

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAU ROUTE 2706: IL 43 NB (WAUKEGAN ROAD)
SECTION 125HB-BR
OVER US 41 SB (0.3 MI. N. OF IL 120)
BRIDGE DECK REPLACEMENT
PROJECT NUMBER: *M-2706(402)*
LAKE COUNTY
C-91-194-12

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	1
		ILLINOIS	CONTRACT NO. 60R61	

#51+2 = 53

D-91-194-12



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

FOR INDEX OF SHEETS, SEE SHEET NO. 2

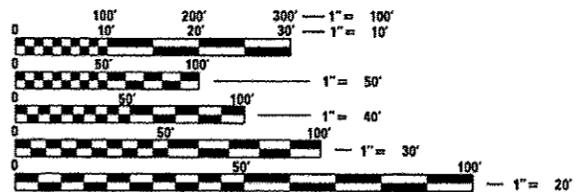
DESIGN DESIGNATION

IL 43
MINOR ARTERIAL (URBAN)
ADT 8105 (2009)
SPEED LIMIT 45 MPH

US 41
PRINCIPAL ARTERIAL (URBAN)
ADT 26900 (2012)
SPEED LIMIT 55 MPH

**IMPROVEMENT LOCATED IN
THE CITY OF PARK CITY**

**IMPROVEMENT LOCATION
IL 43 NB (WAUKEGAN ROAD)
OVER US 41 SB
STRUCTURE NO: 049-0087**

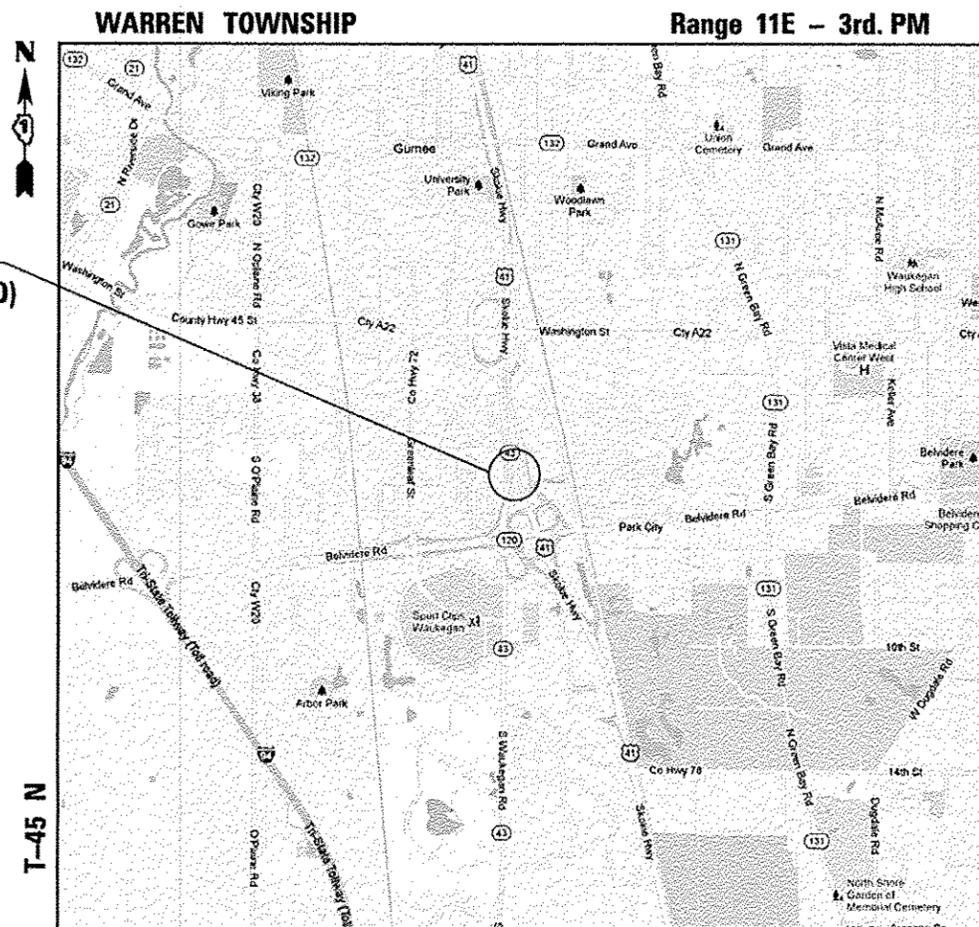


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

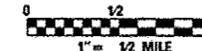
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT MANAGER: MR. ISSAM RAYYAN, P.E. (847) 705-4178
PROJECT ENGINEER: MR. ROBERT T. BORO, P.E. (847) 705-4237

CONTRACT NO. 60R61



GROSS LENGTH = 821 FT. = 0.16 MILE
NET LENGTH = 821 FT. = 0.16 MILE



FRED M. LIN
062-056704
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
5/10/13

LIN ENGINEERING, LTD.
FRED M. LIN
NO. 062-056704
EXPIRES 11-30-2013
SHEETS 10, 11, 16, & 17

MATTHEW G. REMPFER
062-054553
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
5/10/13

COLLINS ENGINEERS, INC.
MATTHEW G. REMPFER
NO. 062-054553
EXPIRES 11-30-2013
SHEETS 12-15A

JASON M. SCHNEIDER
81-7245
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
5/10/13

COLLINS ENGINEERS, INC.
JASON M. SCHNEIDER
NO. 81-7245
EXPIRES 11-30-2014

COLLINS ENGINEERS, INC.
123 N. WACKER DR., SUITE 900
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000933

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *5/15/13*

John P. Baranzello
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 28 2013
John P. Baranzello, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

June 28 2013
Chris Osheim, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

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GENERAL NOTES

- THE CONTRACTOR SHALL MAINTAIN ALL ROADWAYS OPEN TO TRAFFIC AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS.
- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS UTILITIES (48 HOUR NOTICE IS REQUIRED).
- 10 FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB AND GUTTER AND MEDIAN ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED LARGER ITEM OF SPECIFIED WORK.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH AFFECTED UTILITY COMPANIES AND MUNICIPALITIES
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE RIGHT-OF-WAY OR PROPERTY WITHOUT PRIOR WRITTEN PERMISSION FROM THE ENGINEER.
- BARRIER WALL MARKERS, TYPE C SHALL BE INSTALLED ON MEDIAN CONCRETE BARRIER WALL AND PARAPETS AT A HEIGHT OF 28 INCHES FROM THE TOP OF SHOULDER TO THE BOTTOM OF THE REFLECTOR AND SPACED AT 50 FEET CENTER-TO-CENTER ON CURVES AND 100 FEET CENTER-TO-CENTER ON TANGENTS OR AS DIRECTED BY THE TRAFFIC OPERATIONS FIELD ENGINEER. THE BARRIER WALL MARKERS SHALL BE INSTALLED PRIOR TO OPENING THE NEW PAVEMENT TO TRAFFIC.
- A BOXED NOTE INDICATES AN ITEM OF WORK THAT IS NOT PAID FOR SEPARATELY, BUT IS PAID FOR AS PART OF ANOTHER ITEM LISTED IN THE SUMMARY OF QUANTITIES.
- NIGHT OPERATIONS: WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTION IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS THE ADJOINING RESIDENTIAL AREAS.
- USE NO.8 EPOXY-COATED TIE BARS CONFORMING TO ARTICLE 1006.1 (B)(2) OF THE STANDARD SPECIFICATIONS FOR LONGITUDINAL CONSTRUCTION JOINT. GROUTED-IN-PLACE TIE BARS, AS SHOWN ON STATE STANDARD 420001 AND FOR TYING PCC PAVEMENT WIDENING TO EXISTING CONCRETE PAVEMENT AS SHOWN ON THE PLANS. THE COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE PAVEMENT ITEMS BEING CONSTRUCTED.
- ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.
- BEFORE ORDERING STORM SEWERS, CATCH BASINS, PIPE CULVERTS, PIPE DRAINS, MANHOLES, INLETS, AND SCUPPERS, THE CONTRACTOR SHALL REVIEW THE EXISTING FIELD CONDITIONS AND THE DRAINAGE SCHEDULES FOUND IN THE PLANS FOR THE EXACT LENGTH AND QUANTITY REQUIRED.

INDEX OF HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATION, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-09	BRIDGE APPROACH PAVEMENT CONNECTOR
542401-01	METAL END SECTION FOR PIPE CULVERTS
606201-02	TYPE B GUTTER (INLET, OUTLET & ENTRANCE)
606206-03	OUTLET TYPE 1 FOR TYPE B GUTTER
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
631026-05	TRAFFIC BARRIER TERMINAL, TYPE 5
631031-11	TRAFFIC BARRIER TERMINAL, TYPE 6
631033-04	TRAFFIC BARRIER TERMINAL, TYPE 6B
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
643001-01	SAND MODULE IMPACT ATTENUATORS
701101-03	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701426-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS
701701-08	URBAN LANE CLOSURE MULTILANE INTERSECTION
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS, & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

GENERAL NOTES (CONT.):

- THE CONTRACTOR SHALL MAINTAIN THE SURFACE DRAINAGE OF ALL ROADWAYS DURING CONSTRUCTION OF THIS PROJECT. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS, INLETS, AND CATCH BASINS. THE CONTRACTOR SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER, WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE SAME. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM ALL THESE TEMPORARY CONNECTIONS UNTIL INSTALLATION IS COMPLETE, INCLUDING PAVEMENT. THIS WORK SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT. COORDINATION WITH ALL AGENCIES INVOLVED IS REQUIRED.
- DURING CONSTRUCTION OPERATIONS, IF ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DUST AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT.
- THE CONTRACTOR SHALL NOTIFY THE IDOT ARTERIAL TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD ENGINEER AT (847) 438-2300 A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACING THE PERMANENT PAVEMENT MARKINGS.
- THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS THAT WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.
- ANY ABANDONED UTILITY OR SEWER ENCOUNTERED DURING CONSTRUCTION OR ANY EXISTING UTILITY OR SEWER ABANDONED AS PART OF THE CONSTRUCTION THAT IS NOT BEING FILLED WITH C.L.S.M., AS PER PLAN, SHALL BE PLUGGED AS DIRECTED BY THE ENGINEER AND ABANDONED IN PLACE. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

COMMITMENTS

1 NONE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AIR VOIDS	LIFT THICKNESS
SURFACE COURSE (1 1/2")		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm); 1 1/2"	4% @ 70 Gyr.	1 1/2"
LEVELING BINDER (2")		
LEVELING BINDER (MACHINE METHOD), N70 (IL 9.5 mm); 2"	4% @ 70 Gyr.	2"
HMA SHOULDER (8")		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm); 1 1/2"	4% @ 70 Gyr.	1 1/2"
HOT-MIX ASPHALT SHOULDERS, 6 1/2" (HMA BINDER IL-19mm), 6 1/2"	4% @ 70 Gyr.	2 1/4" MIN.
TEMPORARY PAVEMENT (NON-INTERSTATE)		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N50 (IL 9.5mm), 2"	4% @ 50 Gyr	2 1/4" MIN.
TEMPORARY PAVEMENT (HMA BINDER IL-19 MM), 8"	4% @ 50 Gyr	2"

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SO YO/IN.
 THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE SPECIAL PROVISIONS.

GENERAL NOTES (CONT.):

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
- ANY EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS TO PROTECT AND PROVIDE ACCESS TO ADJUTING PROPERTY, UTILITIES, PEDESTRIANS, AND VEHICULAR TRAFFIC.
- FOR WORK OUTSIDE THE LIMITS OF BRIDGE APPROACH PAVEMENT, ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB AND GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED ON THE PLAN.

FILE NAME: 08FILES



USER NAME: asenber	DESIGNED -	REVISED -
PLOT SCALE: 2:0000 / 1 in.	DRAWN -	REVISED -
PLOT DATE: 5/18/2013	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 43 OVER US 41
GENERAL NOTES AND COMMITMENTS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	2
CONTRACT NO. 60R61			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

80% FED. / 20% STATE
CONSTRUCTION CODE

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004 URBAN	BRIDGE 0014 S.N. 049-0087
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	132	132	
20101400	NITROGEN FERTILIZER NUTRIENT	POUND	33	33	
20101600	POTASSIUM FERTILIZER NUTRIENT	POUND	33	33	
20200100	EARTH EXCAVATION	CU YD	372	372	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	140	140	
20400800	FURNISHED EXCAVATION	CU YD	80	80	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	780	780	
21101805	COMPOST FURNISH AND PLACE, 2"	SQ YD	790	790	
25000210	SEEDING, CLASS 2A	ACRE	0.25	0.25	
25000310	SEEDING, CLASS 4	ACRE	0.25	0.25	
25000314	SEEDING, CLASS 4B	ACRE	0.25	0.25	
25000324	SEEDING, CLASS 5B	ACRE	0.25	0.25	
25000750	MOWING	ACRE	1	1	
25000775	SELECTIVE MOWING STAKES	EACH	16	16	

Δ 100% STATE (NP)

• - DENOTES SPECIALTY ITEM

FILE NAME : J:\6710\6710.24 - IL 43 Over US 41\CAD001	USER NAME : rgo11	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600 Sheets\0160761-sh1-500.dgn	PLOT SCALE : 100.0000' / 1"	DRAWN -	REVISED -						2706	125 HB-BR	LAKE	51	3
PLOT DATE : 5/10/2013	DATE -	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 60R61				
									ILLINOIS FED. AID PROJECT				

80% FED. / 20% STATE

CONSTRUCTION CODE

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004 URBAN	BRIDGE 0014 S.N. 049-0087
25100630	EROSION CONTROL BLANKET	SQ YD	790	790	
25100635	HEA VY DUTY EROSION CONTROL BLANKET	SQ YD	780	780	
25100900	TURF REINFORCEMENT MAT	SQ YD	182	182	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	150	150	
28000305	TEMPORARY DITCH CHECKS	FOOT	144	144	
28000400	PERIMETER EROSION BARRIER	FOOT	1498	1498	
28000510	INLET FILTERS	EACH	4	4	
28001000	AGGREGATE (EROSION CONTROL)	TON	10	10	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	533	533	
40600300	AGGREGATE (PRIME COAT)	TON	1.0	1.0	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	114	114	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	194	194	
42001300	PROTECTIVE COAT	SQ YD	138	138	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	60	60	

• - DENOTES SPECIALTY ITEM

FILE NAME * I:\6718\6718.24 - IL 43 Over US 41\CAD00\ADD Sheets\DIGR61-shl-500.dgn	USER NAME * rgo11	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A. RTE. 2706	SECTION 125 HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 4		
PLOT SCALE * 1/8"=1'-0"	PLOT DATE * 5/10/2013	DRAWN -	REVISED -			SCALE:	SHEET OF SHEETS	STA. TO STA.	CONTRACT NO. 60R61			
		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT						
		DATE -	REVISED -									

80% FED. / 20% STATE

CONSTRUCTION CODE

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004 URBAN	BRIDGE 0014 S.N. 049-0087
44000100	PAVEMENT REMOVAL	SQ YD	479	479	
44000163	HOT-MIX ASPHALT SURFACE REMOVAL, 3 1/2"	SQ YD	1016	1016	
44000400	GUTTER REMOVAL	FOOT	571	571	
44004000	PAVED DITCH REMOVAL	FOOT	238	238	
44201298	DOWEL BARS 1 1/4"	EACH	16	16	
44213204	TIE BARS 3/4"	EACH	307	307	
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	1118	1118	
48101498	AGGREGATE SHOULDERS, TYPE B 4"	SQ YD	289	289	
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD	746	746	
50102400	CONCRETE REMOVAL	CU YD	15.9		15.9
50104400	CONCRETE HEADWALL REMOVAL	EACH	4	4	
50104650	SLOPE WALL REMOVAL	SQ YD	51		51
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1
50157300	PROTECTIVE SHIELD	SQ YD	361		361

* - DENOTES SPECIALTY ITEM

FILE NAME * 1:\6710\6710.24 - IL 43 0-4- US 41\CADD\ADD Sheets\DI6061-shr-500.dgn	USER NAME * rgo11	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF	SHEETS

P.A. RTE. 2706	SECTION 125 HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 5
CONTRACT NO. 6061				
ILLINOIS FED. AID PROJECT				

80% FED. / 20% STATE
CONSTRUCTION CODE

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004 URBAN	BRIDGE 0014 S.N. 049-0087
50200100	STRUCTURE EXCAVATION	CU YD	26		26
50300100	FLOOR DRAINS	EACH	12		12
50300225	CONCRETE STRUCTURES	CU YD	54.6		54.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	382.8		382.8
50300260	BRIDGE DECK GROOVING	SQ YD	935		935
50300300	PROTECTIVE COAT	SQ YD	1551		1551
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1990		1990
50500505	STUD SHEAR CONNECTORS	EACH	3080		3080
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	103,520		103,520
50800515	BAR SPLICERS	EACH	126		126
51100100	SLOPE WALL 4 INCH	SQ YD	142		142
51500100	NAME PLATES	EACH	1		1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	62.5		62.5
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	5		5

Rev.

• - DENOTES SPECIALTY ITEM

FILE NAME : I:\6710\6710.24 - IL 43 Over US 41\CADD\	USER NAME : rggj ADD Sheets\DIGORGI-shc-500.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A. RTE. 2706	SECTION 125 HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 6
	PLOT SCALE : 100,0000' / 1"	CHECKED -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60R61		
	PLOT DATE : 5/18/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

80% FED. / 20% STATE

CONSTRUCTION CODE

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004 URBAN	BRIDGE 0014 S.N. 049-0087
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	5		5
52100510	ANCHOR BOLTS, 3/4"	EACH	40		40
54215547	METAL END SECTIONS 12"	EACH	4	4	
60100945	PIPE DRAINS 12"	FOOT	127	127	
60403500	GRATES, TYPE B	EACH	4	4	
60500060	REMOVING INLETS	EACH	4	4	
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	7.0	7.0	
60602800	CONCRETE GUTTER, TYPE B	FOOT	506	506	
60900515	CONCRETE THRUST BLOCKS	EACH	2	2	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	375	375	
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	3	3	
* 63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1	1	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
* 63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	4	4	

* - DENOTES SPECIALTY ITEM

FILE NAME : I:\G710\6710.24 - IL 43 Over US 41\CAD\ADD Sheets\0160R61-sh1-500.dgn	USER NAME : rgn11	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A. RTE. 2706	SECTION 125 HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 7
		DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60R61		
		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT								
		DATE -	REVISED -										

80% FED. / 20% STATE

CONSTRUCTION CODE

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004 URBAN	BRIDGE 0014 S.N. 049-0087
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE I (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	551	551	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
67100100	MOBILIZATION	L SUM	1	1	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	12	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	552	552	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	300.0	300.0	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	300.0	300.0	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1	
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1	
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	1641	1641	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	24	24	
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	50	50	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	

* - DENOTES SPECIALTY ITEM

FILE NAME : I:\6710\6710.24 - IL 43 Over US 41\CAD00	USER NAME : rge11	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ADD Sheets\0160R61.sht-500.dgn	DRAWN -	REVISED -	2706						125 HB-BR	LAKE	51	8	
PLOT SCALE : 100.0000' / in.	CHECKED -	REVISED -	SCALE: SHEET OF SHEETS STA. TO STA.					CONTRACT NO. 60R61					
PLOT DATE : 5/10/2013	DATE -	REVISED -	ILLINOIS FED. AID PROJECT										

80% FED. / 20% STATE

CONSTRUCTION CODE

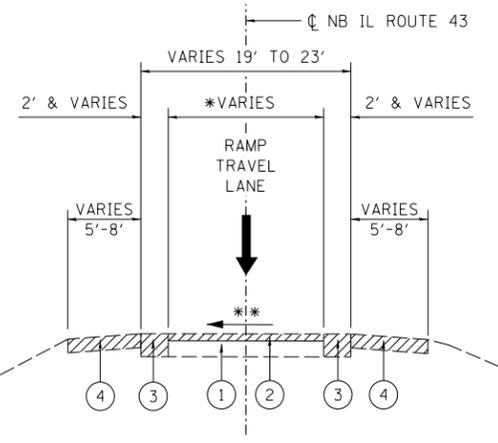
URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004 URBAN	BRIDGE 0014 S.N. 049-0087
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	5	5	
X0323586	PIPE DRAIN REMOVAL	FOOT	97	97	
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	5	5	
Δ X5538000	STORM SEWERS TO BE CLEANED 18"	FOOT	110	110	
Δ X5538200	STORM SEWERS TO BE CLEANED 24"	FOOT	192	192	
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	20		20
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	10		10
Z0001905	STRUCTURAL STEEL REPAIR	POUND	990		990
Z0004552	APPROACH SLAB REMOVAL	SQ YD	108	108	
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1		1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	84		84
Z0013798	CONSTRUCTION LA YOUT	L SUM	1	1	

