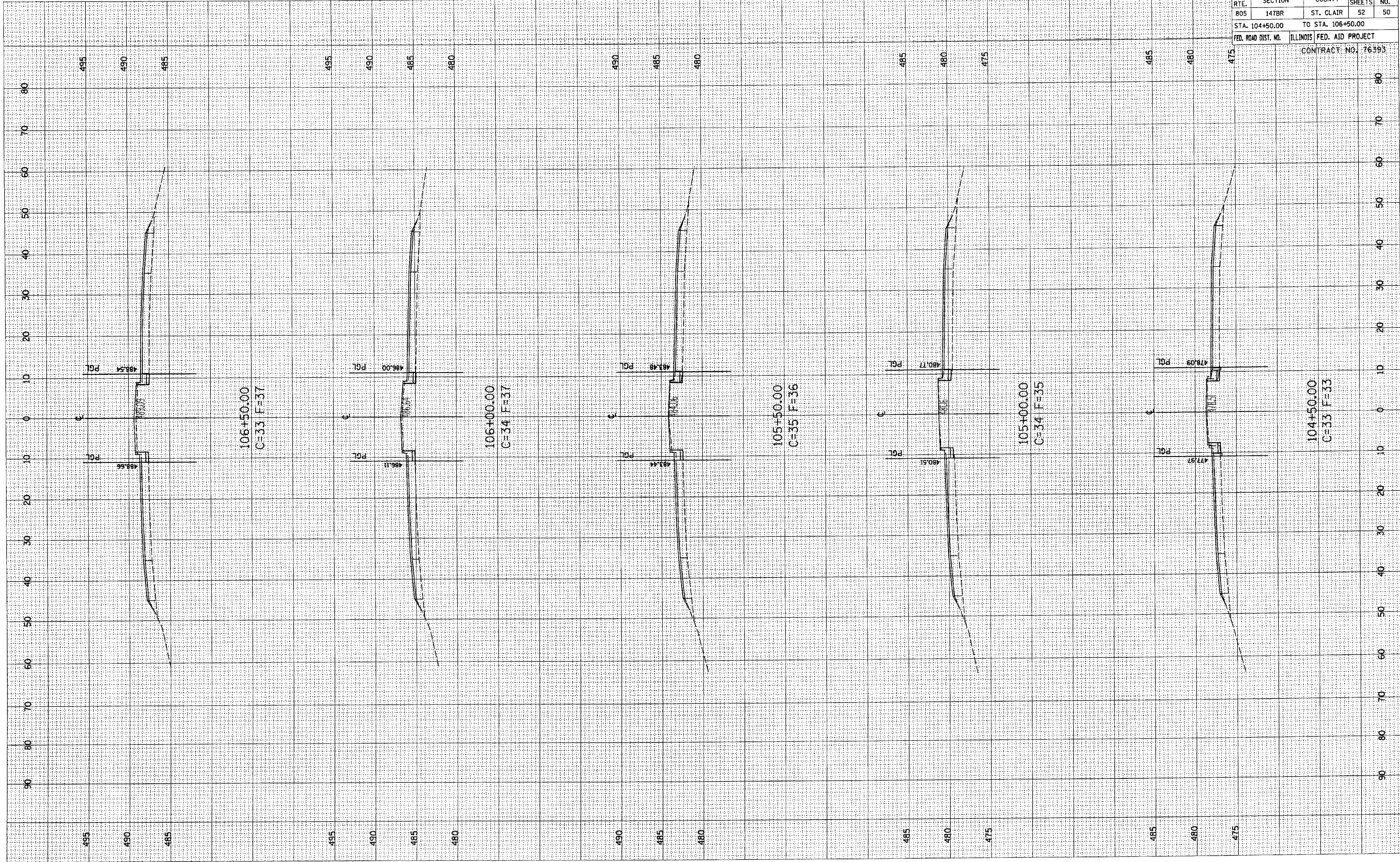
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	49
STA. 103+00.00		TO STA. 104+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 76393				

FINAL SURVEY SURVEYED SURVEYED
 NOTE BOOK PLOTTED
 NO. AREAS CHECKED

ORIGINAL SURVEY SURVEYED SURVEYED
 NOTE BOOK PLOTTED
 NO. AREAS CHECKED

BY _____ DATE _____

BY _____ DATE _____

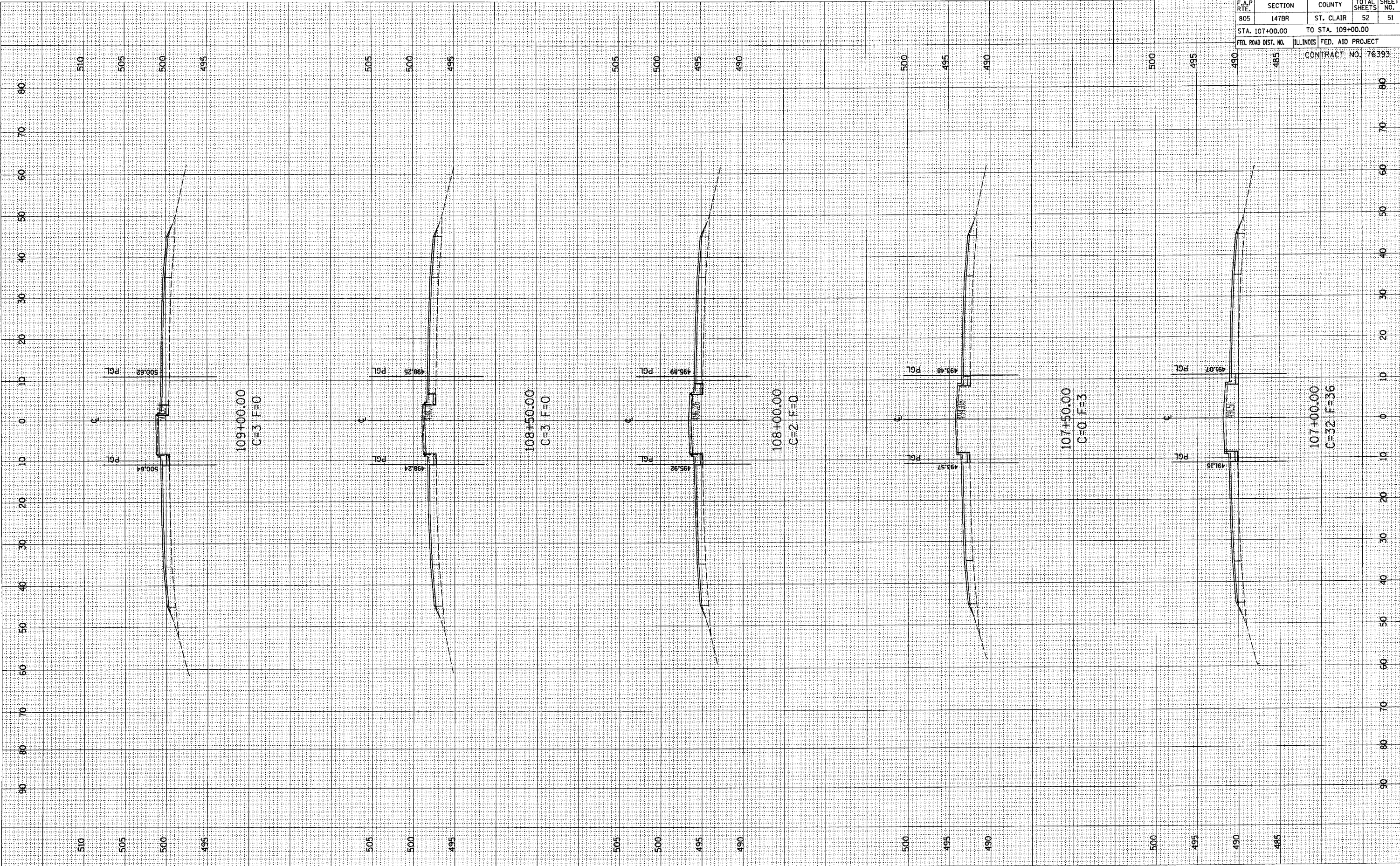


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	50
STA. 104+50.00		TO STA. 106+50.00		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT
CONTRACT NO. 76393				

FINAL SURVEY
 SURVEYED PLOTTED
 NOTE BOOK AREAS
 AREAS CHECKED

ORIGINAL SURVEY
 SURVEYED PLOTTED
 NOTE BOOK AREAS
 AREAS CHECKED

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	51
STA. 107+00.00		TO STA. 109+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 76393				

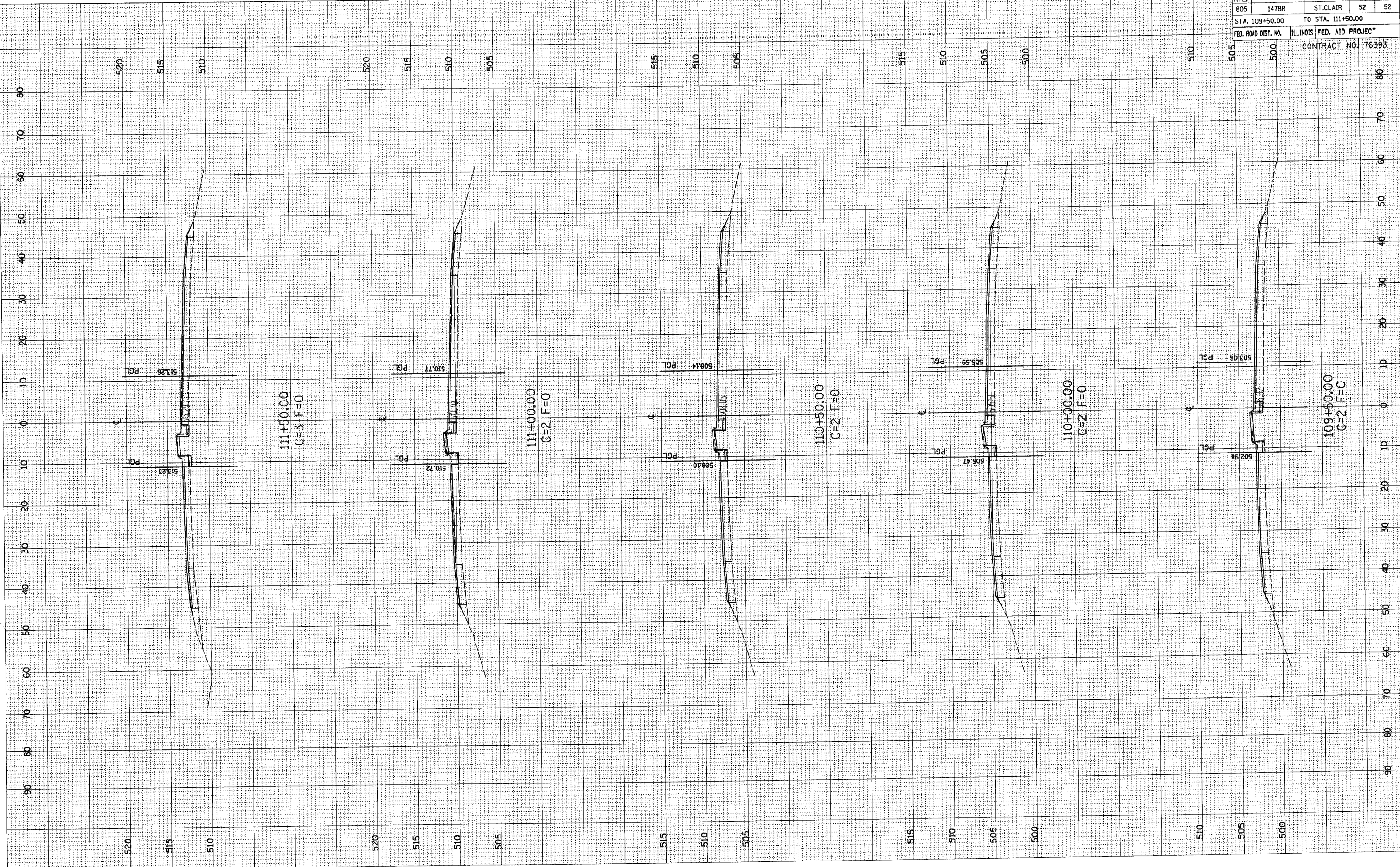


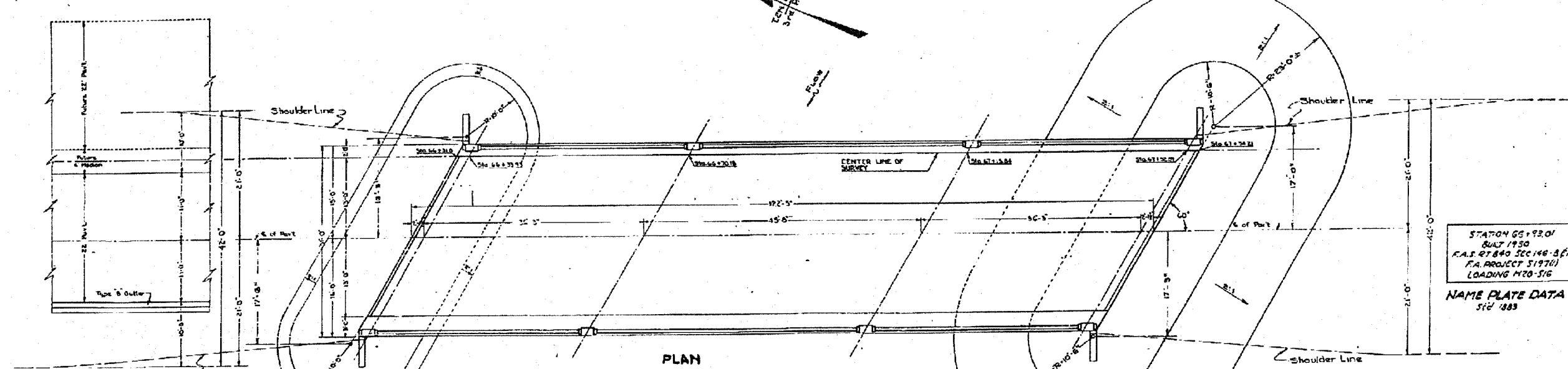
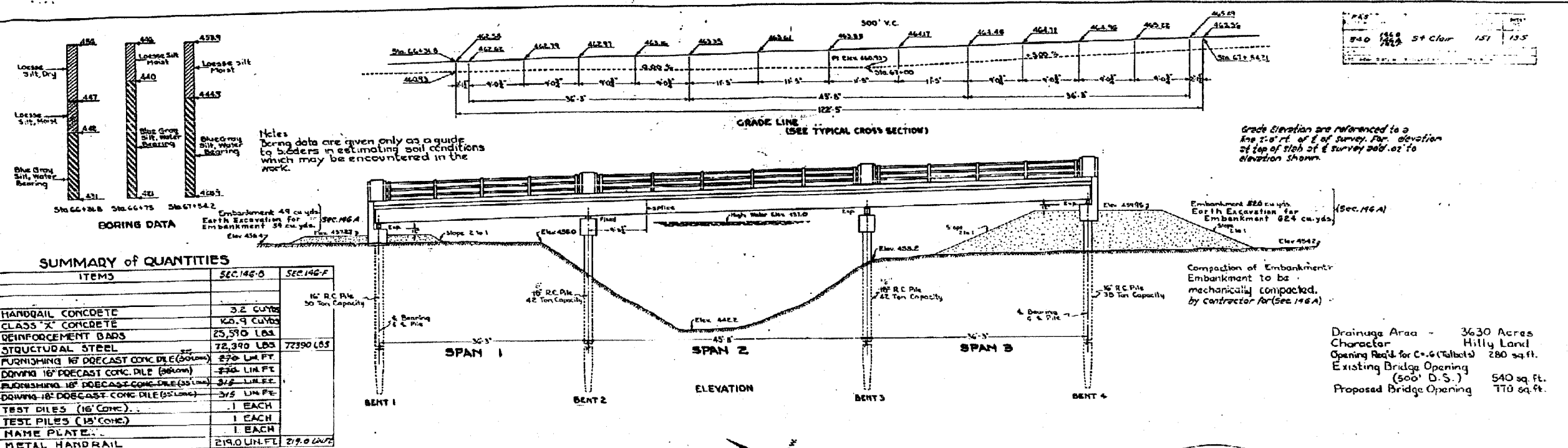
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	147BR	ST. CLAIR	52	52
STA. 109+50.00		TO STA. 111+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76393

