

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAI ROUTE 74
SECTION (57-21B)BR
PROJECT IM-074-5 (159) 137
BRIDGE REHABILITATION
LITTLE KICKPOO CREEK 1.1 MI E OF US 51
MCLEAN COUNTY

C-95-011-07
R2E, 3RD P.M.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	1
ILLINOIS			CONTRACT NO. 70641	

*61+1=62

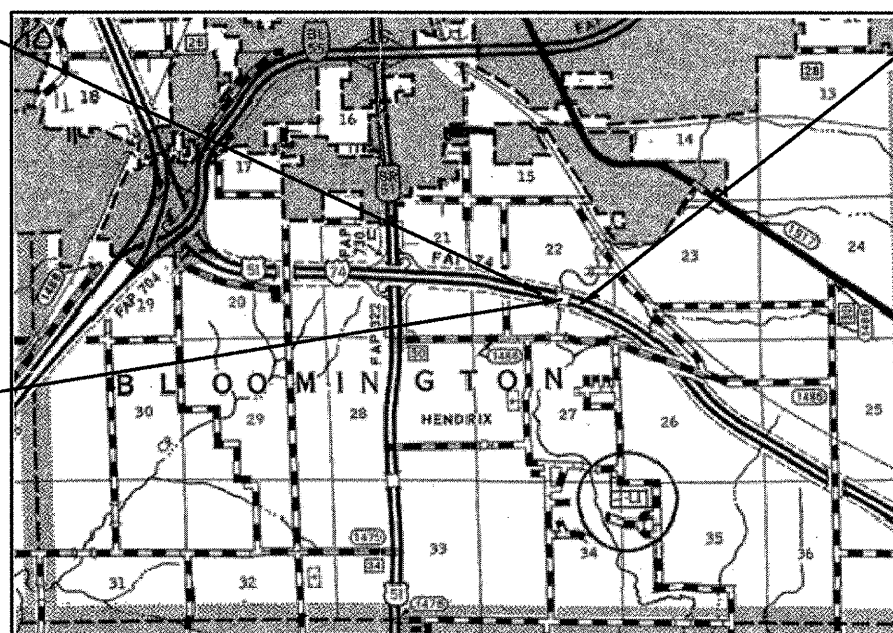
D-95-011-07

FOR INDEX OF SHEETS, SEE SHEET NO. 2



SECTION (57-21B)BR
PROJECT BEGINS
STA. 779+00.00

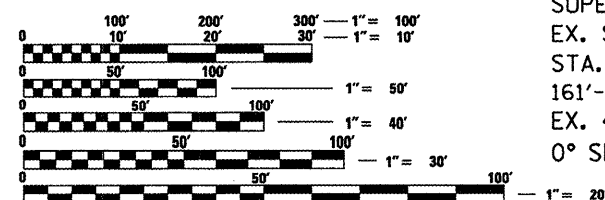
SECTION (57-21B)BR
PROJECT ENDS
STA. 782+28.40



SUPERSTRUCTURE REPLACEMENTS
EX. S.N. 057-0120 (EB), 057-0121 (WB)
STA. 780+48.43
161'-7" BK. TO BK. ABUT.
EX. 42'-0" 0-0, PR. 43'-2" 0-0
0° SKEW

GROSS LENGTH = 328.40 FT. = 0.062 MILE
NET LENGTH = 328.40 FT. = 0.062 MILE

TRAFFIC:
ADT(2008) = 18,000
P.C. = 52.9%
S.U. = 6.6%
M.U. = 40.5%



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

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811
BLOOMINGTON TOWNSHIP

PROJECT ENGINEER: NANCY FASIG (217) 465-4181
SQUAD LEADER: JASON STULTS

CONTRACT NO. 70641

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 1/30 20 09

Joseph E. Jones
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 27, 20 09

Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT
March 27, 20 09

Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAYS STANDARDS, GENERAL NOTES, CONTROL TIES
- 3-4 SUMMARY OF QUANTITIES
- 5-6 TYPICAL SECTIONS
- 7-9 SCHEDULE OF QUANTITIES
- 10 PLAN AND PROFILE SHEET
- 11-12 TRAFFIC CONTROL PLAN
- 13-39 STRUCTURE PLANS
- 40-43 BRIDGE APPROACH PAVEMENT AND CONNECTOR DETAIL
- 44 SHOULDER INLET WITH CURB DETAIL
- 45 PAVEMENT MARKING DETAIL
- 46-47 WIDTH RESTRICTION SIGNING DETAIL
- 48 STONE DUMPED RIPRAP CLASS A3 DETAIL
- 49-61 ROADWAY CROSS SECTIONS
- 61A AS-BUILT PLAN GENERAL PLAN AND ELEVATION SHEET (FOR INFORMATION ONLY)

HIGHWAY STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 280001-04** TEMPORARY EROSION CONTROL SYSTEMS
- 420001-07 PAVEMENT JOINTS
- 421001-02 BAR REINFORCEMENT FOR CRC PAVEMENT
- 515001-03 NAME PLATE FOR BRIDGES
- 542401-01 METAL END SECTION FOR PIPE CULVERTS
- 602306-02 INLET, TYPE B
- 604001-03 FRAME AND LIDS, TYPE 1
- 630001-08 STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631031-07 TRAFFIC BARRIER TERMINAL, TYPE 6
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 642001-01 SHOULDER RUMBLE STRIPS
- 665001-02 WOVEN WIRE FENCE
- 667101-01 PERMANENT SURVEY MARKERS
- 701101-02 OFF-ROAD OPERATION, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701106-02 OFF-ROAD OPERATION, MULTILANE, MORE THAN 15' FROM PAVEMENT EDGE
- 701400-03 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-07 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
- 701406-05 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701426-03 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION FOR SPEEDS ≥ 45
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-05 TEMPORARY CONCRETE BARRIER
- 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

G.N.-100
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-105.09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G.N.-250C
TEMPORARY EROSION CONTROL SEEDING IS INCLUDED IN THIS CONTRACT TO SEED NEW EARTH SHOULDERS DURING TIME PERIODS WHEN PERMANENT SEEDING IS NOT ALLOWED. SOME OR ALL OF THE TEMPORARY EROSION CONTROL SEEDING WILL BE DELETED IF IT IS POSSIBLE TO PLACE PERMANENT SEEDING ON EARTH SHOULDERS AT THE TIME OF THEIR COMPLETION.

G.N.-281
THE RIPRAP GRADATION SHALL BE IN ACCORDANCE WITH THE GRADATION SPECIFIED IN THE PLANS OR, WITH APPROVAL OF THE ENGINEER, A CLASS A3 AND CLASS B3 RIPRAP GRADATION MEETING A D50 GREATER THAN OR EQUAL TO 0.50 FEET. D50 IS DEFINED AS THE MEAN ROCK SIZE AS DESCRIBED IN THE FHWA HYDRAULIC ENGINEERING CIRCULARS (HEC 11, HEC 14 AND HEC 15).

IF GRAVEL IS USED FOR THE BEDDING MATERIAL UNDER RIPRAP, THE GRAVEL SHALL BE CRUSHED AS ALLOWED UNDER ARTICLE 1005.01.

G.N.-406
THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N.-406H
MIXTURE REQUIREMENTS
The following mixture requirements are applicable for this project:

Location(s):	MAINLINE PAVEMENT	MAINLINE PAVEMENT
Mixture Use(s):	POLY HMA SURFACE COURSE & HMA SHOULDER	FLEXIBLE CONNECTOR
AC/PG:	SBS P.G. 70-22	PG 64-22
RAP %: (Max)	10%	10%
Design Air Voids:	4% @ N=105	4% @ N=105
Mixture Composition: (Gradation Mixture)	IL 9.5	IL 19.0
Friction Aggregate:	MIX D	N/A

G.N.-542
BEFORE ORDERING PIPE CULVERTS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT LENGTHS.

G.N.-542.07
AT LOCATIONS WHERE END SECTIONS ARE SPECIFIED, CAST-IN-PLACE CONCRETE HEADWALLS WILL NOT BE ALLOWED.

G.N.-609 SPL
IMMEDIATELY PRIOR TO ROUTING TRAFFIC ONTO THE SHOULDERS AS SHOWN IN THE STAGING PLANS, THE CONTRACTOR SHALL FILL EACH SHOULDER INLET THAT IS EXPOSED TO TRAFFIC WITH CA 6 STONE AND A 4" HOT-MIX ASPHALT CAP. TO THE SATISFACTION OF THE ENGINEER, ALL ITEMS NECESSARY FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF THE TEMPORARY INLET FILLING SHALL BE CONSIDERED INCLUDED IN THE COST OF THE VARIOUS TRAFFIC CONTROL ITEMS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

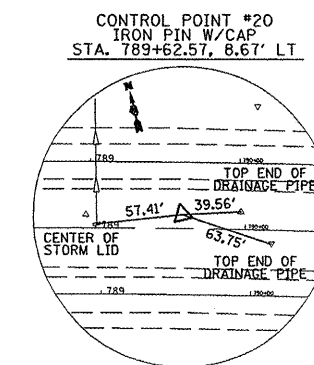
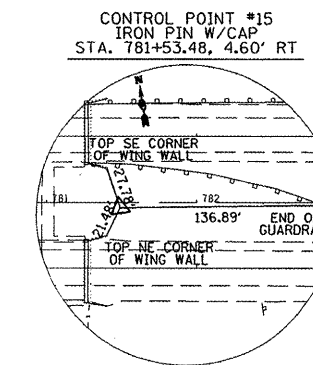
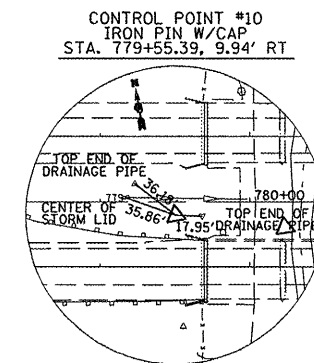
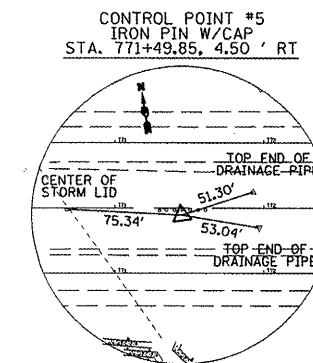
G.N.-631
IF THE CONTRACTOR ELECTS TO USE THE ALTERNATE MOUNTING METHOD OF THRU DRILLING THE MOUNTING HOLES FOR THE TRAFFIC BARRIER TERMINALS, TYPE 6, THE HOLES SHALL BE DRILLED USING A CORE DRILL. A HAMMER DRILL WILL NOT BE ALLOWED.

G.N.-703A
SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE PAVEMENT AFTER ANY OF THE FOLLOWING: COLD MILLING AND/OR PLACING BITUMINOUS MATERIALS (PRIME COAT), LEVELING BINDER (MACHINE METHOD), BINDER AND SURFACE COURSES. SHORT TERM PAVEMENT MARKING PLACED ON THE SURFACE, SHALL COINCIDE WITH THE FINAL PAVEMENT STRIPING. SHORT TERM PAVEMENT MARKING PLACED PRIOR TO THE SURFACE SHALL COINCIDE WITH THE EXISTING PAVEMENT MARKINGS. USE 4 FEET PER 40 FEET (OR 10% PER STATION).

G.N.-781
RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STANDARD 781001, AND THE DETAILS SHOWN IN THE PLANS. IF THERE IS ANY DISCREPANCY BETWEEN THE STANDARD AND THE DETAILS IN THE PLANS, THE DETAILS IN THE PLANS SHALL GOVERN. THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS AND THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED MIDWAY IN THE 30 FOOT (9 m) SPACE BETWEEN THE DASHED CENTERLINE STRIPES (WHEN APPLICABLE).

G.N.-Z0038
AN ALUMINUM TABLET OF THE TYPE SHOWN ON STANDARD 667101 SHALL BE PLACED ON THE PROPOSED STRUCTURE AS DIRECTED BY THE ENGINEER. THE BENCH MARK ELEVATION WILL BE ESTABLISHED AND MARKED BY THE DEPARTMENT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR PERMANENT BENCH MARKS.

G.N.-1004.01
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.



FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw\work\puidot\keysrb\d0101432\050110	sht:gnnote.dgn	DRAWN -	REVISED -
	PLOT SCALE = 1/30/2009	CHECKED -	REVISED -
	PLOT DATE = 1/30/2009	DATE	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND CONTROL TIES			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	2
CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT				

CODE NO	ITEM	UNIT	TOTAL QUANTITY FAI - URBAN MULTILANE 10% STATE 90% FED X081-2A
20400800	FURNISHED EXCAVATION	CU YD	62.0
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	276.0
20800150	TRENCH BACKFILL	CU YD	14.0
25000200	SEEDING, CLASS 2	ACRE	0.25
*25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23.0
*25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23.0
*25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23.0
*25100630	EROSION CONTROL BLANKET	SQ YD	1,210.0
*28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25.00
*28000400	PERIMETER EROSION BARRIER	FOOT	705.0
28100125	STONE RIPRAP, CLASS B3	SQ YD	2.0
28100705	STONE DUMPED RIPRAP, CLASS A3	SQ YD	95.0
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	96.0
40600990	TEMPORARY RAMP	SQ YD	214.0
40603550	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N105	TON	39.0
42001300	PROTECTIVE COAT	SQ YD	552.0
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	552.0
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	184.0
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	661.0
44000700	APPROACH SLAB REMOVAL	SQ YD	427.0
44004000	PAVED DITCH REMOVAL	FOOT	30.0
44004250	PAVED SHOULDER REMOVAL	SQ YD	276.0
48203100	HOT-MIX ASPHALT SHOULDERS	TON	26.0
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	2.0
50102400	CONCRETE REMOVAL	CU YD	132.0
50104650	SLOPE WALL REMOVAL	SQ YD	4.0
50105220	PIPE CULVERT REMOVAL	FOOT	83.0
50200100	STRUCTURE EXCAVATION	CU YD	356.0
50300225	CONCRETE STRUCTURES	CU YD	96.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	543.0
50300260	BRIDGE DECK GROOVING	SQ YD	1,352.0
50300300	PROTECTIVE COAT	SQ YD	1,958.0
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	1,871.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	132,700.0
50800515	BAR SPLICERS	EACH	1,330.0
51100300	SLOPE WALL 6 INCH	SQ YD	4.0
51500100	NAME PLATES	EACH	2.0
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	48.0
52100520	ANCHOR BOLTS, 1"	EACH	96.0
52100540	ANCHOR BOLTS, 1 1/2"	EACH	8.0

*SPECIALTY ITEM
**SFTY 3N

CODE NO	ITEM	UNIT	TOTAL QUANTITY FAI - URBAN MULTILANE 10% STATE 90% FED X081-2A
54215547	METAL END SECTIONS 12"	EACH	2.0
542A1060	PIPE CULVERTS, CLASS A, TYPE 2 15"	FOOT	156.0
59000200	EPOXY CRACK INJECTION	FOOT	79.0
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	137.0
60100945	PIPE DRAINS 12"	FOOT	165.0
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	269.0
60240215	INLETS, TYPE B, TYPE 1 FRAME, CLOSED LID	EACH	1.0
60262700	INLETS TO BE RECONSTRUCTED	EACH	1.0
60600305	CONCRETE CURB (DOWELLED)	FOOT	40.0
60900515	CONCRETE THRUST BLOCKS	EACH	2.0
61000120	TYPE E INLET BOX, STANDARD 610001 (SPECIAL)	EACH	2.0
61000230	TYPE F INLET BOX, STANDARD 610001 (SPECIAL)	EACH	2.0
*63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	687.5
*63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4.0
*63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2.0
*63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	2.0
63200310	GUARDRAIL REMOVAL	FOOT	868.0
64200105	SHOULDER RUMBLE STRIP	FOOT	298.0
66500105	WOVEN WIRE FENCE, 4'	FOOT	100.0
66502300	WOVEN WIRE FENCE REMOVAL	FOOT	100.0
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	7.0
67100100	MOBILIZATION	L SUM	1.0
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2.0
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1.0
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	305.0
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2,915.0
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2,871.0
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,000.0
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	950.0
*78000200	THERMOPLASTIC PAVEMENT MARKING- LINE 4"	FOOT	1,513.0
*78003130	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 6"	FOOT	412.0
*78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	990.0
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	6.0
*78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	12.0
*78200405	GUARDRAIL MARKERS	EACH	16.0
*78200500	BARRIER WALL MARKERS	EACH	16.0
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4.0
78300100	PAVEMENT MARKING REMOVAL	SQ FT	609.0
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	18.0
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	227.0

FILE NAME :
c:\p\work\p\1001\KEYSRB\0101432\050110

USER NAME = keysrb	DESIGNED -	REVISED -
shl-500.dgn	DRAWN -	REVISED -
PLOT SCALE = 100.0000 1/4 IN.	CHECKED -	REVISED -
PLOT DATE = 2/2/2009	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES				
SCALE:	SHEET NO.	OF	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T4	(57-218)BR	MCCLEAN	61	3
CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT				

CODE NO	ITEM	UNIT	TOTAL QUANTITY FAI - URBAN MULTILANE 10% STATE 90% FED X081-2A
X0324865	DIAMOND GRINDING (BRIDGE SECTION)	SO YD	1,869.0
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	326.0
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28.0
*X7200201	WIDTH RESTRICTION SIGNING	L SUM	1.0
XX003949	CONSTRUCTION STAKING	L SUM	1.0
→Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0
→Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0
Z0037300	PAVEMENT GROOVING	SO YD	525.0
Z0038700	PERMANENT BENCH MARKS	EACH	2.0

*SPECIALTY ITEM
→SFTY 3N

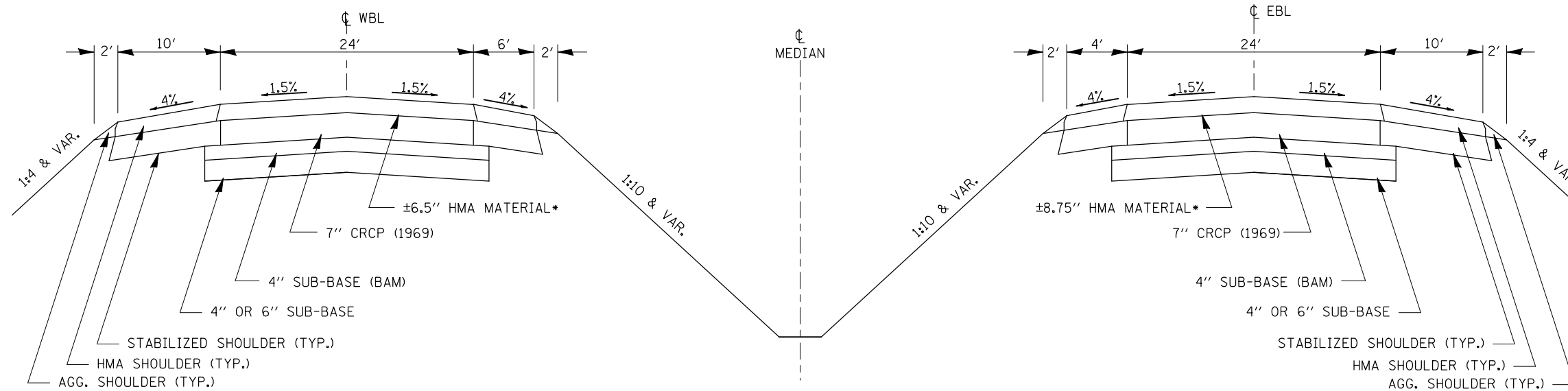
FILE NAME = c:\pwork\pwidot\keysrb\d0101432\0501107.sht-500.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
PLOT SCALE = 100.0000 / IN.	CHECKED -	REVISED -	REVISED -
PLOT DATE = 2/2/2009	DATE -	REVISED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

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

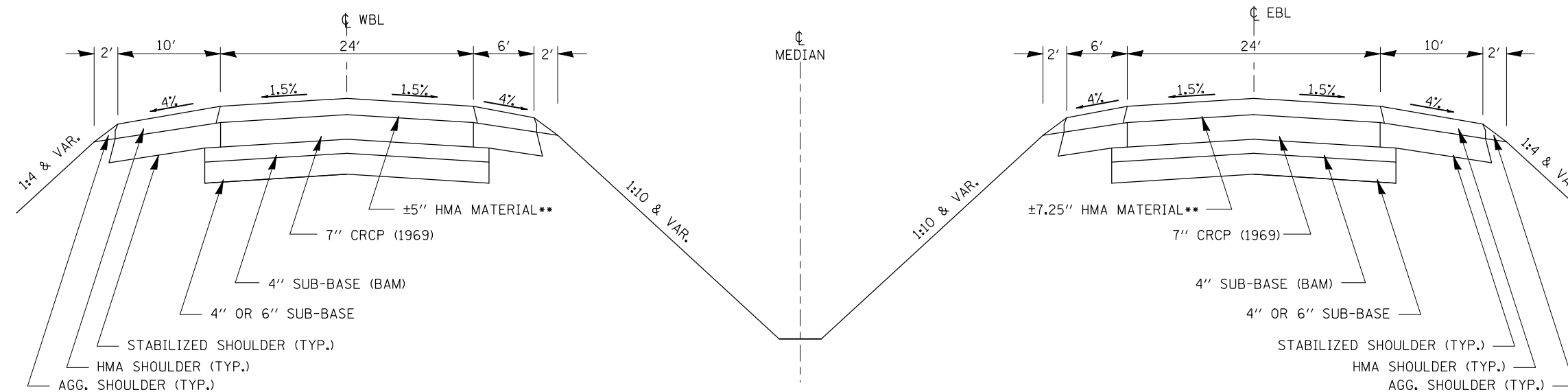
F.A.I. RTE. 74	SECTION 157-21B1BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 4
CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION

STA 778+00 TO STA. 779+67.64 (BK. STR. ABUT.)

*WB HMA TAPERS FROM 6.50" AT STA. 778+27.64 TO 1.50" AT STA. 779+67.64
 EB HMA TAPERS FROM 8.75" AT STA. 778+07.60 TO 1.50" AT STA. 779+67.64

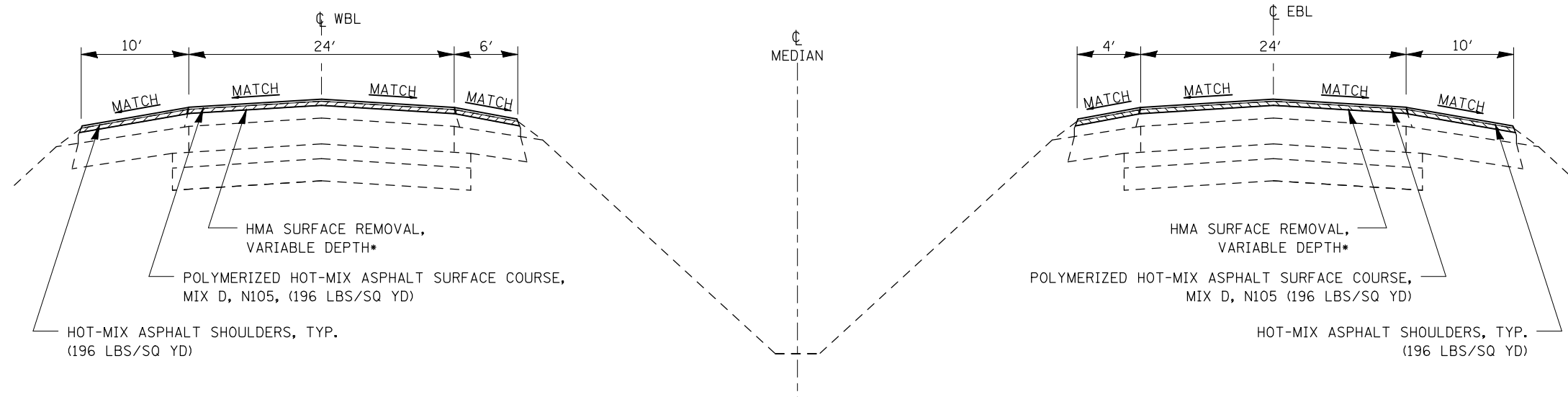


EXISTING TYPICAL SECTION

STA. 781+29.22 (BK. STR. ABUT.) TO 783+00

**WB HMA TAPERS FROM 1.50" AT STA. 781+29.22 TO 5.00" AT STA. 782+69.22
 EB HMA TAPERS FROM 1.50" AT STA. 781+29.22 TO 7.25" AT STA. 782+89.22

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING TYPICAL SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pw\work\p\dot\keysrb\0101432\0501107--sht-Typicals.dgn		DRAWN -	REVISED -		SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	74	(57-21B)BR	MCLEAN	61	5
		CHECKED -	REVISED -					CONTRACT NO. 70641					
		DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								



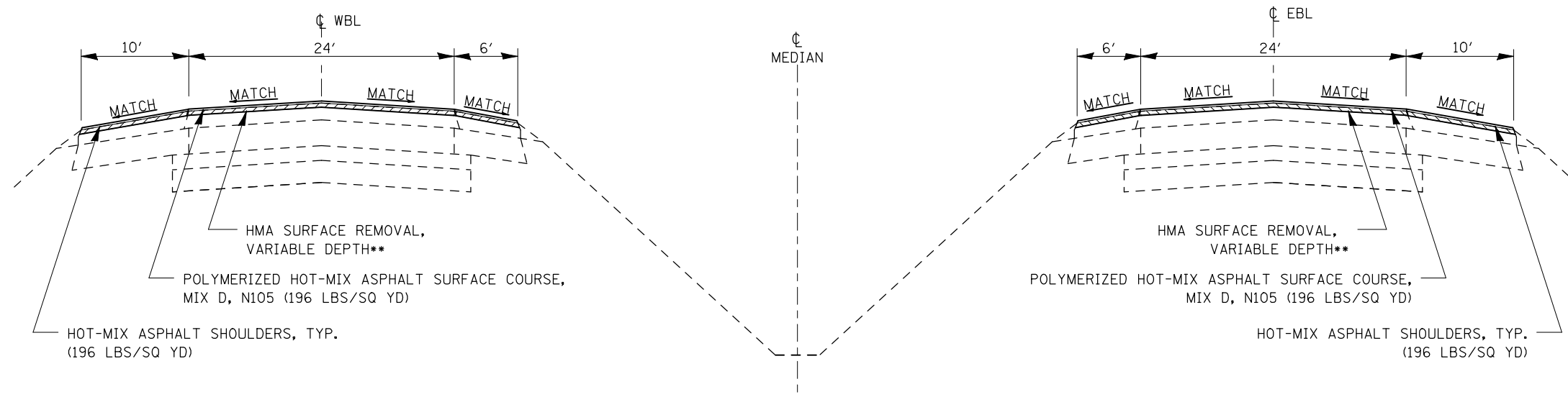
PROPOSED TYPICAL SECTION

STA 779+00.00 TO STA. 779+28.47 (PR. FLEX. CONN.)

***HMA SURFACE REMOVAL THICKNESS**

STATION	W.B.L.	E.B.L.
779+00.00	1.75"	1.75"
779+28.47	1.50"	1.75"

NOTE: ALL HMA SHALL BE PLACED UTILIZING A STRINGLINE



PROPOSED TYPICAL SECTION

STA. 781+68.39 (PR. FLEX. CONN.) TO 782+00.00 WB, 782+24.80 EB

****HMA SURFACE REMOVAL THICKNESS**

STATION	W.B.L.	E.B.L.
781+68.39	1.03"	1.69"
782+00.00	1.75"	1.75"
782+24.80	0.00"	1.75"

NOTE: ALL HMA SHALL BE PLACED UTILIZING A STRINGLINE

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TYPICAL SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw\work\p\dot\keysrb\0101432\0501107--sht-Typicals.dgn	PLOT SCALE = 100.0000' / IN.	DRAWN -	REVISED -					74	(57-21B)BR	MCLEAN	61	6
	PLOT DATE = 1/30/2009	CHECKED -	REVISED -		SCALE: N/A SHEET NO. 1 OF 1 SHEETS STA. TO STA.			CONTRACT NO. 70641				
		DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

EARTHWORK AND FURNISHED EXCAVATION

LOCATION	EARTH EXCAVATION (CUT)		STRUCTURE EXCAVATION**		EARTH EXCAV. ADJUSTED FOR SHRINKAGE*		EMBANKMENT (FILL)		EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	
	CU YD		CU YD		CU YD		CU YD		CU YD	
	STAGE I	STAGE II	STAGE I	STAGE II	STAGE I	STAGE II	STAGE I	STAGE II	STAGE I	STAGE II
LT 776+13.00 TO LT 784+93.80	0.0	0.0	94.3	83.7	0.0	0.0	0.0	21.0	0.0	-21.0
RT 776+13.00 TO RT 784+93.80	0.0	0.0	94.3	83.7	0.0	0.0	0.0	41.0	0.0	-41.0
ACTUAL TOTAL	0.0	0.0	188.6	167.4	0.0	0.0	0.0	62.0	0.0	-62.0
USED TOTAL	0.0	0.0	188.6	167.4	0.0	0.0	0.0	62.0	0.0	62.0

EARTH EXCAVATION: 0 CU YD

STRUCTURE EXCAVATION: 356 CU YD

FURNISHED EXCAVATION: 62 CU YD

*BASED ON SHRINKAGE FACTOR OF 25%
 **NOT SUITABLE FOR EMBANKMENT

LANDSCAPING

LOCATION	SEEDING CLASS 2	EROSION CONTROL BLANKET	TEMP. EROSION CONTROL SEEDING	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT
776+13.0 TO 779+68.5 RT	0.125	605.0	12.5	11.25	11.25	11.25
781+28.4 TO 784+93.8 LT	0.125	605.0	12.5	11.25	11.25	11.25
ACTUAL TOTAL	0.25	1210.00	25.00	22.50	22.50	22.50
USE TOTAL	0.25	1210.0	25.0	23.0	23.0	23.0

PERIMETER EROSION BARRIER

STAGE	STATION TO STATION	FOOT
II - RT	776+13.0 TO 779+68.5	355.5
II - LT	781+47.6 TO 784+97.0	349.4
ACTUAL TOTAL		704.9
USE TOTAL		705.0

BRIDGE APPROACH

LOCATION				BRIDGE APPROACH PAVEMENT, SPECIAL	PROTECTIVE COAT	PAVEMENT GROOVING
STATION	TO	STATION	O/S	SQ YD	SQ YD	SQ YD
779+38.4	TO	779+68.4	LT	137.8	137.8	131.1
781+28.4	TO	781+58.4	LT	137.8	137.8	131.1
779+38.4	TO	779+68.4	RT	137.8	137.8	131.1
781+28.4	TO	781+58.4	RT	137.8	137.8	131.1
ACTUAL TOTAL				551.2	551.2	524.4
USE TOTAL				552.0	552.0	525.0

ROADWAY REMOVAL ITEMS

LOCATION			HOT-MIX ASPHALT SURFACE REMOVAL (VARIABLE DEPTH)	APPROACH SLAB REMOVAL	PAVED SHOULDER REMOVAL
STATION	TO STATION	O/S	SQ YD	SQ YD	SQ YD
779+00.0	TO 779+28.5	LT	126.7		
781+68.4	TO 782+00.0	LT	140.4		
779+00.0	TO 779+28.5	RT	126.7		
781+68.4	TO 782+28.4	RT	266.7		
779+28.5	TO 779+68.5	LT		106.7	62.2
781+28.4	TO 781+68.4	LT		106.7	71.1
779+28.5	TO 779+68.5	RT		106.7	71.1
781+28.4	TO 781+68.4	RT		106.7	71.1
ACTUAL TOTAL			660.5	426.8	275.5
USE TOTAL			661.0	427.0	276.0

TEMPORARY RAMP

O/S	STATION	AREA (SQ YD)
LT	779+00.0	26.7
LT	779+38.5	26.7
LT	779+58.4	26.7
LT	782+00.0	26.7
RT	779+00.0	26.7
RT	779+38.5	26.7
RT	779+58.4	26.7
RT	782+28.4	26.7
ACTUAL TOTAL		213.6
USED TOTAL		214.0

HOT-MIX ASPHALT

LOCATION				HOT-MIX ASPHALT SHOULDERS	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE MIX E, N105	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	BITUMINOUS MATERIALS (PRIME COAT)
STATION	TO	STATION	O/S	TON	TON	SQ YD	GALLON
779+00.0	TO	779+28.5	LT	5.0	7.5		12.7
781+68.4	TO	782+00.0	LT	5.5	8.3		11.2
779+00.0	TO	779+28.5	RT	4.3	7.5		12.7
781+68.4	TO	782+28.4	RT	10.5	15.7		23.8
779+28.5	TO	779+38.5	LT			45.9	8.9
781+58.4	TO	781+68.4	LT			45.9	8.9
779+28.5	TO	779+38.5	RT			45.9	8.9
781+58.4	TO	781+68.4	RT			45.9	8.9
ACTUAL TOTAL				25.3	39.0	183.6	96.0
USE TOTAL				26.0	39.0	184.0	96.0

DRAINAGE REMOVAL ITEMS

LOCATION				PIPE CULVERT REMOVAL	SLOPE WALL REMOVAL
STATION	O/S	TO	STATION O/S	FOOT	SQ YD
779+16.8	3.0' LT	TO	779+98.5 1.9' LT	83.0	
779+98.5	1.9' LT				2.0
781+02.0	0.0' LT				2.0
ACTUAL TOTAL				83.0	4.0
USE TOTAL				83.0	4.0

SHOULDER RUMBLE STRIPS

STATION	TO	STATION	O/S	FOOT
779+00.0	TO	779+38.5	LT - DL & PL	77.0
781+78.4	TO	782+00.0	LT - DL & PL	43.2
779+00.0	TO	779+38.5	RT - DL & PL	77.0
781+78.4	TO	782+28.4	RT - DL & PL	100.0
ACTUAL TOTAL				297.2
USE TOTAL				298.0

DRAINAGE ITEMS

LOCATION				PIPE CULVERT CL A, TY 2, 15"	TRENCH BACKFILL CU YD	SLOPE WALL 6"	INLETS TO BE RECONSTRUCTED	INLETS, TY B, W/ TY 1 FRAME, CLOSED LID	TYPE E INLET BOX STD 610001 SPL	TYPE F INLET BOX STD 610001 SPL	CONCRETE CURB (DOWELLED)	PIPE DRAINS 12"	METAL END SECTIONS	CONCRETE THRUST BLOCKS	STONE RIPRAP CLASS B3	STONE DUMPED RIPRAP CLASS A3
STATION	O/S	TO	STATION O/S	FOOT		SQ YD	EACH	EACH	EACH	EACH	FOOT	FOOT	EACH	EACH	SQ YD	SQ YD
779+16.8	3.0' LT	TO	779+98.5 1.9' LT	83.0	6.3	2.0	1.0									
781+02.0	0.0' LT	TO	781+73.4 0.0' LT	73.0	7.2	2.0										
781+73.4	RT DL								1.0	1.0	10.0	58.0	1.0	1.0	1.0	
781+73.4	RT PL								1.0	1.0	10.0	26.0				
781+73.4	LT DL								1.0	1.0	10.0	55.0	1.0	1.0	1.0	
781+73.4	LT PL								1.0	1.0	10.0	26.0				
781+73.4	CL							1.0								
779+41.9	RT	TO	780+45.0 RT													94.1
ACTUAL TOTAL				156.0	13.5	4.0	1.0	1.0	2.0	2.0	40.0	165.0	2.0	2.0	2.0	94.1
USE TOTAL				156.0	14.0	4.0	1.0	1.0	2.0	2.0	40.0	165.0	2.0	2.0	2.0	95.0

WOVEN WIRE FENCE ITEMS

STATION	WOVEN WIRE FENCE REMOVAL FOOT	WOVEN WIRE FENCE, 4' FOOT
NE QUAD	25.0	25.0
NW QUAD	25.0	25.0
SE QUAD	25.0	25.0
SW QUAD	25.0	25.0
ACTUAL TOTAL	100.0	100.0
USE TOTAL	100.0	100.0

PAVED DITCH REMOVAL

STATION	TO	STATION	O/S	SQ YD
779+41.9	TO	780+45.0	RT	20.0
ACTUAL TOTAL				20.0
USE TOTAL				20.0

GUARDRAIL REMOVAL

STATION	TO	STATION	O/S	FOOT
777+28.9	TO	779+76.3	RT - DL	247.4
778+14.1	TO	779+76.3	RT - PL	162.2
781+30.2	TO	784+27.8	LT - DL	297.6
781+30.2	TO	782+90.3	LT - PL	160.1
ACTUAL TOTAL				867.3
USE TOTAL				868.0

GUARDRAIL ITEMS

LOCATION					TRAFFIC BARRIER TERMINAL TYPE 6	STEEL PLATE BEAM GUARDRAIL, TYPE A	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL TANGENT	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL FLARED	TERMINAL MARKER DIRECT APPLIED
STA	TO	STA	O/S	LANE	EACH	FOOT	EACH	EACH	EACH
781+28.4	TO	781+74.0	LT	DL	1.0				
781+74.0	TO	784+02.2	LT	DL		228.1	1.0		1.0
784+02.2	TO	784+52.2	LT	DL					
781+28.4	TO	781+74.0	LT	PL	1.0				
781+74.0	TO	782+70.0	LT	PL		96.0 (1:30 taper) 19.6 (1:7 taper)			
782+70.0	TO	782+89.7	LT	PL			1.0		1.0
782+89.7	TO	783+39.7	LT	PL					
776+44.7	TO	776+94.7	RT	DL	1.0				
776+94.7	TO	779+22.8	RT	DL		228.1	1.0		1.0
779+22.8	TO	779+68.5	RT	DL					
777+57.2	TO	778+07.2	RT	PL	1.0				
778+07.2	TO	778+26.8	RT	PL		96.0 (1:30 taper) 19.6 (1:7 taper)			
778+26.8	TO	779+22.8	RT	PL					
779+22.8	TO	779+68.5	RT	PL			1.0		1.0
ACTUAL TOTAL					4.0	687.4	2.0	2.0	4.0
USE TOTAL					4.0	687.5	2.0	2.0	4.0

PAVEMENT MARKING ITEMS

LOCATION					PAVEMENT MARKING REMOVAL	THERMOPLASTIC PAVEMENT MARKING LINE-4"	PREFORMED PAVEMENT MARKING LINE-4"	EPOXY PAVEMENT MARKING LINE-4"	SHORT TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING LINE - 4"
STAGE	O/S	STA TO STA	DESCPT	COLOR	SQ FT	FOOT	FOOT	FOOT	FOOT	
I&II	RT	771+78.3 782+28.3	CL SKIP DASH	WHITE	86.6		207.5	55.0	105.0	262.5
I&II	LT	779+00.0 789+37.4	CL SKIP DASH	WHITE	85.6		204.5	55.0	103.7	259.5
I	RT	776+78.3 779+38.5	DL EOP	WHITE	85.9	260.2			10.4	260.2
I	RT	779+38.5 781+58.4	DL EOP	WHITE				219.9	8.8	219.9
I	RT	781+58.4 783+77.2	DL EOP	WHITE	72.2	218.8			8.8	218.8
I	LT	777+38.1 779+38.5	DL EOP	WHITE	66.1	200.4			8.0	200.4
I	LT	779+38.5 781+58.4	DL EOP	WHITE				219.9	8.8	219.9
I	LT	781+58.4 784+37.3	DL EOP	WHITE	92.0	278.9			11.2	278.9
II	RT	777+83.9 779+00.0	PL EOP	YELLOW	38.3	116.1			4.6	116.1
II	RT	779+00.0 779+38.5	PL EOP	YELLOW		38.5			1.5	38.5
II	RT	779+38.5 781+58.4	PL EOP	YELLOW				219.9	8.8	219.9
II	RT	781+58.4 782+28.4	PL EOP	YELLOW		70.0			2.8	70.0
II	RT	782+28.4 782+93.4	PL EOP	YELLOW	21.5	65.0			2.6	65.0
II	LT	778+35.0 779+00.0	PL EOP	YELLOW	21.5	65.0			2.6	65.0
II	LT	779+00.0 779+38.5	PL EOP	YELLOW		38.5			1.5	38.5
II	LT	779+38.5 781+58.4	PL EOP	YELLOW				219.9	8.8	219.9
II	LT	781+58.4 782+00.0	PL EOP	YELLOW		41.6			1.7	41.6
II	LT	782+00.0 783+19.1	PL EOP	YELLOW	39.3	119.1			4.8	119.1
TOTAL					609.0	1512.1	412.0	989.6	304.4	2913.7
USE					609.0	1513.0	412.0	990.0	305.0	2915.0

TEMPORARY CONCRETE BARRIER

LOCATION				TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER
O/S	STA	O/S	STA	FOOT	FOOT
STAGE I					
RT	777+22.3	RT	779+00.0	177.70	
RT	779+00.0	RT	782+28.3	328.30	
LT	779+00.0	LT	782+16.9	316.90	
LT	782+16.9	LT	783+93.5	176.60	
STAGE II					
RT	777+47.5	RT	778+99.1		151.60
RT	778+99.1	RT	782+28.4		329.30
LT	779+00.0	LT	782+04.0		304.00
LT	782+04.0	LT	783+67.9		163.90
ACTUAL TOTAL				999.5	948.8
USE TOTAL				1000.0	950.0

IMPACT ATTENUATORS

STATION	IMPACT ATTENUATORS TEMPORARY, NON-REDIRECTIVE, TEST LEVEL 3	IMPACT ATTENUATORS RELOCATE, NON-REDIRECTIVE, TEST LEVEL 3
	EACH	EACH
LT 783+93.5	1.0	
RT 777+22.3	1.0	
LT 783+67.9		1.0
RT 777+47.5		1.0
ACTUAL TOTAL	2.0	2.0
USE TOTAL	2.0	2.0

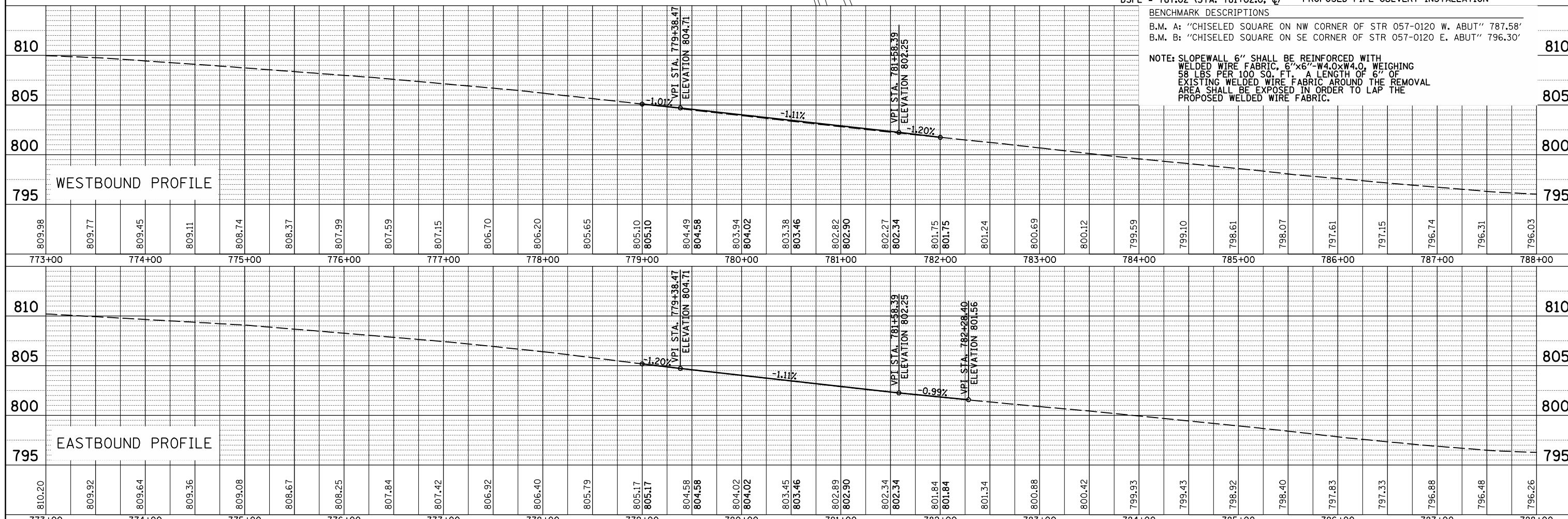
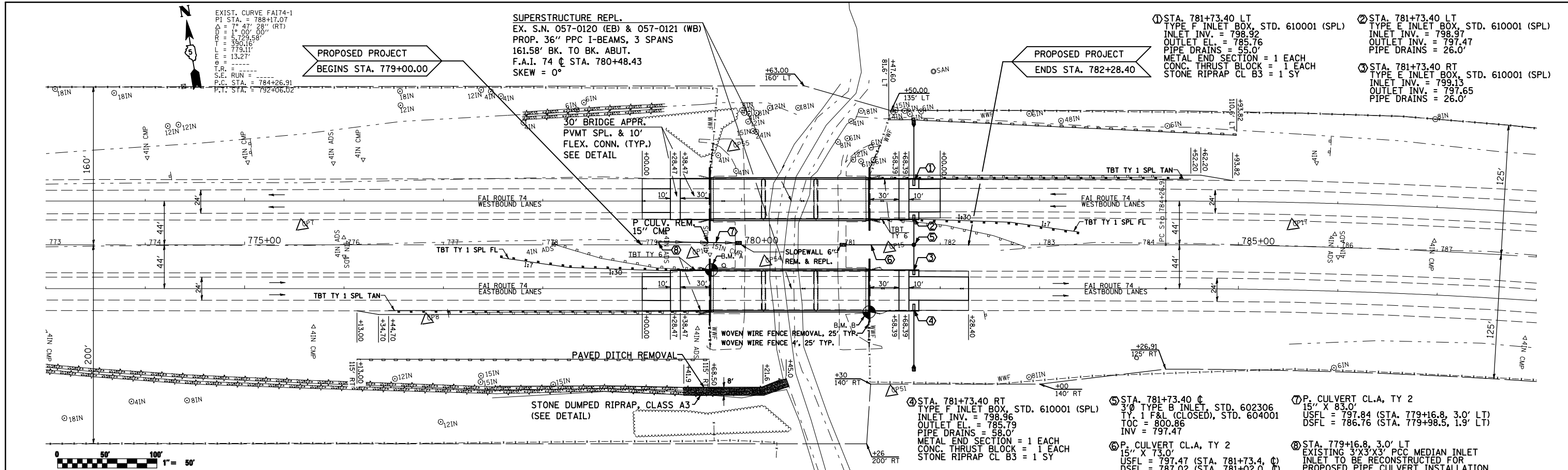
WORK ZONE PAVEMENT MARKING REMOVAL

REMOVAL OF TEMPORARY & SHORT TERM PAVEMENT MARKINGS							
O/S	STATION	O/S	STATION	# LINES	LENGTH (FT)	WIDTH (FT)	AREA (SQ FT)
STAGE I							
RT	761+78.3	RT	771+78.3	1	1000.0	0.33	330.0
RT	771+78.3	RT	776+78.3	1	500.0	0.33	165.0
RT	776+78.3	RT	778+48.9	2	170.6	0.33	56.3
RT	778+48.9	RT	782+28.3	2	379.4	0.33	125.2
RT	782+28.3	RT	783+77.2	1	148.9	0.33	49.1
LT	777+38.1	LT	779+00.0	1	161.9	0.33	53.4
LT	779+00.0	LT	782+66.8	2	366.8	0.33	121.0
LT	782+66.8	LT	784+37.3	2	170.5	0.33	56.3
LT	784+37.3	LT	789+37.3	1	500.0	0.33	165.0
LT	789+37.3	LT	799+37.3	1	1000.0	0.33	330.0
STAGE II							
RT	762+83.9	RT	772+83.9	1	1000.0	0.33	330.0
RT	772+83.9	RT	777+83.9	1	500.0	0.33	165.0
RT	777+83.9	RT	778+48.9	2	65.0	0.33	21.5
RT	778+48.9	RT	782+28.4	2	379.5	0.33	125.2
RT	782+28.4	RT	782+93.4	1	65.0	0.33	21.5
LT	778+35.0	LT	779+00.0	1	65.0	0.33	21.5
LT	779+00.0	LT	782+54.1	2	354.1	0.33	116.9
LT	782+54.1	LT	783+19.1	2	65.0	0.33	21.5
LT	783+19.1	LT	788+19.1	1	500.0	0.33	165.0
LT	788+19.1	LT	798+19.1	1	1000.0	0.33	330.0

TEMP. PAVT MKG REMOVAL SUBTOTAL 2769.3
 SHORT TERM MKG REMOVAL SUBTOTAL 101.7
 TOTAL 2871.0
 USE 2871.0

PLAN	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	NOTATIS CHFD	
	NO. 10	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	NOTATIS CHFD	
	NO. 10	



FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
ct:\pwork\pwork\keysrb\d0101432\0501107	ht-Plan.dgn	CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED PLAN AND PROFILE

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21)BR	MCLEAN	61	10
CONTRACT NO. 70641				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

- ① STA. 781+73.40 LT
TYPE F INLET BOX, STD. 610001 (SPL)
INLET INV. = 798.92
OUTLET EL. = 785.76
PIPE DRAINS = 55.0'
METAL END SECTION = 1 EACH
CONC. THRUST BLOCK = 1 EACH
STONE RIPRAP CL B3 = 1 SY
- ② STA. 781+73.40 LT
TYPE E INLET BOX, STD. 610001 (SPL)
INLET INV. = 798.97
OUTLET INV. = 797.47
PIPE DRAINS = 26.0'
- ③ STA. 781+73.40 RT
TYPE E INLET BOX, STD. 610001 (SPL)
INLET INV. = 799.13
OUTLET INV. = 797.65
PIPE DRAINS = 26.0'

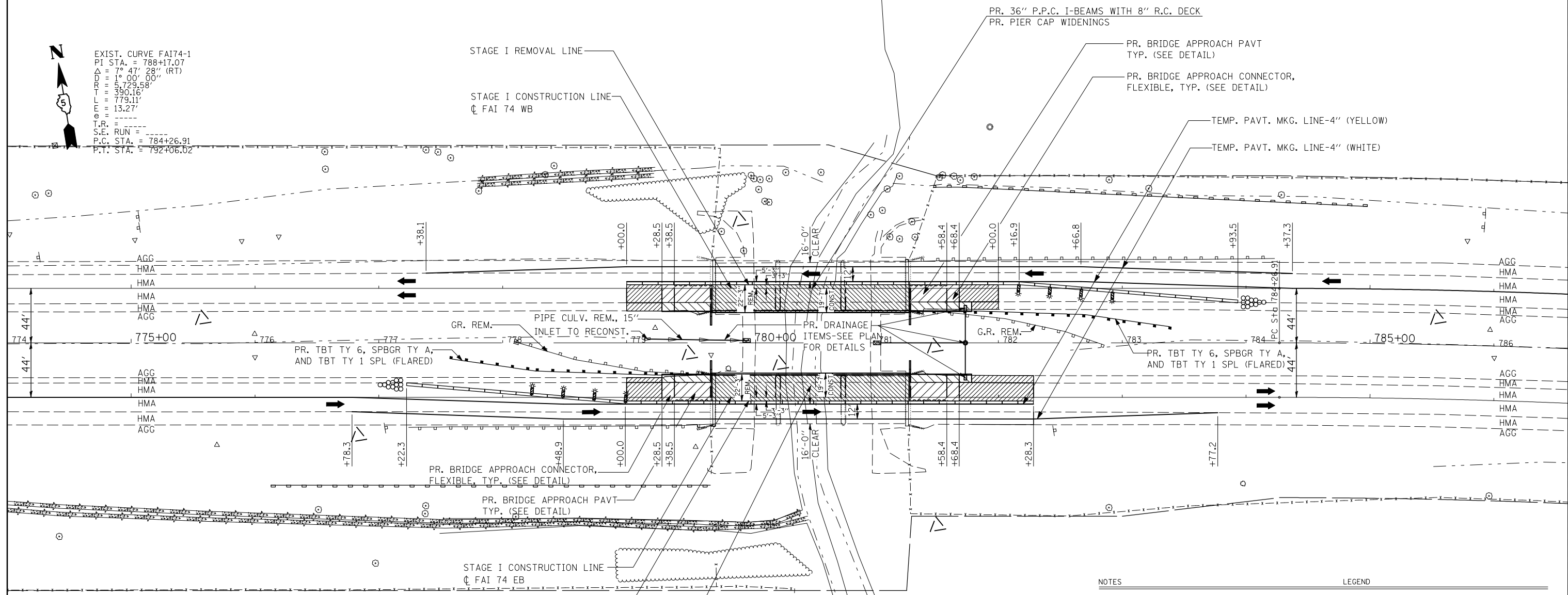
- ④ STA. 781+73.40 RT
TYPE F INLET BOX, STD. 610001 (SPL)
INLET INV. = 798.96
OUTLET EL. = 785.79
PIPE DRAINS = 58.0'
METAL END SECTION = 1 EACH
CONC. THRUST BLOCK = 1 EACH
STONE RIPRAP CL B3 = 1 SY
- ⑤ STA. 781+73.40 C
3'0" TYPE B INLET, STD. 602306
TY. 1 F&L (CLOSED), STD. 604001
TOC = 800.86
INV = 797.47
- ⑥ P. CULVERT CL.A, TY 2
15" X 73.0'
- ⑦ P. CULVERT CL.A, TY 2
15" X 83.0'
USFL = 797.84 (STA. 779+16.8, 3.0' LT)
DSFL = 786.76 (STA. 779+98.5, 1.9' LT)
- ⑧ STA. 779+16.8, 3.0' LT
EXISTING 3'X3'X3' PCC MEDIAN INLET
INLET TO BE RECONSTRUCTED FOR
PROPOSED PIPE CULVERT INSTALLATION

BENCHMARK DESCRIPTIONS
 B.M. A: "CHISELED SQUARE ON NW CORNER OF STR 057-0120 W. ABUT" 787.58'
 B.M. B: "CHISELED SQUARE ON SE CORNER OF STR 057-0120 E. ABUT" 796.30'
NOTE: SLOPEWALL 6" SHALL BE REINFORCED WITH WELDED WIRE FABRIC, 6"x6"-W4.0xW4.0, WEIGHING 58 LBS PER 100 SQ. FT. A LENGTH OF 6" OF EXISTING WELDED WIRE FABRIC AROUND THE REMOVAL AREA SHALL BE EXPOSED IN ORDER TO LAP THE PROPOSED WELDED WIRE FABRIC.

