

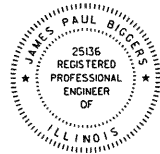
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 70520		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**PROPOSED
HIGHWAY PLANS**

**F.A.I. ROUTE 55 (I-55)
SECTION (57-7HB-2 & 57-7HB-1)BR
PROJECT ACBRI-055-4(172)156
MCLEAN COUNTY
C-95-041-06
BRIDGE REPLACEMENT
OVER I-74 (EB) & I-55 BUSINESS (SB)
SOUTHWEST OF BLOOMINGTON**

FOR INDEX OF SHEETS, SEE SHEET NO. 2



James Paul Biggers
JAMES PAUL BIGGERS, P.E.

DATE 8 09 10

LICENSE EXPIRES 11/30/11

PLANS PREPARED BY:

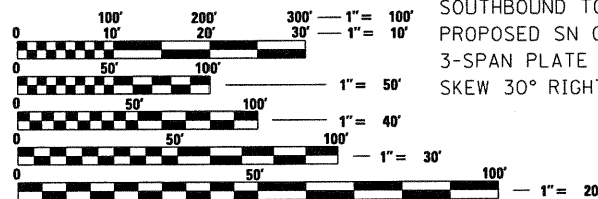


**JOHNSON, DEPP & QUISENBERRY
CONSULTING ENGINEERS**

6450 South Sixth Street Road, Suite B Springfield, Illinois 62712
Phone: (217) 529-4534 Fax: (217) 529-8278

EXISTING SN 057-0005 AT STA. 626+53.53
CARRYING F.A.I. 55 NB TRAFFIC OVER F.A.I. 74
EASTBOUND TO BE REMOVED AND REPLACED.
PROPOSED SN 057-0250 AT STA. 626+53.70
3-SPAN PLATE GIRDER BRIDGE 295'-0" BK-BK.
SKEW 59° 27' 54" LEFT FWD.

EXISTING SN 057-0004 AT STA. 644+38.15
CARRYING F.A.I. 55 NB TRAFFIC OVER BUSINESS F.A.I. 55
SOUTHBOUND TO BE REMOVED AND REPLACED.
PROPOSED SN 057-0249 AT STA. 644+36.37
3-SPAN PLATE GIRDER BRIDGE 200'-0" BK-BK.
SKEW 30° RIGHT FWD.



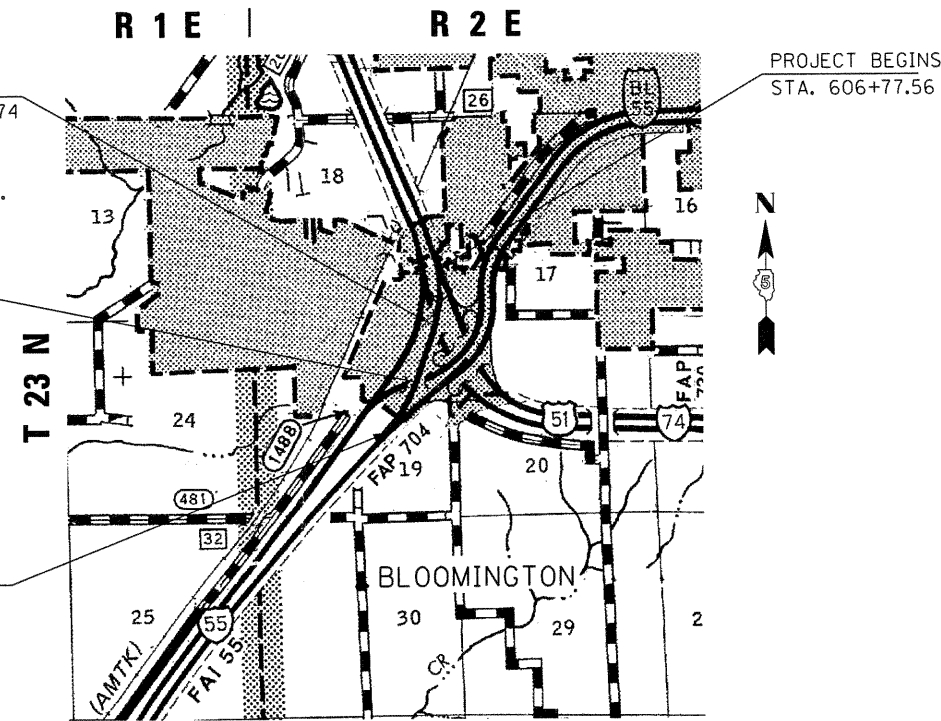
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: JASON STULTS (217)466-7364

PROJECT MANAGER: RUSTIN KEYS (217)466-7225

CONTRACT NO. 70520



LOCATION MAP



GROSS LENGTH = 5,146.44 FEET = 0.975 MILES

NET LENGTH = 5,146.44 FEET = 0.975 MILES



LOCATION OF SECTION INDICATED THUS: — ■ —

INTERSTATE
F.A.I. 55
ADT (2008) = 11,900
ADT (2028) = 16,600
PV = 65.3% SU = 4.4% MU = 30.3%
DESIGN SPEED = 70 MPH
DESIGN DESIGNATION: 14,955 INTERSTATE 29.26 (PCC-20)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/11 20 10

Joseph E. Coover
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 1 20 10
Scott E. Stitt P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

October 1 20 10
Christine M. Peeler
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS
- 3-7 SUMMARY OF QUANTITIES
- 8-13 TYPICAL SECTIONS
- 14-17 SCHEDULES OF QUANTITIES
- 18-19 ALIGNMENT TIES
- 20-30 PLAN/PROFILE SHEETS
- 31-50 STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
- 51-77 STRUCTURE NO. 057-0250
- 78-103 STRUCTURE NO. 057-0249
- 104-105 EXISTING GP&E BRIDGE PLANS
- 106-119 MISCELLANEOUS DETAILS
- 120-153 CROSS SECTIONS

HIGHWAY STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 280001-05 TEMPORARY EROSION CONTROL SYSTEMS
- 420001-07 PAVEMENT JOINTS
- 420401-08 BRIDGE APPROACH PAVEMENT CONNECTOR
- 420601-05 24' (7.2 m) PCC PAVEMENT
- 421001-02 BAR REINFORCEMENT FOR CRC PAVEMENT
- 483001-04 PCC SHOULDER
- 515001-03 NAME PLATE FOR BRIDGES
- 542301-02 PRECAST REINFORCED CONCRETE FLARED END SECTION
- 542401-01 METAL END SECTION FOR PIPE CULVERTS
- 601001-03 SUB-SURFACE DRAINS
- 601101-01 CONCRETE HEADWALL FOR PIPE DRAIN
- 610001-05 SHOULDER INLET WITH CURB
- 630001-08 STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631011-06 TRAFFIC BARRIER TERMINAL, TYPE 2
- 631026-05 TRAFFIC BARRIER TERMINAL, TYPE 5
- 631031-08 TRAFFIC BARRIER TERMINAL, TYPE 6
- 631033-03 TRAFFIC BARRIER TERMINAL, TYPE 6B
- 635001-01 DELINEATORS
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 642001-01 SHOULDER RUMBLE STRIPS
- 667101-01 PERMANENT SURVEY MARKERS
- 701101-02 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701400-04 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-05 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-07 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
- 701406-05 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701411-06 LANE CLOSURE, MULTILANE, AT ENTRANCES OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
- 701421-02 LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
- 701423-03 LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEEDS ≥ 45 MPH TO 55 MPH
- 701426-03 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER
- 780001-02 TYPICAL PAVEMENT MARKINGS
- 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.-205
BENCHING PROCEDURES SHALL BE USED IN AREAS WHERE EXISTING EMBANKMENTS ARE WIDENED FOR THE PROPOSED PAVEMENT. STEPS SHALL BE CUT INTO THE EXISTING EMBANKMENT SLOPES AND SHALL HAVE THE FOLLOWING DIMENSIONS:
HORIZONTAL: 2
VERTICAL: 1

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.-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
THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE	POLYMER SURFACE	POLYMER BINDER	HMA SHLDR (TOP LIFT)	HMA SHLDR (BOTT. LIFTS)
AC/PG	SBS PG 70-22	SBS PG 70-22	PG 58-22	PG 58-22
RAP % (MAX)	10	10	30	30
DESIGN AIR VOIDS	4.0% @ Ndes=105	4.0% @ Ndes=105	4.0% @ Ndes=30	2.0% @ Ndes=30
MIX COMPOSITION	IL 9.5	IL 19.0	IL 9.5L	OTHER
FRICITION AGGREGATE	MIX D	N.A.	MIX C	N.A.

IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

G.N.-406.05b
ALL LEVELING BINDER OR BINDER SHALL BE GIVEN A FOG COAT OF PRIME BEFORE THE SURFACE COURSE IS PLACED WHEN DIRECTED BY THE ENGINEER.

THE FOG COAT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER GALLON FOR BITUMINOUS MATERIAL (PRIME COAT) AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

G.N.-420(SPL)
THE REINFORCEMENT FOR THE BRIDGE APPROACH PAVEMENT CONNECTOR WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SQUARE YARD FOR BRIDGE APPROACH PAVEMENT CONNECTOR (PCC).

G.N.-482
ALL MATERIAL PLACED AS HOT-MIX ASPHALT SHOULDERS SHALL BE COMPACTED TO 94.0 - 98.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY. THIS REQUIREMENT SHALL APPLY TO IL 9.5L GRADATION SHOULDER MIXES AND OTHER MIXES (BOTTOM LIFT OF SHOULDERS). THIS MAXIMUM DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE OF FOUR TESTS AS IN OTHER QC/OA TESTING. A NUCLEAR GAUGE DENSITY/CORE CORRELATION SHALL BE PERFORMED FOR THE IL 9.5L MIXES AND OTHER MIXES USING STANDARD CORRELATION PROCEDURES.

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
PRIOR TO ROUTING TRAFFIC ONTO THE SHOULDERS AS SHOWN IN THE STAGING PLANS, THE CONTRACTOR SHALL SECURE THE GRATINGS ON SHOULDER INLETS AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

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.-667
THE RESIDENT ENGINEER SHALL CONTACT THE PROGRAM DEVELOPMENT CHIEF OF SURVEYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE FOR INSTRUCTION AS TO SETTING OF TEMPORARY OR PERMANENT TIES FOR CENTERLINE ALIGNMENT CONTROL SURVEY MARKERS (PC'S, PT'S, AND PI'S). PROJECT IMPLEMENTATION PERSONNEL WILL BE RESPONSIBLE FOR SETTING THESE MARKERS.

G.N.-703A(SPL)
SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE PAVEMENT AFTER ANY OF THE FOLLOWING IN AREAS OPEN TO TRAFFIC: 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).

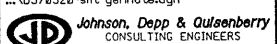
G.N.-1004.01
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

G.N.-Z003B
AN ALUMINUM TABLET OF THE TYPE SHOWN ON STANDARD 667101 SHALL BE PLACED ON THE PROPOSED STRUCTURES 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.

COMMITMENTS

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

THERE ARE NO COMMITMENTS FOR THIS CONTRACT.

FILE NAME = ...ND578528-sht-gernote.dgn  Johnson, Depp & Oulsenberry CONSULTING ENGINEERS Springfield, Illinois	USER NAME = SJS	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS				F.A.I. RTE. 55	SECTION (57-7HB-2 & 57-7HB-1)BR	COUNTY MCLEAN	TOTAL SHEETS 153	SHEET NO. 2
	PLOT SCALE = 100.0000 ' / IN. PLOT DATE = 08/09/2010 10:53:07	SCALE:	SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 70520 ILLINOIS FED. AID PROJECT								


SUMMARY OF QUANTITIES

CONF NO.	ITEM	UNIT	TOTAL QUANTITY	90% FED/ 10% STATE	90% FED/ 10% STATE	90% FED/ 10% STATE											
				MAINLINE ROADWAY 0004	STRUCTURE SN057-0249 0011	STRUCTURE SN057-0250 0011											
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	2,394	2,394													
44004250	PAVED SHOULDER REMOVAL	SQ YD	207	207													
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	2,422	2,422													
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	112	112													
48203100	HOT-MIX ASPHALT SHOULDERS	TON	1,245	1,245													
48300300	PORTLAND CEMENT CONCRETE SHOULDERS 8"	SQ YD	3,688	3,688													
48301000	PROTECTIVE COAT	SQ YD	3,688	3,688													
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	2		1	1											
50104400	CONCRETE HEADWALL REMOVAL	EACH	3	3													
50105220	PIPE CULVERT REMOVAL	FOOT	102	102													
50157300	PROTECTIVE SHIELD	SQ YD	554		210	344											
50200100	STRUCTURE EXCAVATION	CU YD	2,268		687	1,581											
50300225	CONCRETE STRUCTURES	CU YD	960.0		293.4	666.6											
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1,040.3		462.9	577.4											
50300260	BRIDGE DECK GROOVING	SQ YD	2,738		1,204	1,534											
50300280	CONCRETE ENCASEMENT	CU YD	21.7		7.0	14.7											
50300300	PROTECTIVE COAT	SQ YD	3,392		1,466	1,926											
50500505	STUD SHEAR CONNECTORS	EACH	11,025		5,400	5,625											
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	365,980		159,370	206,610											
50800515	BAR SPLICERS	EACH	2,731		1,183	1,548											
51100100	SLOPE WALL 4 INCH	SQ YD	1,728		809	919											
51201600	FURNISHING STEEL PILES HP12X53	FOOT	2,640			2,640											
51201610	FURNISHING STEEL PILES HP12X63	FOOT	3,076		3,076												
51202305	DRIVING PILES	FOOT	5,716		3,076	2,640											
51203600	TEST PILE STEEL HP12X53	EACH	4			4											
51203610	TEST PILE STEEL HP12X63	EACH	4		4												
51204650	PILE SHOES	EACH	23			23											
51500100	NAME PLATES	EACH	2		1	1											
52000110	PREFORMED JOINT STRIP SEAL	FOOT	184			184											
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12			12											
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	6			6											

LEGEND:

* SPECIALTY ITEMS

SHEET NO. 2 OF 5

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwwork\p\idot\keysrb\d0101450\0570520-shs-500.DGN		DRAWN -	REVISED -			55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	4
 Johnson, Depp & Outsenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 20,0000 / IN.	CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT		
	PLOT DATE = 8/17/2010	DATE -	REVISED -					CONTRACT NO. 70520		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY URBAN	90% FED/ 10% STATE	90% FED/ 10% STATE	90% FED/ 10% STATE								
				MAINLINE ROADWAY 0004	STRUCTURE SN057-0249 0011	STRUCTURE SN057-0250 0011								
52100520	ANCHOR BOLTS, 1"	EACH	72		48	24								
52100540	ANCHOR BOLTS, 1 1/2"	EACH	24			24								
54213447	END SECTIONS 12"	EACH	2	2										
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	1	1										
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24" *	FOOT	10	10										
58700300	CONCRETE SEALER	SO FT	7,204		629	6,575								
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	248		103	145								
60100060	CONCRETE HEADWALL FOR PIPE DRAINS *	EACH	14	14										
60100945	PIPE DRAINS 12"	FOOT	136	136										
60107600	PIPE UNDERDRAINS 4"	FOOT	3,670	3,670										
60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	182	182										
20046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	383		168	215								
60500060	REMOVING INLETS	EACH	2	2										
60600305	CONCRETE CURB (DOWELLED)	FOOT	42	42										
60900515	CONCRETE THRUST BLOCKS	EACH	2	2										
61000120	TYPE E INLET BOX, STANDARD 610001 (SPECIAL)	EACH	2	2										
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	6,387.5	6,387.5										
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	6	6										
* 63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2	2										
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	6	6										
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	6	6										
* 63100217	TRAFFIC BARRIER TERMINAL, TYPE 6B (SPECIAL)	EACH	2	2										
63200310	GUARDRAIL REMOVAL	FOOT	7,072	7,072										
63500105	DELINEATORS	EACH	28	28										
63500120	DELINEATOR REMOVAL	EACH	28	28										
64200105	SHOULDER RUMBLE STRIPS	FOOT	11,520	11,520										
66201120	CONCRETE SHOULDER CURB	FOOT	20	20										
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	600	600										
66900450	SPECIAL WASTE PLANS AND REPORT	L SUM	1	1										
66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1										
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	12	12										

LEGEND:

* SPECIALTY ITEMS

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
ct:\pwwork\pwwork\keysrb\d0101450\0570530-sh1-500.DGN		DRAWN -	REVISED -
Johnson, Depp & Oulsenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 20,0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 8/19/2010	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.
55	157-THB-2 & 57-7HB-1/BR	MCLEAN	153	5
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 70520	

SHEET NO. 3 OF 5

SUMMARY OF QUANTITIES

90% FED/ 10% STATE 90% FED/ 10% STATE 90% FED/ 10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	MAINLINE ROADWAY 0004	STRUCTURE SN057-0249 0011	STRUCTURE SN057-0250 0011										
	URBAN															
67100100	MOBILIZATION	L SUM	1	1												
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1												
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1	1												
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1												
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1												
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1												
70103700	TRAFFIC CONTROL COMPLETE	L SUM	1	1												
70104490	TRAFFIC CONTROL AND PROTECTION (SPECIAL), LOCATION 1	EACH	1	1												
70104495	TRAFFIC CONTROL AND PROTECTION (SPECIAL), LOCATION 2	EACH	1	1												
70400100	TEMPORARY CONCRETE BARRIER	FOOT	6,550.0	6,550.0												
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	5,412.5	5,412.5												
* 78003110	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4"	FOOT	1,240	1,240												
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	138	138												
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	14	14												
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	94	94												
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	14	14												
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	6	6												
78300100	PAVEMENT MARKING REMOVAL	SO FT	4,461	4,461												
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	152	152												
X0321962	CONNECTION OF EXISTING PIPE UNDERDRAIN	EACH	2	2												
X0323583	SPEED INDICATOR SIGN	CAL DA	738	738												
X2020502	BRACED EXCAVATION	CU YD	114				114									
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	468			172	296									
X5051401	FURNISHING AND ERECTING STRUCTURAL STEEL BRIDGE NO. 1	L SUM	1				1									
X5051402	FURNISHING AND ERECTING STRUCTURAL STEEL BRIDGE NO. 2	L SUM	1			1										
X5080600	MECHANICAL SPLICERS	EACH	360			240	120									
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	42	42												
* X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1												
* X7800610	URETHANE PAVEMENT MARKING - LINE 4"	FOOT	13,427	13,427												
* X7800640	URETHANE PAVEMENT MARKING - LINE 8"	FOOT	2,444	2,444												
* X7800650	URETHANE PAVEMENT MARKING - LINE 12"	FOOT	516	516												

LEGEND:

* SPECIALTY ITEMS

SHEET NO. 4 OF 5

FILE NAME :	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cd:\pw\work\pwwork\keysrb\d0101450\0570520-sh1-500.DGN		DRAWN -	REVISED -			55	(57-7HB-2 & 57-7HB-1BR)	MCLEAN	153	6
Johnson, Depp & Oulsenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 20,0000' / IN.	CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 70520		
	PLOT DATE = 8/19/2010	DATE -	REVISED -			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

SUMMARY OF QUANTITIES

90% FED/
10% STATE 90% FED/
10% STATE 90% FED/
10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY URBAN	MAINLINE ROADWAY 0004	STRUCTURE SN057-0249 0011	STRUCTURE SN057-0250 0011									
XZ030260	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2											
XZ193300	SURVEY MARKER, TYPE 1 (SPECIAL)	EACH	2	2											
XZ193400	SURVEY MARKER, TYPE 2 (SPECIAL)	EACH	2	2											
Z0004552	APPROACH SLAB REMOVAL	SO YD	600	600											
Z0004638	PAVEMENT BREAKING	SO YD	10,345	10,345											
Z0012710	CONCRETE HEADWALL FOR PIPE UNDERDRAIN REMOVAL	EACH	6	6											
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1											
Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	5		1	4									
Z0026260	FURNISHING AND INSTALLING TUBULAR THRIE BEAM	FOOT	72	72											
Z0026407	TEMPORARY SHEET PILING	SO FT	2,035		884	1,151									
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SO YD	2,604		1,147	1,457									
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	4											
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1											
Z0038700	PERMANENT BENCH MARKS	EACH	2	2											
Z0040530	PIPE UNDERDRAIN REMOVAL	FOOT	4,860	4,860											

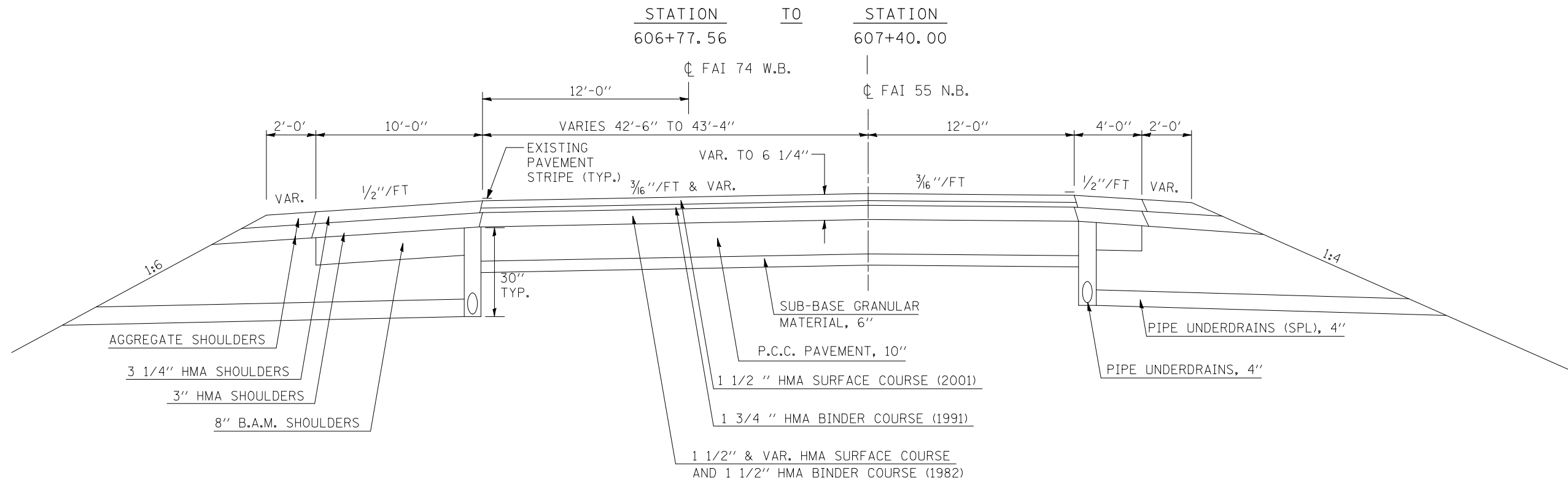
LEGEND:
* SPECIALTY ITEMS

SHEET NO. 5 OF 5

FILE NAME : c:\pw\work\pwwork\keysrb\d0101450\0570520-shr-500.DGN	USER NAME : keysrb SHR-500.DGN	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	<table border="1"> <tr> <th>F.A.I. RTE.</th> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>55</td> <td>(57-7HB-2 & 57-7HB-1)BR</td> <td>MCLEAN</td> <td>153</td> <td>7</td> </tr> </table>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	7
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.												
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	7												
PLOT SCALE = 20,000 / IN. PLOT DATE = 8/17/2010			SCALE: SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT CONTRACT NO. 70520											

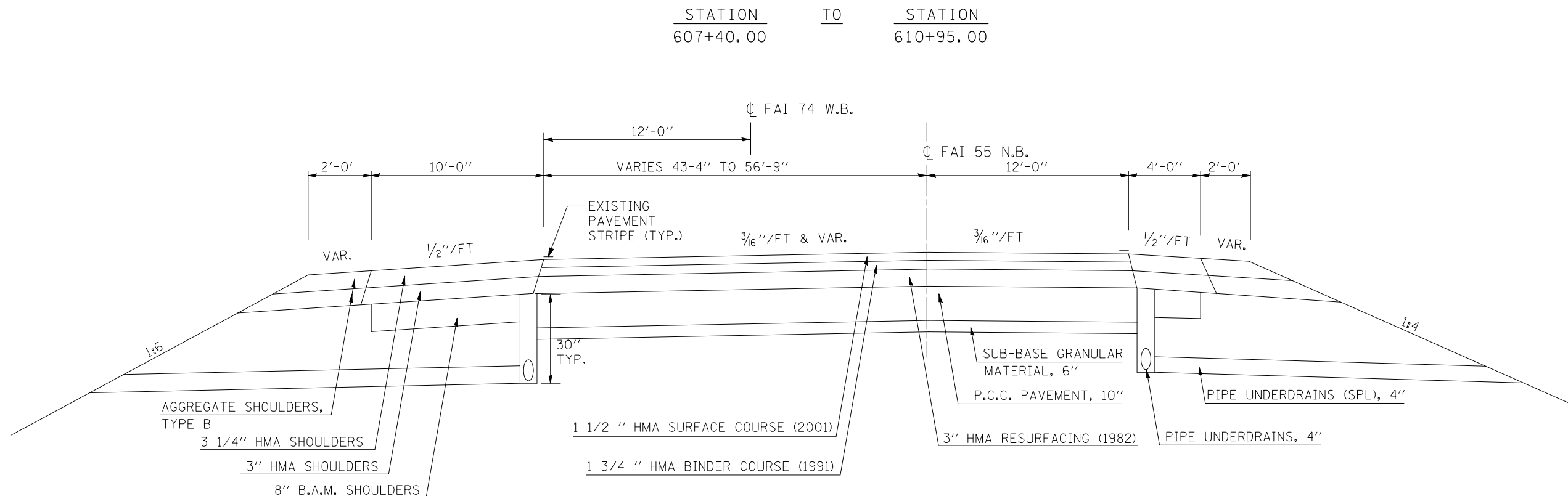


EXISTING TYPICAL SECTION



NOTE:
STATIONING RUNS NORTH TO SOUTH
TRAFFIC TRAVELS SOUTH TO NORTH

EXISTING TYPICAL SECTION



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\0101450\0570520\typicals\FINAL.dgn		DRAWN -	REVISED -		55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	8			
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -		SCALE: NO SCALE SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 70520				
	PLOT DATE = 8/17/2010	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

(1991)

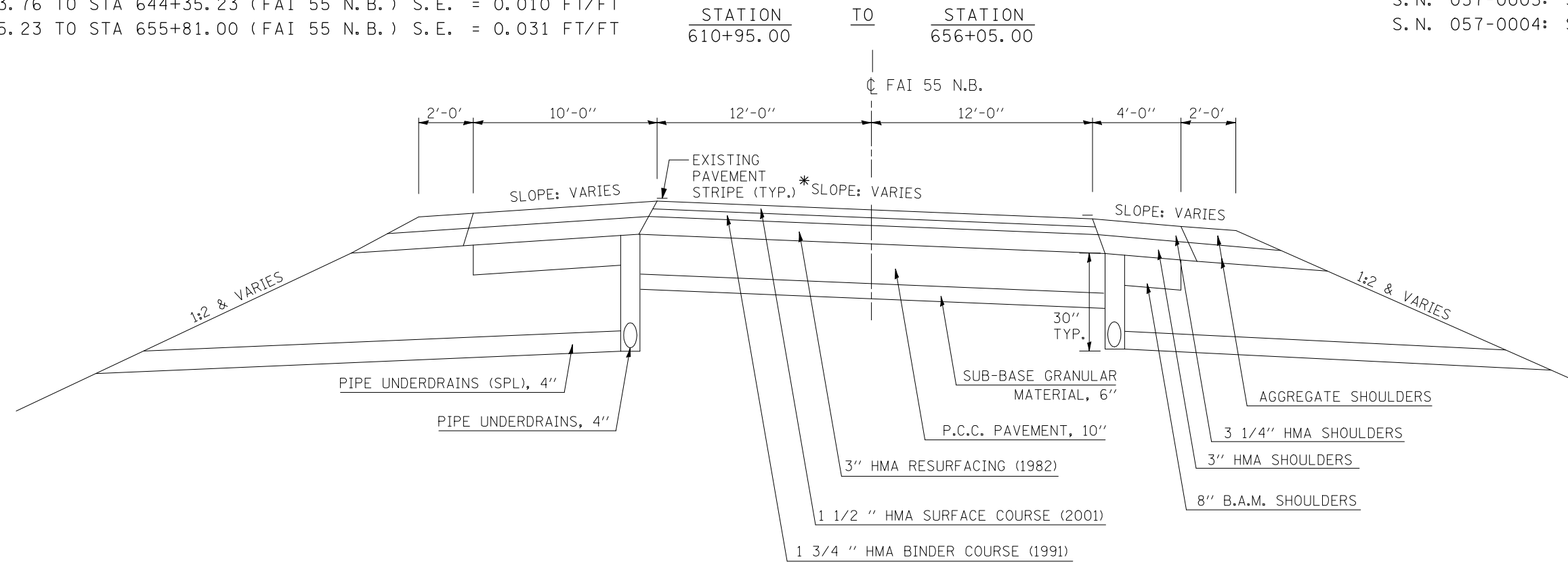
- * STA 610+90.00 TO STA 628+63.76 (FAI 55 N.B.) S.E. = 0.031 FT/FT
- * STA 628+63.76 TO STA 644+35.23 (FAI 55 N.B.) S.E. = 0.010 FT/FT
- * STA 644+35.23 TO STA 655+81.00 (FAI 55 N.B.) S.E. = 0.031 FT/FT

EXISTING TYPICAL SECTION

STRUCTURE OMISSIONS

S.N. 057-0005: STA 625+24.77 TO 627+83.29

S.N. 057-0004: STA 643+53.46 TO 645+20.19



EXISTING TYPICAL SECTION

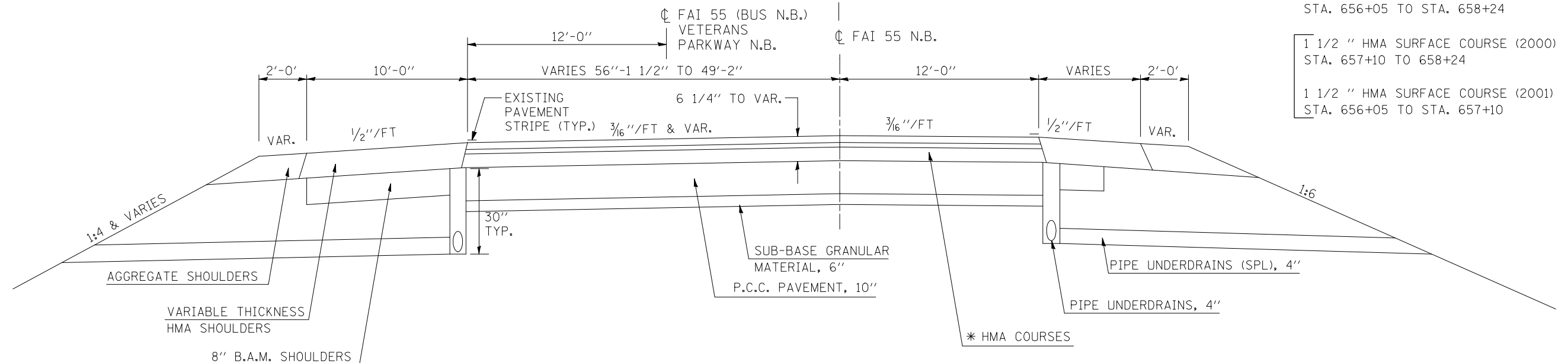
STATION TO STATION
656+05.00 658+24.00

* HMA RESURFACING (3" TO 0")
(1982) STA. 655+91 TO STA. 657+11

1 3/4 " HMA BINDER COURSE
(FROM 1991 & 2000 RESURFACINGS)
STA. 656+05 TO STA. 658+24

1 1/2 " HMA SURFACE COURSE (2000)
STA. 657+10 TO 658+24

1 1/2 " HMA SURFACE COURSE (2001)
STA. 656+05 TO STA. 657+10



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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS

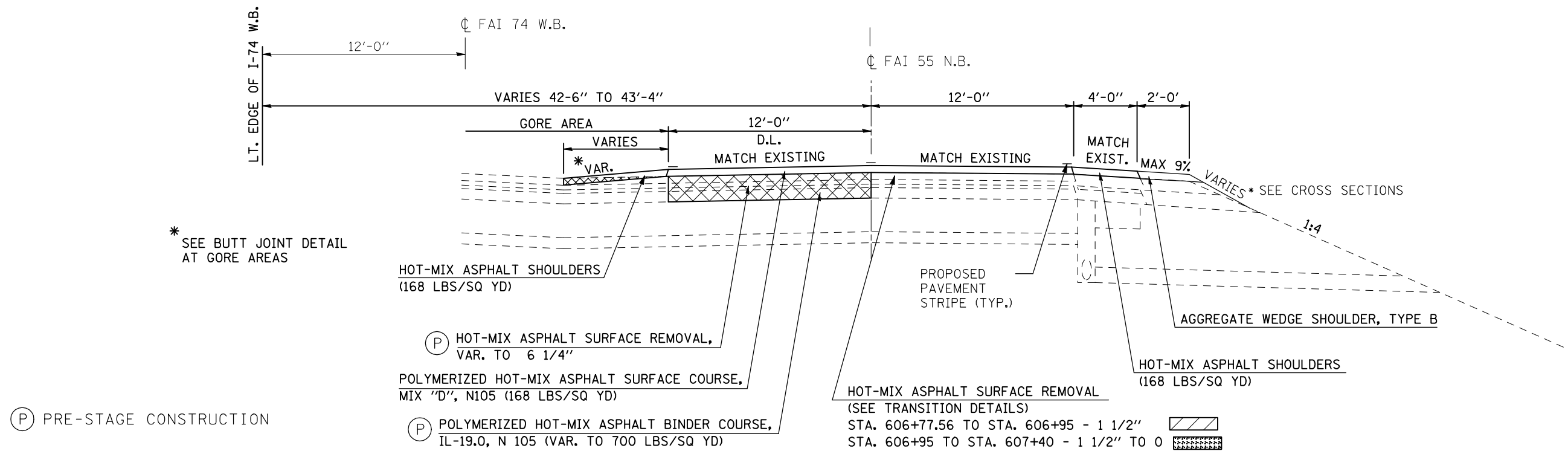
SCALE: NO SCALE SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	9
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 70520	



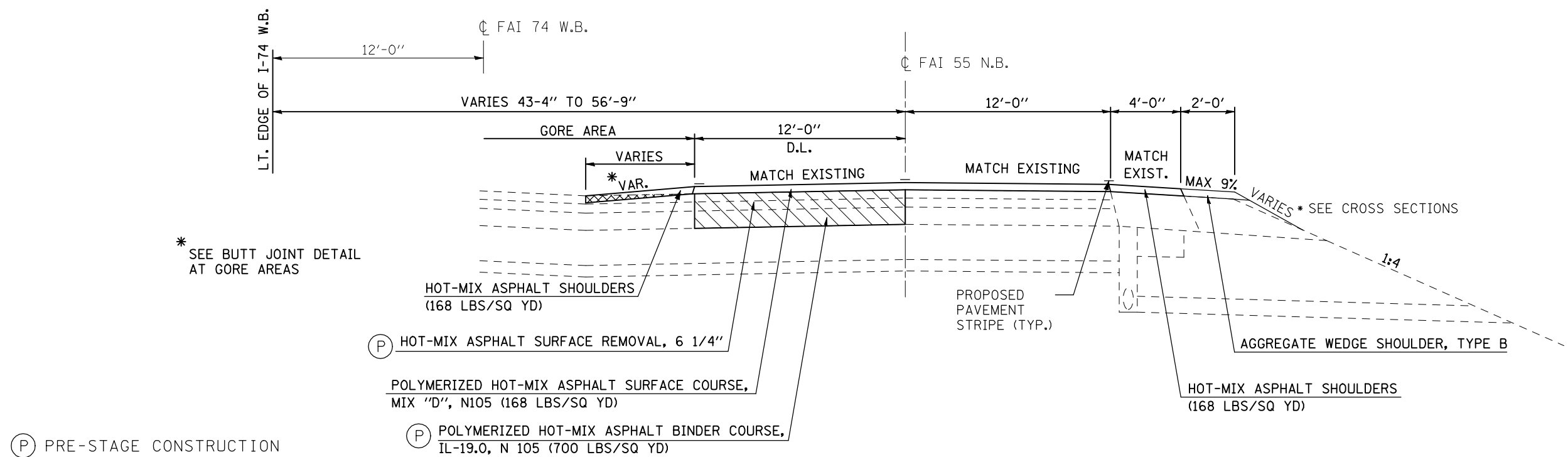
① PROPOSED TYPICAL SECTION

STATION TO STATION
606+77.56 TO 607+40.00 ②



② PROPOSED TYPICAL SECTION

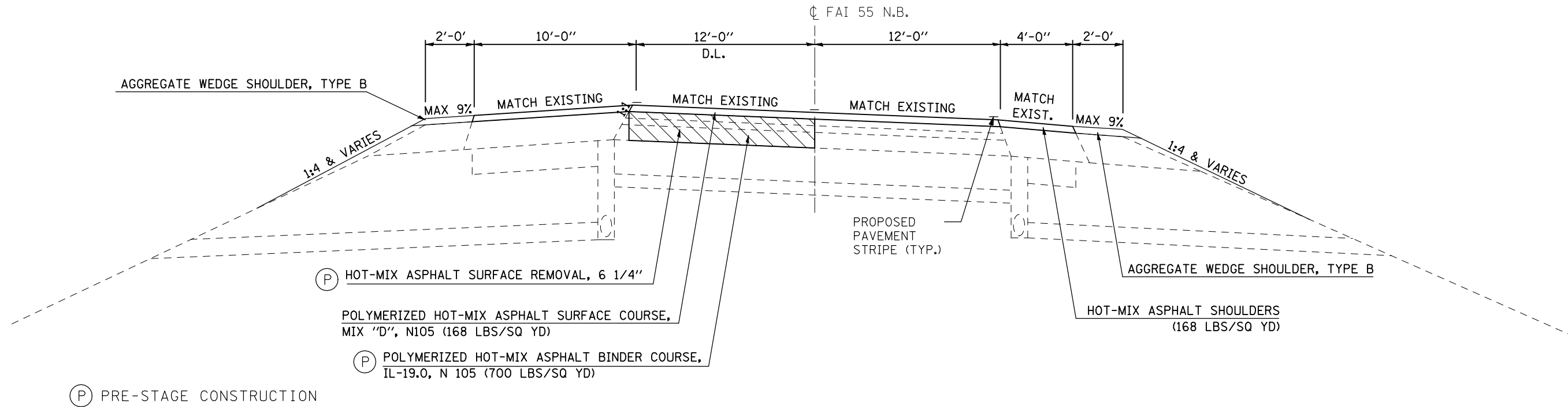
STATION TO STATION
② 607+40.00 TO 610+95.00 ③



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\pwsdot\keysrb\0101450\0570520\typicals\FINAL.dgn		DRAWN -	REVISED -					55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	10
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -		CONTRACT NO. 70520			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
	PLOT DATE = 8/17/2010	DATE -	REVISED -		SCALE: NO SCALE	SHEET NO.	OF SHEETS	STA.	TO STA.			

③ **PROPOSED TYPICAL SECTION**

STATION TO STATION
 ③ 610+95.00 614+00.00 ④



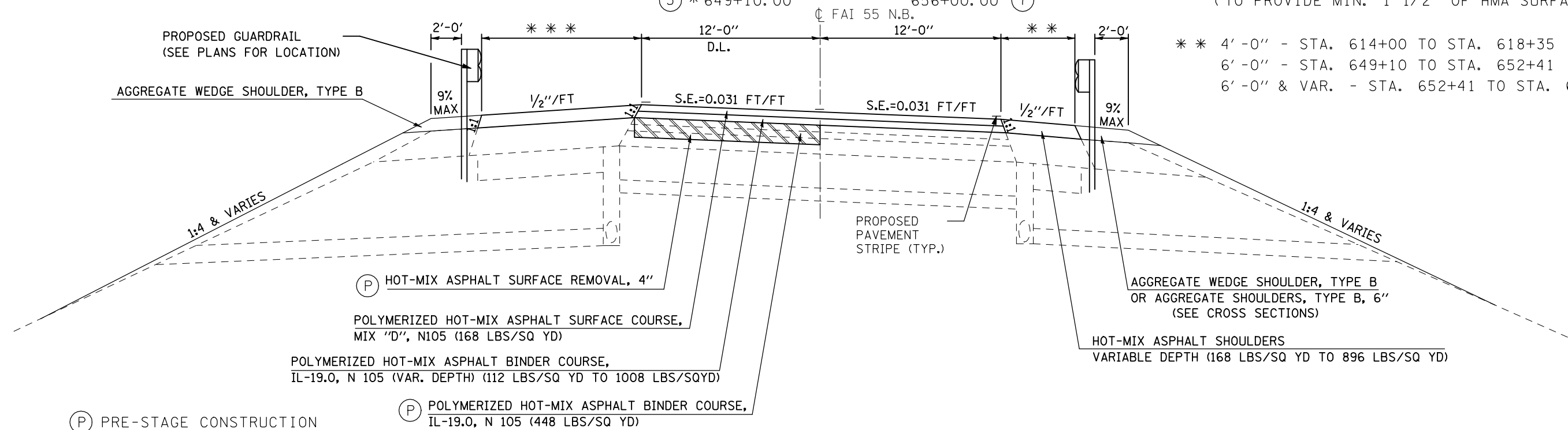
④ **PROPOSED TYPICAL SECTION**

STATION TO STATION
 ③ 614+00.00 618+35.00 ⑤
 ⑤ * 649+10.00 656+00.00 ⑦

*** 10' - 0" - STA. 614+00 TO STA. 618+35
 12' - 0" - STA. 649+10 TO STA. 653+50
 10' - 0" - STA. 653+50 TO STA. 656+00

* STA. 654+60.00 TO STA. 656+00.00
 HMA SURFACE REMOVAL, VARIABLE DEPTH (PASSING LANE)
 (TO PROVIDE MIN. 1 1/2" OF HMA SURFACE)

** 4' - 0" - STA. 614+00 TO STA. 618+35
 6' - 0" - STA. 649+10 TO STA. 652+41
 6' - 0" & VAR. - STA. 652+41 TO STA. 656+00



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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	11
CONTRACT NO. 70520				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

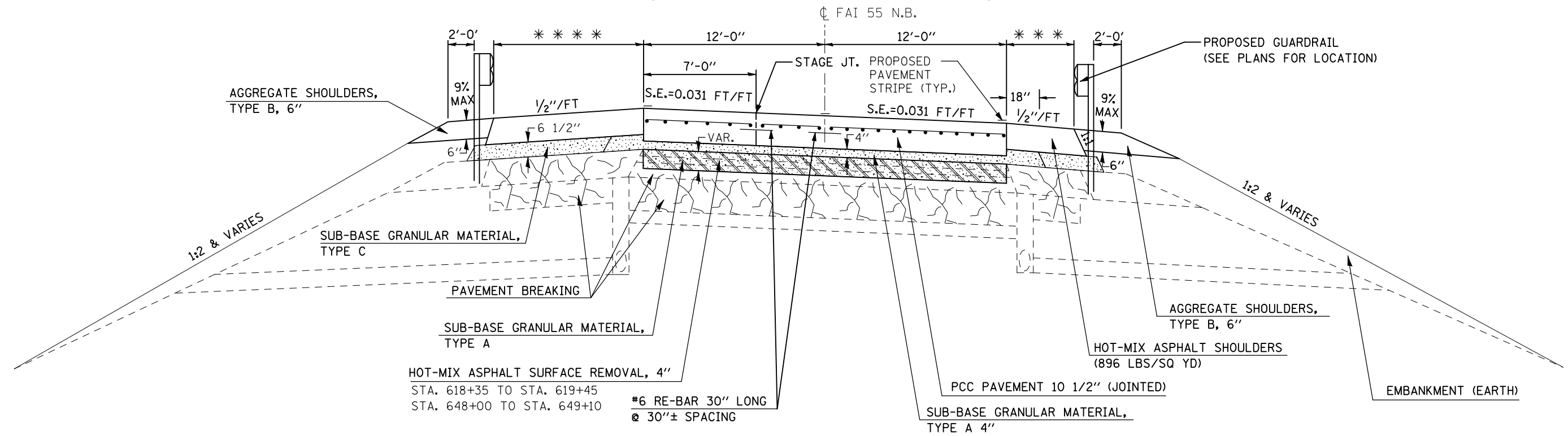


*** 10'-0" - STA. 618+35 TO STA. 619+45
 12'-0" - STA. 648+00 TO STA. 649+10

5 PROPOSED TYPICAL SECTION

STATION	TO	STATION
5 618+35.00		6 619+45.00
5 648+00.00		4 649+10.00

*** 4'-0" - STA. 618+35 TO STA. 619+45
 6'-0" - STA. 648+00 TO STA. 649+10



*** I-55 (N.B.) SUPERELEVATION INFORMATION

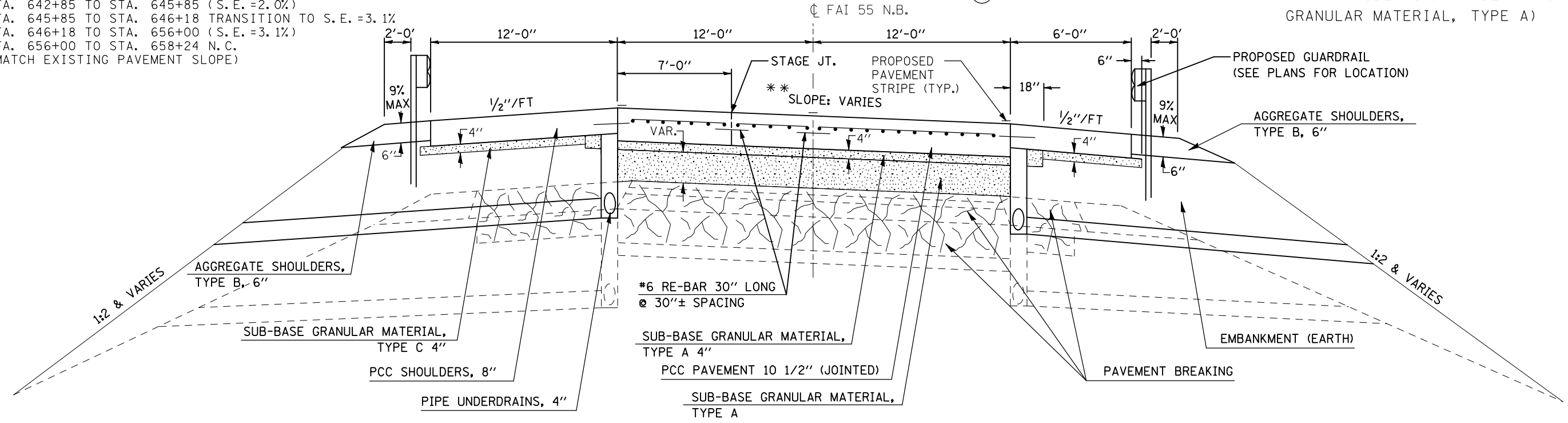
STA. 606+77.56 TO STA. 614+00
 (MATCH EXISTING PAVEMENT SLOPE)
 STA. 614+00 TO STA. 628+63.75 (S.E. = 3.1%)
 STA. 628+63.75 TO STA. 629+11.75 TRANSITION TO S.E. = 1.5%
 STA. 629+11.75 TO STA. 642+70 (S.E. = 1.5%)
 STA. 642+70 TO STA. 642+85 TRANSITION TO S.E. = 2.0%
 STA. 642+85 TO STA. 645+85 (S.E. = 2.0%)
 STA. 645+85 TO STA. 646+18 TRANSITION TO S.E. = 3.1%
 STA. 646+18 TO STA. 656+00 (S.E. = 3.1%)
 STA. 656+00 TO STA. 658+24 N.C.
 (MATCH EXISTING PAVEMENT SLOPE)

6 PROPOSED TYPICAL SECTION

STATION	TO	STATION
6 619+45.00		629+35.00
* 629+35.00		634+75.00
634+75.00		5 648+00.00

STRUCTURE OMISSIONS
 S.N. 057-0250: STA 625+16.31 TO 628+09.82
 S.N. 057-0249: STA 643+34.65 TO 645+34.67

* HMA SURFACE REMOVAL, VARIABLE DEPTH
 (TO PROVIDE MIN. 4" DEPTH OF SUB-BASE GRANULAR MATERIAL, TYPE A)



FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

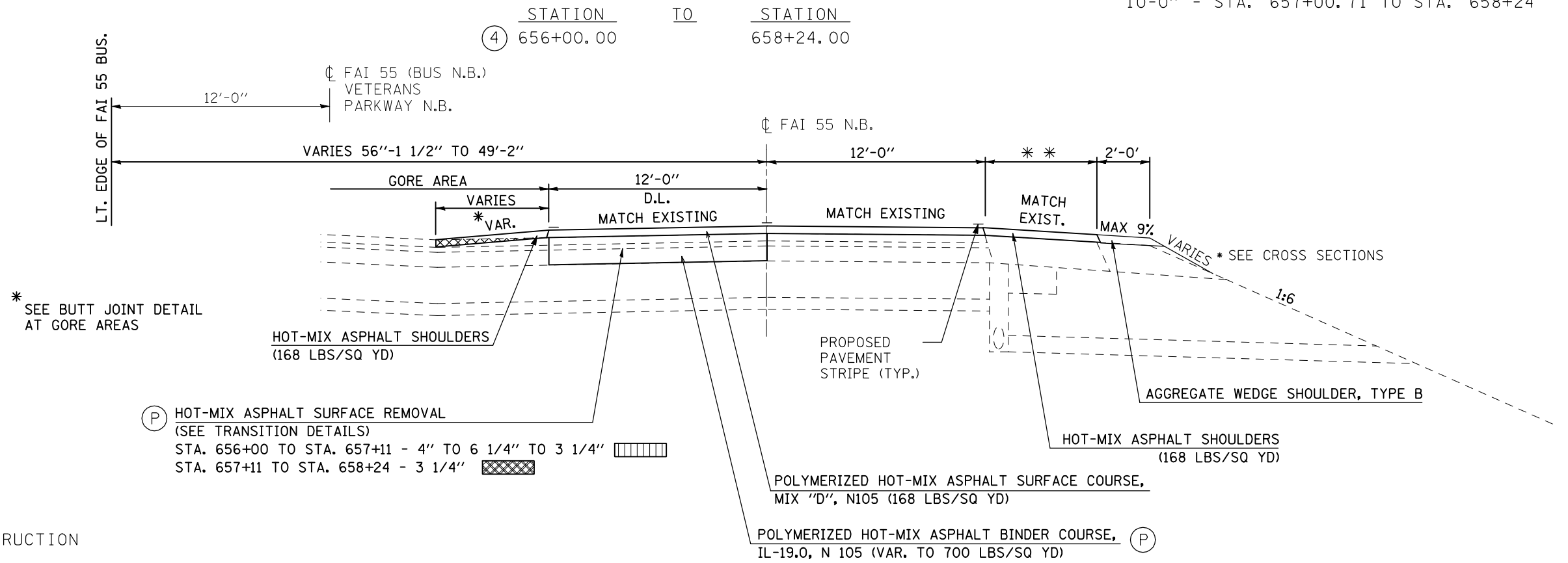
PROPOSED TYPICAL SECTIONS			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.
NO SCALE			

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	12
CONTRACT NO. 70520				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



7 **PROPOSED TYPICAL SECTION**

** VAR. TO 10'-0" - STA. 656+00 TO STA. 657+00.71
 10'-0" - STA. 657+00.71 TO STA. 658+24



* SEE BUTT JOINT DETAIL AT GORE AREAS

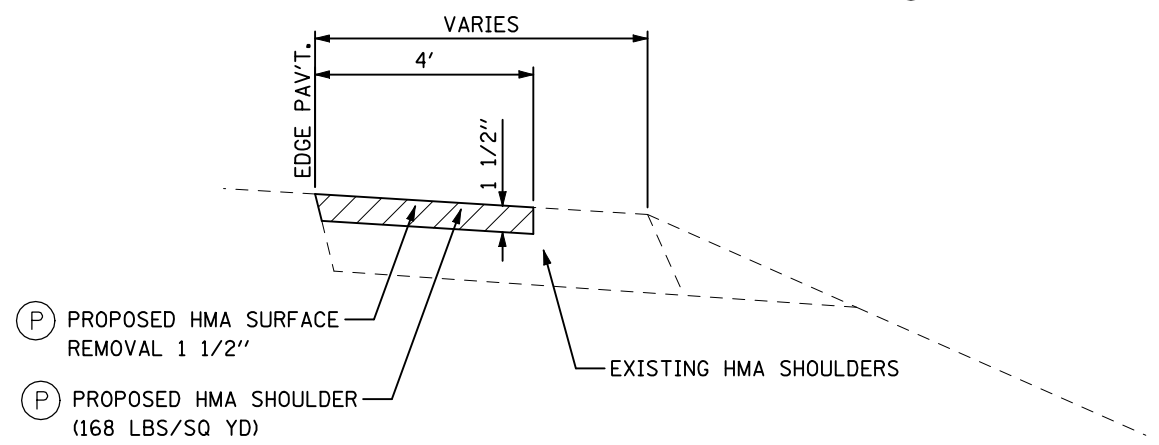
* SEE CROSS SECTIONS

(P) HOT-MIX ASPHALT SURFACE REMOVAL (SEE TRANSITION DETAILS)
 STA. 656+00 TO STA. 657+11 - 4" TO 6 1/4" TO 3 1/4"
 STA. 657+11 TO STA. 658+24 - 3 1/4"

(P) PRE-STAGE CONSTRUCTION

(P) PRE-STAGE CONSTRUCTION

STRUCTURAL DESIGN TRAFFIC: <u>14,955</u> Year <u>2021</u>	
PV= <u>9,766</u>	SU= <u>658</u> MU= <u>4,531</u>
ROAD/STREET CLASSIFICATION: Class <u>I</u>	
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:	
P= <u>32</u>	S= <u>45</u> M= <u>45</u>
TRAFFIC FACTOR: Actual TF= <u>29.26</u> AC Type= <u>20</u>	
Minimum TF= <u>10.05</u>	
PG GRADE: Binder= <u>N/A</u> Surface= <u>N/A</u>	
SUBGRADE SUPPORT RATING:	
SSR= <u>Poor</u> (Sta. _____ to _____)	
SSR= _____ (Sta. _____ to _____)	



PRE-STAGE SHOULDER REPAIRS

RT. STA. 606+77 TO RT. STA. 664+00 (FAI 55 NB PASSING LANE SHLD.)
 LT. STA. 80+30 TO LT. STA. 90+45 (BUSINESS FAI 55 NB DRIVING LANE SHLD.)

APPROACH SLAB REMOVAL

Table with 3 columns: LOCATION, SQ. YD., and rows listing station ranges and quantities for approach slab removal, totaling 599.2 (USE 600.0).

PAVED SHOULDER REMOVAL

Table with 3 columns: LOCATION, SQ. YD., and rows listing station ranges and quantities for paved shoulder removal, totaling 206.4 (USE 207.0).

PAVEMENT BREAKING

(INCLUDES MAINLINE PAVEMENT & SHOULDERS)

Table with 3 columns: LOCATION, SQ. YD., and rows listing pavement breaking quantities, totaling 10,345.

AGGREGATE WEDGE SHOULDERS, TYPE B

Table with 3 columns: LOCATION, TON, and rows listing station ranges and quantities for aggregate wedge shoulders, totaling 112.

AGGREGATE SHOULDERS, TYPE B 6''

Table with 3 columns: LOCATION, SQ. YD., and rows listing station ranges and quantities for aggregate shoulders, totaling 2422.

HOT-MIX ASPHALT SHOULDERS

Table with 3 columns: LOCATION, TON, and rows listing station ranges and quantities for hot-mix asphalt shoulders, totaling 1245.

PORTLAND CEMENT CONCRETE SHOULDERS 8''

Table with 3 columns: LOCATION, SQ. YD., and rows listing station ranges and quantities for portland cement concrete shoulders, totaling 3688.

PROTECTIVE COAT

Table with 3 columns: LOCATION, SQ. YD., and rows listing quantities for protective coat, totaling 3688.

CONCRETE HEADWALL REMOVAL

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for concrete headwall removal, totaling 3.

PIPE CULVERT REMOVAL

Table with 3 columns: LOCATION, TYPE, FOOT, and rows listing station ranges and quantities for pipe culvert removal, totaling 102.

PIPE CULVERTS, CLASS A, TYPE 1 24''

Table with 3 columns: LOCATION, FOOT, and rows listing station ranges and quantities for pipe culverts, totaling 10.

END SECTIONS 12''

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for end sections, totaling 2.

PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24''

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for precast concrete sections, totaling 1.

CONCRETE HEADWALL FOR PIPE DRAINS

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for concrete headwalls, totaling 14.

PIPE DRAINS 12''

Table with 3 columns: LOCATION, FOOT, and rows listing station ranges and quantities for pipe drains, totaling 136.

PIPE UNDERDRAINS 4''

Table with 3 columns: LOCATION, FOOT, and rows listing station ranges and quantities for pipe underdrains, totaling 3670.

PIPE UNDERDRAINS 4'' (SPECIAL)

Table with 3 columns: LOCATION, FOOT, and rows listing station ranges and quantities for special pipe underdrains, totaling 182.

REMOVING INLETS

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for removing inlets, totaling 2.

CONCRETE CURB (DOWELLED)

Table with 3 columns: LOCATION, FOOT, and rows listing station ranges and quantities for concrete curb, totaling 42.

CONCRETE THRUST BLOCKS

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for concrete thrust blocks, totaling 2.

TYPE E INLET BOX, STANDARD 610001 (SPECIAL)
(SEE DETAIL)

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for inlet boxes, totaling 2.

STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS

Table with 3 columns: LOCATION, FOOT, and rows listing station ranges and quantities for steel plate beam guard rail, totaling 6387.50.

TRAFFIC BARRIER TERMINAL, TYPE 2

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for traffic barrier terminal, totaling 6.

TRAFFIC BARRIER TERMINAL, TYPE 5

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for traffic barrier terminal, totaling 2.

TRAFFIC BARRIER TERMINAL, TYPE 6

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for traffic barrier terminal, totaling 6.

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

Table with 3 columns: LOCATION, EACH, and rows listing station ranges and quantities for traffic barrier terminal, totaling 6.

Metadata table with columns: FILE NAME, USER NAME, DESIGNED, REVISIONS, DRAWN, CHECKED, DATE, PLOT SCALE, PLOT DATE.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

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

Summary table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4''

LOCATION	LINE TYPE	FOOT
FAI 55 NB		
STA. 606+78 TO STA. 618+35	SKIP-DASH (WHITE)	290
STA. 649+10 TO STA. 669+50	SKIP-DASH (WHITE)	510
BUSINESS FAI 55 NB		
STA. 80+30 TO STA. 90+45	SKIP-DASH (WHITE)	250
FAI 74 EB		
STA. 623+98 TO STA. 627+58	SKIP-DASH (WHITE)	90
BUSINESS FAI 55 SB		
STA. 69+47 TO STA. 73+37	SKIP-DASH (WHITE)	100
		TOTAL = 1240

RAISED REFLECTIVE PAVEMENT MARKER

LOCATION	EACH
FAI 55 NB	
STA. 606+78 TO STA. 625+00	46
(SN 057-0250)	
STA. 628+40 TO STA. 643+00	36
(SN 057-0249)	
STA. 645+70 TO STA. 658+24	32
FAI 74 EB	
STA. 623+98 TO STA. 627+58	12
BUSINESS FAI 55 SB	
STA. 69+47 TO STA. 73+37	12
TOTAL = 138	

RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

LOCATION	EACH
(SN 057-0250)	8
(SN 057-0249)	6
TOTAL = 14	

GUARDRAIL MARKERS, TYPE A

(MONO-DIRECTIONAL)

LOCATION	(AMBER) EACH	(CRYSTAL) EACH
FAI 55 NB		
LT. STA. 623+15.54 TO LT. STA. 653+02.55		31
RT. STA. 623+36.54 TO RT. STA. 653+91.65	32	
FAI 74 EB		
LT. STA. 621+99.25 TO LT. STA. 627+61.04	7	
RT. STA. 623+02.50 TO RT. STA. 626+79.79		5
BUSINESS FAI 55 SB		
LT. STA. 65+29 TO LT. STA. 71+93.79	8	
RT. STA. 63+00 TO RT. STA. 71+39.79		11
SUB TOTALS = 47		47
TOTAL = 94		

BARRIER WALL MARKERS, TYPE C

(MONO-DIRECTIONAL)

LOCATION	(AMBER) EACH	(CRYSTAL) EACH
FAI 55 NB		
(SN 057-0250)		
LT. STA. 625+45.00 TO LT. STA. 628+61.50		4
RT. STA. 624+66.00 TO RT. STA. 627+99.00	4	
(SN 057-0249)		
LT. STA. 643+05.60 TO LT. STA. 645+34.40		3
RT. STA. 643+30.20 TO RT. STA. 645+61.00	3	
SUB TOTALS = 7		7
TOTAL = 14		

TERMINAL MARKER-DIRECT APPLIED

LOCATION	EACH
FAI 55 NB	
LT. STA. 653+02.55	1
RT. STA. 653+91.65	1
FAI 74 EB	
LT. STA. 612+99.25	1
RT. STA. 623+02.50	1
BUSINESS FAI 55 SB	
LT. STA. 65+29	1
RT. STA. 63+00	1
TOTAL = 6	

PAVEMENT MARKING REMOVAL

LOCATION	TYPE	SQ FT
FAI 55 (STAGE I)		
RT. STA. 606+78 TO RT. STA. 664+00	OUTSIDE EDGELINE	1907
☉ STA. 658+50 TO STA. 669+50	☉ SKIP-DASH	92
BUSINESS FAI 55 NB		
LT. STA. 80+30 TO LT. STA. 90+45	OUTSIDE EDGELINE	338
☉ STA. 80+30 TO STA. 90+45	☉ SKIP-DASH	85
FAI 55 (STAGE II)		
LT. STA. 606+78 TO LT. STA. 611+0	REMOVE DIAGONALS & EDGELINES IN NEUTRAL AREA	755
LT. STA. 656+00 TO LT. STA. 663+20	REMOVE DIAGONALS & EDGELINES IN NEUTRAL AREA	1284
TOTAL = 4461		

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

ASSUMED SAME QUANTITY SAME AS PLACEMENT.
(SEE RRP (78100100) & RRP (B) (78100105) FOR TOTAL
TOTAL = 152

CONNECTION OF EXISTING PIPE UNDERDRAIN

LOCATION	EACH
FAI 55 NB	
LT. STA. 619+45	1
RT. STA. 619+45	1
TOTAL = 2	

SPEED INDICATOR SIGN

LOCATION TO BE DETERMINED BY THE ENGINEER.

LOCATION	CAL DA
FAI 55 NB	246
FAI 74 EB	246
BUSINESS FAI 55 SB	246
TOTAL = 738	

CONCRETE HEADWALL FOR PIPE UNDERDRAIN REMOVAL

LOCATION	EACH
LT. STA. 620+00	1
RT. STA. 620+00	1
LT. STA. 635+00	1
RT. STA. 635+00	1
LT. STA. 650+00	1
RT. STA. 650+00	1
TOTAL = 6	

WIDTH RESTRICTION SIGNING

LOCATION	L SUM
SECTION (57-7HB-2 & 57-7HB-1)BR	1
TOTAL = 1	

IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3

LOCATION	EACH
FAI 74 EB (TB&P (SPL) LOCATION 1)	
LT. STA. 623+75	1
BUSINESS FAI 55 SB (TC&P (SPL) LOCATION 2)	
LT. STA. 69+85	1
TOTAL = 2	

SURVEY MARKER, TYPE 1 (SPECIAL)

(SEE ALIGNMENT TIES)

LOCATION	EACH
FAI 55	
PC STA. 608+95.37	1
PT STA. 657+00.71	1
TOTAL = 2	

SURVEY MARKER, TYPE 2 (SPECIAL)

(SEE ALIGNMENT TIES)

LOCATION	EACH
FAI 55	
PCC STA. 628+63.75	1
PCC STA. 657+00.71	1
TOTAL = 2	

FURNISHING AND INSTALLING TUBULAR THRIE BEAM

LOCATION	FOOT
FAI 74 EB	
LT. STA. 625+05.50 TO STA. 625+77.50	72
TOTAL = 72	

IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

LOCATION	EACH
FAI 55 NB (STAGE I)	
LT. STA. 660+30	1
BUSINESS FAI 55 NB (STAGE I)	
RT. STA. 85+55	1
FAI 74 EB (TC&P (SPL) LOCATION 1)	
RT. STA. 623+90	1
BUSINESS FAI 55 SB (TC&P (SPL) LOCATION 2)	
RT. STA. 69+65	1
TOTAL = 4	

IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3

LOCATION	EACH
FAI 55 NB (STAGE II)	
RT. STA. 661+00	1
TOTAL = 1	

PERMANENT BENCH MARKS

LOCATION	EACH
(SN 057-0250) (STA. 626+53.70)	1
(SN 057-0249) (STA. 644+36.37)	1
TOTAL = 2	

PIPE UNDERDRAIN REMOVAL

LOCATION	FOOT
LT. STA. 619+45 TO LT. STA. 625+24	579
RT. STA. 619+45 TO RT. STA. 625+24	579
LT. STA. 627+84 TO LT. STA. 643+56	1572
RT. STA. 627+84 TO RT. STA. 643+56	1572
LT. STA. 645+21 TO LT. STA. 648+00	279
RT. STA. 645+21 TO RT. STA. 648+00	279
TOTAL = 4,860	

CHANGEABLE MESSAGE SIGN

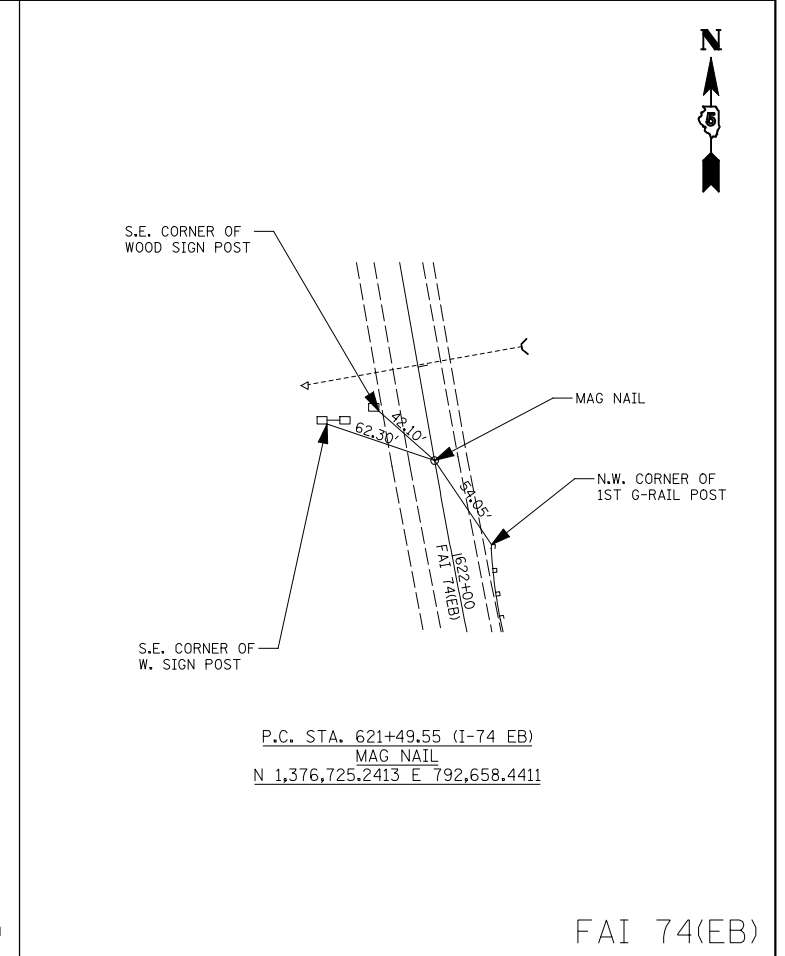
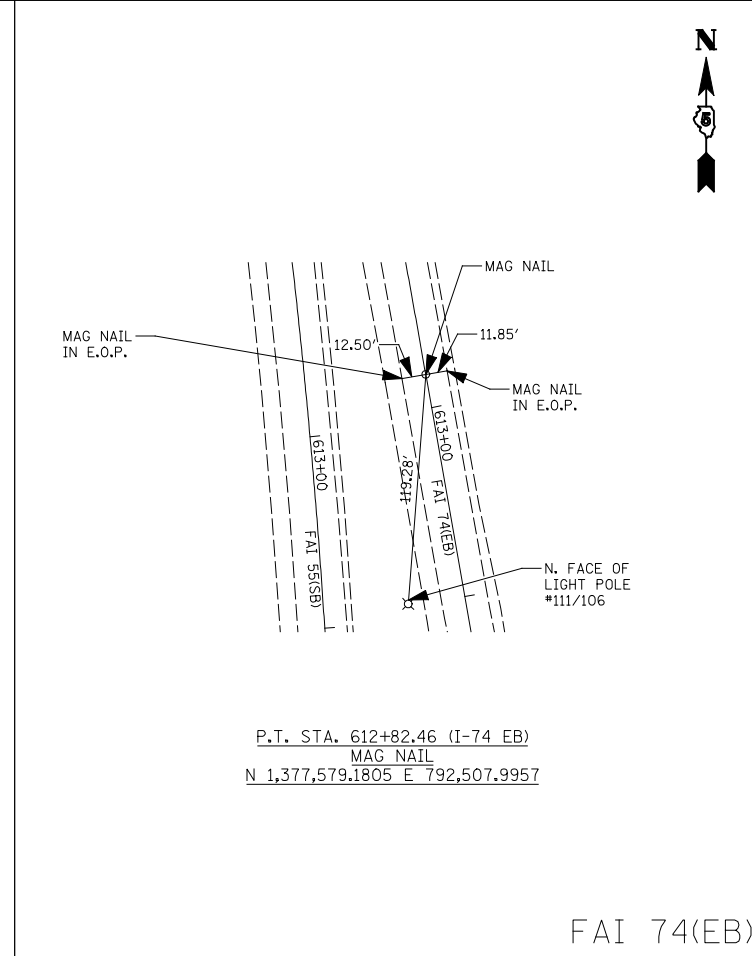
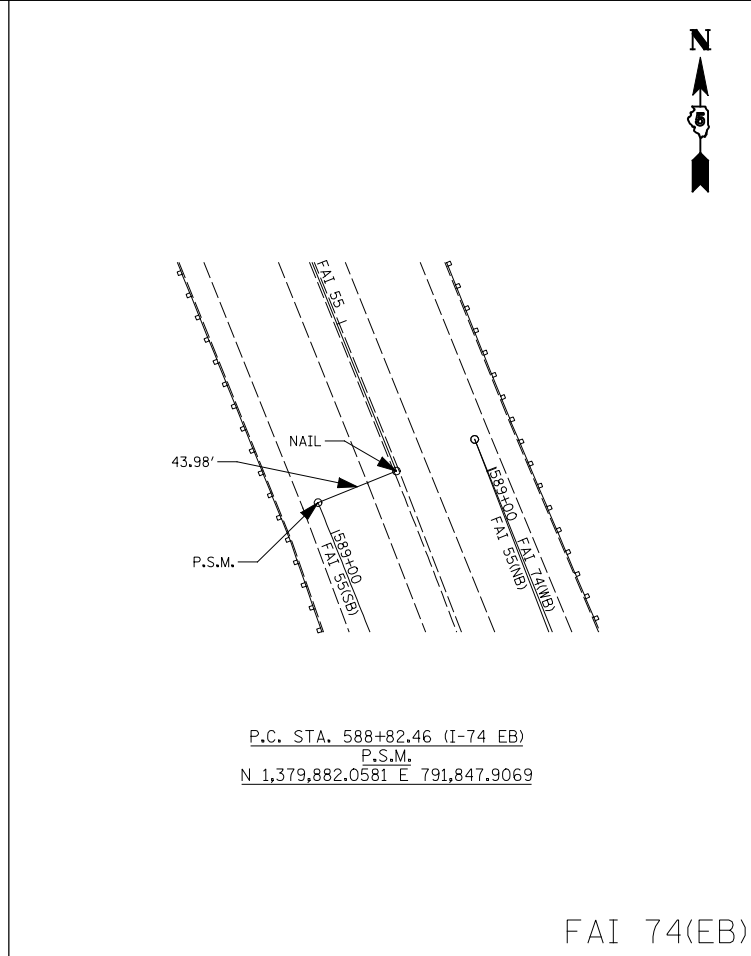
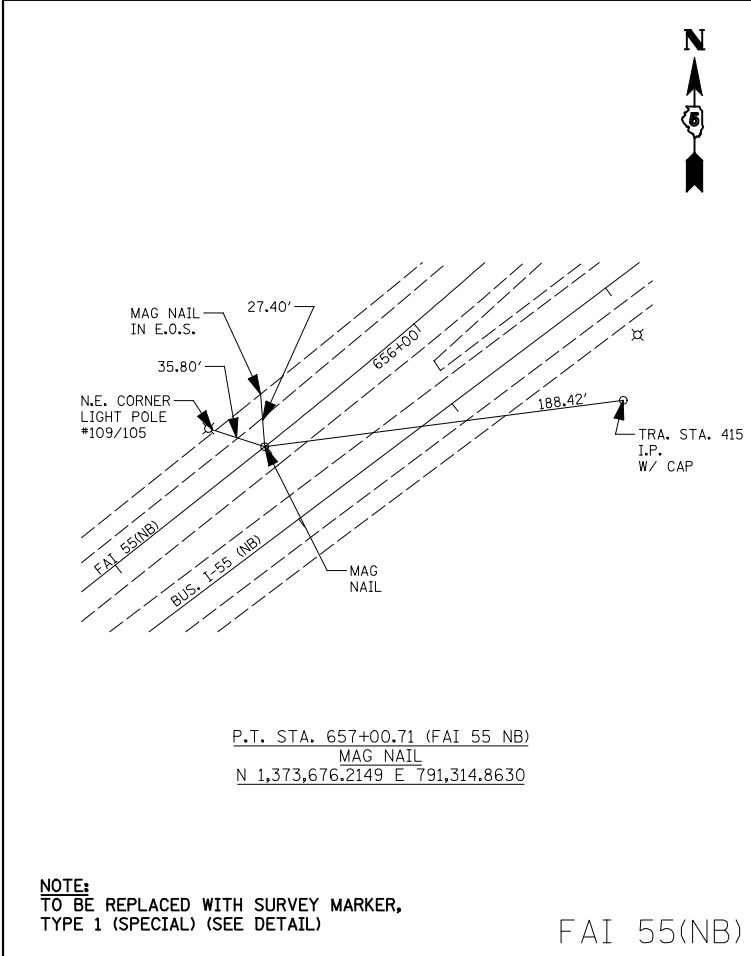
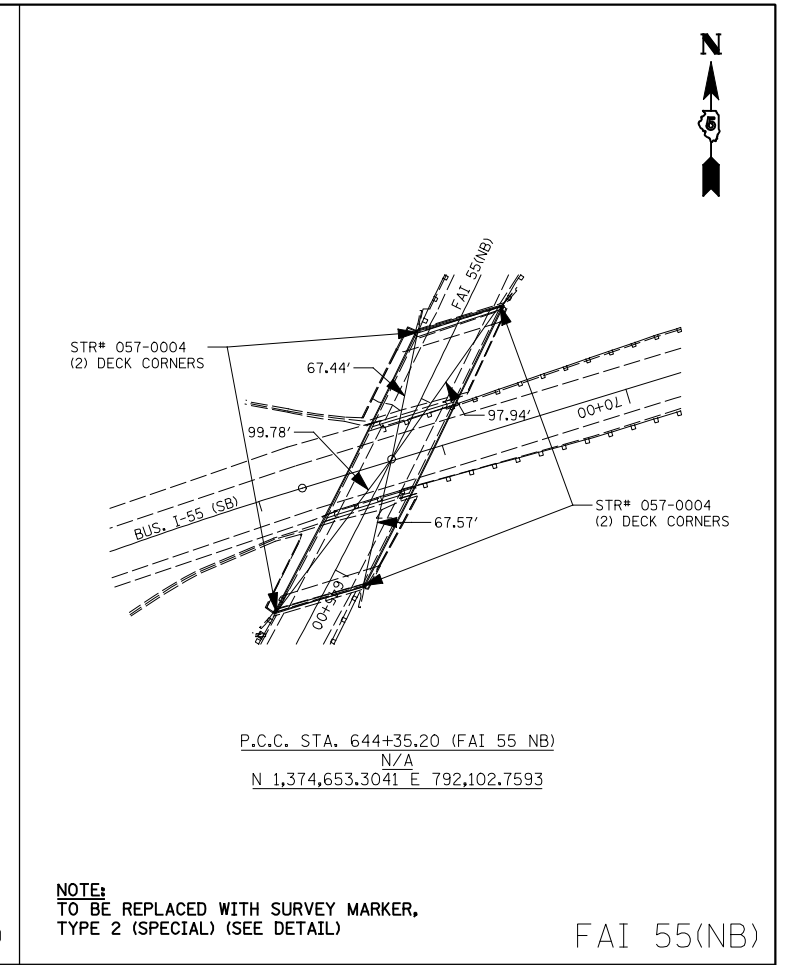
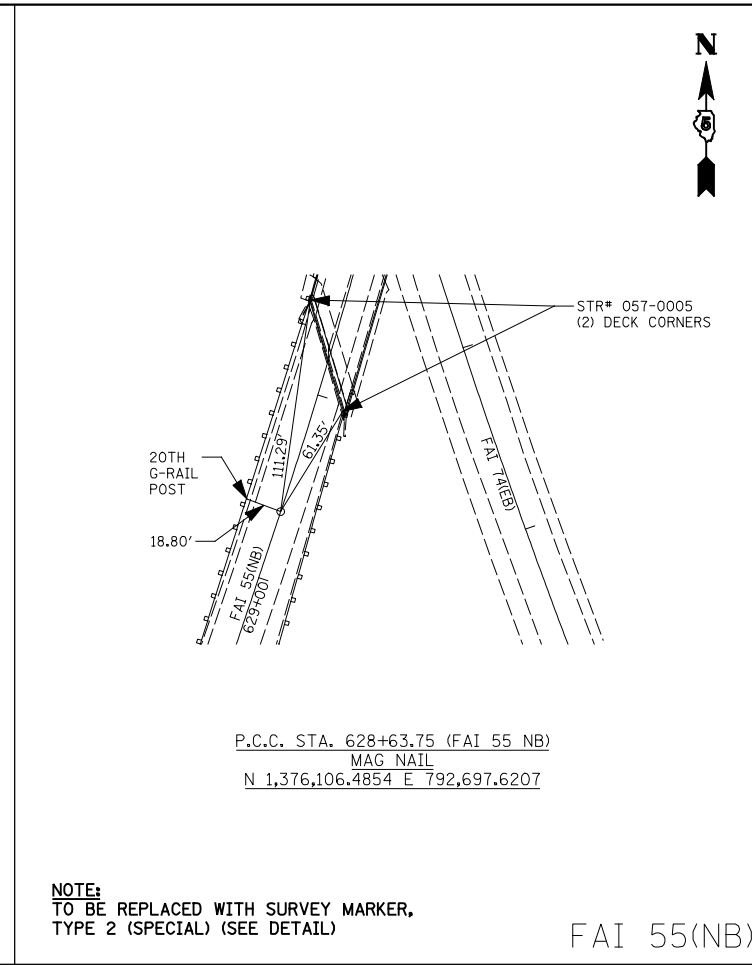
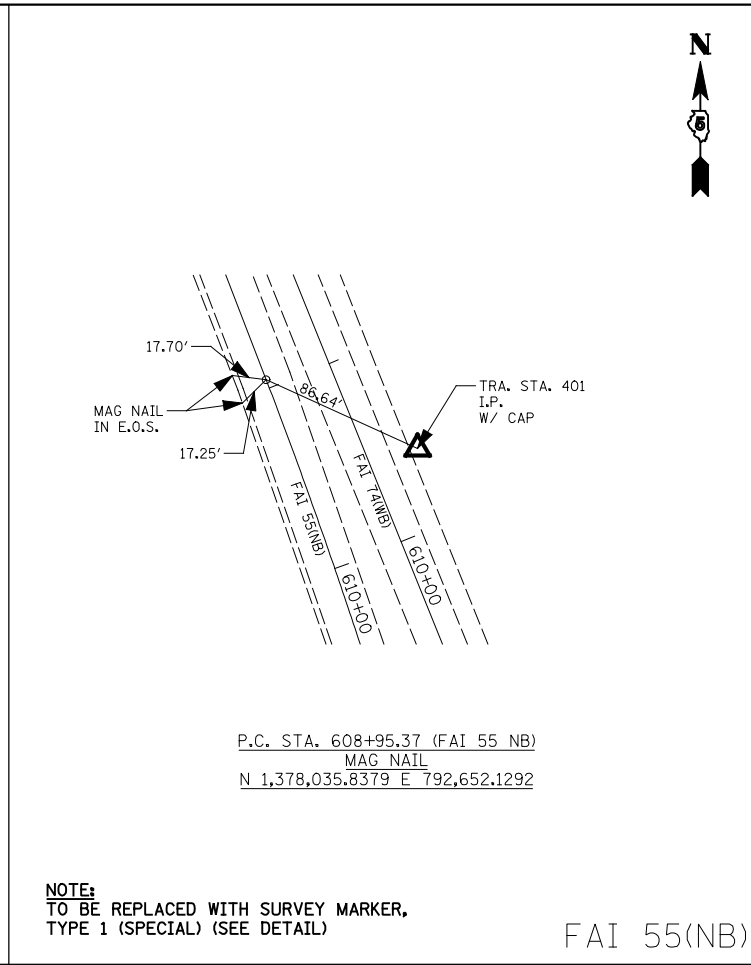
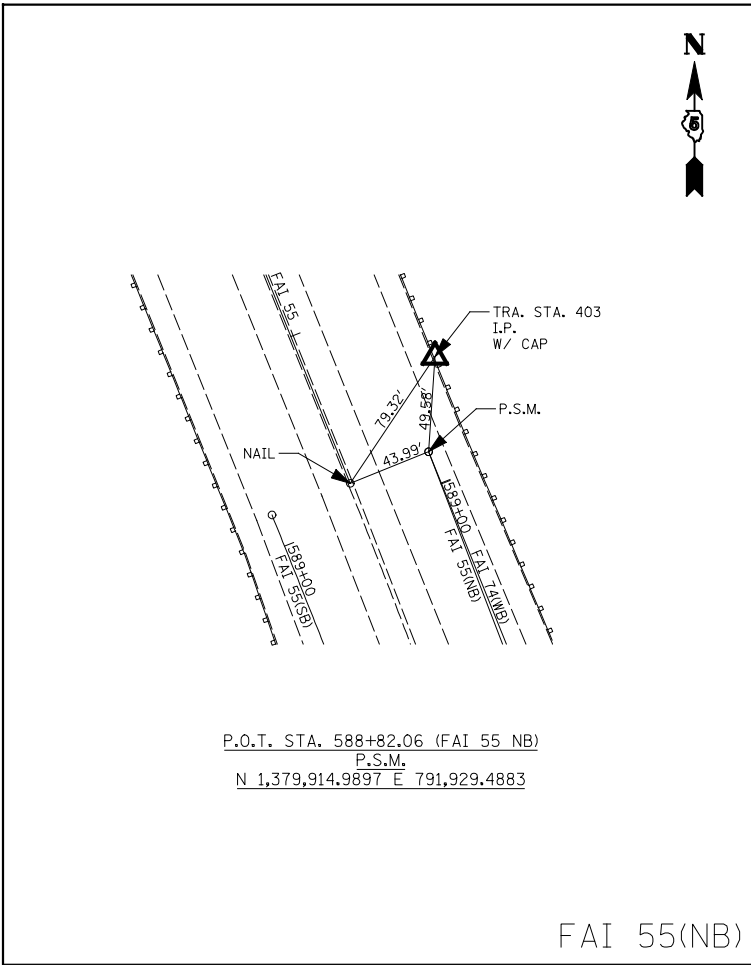
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I-55 NB	PRIOR TO CONST.	1	14	14
I-74 EB	PRIOR TO CONST.	1	14	14
I-55 BUSN. SB	PRIOR TO CONST.	1	14	14
I-55 NB (701400)	W/TRAFFIC CNTL. COMPLETE	1	PD	0
I-55 NB (STA. 669+50) STAGE I	W/TRAFFIC CNTL. COMPLETE	1	PD	0
I-55 NB (STA. 679+50) STAGE I	W/TRAFFIC CNTL. COMPLETE	1	PD	0
I-55 NB (STA. 665+80) STAGE II	W/TRAFFIC CNTL. COMPLETE	1	PD	0
I-55 NB (STA. 675+80) STAGE II	W/TRAFFIC CNTL. COMPLETE	1	PD	0
I-74 EB (701400)	W/TC&P SPL LOC. 1	1	PD	0
• I-74 EB	SWITCHBACK DETAIL	1	10	0
• I-74 EB	PRIOR TO CLOSURE	1	7	0
• I-55 BUSN. SB	PRIOR TO CLOSURE	1	7	0
• I-55 SB	DURING CLOSURE	1	4	0
• I-55 BUSN. SB	DURING CLOSURE	1	4	0
• I-55 BUSN. SB	DURING CLOSURE	1	4	0
• I-74 WB	DURING CLOSURE	1	4	0
• I-74 EB	DURING CLOSURE	1	4	0