ORIGINAL SURVEY
 SURVEYED
 PLOTTED
 NOTE BOOK
 AREAS CHECKED

ORIGINAL SURVEY
 SURVEYED
 PLOTTED
 NOTE BOOK
 AREAS CHECKED





GENERAL NOTES

- All rockers, rollers, bearing plates, lead plates and anchor bolts, shall be furnished, painted, and set in accordance with Art. 543(d) of the Specifications.
- The Contractor shall drive two (2) test piles as directed by the Engineer before casting the remainder of the piling. Test piles shall be driven in permanent location.
- Rivet 3/4" - Open holes 1/16" unless otherwise noted.
- Bearing Plates shall be structural steel.
- Structural steel and metal handrail shall be given one coat of red lead paint and two field coats of aluminum paint. Paint to be furnished by the Contractor, involved.
- Steel surfaces, in contact with concrete and contact

DESIGN DATA

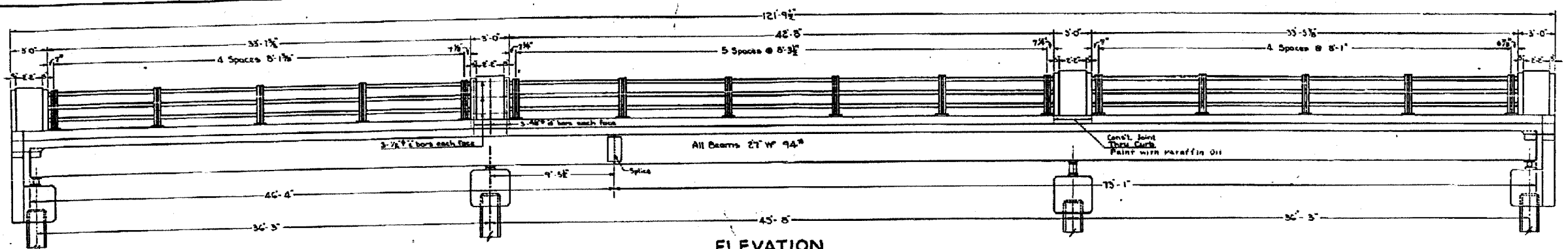
- $f_s = 18,000 \text{ psi}$ (Struct. Steel)
- $f_c = 20,000 \text{ psi}$ (Reinf. Bars)
- $n = 10$
- LOADING H20-S16-44

PROJECT 5-197(1)
NIGGER HOLLOW CREEK BRIDGE
Sta. 66+93.01
SHEET 1 OF 4 SHEETS
ST. CLAIR COUNTY, ILL.

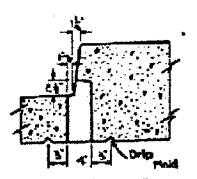
DESIGN DATA

- All splices shall have rivet holes punched 1/16" and reamed to proper size with strippers assembled in their proper positions and with or without diaphragm in place. Leave assembled for inspection.
- Surfaces of shop riveted or welded structural steel, shall not be painted except as noted (See Specifications for inaccessible surfaces).
- Inspection by Illinois Division of Highways before painting.
- All field connections shall be riveted.
- and Railway Bridges.
- Place Anchor bolts before riveting diaphragms at Bents.
- The Contractor shall have the job in continuous operation.

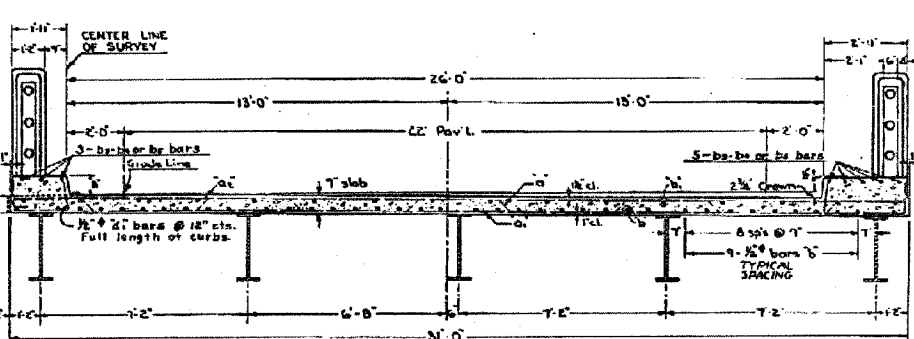
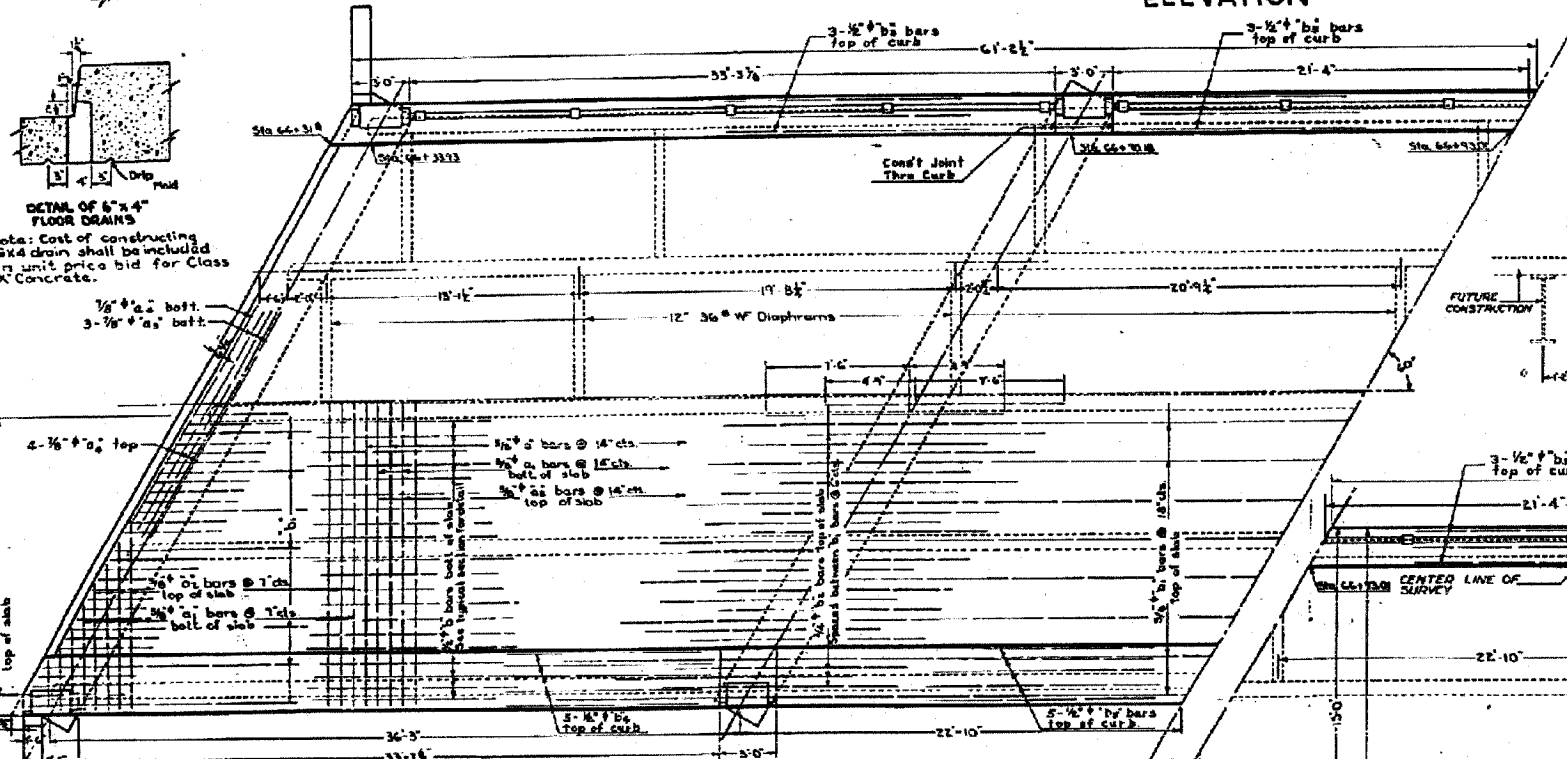
Approved: *[Signature]* 3-27-1953
Checked: *[Signature]*
F.A.S. ROUTE No. 840, SEC. 146-B-E-F



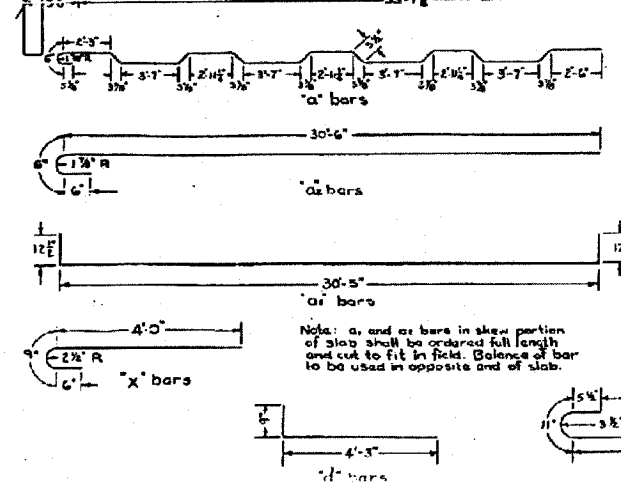
ELEVATION



DETAIL OF 6" x 4" FLOOR DRAINS
 Note: Cost of constructing 6"x4" drain shall be included in unit price bid for Class "X" Concrete.



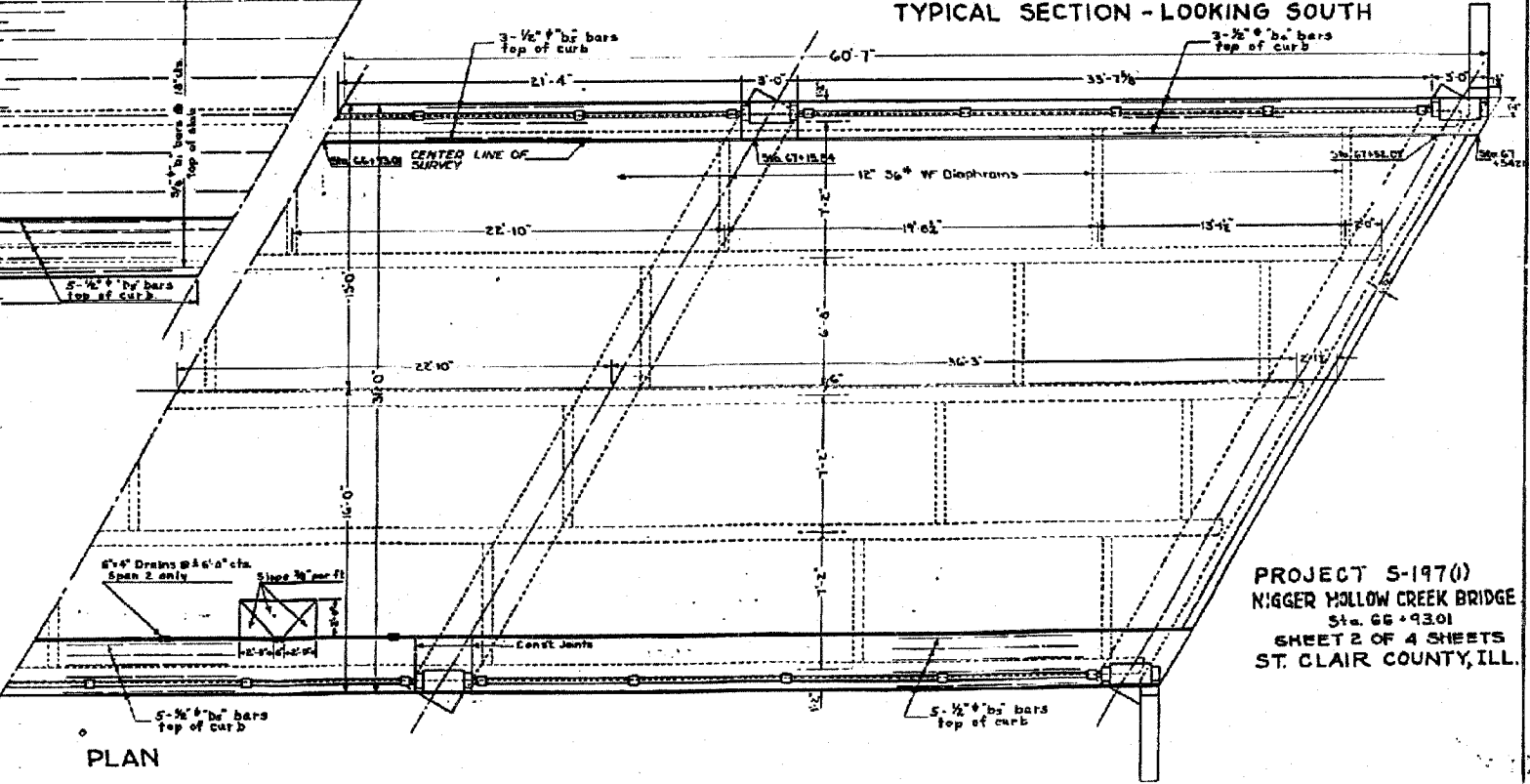
TYPICAL SECTION - LOOKING SOUTH



BILL OF MATERIALS - SUPERSTRUCTURE

BAR	NO	SIZE	LENGTH
a	90	3/8"	32'-0"
a1	119	3/8"	32'-0"
a2	119	3/8"	31'-6"
b	24	1/2"	10'-0"
b1	108	5/8"	25'-9"
b2	80	3/4"	12'-3"
b3	16	3/4"	15'-0"
c	48	3/4"	5'-0"
d	242	1/2"	5'-0"
e	48	1/2"	2'-9"
f	124	3/4"	5'-3"
g	16	1/2"	18'-6"
h	16	1/2"	21'-9"
i	10	1/2"	32'-2"

CLASS "X" CONCRETE 102.8 CU YD
 HANDRAIL CONCRETE 2.2 CU YD
 REINFORCEMENT BARS 21,500 LBS
 STRUCTURAL STEEL 75,390 LBS
 NAME PLATE 1 EACH
 METAL HANDRAIL 2190 LBS FT.