Δ 100% STATE (NP)

* - DENOTES SPECIALTY ITEM

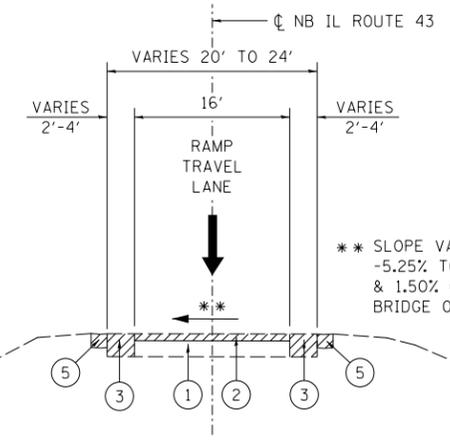
FILE NAME * I:\6710\6710.24 - IL 43 Over US 41\CAD\ADD Sheets\DI60R61.sht.500.dgn	USER NAME * rgo11	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A. RTE. 2706	SECTION 125 HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 9		
PLOT SCALE * 1/8" = 1'-0"	DRAWN -	REVISOR -	SCALE:			SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				
PLOT DATE * 5/10/2013	CHECKED -	REVISOR -										
	DATE -	REVISOR -										
						CONTRACT NO. 60R61						



EXISTING TYPICAL CROSS SECTION

STA. 8+68.00 TO STA. 9+00.00 (1)
 STA. 15+53.50 TO STA. 16+88.50 (2)
 LOOKING SOUTH

*16' (1)
 16' TO 19' (2)
 **SLOPE VARIES:
 -6.67% TO -5.25% (1)
 1.50% TO 0.65% (2)



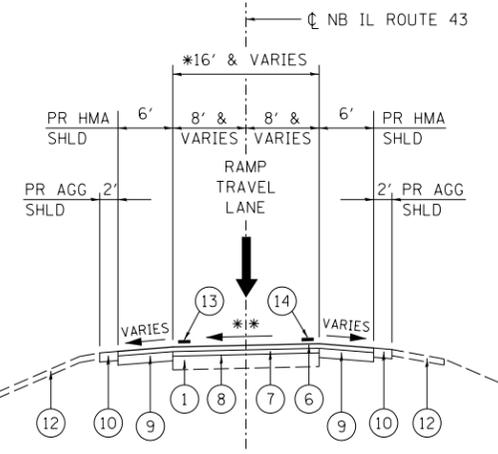
EXISTING TYPICAL CROSS SECTION

STA. 9+00.00 TO STA. 15+53.50
 LOOKING SOUTH

** SLOPE VARIES
 -5.25% TO 1.50% (STA. 9+00 TO 11+00)
 & 1.50% (STA. 14+40 TO 15+53.50)
 BRIDGE OMISSION (STA. 11+00 TO 14+40)

LEGEND

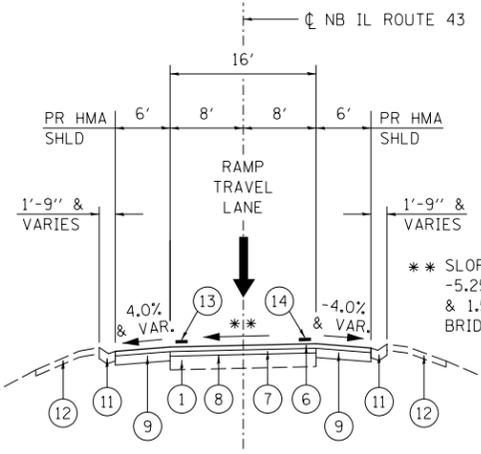
- ① EXISTING PCC BASE COURSE
 - ② HOT-MIX ASPHALT SURFACE REMOVAL, 3/2"
 - ③ PAVEMENT REMOVAL
 - ④ AGGREGATE SHOULDER REMOVAL (PAID FOR AS EARTH EXCAVATION)
 - ⑤ EXISTING TYPE B GUTTER (TO BE REMOVED)
 - ⑥ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
 - ⑦ LEVELING BINDER (MACHINE METHOD), N70, 2"
 - ⑧ BITUMINOUS MATERIALS (PRIME COAT)
 - ⑨ HOT-MIX ASPHALT SHOULDERS, 6 1/2"
 - ⑩ AGGREGATE SHOULDERS, TYPE B, 4"
 - ⑪ CONCRETE GUTTER, TYPE B
 - ⑫ COMPOST FURNISH AND PLACE, 2", WITH SEEDING, CLASS 4, OR TOPSOIL FURNISH AND PLACE, 4", WITH SEEDING, CLASS 2A; SEE EROSION CONTROL PLAN FOR LOCATIONS PROPOSED
 - ⑬ POLYUREA PAVEMENT MARKING - LINE 4", WHITE
 - ⑭ POLYUREA PAVEMENT MARKING - LINE 4", YELLOW
- SAW CUTS SHALL BE INCIDENTAL TO PAVEMENT REMOVAL



PROPOSED TYPICAL CROSS SECTION

STA. 8+68.00 TO STA. 9+00.00 (1)
 STA. 15+53.50 TO STA. 16+88.50 (2)
 LOOKING SOUTH

*16' (1)
 16' TO 19' (2)
 **SLOPE VARIES:
 -6.67% TO -5.25% (1)
 1.50% TO 0.65% (2)



PROPOSED TYPICAL CROSS SECTION

STA. 9+00.00 TO STA. 15+53.50
 LOOKING SOUTH

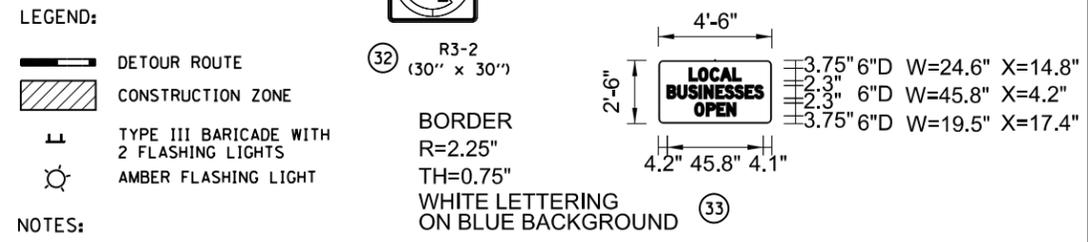
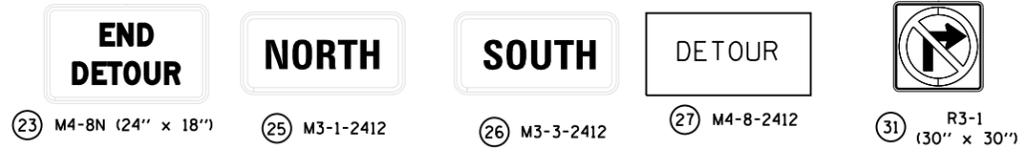
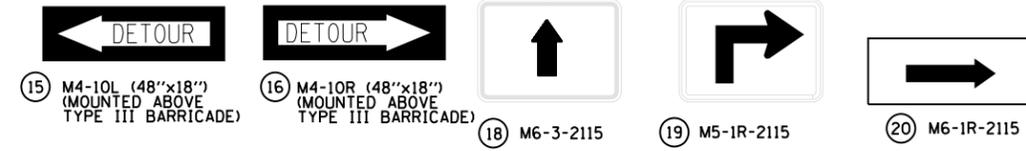
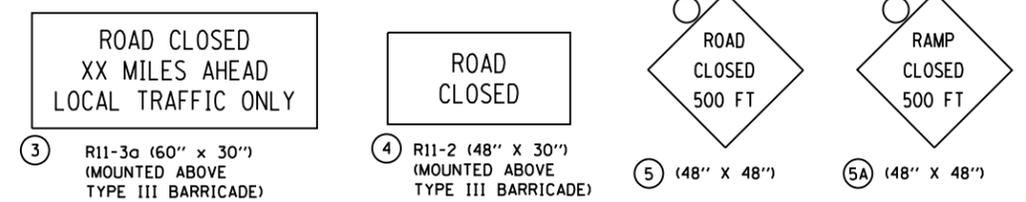
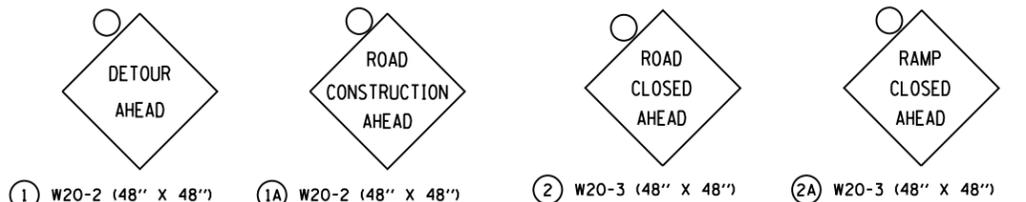
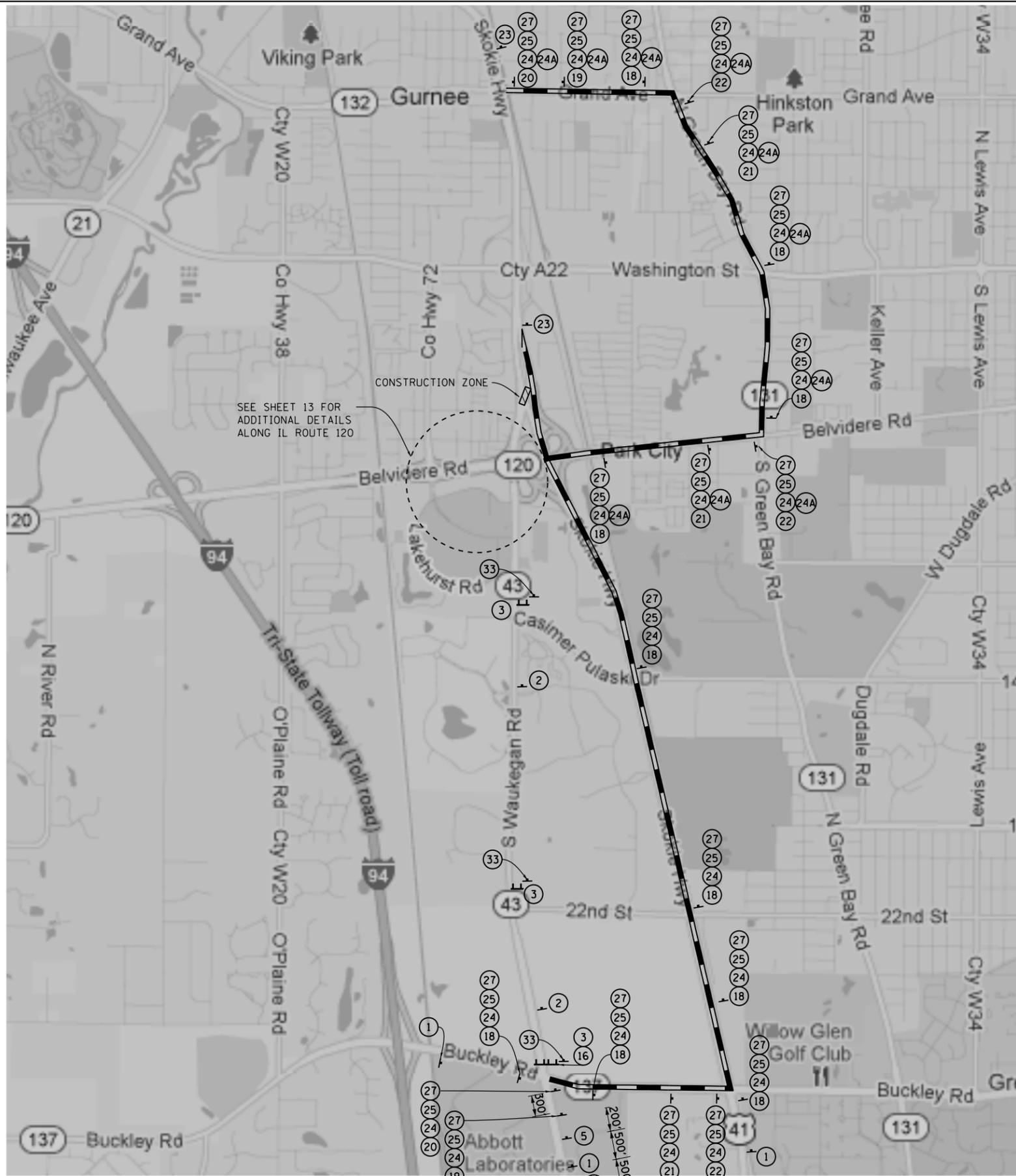
** SLOPE VARIES
 -5.25% TO 1.50% (STA. 9+00 TO 11+00)
 & 1.50% (STA. 14+40 TO 15+53.50)
 BRIDGE OMISSION (STA. 11+00 TO 14+40)

NOTES:

1. TURF REINFORCEMENT MATS TO BE USED AT TYPE B GUTTER OUTLETS, SEE PLAN & PROFILE SHEET FOR LOCATION.
2. PROPOSED TYPE B GUTTER LIMITS:
 STA. 8+97.25 TO STA. 15+10.08 (RT)
 STA. 10+46.67 TO STA. 15+39.69 (LT)

USER NAME = \$USER*	DESIGNED - SGL	REVISED -
	DRAWN - SGL	REVISED -
PLOT SCALE = \$SCALE*	CHECKED - ST	REVISED -
PLOT DATE = \$DATE*	DATE - 02/23/2012	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	10
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60R61	



- NOTES:**
- PLACEMENT AND SPACING OF SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH TC-21 (DETOUR SIGNING FOR CLOSING STATE HIGHWAYS) AND TC-08 (FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS).
 - THE COST OF SUPPLYING, ERECTING AND MAINTAINING BARRICADES, WARNING LIGHTS AND ALL SIGNS, INCLUDING SIGN PANEL OVERLAYS AND TRAFFIC CONTROL AND PROTECTION REQUIRED UNDER DISTRICT 1 DETAILS TC-08 AND TC-17 SHALL BE INCLUDED IN THE CONTRACT COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL).
 - ACCESS TO ALL PRIVATE ENTRANCES SHALL BE MAINTAINED.
 - EXISTING SIGNAL TIMINGS TO BE ADJUSTED AT THE FOLLOWING INTERSECTIONS:
 IL ROUTE 137 (BUCKLEY ROAD) AT US ROUTE 41
 IL ROUTE 120 (BELVIDERE ROAD) AT IL ROUTE 131 (GREEN BAY ROAD)
 IL ROUTE 131 (GREEN BAY ROAD) AT IL ROUTE 137 (GRAND AVENUE)
 IL ROUTE 43 (WAUKEGAN ROAD) AT NORTHPOINT BOULEVARD
 NORTHPOINT BOULEVARD AT GREENLEAF AVENUE / FOUNTAIN SQUARE PLACE

FILE NAME = I:\6710\671024 - IL 43 Over US 41\CAADD Sheets\0160R61-ah-t-Detour.dgn