PD = PROJECT DURATION
• INCLUDED IN COST OF 'TC&P FOR TEMP. DETOUR' ITEM
•• INCLUDED IN COST OF STANDARD 701406

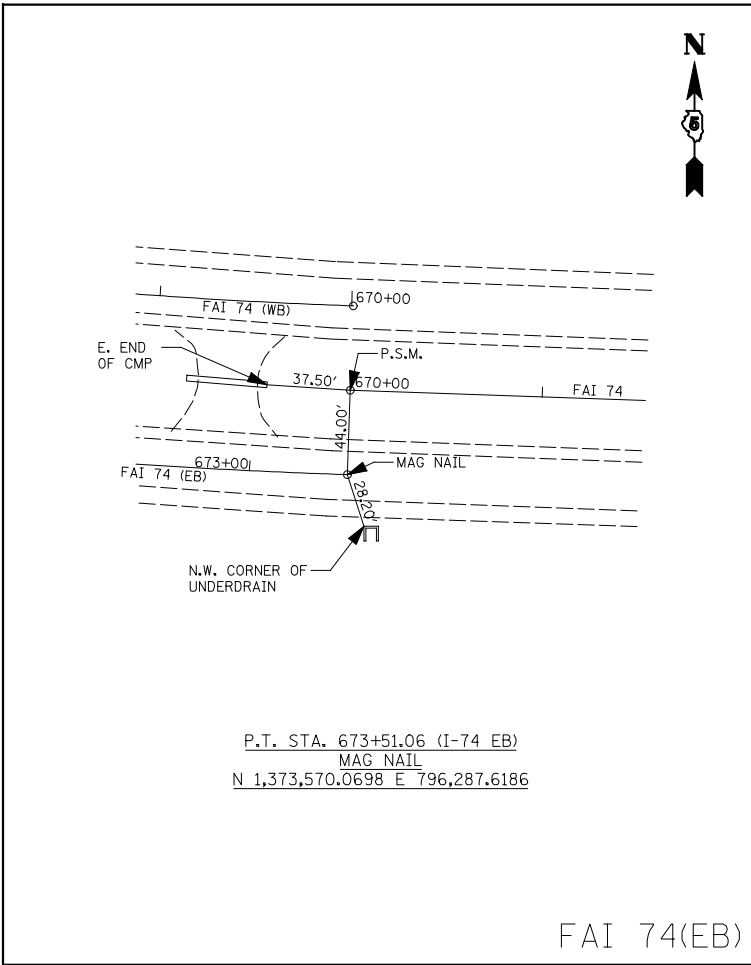
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CONSTRUCTION LAYOUT

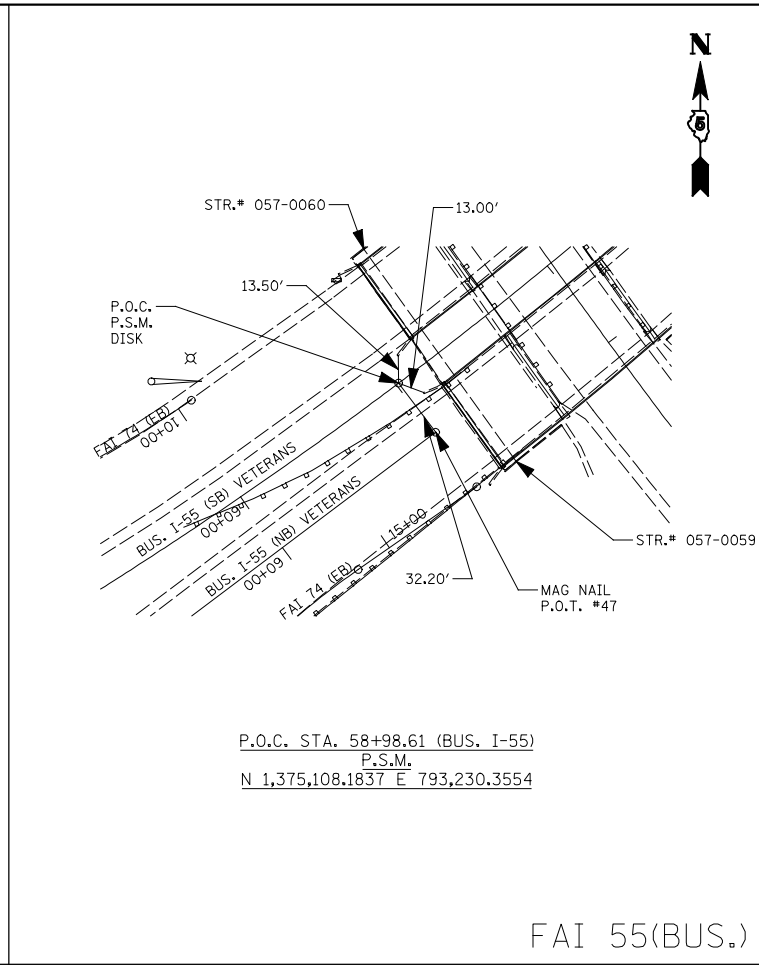
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CONTRACT 70520	1
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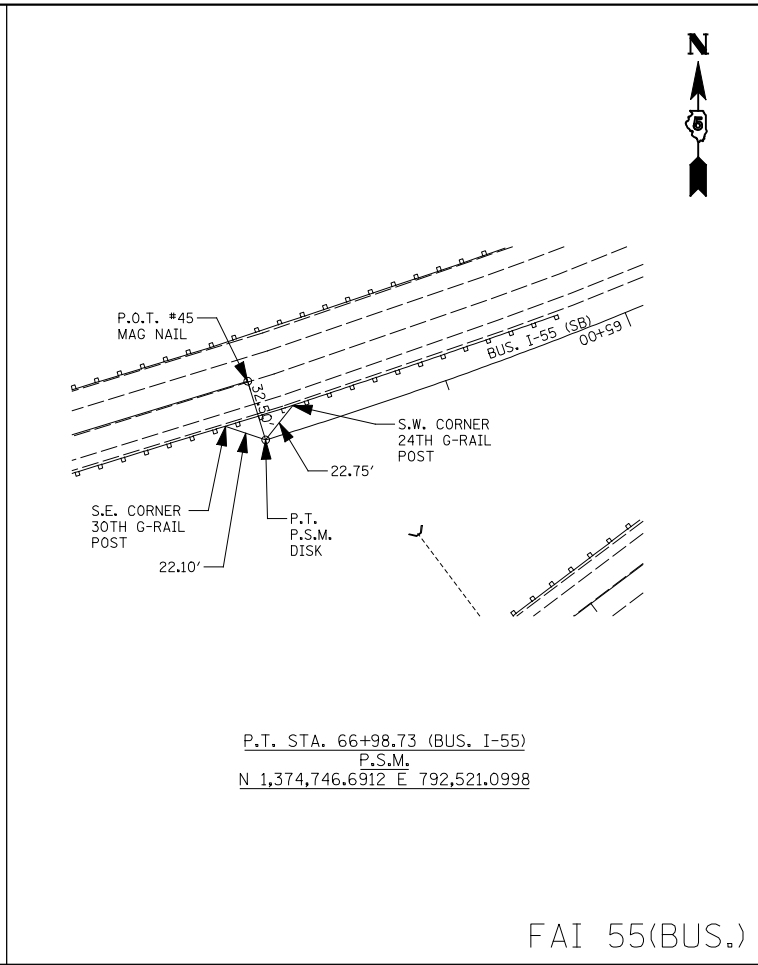
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Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 100.0000' / IN.	DRAWN -	REVISED -						55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	18
PLOT DATE = 08/09/2010 10:53:40	CHECKED -	REVISED -	REVISED -						CONTRACT NO. 70520				
DATE -	REVISED -	REVISED -	REVISED -						ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.				



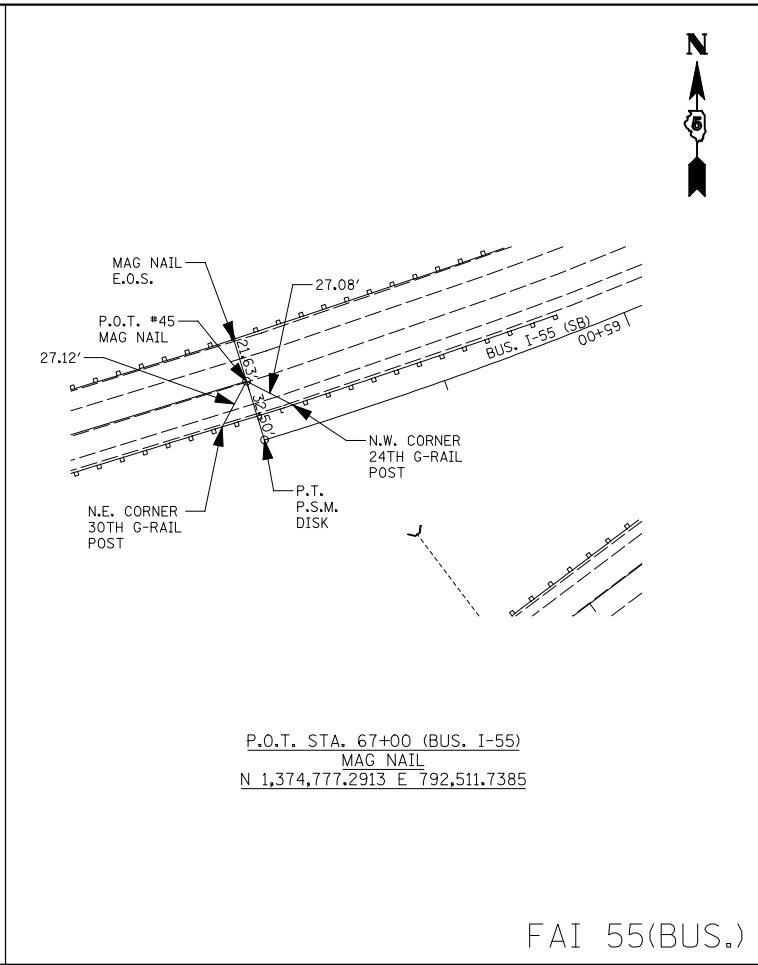
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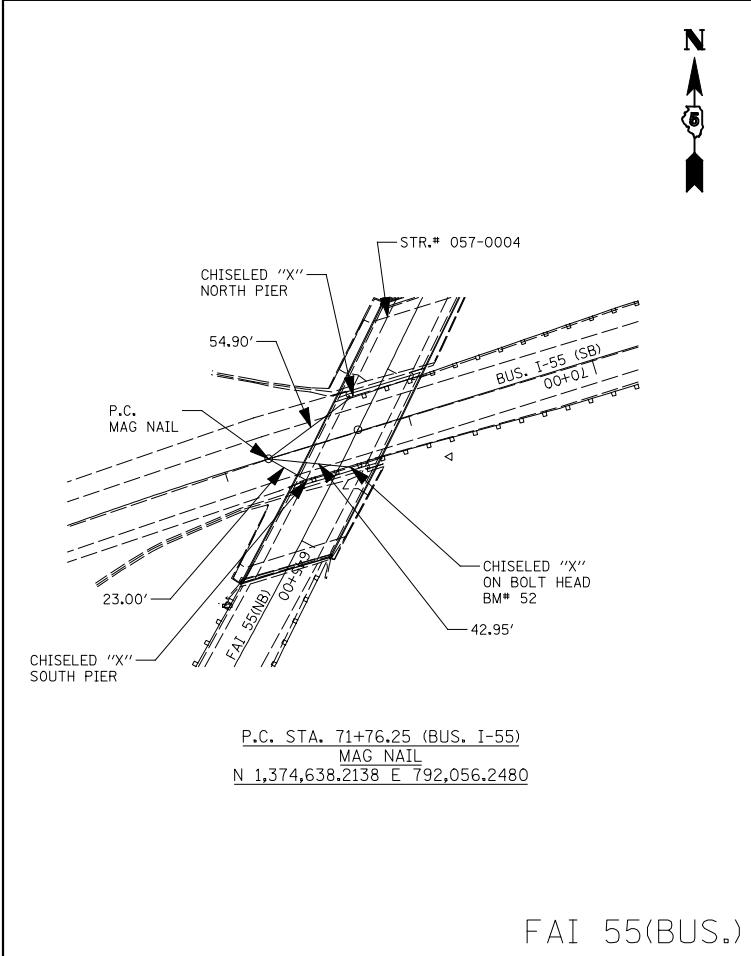
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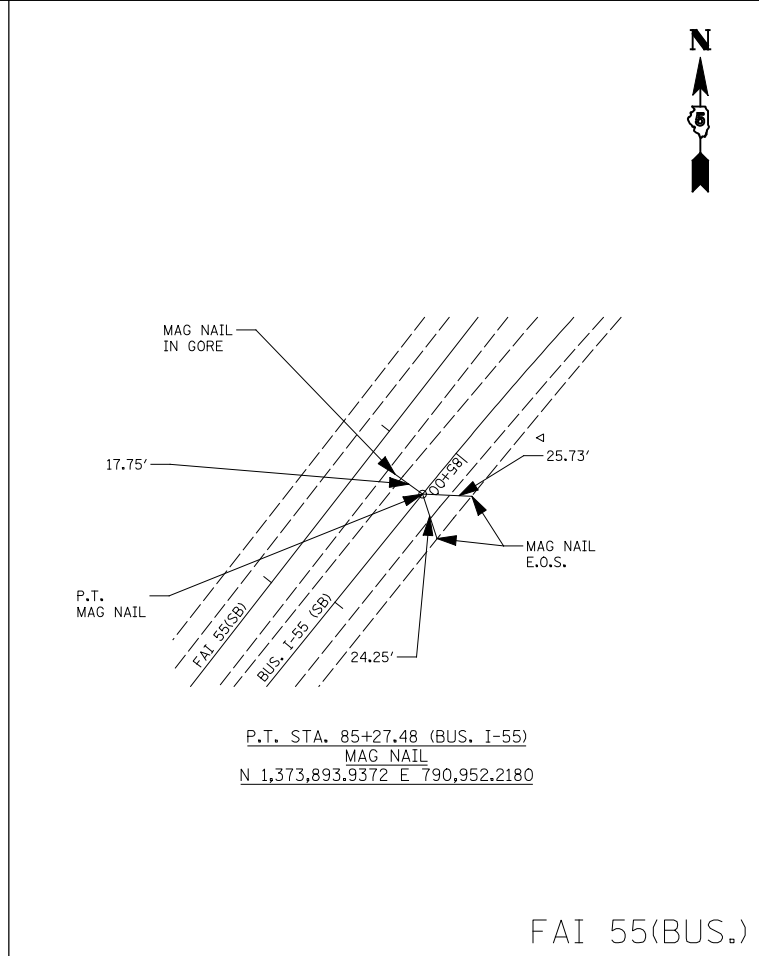
FAI 55(BUS.)



FAI 55(BUS.)



FAI 55(BUS.)



FAI 55(BUS.)

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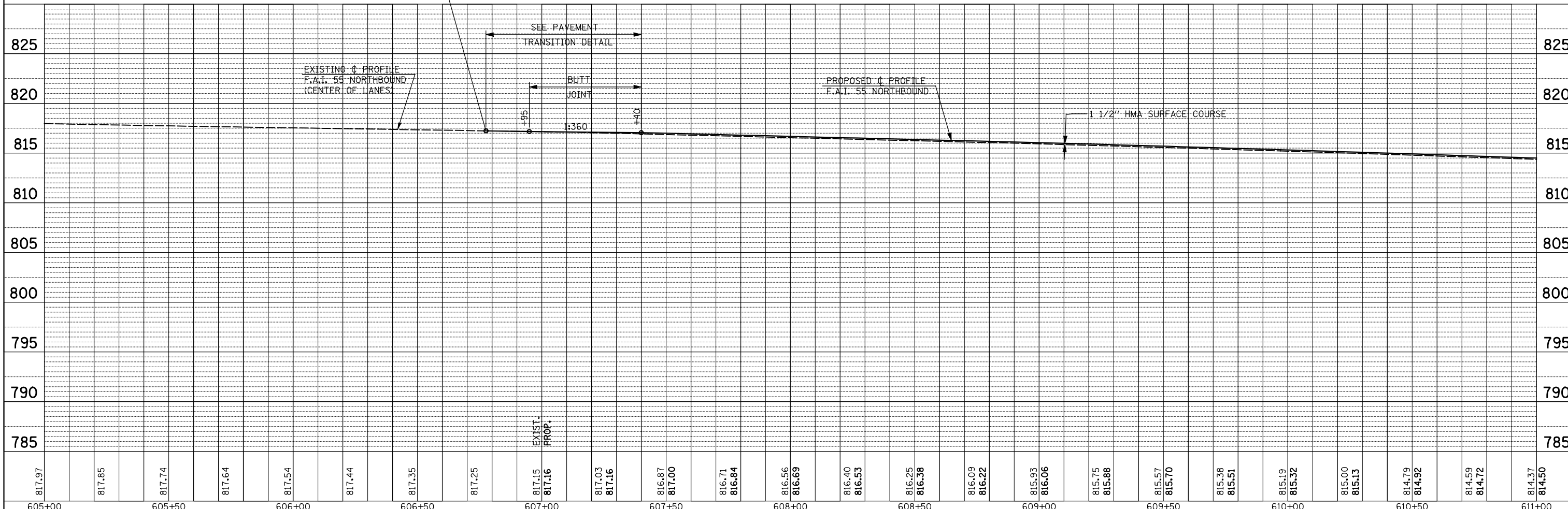
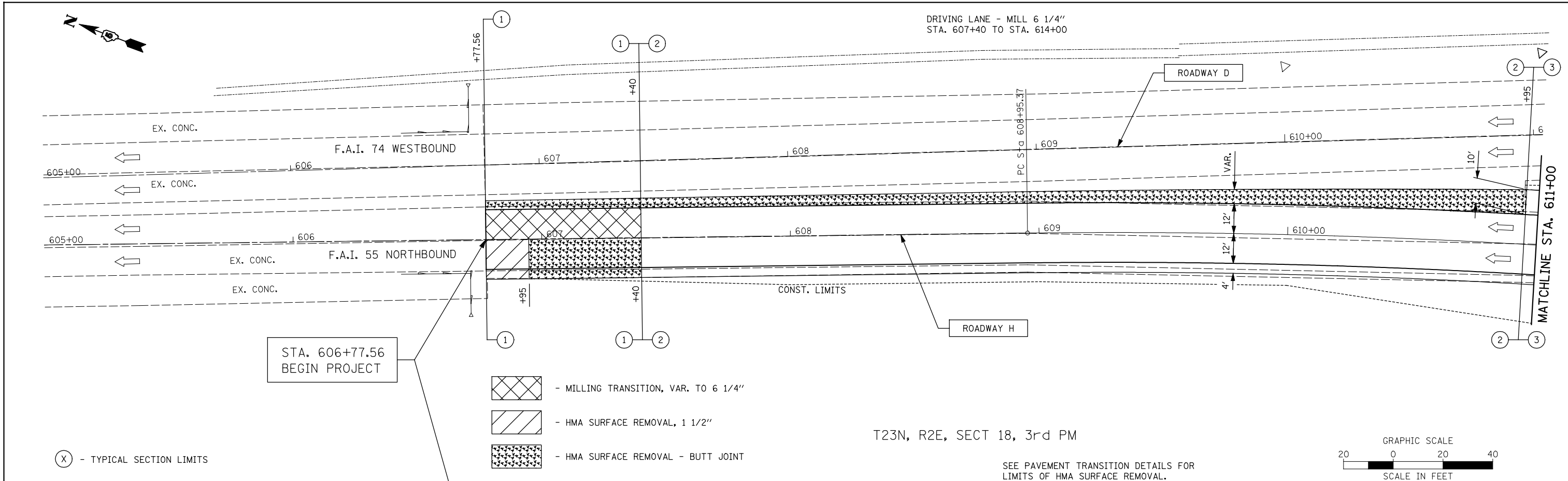
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	19
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				

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	PLOTTED		
	ALIGNED		
	CHECKED		
	CAD FILE NAME		
NOTE BOOK NO.			

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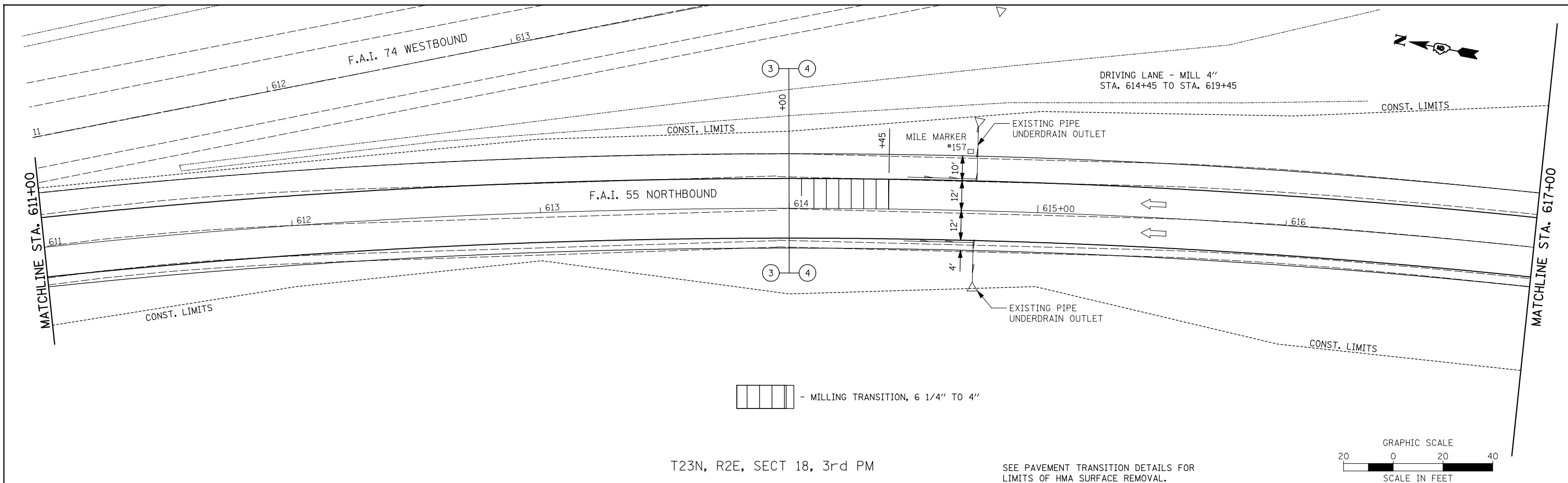


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SCALE: 1" = 20' SHEET NO. OF SHEETS STA. 605+00 TO STA. 611+00

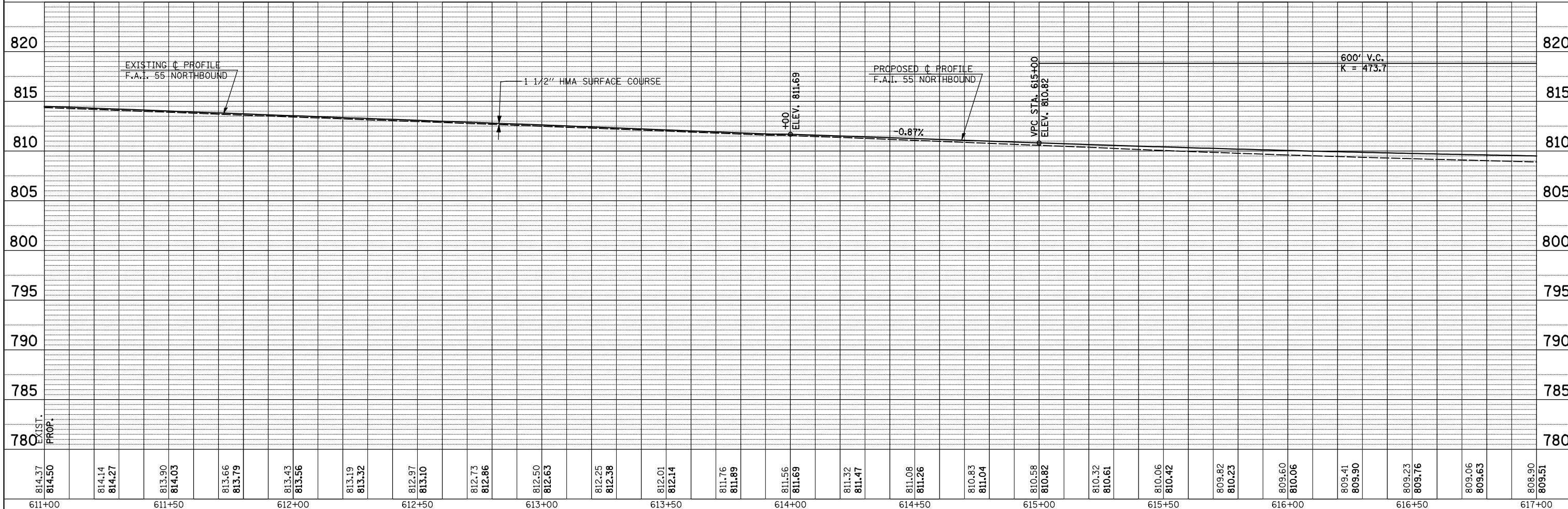
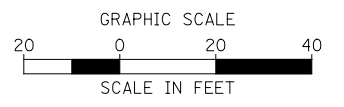
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T23N, R2E, SECT 18, 3rd PM

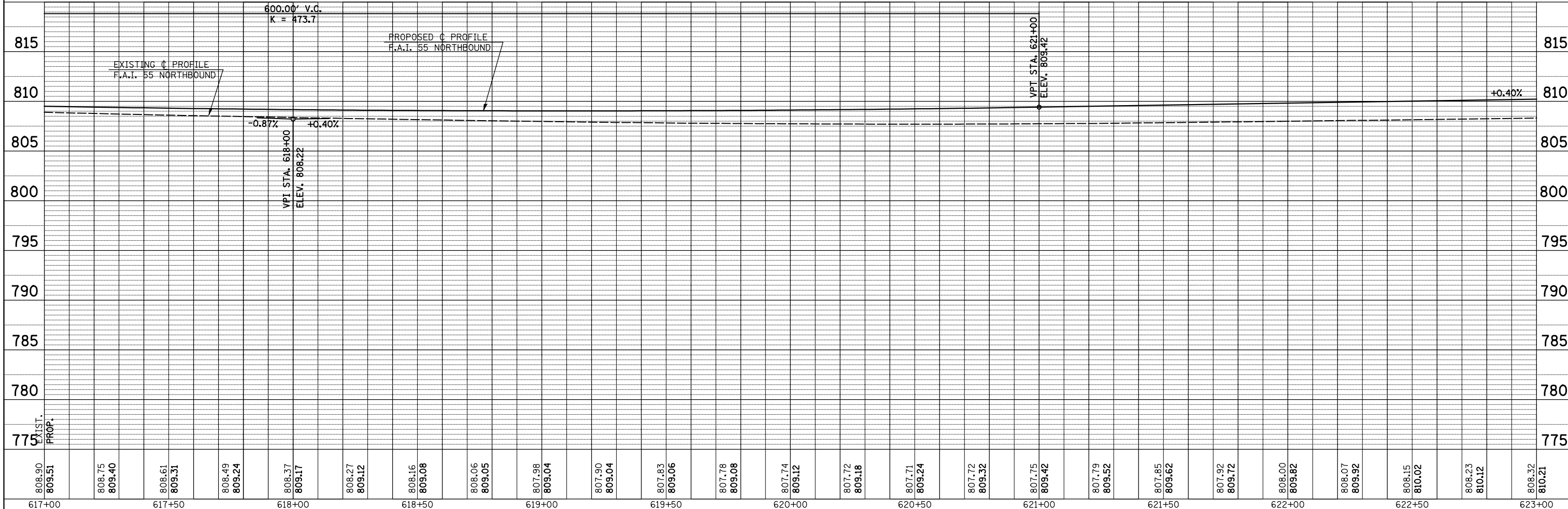
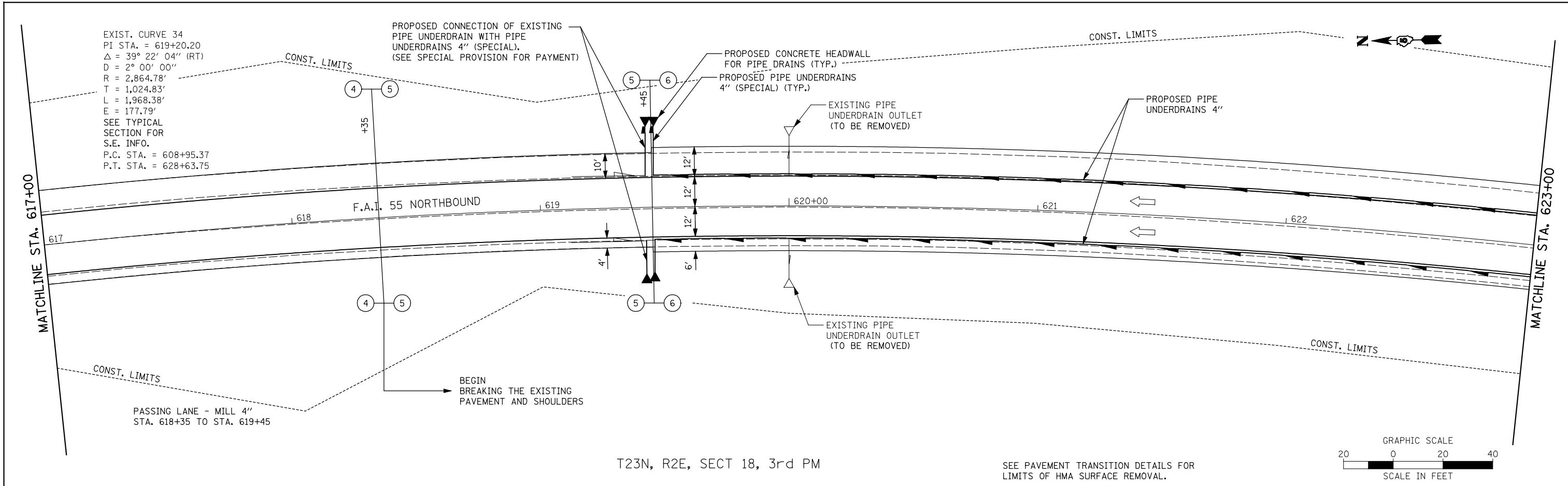
SEE PAVEMENT TRANSITION DETAILS FOR LIMITS OF HMA SURFACE REMOVAL.



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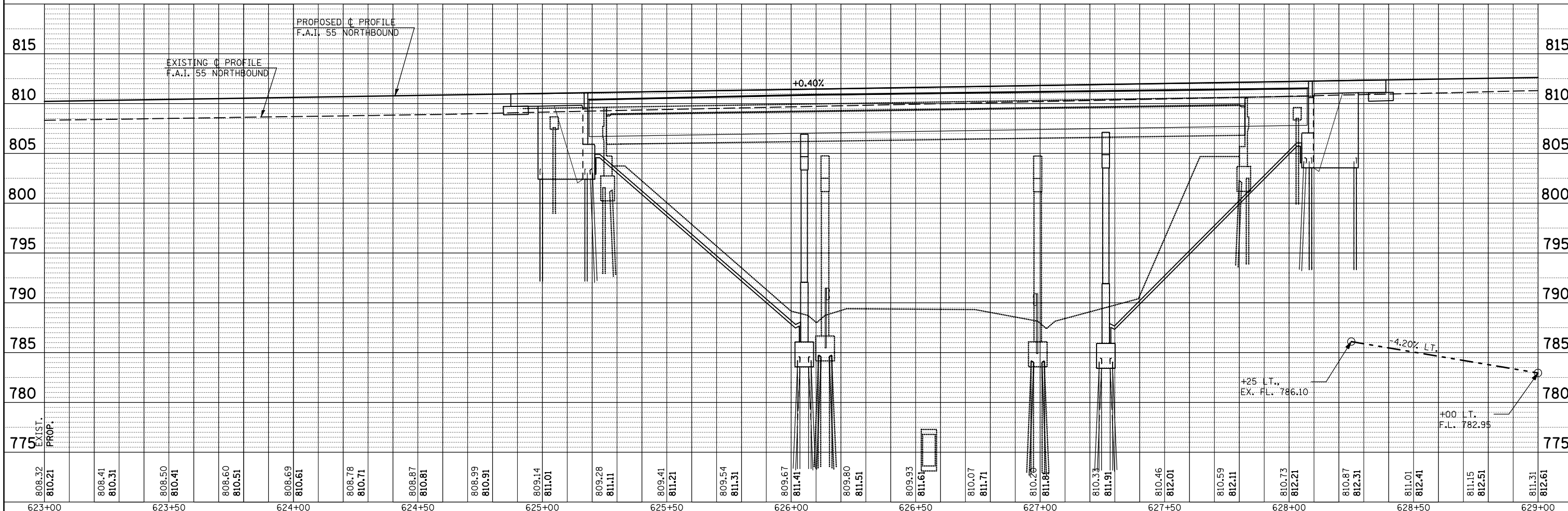
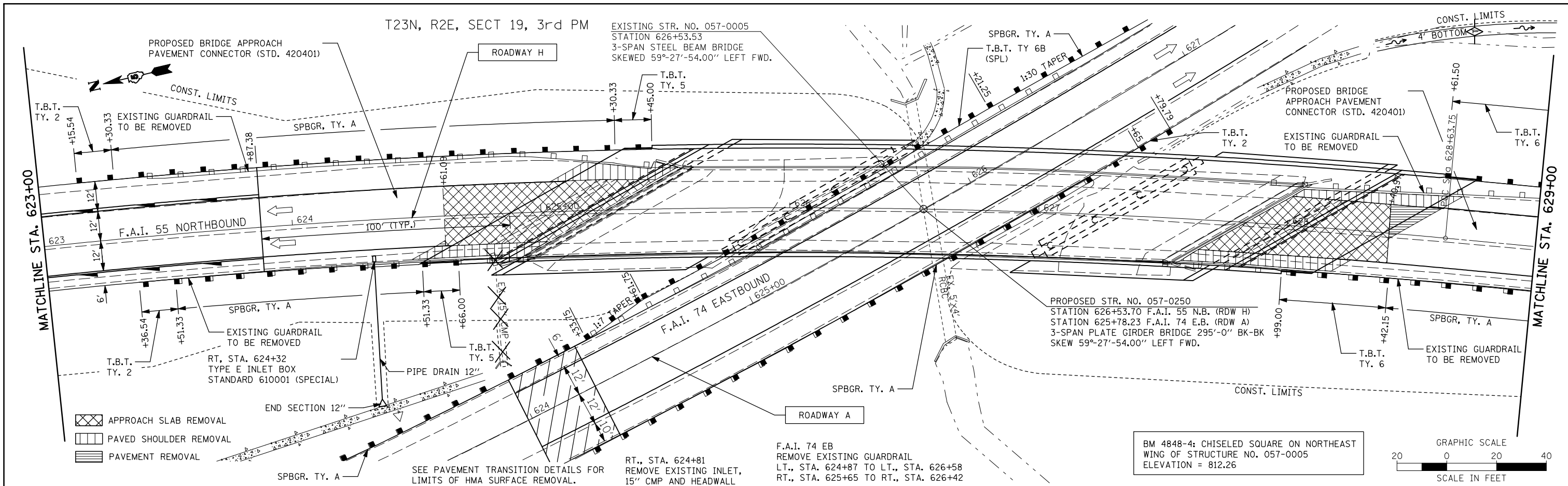
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	STRUCTURE		



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Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 40.0000' / IN.	CHECKED -	REVISED -					CONTRACT NO. 70520				
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DATE	BY

DATE	BY



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN & PROFILE F.A.I. 55 NORTHBOUND

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. 623+00 TO STA. 629+00

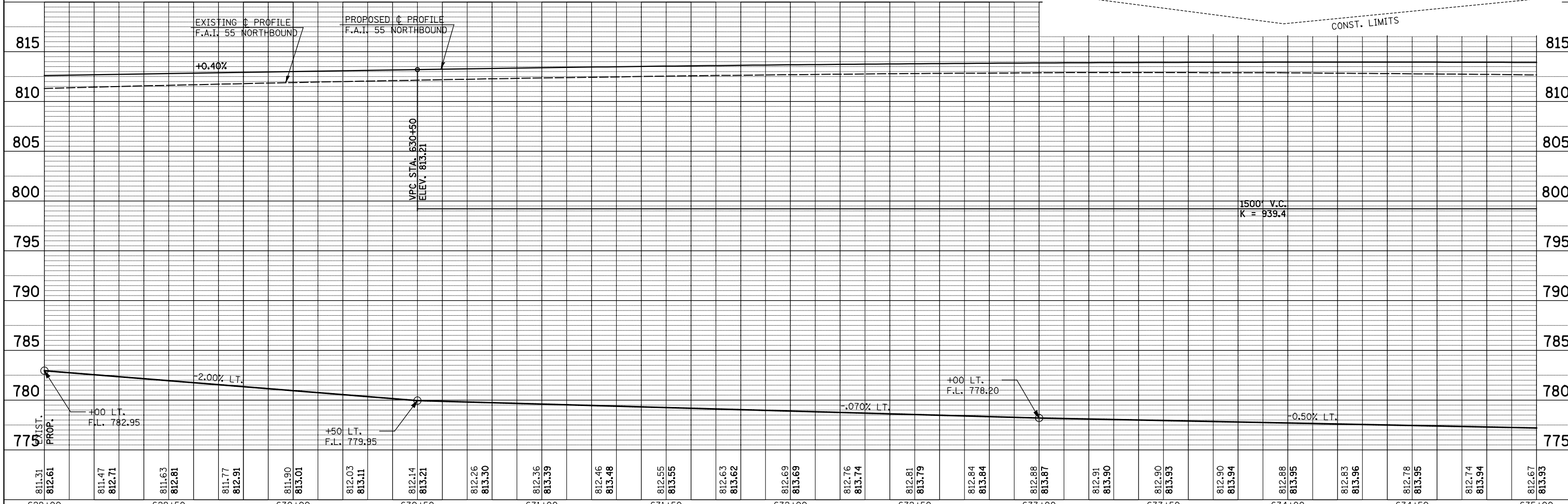
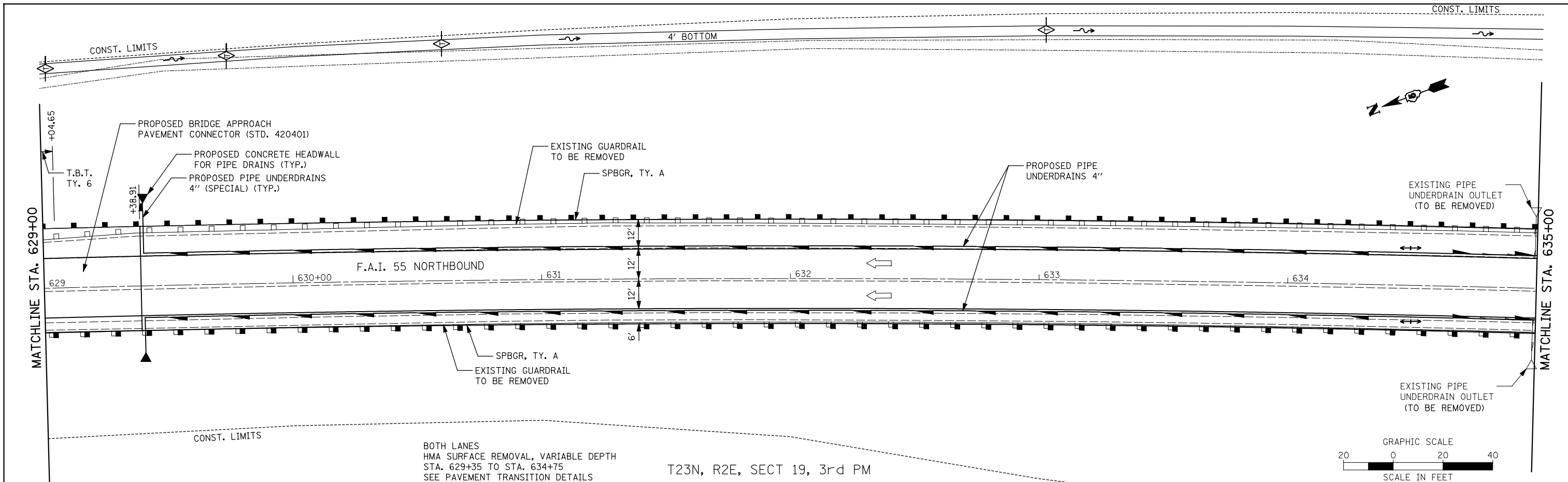
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55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	23

CONTRACT NO. 70520

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

PLAN	SURVEYED	DATE
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		DATE -	REVISED -

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN & PROFILE F.A.I. 55 NORTHBOUND

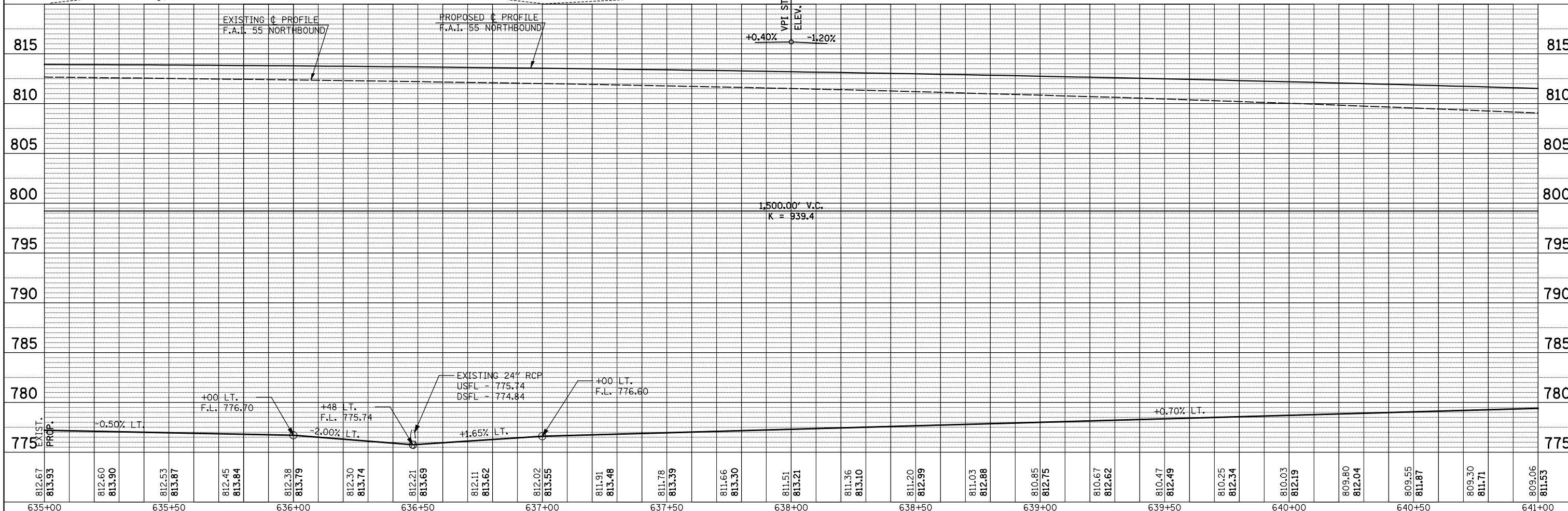
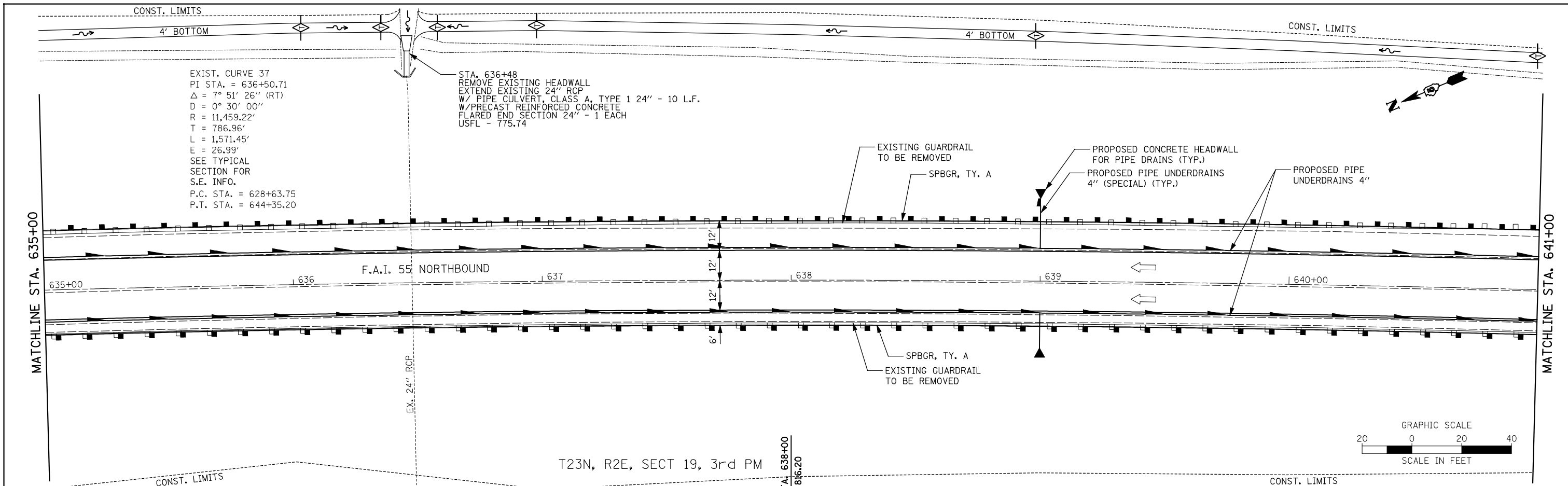
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. 629+00 TO STA. 635+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 70520

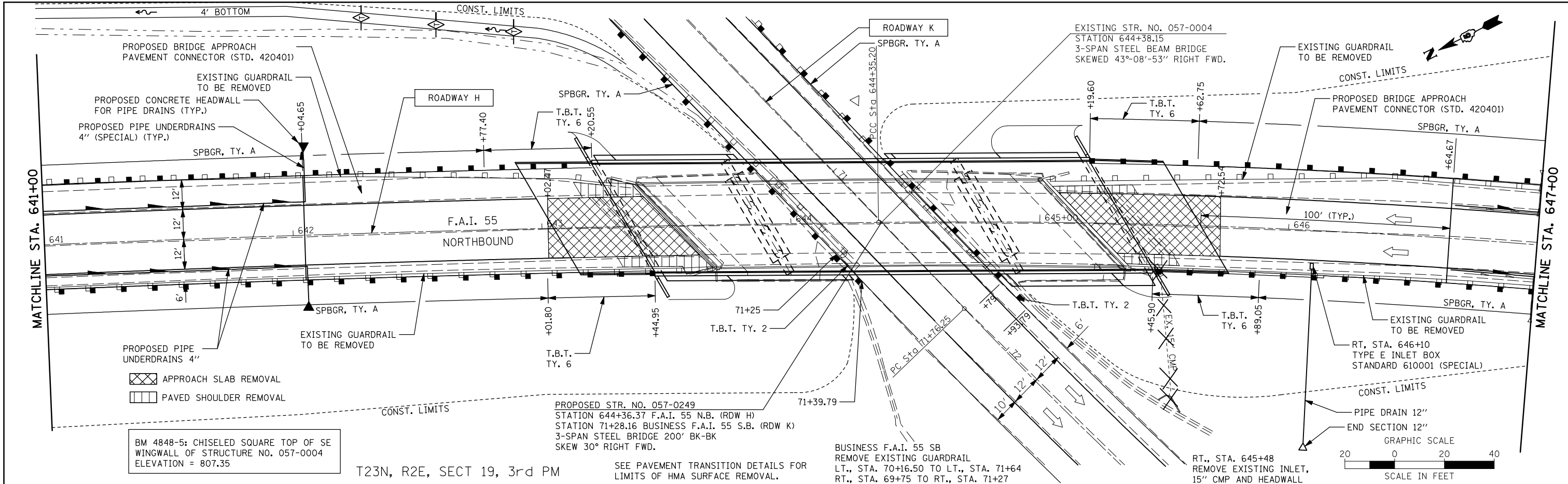
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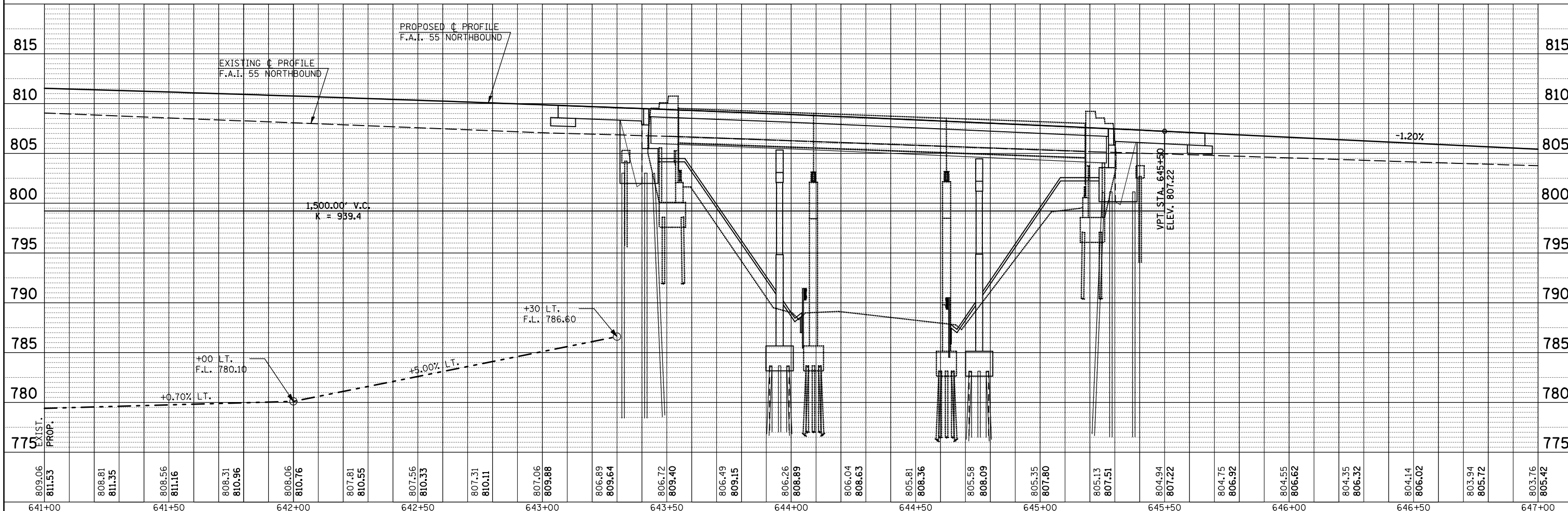


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PLAN	SURVEYED	DATE
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PROFILE	SURVEYED	DATE
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	ATTEMPTED	
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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE F.A.I. 55 NORTHBOUND

SCALE: 1" = 20'

SHEET NO. OF SHEETS STA. 641+00 TO STA. 647+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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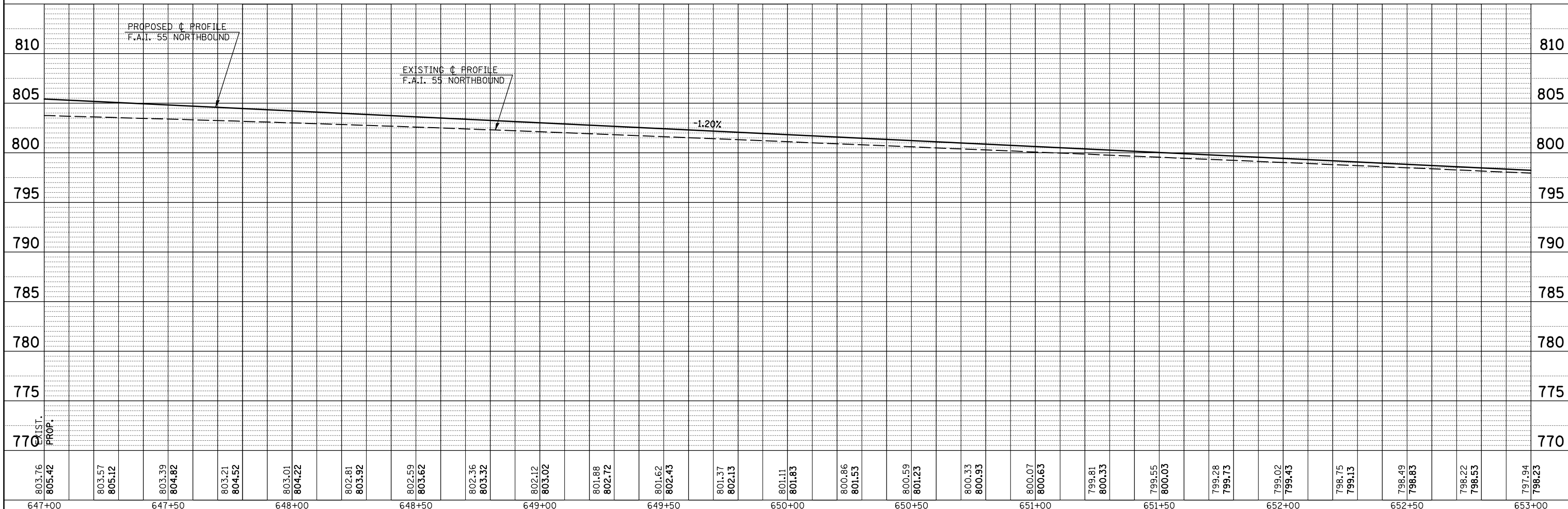
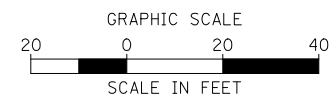
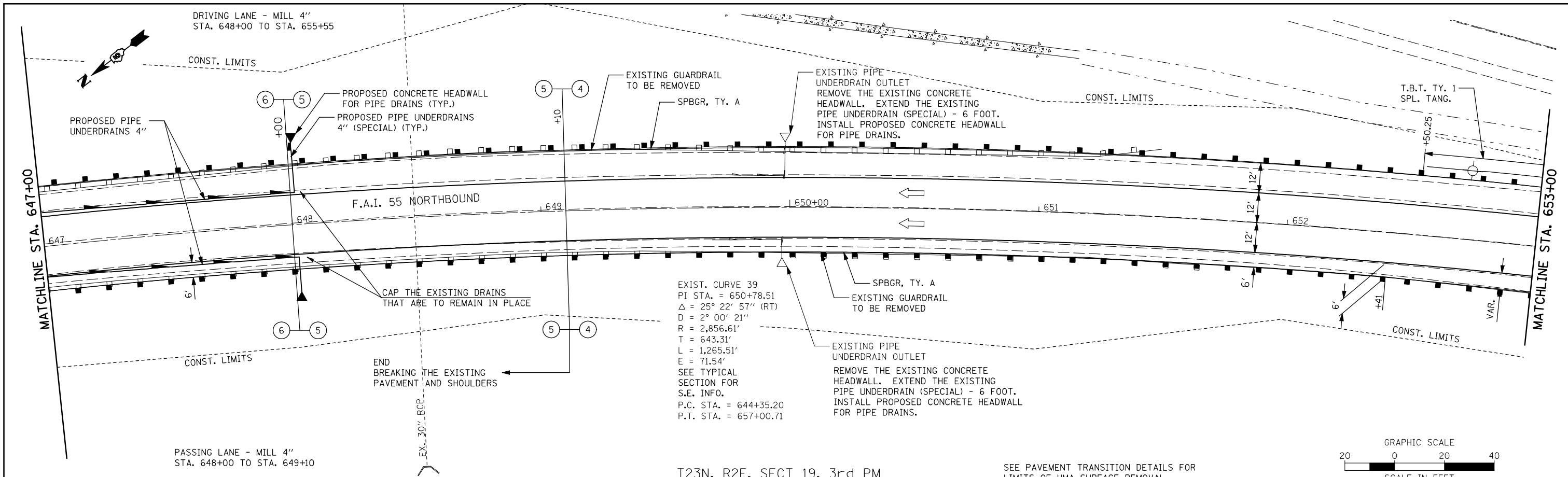
CONTRACT NO. 70520

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



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	STRUCTURE		
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

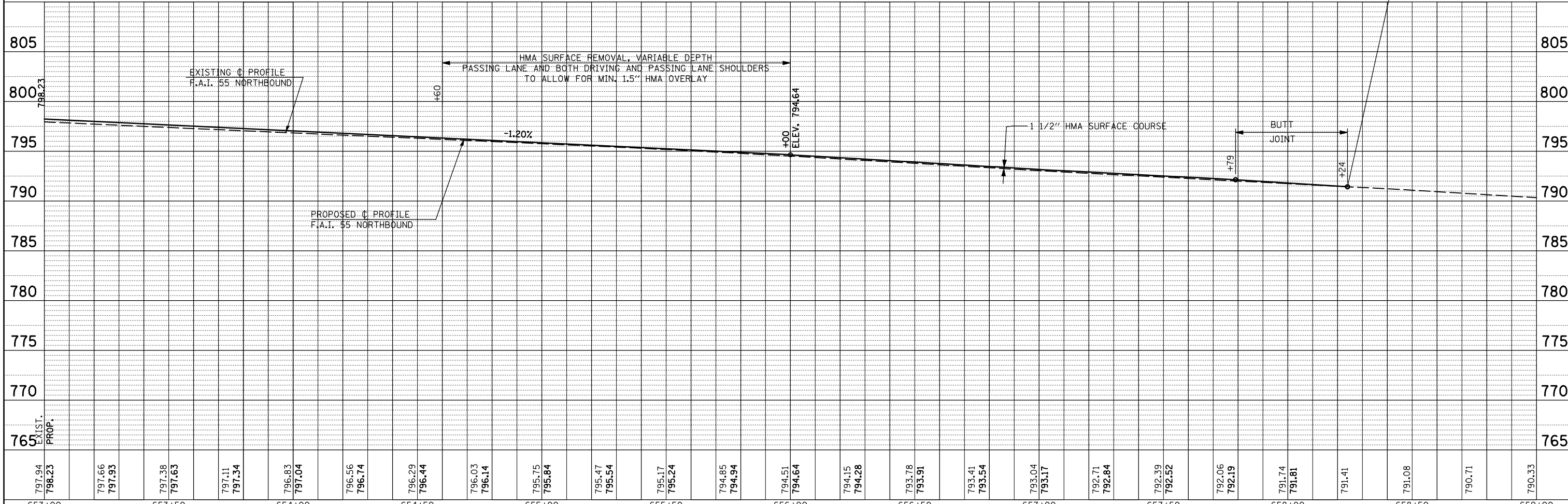
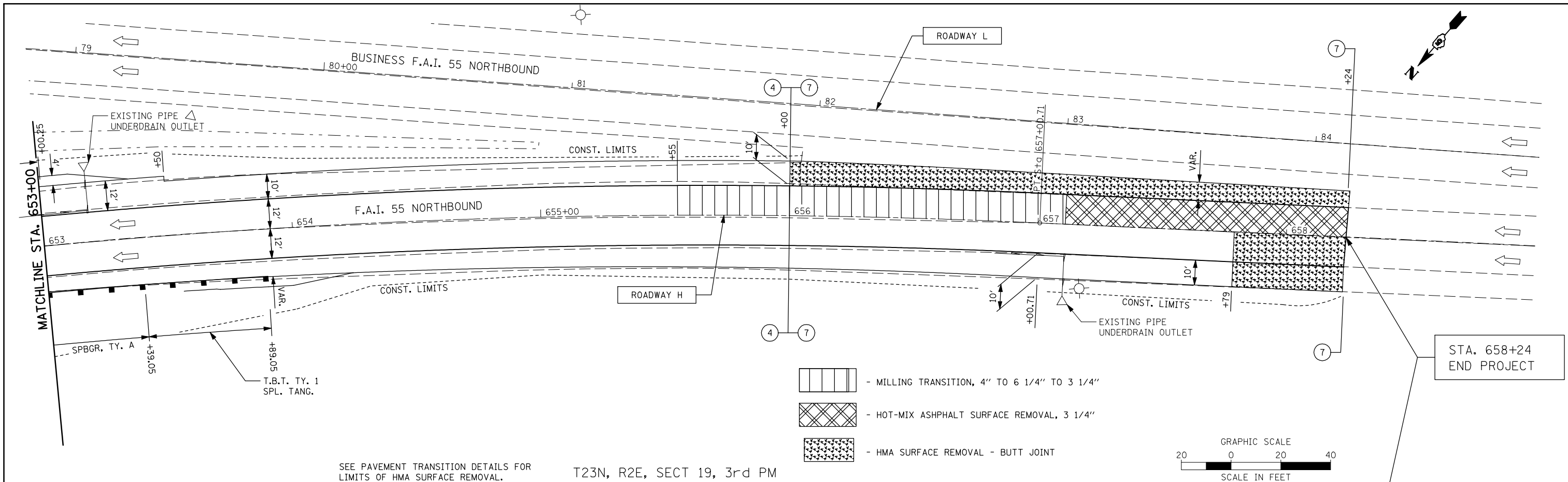
PLAN & PROFILE F.A.I. 55 NORTHBOUND

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. 647+00 TO STA. 653+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 70520				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

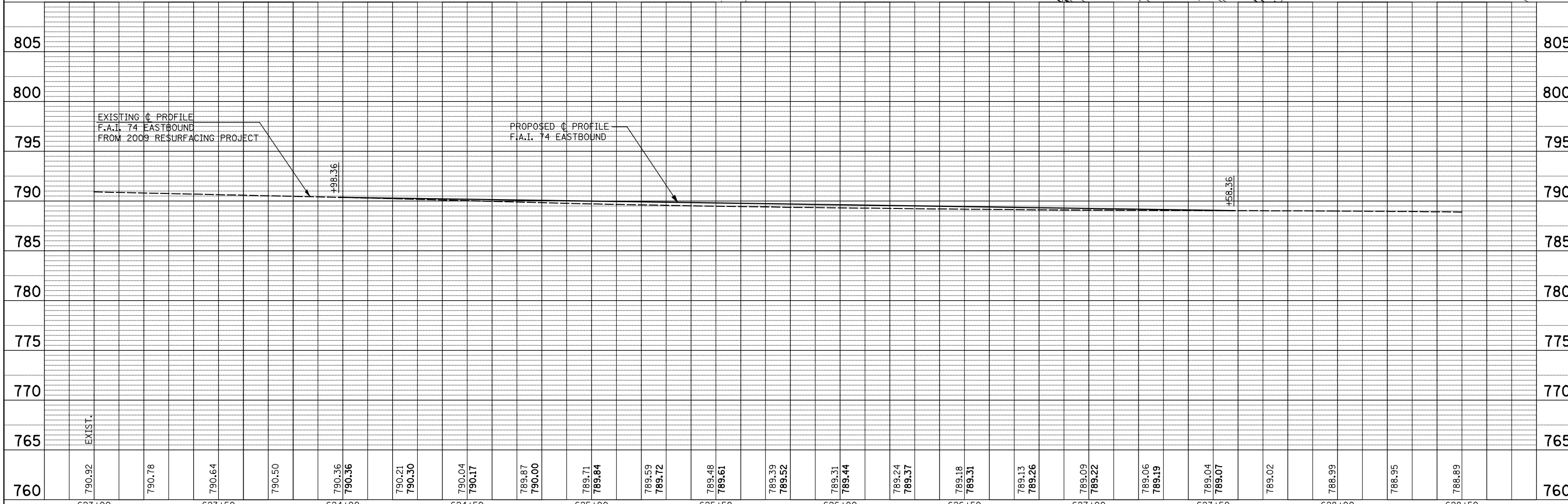
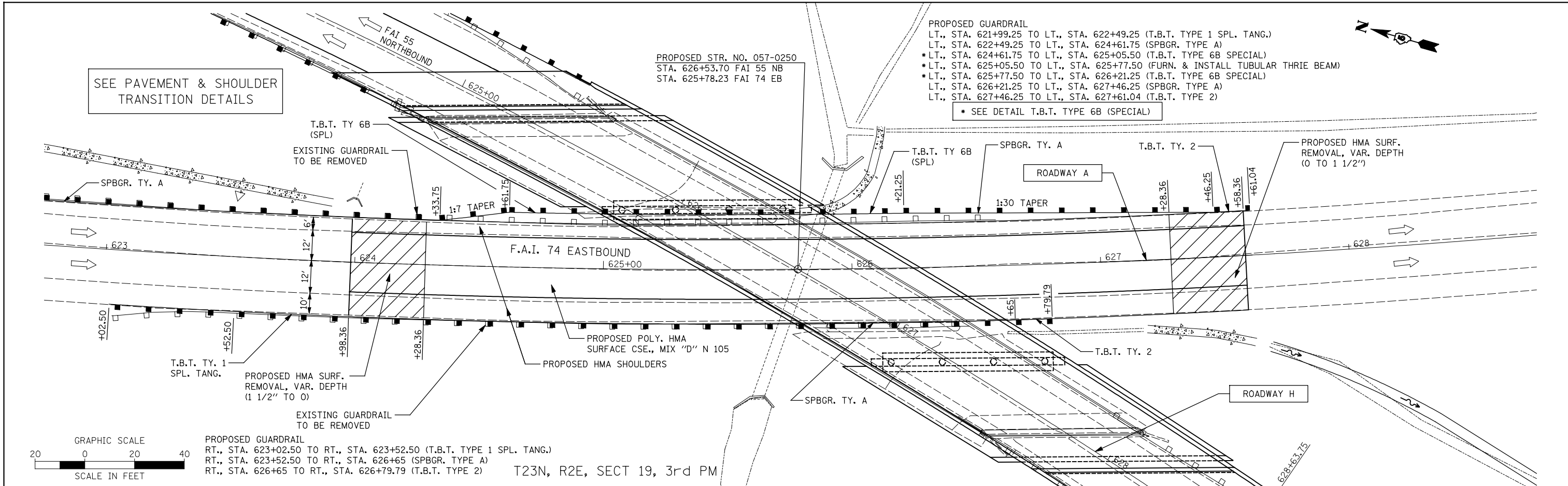
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PROFILE	SURVEYED	DATE
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	CHECKED	
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	FILE NAME	



PLAN	SURVEYED	BY	DATE
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	ALIGNED		
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NOTE BOOK NO.			

PROFILE	SURVEYED	BY	DATE
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	STRUCTURE		
NOTE BOOK NO.			



FILE NAME =	USER NAME = SJS	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE F.A.I. 74 EASTBOUND	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT				

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

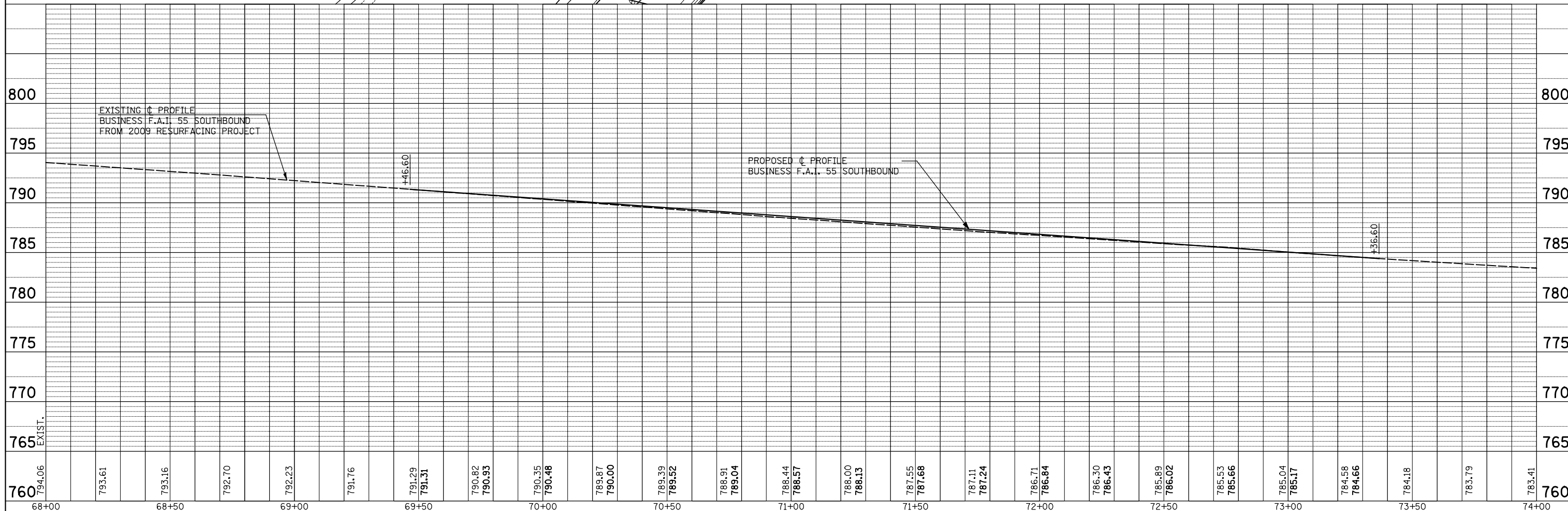
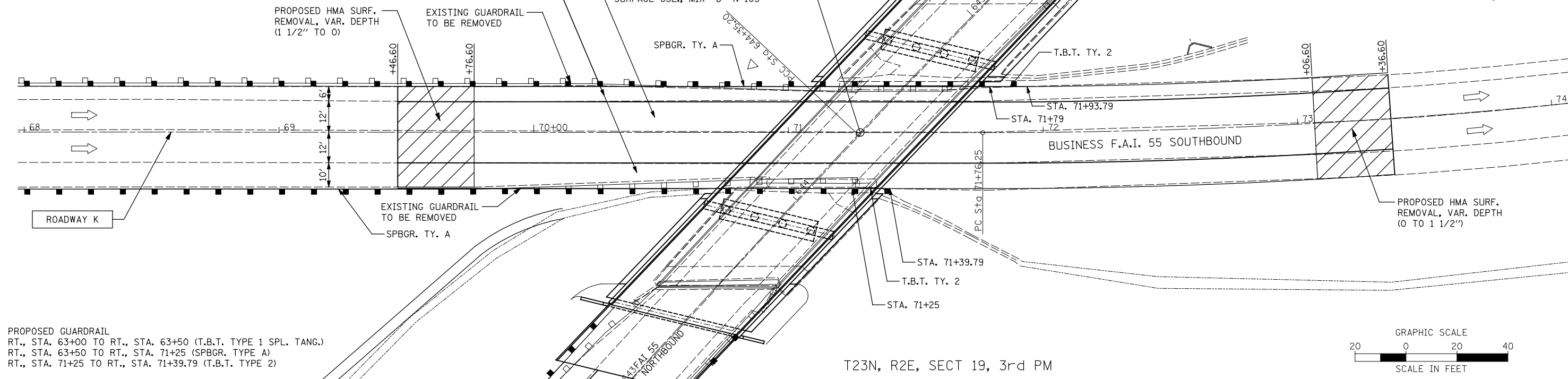
PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	ALIGNED		
	FILE NAME		
NOTE BOOK NO.			

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	STRUCTURE		
NOTE BOOK NO.			

PROPOSED GUARDRAIL
 LT., STA. 65+29 TO LT., STA. 65+79 (T.B.T. TYPE 1 SPL. TANG.)
 LT., STA. 65+79 TO LT., STA. 71+79 (SPBGR. TYPE A)
 LT., STA. 71+79 TO LT., STA. 71+93.79 (T.B.T. TYPE 2)

PROPOSED STR. NO. 057-0249
 STA. 644+36.37 FAI 55 NB
 STA. 71+28.16 BUSINESS FAI 55 SB

SEE PAVEMENT & SHOULDER
 TRANSITION DETAILS



FILE NAME =	USER NAME = SJS	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE BUSINESS F.A.I. 55 SOUTHBOUND	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
... \D570520-sh1-plnprf.dgn		DRAWN -	REVISED -			55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	30	
		CHECKED -	REVISED -			CONTRACT NO. 70520					
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
				SCALE: 1" = 20'	SHEET NO. OF SHEETS	STA. TO STA.					

STAGING PLAN I-55 NORTHBOUND

PRE-STAGE CONSTRUCTION

1.a. Using Traffic Control and Protection Standards 701400 and 701406 (Day Only), remove the existing HMA surface of the driving lane (left side based on stationing) and replace with HMA binder course as shown on the typical sections in these plans. The Contractor is restricted to removing only as much HMA as can be replaced in the same day, since I-55 Northbound is to remain open to two lanes of traffic at night during Pre-Stage Construction.

1.b. Using Traffic Control and Protection Standards 701400 and 701406 (Day Only), remove the rumble strip from (1) the passing lane shoulder of I-55 Northbound, Sta. 606+77 to Sta. 664+00 and (2) the driving lane shoulder of I-55 Business Northbound, Sta. 80+30 to Sta. 90+45, by removing a 1-1/2" X 4' wide portion of the shoulder's existing HMA surface and replacing it with 1-1/2" of HMA shoulders, as shown on the typical sections in these plans.

2. While conducting the work described above in Items 1.a. and 1.b., use Traffic Control and Protection Standards 701400 and 701406 to direct traffic in the I-74 Westbound and I-55 Business Northbound lanes away from the work areas adjacent to I-55 Northbound. Open both roadways to two lanes of traffic at night.

STAGE I

Upon completion of Pre-Stage Construction:

1. Use Traffic Control and Protection Standards 701400 and 701406 during the placing of the temporary concrete barrier as shown in Standard 701402 and in these plans, thereby diverting traffic on I-55 Northbound to the passing lane (right side based on stationing).

2.a. On the north end of the project, use Traffic Control and Protection Standards 701400 and 701406 to direct I-74 Westbound traffic away from the work area adjacent to I-55 Northbound during daytime operations. Open I-74 Westbound to two lanes of traffic at night.