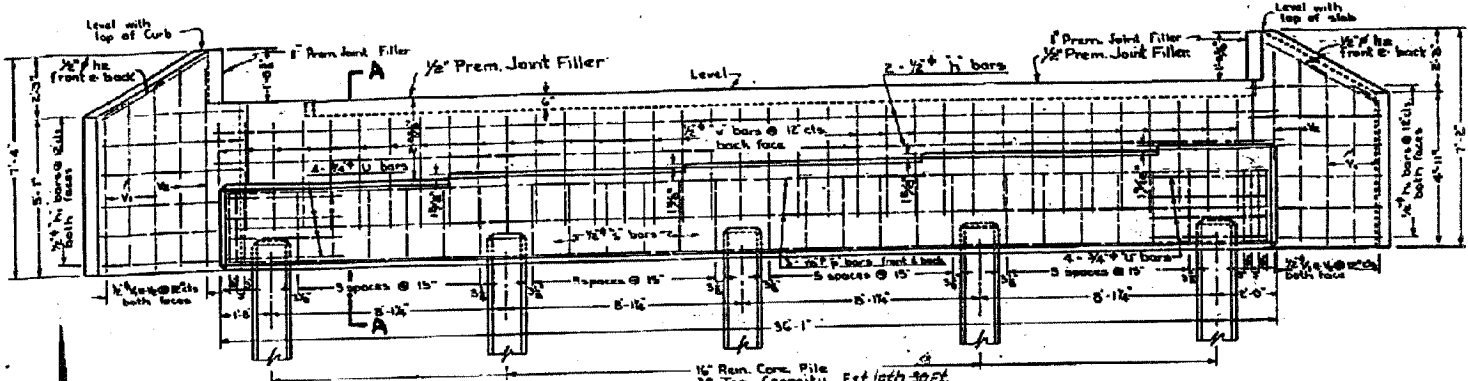


PLAN

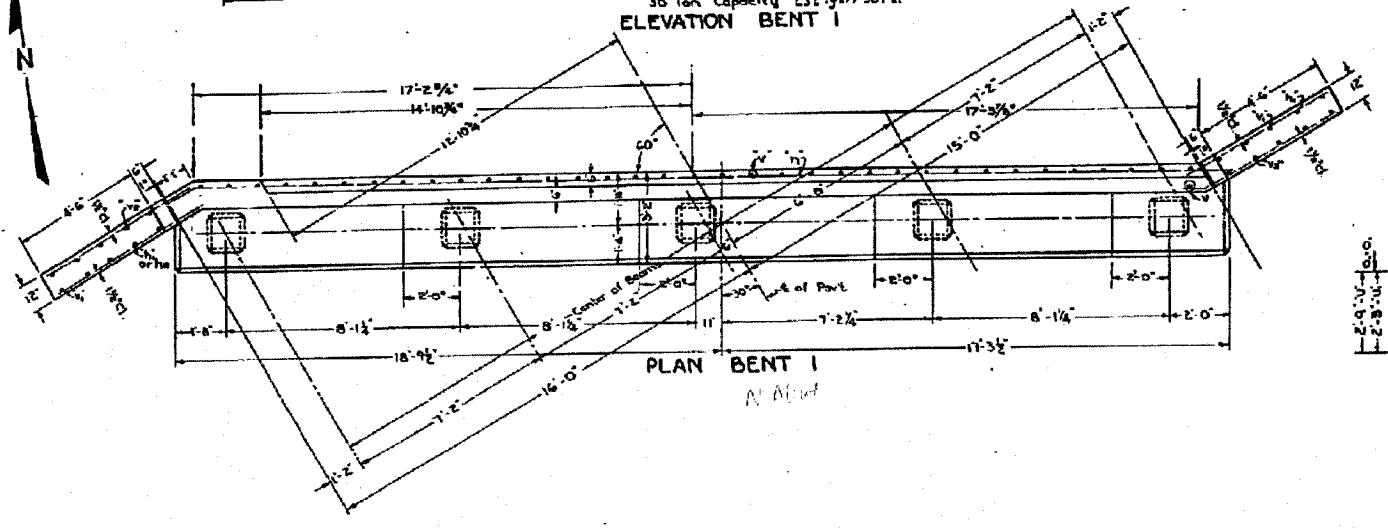
PROJECT S-197(1)
 NIGGER HOLLOW CREEK BRIDGE
 Sta. 66+93.01
 SHEET 2 OF 4 SHEETS
 ST. CLAIR COUNTY, ILL.

F.A.S. ROUTE No. 840, SEC. 146B, ILL.

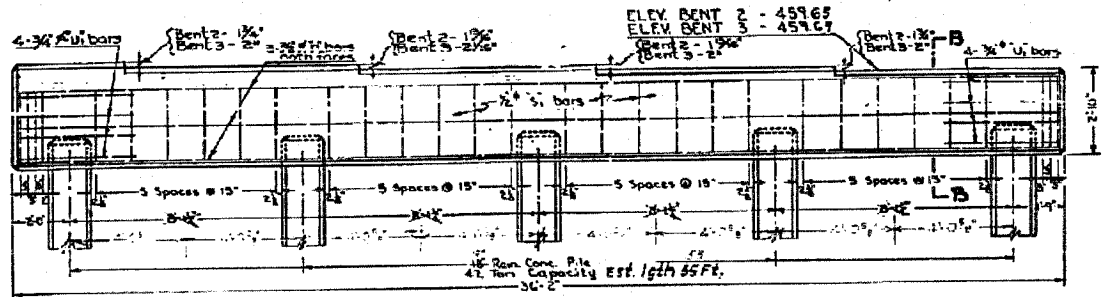
DATE	BY	CHKD	APP'D
1968	JCF	ST	ST
SHEET NO. 1 OF 4 SHEETS			



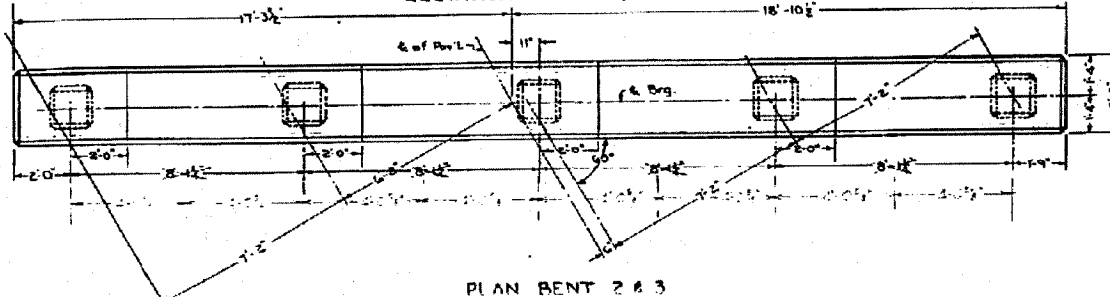
ELEVATION BENT 1



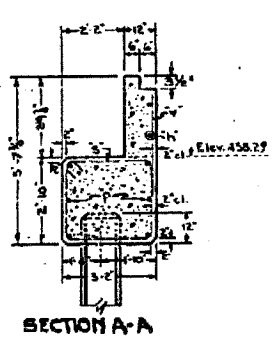
PLAN BENT 1



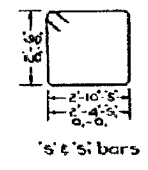
ELEVATION BENT 2 & 3



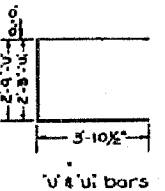
PLAN BENT 2 & 3



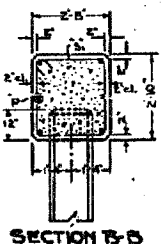
SECTION A-A



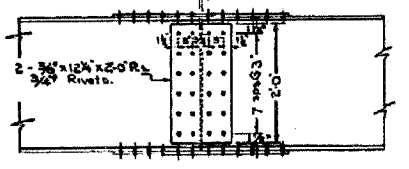
5/8" s/s bars



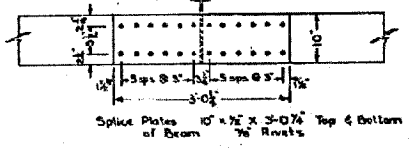
5/4" u/bars



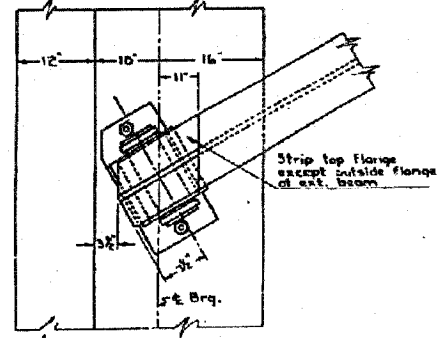
SECTION B-B



DETAIL OF SPLICE



DETAIL OF END BEARINGS

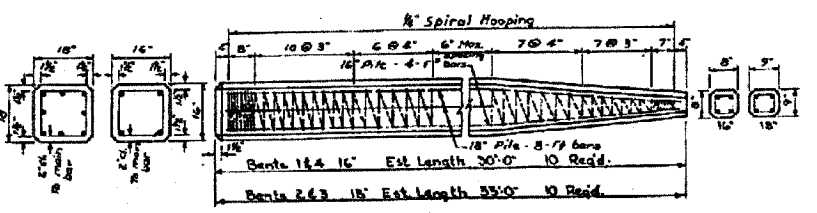


PLAN OF BEARING AT END BENTS

BILL OF MATERIALS - SUB-STRUCTURE

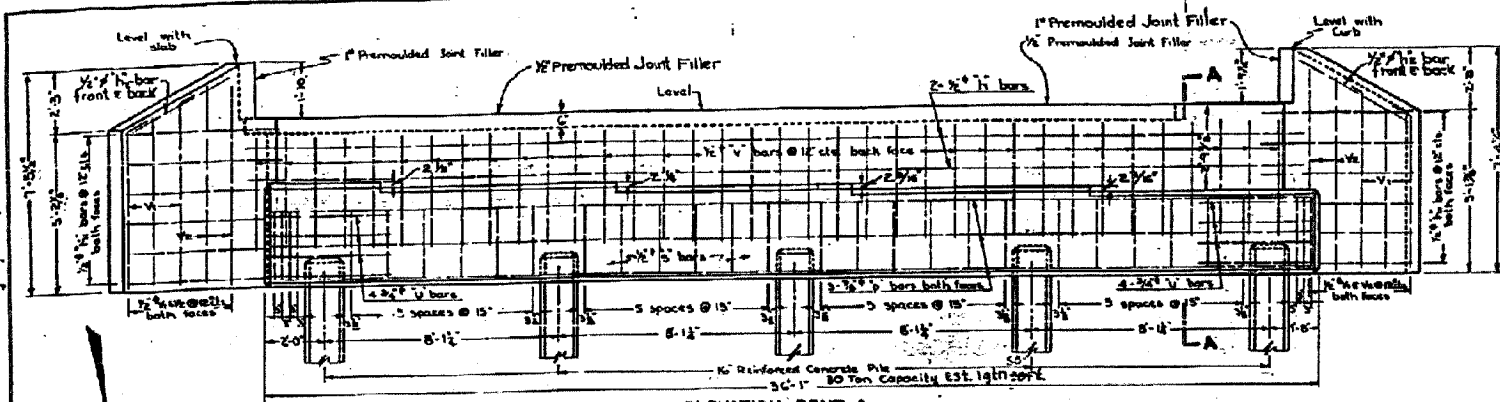
BAR	NO	SIZE	LENGTH
D	4	3/4"	12'-0"
D1	4	3/4"	8'-0"
T1	2	3/4"	5'-0"
P	4	3/4"	19'-6"
S	62	3/4"	11'-9"
S1	62	3/4"	10'-9"
U	16	3/4"	12'-6"
U1	16	3/4"	10'-0"
V	74	3/4"	4'-0"
V1	74	3/4"	5'-0"
V2	16	3/4"	2'-0"

Class X concrete 58.1 Cu Yd
 Reinforcement bars 4010 Lbs
 Furnishing 16 precast conc piles (38' long)
 7' dia. RCC 27.9 Lin Ft.
 Furnishing 10 precast conc piles (33' long)
 24" dia. RCC 24.4 Lin Ft.
 Driving 16 precast conc piles 27.9 Lb Ft.
 Driving 10 precast conc piles 31.5 Lin Ft.
 Treat piles (16" precast conc) 1 Each
 Treat Pile (18" precast conc) 1 Each

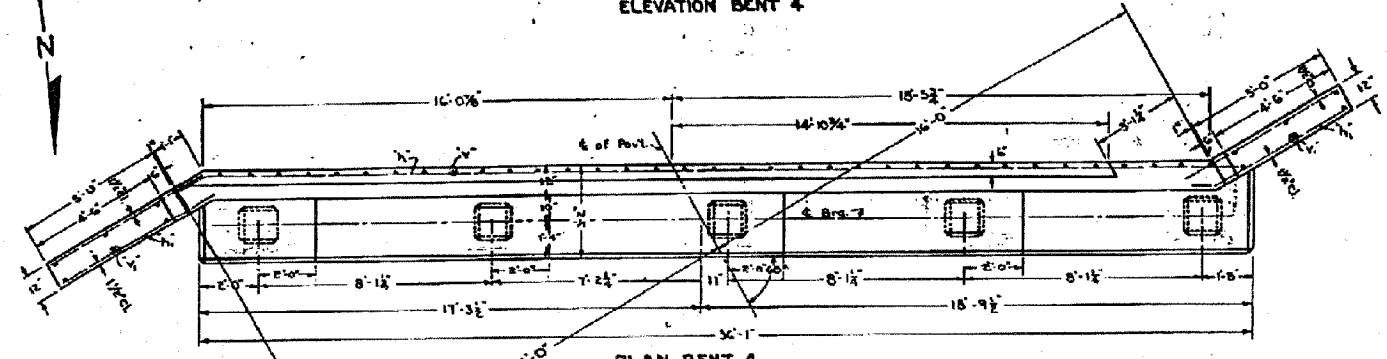


PROJECT S-197(1)
NIGER HOLLOW CREEK BRIDGE
 Sta. 66+93.01
SHEET 3 OF 4 SHEETS
ST. CLAIR COUNTY, ILL.