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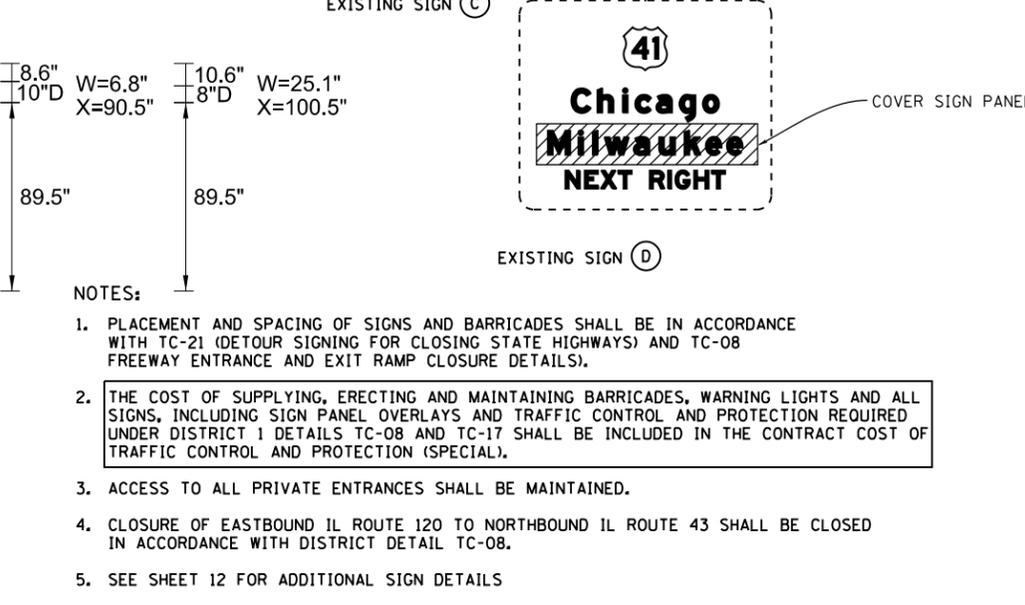
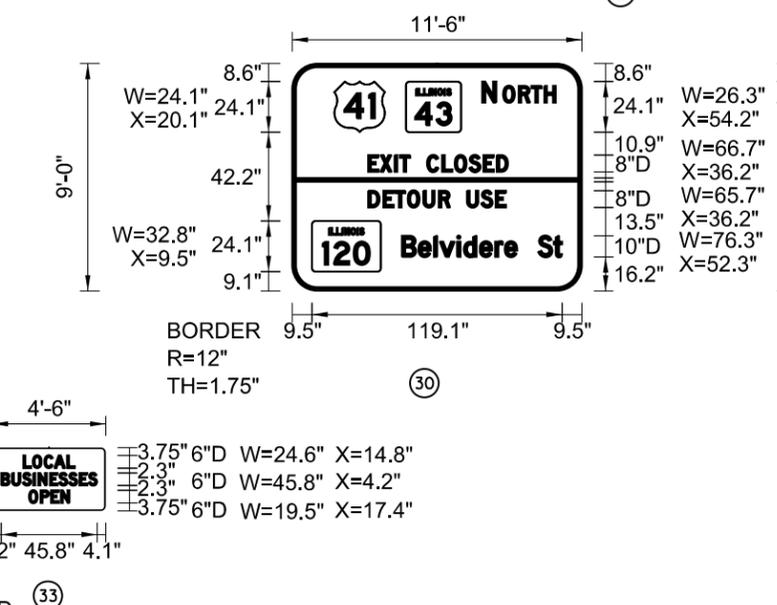
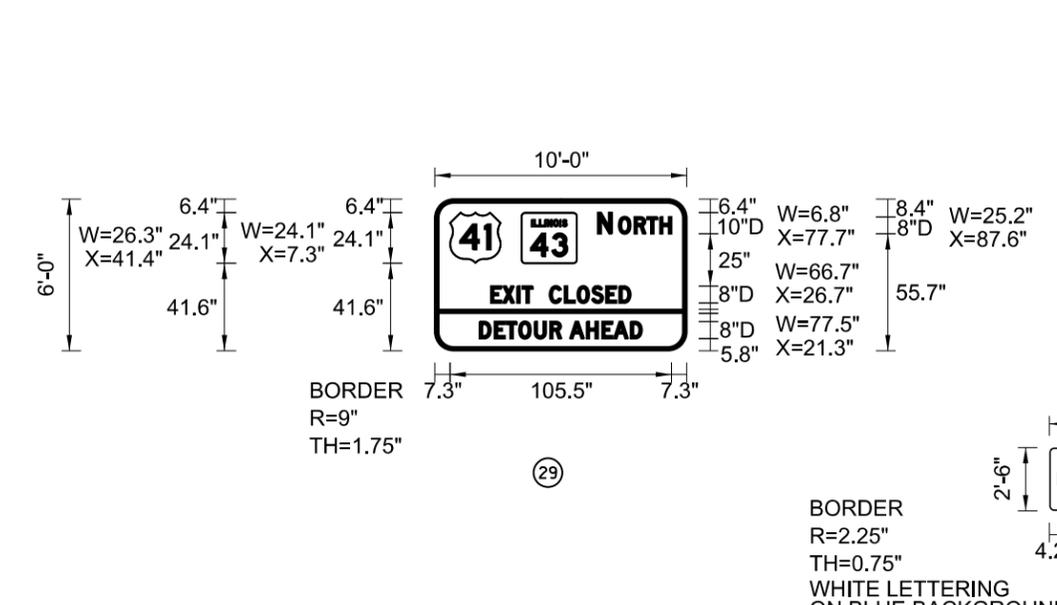
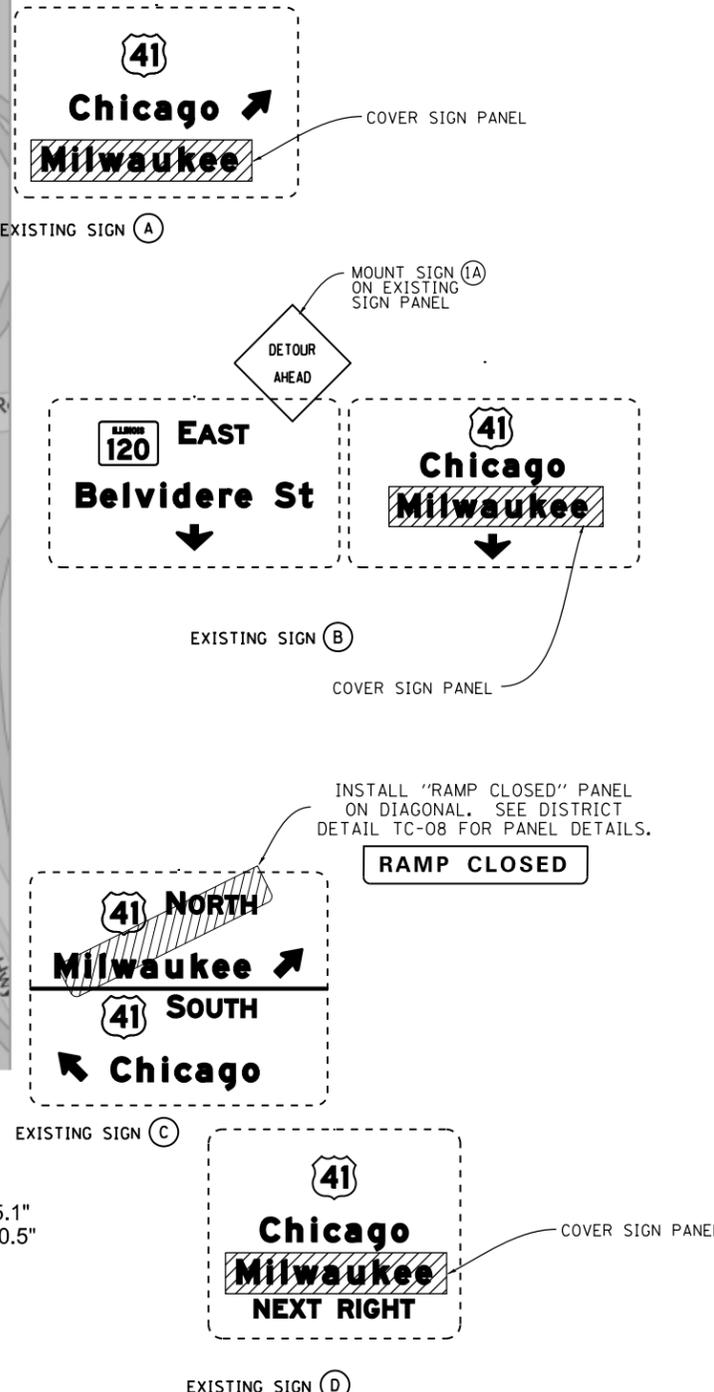
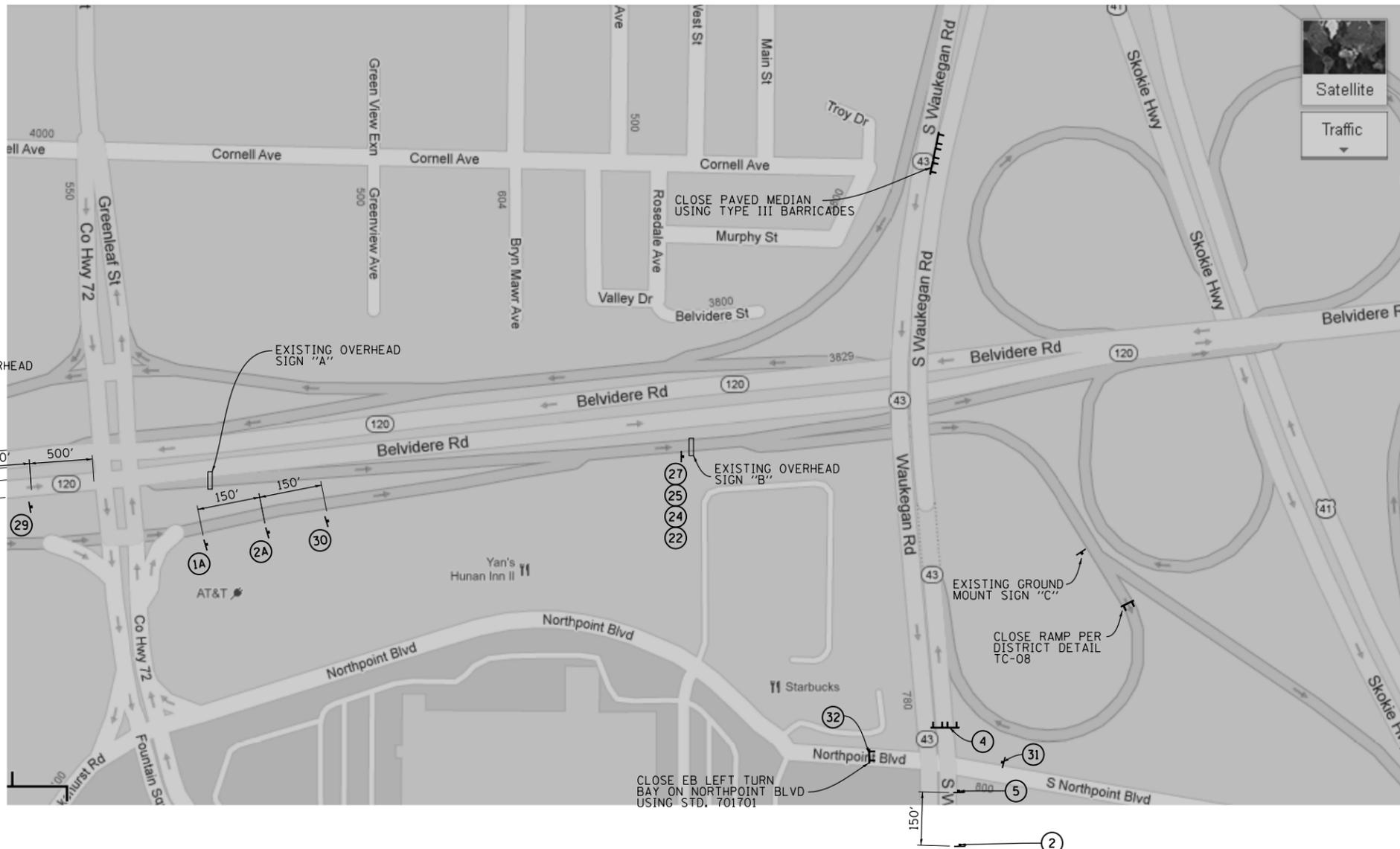
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	DRAWN RG	REVISED -
PLOT SCALE = 100.00' / in.	CHECKED MR	REVISED -
PLOT DATE = 5/10/2013	DATE 2/14/13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 43 OVER IL ROUTE 71
 DETOUR ROUTE**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	12
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				



- NOTES:
1. PLACEMENT AND SPACING OF SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH TC-21 (DETOUR SIGNING FOR CLOSING STATE HIGHWAYS) AND TC-08 (FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS).
 2. THE COST OF SUPPLYING, ERECTING AND MAINTAINING BARRICADES, WARNING LIGHTS AND ALL SIGNS, INCLUDING SIGN PANEL OVERLAYS AND TRAFFIC CONTROL AND PROTECTION REQUIRED UNDER DISTRICT 1 DETAILS TC-08 AND TC-17 SHALL BE INCLUDED IN THE CONTRACT COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL).
 3. ACCESS TO ALL PRIVATE ENTRANCES SHALL BE MAINTAINED.
 4. CLOSURE OF EASTBOUND IL ROUTE 120 TO NORTHBOUND IL ROUTE 43 SHALL BE CLOSED IN ACCORDANCE WITH DISTRICT DETAIL TC-08.
 5. SEE SHEET 12 FOR ADDITIONAL SIGN DETAILS

FILE NAME = I:\6710\671024 - IL 43 Over US 41\CADD\CADD Sheets\0160R61-ah-t-DeTour.dgn

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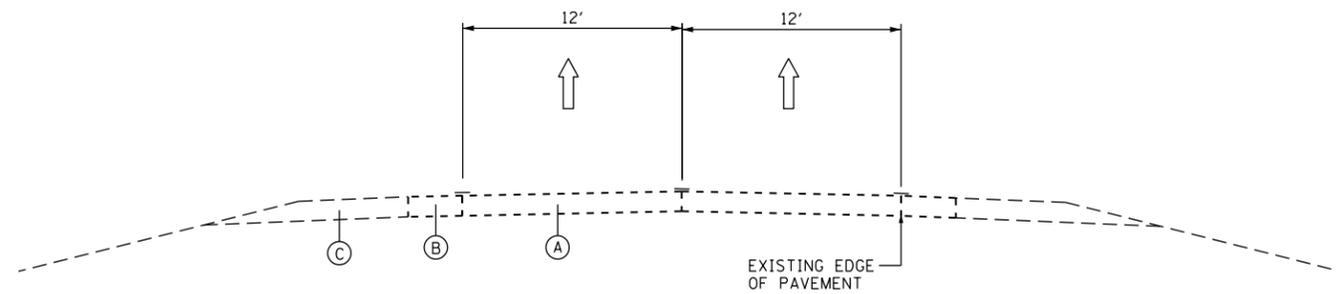
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PLOT DATE = 5/10/2013	DATE 2/14/13	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 43 OVER IL ROUTE 41
DETOUR ROUTE**

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	13
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				

SCALE: NTS SHEET OF SHEETS STA. TO STA.



EXISTING TYPICAL SECTION

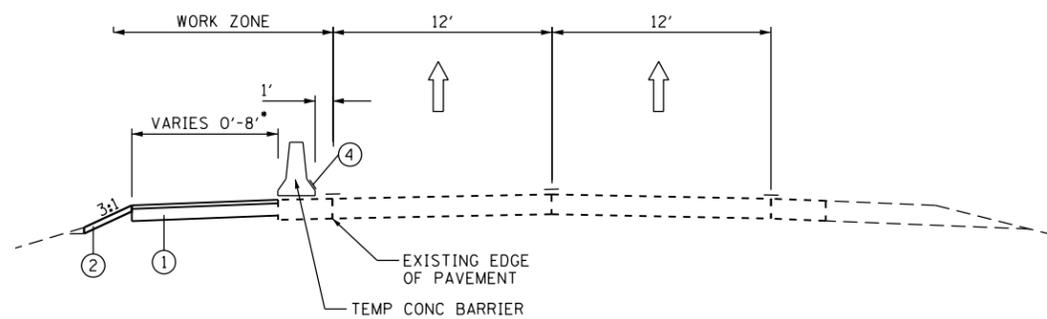
US 41 SOUTH BOUND

EXISTING LEGEND

- Ⓐ EXIST. HMA PAVEMENT
- Ⓑ EXIST. HMA SHOULDER
- Ⓒ EXIST. AGGREGATE SHOULDER

PROPOSED LEGEND:

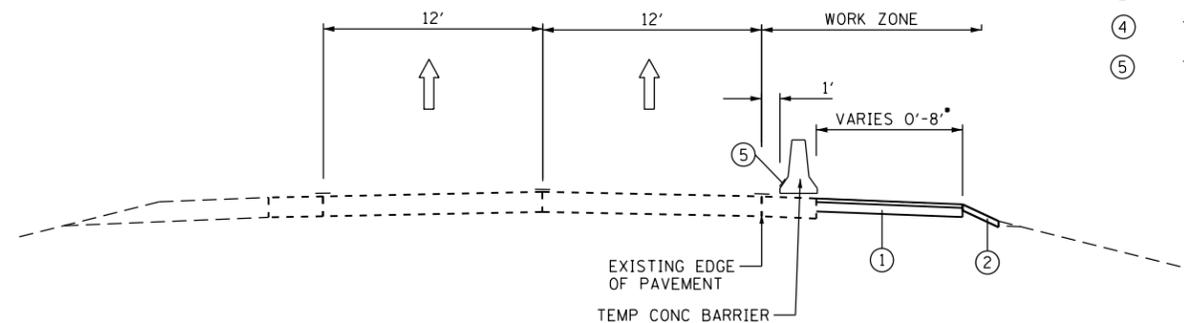
- ① TEMPORARY PAVEMENT, 10"
- ② TEMPORARY EROSION CONTROL SEEDING
- ③ TEMPORARY CONCRETE BARRIER
- ④ TEMPORARY PAVEMENT MARKING, 6" (YELLOW)
- ⑤ TEMPORARY PAVEMENT MARKING, 6" (WHITE)



STAGE I TYPICAL SECTION

US 41 SOUTH BOUND

• STA. 606+27.20 TO STA. 607+19.61



STAGE II TYPICAL SECTION

US 41 SOUTH BOUND

• STA. 605+24.41 TO STA. 606+16.21

NOTE:

TEMPORARY PAVEMENT IS TO BE REMOVED AND SHOULDER IS TO BE RESTORED TO ORIGINAL CONDITION UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

FILE NAME = I:\5710\6710.24 - IL 43 Over US 41\CADD\CADD_Sheets\160R61-ht-typical.dgn

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USER NAME = rge11	DESIGNED -	REVISED -
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	DATE -	REVISED -

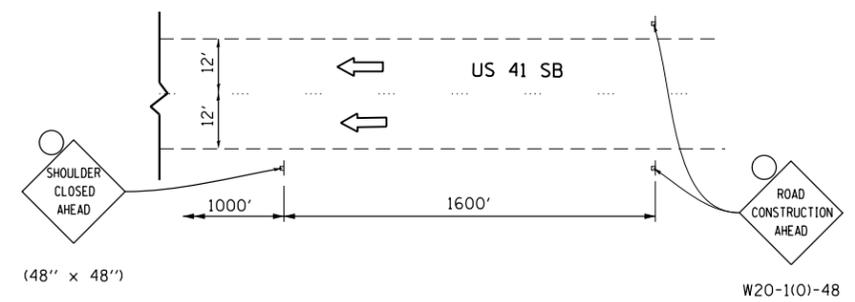
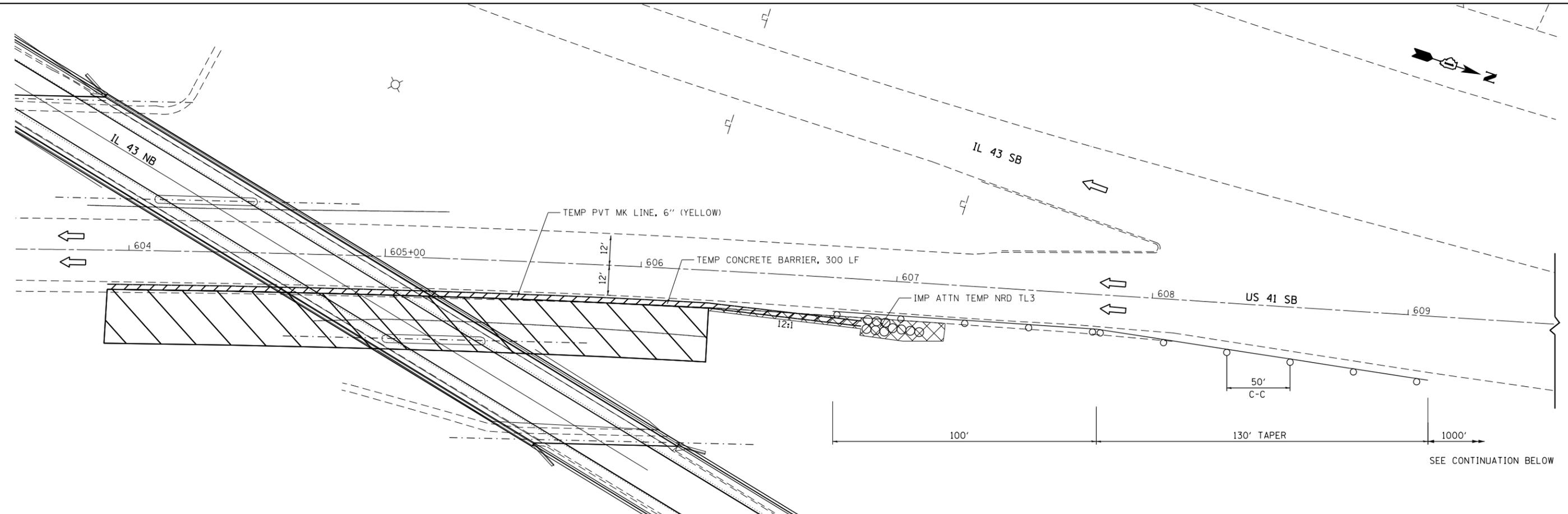
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
 TYPICAL SECTION - US 41**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	14
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				

FILE NAME = I:\5710\6710.24 - IL 43 Over US 41\CADD\CADD_Sheets\160R61-st1-MOT1.dgn



- NOTES:
- FOR SHOULDER CLOSURES SEE DISTRICT 1 DETAIL TC-17 FOR ADDITIONAL SIGNS AND SIGNING DETAILS.
 - BARRIER WALL MARKERS ON RIGHT SHALL BE CRYSTAL AND MARKERS ON THE LEFT SHALL BE AMBER.

- LEGEND:
- WORK ZONE
 - DIRECTION OF TRAFFIC
 - TEMPORARY CONCRETE BARRIER WALL
 - DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
 - TEMPORARY IMPACT ATTENUATOR
 - TEMPORARY PAVEMENT

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PLOT DATE = 5/10/2013	DATE -	REVISED -

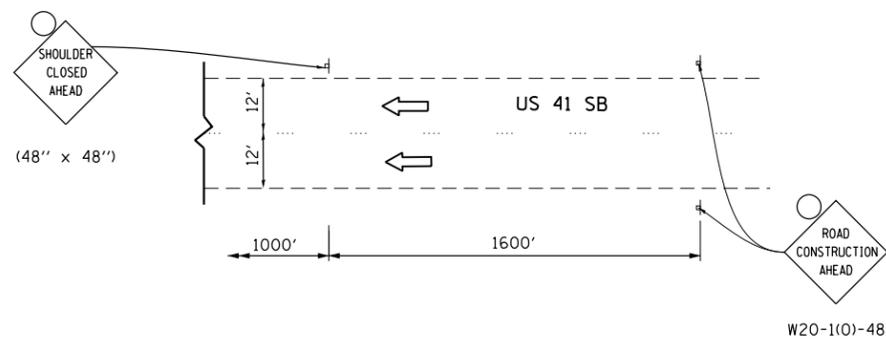
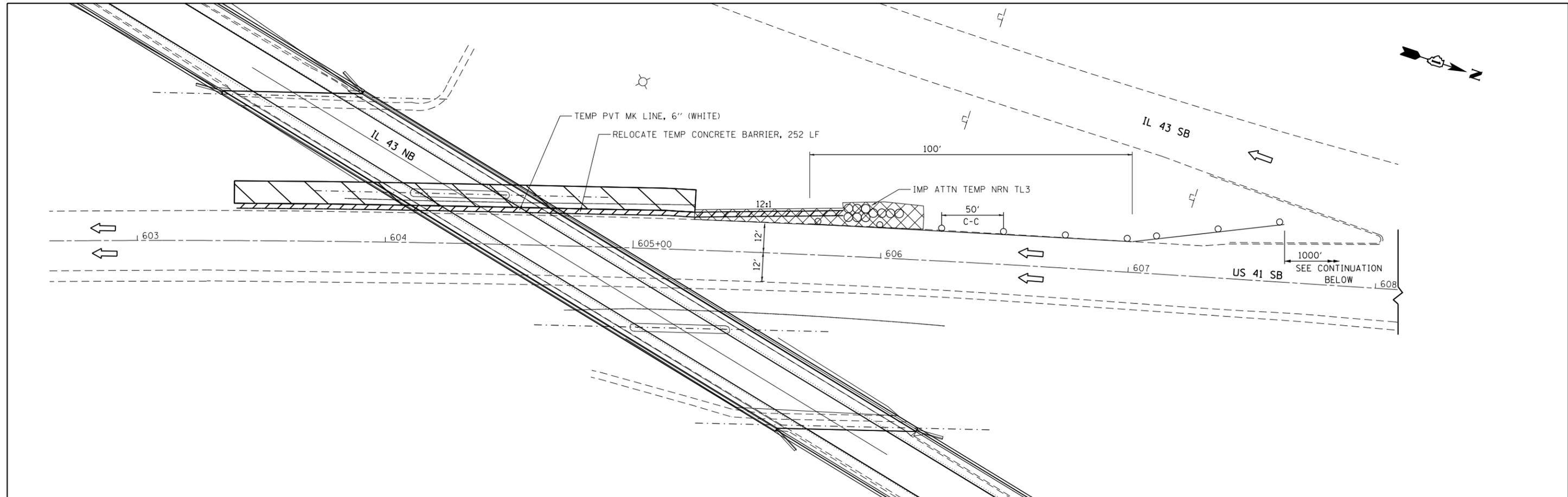
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
 STAGE 1- US 41 NORTHBOUND**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	15
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				

FILE NAME = I:\6710\6710_24 - IL_43 Over US_41\CAD\CADD Sheets\060661-ah-1012.dgn



- NOTES:
- FOR SHOULDER CLOSURES SEE DISTRICT 1 DETAIL TC-17 FOR ADDITIONAL SIGNS AND SIGNING DETAILS.
 - BARRIER WALL MARKERS ON RIGHT SHALL BE CRYSTAL AND MARKERS ON THE LEFT SHALL BE AMBER.