2.b. On the south end of the project, divert I-55 Northbound and I-55 Business traffic to the right two lanes (in the direction of travel) using Standards 701400 and 701401. Set up lane shifts, as shown in these plans, to direct the I-55 Business Northbound traffic away from the I-55 Northbound work area. Maintain this lane shift throughout the staging of the work on I-55 Northbound, keeping I-55 Business open to two lanes of traffic at all times.

3. Begin Stage I structure work, grade raise, paving operations and other work items in the I-55 Northbound driving lane (left side based on stationing), as detailed in these plans. When work on the structures affect traffic on I-74 Eastbound and I-55 Business Southbound, use Traffic Control and Protection (Special) Locations 1 & 2 to control traffic on these roadways. During the nighttime removal and placement of the girders on the structures over the I-74 Eastbound and I-55 Business Southbound lanes, these roads will be closed and traffic detoured as shown on the detail Traffic Control and Protection for Temporary Detour" in these plans.

STAGE II

Upon completion of Stage I:

1. Relocate Traffic Control and Protection Standards 701400 and 701402, redirecting traffic on I-55 Northbound to the driving lane (left side based on stationing), as detailed in these plans and according to the various standards shown.

2. On the north end, use Traffic Control and Protection Standards 701400 and 701401 to direct the I-74 Westbound traffic away from merging I-55 Northbound traffic.

3. Complete work on the structures, grade raise, paving operations and other work items for the I-55 Northbound passing lane (right side based on stationing), as detailed in these plans. When work on the structures affect traffic on I-74 Eastbound and I-55 Business Southbound, use Traffic Control and Protection (Special) Locations 1 & 2 to control traffic on these roadways. During the nighttime removal and placement of the girders on the structures over the I-74 Eastbound and I-55 Business Southbound lanes, these roads will be closed and traffic detoured as shown on the detail "Traffic Control and Protection for Temporary Detour" in these plans.

4. After all the overhead structure work is complete and all the concrete barriers along the existing pavement beneath the structures have been removed, undertake and complete the proposed HMA surface removal and the placement of the proposed polymerized HMA surface course (and related HMA shoulder work) on I-74 Eastbound under Structure No. 057-0250 and on I-55 Business Southbound under Structure No. 057-0249 (See Pavement and Shoulder Transition Details). This HMA work shall be done in accord with Traffic Control and Protection Standard 701421 on I-55 Business Southbound and Traffic Control and Protection Standard 701406 on I-74 Eastbound. The Contractor is required to complete the HMA surface removal and HMA surface and shoulder placement for each roadway in a single day.

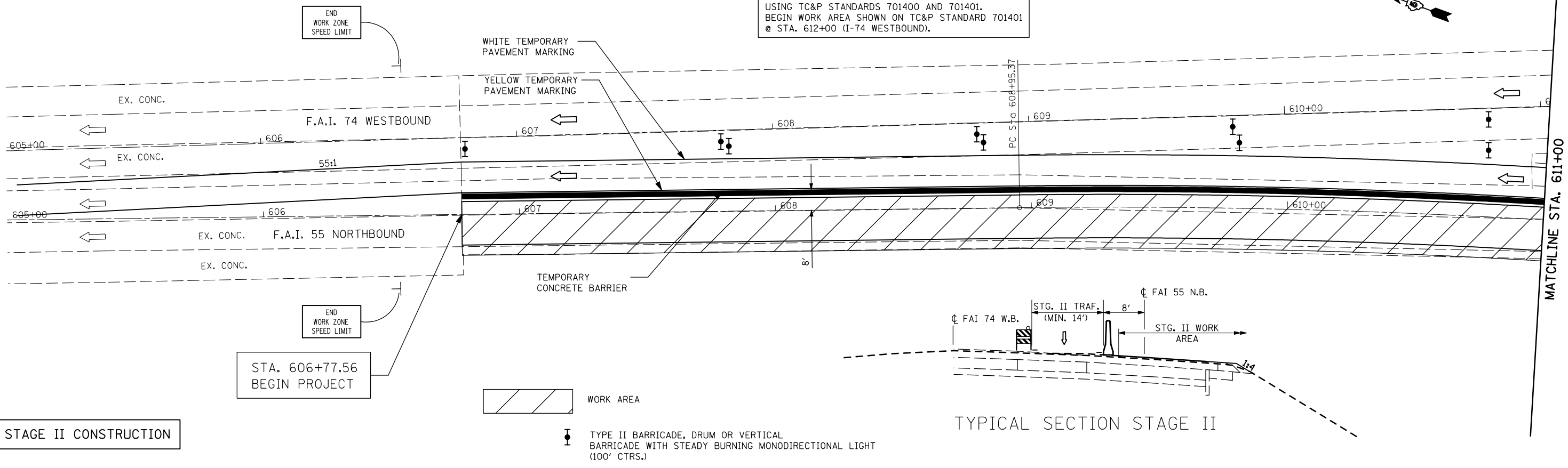
STAGE III

Upon Completion of Stage II:

Remove traffic control items and complete all remaining work.

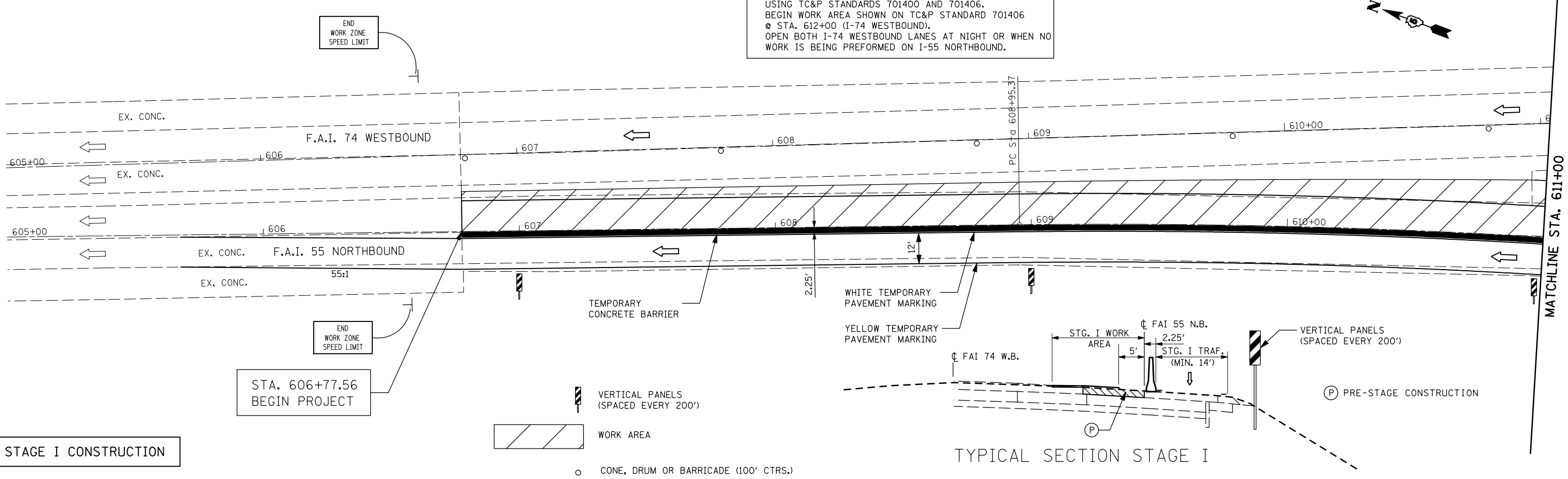
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ct:\pw\work\pwsdot\keysrb\0101450\0570520-sht-staging.dgn		DRAWN -	REVISED -			55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	31	
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 40.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 70520					
	PLOT DATE = 8/18/2010	DATE -	REVISED -			SCALE: 1" = 20'		SHEET NO. OF SHEETS		ILLINOIS FED. AID PROJECT	

DIRECT TRAFFIC ON I-74 TO OUTSIDE LANE AWAY FROM MERGING I-55 NORTHBOUND TRAFFIC. USING TC&P STANDARDS 701400 AND 701401. BEGIN WORK AREA SHOWN ON TC&P STANDARD 701401 @ STA. 612+00 (I-74 WESTBOUND).



STAGE II CONSTRUCTION

DIRECT TRAFFIC ON I-74 TO OUTSIDE LANE WHEN WORK IS BEING PERFORMED ON I-55 NORTHBOUND. USING TC&P STANDARDS 701400 AND 701406. BEGIN WORK AREA SHOWN ON TC&P STANDARD 701406 @ STA. 612+00 (I-74 WESTBOUND). OPEN BOTH I-74 WESTBOUND LANES AT NIGHT OR WHEN NO WORK IS BEING PERFORMED ON I-55 NORTHBOUND.



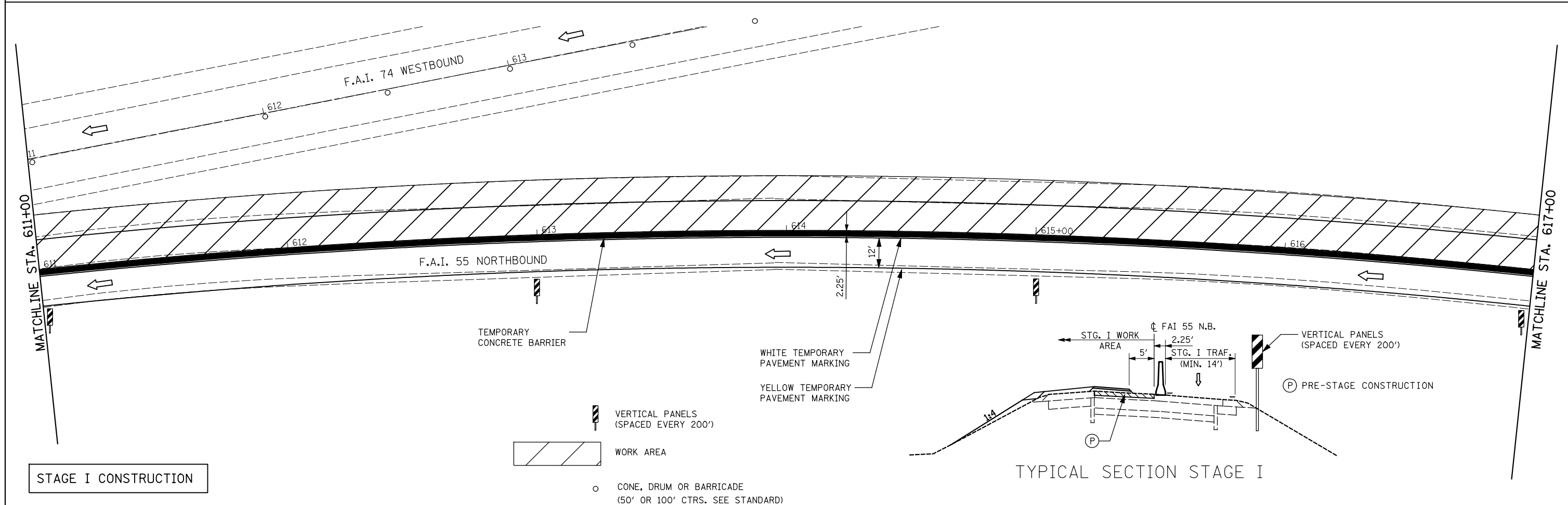
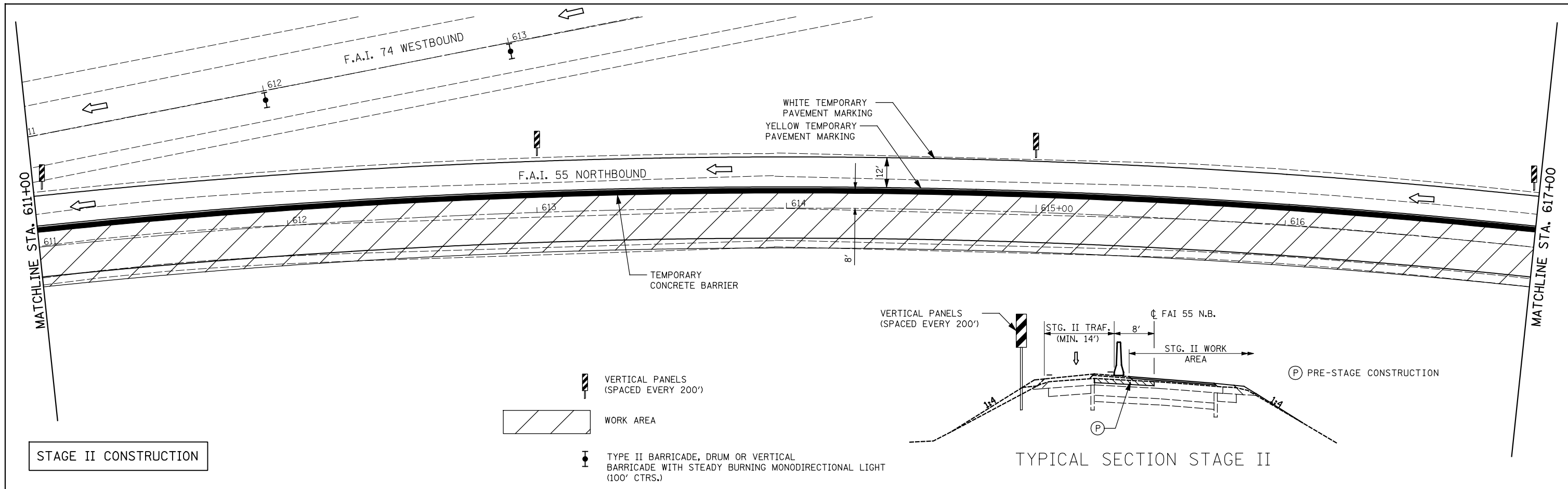
STAGE I CONSTRUCTION

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		CHECKED -	REVISED -
		DATE -	REVISED -

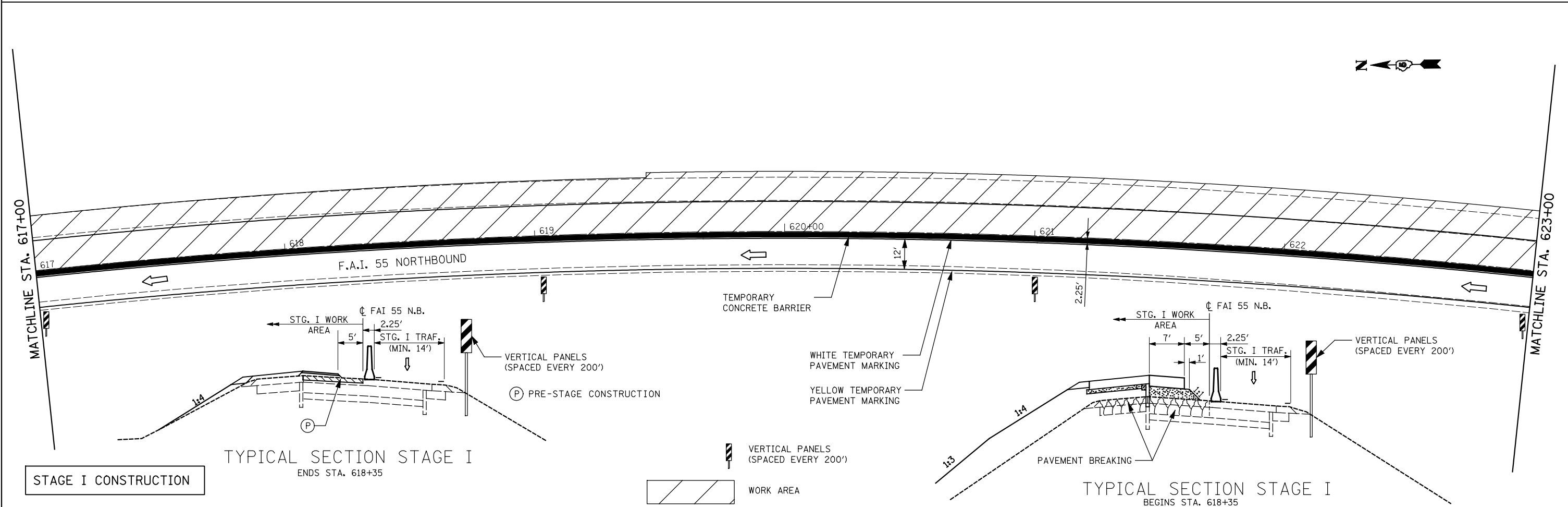
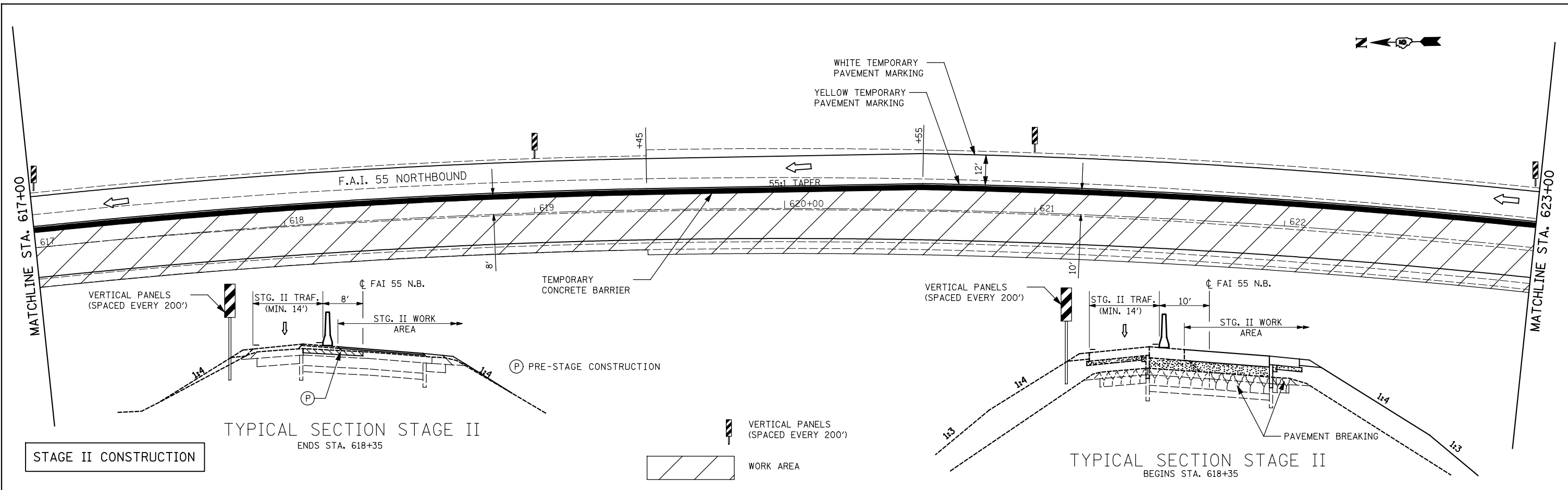
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGING PLANS F.A.I. 55 NORTHBOUND
SCALE: 1" = 20'
SHEET NO. OF SHEETS STA. 605+00 TO STA. 611+00

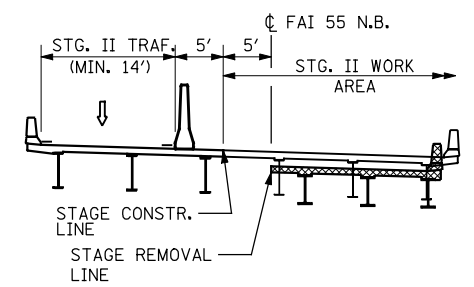
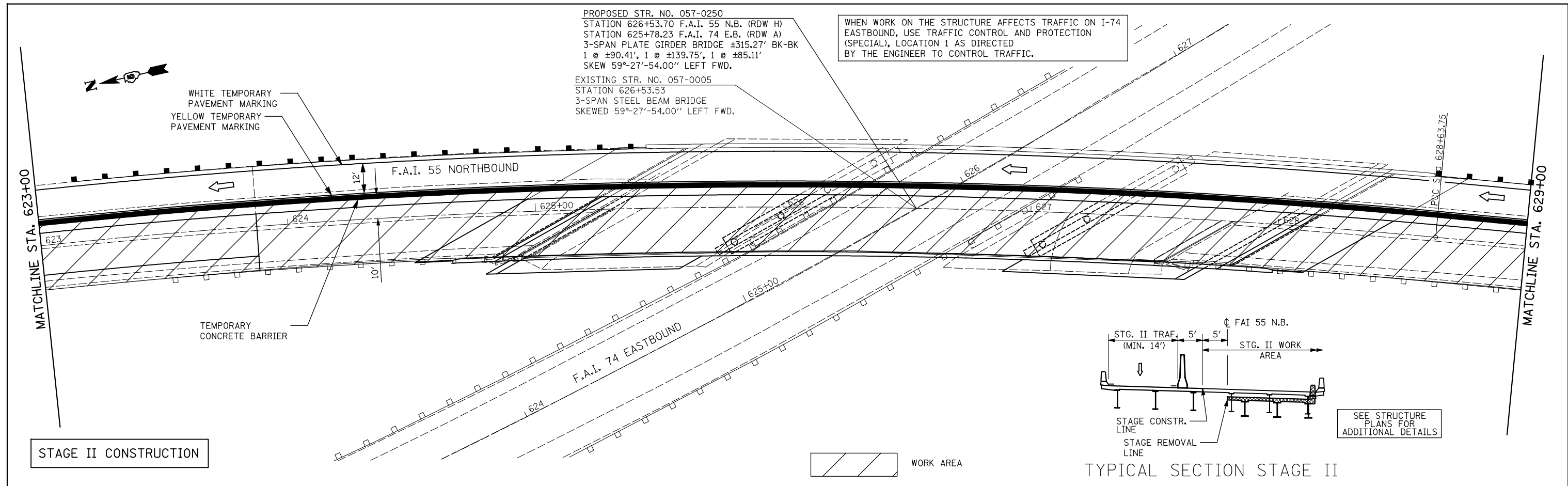
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55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	32
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				



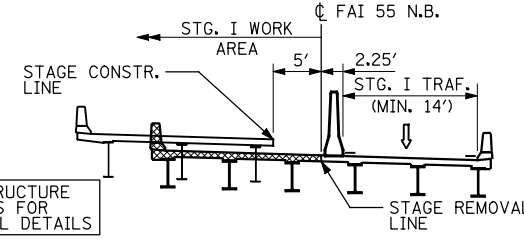
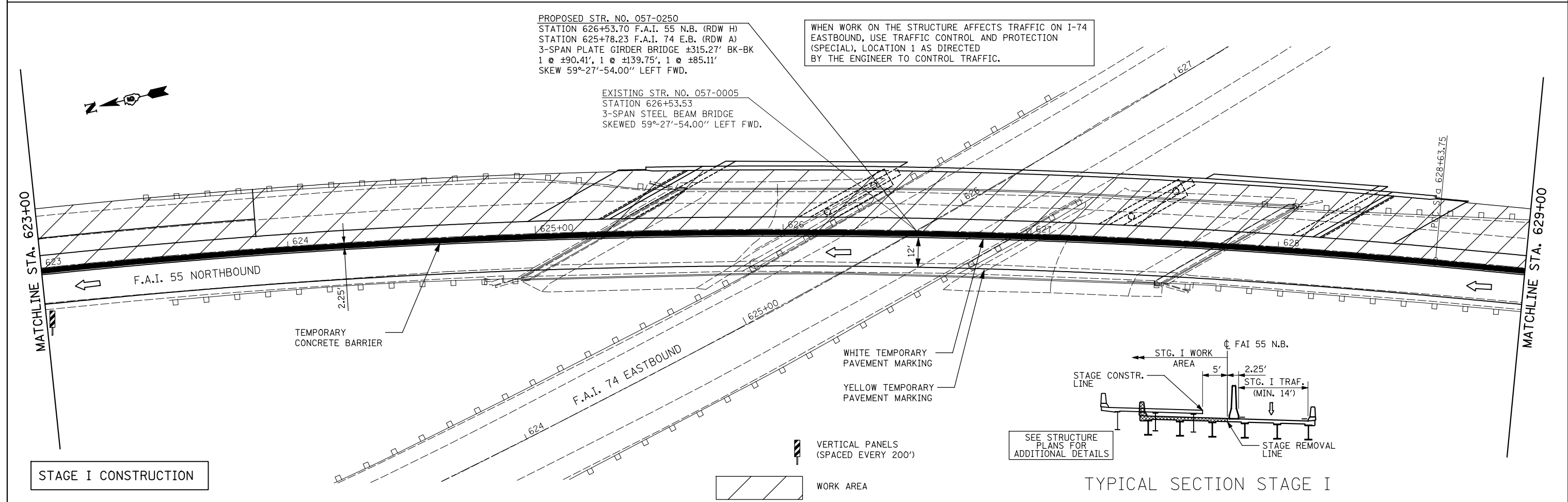
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Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 40.0000' / IN.	DRAWN -	REVISED -		SCALE: 1" = 20'	SHEET NO.	OF	SHEETS	STA. 611+00 TO STA. 617+00	CONTRACT NO. 70520		
PLOT DATE = 08/09/2010 10:55:08	CHECKED -	REVISOR -	REVISOR -		ILLINOIS FED. AID PROJECT							
DATE -	DATE -	REVISOR -	REVISOR -									



FILE NAME =	USER NAME = SJS	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGING PLANS F.A.I. 55 NORTHBOUND			F.A.I. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = 08/09/2010 10:55:09	DATE -	REVISED -	REVISED -		SHEET NO. OF SHEETS STA. 617+00 TO STA. 623+00			ILLINOIS FED. AID PROJECT				

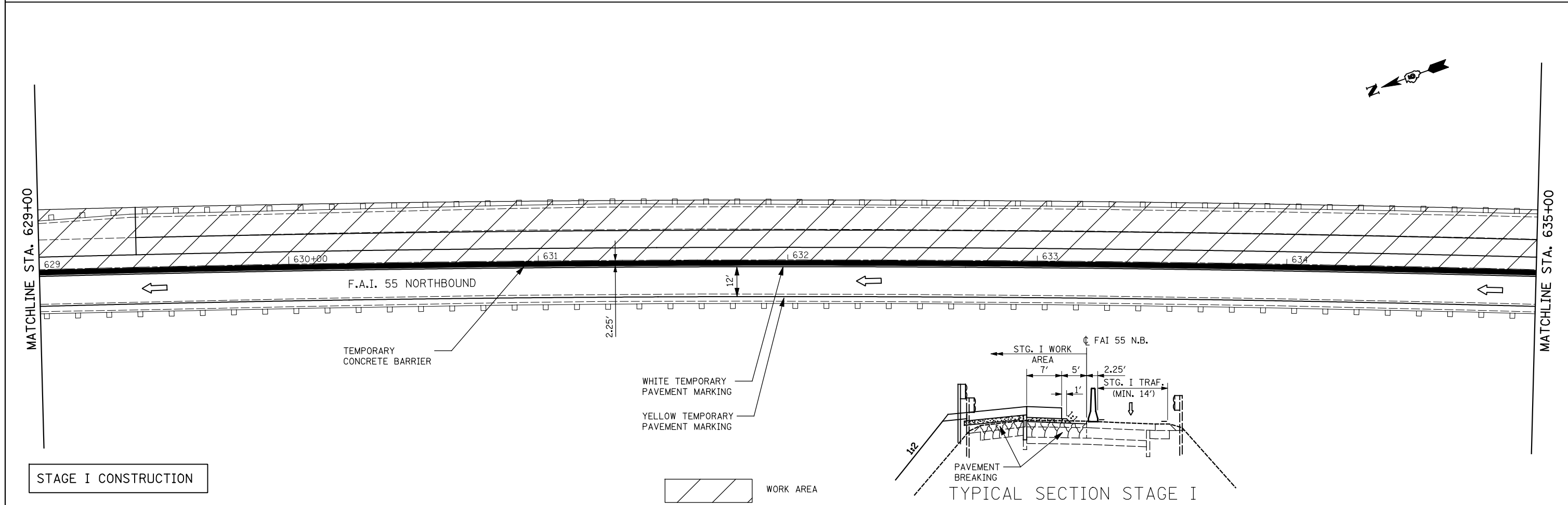
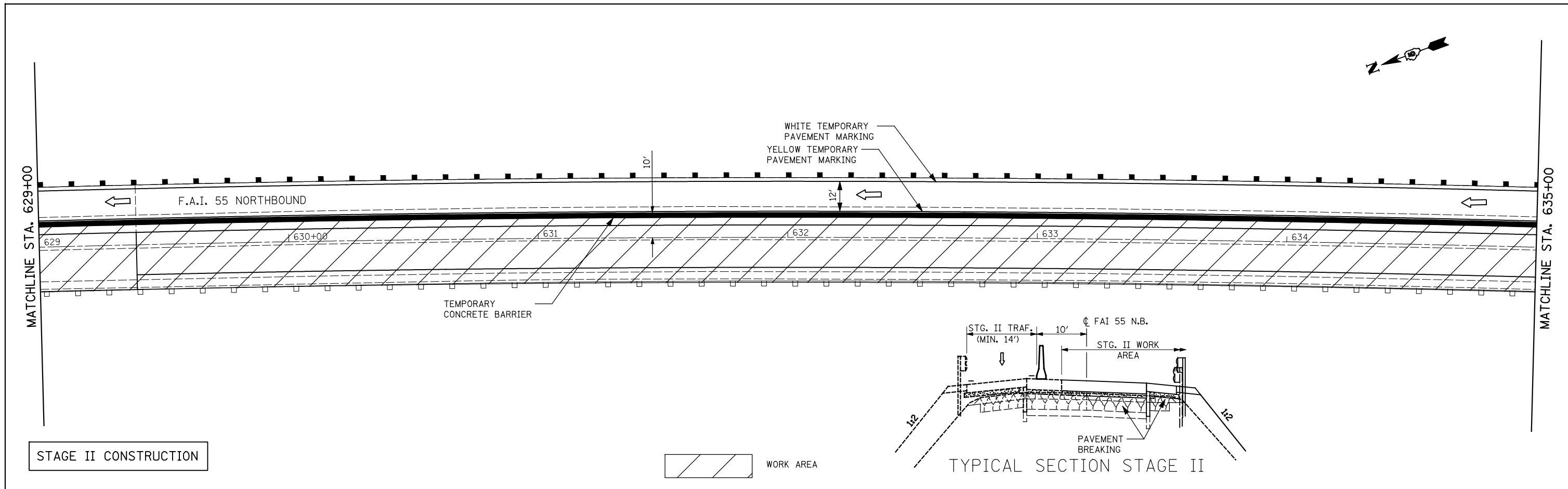


TYPICAL SECTION STAGE II

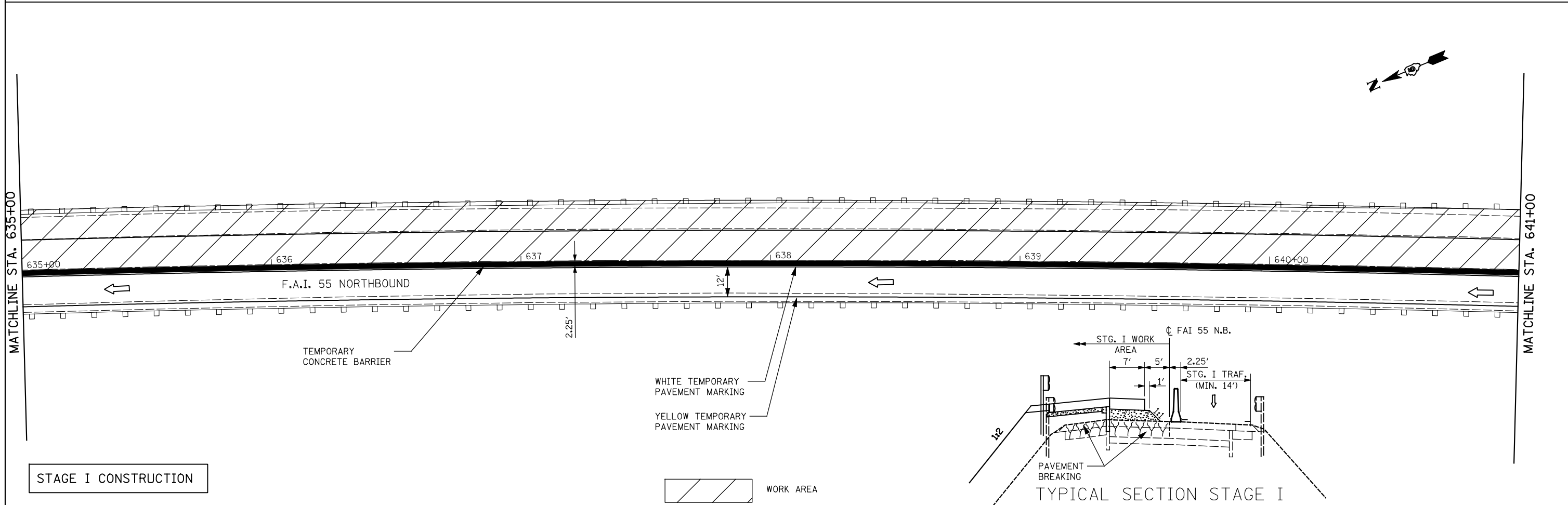
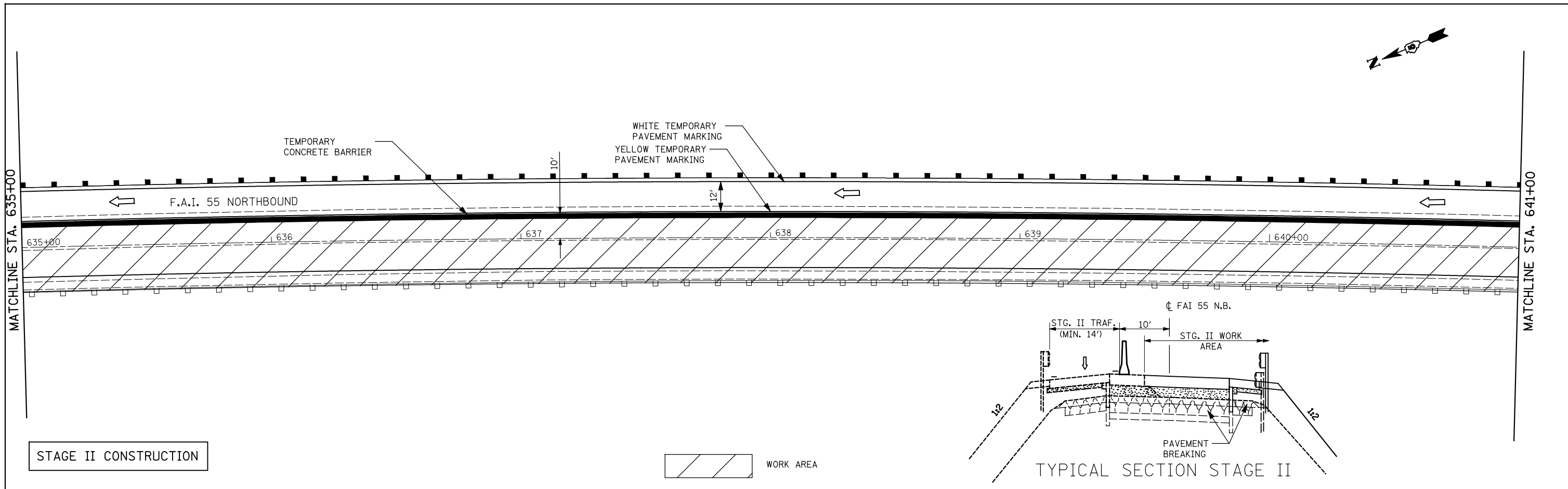


TYPICAL SECTION STAGE I

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		DATE -	REVISED -									



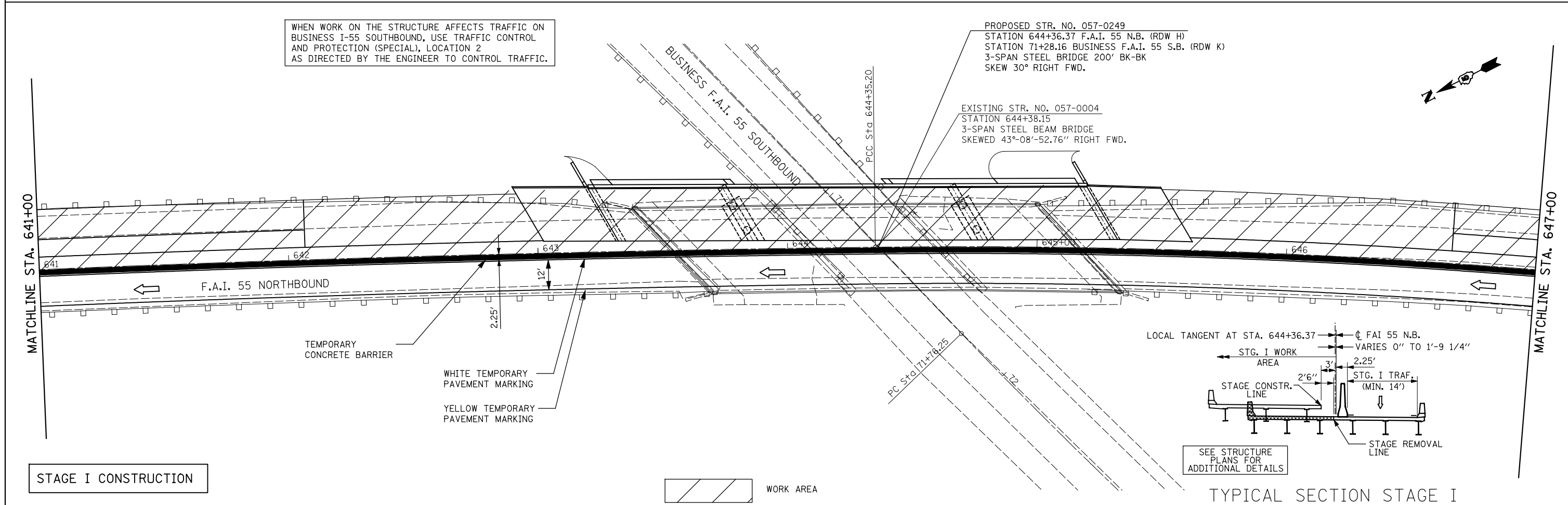
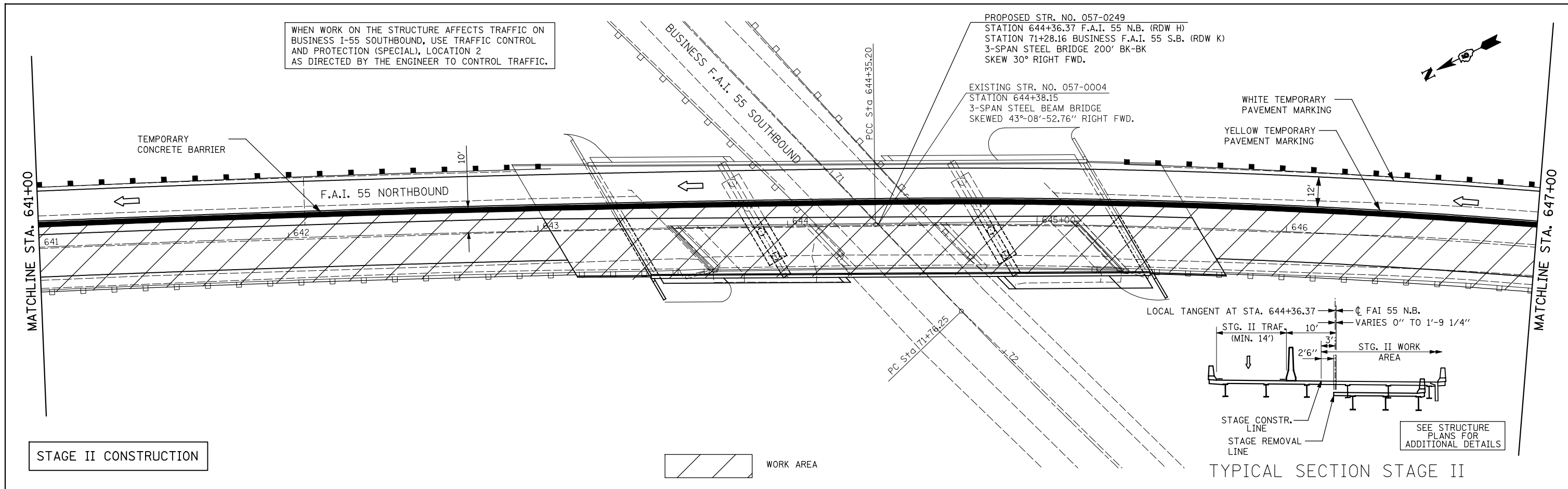
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

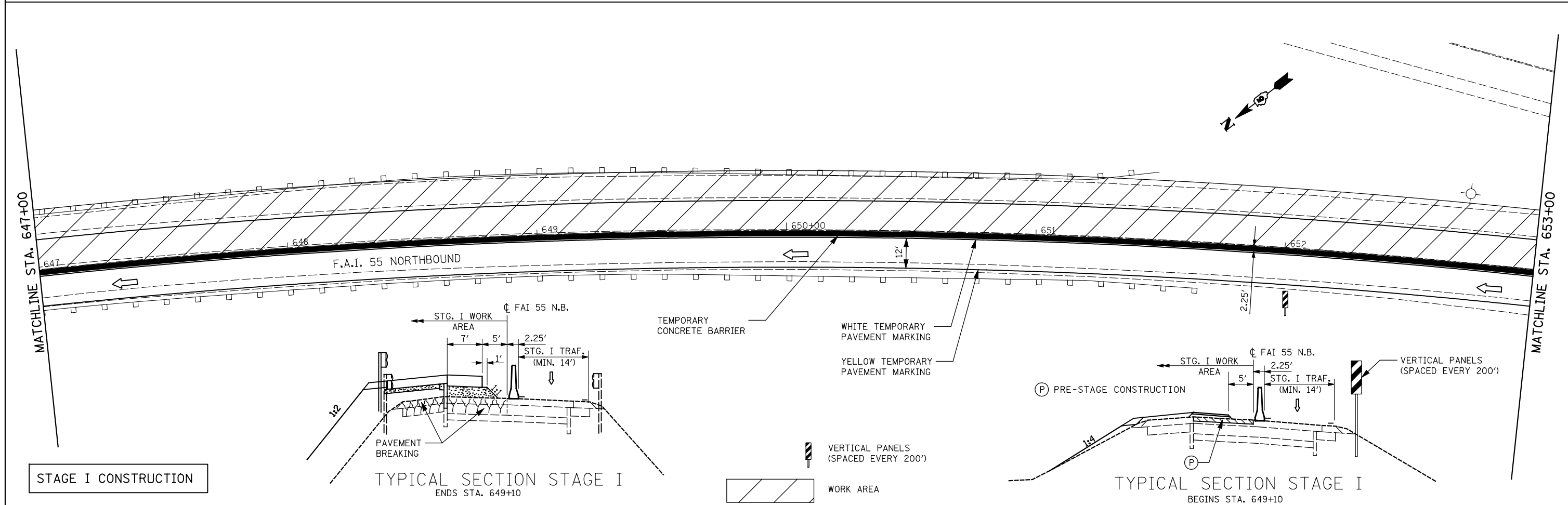
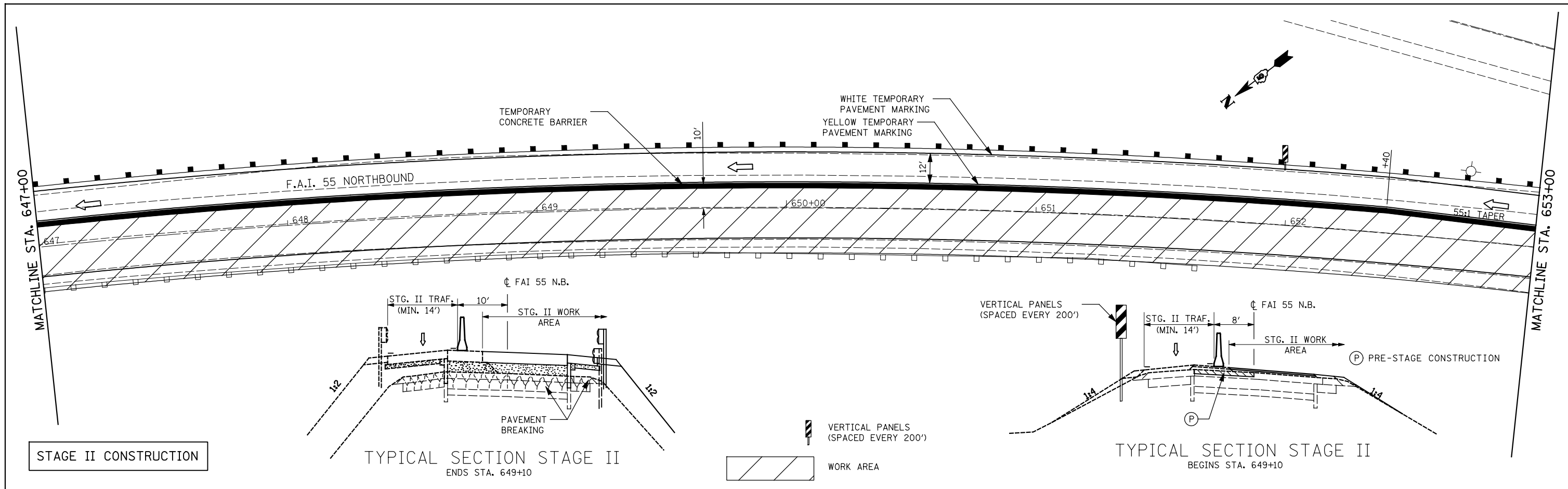
STAGING PLANS F.A.I. 55 NORTHBOUND

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. 635+00 TO STA. 641+00

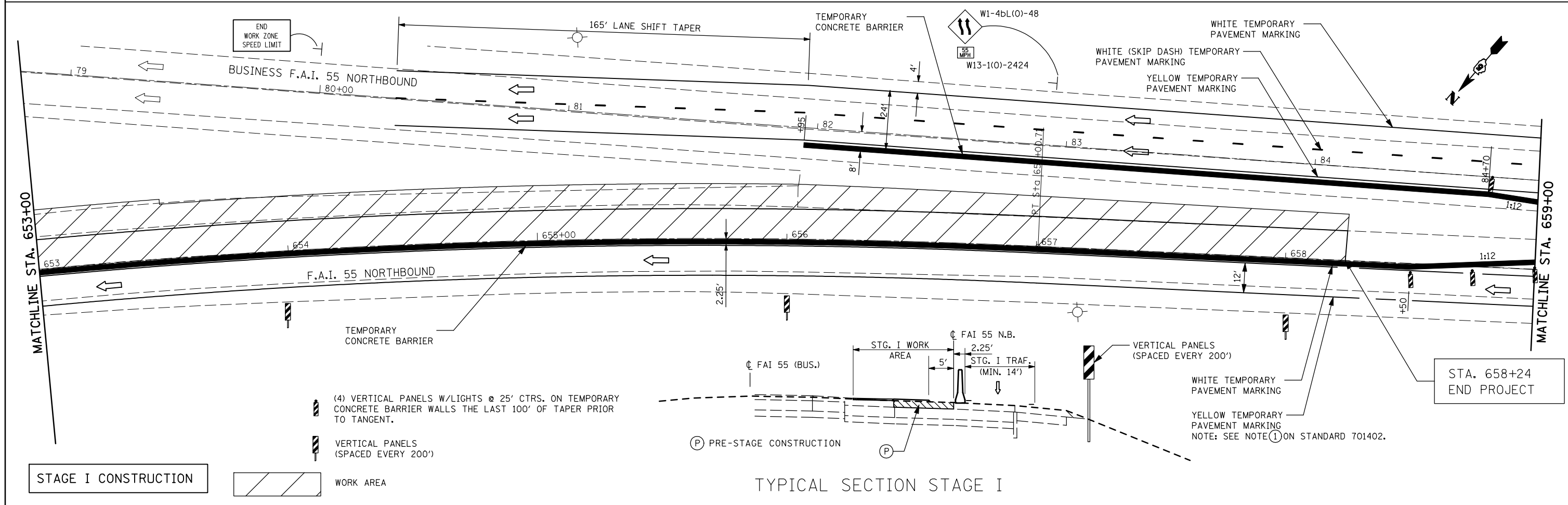
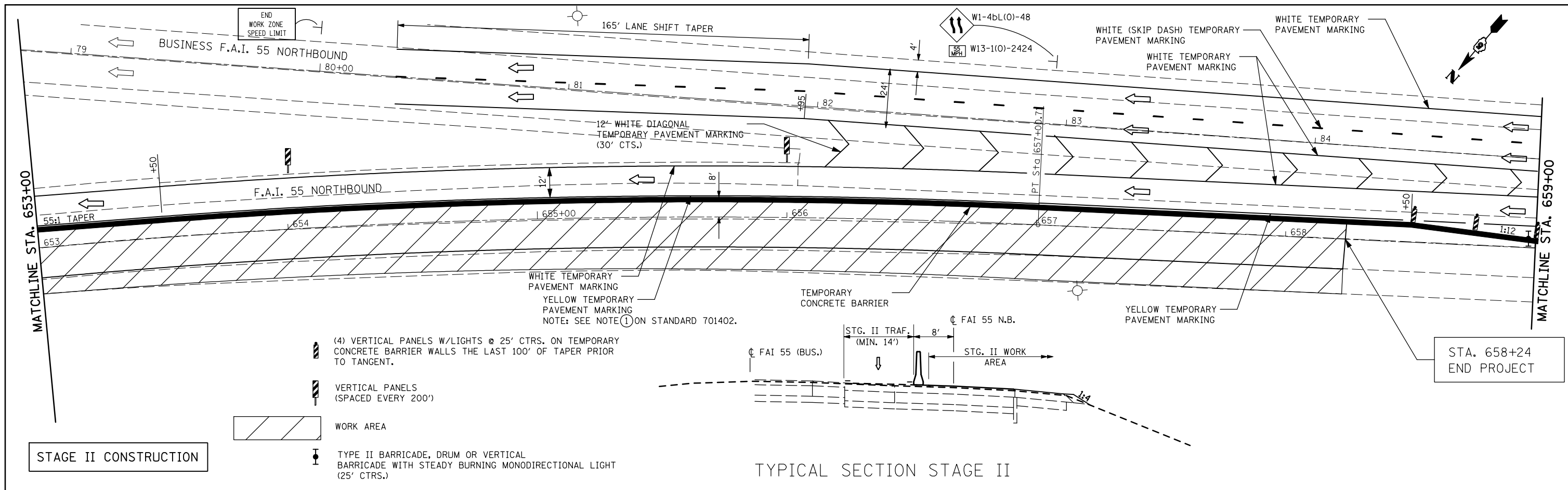
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CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				



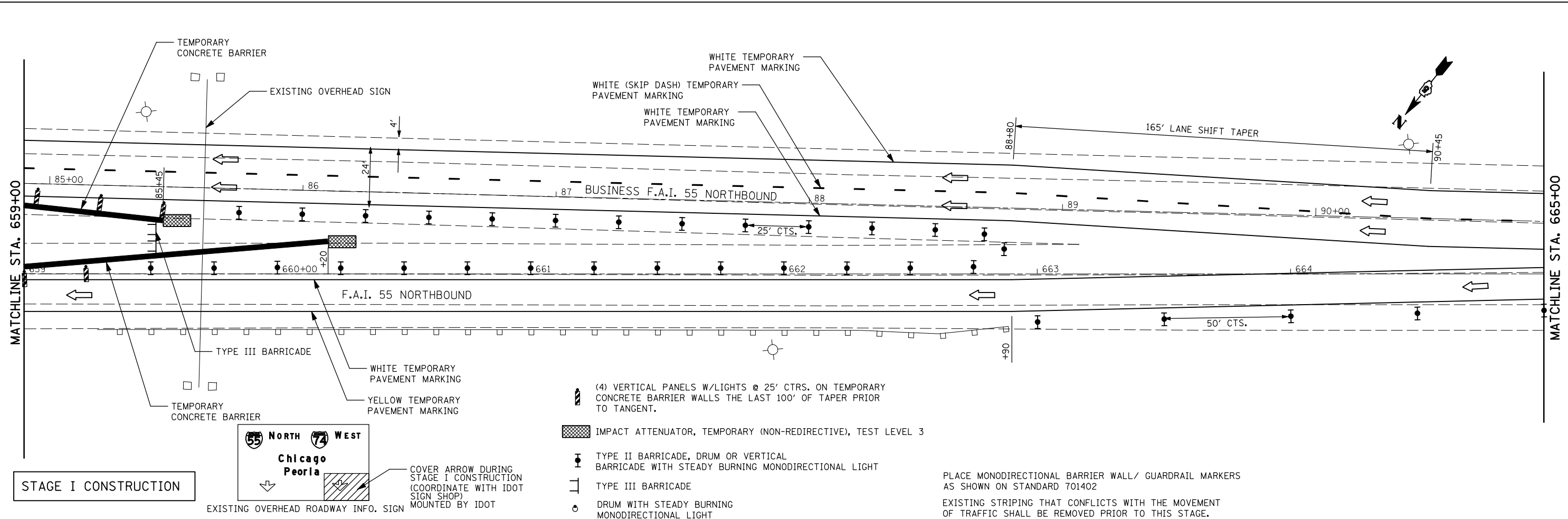
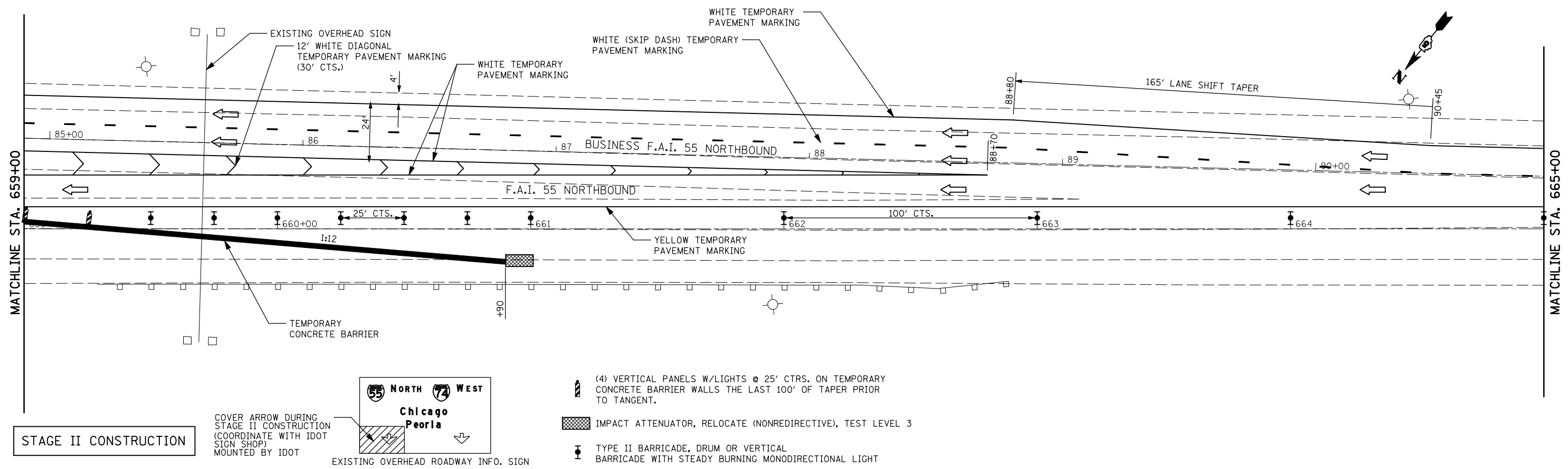
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		DATE -	REVISED -									



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FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGING PLANS F.A.I. 55 NORTHBOUND			F.A.I. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cs:\pwwork\pwwork\keysrb\cd0101450\057052\0-sht-staging.dgn	PLOT SCALE = 40.0000' / IN.	DRAWN -	REVISED -					55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	40
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT DATE = 8/18/2010	CHECKED -	REVISED -		CONTRACT NO. 70520							
		DATE -	REVISED -		SCALE: 1" = 20'	SHEET NO.	OF SHEETS	STA. 653+00 TO STA. 659+00	ILLINOIS FED. AID PROJECT			



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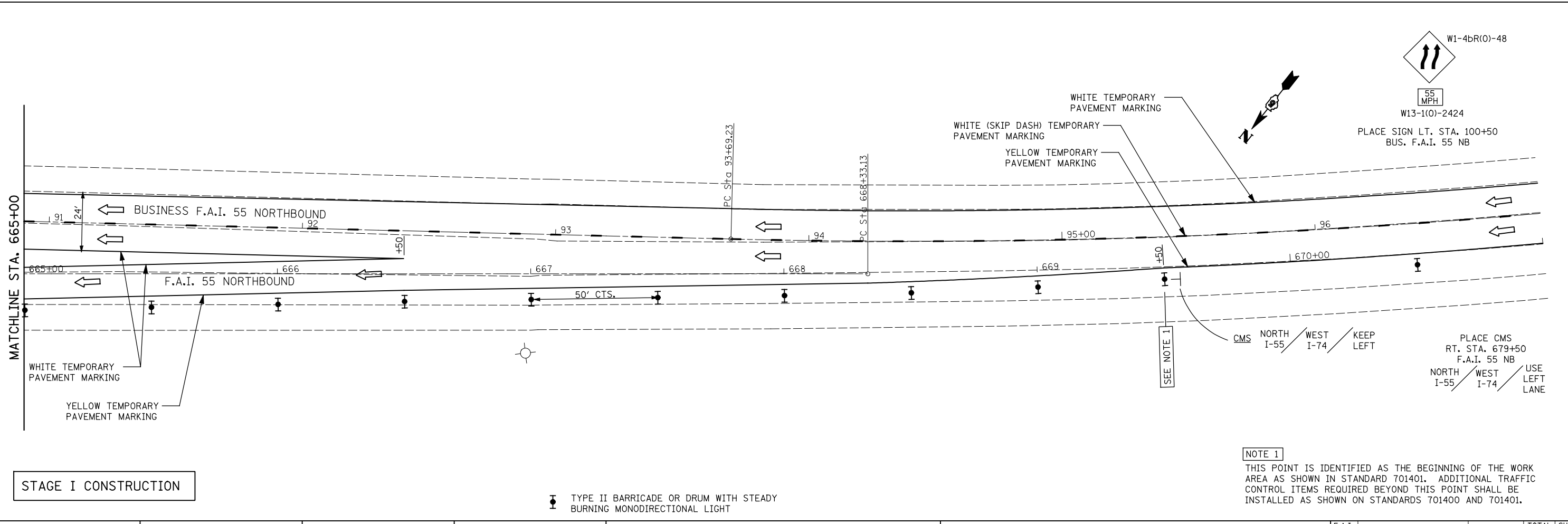
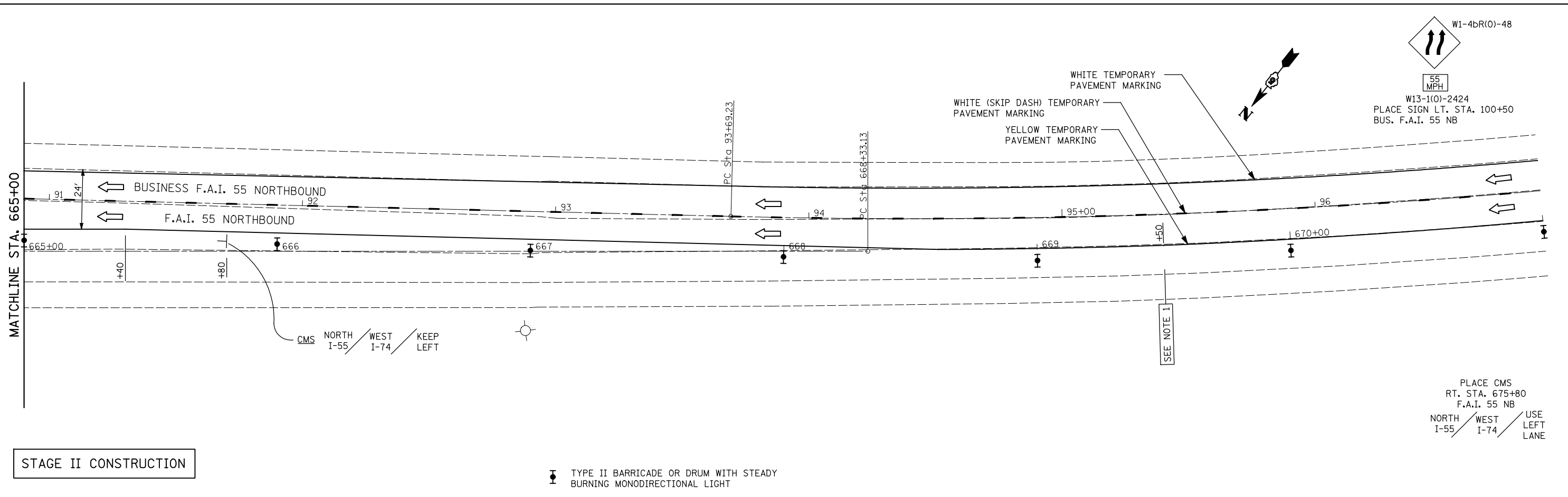
COVER ARROW DURING STAGE I CONSTRUCTION (COORDINATE WITH IDOT SIGN SHOP) MOUNTED BY IDOT	EXISTING OVERHEAD ROADWAY INFO. SIGN
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGING PLANS F.A.I. 55 NORTHBOUND

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. 659+00 TO STA. 665+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	41
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				



NOTE 1
 THIS POINT IS IDENTIFIED AS THE BEGINNING OF THE WORK AREA AS SHOWN IN STANDARD 701401. ADDITIONAL TRAFFIC CONTROL ITEMS REQUIRED BEYOND THIS POINT SHALL BE INSTALLED AS SHOWN ON STANDARDS 701400 AND 701401.

FILE NAME = ... \D570520-shr-staging.dgn	USER NAME = SJS	DESIGNED -	REVISED -
	PLOT SCALE = 40.0000' / IN.	DRAWN -	REVISED -
	PLOT DATE = 08/09/2010 10:55:13	CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STAGING PLANS F.A.I. 55 NORTHBOUND

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. 665+00 TO STA. 671+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	42
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				

NOTES:
 UTILIZE TRAFFIC CONTROL STANDARD 701400 & 701406 FOR PLACEMENT OF TEMPORARY CONCRETE BARRIERS. (FLAGGER REQUIRED UNTIL BARRIER PLACEMENT COMPLETED).

BARRIER WALL REFLECTORS, TYPE C, SHALL BE MOUNTED ON THE TANGENT PORTIONS OF THE TEMPORARY CONCRETE BARRIERS AS SHOWN IN STANDARD 704001. REFLECTORS ON RIGHT SHALL BE CRYSTAL, REFLECTORS ON LEFT SHALL BE AMBER. INCLUDED IN THE COST OF TC&P (SPECIAL) LOCATION 1.

APPLICABLE PORTIONS OF TRAFFIC CONTROL STANDARD 701400 SHALL REMAIN IN PLACE WHEN TC&P (SPECIAL) LOCATION 1 IS IN USE.

① LANE SHIFT (STRIPING) = L/2
 $L/2 = (55)(2)/2 = 55'$ FOR LEFT EDGE STRIPE
 $L/2 = (55)(1)/2 = 27.5'$ FOR CENTER STRIPE

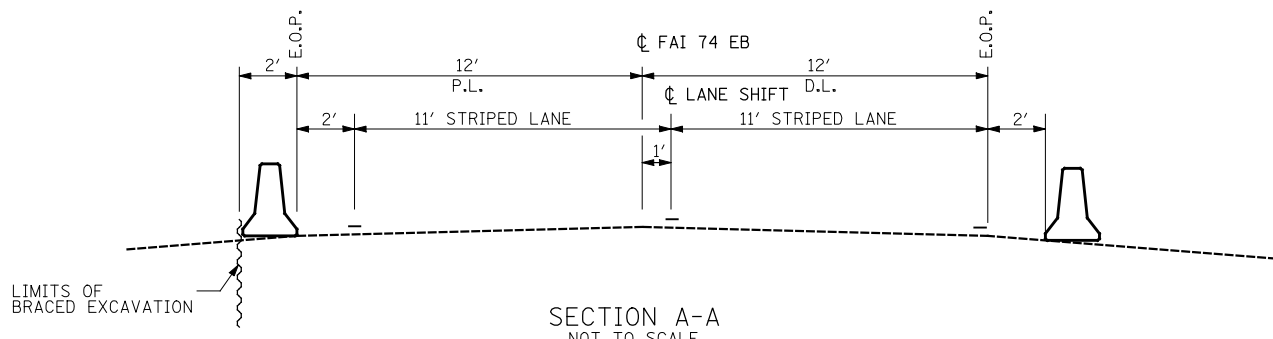
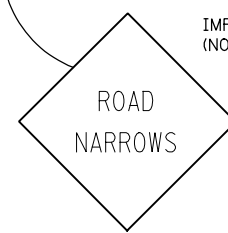
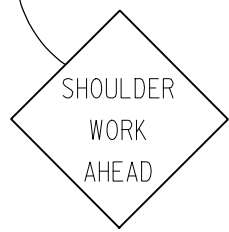
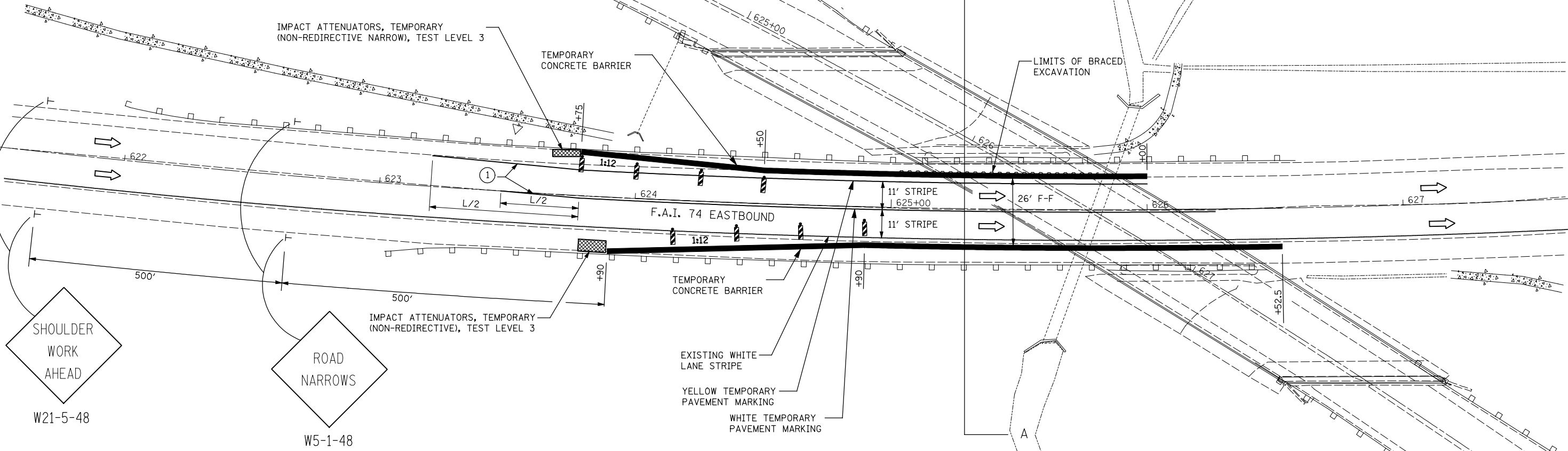
IMPACT ATTENUATOR

(4) VERTICAL PANELS W/LIGHTS @ 25' CTRS. ON TEMPORARY CONCRETE BARRIER WALLS THE LAST 100' OF TAPER PRIOR TO TANGENT.

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE NARROW), TEST LEVEL 3

TEMPORARY CONCRETE BARRIER

LIMITS OF BRACED EXCAVATION



FILE NAME =	USER NAME = SJS	DESIGNED -	REVISED -
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	PLOT SCALE = 40.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 08/09/2010 10:55:52	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION
 (SPECIAL) LOCATION 1

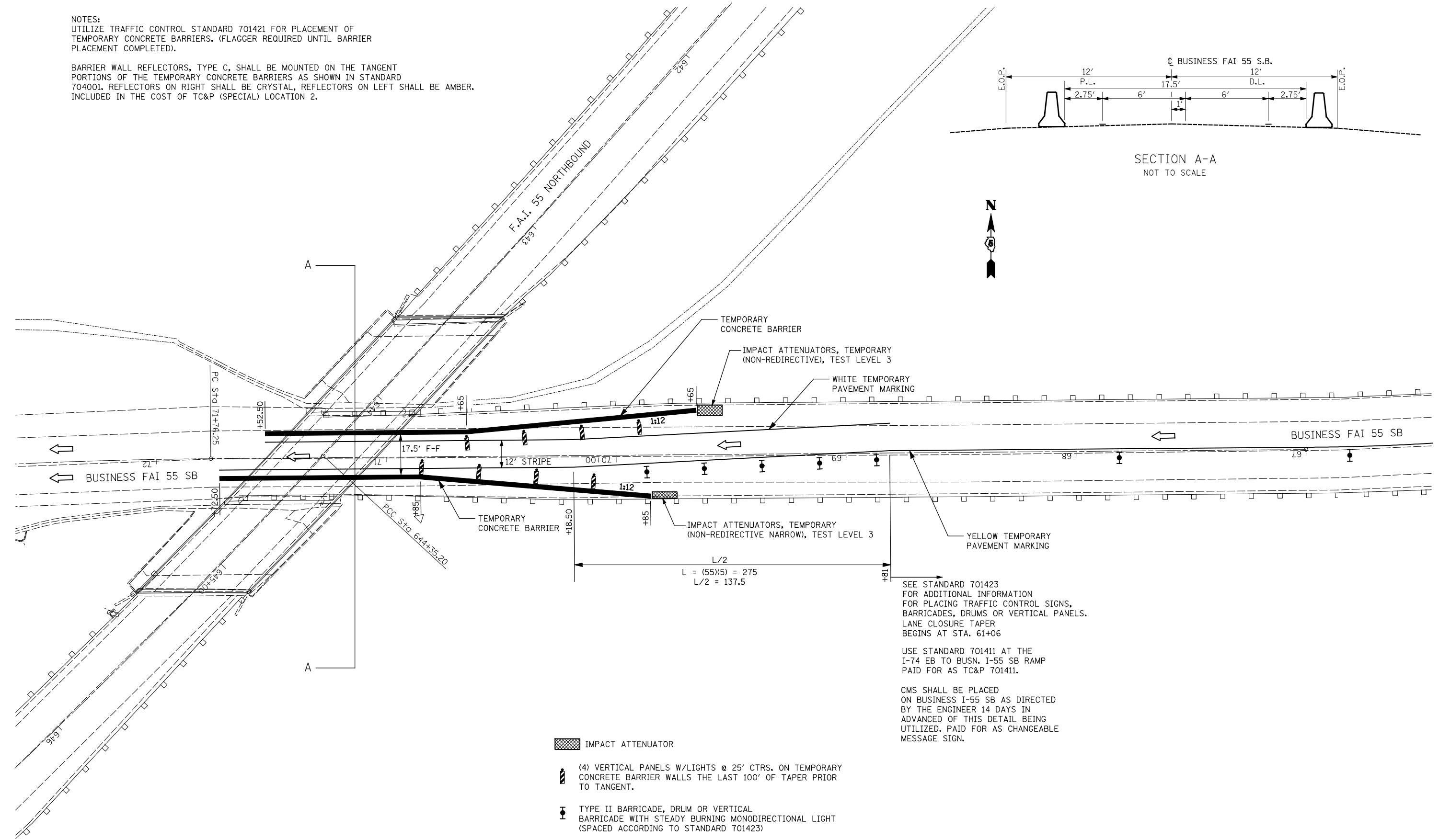
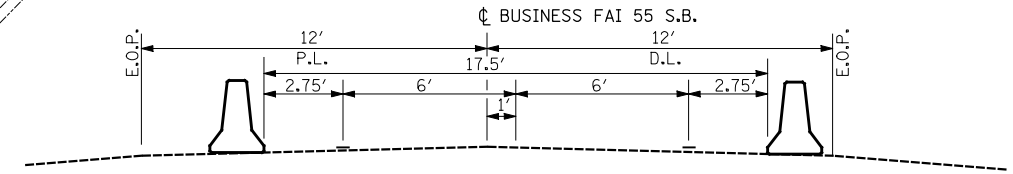
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	43
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				



NOTES:
 UTILIZE TRAFFIC CONTROL STANDARD 701421 FOR PLACEMENT OF TEMPORARY CONCRETE BARRIERS. (FLAGGER REQUIRED UNTIL BARRIER PLACEMENT COMPLETED).




BARRIER WALL REFLECTORS, TYPE C, SHALL BE MOUNTED ON THE TANGENT PORTIONS OF THE TEMPORARY CONCRETE BARRIERS AS SHOWN IN STANDARD 704001. REFLECTORS ON RIGHT SHALL BE CRYSTAL, REFLECTORS ON LEFT SHALL BE AMBER. INCLUDED IN THE COST OF TC&P (SPECIAL) LOCATION 2.



SEE STANDARD 701423 FOR ADDITIONAL INFORMATION FOR PLACING TRAFFIC CONTROL SIGNS, BARRICADES, DRUMS OR VERTICAL PANELS. LANE CLOSURE TAPER BEGINS AT STA. 61+06

USE STANDARD 701411 AT THE I-74 EB TO BUSN. I-55 SB RAMP PAID FOR AS TC&P 701411.

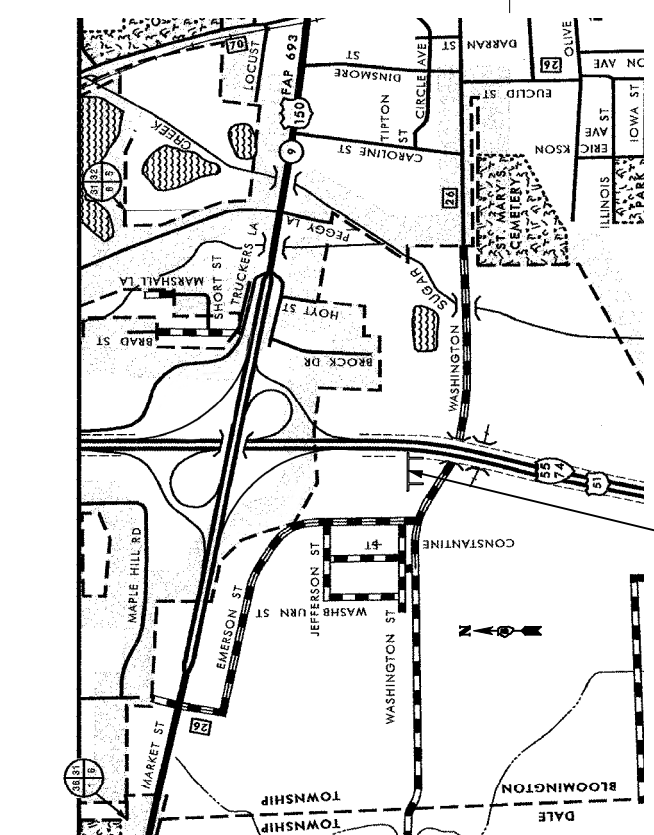
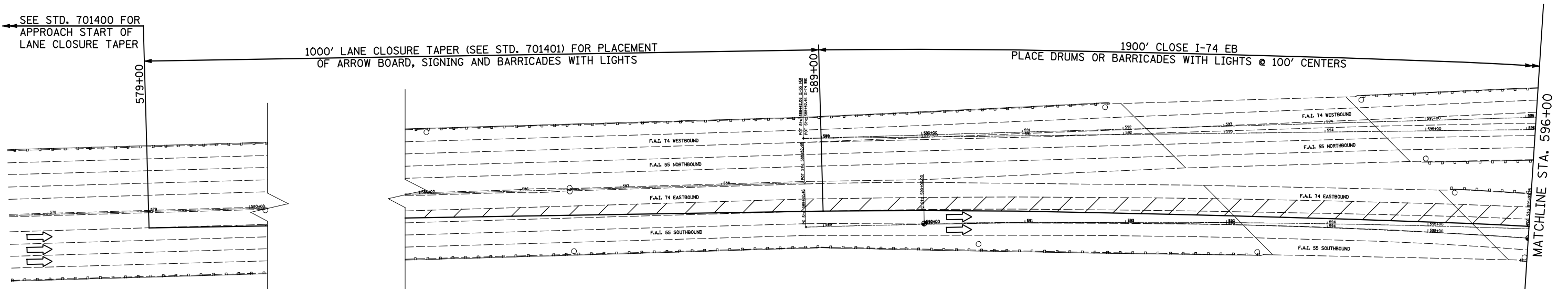
CMS SHALL BE PLACED ON BUSINESS I-55 SB AS DIRECTED BY THE ENGINEER 14 DAYS IN ADVANCED OF THIS DETAIL BEING UTILIZED. PAID FOR AS CHANGEABLE MESSAGE SIGN.

-  IMPACT ATTENUATOR
-  (4) VERTICAL PANELS W/LIGHTS @ 25' CTRS. ON TEMPORARY CONCRETE BARRIER WALLS THE LAST 100' OF TAPER PRIOR TO TANGENT.
-  TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURNING MONODIRECTIONAL LIGHT (SPACED ACCORDING TO STANDARD 701423)

FILE NAME = ...\\D570520-sht-TCPI(Special).dgn  Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	USER NAME = SJS	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION (SPECIAL) LOCATION 2				F.A.I. RTE. = 55	SECTION = (57-7HB-2 & 57-7HB-1)BR	COUNTY = MCLEAN	TOTAL SHEETS = 153	SHEET NO. = 44
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NOTES

1. CHANGEABLE MESSAGE SIGNS SHALL BE PROVIDED AND IN PLACE 7 DAYS PRIOR TO THE ROAD CLOSURE. THEY SHALL BE PLACED AT A LOCATION ON I-74 EB AND I-55 BUSINESS SB AS DIRECTED BY THE ENGINEER.