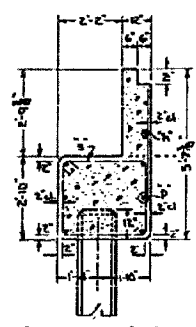
F.A.S. ROUTE No. 840, SEC. 146 B.F.



ELEVATION BENT 4

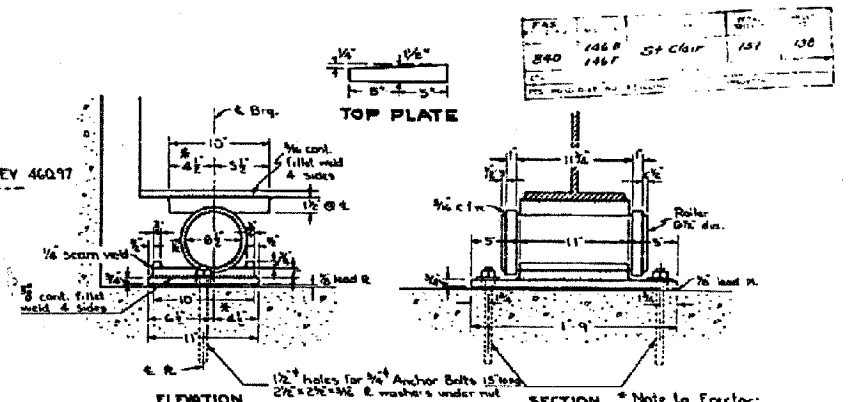


PLAN BENT 4
Scale 1/8\"/>



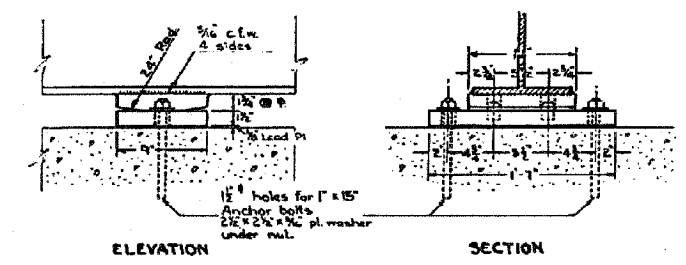
SECTION A-A

Note: Weight of lead plates is included in weight of structural steel; payment for same will be made at the contract unit bid price per pound for Structural Steel. Rollers, plates, etc. also included in Bill of Material as Structural Steel.

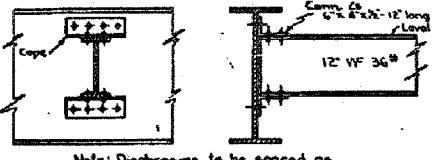


DETAIL OF BEARING BENTS 1 & 4

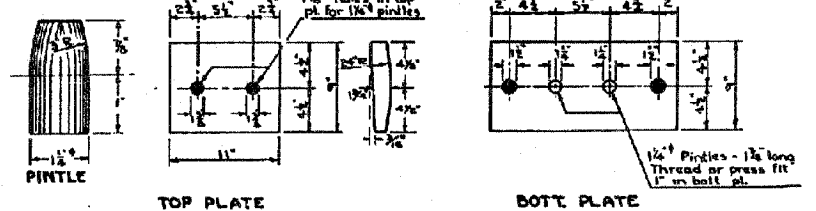
Note to Erector: Increase each dimension by the same amount if abut. has moved or if temp. is over 50° F. Decrease each by the same amount if temp. is below 50° F.



DETAIL OF BEARING BENT 2

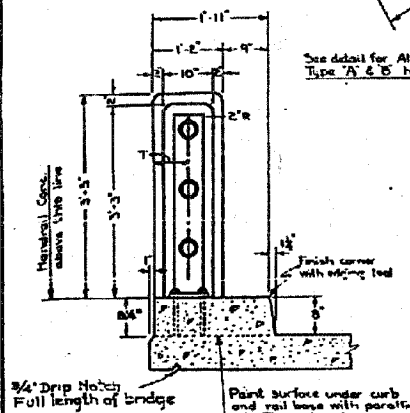


DETAIL OF DIAPHRAGMS

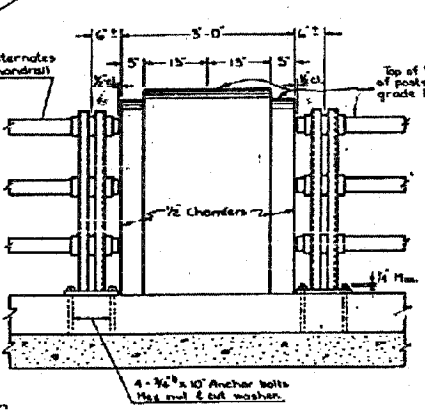


DETAIL OF BEARING BENT 3

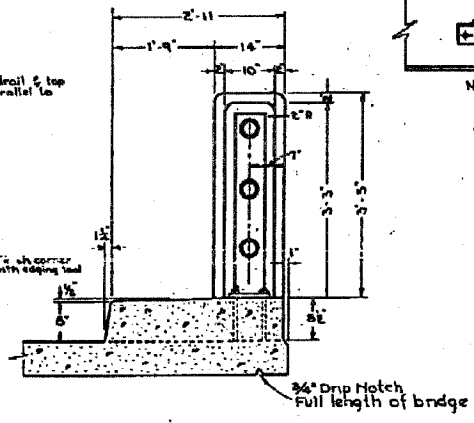
Note: Bottom Brg. to be provided with two 1 1/2\"/>



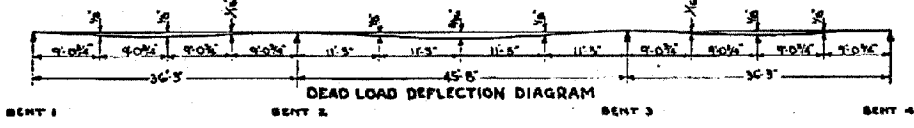
SECTION EAST HANDRAIL



ELEVATION DETAIL OF HANDRAIL



SECTION WEST HANDRAIL



DEAD LOAD DEFLECTION DIAGRAM



FILLET DETAIL

Fillet height equals the difference in elevation between bottom of slab and bottom of top flange of beam plus D.L. deflection.

PROJECT S-197(1)
NIGGER HOLLOW CREEK BRIDGE
Sta. 66+93.01
SHEET 4 OF 4 SHEETS
ST. CLAIR COUNTY, ILL.

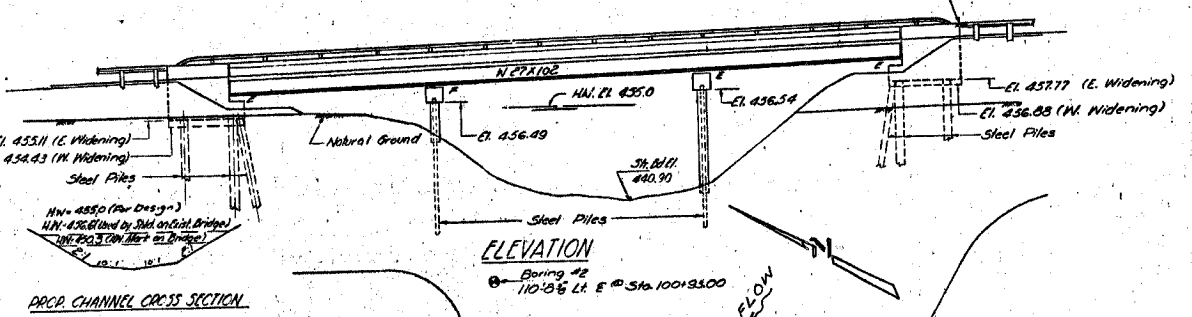
F.A.S. ROUTE No. 840, SEC. 146B

DATE	BY	CHKD	APP'D	BY	CHKD	APP'D	SHEET NO. 1
1/25/52	167	167	167	44	167	44	20 SHEETS

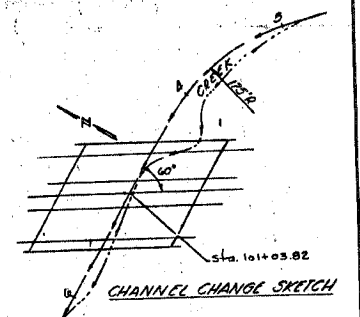
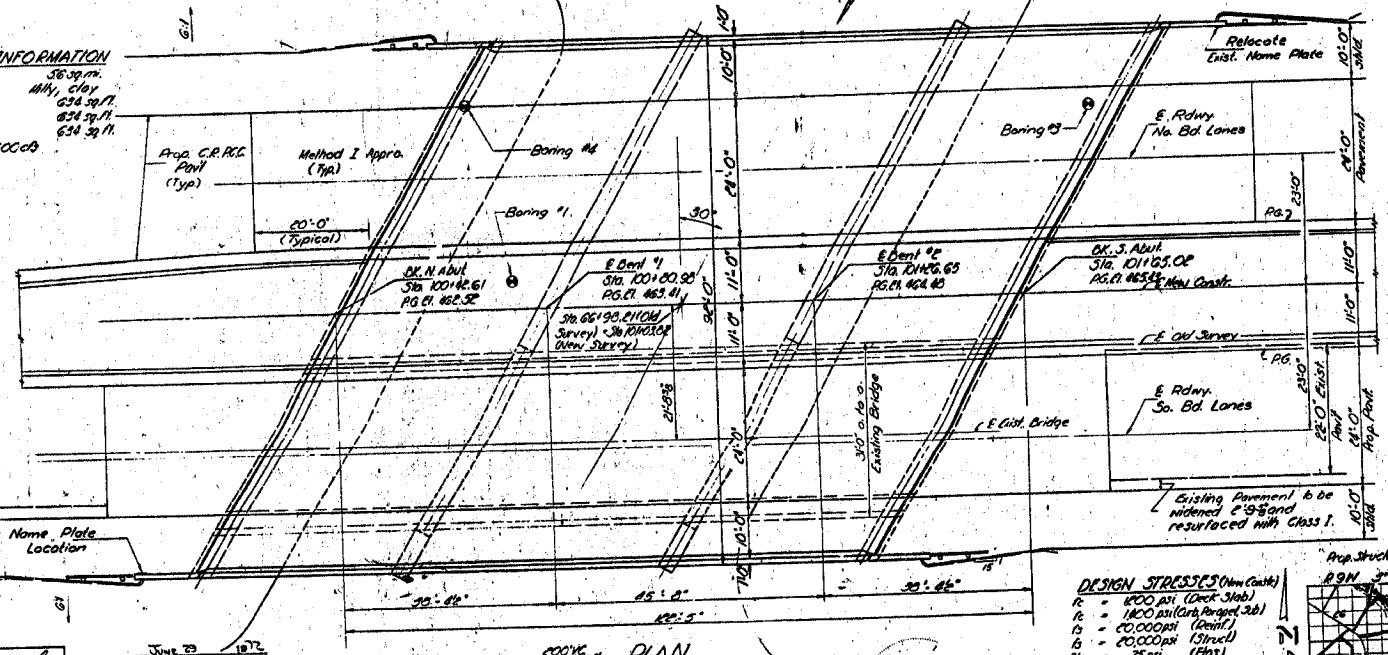
DM: 'D' on Nth End of West Abutment 35' R/L Sta. 100+25.01 462.83
 Existing Structure Built as P.S. 600 Sec. 146 B.P. in 1930
 @ Sta. 66+93.01. 3 Span Continuous 16'21" 18" RC Piles w/ conc. caps
 to be widened.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STATION 101+03.82
 NEGRO HOLLOW CREEK
 REBUILT 197
 P.A.P. 805 SEC. 147B-1
 P.A. PROJECT F-805(4)
 LOADING HS20
 NAME PLATE
 (See S&E 2113)



WATERWAY INFORMATION
 Drainage Area 38.39 ac.
 Character M.M., clay
 Present Opening 638 sq. ft.
 Required Opening 824 sq. ft.
 Proposed Opening 634 sq. ft.
 Q (30): 3600 cfs

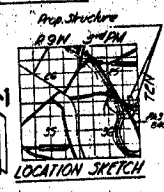


Notes:
 Work this sheet with sheet #2.
 Existing handrail shall be removed
 and stored on R.O.M. to be salvaged
 by the State.

DESIGNED: *St. Louis*
 EXAMINED: *W. G. Blumhagen*
 CHECKED: *J. G. Colwell*
 DRAWN: *R. D. Dohy*
 CHECKED: *99E*

PROFILE P.A.P. 805 PROPOSED
 1.63%
 1.50%
 PLAN

DESIGN STRESSES (New Const.)
 Fc = 4000 psi (Comp. Slab)
 Ft = 1800 psi (Tens. Reinforc. St.)
 Fv = 20000 psi (Steel)
 Fp = 20000 psi (Struct.)
 Fc = 75 psi (Fills)
 n = 10
 Design Specifications 1949 AASHTO as applicable.
 LOADING HS 20-44



GENERAL PLAN & ELEVATION
 P.A.P. 805 OVER
 NEGRO HOLLOW CREEK
 P.A.P. 805 SECTION 147B-1
 ST. CLAIR COUNTY
 STATION 101+03.82

Rev. 10.22.76

52F

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION.