STAGE I CONSTRUCTION



EXIST. CURVE FA174-1
 PI STA. = 788+17.07
 $\Delta = 7^{\circ} 47' 28''$ (RT)
 $D = 1^{\circ} 00' 00''$
 $R = 5,729.58'$
 $T = 390.16'$
 $L = 779.11'$
 $e = 13.27'$
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 784+26.91
 P.T. STA. = 792+06.02



NOTES

HMA SURFACE COURSE SHALL BE PLACED, FOLLOWING STAGE I AND STAGE II CONSTRUCTION, UTILIZING TC&P STD. 701406.

ALL DETAILS NOT SHOWN ARE TO BE PER THE REQUIREMENTS OF TC&P STDS. 701400 AND 701402.

SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION ON STAGE CONSTRUCTION.

FOR ADDITIONAL TRAFFIC CONTROL DETAILS, SEE THE TRAFFIC CONTROL PLAN IN THE CONTRACT PROVISIONS.

THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE VERTICAL PANELS WITH LIGHTS SHALL BE CONSIDERED INCLUDED IN THE TC&P STD. 701402 ITEM.

LEGEND

- APPROACH PAVEMENT REMOVAL
- PAVED SHOULDER REMOVAL
- SUPERSTRUCTURE REMOVAL
- 6" SLOPEWALL REM. & REPL.
- HMA SURFACE REMOVAL, VAR. DEPTH
- IMPACT ATTENUATOR, TEMPORARY, NON-REDIRECTIVE, TEST LEVEL 3
- VERTICAL PANELS (BACK-BACK) WITH LIGHT @ 25' CENTER (4 EACH STAGE)
- TRAFFIC
- TEMPORARY CONCRETE BARRIER

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
ct:\pw\work\p1dot\keysrb\101432\050110	7-shft-Staging.dgn	DRAWN -	REVISED -
	PLOT SCALE = 80.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/30/2009	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**I-74 OVER LITTLE KICKAPOO CREEK
 TRAFFIC CONTROL PLAN - STAGE 1**

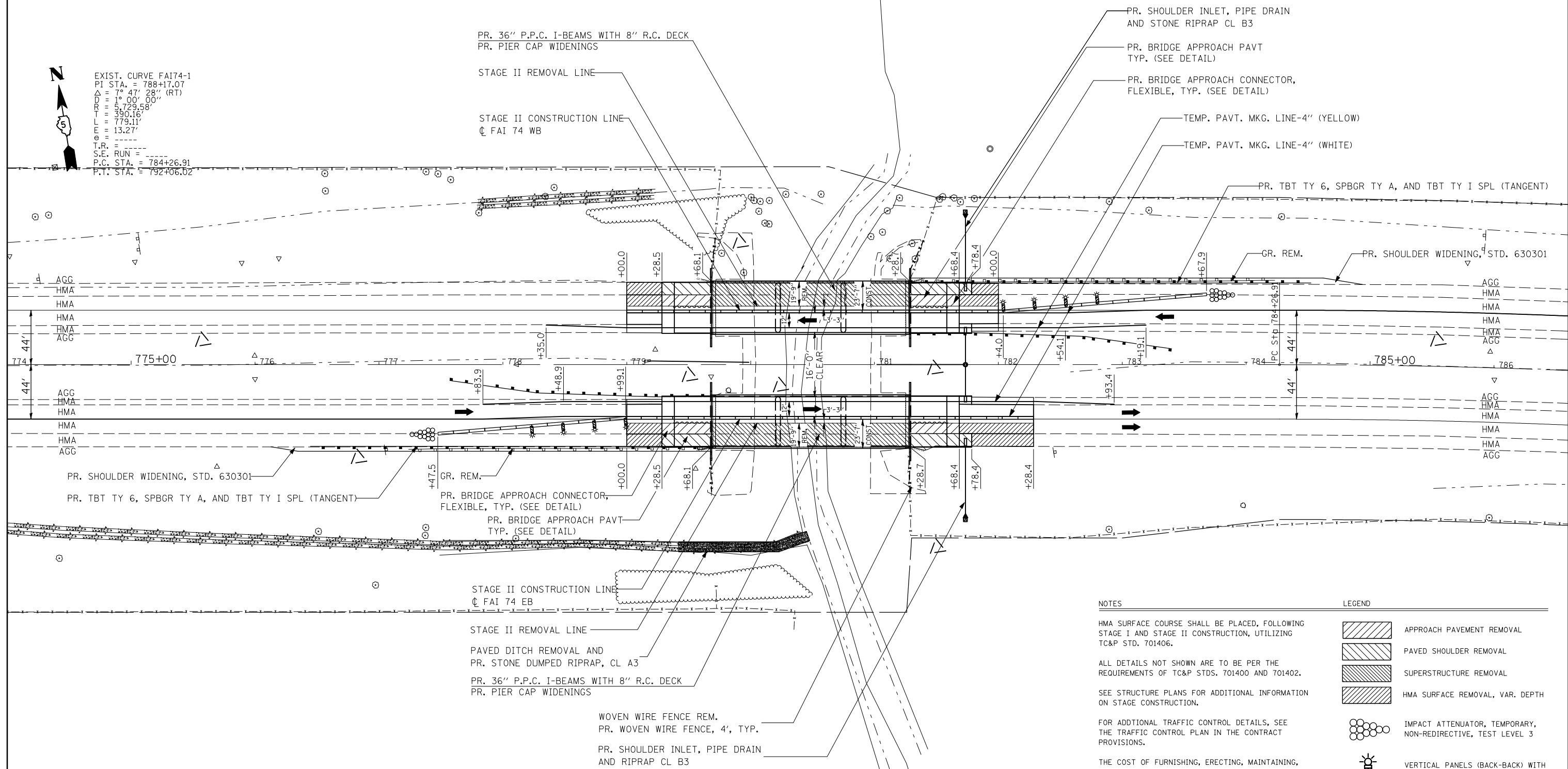
SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21)BR	MCLEAN	61	11
CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT				

STAGE II CONSTRUCTION



EXIST. CURVE FAI74-1
 PI STA. = 788+17.07
 $\Delta = 7^{\circ} 47' 28''$ (RT)
 $D = 1^{\circ} 00' 00''$
 $R = 5,729.58'$
 $L = 390.16'$
 $E = 779.11'$
 $e = 13.27'$
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 784+26.91
 P.T. STA. = 792+06.02



NOTES

- HMA SURFACE COURSE SHALL BE PLACED, FOLLOWING STAGE I AND STAGE II CONSTRUCTION, UTILIZING TC&P STD. 701406.
- ALL DETAILS NOT SHOWN ARE TO BE PER THE REQUIREMENTS OF TC&P STDS. 701400 AND 701402.
- SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION ON STAGE CONSTRUCTION.
- FOR ADDITIONAL TRAFFIC CONTROL DETAILS, SEE THE TRAFFIC CONTROL PLAN IN THE CONTRACT PROVISIONS.
- THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE VERTICAL PANELS WITH LIGHTS SHALL BE CONSIDERED INCLUDED IN THE TC&P STD. 701402 ITEM.

LEGEND

- APPROACH PAVEMENT REMOVAL
- PAVED SHOULDER REMOVAL
- SUPERSTRUCTURE REMOVAL
- HMA SURFACE REMOVAL, VAR. DEPTH
- IMPACT ATTENUATOR, TEMPORARY, NON-REDIRECTIVE, TEST LEVEL 3
- VERTICAL PANELS (BACK-BACK) WITH LIGHT @ 25' CENTER (4 EACH STAGE)
- TRAFFIC
- TEMPORARY CONCRETE BARRIER

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
ct:\pw\work\p\dots\keysrb\101432\050110	st-Stage.dgn	DRAWN -	REVISED -
	PLOT SCALE = 80.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/30/2009	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**I-74 OVER LITTLE KICKAPOO CREEK
 TRAFFIC CONTROL PLAN - STAGE 2**

SCALE: SHEET NO. 2 OF 2 SHEETS STA. TO STA.

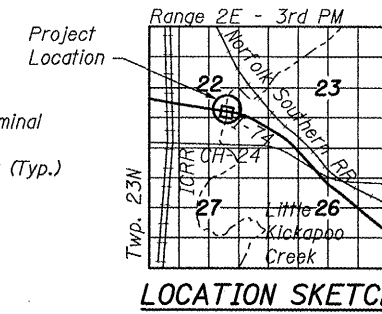
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	12
CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT				

Benchmark: Chiseled square on concrete drainage way of Eastbound (SN 057-0120) Elevation 786.68

Existing Structures: S.N. 057-0120 (EB) and S.N. 057-0121 (WB) built in 1968 as FAI Route 74 Section 57-21B at Station 780+50. Superstructure consists of 42" P.P.C. I Beams and a 7 1/2" RC Deck with bituminous wearing surface. The substructure consists of RC stub abutments supported on concrete piles and RC solid wall piers supported on spread footings. Structure measures 161'-7" Bk. to Bk. abutments, and 42'-0" Out-to-Out of deck. Existing superstructures shall be removed and replaced, existing stub abutments to be converted to semi-integral abutments. Traffic to be maintained using stage construction.

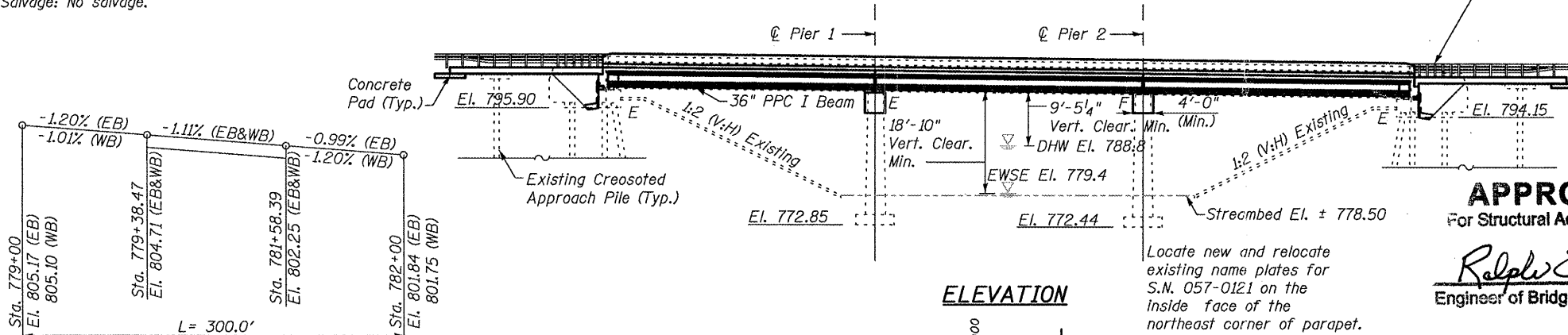
Salvage: No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Data
- 3-4 Stage Construction
- 5-9 Top of Slab Elevations
- 10-12 Superstructure Details
- 13 Framing Plan
- 14-16 Beam Details
- 17 Bearing Details
- 18-19 Abutment Repair Details
- 20-21 Abutment Cap and Wingwalls
- 22-25 Pier Repair Details
- 26-27 Standard Details



APPROVED
For Structural Adequacy Only
Ralph E. Anderson
Engineer of Bridges & Structures

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.144g
Design Spectral Acceleration at 0.2 sec. (SDs) = 0.224g
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

LOADING HL-93

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

PRECAST PRESTRESSED UNITS

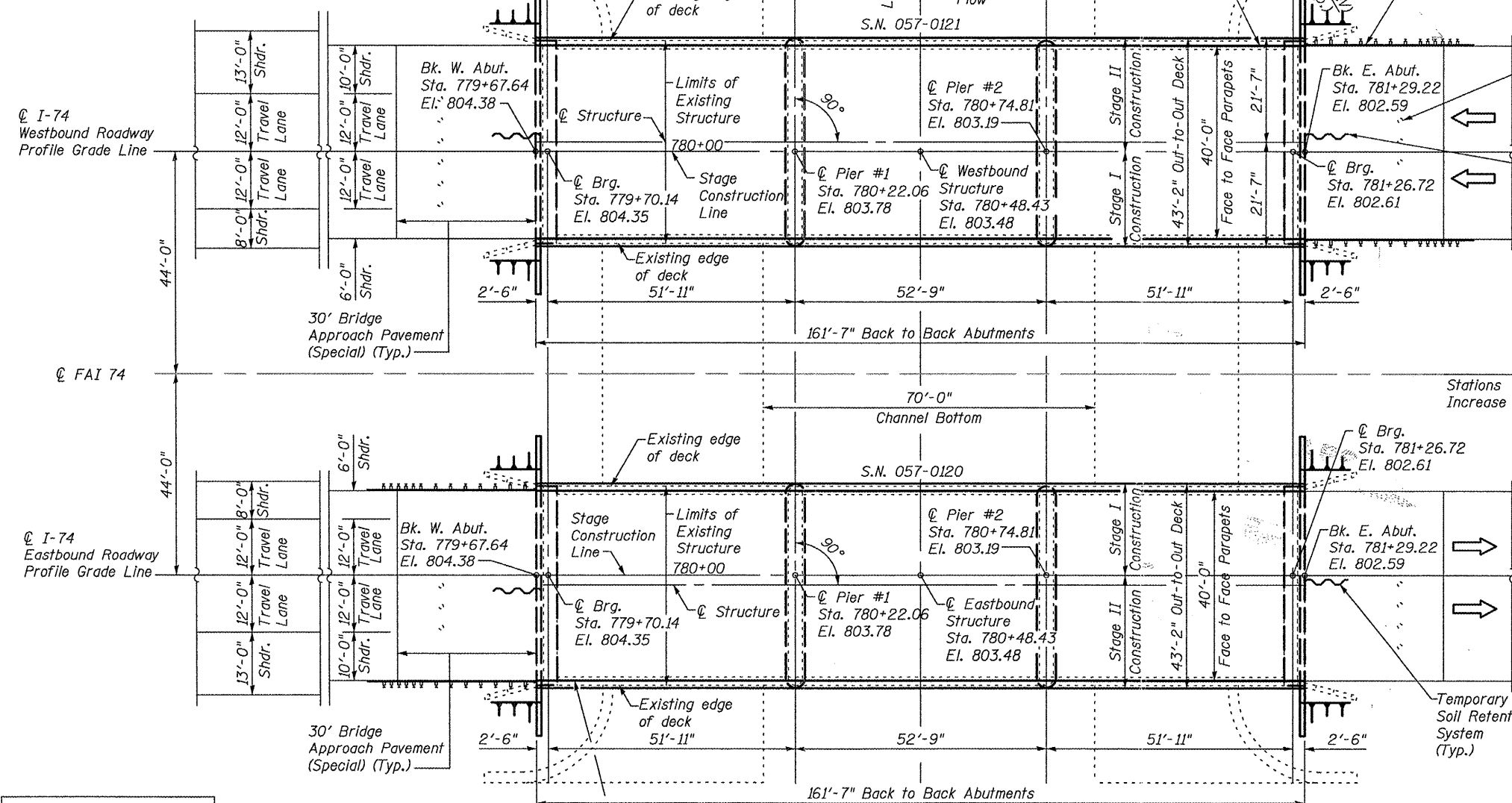
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" Low Lax. Strands)
fpbt = 201,960 psi (1/2" Low Lax. Strands)

EXISTING SUBSTRUCTURE FIELD UNITS

f'c = 1,400 psi
fs = 20,000 psi (reinforcement)

PROFILE GRADE

(Westbound and Eastbound)



SCOPE OF WORK

1. Remove and replace existing deck parapets, PPC I-beam superstructure, and bridge approach pavements utilizing stage construction. Use elastomeric expansion bearings at abutments and expansion pier.
2. Modify and widen existing abutment to semi-integral abutments. Remove existing wingwalls and replace with new 'dogear' type wingwalls.

WATERWAY INFORMATION

Drainage Area = 13.99 mi Low Grade Elev. 795.69 @ Sta. 790+10

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
10	1548	490	490	787.8	0.6	0.6	788.4	788.4	788.4
Design	50	2500	600	600	788.8	1.1	1.1	789.9	789.9
Base	100	2924	636	636	789.2	1.3	1.3	790.5	790.5
Max. Calc.	500	3960	729	729	790.0	1.7	1.7	791.7	791.7

Scour counter measures are in place. Scour is not anticipated.

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

ILLINOIS STRUCTURAL NO. 081-005819 (Expires 11/30/08)



GENERAL PLAN & ELEVATION
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

Note:
The profile grade shows the final elevations after grinding Up to 1/4" will be ground off the bridge deck and the bridge approach pavement.

PLAN

SHEET NO. 1 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 13
	GENERAL PLAN & ELEVATION			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

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

The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

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

Existing name plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

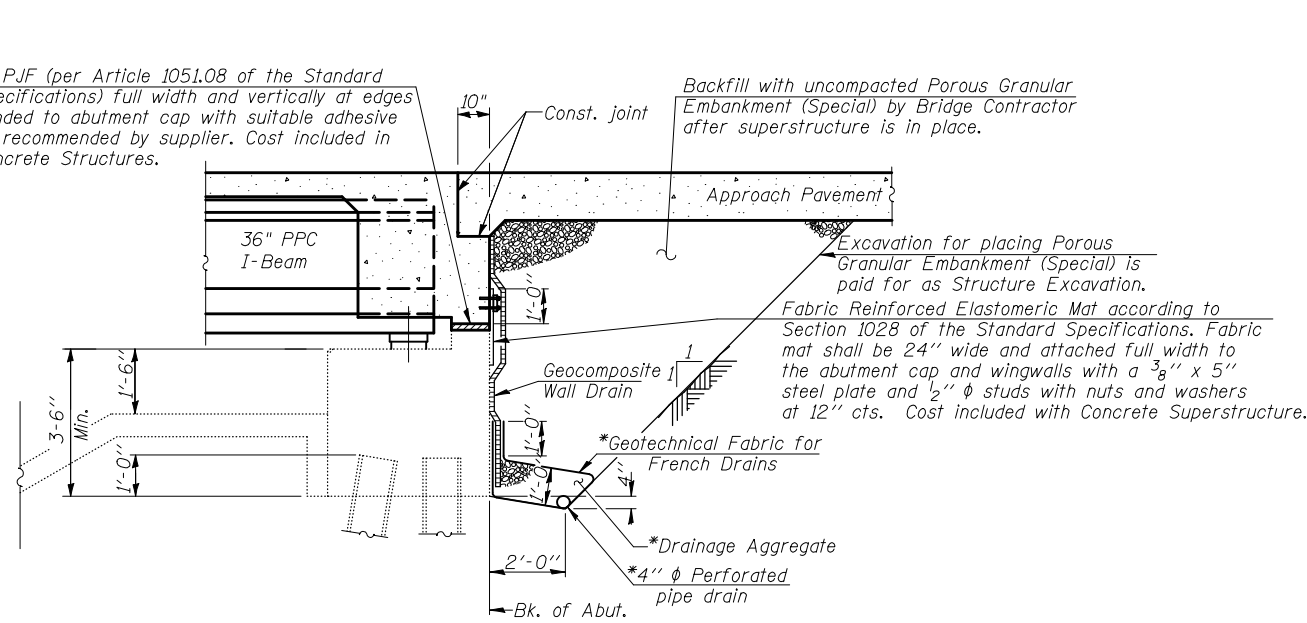
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

Slip forming of the parapets is not allowed.

Saw cut gooving of the approach pavement is required, see roadway plans.

2" P.J.F (per Article 1051.08 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier. Cost included in Concrete Structures.

Backfill with uncompacted Porous Granular Embankment (Special) by Bridge Contractor after superstructure is in place.



SECTION THRU SEMI-INTEGRAL ABUTMENT

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

*Included in the cost of Pipe Underdrains for Structures.

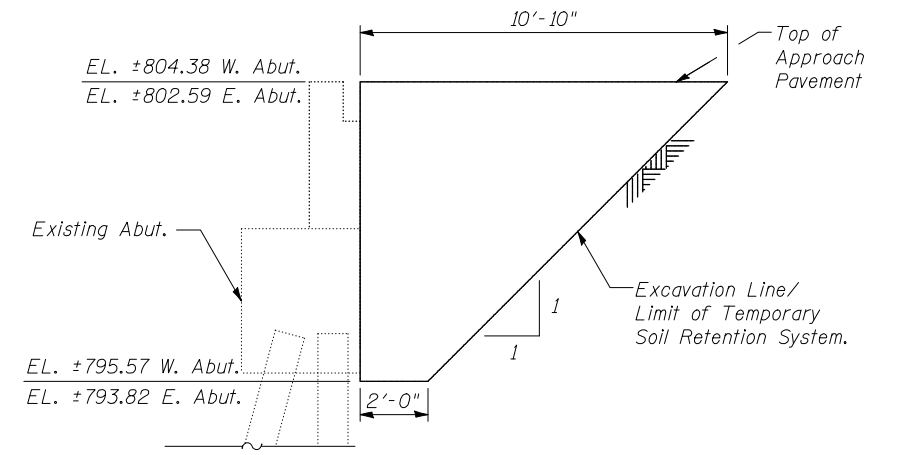
Note:

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).

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
* Porous Granular Embankment (Special)	CU YD	0	276	276
Removal Of Existing Superstructures	EACH	2	0	2
Concrete Removal	CU YD	0	132	132
Structure Excavation	CU YD	0	356	356
Concrete Structures	CU YD	0	96	96
Concrete Superstructure	CU YD	543	0	543
Bridge Deck Grooving	SQ YD	1,352	0	1,352
Protective Coat	SQ YD	1,958	0	1,958
Furnishing And Erecting Precast Prestressed Concrete I-Beams, 36 In.	FOOT	1,871	0	1,871
Reinforcement Bars, Epoxy Coated	POUND	122,040	10,660	132,700
Bar Splicers	EACH	1,298	32	1,330
Name Plates	EACH	2	0	2
Elastomeric Bearing Assembly, Type I	EACH	48	0	48
Anchor Bolts, 1"	EACH	96	0	96
Anchor Bolts, 1/2"	EACH	8	0	8
Epoxy Crack Injection	FOOT	0	79	79
Geocomposite Wall Drain	SQ YD	0	137	137
* Pipe Underdrains For Structures 4"	FOOT	0	269	269
* Temporary Soil Retention System	SQ FT	0	227	227
* Diamond Grinding (Bridge Section)	SQ YD	1,869	0	1,869
* Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	SQ FT	0	326	326

*Special Provision



TEMPORARY SOIL RETENTION SYSTEM

Stage Construction Line at Abutments

Note:

The information shown for temporary soil retention system is estimated. It is the contractor's responsibility to provide a design for the temporary soil retention system, complete with calculations and drawings, sealed by a licensed structural engineer, for the Engineer's review in accordance with contract special provisions.

STATION 780+50
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (57-21B) BR
LOADING HL-93
STRUCTURE NO. 057-0120

NAME PLATE
See Std. 515001

STATION 780+50
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (57-21B) BR
LOADING HL-93
STRUCTURE NO. 057-0121

NAME PLATE
See Std. 515001

Note:

Existing name plates to be cleaned and placed adjacent to new plates. Cost included with "Name Plates."

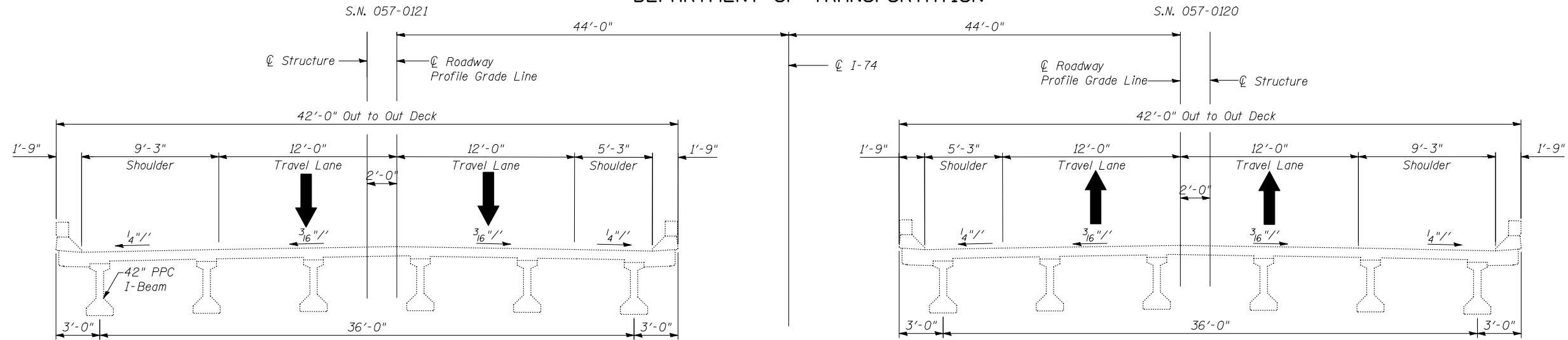
**GENERAL NOTES, TOTAL
BILL OF MATERIALS &
MISCELLANEOUS DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121**

STRAND ASSOCIATES, INC.

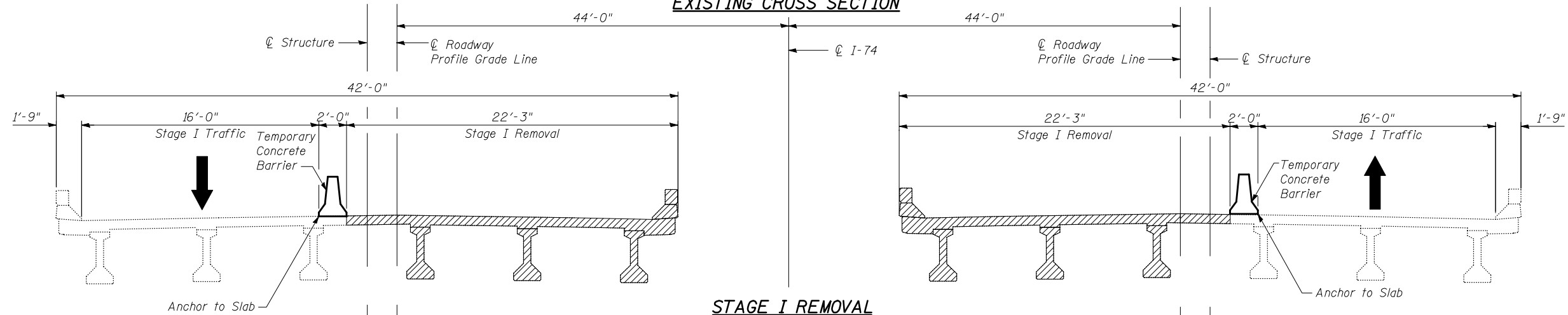
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 2 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 14
	GENERAL DATA		CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

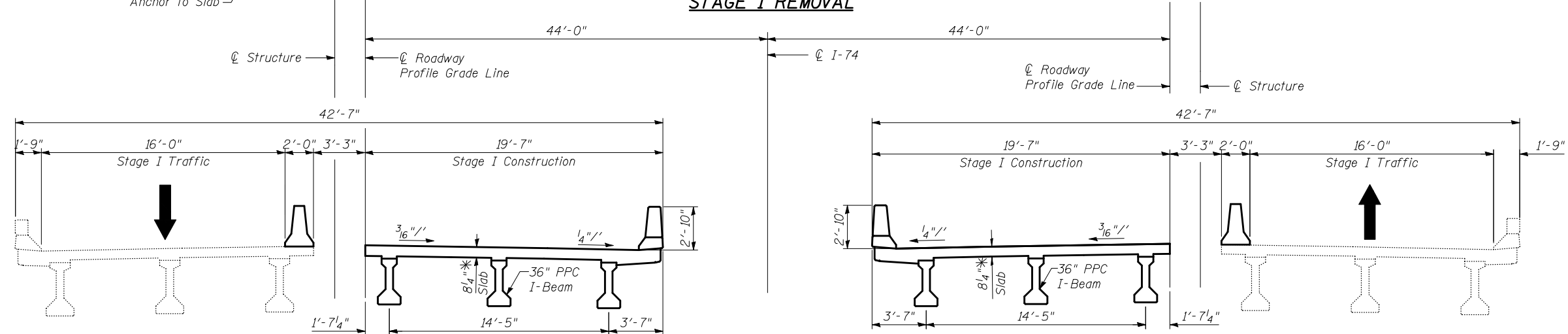
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



EXISTING CROSS SECTION






STAGE I REMOVAL



STAGE I CONSTRUCTION

LEGEND

-  Removal of Existing Superstructures
-  Existing
-  Proposed

Note:
All staging cross sections are looking East.
Removal of the Existing Diaphragms is included in Removal of Existing Superstructures.

*Prior to grinding

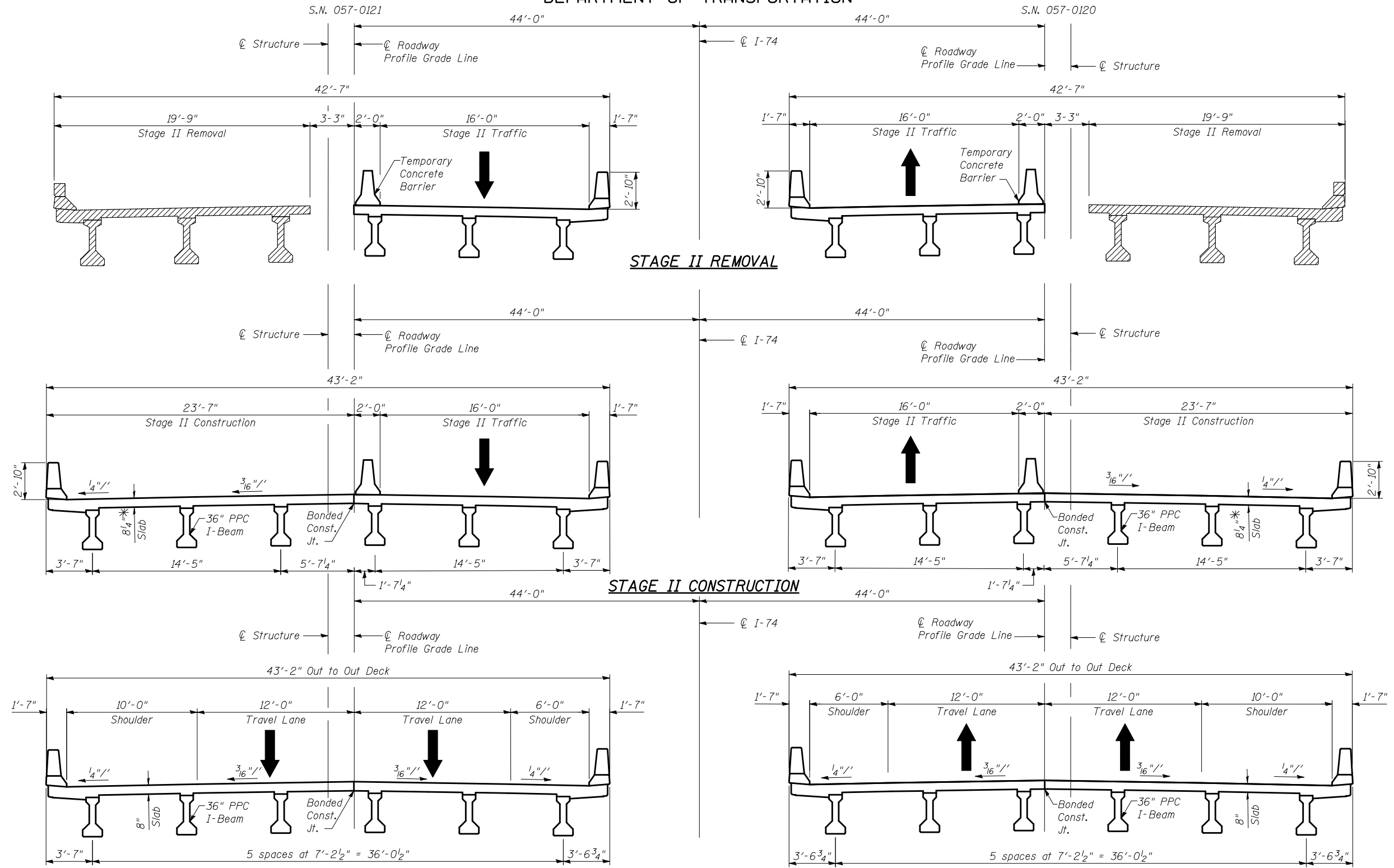
**STAGE CONSTRUCTION DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121**

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 3 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 15
	STAGE CONSTRUCTION (1 OF 2)		CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STAGE II REMOVAL

STAGE II CONSTRUCTION

FINISHED CROSS SECTION

STAGE CONSTRUCTION DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

LEGEND

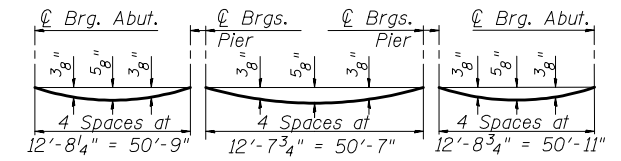
- Removal of Existing Superstructures
- Existing
- Proposed

Note:
All staging cross sections are looking East.
Removal of the Existing Diaphragms is included in Removal of Existing Superstructures.

*Prior to grinding

SHEET NO. 4 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 16
	STAGE CONSTRUCTION (2 OF 2)			CONTRACT NO. 70641	
	FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

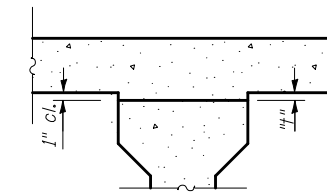
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



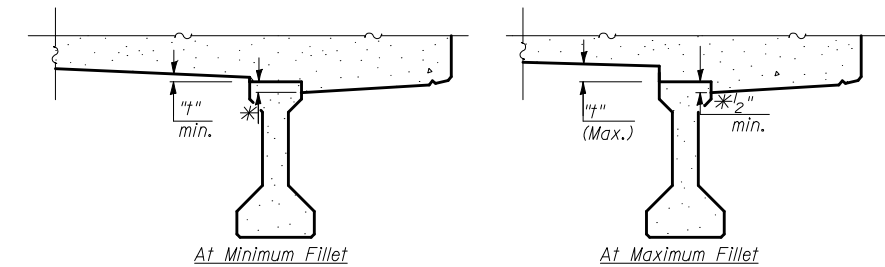
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections and Grinding" as shown below and on Sheet 6 & 7 of 27.



INTERIOR BEAMS



* Variable (not less than 1/2")

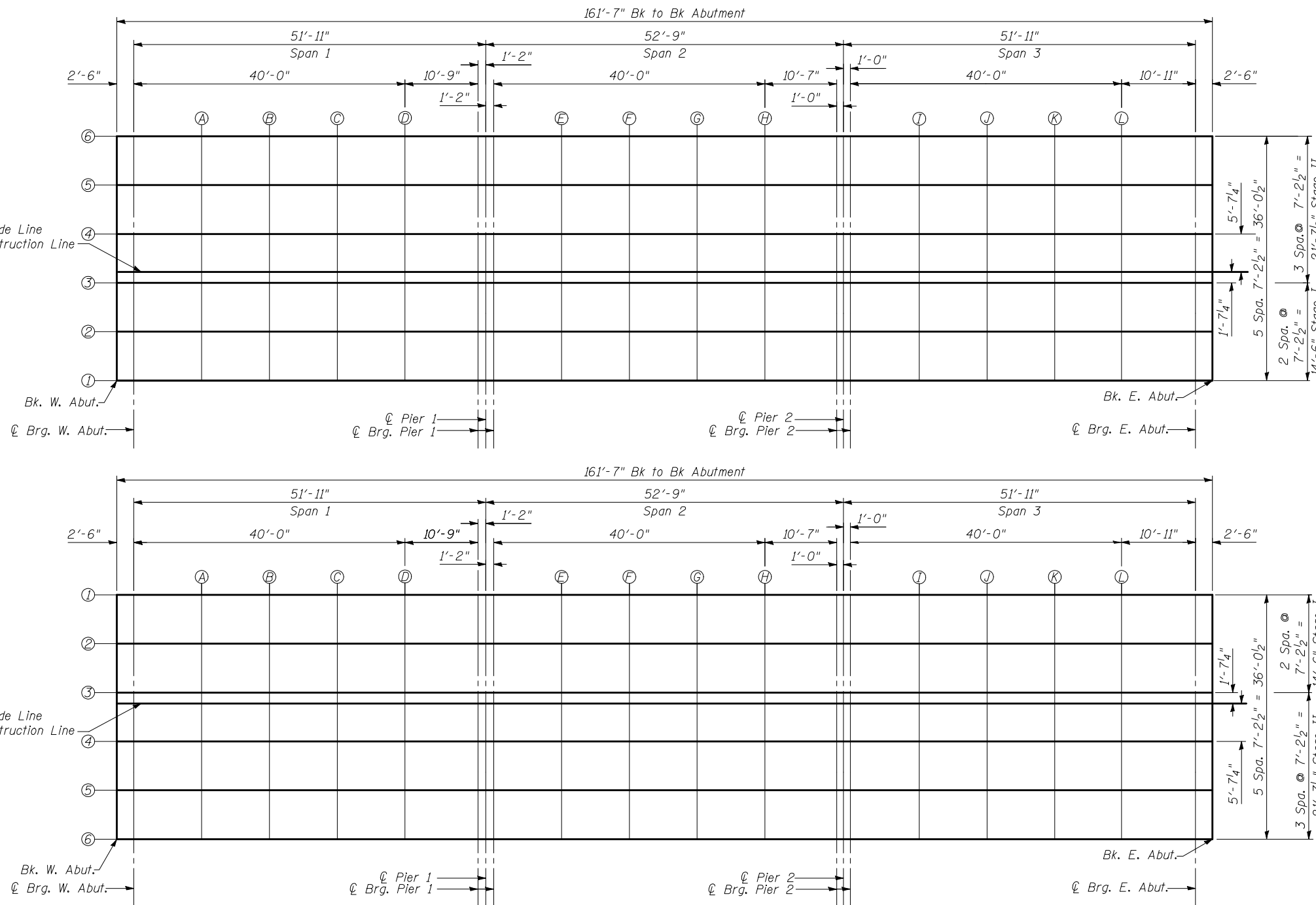
EXTERIOR BEAMS

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the plans. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections and Grinding" shown on Sheets 6 & 7 of 27, minus 8 1/4" deck thickness, equals the fillet heights "t" above top flanges of beams.

The slab is to be ground after curing to achieve smoothness but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets 6 & 7 of 27. For grinding the deck, see Special Provisions.

**TOP OF SLAB ELEVATIONS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121**

STRAND ASSOCIATES, INC.



☉ Roadway
Profile Grade Line
Stage Construction Line

☉ Roadway
Profile Grade Line
Stage Construction Line

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 5 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 17
	TOP OF SLAB ELEVATIONS (1 OF 5)			CONTRACT NO. 70641	
	FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH EDGE OF SHOULDER

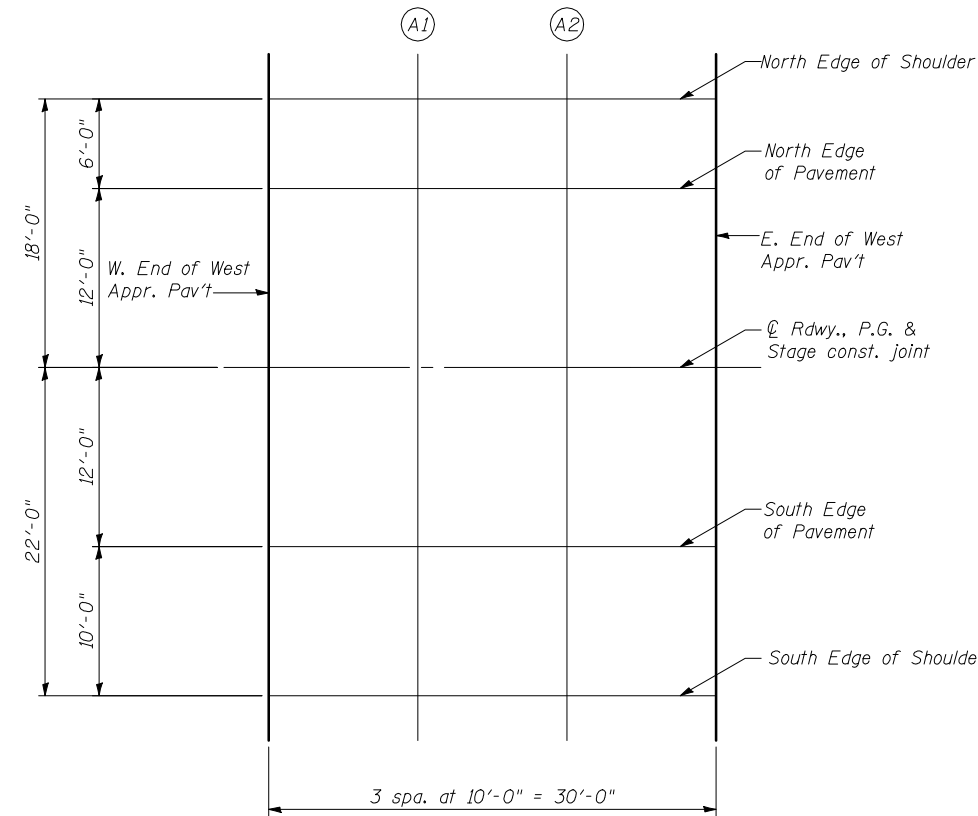
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	26.00	804.40	804.42
A1	779+48.47	26.00	804.29	804.31
A2	779+58.47	26.00	804.18	804.20
E. End West Appr. Pav't.	779+68.47	26.00	804.06	804.08
W. End East Appr. Pav't.	781+28.39	26.00	802.28	802.30
A3	781+38.39	26.00	802.16	802.18
A4	781+48.39	26.00	802.05	802.07
E. End East Appr. Pav't.	781+58.39	26.00	801.94	801.96

NORTH EDGE OF PAVEMENT

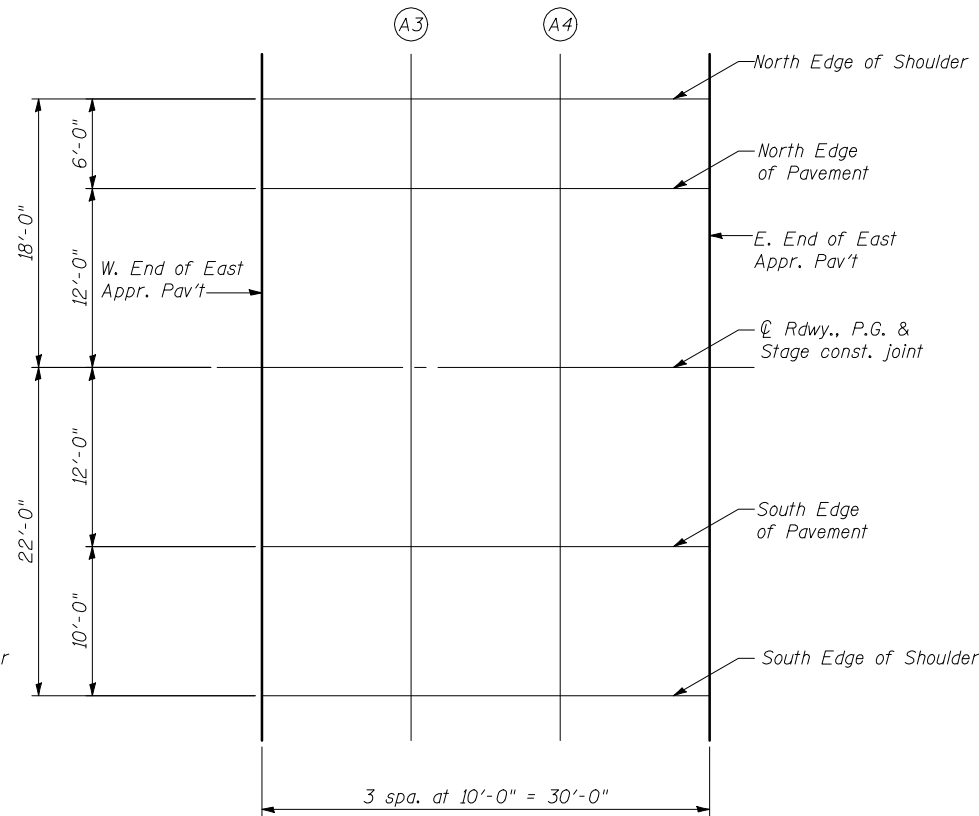
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	32.00	804.52	804.55
A1	779+48.47	32.00	804.41	804.43
A2	779+58.47	32.00	804.30	804.32
E. End West Appr. Pav't.	779+68.47	32.00	804.18	804.20
W. End East Appr. Pav't.	781+28.39	32.00	802.41	802.43
A3	781+38.39	32.00	802.29	802.31
A4	781+48.39	32.00	802.18	802.20
E. End East Appr. Pav't.	781+58.39	32.00	802.07	802.09

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	44.00	804.71	804.73
A1	779+48.47	44.00	804.60	804.62
A2	779+58.47	44.00	804.49	804.51
E. End West Appr. Pav't.	779+68.47	44.00	804.37	804.39
W. End East Appr. Pav't.	781+28.39	44.00	802.59	802.62
A3	781+38.39	44.00	802.47	802.50
A4	781+48.39	44.00	802.36	802.38
E. End East Appr. Pav't.	781+58.39	44.00	802.25	802.27



PLAN
West Approach (E.B.)