CMS EAST I-74 CLOSED / 3 MILES AHEAD / DETOUR VIA I-55 SOUTH



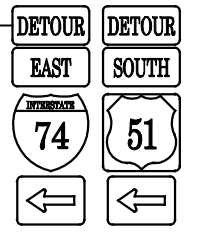
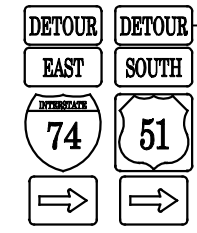
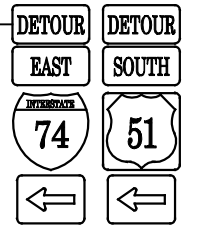
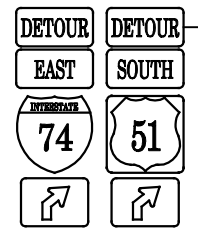
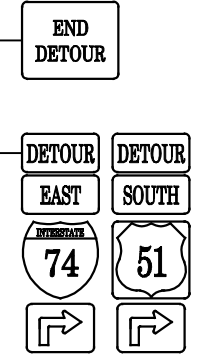
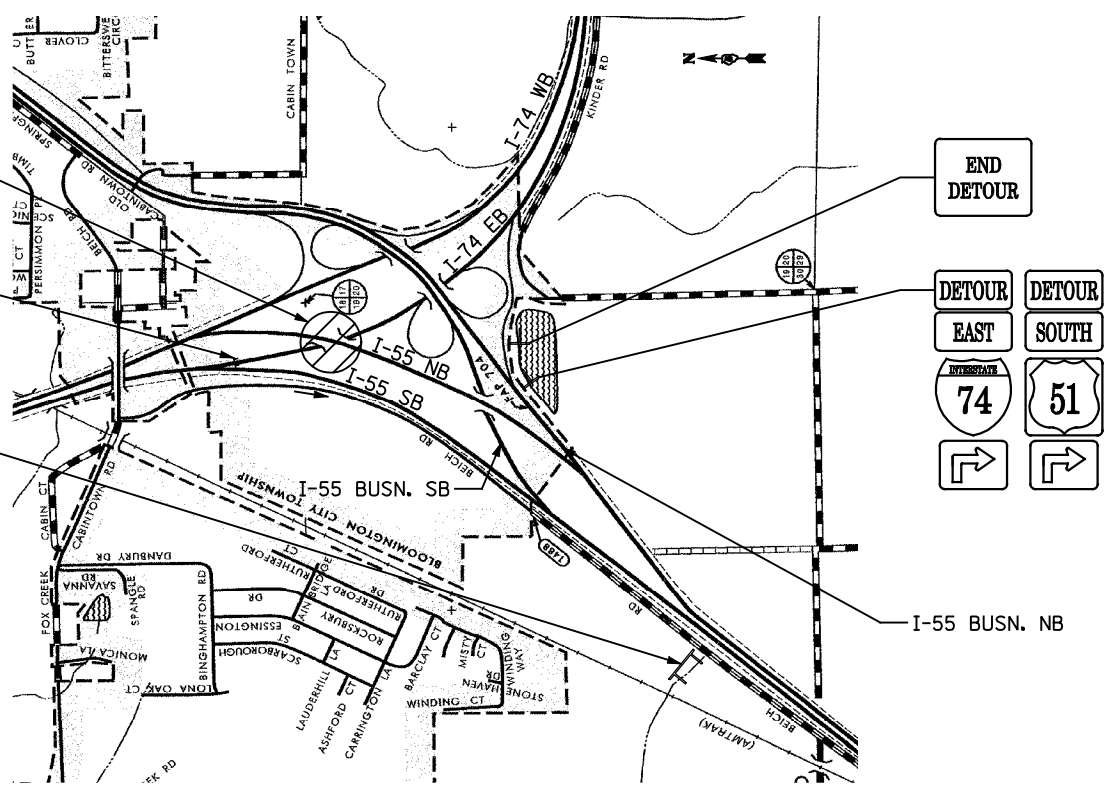
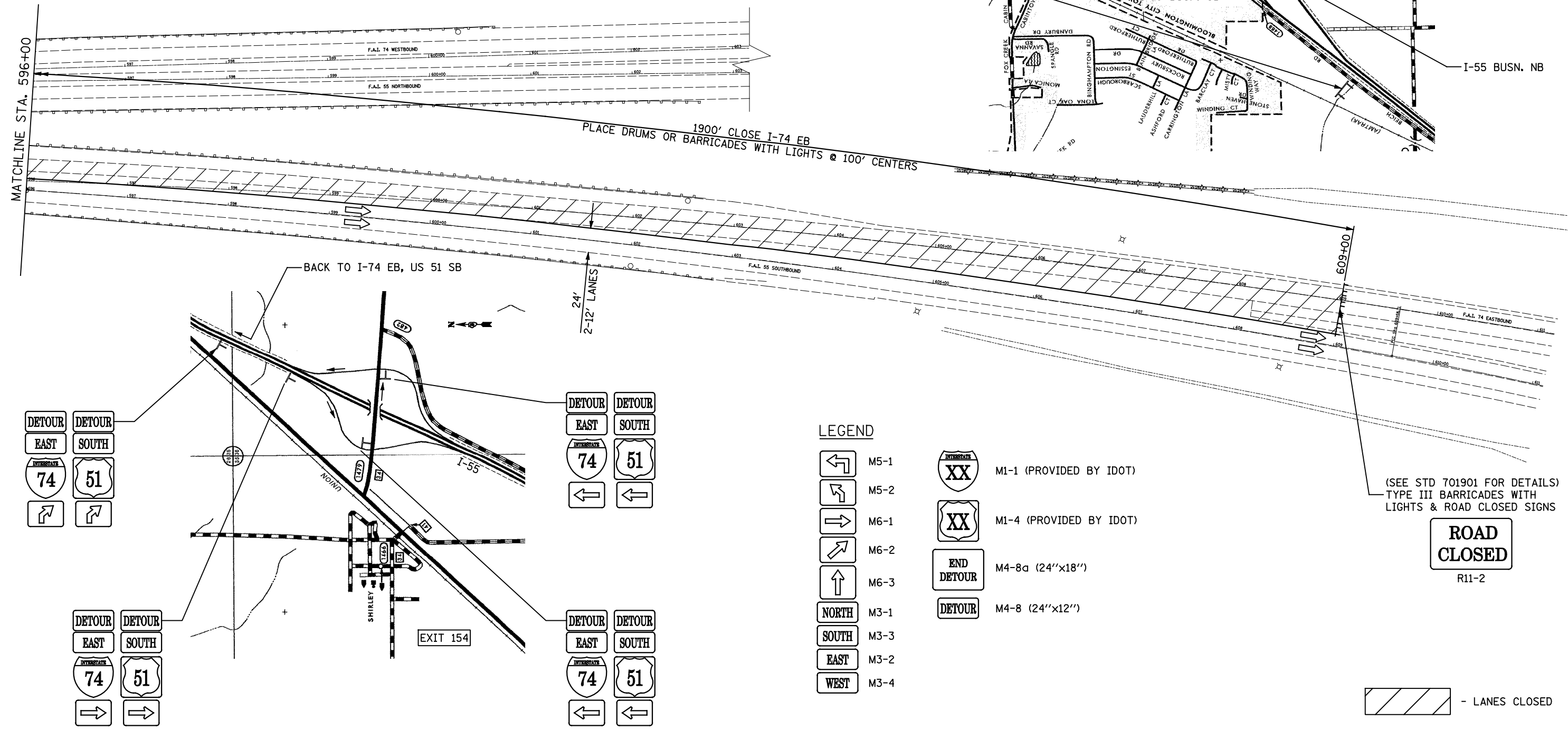
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Johnson, Depp & Olsenberry
 CONSULTING ENGINEERS
 Springfield, Illinois

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	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR
 I-74 EB**
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

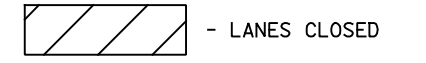
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CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				

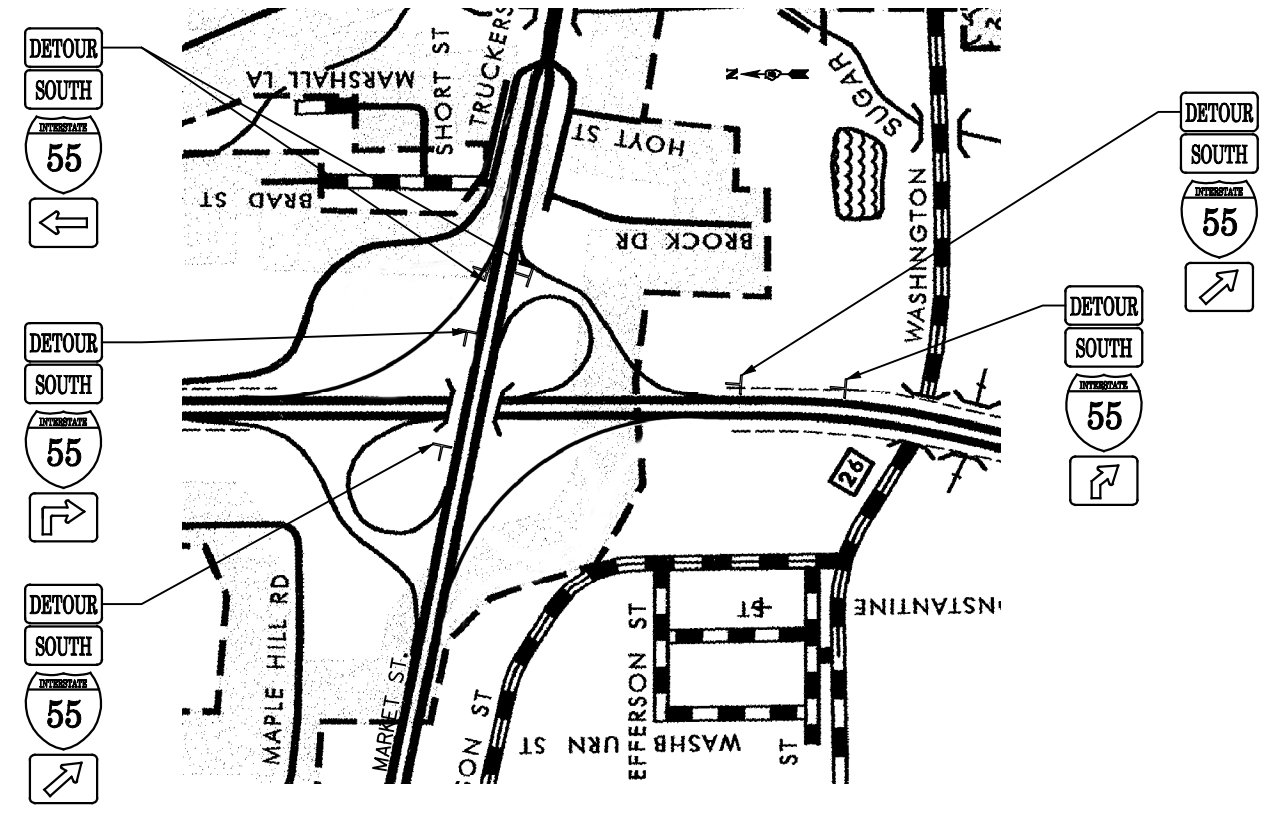


LEGEND

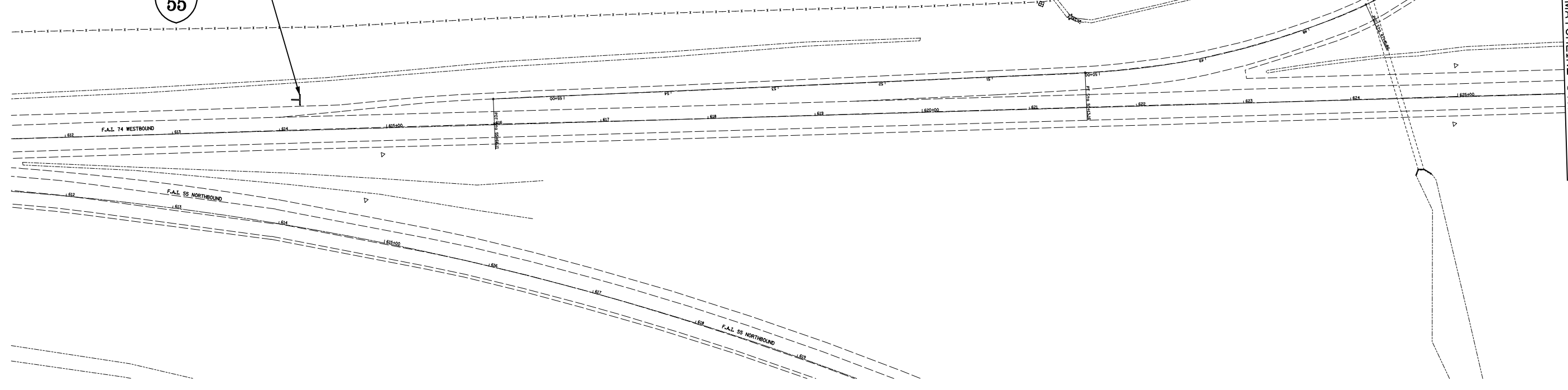
- M5-1
- M5-2
- M6-1
- M6-2
- M6-3
- M3-1
- M3-3
- M3-2
- M3-4
- M1-1 (PROVIDED BY IDOT)
- M1-4 (PROVIDED BY IDOT)
- M4-8a (24"x18")
- M4-8 (24"x12")

(SEE STD 701901 FOR DETAILS)
TYPE III BARRICADES WITH
LIGHTS & ROAD CLOSED SIGNS





PLACE AT END OF ENTRANCE RAMP



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 Springfield, Illinois

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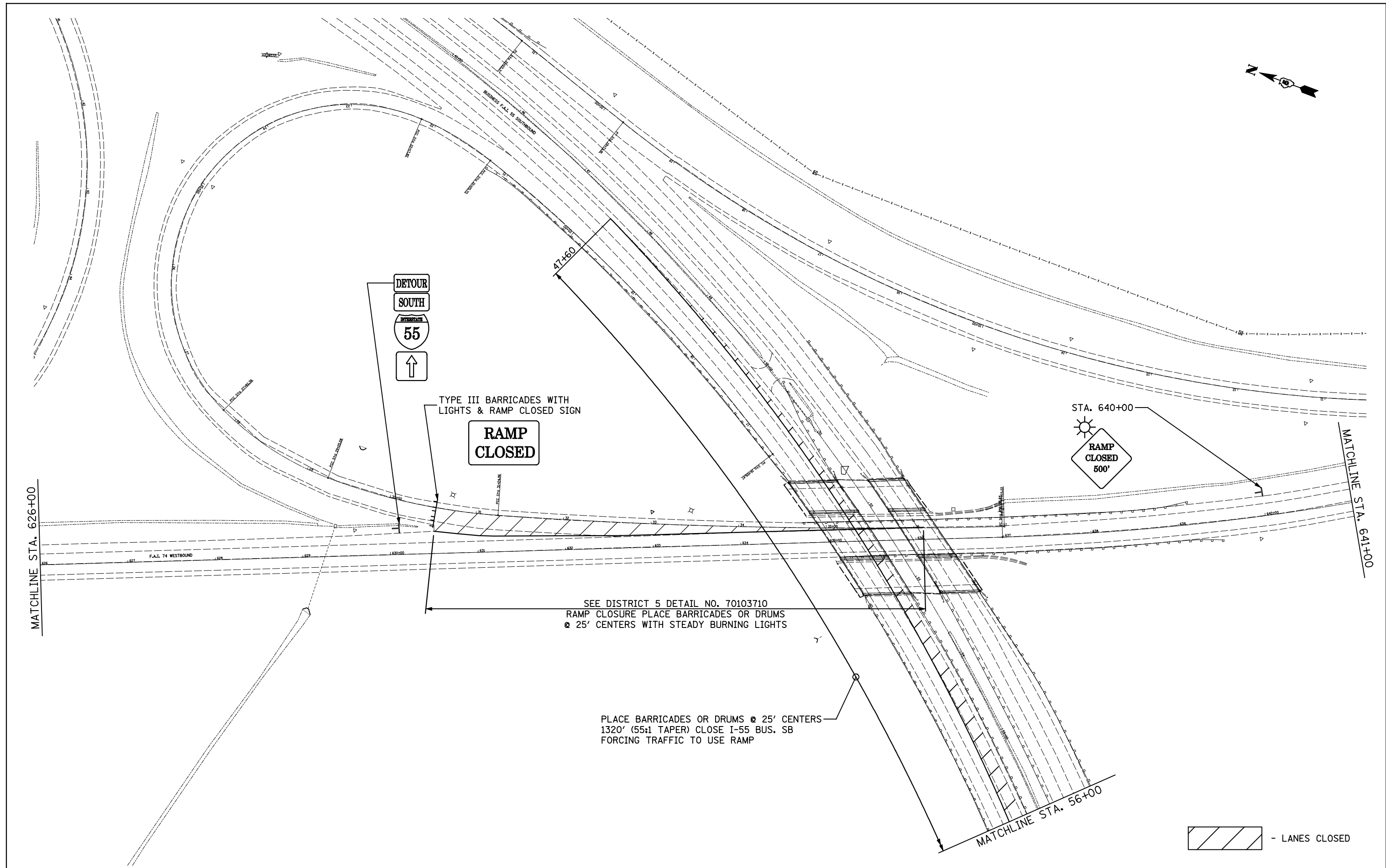
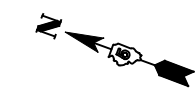
DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR
 I-55 BUSN. SB**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	47
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				



DETOUR
SOUTH
55
↑

TYPE III BARRICADES WITH
LIGHTS & RAMP CLOSED SIGN

RAMP
CLOSED

STA. 640+00
RAMP
CLOSED
500'

SEE DISTRICT 5 DETAIL NO. 70103710
RAMP CLOSURE PLACE BARRICADES OR DRUMS
@ 25' CENTERS WITH STEADY BURNING LIGHTS

PLACE BARRICADES OR DRUMS @ 25' CENTERS
1320' (55:1 TAPER) CLOSE I-55 BUS. SB
FORCING TRAFFIC TO USE RAMP

- LANES CLOSED

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Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 100.0000' / IN.	DRAWN -	REVISED -
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		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR			
I-55 BUSN. SB			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	48
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				

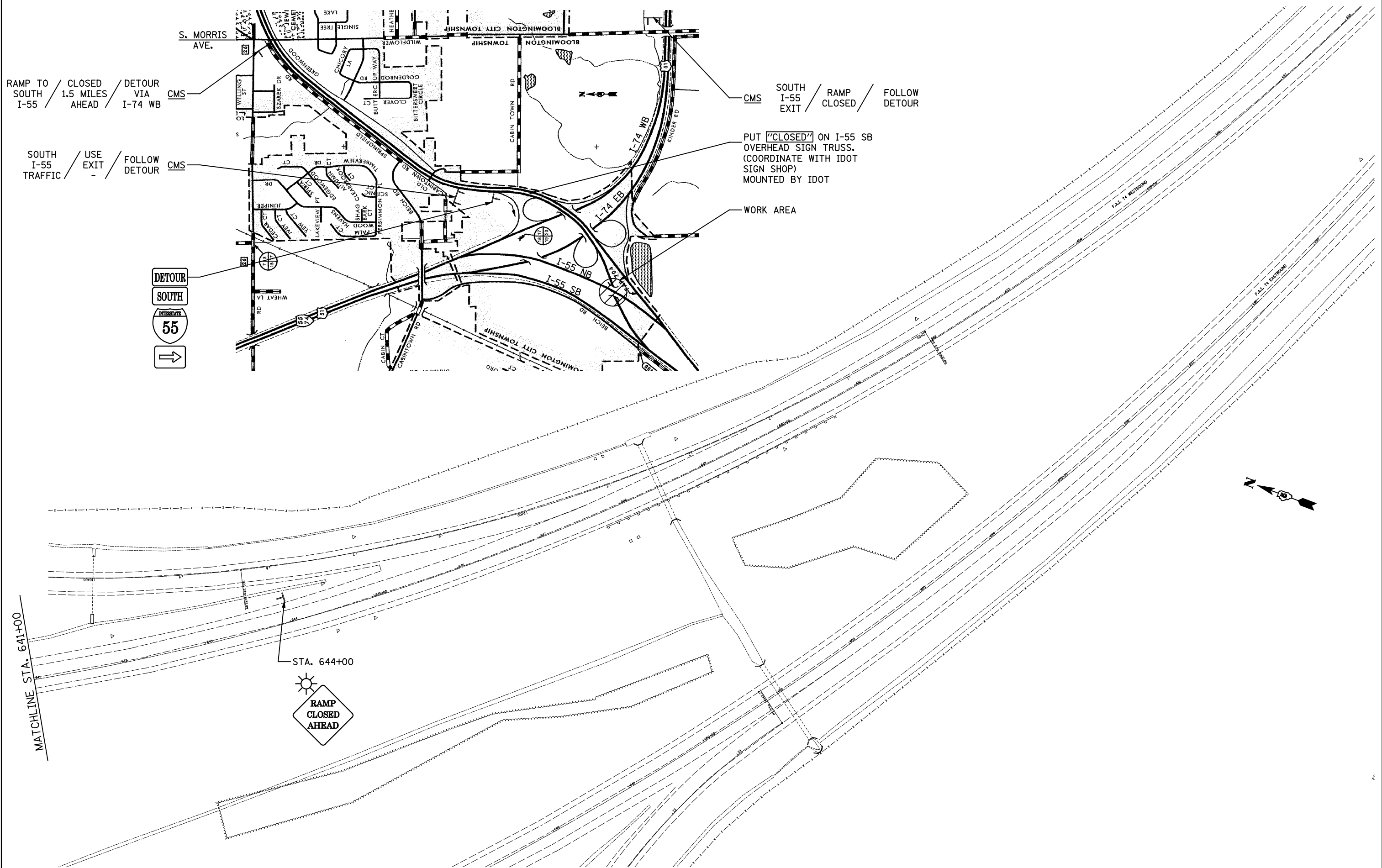
RAMP TO SOUTH I-55 / CLOSED 1.5 MILES AHEAD / DETOUR VIA I-74 WB

SOUTH I-55 TRAFFIC / USE EXIT - / FOLLOW DETOUR

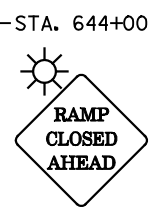
SOUTH I-55 EXIT / RAMP CLOSED / FOLLOW DETOUR

PUT "CLOSED" ON I-55 SB OVERHEAD SIGN TRUSS. (COORDINATE WITH IDOT SIGN SHOP) MOUNTED BY IDOT

WORK AREA



MATCHLINE STA. 641+00



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Johnson, Depp & Quisenberry
 CONSULTING ENGINEERS
 Springfield, Illinois

USER NAME = SJS
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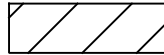
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR
 I-55 BUSN. SB**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	49
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				



 - LANES CLOSED

MATCHLINE STA. 56+00

PLACE BARRICADES OR DRUMS @ 25' CENTERS
1320' (55:1 TAPER) CLOSE I-55 BUS. SB
FORCING TRAFFIC TO USE RAMP


60+80

63+00

(SEE STD 701901 FOR DETAILS)
TYPE III BARRICADES WITH
LIGHTS & ROAD CLOSED SIGNS

**ROAD
CLOSED**

R11-2

FILE NAME = ... \D570520-sht-staging_2.dgn	USER NAME = SJS	DESIGNED -	REVISED -
 Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	PLOT SCALE = 100.0000' / IN.	DRAWN -	REVISED -
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	DATE -		REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR
I-55 BUSN. SB**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2 & 57-7HB-1)BR	MCLEAN	153	50
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				

B.M. 4848-4: Chiseled square on NE wing of SN 057-0005, Elev. 812.26.

EXISTING STRUCTURE: S.N. 057-0005, originally constructed in 1964 as FAI 55 Sec. 57-7HB-1 at Station 626+53.53, using steel beams with 7" concrete deck, 3 simple spans, 258'-6 3/8" back-back abutments, 35'-8" out-out width, stub abutments on concrete piles, multi-column piers with footings on timber piles. In 1991 the bridge was rehabilitated as FAI-55, Sec. 57-7HBR-1. The bridge deck was replaced and the substructure was repaired.

Existing structure shall be removed and replaced using staged construction to maintain one lane of traffic. No salvage.

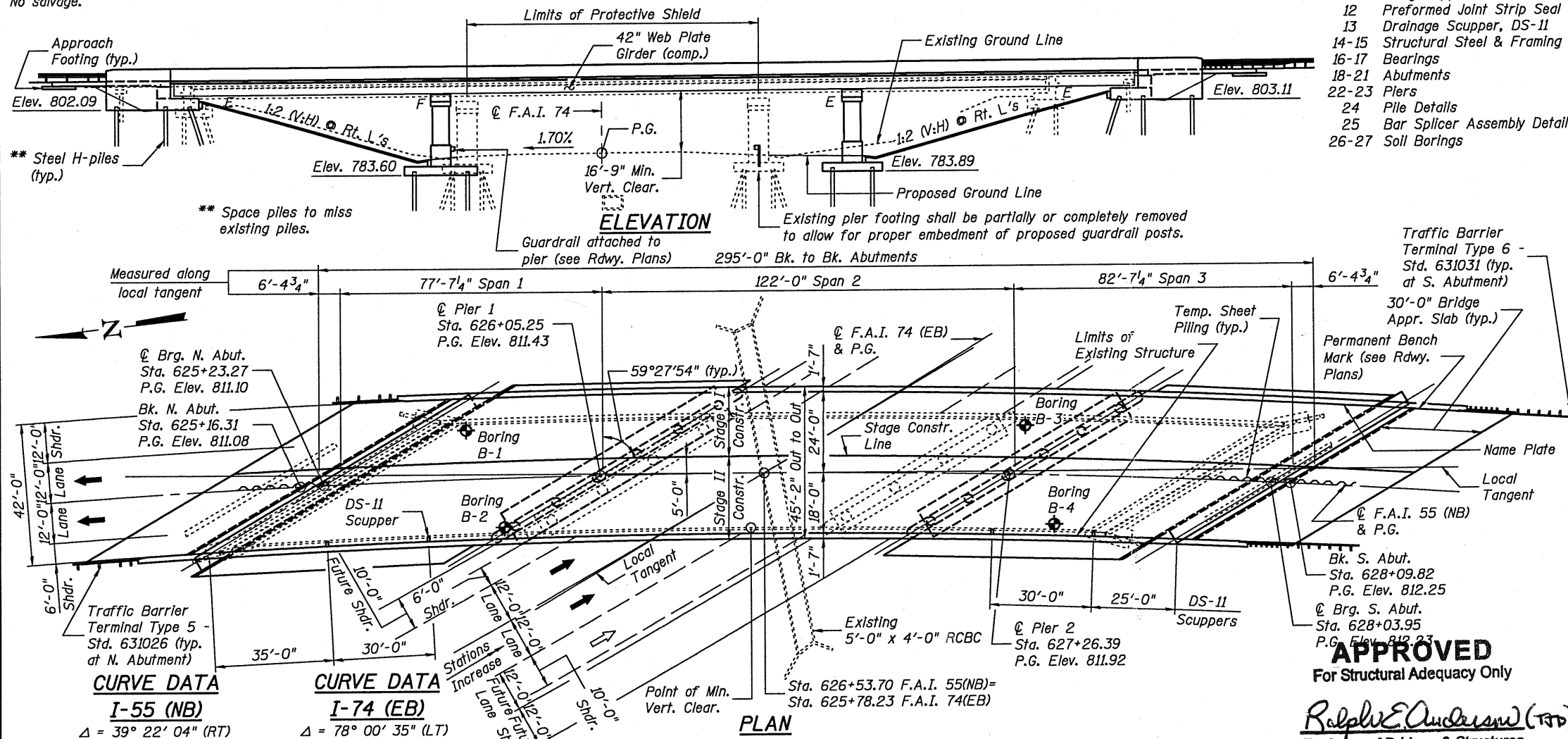
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

- 1 Gen Plan, Gen Notes, Bill of Mat'l
- 2 Slope wall, Abutment Backfill, etc.
- 3 Stage Constr. & Temp. Sheet Piling
- 4 Temporary Concrete Barrier
- 5-7 Top of Slab Elevations
- 8-9 Superstructure Details
- 10-11 Bridge Approach Slab Details
- 12 Preformed Joint Strip Seal
- 13 Drainage Scupper, DS-11
- 14-15 Structural Steel & Framing Plan
- 16-17 Bearings
- 18-21 Abutments
- 22-23 Piers
- 24 Pile Details
- 25 Bar Splicer Assembly Details
- 26-27 Soil Borings

GENERAL NOTES

Fasteners shall be AASHTO M164 Type I, mechanically galvanized bolts. Bolts 7/8 in. ϕ , holes 1 1/8 in. ϕ , unless otherwise noted. All structural steel shall be AASHTO M 270 Grade 50, unless noted otherwise. Calculated weight of Structural Steel = 319740 lbs. No field welding is permitted except as specified in the contract documents. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated. Slipforming of the parapets is not allowed. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations. Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings. Concrete Sealer shall be applied to the designated areas of the Abutments (exposed surfaces of beam seats, backwall and front/sides of cap) and Piers (all exposed surfaces). The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. The Organic Zinc Rich Primer / Epoxy / Urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that the exterior surfaces and bottom of the bottom flange of the fascia beams, masked off connection surfaces, and field installed fasteners, all of which shall be touched up and finish coated in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu Yd	--	296	296
Removal Of Existing Structures	Each	1	--	1
Protective Shield	Sq Yd	344	--	344
Structure Excavation	Cu Yd	--	1581	1581
Concrete Structures	Cu Yd	--	666.6	666.6
Concrete Superstructure	Cu Yd	577.4	--	577.4
Bridge Deck Grooving	Sq Yd	1534	--	1534
Concrete Encasement	Cu Yd	--	14.7	14.7
Protective Coat	Sq Yd	1926	--	1926
Stud Shear Connectors	Each	5625	--	5625
Reinforcement Bars, Epoxy Coated	Pound	144790	61820	206610
Bar Splicers	Each	1306	242	1548
Slope Wall 4 Inch	Sq Yd	--	919	919
Furnishing Steel Piles HP12x53	Foot	--	2640	2640
Driving Piles	Foot	--	2640	2640
Test Pile Steel HP12x53	Each	--	4	4
Pile Shoss	Each	--	23	23
Temporary Sheet Piling	Sq Ft	--	1151	1151
Name Plates	Each	1	--	1
Preformed Joint Strip Seal	Foot	184	--	184
Elastomeric Bearing Assembly, Type I	Each	--	12	12
Elastomeric Bearing Assembly, Type II	Each	--	6	6
Anchor Bolts, 1"	Each	--	24	24
Anchor Bolts, 1/2"	Each	--	24	24
Concrete Sealer	Sq Ft	--	6575	6575
Geocomposite Wall Drain	Sq Yd	--	145	145
Pipe Underdrains For Structures 4"	Foot	--	215	215
Braced Excavation	Cu Yd	--	114	114
Drainage Scuppers, DS-11	Each	4	--	4
Diamond Grinding (Bridge Section)	Sq Yd	1457	--	1457
Furn. And Erecting Struct. Steel Bridge No. 1	L Sum	1	--	1
Mechanical Splicers	Each	--	120	120

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (TDP)
Engineer of Bridges & Structures

STATION 626+53.70
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 55 SEC. (57-7HB-1)BR
LOADING HL-93
STR. NO. 057-0250

NAME PLATE
See Std. 515001

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 Interims

DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{d1}) = 0.13g
Design Spectral Acceleration at 0.2 sec. ($S_{d0.2}$) = 0.21g
Soil Site Class = D

CURVE DATA

I-55 (NB)

$\Delta = 39^\circ 22' 04''$ (RT)
 $D = 2^\circ 00' 00''$
 $R = 2,864.78'$
 $T = 1,024.83'$
 $L = 1,968.38'$
 $E = 177.79'$
 $S.E. = 3.10\%$
P.C. STA. = 608+95.37
P.T. STA. = 628+63.75
P.I. STA. = 619+20.20

CURVE DATA

I-74 (EB)

$\Delta = 78^\circ 00' 35''$ (LT)
 $D = 1^\circ 29' 59''$
 $R = 3,820.35'$
 $T = 3,094.20'$
 $L = 5,201.51'$
 $E = 1,095.86'$
 $S.E. = 1.70\%$
P.C. STA. = 621+49.55
P.T. STA. = 673+51.06
P.I. STA. = 652+43.75

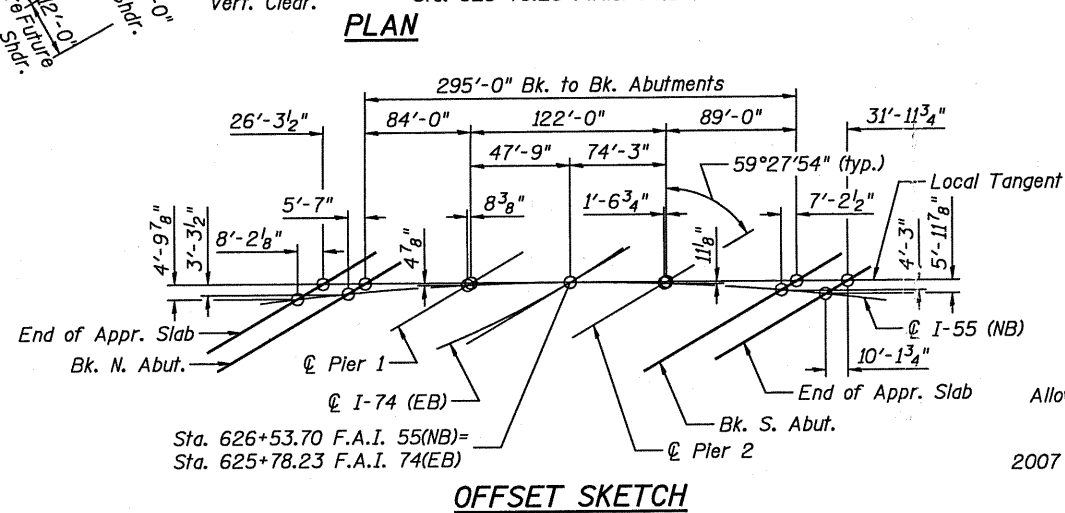
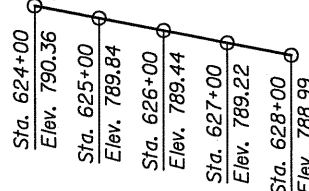
PROFILE GRADE

F.A.I. 55 (NB)

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

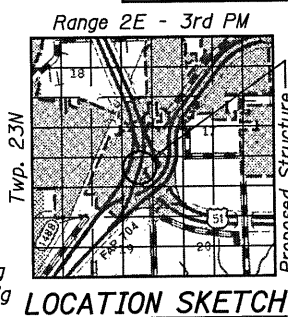
PROFILE GRADE

F.A.I. 74 (EB)



GENERAL NOTES (Cont'd)

The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete. Braced Excavation shall be provided for Pier 1 adjacent to the I-74 (EB) shoulder, see Special Provisions. Protective Shield shall be provided for the full width of the bridge deck, over the roadway below from edge of shoulder to edge of shoulder.



GENERAL PLAN & ELEVATION

I-55 (NB) OVER I-74 (EB)
F.A.I. RTE. 55 SECTION (57-7HB-1)BR
MCLEAN COUNTY
STATION 626+53.70
STRUCTURE NO. 057-0250

SHEET	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1 OF 27	55	(57-7HB-1)BR	MCLEAN	153	51
STA. 626+53.70			CONTRACT NO. 70520		
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		

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USER: DCD

SAVE DATE: 8/25/2010

PRINT DATE: 08/25/2010 15:05:49

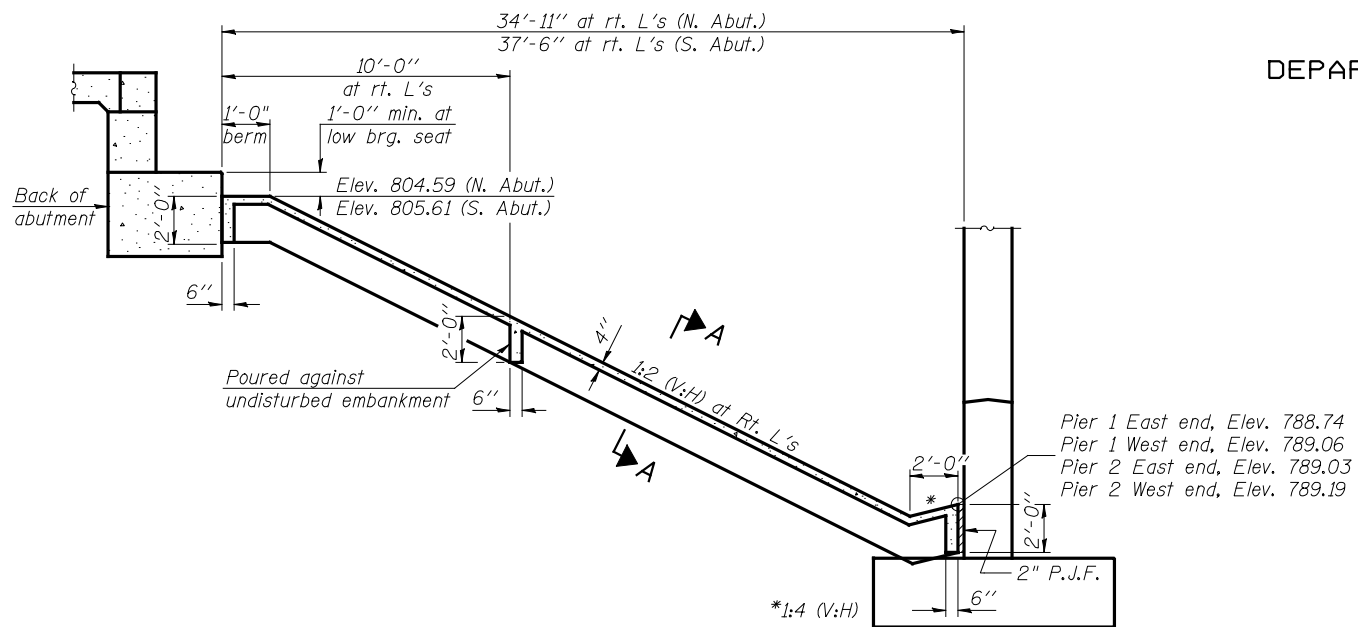
JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD DRAWN: P. Ray
CHECKED: CMV CHECKED: CMV/DCD

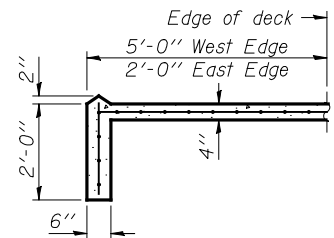


Signed: *David G. Depp*
Date: 8-31-2010
Lic. Expires: 11-30-2010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

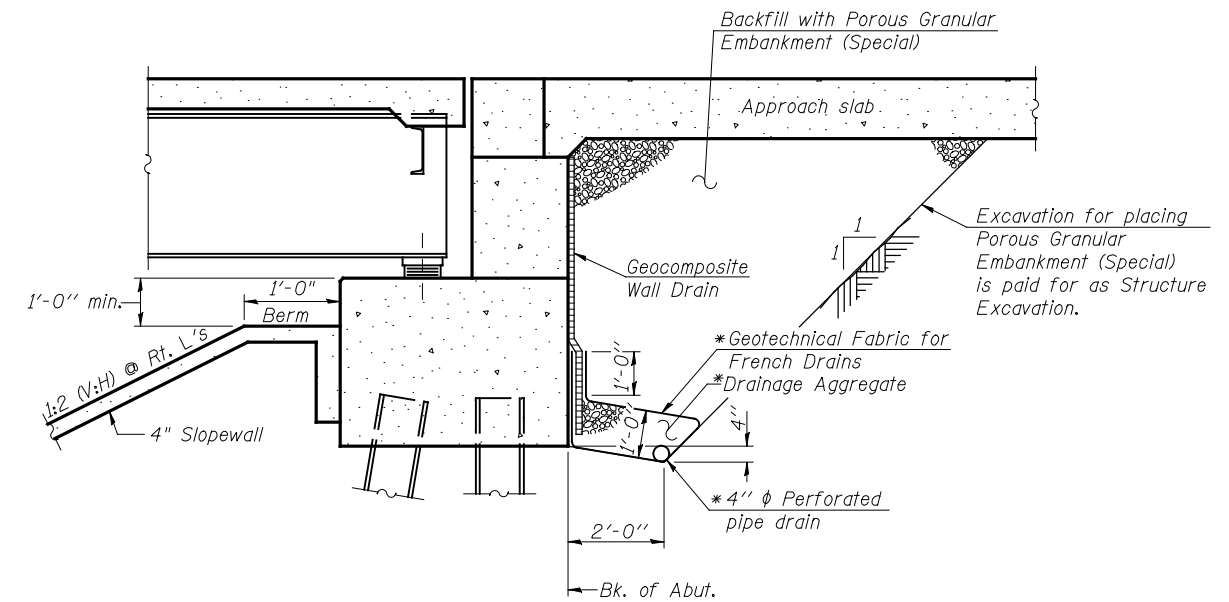


**SECTION THRU
CONCRETE SLOPEWALL**



SECTION A-A

Note:
Sloped wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

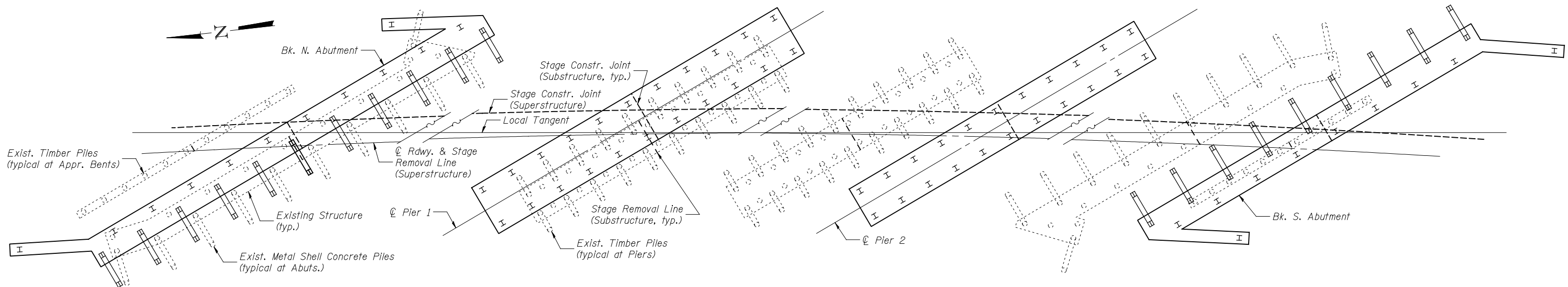


**SECTION THRU PILE SUPPORTED
STUB ABUTMENT**

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

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



FOUNDATION LAYOUT

Notes:
Layout shows relative position of existing and proposed footings and piles.
Location of proposed piles may be adjusted (up to 1 foot ±) to avoid conflict with existing piles.

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

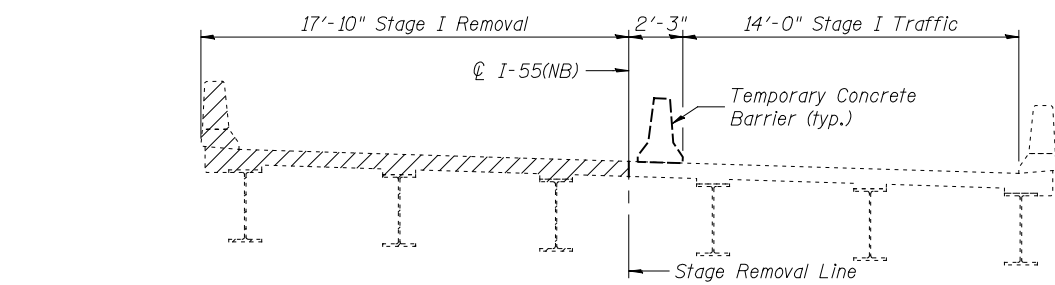
DESIGNED: DCD	DRAWN: SJS/PTR
CHECKED: CMV	CHECKED: DCD/CMV

**MISCELLANEOUS DETAILS
STRUCTURE NO. 057-0250**

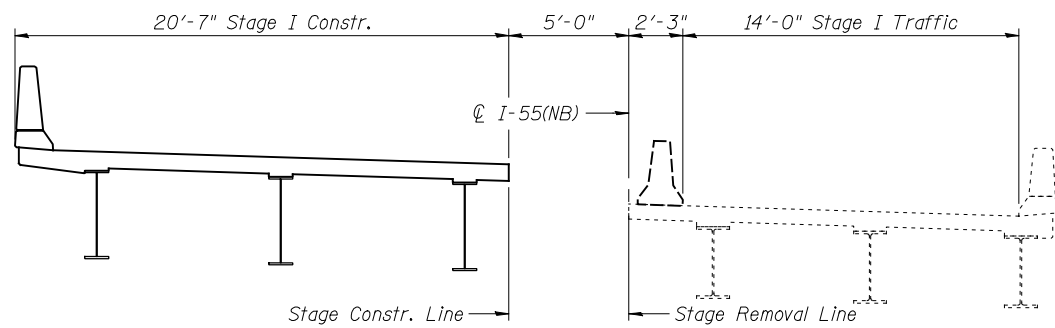
SHEET 2 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	52
	STA. 626+53.70		CONTRACT NO. 70520		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

FILE: J:\JDO\10169 IL-D5 1-55NB McLean\14EB\0570250-70520-002-misc.dgn
USER: DCD
PRINT DATE: 08/06/2010 20:55:55
SAVE DATE: 8/5/2010

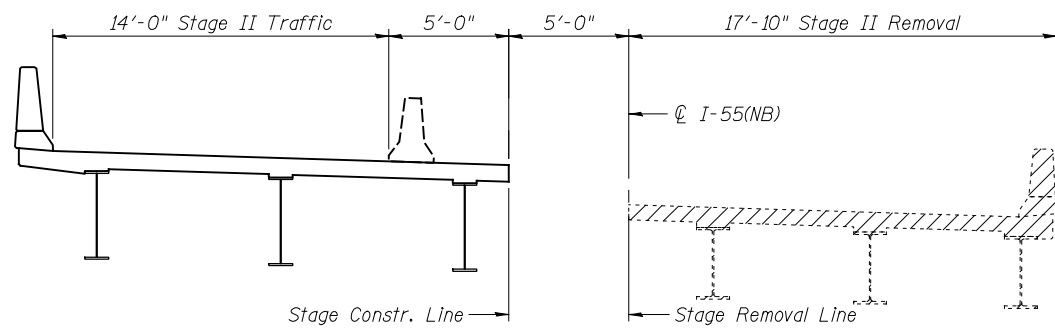
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



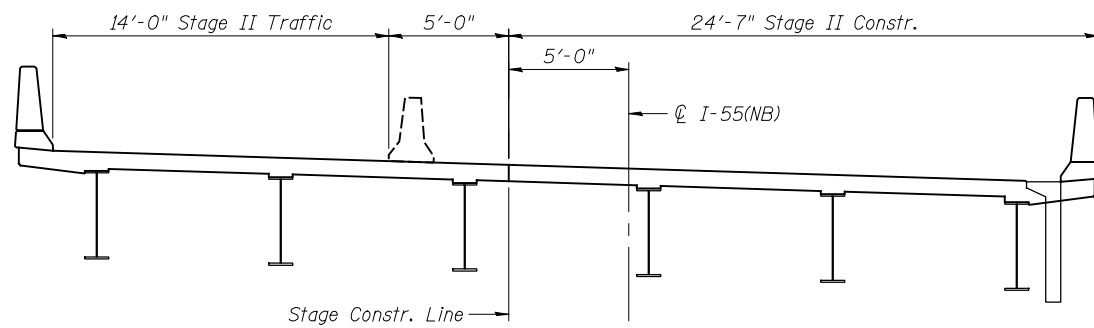
STAGE I REMOVAL
(Looking South)



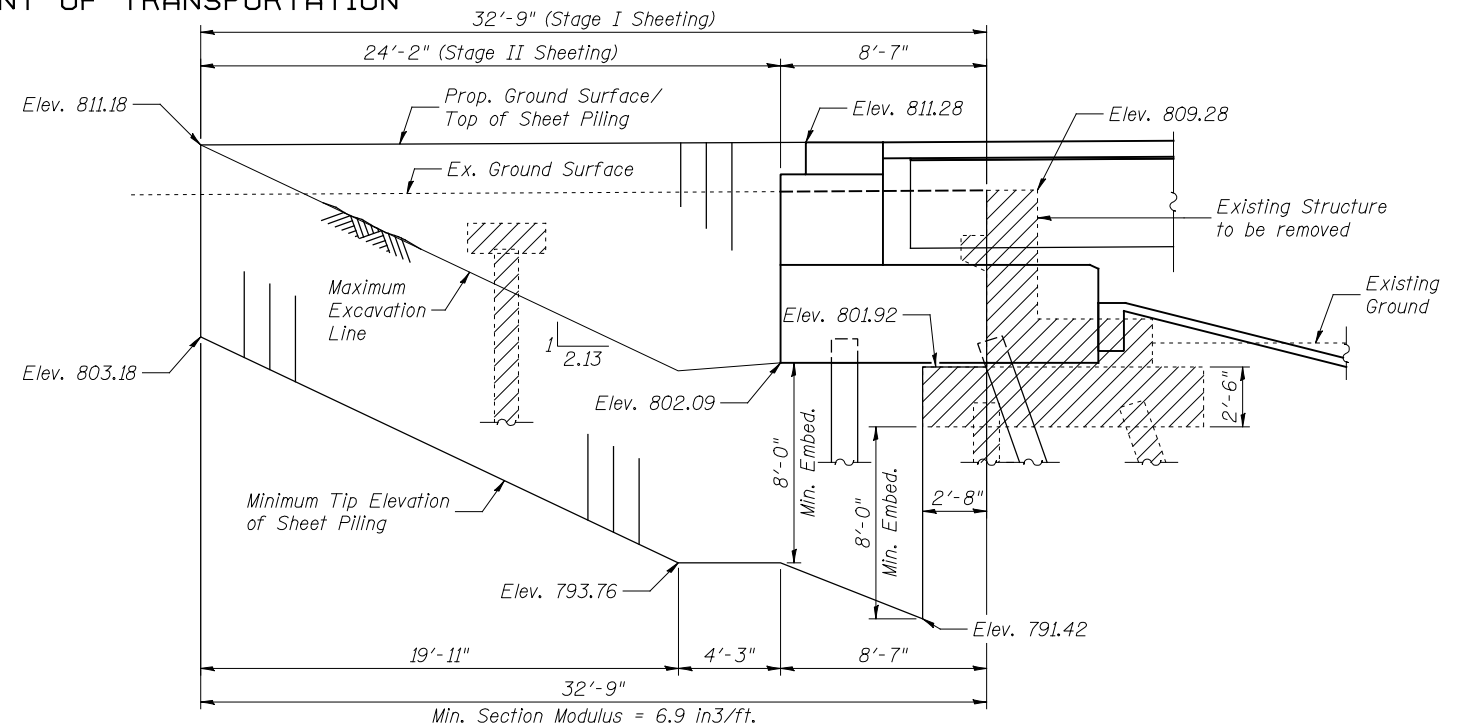
STAGE I CONSTRUCTION
(Looking South)



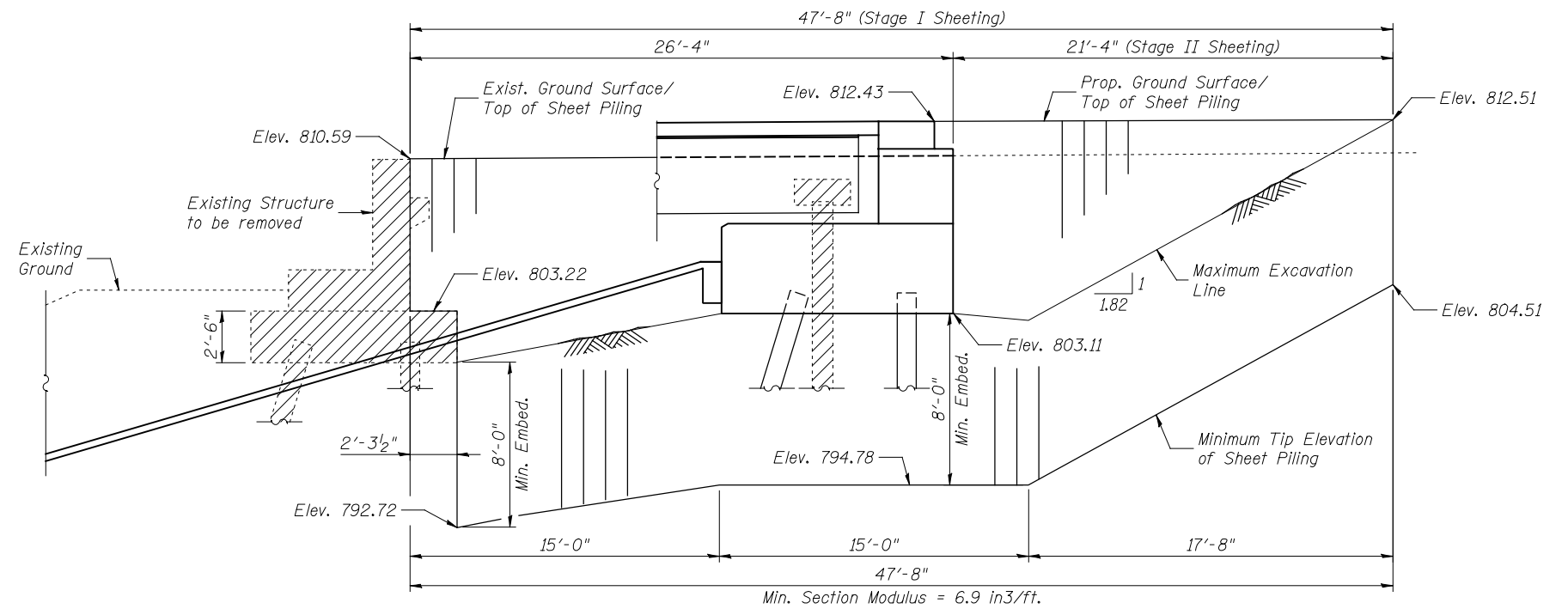
STAGE II REMOVAL
(Looking South)



STAGE II CONSTRUCTION
(Looking South)



NORTH ABUTMENT



SOUTH ABUTMENT

TEMPORARY SHEET PILING DETAILS

(Slopes and horizontal dimensions are measured parallel to centerline roadway)

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

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 057-0250

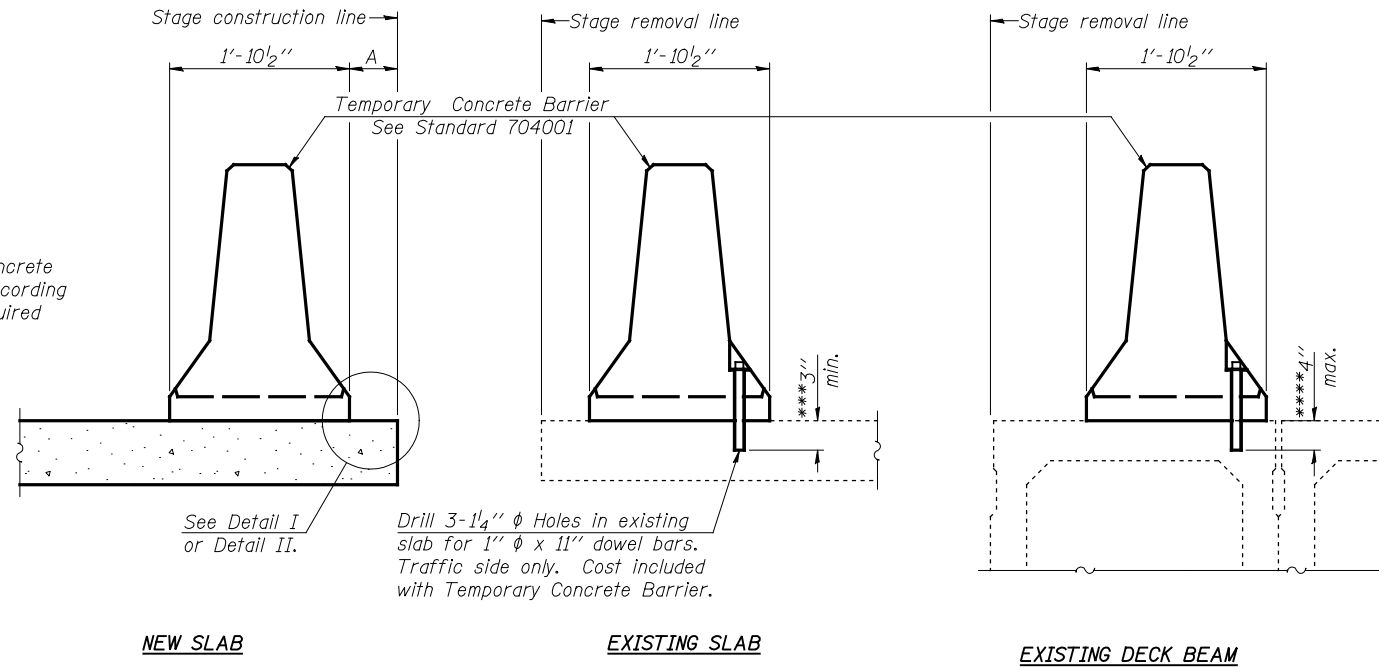
Notes:
Hatched area indicates Removal of Existing Structures.
For quantity and location of Temporary Concrete Barrier, see Roadway Plans.

DESIGNED: CMV	DRAWN: SJS
CHECKED: DCD	CHECKED: CMV/DCD

SHEET 3 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	53
	STA. 626+53.70		CONTRACT NO. 70520		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

FILE: J:\JDO\10169 IL-D5 I-55NB McLean\14EB\0570250-70520-003-stageconst.r.dgn
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 PRINT DATE: 08/06/2010 20:55:58 SAVE DATE: 8/5/2010

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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".

NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

See Detail I or Detail II.

Drill 3-1 1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

NOTES

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

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7 1/4" x 10" steel \bar{L} 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.

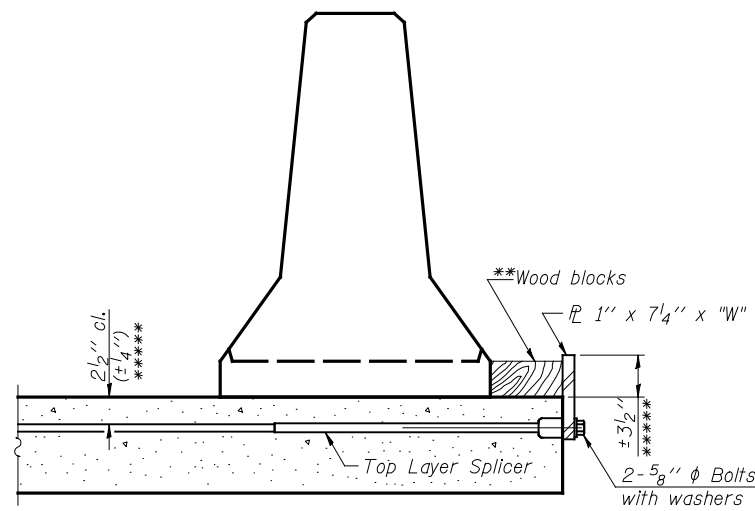
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7 1/4" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

SECTIONS THRU SLAB OR DECK BEAM

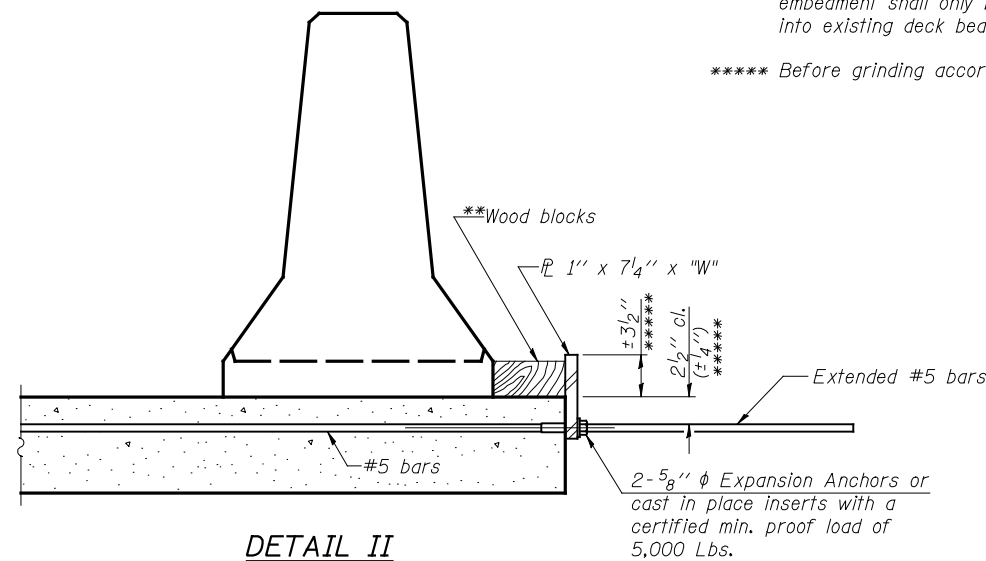
*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** 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.

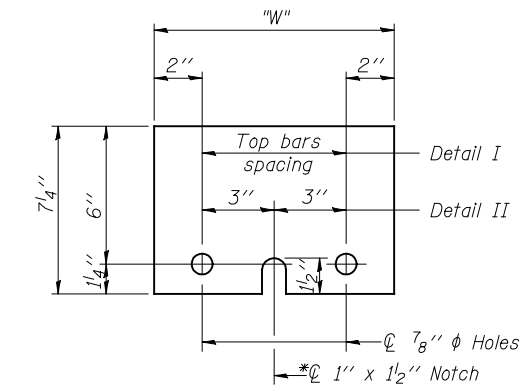
***** Before grinding according to Bridge Smoothness Specification.



DETAIL I



DETAIL II



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

* Required only with Detail II

** 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.

"W" = Top bars spacing + 4"

DESIGNED: IDOT	DRAWN: SJS
CHECKED: DCD	CHECKED: CMV/DCD

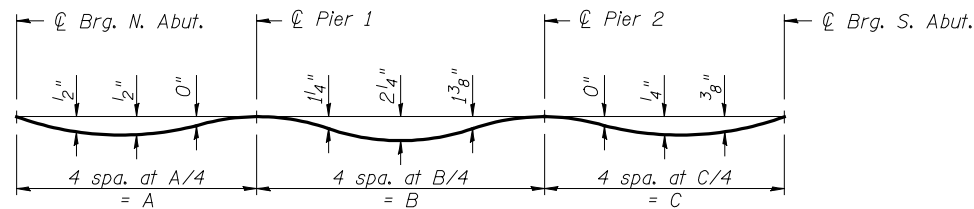
R-27

11-1-09 (Modified)

(MODIFIED)
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 057-0250

SHEET 4 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	54
STA. 626+53.70			CONTRACT NO. 70520		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

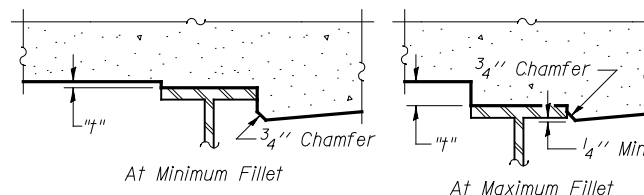


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown below.



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

FILLET HEIGHTS

NOTE: Expected fillet height "t" varies from 2 1/4" (at Abuts. & midspans) to 1" (at Piers).

BEAM 1

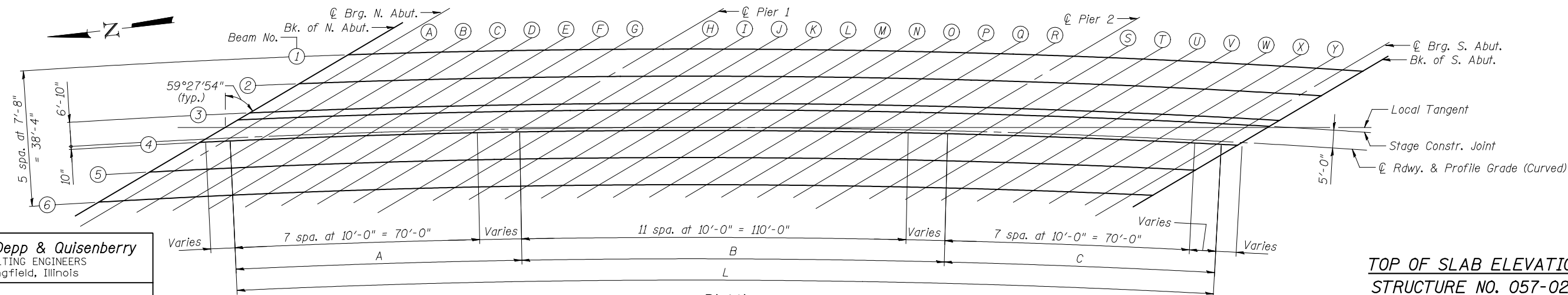
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	625+57.50	-22.17	811.93	811.95
☉ Brg N. Abut.	625+64.22	-22.17	811.96	811.98
A	625+74.14	-22.17	812.00	812.04
B	625+84.06	-22.17	812.04	812.10
C	625+93.98	-22.17	812.08	812.15
D	626+03.91	-22.17	812.11	812.18
E	626+13.83	-22.17	812.15	812.20
F	626+23.75	-22.17	812.19	812.22
G	626+33.67	-22.17	812.23	812.25
☉ Pier 1	626+43.58	-22.17	812.27	812.29
H	626+53.50	-22.17	812.31	812.36
I	626+63.42	-22.17	812.35	812.44
J	626+73.34	-22.17	812.39	812.52
K	626+83.27	-22.17	812.43	812.60
L	626+93.19	-22.17	812.47	812.67
M	627+03.11	-22.17	812.51	812.72
N	627+13.04	-22.17	812.55	812.74
O	627+22.96	-22.17	812.59	812.76
P	627+32.88	-22.17	812.63	812.76
Q	627+42.80	-22.17	812.67	812.75
R	627+52.73	-22.17	812.71	812.76
☉ Pier 2	627+61.27	-22.17	812.74	812.76
S	627+71.19	-22.17	812.78	812.79
T	627+81.12	-22.17	812.82	812.84
U	627+91.04	-22.17	812.86	812.89
V	628+00.96	-22.17	812.90	812.95
W	628+10.89	-22.17	812.94	812.99
X	628+20.81	-22.17	812.98	813.03
Y	628+30.73	-22.17	813.02	813.05
☉ Brg S. Abut.	628+36.84	-22.17	813.04	813.07
Bk. S. Abut.	628+42.57	-22.17	813.07	813.09

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	625+43.45	-14.50	811.64	811.66
☉ Brg N. Abut.	625+50.25	-14.50	811.66	811.68
A	625+60.20	-14.50	811.70	811.75
B	625+70.15	-14.50	811.74	811.81
C	625+80.10	-14.50	811.78	811.85
D	625+90.04	-14.50	811.82	811.89
E	625+99.99	-14.50	811.86	811.91
F	626+09.94	-14.50	811.90	811.93
G	626+19.89	-14.50	811.94	811.96
☉ Pier 1	626+30.49	-14.50	811.98	812.00
H	626+40.44	-14.50	812.02	812.07
I	626+50.39	-14.50	812.06	812.15
J	626+60.34	-14.50	812.10	812.23
K	626+70.29	-14.50	812.14	812.31
L	626+80.24	-14.50	812.18	812.38
M	626+90.19	-14.50	812.22	812.43
N	627+00.13	-14.50	812.26	812.46
O	627+10.08	-14.50	812.30	812.47
P	627+20.03	-14.50	812.34	812.47
Q	627+29.98	-14.50	812.38	812.47
R	627+39.93	-14.50	812.42	812.47
☉ Pier 2	627+49.35	-14.50	812.46	812.48
S	627+59.29	-14.50	812.50	812.51
T	627+69.24	-14.50	812.54	812.55
U	627+79.19	-14.50	812.58	812.61
V	627+89.14	-14.50	812.62	812.66
W	627+99.09	-14.50	812.66	812.71
X	628+09.04	-14.50	812.70	812.74
Y	628+18.99	-14.50	812.74	812.77
☉ Brg S. Abut.	628+25.59	-14.50	812.76	812.78
Bk. S. Abut.	628+31.36	-14.50	812.78	812.81

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	625+29.20	-6.83	811.34	811.36
☉ Brg N. Abut.	625+36.08	-6.83	811.37	811.39
A	625+46.05	-6.83	811.41	811.46
B	625+56.03	-6.83	811.45	811.52
C	625+66.00	-6.83	811.49	811.56
D	625+75.98	-6.83	811.53	811.59
E	625+85.96	-6.83	811.57	811.61
F	625+95.93	-6.83	811.61	811.64
G	626+05.91	-6.83	811.65	811.66
☉ Pier 1	626+17.23	-6.83	811.69	811.71
H	626+27.20	-6.83	811.73	811.78
I	626+37.18	-6.83	811.77	811.86
J	626+47.15	-6.83	811.81	811.94
K	626+57.13	-6.83	811.85	812.02
L	626+67.11	-6.83	811.89	812.09
M	626+77.08	-6.83	811.93	812.14
N	626+87.06	-6.83	811.97	812.17
O	626+97.04	-6.83	812.01	812.18
P	627+07.01	-6.83	812.05	812.18
Q	627+16.99	-6.83	812.09	812.18
R	627+26.96	-6.83	812.13	812.18
☉ Pier 2	627+37.28	-6.83	812.17	812.19
S	627+47.25	-6.83	812.21	812.22
T	627+57.23	-6.83	812.25	812.27
U	627+67.20	-6.83	812.29	812.32
V	627+77.18	-6.83	812.33	812.38
W	627+87.16	-6.83	812.37	812.42
X	627+97.13	-6.83	812.41	812.46
Y	628+07.11	-6.83	812.45	812.48
☉ Brg S. Abut.	628+14.20	-6.83	812.48	812.50
Bk. S. Abut.	628+20.03	-6.83	812.50	812.52



PLAN

Note:
For dimensions A, B, C, and L, see sheet 14 of 27.