- LEGEND:
- WORK ZONE
 - DIRECTION OF TRAFFIC
 - TEMPORARY CONCRETE BARRIER WALL
 - DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
 - TEMPORARY IMPACT ATTENUATOR
 - TEMPORARY PAVEMENT

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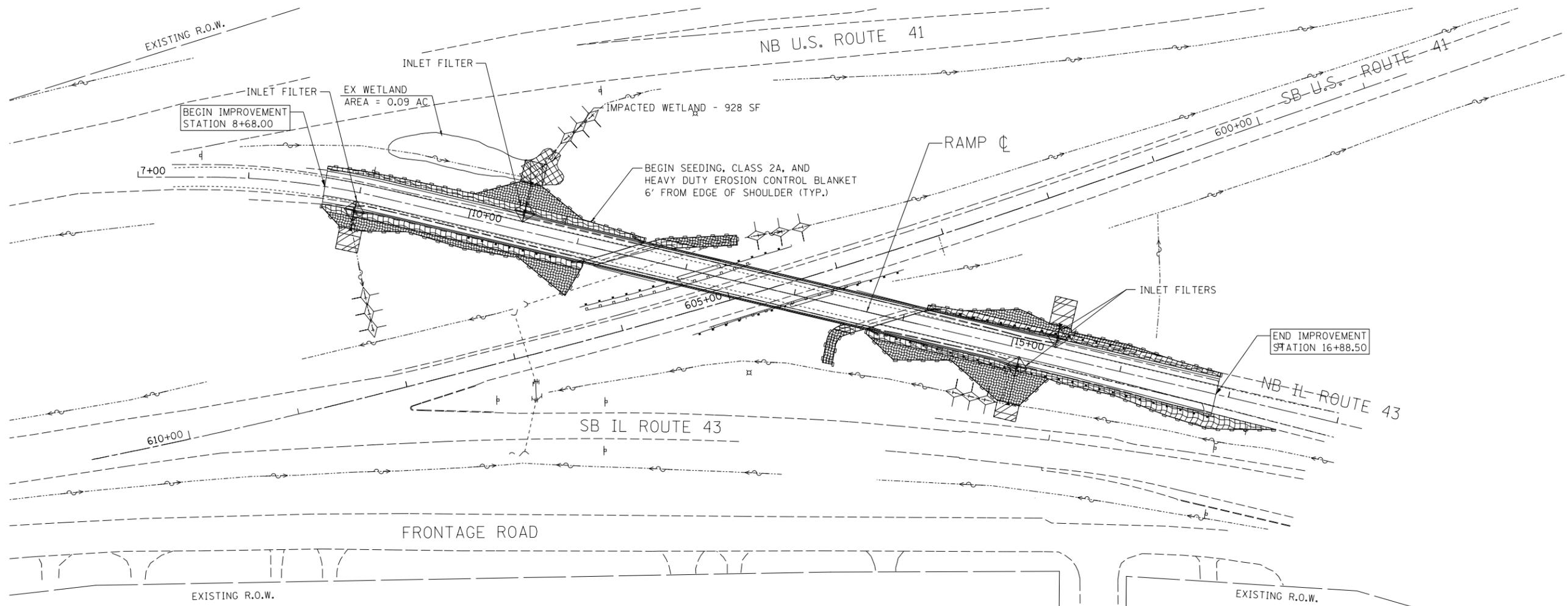
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	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
 STAGE II - US 41 NORTHBOUND**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	15A
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				

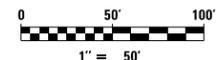


TEMPORARY EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL INSTALL PERIMETER EROSION BARRIER PRIOR TO STRIPPING OF VEGETATION.
2. DIRECT OR INDIRECT PUMPING OF SEDIMENT-LADEN WATER INTO A STORMWATER FACILITY WITHOUT FILTRATION IS PROHIBITED.
3. RUNOFF FROM EXCAVATED AREAS SHALL LEAVE THE SITE THROUGH SEDIMENT CONTROL DEVICES SHOWN IN IDOT STD. 280001-05, ISHTA STD. K-1, AND/OR NRCS DETAILS FROM 2010 EDITION OF ILLINOIS URBAN MANUAL.
4. ANY PUMPING OR CLEANING OF WATER WITHIN WETLANDS PRIOR TO PLACING SEEDING SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED SEEDING PAY ITEMS.
5. THE CONTRACTOR SHALL SURROUND ANY NECESSARY EARTH STOCKPILES WITH PERIMETER EROSION BARRIER.
6. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AT ALL TIMES. EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS, OR WITHIN 24 HOURS OF PRECIPITATION EQUAL TO OR GREATER THAN 0.5 INCH.
7. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE BEEN CONCLUDED. AREAS THAT HAVE STEEP SLOPES OR WILL NOT RECEIVE PERMANENT LANDSCAPING SHALL BE TEMPORARILY SEEDED. ALL FLATTER AREAS OR AREAS WHERE NO FURTHER WORK IS TO OCCUR FOR 14 DAYS OR MORE, INCLUDING EARTH STOCKPILES, SHALL BE SEEDED AND COVERED WITH EROSION CONTROL BLANKET WITHIN SEVEN (7) CALENDAR DAYS.
8. STOCKPILES OF SOIL OR ANY OTHER BUILDING MATERIALS SHALL NOT BE LOCATED IN SPECIAL MANAGEMENT AREAS SUCH AS WETLANDS.
9. ALL WASTE GENERATED AS A RESULT OF THE PROJECT (INCLUDING DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER, SANITARY WASTE, OR ANY OTHER WASTE) SHALL BE PROPERLY DISPOSED OF AND BE PREVENTED FROM BEING CARRIED OFF THE SITE BY EITHER WIND OR WATER.
10. HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED FOR COVERING SLOPES STEEPER THAN 3H:1V. TURF REINFORCEMENT MAT WILL BE USED IN AREAS DOWNSTREAM OF PIPE DRAINS, AS SHOWN ON PLAN. EROSION CONTROL BLANKET WILL BE PREFERRED MULCH METHOD IN ALL OTHER AREAS.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF ACHIEVING PERMANENT SOIL STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOILS RESULTING FROM TEMPORARY MEASURES SHALL BE PROPERLY DISPOSED OF, AND THE AREA PERMANENTLY STABILIZED.

LEGEND

- SEEDING, CLASS 4, EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- INLET FILTERS
- TEMPORARY DITCH CHECK
- SEEDING, CLASS 4, TURF REINFORCEMENT MAT
- SEEDING, CLASS 2A, HEAVY DUTY EROSION CONTROL BLANKET
- IMPACTED WETLAND AREA SEEDING, CLASS 4B & 5B



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Consulting Engineers
Chatham, Illinois

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PLOT DATE = #DATE#	CHECKED - FML	REVISED -
	DATE - 02/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN ROAD) AT US 41 (SB)
EROSION AND SEDIMENT CONTROL PLAN**

SCALE: 1" = 50' SHEET NO. 1 OF 1 SHEETS STA. 8+68.00 TO STA. 16+88.50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	16
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60R61	

Benchmark: "X" on south bail of light post southwest of structure. Elevation = 724.633 (NAVD 88).

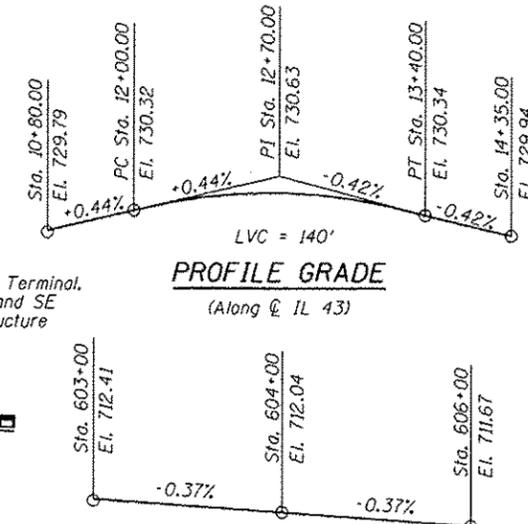
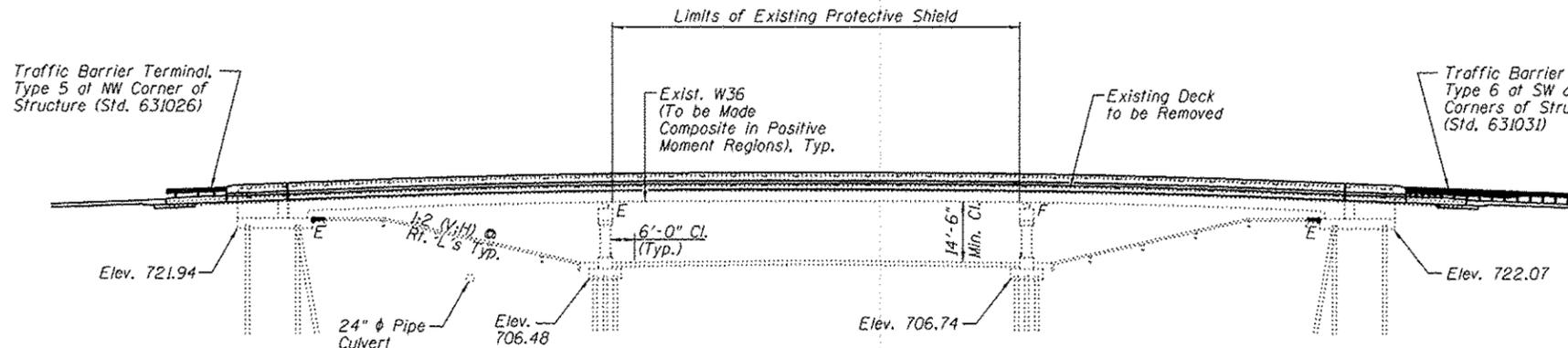
Existing Structure: S.N. 049-0087 was originally constructed in 1957 under the Construction Route FA 99 Section 125-HB at Station 12+76.37. The structure consists of a reinforced concrete deck on a three span continuous steel superstructure supported on stub abutments and multi column piers on pile foundations. In 2001, a 2 1/2" HMA overlay was installed and the existing open type joints at the abutments were modified under Section 126R-RS. The existing structure is 266'-0" back-to-back of abutments and 30'-0" out-to-out deck. The proposed structure is 266'-0" back-to-back abutments and 31'-2" out-to-out deck.

Traffic will be detoured during construction.

No Salvage.

SCOPE OF WORK

1. Remove and replace existing concrete deck.
2. Make deck composite in positive moment regions.
3. Remove and replace bearings at abutments.
4. Clean and paint existing beams diaphragms, and bearings.
5. Install new expansion joints at abutments.
6. Remove and replace approach slabs.
7. Perform substructure repairs.
8. Remove existing channel along abutments and install concrete slope wall.

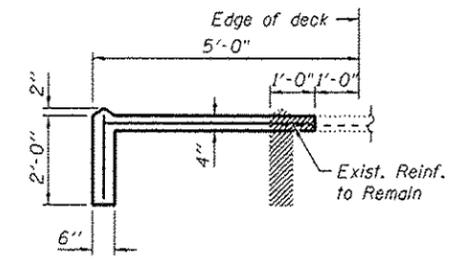


Note: Substructure elevations on all sheets have been converted from the NGVD 29 datum on the Existing Plans dated May 15, 1956 to the current NAVD 88 datum by subtracting 0.322 ft. All other elevations use the current NAVD 88 datum.

STATION 12+76.37
REBUILT BY
STATE OF ILLINOIS
F.A.U. RT. 2706 SEC. 125HB-BR
LOADING HS-20
STR. NO. 049-0087

NAME PLATE

(See Std. 515001)
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.



DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges (17th Edition)

LOADING HS20-44

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

DESIGN STRESSES

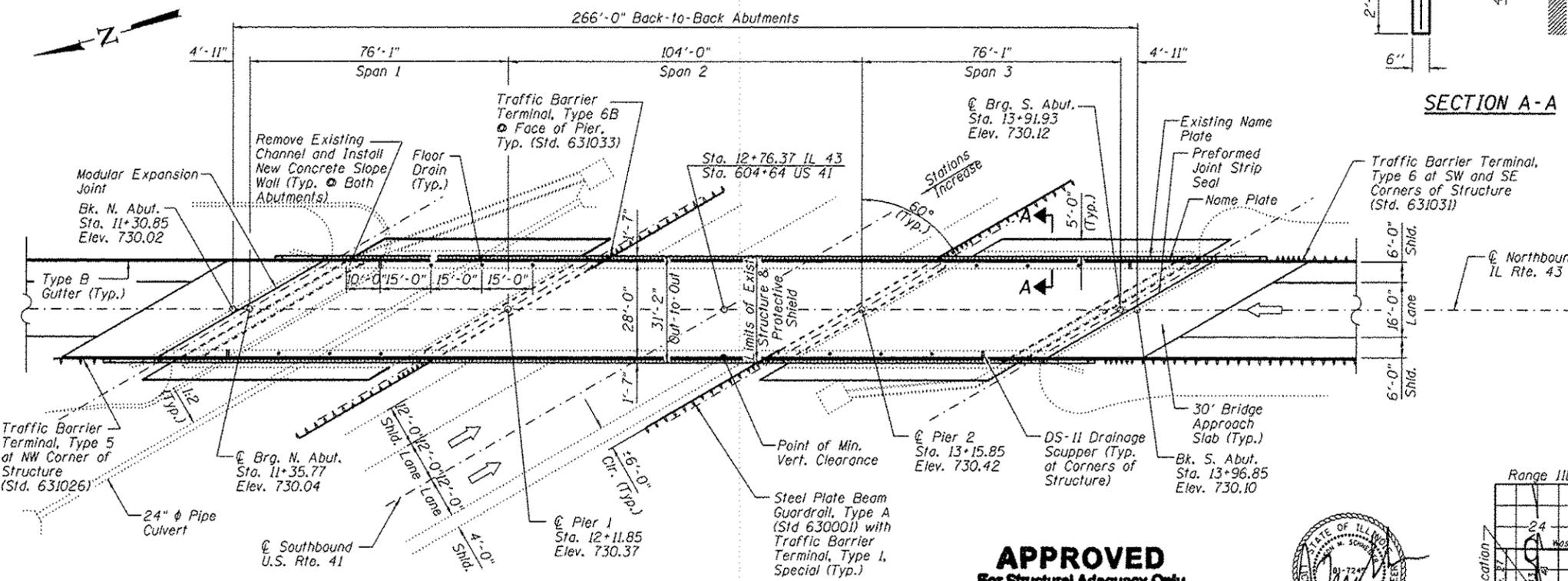
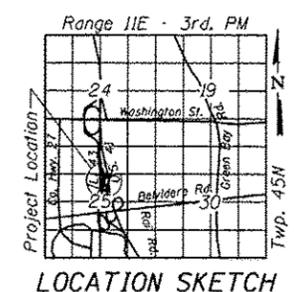
FIELD UNITS (Proposed)	FIELD UNITS (Existing)
$f'_c = 3,500$ psi	$f'_c = 3,000$ psi (Deck & Piers)
$f_y = 60,000$ psi (Reinf.)	$f'_c = 2,000$ psi (Abutments)
	$f_y = 33,000$ psi (Struct. Steel)
	$f_y = 40,000$ psi (Reinf.)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.033g
Site Coefficient (S) = 1.0

GENERAL PLAN

IL. 43 (NB) OVER U.S. 41 (SB)
F.A.U. RTE. 2706 - SEC. 125HB-BR
LAKE COUNTY
STATION 12+76.37
STRUCTURE NO. 049-0087



APPROVED
For Structural Adequacy Only
D. Carl Penney JES
Engineer of Bridges & Structures

STATE OF ILLINOIS
COLLINS ENGINEERS, INC.
JASON M. SCHNEIDER
NO. 81-7245
EXPIRES 11-30-2014

COLLINS ENGINEERS 123 North Wacker Drive Suite 300 Chicago, IL 60606 (312) 764-9500 www.collinseng.com ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-009993	USER NAME *	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN STRUCTURE NO. 049-0087 SHEET NO. 51 OF 524 SHEETS	F.A.U. RTE. 2706	SECTION 125HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 18
	PLOT SCALE *	DRAWN - DR	REVISED -			CONTRACT NO. 60R61				
	PLOT DATE *	CHECKED - AMS	REVISED -			ILLINOIS FED. AID PROJECT				

INDEX OF DRAWINGS

- S1 General Plan & Elevation
- S2 General Notes, Bill of Materials and Index of Sheets
- S3 Construction Details
- S4-6 Top of Deck Elevations
- S7 Top of North Approach Slab Elevations
- S8 Top of South Approach Slab Elevations
- S9 Superstructure
- S10 Superstructure Details
- S11 Concrete Parapet Slipforming Option
- S12-13 Bridge Approach Slab Details
- S14 Drainage Scupper, DS-II
- S15 Preformed Joint Strip Seal
- S16 Modular Expansion Joint
- S17 Steel Framing Plan & Details
- S18 N. Abutment Bearing Details
- S19 S. Abutment Bearing Details
- S20 Abutment Repairs
- S21 Wingwall and Slopewalls Repairs
- S22 Pier 1 Repairs
- S23 Pier 2 Repairs
- S24 Bar Splicer Assembly and Mechanical Splicer Details

GENERAL NOTES:

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ -in. ϕ , holes $\frac{13}{16}$ -in. ϕ , unless otherwise noted.

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

The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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

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

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.

Existing structural steel in contact with new structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surfaces of Existing Steel Structures".

All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.

Cleaning and painting of the existing structural steel shall be as specified in the Special Provision for "Cleaning and Painting Existing Steel Structures". All existing structural steel including beams, diaphragms and bearings shall be cleaned per near white blast cleaning - SSPC - SP10. All existing steel shall be painted according to the requirements of paint system 1 - Oz/E/U. 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.