PLAN
East Approach (E.B.)

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	56.00	804.52	804.55
A1	779+48.47	56.00	804.41	804.43
A2	779+58.47	56.00	804.30	804.32
E. End West Appr. Pav't.	779+68.47	56.00	804.18	804.20
W. End East Appr. Pav't.	781+28.39	56.00	802.41	802.43
A3	781+38.39	56.00	802.29	802.31
A4	781+48.39	56.00	802.18	802.20
E. End East Appr. Pav't.	781+58.39	56.00	802.07	802.09

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	66.00	804.32	804.34
A1	779+48.47	66.00	804.21	804.23
A2	779+58.47	66.00	804.09	804.12
E. End West Appr. Pav't.	779+68.47	66.00	803.97	803.99
W. End East Appr. Pav't.	781+28.39	66.00	802.20	802.22
A3	781+38.39	66.00	802.08	802.10
A4	781+48.39	66.00	801.97	801.99
E. End East Appr. Pav't.	781+58.39	66.00	801.86	801.88

Note:
Positive offset is Rt of ϕ FAI 74 and negative offset is Lt of ϕ FAI 74.

**TOP OF APPROACH
PAVEMENT ELEVATIONS
EASTBOUND
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120**

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 8 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 20
	TOP OF SLAB ELEVATIONS (4 OF 5)			CONTRACT NO. 70641	
	FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH EDGE OF SHOULDER

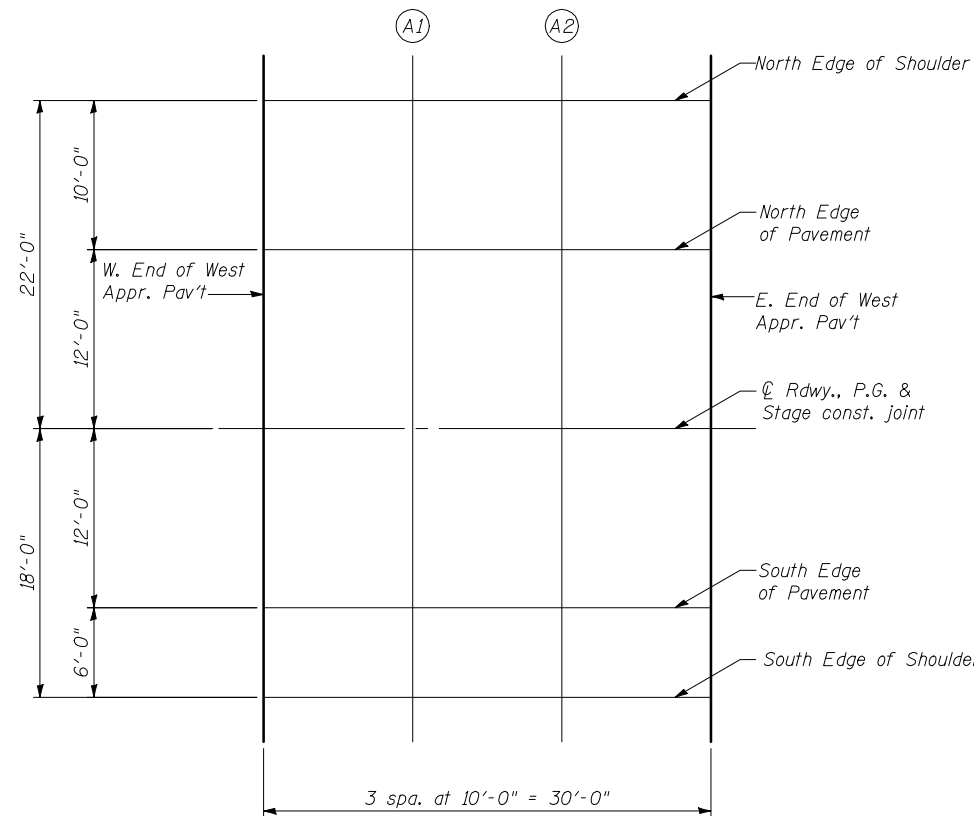
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	- 66.00	804.32	804.34
A1	779+48.47	- 66.00	804.21	804.23
A2	779+58.47	- 66.00	804.09	804.12
E. End West Appr. Pav't.	779+68.47	- 66.00	803.97	803.99
W. End East Appr. Pav't.	781+28.39	- 66.00	802.20	802.22
A3	781+38.39	- 66.00	802.08	802.10
A4	781+48.39	- 66.00	801.97	801.99
E. End East Appr. Pav't.	781+58.39	- 66.00	801.86	801.88

NORTH EDGE OF PAVEMENT

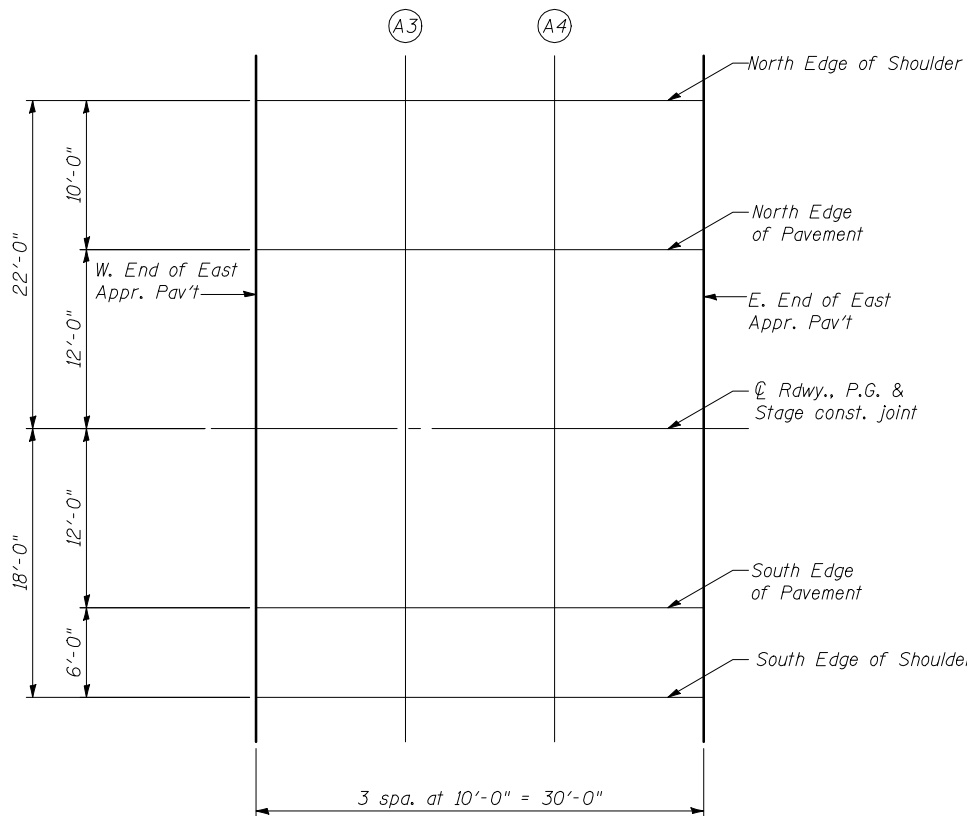
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	- 56.00	804.52	804.55
A1	779+48.47	- 56.00	804.41	804.43
A2	779+58.47	- 56.00	804.30	804.32
E. End West Appr. Pav't.	779+68.47	- 56.00	804.18	804.20
W. End East Appr. Pav't.	781+28.39	- 56.00	802.41	802.43
A3	781+38.39	- 56.00	802.29	802.31
A4	781+48.39	- 56.00	802.18	802.20
E. End East Appr. Pav't.	781+58.39	- 56.00	802.07	802.09

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	- 44.00	804.71	804.73
A1	779+48.47	- 44.00	804.60	804.62
A2	779+58.47	- 44.00	804.49	804.51
E. End West Appr. Pav't.	779+68.47	- 44.00	804.37	804.39
W. End East Appr. Pav't.	781+28.39	- 44.00	802.59	802.62
A3	781+38.39	- 44.00	802.47	802.50
A4	781+48.39	- 44.00	802.36	802.38
E. End East Appr. Pav't.	781+58.39	- 44.00	802.25	802.27



PLAN
West Approach (W.B.)



PLAN
East Approach (W.B.)

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	- 32.00	804.52	804.55
A1	779+48.47	- 32.00	804.41	804.43
A2	779+58.47	- 32.00	804.30	804.32
E. End West Appr. Pav't.	779+68.47	- 32.00	804.18	804.20
W. End East Appr. Pav't.	781+28.39	- 32.00	802.41	802.43
A3	781+38.39	- 32.00	802.29	802.31
A4	781+48.39	- 32.00	802.18	802.20
E. End East Appr. Pav't.	781+58.39	- 32.00	802.07	802.09

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Pav't.	779+38.47	- 26.00	804.40	804.42
A1	779+48.47	- 26.00	804.29	804.31
A2	779+58.47	- 26.00	804.18	804.20
E. End West Appr. Pav't.	779+68.47	- 26.00	804.06	804.08
W. End East Appr. Pav't.	781+28.39	- 26.00	802.28	802.30
A3	781+38.39	- 26.00	802.16	802.18
A4	781+48.39	- 26.00	802.05	802.07
E. End East Appr. Pav't.	781+58.39	- 26.00	801.94	801.96

Note:
Positive offset is Rt of ϕ
FAI 74 and negative offset
is Lt of ϕ FAI 74.

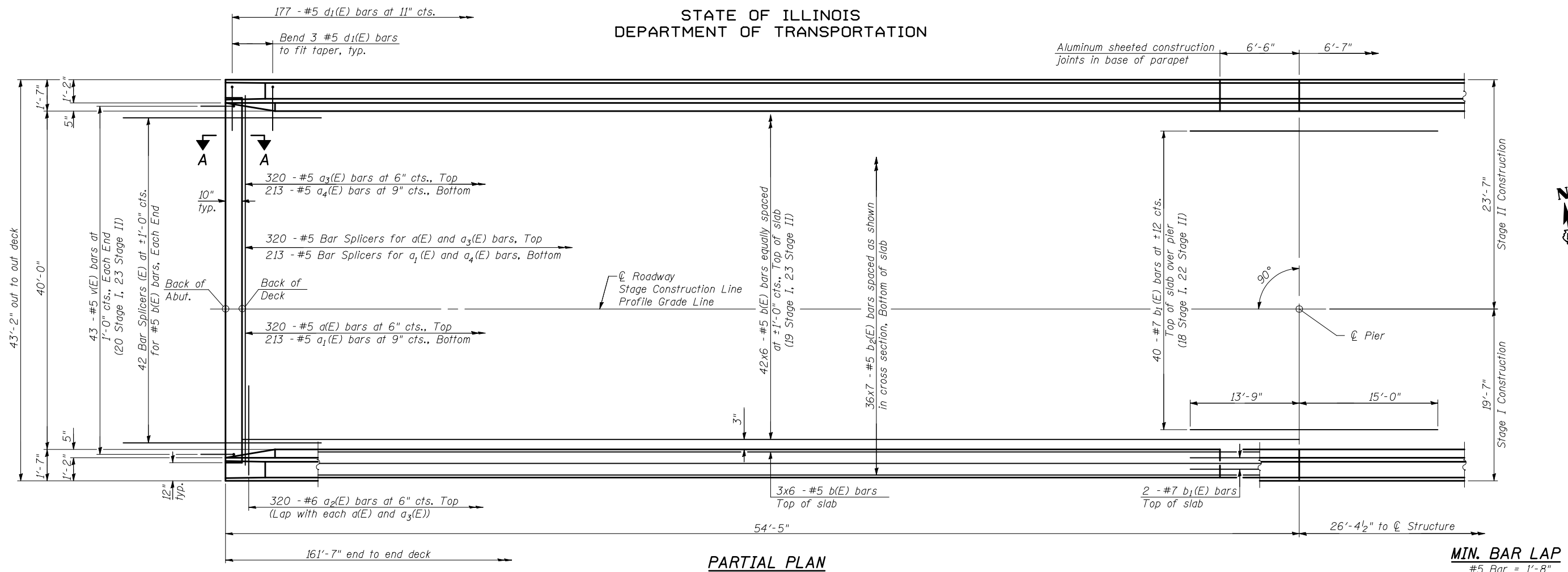
**TOP OF APPROACH
PAVEMENT ELEVATIONS
WESTBOUND
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0121**

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

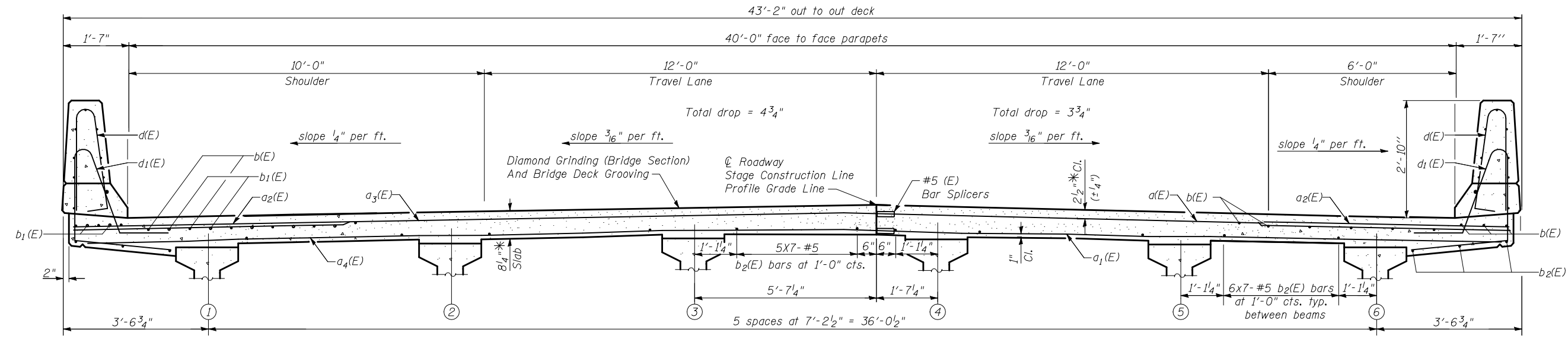
SHEET NO. 9 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 21
	TOP OF SLAB ELEVATIONS (5 OF 5)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PARTIAL PLAN

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



CROSS SECTION

(Looking Upstation Westbound)
(Looking Downstation Eastbound)

Notes:
See Sheet 12 of 27 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 12 of 27 for parapet reinforcement.
See Sheet 27 of 27 for bar splicers details.
See Sheet 11 of 27 for diaphragm details.

* Prior to grinding

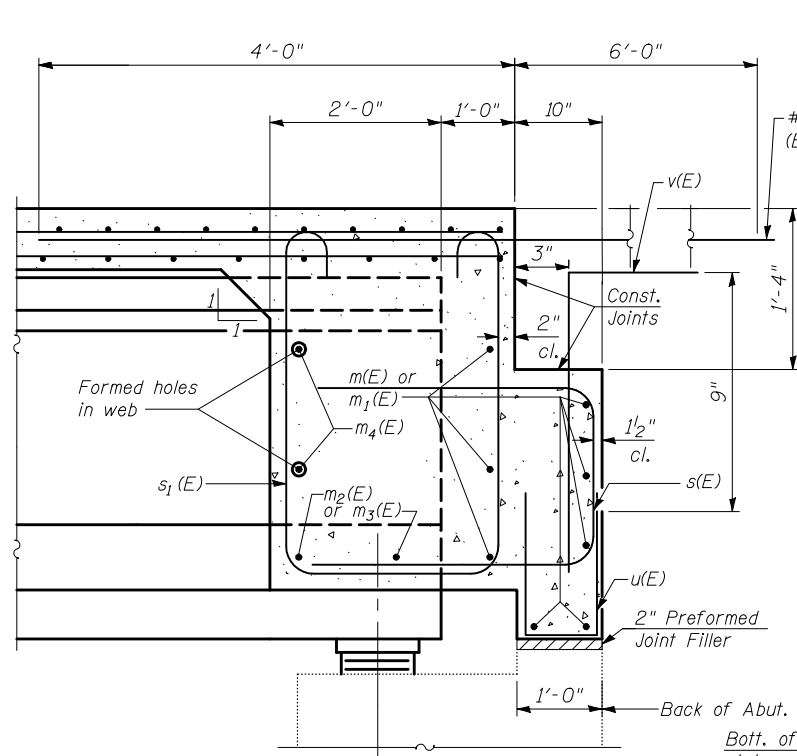
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SUPERSTRUCTURE
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121

STRAND ASSOCIATES, INC.

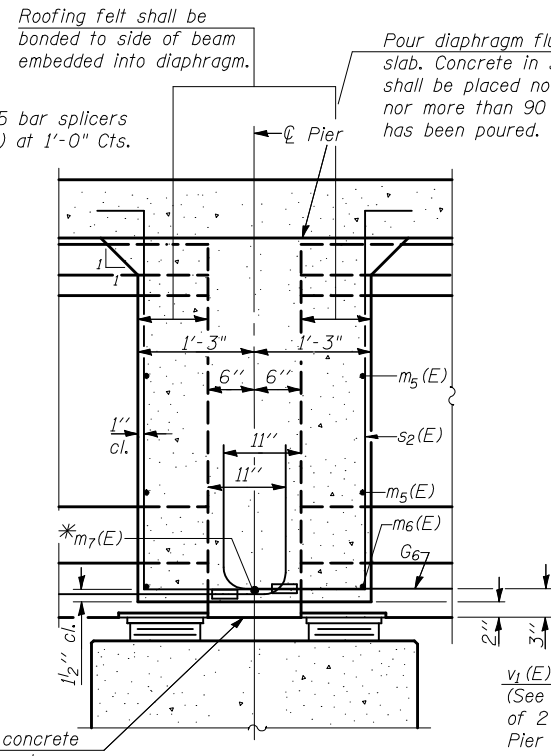
SHEET NO. 10 27 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	74	(57-21B)BR	MCLEAN	61	22
	SUPERSTRUCTURE DETAILS (1 OF 3)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



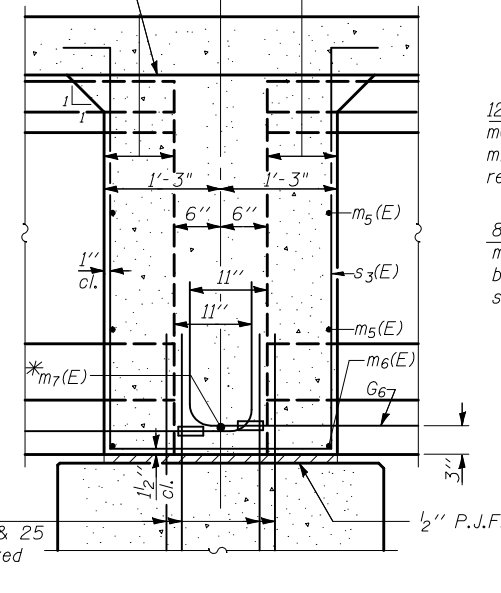
**SECTION A-A
AT ABUTMENT**

(Dim. at Rt. Ls except as noted)

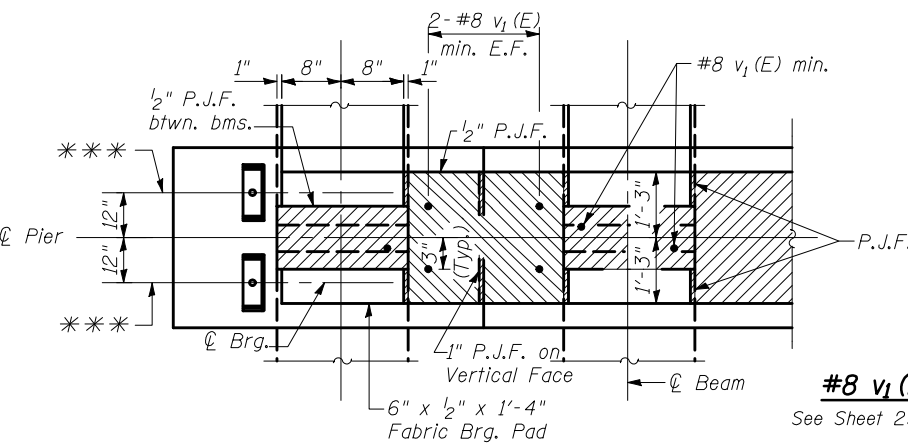


**SECTION B-B
AT PIER
(Expansion)**

*Tightly fasten the #8 bars together with No. 9 wire ties.

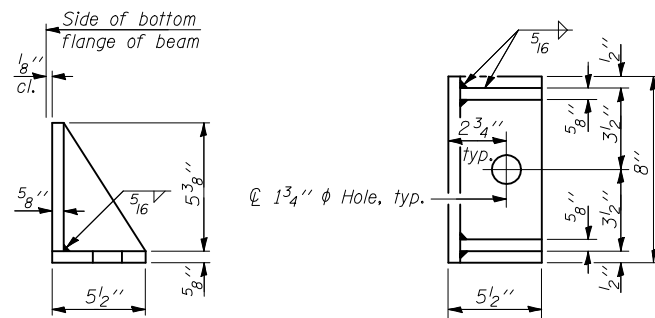


**SECTION C-C
AT PIER
(Fixed)**



FIXED PIER

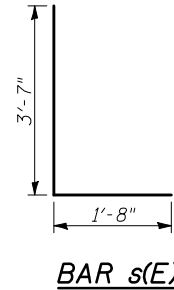
*** ϕ 1 1/2" ϕ x 18" Anchor bolts with 3"x3"x5/16" ϕ washer under nut. Holes in cap to be drilled after beams are in place.



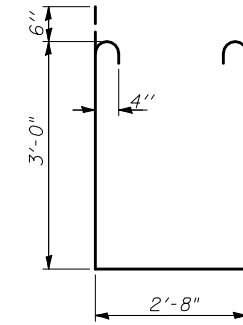
SIDE RETAINER AT FIXED PIER

(2 required each side of Pier 2)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

v1(E) bars (See sht. 23 & 25 of 27 and Fixed Pier Detail)



BAR s(E)



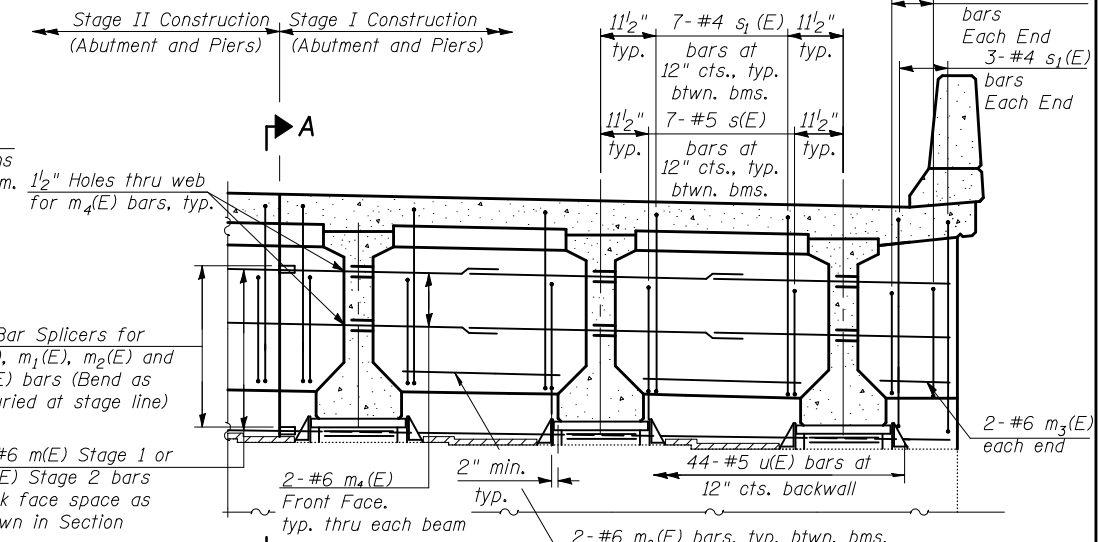
BARS s2(E) & s3(E)

BAR s1(E)

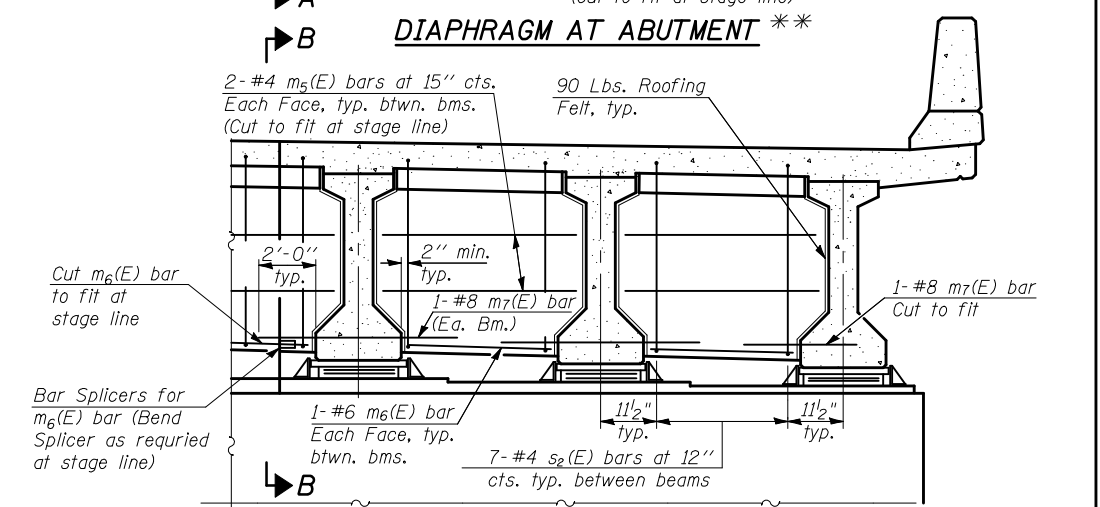
BAR u(E)

MIN. BAR LAP
#6 Bar = 2'-7"

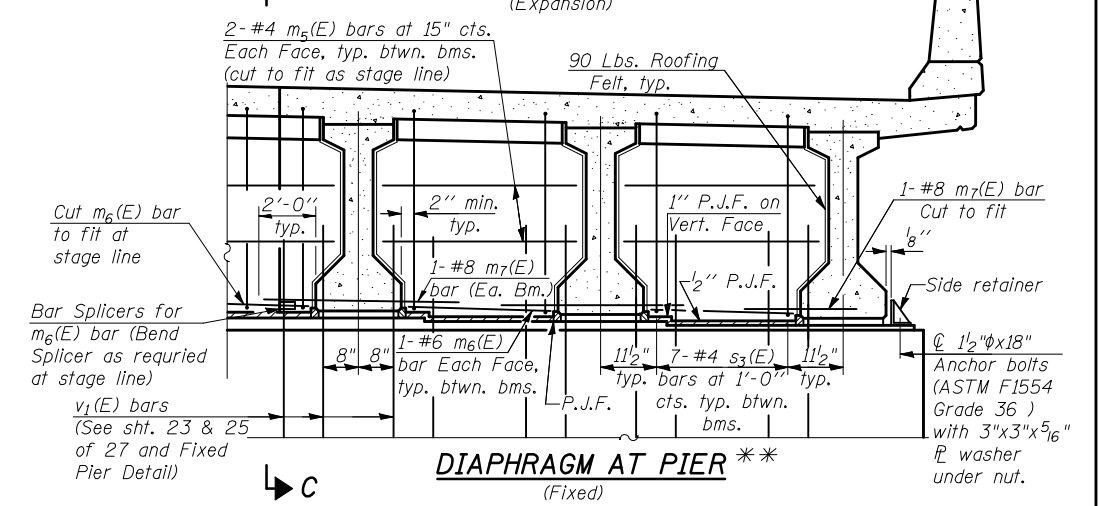
Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 12 of 27.
Concrete in diaphragm is included with Concrete Superstructure on sheet 12 of 27.
The s(E), s1(E), s2(E) and s3(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Cost of 90 Lb. roofing felt is included with Concrete Superstructure.
Horizontal dimensions for Sec. B-B and Sec. C-C are along ϕ of beam unless otherwise noted.
The side retainer shall be galvanized after shop fabrication according to AASHTO M111.
See sheet 17 of 27 for anchor bolt requirements.



DIAPHRAGM AT ABUTMENT



DIAPHRAGM AT PIER



DIAPHRAGM AT PIER

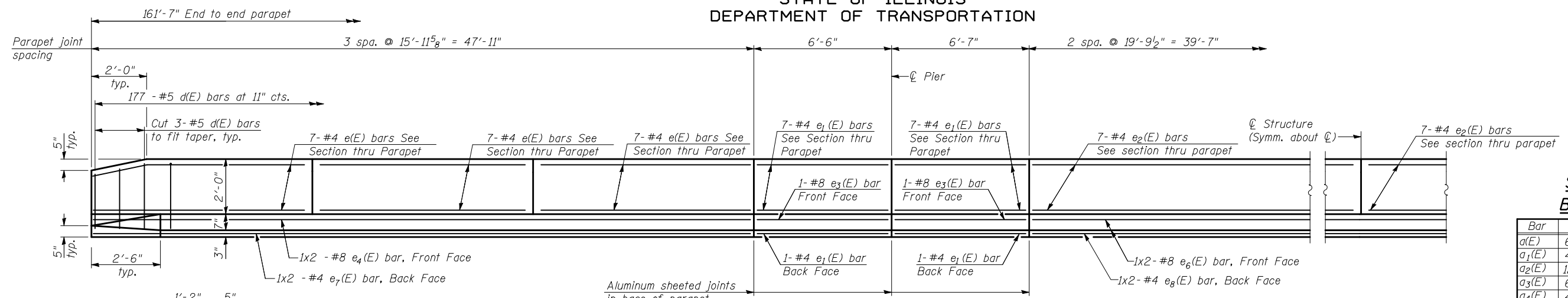
**DIAPHRAGM DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121**

STRAND ASSOCIATES, INC.

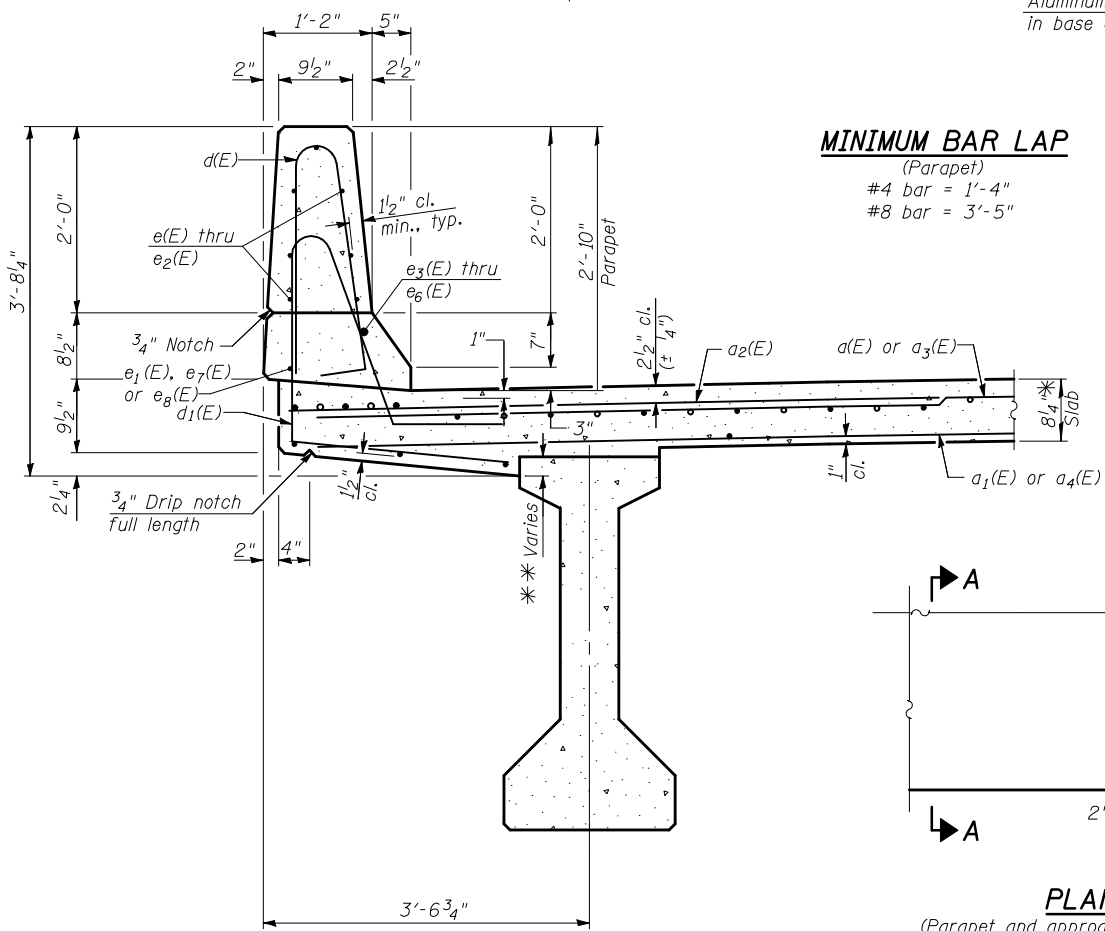
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 11 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 23
	SUPERSTRUCTURE DETAILS (2 OF 3)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



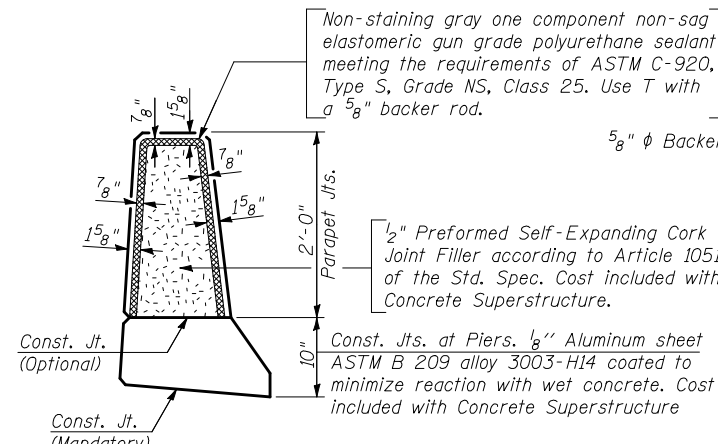
INSIDE ELEVATION OF PARAPET
Symm. about \bar{C} Structure



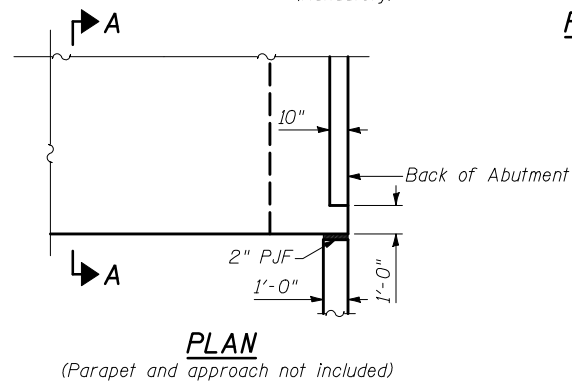
SECTION THRU PARAPET

* Prior to grinding
** See sheet 5 of 27 for Fillet Detail.

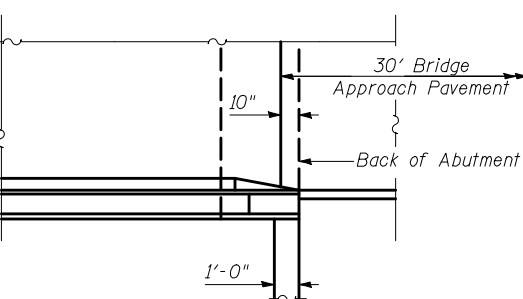
MINIMUM BAR LAP
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



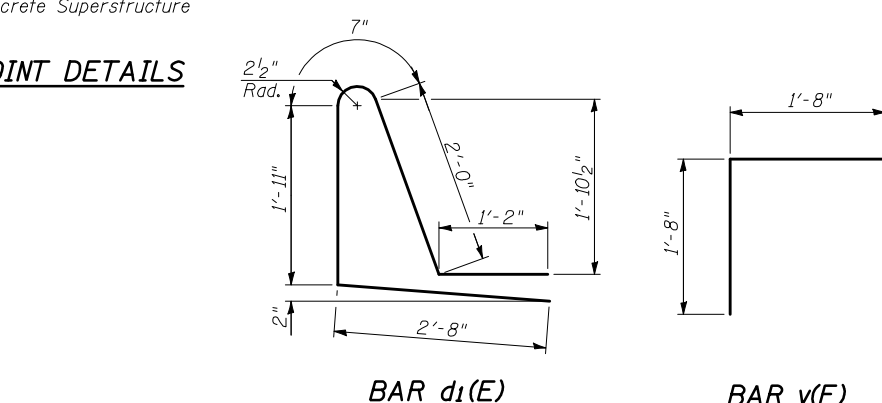
PARAPET JOINT DETAILS



PLAN

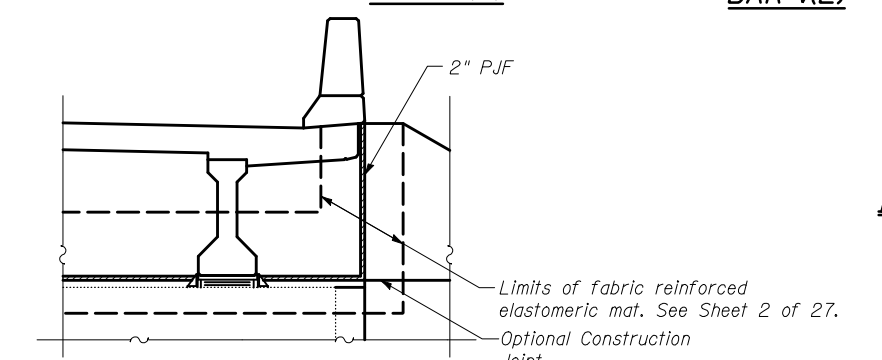


PLAN



BAR d1(E)

BAR v(E)



SECTION A-A

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	640	#5	19'-1"	—
a1(E)	426	#5	19'-1"	—
a2(E)	1280	#6	6'-6"	—
a3(E)	640	#5	23'-2"	—
a4(E)	426	#5	23'-2"	—
b(E)	504	#5	28'-1"	—
b1(E)	176	#7	28'-9"	—
b2(E)	504	#5	24'-3"	—
d(E)	708	#5	5'-7"	—
d1(E)	708	#5	8'-4"	—
e(E)	168	#4	15'-7"	—
e1(E)	128	#4	6'-2"	—
e2(E)	56	#4	19'-5"	—
e3(E)	16	#8	6'-2"	—
e4(E)	16	#8	27'-2"	—
e6(E)	8	#8	23'-0"	—
e7(E)	16	#4	27'-2"	—
e8(E)	8	#4	23'-0"	—
m(E)	32	#6	19'-5"	—
m1(E)	32	#6	23'-4"	—
m2(E)	40	#6	5'-4"	—
m3(E)	16	#6	2'-6"	—
m4(E)	48	#6	9'-4"	—
m5(E)	80	#4	6'-4"	—
m6(E)	40	#6	5'-4"	—
m7(E)	24	#8	5'-6"	—
s(E)	164	#5	8'-10"	—
s1(E)	164	#4	9'-8"	—
s2(E)	70	#4	10'-2"	—
s3(E)	70	#4	10'-4"	—
u(E)	176	#5	4'-8"	—
v(E)	172	#5	3'-4"	—
Reinforcement Bars, Epoxy Coated		POUND	122,040	
Concrete Superstructure		CU YD	543	

Bars indicated thus 1x2 -#5 etc. indicates 1 line of bars with 2 lengths per line.

**SUPERSTRUCTURE DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121**

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 12 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 24
	SUPERSTRUCTURE DETAILS (3 OF 3)		CONTRACT NO. 70641		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

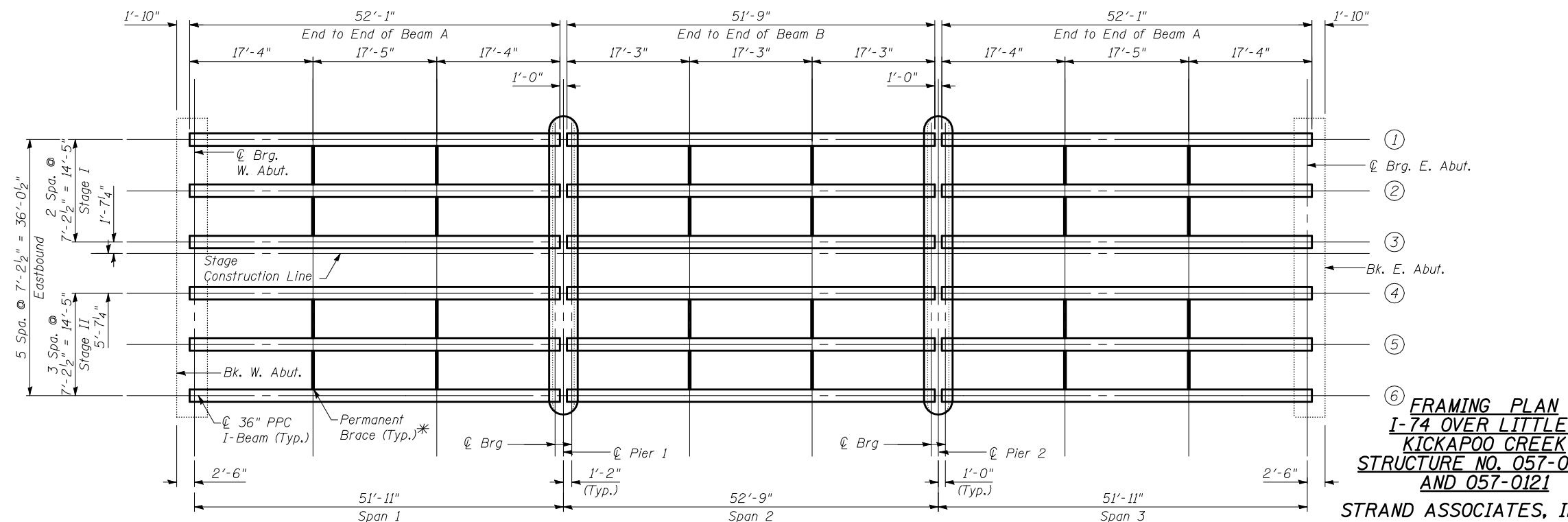
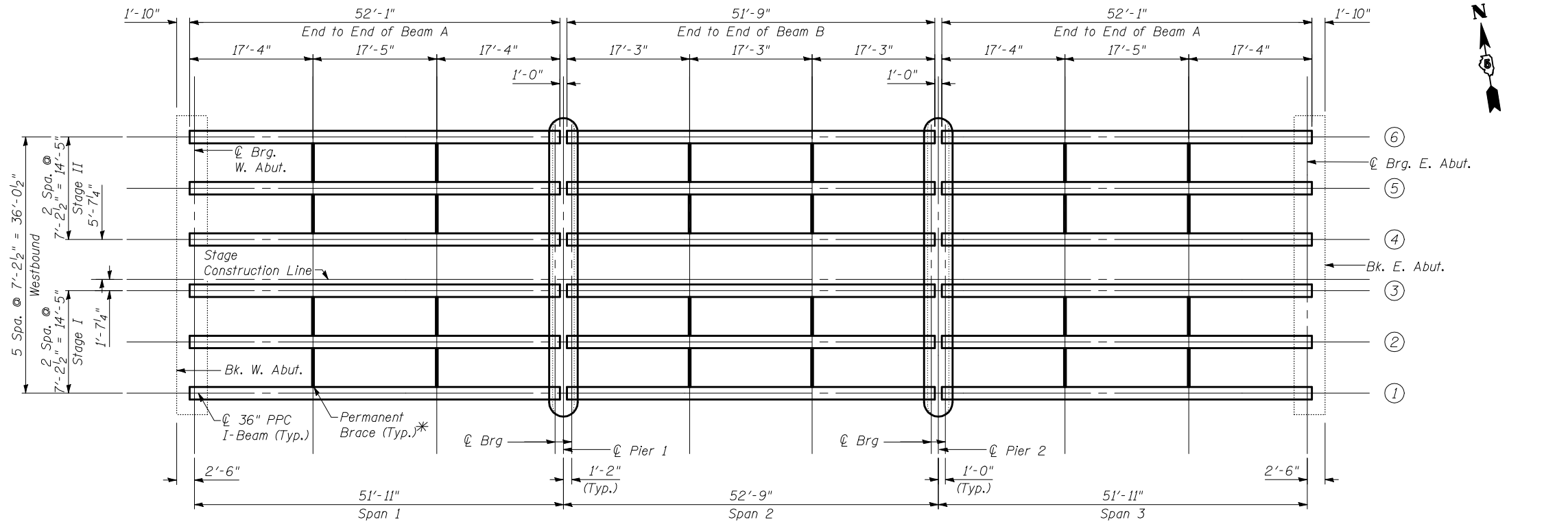


	0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I	(in ⁴) 48,648	48,648	48,648
I'	(in ⁴) 108,726	108,726	108,726
S_b	(in ³) 3,165.1	3,165.1	3,165.1
S_b'	(in ³) 6,010.1	6,010.1	6,010.1
S_t	(in ³) 2,358.1	2,358.1	2,358.1
S_t'	(in ³) 30,478.5	30,478.5	30,478.5
$DC1$	(k/ft) 1.14	1.14	1.14
M_{DC1}	(k) 372.1	0	387.6
$DC2$	(k/ft) 0.15	0.15	0.15
M_{DC2}	(k) 32.1	-41.0	11.1
DW	(k/ft) 0.33	0.33	0.33
M_{DW}	(k) 74.9	-95.7	26.0
$M_L + 1M$	(k) 875.7	-643.2	710.6

	Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
R_{DC1}	(k) 29.7	29.7	30.1
* R_{DC2}	(k) 3.1	4.7	4.0
* R_{DW}	(k) 7.2	10.9	9.2
* $R_L + 1M$	(k) 90.7	105.0	100.2
R_{Total}	(k) 130.7	150.3	143.5

* The total R_{DC2} , R_{DW} and $R_L + 1M$ are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier is based on the maximum reactions of either span.

- I : Non-composite moment of inertia of beam section (in⁴).
- I' : Composite moment of inertia of beam section (in⁴).
- S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_t : Non-composite section modulus for the top fiber of the prestressed beam (in³).
- S_t' : Composite section modulus for the top fiber of the prestressed beam (in³).
- $DC1$: Un-factored non-composite dead load (kips/ft.).
- M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).
- $DC2$: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW : Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_L + 1M$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).



DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

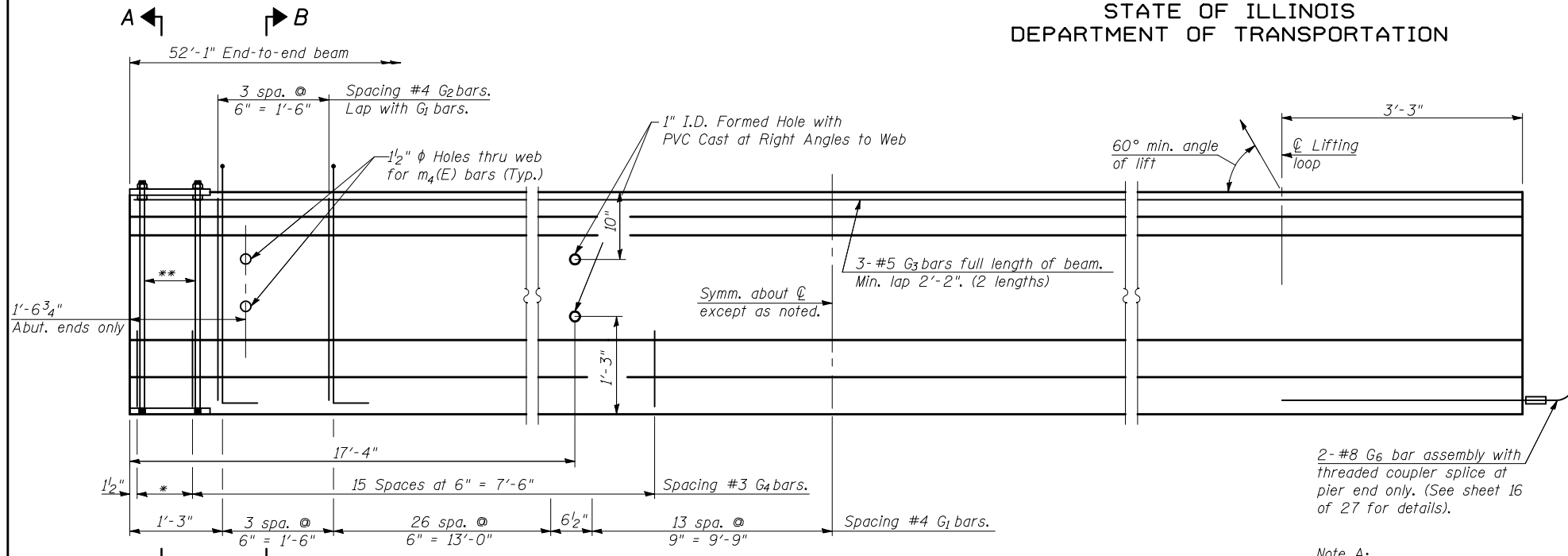
* Cost included in Furnishing and Erecting Precast Prestressed I-Beams, 36 in.

FRAMING PLAN

**FRAMING PLAN
I-74 OVER LITTLE
KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121
STRAND ASSOCIATES, INC.**

SHEET NO. 13 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 25
	FRAMING PLAN		CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

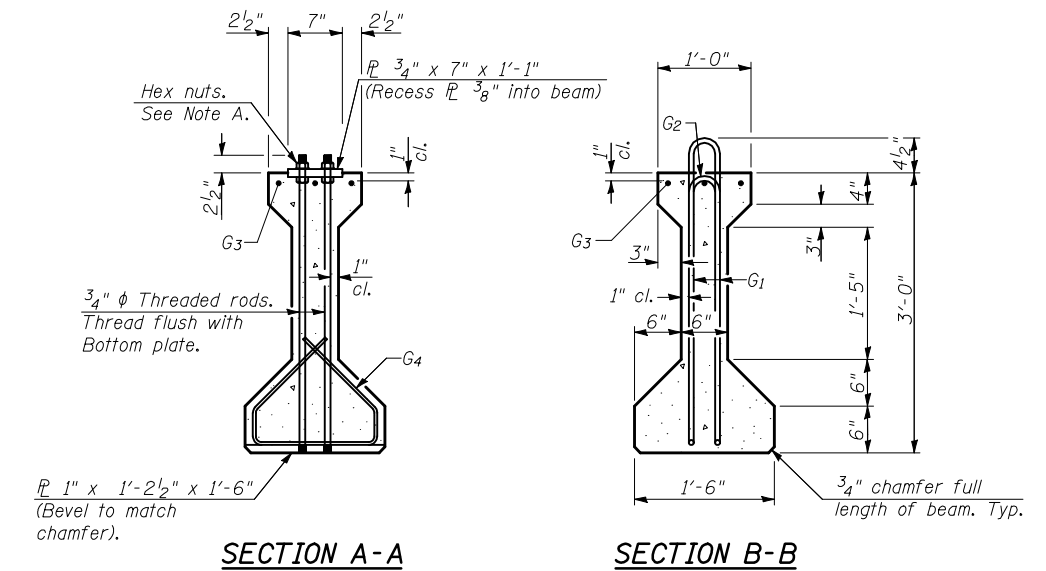


ELEVATION OF BEAM
(Showing reinforcement & dimensions)

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

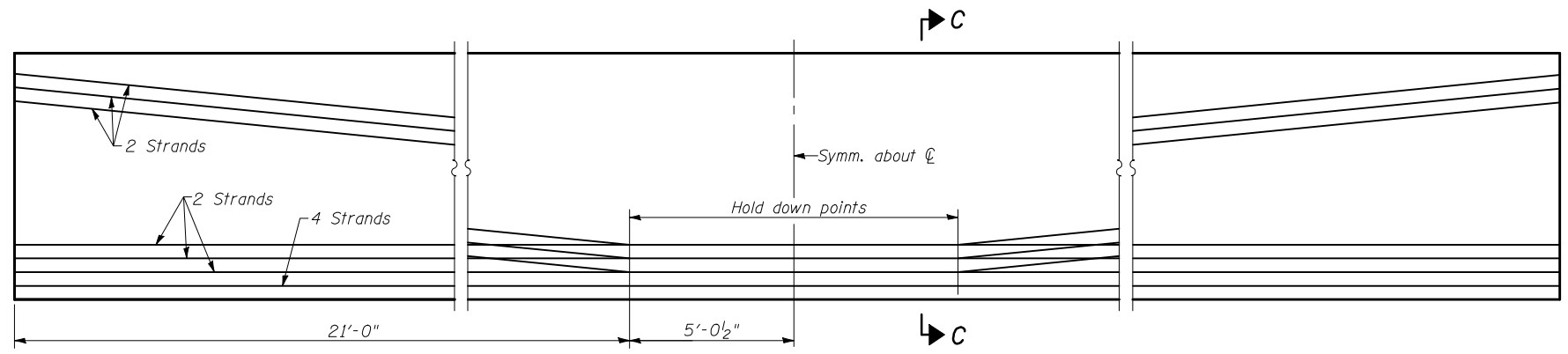
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

2-#8 G6 bar assembly with threaded coupler splice at pier end only. (See sheet 16 of 27 for details).

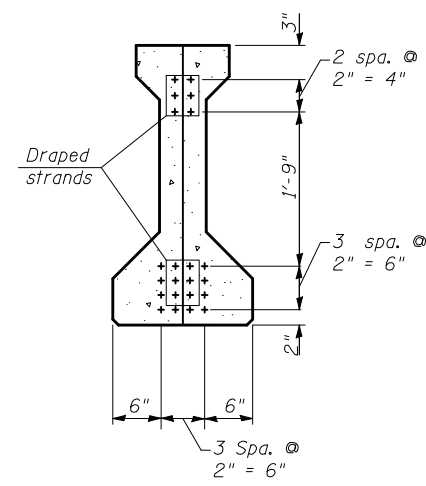


SECTION A-A

SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C

*****BAR LIST
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G1	87	#4	7'-5"	∩
G2	87	#4	5'-8"	∩
G3	6	#5	28'-1"	—
G4	32	#3	4'-1"	∩
G6	2	#8	6'-6"	⌋

***For information only
Notes:
See sheet 12 of 27 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.
f'c = 6,000 psi

**36" PPC I-BEAM A
SPANS 1 & 3
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121**

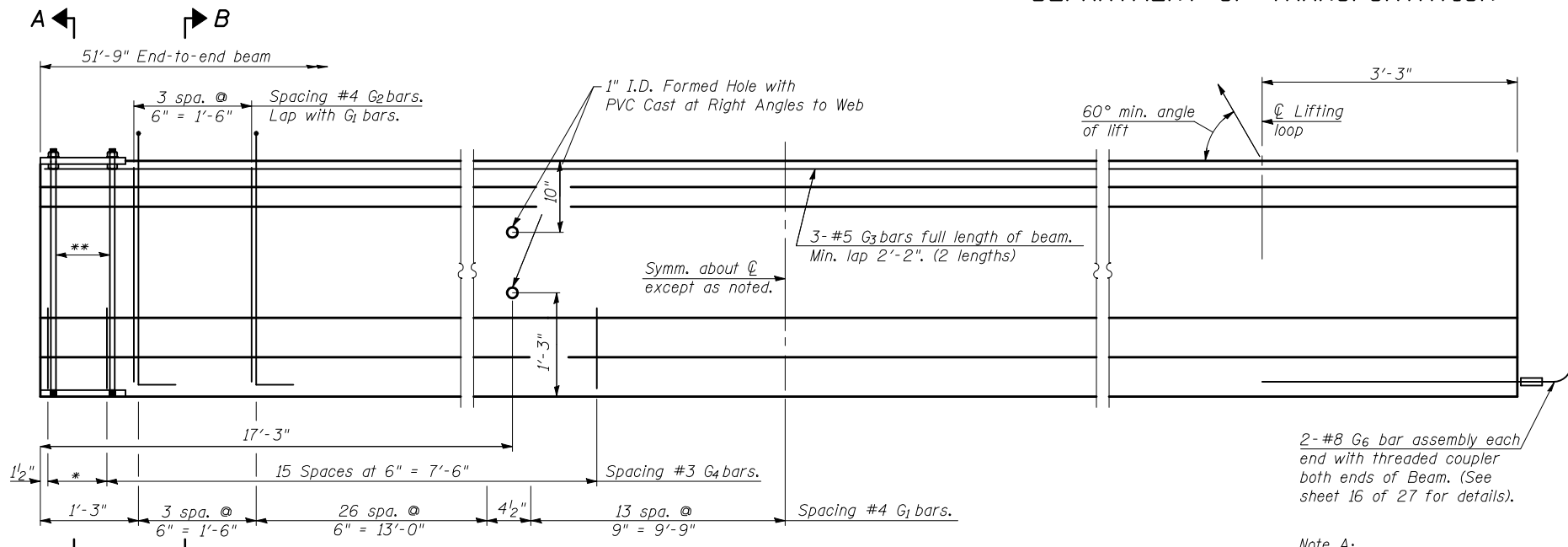
STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

PI-4-36 5-16-08

SHEET NO. 14 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 26
	BEAM DETAILS (1 OF 3)		CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

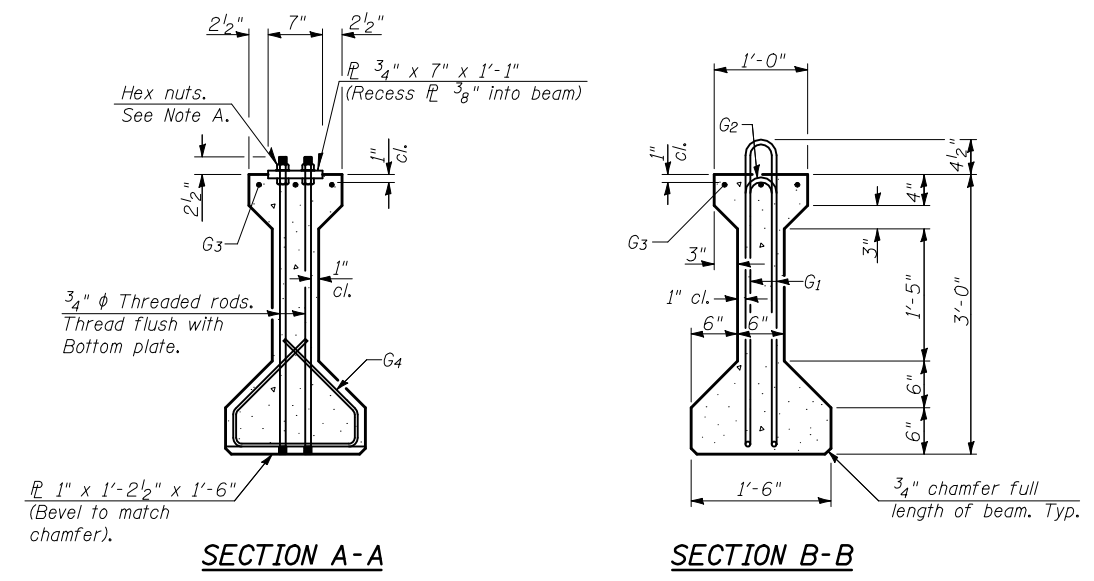
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION OF BEAM
(Showing reinforcement & dimensions)

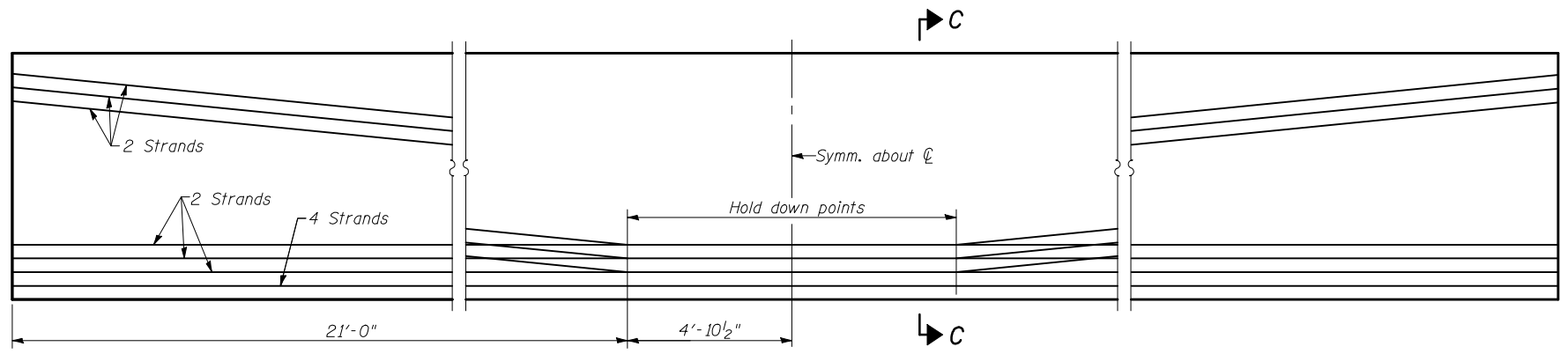
*3 spaces at 3" = 9".
**4-3/4" φ threaded rods at 3" cts., Each Face.

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

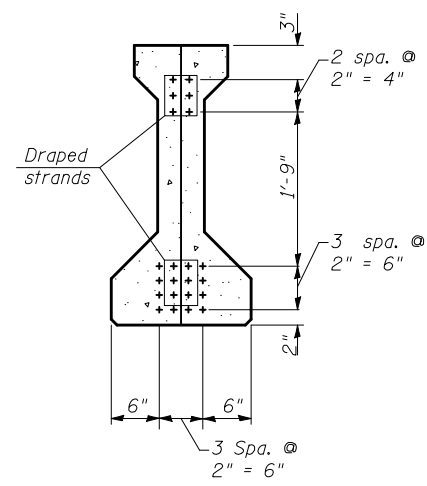


SECTION A-A

SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C

*****BAR LIST
ONE BEAM ONLY**

Span 2

Bar	No.	Size	Length	Shape
G1	87	#4	7'-5"	∩L
G2	87	#4	5'-8"	∩
G3	6	#5	28'-0"	—
G4	32	#3	4'-1"	∩
G6	4	#8	6'-6"	U

***For information only

Notes:
See sheet 12 of 27 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.
f'c = 6,000 psi

**36" PPC I-BEAM B
SPAN 2
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121**

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

PI-4-36 5-16-08

SHEET NO. 15 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 27
	BEAM DETAILS (2 OF 3)		CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES

Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

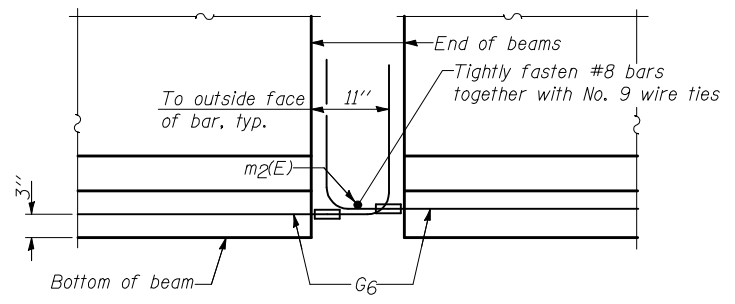
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt G6 bars when necessary to maintain $\frac{1}{2}$ " clearance.

The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111. Threaded rods shall be ASTM F 1554 Grade 55.

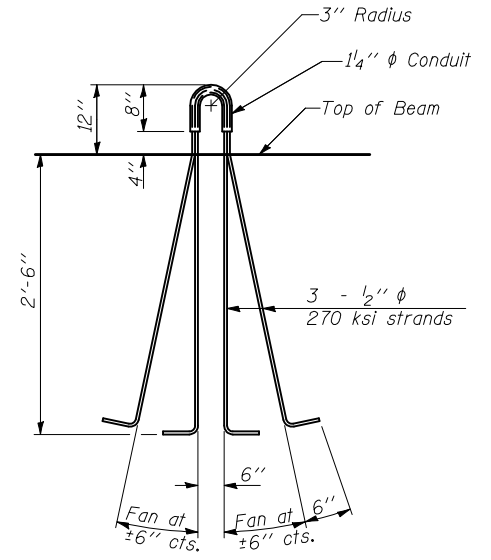
The G6 bar assembly shall have the threaded ends oversized to ensure no reduction in cross sectional area after threading. The coupler splice shall be capable of developing 125 percent of the yield strength of the reinforcement bar.

See Sheet 13 of 27 from Framing Plan.

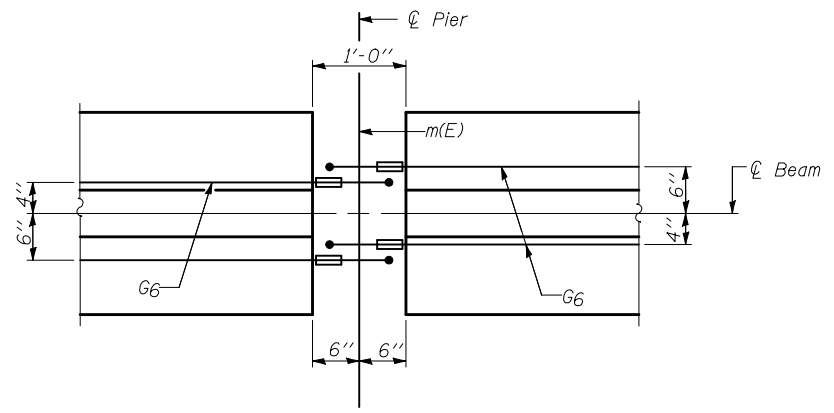
See Sheet 13 of 27 for Interior Beam Boment Table and Interior Beam Reaction Table.



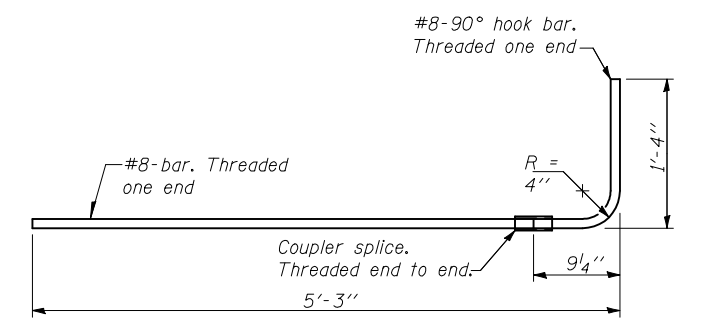
ELEVATION OF BEAM AT PIER



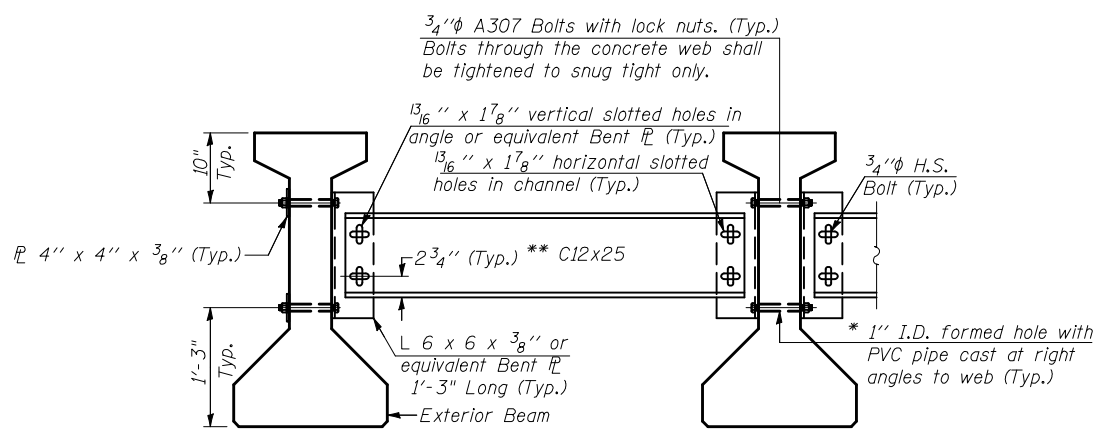
LIFTING LOOP DETAIL



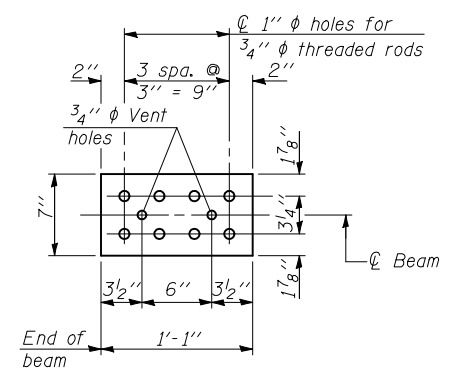
PLAN OF BEAM AT PIER



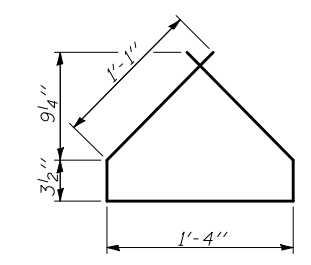
G6 BAR ASSEMBLY



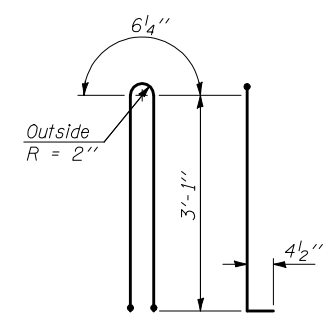
PERMANENT BRACING DETAILS FOR
36" PPC I-BEAMS



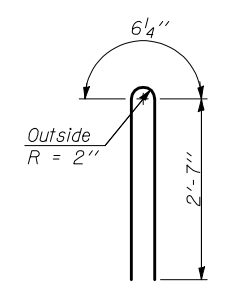
TOP PLATE



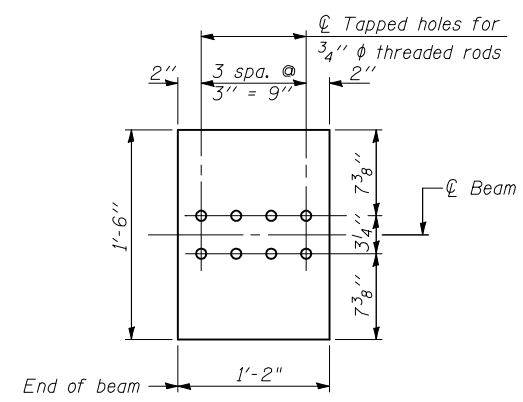
BAR G4



BAR G1



BAR G2



BOTTOM PLATE

See bearing details for pintle hole locations when required.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36 IN.	FT	1,871

36" PPC I-BEAM DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121

STRAND ASSOCIATES, INC.

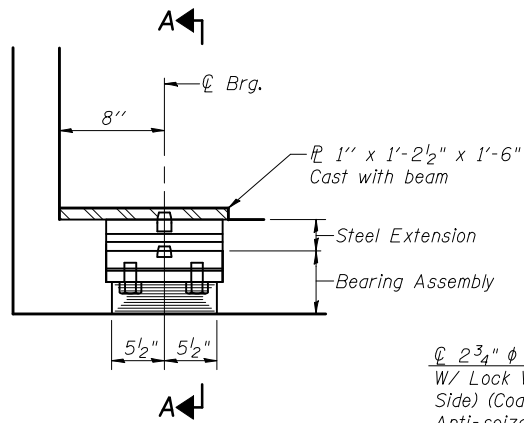
Notes:
All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
Two hardened washers are required for each set of oversized holes.
All holes shall be $\frac{5}{16}$ " ϕ unless otherwise noted.
 $\frac{5}{16}$ " x 3" x 3" plate washers are required over all slotted holes.
All bolts shall be galvanized according to AASHTO M232.
Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

* Fabricator shall locate to miss strands within permissible tolerances.
** Alternate C12x30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on lighter section. The alternate, if utilized, shall be provided at no extra cost to the Department.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

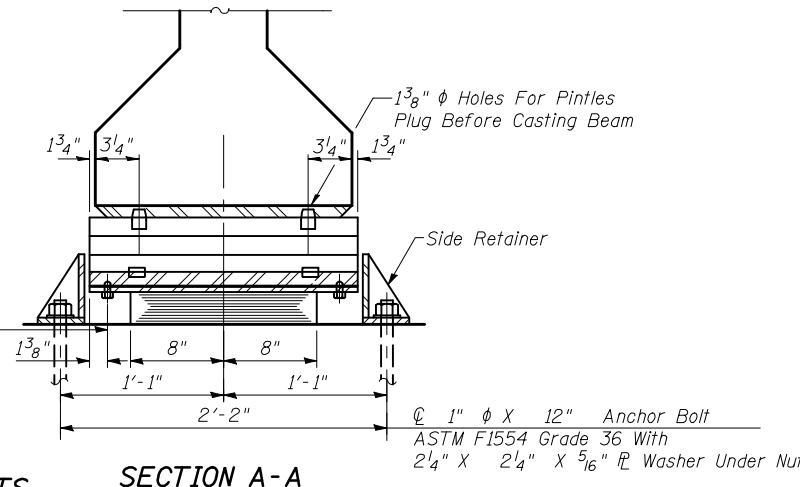
SHEET NO. 16 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 28
	BEAM DETAILS (3 OF 3)			CONTRACT NO. 70641	
	FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

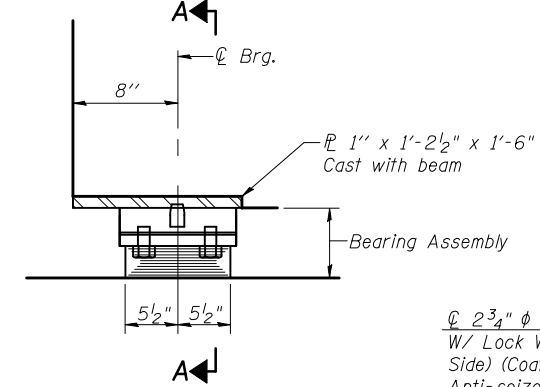


SECTION AT ABUT.

TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENTS

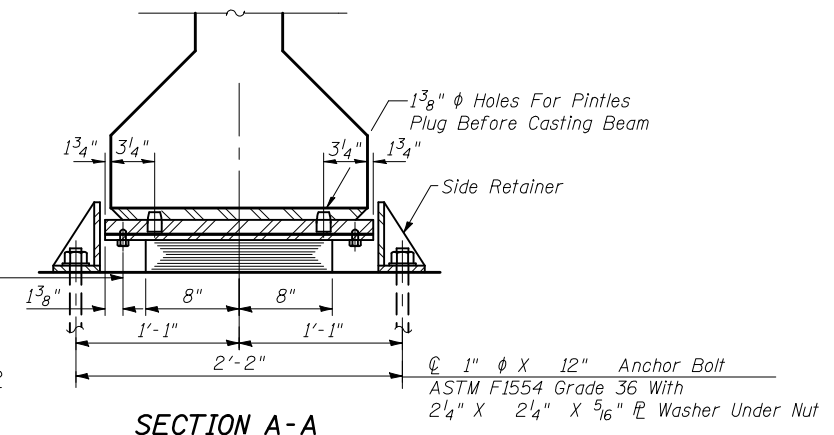


SECTION A-A

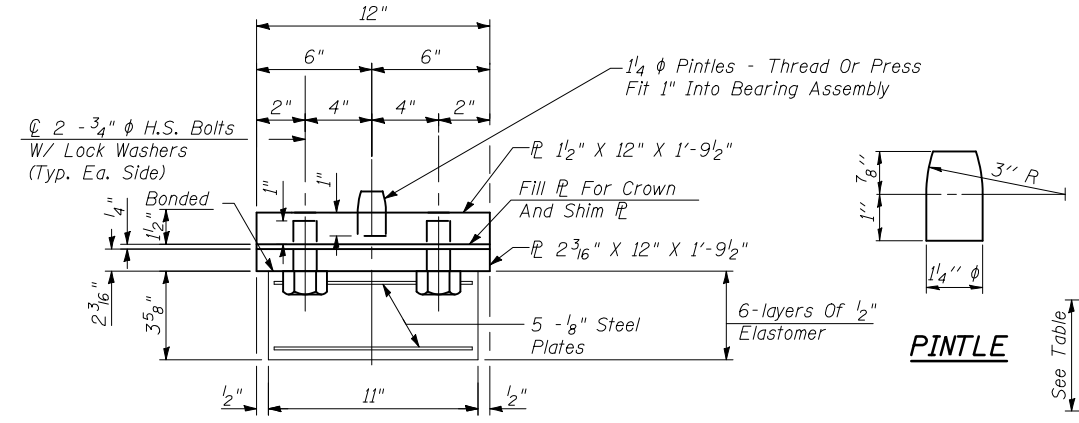


SECTION AT PIER

TYPE I ELASTOMERIC EXP. BRG. AT EXPANSION PIER

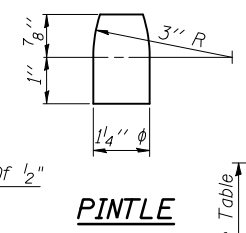


SECTION A-A

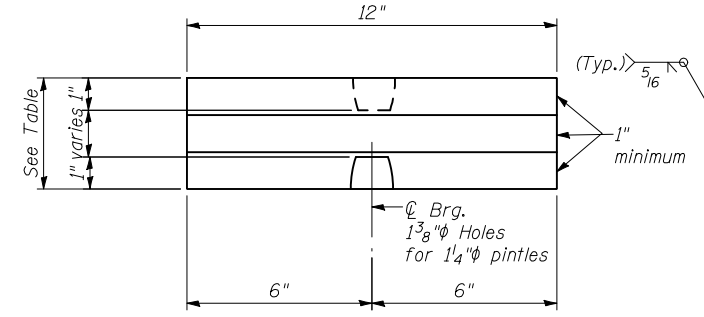


BEARING ASSEMBLY AT ABUTMENTS AND EXPANSION PIERS

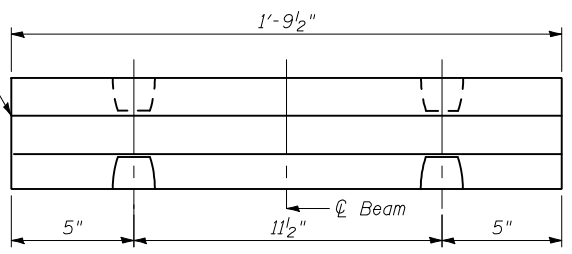
Shim plates shall not be placed under Bearing Assembly.



PINTLE



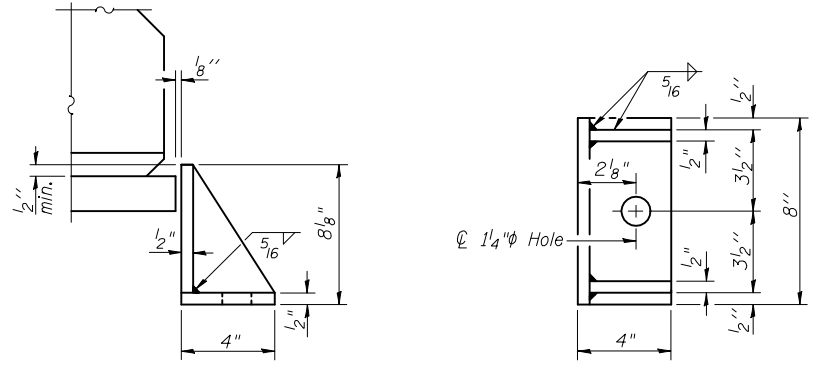
ELEVATION STEEL EXTENSION



END VIEW STEEL EXTENSION

Note:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
Cost included in the cost of Elastomeric Bearing Assembly, Type I.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor Bolts assemblies shall be galvanized according to Article 1006.09 of the Standard Specification.
Anchor bolts for side retainers may be cast in place or installed in holes drilled after the supporting members are in place and prior to pouring the deck. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I at expansion piers and abutments. Cost of side retainers and other steel members at fixed piers shall be included in the cost of Concrete Structures.
See sheet 16 of 27 for additional details of plate cast with beam.
All embedded and separate bearing plates, side retainers, anchor bolts, nuts, washers, steel extensions and pintles shall be galvanized according to AASHTO M111 or M232 (as applicable).
H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.
See sheet 11 of 27 for fixed pier side retainer and details.



SIDE RETAINER AT ABUTMENTS AND EXPANSION PIERS

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	EACH	48
Anchor Bolts, 1"	EACH	96
Anchor Bolts, 1/2"	EACH	8

BEARING DETAILS
AT ABUTMENT & EXPANSION PIERS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121

STRAND ASSOCIATES, INC.

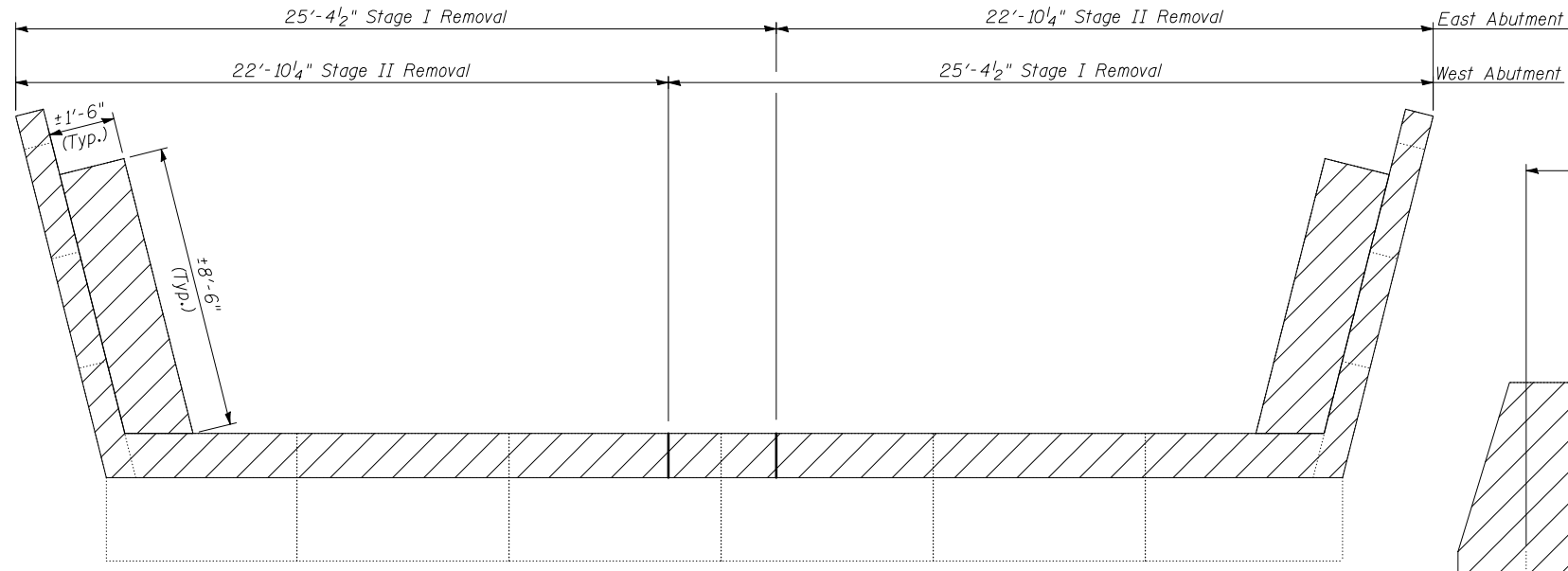
	West Bound	
	West Abut	East Abut
Beam 1	3 5/8"	3 3/8"
Beam 2	3 5/8"	3 3/8"
Beam 3	3 5/8"	3"
Beam 4	3 1/2"	3 1/4"
Beam 5	3 1/4"	3 3/8"
Beam 6	3 3/8"	3 1/4"

	East Bound	
	West Abut	East Abut
Beam 1	3 1/2"	3"
Beam 2	3 3/8"	3"
Beam 3	3 3/8"	3"
Beam 4	3"	3"
Beam 5	3 1/8"	3"
Beam 6	3"	3"

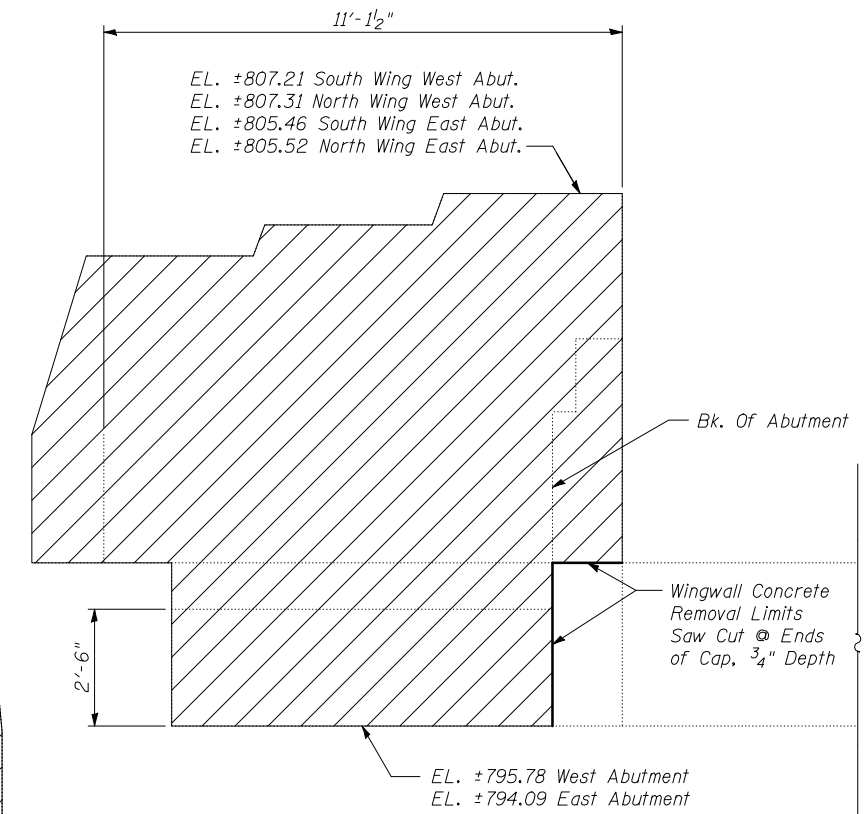
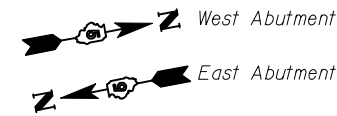
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 17	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
27 SHEETS			BEARING DETAILS		
			CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

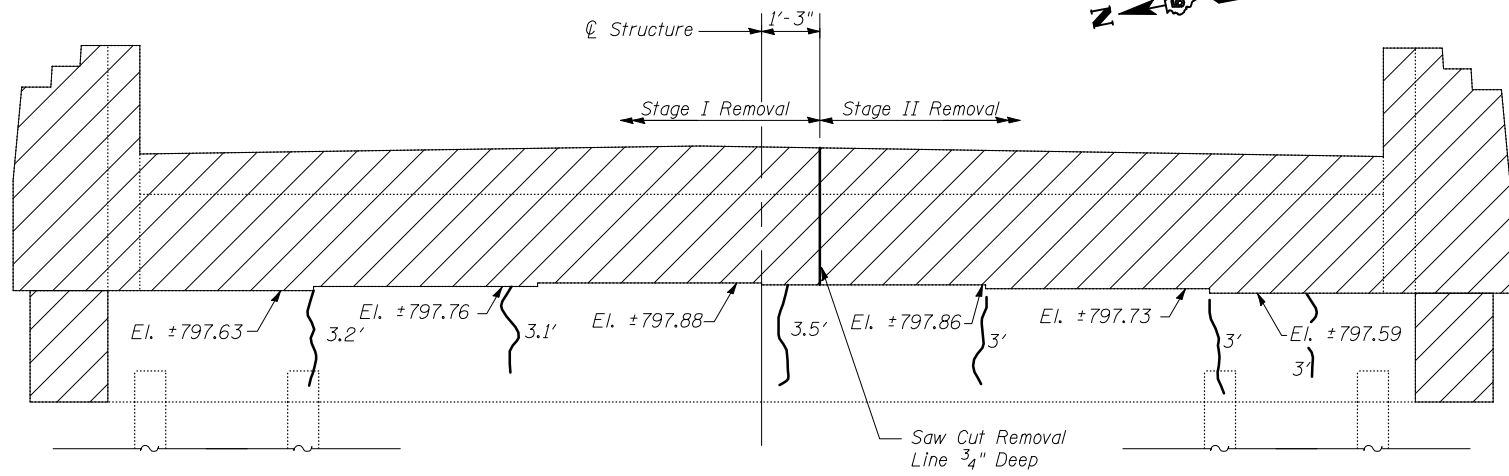
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



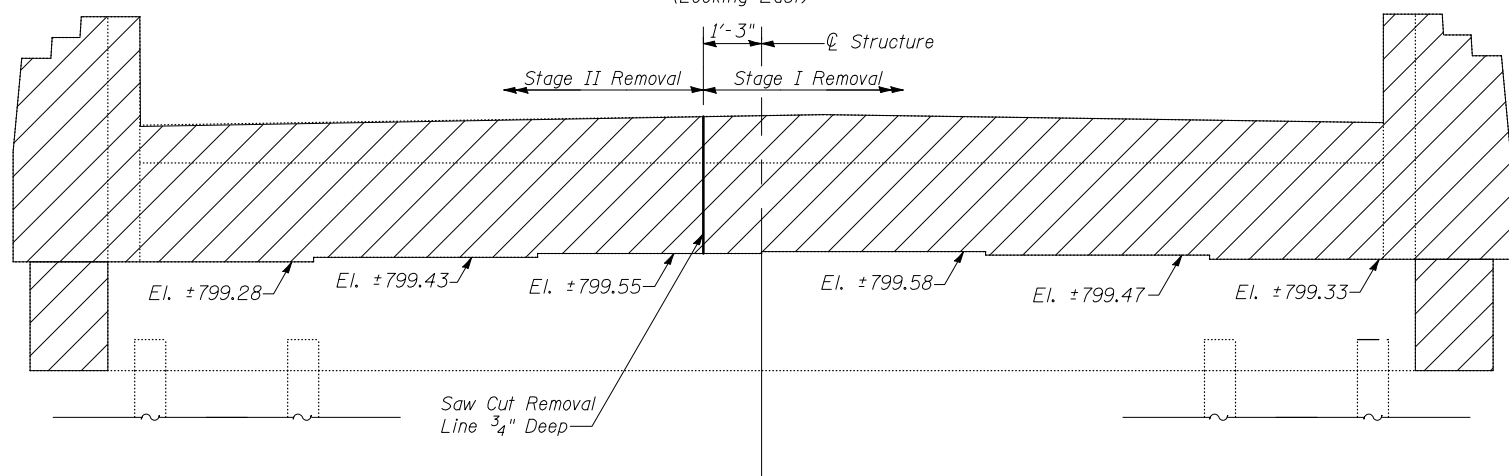
PLAN AT ABUTMENT



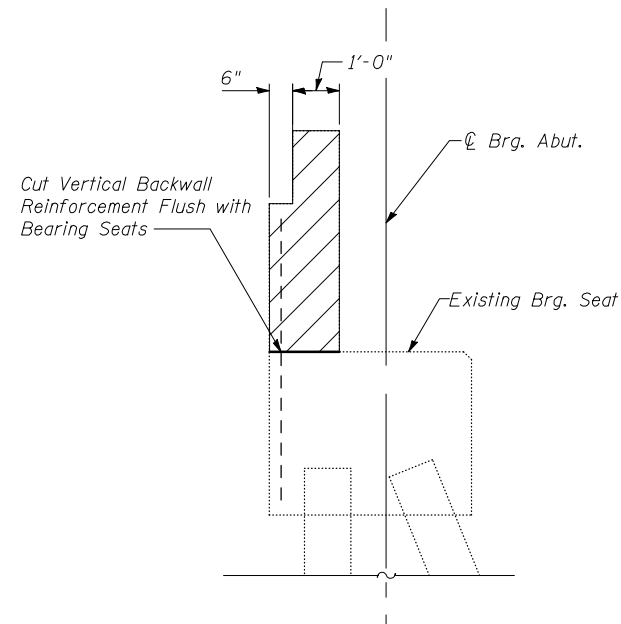
WINGWALL ELEVATION - EXISTING



EAST ABUTMENT
(Looking East)



WEST ABUTMENT
(Looking West)



SEC. THRU ABUTMENT - EXISTING

LEGEND

- Crack - Epoxy Crack Injection
- Portion of Existing Structure To Be Removed
- Structural Repair of Concrete (Depth Less than or Equal to 5 inches)

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	CU YD	44
Epoxy Crack Injection	FT	21