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 057-0250**

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD DRAWN: SJS
CHECKED: CMV CHECKED: CMV/DCD

SHEET 5 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-THB-1)BR	MCLEAN	153	55
		STA. 626+53.70	CONTRACT NO.	70520	
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

FILE: J:\JDO\10169_IL-D5_1-55NB_McLeon\1-55NB-174EB\0570250-70520-005-slabelev.dgn
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	625+25.76	-5.00	811.27	811.29
☉ Brg N. Abut.	625+32.66	-5.00	811.30	811.32
A	625+42.64	-5.00	811.34	811.39
B	625+52.62	-5.00	811.38	811.44
C	625+62.60	-5.00	811.42	811.49
D	625+72.59	-5.00	811.46	811.52
E	625+82.57	-5.00	811.50	811.54
F	625+92.55	-5.00	811.54	811.56
G	626+02.53	-5.00	811.58	811.59
☉ Pier 1	626+14.03	-5.00	811.62	811.64
H	626+24.01	-5.00	811.66	811.71
I	626+33.99	-5.00	811.70	811.79
J	626+43.98	-5.00	811.74	811.87
K	626+53.96	-5.00	811.78	811.95
L	626+63.94	-5.00	811.82	812.02
M	626+73.92	-5.00	811.86	812.07
N	626+83.91	-5.00	811.90	812.10
O	626+93.89	-5.00	811.94	812.11
P	627+03.87	-5.00	811.98	812.12
Q	627+13.85	-5.00	812.02	812.11
R	627+23.84	-5.00	812.06	812.11
☉ Pier 2	627+34.37	-5.00	812.10	812.12
S	627+44.35	-5.00	812.14	812.15
T	627+54.33	-5.00	812.18	812.20
U	627+64.32	-5.00	812.22	812.25
V	627+74.30	-5.00	812.26	812.31
W	627+84.28	-5.00	812.30	812.35
X	627+94.26	-5.00	812.34	812.39
Y	628+04.25	-5.00	812.38	812.42
☉ Brg S. Abut.	628+11.46	-5.00	812.41	812.43
Bk. S. Abut.	628+17.30	-5.00	812.43	812.45

☉ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	625+16.31	0.00	811.08	811.10
☉ Brg N. Abut.	625+23.27	0.00	811.11	811.13
A	625+33.27	0.00	811.15	811.19
B	625+43.27	0.00	811.19	811.25
C	625+53.27	0.00	811.23	811.30
D	625+63.27	0.00	811.27	811.33
E	625+73.27	0.00	811.31	811.35
F	625+83.27	0.00	811.35	811.37
G	625+93.27	0.00	811.39	811.40
☉ Pier 1	626+05.25	0.00	811.43	811.45
H	626+15.25	0.00	811.47	811.52
I	626+25.25	0.00	811.51	811.60
J	626+35.25	0.00	811.55	811.68
K	626+45.25	0.00	811.59	811.76
L	626+55.25	0.00	811.63	811.83
M	626+65.25	0.00	811.67	811.88
N	626+75.25	0.00	811.71	811.91
O	626+85.25	0.00	811.75	811.92
P	626+95.25	0.00	811.79	811.93
Q	627+05.25	0.00	811.83	811.93
R	627+15.25	0.00	811.87	811.93
☉ Pier 2	627+26.39	0.00	811.92	811.94
S	627+36.39	0.00	811.96	811.97
T	627+46.39	0.00	812.00	812.01
U	627+56.39	0.00	812.04	812.07
V	627+66.39	0.00	812.08	812.12
W	627+76.39	0.00	812.12	812.17
X	627+86.39	0.00	812.16	812.21
Y	627+96.39	0.00	812.20	812.23
☉ Brg S. Abut.	628+03.94	0.00	812.23	812.25
Bk. S. Abut.	628+09.82	0.00	812.25	812.27

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	625+14.73	0.83	811.05	811.07
☉ Brg N. Abut.	625+21.70	0.83	811.07	811.09
A	625+31.70	0.83	811.11	811.16
B	625+41.70	0.83	811.15	811.22
C	625+51.70	0.83	811.19	811.27
D	625+61.71	0.83	811.23	811.30
E	625+71.71	0.83	811.27	811.32
F	625+81.71	0.83	811.31	811.34
G	625+91.72	0.83	811.35	811.37
☉ Pier 1	626+03.78	0.83	811.40	811.42
H	626+13.79	0.83	811.44	811.49
I	626+23.79	0.83	811.48	811.57
J	626+33.79	0.83	811.52	811.65
K	626+43.79	0.83	811.56	811.73
L	626+53.80	0.83	811.60	811.79
M	626+63.80	0.83	811.64	811.85
N	626+73.80	0.83	811.68	811.88
O	626+83.81	0.83	811.72	811.89
P	626+93.81	0.83	811.76	811.90
Q	627+03.81	0.83	811.80	811.89
R	627+13.82	0.83	811.84	811.89
☉ Pier 2	627+25.06	0.83	811.89	811.91
S	627+35.06	0.83	811.93	811.94
T	627+45.07	0.83	811.96	811.98
U	627+55.07	0.83	812.00	812.04
V	627+65.07	0.83	812.04	812.09
W	627+75.07	0.83	812.08	812.14
X	627+85.08	0.83	812.12	812.17
Y	627+95.08	0.83	812.16	812.20
☉ Brg S. Abut.	628+02.69	0.83	812.19	812.22
Bk. S. Abut.	628+08.57	0.83	812.22	812.24

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	625+00.05	8.50	810.75	810.77
☉ Brg N. Abut.	625+07.10	8.50	810.78	810.80
A	625+17.13	8.50	810.82	810.87
B	625+27.16	8.50	810.86	810.92
C	625+37.19	8.50	810.90	810.97
D	625+47.22	8.50	810.94	811.00
E	625+57.25	8.50	810.98	811.03
F	625+67.28	8.50	811.02	811.05
G	625+77.31	8.50	811.06	811.08
☉ Pier 1	625+90.16	8.50	811.11	811.13
H	626+00.18	8.50	811.15	811.20
I	626+10.21	8.50	811.19	811.27
J	626+20.24	8.50	811.23	811.35
K	626+30.27	8.50	811.27	811.43
L	626+40.30	8.50	811.31	811.50
M	626+50.33	8.50	811.35	811.55
N	626+60.36	8.50	811.39	811.59
O	626+70.39	8.50	811.43	811.60
P	626+80.42	8.50	811.47	811.61
Q	626+90.45	8.50	811.51	811.61
R	627+00.48	8.50	811.55	811.61
☉ Pier 2	627+12.69	8.50	811.60	811.62
S	627+22.72	8.50	811.64	811.65
T	627+32.75	8.50	811.68	811.69
U	627+42.78	8.50	811.72	811.75
V	627+52.81	8.50	811.76	811.80
W	627+62.84	8.50	811.80	811.85
X	627+72.87	8.50	811.84	811.89
Y	627+82.90	8.50	811.88	811.91
☉ Brg S. Abut.	627+91.04	8.50	811.91	811.93
Bk. S. Abut.	627+96.97	8.50	811.93	811.96

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	624+85.14	16.17	810.45	810.47
☉ Brg N. Abut.	624+92.28	16.17	810.48	810.50
A	625+02.34	16.17	810.52	810.57
B	625+12.39	16.17	810.56	810.63
C	625+22.45	16.17	810.60	810.67
D	625+32.51	16.17	810.64	810.71
E	625+42.56	16.17	810.68	810.73
F	625+52.62	16.17	810.72	810.75
G	625+62.67	16.17	810.76	810.78
☉ Pier 1	625+76.34	16.17	810.82	810.84
H	625+86.39	16.17	810.86	810.90
I	625+96.45	16.17	810.90	810.98
J	626+06.51	16.17	810.94	811.06
K	626+16.56	16.17	810.98	811.14
L	626+26.62	16.17	811.02	811.21
M	626+36.67	16.17	811.06	811.26
N	626+46.73	16.17	811.10	811.29
O	626+56.79	16.17	811.14	811.31
P	626+66.84	16.17	811.18	811.32
Q	626+76.90	16.17	811.22	811.32
R	626+86.96	16.17	811.26	811.32
☉ Pier 2	627+00.17	16.17	811.31	811.33
S	627+10.23	16.17	811.35	811.36
T	627+20.28	16.17	811.39	811.41
U	627+30.34	16.17	811.43	811.46
V	627+40.40	16.17	811.47	811.52
W	627+50.45	16.17	811.51	811.56
X	627+60.51	16.17	811.55	811.60
Y	627+70.57	16.17	811.59	811.63
☉ Brg S. Abut.	627+79.26	16.17	811.63	811.65
Bk. S. Abut.	627+85.24	16.17	811.65	811.67



DESIGNED: DCD DRAWN: SJS
CHECKED: CMV CHECKED: CMV/DCD

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 057-0250

SHEET 6 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-THB-1)BR	MCLEAN	153	56
	STA. 626+53.70		CONTRACT NO.	70520	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

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USER: DCD
PRINT DATE: 08/06/2010 20:56:08 SAVE DATE: 8/5/2010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LEFT CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Aprpr Slab	625+32.98	-24.00	811.89	811.91
A1	625+42.60	-24.00	811.93	811.95
B1	625+52.23	-24.00	811.97	811.99
End N. Aprpr Slab	625+61.86	-24.00	812.00	812.02
End S. Aprpr Slab	628+44.36	-24.00	813.13	813.15
A2	628+54.09	-24.00	813.17	813.19
B2	628+63.83	-24.00	813.21	813.23
End S. Aprpr Slab	628+73.58	-24.00	813.17	813.19

LEFT EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Aprpr Slab	625+10.45	-12.00	811.43	811.45
A1	625+20.26	-12.00	811.47	811.49
B1	625+30.06	-12.00	811.50	811.53
End N. Aprpr Slab	625+39.88	-12.00	811.54	811.56
End S. Aprpr Slab	628+26.79	-12.00	812.69	812.71
A2	628+36.66	-12.00	812.73	812.75
B2	628+46.53	-12.00	812.77	812.79
End S. Aprpr Slab	628+56.39	-12.00	812.81	812.83

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Aprpr Slab	624+97.06	-5.00	811.16	811.18
A1	625+06.98	-5.00	811.20	811.22
B1	625+16.90	-5.00	811.24	811.26
End N. Aprpr Slab	625+26.82	-5.00	811.28	811.30
End S. Aprpr Slab	628+16.40	-5.00	812.43	812.45
A2	628+26.35	-5.00	812.47	812.49
B2	628+36.29	-5.00	812.51	812.53
End S. Aprpr Slab	628+46.24	-5.00	812.55	812.57

ROADWAY & PROFILE GRADE

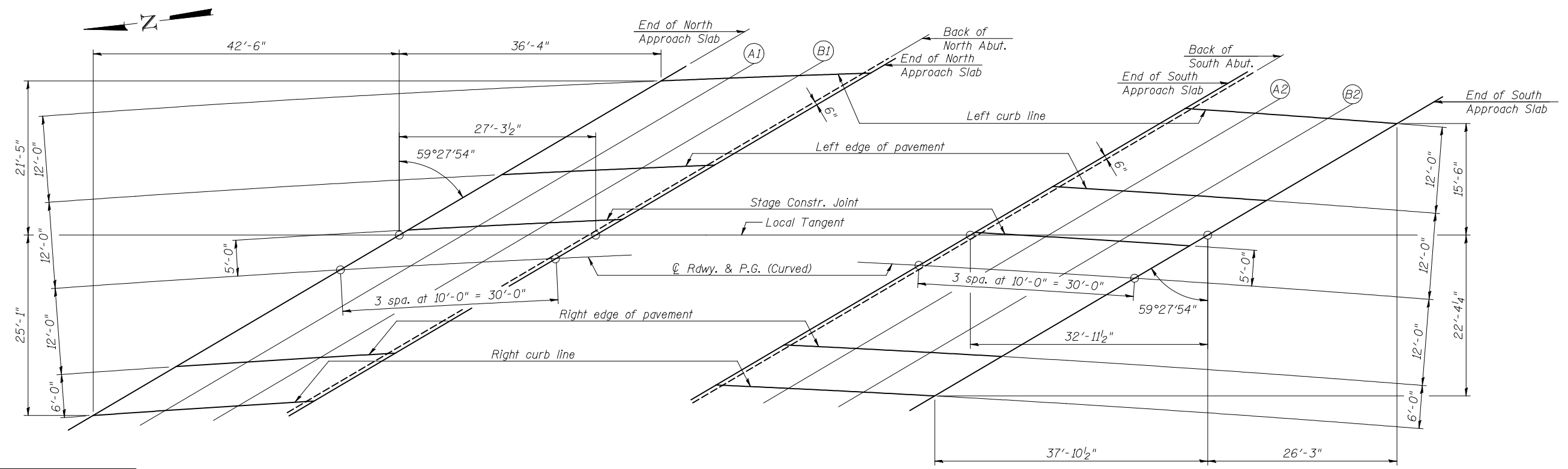
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Aprpr Slab	624+87.39	0.00	810.96	810.98
A1	624+97.39	0.00	811.00	811.02
B1	625+07.39	0.00	811.04	811.06
End N. Aprpr Slab	625+17.39	0.00	811.08	811.10
End S. Aprpr Slab	628+08.92	0.00	812.25	812.27
A2	628+18.92	0.00	812.29	812.31
B2	628+28.92	0.00	812.33	812.35
End S. Aprpr Slab	628+38.92	0.00	812.37	812.39

RIGHT EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Aprpr Slab	624+63.76	12.00	810.50	810.52
A1	624+73.96	12.00	810.54	810.56
B1	624+84.16	12.00	810.58	810.60
End N. Aprpr Slab	624+94.36	12.00	810.62	810.64
End S. Aprpr Slab	627+90.72	12.00	811.80	811.82
A2	628+00.86	12.00	811.84	811.86
B2	628+10.99	12.00	811.88	811.90
End S. Aprpr Slab	628+21.13	12.00	811.92	811.94

RIGHT CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Aprpr Slab	624+51.72	18.00	810.26	810.28
A1	624+62.03	18.00	810.30	810.32
B1	624+72.34	18.00	810.34	810.37
End N. Aprpr Slab	624+82.64	18.00	810.39	810.41
End S. Aprpr Slab	627+81.49	18.00	811.58	811.60
A2	627+91.70	18.00	811.62	811.64
B2	628+01.91	18.00	811.66	811.68
End S. Aprpr Slab	628+12.12	18.00	811.70	811.72



PLAN

TOP OF APPROACH
SLAB ELEVATIONS
STRUCTURE NO. 057-0250

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD	DRAWN: SJS
CHECKED: CMV	CHECKED: CMV/DCD

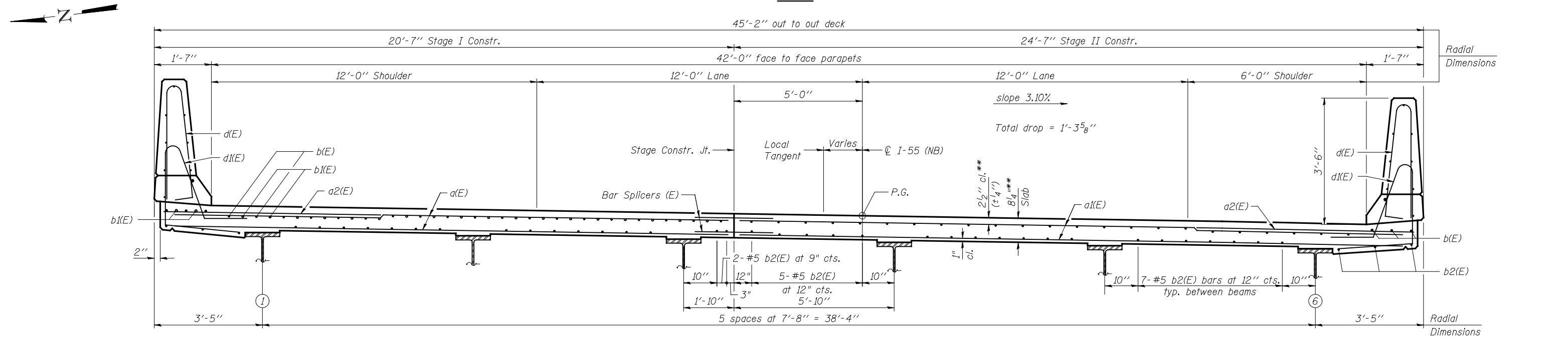
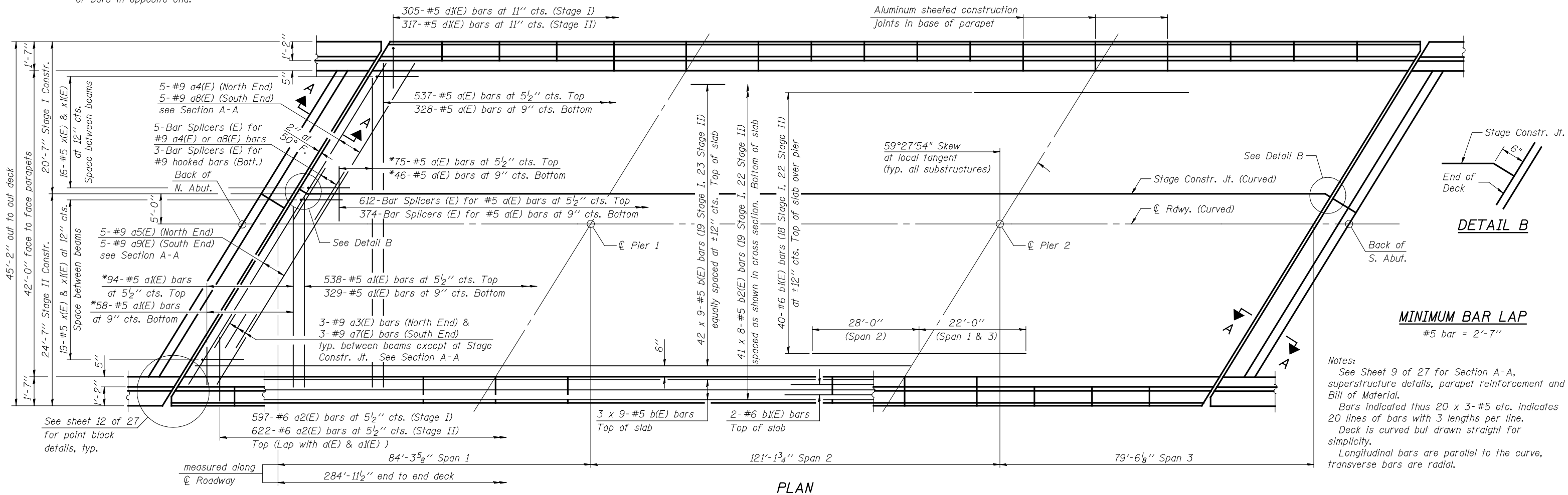
E-AS1 11-1-09

SHEET 7 OF 27	F.A.I. RTE. 55	SECTION (57-7HB-1)BR	COUNTY MCLEAN	TOTAL SHEETS 153	SHEET NO. 57
STA. 626+53.70			CONTRACT NO. 70520		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD
DRAWN: P. Ray

CHECKED: CMV
CHECKED: CMV/DCD

S-2-L(>30°)
11-1-09 (Modified)

NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking South)

**Before grinding according to Bridge Smoothness Specification.

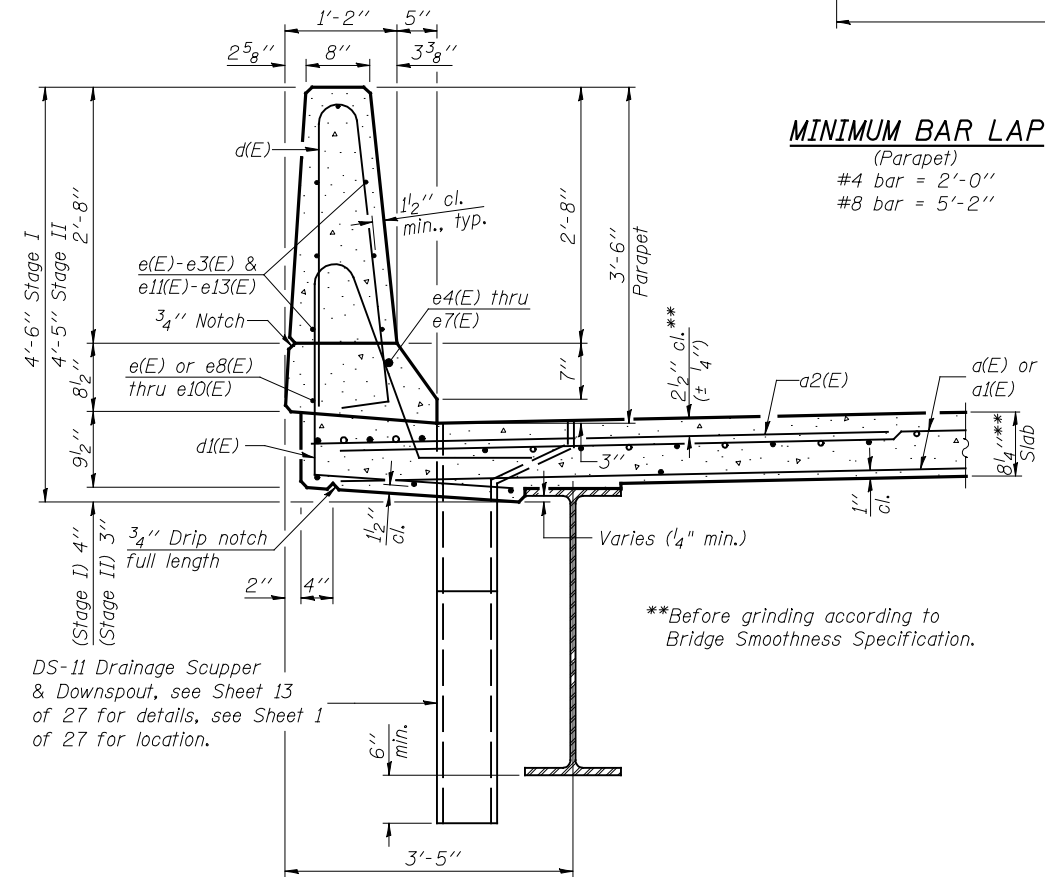
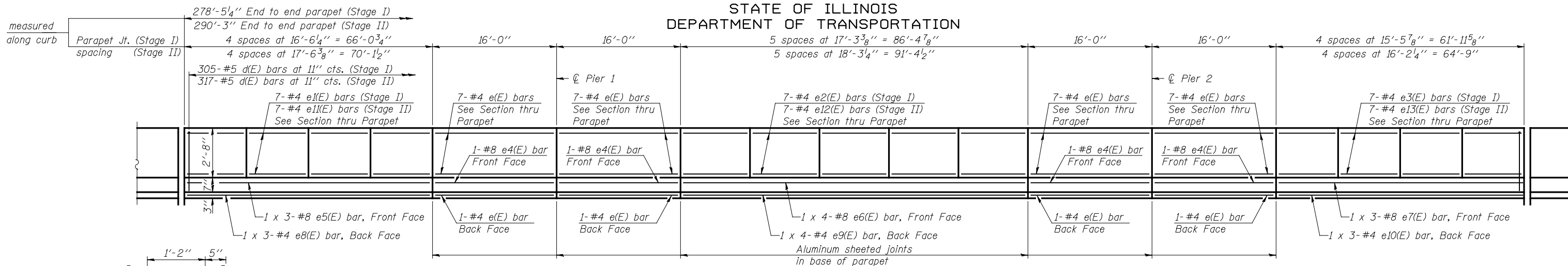
SUPERSTRUCTURE
STRUCTURE NO. 057-0250

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-1)BR	MCLEAN	153	58
STA. 626+53.70		CONTRACT NO. 70520		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

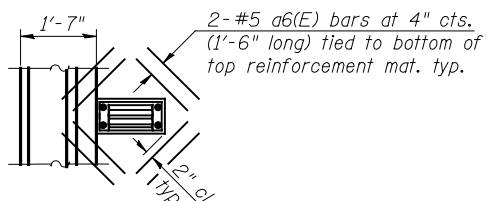
SHEET 8 OF 27

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

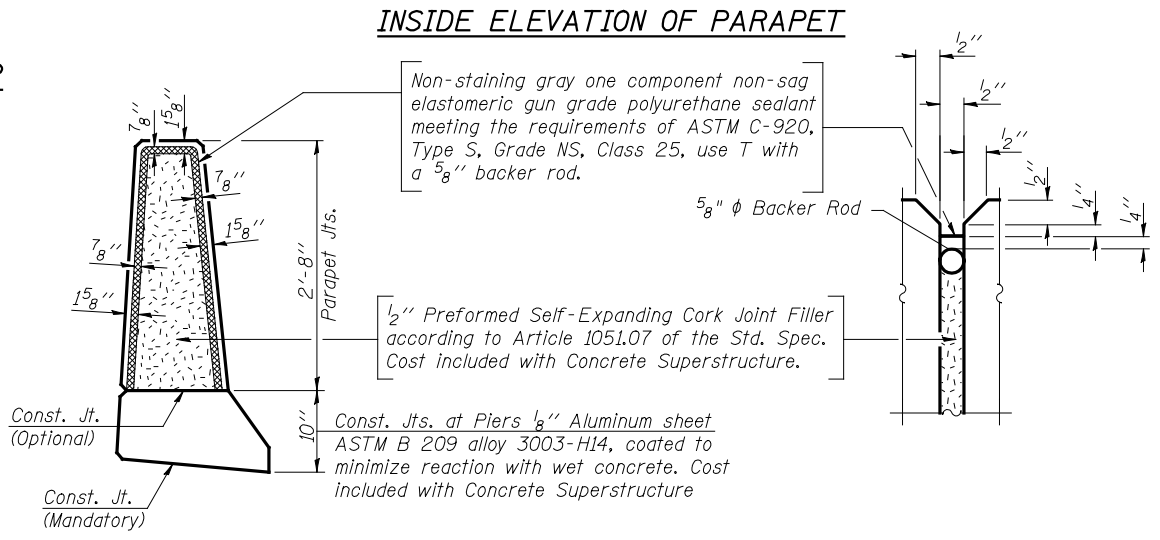


SECTION THRU PARAPET

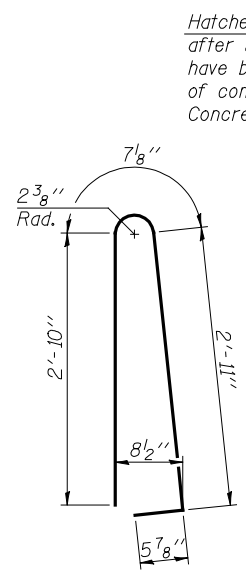


PLAN AT SCUPPER

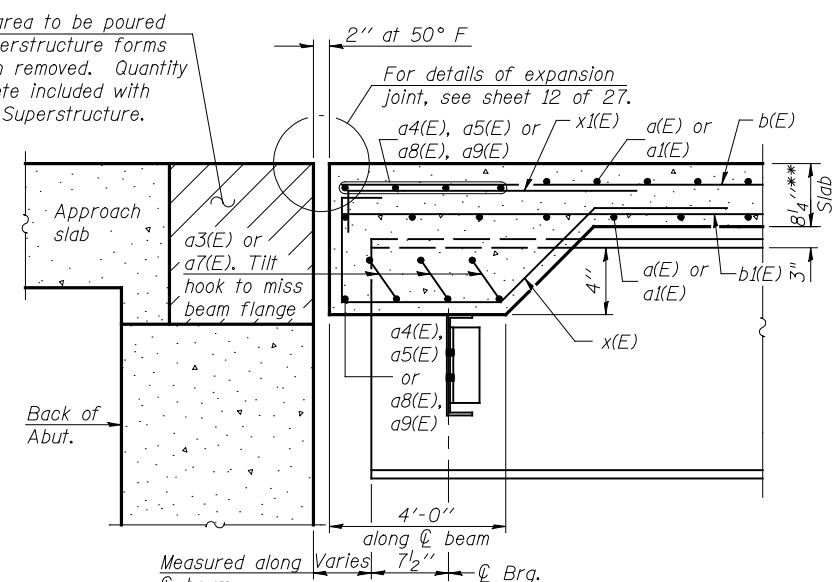
Note:
Cut longitudinal reinforcement to clear drainage scuppers.



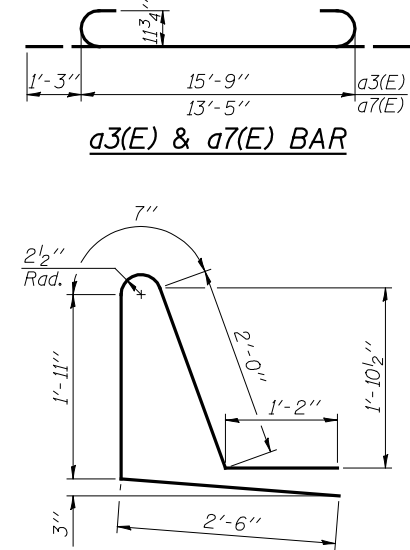
PARAPET JOINT DETAILS



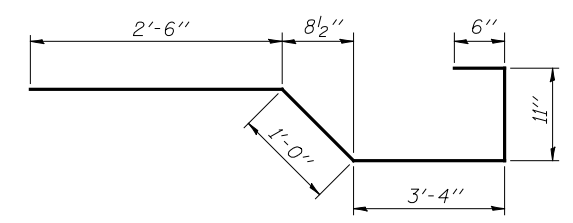
BAR d(E)



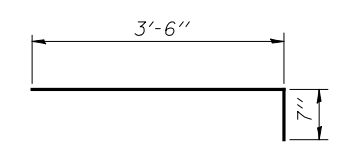
SECTION A-A



BAR d1(E)



BAR x(E)



BAR x1(E)

SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	986	#5	19'-10"	—
a1(E)	1019	#5	23'-10"	—
a2(E)	1219	#6	6'-6"	—
a3(E)	12	#9	18'-3"	U
a4(E)	5	#9	42'-0"	—
a5(E)	5	#9	51'-9"	—
a6(E)	32	#5	1'-6"	—
a7(E)	12	#9	15'-11"	U
a8(E)	5	#9	35'-9"	—
a9(E)	5	#9	43'-1"	—
b(E)	432	#5	34'-6"	—
b1(E)	88	#6	50'-0"	—
b2(E)	328	#5	38'-6"	—
d(E)	622	#5	6'-10"	—
d1(E)	622	#5	8'-2"	—
e(E)	64	#4	15'-8"	—
e1(E)	28	#4	16'-2"	—
e2(E)	35	#4	16'-11"	—
e3(E)	28	#4	15'-2"	—
e4(E)	8	#8	15'-8"	—
e5(E)	6	#8	26'-8"	—
e6(E)	8	#8	26'-8"	—
e7(E)	6	#8	24'-11"	—
e8(E)	6	#4	24'-7"	—
e9(E)	8	#4	24'-3"	—
e10(E)	6	#4	22'-10"	—
e11(E)	28	#4	17'-2"	—
e12(E)	35	#4	17'-11"	—
e13(E)	28	#4	15'-10"	—
x(E)	70	#5	8'-3"	—
x1(E)	70	#5	4'-1"	—
Reinforcement Bars, Epoxy Coated	Pound		112700	
Concrete Superstructure	Cu. Yds.		455.6	

Bars indicated thus 1 x 3-#8 etc. indicates 1 line of bars with 3 lengths per line.

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 057-0250

SHEET	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9	55	(57-THB-1)BR	MCLAN	153	59
OF 27		STA. 626+53.70			
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD	DRAWN: P. Ray
CHECKED: CMV	CHECKED: CMV/DCD

S-D 11-1-09 (Modified)

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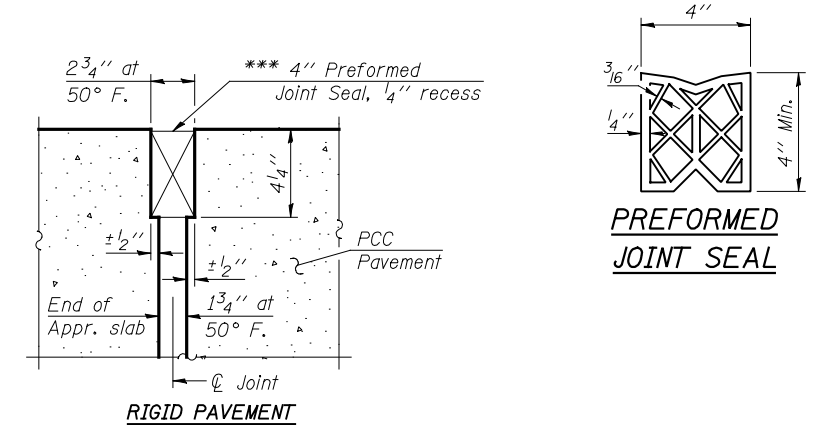
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:

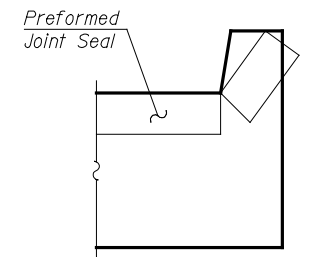
See sheet 11 of 27 for Sections C-C & D-D and View E-E.
a10(E) thru a27(E) bar spacings measured along \varnothing Rdwy.

Approach Slabs are on curved alignment, see Sheet 7 of 27 for layout dimensions.

*** Cost included with Concrete Superstructure.

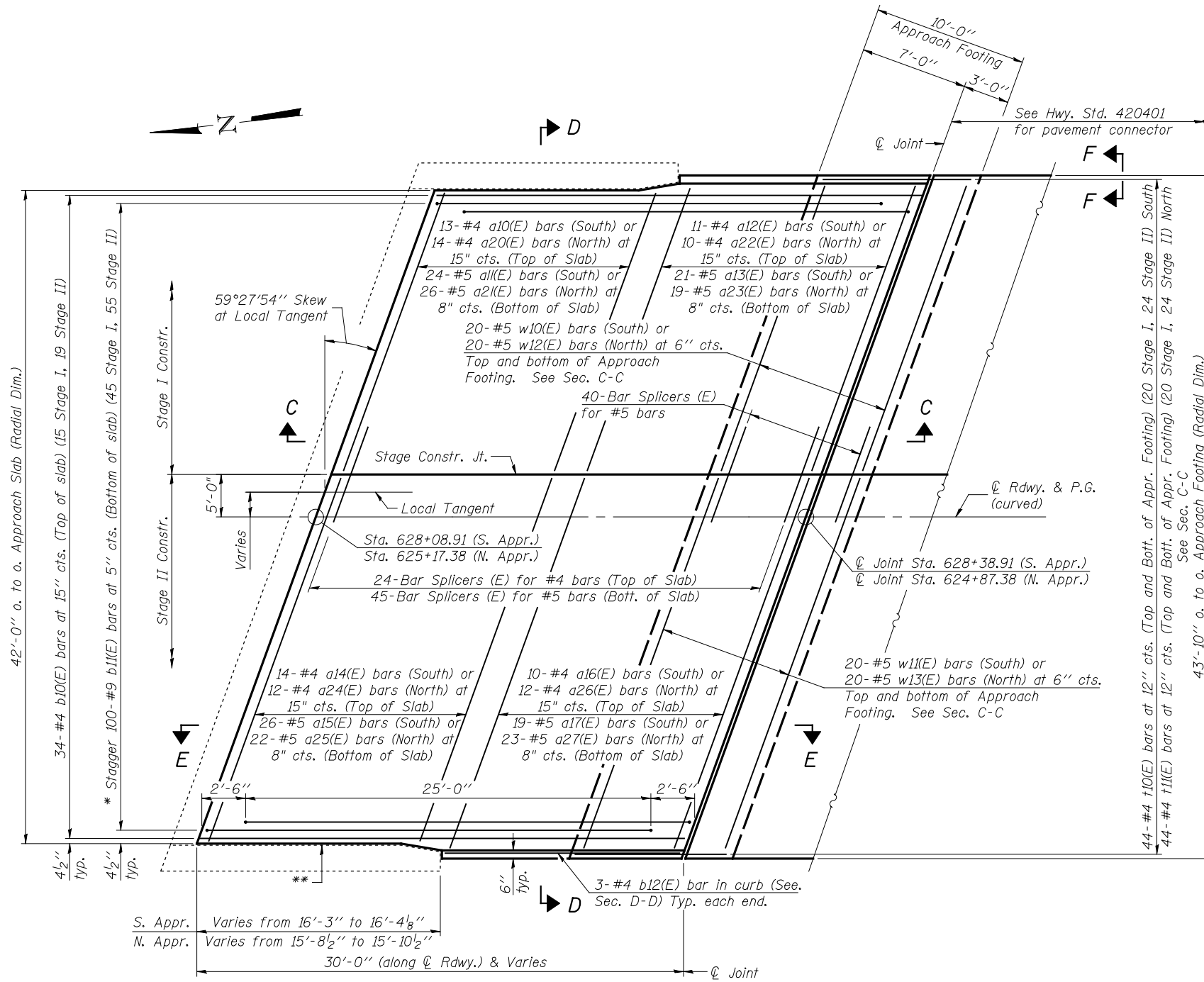


DETAIL A



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



PLAN

(South Approach shown, North Approach similar)

* Tilt #9 b11(E) bars as required to maintain clearance.

** Closed cell joint filler according to Article 1051.08 of the Standard Specifications: full depth of slab, full length of parapet. Typ. each parapet.

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD	DRAWN: P. Ray
CHECKED: CMV	CHECKED: CMV/DCD

BA-L 11-1-09 (Modified)

(Sheet 1 of 2)
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 057-0250

SHEET 10 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	60
		STA. 626+53.70	CONTRACT NO. 70520		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

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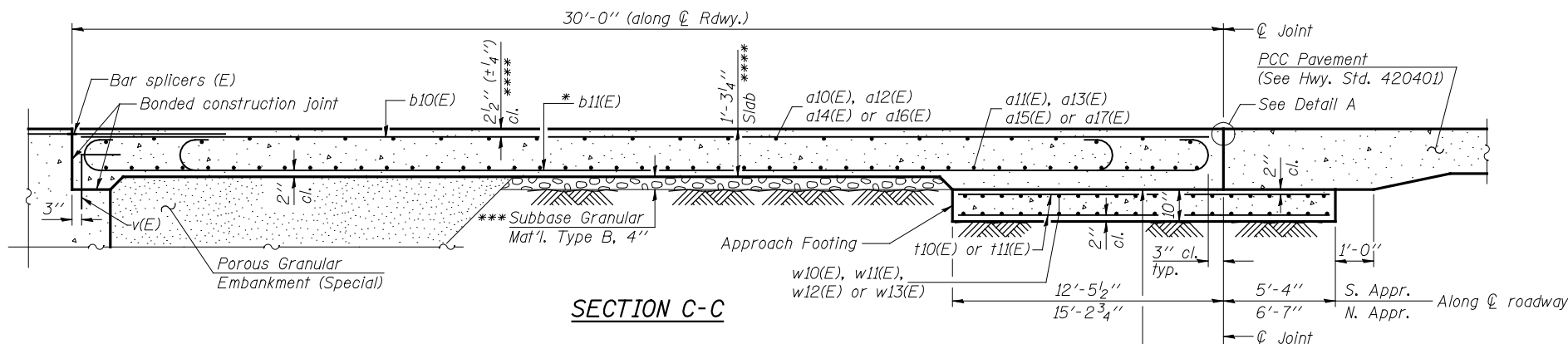
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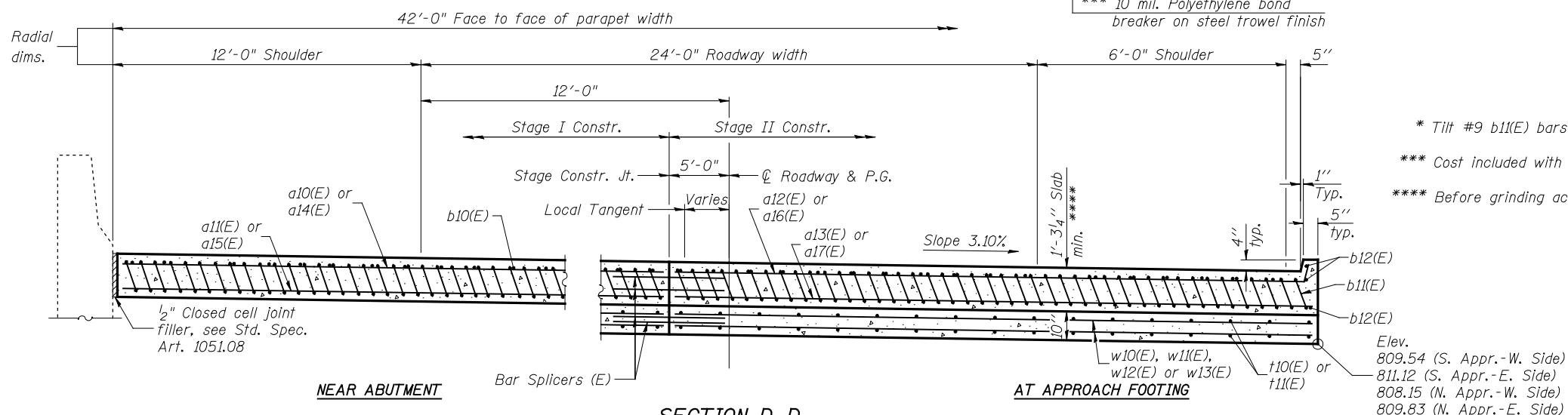
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:

See sheet 10 of 27 for Detail A.
Approach slab concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheets 18 & 20 of 27.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 25 of 27.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 27.

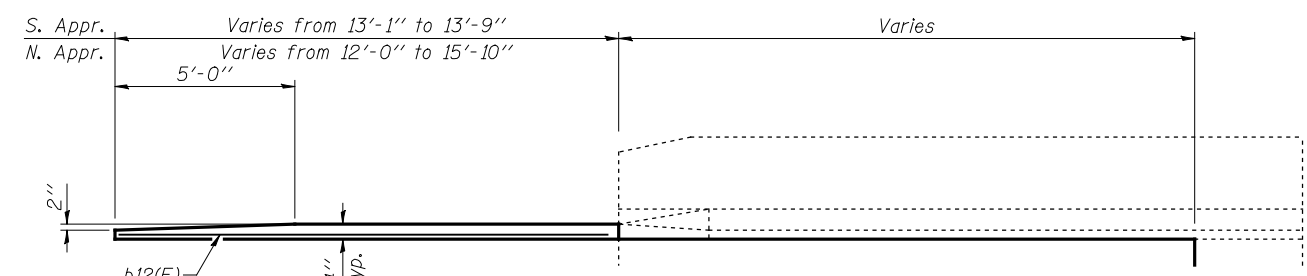


SECTION C-C

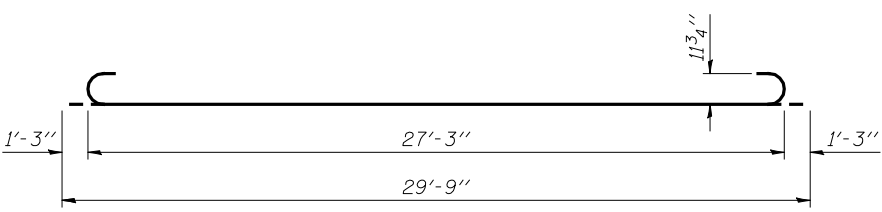
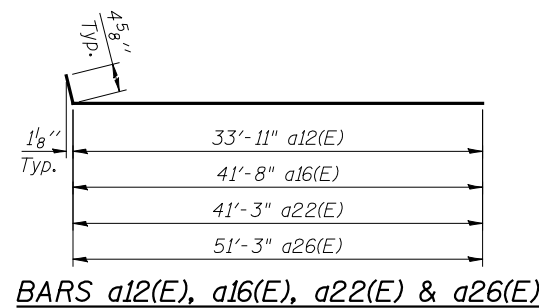


SECTION D-D

(See Plan for dimensions not shown)



VIEW E-E



* Tilt #9 b11(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.
**** Before grinding according to Bridge Smoothness Specification.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	13	#4	33'-3"	—
a11(E)	24	#5	33'-3"	—
a12(E)	11	#4	34'-4"	—
a13(E)	21	#5	34'-5"	—
a14(E)	14	#4	41'-0"	—
a15(E)	26	#5	41'-0"	—
a16(E)	10	#4	42'-1"	—
a17(E)	19	#5	42'-2"	—
a20(E)	14	#4	39'-3"	—
a21(E)	26	#5	39'-3"	—
a22(E)	10	#4	41'-7"	—
a23(E)	19	#5	41'-6"	—
a24(E)	12	#4	49'-0"	—
a25(E)	22	#5	49'-0"	—
a26(E)	12	#4	51'-7"	—
a27(E)	23	#5	51'-6"	—
b10(E)	68	#4	29'-0"	—
b11(E)	200	#9	29'-9"	—
b12(E)	12	#4	12'-9"	—
t10(E)	88	#4	17'-3"	—
t11(E)	88	#4	21'-0"	—
w10(E)	40	#5	34'-5"	—
w11(E)	40	#5	42'-2"	—
w12(E)	40	#5	41'-6"	—
w13(E)	40	#5	51'-6"	—
Concrete Superstructure		Cu. Yd.	121.8	
Concrete Structures		Cu. Yd.	52.9	
Reinforcement Bars, Epoxy Coated		Pound	41410	

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD DRAWN: P. Ray
CHECKED: CMV CHECKED: CMV/DCD

BA-L 11-1-09 (Modified)

(Sheet 2 of 2)
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 057-0250

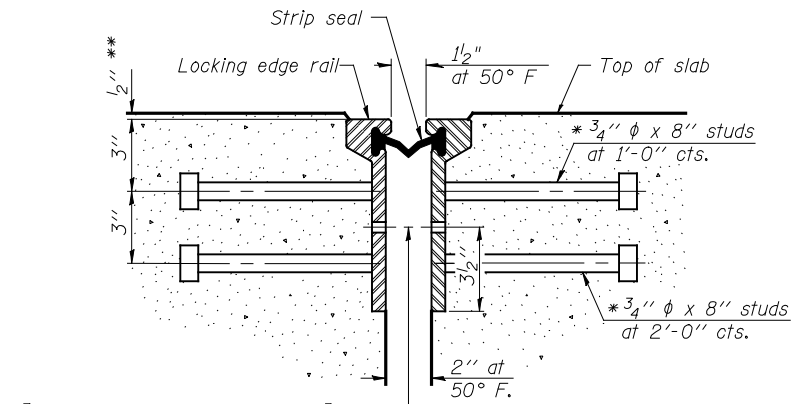
SHEET 11 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	61
STA. 626+53.70		CONTRACT NO. 70520			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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

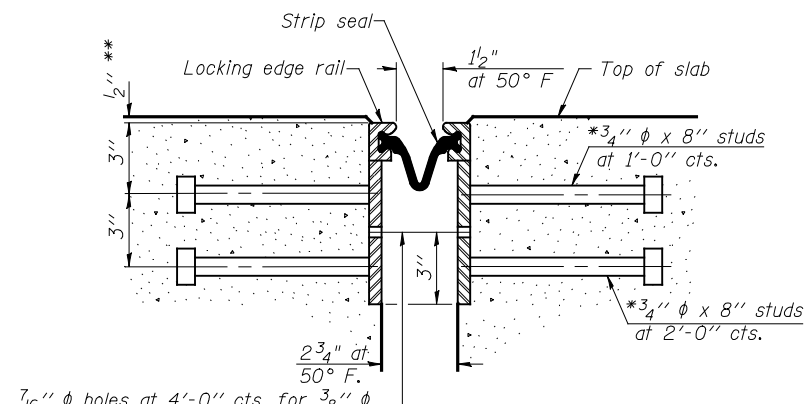
** Before grinding according to Bridge Smoothness Specification.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



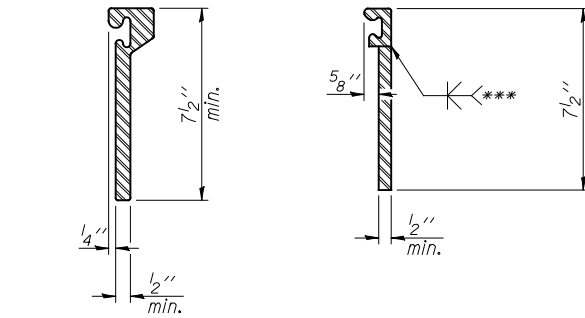
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
ROLLED RAIL JOINT

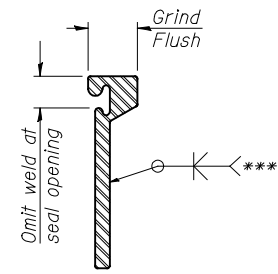


7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT



ROLLED
EXTRUDED RAIL WELDED RAIL

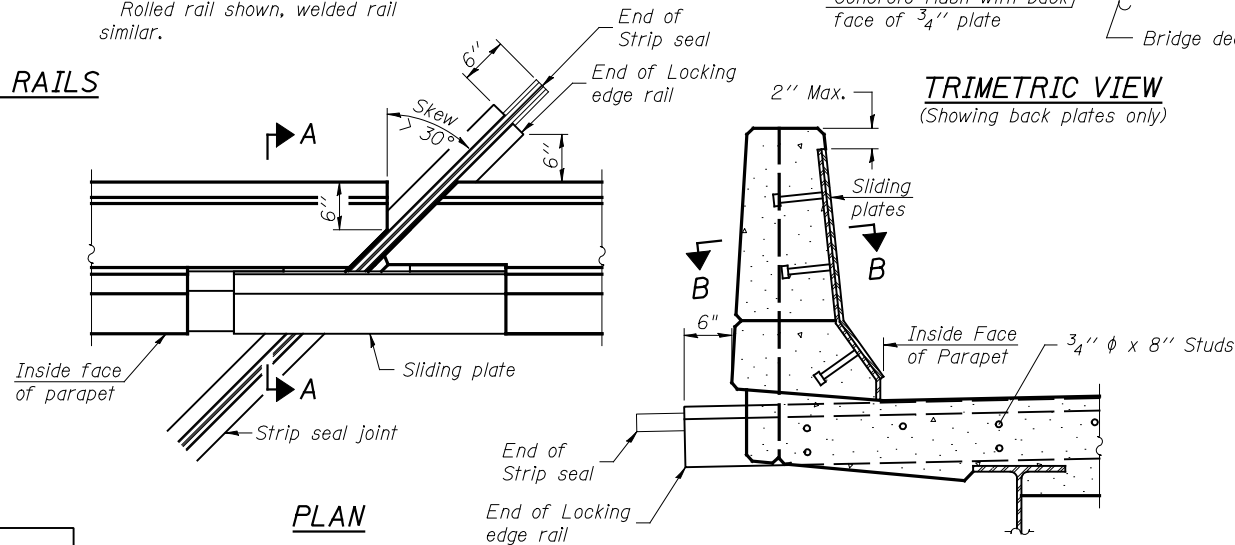


*** Back gauge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

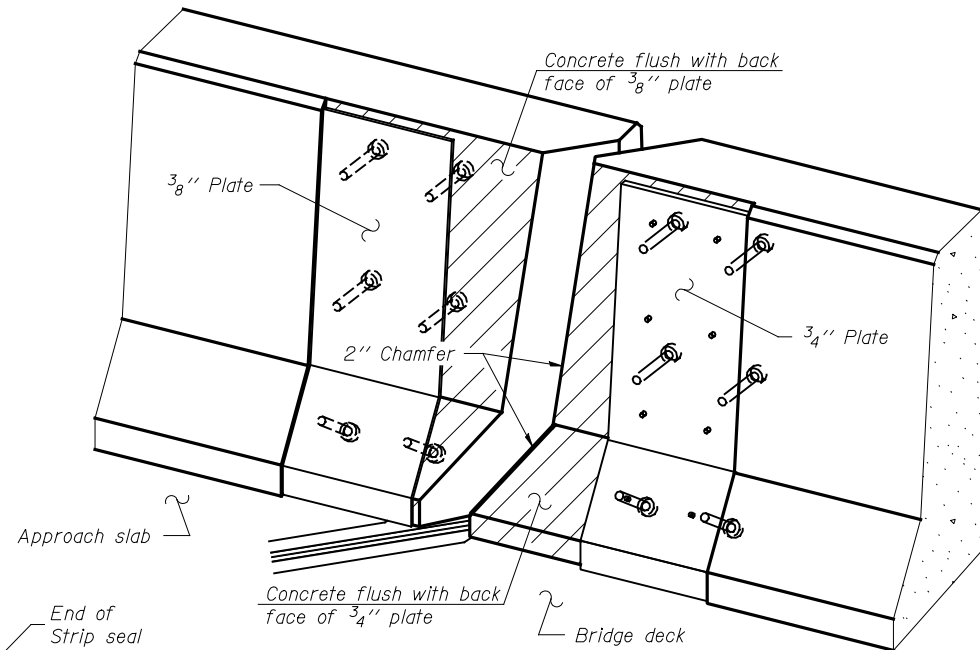
LOCKING EDGE RAILS



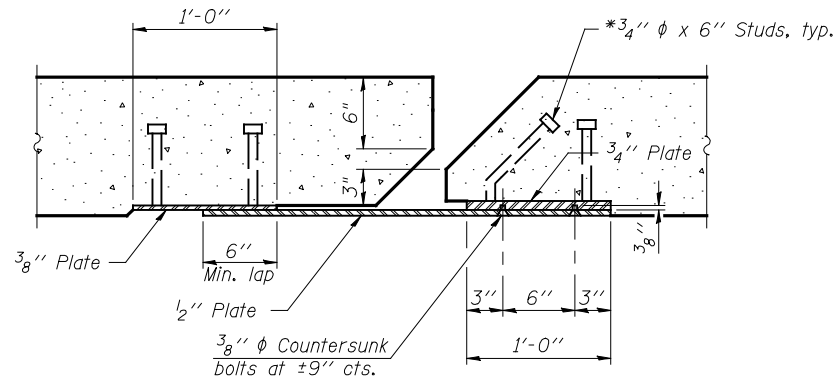
PLAN

SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



TRIMETRIC VIEW
(Showing back plates only)



SECTION B-B

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches. The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities. The manufacturer's recommended installation methods shall be followed. The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State. All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	184

(MODIFIED)
PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 057-0250

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD DRAWN: P. Ray
CHECKED: CMV CHECKED: CMV/DCD

EJ-SSJ 11-1-09 (Modified)

SHEET 12 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	62
		STA. 626+53.70	CONTRACT NO.	70520	
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

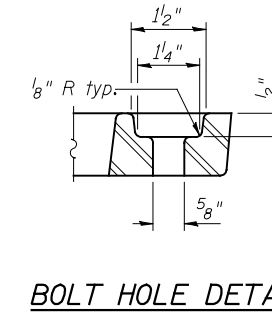
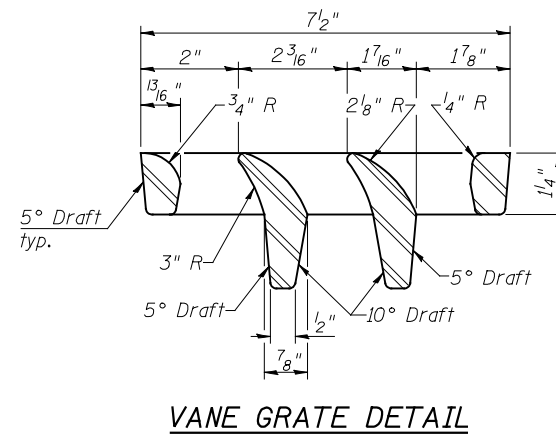
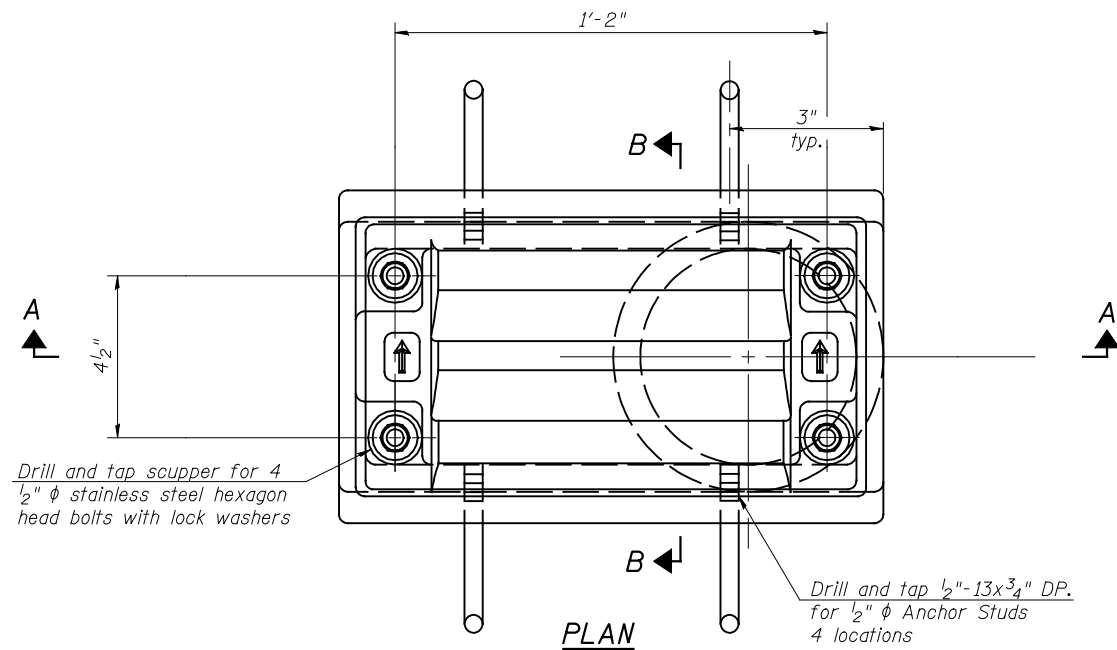
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USER: DCD

SAVE DATE: 8/6/2010

PRINT DATE: 08/06/2010 20:56:29

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

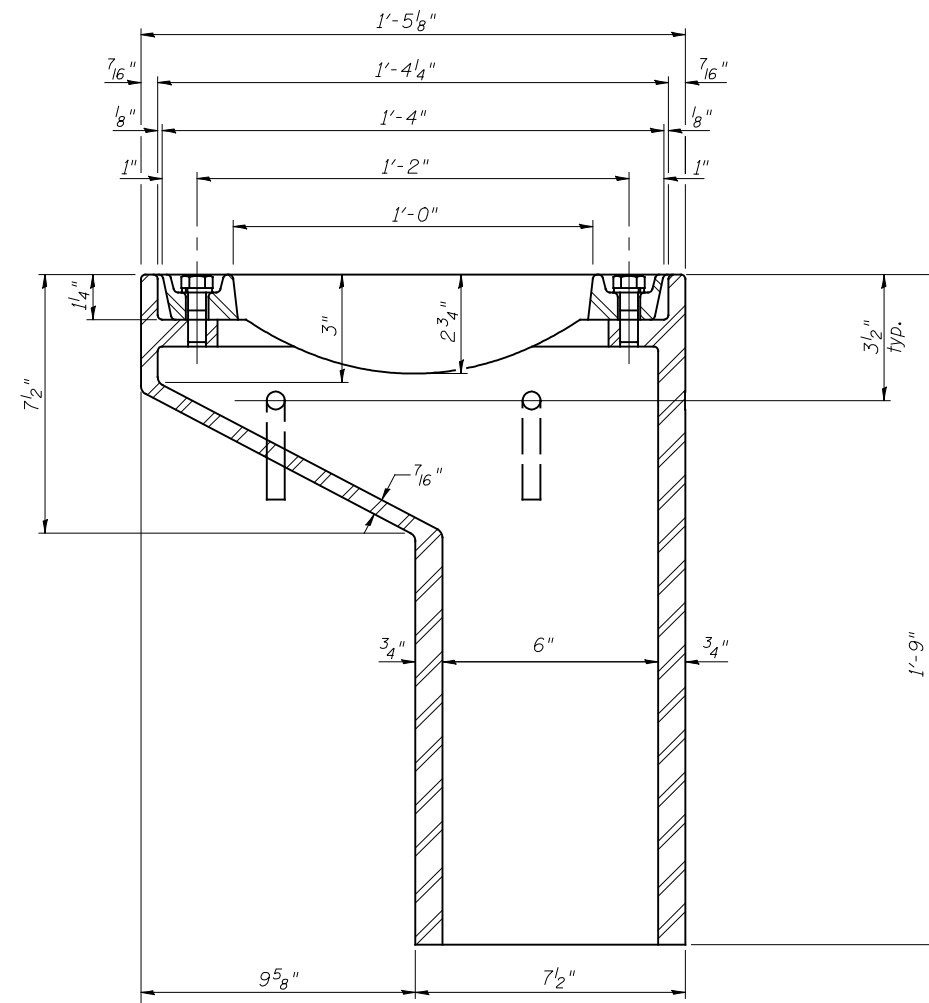
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

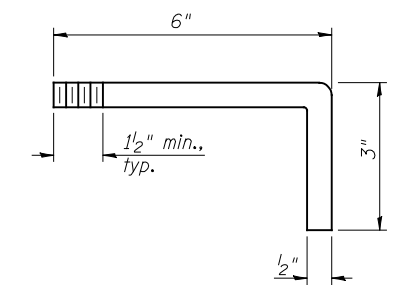
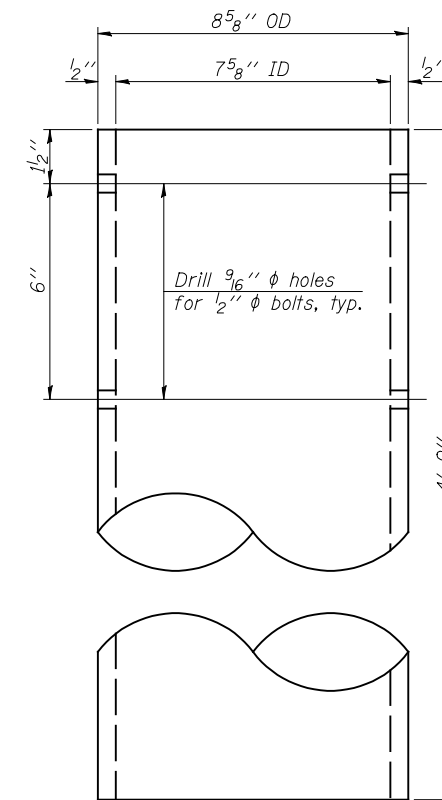
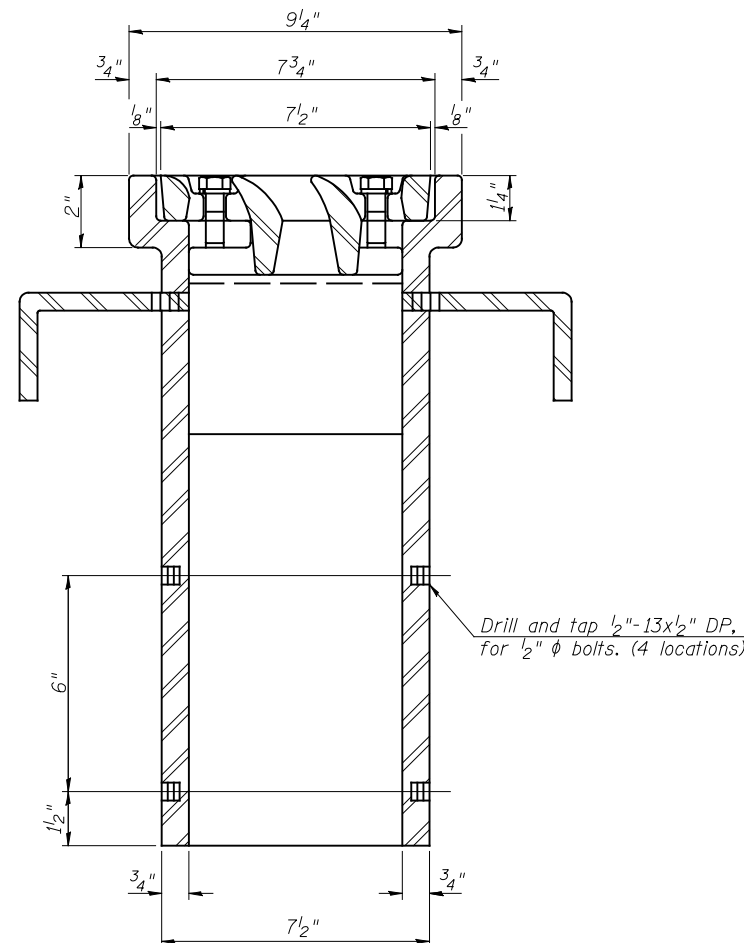
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



See sheet 9 of 27 for scupper location relative to parapet.



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

**DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 057-0250**

SHEET 13 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	63
STA. 626+53.70			CONTRACT NO.	70520	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

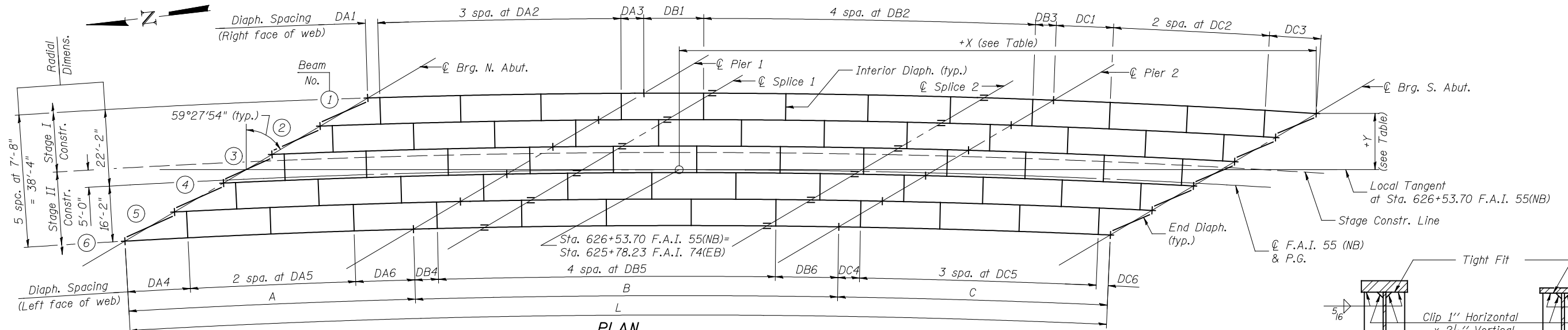
JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: IDOT DRAWN: SJS
CHECKED: DCD CHECKED: CMV/DCD

DS-11 11-1-09

PRINT DATE: 08/06/2010 20:56:33 SAVE DATE: 8/5/2010 USER: DCD FILE: J:\JDO\10169 IL-D5 1-55NB McLeon\155NB-174EB\0570250-70520-013-scupper.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

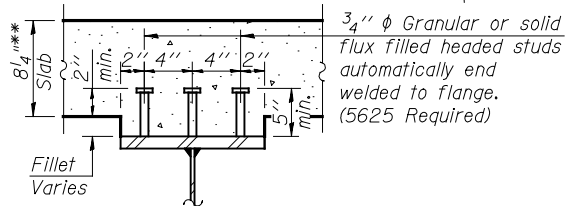


PLAN

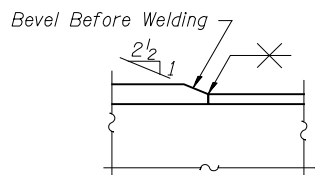
TOP OF WEB ELEVATIONS*

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
⊕ Brg. N. Abut.	811.04	810.75	810.45	810.16	809.86	809.56
⊕ Pier 1	811.36	811.07	810.78	810.49	810.19	809.90
⊕ Splice 1	811.42	811.13	810.84	810.55	810.25	809.96
⊕ Splice 2	811.73	811.44	811.15	810.87	810.58	810.29
⊕ Pier 2	811.83	811.54	811.26	810.97	810.68	810.39
⊕ Brg. S. Abut.	812.13	811.85	811.56	811.28	810.99	810.71

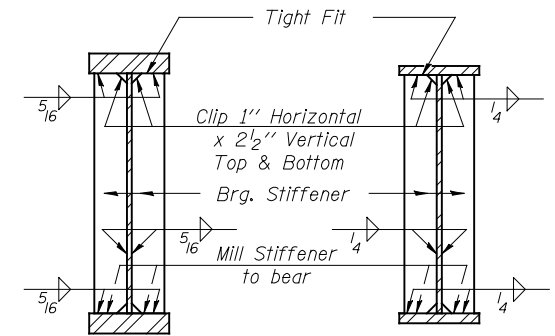
* For Fabrication only. (Theoretical elevations before dead load deflection.)



SECTION A-A



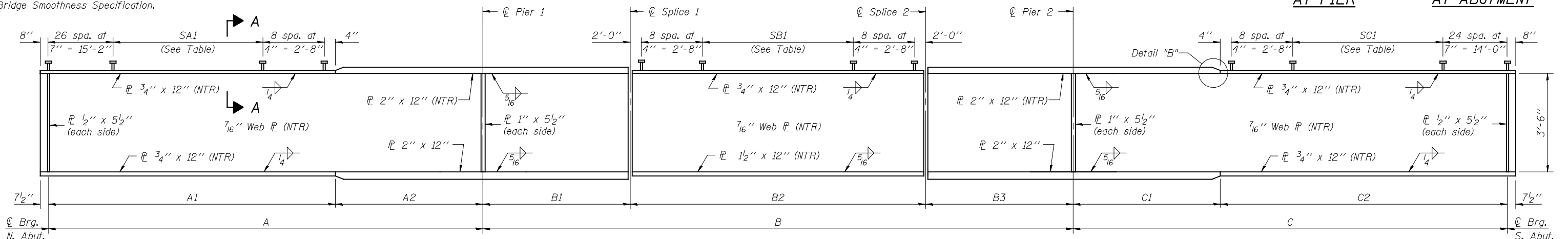
DETAIL "B"



SECTION AT PIER

SECTION AT ABUTMENT

**Before grinding according to Bridge Smoothness Specification.



GIRDER ELEVATION

BEAM DIMENSIONS (feet)

Beam	Radius	A	A1	A2	B	B1	B2	B3	C	C1	C2	L
1	2886.96	79.97	63.97	16.00	118.61	19.76	78.71	20.13	76.15	15.88	60.27	274.73
2	2879.29	80.65	64.51	16.14	119.46	19.92	79.28	20.26	76.62	15.99	60.64	276.73
3	2871.62	81.34	65.07	16.27	120.34	20.08	79.86	20.40	77.11	16.09	61.02	278.79
4	2863.96	82.06	65.66	16.40	121.24	20.24	80.46	20.54	77.60	16.20	61.40	280.90
5	2856.29	82.81	66.26	16.55	122.17	20.41	81.08	20.69	78.11	16.31	61.80	283.09
6	2848.62	83.58	66.89	16.69	123.14	20.58	81.72	20.84	78.64	16.43	62.21	285.36

DIAPHRAGM SPACING (feet)

Beam	DA1	DA2	DA3	DA4	DA5	DA6	DB1	DB2	DB3	DB4	DB5	DB6	DC1	DC2	DC3	DC4	DC5	DC6
1	3.50	23.30	6.57	-	-	-	17.26	23.84	6.00	-	-	-	16.44	22.43	14.85	-	-	-
2	3.50	23.50	6.64	17.54	23.24	16.64	17.37	24.01	6.05	6.60	23.77	17.76	16.53	22.57	14.94	6.01	22.37	3.50
3	3.50	23.71	6.71	17.70	23.44	16.77	17.47	24.19	6.10	6.67	23.95	17.88	16.62	22.72	15.04	6.07	22.52	3.50
4	3.50	23.93	6.79	17.87	23.65	16.90	17.58	24.37	6.16	6.74	24.13	18.00	16.71	22.88	15.14	6.13	22.66	3.50
5	3.50	24.15	6.86	18.04	23.86	17.05	17.70	24.56	6.22	6.82	24.31	18.13	16.81	23.03	15.24	6.18	22.81	3.50
6	-	-	-	18.22	24.09	17.19	-	-	-	6.90	24.50	18.25	-	-	-	6.24	22.97	3.50

LAYOUT DIMENSIONS (feet)

Beam	⊕ Brg. N. Abut.		⊕ Pier 1		⊕ Splice 1		⊕ Splice 2		⊕ Pier 2		⊕ Brg. S. Abut.	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	-90.16	20.76	-10.20	22.15	9.55	22.14	88.26	20.82	108.38	20.13	184.43	16.27
2	-103.95	12.62	-23.33	14.41	-3.42	14.49	75.86	13.50	96.11	12.90	172.65	9.32
3	-117.87	4.41	-36.56	6.60	-16.49	6.79	63.37	6.13	83.76	5.61	160.80	2.33
4	-131.92	-3.87	-49.90	-1.27	-29.66	-0.99	50.80	-1.28	71.33	-1.72	148.87	-4.71
5	-146.10	-12.24	-63.35	-9.20	-42.95	-8.82	38.13	-8.75	58.81	-9.11	136.88	-11.78
6	-160.42	-20.69	-76.92	-17.21	-56.34	-16.72	25.37	-16.28	46.21	-16.54	124.81	-18.90

SHEAR STUD SPACING

Beam	SA1	SB1	SC1
1	60 spa. at 9"±	104 spa. at 8"±	57 spa. at 9"±
2	61 spa. at 9"±	105 spa. at 8"±	58 spa. at 9"±
3	62 spa. at 9"±	106 spa. at 8"±	58 spa. at 9"±
4	63 spa. at 9"±	107 spa. at 8"±	59 spa. at 9"±
5	64 spa. at 9"±	108 spa. at 8"±	59 spa. at 9"±
6	65 spa. at 9"±	109 spa. at 8"±	60 spa. at 9"±

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD DRAWN: P. Ray
CHECKED: CMV CHECKED: CMV/DCD

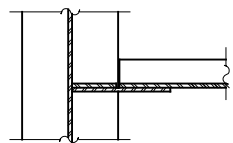
STRUCTURAL STEEL & FRAMING PLAN
STRUCTURE NO. 057-0250

SHEET 14 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-THB-1BR)	MCLEAN	153	64
		STA. 626+53.70	CONTRACT NO.	70520	
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

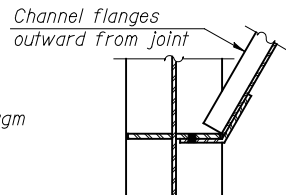
Note:
Two hardened washers required for each set of oversized holes.



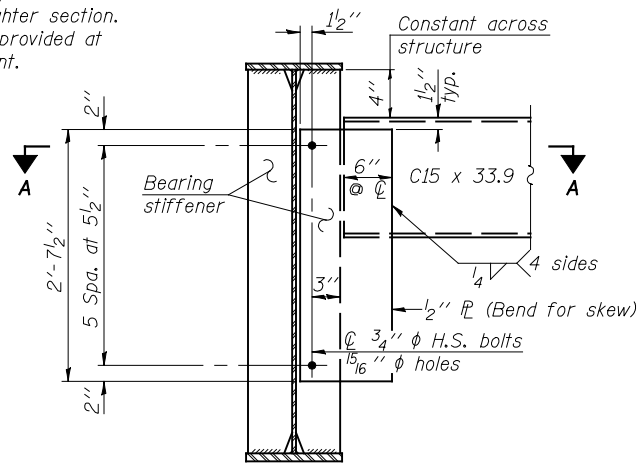
SECTION A-A

* 3/4" φ HS bolts, 15/16" φ holes typical, EXCEPT for diaphragms between beams 3 & 4 use 13/16" x 1 1/8" vertical slotted holes in diaphragm plate (both ends), and provide 3" x 3" x 5/16" PL washers over slotted holes. (Also see Notes.)

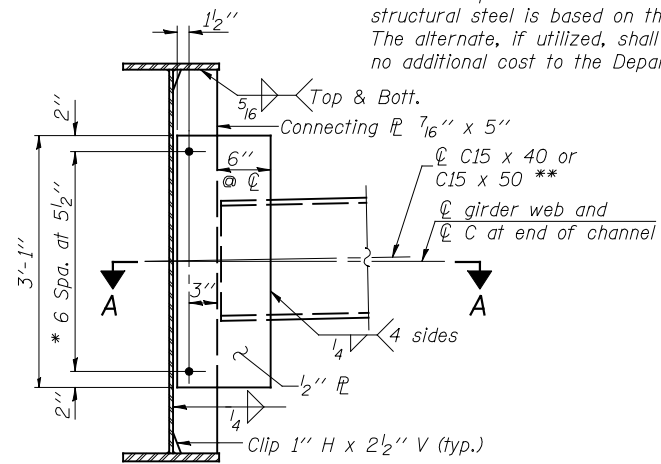
** Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.



SECTION A-A



END DIAPHRAGM



INTERIOR DIAPHRAGM

INTERIOR GIRDER MOMENT TABLE						
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3	
I_s	(in ⁴)	10926	25949	14458	25949	10926
$I_c(n)$	(in ⁴)	28056	25949	41402	25949	28056
$I_c(3n)$	(in ⁴)	21403	25949	30071	25949	21403
S_s	(in ³)	502	1128	798	1128	502
$S_c(n)$	(in ³)	709	1128	1104	1128	709
$S_c(3n)$	(in ³)	653	1128	1022	1128	653
S_{xt}	(in ³)	709	1128	1104	1128	709
DC1	(k/')	0.966	1.066	0.996	1.066	0.966
M _{DC1}	(k)	302	1263	613	1194	236
DC2	(k/')	0.173	0.173	0.173	0.173	0.173
M _{DC2}	(k)	72	176	145	168	60
DW	(k/')	0.350	0.350	0.350	0.350	0.350
M _{DW}	(k)	147	357	293	339	120
M _{LT + IM}	(k)	1115	1227	1449	1195	1032
M _u (Strength I)	(k)	2639	4482	3923	4302	2356
M _{bt}	(k)	15	26	23	25	14
f _s DC1	(ksi)	7.2	13.4	9.2	12.7	5.6
f _s DC2	(ksi)	1.3	1.9	1.7	1.8	1.1
f _s DW	(ksi)	2.7	3.8	3.4	3.6	2.2
f _s 1.3(L+IM)	(ksi)	24.5	17.0	20.5	16.5	22.7
f _t	(ksi)	10.1	6.4	7.5	6.2	9.0
f _s (Service II)	(ksi)	35.7	36.1	34.8	34.6	31.6
f _s (Total)(Strength I)	(ksi)	47.8	47.7	46.4	45.8	42.3
F _{cr} (Service II)	(ksi)	47.5	40.0	47.5	40.0	47.5
V _r (Fatigue I)	(k)	57.6	---	54.0	---	57.6
F _{cr}	(ksi)	50	50	50	50	50

INTERIOR GIRDER REACTION TABLE					
	N. Abut.	Pier 1	Pier 2	S. Abut.	
R _{DC1}	(k)	25.2	119.3	115.7	22.7
R _{DC2}	(k)	5.1	19.8	19.2	4.6
R _{DW}	(k)	10.2	40.2	39.0	9.3
R _{L + IM}	(k)	116.0	157.9	156.1	107.4
R _{Total}	(k)	156.5	337.2	330.0	144.0

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.4 and in.3).
 $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in.4 and in.3).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in.4 and in.3).

S_{xt} : Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in.3).

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 + IM}: Un-factored live load moment plus dynamic load allowance (impact)(kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{L + IM}

M_{bt}: Factored lateral bending moment for controlling flange plate (kip-ft.).

f_t: Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).

M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_{L + IM}

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).

1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{L + IM}

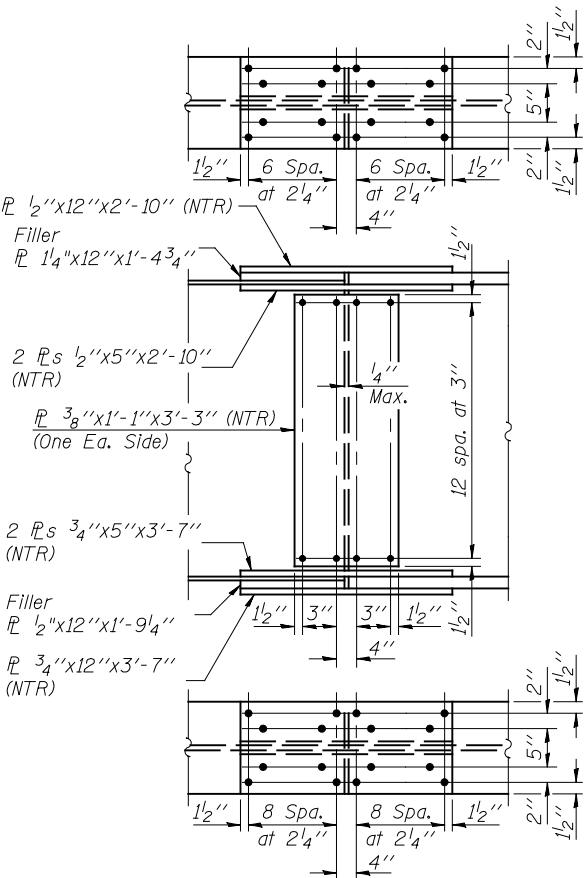
F_{cr} (Service II): Critical flange stress at Service II computed according to Article 6.10.4.2 (ksi).

F_{cr}: Critical flange stress computed according to Article 6.10.7 or 6.10.8 (ksi).

V_r: Maximum factored shear range computed according to Article 6.10.10.

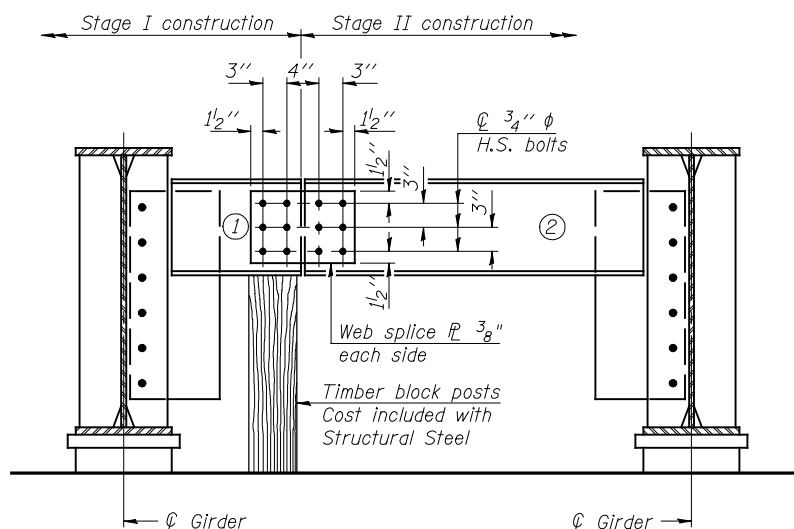
Note:

M_{L + IM} and R_L include the effects of centrifugal force and superelevation.



FIELD SPLICE DETAIL

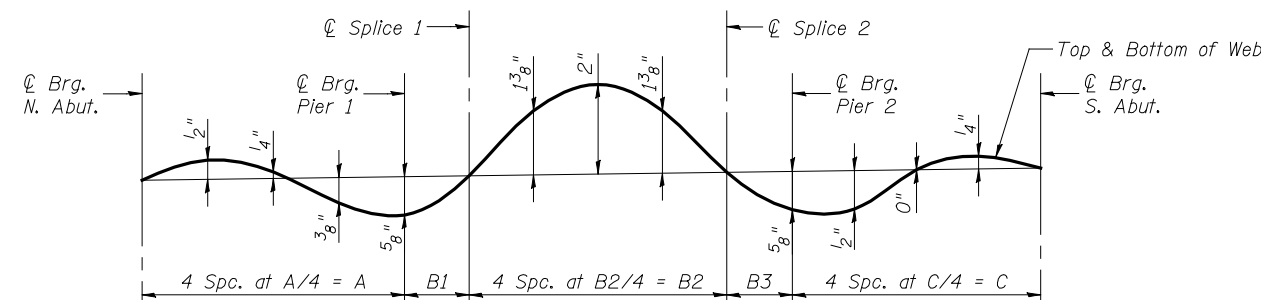
(Splice 2 shown, Splice 1 similar by opposite hand)



END DIAPHRAGM

END DIAPHRAGM STAGE CONSTRUCTION SEQUENCE

- 1.) Order diaphragm in two sections.
- 2.) Attach section ① of diaphragm to girder 3.
- 3.) Place timber block posts between section ① of diaphragm and abutment bearing section.
- 4.) Attach section ② of diaphragm to both girder 4 and section ① of diaphragm during stage II construction with splice plates.
- 5.) Remove timber block posts.



CAMBER DIAGRAM

Note:

For dimensions A, B & C, see previous sheet.

Notes:

All structural steel shall be AASHTO M 270 Grade 50. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

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

For STAGE II CONSTRUCTION, the diaphragms between Beams 3 & 4 shall be installed with bolts at both beams only finger-tight and with slots positioned to allow maximum differential deflection during the deck pour. Bolts shall be fully tightened as soon as possible after deck pour to minimize differential deflections due to traffic.

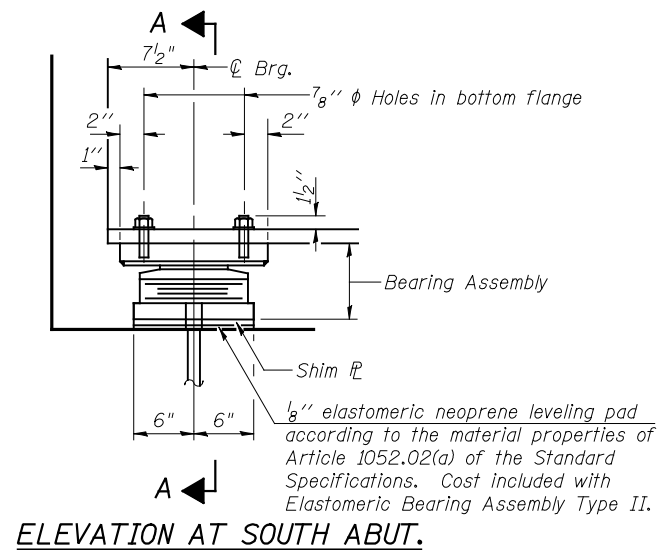


DESIGNED: DCD	DRAWN: P. Ray
CHECKED: CMV	CHECKED: CMV/DCD

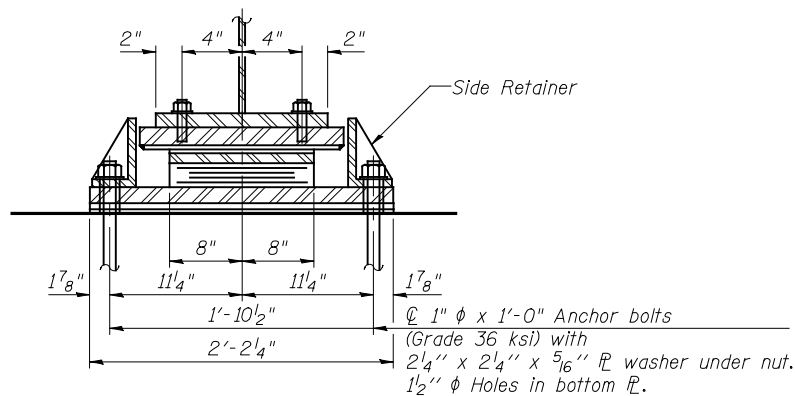
STRUCTURAL STEEL
STRUCTURE NO. 057-0250

SHEET 15 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-THB-1BR)	MCLAN	153	65
STA. 626+53.70			CONTRACT NO. 70520		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

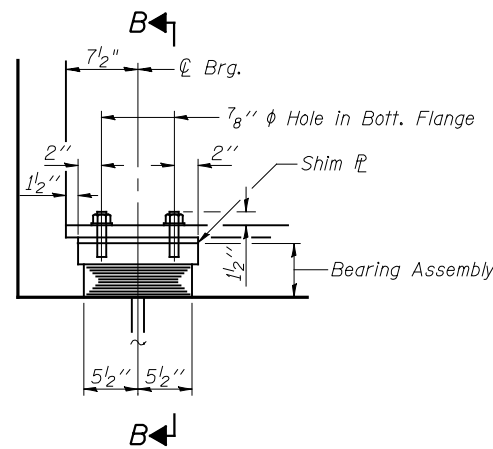
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



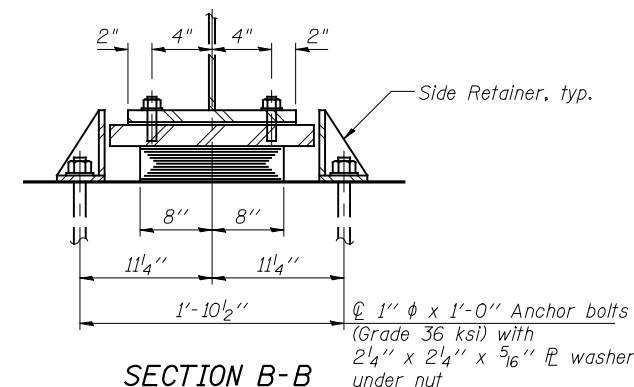
ELEVATION AT SOUTH ABUT.



SECTION A-A



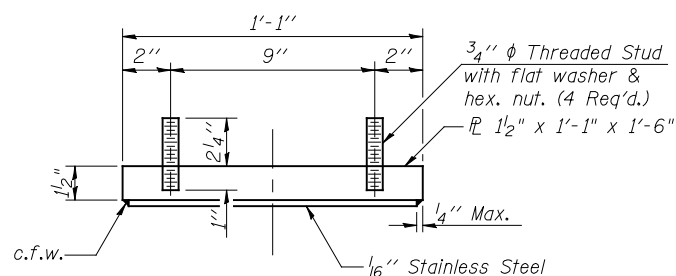
ELEVATION AT NORTH ABUT.



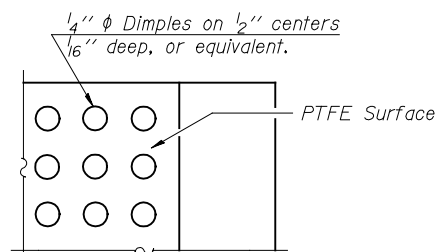
SECTION B-B

TYPE II ELASTOMERIC EXP. BRG.

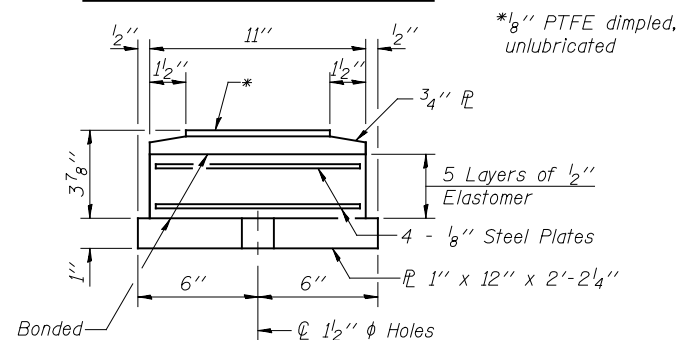
TYPE I ELASTOMERIC EXP. BRG.