In addition to the requirements of Article 501.03 in the Standard Specifications, the Contractor shall evaluate the condition of the existing Protective Shield. Such evaluation shall be performed by a licensed Structural Engineer in Illinois. The cost of this evaluation is included with Protective Shield. If structurally adequate, the existing Protective Shield shall remain in place for demolition of the existing bridge deck. The Contractor shall be paid for this work based on the total quantity of existing and new Protective Shield actually required at the contract unit price per square yard for Protective Shield.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		15.9	15.9
Slope Wall Removal	Sq. Yd.		51	51
Removal of Existing Concrete Deck	Each	1		1
Protective Shield	Sq. Yd.	361		361
Structure Excavation	Cu. Yd.		26	26
Floor Drains	Each	12		12
Concrete Structures	Cu. Yd.		54.6	54.6
Concrete Superstructure	Cu. Yd.	382.8		382.8
Bridge Deck Grooving	Sq. Yd.	935		935
Protective Coat	Sq. Yd.	1,551		1,551
Furnishing and Erecting Structural Steel	Pound	1,990		1,990
Stud Shear Connectors	Each	3,080		3,080
Reinforcement Bars, Epoxy Coated	Pound	93,760	9,760	103,520
Bar Splicers	Each		126	126
Slope Wall, 4"	Sq. Yd.		142	142
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	62.5		62.5
Elastomeric Bearing Assembly, Type I	Each	5		5
Elastomeric Bearing Assembly, Type II	Each	5		5
Anchor Bolts, $\frac{3}{4}$ "	Each	40		40
Jack and Remove Existing Bearings	Each	10		10
Structural Steel Repair	Pound	990		990
Containment and Disposal of Lead Paint	L.Sum	1		1
Cleaning Residues	L.Sum	1		1
Cleaning and Painting Steel Bridge No. 1	L.Sum			
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.		84	84
Drainage Scuppers, DS-II	Each	4		4
Modular Expansion Joint, 6"	Foot	62.5		62.5
Granular Backfill for Structures	Cu. Yd.		20	20



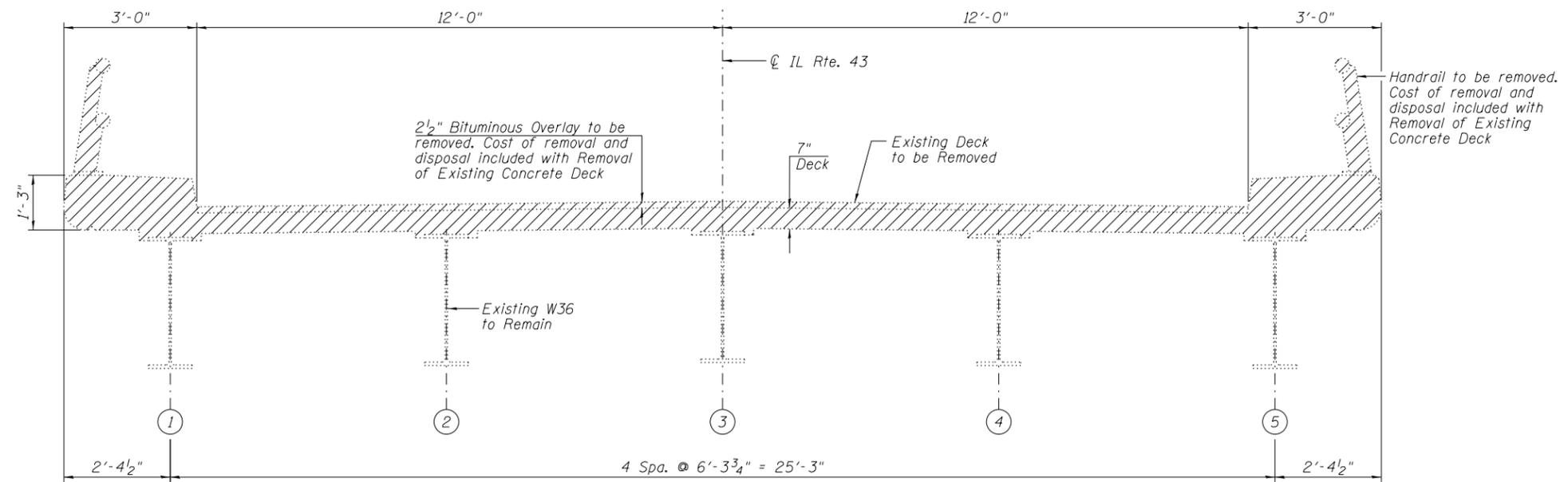
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, BILL OF MATERIALS AND INDEX OF SHEETS
STRUCTURE NO. 049-0087**

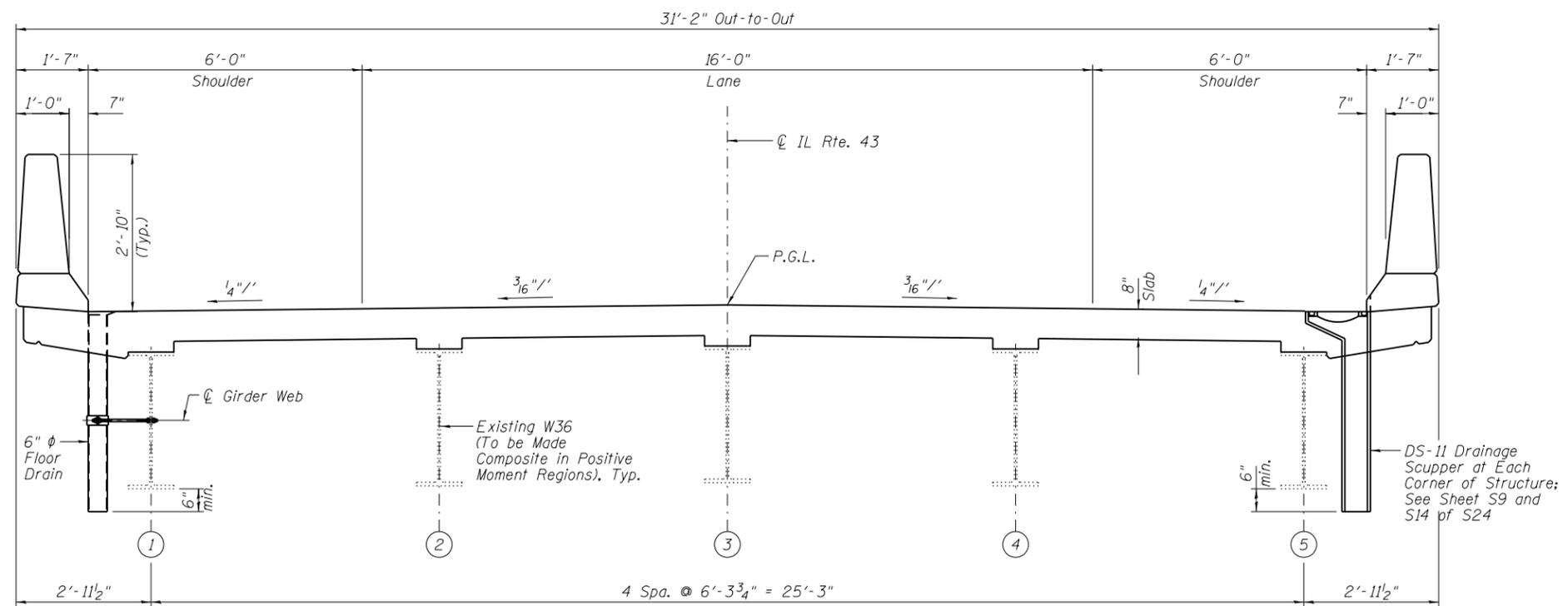
SHEET NO. S2 OF S24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	19
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60R61	



REMOVAL CROSS SECTION

(Looking South)

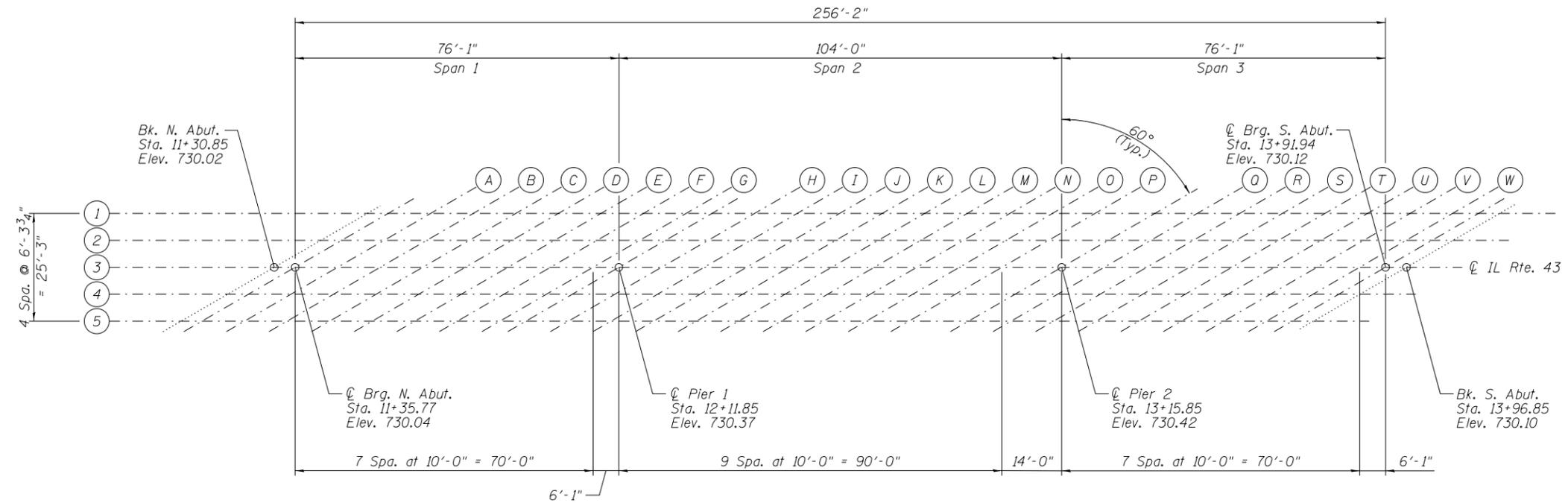


PROPOSED CROSS SECTION

(Looking South)

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PLOT DATE =	CHECKED - AMS	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	20
CONTRACT NO. 60R61				



PLAN

(Sheet 1 of 3)

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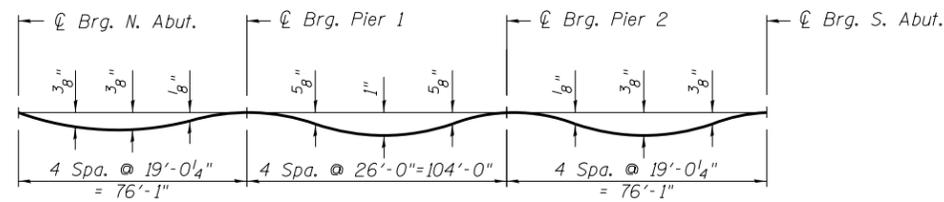
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PLOT SCALE =	DRAWN - DR	REVISED -
PLOT DATE =	CHECKED - AMS	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS
 STRUCTURE NO. 049-0087

SHEET NO. S4 OF S24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	21
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				

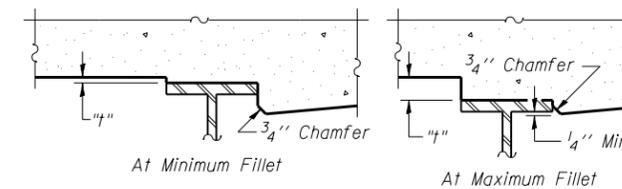


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Notes:

The above deflections are not to be used in the field if the engineer is working from the theoretical grade elevations adjusted for dead load deflections as shown below and on sheet S6 of S24.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet S4 of S24. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflection" shown below and on sheet S6 of S24, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	11+52.72	-12.63	729.89	729.89
CL BRG. N. ABUT.	11+57.64	-12.63	729.91	729.91
A	11+67.64	-12.63	729.96	729.97
B	11+77.64	-12.63	730.00	730.03
C	11+87.64	-12.63	730.04	730.08
D	11+97.64	-12.63	730.09	730.12
E	12+07.64	-12.63	730.13	730.15
F	12+17.64	-12.63	730.17	730.17
G	12+27.64	-12.63	730.20	730.20
CL PIER 1	12+33.72	-12.63	730.21	730.21
H	12+43.72	-12.63	730.23	730.25
I	12+53.72	-12.63	730.25	730.28
J	12+63.72	-12.63	730.26	730.32
K	12+73.72	-12.63	730.26	730.34
L	12+83.72	-12.63	730.25	730.34
M	12+93.72	-12.63	730.24	730.33
N	13+03.72	-12.63	730.23	730.30
O	13+13.72	-12.63	730.21	730.25
P	13+23.72	-12.63	730.18	730.20
CL PIER 2	13+37.72	-12.63	730.13	730.13
Q	13+47.72	-12.63	730.09	730.09
R	13+57.72	-12.63	730.04	730.05
S	13+67.72	-12.63	730.00	730.02
T	13+77.72	-12.63	729.96	729.99
U	13+87.72	-12.63	729.92	729.95
V	13+97.72	-12.63	729.88	729.90
W	14+07.72	-12.63	729.83	729.84
CL BRG. S. ABUT.	14+13.80	-12.63	729.81	729.81
BK. S. ABUT.	14+18.72	-12.63	729.79	729.79

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	11+41.79	-6.31	729.96	729.96
CL BRG. N. ABUT.	11+46.70	-6.31	729.99	729.99
A	11+56.70	-6.31	730.03	730.05
B	11+66.70	-6.31	730.07	730.10
C	11+76.70	-6.31	730.12	730.15
D	11+86.70	-6.31	730.16	730.19
E	11+96.70	-6.31	730.21	730.22
F	12+06.70	-6.31	730.25	730.26
G	12+16.70	-6.31	730.29	730.29
CL PIER 1	12+22.79	-6.31	730.31	730.31
H	12+32.79	-6.31	730.33	730.35
I	12+42.79	-6.31	730.35	730.39
J	12+52.79	-6.31	730.37	730.43
K	12+62.79	-6.31	730.38	730.46
L	12+72.79	-6.31	730.38	730.47
M	12+82.79	-6.31	730.38	730.46
N	12+92.79	-6.31	730.37	730.44
O	13+02.79	-6.31	730.35	730.40
P	13+12.79	-6.31	730.33	730.35
CL PIER 2	13+26.79	-6.31	730.29	730.29
Q	13+36.79	-6.31	730.25	730.26
R	13+46.79	-6.31	730.21	730.22
S	13+56.79	-6.31	730.17	730.19
T	13+66.79	-6.31	730.13	730.16
U	13+76.79	-6.31	730.09	730.12
V	13+86.79	-6.31	730.04	730.07
W	13+96.79	-6.31	730.00	730.01
CL BRG. S. ABUT.	14+02.87	-6.31	729.98	729.98
BK. S. ABUT.	14+07.79	-6.31	729.96	729.96

CL IL Rte. 43 & GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	11+30.85	0.00	730.01	730.01
CL BRG. N. ABUT.	11+35.77	0.00	730.04	730.04
A	11+45.77	0.00	730.08	730.10
B	11+55.77	0.00	730.12	730.15
C	11+65.77	0.00	730.17	730.20
D	11+75.77	0.00	730.21	730.24
E	11+85.77	0.00	730.26	730.28
F	11+95.77	0.00	730.30	730.31
G	12+05.77	0.00	730.34	730.34
CL PIER 1	12+11.85	0.00	730.37	730.37
H	12+21.85	0.00	730.40	730.42
I	12+31.85	0.00	730.43	730.47
J	12+41.85	0.00	730.45	730.51
K	12+51.85	0.00	730.47	730.55
L	12+61.85	0.00	730.48	730.56
M	12+71.85	0.00	730.48	730.56
N	12+81.85	0.00	730.48	730.54
O	12+91.85	0.00	730.47	730.51
P	13+01.85	0.00	730.45	730.48
CL PIER 2	13+15.85	0.00	730.42	730.42
Q	13+25.85	0.00	730.39	730.39
R	13+35.85	0.00	730.36	730.37
S	13+45.85	0.00	730.32	730.34
T	13+55.85	0.00	730.27	730.30
U	13+65.85	0.00	730.23	730.26
V	13+75.85	0.00	730.19	730.21
W	13+85.85	0.00	730.15	730.16
CL BRG. S. ABUT.	13+91.94	0.00	730.12	730.12
BK. S. ABUT.	13+96.85	0.00	730.10	730.10

E-S 7-1-10

(Sheet 2 of 3)

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS
STRUCTURE NO. 049-0087**

SHEET NO. S5 OF S24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	22
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	11+19.92	6.31	729.87	729.87
☉ BRG. N. ABUT.	11+24.84	6.31	729.89	729.89
A	11+34.84	6.31	729.93	729.95
B	11+44.84	6.31	729.98	730.01
C	11+54.84	6.31	730.02	730.06
D	11+64.84	6.31	730.07	730.09
E	11+74.84	6.31	730.11	730.13
F	11+84.84	6.31	730.15	730.16
G	11+94.84	6.31	730.20	730.20
☉ PIER 1	12+00.92	6.31	730.23	730.23
H	12+10.92	6.31	730.27	730.28
I	12+20.92	6.31	730.30	730.34
J	12+30.92	6.31	730.33	730.39
K	12+40.92	6.31	730.35	730.43
L	12+50.92	6.31	730.37	730.45
M	12+60.92	6.31	730.38	730.46
N	12+70.92	6.31	730.38	730.45
O	12+80.92	6.31	730.38	730.43
P	12+90.92	6.31	730.37	730.39
☉ PIER 2	13+04.92	6.31	730.35	730.35
Q	13+14.92	6.31	730.33	730.33
R	13+24.92	6.31	730.30	730.31
S	13+34.92	6.31	730.26	730.28
T	13+44.92	6.31	730.22	730.25
U	13+54.92	6.31	730.18	730.21
V	13+64.92	6.31	730.14	730.16
W	13+74.92	6.31	730.09	730.11
☉ BRG. S. ABUT.	13+81.00	6.31	730.07	730.07
BK. S. ABUT.	13+85.92	6.31	730.05	730.05

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	11+08.99	12.63	729.70	729.70
☉ BRG. N. ABUT.	11+13.90	12.63	729.72	729.72
A	11+23.90	12.63	729.76	729.78
B	11+33.90	12.63	729.81	729.84
C	11+43.90	12.63	729.85	729.88
D	12+53.90	12.63	729.90	729.92
E	11+63.90	12.63	729.94	729.96
F	11+73.90	12.63	729.98	729.99
G	11+83.90	12.63	730.03	730.03
☉ PIER 1	11+89.99	12.63	730.05	730.05
H	11+99.99	12.63	730.10	730.11
I	12+09.99	12.63	730.14	730.18
J	12+19.99	12.63	730.17	730.23
K	12+29.99	12.63	730.20	730.28
L	12+39.99	12.63	730.23	730.31
M	12+49.99	12.63	730.24	730.32
N	12+59.99	12.63	730.25	730.32
O	12+69.99	12.63	730.26	730.30
P	12+79.99	12.63	730.26	730.28
☉ PIER 2	12+93.99	12.63	730.24	730.24
Q	13+03.99	12.63	730.23	730.23
R	13+13.99	12.63	730.21	730.22
S	13+23.99	12.63	730.18	730.20
T	13+33.99	12.63	730.14	730.17
U	13+43.99	12.63	730.10	730.13
V	13+53.99	12.63	730.06	730.08
W	13+63.99	12.63	730.02	730.03
☉ BRG. S. ABUT.	13+70.07	12.63	729.99	729.99
BK. S. ABUT.	13+74.99	12.63	729.97	729.97

E-S

7-1-10

(Sheet 3 of 3)