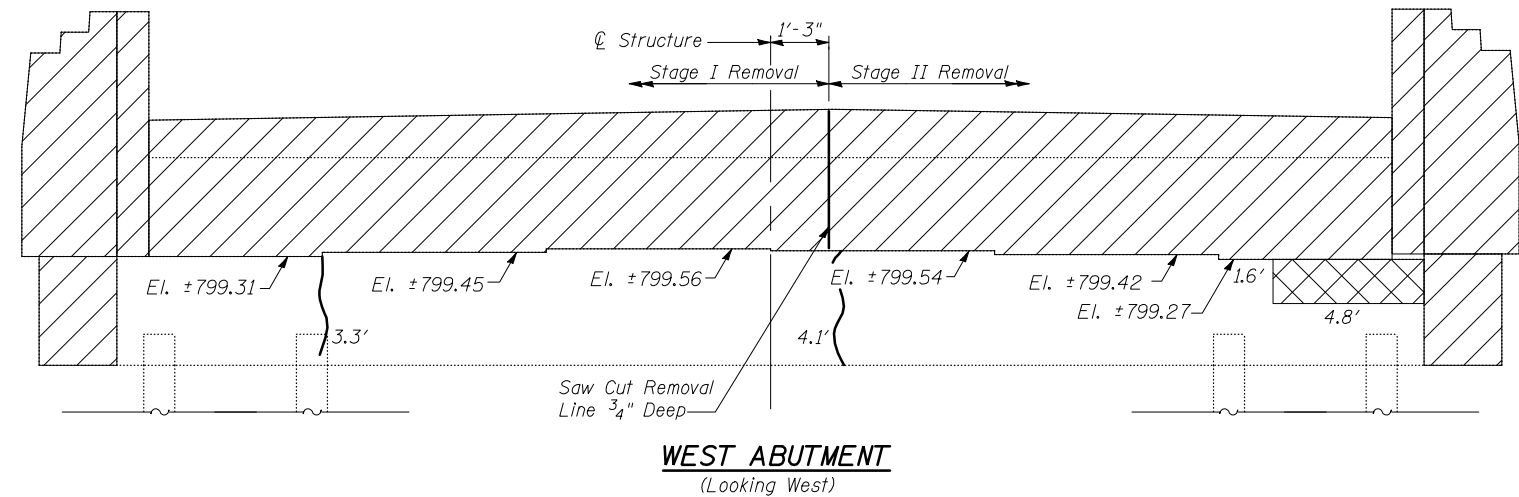
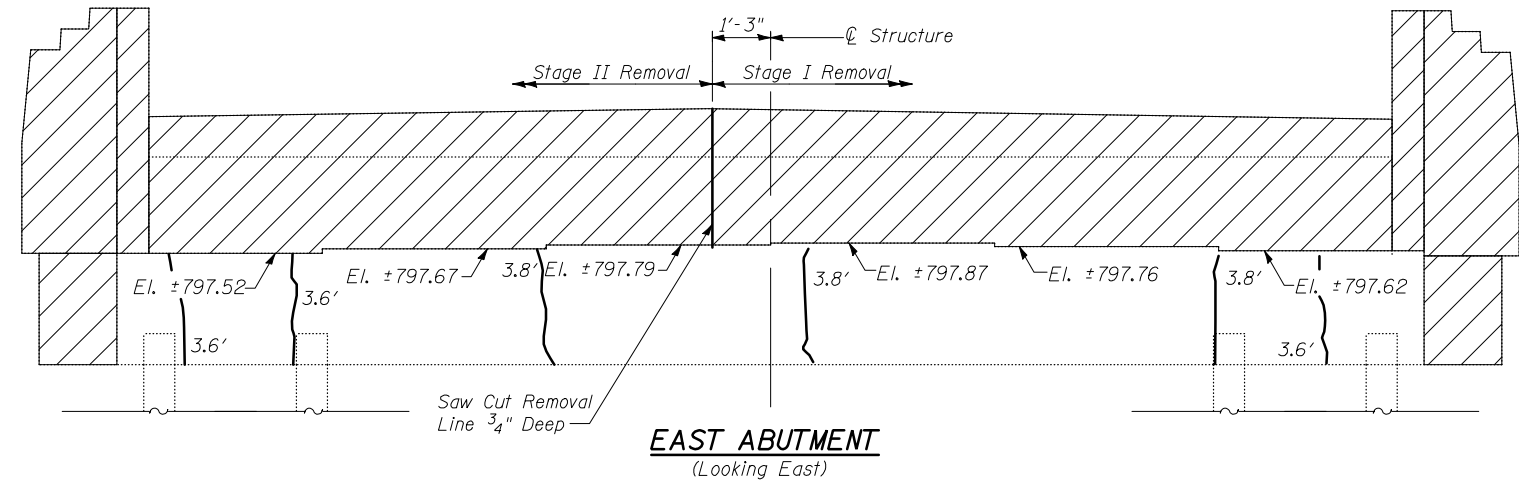
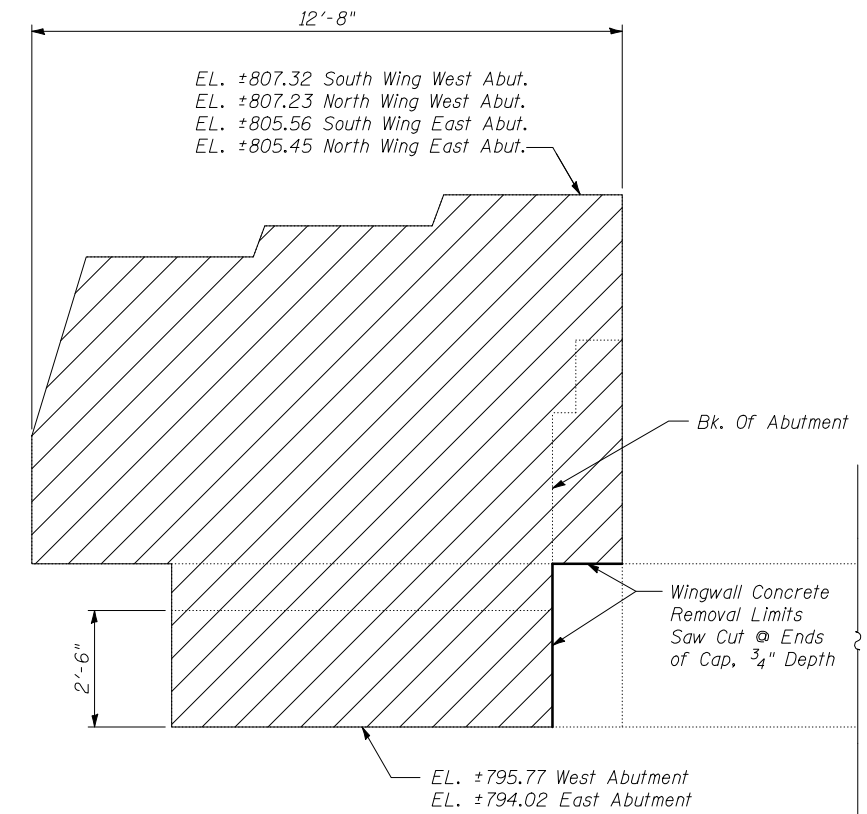
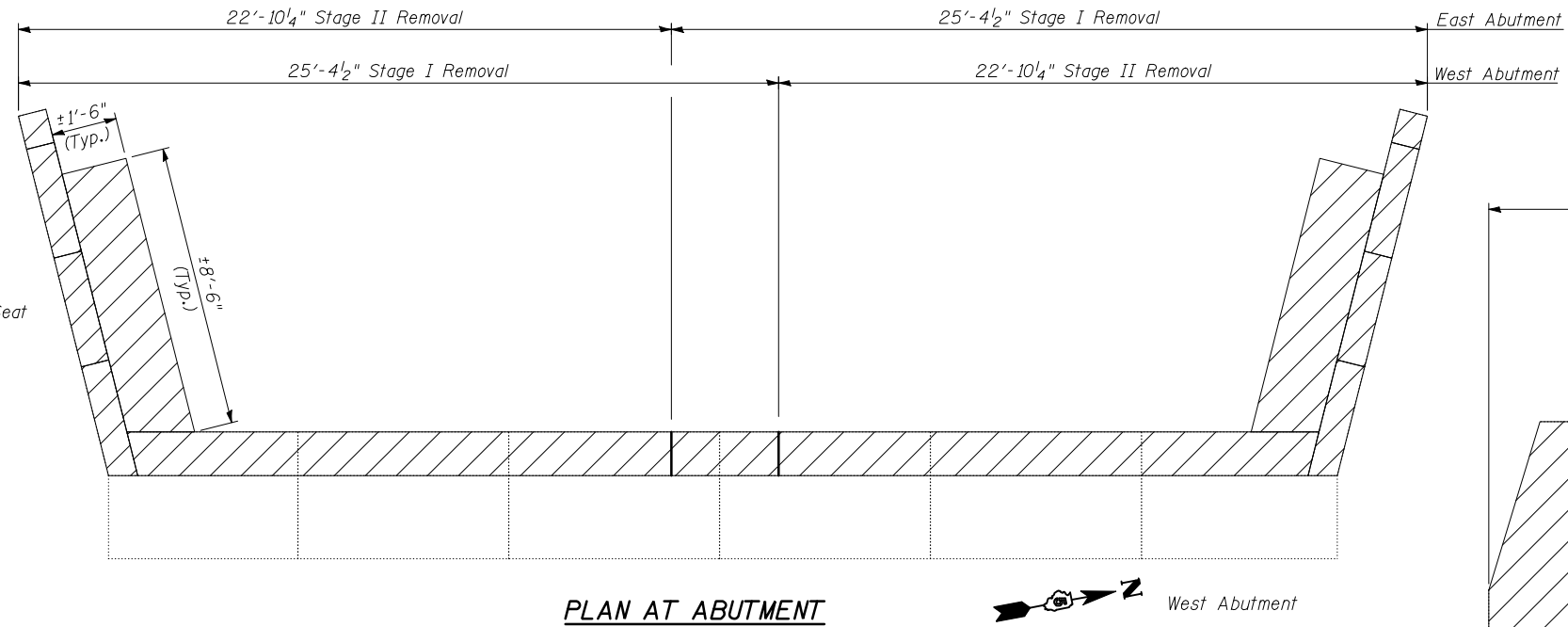
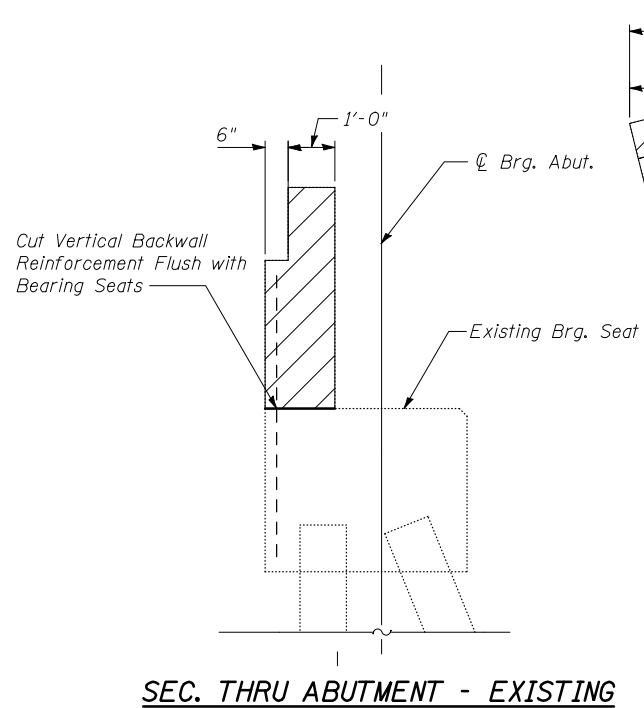
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

**EASTBOUND ABUTMENT
REPAIR DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120**

STRAND ASSOCIATES, INC.

SHEET NO. 18 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 30
	ABUTMENT REPAIR DETAILS (1 OF 2)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LEGEND

- Crack - Epoxy Crack Injection
- Portion of Existing Structure To Be Removed
- Structural Repair of Concrete (Depth Less than or Equal to 5 inches)

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

BILL OF MATERIAL

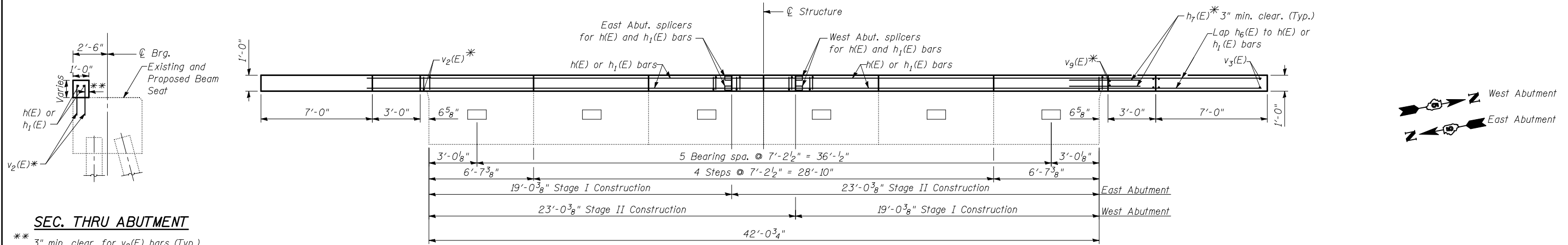
Item	Unit	Total
Concrete Removal	CU YD	44
Structural Repair of Concrete (Depth equal to or less than 5 inches)	SQ FT	9
Epoxy Crack Injection	FT	33

**WESTBOUND ABUTMENT
REPAIR DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0121**

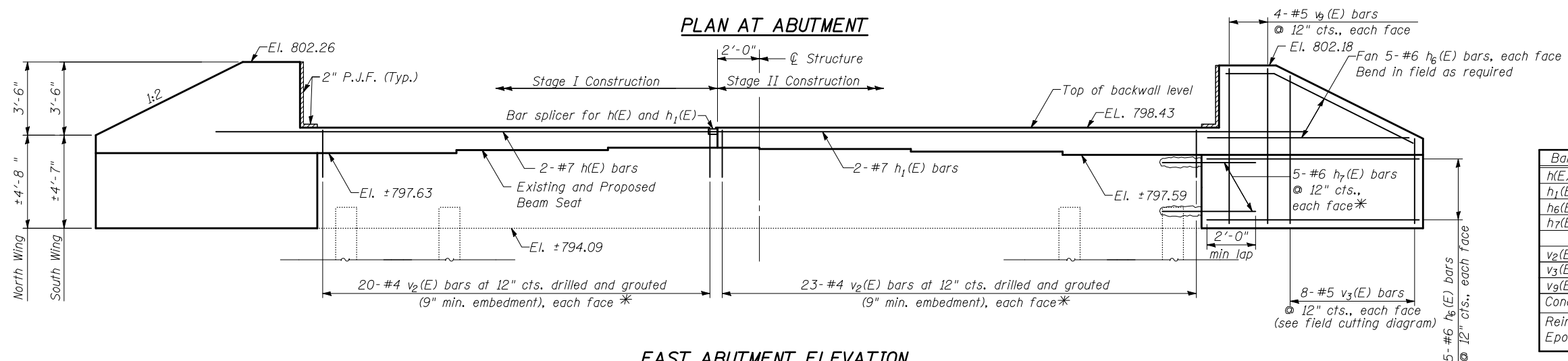
STRAND ASSOCIATES, INC.

SHEET NO. 19 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 31
	ABUTMENT REPAIR DETAILS (2 OF 2)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



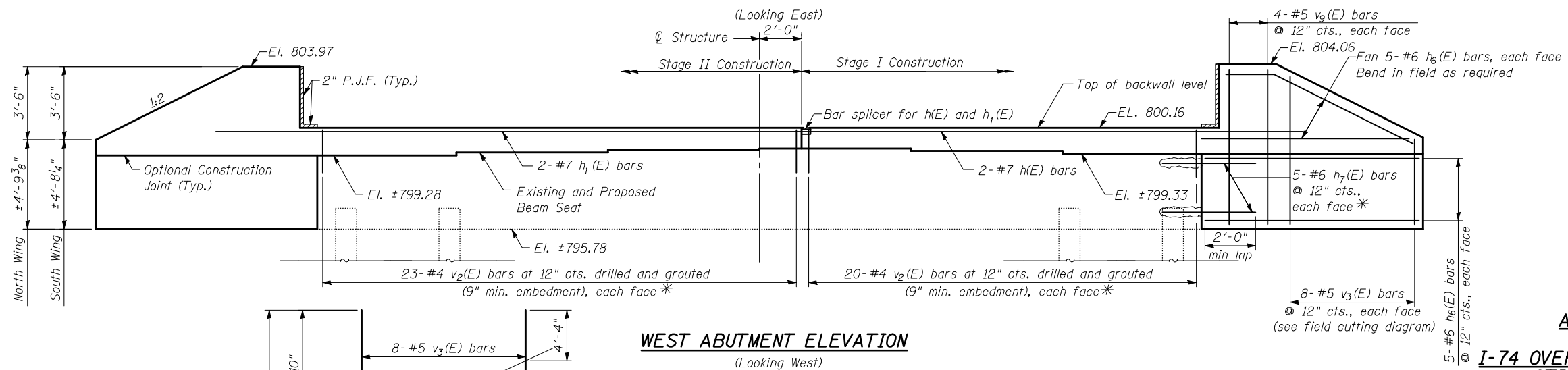
PLAN AT ABUTMENT



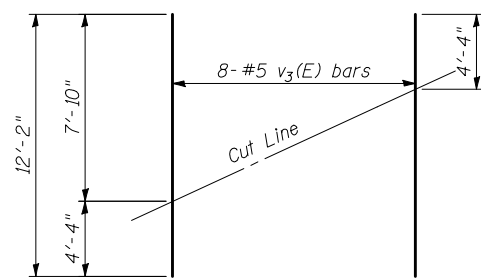
BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h(E)	4	#7	23'-1"	—
h ₁ (E)	4	#7	27'-1"	—
h ₆ (E)	80	#6	10'-2"	—
h ₇ (E)	40	#6	3'-0"	—
v ₂ (E)	172	#4	2'-1"	—
v ₃ (E)	32	#5	12'-2"	—
v ₉ (E)	32	#5	7'-10"	—
Concrete Structures		CU YD	14	
Reinforcement Bars, Epoxy Coated		LB	2,720	

EAST ABUTMENT ELEVATION



WEST ABUTMENT ELEVATION



FIELD CUTTING DIAGRAM

Order v₃(E) full length. Cut as shown and use remainder of bars in opposite face.

Notes:
Where new concrete is to be poured against existing, roughen existing concrete to 1/4" minimum amplitude and apply Bonding Agent. Cost shall be included with Concrete Structures.

*Epoxy Grout h₇(E) and v₂(E) bars in 9" Min. drilled holes according to Article 584 of the Standard Specifications

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

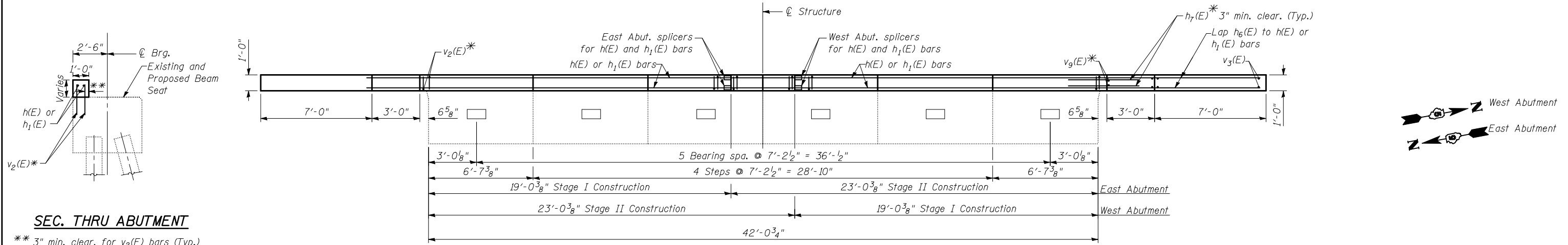
SHEET NO. 20 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 32
	ABUT. CAP AND WINGWALLS (1 OF 2)		CONTRACT NO. 70641		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

ABUTMENT DETAILS
EASTBOUND

I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120

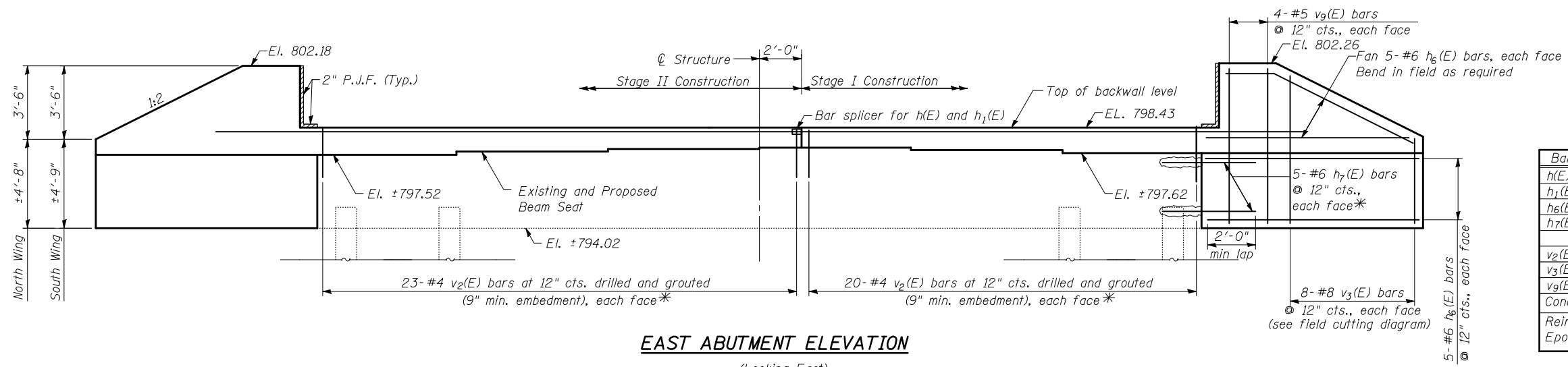
STRAND ASSOCIATES, INC.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



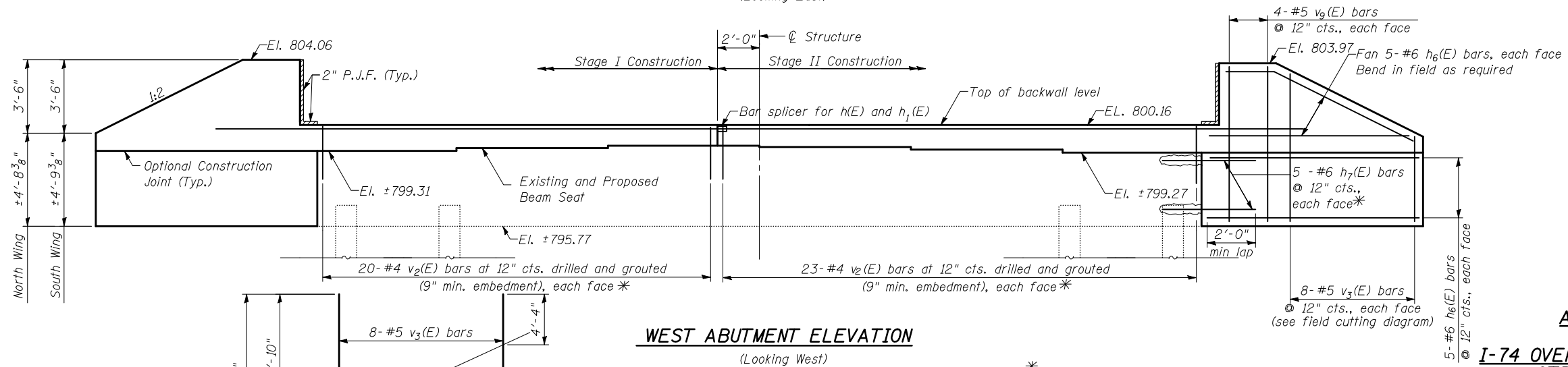
SEC. THRU ABUTMENT

** 3" min. clear. for v₂(E) bars (Typ.)



EAST ABUTMENT ELEVATION

(Looking East)



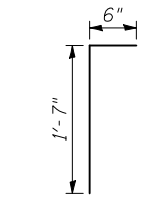
WEST ABUTMENT ELEVATION

(Looking West)

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h(E)	4	#7	23'-1"	—
h ₁ (E)	4	#7	27'-1"	—
h ₆ (E)	80	#6	10'-2"	—
h ₇ (E)	40	#6	3'-0"	—
v ₂ (E)	172	#4	2'-1"	—
v ₃ (E)	32	#5	12'-2"	—
v ₉ (E)	32	#5	7'-10"	—
Concrete Structures		CU YD	14	
Reinforcement Bars, Epoxy Coated		LB	2,720	

V₂(E) BARS



FIELD CUTTING DIAGRAM

Order v₃(E) full length. Cut as shown and use remainder of bars in opposite face.

Notes:
Where new concrete is to be poured against existing, roughen existing concrete to 1/4" minimum amplitude and apply Bonding Agent. Cost shall be included with Concrete Structures.

* Epoxy Grout h₇(E) and v₂(E) bars in 9" Min. drilled holes according to Article 584 of the Standard Specifications

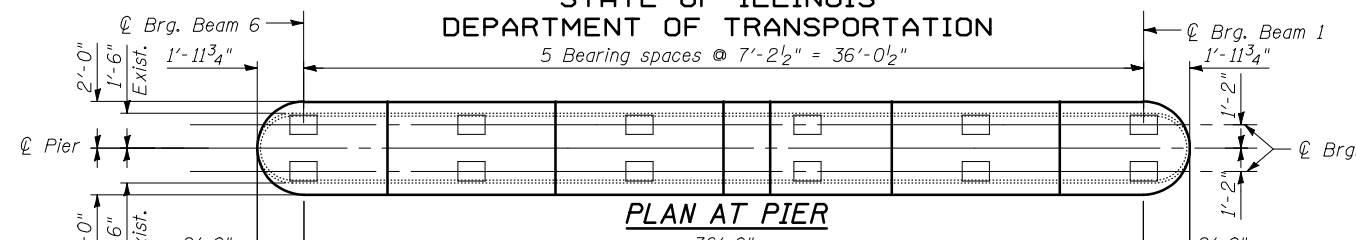
ABUTMENT DETAILS WESTBOUND
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0121

STRAND ASSOCIATES, INC.

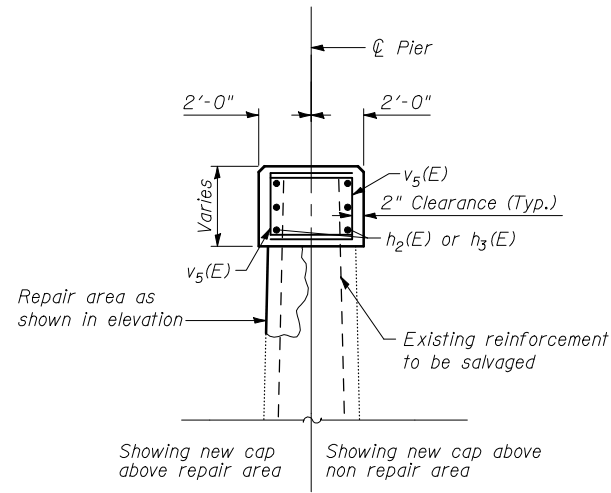
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 21 27 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	74	(57-21B)BR	MCLEAN	61	33
	ABUT. CAP AND WINGWALLS (2 OF 2)		CONTRACT NO. 70641		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

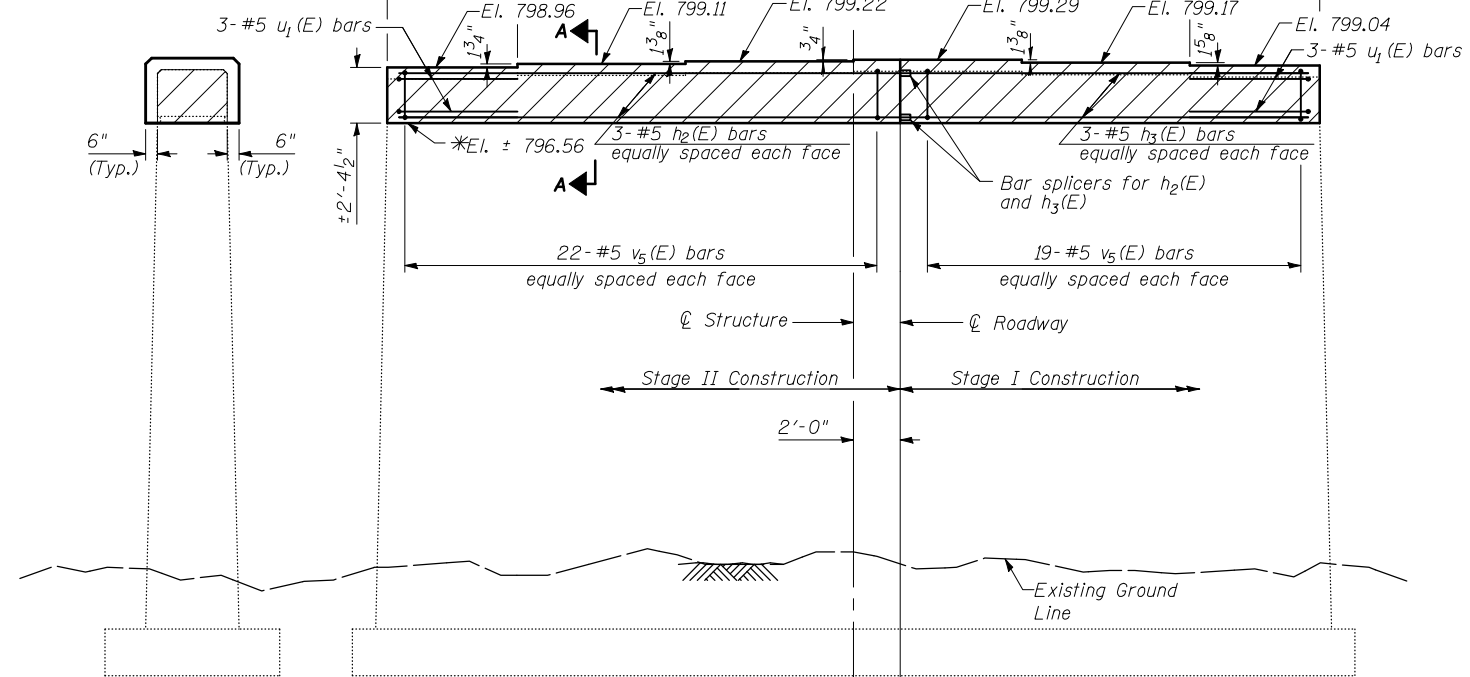
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



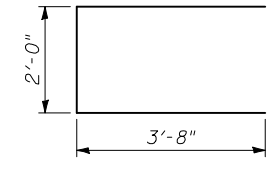
Notes:
Hatched areas indicate concrete removal. These areas to be poured after structural repair of concrete is complete for remainder of the pier.
For cap removal over non-repair areas, salvage existing #7 vertical bars. Bars to be cleaned, straightened, and incorporated into new construction. Cost included in cost of Concrete Removal.
For cap removal over repair areas, evaluate the existing #7 vertical bars as outlined in the Structural Repair of Concrete Special Provision.



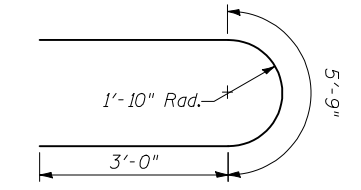
SECTION A-A



EAST FACE
(Looking West)

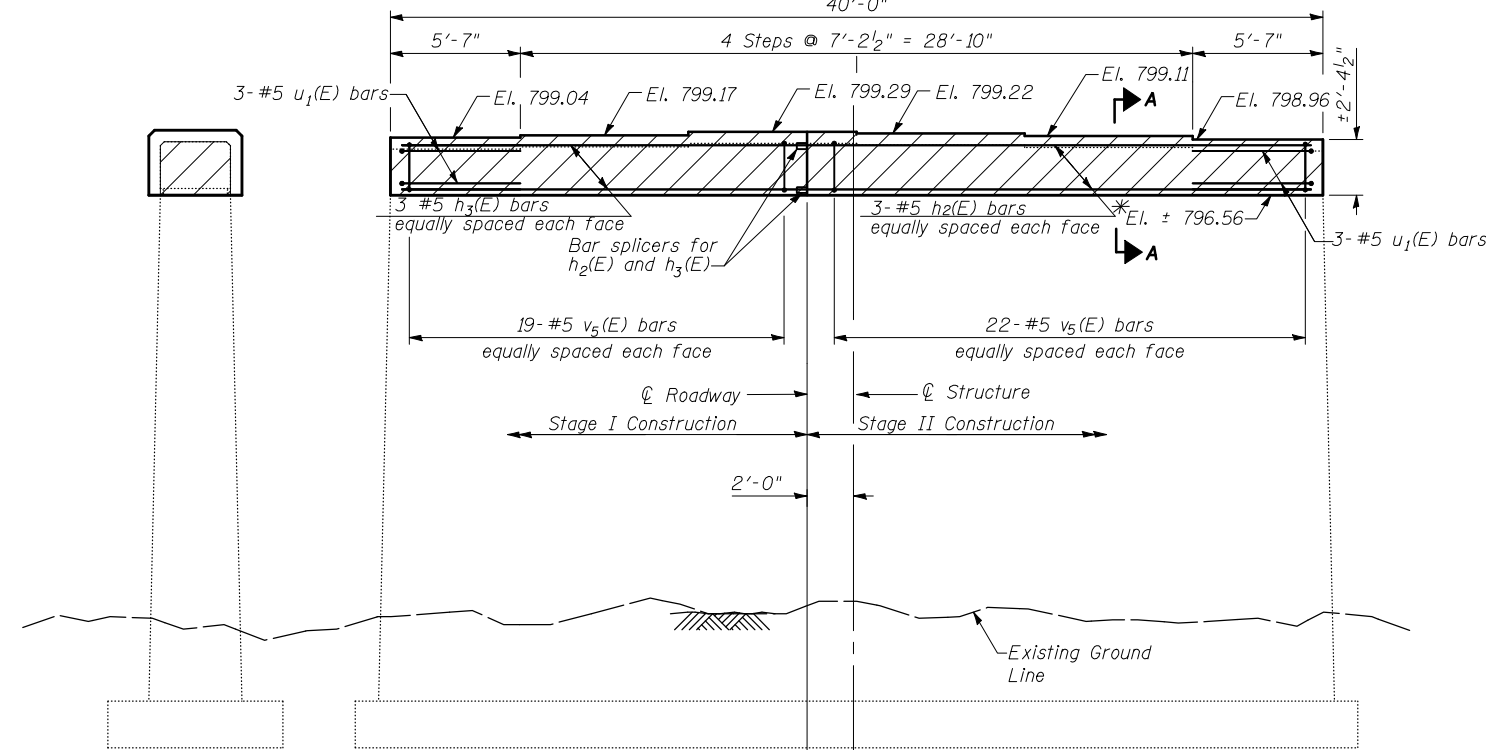


v5(E) BARS



u1(E) BARS

NORTH



WEST FACE
(Looking East)

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h2(E)	6	#5	21'-10"	▬
h3(E)	6	#5	17'-10"	▬
v5(E)	82	#5	9'-4"	▬
u1(E)	6	#5	11'-9"	U
Concrete Removal			CU YD	11
Concrete Structures			CU YD	16
Reinforcement Bars, Epoxy Coated			POUND	1,120

*Start removal at bottom of existing notch detail

LEGEND

- Crack - Epoxy Crack Injection
- Portion of Existing Structure To Be Removed
- Structural Repair of Concrete (Depth Less than or Equal to 5 inches)

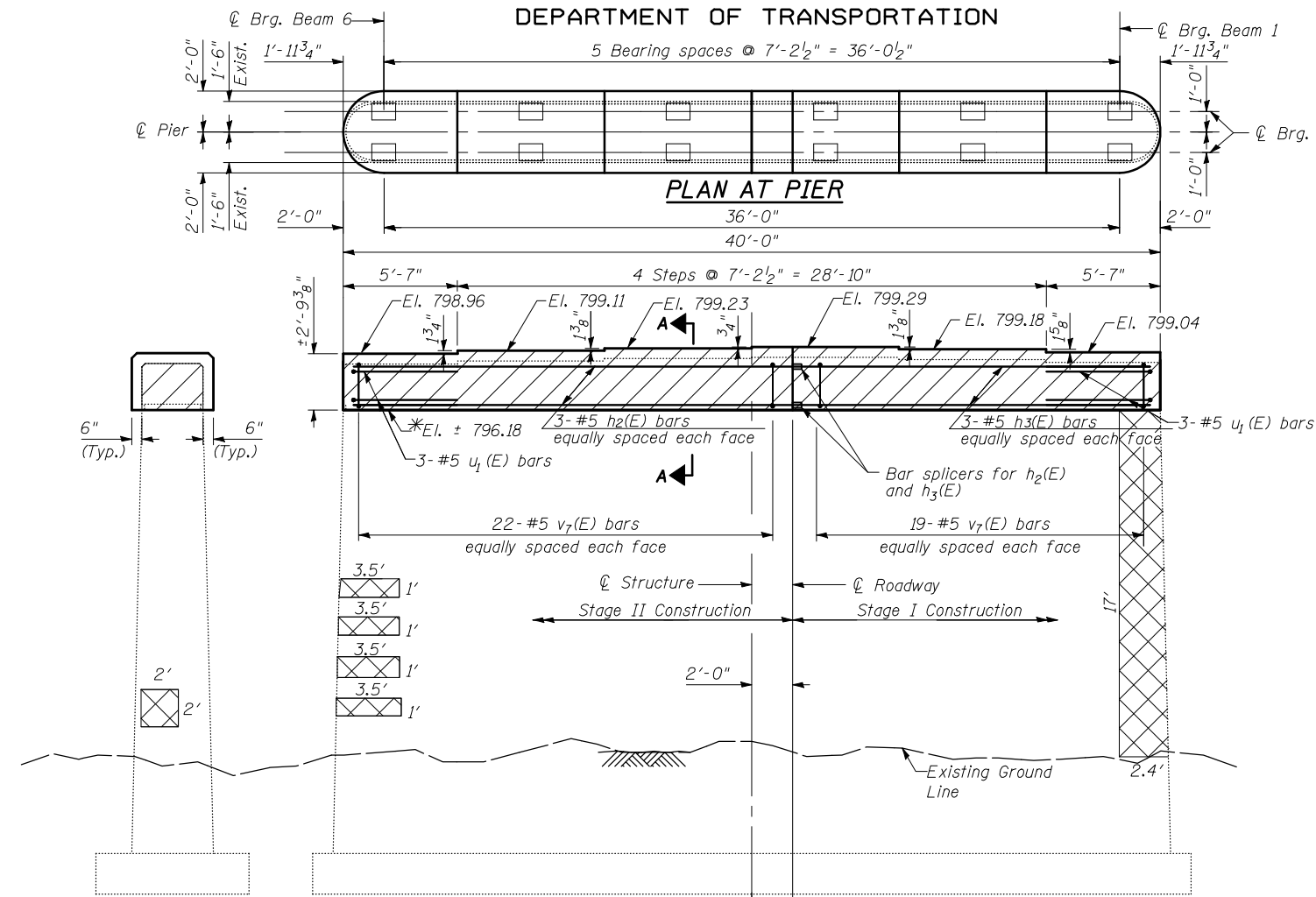
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

EASTBOUND PIER 1
REPAIR DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120

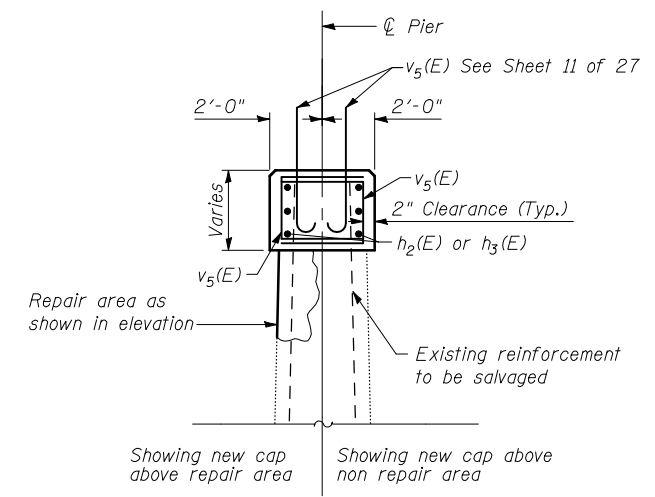
STRAND ASSOCIATES, INC.

SHEET NO. 22 27 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	74	(57-21B)BR	MCLEAN	61	34
	PIER REPAIR DETAILS (1 OF 4)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



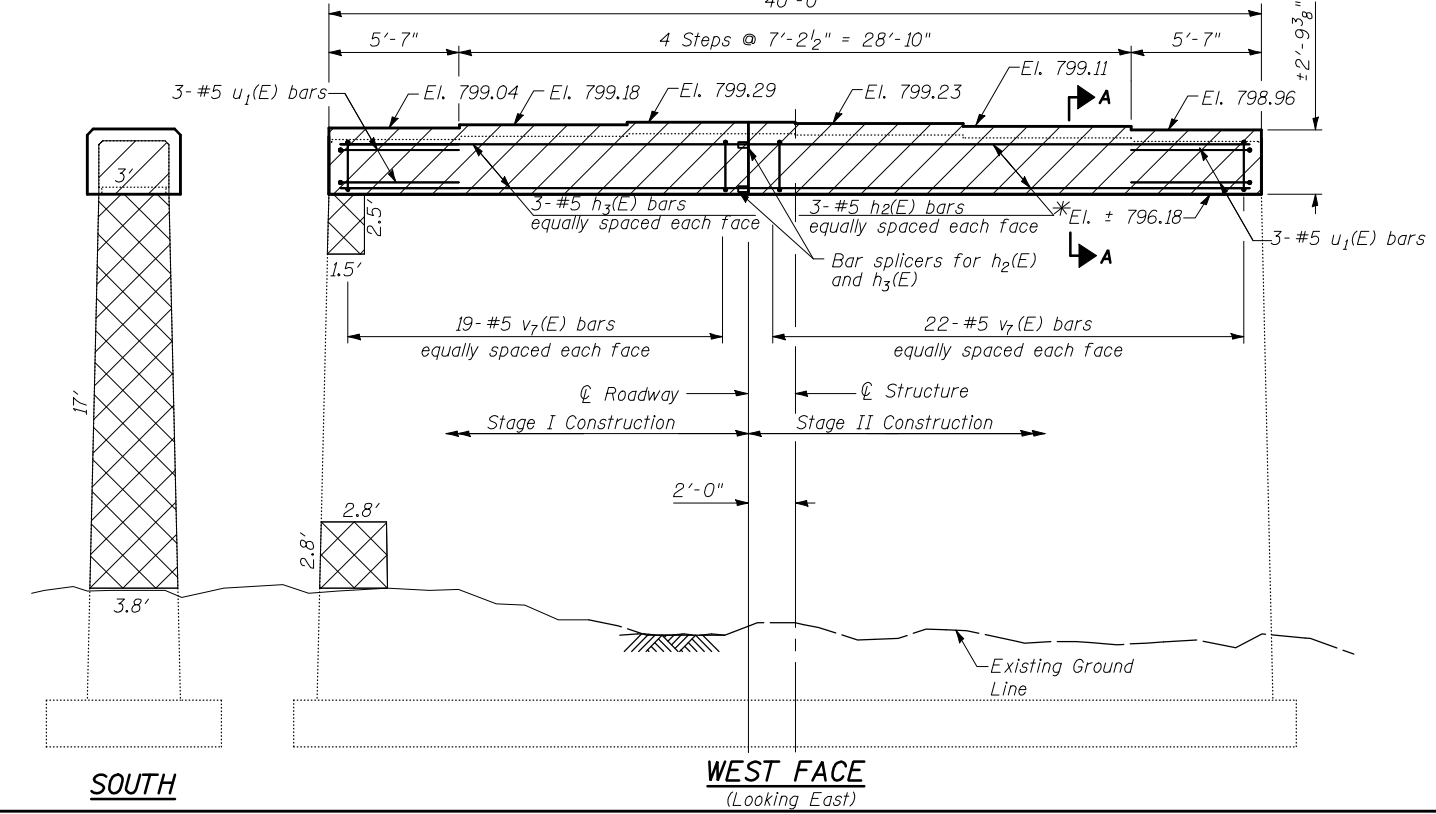
Notes:
Hatched areas indicate concrete removal. These areas to be poured after structural repair of concrete is complete for remainder of the pier.
For cap removal over non-repair areas, salvage existing #7 vertical bars. Bars to be cleaned, straightened, and incorporated into new construction. Cost included in cost of Concrete Removal.
For cap removal over repair areas, evaluate the existing #7 vertical bars as outlined in the Structural Repair of Concrete Special Provision.
See Sheet 11 of 27 for v1(E) bar bend information.



SECTION A-A

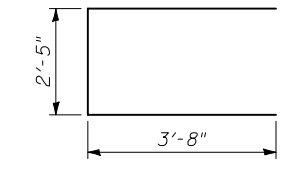
NORTH

EAST FACE
(Looking West)
40'-0"

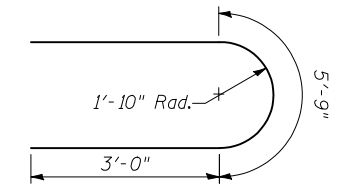


SOUTH

WEST FACE
(Looking East)



v7(E) BARS



u1(E) BARS

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h2(E)	6	#5	21'-10"	—
h3(E)	6	#5	17'-10"	—
v1(E)	30	#8	4'-2"	U
v7(E)	82	#5	9'-9"	—
u1(E)	6	#5	11'-9"	U
Concrete Removal			CU YD	11
Concrete Structures			CU YD	18
Reinforcement Bars, Epoxy Coated			POUND	1,490
Structural Repair of Concrete (Depth Equal to or less than 5 inches)			SQ FT	141

* Start removal at bottom of existing notch detail

LEGEND

- Crack - Epoxy Crack Injection
- Portion of Existing Structure To Be Removed
- Structural Repair of Concrete (Depth Less than or Equal to 5 inches)

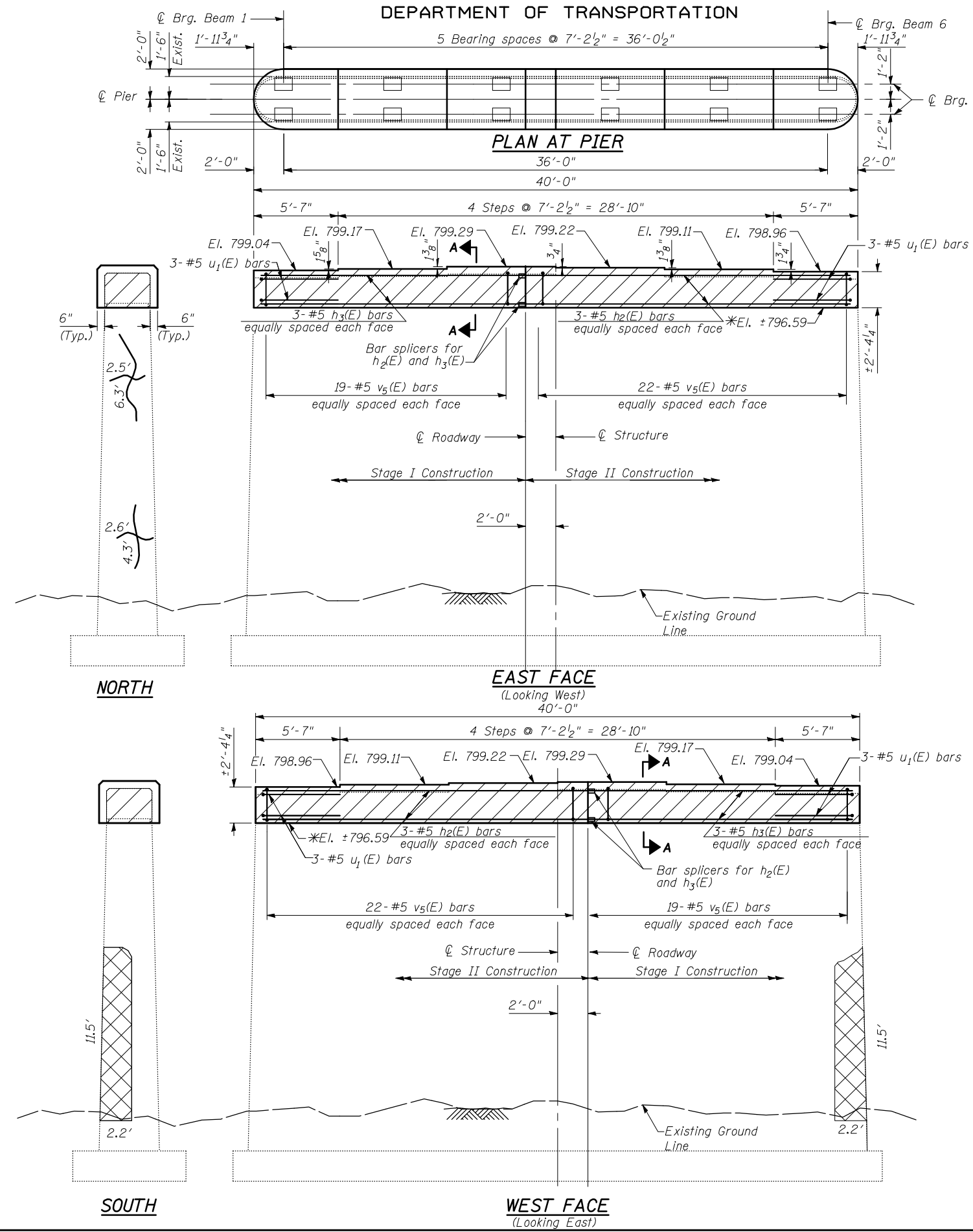
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

EASTBOUND PIER 2
REPAIR DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120

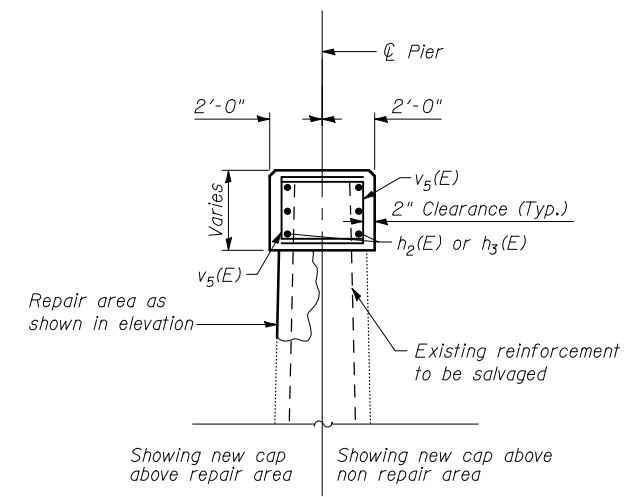
STRAND ASSOCIATES, INC.

SHEET NO. 23	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	74	(57-21B)BR	MCLEAN	61	35
27 SHEETS	PIER REPAIR DETAILS (2 OF 4)		CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

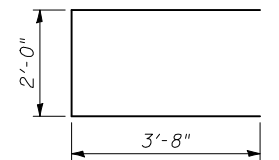
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



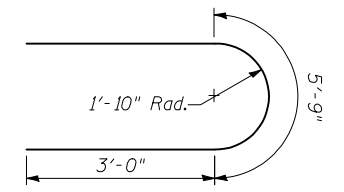
Notes:
Hatched areas indicate concrete removal. These areas to be poured after structural repair of concrete is complete for remainder of the pier.
For cap removal over non-repair areas, salvage existing #7 vertical bars. Bars to be cleaned, straightened, and incorporated into new construction. Cost included in cost of Concrete Removal.
For cap removal over repair areas, evaluate the existing #7 vertical bars as outlined in the Structural Repair of Concrete Special Provision.