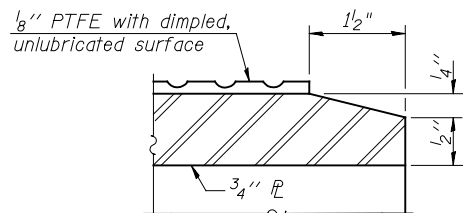
TOP BEARING ASSEMBLY



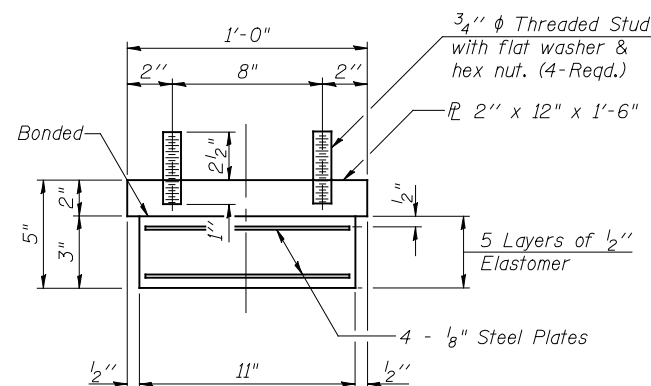
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY



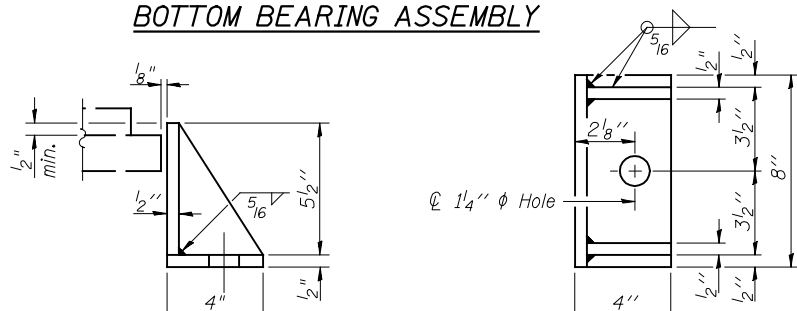
SECTION THRU PTFE



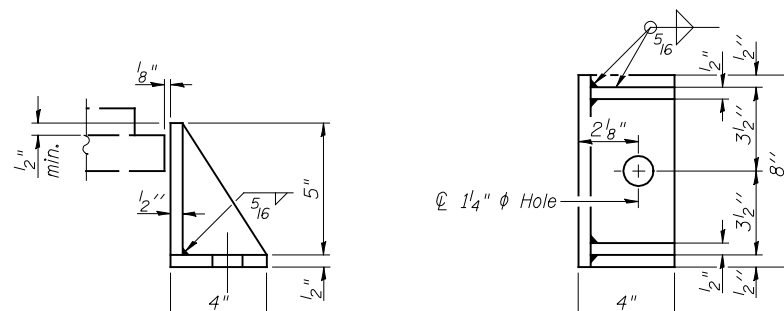
BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.

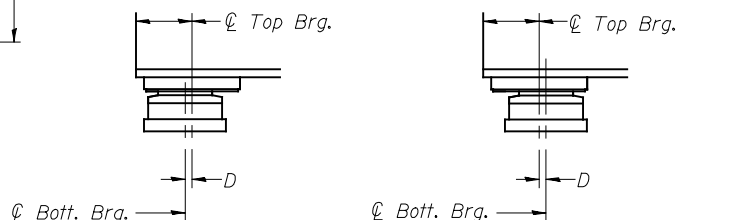
Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
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 & Type II.
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.



SIDE RETAINER - SOUTH ABUT.
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SIDE RETAINER - NORTH ABUT.
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50°F. ABOVE 50°F.
(Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Elastomeric Bearing Assembly Type II	Each	6
Anchor Bolts, 1"	Each	24

BEARING DETAILS - ABUTMENTS
STRUCTURE NO. 057-0250

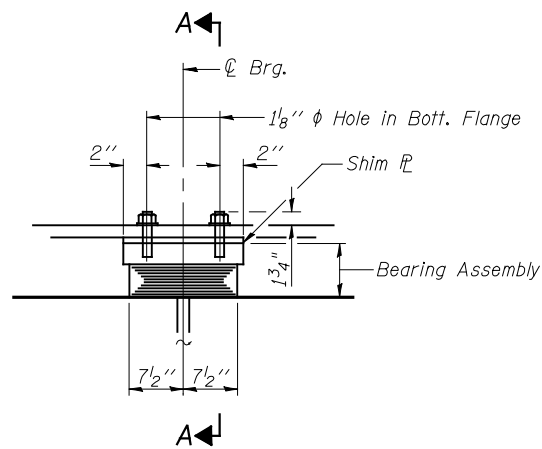
SHEET 16 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 626+53.70			CONTRACT NO. 70520		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

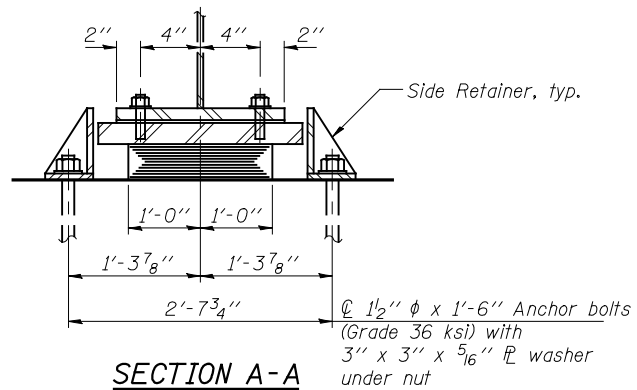
DESIGNED: DCD DRAWN: SJS
CHECKED: CMV CHECKED: CMV/DCD

I-2E-2 11-1-09 (Modified)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

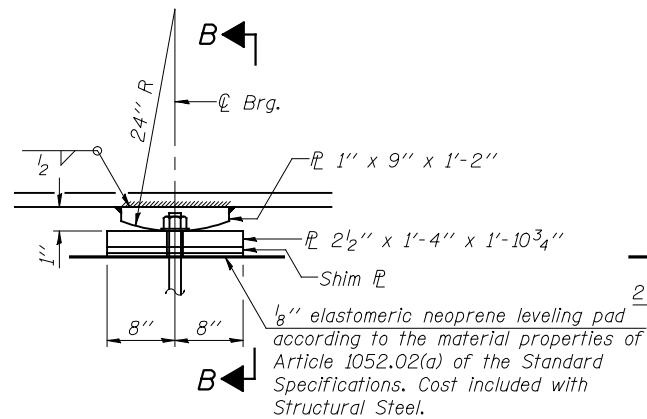


ELEVATION AT PIER 2

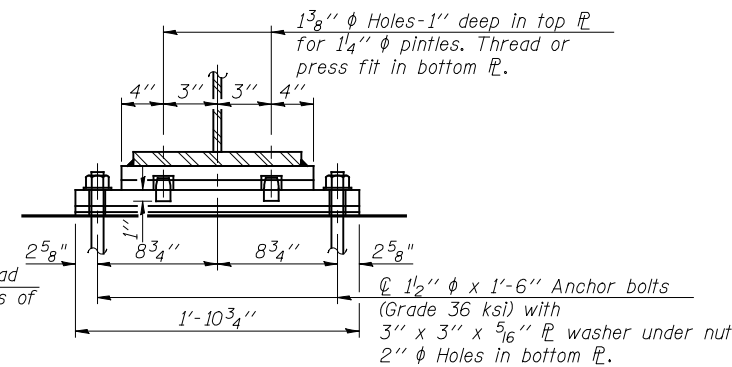


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

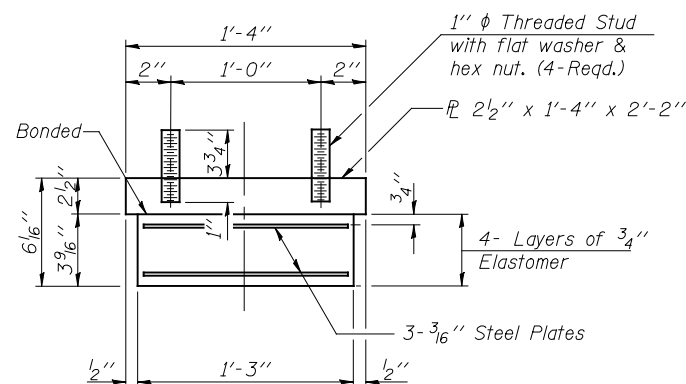


ELEVATION AT PIER 1



SECTION B-B

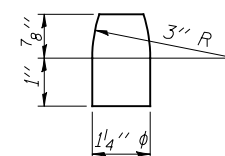
FIXED BEARING



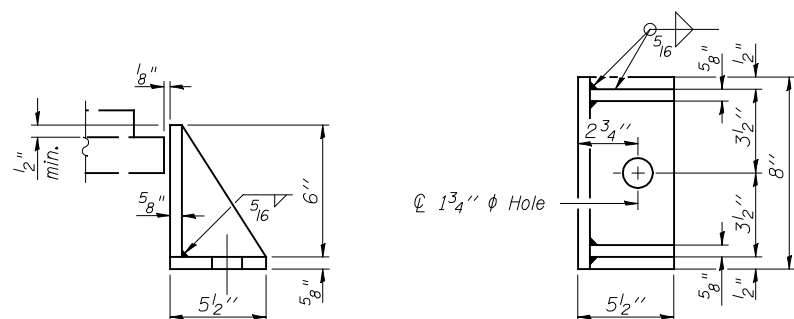
BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.

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 at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
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.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.



PINTLE



SIDE RETAINER

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	6
Anchor Bolts, 1 1/2"	Each	24

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD	DRAWN: SJS
CHECKED: CMV	CHECKED: CMV/DCD

I-2E-1

11-1-09

BEARING DETAILS - PIERS
STRUCTURE NO. 057-0250

SHEET 17 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	67
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	CONTRACT NO. 70520		

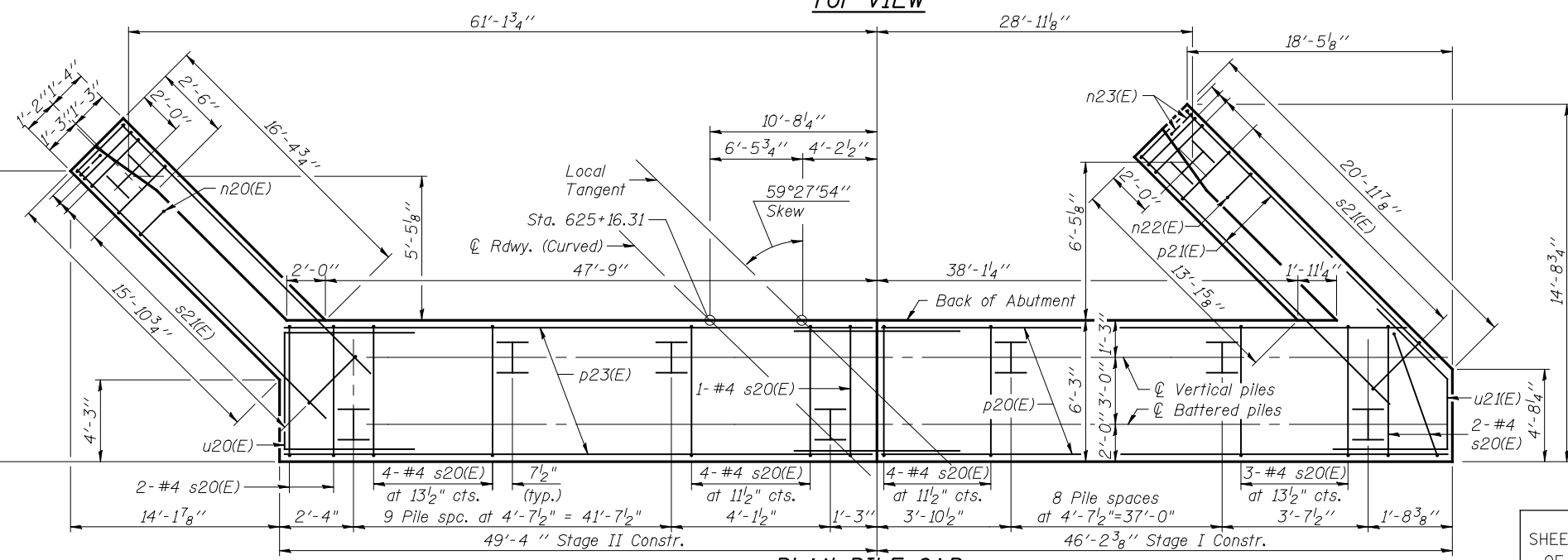
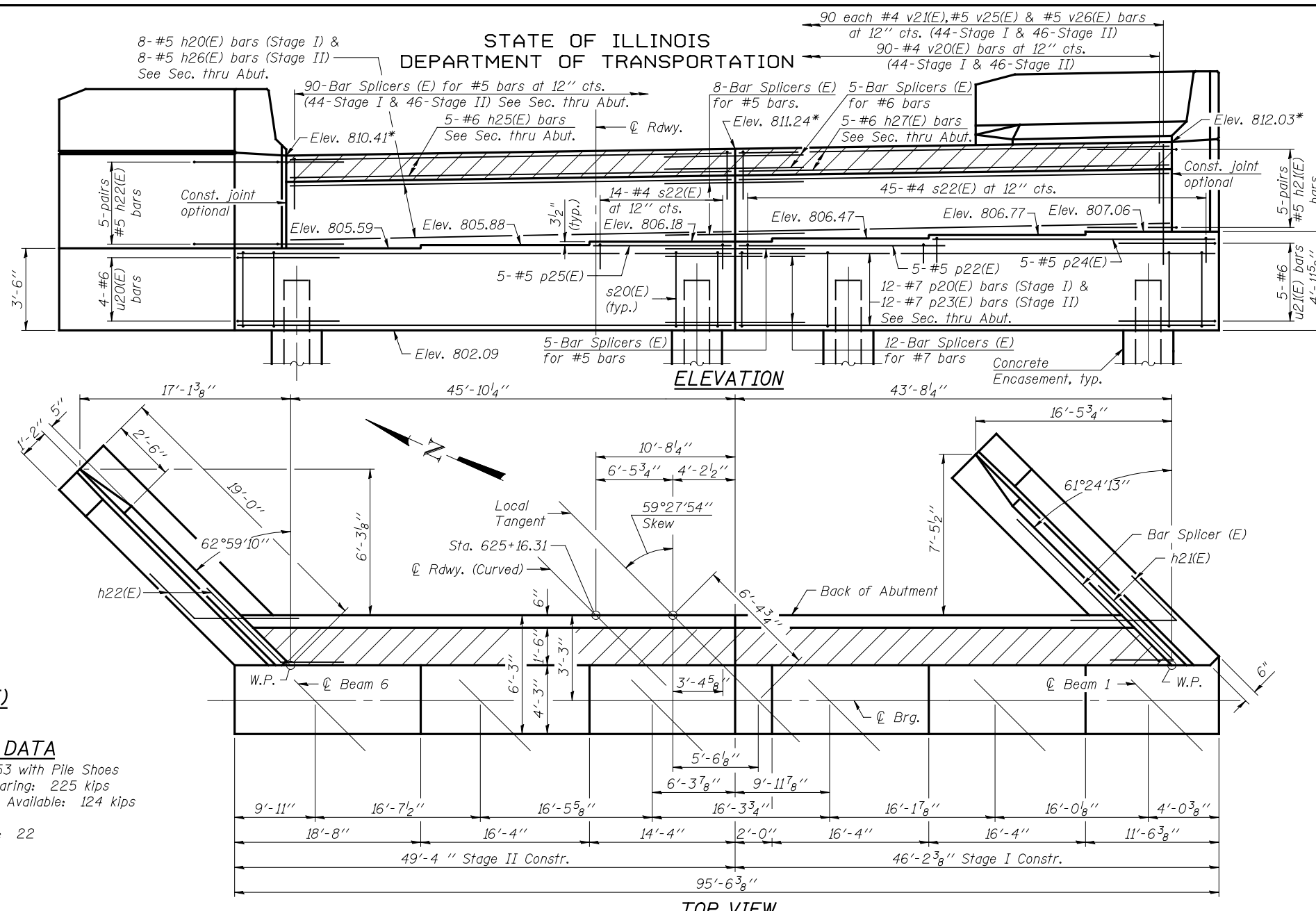
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USER: DCD

PRINT DATE: 08/06/2010 20:56:46

SAVE DATE: 8/16/2010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



* Before grinding according to bridge smoothness specifications.
** Indicates bars to be field cut or bent to fit skewed end.

ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
** h20(E)	8	#5	45'-8"	—
h21(E)	10	#5	8'-0"	—
h22(E)	10	#5	8'-0"	—
h23(E)	11	#4	20'-8"	—
h24(E)	7	#4	19'-0"	—
h25(E)	5	#6	48'-0"	—
h26(E)	8	#5	48'-0"	—
** h27(E)	5	#6	45'-8"	—
h28(E)	11	#4	15'-7"	—
h29(E)	7	#4	18'-3"	—
n20(E)	16	#6	12'-4"	—
n21(E)	6	#6	6'-2"	—
n22(E)	16	#6	15'-4"	—
n23(E)	6	#6	7'-8"	—
** p20(E)	12	#7	45'-10"	—
p21(E)	12	#7	20'-8"	—
p22(E)	5	#5	19'-4"	—
p23(E)	12	#7	48'-11"	—
** p24(E)	5	#5	27'-6"	—
** p25(E)	5	#5	14'-0"	—
s20(E)	84	#4	18'-11"	—
s21(E)	40	#4	9'-5"	—
s22(E)	59	#4	10'-3"	—
u20(E)	4	#6	12'-0"	—
u21(E)	5	#6	10'-7"	—
v20(E)	90	#4	3'-9"	—
v21(E)	90	#4	3'-0"	—
v22(E)	38	#6	8'-3"	—
v23(E)	6	#6	8'-3"	—
v24(E)	32	#6	8'-5"	—
v25(E)	90	#5	7'-1"	—
v26(E)	90	#5	5'-9"	—
Structure Excavation		Cu. Yd.	438	
Concrete Structures		Cu. Yd.	140.3	
Reinforcement Bars, Epoxy Coated		Pound	10460	
Furnishing Steel Piles, HP12x53		Foot	660	
Driving Piles		Foot	660	
Pile Shoes		Each	23	
Test Pile, HP12x53		Each	1	
Concrete Encasement		Cu. Yd.	8.0	
Concrete Sealer		Sq. Ft.	1043	

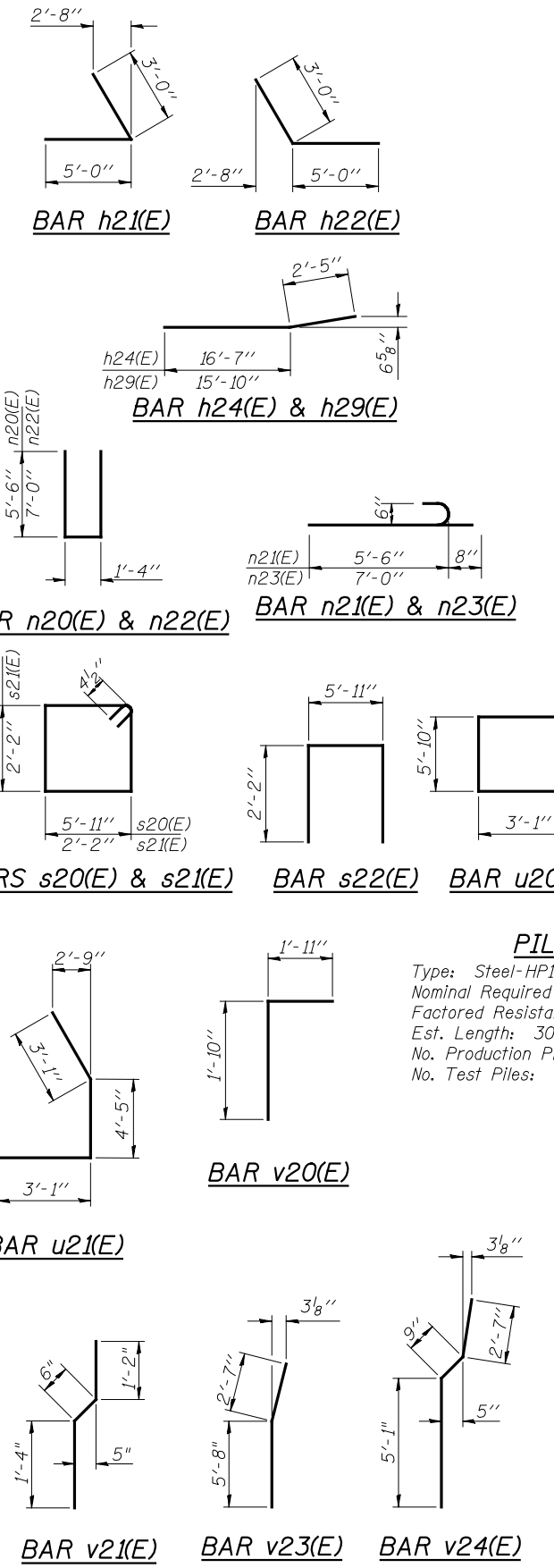
For details of Bar Splicers, see sheet 25 of 27.
For details of piles and Concrete Encasement, see sheet 24 of 27.

See sheet 2 of 27 for Foundation Layout showing relative position of existing and proposed piles.

NORTH ABUTMENT
STRUCTURE NO. 057-0250

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-THB-1BR)	MCLAN	153	68
STA. 626+53.70		CONTRACT NO.	70520	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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PILE DATA

Type: Steel-HP12x53 with Pile Shoes
 Nominal Required Bearing: 225 kips
 Factored Resistance Available: 124 kips
 Est. Length: 30'
 No. Production Piles: 22
 No. Test Piles: 1

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

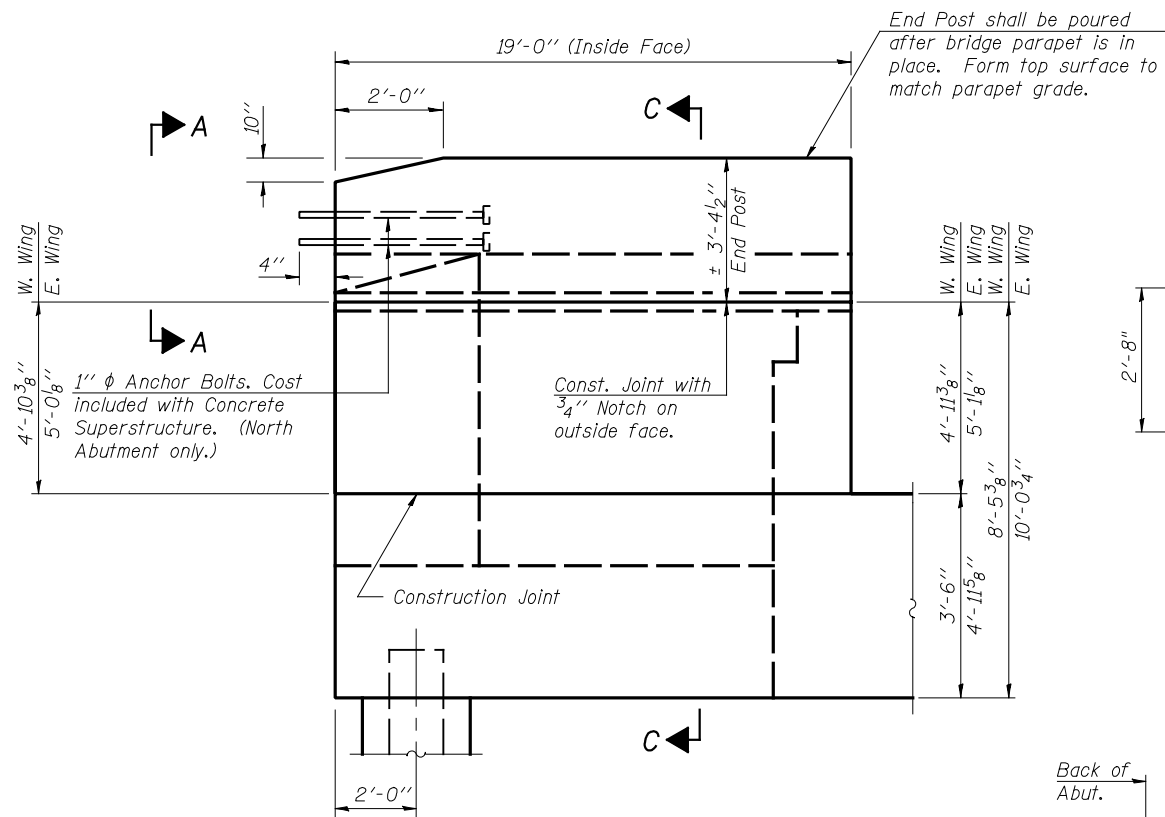
DESIGNED: DCD	DRAWN: P. Ray
CHECKED: CMV	CHECKED: CMV/DCD

A-1-L (>30°) 11-1-09 (Modified)

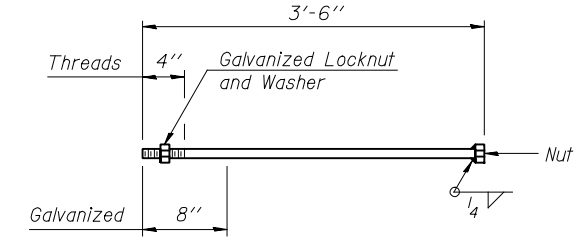
PLAN-PILE CAP

SHEET 18
OF 27

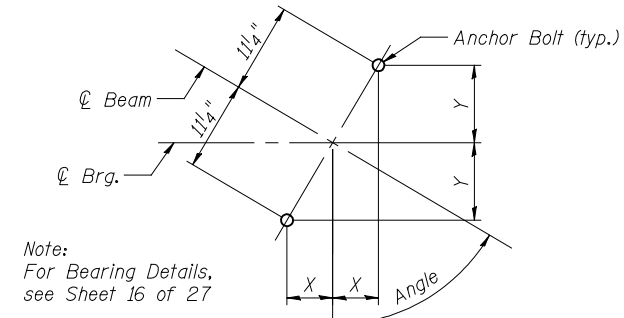
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



WING WALL ELEVATION
Showing Dimensions



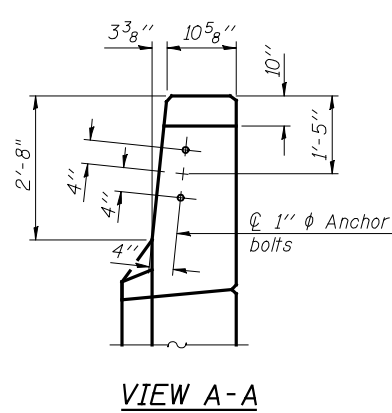
1" φ ANCHOR BOLT



ANCHOR BOLT LAYOUT

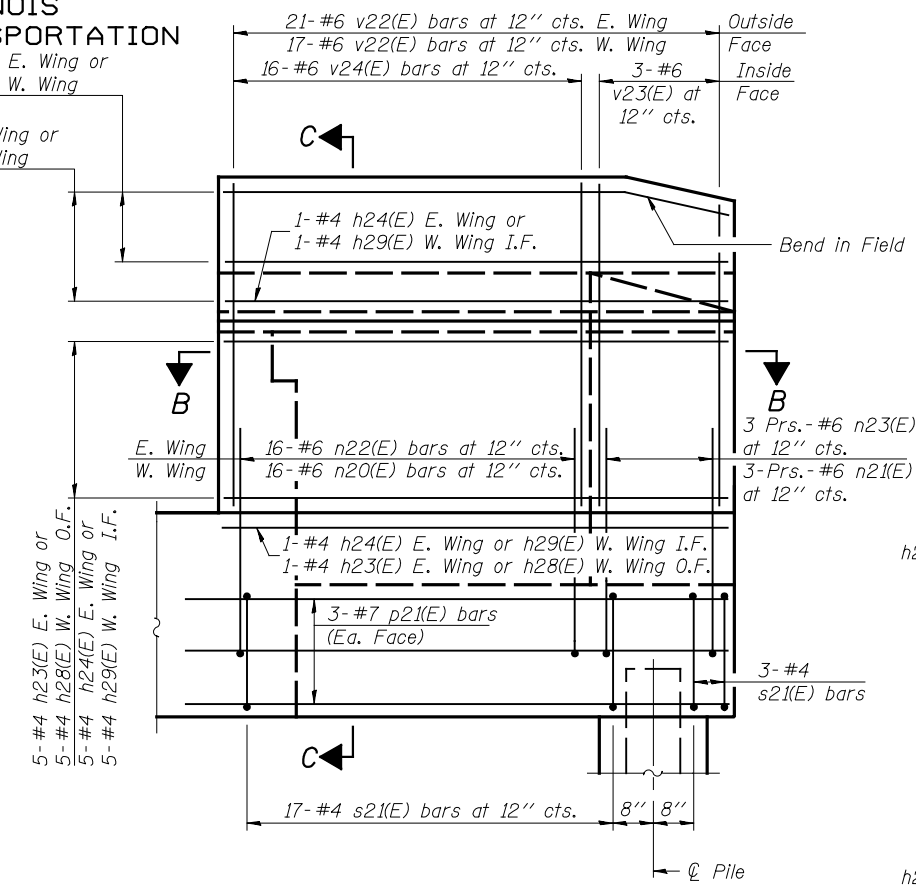
ANCHOR BOLT LAYOUT DIMENSIONS

	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
Angle	61.25°	61.53°	61.82°	62.11°	62.40°	62.69°
X	5 3/8"	5 3/8"	5 3/8"	5 1/4"	5 1/4"	5 1/8"
Y	9 1/8"	9 1/8"	9 1/8"	10"	10"	10"

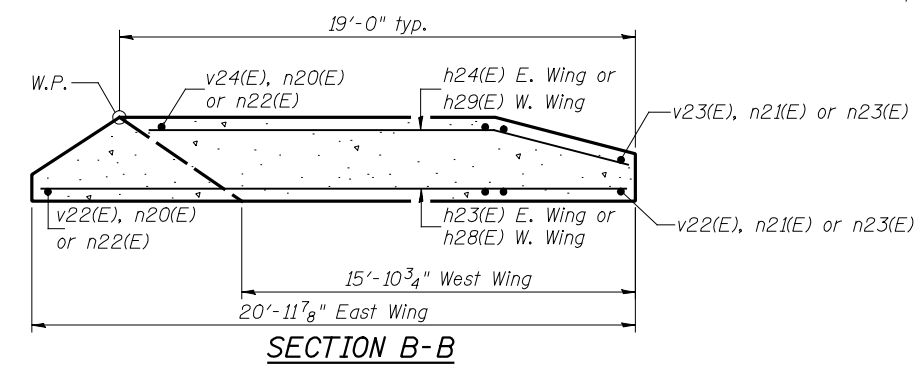


SEC. THRU ABUT.

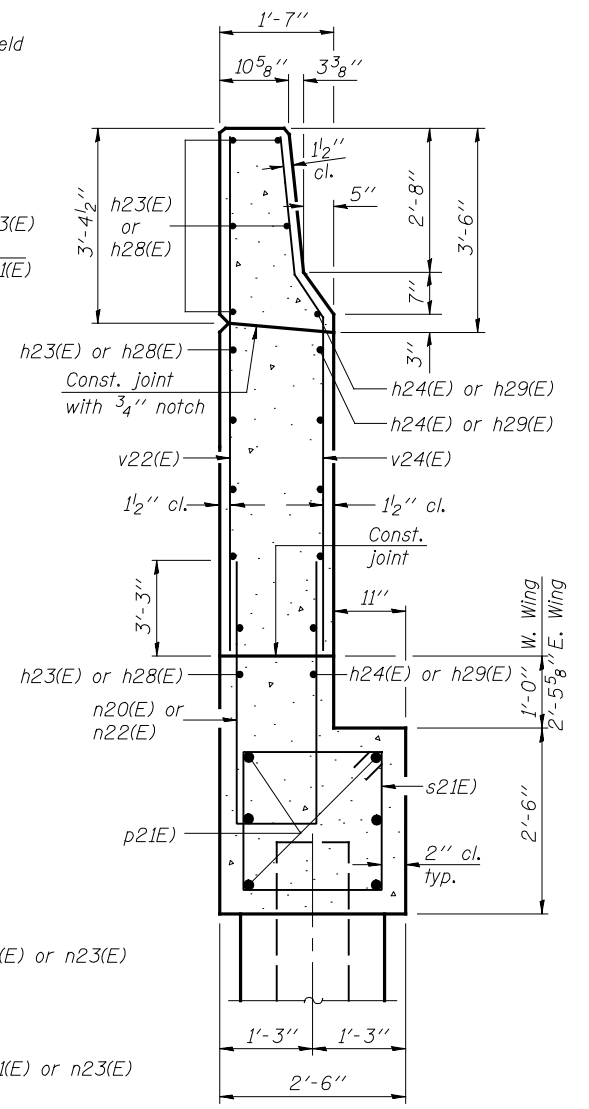
* Before grinding according to bridge smoothness specifications.



WING WALL ELEVATION
Showing Reinforcement



Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap. Quantity of concrete in end post included with Concrete Superstructure on sheet 9 of 27. For Concrete Encasement details, see sheet 24 of 27.



NORTH ABUTMENT
STRUCTURE NO. 057-0250

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CONSULTING ENGINEERS
Springfield, Illinois

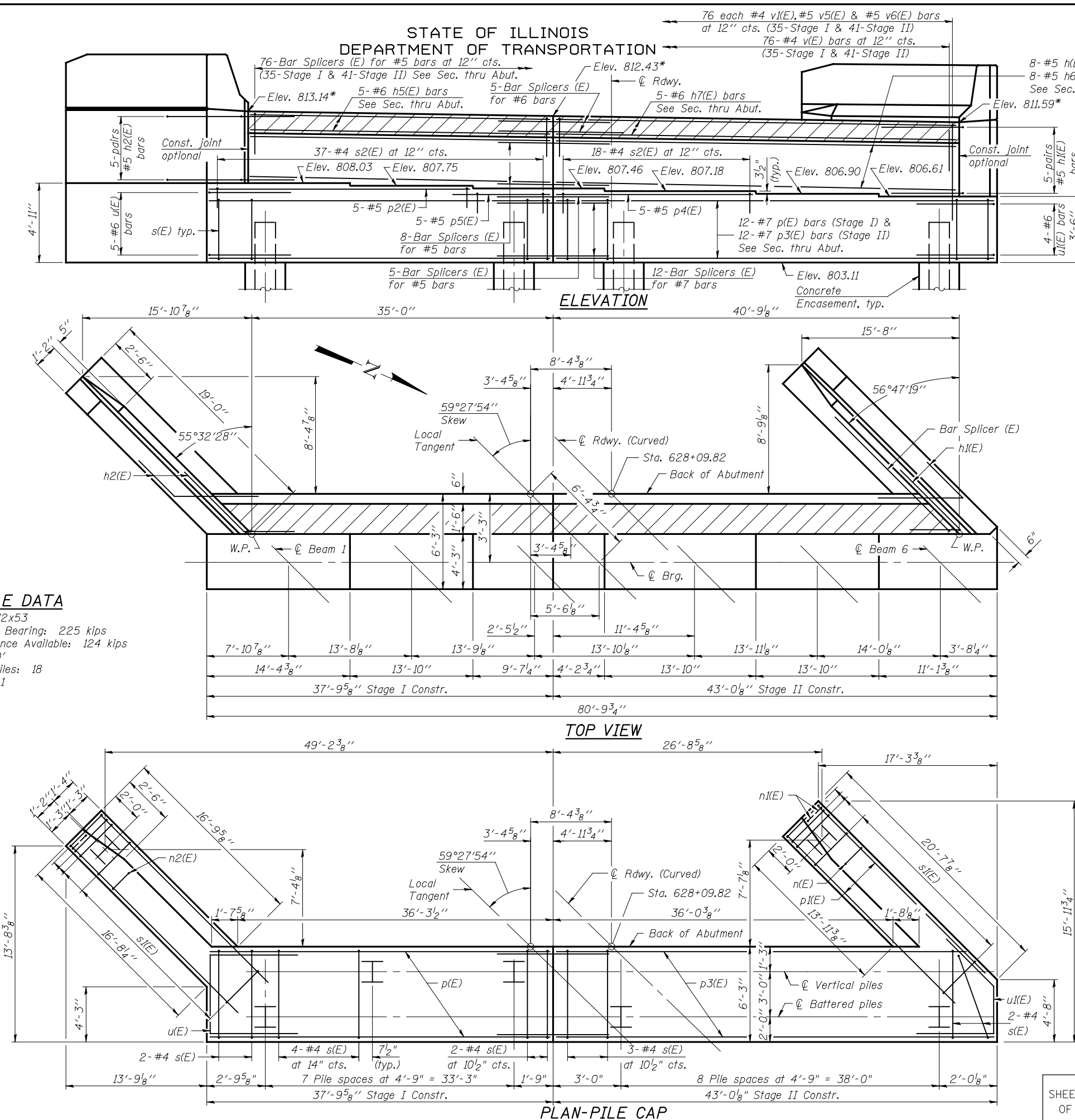
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CHECKED: CMV	CHECKED: CMV/DCD

A-1-D 11-1-09 (Modified)

SHEET 19 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	69
STA. 626+53.70		CONTRACT NO. 70520		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

FILE: J:\JDO\10169 IL-D5 I-55NB McLean\H55NB-14EB\0570250-70520-018-NABUT.dgn USER: DCD PRINT DATE: 08/06/2010 20:56:53 SAVE DATE: 8/6/2010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



* Before grinding according to bridge smoothness specifications.
** Indicates bars to be field cut or bent to fit skewed end.

ABUTMENT
BILL OF MATERIAL

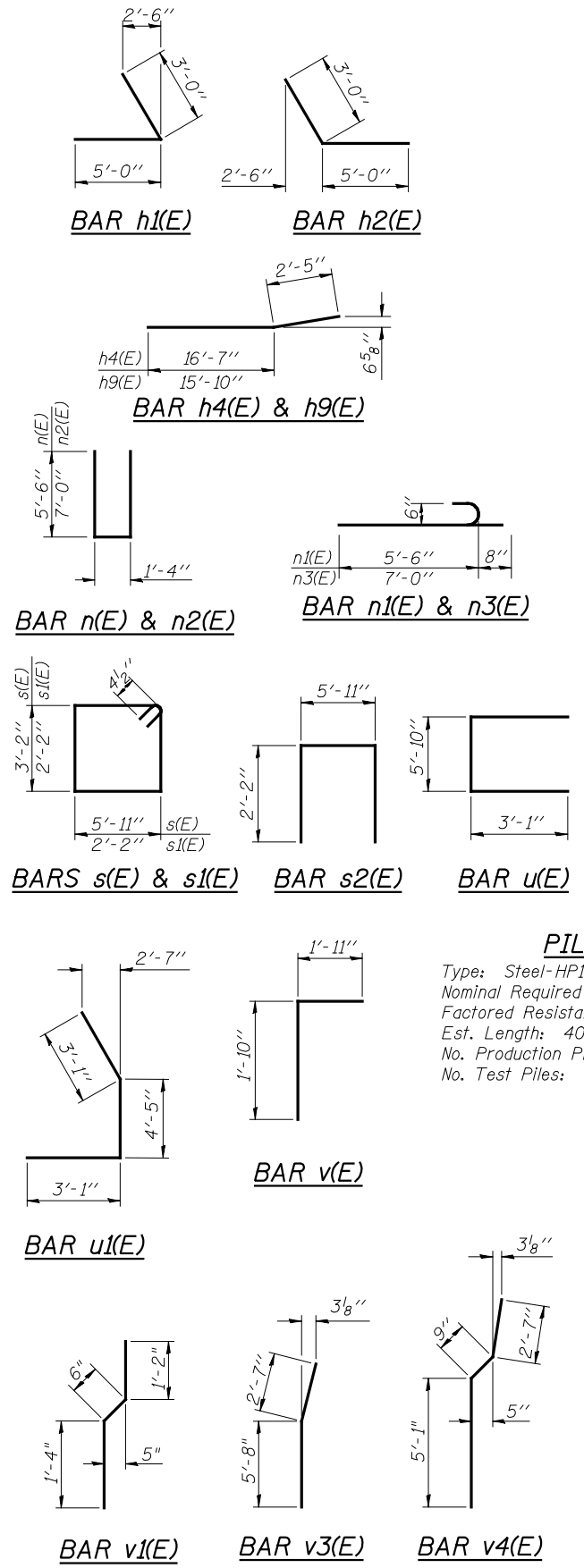
Bar	No.	Size	Length	Shape
h(E)	8	#5	36'-10"	
h1(E)	10	#5	8'-0"	
h2(E)	10	#5	8'-0"	
h3(E)	11	#4	20'-4"	
h4(E)	7	#4	19'-0"	
h5(E)	5	#6	36'-10"	
h6(E)	8	#5	42'-6"	
h7(E)	5	#6	42'-6"	
h8(E)	11	#4	16'-5"	
h9(E)	7	#4	18'-3"	
n(E)	16	#6	12'-4"	
n1(E)	6	#6	6'-2"	
n2(E)	16	#6	15'-4"	
n3(E)	6	#6	7'-8"	
p(E)	12	#7	37'-5"	
p1(E)	12	#7	20'-4"	
p2(E)	5	#5	27'-10"	
p3(E)	12	#7	42'-8"	
p4(E)	5	#5	17'-9"	
p5(E)	5	#5	10'-7"	
s(E)	69	#4	18'-11"	
s1(E)	40	#4	9'-5"	
s2(E)	55	#4	10'-3"	
u(E)	5	#6	12'-0"	
u1(E)	4	#6	10'-7"	
v(E)	76	#4	3'-9"	
v1(E)	76	#4	3'-0"	
v2(E)	38	#6	8'-6"	
v3(E)	6	#6	8'-3"	
v4(E)	32	#6	8'-5"	
v5(E)	76	#5	7'-1"	
v6(E)	76	#5	5'-9"	
Structure Excavation	Cu. Yd.		961	
Concrete Structures	Cu. Yd.		121.5	
Reinforcement Bars, Epoxy Coated	Pound		9400	
Furnishing Steel Piles, HP12x53	Foot		720	
Driving Piles	Foot		720	
Test Pile, HP12x53	Each		1	
Concrete Encasement	Cu. Yd.		6.7	
Concrete Sealer	Sq. Ft.		882	

For details of Bar Splicers, see sheet 25 of 27.
For details of piles and Concrete Encasement, see sheet 24 of 27.

See sheet 2 of 27 for Foundation Layout showing relative position of existing and proposed piles.

SOUTH ABUTMENT
STRUCTURE NO. 057-0250

SHEET	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
20 OF 27	55	(57-THB-1)BR	MCLEAN	153	70
		STA. 626+53.70	CONTRACT NO. 70520		
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		



PILE DATA

Type: Steel-HP12x53
Nominal Required Bearing: 225 kips
Factored Resistance Available: 124 kips
Est. Length: 40'
No. Production Piles: 18
No. Test Piles: 1

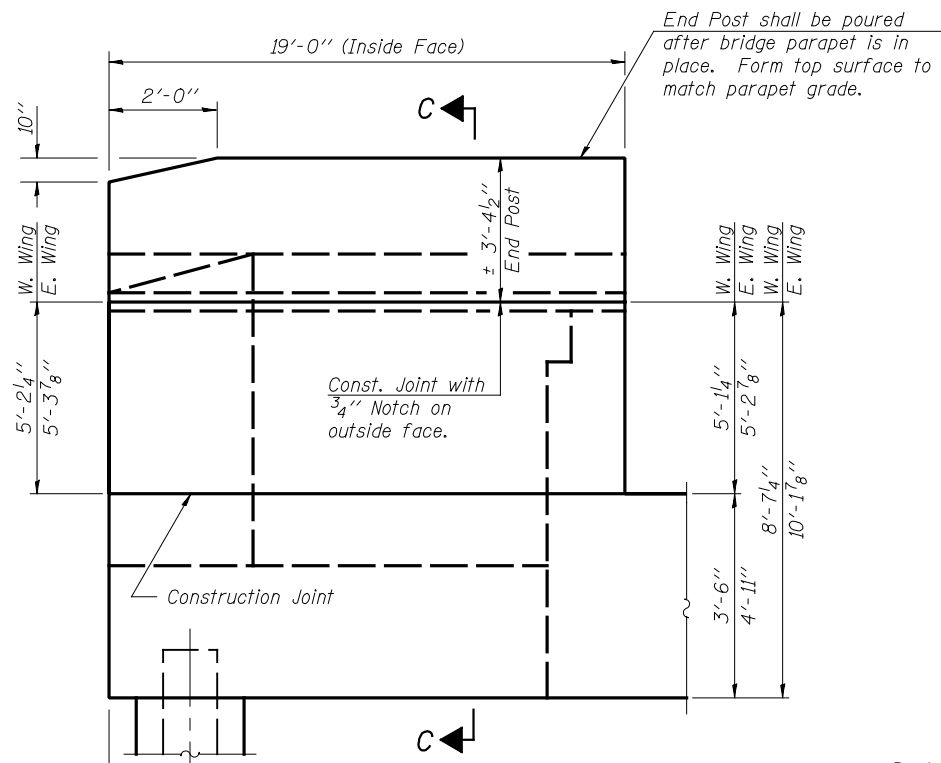
JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD DRAWN: P. Ray
CHECKED: CMV CHECKED: CMV/DCD

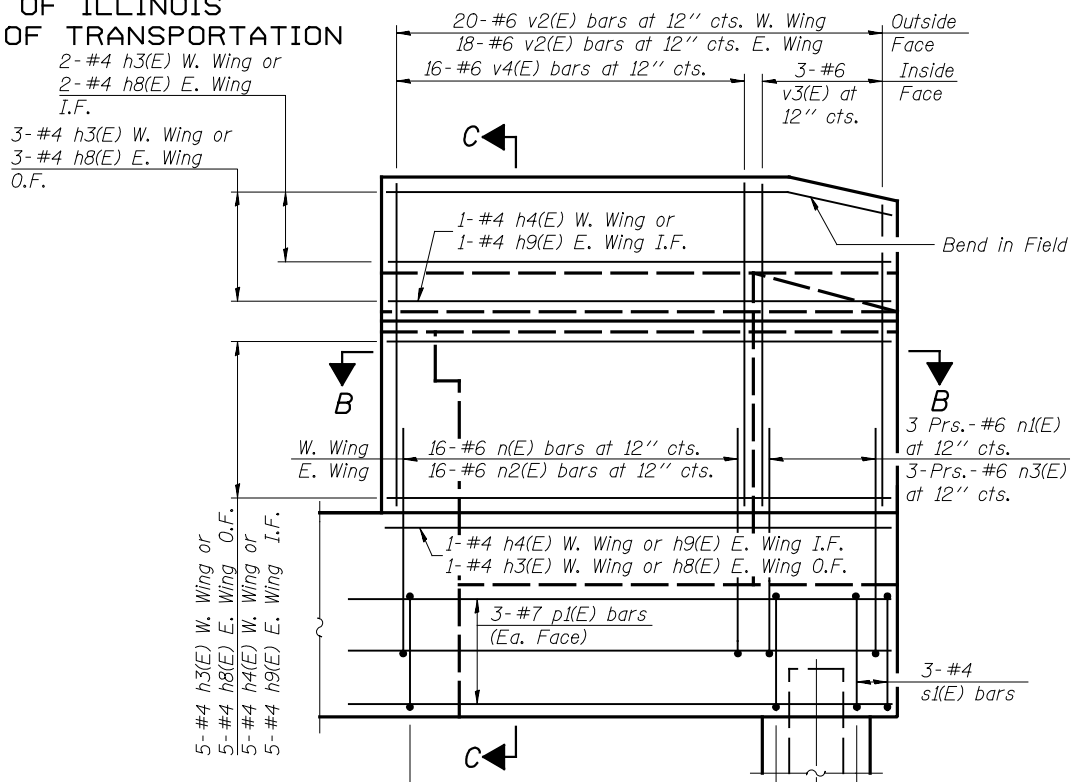
A-1-L (>30°) 11-1-09 (Modified)

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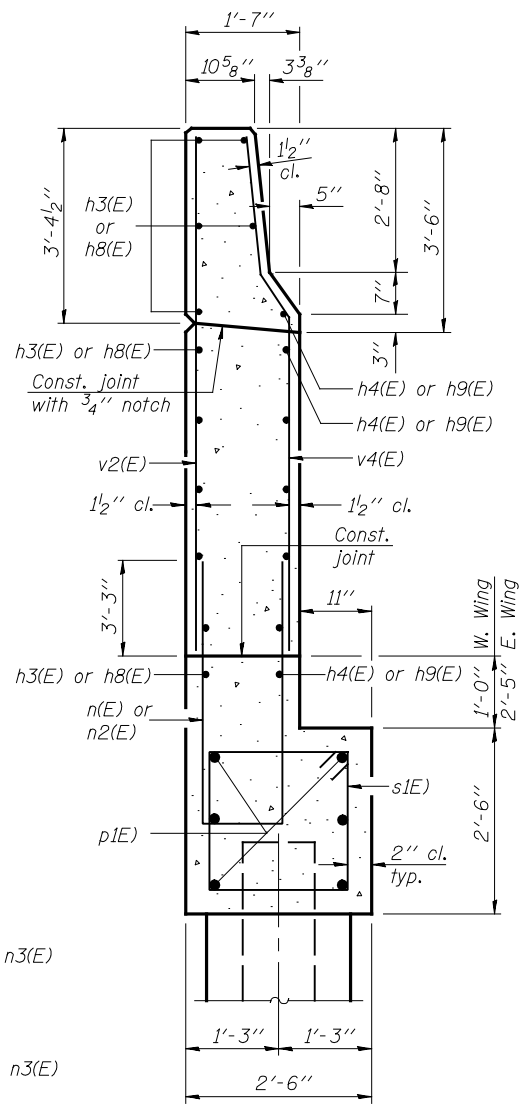
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



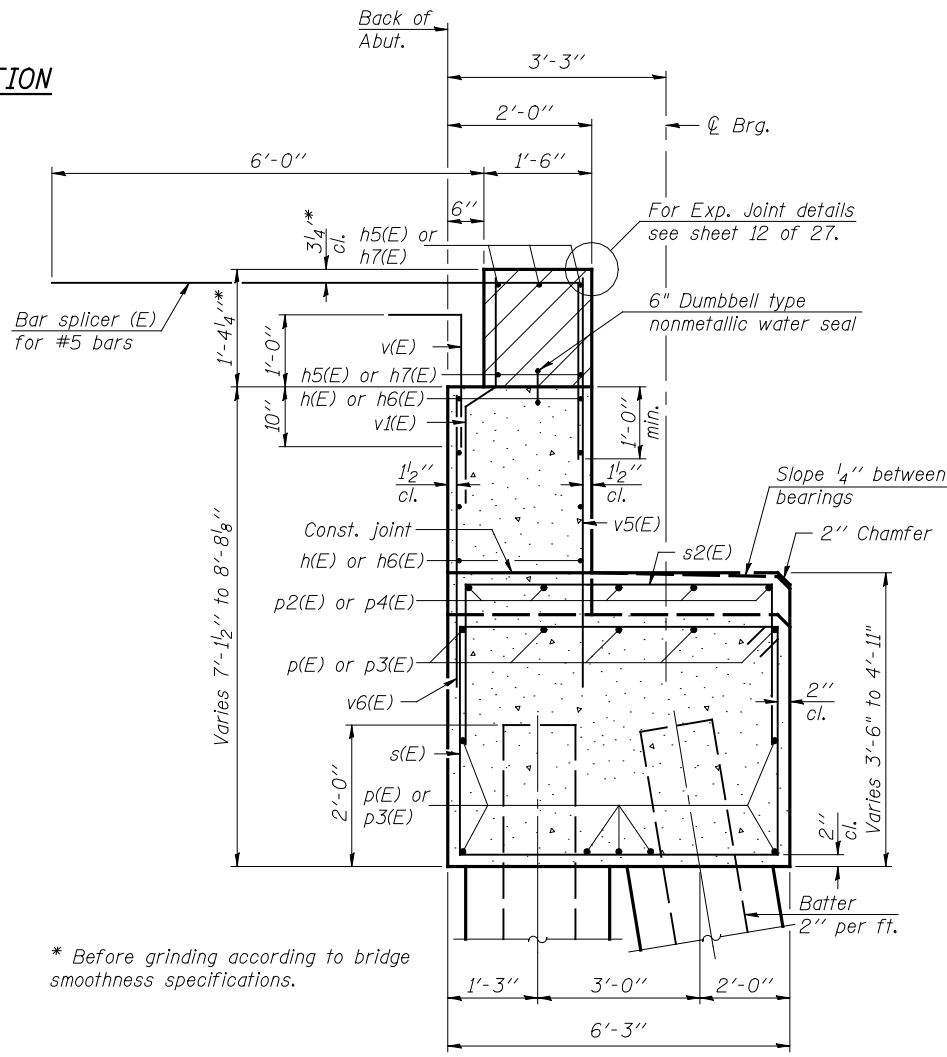
WING WALL ELEVATION
Showing Dimensions



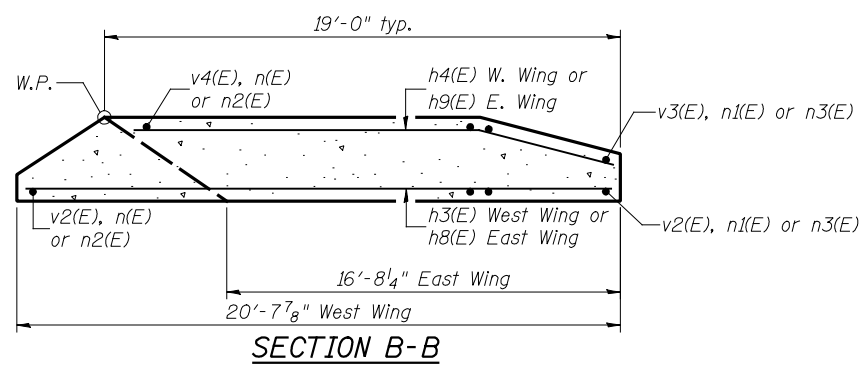
WING WALL ELEVATION
Showing Reinforcement



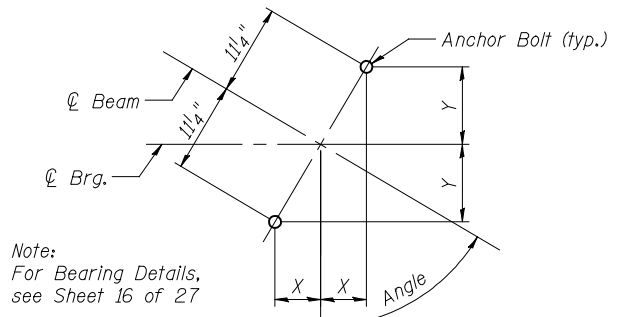
SECTION C-C



SEC. THRU ABUT.



Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap. Quantity of concrete in end post included with Concrete Superstructure on sheet 9 of 27. For Concrete Encasement details, see sheet 24 of 27.



ANCHOR BOLT LAYOUT

ANCHOR BOLT LAYOUT DIMENSIONS

	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
Angle	55.80°	56.02°	56.25°	56.48°	56.72°	56.95°
X	6 3/8"	6 1/4"	6 1/4"	6 1/4"	6 1/8"	6 1/8"
Y	9 1/4"	9 3/8"	9 3/8"	9 3/8"	9 3/8"	9 3/8"

* Before grinding according to bridge smoothness specifications.

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: DCD	DRAWN: P. Ray
CHECKED: CMV	CHECKED: CMV/DCD

A-1-D 11-1-09 (Modified)

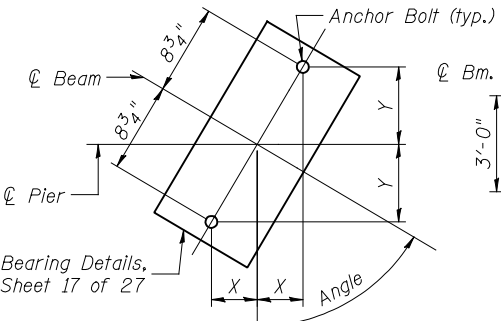
**SOUTH ABUTMENT
STRUCTURE NO. 057-0250**

SHEET 21 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLAN	153	71
STA. 626+53.70		CONTRACT NO. 70520		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

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ANCHOR BOLT LAYOUT DIMENSIONS

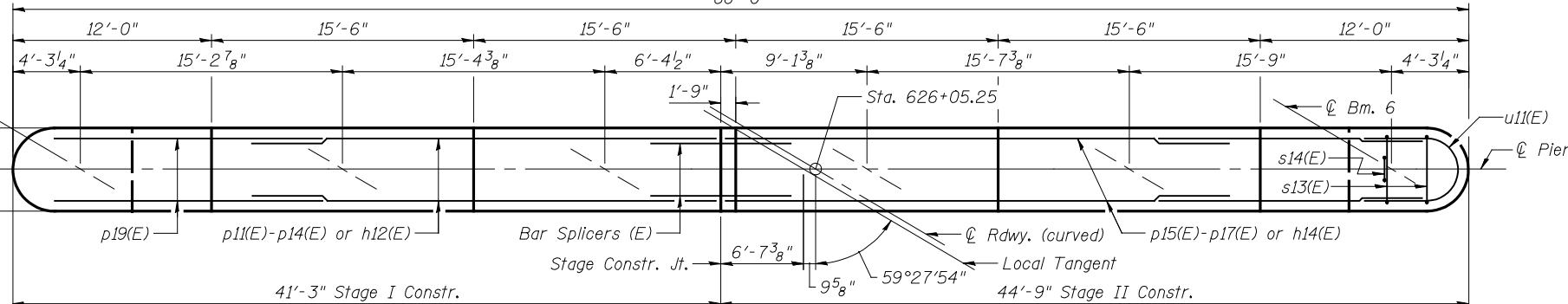
Angle	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
Angle	59.67°	59.93°	60.19°	60.46°	60.74°	61.01°
X	4 3/8"	4 3/8"	4 3/8"	4 3/8"	4 1/2"	4 1/2"
Y	7 1/2"	7 5/8"	7 5/8"	7 5/8"	7 5/8"	7 5/8"



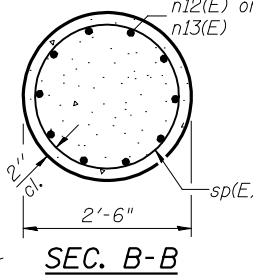
ANCHOR BOLT LAYOUT

For Bearing Details, see Sheet 17 of 27

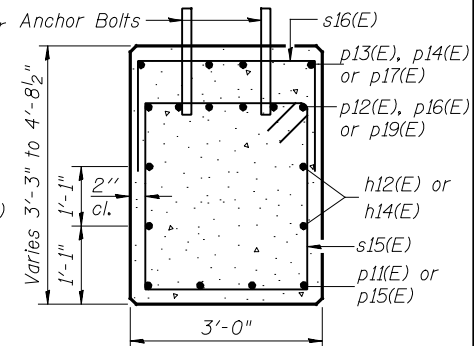
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
86'-0"



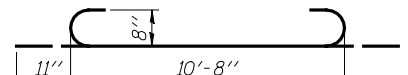
TOP PLAN



SEC. B-B



SEC. A-A

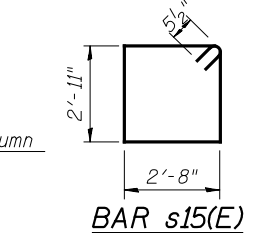


BAR #11(E)

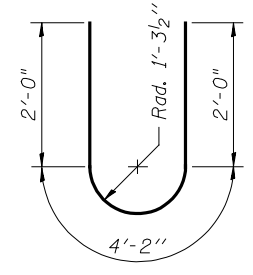
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h11(E)	15	#5	33'-1"	—
h12(E)	4	#5	39'-7"	—
h13(E)	15	#5	36'-7"	—
h14(E)	4	#5	43'-1"	—
n11(E)	6	#5	6'-1"	U
n12(E)	60	#8	6'-5"	U
n13(E)	60	#8	8'-6"	U
p11(E)	4	#9	34'-10"	—
p12(E)	4	#9	29'-1"	—
p13(E)	4	#5	16'-3"	—
p14(E)	4	#5	25'-10"	—
p15(E)	4	#9	38'-4"	—
p16(E)	4	#9	32'-7"	—
p17(E)	4	#5	16'-9"	—
p18(E)	8	#5	6'-8"	—
p19(E)	12	#10	17'-11"	U
s11(E)	71	#5	13'-8"	U
s12(E)	71	#5	15'-2"	U
s13(E)	32	#5	6'-10"	U
s14(E)	20	#5	5'-2"	U
s15(E)	73	#5	12'-1"	U
s16(E)	57	#5	7'-0"	U
sp(E)	6	#4	12'-1"	W
t11(E)	76	#8	12'-6"	U
t12(E)	74	#5	10'-8"	—
u11(E)	21	#5	8'-2"	U
v11(E)	6	#5	6'-3"	—
w11(E)	22	#5	34'-8"	—
w12(E)	22	#5	38'-2"	—
Braced Excavation		Cu. Yd.	114	
Concrete Structures		Cu. Yd.	189.5	
Reinforcement Bars, Epoxy Coated		Pound	17210	
Furnishing Steel Piles, HP12x53		Foot	630	
Driving Piles		Foot	630	
Test Pile, HP12x53		Each	1	
Concrete Sealer		Sq Ft	2388	

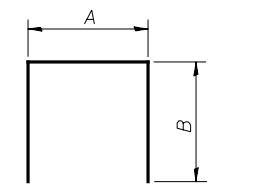
BARS n11(E)-n13(E) & p19(E)



BAR s15(E)



BAR u11(E)



BARS s11(E)-s14(E) & s16(E)

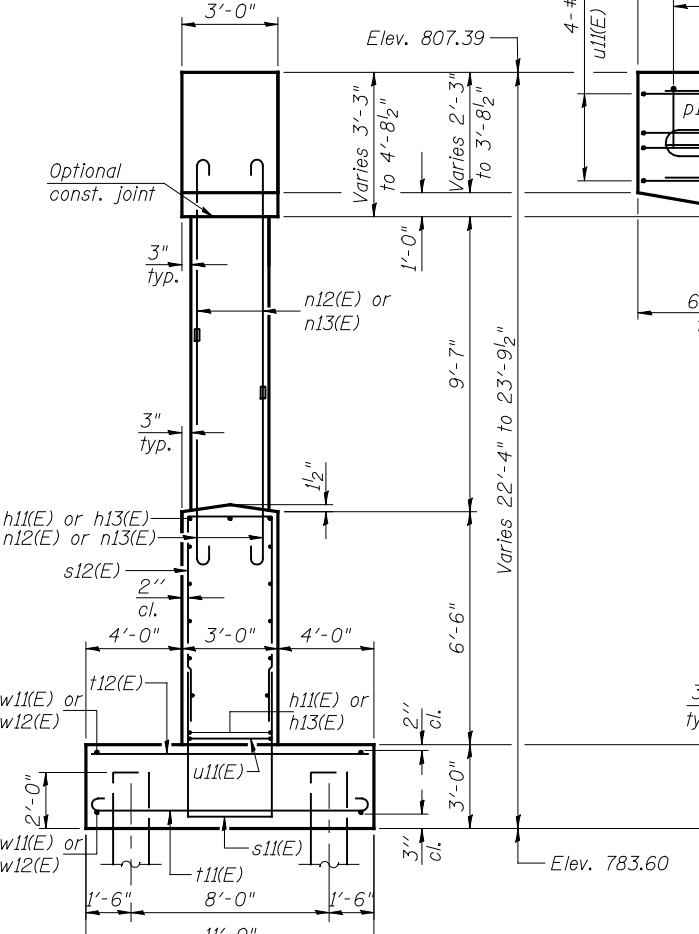
A & B DIMENSIONS

Bar	A	B
s11(E)	2'-8"	5'-6"
s12(E)	2'-8"	6'-3"
s13(E)	2'-8"	2'-1"
s14(E)	1'-0"	2'-1"
s16(E)	2'-8"	2'-2"

Notes: ** Length is height of spiral.
Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap. For details of piles, see sheet 24 of 27. For details of Bar Splicers and Mechanical Splice, see sheet 25 of 27.

PIER 1

STRUCTURE NO. 057-0250



ELEVATION
(Looking South)

* Splicing of Spiral reinforcement not allowed in lower or upper 2'-6" of column. When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.



MINIMUM BAR LAP
#9 bar = 5'-11"

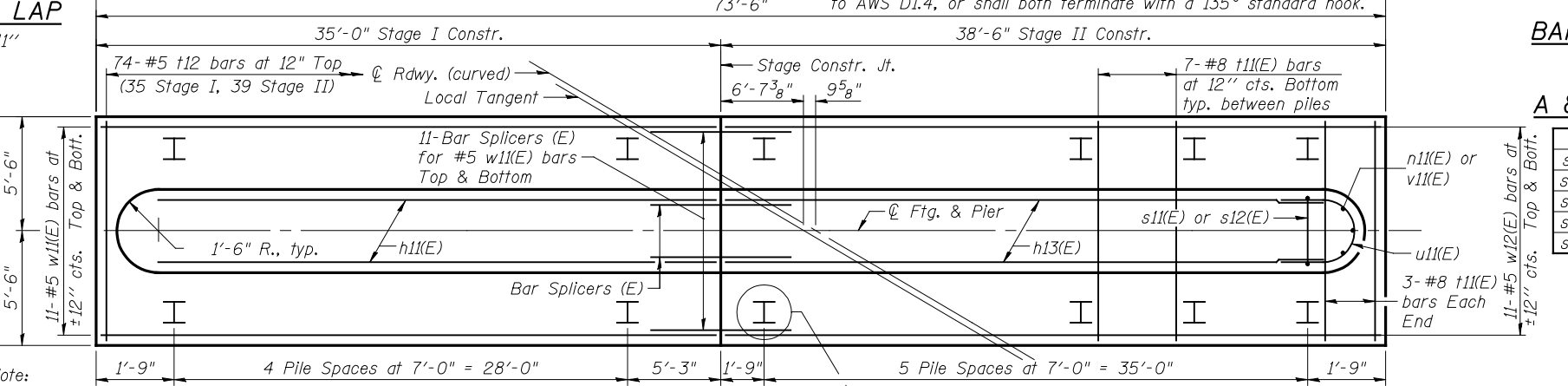
PILE DATA

Type: Steel-HP12x53
Nominal Required Bearing: 418 kips
Factored Resistance Available: 230 kips
Est. Length: 30'
No. Production Piles: 21
No. Test Piles: 1



DESIGNED: DCD	DRAWN: P. Ray
CHECKED: CMV	CHECKED: CMV/DCD

P-26 11-1-09 (Modified)



FOOTING PLAN

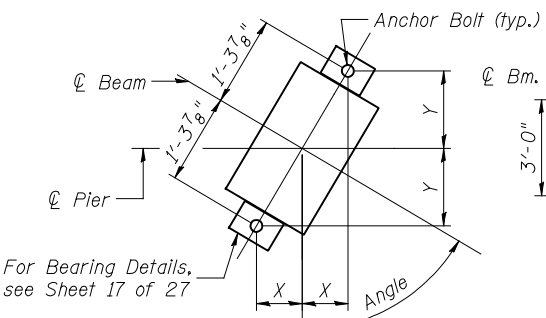
Note: See sheet 2 of 27 for Foundation Layout showing relative position of existing and proposed piles.
This pile shall be driven in Stage I (to avoid conflict with new deck)

SHEET 22 OF 27	F.A.I. RTE. 55	SECTION (57-THB-1BR)	COUNTY MCLAN	TOTAL SHEETS 153	SHEET NO. 72
STA. 626+53.70			CONTRACT NO. 70520		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

PRINT DATE: 08/06/2010 20:51:03 SAVE DATE: 8/6/2010 USER: DCD FILE: J:\A\DO\10169 IL-D5 I-55NB McLean\H55NB-IT4EB\0570250-70520-022-piers.dgn

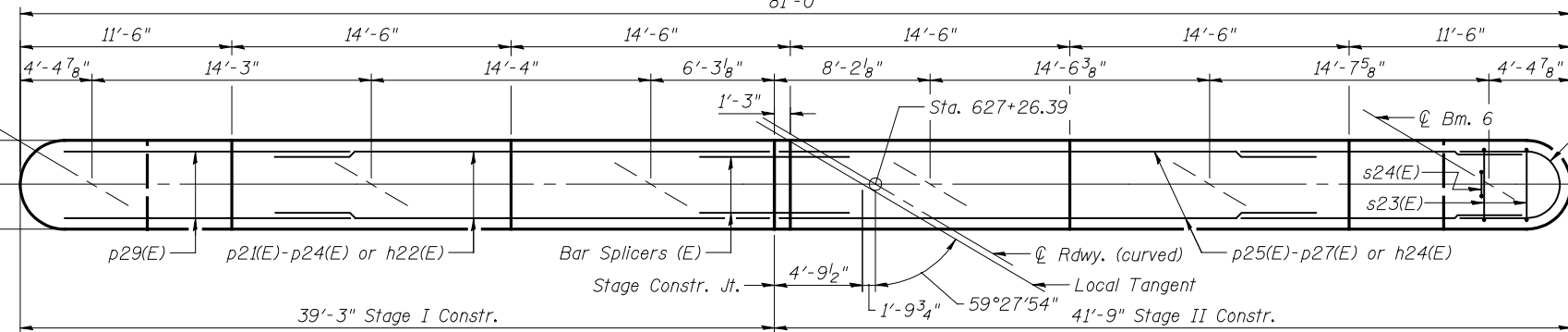
ANCHOR BOLT LAYOUT DIMENSIONS

Angle	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
	57.31°	57.55°	57.79°	58.04°	58.29°	58.54°
X	8 ⁵ / ₈ "	8 ¹ / ₂ "	8 ¹ / ₂ "	8 ³ / ₈ "	8 ³ / ₈ "	8 ¹ / ₂ "
Y	1'-1 ³ / ₈ "	1'-1 ³ / ₈ "	1'-1 ³ / ₈ "	1'-1 ¹ / ₂ "	1'-1 ¹ / ₂ "	1'-1 ¹ / ₂ "

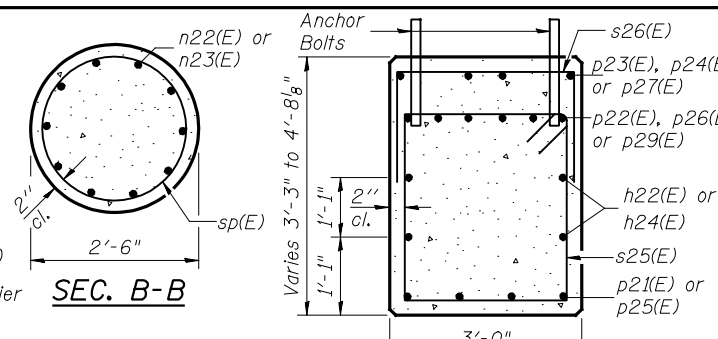


ANCHOR BOLT LAYOUT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
81'-0"

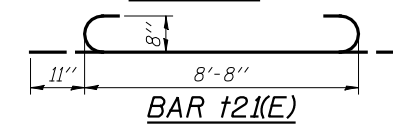


TOP PLAN



SEC. B-B

SEC. A-A

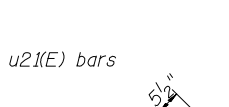


BAR t21(E)

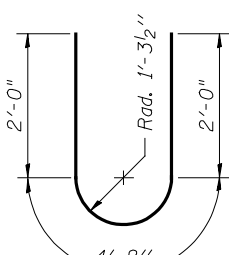
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h21(E)	15	#5	31'-1"	—
h22(E)	4	#5	37'-7"	—
h23(E)	15	#5	33'-7"	—
h24(E)	4	#5	40'-1"	—
n21(E)	6	#5	6'-1"	U
n22(E)	60	#8	6'-5"	U
n23(E)	60	#8	8'-6"	U
p21(E)	4	#9	32'-10"	—
p22(E)	4	#9	27'-7"	—
p23(E)	4	#5	15'-4"	—
p24(E)	4	#5	24'-4"	—
p25(E)	4	#9	35'-4"	—
p26(E)	4	#9	30'-1"	—
p27(E)	4	#5	15'-5"	—
p28(E)	8	#5	6'-8"	—
p29(E)	12	#10	17'-5"	U
s21(E)	66	#5	13'-8"	U
s22(E)	66	#5	15'-2"	U
s23(E)	32	#5	6'-10"	U
s24(E)	20	#5	5'-2"	U
s25(E)	68	#5	12'-1"	U
s26(E)	54	#5	7'-0"	U
sp(E)	6	#4	12'-1"	W
t21(E)	66	#8	10'-6"	U
t22(E)	69	#5	8'-8"	—
u21(E)	21	#5	8'-2"	U
v21(E)	6	#5	6'-3"	—
w21(E)	18	#5	32'-8"	—
w22(E)	18	#5	35'-2"	—
Structure Excavation			Cu. Yd.	182
Concrete Structures			Cu. Yd.	162.4
Reinforcement Bars, Epoxy Coated			Pound	15430
Furnishing Steel Piles, HP12x53			Foot	630
Driving Piles			Foot	630
Test Pile, HP12x53			Each	1
Concrete Sealer			Sq Ft	2263

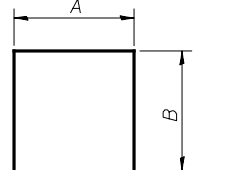
BARS n21(E)-n23(E) & p29(E)



BAR s25(E)



BAR u21(E)



BARS s21(E)-s24(E) & s26(E)

A & B DIMENSIONS

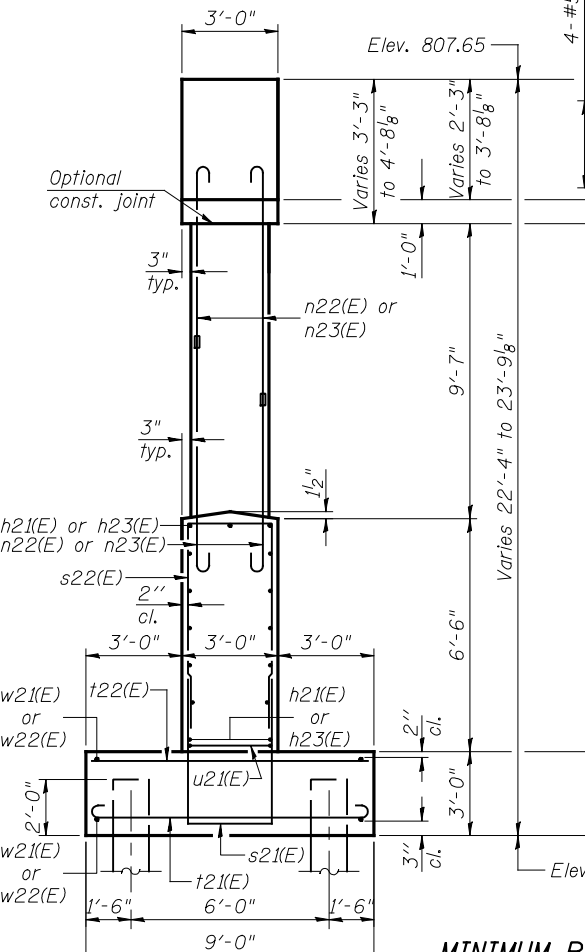
Bar	A	B
s21(E)	2'-8"	5'-6"
s22(E)	2'-8"	6'-3"
s23(E)	2'-8"	2'-1"
s24(E)	1'-0"	2'-1"
s26(E)	2'-8"	2'-2"

Notes: ** Length is height of spiral.
Space reinforcement in cap to miss anchor bolts. Four steps monolithically with cap.
For details of piles, see sheet 24 of 27.
For details of Bar Splicers and Mechanical Splice, see sheet 25 of 27.