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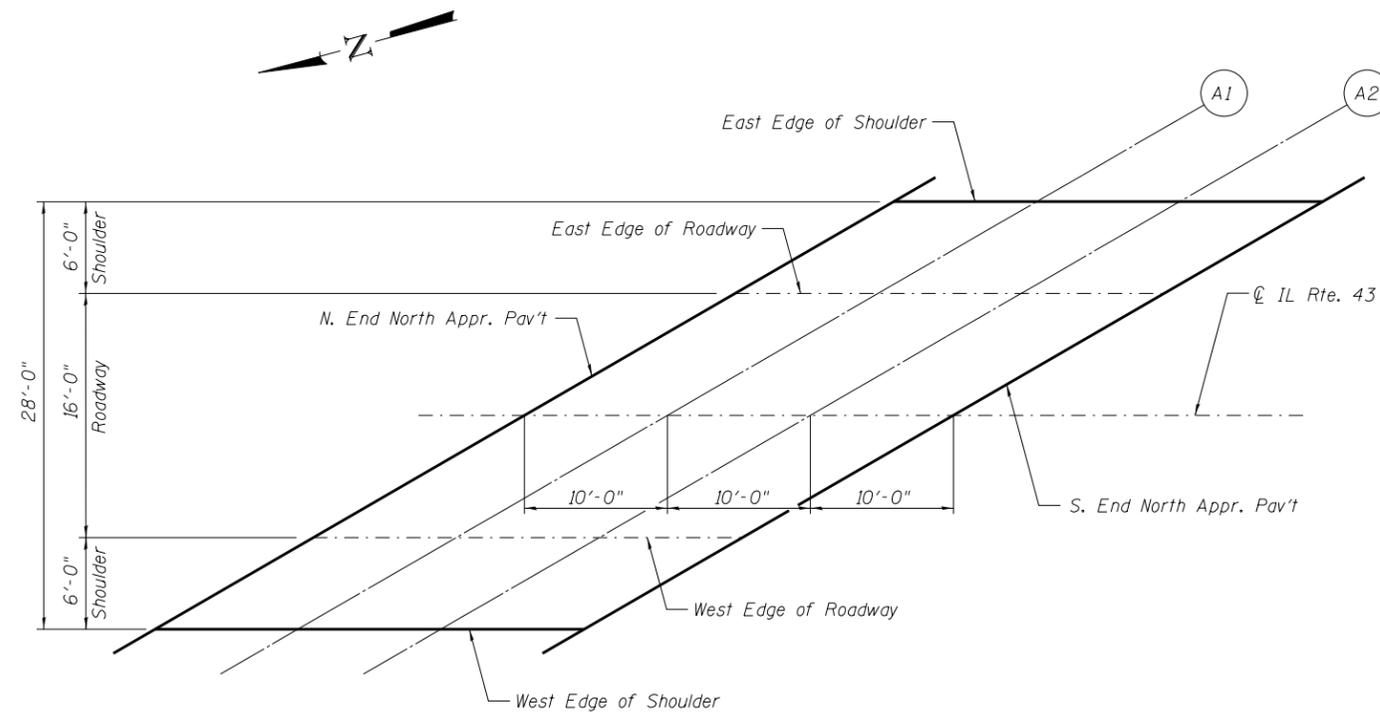
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	CHECKED - JMS	REVISED -
PLOT SCALE =	DRAWN - DR	REVISED -
PLOT DATE =	CHECKED - AMS	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS
 STRUCTURE NO. 049-0087**

SHEET NO. S6 OF S24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	23
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				



PLAN

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End North Appr. Pav't	11+25.10	-14.00	729.74
A1	11+35.10	-14.00	729.78
A2	11+45.10	-14.00	729.83
S. End North Appr. Pav't	11+55.10	-14.00	729.87

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N. End North Appr. Pav't	11+14.71	-8.00	729.82
A1	11+24.71	-8.00	729.86
A2	11+34.71	-8.00	729.91
S. End North Appr. Pav't	11+44.71	-8.00	729.95

CL IL RTE. 43

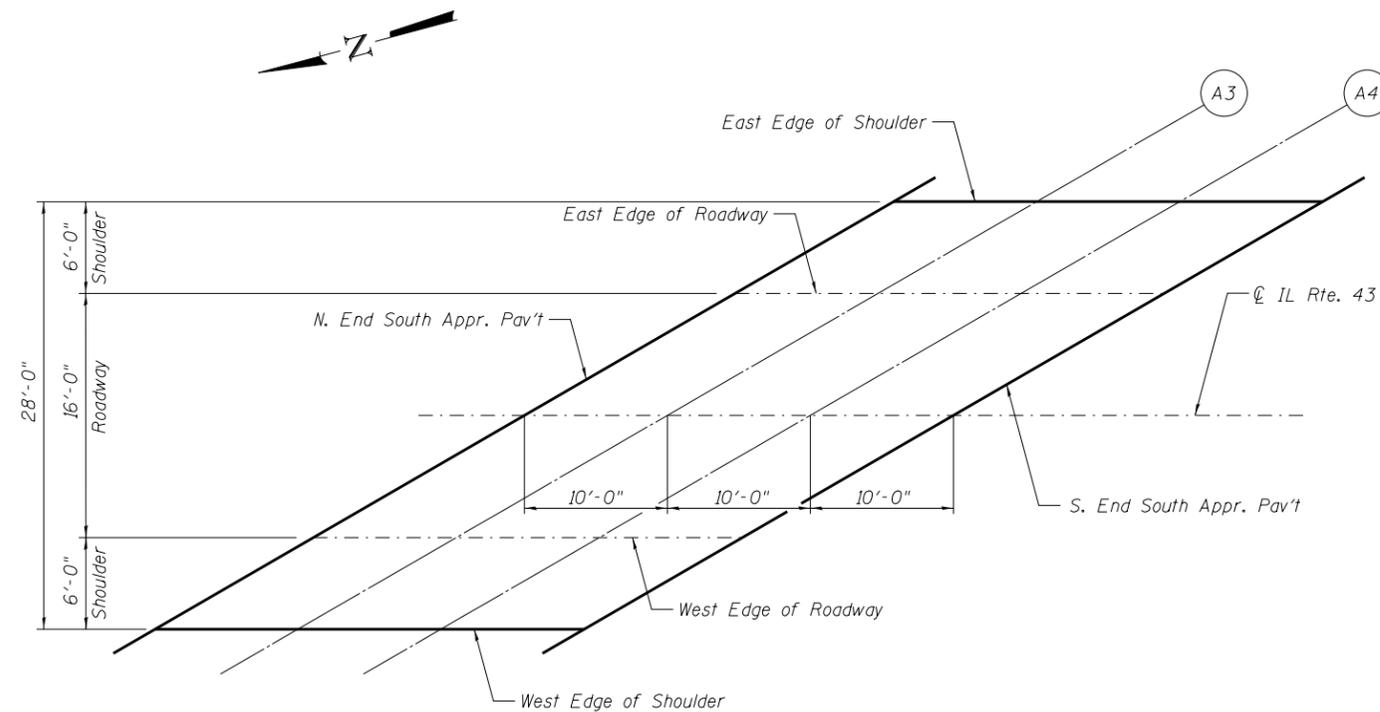
Location	Station	Offset	Theoretical Grade Elevations
N. End North Appr. Pav't	11+00.85	0.00	729.88
A1	11+10.85	0.00	729.93
A2	11+20.85	0.00	729.97
S. End North Appr. Pav't	11+30.85	0.00	730.01

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N. End North Appr. Pav't	10+87.00	8.00	729.70
A1	10+97.00	8.00	729.74
A2	11+07.00	8.00	729.78
S. End North Appr. Pav't	11+17.00	8.00	729.83

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End North Appr. Pav't	10+76.60	14.00	729.53
A1	10+86.60	14.00	729.57
A2	10+96.60	14.00	729.61
S. End North Appr. Pav't	11+06.60	14.00	729.66



PLAN

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End South Appr. Pav't	14+21.10	-14.00	729.75
A3	14+31.10	-14.00	729.71
A4	14+41.10	-14.00	729.66
S. End South Appr. Pav't	14+51.10	-14.00	729.62

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N. End South Appr. Pav't	14+10.71	-8.00	729.92
A3	14+20.71	-8.00	729.88
A4	14+30.71	-8.00	729.83
S. End South Appr. Pav't	14+40.71	-8.00	729.79

CL IL RTE. 43

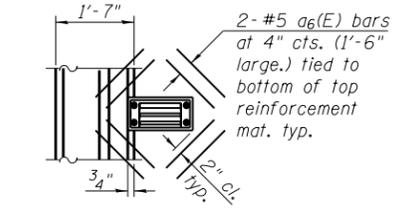
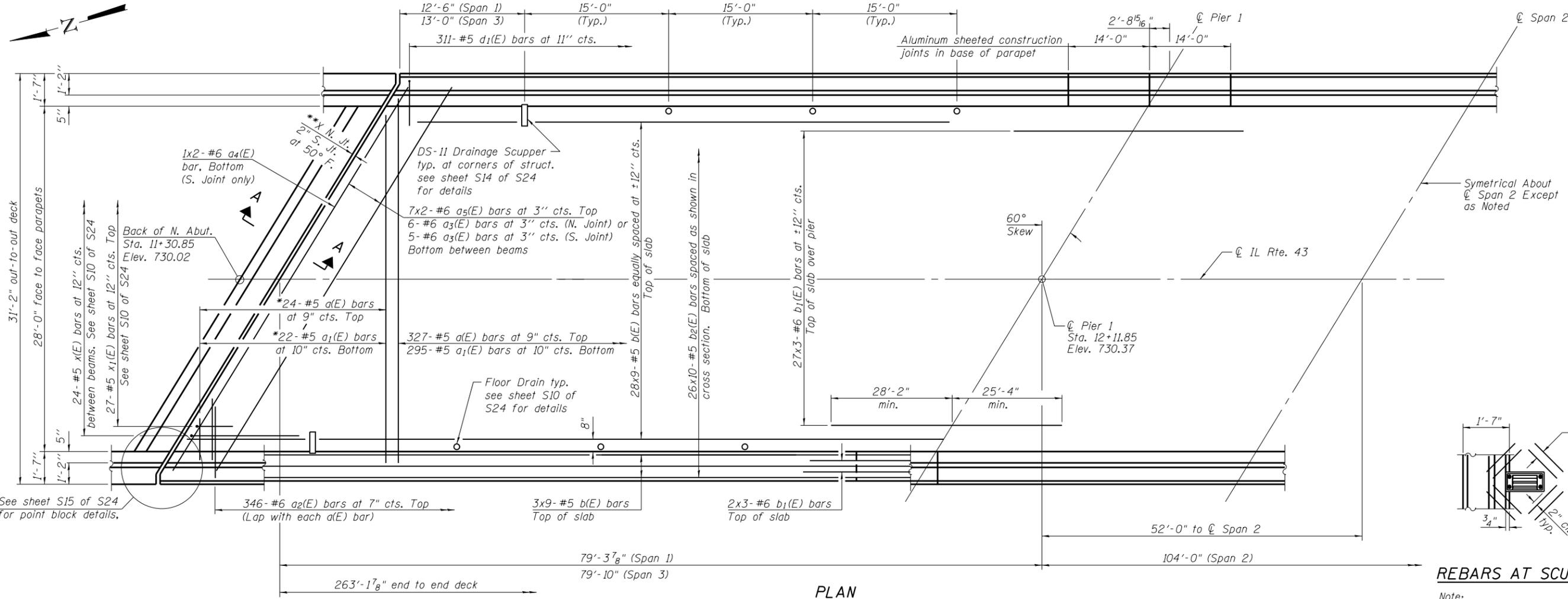
Location	Station	Offset	Theoretical Grade Elevations
N. End South Appr. Pav't	13+96.85	0.00	730.10
A3	14+06.85	0.00	730.06
A4	14+16.85	0.00	730.02
S. End South Appr. Pav't	14+26.85	0.00	729.97

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N. End South Appr. Pav't	13+83.00	8.00	730.03
A3	13+93.00	8.00	729.99
A4	14+03.00	8.00	729.95
S. End South Appr. Pav't	14+13.00	8.00	729.91

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End South Appr. Pav't	13+72.60	14.00	729.95
A3	13+82.60	14.00	729.91
A4	13+92.60	14.00	729.87
S. End South Appr. Pav't	14+02.60	14.00	729.83



REBAR AT SCUPPERS

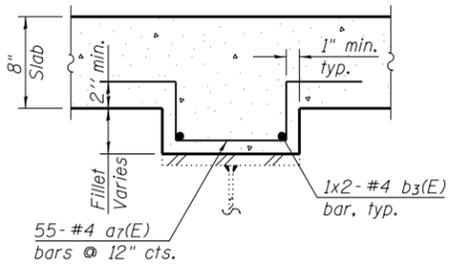
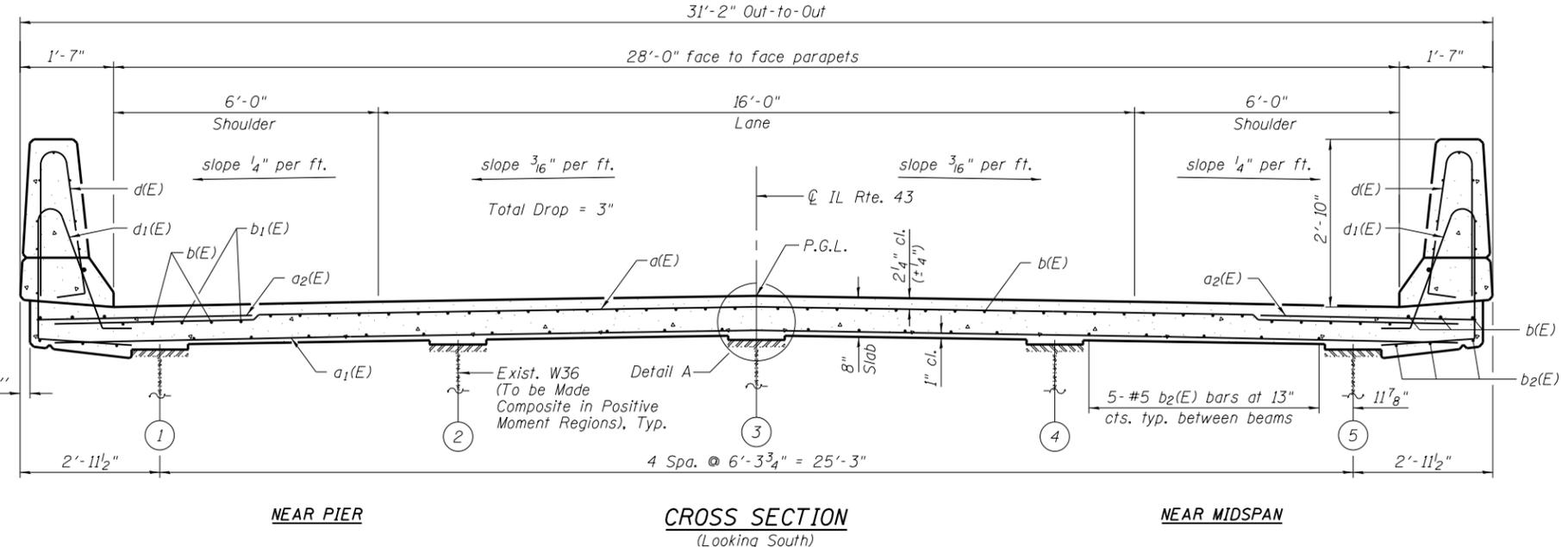
Note:
See sheet S3 and S14 of S24 for drainage scupper details.
Embed drainage scupper 3/4" into the front face of the parapet. Notch parapet to allow removal of grate.
Cut longitudinal reinforcement to clear drainage scuppers.

* Order a(E) and a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.
** Dimension X is determined by manufacturer. A dimension of 8 7/8" was assumed for detailing of structure see sheet S16 of S24 for more details.

MINIMUM BAR LAP

- #4 Bar = 2'-7"
- #5 Bar = 3'-3"
- #6 Bar = 3'-10"

Notes:
See Sheet S10 of S24 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet S10 of S24 for parapet reinforcement.



DETAIL A

For fillets larger than 5 5/8". Quantities in Bill of Material are the estimated bars to be required for Beam 3 in Span 2 between 25' and 80' only. Actual quantities to be determined in field.

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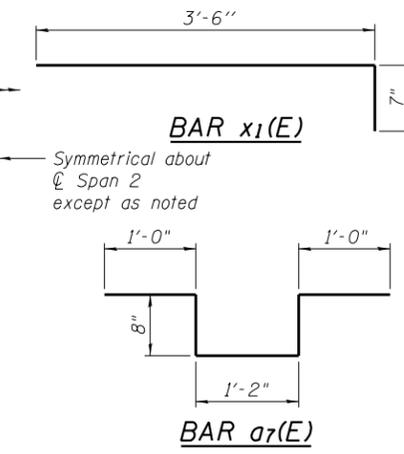
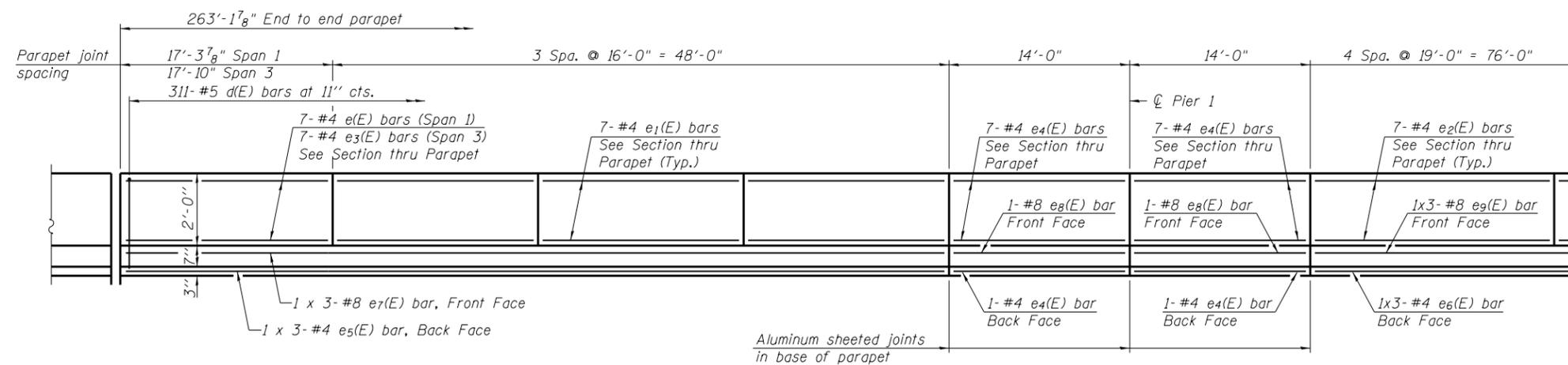
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PLOT DATE	DRAWN - DR	REVISED -
	CHECKED - AMS	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO. 049-0087**

SHEET NO. S9 OF S24 SHEETS

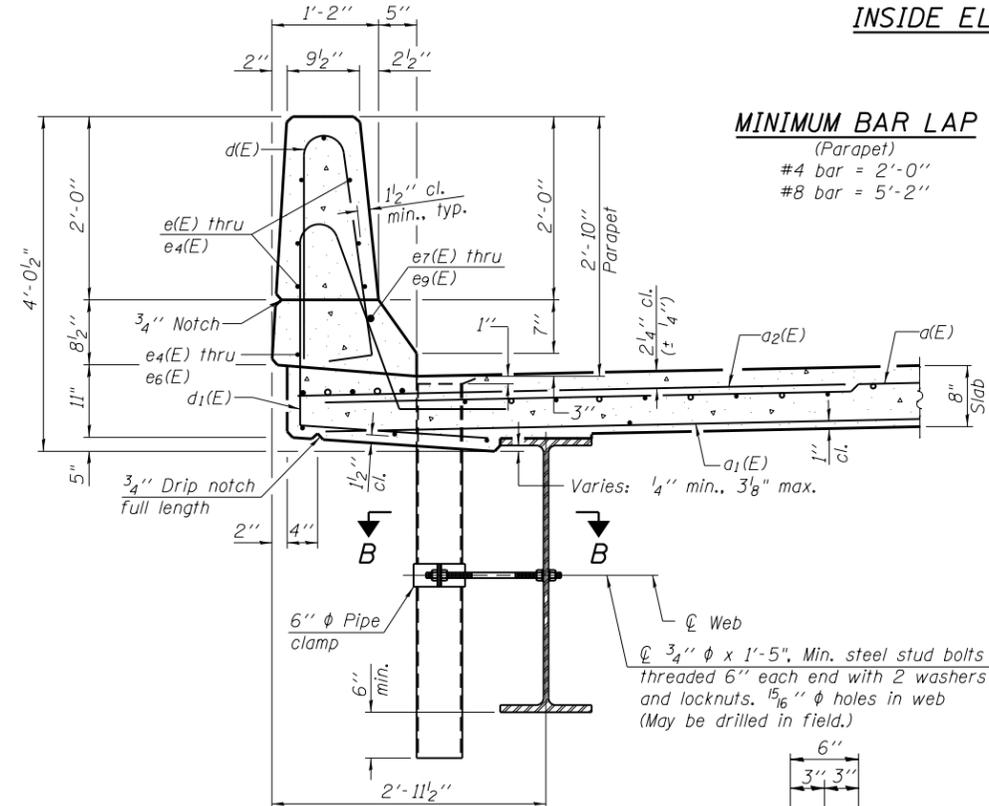
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	26
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				