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
177	St. Clair	17	45

SHEET NO. 2
20 SHEETS

GENERAL NOTES

All reinforcement bars shall be lapped 2d diameters unless otherwise shown.
Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " diam holes $\frac{3}{8}$ " unless otherwise noted.
Calculated weight of Structural Steel = 138,700 Lbs.
The basic lead silico chromate paint system shall be used for shop and field painting of New Structural Steel.
Exist. Struct. Steel shall be field painted with two coats of basic lead silico chromate paint.
Anchor bolts shall be set before bolting diaphragms over supports.
The Contractor shall drive one steel test pile each in the following locations as directed by the Engineer before entering the remainder of piles: North Abutment (Steel Test Pile HPDx36), South Abutment (Steel Test Pile HPDx36), Bent 1 (Steel Test Pile HP10x42) and Bent 2 (Steel Test Pile HP10x42).
It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
The concrete rail section above the mandatory construction joint of the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
Expansion bolts shall consist of self drilling expansion anchors, and $\frac{3}{4}$ " x 12" hooked bolts.
Limits of Waterproofing Membrane System shall be end of end of deck and face of curb to face of median.
Field welding of construction accessories will not be permitted in the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\pm 1/8$ " inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Ties for adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
The main load carrying members components shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide-flange beams and all splice plate material.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Structure Excavation	Cu Yd	60		60
Continuous Concrete Surface Course, Class I	Ton	113		113
Concrete Removal	Cu Yd	26	5	31
Expansion Bolts $\frac{3}{4}$ "	Each		18	18
Protective Coat	Sq Yd	360		360
Class X Concrete	Cu Yd	284.2	138.1	422.3
Structural Steel	Lin. Ft.	276		276
Aluminum Rolling	Lin. Ft.	73,130	12,200	85,330
Reinforcement Bars	Pound		216	216
Steel Piles (HPDx36)	Lin. Ft.			2
Test Piles Steel (HPDx36)	Each			2
Steel Piles (HP10x42)	Lin. Ft.		1204	1204
Test Piles Steel (HP10x42)	Each			2
Form Plates	Each		1	1
Waterproofing Membrane System	Sq Yd	849		849
Bridge Handrail Removal	Lin. Ft.	244		244
Cleaning and Painting Steel Bridge	Sq. Yds.			5
Deck Slab Repair (7 to 24 Depth)	Sq. Yds.	5		5

* Removal of concrete posts in existing handrail shall be included in the cost of Bridge Handrail Removal.
** Includes Existing Steel only.

Note:
Work this sheet with sheet #1.

DESIGNED: Stacy S. Linn
CHECKED: John J. Edwards
DRAWN: R. Doty
DATE: 99E

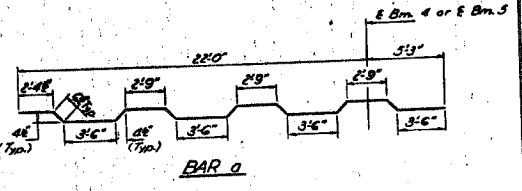
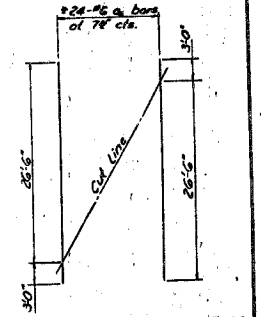
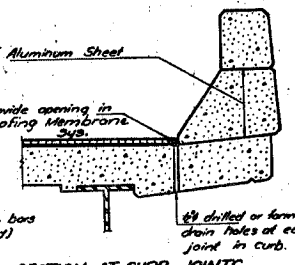
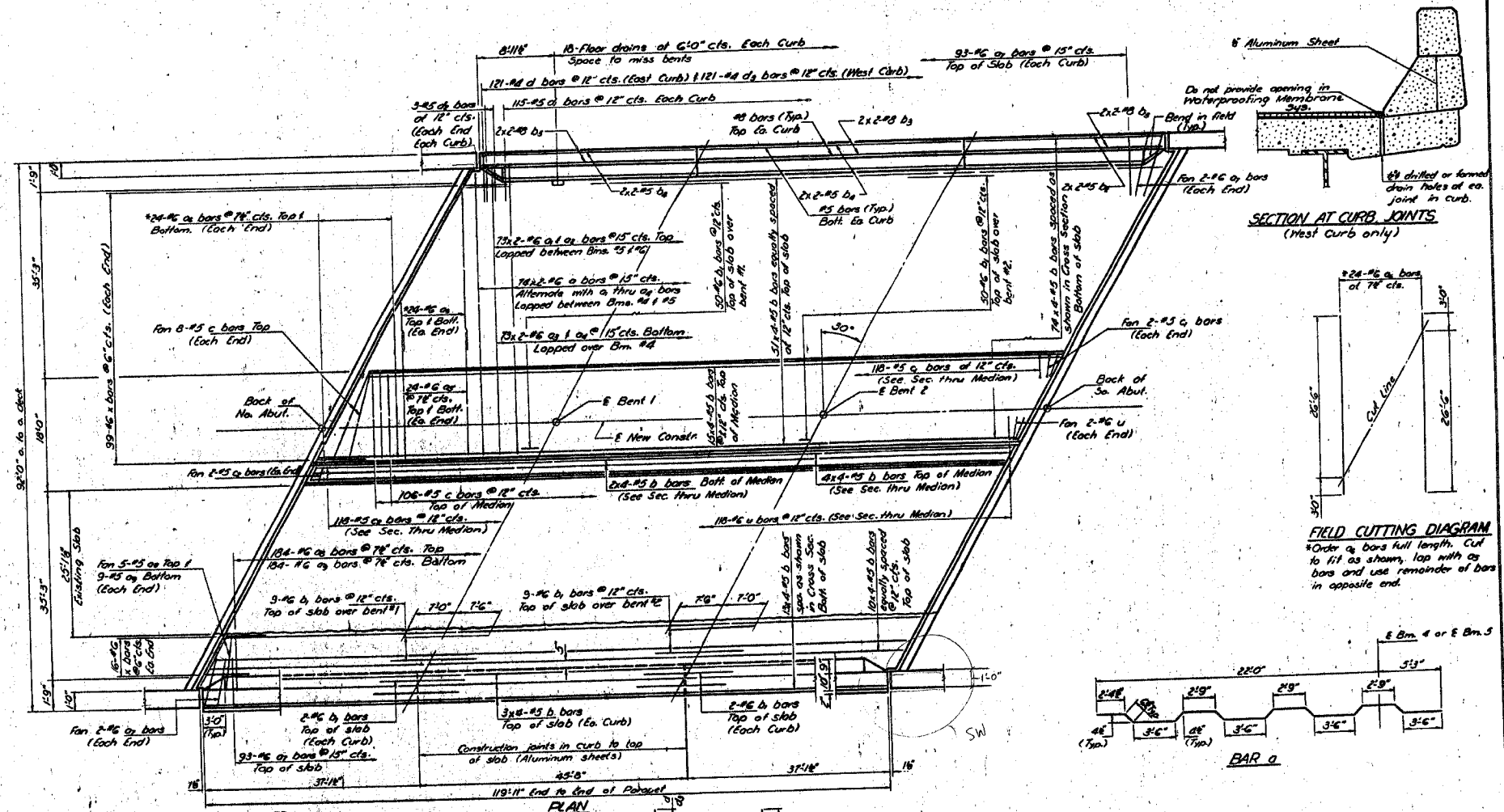
EXAMINED: [Signature]
DATE: July 29 1972
PASSED: [Signature]
DATE: [Signature]

GENERAL PLAN & ELEVATION
FAR RT. 805 SEC. 147B-1
ST. CLAIR COUNTY
STA. 101+03.82

FOR INFORMATION ONLY

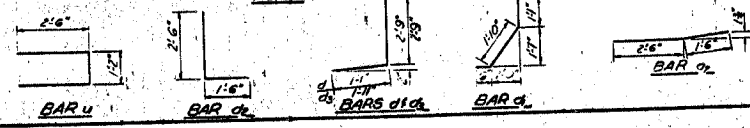
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	ST. Clair	MT	ST	SHEET NO. 8
DATE	197	197	51	20 SHEETS



DESIGNED: Stanley S. Liu
 CHECKED: J. J. Schmitt
 DRAWN: R. D. Dohy
 ENGINEER: J. J. C.

APPROVED: [Signature]
 PROJECT: [Signature]
 DATE: [Signature]

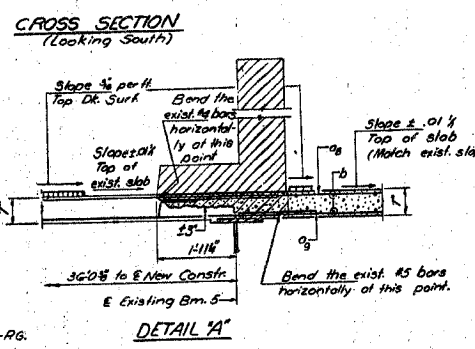
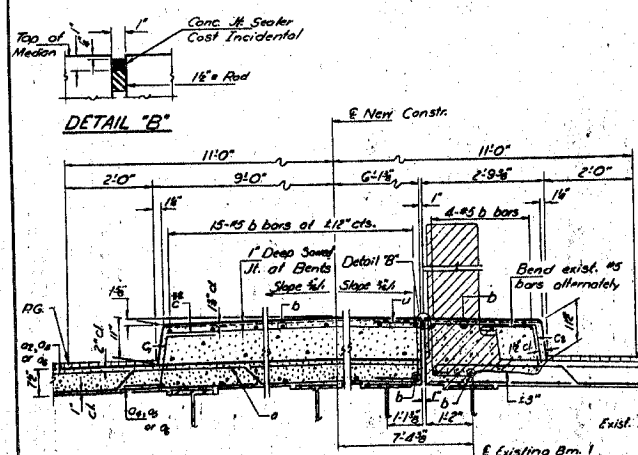
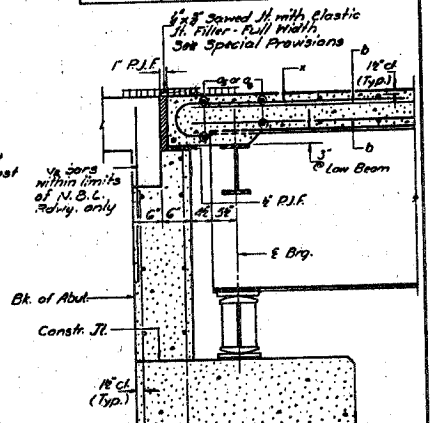
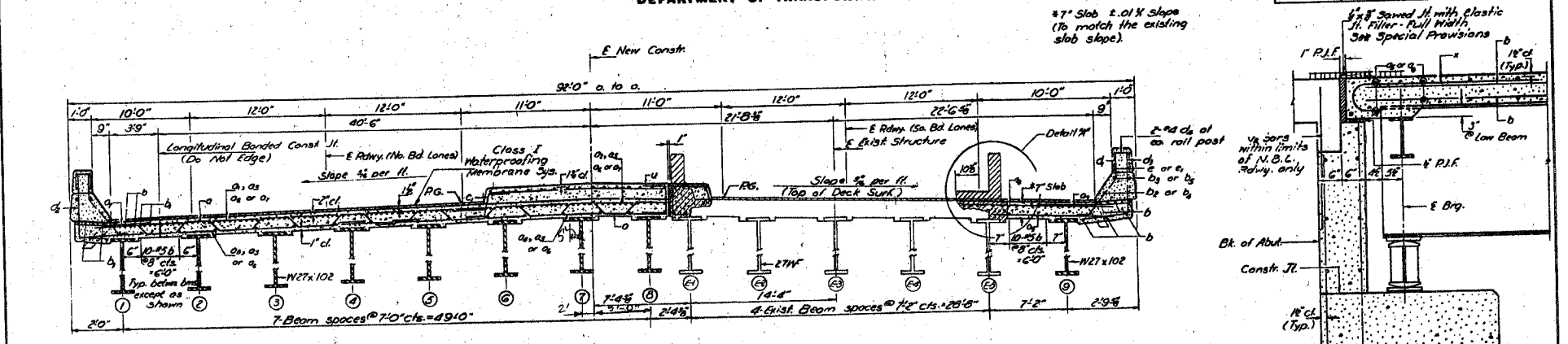


Note: Mark this sheet with sheet #9.

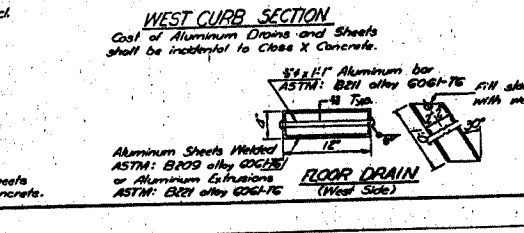
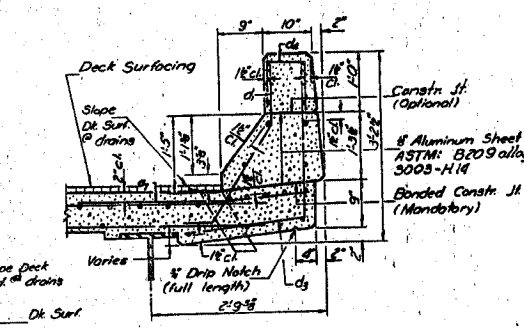
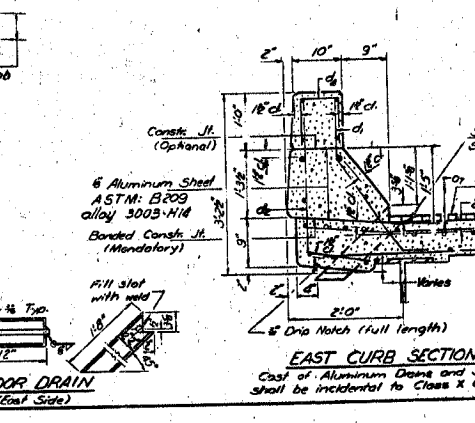
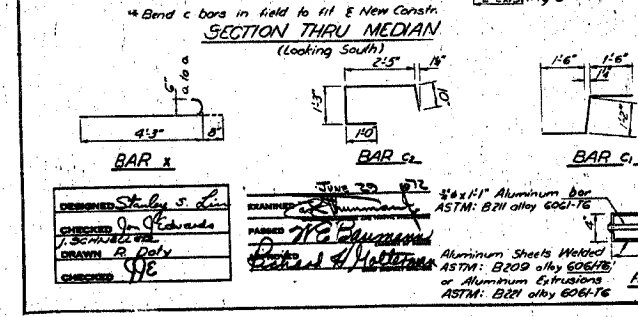
SUPERSTRUCTURE
 F.A.P. RT. 005 SEC. 17B-1
 ST. CLAIR COUNTY
 STA. 101+03.82

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	805	MT	ST. Clair	MT	52	SHEET NO. 9
						20 SHEETS



Notes:
Hatched portions of existing structure to be removed. Existing reinforcement to be cleaned and incorporated into new construction. Mark this sheet with sheet #8. Parapet reinforcement and Class X Concrete are billed on sheet #12.