PIER 2

STRUCTURE NO. 057-0250

FILE: J:\A\DO\1069 IL-D5 I-55NB McLean\H55NB-IT4EB\0570250-70520-022-piers.dgn
USER: DCD
PRINT DATE: 08/06/2010 20:51:06 SAVE DATE: 8/6/2010



END VIEW

MINIMUM BAR LAP
#9 bar = 5'-11"

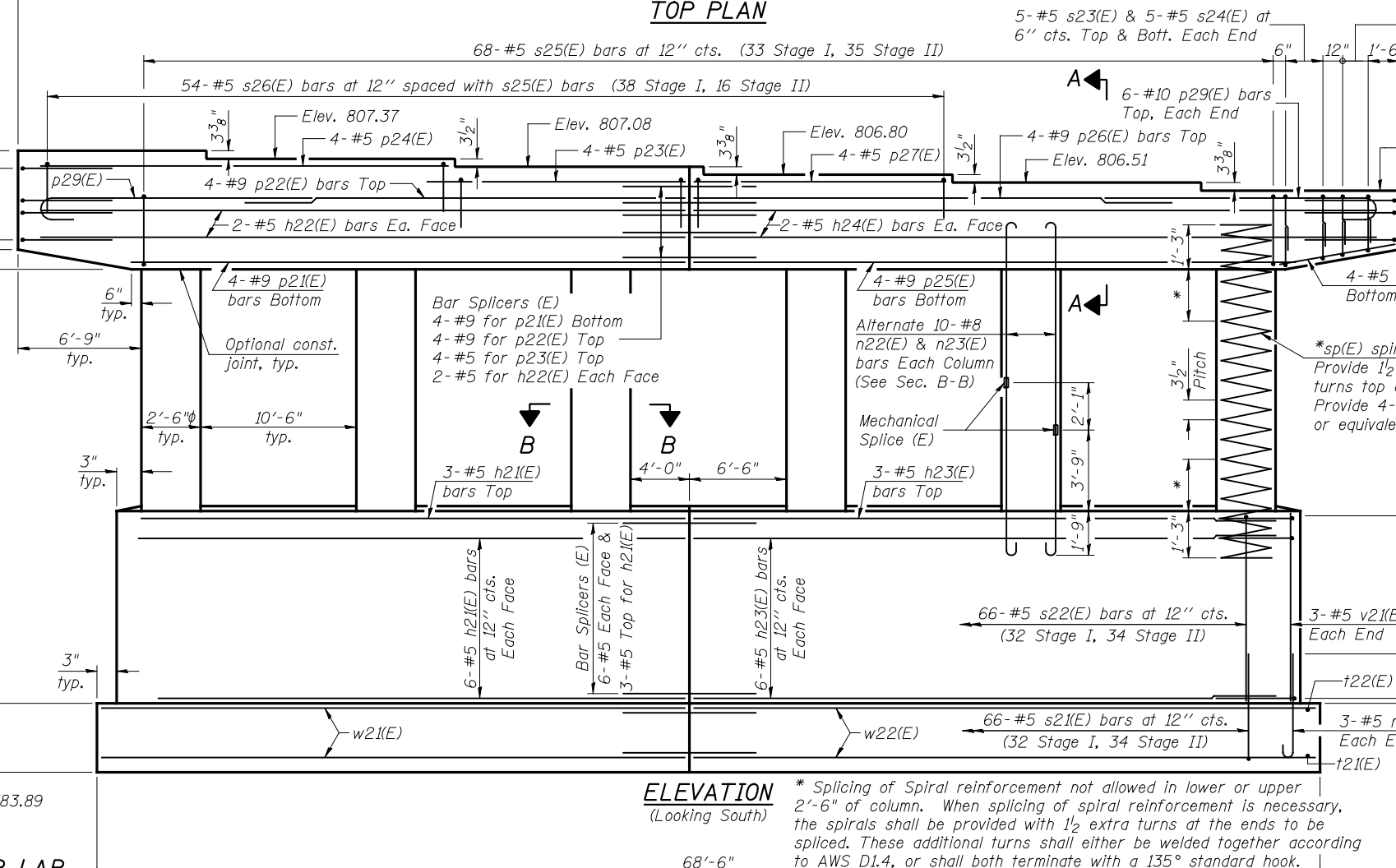
PILE DATA

Type: Steel-HP12x53
Nominal Required Bearing: 415 kips
Factored Resistance Available: 228 kips
Est. Length: 30'
No. Production Piles: 21
No. Test Piles: 1

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

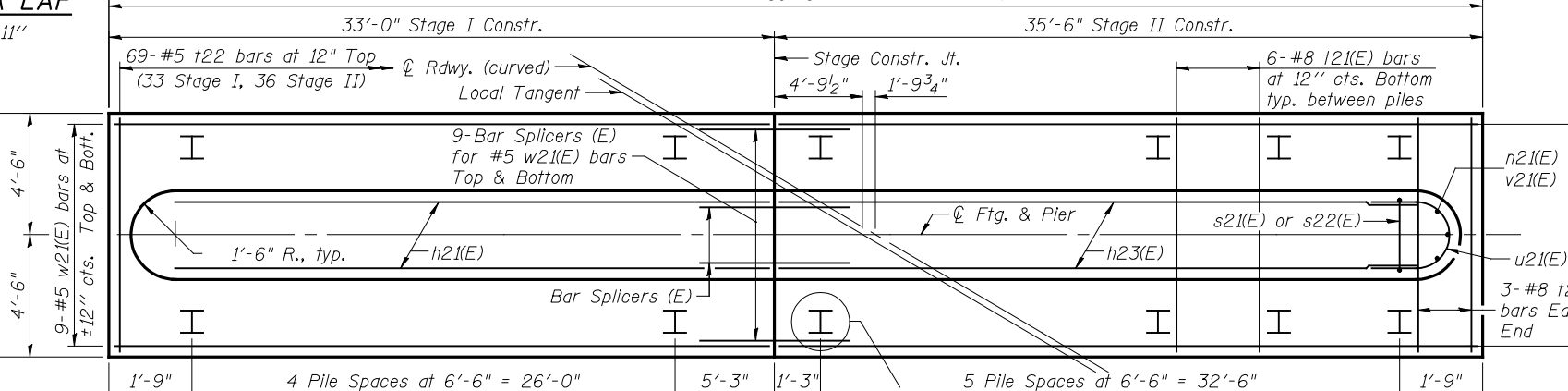
DESIGNED: DCD	DRAWN: P. Ray
CHECKED: CMV	CHECKED: CMV/DCD

P-26 11-1-09 (Modified)



ELEVATION
(Looking South)

* Splicing of Spiral reinforcement not allowed in lower or upper 2'-6" of column. When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

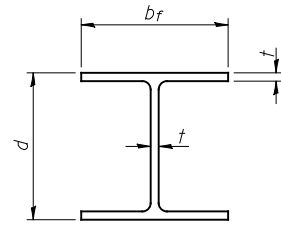


FOOTING PLAN

This pile shall be driven in Stage I (to avoid conflict with new deck)

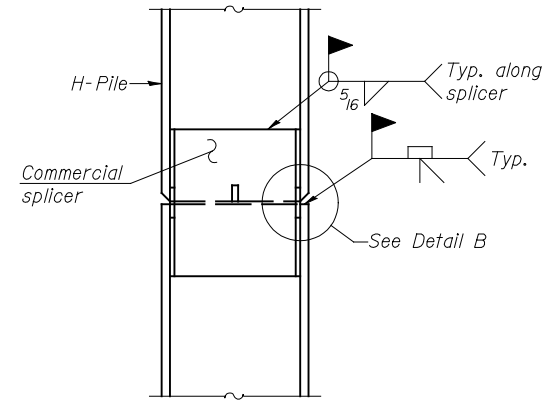
SHEET 23 OF 27	F.A.I. RTE. 55	SECTION (57-THB-1BR)	COUNTY MCLAN	TOTAL SHEETS 153	SHEET NO. 73
STA. 626+53.70			CONTRACT NO. 70520		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

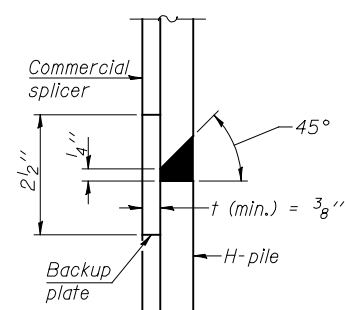


STEEL PILE TABLE

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

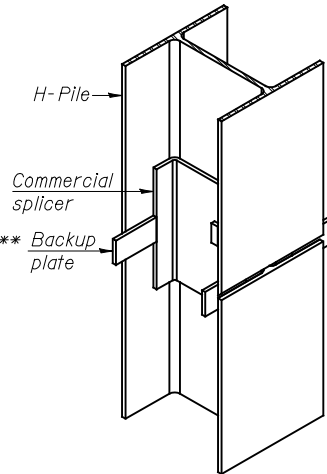


ELEVATION

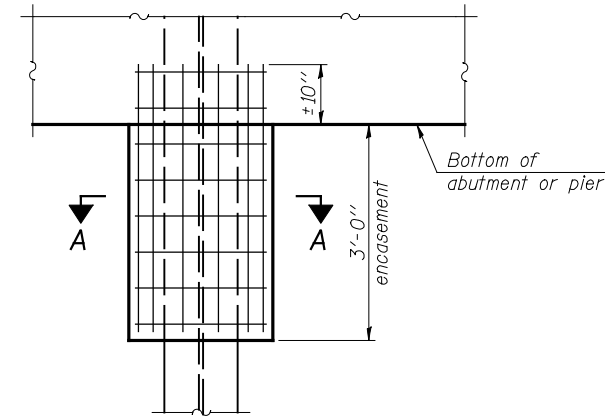


DETAIL "B"

WELDED COMMERCIAL SPLICE

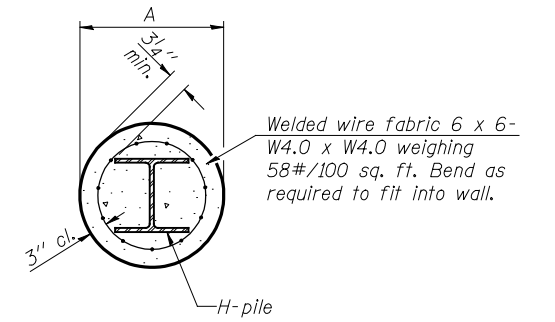


ISOMETRIC VIEW



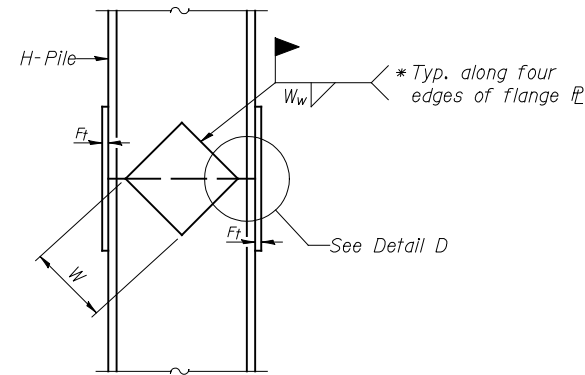
ELEVATION

PILE ENCASEMENT

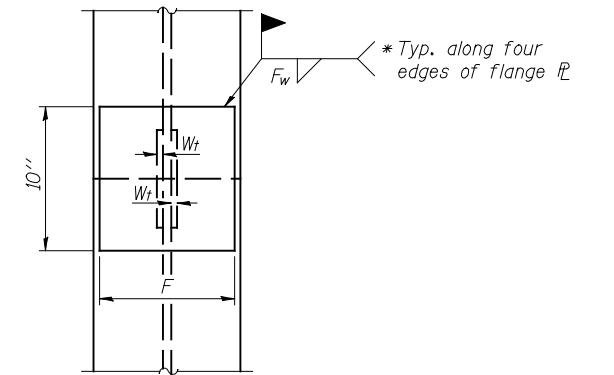


SECTION A-A

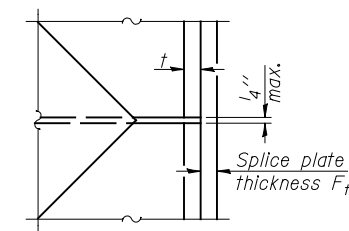
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



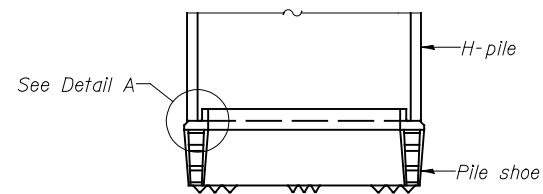
END VIEW



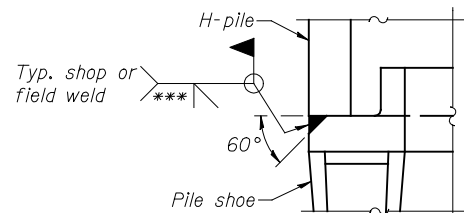
DETAIL D

WELDED PLATE FIELD SPLICE

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

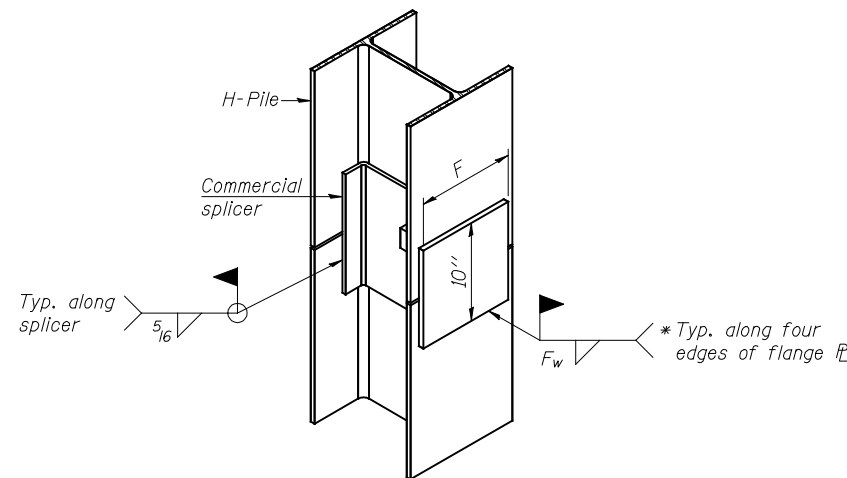


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

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

DESIGNED: IDOT	DRAWN: SJS
CHECKED: DCD	CHECKED: DCD

F-HP 11-1-09

HP PILE DETAILS
STRUCTURE NO. 057-0250

SHEET 24 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	74
STA. 626+53.70		CONTRACT NO. 70520			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

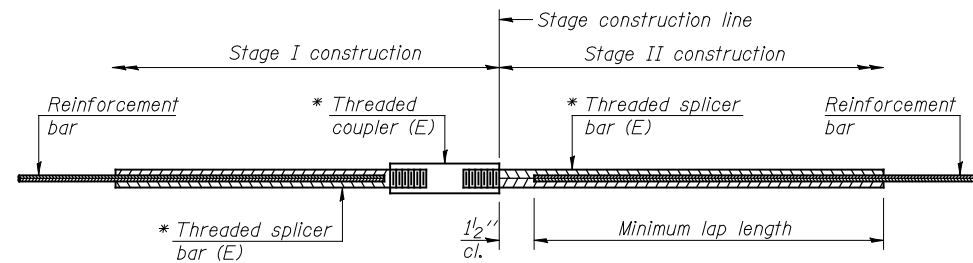
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USER: DCD

SAVE DATE: 8/5/2010

PRINT DATE: 08/06/2010 20:57:11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

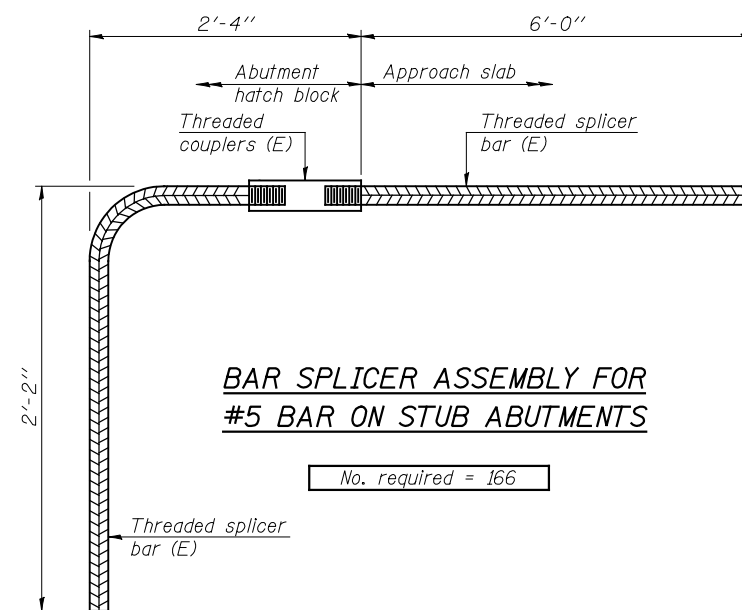
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck Slab	#5	986	3
Deck End Diaph.	#9	10	3
Appr. Slab	#4	48	3
Appr. Slab	#5	90	3
Appr. Slab Footing	#5	80	3
Abut. Backwall	#5	16	3
Abut. Backwall	#6	10	3
Abut. Footing	#5	10	3
Abut. Footing	#7	24	3
Pier Cap	#5	16	3
Pier Cap	#9	16	3
Pier Crashwall	#5	30	3
Pier Footing	#5	40	3

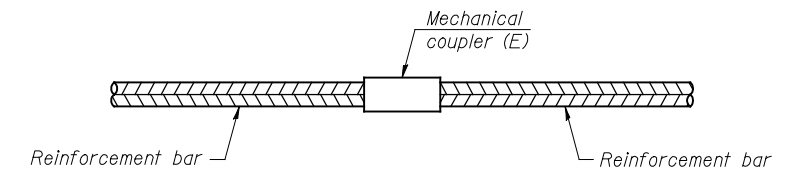
NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS



No. required = 166

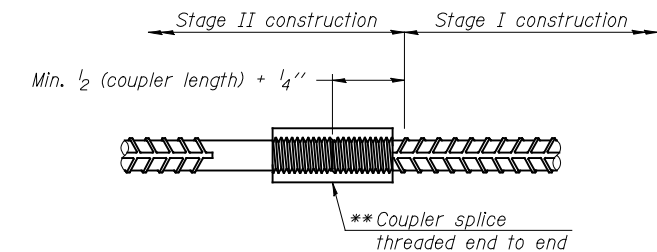
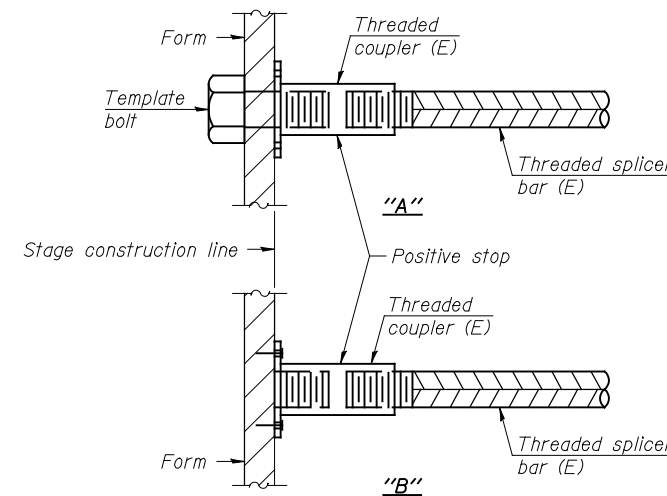


STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier Columns	#8	120

INSTALLATION AND SETTING METHODS

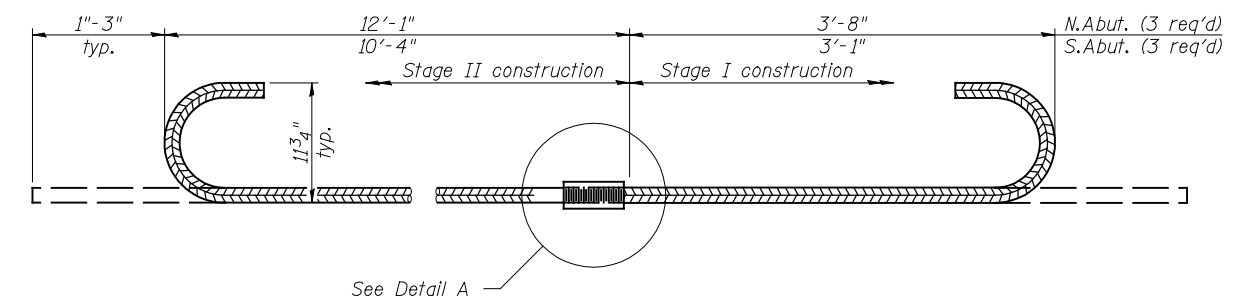
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms and cementing to steel forms.
(E) : Indicates epoxy coating.



DETAIL A

** The bar splicer assembly shall utilize splice bars with the threaded ends oversized to ensure no reduction in cross sectional area after threading and be designed to allow completion of the splice without turning either of the splice bars.

#9 BAR SPLICER ASSEMBLY FOR EDGE BEAMS AT STAGE CONSTRUCTION JOINT



No. required = 6

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 057-0250**

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: CMV	DRAWN: SJS
CHECKED: DCD	CHECKED: CMV/DCD

BSD-1 11-1-09 (Modified)

SHEET 25 OF 27	F.A.I. RTE. 55	SECTION (57-7HB-1)BR	COUNTY MCLEAN	TOTAL SHEETS 153	SHEET NO. 75
	STA. 626+53.70		CONTRACT NO. 70520		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Illinois Department
of Transportation
Division of Highways
IDOT - Region 3/Dist 5

SOIL BORING LOG

Page 1 of 1

Date 11/11/57

ROUTE FAI Rt. 55 (I-55) DESCRIPTION FAI 55 Structure over FAI 74EB LOGGED BY District 3

SECTION (57-7HB-2 & 57-7HB-1)BR LOCATION SE, SEC. 18, TWP. 23N, RNG. 2E, 3rd PM

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. 057-0005 Exist. Station 626+53.53
BORING NO. 1 N. Abut. Station 625+66 Offset 14.6 ft Lt. Ground Surface Elev. 789.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After 24 Hrs. 782.5 ft

DEPTH (ft)	BLOWS	UCS (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOWS	UCS (tsf)	MOISTURE (%)
0				Black Loam	0			
788.0				Black Loam	0			
5				Stiff Brown Silty Clay (Damp)	21			
6			17					
				766.5				
				Very Stiff Brown Silty Clay - Trace of Small Gravel (Damp)	15	1.9		
					17			
					-5			
					-25			
					12	2.0		
					15			
					12			
					13			
					16			
					17			
					-10			
					-30			
					34	6.5		
					50			
					36	6.5		
					75			
					44	6.5		
					63			
					-15			
					-35			
					44	6.5		
					63			
					-15			
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Illinois Department
of Transportation
Division of Highways
IDOT - Region 3/Dist 5

SOIL BORING LOG

Page 1 of 1

Date 11/10/57

ROUTE FAI Rt. 55 (I-55) DESCRIPTION FAI 55 Structure over FAI 74EB LOGGED BY District 3

SECTION (57-7HB-2 & 57-7HB-1)BR LOCATION SE, SEC. 18, TWP. 23N, RNG. 2E, 3rd PM

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. 057-0005 Exist.
Station 626+53.53

BORING NO. 3 S. Pier
Station 627+30.5
Offset 14.6 ft Lt.
Ground Surface Elev. 786.7 ft

DEPTH (ft)	DESCRIPTION	DEPTH (ft)	BLOWS	UCS (tsf)	UCS (%)
0	Black Loam	0			
5	Stiff Brown Silty Clay (Damp)	5			
6	Stiff Brown Silty Clay (Damp)	6			
8	Medium Brown Sand - Clay Binder (Damp)	8	9	1.3	
10	Stiff Brown Silty Clay (Damp)	10			
11	Stiff Brown Silty Clay (Damp)	11			
13	Stiff Brown Silty Clay (Damp)	13			
15	Stiff Brown Silty Clay (Damp)	15			
17	Stiff Brown Silty Clay (Damp)	17			
18	Stiff Brown Silty Clay (Damp)	18			
22	Stiff Brown Silty Clay (Damp)	22			
24	Stiff Brown Silty Clay (Damp)	24			
25	Stiff Brown Silty Clay (Damp)	25			
26	Stiff Brown Silty Clay (Damp)	26			
27	Stiff Brown Silty Clay (Damp)	27			
28	Stiff Brown Silty Clay (Damp)	28			
29	Stiff Brown Silty Clay (Damp)	29			
30	Stiff Brown Silty Clay (Damp)	30			
31	Stiff Brown Silty Clay (Damp)	31			
32	Stiff Brown Silty Clay (Damp)	32			
33	Stiff Brown Silty Clay (Damp)	33			
34	Stiff Brown Silty Clay (Damp)	34			
35	Stiff Brown Silty Clay (Damp)	35			
36	Stiff Brown Silty Clay (Damp)	36			
37	Stiff Brown Silty Clay (Damp)	37			
38	Stiff Brown Silty Clay (Damp)	38			
39	Stiff Brown Silty Clay (Damp)	39			
40	Stiff Brown Silty Clay (Damp)	40			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Illinois Department
of Transportation
Division of Highways
IDOT - Region 3/Dist 5

SOIL BORING LOG

Page 1 of 1

Date 11/11/57

ROUTE FAI Rt. 55 (I-55) DESCRIPTION FAI 55 Structure over FAI 74EB LOGGED BY District 3

SECTION (57-7HB-2 & 57-7HB-1)BR LOCATION SE, SEC. 18, TWP. 23N, RNG. 2E, 3rd PM

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. 057-0005 Exist.
Station 626+53.53

BORING NO. 4 S. Abut.
Station 627+40
Offset 14.6 ft Rt.
Ground Surface Elev. 786.8 ft

DEPTH (ft)	DESCRIPTION	DEPTH (ft)	BLOWS	UCS (tsf)	UCS (%)
0	Black Loam	0			
8	Very Stiff to Stiff Brown Silty Clay (Damp)	8			
9	Very Stiff to Stiff Brown Silty Clay (Damp)	9			
7	Very Stiff to Stiff Brown Silty Clay (Damp)	7			
5	Very Stiff to Stiff Brown Silty Clay (Damp)	5			
10	Medium Brown Sand - Trace of Small Gravel (Damp)	10			
10	Medium Brown Sand - Trace of Small Gravel (Damp)	10			
13	Medium Brown Sand - Trace of Small Gravel (Damp)	13			
12	Medium Brown Sand - Trace of Small Gravel (Damp)	12			
8	Medium Brown Sand - Trace of Small Gravel (Damp)	8			
9	Medium Brown Sand - Trace of Small Gravel (Damp)	9			
6	Stiff Brown Silty Clay	6			
6	Stiff Brown Silty Clay	6			
11	Medium Brown Sand - Trace of Small Gravel (Damp)	11			
12	Medium Brown Sand - Trace of Small Gravel (Damp)	12			
13	Medium Brown Sand - Trace of Small Gravel (Damp)	13			
13	Medium Brown Sand - Trace of Small Gravel (Damp)	13			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: IDOT-D5 DRAWN: SJS
CHECKED: DCD CHECKED: DCD

SOIL BORINGS (2 OF 2)
STRUCTURE NO. 057-0250

SHEET 27 OF 27	F.A.I. RTE. 55	SECTION (57-7HB-1)BR STA. 626+53.70	COUNTY MCLEAN	TOTAL SHEETS 153	SHEET NO. 77
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT		

PRINT DATE: 08/06/2010 20:51:20

FILE: J:\JDD\0570250\057-0250-D5 I-55ENB McLean\BBS\057-0005 EXIST.GPJ

5/15/2009 8:03:09 AM S:\SOILS\BORING LOGS\057-0005 EXIST.GPJ

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. ϕ , holes $\frac{15}{16}$ in. ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 13,650 lbs. (M270 Gr. 36)
217,040 lbs. (M270 Gr. 50)

No field welding is permitted except as specified in the contract documents.

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

Reinforcement bars designated (E) shall be epoxy coated.

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

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

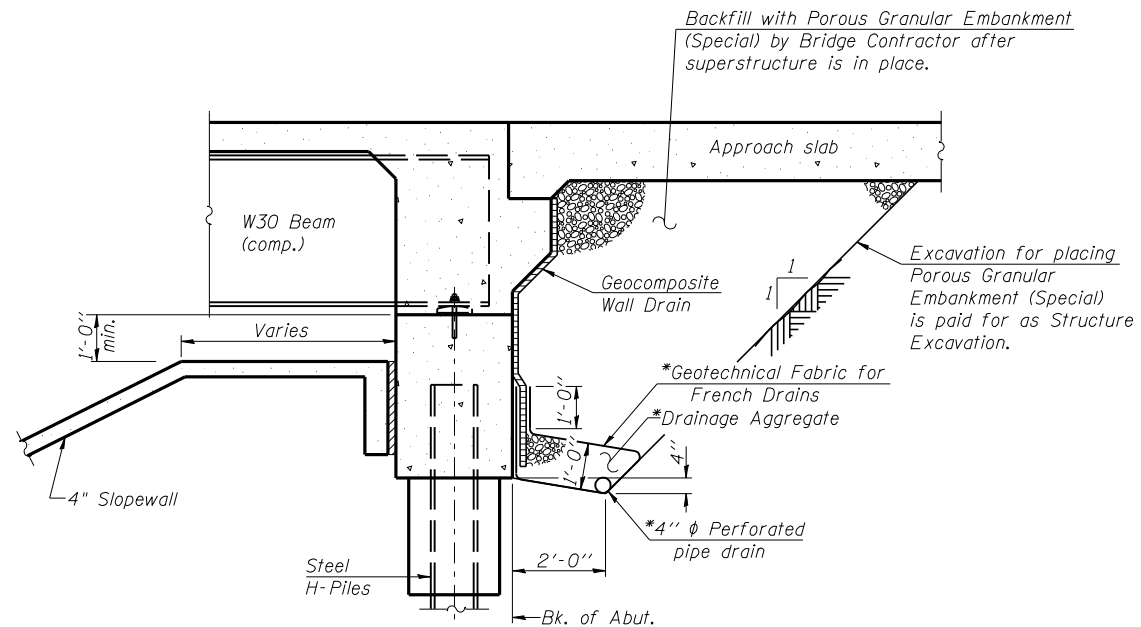
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".

Concrete Sealer shall be applied to the designated areas of the piers.

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

Slip forming of the concrete parapet is not allowed.



SECTION THRU INTEGRAL ABUTMENT

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

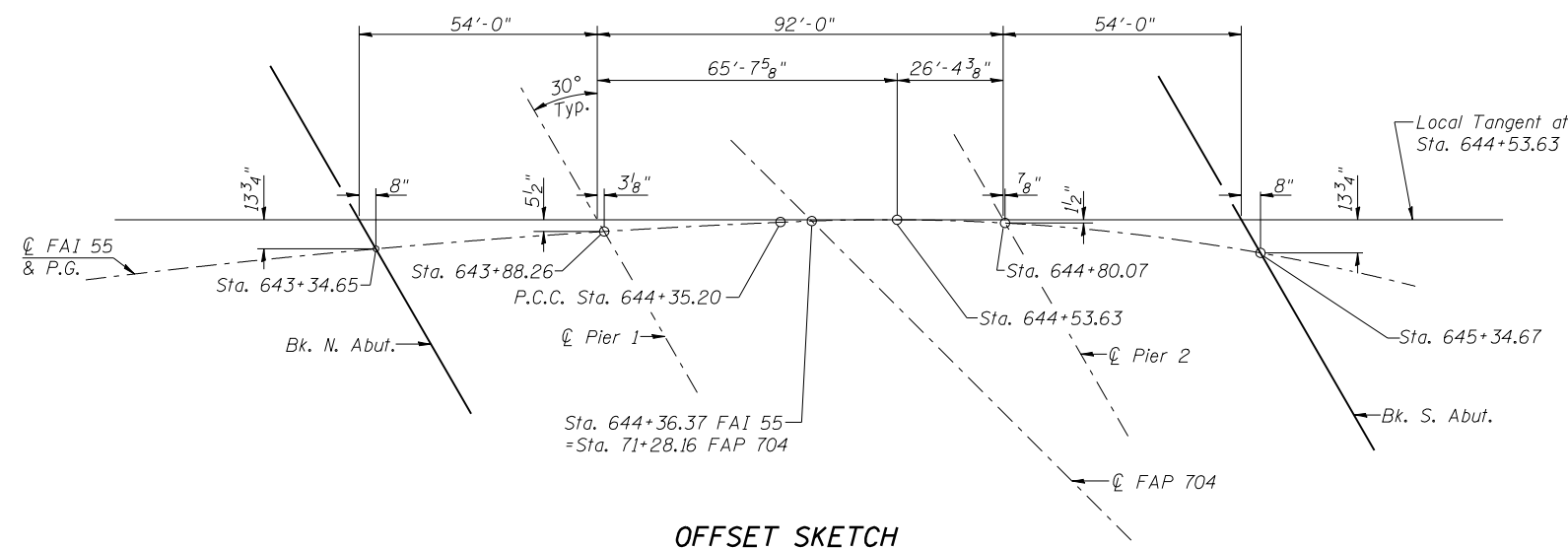
*Included in the cost of Pipe Underdrains for Structures 4".

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.	-	172	172
Removal of Existing Structures	Each	-	1	1
Protective Shield	Sq. Yd.	210	-	210
Structure Excavation	Cu. Yd.	-	687	687
Concrete Structures	Cu. Yd.	-	293.4	293.4
Concrete Superstructure	Cu. Yd.	462.9	-	462.9
Bridge Deck Grooving	Sq. Yd.	1204	-	1204
Concrete Encasement	Cu. Yd.	-	7.0	7.0
Protective Coat	Sq. Yd.	1466	-	1466
Stud Shear Connectors	Each	5400	-	5400
Reinforcement Bars, Epoxy Coated	Pound	118560	40810	159370
Bar Splicers	Each	879	304	1183
Slope Wall 4 Inch	Sq. Yd.	-	809	809
Furnishing Steel Piles HP12x63	Foot	-	3076	3076
Driving Piles	Foot	-	3076	3076
Test Pile Steel HP12x63	Each	-	4	4
Temporary Sheet Piling	Sq. Ft.	-	884	884
Name Plates	Each	1	-	1
Anchor Bolts, 1"	Each	-	48	48
Concrete Sealer	Sq. Ft.	-	629	629
Geocomposite Wall Drain	Sq. Yd.	-	103	103
Pipe Underdrains for Structures 4"	Foot	-	168	168
Furnishing and Erecting Structural Steel Bridge No. 2	L. Sum	1	-	1
Mechanical Splicers	Each	-	240	240
Drainage Scuppers, DS-11	Each	1	-	1
Diamond Grinding (Bridge Section)	Sq. Yd.	1147	-	1147



OFFSET SKETCH

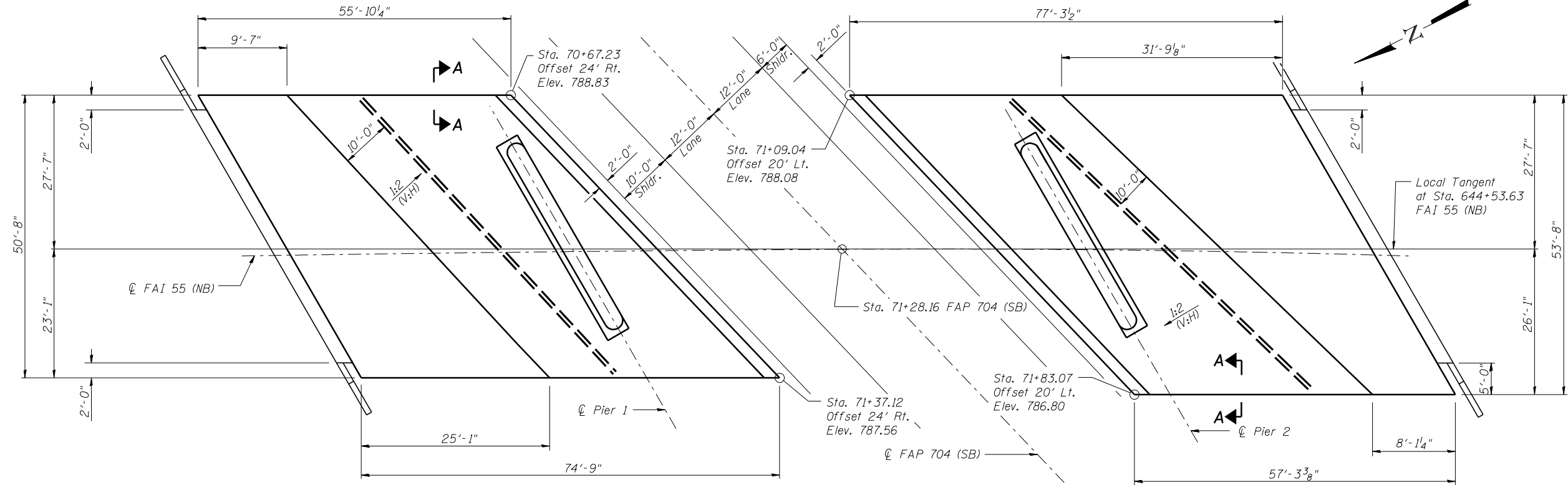
STATION 644+36.37
BUILT 20 BY
STATE OF ILLINOIS
FAI RTE 55 - SEC. (57-7HB-2)BR
LOADING HL-93
STRUCTURE NO. 057-0249

NAME PLATE
See Std. 515001

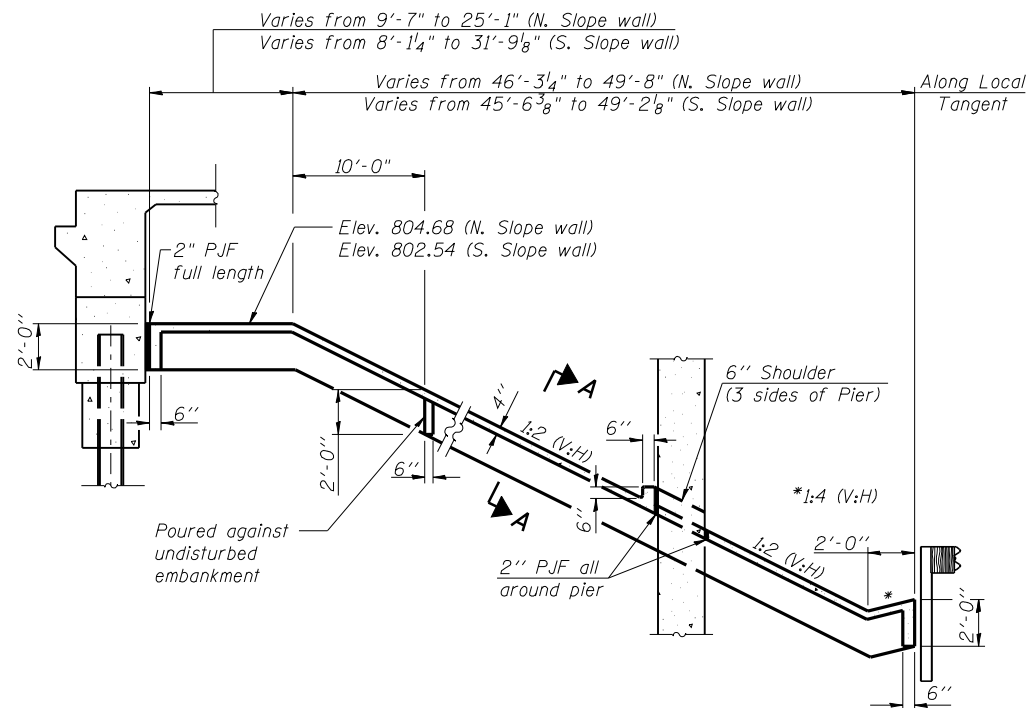
GENERAL NOTES AND DETAILS
STRUCTURE NO. 057-0249

	SHEET NO. 2	F.A.I. RTE. 55	SECTION (57-7HB-2)BR	COUNTY MCLEAN	TOTAL SHEETS 153	SHEET NO. 79
	26 SHEETS	CONTRACT NO. 70520			ILLINOIS FED. AID PROJECT	

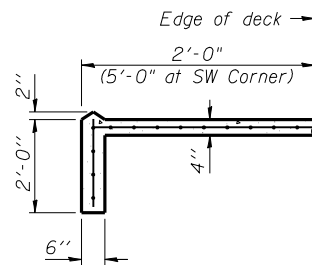
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



SECTION THRU
CONCRETE SLOPE WALL
(Horiz. dim. @ Rt. L's unless otherwise shown)



SECTION A-A

Notes:
Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
Stations and offsets are referencing @ FAP 704 (SB).

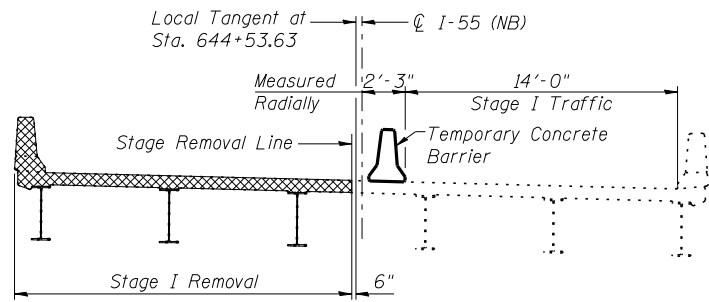
BILL OF MATERIAL

Item	Unit	Total
Slope Wall 4 Inch	Sq. Yd.	809

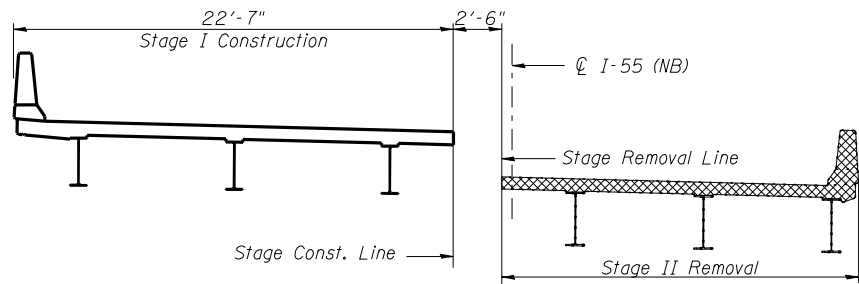
SLOPE WALL DETAILS
STRUCTURE NO. 057-0249

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 3 26 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		55	(57-7HB-2)BR	MCLEAN	153	80
CONTRACT NO. 70520					ILLINOIS FED. AID PROJECT	

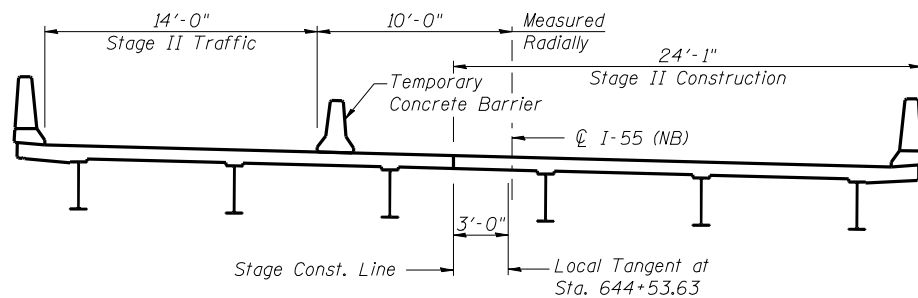
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



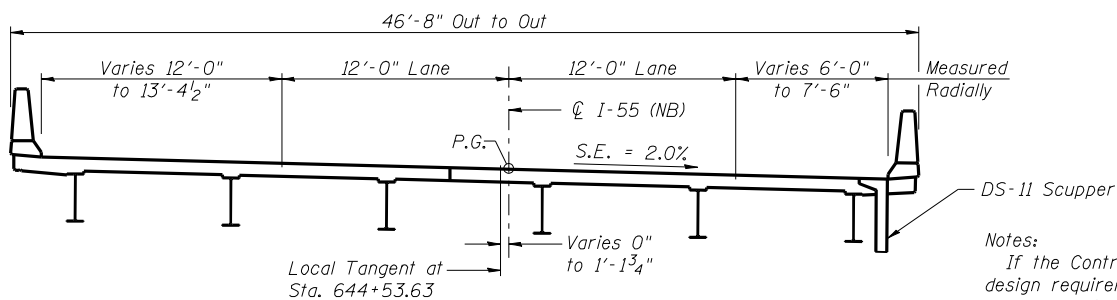
STAGE I REMOVAL & TRAFFIC



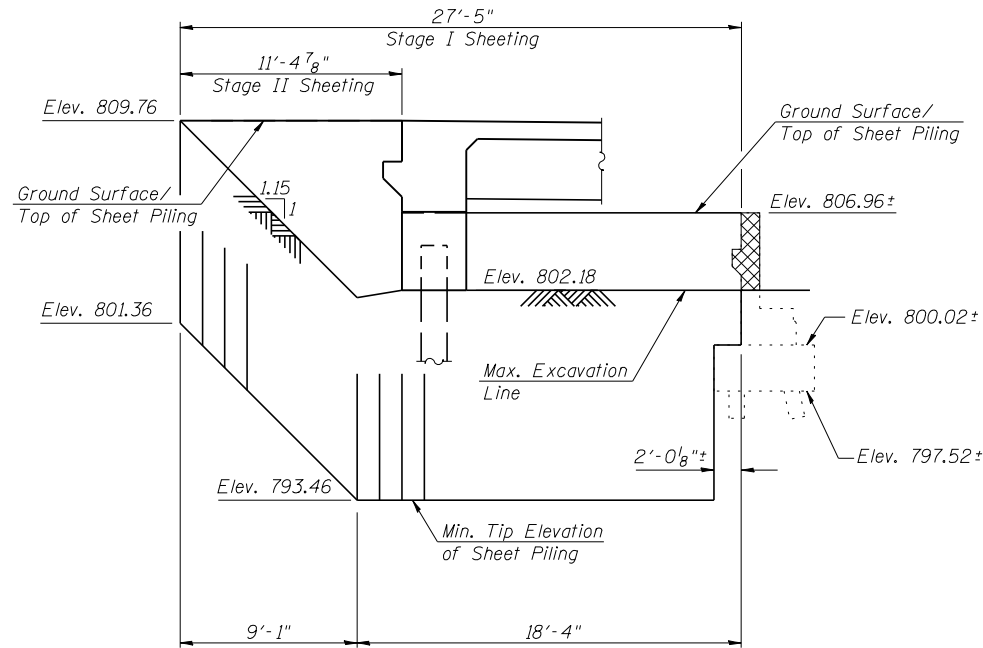
STAGE I CONSTRUCTION & STAGE II REMOVAL



STAGE II CONSTRUCTION & TRAFFIC

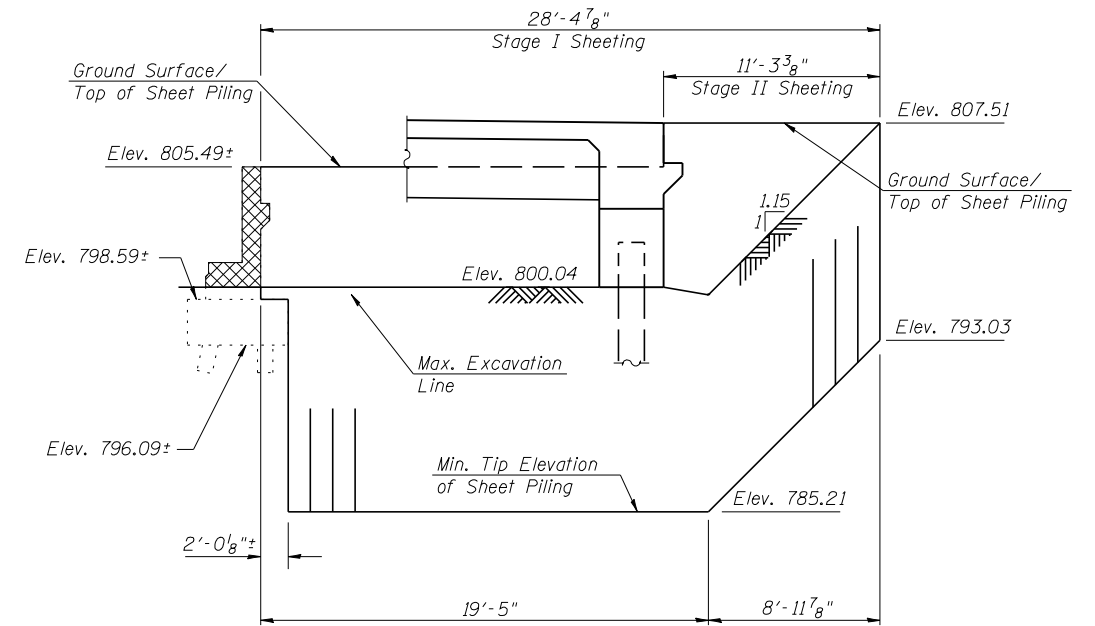


PROPOSED CROSS SECTION



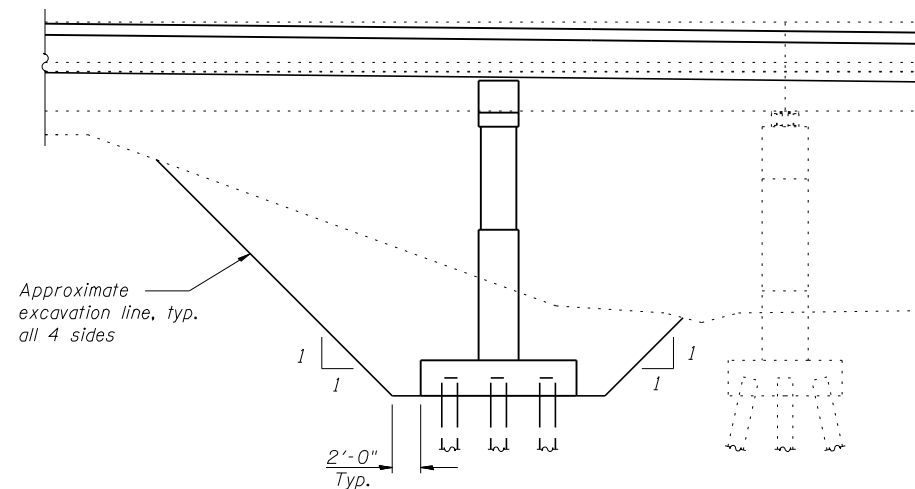
**TEMPORARY SHEET PILING
AT NORTH ABUTMENT**

(Dimensions Taken Along Stage Construction Line)
Minimum Section Modulus = 15.1 in³/ft within limits of Stage I Sheeting and 23.6 in³/ft within limits of Stage II Sheeting.



**TEMPORARY SHEET PILING
AT SOUTH ABUTMENT**

(Dimensions Taken Along Stage Construction Line)
Minimum Section Modulus = 23.6 in³/ft within limits of Stage I Sheeting and 35.1 in³/ft within limits of Stage II Sheeting.



PIER EXCAVATION DETAIL

(Horizontal Dimensions at Rt. L's)
(Pier 1 shown, Pier 2 similar)

Notes:

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

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

Cross Hatched areas indicate removal of existing structure.

All cross sections are looking south.

Removal of existing overlay is included with Removal of Existing Structures.

See Roadway plans for quantity of Temporary Concrete Barrier.

See sheet 5 of 26 for details of Temporary Concrete Barrier.

Stage Removal and Construction lines also apply to the abutments.

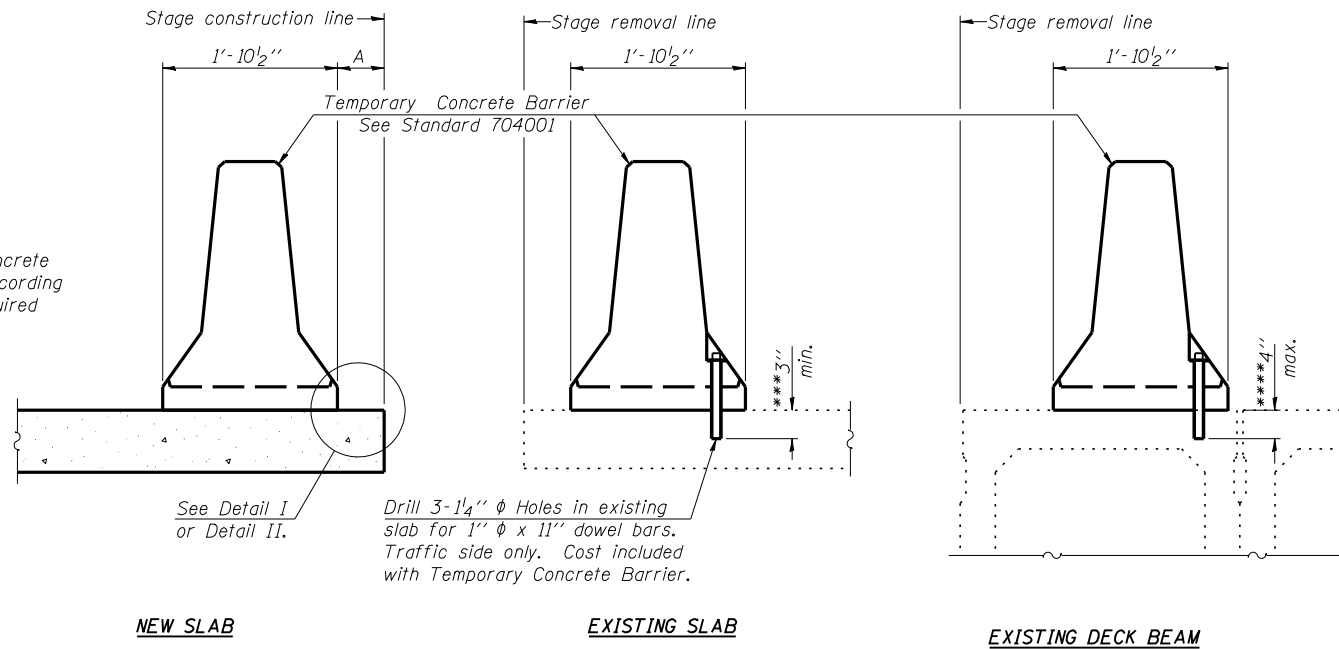
Stage Construction line for piers is shown on pier sheets. Entire Pier removal shall be performed after completion of Stage II Construction.

**STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 057-0249**

	SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	81
				CONTRACT NO. 70520		
				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

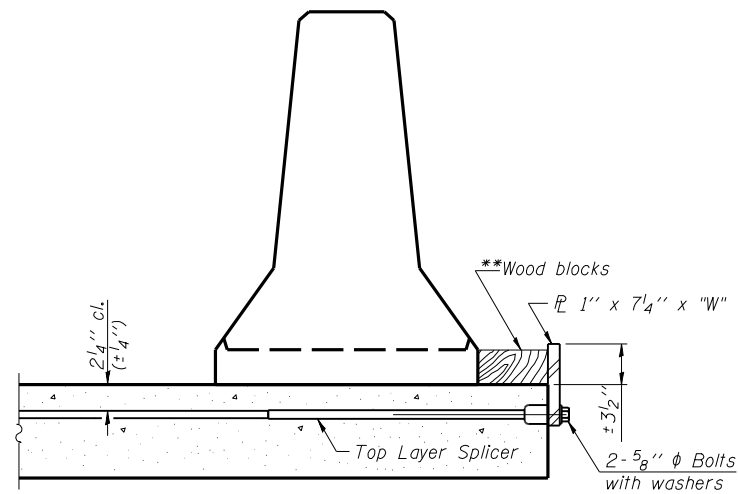
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7/4" x 10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7/4" x 10" steel PL 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 C of each barrier panel.

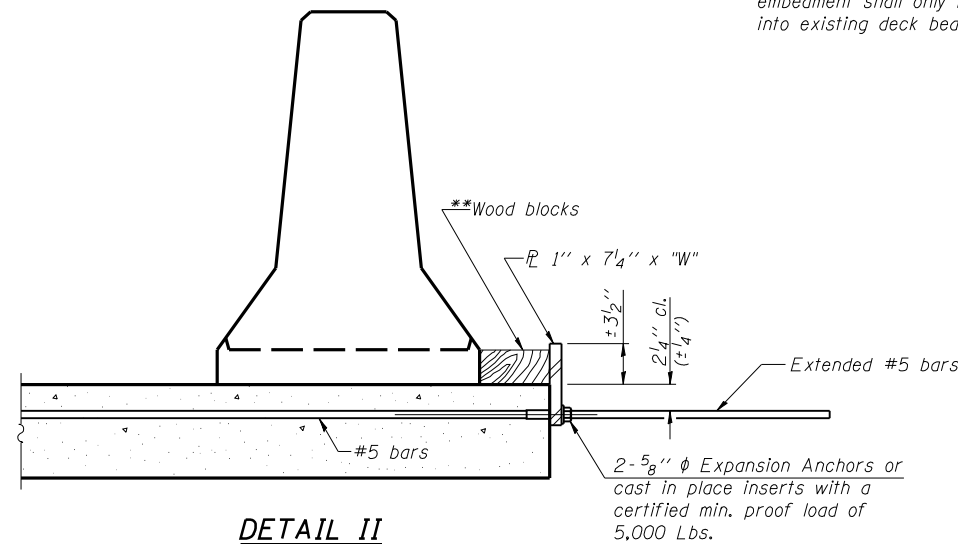
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7/4" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.

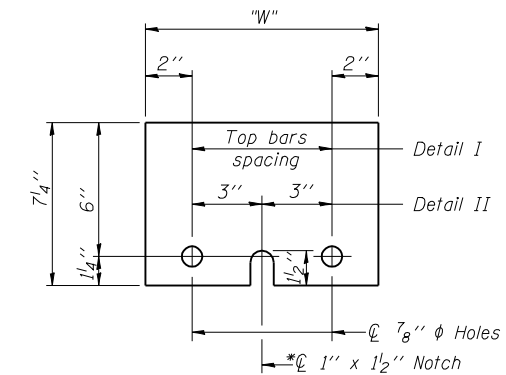
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7/4" x 10"

* Required only with Detail II

** 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.

"W" = Top bars spacing + 4"

**MODIFIED TEMPORARY CONCRETE
BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 057-0249**

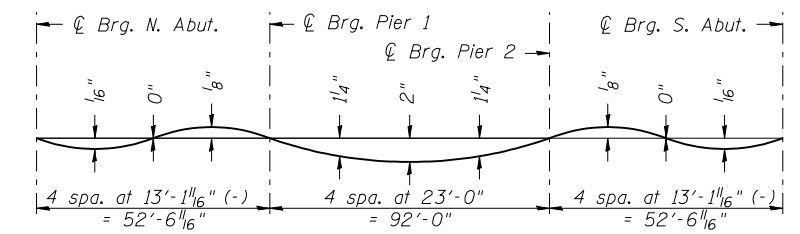
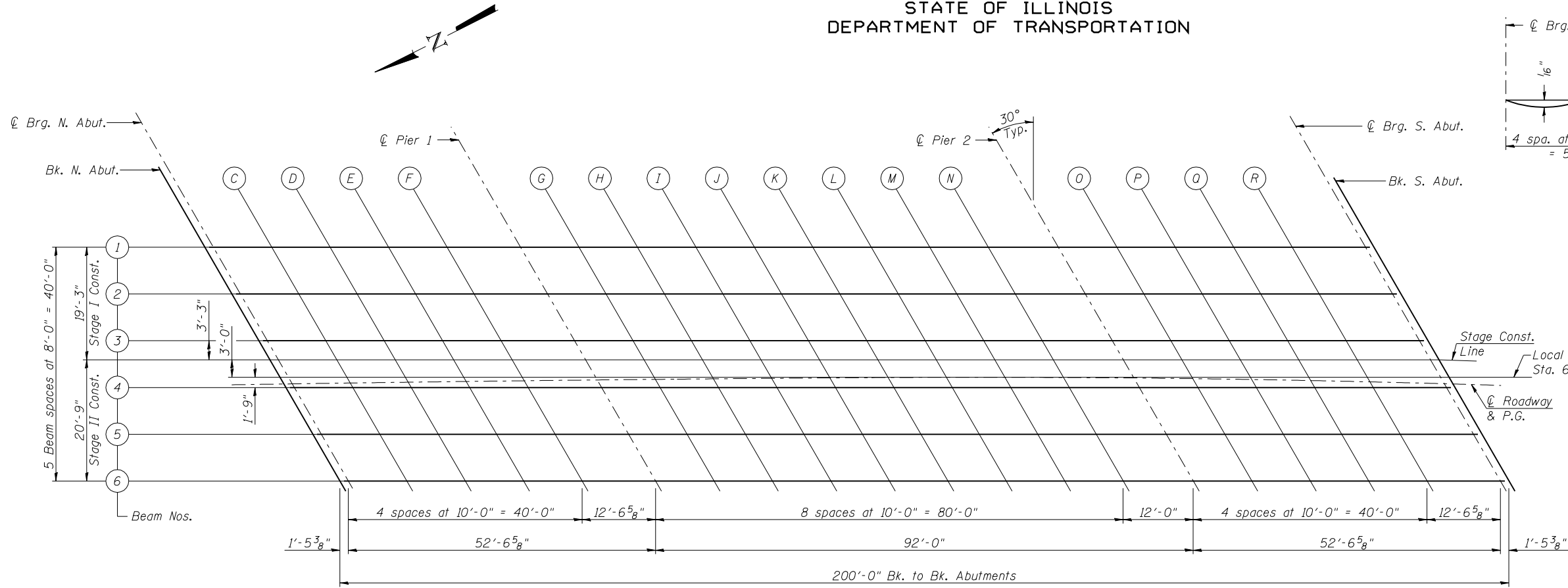
<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 5	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	82
				CONTRACT NO. 70520		
				ILLINOIS FED. AID PROJECT		

Designed By: A.J.F.
Date: April, 2010

Checked By: MTH
File: 057-0249.dgn

Drawn By: A.J.F.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on this sheet and sheet 7 of 26.

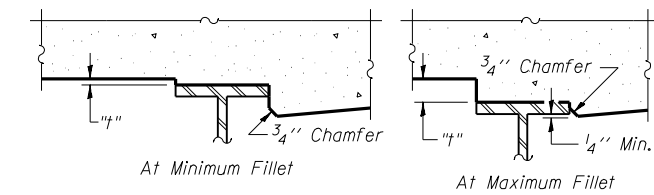
PLAN

BEAM 1

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	643+21.53	-23.61	810.15	810.17
☉ Brg. N. Abut.	643+22.97	-23.59	810.13	810.15
C	643+32.95	-23.43	810.03	810.06
D	643+42.93	-23.28	809.93	809.95
E	643+52.91	-23.14	809.83	809.85
☉ Pier 1	643+62.88	-23.01	809.73	809.74
F	643+75.42	-22.85	809.60	809.62
G	643+85.39	-22.74	809.50	809.56
H	643+95.37	-22.64	809.39	809.51
I	644+05.35	-22.54	809.29	809.45
J	644+15.33	-22.46	809.18	809.37
K	644+25.31	-22.38	809.07	809.26
L	644+35.29	-22.31	808.96	809.13
M	644+45.22	-22.26	808.85	808.98
N	644+55.14	-22.25	808.75	808.82
☉ Pier 2	644+67.05	-22.28	808.61	808.64
O	644+76.97	-22.35	808.50	808.51
P	644+86.89	-22.45	808.40	808.41
Q	644+96.81	-22.58	808.28	808.31
R	645+06.73	-22.75	808.17	808.20
☉ Brg. S. Abut.	645+19.19	-23.01	808.03	808.06
Bk. S. Abut.	645+20.62	-23.04	808.02	808.04

BEAM 2

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	643+26.01	-15.54	809.94	809.96
☉ Brg. N. Abut.	643+27.45	-15.51	809.93	809.95
C	643+37.44	-15.36	809.83	809.85
D	643+47.42	-15.21	809.73	809.75
E	643+57.41	-15.08	809.62	809.64
☉ Pier 1	643+67.40	-14.95	809.52	809.53
F	643+79.93	-14.80	809.39	809.41
G	643+89.92	-14.69	809.29	809.35
H	643+99.91	-14.59	809.18	809.30
I	644+09.89	-14.50	809.08	809.24
J	644+19.88	-14.42	808.97	809.16
K	644+29.87	-14.35	808.86	809.05
L	644+39.84	-14.28	808.75	808.92
M	644+49.79	-14.25	808.64	808.77
N	644+59.74	-14.26	808.53	808.61
☉ Pier 2	644+71.68	-14.31	808.40	808.42
O	644+81.63	-14.39	808.29	808.30
P	644+91.58	-14.50	808.18	808.20
Q	645+01.53	-14.65	808.07	808.09
R	645+11.47	-14.84	807.96	807.99
☉ Brg. S. Abut.	645+23.96	-15.12	807.82	807.84
Bk. S. Abut.	645+25.40	-15.16	807.81	807.83



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on this sheet and sheet 7 of 26, minus slab thickness, equals the fillet heights "t" above top flange 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 this sheet and sheet 7 of 26. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

**TOP OF SLAB ELEVATIONS-1
STRUCTURE NO. 057-0249**

Note:
Offsets measured from roadway ☉.

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 6	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	83
				CONTRACT NO. 70520		
ILLINOIS FED. AID PROJECT						

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 3

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	643+30.50	-7.46	809.74	809.76
⊕ Brg. N. Abut.	643+31.94	-7.44	809.72	809.74
C	643+41.93	-7.29	809.62	809.65
D	643+51.93	-7.15	809.52	809.54
E	643+61.92	-7.02	809.42	809.43
F	643+71.91	-6.89	809.32	809.32
⊕ Pier 1	643+84.46	-6.75	809.19	809.21
G	643+94.45	-6.65	809.08	809.14
H	644+04.45	-6.55	808.97	809.09
I	644+14.44	-6.46	808.87	809.03
J	644+24.44	-6.38	808.76	808.95
K	644+34.43	-6.31	808.65	808.84
L	644+44.41	-6.26	808.54	808.71
M	644+54.39	-6.25	808.43	808.56
N	644+64.37	-6.27	808.32	808.40
⊕ Pier 2	644+76.34	-6.34	808.19	808.21
O	644+86.32	-6.44	808.08	808.09
P	644+96.29	-6.57	807.97	807.98
Q	645+06.27	-6.74	807.86	807.88
R	645+16.24	-6.94	807.75	807.77
⊕ Brg. S. Abut.	645+28.76	-7.24	807.61	807.63
Bk. S. Abut.	645+30.20	-7.28	807.59	807.61

STAGE CONSTRUCTION LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	643+32.32	-4.19	809.65	809.67
⊕ Brg. N. Abut.	643+33.77	-4.16	809.64	809.66
C	643+43.76	-4.01	809.54	809.56
D	643+53.76	-3.87	809.44	809.46
E	643+63.75	-3.74	809.33	809.35
F	643+73.75	-3.62	809.23	809.24
⊕ Pier 1	643+86.30	-3.48	809.10	809.12
G	643+96.30	-3.38	809.00	809.06
H	644+06.29	-3.28	808.89	809.00
I	644+16.29	-3.20	808.78	808.94
J	644+26.29	-3.12	808.68	808.86
K	644+36.28	-3.05	808.57	808.76
L	644+46.27	-3.01	808.46	808.63
M	644+56.26	-3.00	808.35	808.47
N	644+66.25	-3.03	808.24	808.31
⊕ Pier 2	644+78.24	-3.11	808.11	808.13
O	644+88.23	-3.21	808.00	808.00
P	644+98.21	-3.35	807.88	807.90
Q	645+08.20	-3.52	807.77	807.79
R	645+18.19	-3.73	807.66	807.69
⊕ Brg. S. Abut.	645+30.72	-4.04	807.52	807.54
Bk. S. Abut.	645+32.16	-4.08	807.50	807.52

CENTERLINE ROADWAY & P.G.

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	643+34.65	0.00	809.55	809.57
⊕ Brg. N. Abut.	643+36.09	0.00	809.53	809.55
C	643+46.00	0.00	809.44	809.46
D	643+55.92	0.00	809.34	809.36
E	643+65.85	0.00	809.24	809.25
F	643+75.78	0.00	809.14	809.15
⊕ Pier 1	643+88.26	0.00	809.01	809.03
G	643+98.20	0.00	808.91	808.97
H	644+08.15	0.00	808.80	808.92
I	644+18.10	0.00	808.70	808.86
J	644+28.06	0.00	808.59	808.78
K	644+38.02	0.00	808.49	808.68
L	644+48.00	0.00	808.38	808.55
M	644+58.00	0.00	808.27	808.39
N	644+68.02	0.00	808.16	808.23
⊕ Pier 2	644+80.07	0.00	808.02	808.04
O	644+90.13	0.00	807.91	807.92
P	645+00.22	0.00	807.79	807.81
Q	645+10.33	0.00	807.68	807.70
R	645+20.45	0.00	807.56	807.58
⊕ Brg. S. Abut.	645+33.20	0.00	807.41	807.43
Bk. S. Abut.	645+34.67	0.00	807.39	807.41

BEAM 4

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	643+34.99	0.61	809.53	809.55
⊕ Brg. N. Abut.	643+36.44	0.63	809.52	809.54
C	643+46.43	0.77	809.42	809.44
D	643+56.43	0.91	809.31	809.34
E	643+66.43	1.04	809.21	809.23
F	643+76.44	1.16	809.11	809.12
⊕ Pier 1	643+88.99	1.30	808.98	809.00
G	643+98.99	1.40	808.87	808.93
H	644+08.99	1.49	808.77	808.88
I	644+18.99	1.57	808.66	808.82
J	644+29.00	1.65	808.55	808.74
K	644+39.00	1.71	808.44	808.63
L	644+49.00	1.75	808.33	808.50
M	644+59.01	1.74	808.22	808.35
N	644+69.02	1.71	808.11	808.18
⊕ Pier 2	644+81.02	1.62	807.98	808.00
O	644+91.03	1.51	807.87	807.88
P	645+01.03	1.36	807.76	807.77
Q	645+11.04	1.17	807.65	807.67
R	645+21.04	0.96	807.53	807.56
⊕ Brg. S. Abut.	645+33.59	0.63	807.39	807.41
Bk. S. Abut.	645+35.04	0.59	807.38	807.40

BEAM 5


Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	643+39.49	8.67	809.33	809.35
⊕ Brg. N. Abut.	643+40.94	8.70	809.31	809.33
C	643+50.94	8.84	809.21	809.23
D	643+60.95	8.97	809.11	809.13
E	643+70.96	9.10	809.01	809.02
F	643+80.96	9.21	808.90	808.91
⊕ Pier 1	643+93.53	9.35	808.77	808.79
G	644+03.54	9.44	808.66	808.73
H	644+13.55	9.53	808.56	808.67
I	644+23.55	9.61	808.45	808.61
J	644+33.56	9.68	808.34	808.53
K	644+43.59	9.73	808.23	808.42
L	644+53.63	9.75	808.12	808.29
M	644+63.66	9.73	808.01	808.14
N	644+73.69	9.68	807.90	807.97
⊕ Pier 2	644+85.73	9.57	807.77	807.79
O	644+95.77	9.44	807.66	807.66
P	645+05.80	9.28	807.54	807.56
Q	645+15.83	9.08	807.43	807.45
R	645+25.86	8.84	807.32	807.34
⊕ Brg. S. Abut.	645+38.45	8.49	807.18	807.20
Bk. S. Abut.	645+39.89	8.45	807.16	807.18

BEAM 6

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. N. Abut.	643+44.00	16.74	809.12	809.14
⊕ Brg. N. Abut.	643+45.44	16.76	809.11	809.13
C	643+55.46	16.90	809.00	809.03
D	643+65.47	17.03	808.90	808.92
E	643+75.49	17.15	808.80	808.81
F	643+85.50	17.26	808.69	808.70
⊕ Pier 1	643+98.08	17.39	808.56	808.58
G	644+08.09	17.48	808.46	808.52
H	644+18.11	17.57	808.35	808.46
I	644+28.12	17.64	808.24	808.40
J	644+38.15	17.71	808.13	808.32
K	644+48.21	17.74	808.02	808.21
L	644+58.27	17.75	807.91	808.08
M	644+68.34	17.71	807.80	807.92
N	644+78.40	17.64	807.69	807.76
⊕ Pier 2	644+90.47	17.51	807.56	807.58
O	645+00.53	17.37	807.44	807.45
P	645+10.59	17.19	807.33	807.34
Q	645+20.65	16.97	807.22	807.24
R	645+30.71	16.72	807.11	807.13
⊕ Brg. S. Abut.	645+43.33	16.35	806.96	806.98
Bk. S. Abut.	645+44.78	16.30	806.95	806.97

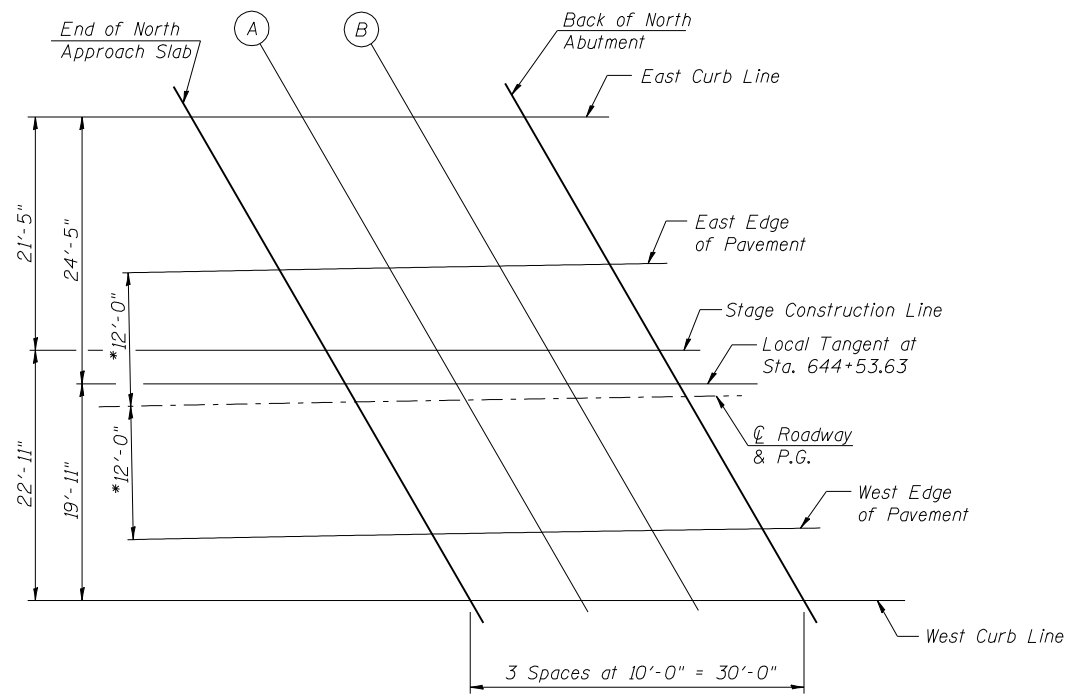
**TOP OF SLAB ELEVATIONS-2
STRUCTURE NO. 057-0249**

Note:
Offsets measured from roadway ⊕.

	SHEET NO. 7	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	84
				CONTRACT NO. 70520		
				ILLINOIS FED. AID PROJECT		

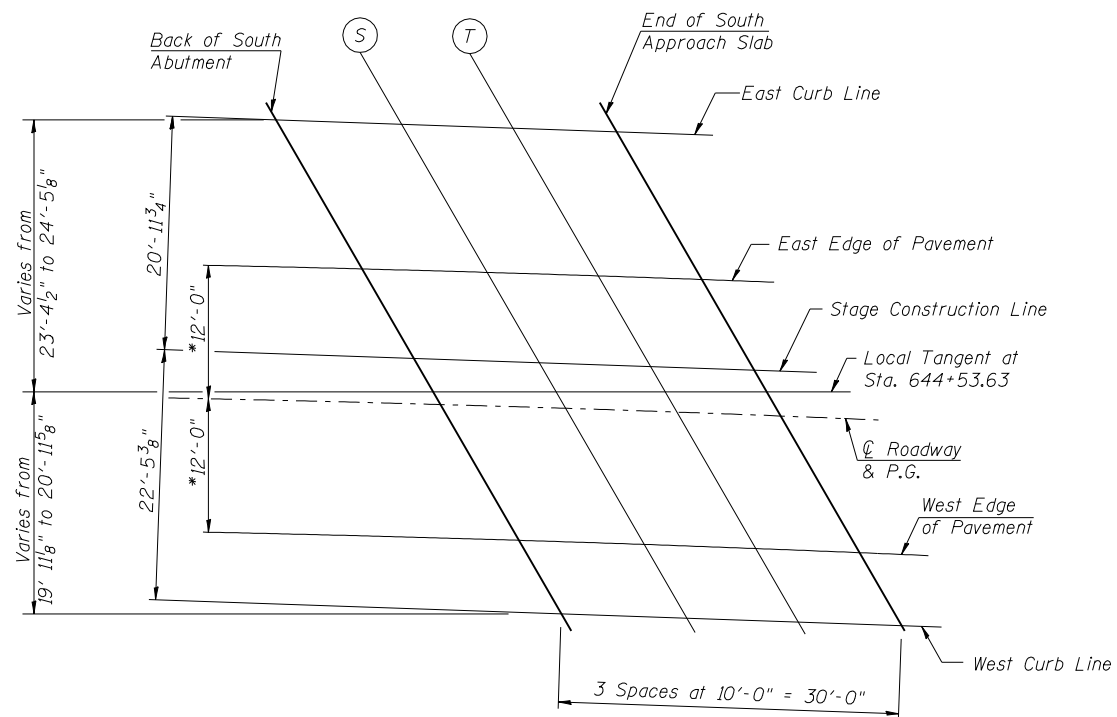
Designed By: TBP
Checked By: MTH
Date: April, 2010
File: 057-0249.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN-NORTH APPROACH

* Radial Dimensions



PLAN-SOUTH APPROACH

EAST CURB LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Appr. Slab	642+90.39	-26.33	810.50	810.52
A	643+00.37	-26.14	810.40	810.42
B	643+10.34	-25.97	810.31	810.33
Bk. N. Abut.	643+20.32	-25.80	810.21	810.23
Bk. S. Abut.	645+19.33	-25.18	808.08	808.10
S	645+29.23	-25.08	807.97	807.99
T	645+39.15	-25.02	807.85	807.87
End S. Appr. Slab	645+49.05	-24.98	807.73	807.75

EAST EDGE OF PAVEMENT

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Appr. Slab	642+98.30	-12.00	810.14	810.16
A	643+08.18	-12.00	810.05	810.07
B	643+18.08	-12.00	809.95	809.97
Bk. N. Abut.	643+27.98	-12.00	809.86	809.88
Bk. S. Abut.	645+27.32	-12.00	807.73	807.75
S	645+37.23	-12.00	807.61	807.63
T	645+47.17	-12.00	807.49	807.51
End S. Appr. Slab	645+57.12	-12.00	807.35	807.37

STAGE CONSTRUCTION LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Appr. Slab	643+02.34	-4.69	809.96	809.98
A	643+12.33	-4.51	809.86	809.88
B	643+22.33	-4.34	809.76	809.78
Bk. N. Abut.	643+32.32	-4.19	809.66	809.68
Bk. S. Abut.	645+32.16	-4.08	807.51	807.53
S	645+42.15	-4.02	807.39	807.41
T	645+52.13	-4.00	807.25	807.27
End S. Appr. Slab	645+62.12	-4.02	807.13	807.15

ROADWAY & P.G.

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Appr. Slab	643+04.93	0.00	809.84	809.86
A	643+14.84	0.00	809.74	809.76
B	643+24.74	0.00	809.65	809.67
Bk. N. Abut.	643+34.65	0.00	809.55	809.57
Bk. S. Abut.	645+34.67	0.00	807.40	807.42
S	645+44.64	0.00	807.28	807.30
T	645+54.63	0.00	807.14	807.16
End S. Appr. Slab	645+64.65	0.00	807.02	807.04

WEST EDGE OF PAVEMENT

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Appr. Slab	643+11.59	12.00	809.53	809.55
A	643+21.50	12.00	809.44	809.46
B	643+31.42	12.00	809.34	809.36
Bk. N. Abut.	643+41.35	12.00	809.25	809.27
Bk. S. Abut.	645+42.10	12.00	807.07	807.09
S	645+52.13	12.00	806.93	806.95
T	645+62.18	12.00	806.81	806.83
End S. Appr. Slab	645+72.25	12.00	806.69	806.71

WEST CURB LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End N. Appr. Slab	643+15.16	18.46	809.37	809.39
A	643+25.19	18.62	809.27	809.29
B	643+35.20	18.78	809.17	809.19
Bk. N. Abut.	643+45.22	18.93	809.07	809.09
Bk. S. Abut.	645+46.11	18.43	806.89	806.91
S	645+56.18	18.45	806.76	806.78
T	645+66.24	18.42	806.64	806.66
End S. Appr. Slab	645+76.30	18.36	806.52	806.54

Note:
Offsets measured from roadway C.