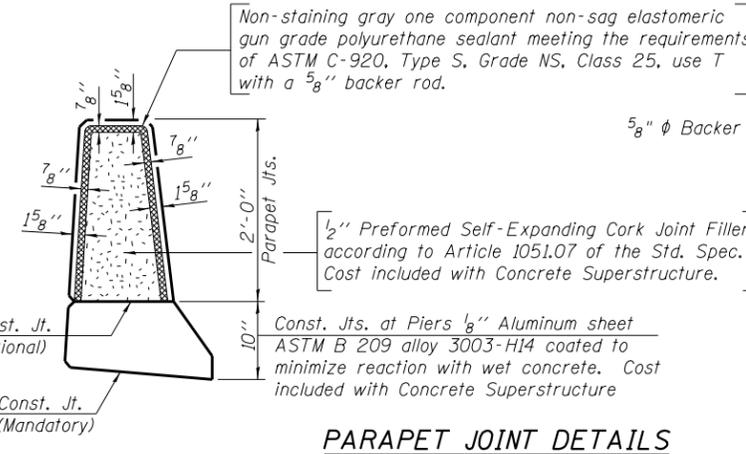
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	351	#5	30'-6"	—
a ₁ (E)	317	#5	29'-10"	—
a ₂ (E)	692	#6	6'-6"	—
a ₃ (E)	44	#6	12'-4"	—
a ₄ (E)	2	#6	27'-11"	—
a ₅ (E)	28	#6	33'-10"	—
a ₆ (E)	32	#5	1'-6"	—
a ₇ (E)	56	#4	4'-6"	—
b(E)	306	#5	32'-2"	—
b ₁ (E)	186	#6	21'-4"	—
b ₂ (E)	260	#5	29'-3"	—
b ₃ (E)	8	#4	28'-10"	—
d(E)	622	#5	5'-7"	—
d ₁ (E)	622	#5	7'-8"	—
e(E)	14	#4	17'-0"	—
e ₁ (E)	84	#4	15'-8"	—
e ₂ (E)	56	#4	18'-8"	—
e ₃ (E)	14	#4	17'-6"	—
e ₄ (E)	64	#4	13'-8"	—
e ₅ (E)	12	#4	23'-4"	—
e ₆ (E)	6	#4	26'-9"	—
e ₇ (E)	12	#8	25'-5"	—
e ₈ (E)	8	#8	13'-8"	—
e ₉ (E)	6	#8	28'-10"	—
x(E)	48	#5	8'-8"	—
x ₁ (E)	54	#5	4'-1"	—
Bridge Deck Grooving	Sq. Yd.		761	
Protective Coat	Sq. Yd.		1,263	
Floor Drains	Each		12	
Reinforcement Bars, Epoxy Coated	Pound		68,300	
Concrete Superstructure	Cu. Yd.		278.7	

INSIDE ELEVATION OF PARAPET



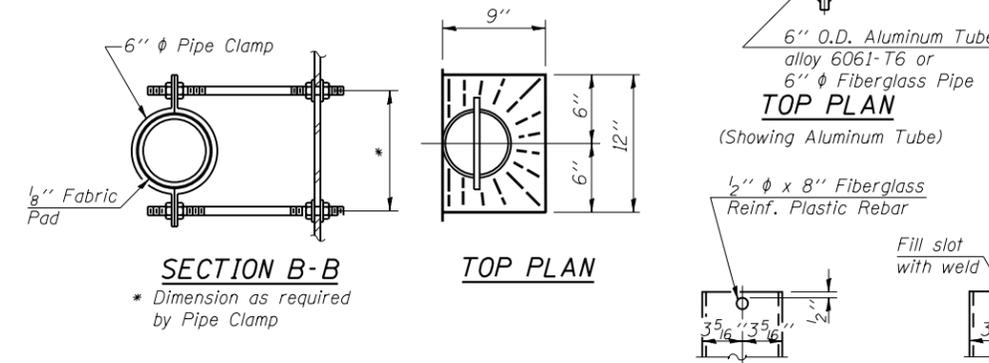
MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"



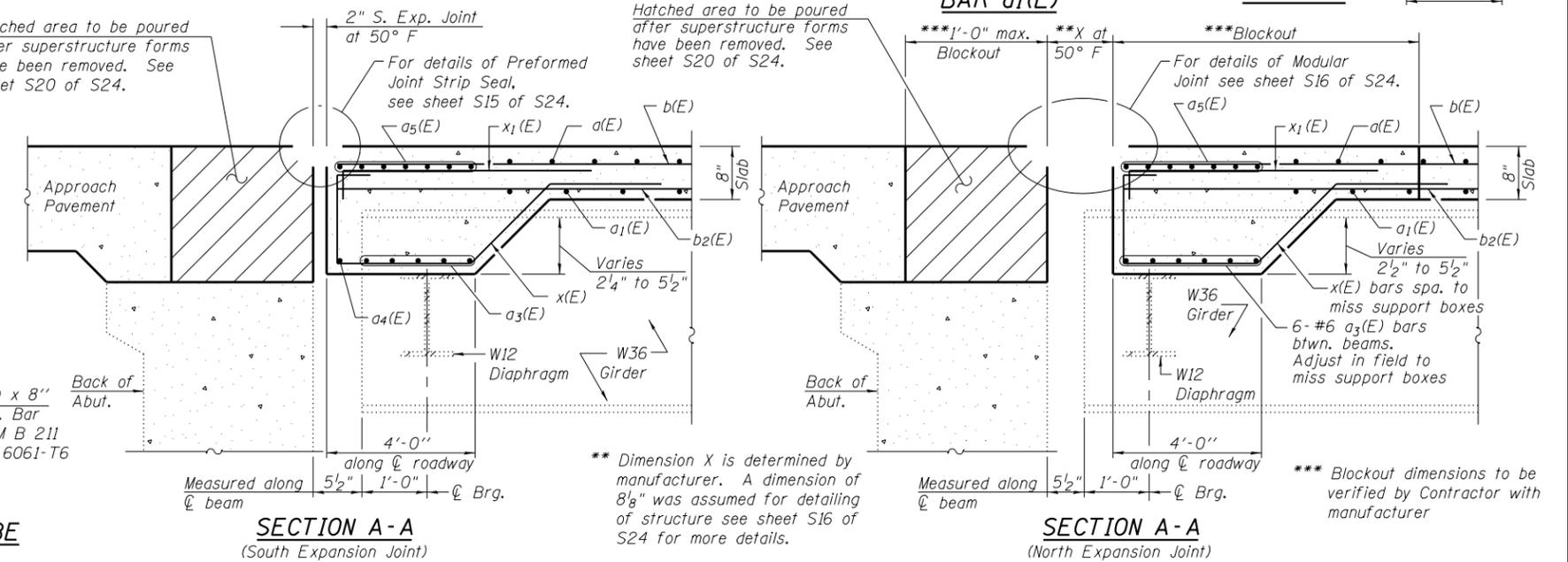
PARAPET JOINT DETAILS

Notes:
Drains shall be located clear of all diaphragms.
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coatings' Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

SECTION THRU PARAPET
For concrete parapet slipform option, see sheet S11 of S24.



FIBERGLASS PIPE ALUMINUM TUBE

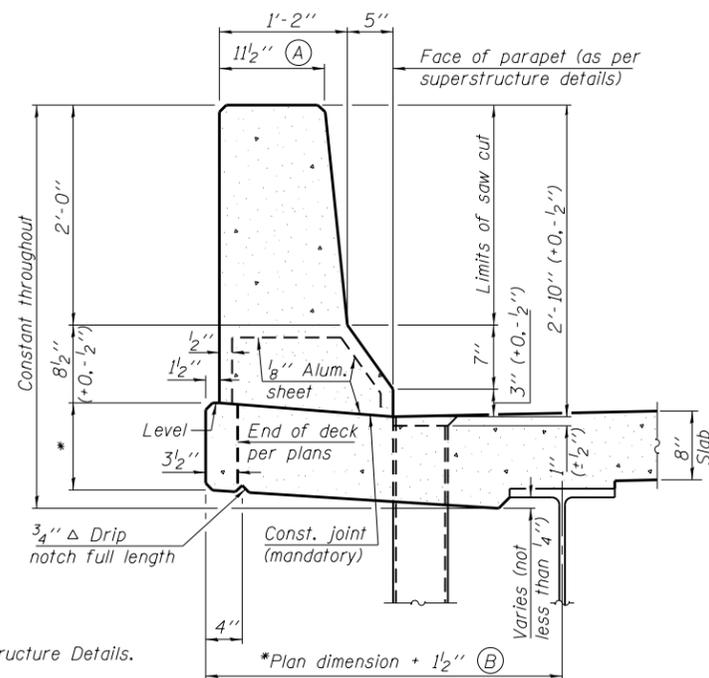


SECTION A-A
(South Expansion Joint)

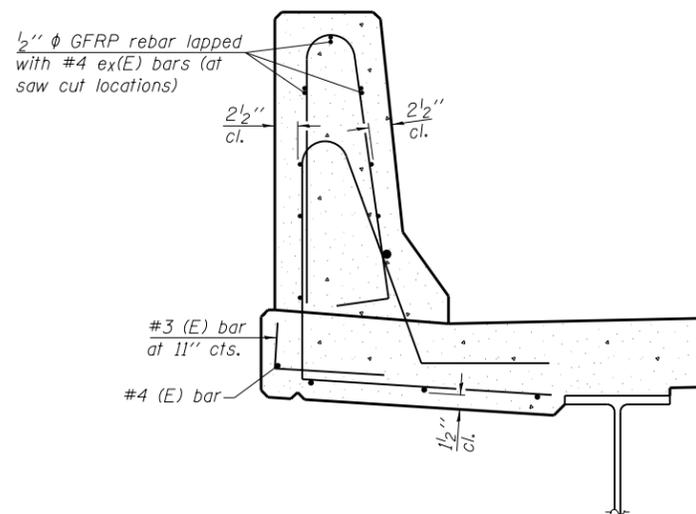
SECTION A-A
(North Expansion Joint)

GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler. Steel superstructure shown. Other superstructure types similar.

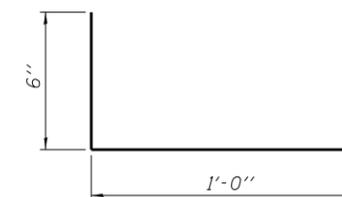


34" F SHAPE PARAPET SECTION
(Showing dimensions)

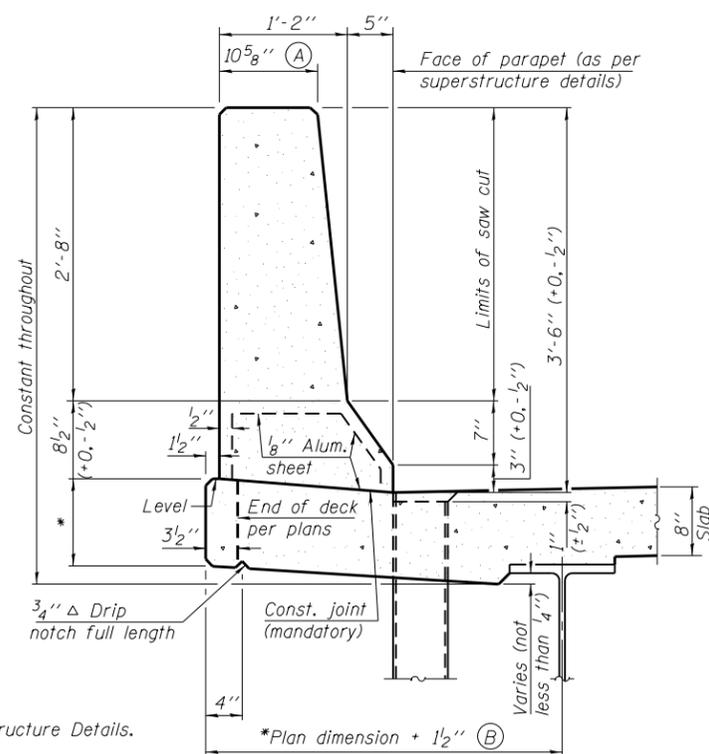


SECTION

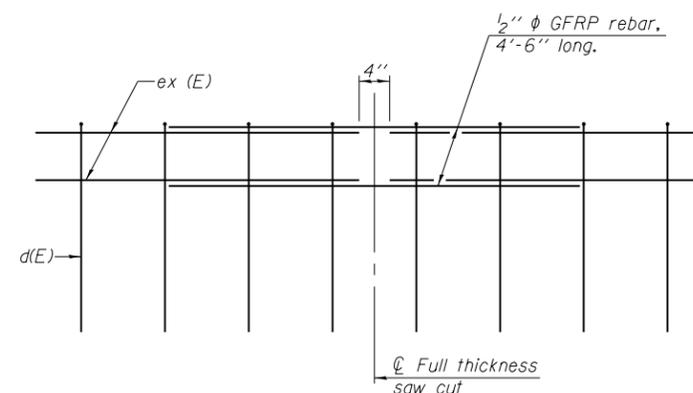
(34" parapet shown - 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)



#3 (E) BAR

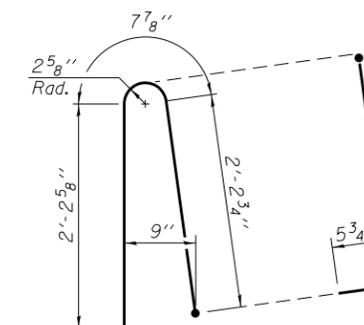


42" F SHAPE PARAPET SECTION
(Showing dimensions)

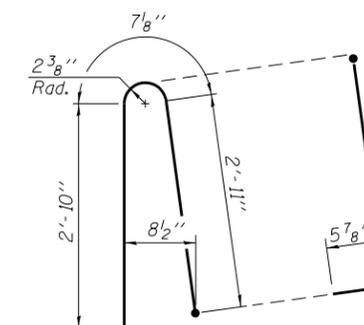


GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)



ALTERNATE BAR d(E)
(For 34" parapet when conduit is present)



ALTERNATE BAR d(E)
(For 42" parapet when conduit is present)

SFP 34-42

8-16-12

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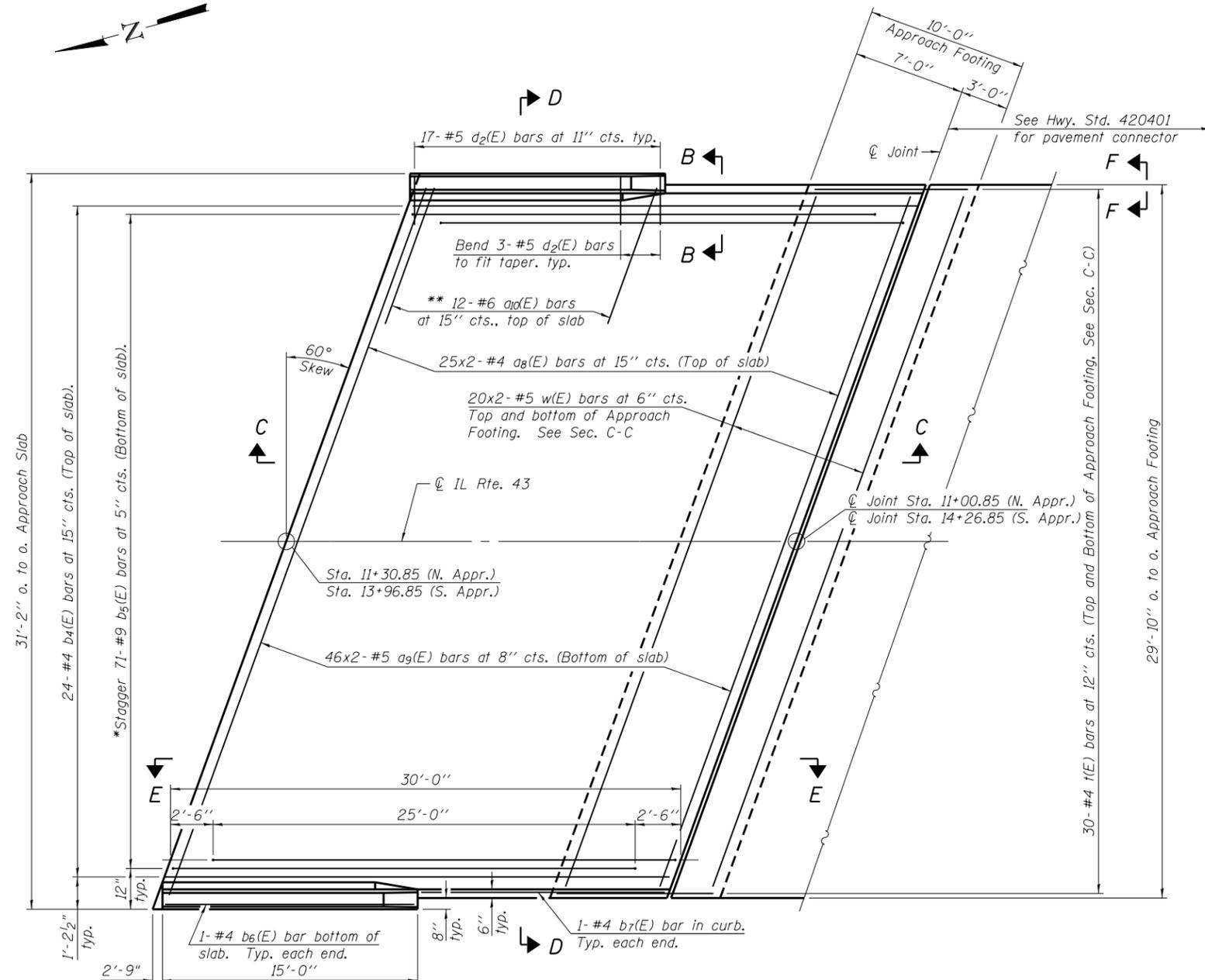
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 049-0087**

SHEET NO. S11 OF S24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	28
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				

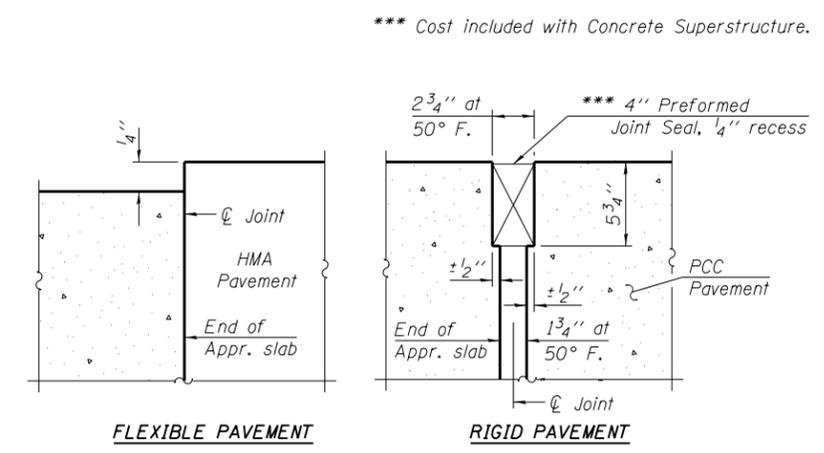
Notes:
See sheet S13 of S24 for Sections C-C & D-D and View E-E.
a₈(E) and a₉(E) bar spacings measured along \hat{C} Rdwy.



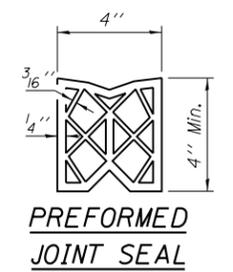
PLAN

(South Approach show, North Approach opposite hand)

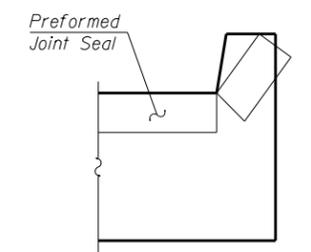
- * Tilt #9 b₅(E) bars as required to maintain clearance.
- ** Space between a₈(E) bars, typ. each parapet.