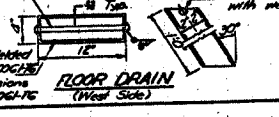
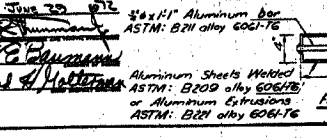


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	140	#6	28'-5"	U
ai	146	#6	33'-5"	U
aj	146	#6	19'-5"	U
ak	146	#6	19'-5"	U
al	96	#6	25'-6"	U
am	96	#6	29'-6"	U
an	194	#6	4'-0"	U
ao	194	#6	10'-9"	U
ap	194	#6	9'-0"	U
b	100	#5	34'-5"	U
bi	122	#6	16'-6"	U
bj	16	#5	19'-5"	U
bk	8	#6	23'-9"	U
bl	8	#5	23'-6"	U
bm	16	#5	19'-6"	U
c	122	#5	14'-9"	J
ci	122	#5	4'-6"	J
cj	122	#5	5'-6"	J
d	121	#6	31'-0"	J
di	230	#5	3'-0"	J
dj	12	#5	4'-0"	J
dk	121	#6	4'-0"	J
u	122	#6	6'-6"	J
x	230	#6	4'-0"	J

DESIGNED: *Stacy S. Lee*
CHECKED: *J. Edwards*
DRAWN: *P. Doty*
DATE: *7/2/02*

REVISIONS:
1. *7/2/02* *7/2/02* *7/2/02*
2. *7/2/02* *7/2/02* *7/2/02*
3. *7/2/02* *7/2/02* *7/2/02*

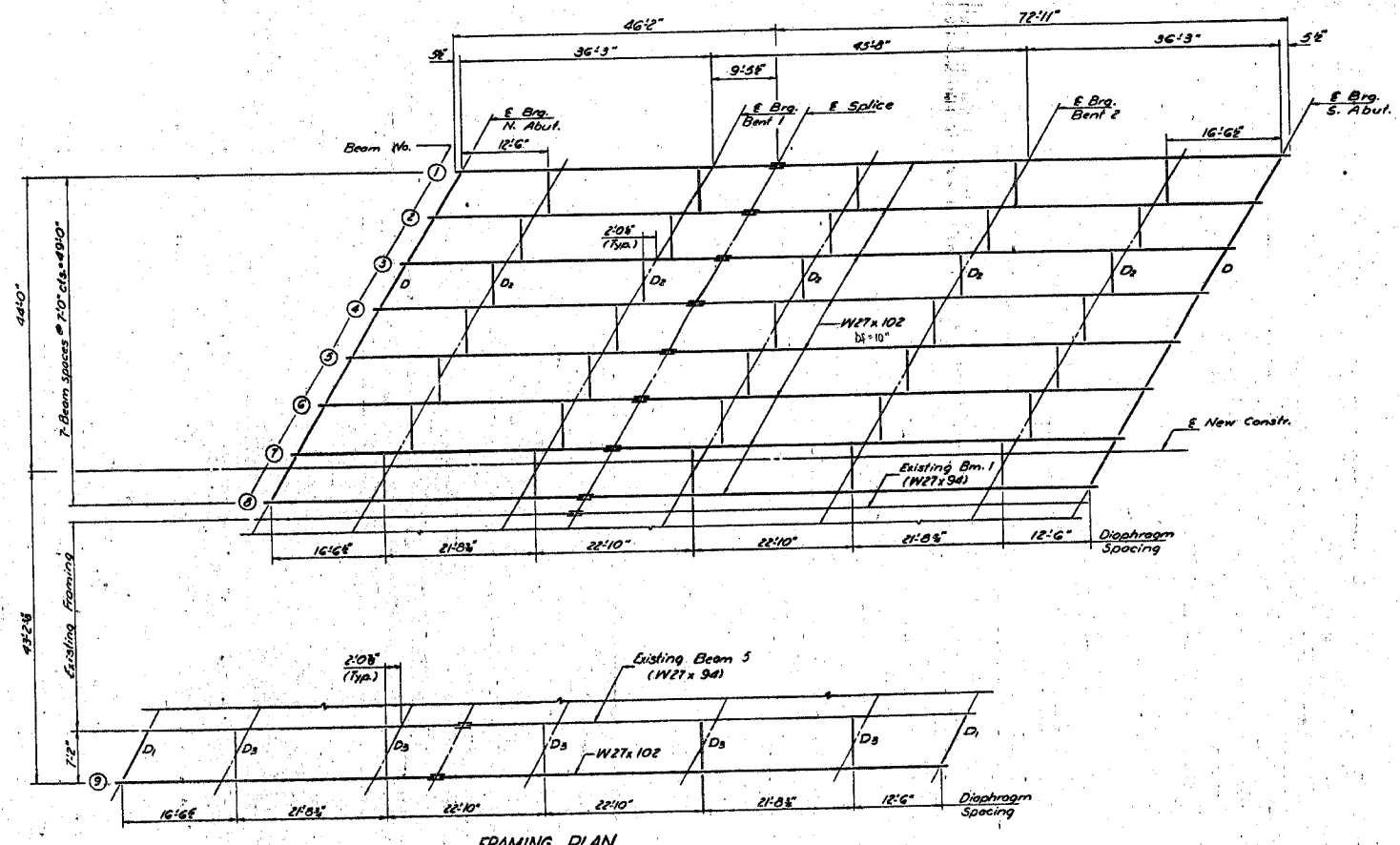


Concrete Removal Cost: \$10
Cost of Concrete: \$120
Reinforcement Bar Pounds: 18,000
SUPERSTRUCTURE DETAILS
FAR RT 805 SEC 147B1
ST. CLAIR COUNTY
STA 10+03.62

527

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	DATE	BY	CHECKED	SHEET NO. 10
805	M7	St. Clair	M7	S3	20 SHEETS



FRAMING PLAN

DESIGNED *Stacy S. Clark*
 CHECKED *J. J. [Signature]*
 DRAWN *R. D. [Signature]*
 DATE *June 19 1982*
 PREPARED *H. B. [Signature]*
 CHECKED *[Signature]*

STRUCTURAL STEEL
 F.A.P. RT. 805 SEC. 147B-1
 ST. CLAIR COUNTY
 STA. 101+03.82

FOR INFORMATION ONLY

525

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	147	ST. Clair	MT	54	SHEET NO. 11
					20 SHEETS

1" DIMENSIONS

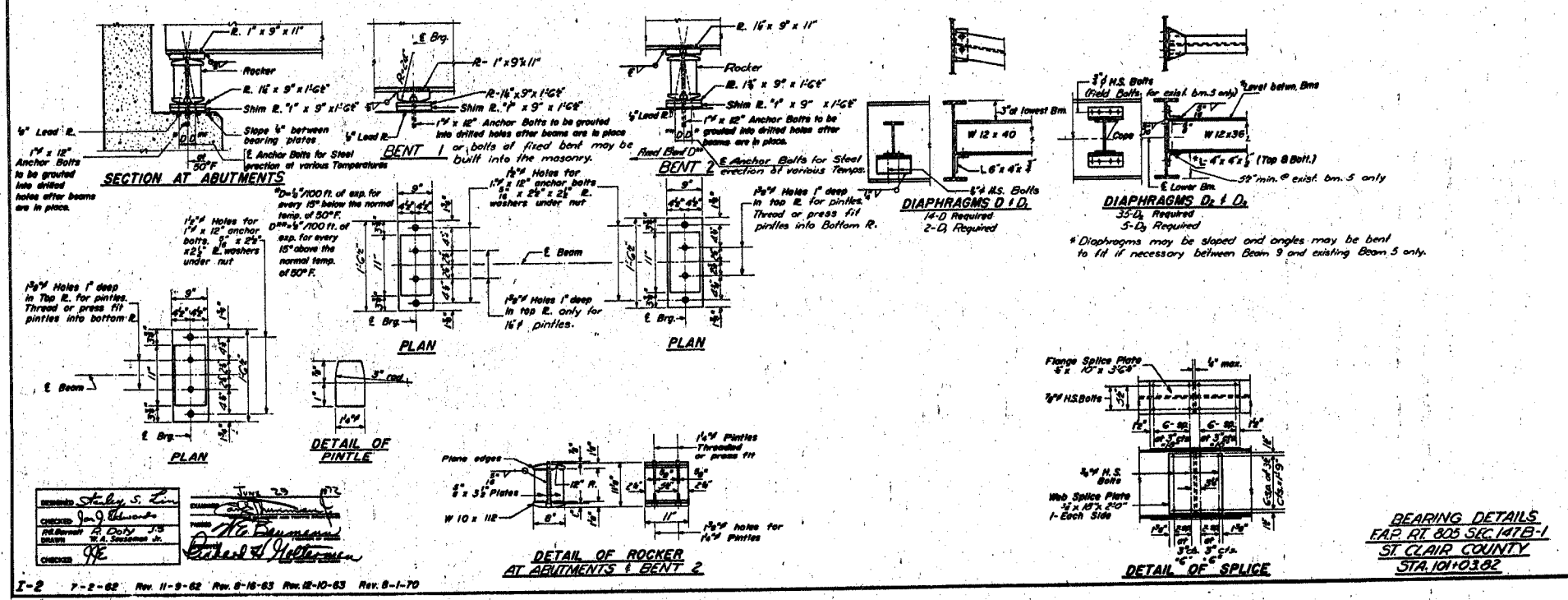
	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5	Bm. 6	Bm. 7	Bm. 8	Bm. 9
E. Brg. N. Abut.	0	6"	5"	5"	0	5"	5"	0	0
E. Brg. Bent 1	0	5"	5"	5"	0	5"	0	0	0
E. Brg. Bent 2	0	5"	5"	5"	0	5"	0	0	0
E. Brg. S. Abut.	0	5"	5"	5"	5"	5"	0	0	0

INTERIOR BEAM MOMENT TABLE

	Q.4 Sp. for 3 Bents 1 or 2	Q.5 Sp. 2
L (ft)	3610	3610
R (ft)	125	125
MR (ft)	116.6	215.11
MR (ft)	196.71	208.71
Temp. (ft)	59.01	48.65
Wtemp. (ft)	367.58	423.04
Wt. (k)	16.52	19.05

TOP OF BEAM ELEVATIONS

Location	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5	Bm. 6	Bm. 7	Bm. 8	Bm. 9
E. Brg. N. Abut.	461.87	461.89	461.90	461.92	461.93	461.95	461.97	461.99	462.03
E. Brg. Bent 1	462.67	462.69	462.70	462.72	462.73	462.74	462.76	462.82	462.89
E. Splice	462.89	462.89	462.91	462.93	462.94	462.95	462.97	462.99	463.06
E. Brg. Bent 2	463.80	463.81	463.82	463.83	463.84	463.86	463.87	463.73	462.89
E. Brg. S. Abut.	464.72	464.73	464.73	464.73	464.74	464.77	464.77	464.62	463.10



DESIGNED BY: *John S. Lee*
CHECKED BY: *John J. Williams*
DATE: *July 25, 1972*

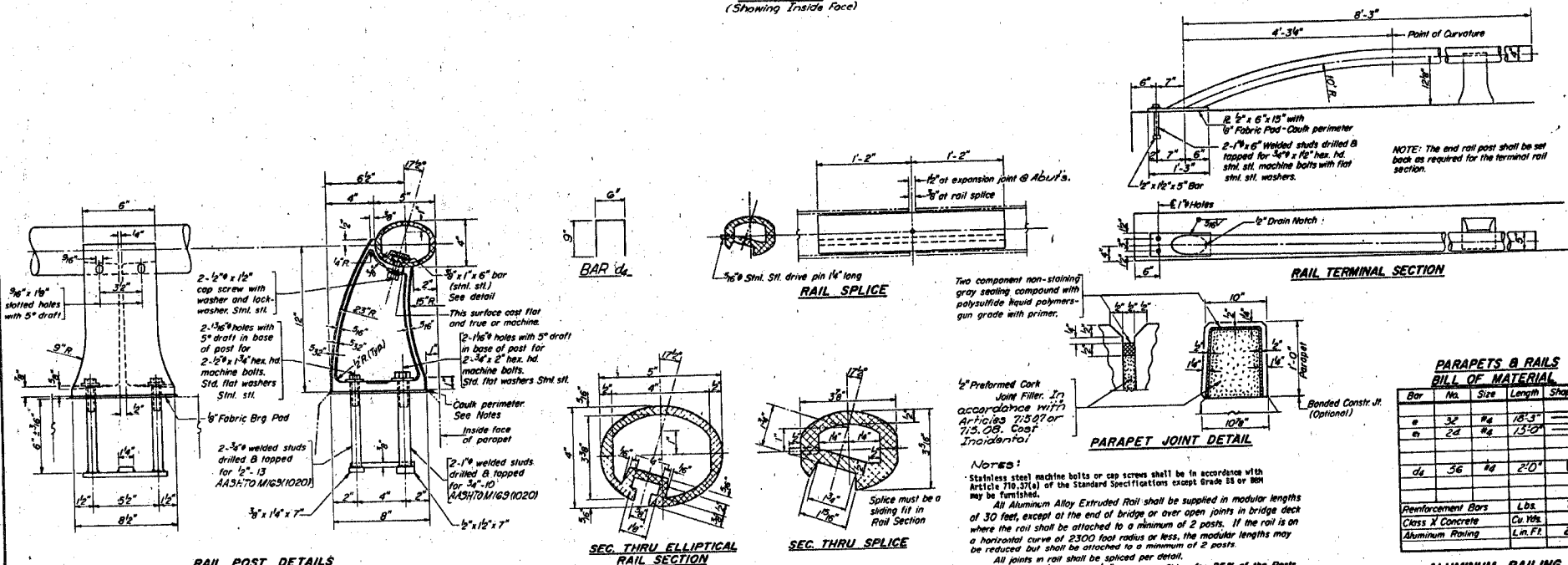
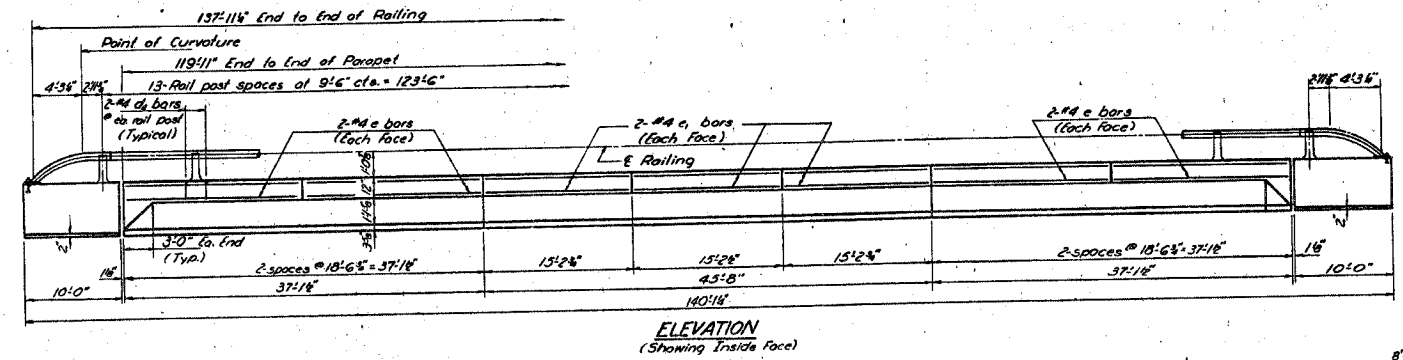
DESIGNED BY: *Richard J. Hultman*
CHECKED BY: *John J. Williams*
DATE: *July 25, 1972*