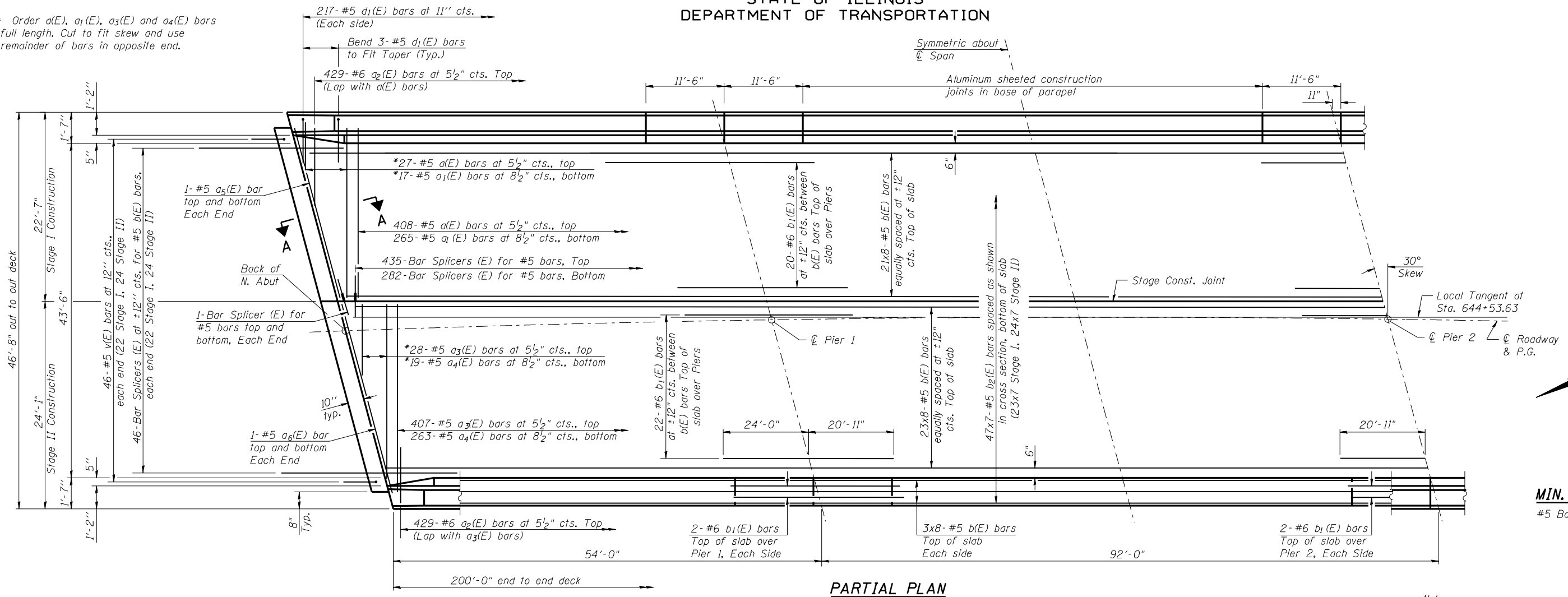
TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 057-0249

	SHEET NO. 8	F.A.I. RTE. 55	SECTION (57-7HB-2)BR	COUNTY MCLEAN	TOTAL SHEETS 153	SHEET NO. 85
	26 SHEETS	CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT						

Designed By: TBP
Checked By: MTH
Date: April, 2010
File: 057-0249.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

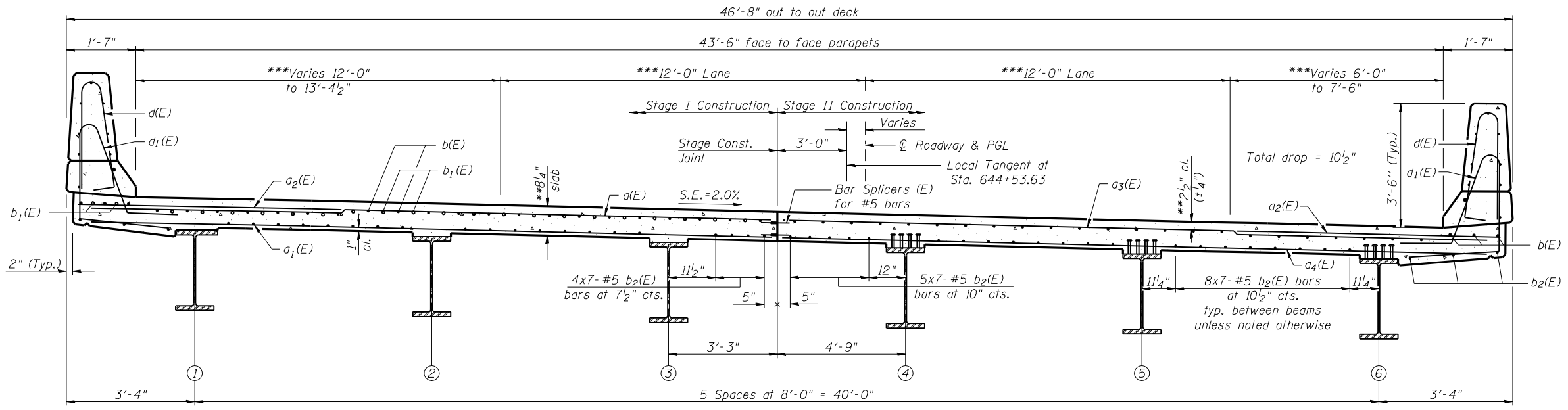
* Order a(E), a₁(E), a₃(E) and a₄(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



PARTIAL PLAN

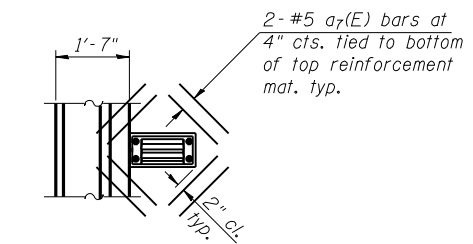
MIN. BAR LAP
#5 Bar = 2'-7"

Notes:
See sheet 10 of 26 for superstructure details, parapet reinforcement and Bill of Material.
Bars indicated thus 23x8-#5 etc. indicates 23 lines of bars with 8 lengths per line.
See Sheet 11 of 26 for Section A-A.
See Sheet 21 of 26 for Bar Splicer Details.



NEAR PIER

NEAR MIDSPAN



SCUPPER REINFORCEMENT
See sheet 1 of 26 for location of scuppers.
Cut longitudinal reinforcement to clear drainage scupper.

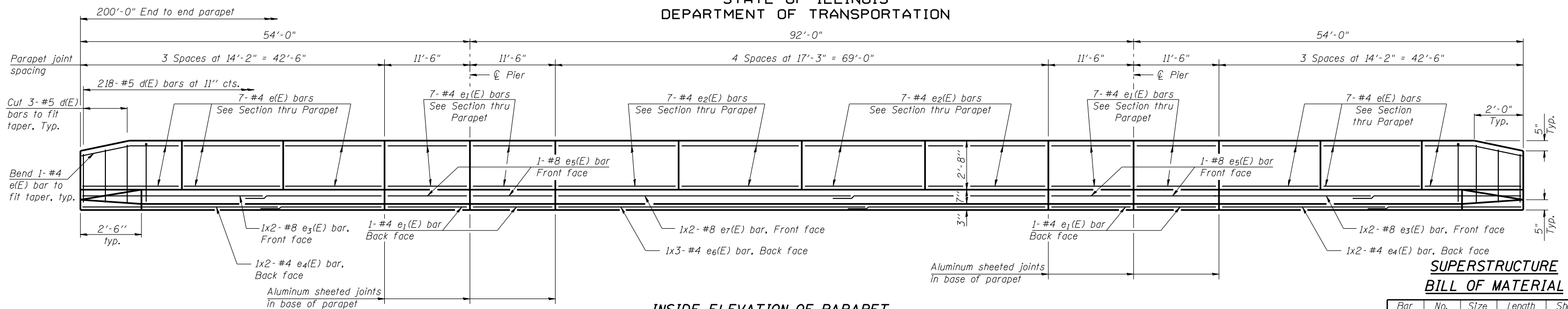
SUPERSTRUCTURE
STRUCTURE NO. 057-0249

**Prior to grinding
***Radial Dimensions

CROSS SECTION
(Looking South)
(Scupper not shown for clarity)

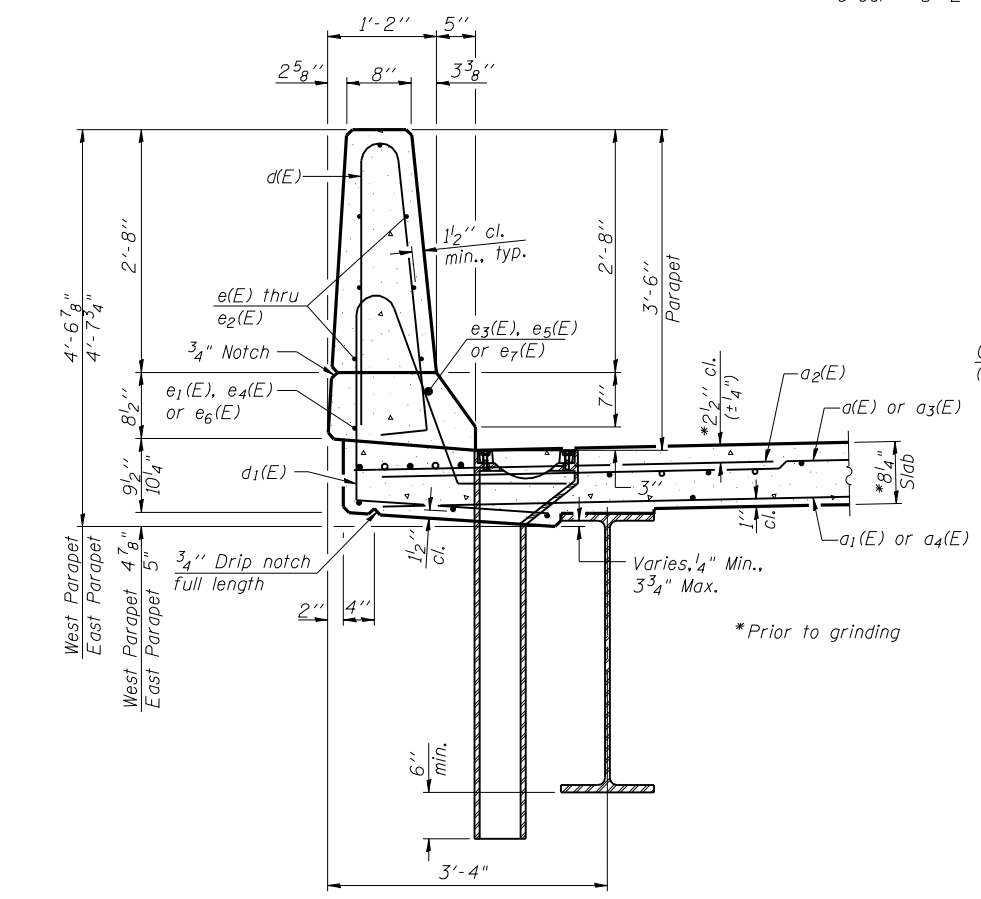
<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 9	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	86
				CONTRACT NO. 70520		
ILLINOIS FED. AID PROJECT						

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

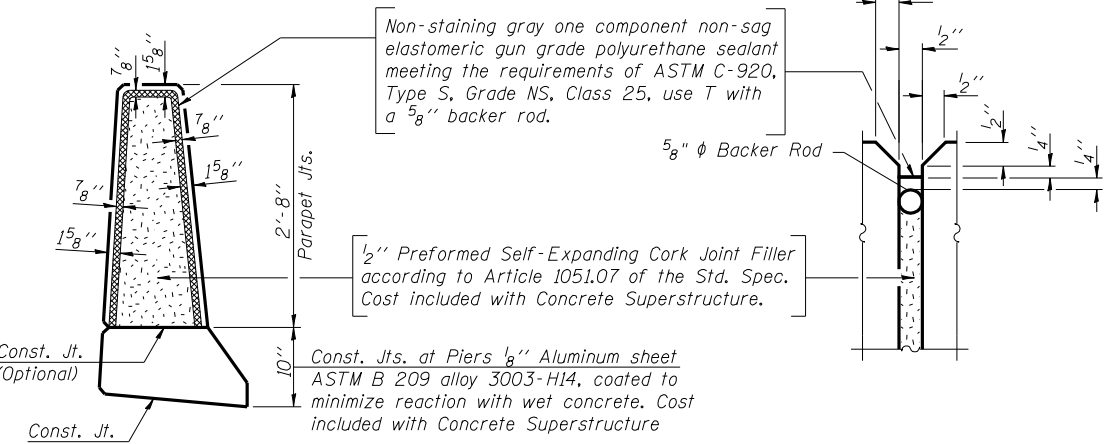


INSIDE ELEVATION OF PARAPET
(Measured Along Inside Face of Parapet)

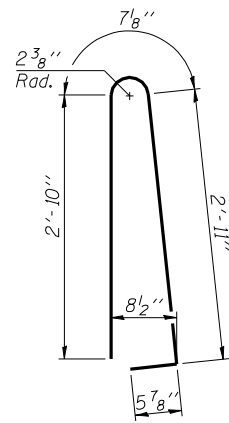
MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"



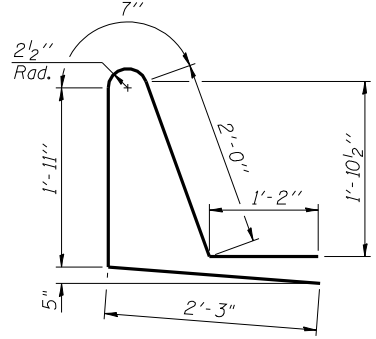
SECTION THRU PARAPET
(West Parapet Shown)



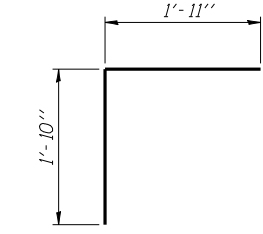
PARAPET JOINT DETAILS



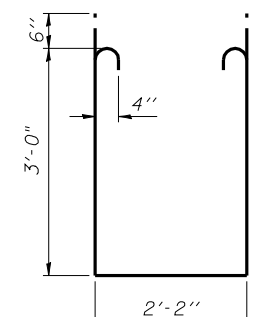
BAR d(E)



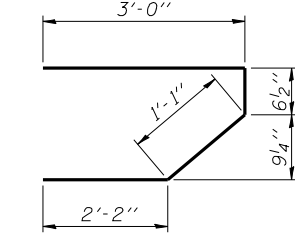
BAR d1(E)



BAR v(E)



BAR s1(E)



BAR s(E)

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	435	#5	22'-2"	—
a1(E)	282	#5	21'-10"	—
a2(E)	858	#6	6'-6"	—
a3(E)	435	#5	23'-8"	—
a4(E)	282	#5	23'-4"	—
a5(E)	4	#5	25'-5"	—
a6(E)	4	#5	27'-2"	—
a7(E)	8	#5	1'-6"	—
b(E)	400	#5	27'-4"	—
b1(E)	92	#6	44'-11"	—
b2(E)	329	#5	30'-10"	—
d(E)	436	#5	6'-10"	U
d1(E)	434	#5	7'-11"	U
e(E)	84	#4	13'-11"	—
e1(E)	64	#4	11'-3"	—
e2(E)	56	#4	17'-0"	—
e3(E)	8	#8	23'-10"	—
e4(E)	8	#4	22'-3"	—
e5(E)	8	#8	11'-3"	—
e6(E)	6	#4	24'-4"	—
e7(E)	4	#8	37'-1"	—
m(E)	4	#6	2'-10"	—
m1(E)	4	#6	24'-11"	—
m2(E)	12	#6	10'-11"	—
m3(E)	2	#6	2'-9"	—
m4(E)	2	#6	4'-6"	—
m5(E)	8	#6	7'-6"	—
m6(E)	4	#6	26'-8"	—
m7(E)	12	#6	11'-6"	—
m8(E)	6	#6	25'-10"	—
m9(E)	6	#6	27'-7"	—
s(E)	94	#5	6'-10"	U
s1(E)	84	#4	9'-2"	U
v(E)	92	#5	3'-9"	U
Reinforcement Bars, Epoxy Coated		Pound	83,700	
Concrete Superstructure		Cu. Yd.	332.8	

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 057-0249**

Bars indicated thus 1x2-#4 etc. indicates 1 line of bars with 2 lengths per line.

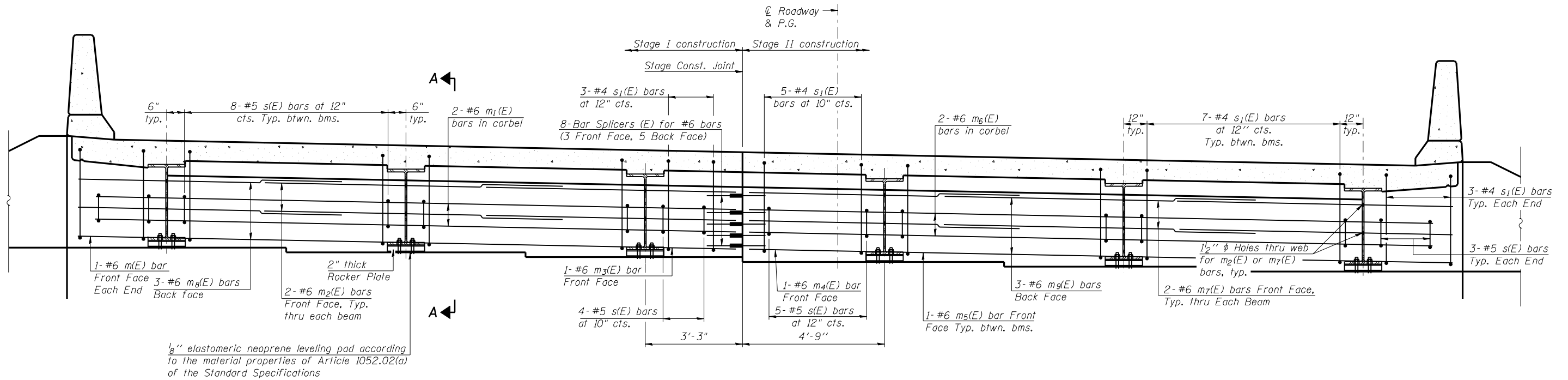
	SHEET NO. 10	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	87
			CONTRACT NO. 70520			
ILLINOIS FED. AID PROJECT						

Designed By: RH
Date: April, 2010

Checked By: MTH
File: 057-0249.dgn

Drawn By: RH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



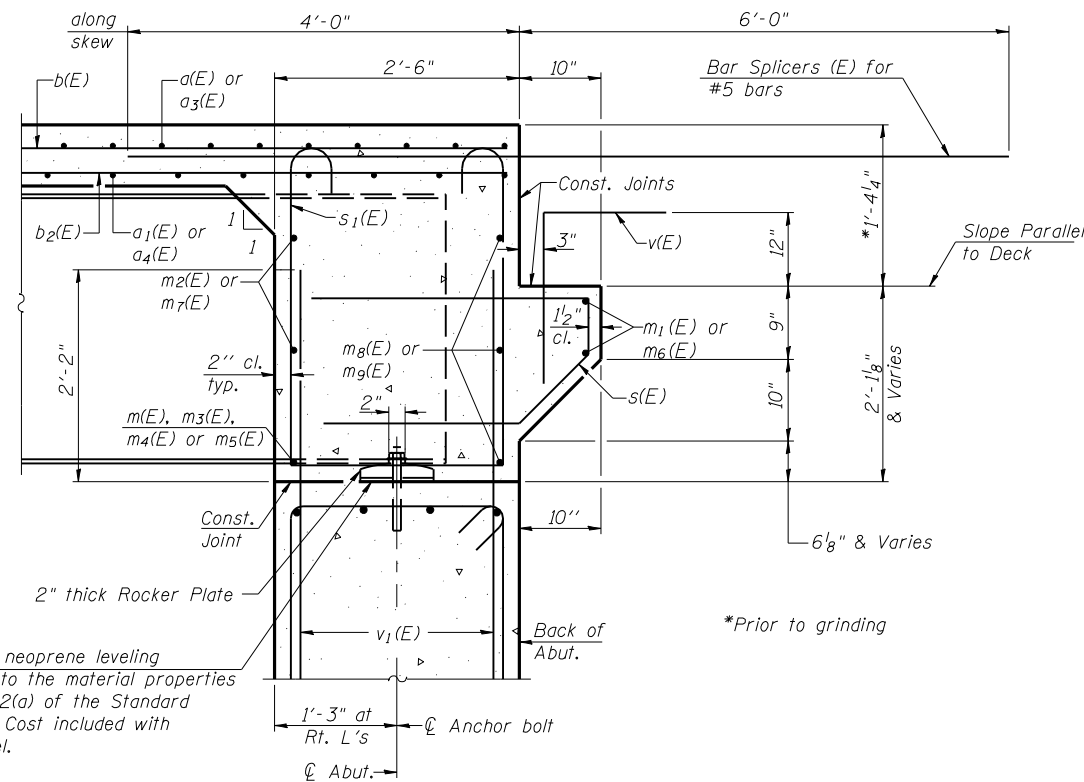
DIAPHRAGM ELEVATION AT SOUTH ABUTMENT

(Looking South)
(All horizontal dimensions at right angles to local tangent)
(North Abutment mirrored about \bar{C} Structure)

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 26.
Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 26.
For details of bars s(E) & s₁(E) see sheet 10 of 26.
The s(E) and s₁(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
For location of holes thru web, see sheet 15 of 26.

1/8" elastomeric neoprene leveling pad according to the material properties of Art. 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.



SECTION A-A

Dimensions at right angles to abutment, except as shown.

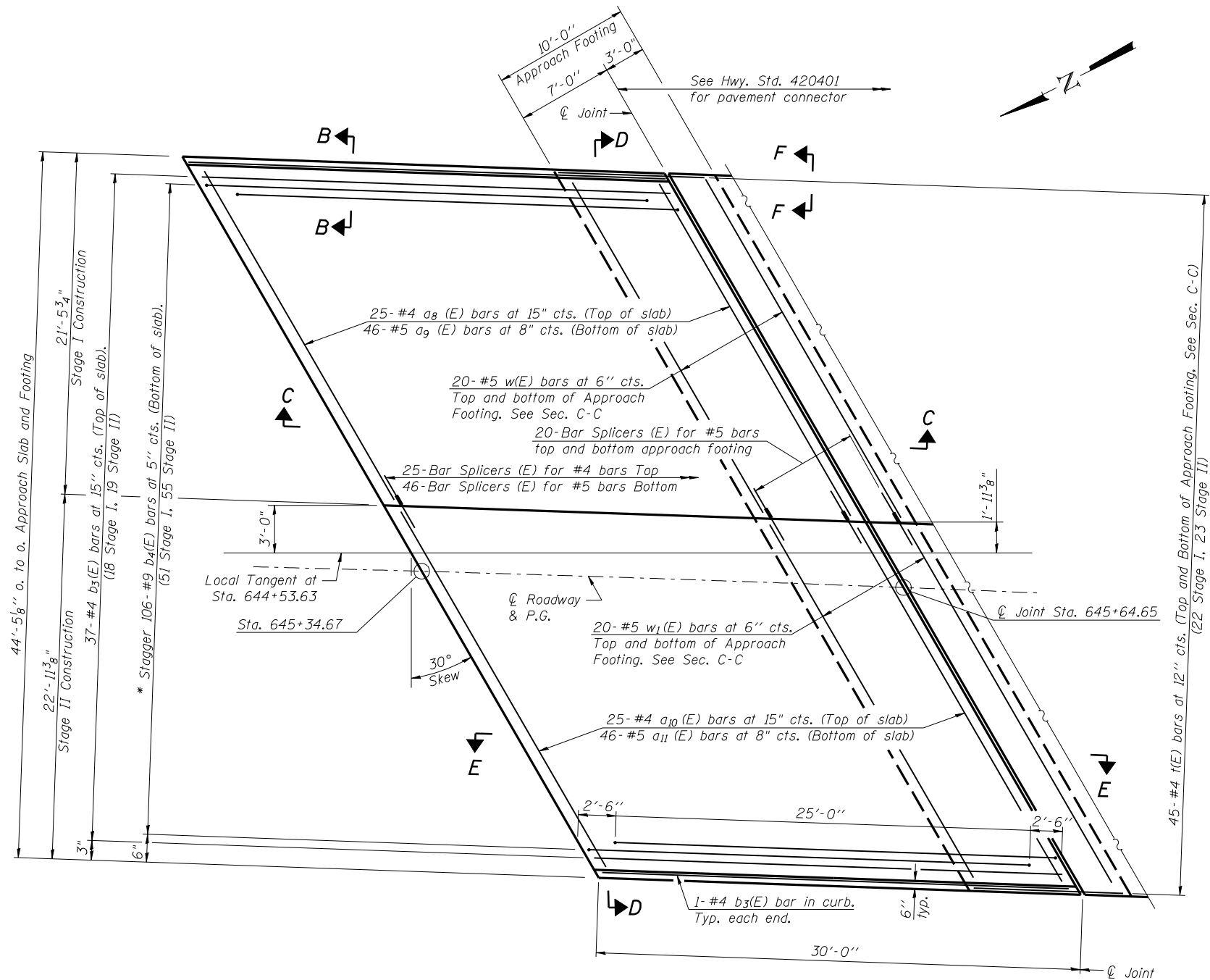
MIN. BAR LAP
#6 bar = 3'-4"

**CONCRETE END DIAPHRAGMS
STRUCTURE NO. 057-0249**

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 11	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	88
				CONTRACT NO. 70520		
				ILLINOIS FED. AID PROJECT		

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Notes:
See sheet 14 of 26 for Sections C-C & D-D and View E-E.
a₈(E) thru a₁₁(E) bar spacings measured along Stage Construction Line.
See sheet 12 of 26 for Detail A, View B-B, and View F-F.



PLAN - SOUTH APPROACH

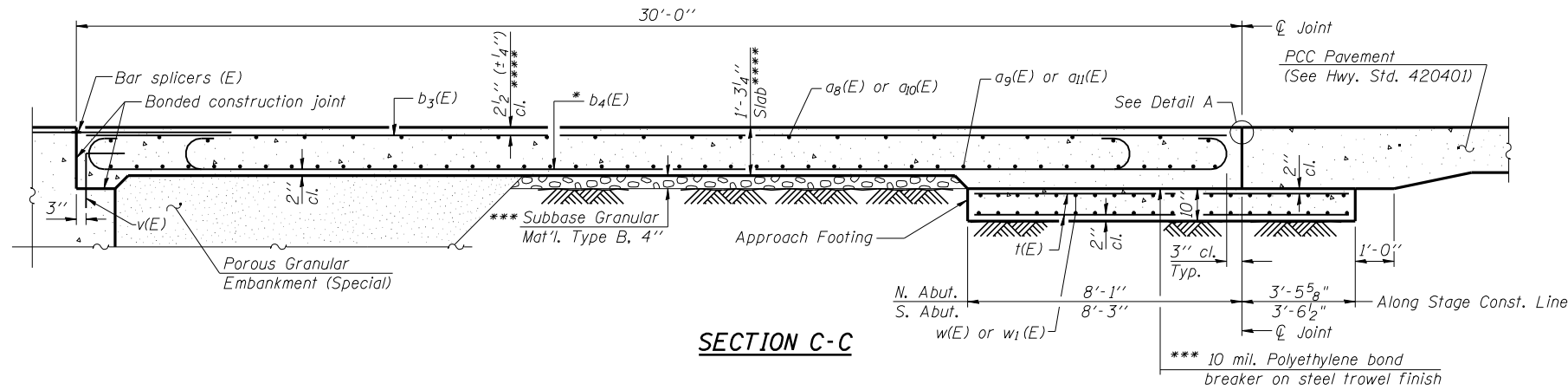
* Tilt #9 b₄(E) bars as required to maintain clearance.

BRIDGE APPROACH SLAB DETAILS-2
STRUCTURE NO. 057-0249

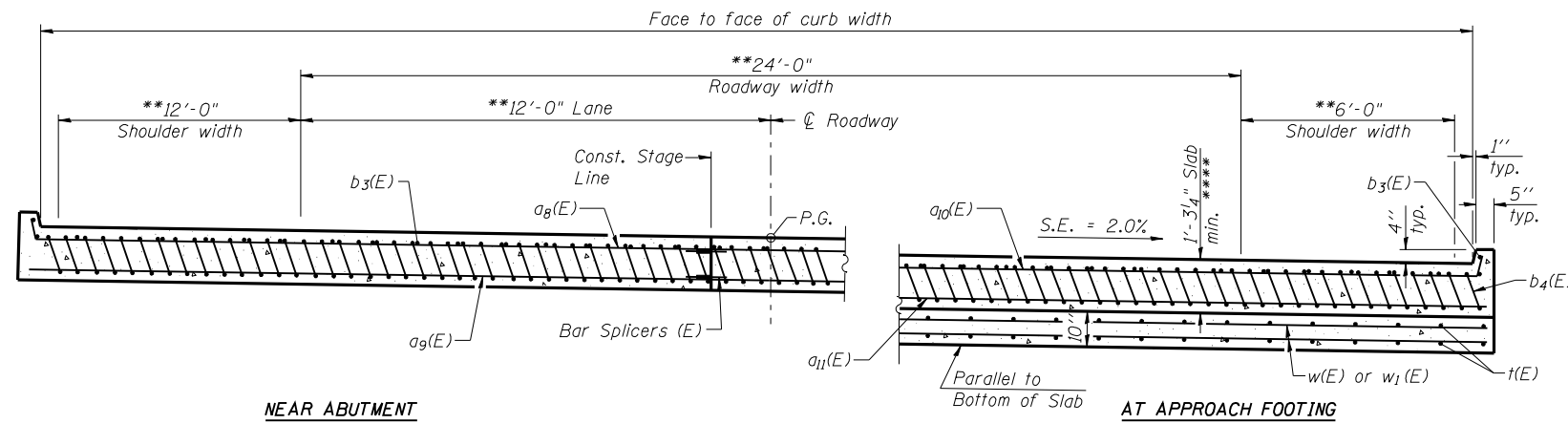
	SHEET NO. 13	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	90
Designed By: RH Date: April, 2010		Checked By: MTH File: 057-0249.dgn		Drawn By: RH		CONTRACT NO. 70520
ILLINOIS FED. AID PROJECT						

STATE OF ILLINOIS
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Notes:
See sheet 12 of 26 for Detail A and View B-B.
Approach slab shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheets 9 and 10 of 26.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 21 of 26.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 26.



SECTION C-C



NEAR ABUTMENT

SECTION D-D

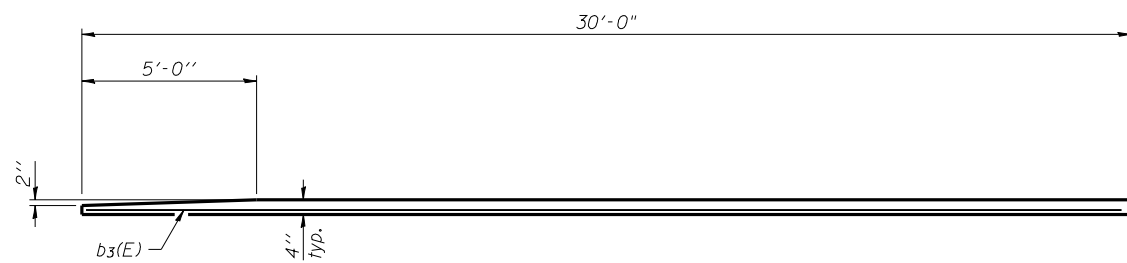
(See Plan for dimensions not shown)

AT APPROACH FOOTING

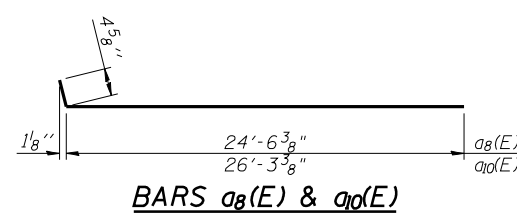
- * Tilt #9 b4(E) bars as required to maintain clearance.
- ** Measured radially
- *** Cost included with Concrete Superstructure.
- **** Prior to grinding.

TWO APPROACHES
BILL OF MATERIAL

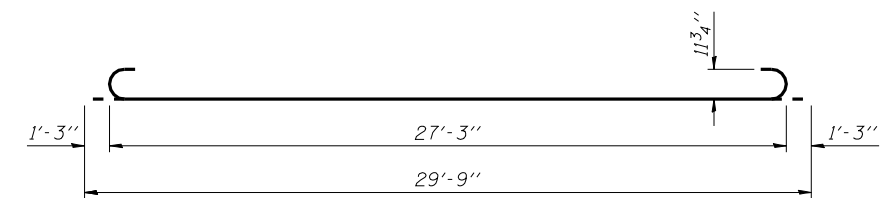
Bar	No.	Size	Length	Shape
a8(E)	50	#4	24'-11"	—
a9(E)	92	#5	24'-11"	—
a10(E)	50	#4	26'-8"	—
a11(E)	92	#5	26'-8"	—
b3(E)	78	#4	29'-8"	—
b4(E)	214	#9	29'-9"	—
t(E)	91	#4	11'-3"	—
w(E)	80	#5	24'-11"	—
w1(E)	80	#5	26'-8"	—
Concrete Superstructure		Cu. Yd.	130.1	
Concrete Structures		Cu. Yd.	31.7	
Reinforcement Bars, Epoxy Coated		Pound	34,860	



VIEW E-E



BARS a8(E) & a10(E)



BAR b4(E)

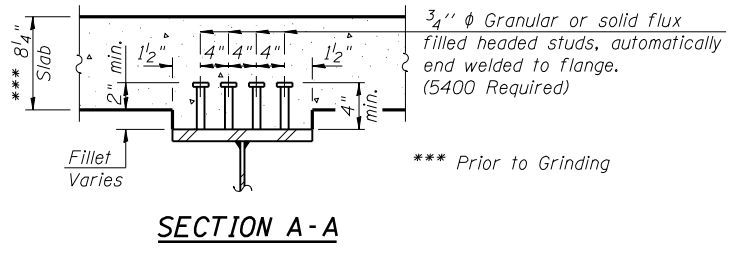
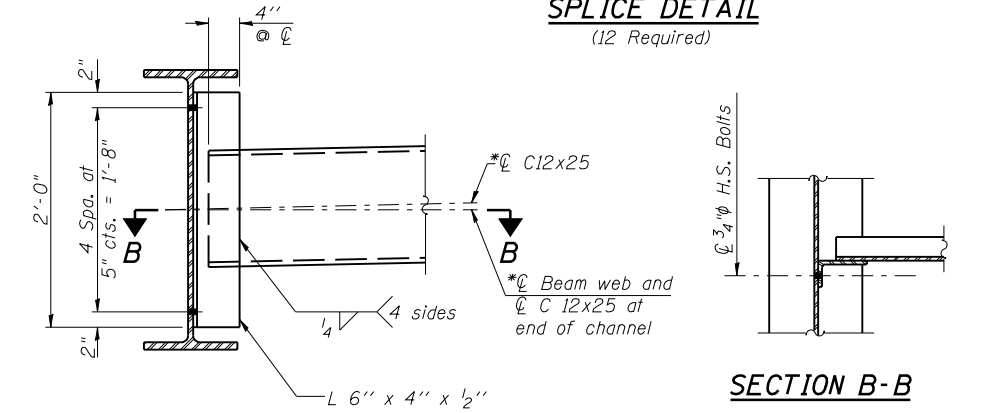
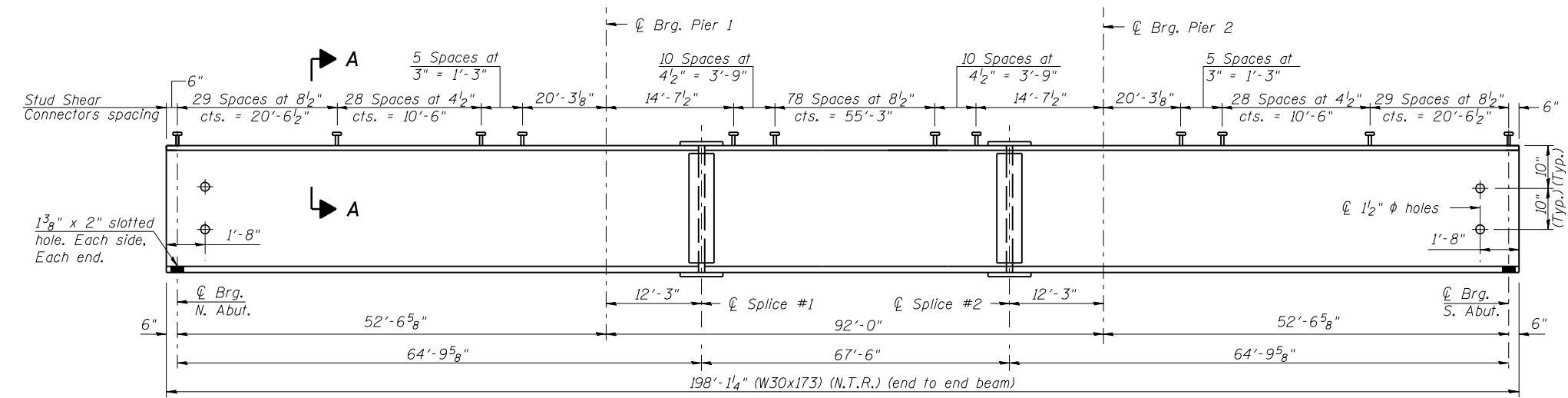
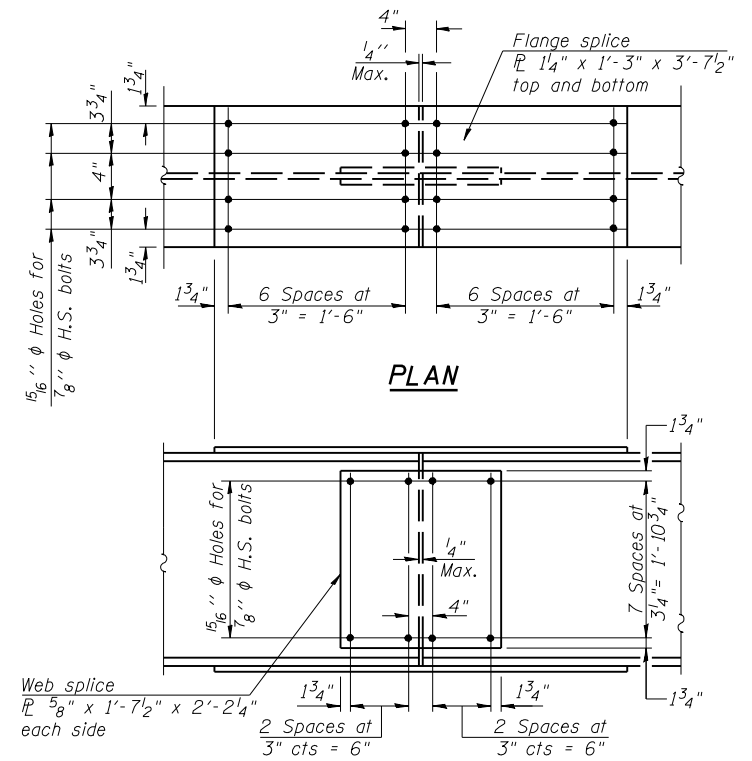
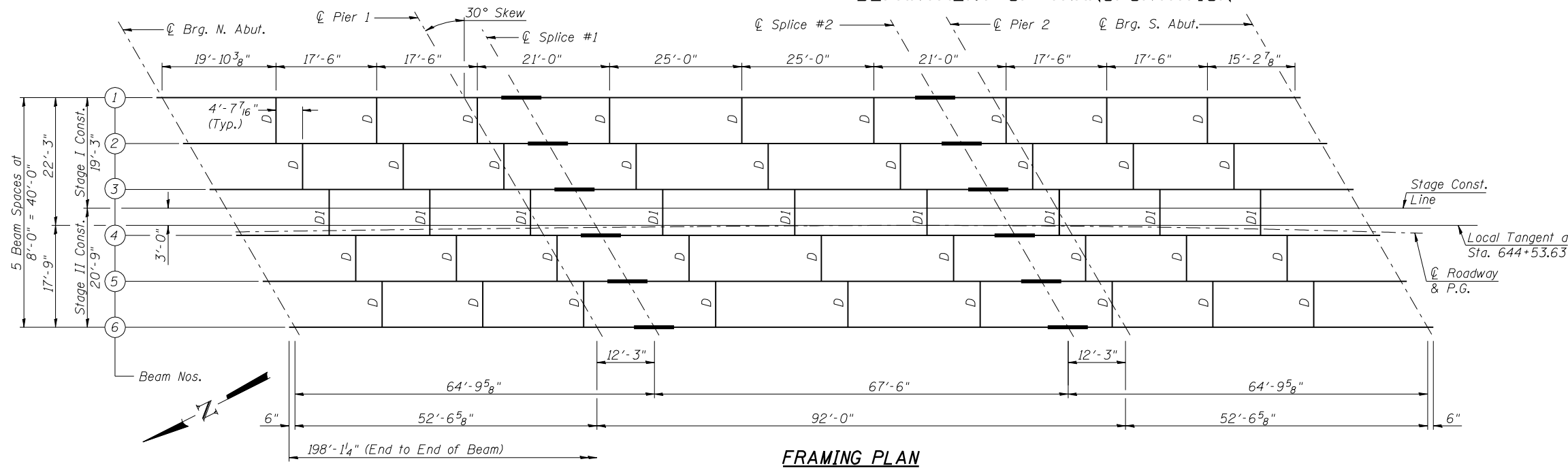
BRIDGE APPROACH SLAB DETAILS-3
STRUCTURE NO. 057-0249

	SHEET NO. 14	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	91
			CONTRACT NO. 70520			
			ILLINOIS FED. AID PROJECT			

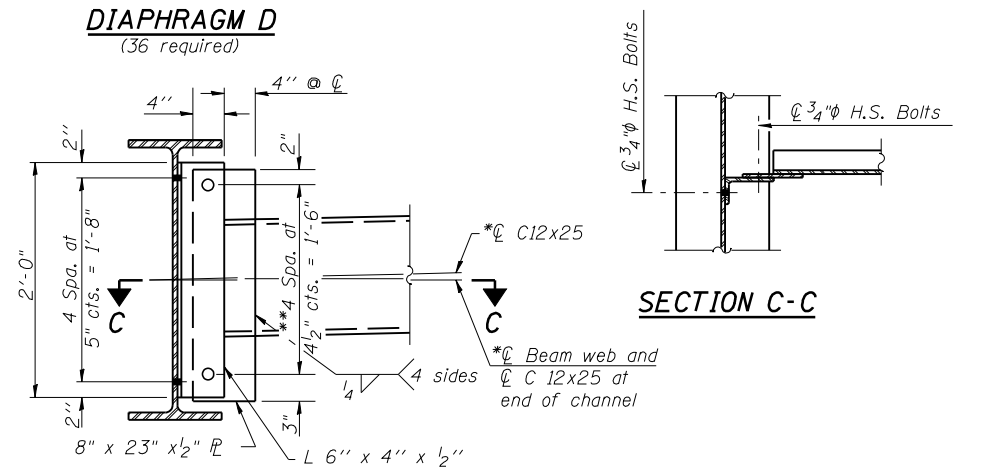
Designed By: RH
Checked By: MTH
Date: April, 2010

Drawn By: AJF
File: 057-0249.dgn

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DEPARTMENT OF TRANSPORTATION



Notes:
 3/4" ϕ H.S. Bolts 15/16" ϕ Holes in diaphragms, unless otherwise noted.
 Two hardened washers required for each set of oversized holes and 5/16" plate washer over slotted holes.
 *C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on C12x25. The alternate, if utilized, shall be provided at no additional cost to the Department.
 **3/4" ϕ HS bolts, 13/16" x 17/8" vertical slotted holes in 8" x 23" x 1/2" plate and L 6" x 4" x 1/2". Slots shall be positioned such that the bolts start at one end with no concrete load and finish near the opposite end after the deck pour. Bolts in slotted holes shall be finger tightened and then fully tightened after second stage deck pour.



- NOTES:**
- All beams and splice plates shall be M270 Grade 50 (NTR).
 - All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
 - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

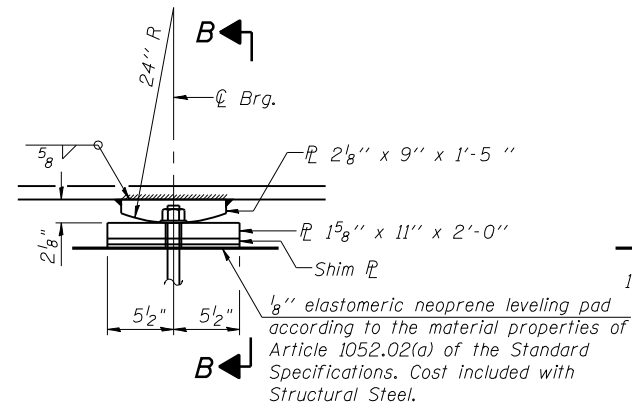
TOP OF BEAM ELEVATIONS
(For Fabrication Only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
⊙ Brg. N. Abut.	809.42	809.21	809.01	808.80	808.60	808.39
⊙ Brg. Pier 1	808.84	808.63	808.43	808.22	808.01	807.80
⊙ Splice 1	808.71	808.50	808.29	808.08	807.87	807.66
⊙ Splice 2	807.98	807.77	807.56	807.35	807.14	806.92
⊙ Brg. Pier 2	807.86	807.65	807.43	807.22	807.01	806.79
⊙ Brg. S. Abut.	807.32	807.11	806.89	806.68	806.46	806.25

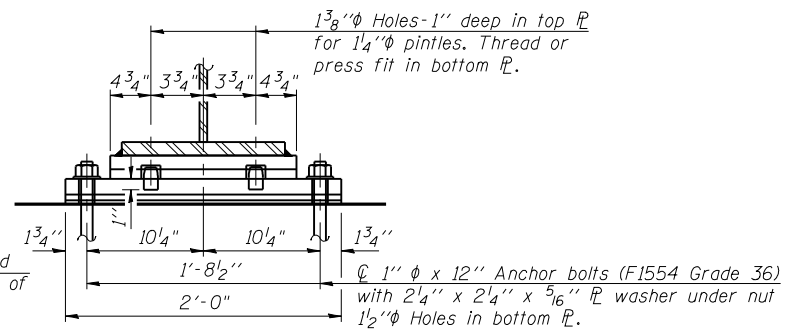
FRAMING PLAN AND STEEL DETAILS
STRUCTURE NO. 057-0249

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 15	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	92
ILLINOIS FED. AID PROJECT					CONTRACT NO. 70520	

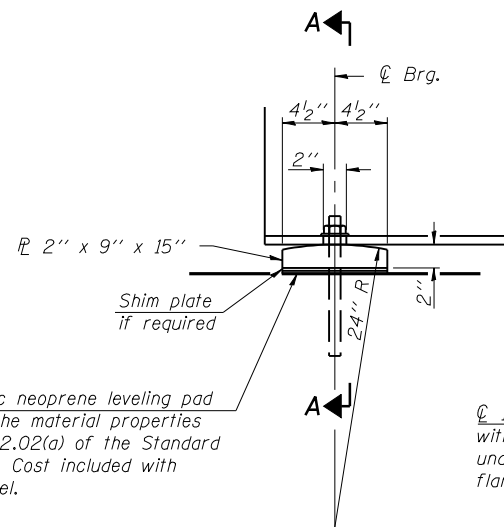
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



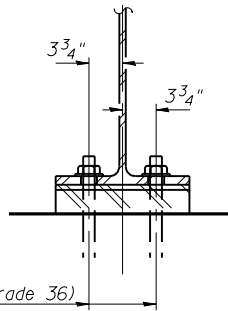
ELEVATION AT PIER



SECTION B-B

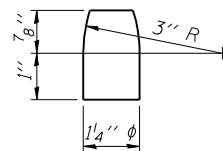


ELEVATION AT ABUTMENT



SECTION A-A

FIXED BEARING



PINTLE

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 at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All bearing plates shall be M270 Grade 50.

INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I_s	(in ⁴) 8230	8230	8230
$I_c(n)$	(in ⁴) 21710	-	21710
$I_c(3n)$	(in ⁴) 15833	-	15833
S_s	(in ³) 541	541	541
$S_c(n)$	(in ³) 780	-	780
$S_c(3n)$	(in ³) 706	-	706
DC1	(k/')	1.031	1.031
M _{DC1}	(k)	93	624
DC2	(k/')	0.173	0.173
M _{DC2}	(k)	22	88
DW	(k/')	0.363	0.363
M _{DW}	(k)	47	184
M _L + IM	(k)	662	658
M _U (Strength I)	(k)	1373	2318
$\phi_r M_n$, $\phi_r M_{nc}$	(k)	3770	2529
f_s DC1	(ksi)	2.06	13.84
f_s DC2	(ksi)	0.37	1.95
f_s DW	(ksi)	0.80	4.08
f_s 1.3(L+IM)	(ksi)	13.24	18.97
f_s (Service II)	(ksi)	16.47	38.84
V _r	(k)	47.9	46.8

* Compact sections

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R _{DC1}	(k) 16.2	86.4
R _{DC2}	(k) 2.9	14.2
R _{DW}	(k) 6.0	29.7
R _L + IM	(k) 83.3	121.4
R _{Total}	(k) 108.4	251.7

I_s , S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in⁴ and in³).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in⁴ and 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 + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_U (Strength I): Factored design moment (kip-ft.).

1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L + IM

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_r M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).

M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_L + IM

V_r: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	48

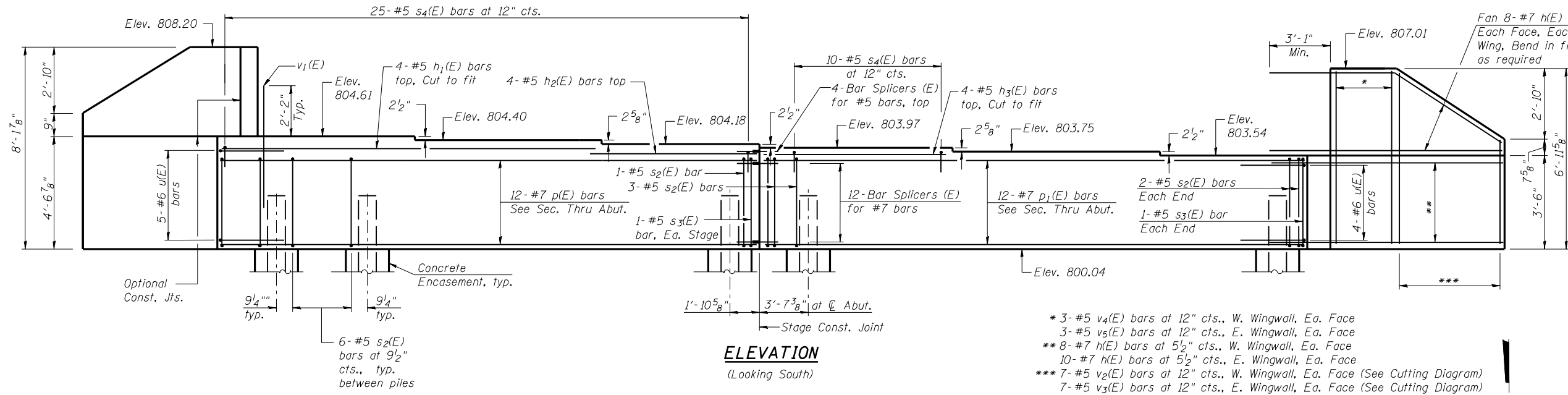
**BEARING DETAILS
STRUCTURE NO. 057-0249**

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 16	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	93
				CONTRACT NO. 70520		
				ILLINOIS FED. AID PROJECT		

Designed By: TBP
Checked By: MTH
Date: April, 2010
File: 057-0249.dgn

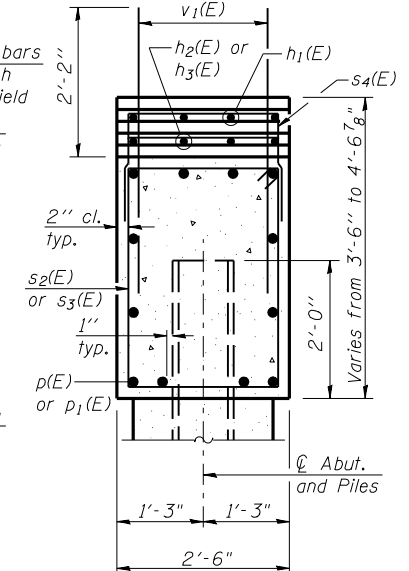
STATE OF ILLINOIS
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Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss Anchor Bolts.

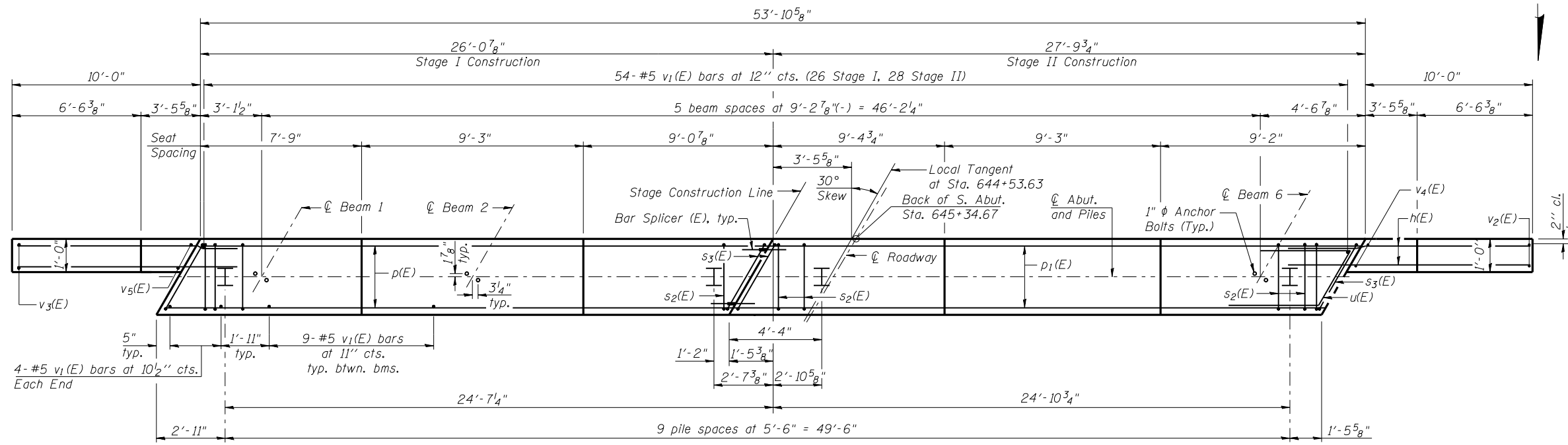


ELEVATION
(Looking South)

* 3-#5 v4(E) bars at 12" cts., W. Wingwall, Ea. Face
3-#5 v5(E) bars at 12" cts., E. Wingwall, Ea. Face
** 8-#7 h(E) bars at 5 1/2" cts., W. Wingwall, Ea. Face
10-#7 h(E) bars at 5 1/2" cts., E. Wingwall, Ea. Face
*** 7-#5 v2(E) bars at 12" cts., W. Wingwall, Ea. Face (See Cutting Diagram)
7-#5 v3(E) bars at 12" cts., E. Wingwall, Ea. Face (See Cutting Diagram)



SEC. THRU ABUT.
(Dimensions at Rt. L's)



PLAN

PILE DATA

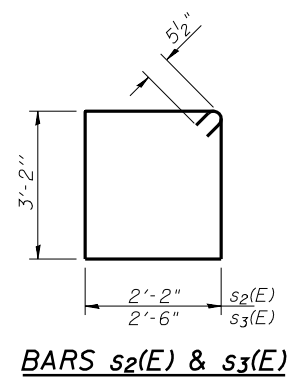
Type: Steel HP12x63
Nominal Required Bearing: 362 kips
Factored Resistance Available: 199 kips
Est. Length: 52'
No. Production Piles: 9
No. Test Piles: 1

BILL OF MATERIAL
(South Abutment)

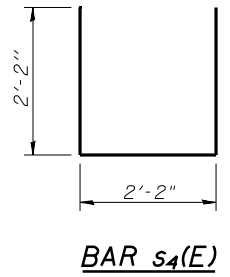
Bar	No.	Size	Length	Shape
h(E)	68	#7	13'-5"	—
h1(E)	4	#5	18'-1"	—
h2(E)	4	#5	9'-1"	—
h3(E)	4	#5	10'-6"	—
p(E)	12	#7	25'-9"	—
p1(E)	12	#7	27'-6"	—
s2(E)	56	#5	11'-7"	□
s3(E)	4	#5	12'-3"	□
s4(E)	35	#5	6'-6"	□
u(E)	9	#6	9'-0"	└
v1(E)	107	#5	4'-4"	—
v2(E)	7	#5	10'-6"	—
v3(E)	7	#5	12'-7"	—
v4(E)	6	#5	6'-8"	—
v5(E)	6	#5	7'-10"	—
Structure Excavation		Cu. Yd.	146	
Concrete Structures		Cu. Yd.	25.0	
Reinforcement Bars, Epoxy Coated		Pound	5,160	
Furnishing Steel Piles HP 12x63		Foot	468	
Driving Piles		Foot	468	
Test Pile Steel HP 12x63		Each	1	
Concrete Encasement		Cu. Yd.	3.5	

For details of Bar Splicers, see sheet 21 of 26.
For details of piles and Concrete Encasement, see sheet 22 of 26.
For details of Integral Abutment Bearing, see sheet 16 of 26.
For drainage details, see sheet 2 of 26.

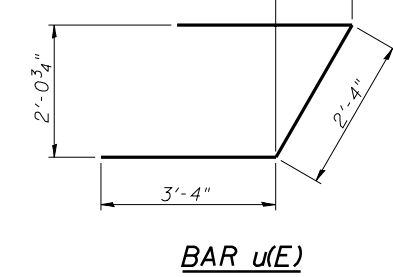
**SOUTH ABUTMENT
STRUCTURE NO. 057-0249**



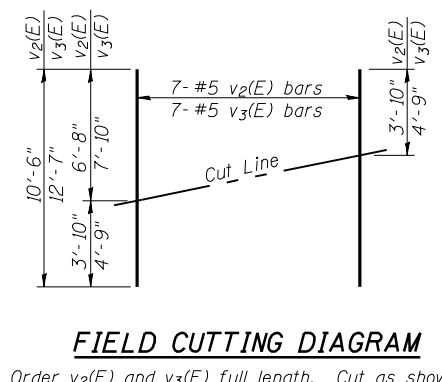
BARS s2(E) & s3(E)



BAR s4(E)



BAR u(E)



FIELD CUTTING DIAGRAM

Order v2(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.

LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

Designed By: ESH
Checked By: MTH
Date: April, 2010

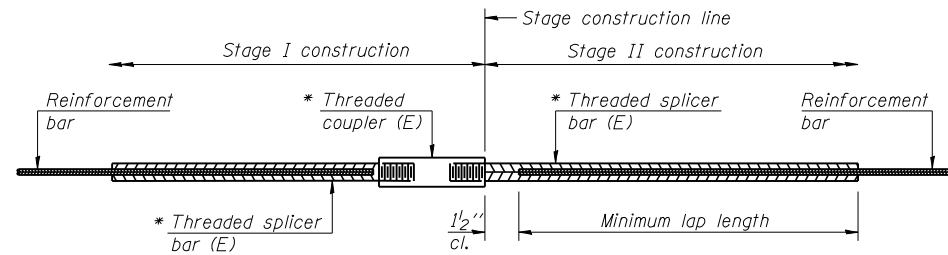
File: 057-0249.dgn

Drawn By: ESH

SHEET NO. 18
26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2)BR	MCLEAN	153	95
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

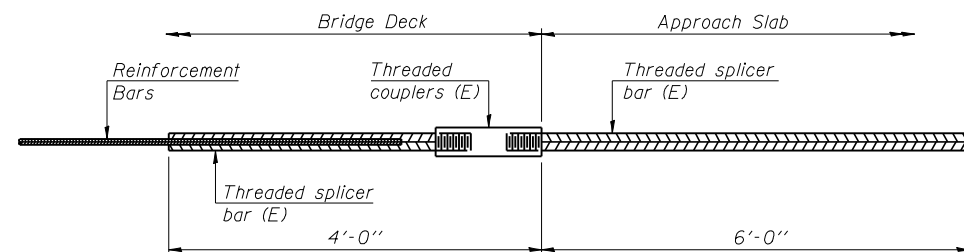
Bar size to be spliced	Minimum Lap Lengths			
	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

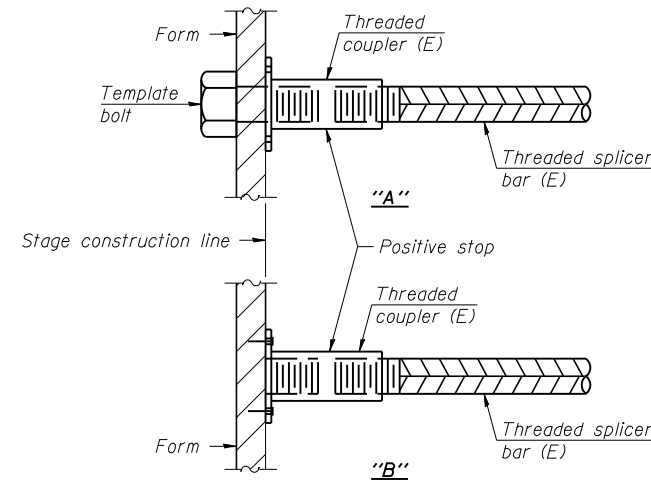
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	721	Table 3
Concrete Diaphragms	#6	16	Table 3
Approach Slabs	#4	50	Table 4
Approach Slabs	#5	92	Table 3
Approach Footings	#5	80	Table 3
Abutments	#5	8	Table 3
Abutments	#7	24	Table 3
Piers	#5	62	Table 3
Piers	#6	8	Table 3
Piers	#8	10	Table 3
Piers	#10	20	Table 3



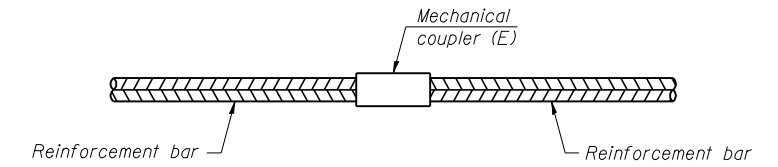
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 92



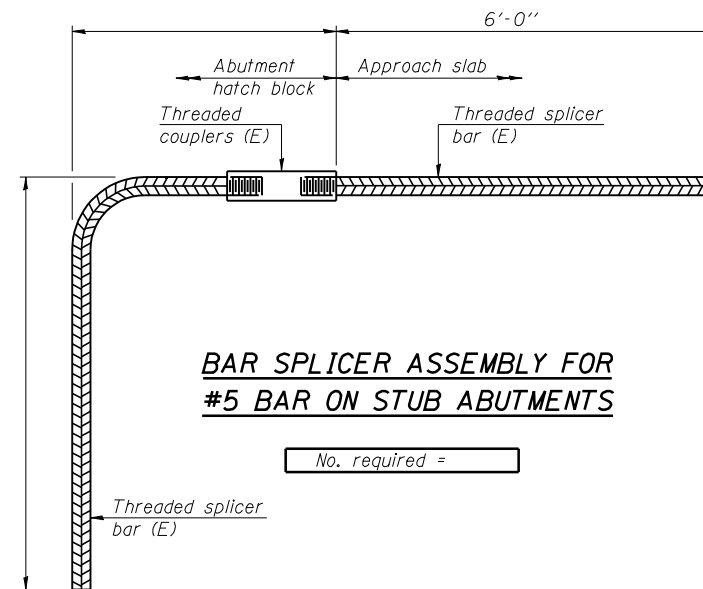
INSTALLATION AND SETTING METHODS

"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.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier Columns	#8	240



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

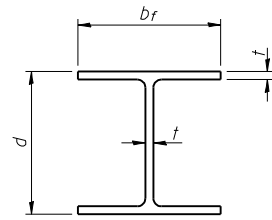
No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

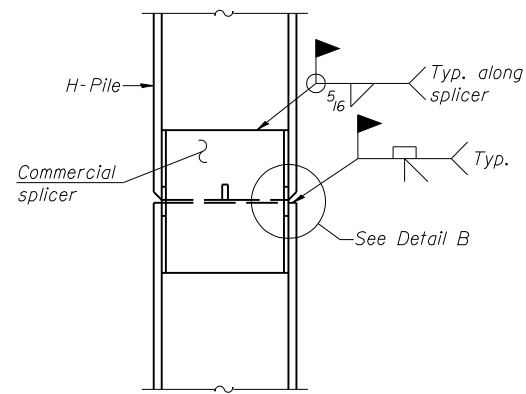
**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 057-0249**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

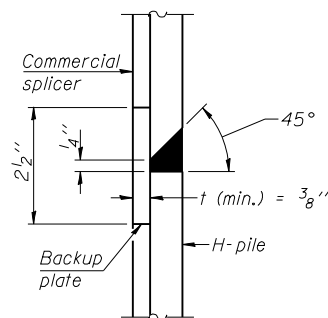


STEEL PILE TABLE

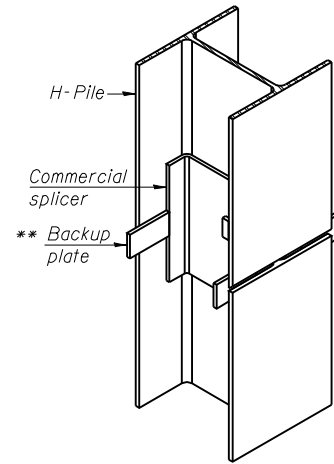
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 ¹ / ₄ "	14 ⁷ / ₈ "	1 ³ / ₁₆ "	30"
x102	14"	14 ³ / ₄ "	1 ¹ / ₁₆ "	30"
x89	13 ⁷ / ₈ "	14 ³ / ₄ "	5 ⁵ / ₈ "	30"
x73	13 ⁵ / ₈ "	14 ⁵ / ₈ "	1 ¹ / ₂ "	30"
HP 12x84	12 ¹ / ₄ "	12 ¹ / ₄ "	1 ¹ / ₁₆ "	24"
x74	12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



ELEVATION

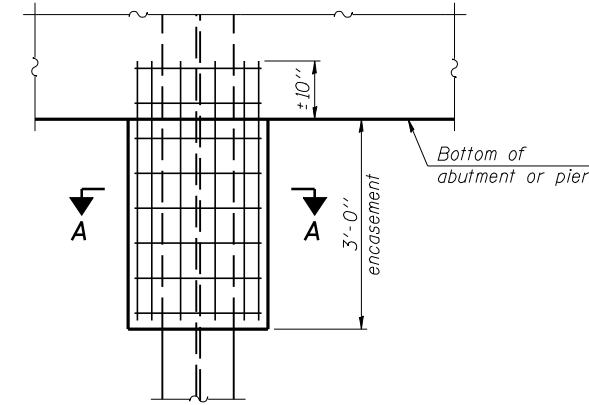


DETAIL "B"



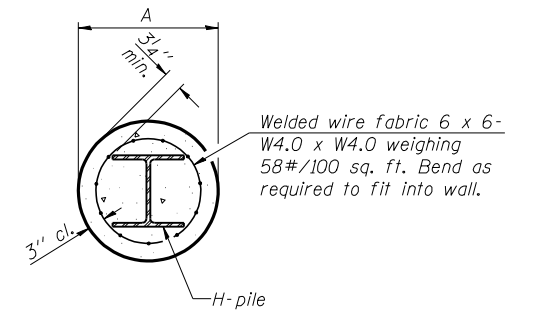
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



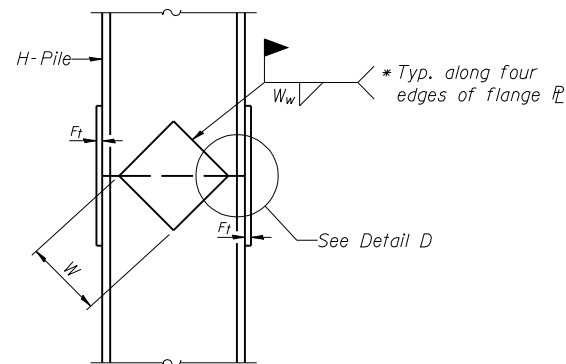
ELEVATION

PILE ENCASEMENT

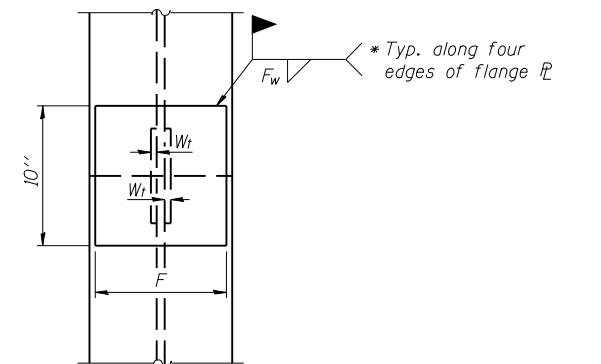


SECTION A-A

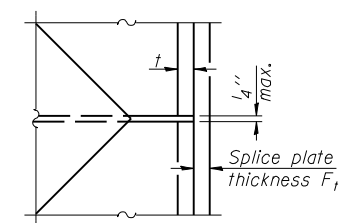
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



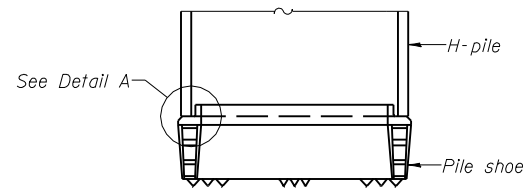
END VIEW



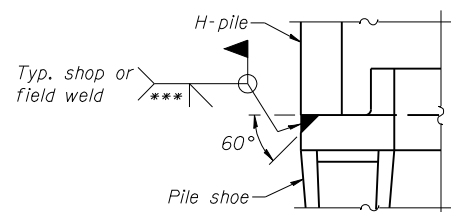
DETAIL D

WELDED PLATE FIELD SPLICE

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

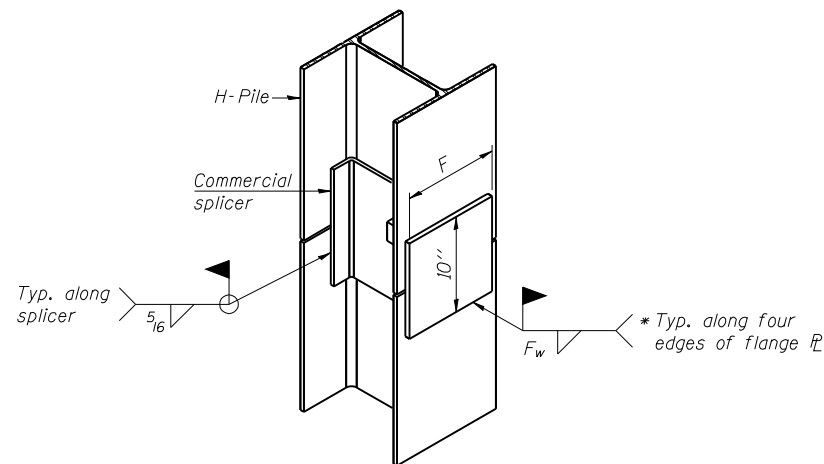


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

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

**HP PILE DETAILS
STRUCTURE NO. 057-0249**

LE LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

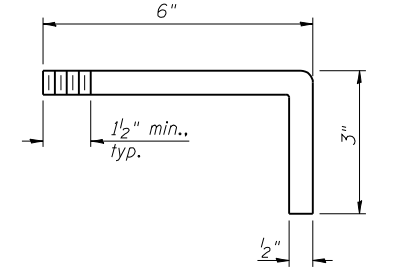
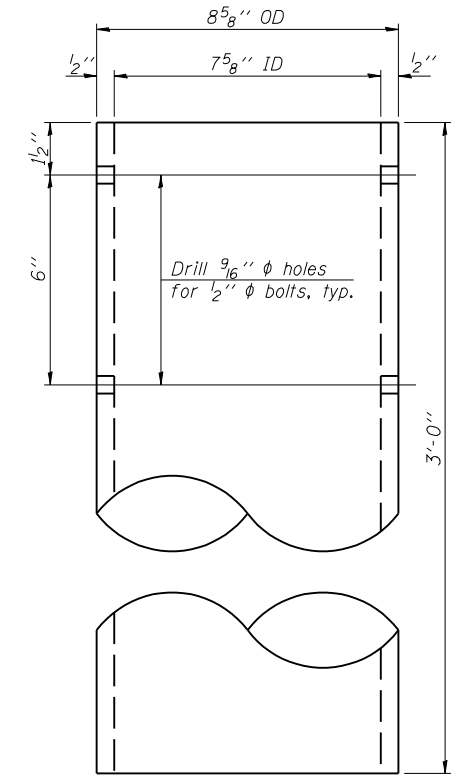
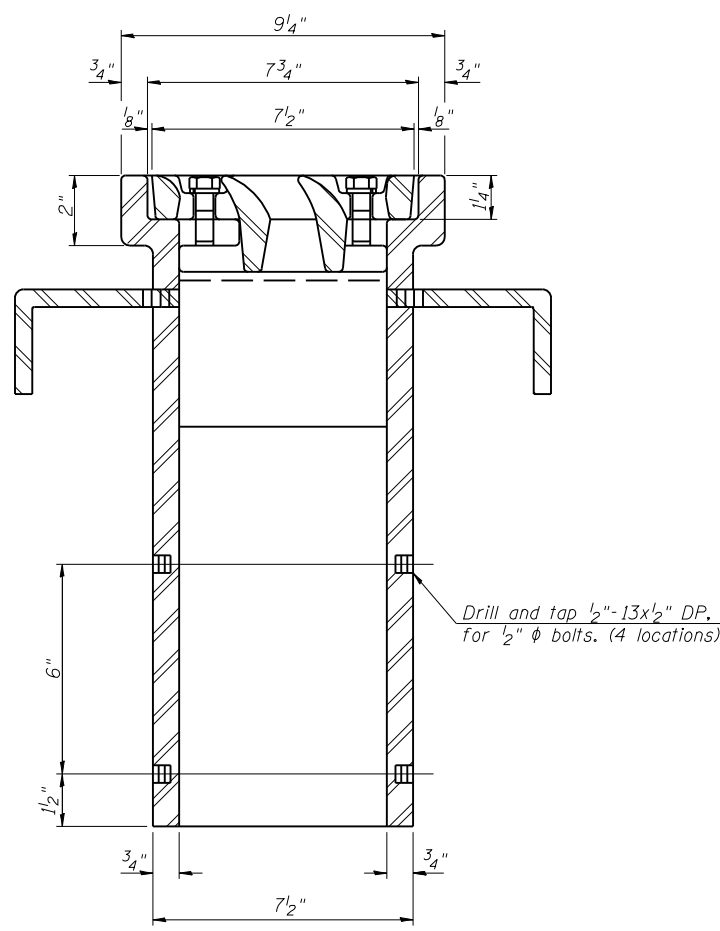
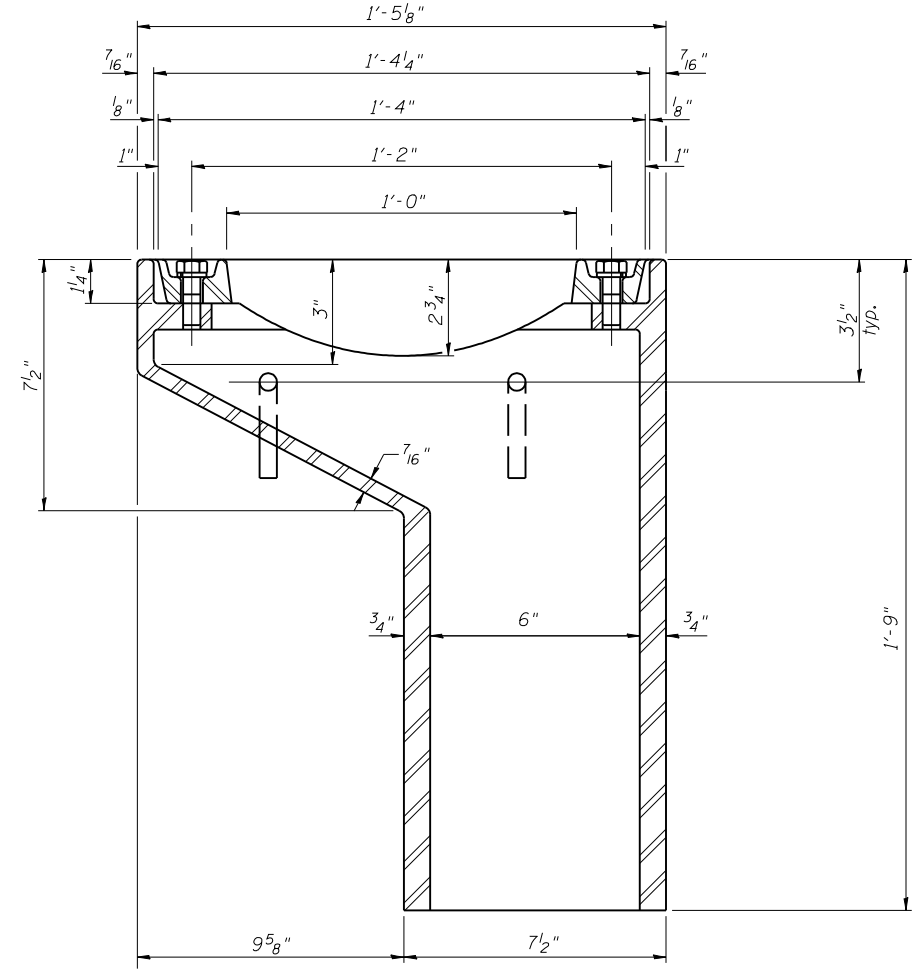
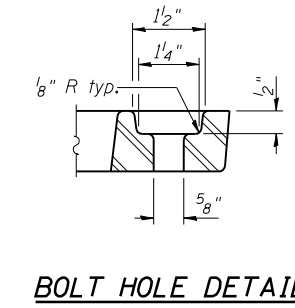
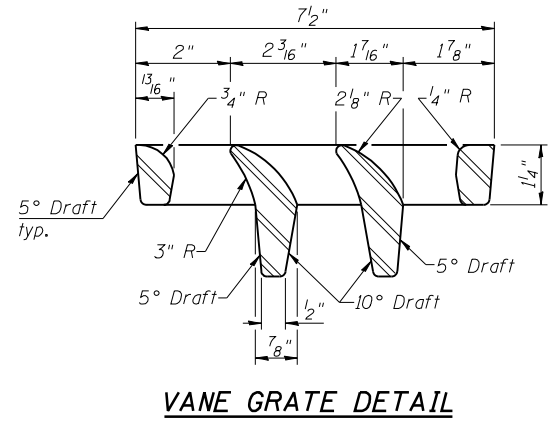
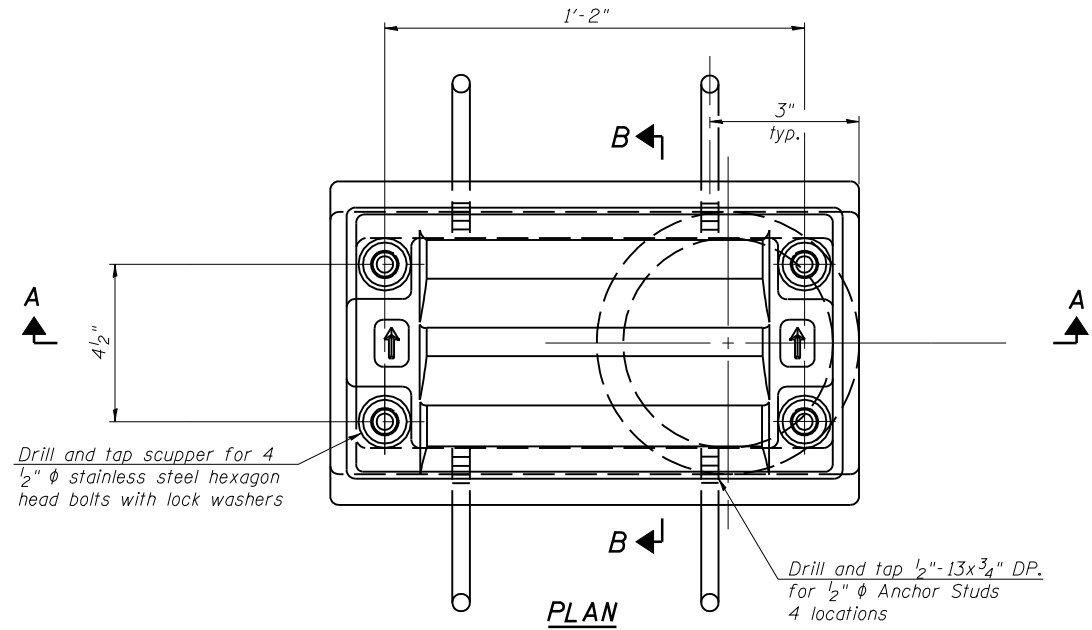
Designed By: _____
Checked By: MTH
Date: April, 2010

Drawn By: AJF
File: 057-0249.dgn

SHEET NO. 22
26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(57-7HB-2)BR	MCLEAN	153	99
CONTRACT NO. 70520				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M11.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	1

**DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 057-0249**

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 23	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	26 SHEETS	55	(57-7HB-2)BR	MCLEAN	153	100
				CONTRACT NO. 70520		
				ILLINOIS FED. AID PROJECT		