SECTION A-A



v5(E) BARS



u1(E) BARS

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h2(E)	6	#5	21'-10"	—
h3(E)	6	#5	17'-10"	—
v5(E)	82	#5	9'-4"	—
u1(E)	6	#5	11'-9"	—
Concrete Removal			CU YD	11
Concrete Structures			CU YD	16
Reinforcement Bars, Epoxy Coated			POUND	1,120
Epoxy Crack Injection			FT	18
Structural Repair of Concrete (Depth Equal to or less than 5 inches)			SQ FT	56

*Start removal from bottom of existing notch detail

LEGEND

- Crack - Epoxy Crack Injection
- Portion of Existing Structure To Be Removed
- Structural Repair of Concrete (Depth Less than or Equal to 5 inches)

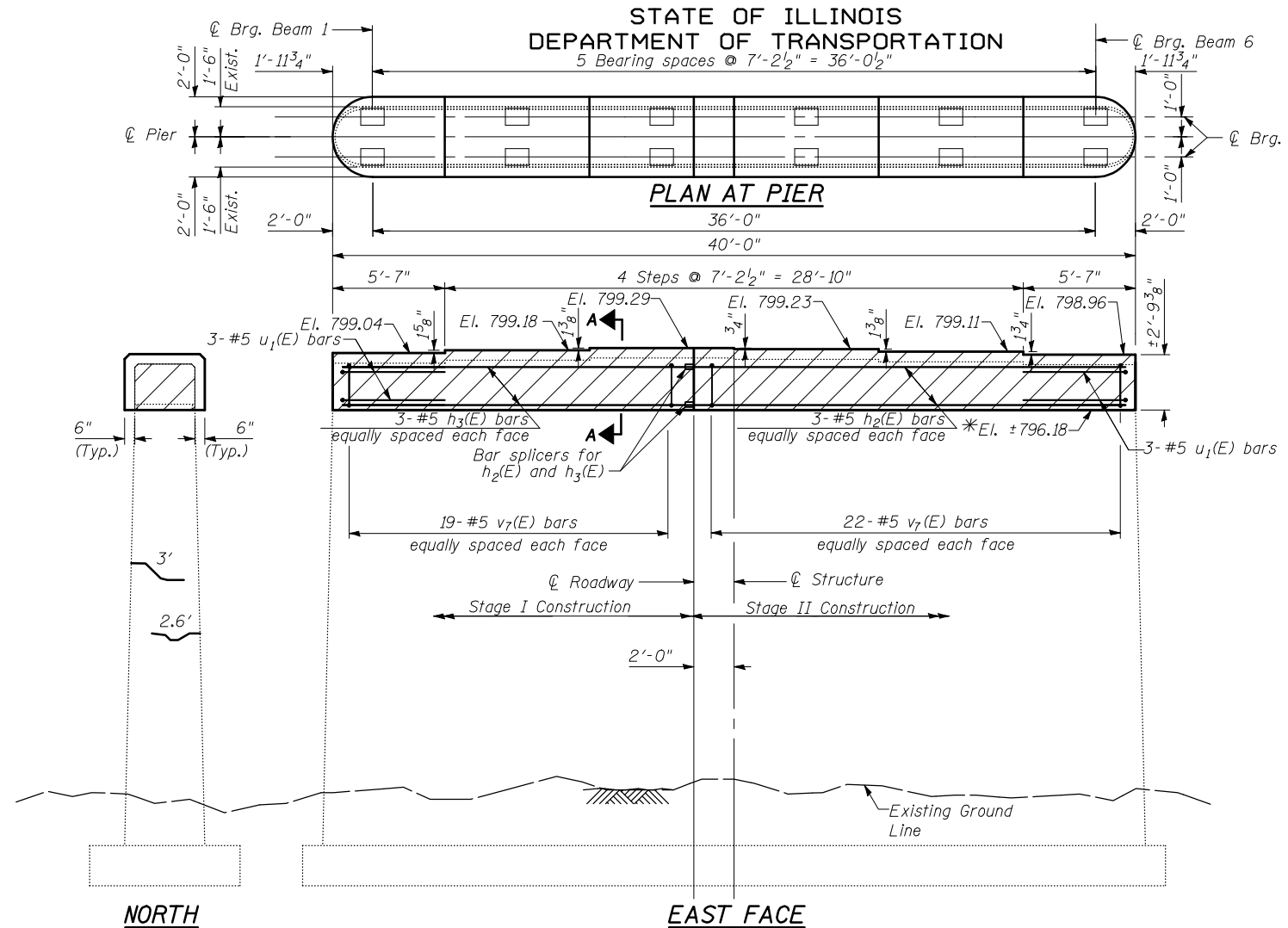
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

WESTBOUND PIER 1
REPAIR DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0121

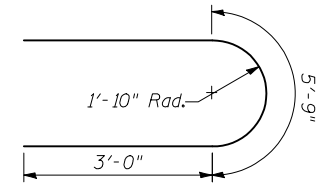
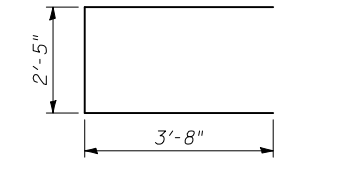
STRAND ASSOCIATES, INC.

SHEET NO. 24 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 36
	PIER REPAIR DETAILS (3 OF 4)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
5 Bearing spaces @ 7'-2 1/2" = 36'-0 1/2"



Notes:
Hatched areas indicate concrete removal. These areas to be poured after structural repair of concrete is complete for remainder of the pier.
For cap removal over non-repair areas, salvage existing #7 vertical bars. Bars to be cleaned, straightened, and incorporated into new construction. Cost included in cost of Concrete Removal.
For cap removal over repair areas, evaluate the existing #7 vertical bars as outlined in the Structural Repair of Concrete Special Provision.
See Sheet 11 of 27 for v1(E) bar bend information.



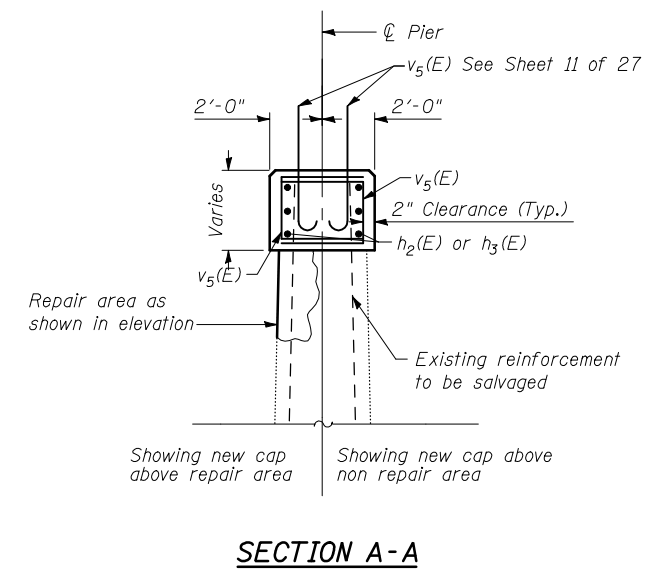
BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h2(E)	6	#5	21'-10"	—
h3(E)	6	#5	17'-10"	—
v1(E)	30	#8	4'-2"	U
v7(E)	82	#5	9'-9"	—
u1(E)	6	#5	11'-9"	U
Concrete Removal		CU YD	11	
Concrete Structures		CU YD	18	
Reinforcement Bars, Epoxy Coated		POUND	1,490	
Epoxy Crack Injection		FT	7	
Structural Repair of Concrete (Depth Equal to or less than 5 inches)		SQ FT	120	

*Start removal at bottom of existing notch detail

**WESTBOUND PIER 2
REPAIR DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0121**

STRAND ASSOCIATES, INC.



LEGEND

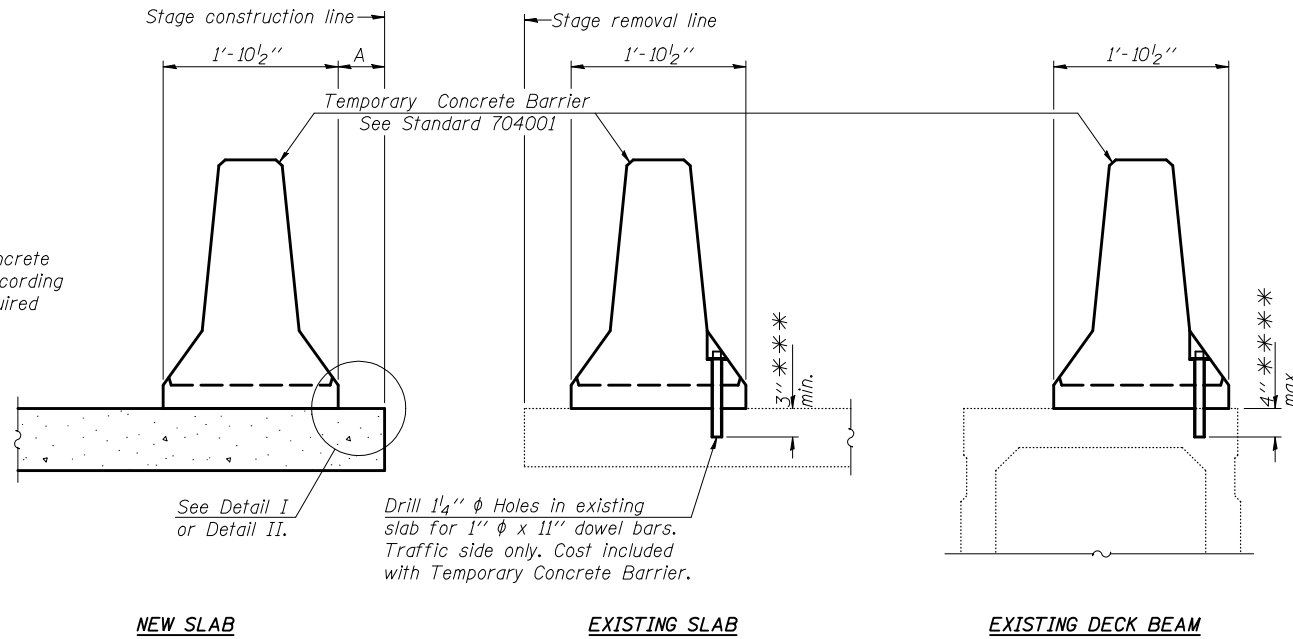
- Crack - Epoxy Crack Injection
- Portion of Existing Structure To Be Removed
- Structural Repair of Concrete (Depth Less than or Equal to 5 inches)

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 25 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 37
	PIER REPAIR DETAILS (4 OF 4)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

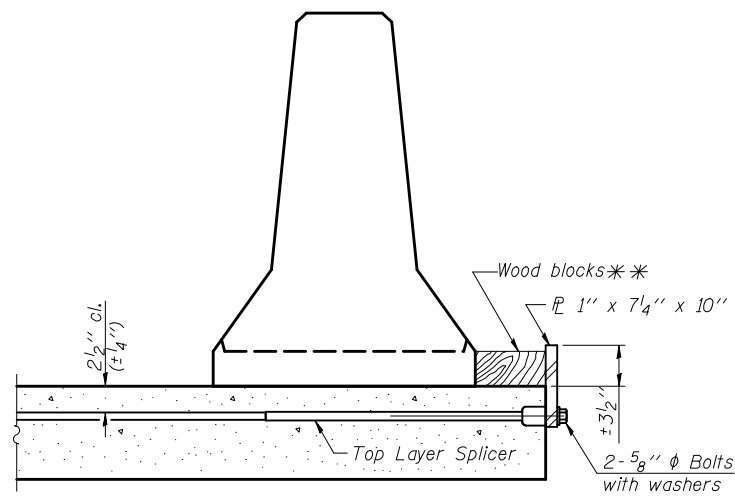
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7/4" x 10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7/4" x 10" steel \bar{P} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

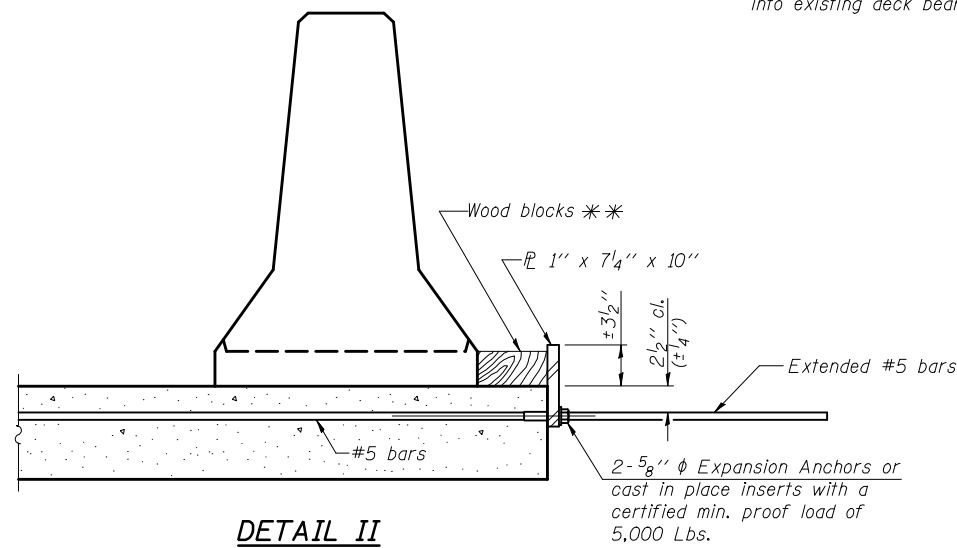
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7/4" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

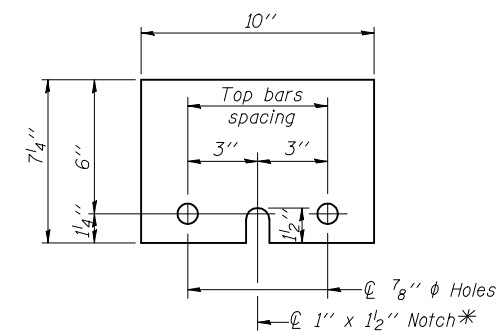
*** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{P} 1" x 7/4" x 10"

Required only with Detail II *

MODIFIED
TEMPORARY CONCRETE
BARRIER DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121

STRAND ASSOCIATES, INC.

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

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	JAR

SHEET NO. 26 27 SHEETS	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 38
	STANDARD DETAILS (1 OF 2)			CONTRACT NO. 70641	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

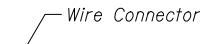
The diameter of this part is equal or larger than the diameter of bar spliced.

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

ROLLED THREAD DOWEL BAR



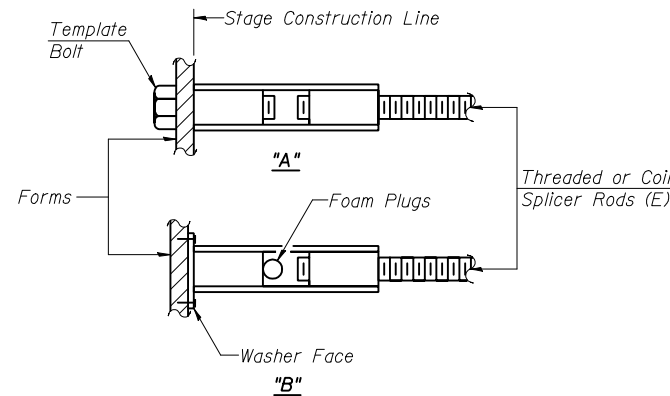
**** ONE PIECE**



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

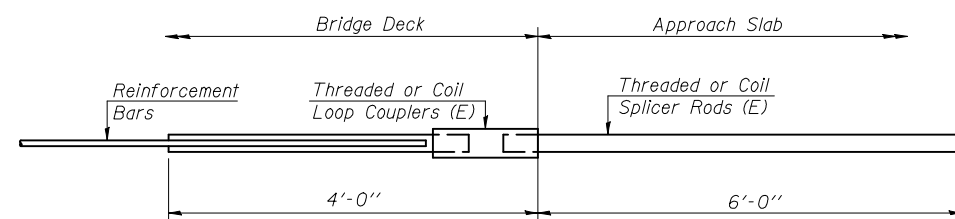
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

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

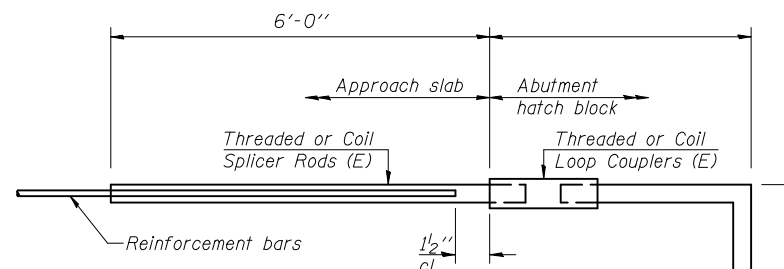
Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



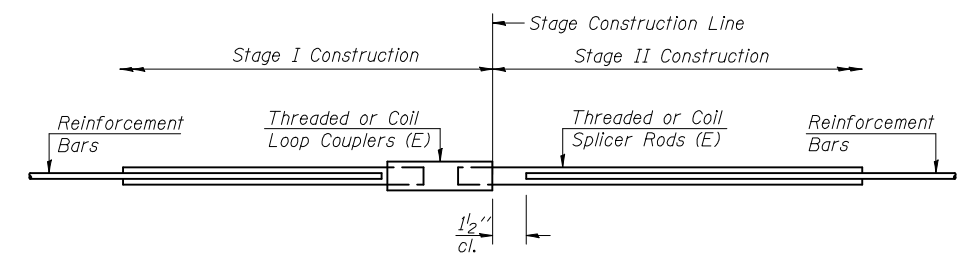
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 168



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
5	24	Piers
5	1,066	Deck
6	48	Diaphragm Abutments
6	16	Diaphragm Piers
7	8	Abutments

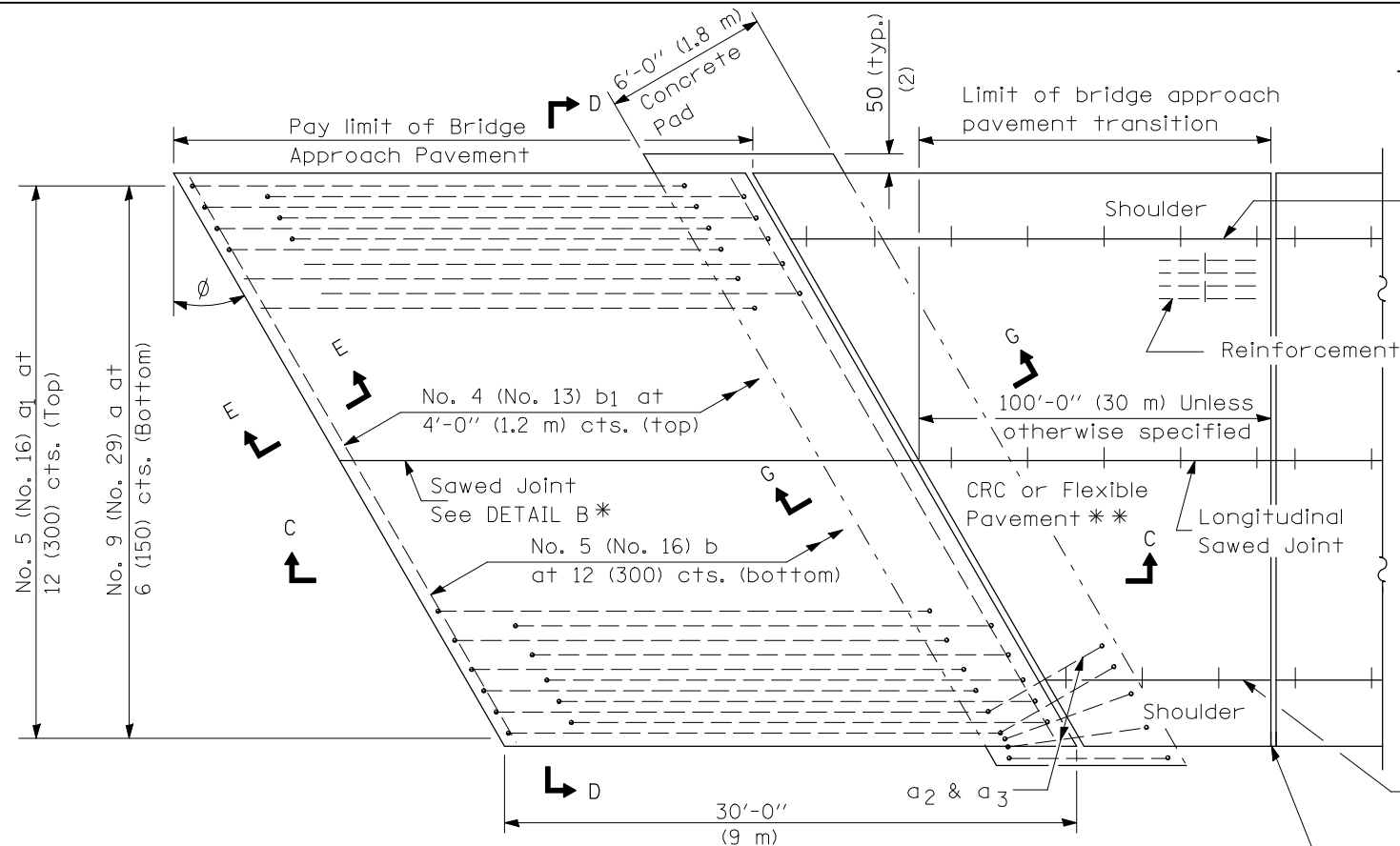
**BAR SPLICER DETAILS
I-74 OVER LITTLE KICKAPOO CREEK
STRUCTURE NO. 057-0120
AND 057-0121**

STRAND ASSOCIATES, INC.

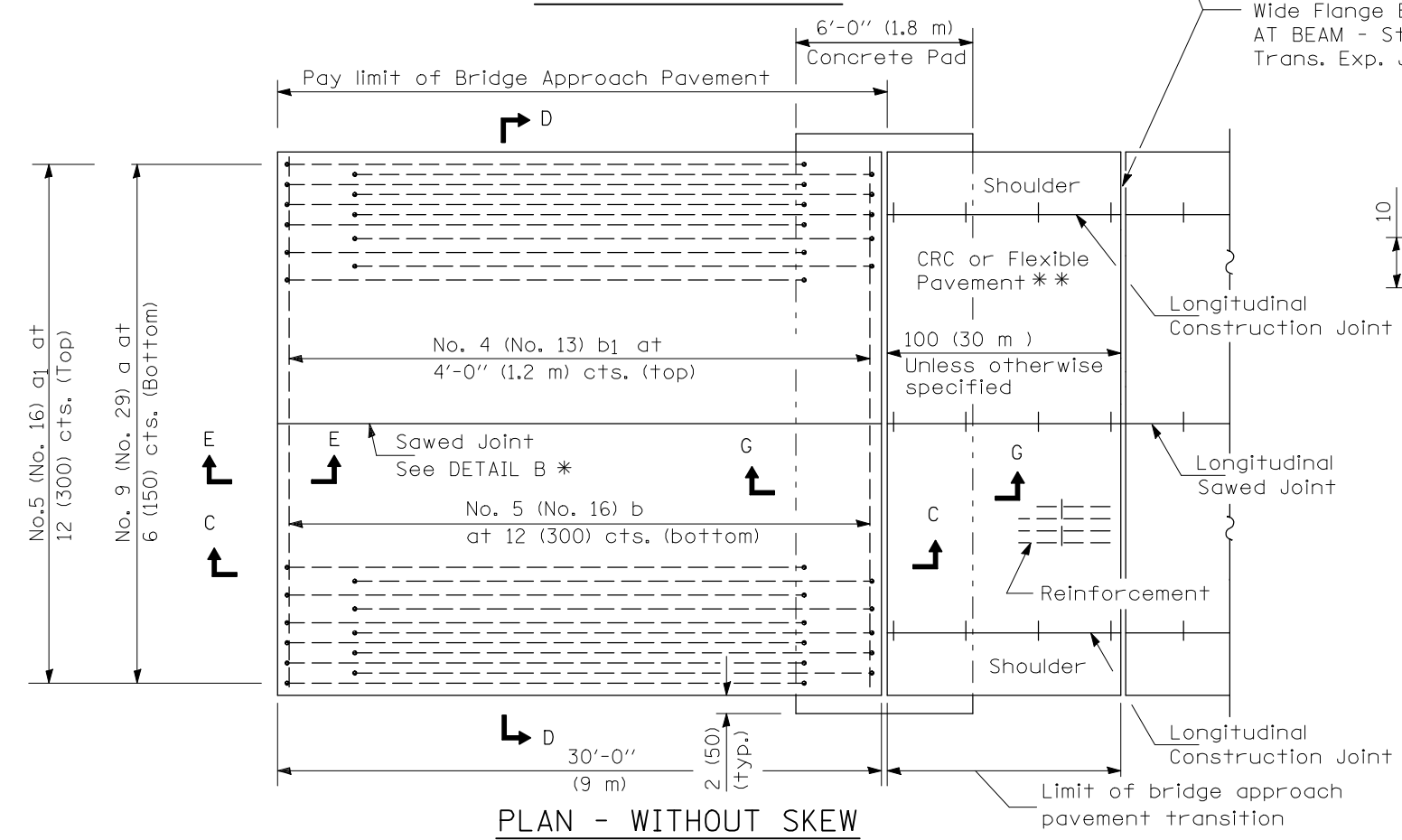
DESIGNED RRD
CHECKED AJS
DRAWN KAS
CHECKED JAR

BSD-1 5-16-08

SHEET NO. 27	F.A.I. RTE. 74	SECTION (57-21B)BR	COUNTY MCLEAN	TOTAL SHEETS 61	SHEET NO. 39
27 SHEETS	STANDARD DETAILS (2 OF 2)		CONTRACT NO. 70641		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					



PLAN - WITH SKEW



PLAN - WITHOUT SKEW

* Saw \perp or lane edge if poured two or more lane widths at a time.
 ** Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.

NEW CONSTRUCTION

Longitudinal Construction Joint

Reinforcement

100'-0" (30 m) Unless otherwise specified

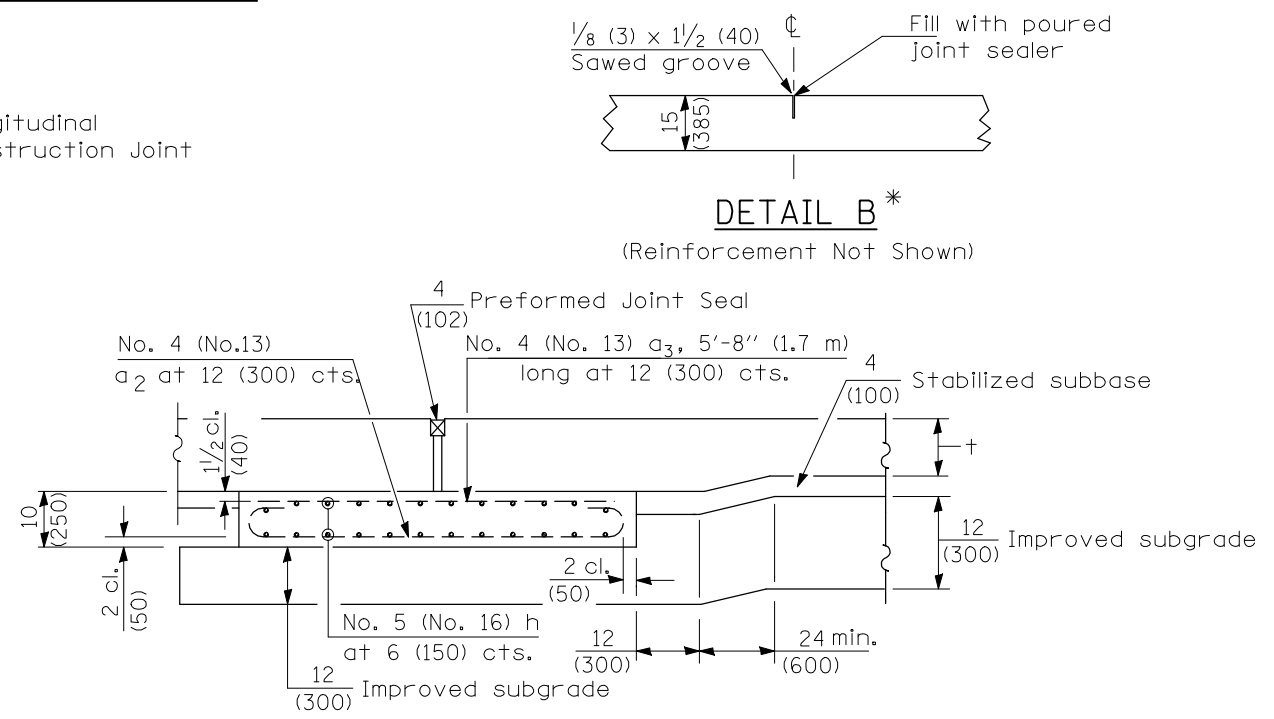
CRC or Flexible Pavement **

Longitudinal Sawed Joint

Longitudinal Construction Joint

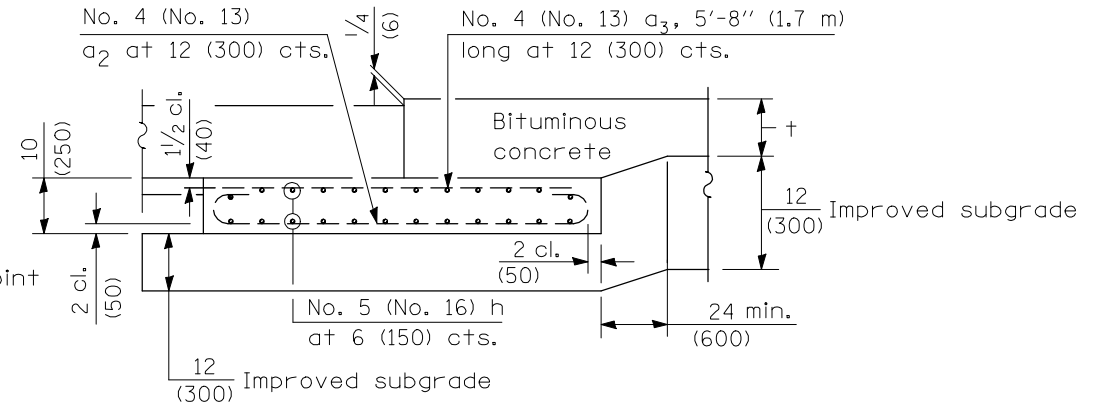
Rigid Pavement only:

Wide Flange Beam Terminal Joint (See DETAIL AT BEAM - Standard 421101 or 421106) or 2 (50) Trans. Exp. Joint as detailed on Standard 420001.



SECTION G-G - RIGID PAVEMENT

(Showing reinforcement)



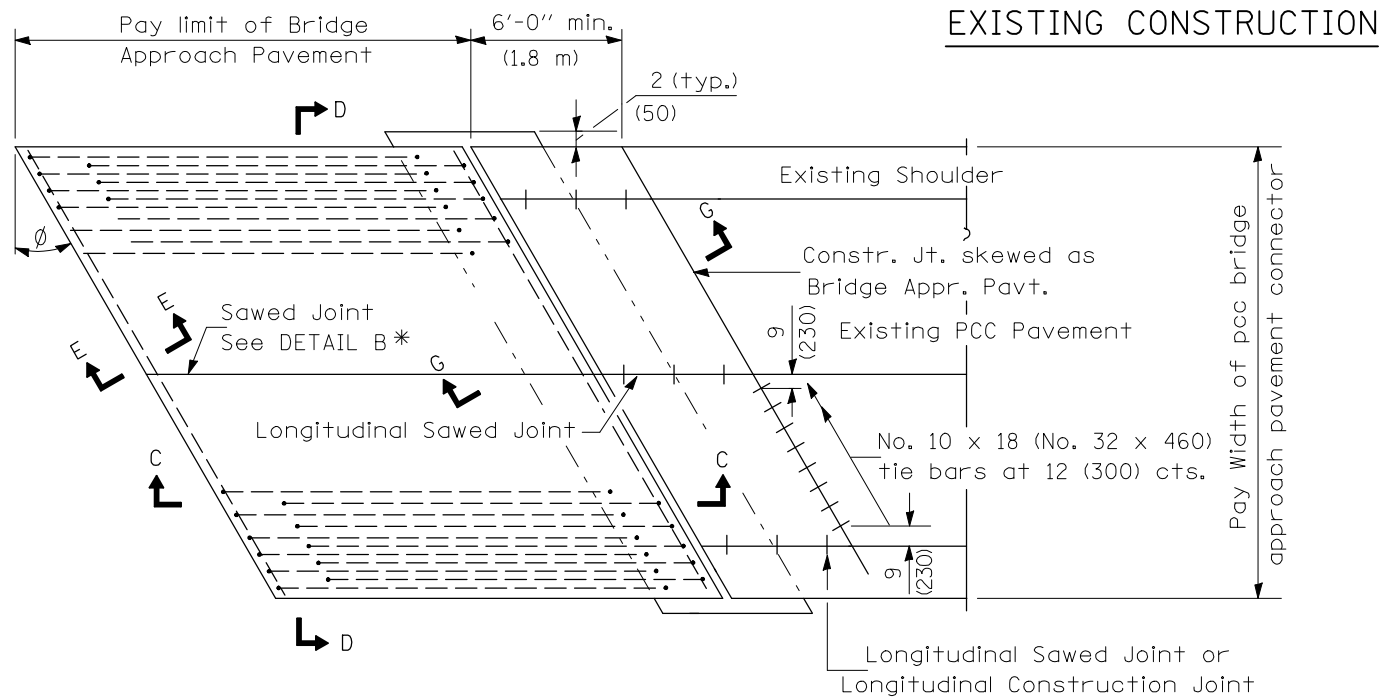
SECTION G-G - FLEXIBLE PAVEMENT

(Showing reinforcement)

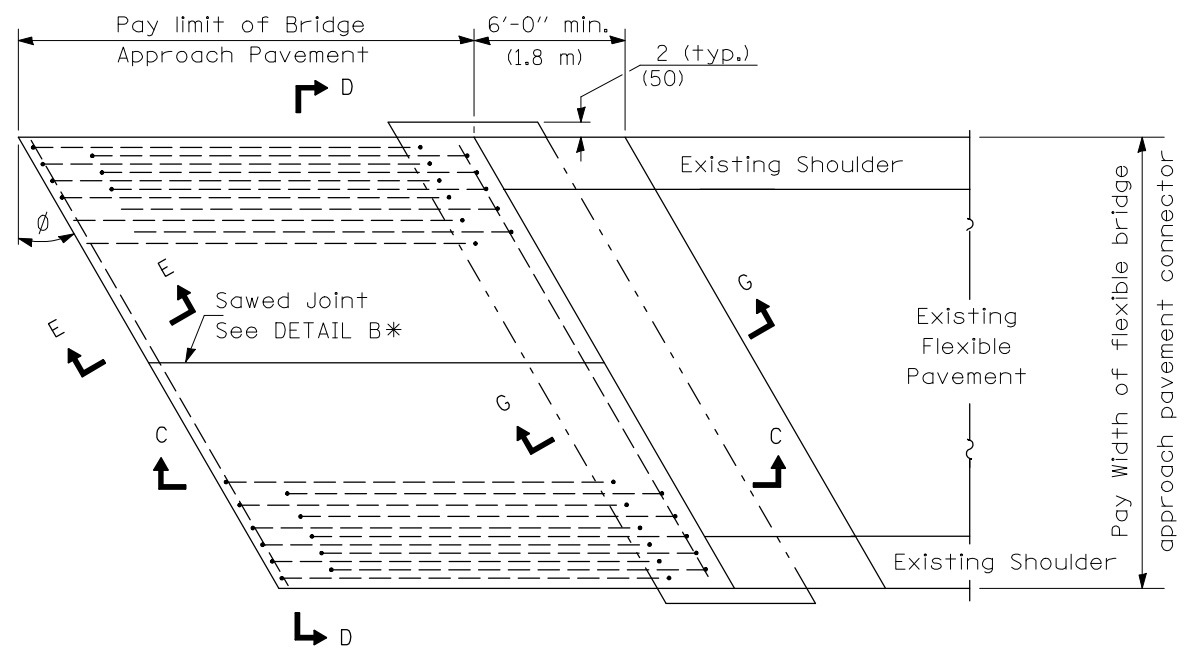
GENERAL NOTES

THICKNESS-"t"=Thickness of Pavement.
 See Standard 421001 for reinforcement details not shown.
 See Standard 420001 for joint details not shown.
 All dimensions are in inches (millimeters) unless otherwise shown.

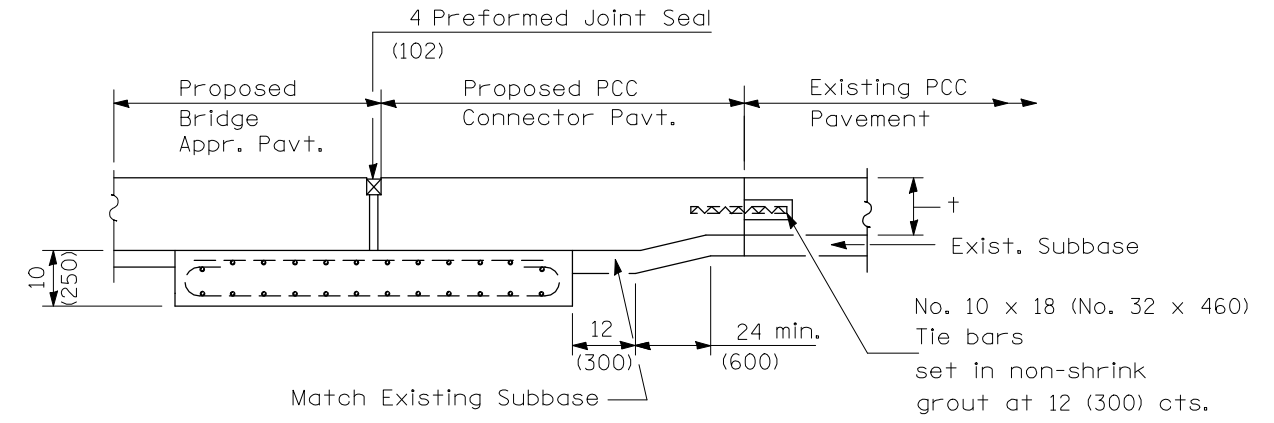
BRIDGE APPROACH PAVEMENT DETAIL		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE:	SHEET NO. 1 OF 4 SHEETS	74	(57-21B)BR	MCLEAN	61	40
STA.	TO STA.	CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT						



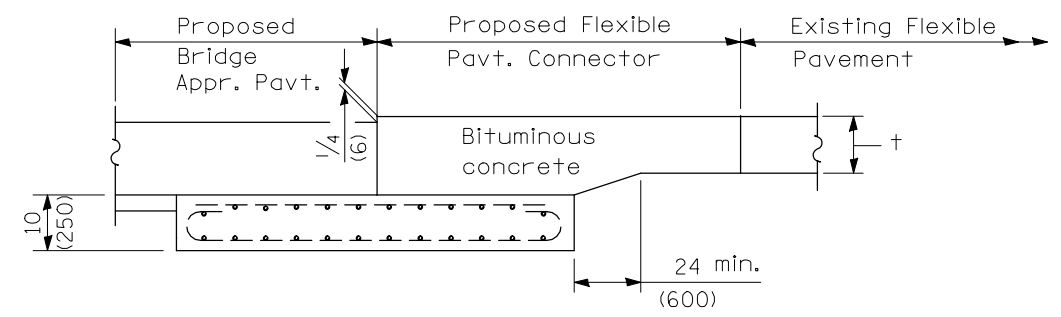
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

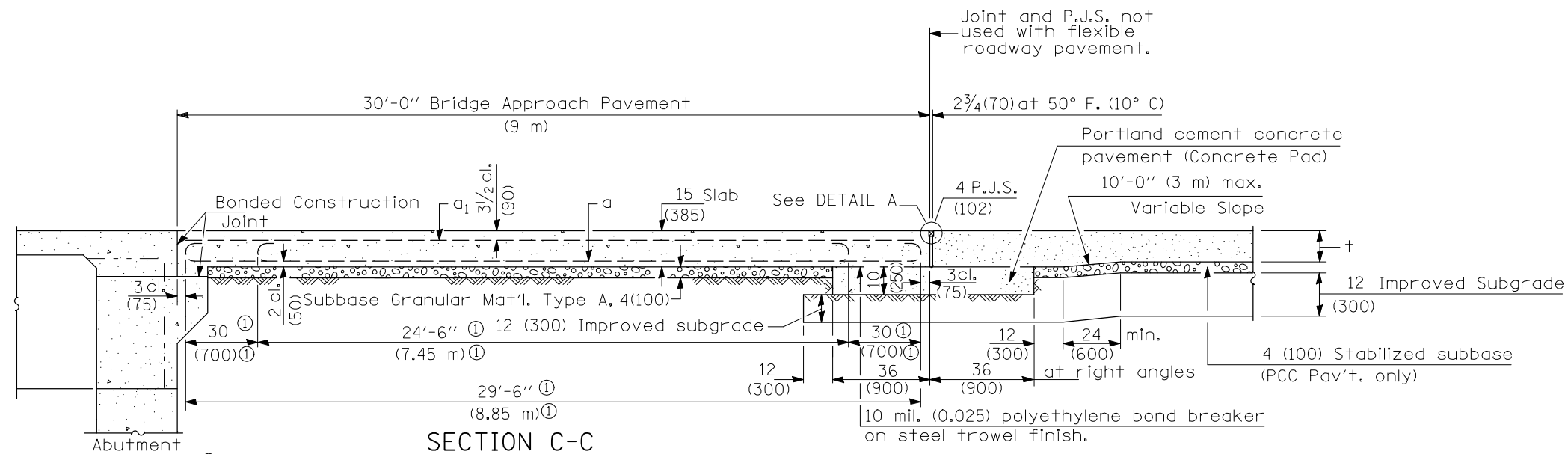


SECTION G-G - RIGID PAVEMENT



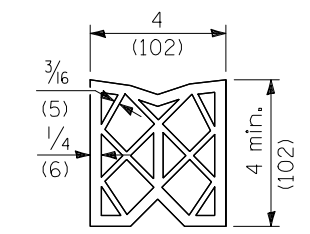
SECTION G-G - FLEXIBLE PAVEMENT

BRIDGE APPROACH PAVEMENT DETAIL		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		74	(57-21B)BR	MCLEAN	61	41
SCALE:		SHEET NO. 2 OF 4 SHEETS		STA.	TO STA.	
				ILLINOIS FED. AID PROJECT		

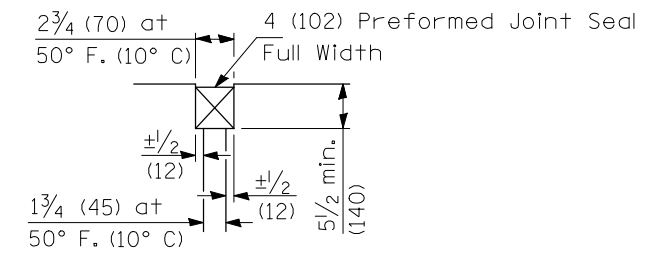


SECTION C-C

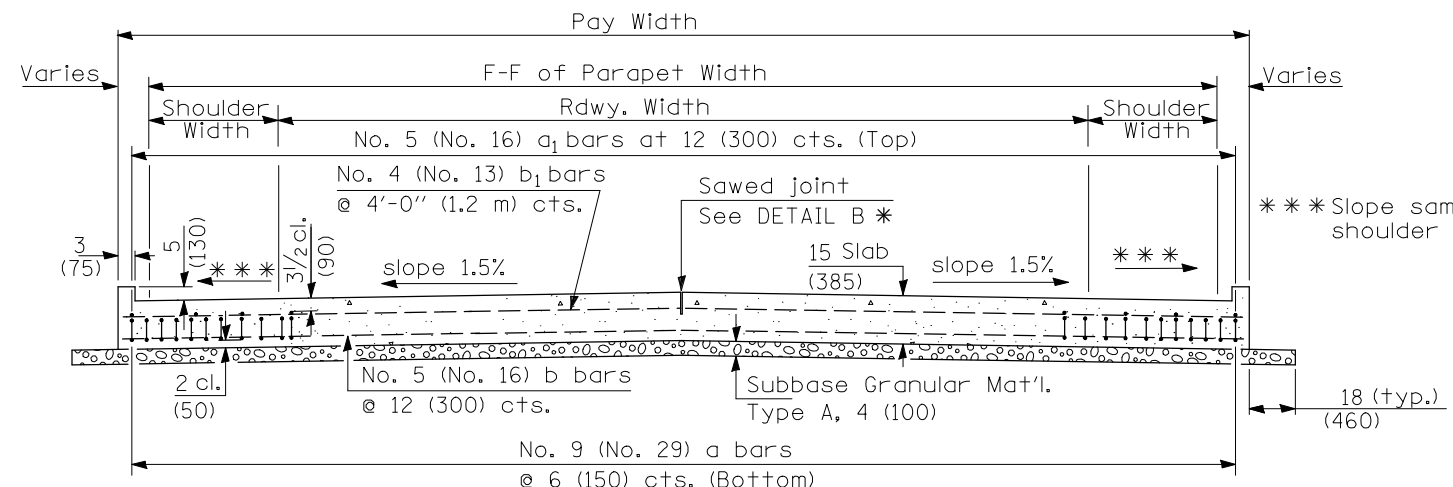
① Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL



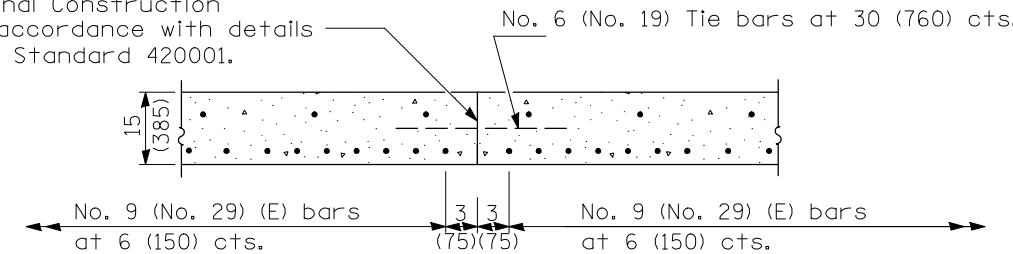
DETAIL A



SECTION D-D

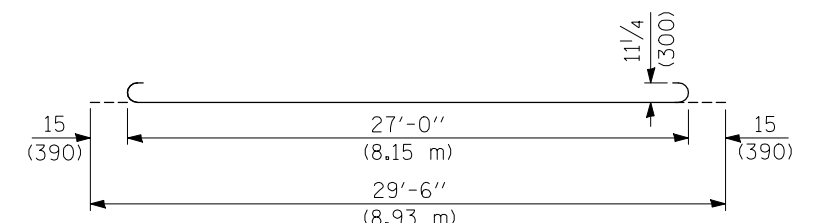
(See Plan for Dimensions not shown)

Longitudinal Construction Joint in accordance with details shown on Standard 420001.

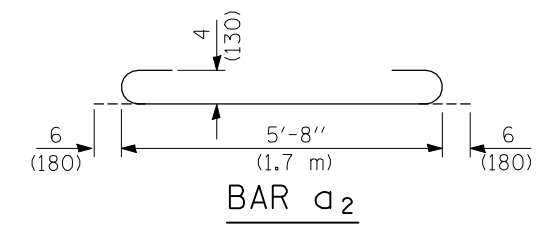


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

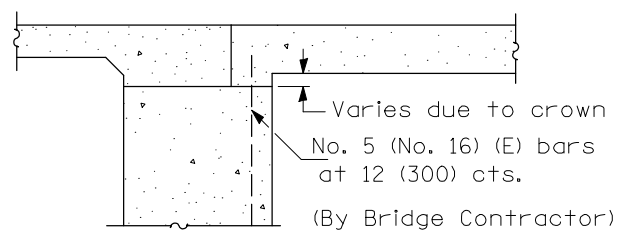
As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.