I-2 7-2-62 Rev. 11-9-62 Rev. 6-16-63 Rev. 12-10-63 Rev. 8-1-70

52K

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	805 147	STATION	St. Clair 147	55	SHEET NO. 12
					20 SHEETS



**PARAPETS & RAILS
BILL OF MATERIAL**

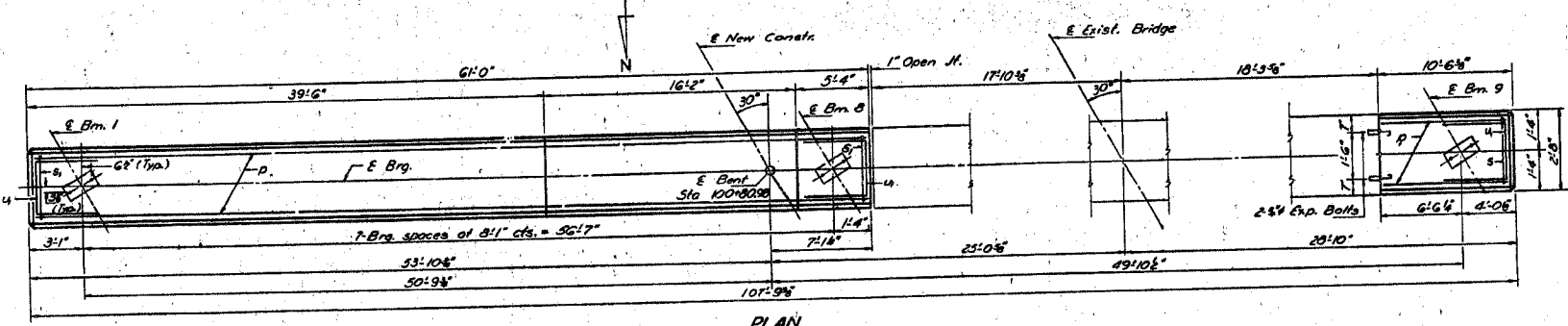
Bar	No.	Size	Length	Shape
a	32	#4	18'-3"	—
b	24	#4	13'-0"	—
c	36	#4	2'-0"	□
Reinforcement Bars				Lbs. 110
Class II Concrete				Cu Yds. 7.1
Aluminum Railing				Lm. Ft. 276

DESIGNED *Stanley S. ...*
CHECKED *J. ...*
DRAWN *J. ...*
DATE *June 29 1972*
APPROVED *...*
DATE *...*

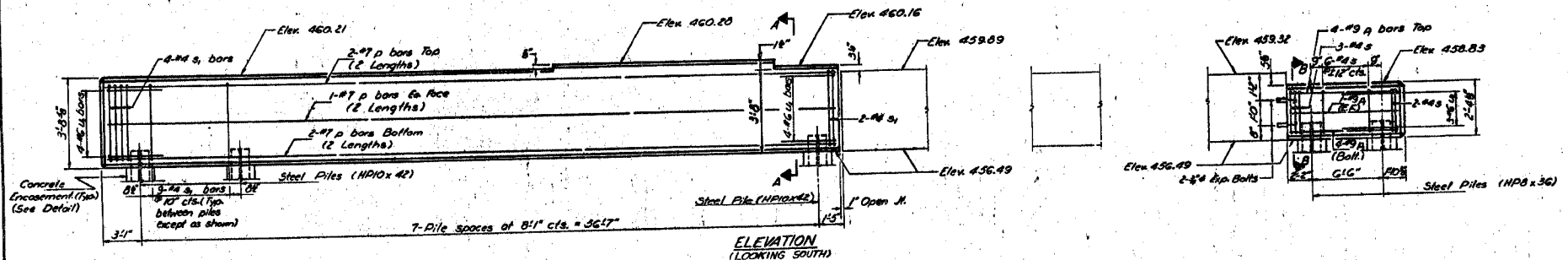
R-17 4-22-68 9-18-69 3-3-71

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DATE	BY	CHECKED	DATE	BY
805	1/7	St. Clair	1/7	52	20 SHEETS

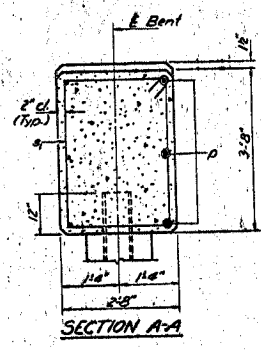


PLAN

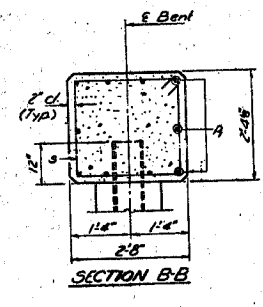


ELEVATION
(LOOKING SOUTH)

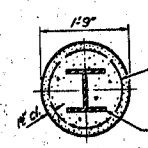
	East Widening Bent	West Widening Bent
Type	Steel (HP10x42)	Steel (HP8x36)
Capacity	Drive to Refusal	Drive to Refusal
Est. Length	86'-0"	86'-0"
No. Required	7# Test Pile	2



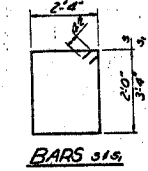
SECTION A-A



SECTION B-B



PILE ENCASUREMENT DETAIL
(Extend 2'-0" below natural ground)



BARS 31a

Milded wire fabric C"x6" mesh #6
wire-weighting 35#/100 sq. ft.
The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
P	12	#7	31'-0"	
D	10	#9	10'-3"	
S	11	#4	91'-5"	
31	69	#6	121'-7"	
U	11	#6	11'-8"	

Class X Concrete	Cu. Yds.	249
Reinforcement Bars	Pounds	1340
Expansion Bolts 3/4"	Each	4
Test Piles Steel (HP10x42)	Each	1
Steel Piles (HP8x36)	Lin. Ft.	172
Steel Piles (HP10x42)	Lin. Ft.	602

DESIGNED: Stanley S. Linn
CHECKED: Jim Edwards
DRAWN: R. Doty
CHECKED: Jc

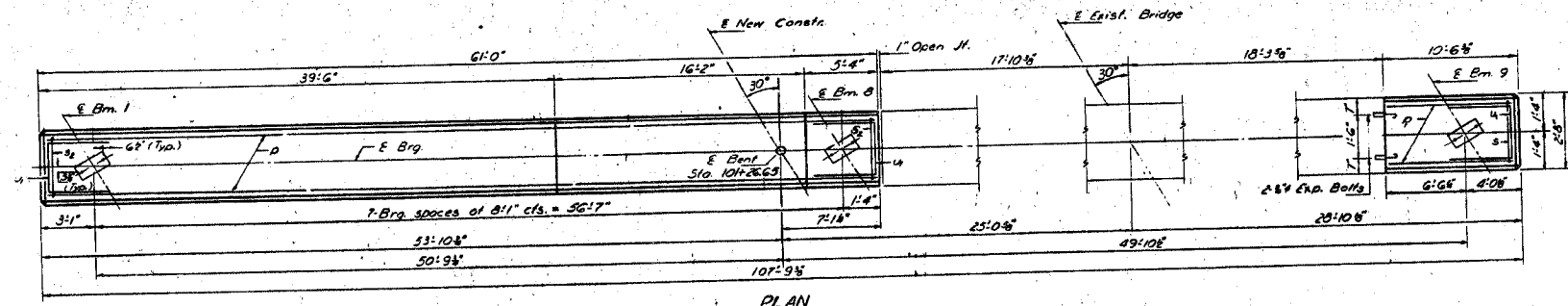
DATE: June 25, 1972
APPROVED: [Signature]
[Signature]

BENT 1
F.A.P. RT. 805 SEC. 147B-1
ST. CLAIR COUNTY
STA. 101+03.92

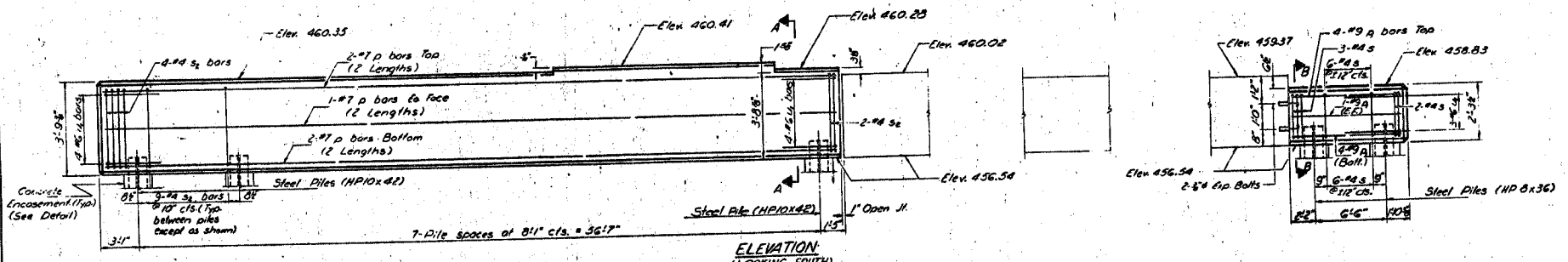
52 M

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	805	SECTION	M7	SHEET NO.	57	TOTAL SHEETS	20
-------------	-----	---------	----	-----------	----	--------------	----

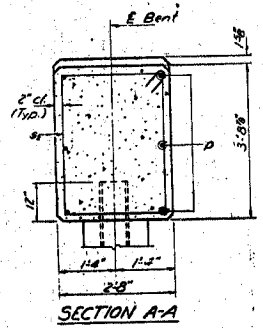


PLAN

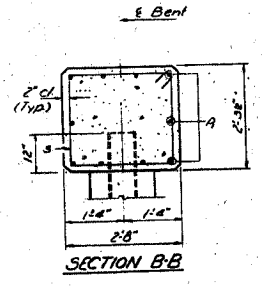


ELEVATION
(LOOKING SOUTH)

	East Widening Bent	West Widening Bent
Type	Steel (HP10x42)	Steel (HP8x36)
Capacity	Drive to Refusal	Drive to Refusal
Est. Length	86'-0"	86'-0"
Nbs. Required	7-1 Test Pile	2



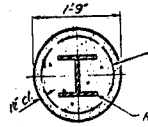
SECTION A-A



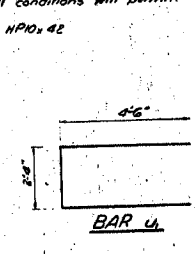
SECTION B-B

Welded wire fabric 6"x6" mesh #8 wire weighing 50.9100 sq. ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit.

PILE ENCASEMENT DETAIL
(Extend 2'-0" below natural ground)



BAR 3 s/c



BAR 4

Bar	No.	Size	Length	Shape
P	12	#7	31'-8"	□
D	10	#9	10'-3"	□
S	11	#4	9'-5"	□
S2	69	#8	12'-3"	□
U	11	#6	11'-6"	□

Class I Concrete	Cu. Yd.	23.4
Reinforcement Bars	Pound	1980
Expansion Bolts 2'-x-4"	Each	4
Test Piles Steel (HP10x42)	Each	1
Steel Piles (HP8x36)	Lin. Ft.	172
Steel Piles (HP10x42)	Lin. Ft.	602

BENT 2
F.A.P. RT 805 SEC 147B-1
ST. CLAIR COUNTY
STA. 101+03.82

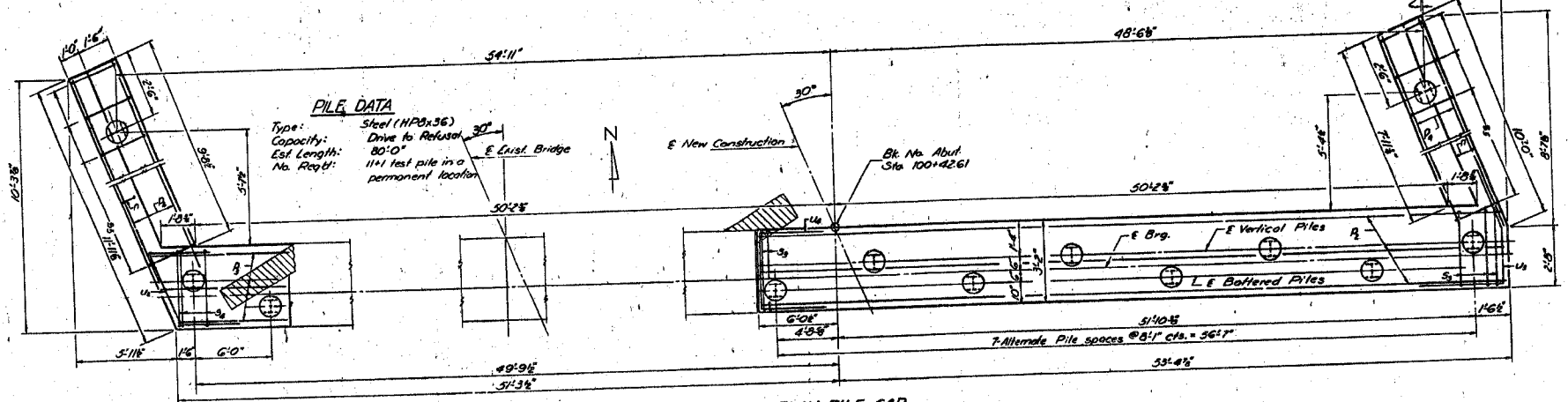
DESIGNED: Jims 23 1172
CHECKED: Jim G. Edwards
DRAWN: R. Doby
CHECKED: JJC

EXAMINED: [Signature]
PASSED: [Signature]
[Signature]

520

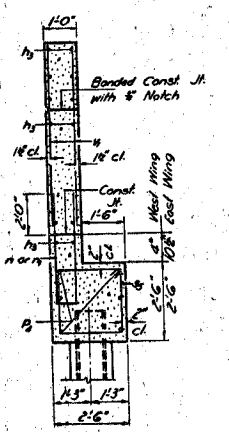
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	147	ST. CLAIR	147	59
SHEET NO. 16				20 SHEETS

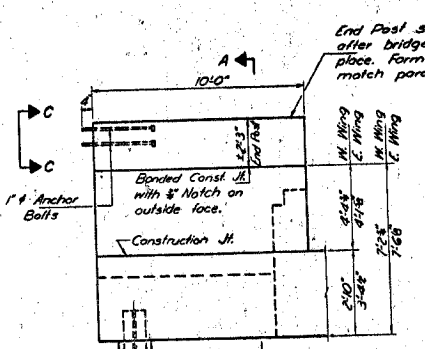


PILE DATA
 Type: Steel (HP8x36)
 Capacity: Drive to Refusal
 Est. Length: 80'-0"
 No. Piles: 114 test pile in a permanent location

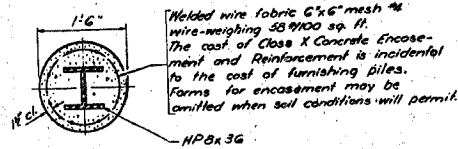
PLAN-PILE CAP



SEC. A-A

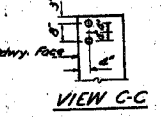


WING WALL ELEVATION
(Showing Dimensions)

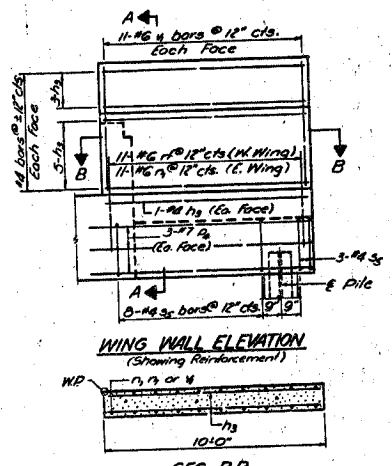


SECTION D-D
3'-0" Concrete Encasement

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 Work this sheet with sheet #15.



VIEW C-C



SEC. B-B

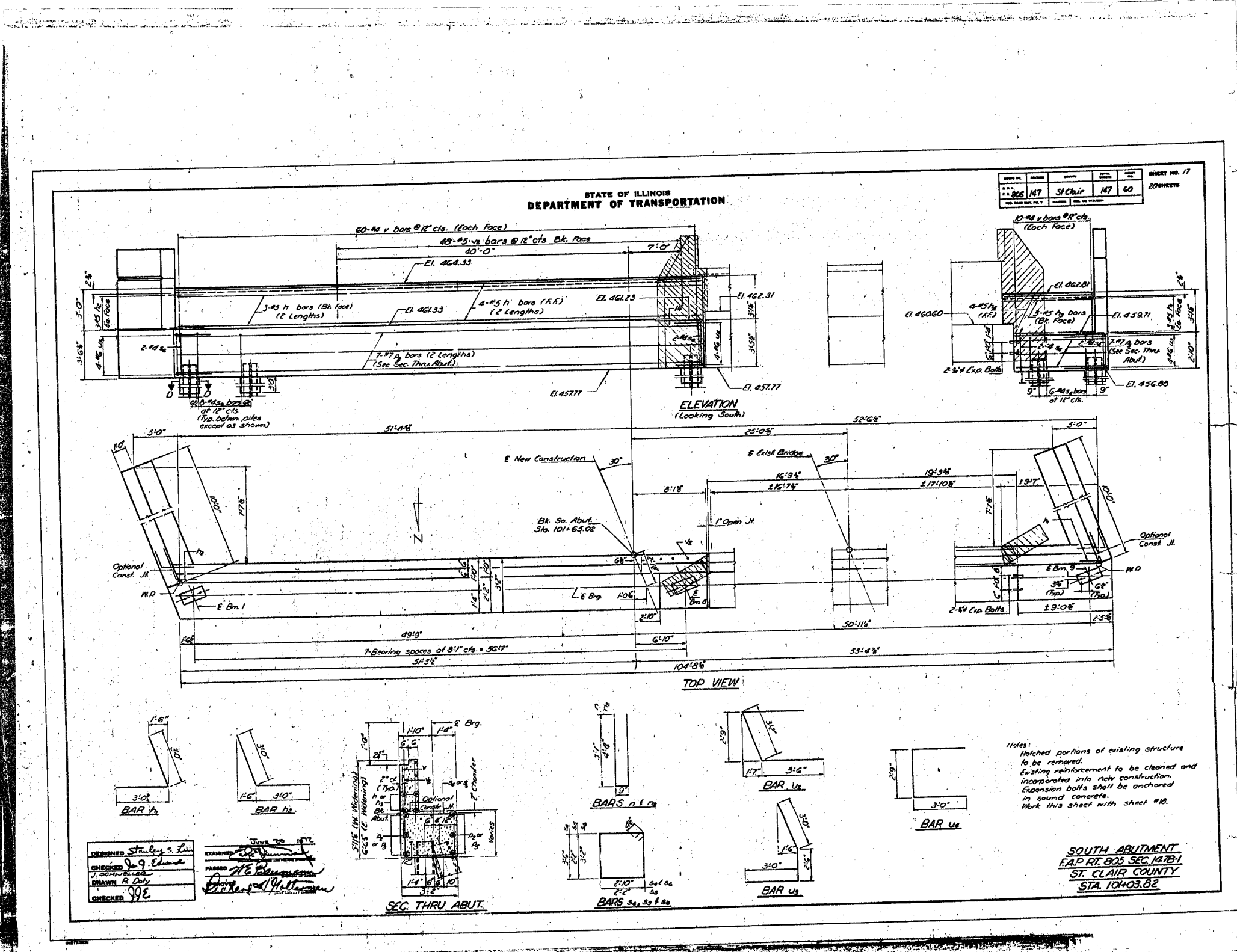
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n	14	#5	32'-3"	U
n	6	#5	6'-0"	U
n	6	#5	6'-0"	U
n	36	#4	9'-9"	U
n	7	#3	9'-6"	U
n	11	#6	7'-11"	U
n	11	#6	9'-4"	U
D	14	#7	32'-9"	U
P	7	#7	9'-0"	U
D	12	#7	9'-0"	U
S	60	#4	12'-3"	U
S	10	#4	11'-5"	U
S	22	#4	9'-3"	U
U	3	#6	10'-2"	U
U	4	#6	8'-5"	U
U	4	#6	8'-9"	U
V	140	#4	4'-5"	U
U	44	#6	8'-3"	U
U	27	#5	5'-0"	U
Concrete Removal Cu Yd 101				
Class X Concrete Cu Yd 436				
Reinforcement Bars Pound 2200				
Expansion Bolts #4 Each 6				
Steel Piles (HP8x36) Lin Ft. 680				
Test Piles Steel (HP8x36) Each 1				

NORTH ABUTMENT DETAILS
 E.A.P. RT. 805 SEC. 147B-1
 ST. CLAIR COUNTY
 STA. 101+03.82

DESIGNED: J. J. Edwards
 CHECKED: R. D. Day
 EXAMINED: J. J. Edwards
 DRAWN: M. J. Williams
 DATE: 10-1-52

52P



PROJECT NO.	DATE	BY	CHECKED	SHEET NO.	TOTAL SHEETS
805 147	5/14/82	ST Clair	HT	60	20

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELEVATION
(Looking South)

TOP VIEW

SEC. THRU ABUT.

Notes:
Hatched portions of existing structure to be removed.
Existing reinforcement to be cleaned and incorporated into new construction.
Expansion bolts shall be anchored in sound concrete.
Mark this sheet with sheet #18.

SOUTH ABUTMENT
FAP RT. 805 SEC. 147B-1
ST. CLAIR COUNTY
STA. 10+03.82

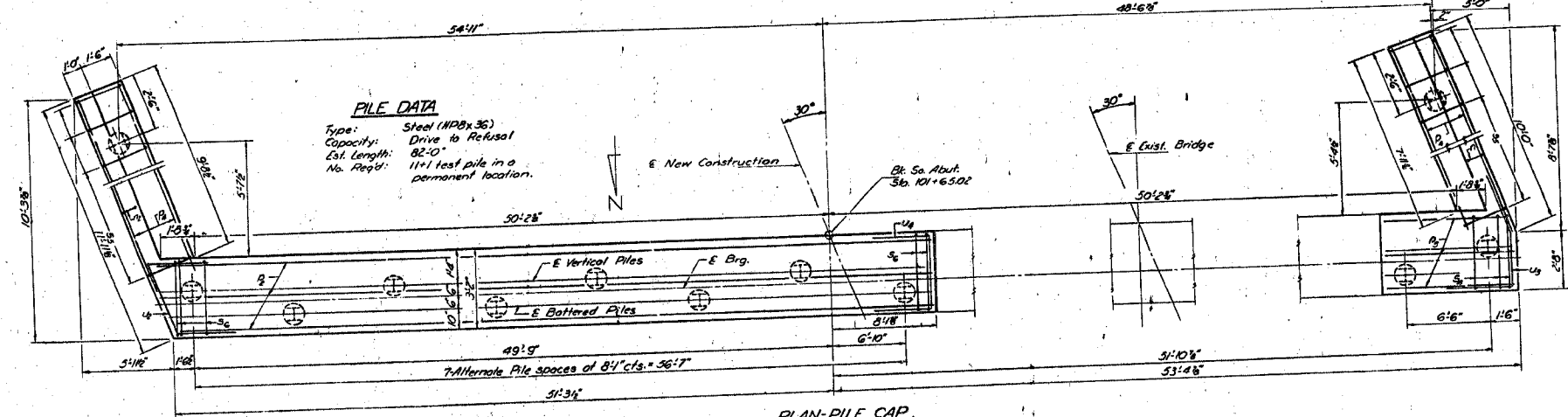
DESIGNED: Stanley & Liu
CHECKED: J. G. Edwards
DRAWN: R. D. Dwyer
CHECKED: J. E.
DATE: June 30, 1982
PREPARED: H. E. Blumhagen
DRAWN: J. E. Blumhagen

58 Q

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	147	ST. Clair	147	61
DATE				
BY				
CHECKED				
SCALE				

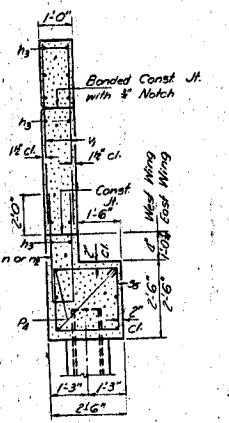
SHEET NO. 40
OF 40 SHEETS



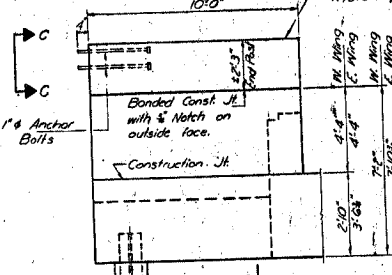
FILE DATA

Type: Steel (HP8x36)
Capacity: Drive to Refusal
Est. Length: 82'-0"
No. Piles: 11+1 test pile in a permanent location.

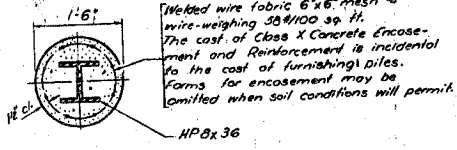
PLAN-PILE CAP.



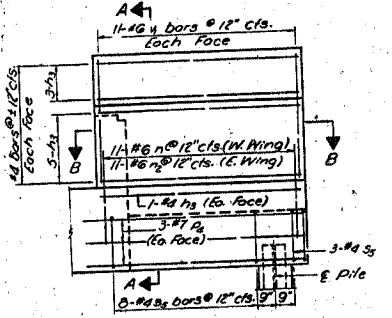
SEC. A-A



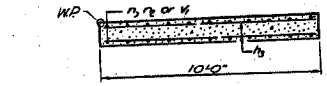
WING WALL ELEVATION
(Showing Dimensions)



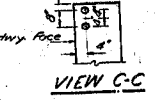
SECTION D-D
3'-0" Concrete Enclosure



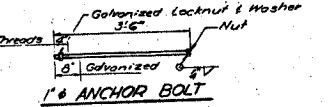
WING WALL ELEVATION
(Showing Reinforcement)



SEC. B-B



VIEW C-C



1" ANCHOR BOLT

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	14	#3	30'-3"	—
h1	6	#3	6'-0"	—
h2	6	#3	6'-0"	—
h3	36	#4	9'-9"	—
h4	7	#3	9'-0"	—
a	11	#6	7'-11"	—
m	11	#6	9'-5"	—
d1	14	#7	30'-9"	—
d2	12	#7	9'-9"	—
d3	7	#7	8'-6"	—
s1	10	#4	11'-5"	—
s2	22	#4	9'-5"	—
s3	60	#4	12'-9"	—
u1	3	#6	10'-2"	—
u2	4	#6	8'-6"	—
u3	4	#6	8'-9"	—
v	140	#4	2'-6"	—
w	44	#6	6'-5"	—
x	48	#3	5'-0"	—
Concrete Removal Cu. Yds. 3				
Class X Concrete Cu. Yds. 432				
Reinforcement Bars Pounds 4200				
Expansion Bolts 39 Each 4				
Steel Piles (HP8x36) Lin. Ft. 902				
Test Piles Steel (HP8x36) Each 1				

SOUTH ABUTMENT DETAILS
E.A.P. RT 805 SEC. 147B-1
ST. CLAIR COUNTY
STA. 10+03.82

DESIGNED	Stanley J. 2/1
CHECKED	John R. 2/1
DRAWN	B. 2/1
CHECKED	W.B.

June 20, 1972
EXAMINED
PASSED
Noted A. Vetter