BAR a

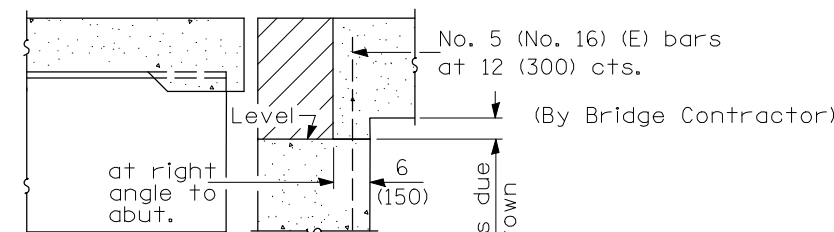


BAR a₂



SECTION E-E

(Integral Abutments)



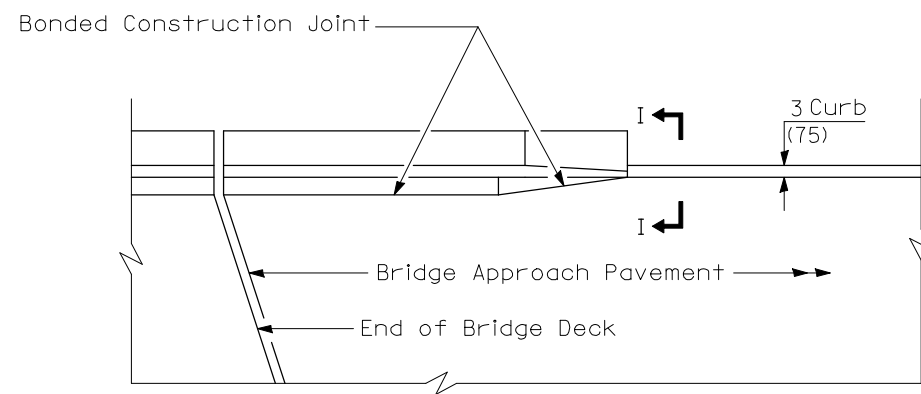
SECTION E-E

(Jointed Abutments)

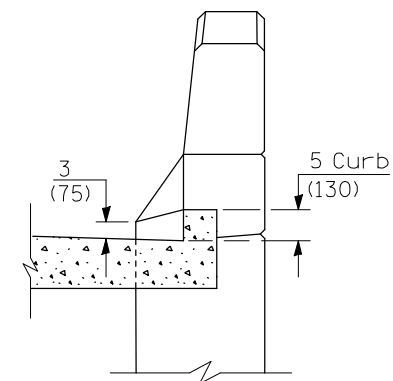
DESIGN STRESSES

f_y = 60,000 p.s.i. (400 MPa)
 f'c = 3,500 p.s.i. (24 MPa)
 n = 8.5

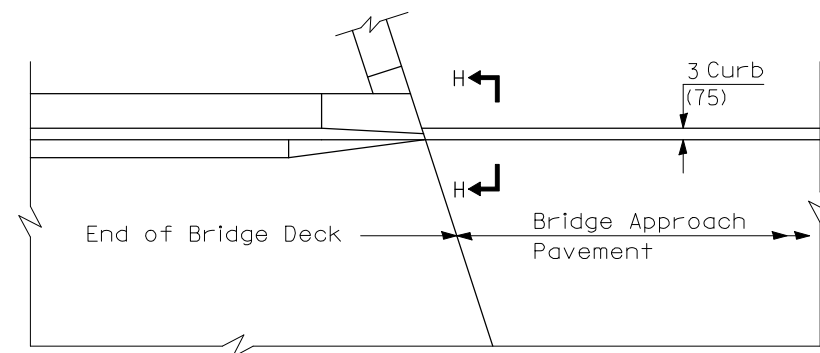
BRIDGE APPROACH PAVEMENT DETAIL		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE:		74	(57-21B)BR	MCLEAN	61	42
SHEET NO. 3 OF 4 SHEETS		STA. TO STA.		CONTRACT NO. 70641		
ILLINOIS FED. AID PROJECT						



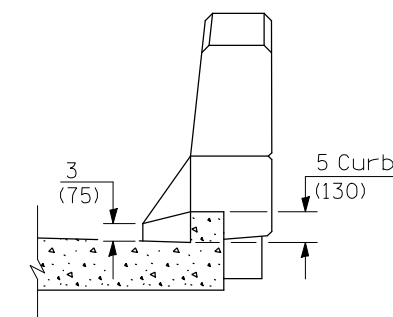
PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT



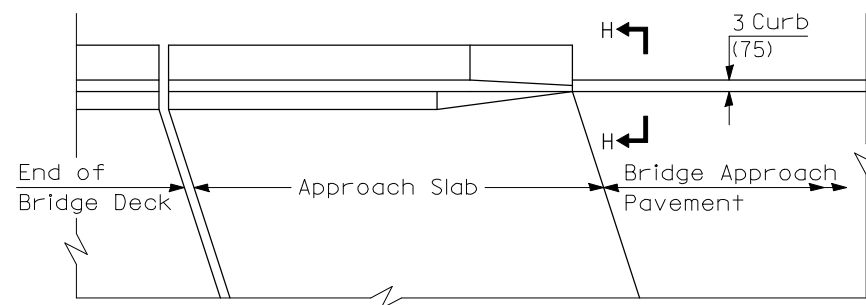
SECTION I - I



PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT



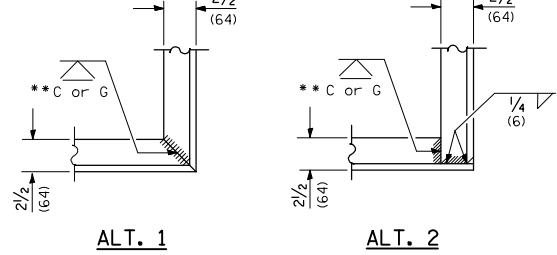
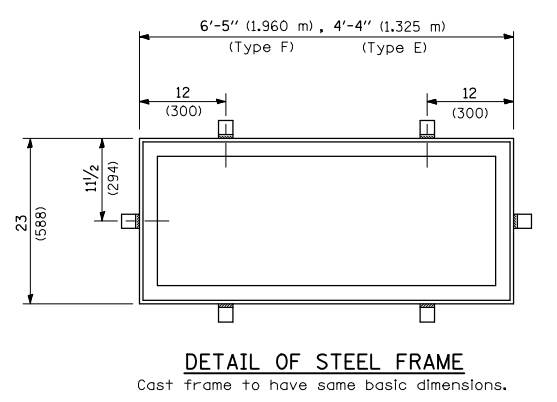
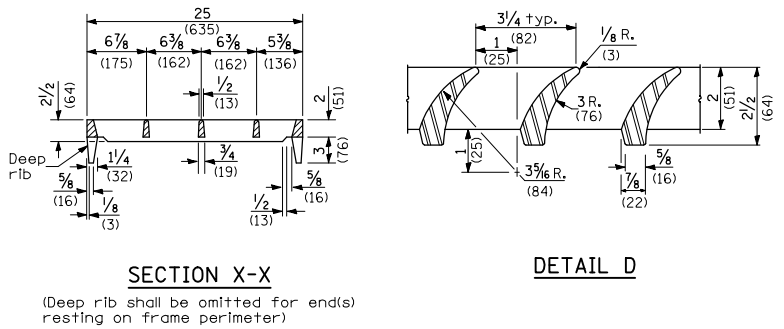
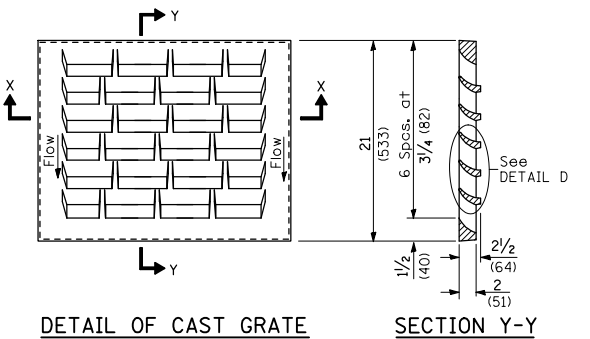
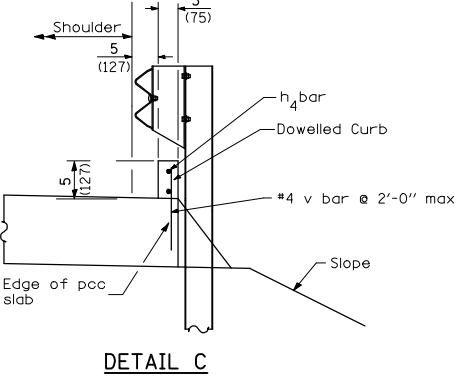
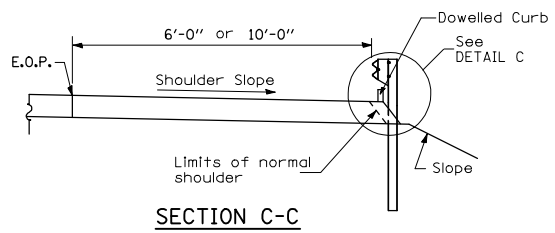
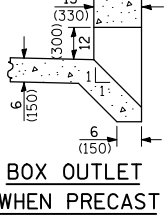
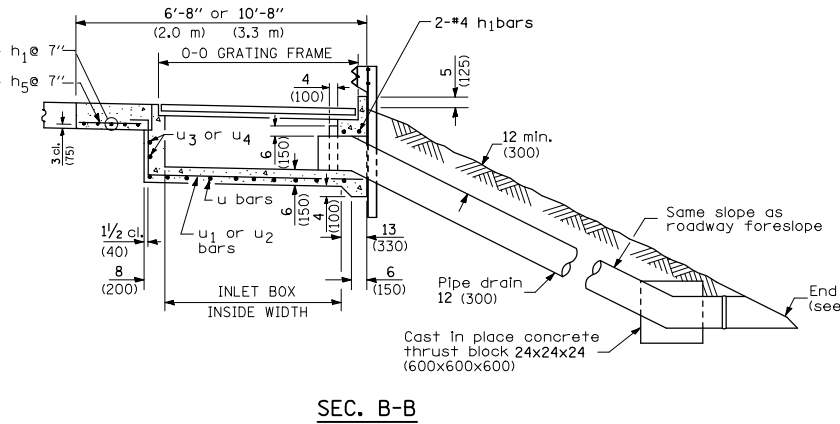
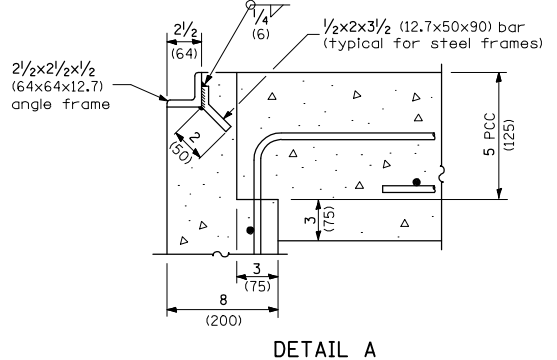
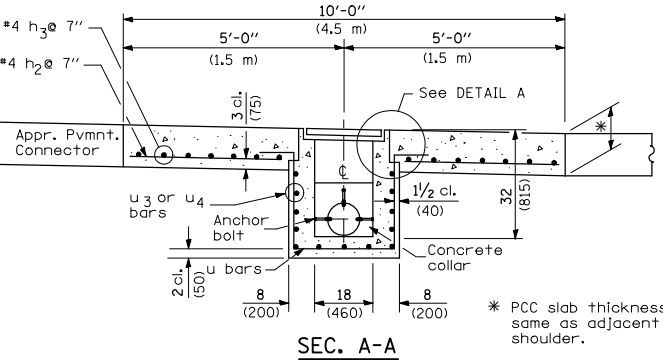
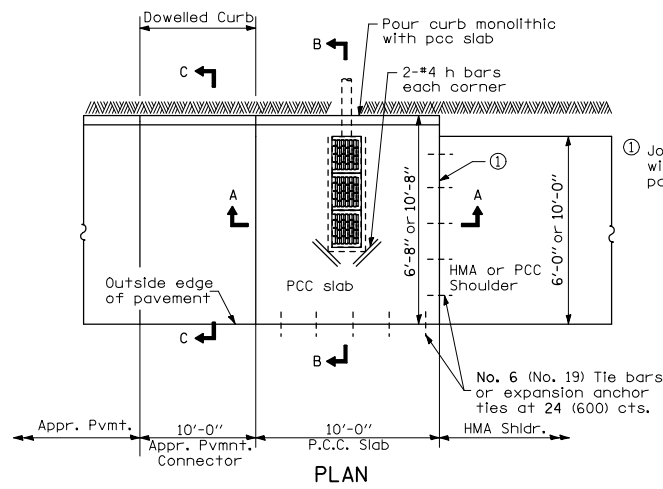
SECTION H - H



PARAPET TO CURB TRANSITION
VAULTED ABUTMENT

SCALE:		SHEET NO. 4 OF 4 SHEETS		STA. TO STA.		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						74	(57-21B)BR	MCLEAN	61	43
									CONTRACT NO. 70641	
ILLINOIS FED. AID PROJECT										

BRIDGE APPROACH PAVEMENT DETAIL

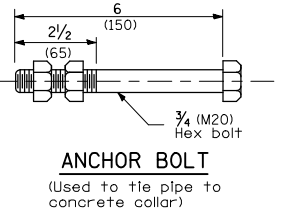
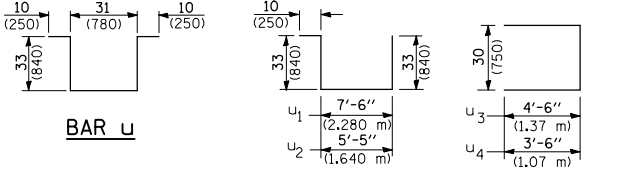


TYPICAL CORNER of STEEL GRATING FRAME
**Cut or Grind flush

INLET BOX, SLAB, & CURB

REQUIRED MATERIAL						
TYPE E				TYPE F		
Bar	Qty.	Size	Length	Bar	Qty.	Size
h	8	No. 4 (No. 13)	4'-0" (1.22 m)	h	8	No. 4 (No. 13)
h ₁	4	No. 4 (No. 13)	9'-8" (2.95 m)	h ₁	6	No. 4 (No. 13)
h ₂	18	No. 4 (No. 13)	3'-3" (1.00 m)	h ₂	26	No. 4 (No. 13)
h ₃	14	No. 4 (No. 13)	6'-4" (1.93 m)	h ₃	14	No. 4 (No. 13)
h ₄	2	No. 4 (No. 13)	19'-8" (6.00 m)	h ₄	2	No. 4 (No. 13)
h ₅	6	No. 4 (No. 13)	0'-8" (0.20 m)	h ₅	6	No. 4 (No. 13)
u	6	No. 4 (No. 13)	9'-9" (2.96 m)	u	8	No. 4 (No. 13)
u ₂	3	No. 4 (No. 13)	11'-9" (3.57 m)	u ₁	3	No. 4 (No. 13)
u ₄	6	No. 4 (No. 13)	9'-6" (2.89 m)	u ₃	6	No. 4 (No. 13)
v	6	No. 4 (No. 13)	0'-10" (0.20 m)	v	6	No. 4 (No. 13)
Concrete	cu. yds. (m ³)	2.7 (2.06)		Concrete	cu. yds. (m ³)	3.9 (3.0)
Reinf. bars	lbs. (kg)	280 (127.0)		Reinf. bars	lbs. (kg)	380 (167.0)
Grating	sq. ft. (m ²)	7.3 (0.68)		Grating	sq. ft. (m ²)	10.9 (1.02)

INLET TYPE	SHOULDER WIDTH	0-0 GRATING FRAME	INLET BOX INSIDE WIDTH	INLET BOX INSIDE LENGTH
Type E	6' (1.8 m)	4'-4" (1.325 m)	3'-11" (1.195 m)	18 (460)
Type F	10' (3.0 m)	6'-5" (1.960 m)	6'-0" (1.830 m)	18 (460)



GENERAL NOTES

See Standard 420001 for joint details not shown.

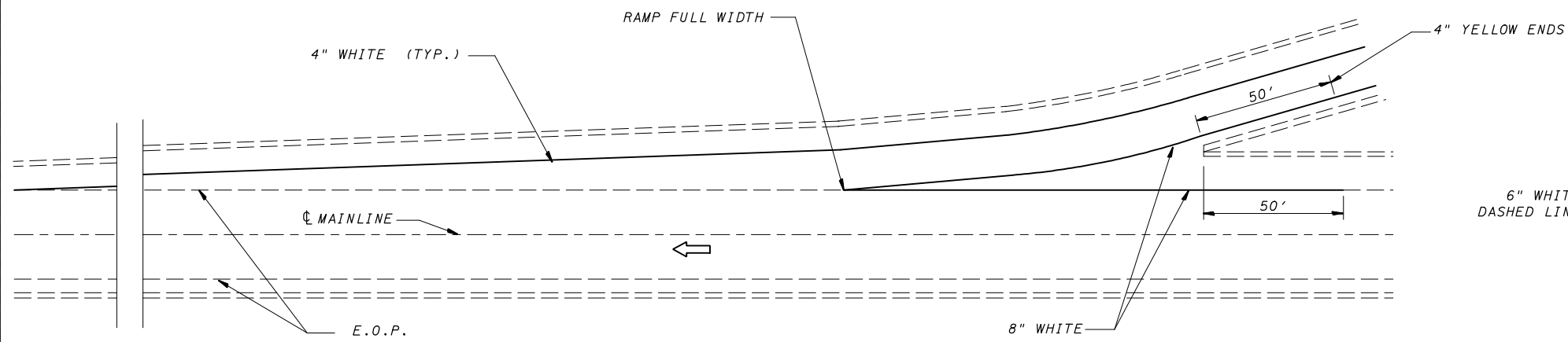
All exposed edges of the Inlet, except the upper perimeter, shall be beveled 20 mm (3/4 ")

All dimensions are in inches (millimeters) unless otherwise shown.

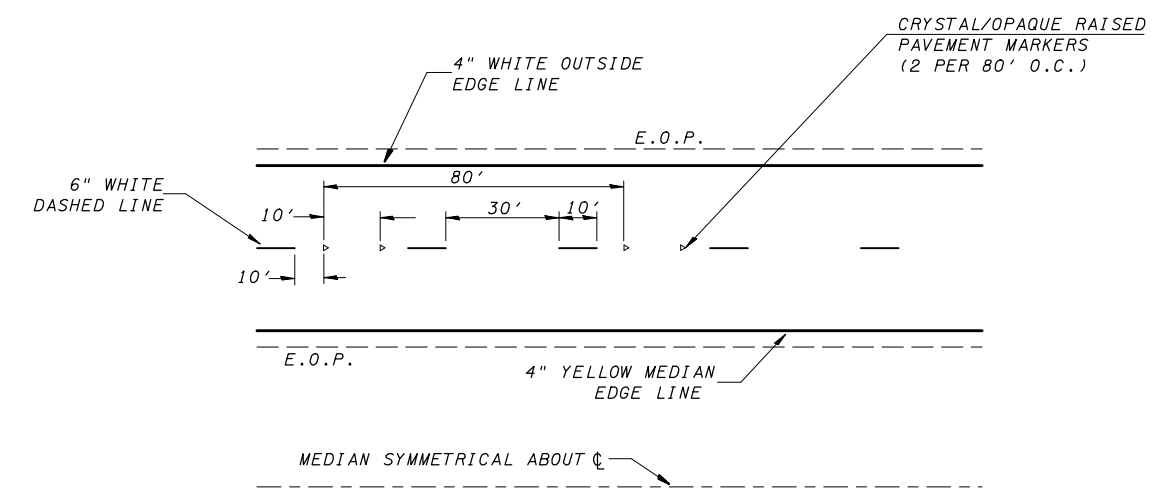
For placement of drainage elements on existing construction with existing rigid pavement, substitute expansion anchor ties for the tie bars. For non-rigid pavements or monolithic construction of pcc slab and shoulder, omit tie bars.

The cost of PCC slab shall be included in the cost of Type E or F Inlet Box, Standard 610001 (SPECIAL)

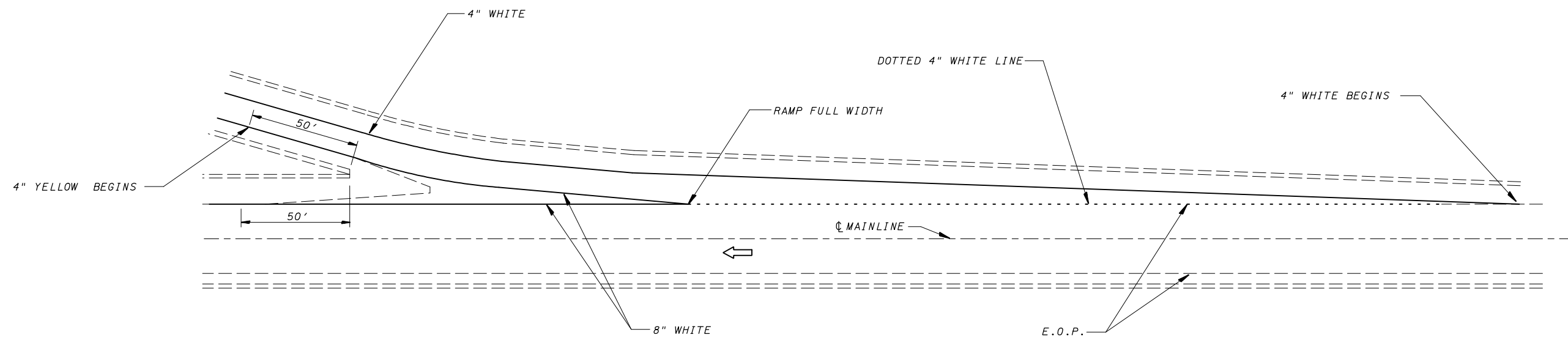
The cost of concrete curb shall be included in the cost of Concrete Curb (Doweled).



TYPICAL PAVEMENT MARKING FOR ENTRANCE RAMP TERMINALS



TYPICAL PAVEMENT MARKINGS



TYPICAL PAVEMENT MARKINGS FOR EXIT RAMP TERMINALS

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800CCCC

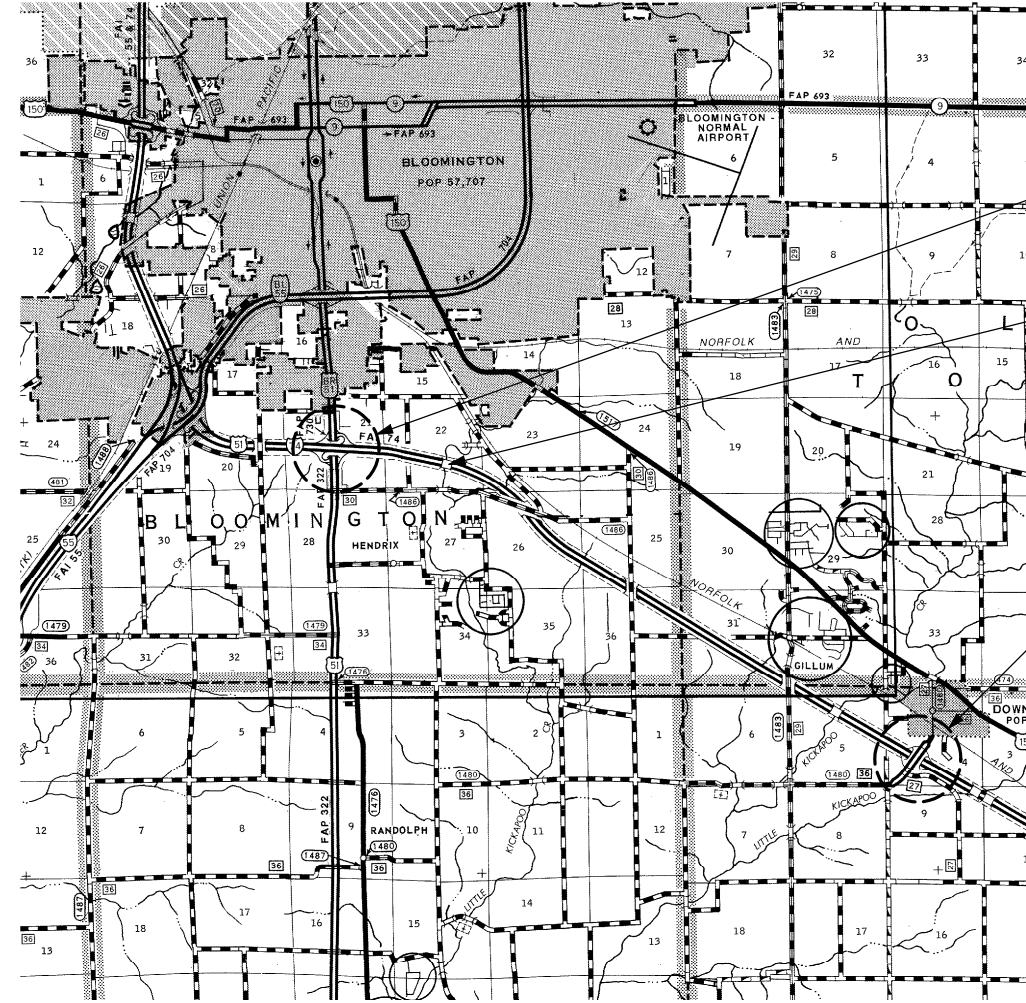
FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED - 11/06
ct:\pw\work\pwidot\keysrb\d0101432\050110	sht-details.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/30/2009	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING (MCLEAN COUNTY "SPOT" IMPROVEMENTS ONLY)

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

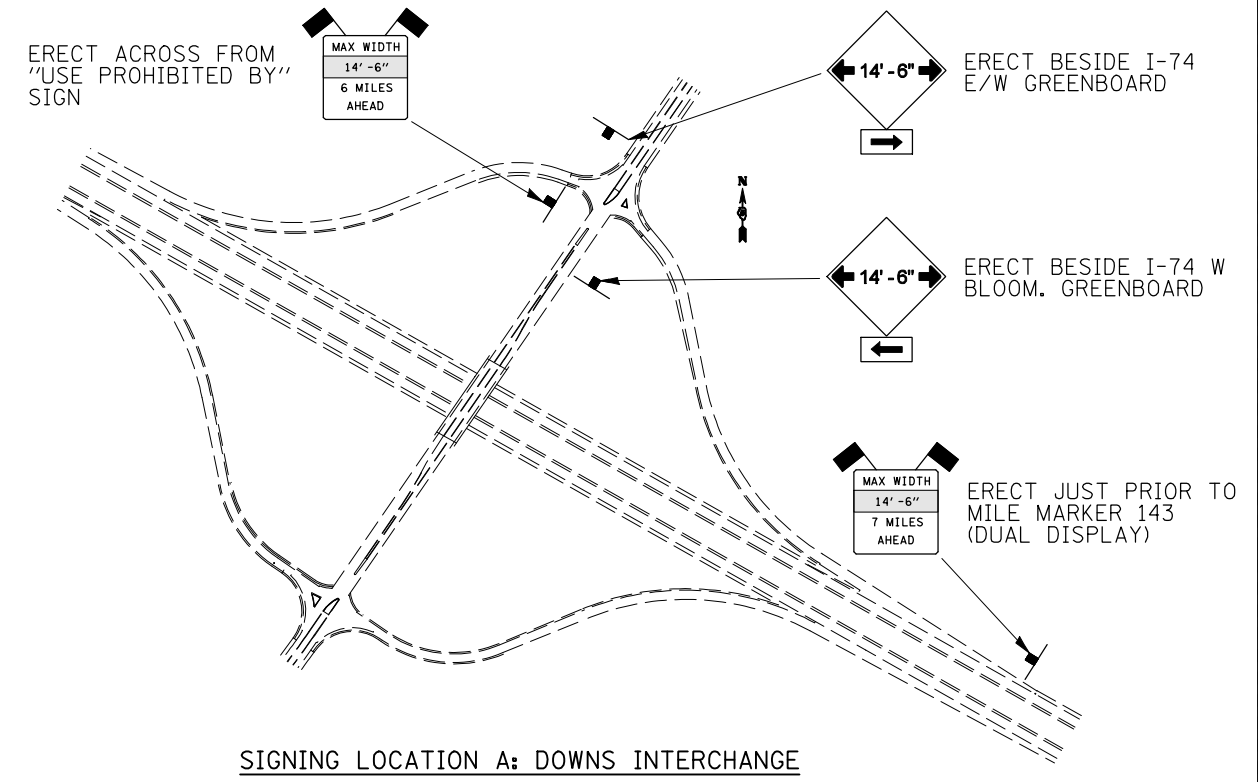
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	45
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 70641	



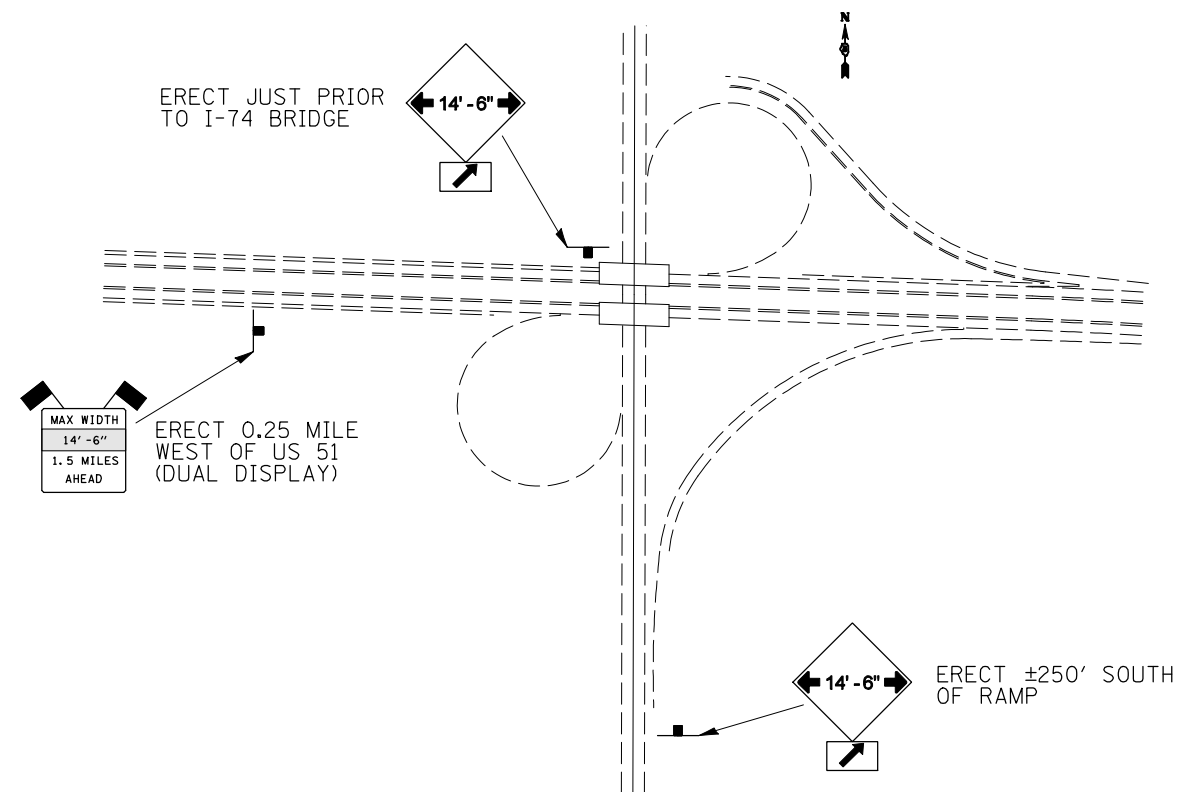
SIGNING LOCATION B
BLOOMINGTON INTERCHANGE

PROJECT LOCATION
STRUCTURES 057-0120/0121

SIGNING LOCATION A
DOWNS INTERCHANGE



SIGNING LOCATION A: DOWNS INTERCHANGE



SIGNING LOCATION B: BLOOMINGTON INTERCHANGE

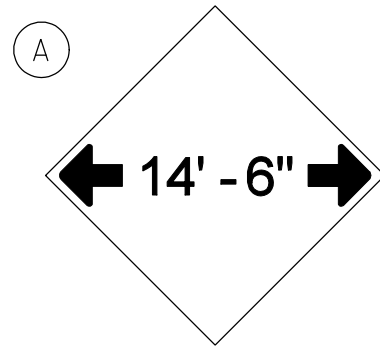
FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
ct:\pw\work\p\dot\keysrb\0101432\050110	7-sht-detail.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/30/2009	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WIDTH RESTRICTION SIGNING
SIGN PLACEMENT DETAIL**

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
--------	-----------	----	--------	------	----	------

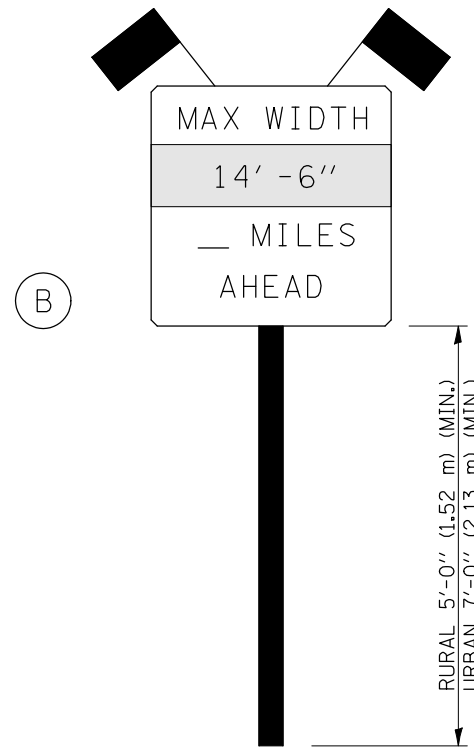
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	46
CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT				



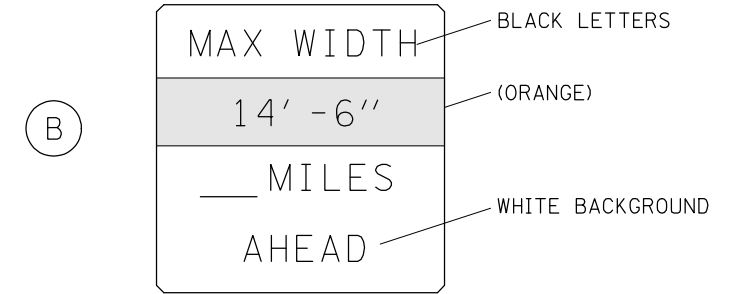
W12-2(0)-48"x48"(1200x1200)

SIGN (A) 2 SIGNS - W12-2(0)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN ON THE WIDTH RESTRICTION SIGNING LOCATION DETAIL SHEET.

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN ON THE WIDTH RESTRICTION SIGNING LOCATION DETAIL SHEET.



SIGN PANEL, TYPE II



W12-I103(0)-48"x48"(1200x1200)
"D" LETTERS/NUMBERS

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED - 11/06
ct:\pw\work\p\dot\keysrb\0101432\050110	7-sht-detail.dgn	DRAWN -	REVISED - 05/08
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED - 10/08 - KJT
	PLOT DATE = 1/30/2009	DATE -	REVISED -

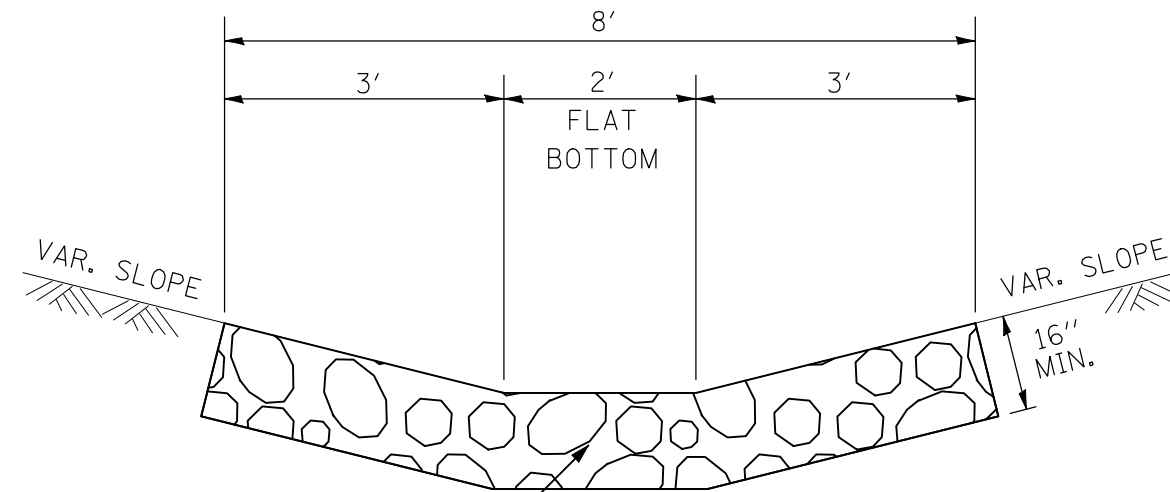
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WIDTH RESTRICTION SIGNING
SIGN DETAIL**

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

DISTRICT 5 DETAIL NO. X7200201

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	47
FED. ROAD DIST. NO.			CONTRACT NO. 70641	
ILLINOIS FED. AID PROJECT				



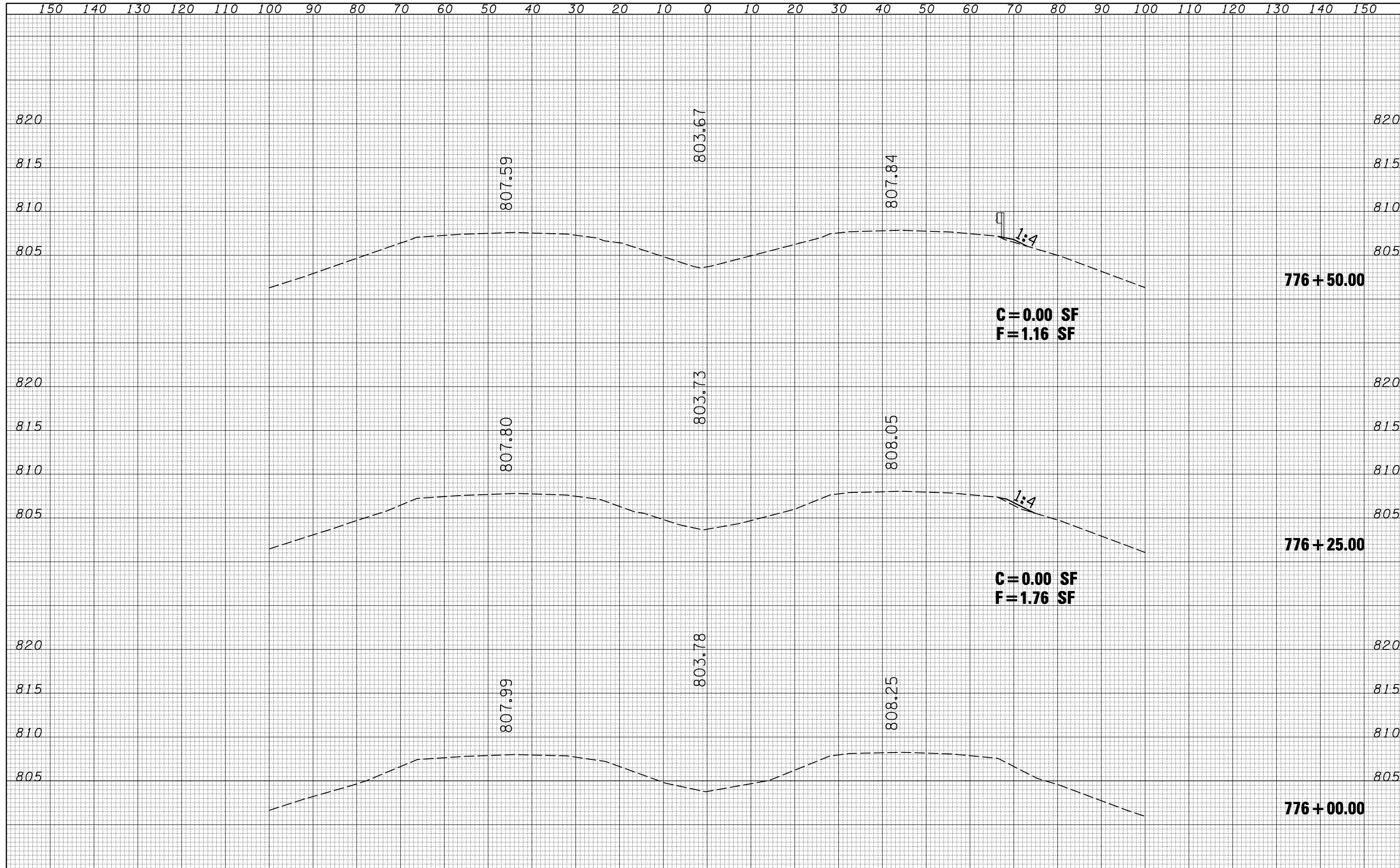
STONE DUMPED RIPRAP, CL A3

DETAIL OF STONE DUMPED RIPRAP, CLASS A3

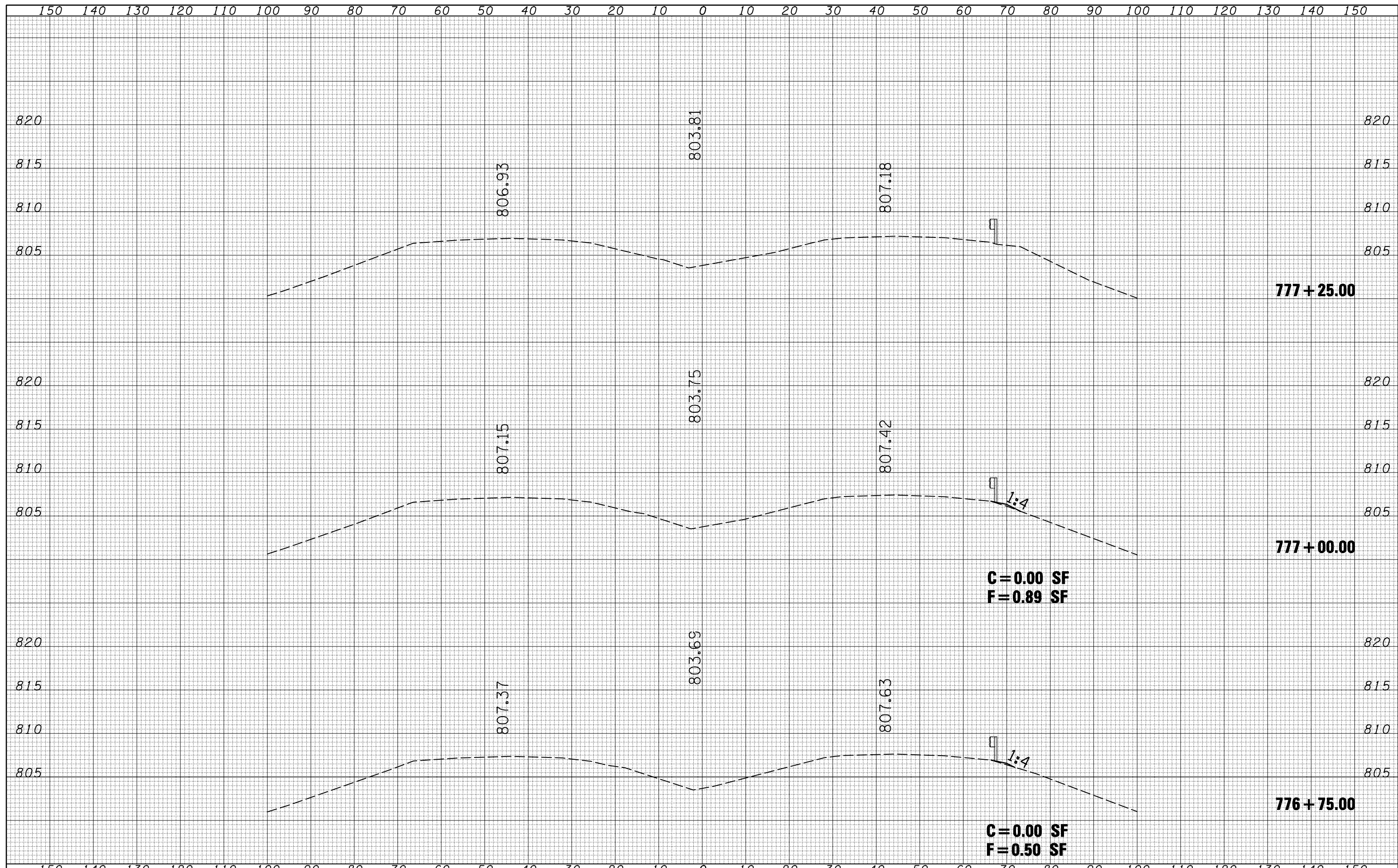
FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED - 11/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STONE DUMPED RIPRAP, CLASS A3 DETAIL			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct\pwork\pwork\keysrb\0101432\050110	7-sht-detail.dgn	DRAWN -	REVISED -					74	(57-21B)BR	MCLEAN	61	48
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -		SCALE:			SHEET NO. OF SHEETS	STA.	TO STA.	CONTRACT NO. 70641	
	PLOT DATE = 1/30/2009	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

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

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



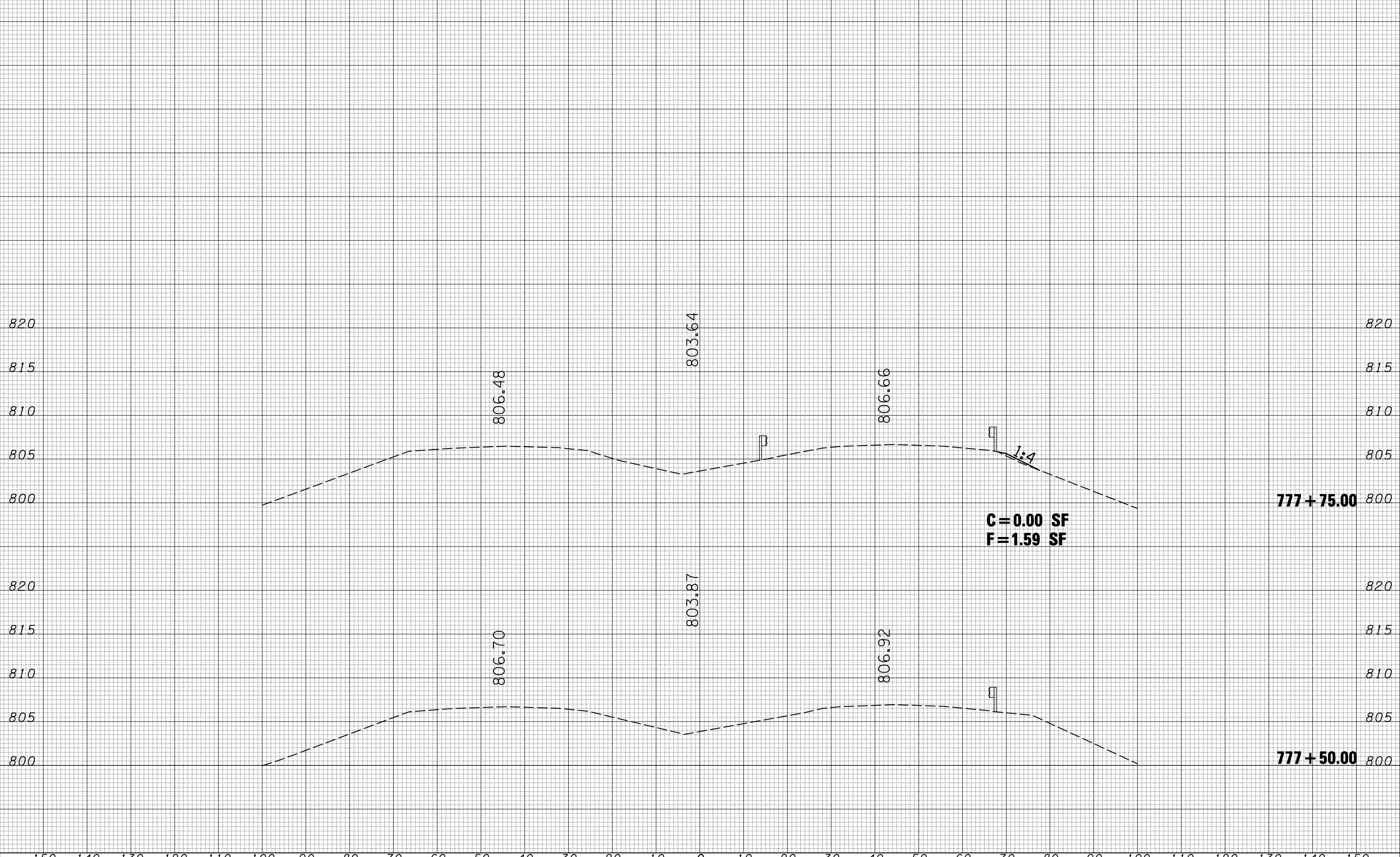
FILE NAME =	USER NAME = keyarb	DESIGNED -	REVISÉ -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pw\work\pwwdot\keysrb\d0101432\0501107-sht-x.sht.dgn		DRAWN -	REVISÉ -		74	(57-21B)BR	MCLEAN	61	49			
PLOT SCALE = 20.0000' / IN.		CHECKED -	REVISÉ -		CONTRACT NO. 70641							
PLOT DATE = 1/30/2009		DATE -	REVISÉ -		SCALE:	SHEET NO.	OF SHEETS	STA. 776+00.00 TO STA. 776+50.00	ILLINOIS FED. AID PROJECT			



BY	DATE
SURVEYED	PLOTTED
TEMPLATE	AREAS
NOTE BOOK	CHECKED
NO.	

BY	DATE
SURVEYED	PLOTTED
TEMPLATE	AREAS
NOTE BOOK	CHECKED
NO.	

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



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

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

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

FILE NAME =
 c:\pwork\pwork\keysrb\d0101432\0501107-sht-x.sht.dgn
 PLOT SCALE = 20.0000' / IN.
 PLOT DATE = 1/30/2009

USER NAME = keysrb	DESIGNED -	REVISOR -
	DRAWN -	REVISOR -
	CHECKED -	REVISOR -
	DATE -	REVISOR -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

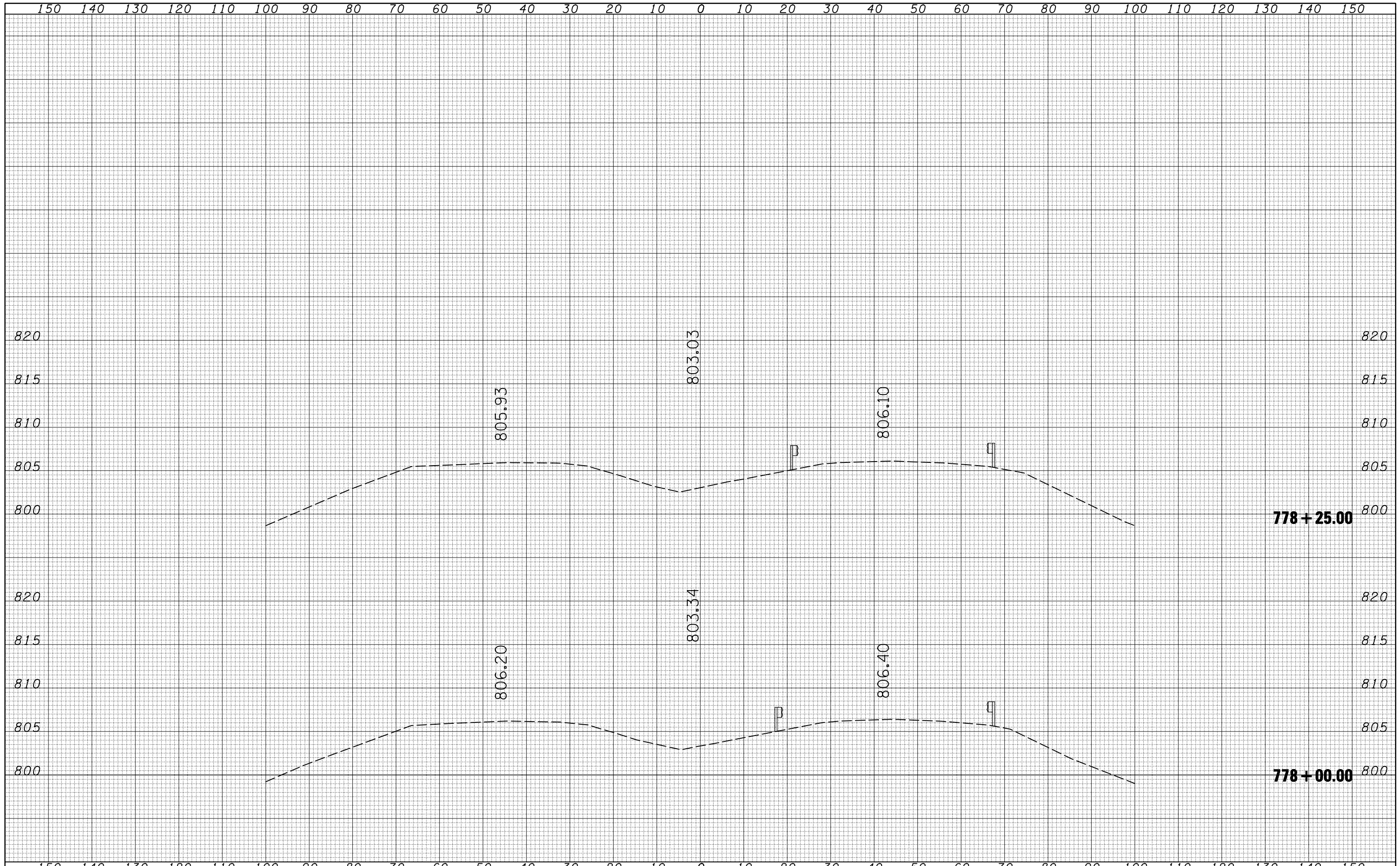
CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. 777+50.00 TO STA. 777+75.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	51
CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT				

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

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



FILE NAME = c:\pwwork\pwwork\keysrb\d0101432\0501107-shr.dgn

USER NAME = keysrb	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -
PLOT DATE = 1/30/2009	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

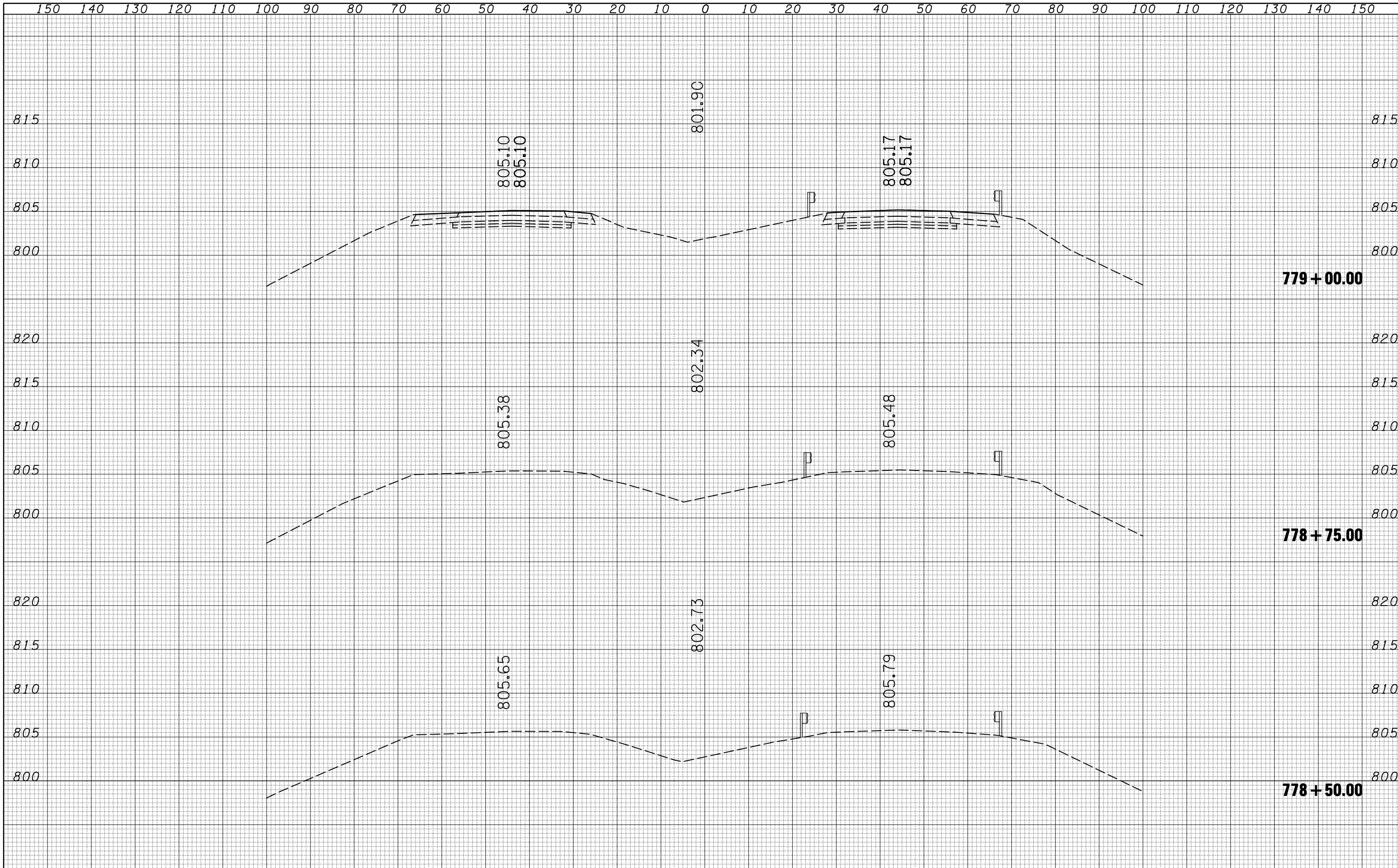
CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. 778+00.00 TO STA. 778+25.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21)BR	MCLEAN	61	52
			CONTRACT NO. 70641	
ILLINOIS FED. AID PROJECT				

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

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



FILE NAME =	USER NAME = keyarb	DESIGNED -	REVISSED -
ca:\pw_work\pwidot\keysrb\d0101432\0501107-sht-x.sht.dgn		DRAWN -	REVISSED -
		CHECKED -	REVISSED -
		DATE -	REVISSED -

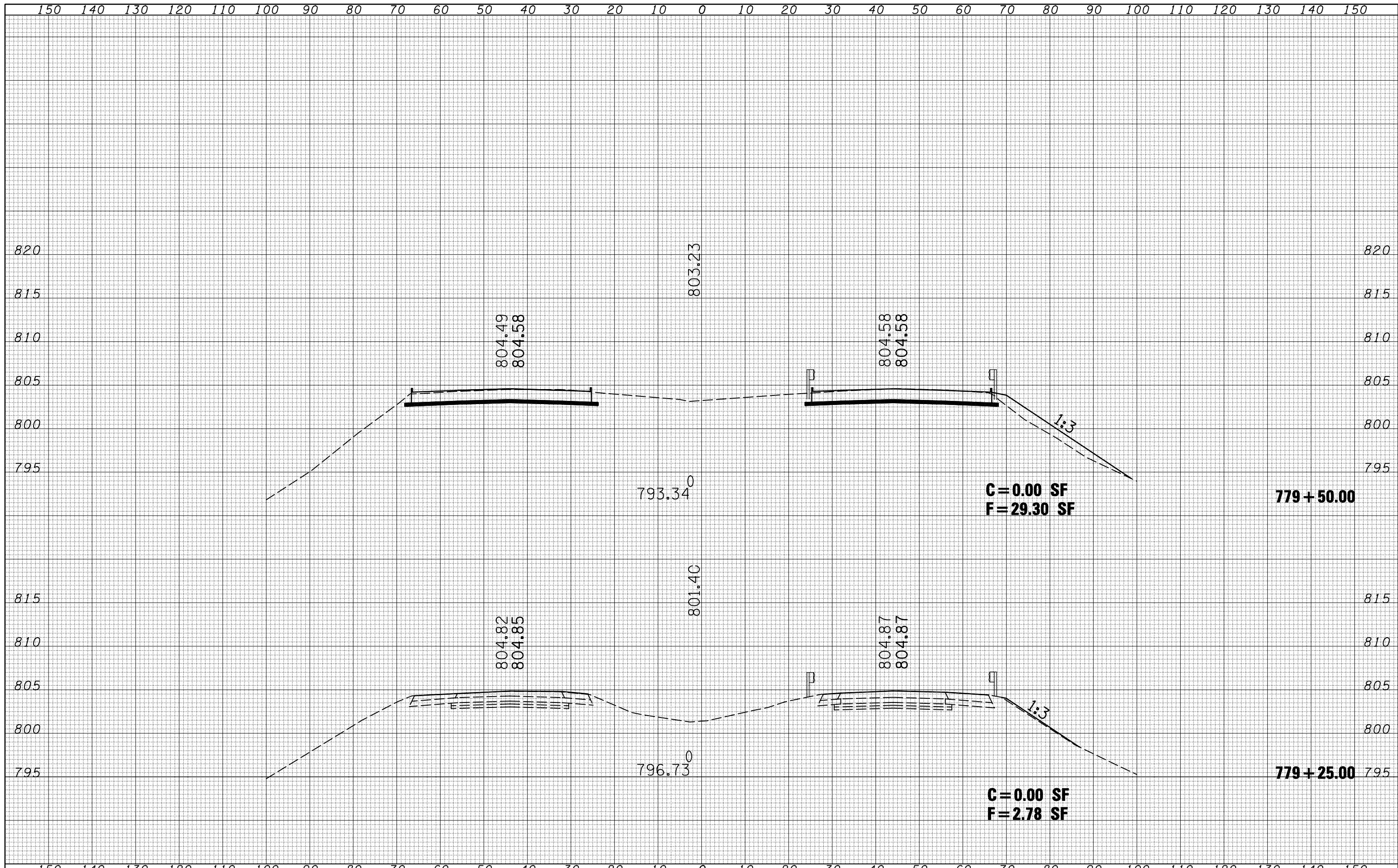
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS				
SCALE:	SHEET NO.	OF SHEETS	STA. 778+50.00	TO STA. 779+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	53
CONTRACT NO. 70641				
ILLINOIS FED. AID PROJECT				

BY	DATE

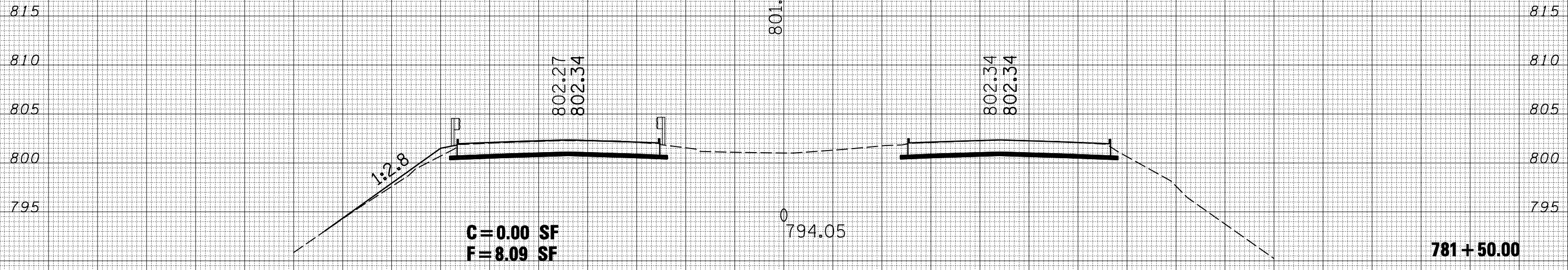
BY	DATE



FILE NAME =	USER NAME = keyarb	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCALE:	SHEET NO.	OF	SHEETS	STA. 779+25.00	TO STA. 779+50.00	
c:\pwork\pwork\keysrb\d0101432\0501107-shd-dgn		DRAWN -	REVISD -		74	(57-21)BR	MCLEAN	61	54	ILLINOIS FED. AID PROJECT	
		CHECKED -	REVISD -		CONTRACT NO. 70641						
		DATE -	REVISD -								

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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



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

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

FILE NAME = c:\pw\work\pwwork\keysrb\d0101432\0501107-sht-x.sht.dgn

USER NAME = keysrb
 PLOT SCALE = 20.0000' / IN.
 PLOT DATE = 1/30/2009

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

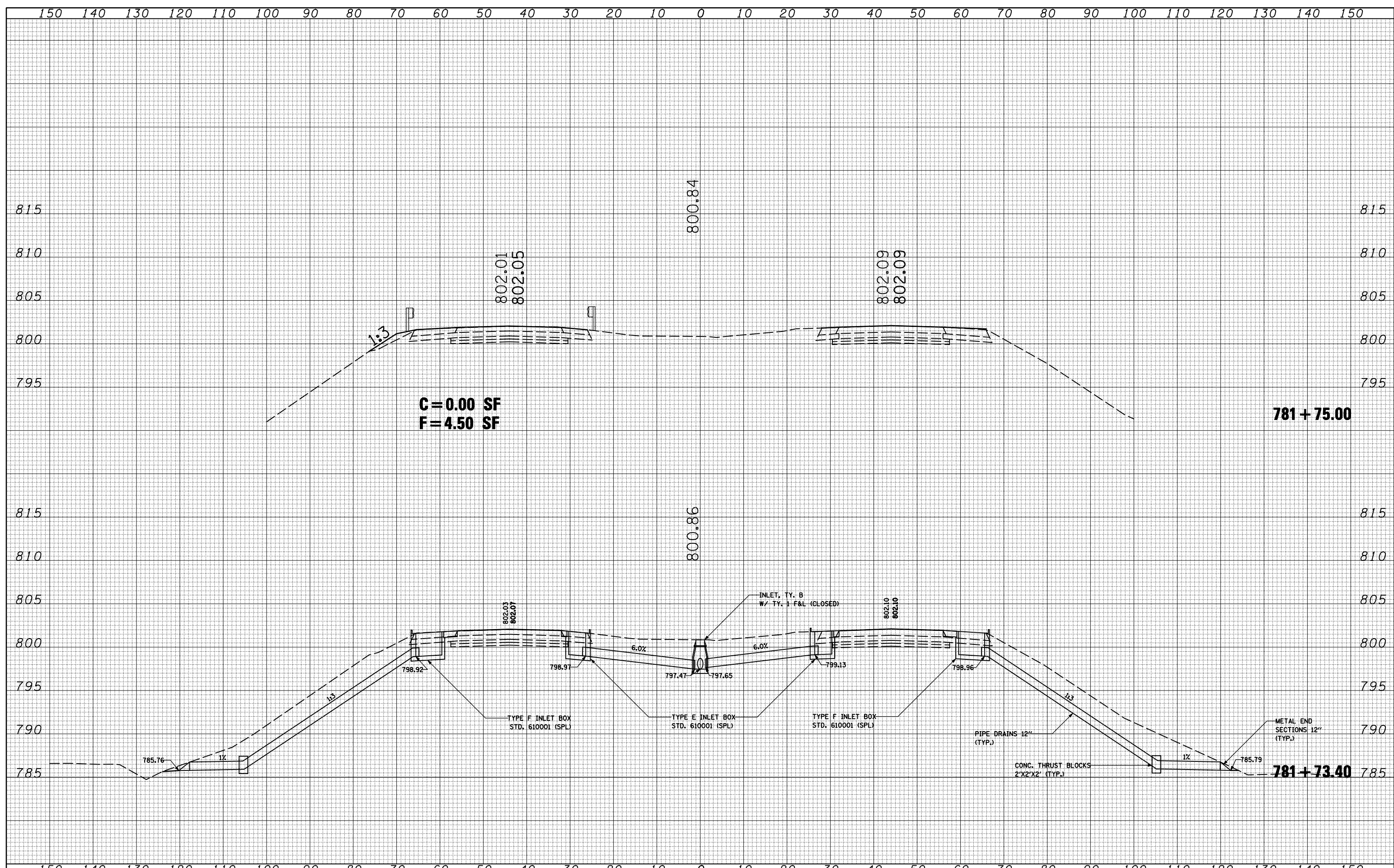
CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. 781+25.00 TO STA. 781+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	55
			CONTRACT NO. 70641	
ILLINOIS FED. AID PROJECT				

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

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



FILE NAME =
 c:\pw\work\p\dot\keysrb\d0101432\0501107-shr\sh.t.dgn

USER NAME = keysrb
 DESIGNED -
 DRAWN -
 PLOT SCALE = 20.0000' / IN.
 CHECKED -
 PLOT DATE = 1/30/2009
 DATE -

REVISD -
 REVISD -
 REVISD -
 REVISD -

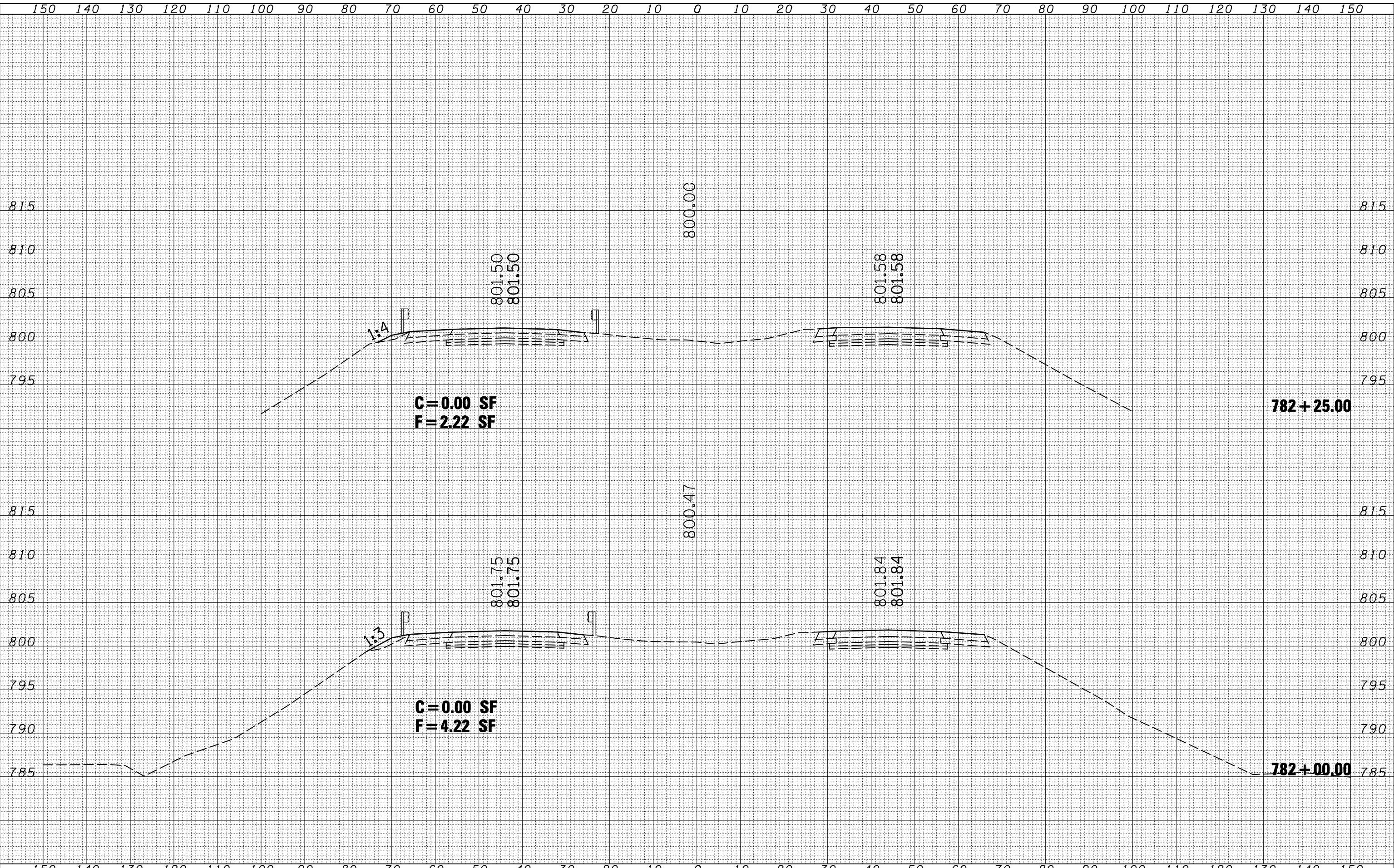
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. 781+73.40 TO STA. 781+75.00

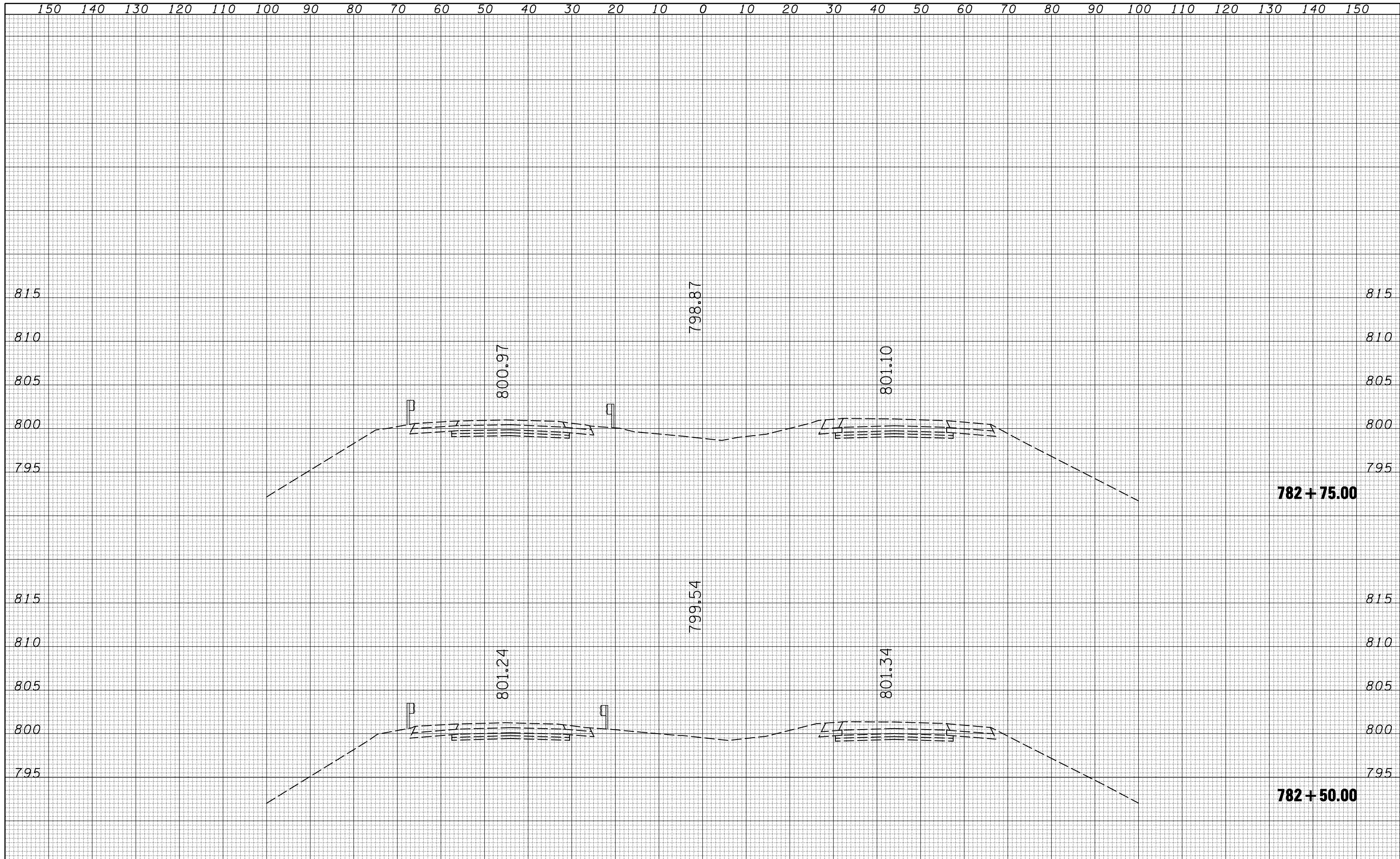
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21B)BR	MCLEAN	61	56
CONTRACT NO. 70641			ILLINOIS FED. AID PROJECT	

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

FILE NAME =		DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION			CROSS SECTIONS			F.A.I. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =
USER NAME = keyarb		DRAWN -	REVISED -				74	(57-21B)BR	MCLEAN	61	57			
PLOT SCALE = 20.0000' / IN.		CHECKED -	REVISED -				CONTRACT NO. 70641							
PLOT DATE = 1/30/2009		DATE -	REVISED -	SCALE:	SHEET NO. OF SHEETS	STA. 782+00.00 TO STA. 782+25.00	ILLINOIS FED. AID PROJECT							



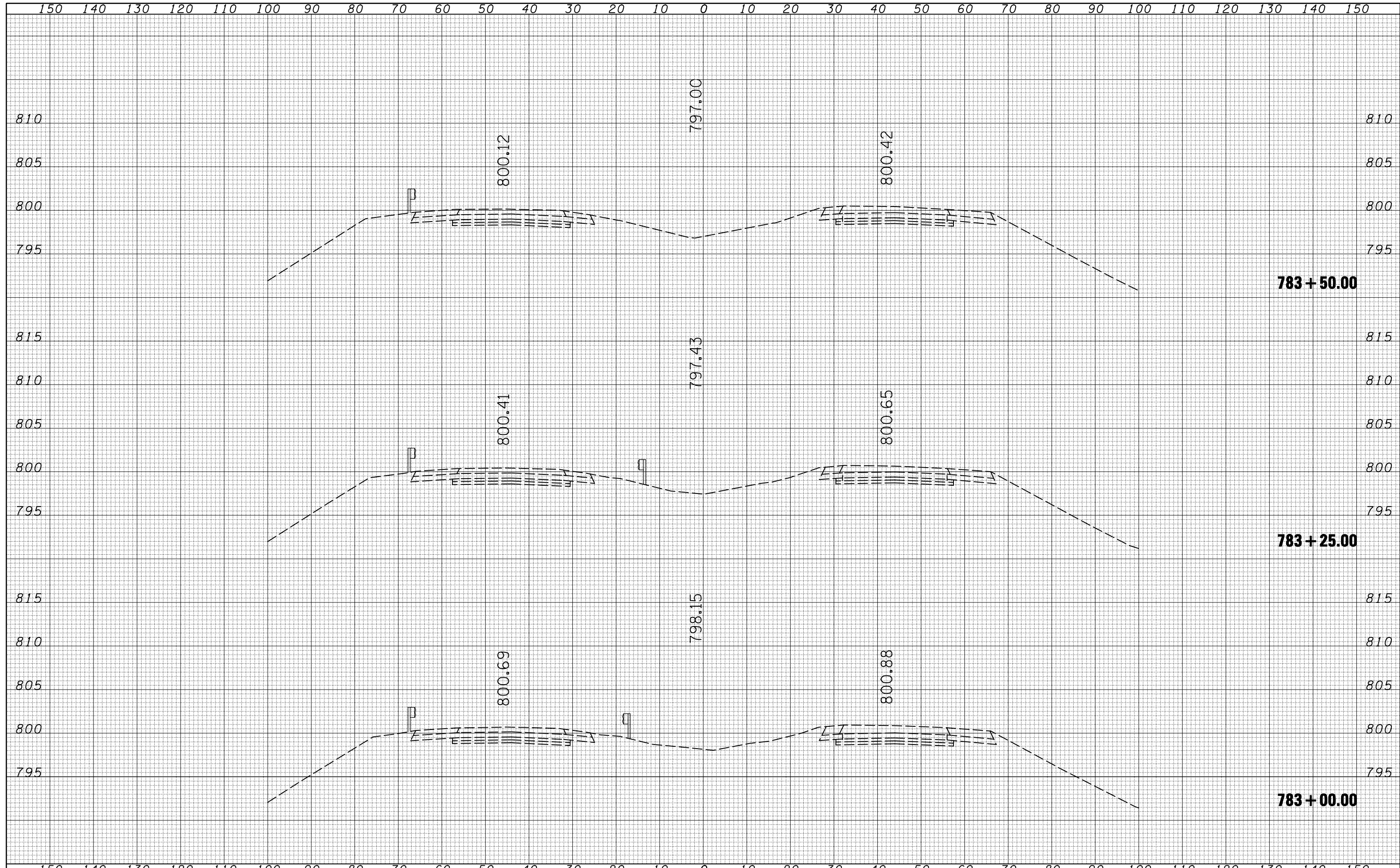
BY	DATE
SURVEYED	TEMPLATED
NOTE BOOK	AREAS CHECKED
NO.	

BY	DATE
SURVEYED	TEMPLATED
NOTE BOOK	AREAS CHECKED
NO.	

FILE NAME =	USER NAME = keyarb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				CROSS SECTIONS						
ca:\pw\work\p\dot\keysrb\d0101432\0501107-sh.txd		DRAWN -	REVISED -											
		CHECKED -	REVISED -											
		DATE -	REVISED -											
PLOT SCALE = 20.0000' / IN.				SCALE:	SHEET NO.	OF	SHEETS	STA. 782+50.00	TO STA. 782+75.00	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT DATE = 1/30/2009										74	(57-21B)BR	MCLEAN	61	58
											CONTRACT NO. 70641			
											ILLINOIS FED. AID PROJECT			

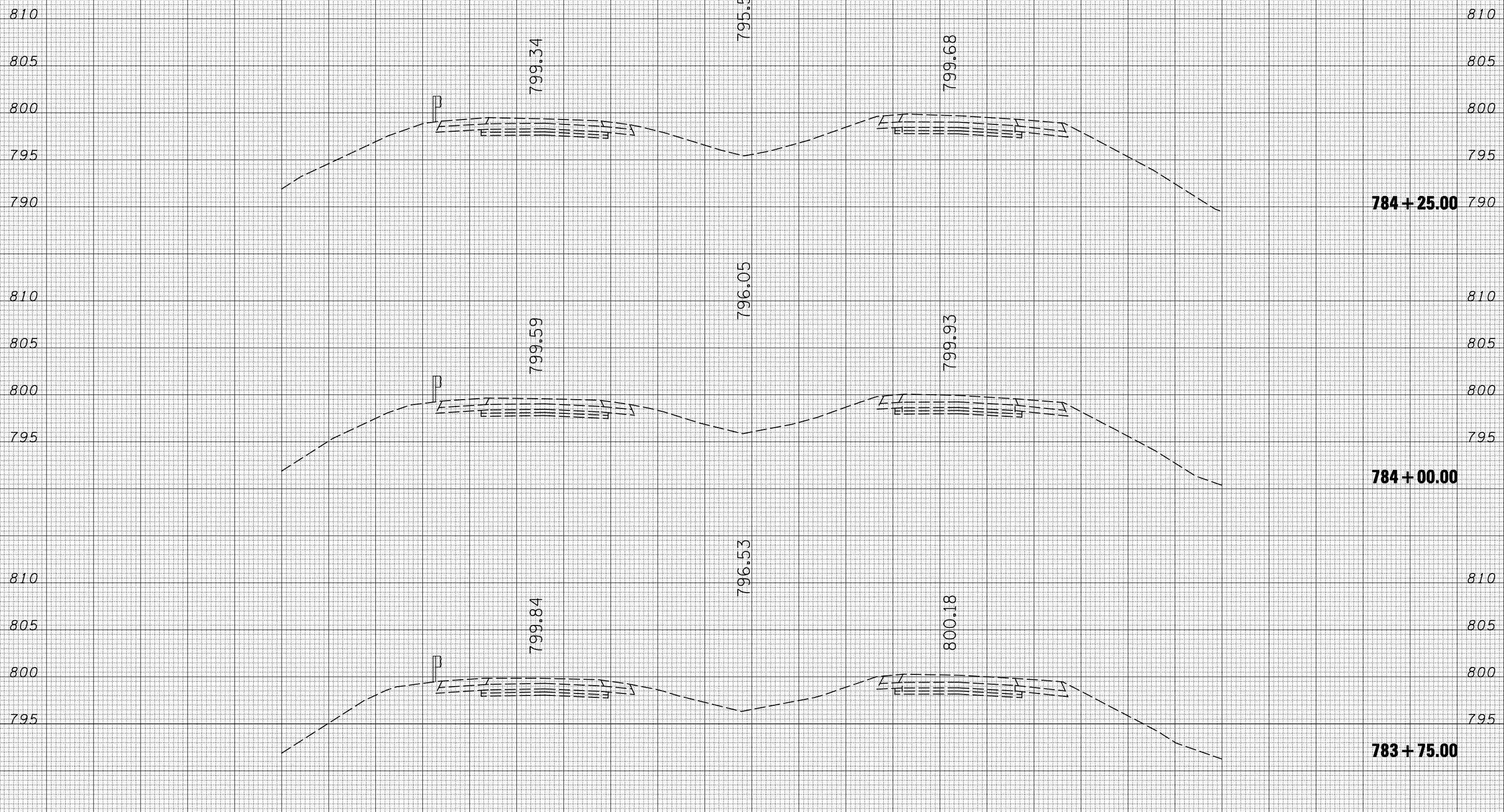
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

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



FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pw_work\pwwdot\keysrb\d0101432\0501107-sht-x.sht.dgn		DRAWN -	REVISD -		74	(57-21B)BR	MCLEAN	61	59			
PLOT SCALE = 20.0000' / IN.		CHECKED -	REVISD -		CONTRACT NO. 70641							
PLOT DATE = 1/30/2009		DATE -	REVISD -		SCALE:	SHEET NO.	OF SHEETS	STA. 783+00.00 TO STA. 783+50.00	ILLINOIS FED. AID PROJECT			

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



BY	DATE

BY	DATE

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISÉD -
ca:\pw\work\pwidot\keysrb\d0101432\0501107-sht-x-sh.dgn		DRAWN -	REVISÉD -
		CHECKED -	REVISÉD -
		DATE -	REVISÉD -
PLOT SCALE = 20.0000' / IN.			
PLOT DATE = 1/30/2009			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

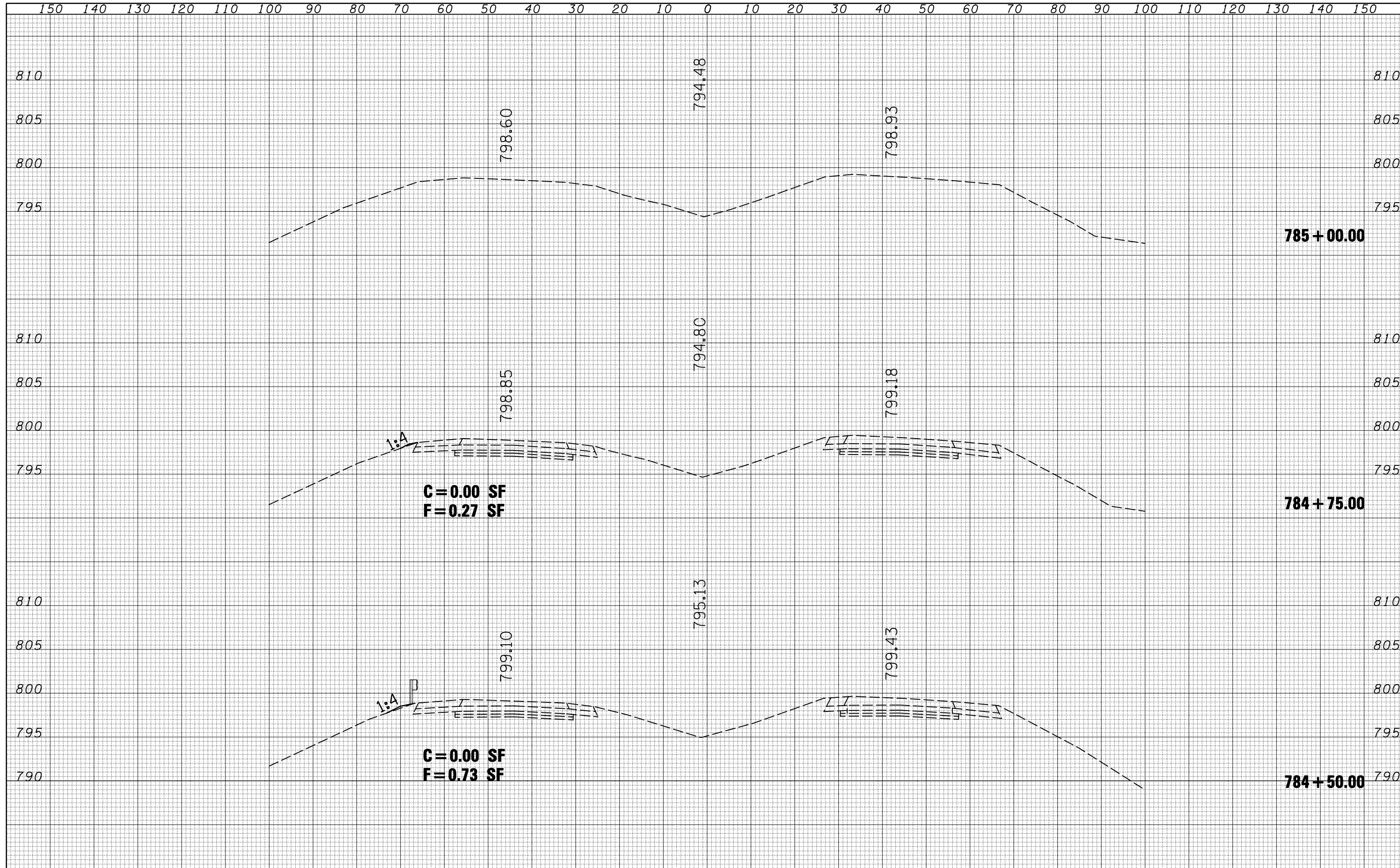
SCALE: SHEET NO. OF SHEETS STA. 783+75.00 TO STA. 784+25.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-21)BR	MCLEAN	61	60

CONTRACT NO. 70641

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

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

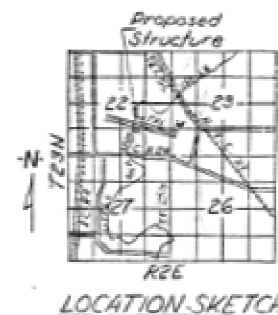
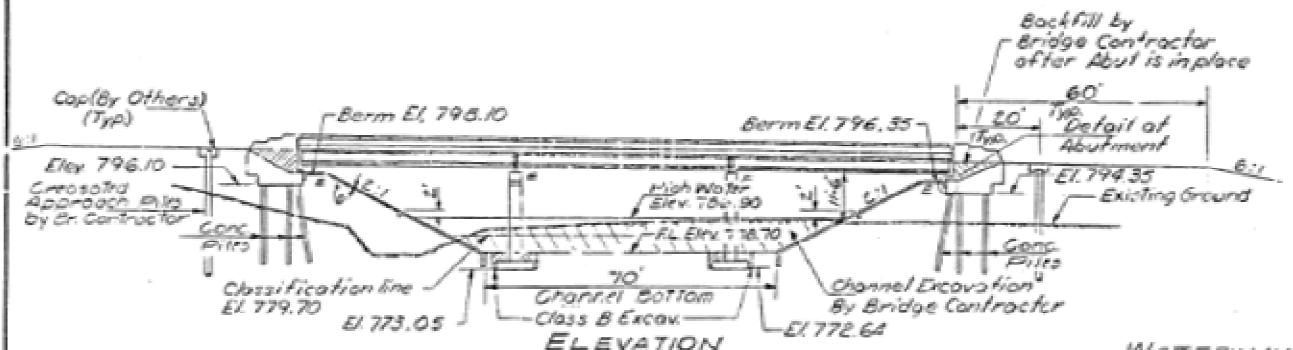


FOR INFORMATION ONLY

3M #1 Top of bent spike 3 side of 10" stump
6' S. of Trench E in Fence Row. Sta. 795+00 Elev. 795.95

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

DATE	BY	NO.	REV.	SHEET NO. /
1-74	57-211	McLEAN	116	34
				16 SHEETS



GENERAL NOTES

Slope Wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 Sq. Ft.

Layout of slope walls may be varied to suit ground conditions in the field as directed by the engineer.

All reinforcement bars shall be lapped 24 dia. Min. unless otherwise shown.

The exposed surfaces of the expansion guard shall be given two shop coats of red lead paint, the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint, and two field coats of aluminum paint.

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

WATERWAY INFORMATION

Drainage Area --- 7,800 Acres
Character --- rolling, cultivated
Required Opening --- (50 Yr. Flood) - 617 Sq. Ft.
Present Opening --- None
Proposed Opening --- 650 Sq. Ft.

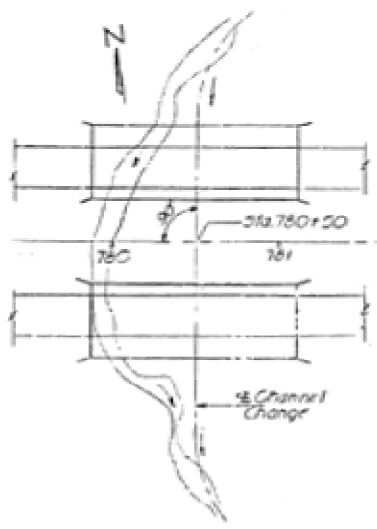
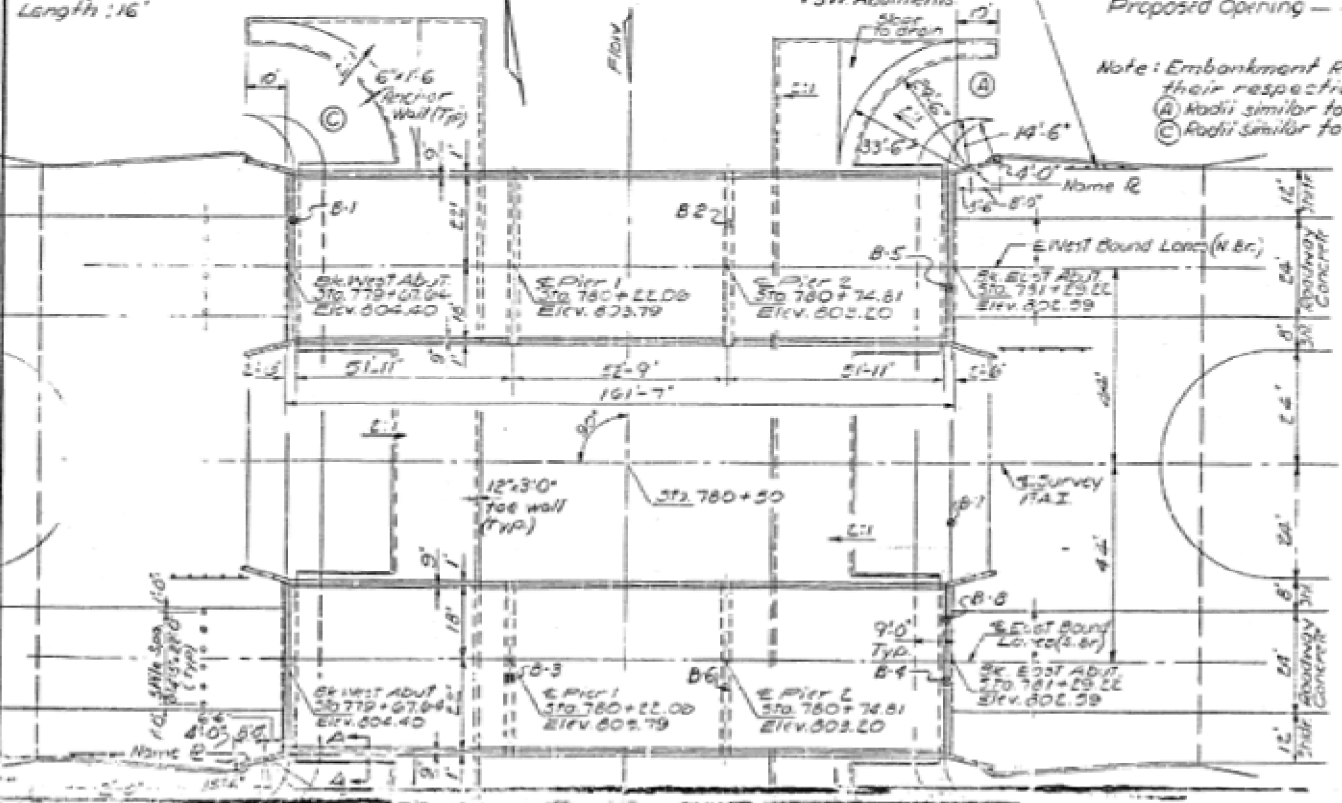
STATION 780+50
BUILT 19 BY
STATE OF ILLINOIS
F.A.I. PR. 74 SEC. 57-21B
F.A. PROJ. I-74-51(1)
LOADING HS20 & ALT.

NAME PLATE
See Std. 213-1

APPROACH PILE DATA
Type: Cresseded
No. Req'd: 24
Length: 16'

See sheet #14 for
guardrail correction
details typical of NE
1 SW Abutments

Note: Embankment Radii are typical for their respective embankment.
A) Radii similar to B) Radii
C) Radii similar to D) Radii



TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Cresseded Piles (Up to 20')	Lin. Ft.			384
Class B Excavation for Struct.	Cu. Yds.			500
Class A Concrete	Cu. Yds.		580.6	580.6
Class X Concrete	Cu. Yds.	456.4	168.2	624.6
Protective Coaf	Sq. Yds.			1660
Structural Steel	Lbs.	2410		2410
Pres. Prest. Conc. 1-Bm (42')	Lin. Ft.	1827		1827
Aluminum Siding	Lin. Ft.	634		634
Reinforcement Bars	Lbs.	102280	35270	140650
Slope Wall (6')	Sq. Yds.			1910
Preformed Joint Sealer	Lin. Ft.	168		168
Precast Piles	Lin. Ft.		2100	2100
Cast in place concrete	Cu. Yds.			2
Excavation	Cu. Yds.			2

DESIGN STRESSES

FIELD UNITS
fc = 1400 psi. (Super + Sub) * includes Excavation for Slope Wall.
fs = 20,000 psi. (Print)
vc = 75 psi. (Figs.) ** includes application on inside face, top and exposed end of m/walls.
n = 10

PRECAST PRESTRESSED UNITS
fc = 5000 psi
fc1 = 4000 psi
fs = 24,000 psi (5 strands)
fs1 = 179,000 psi (5 strands)

GENERAL PLAN & ELEVATION
F.A. PROJ. I-74-51(1) 137
F.A.I. PR. 74 OVER LITTLE KICKAPOO CR.
F.A.I. PR. 74 SEC. 57-21B
MCLEAN COUNTY
STATION 780+50



DESIGNED GENE McCORMICK
CHECKED [Signature]
G.M.
DRAWN THOMAS A. LEWIS
CHECKED [Signature]

EXAMINED [Signature]
PASSED [Signature]
APPROVED [Signature]

Feb 16, 1956