DETAIL A

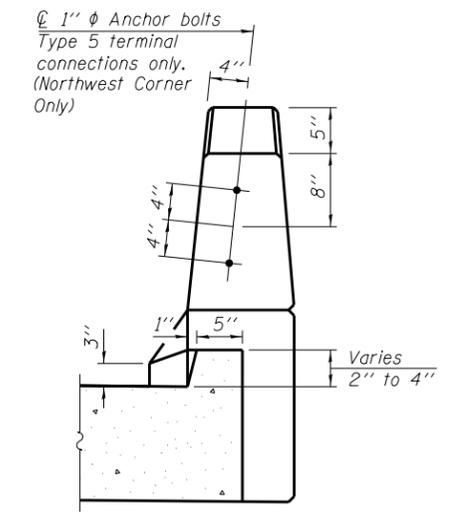


PREFORMED JOINT SEAL



VIEW F-F

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



VIEW B-B

MINIMUM BAR LAP

- #4 Bars = 2'-7"
- #5 Bars = 3'-3"

BA-L

10-9-12

(Sheet 1 of 2)

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PLOT DATE =	CHECKED - AMS	REVISED -

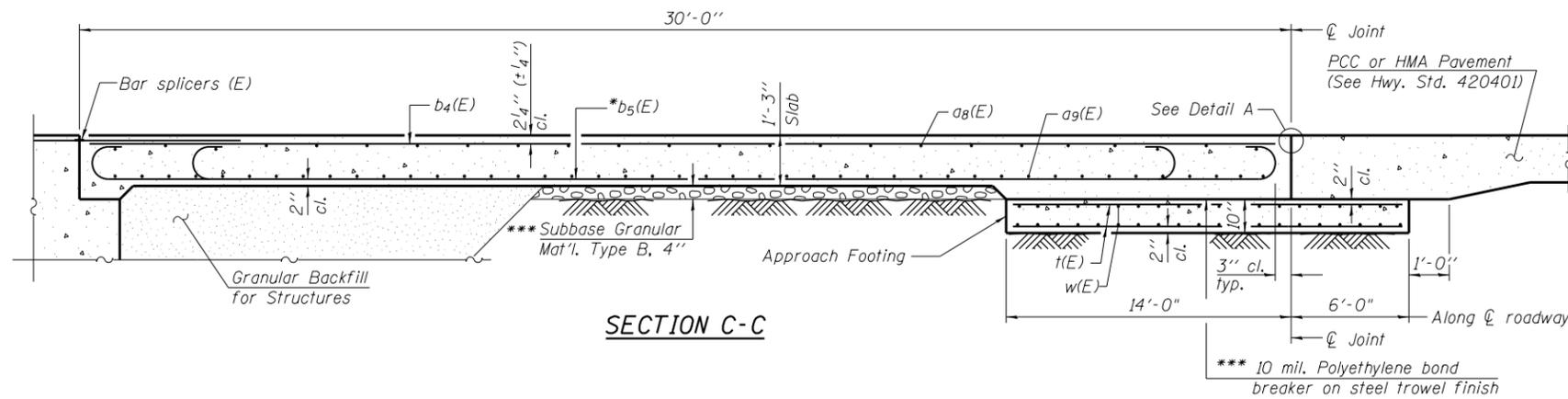
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 049-0087**

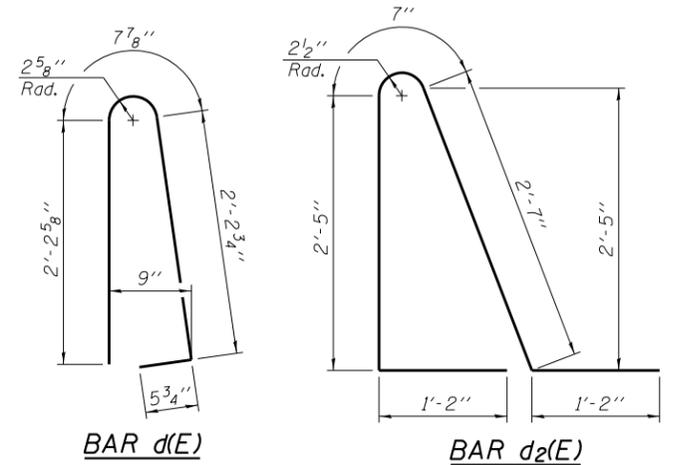
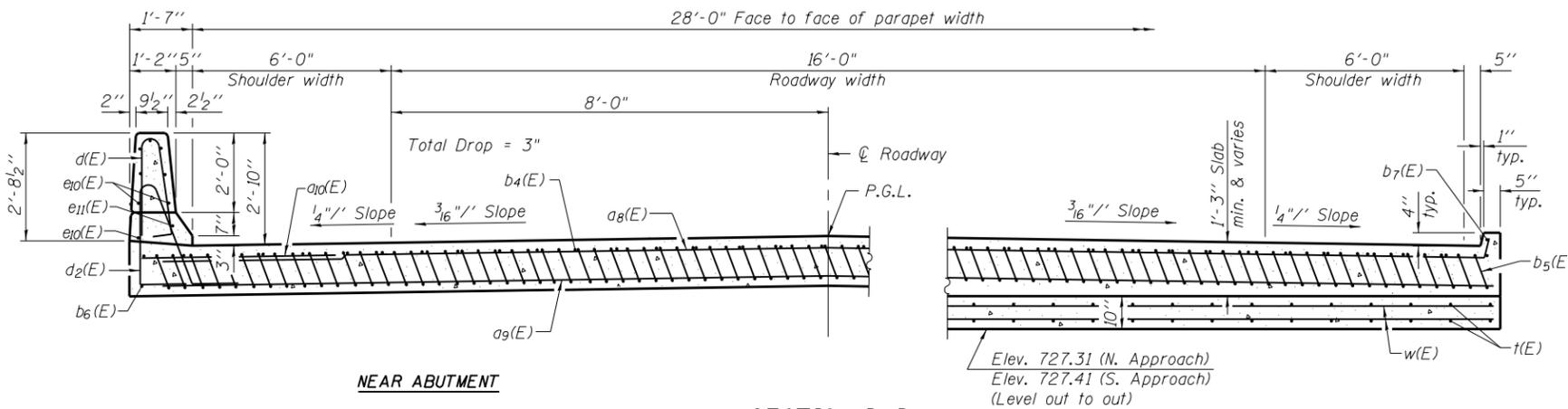
SHEET NO. S12 OF S24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	29
CONTRACT NO. 60R61				

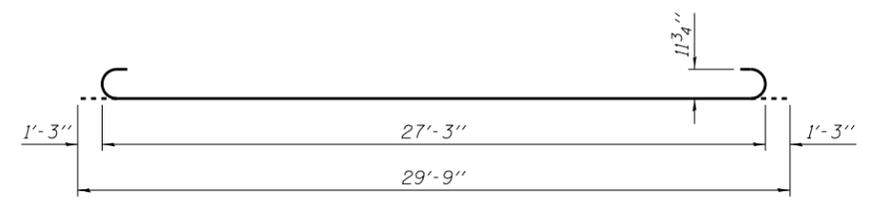
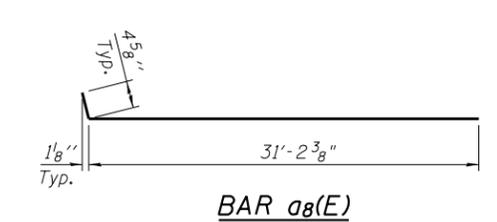
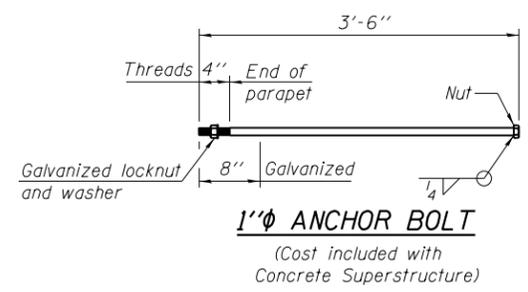
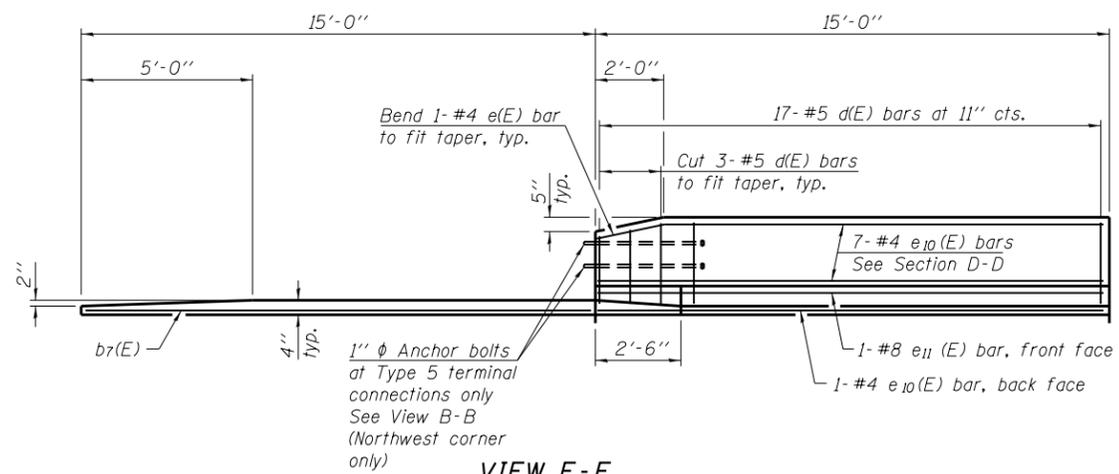
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Notes:
 See sheet S12 of S24 for Detail A and View B-B.
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 For bar splicer details, see sheet S20 and S24 of S24.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet S20 of S24.
 For additional parapet details, see sheet S10 of S24.

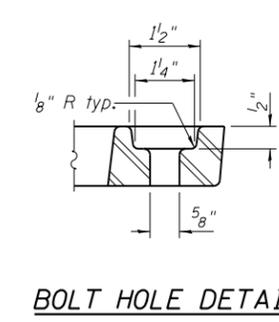
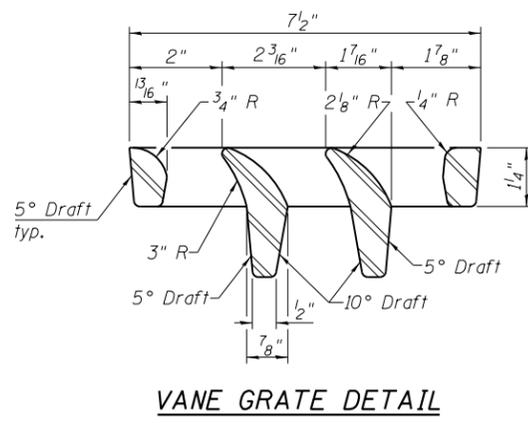
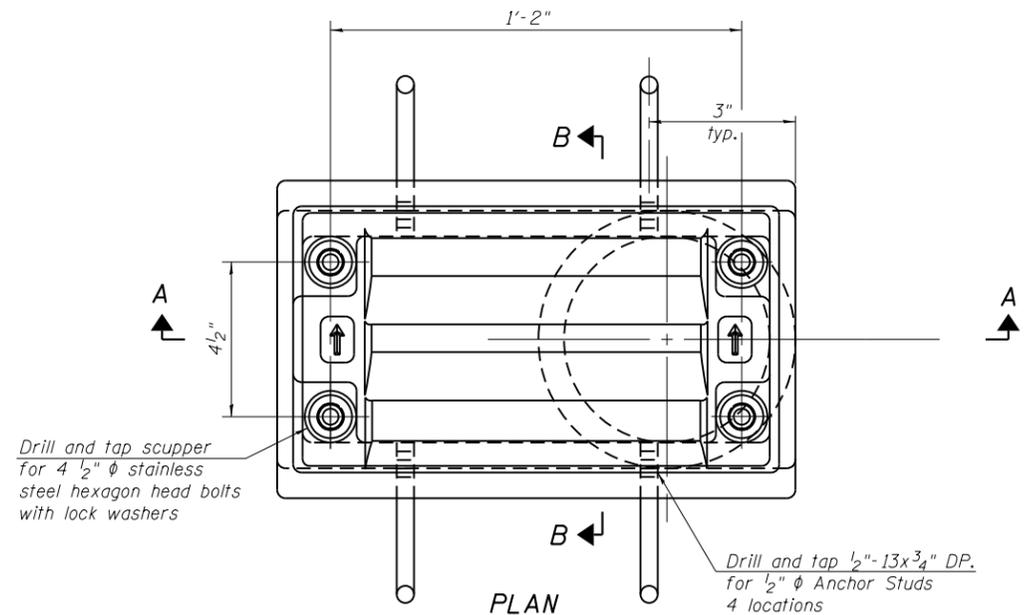


* Tilt #9 b5(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



**TWO APPROACHES
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a8(E)	100	#4	31'-7"	┌───┐
a9(E)	184	#5	31'-6"	┌───┐
a10(E)	48	#6	6'-6"	┌───┐
b4(E)	48	#4	29'-8"	┌───┐
b5(E)	142	#9	29'-9"	┌───┐
b6(E)	4	#4	14'-8"	┌───┐
b7(E)	4	#4	14'-4"	┌───┐
d(E)	68	#5	5'-7"	┌───┐
d2(E)	68	#5	7'-11"	┌───┐
e10(E)	32	#4	14'-8"	┌───┐
e11(E)	4	#8	14'-8"	┌───┐
t(E)	120	#4	19'-8"	┌───┐
w(E)	160	#5	31'-6"	┌───┐
Concrete Superstructure		Cu. Yd.	95.8	
Concrete Structures		Cu. Yd.	18.6	
Bridge Deck Grooving		Sq. Yd.	174	
Protective Coat		Sq. Yd.	288	
Reinforcement Bars, Epoxy Coated		Pound	32,300	



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.

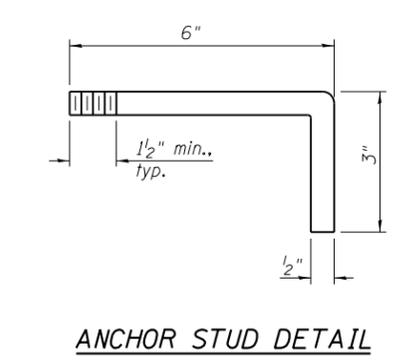
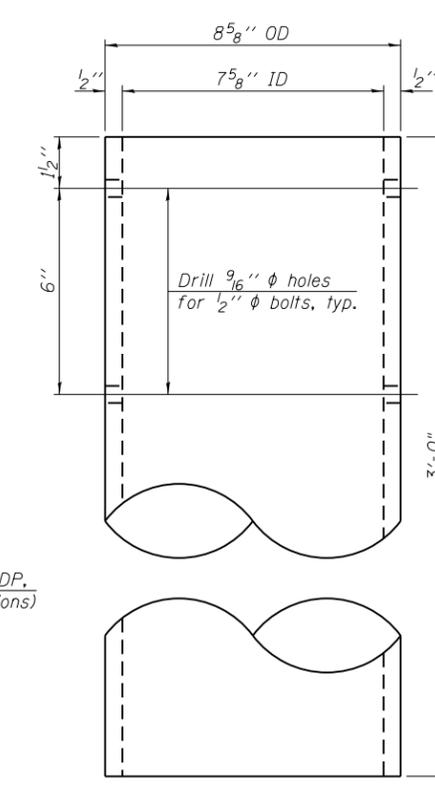
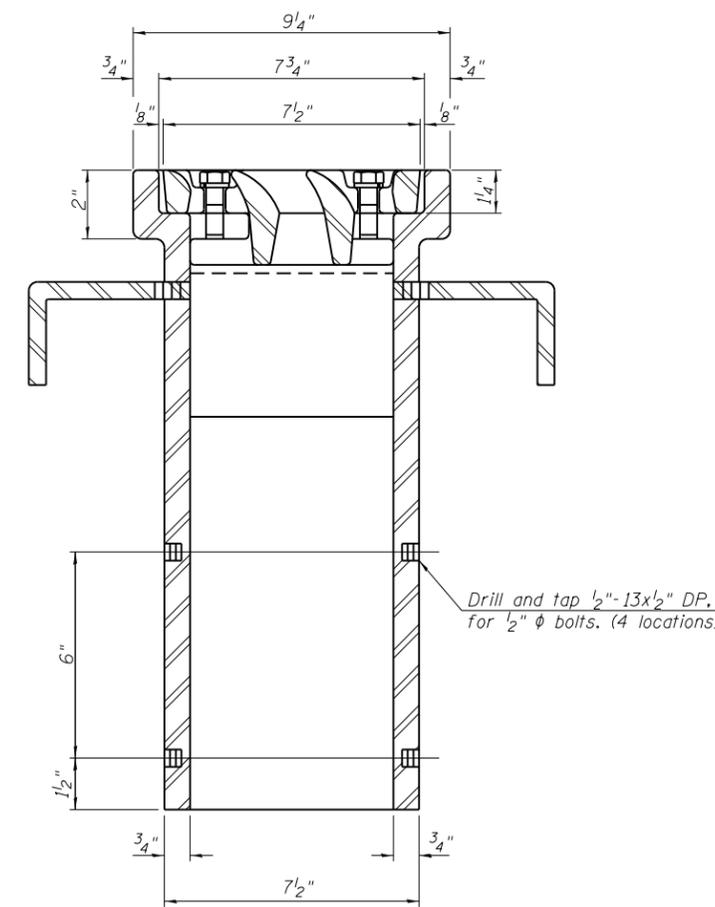
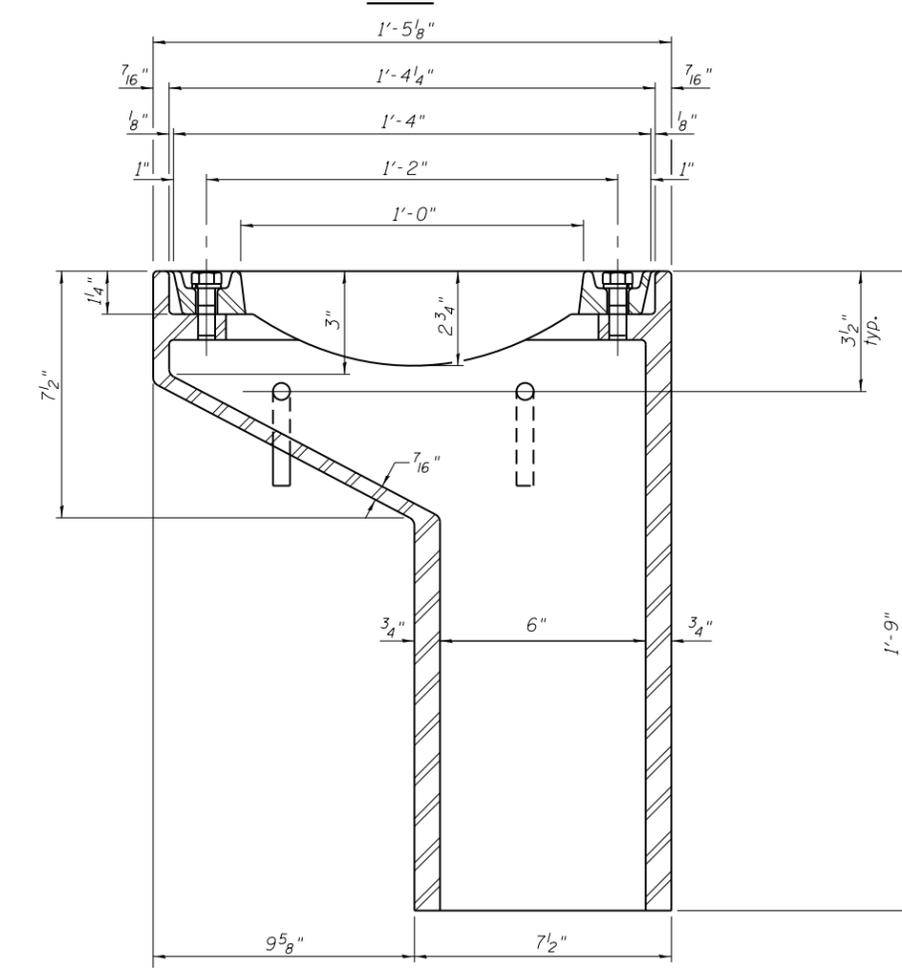
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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.



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

DS-11

7-1-10

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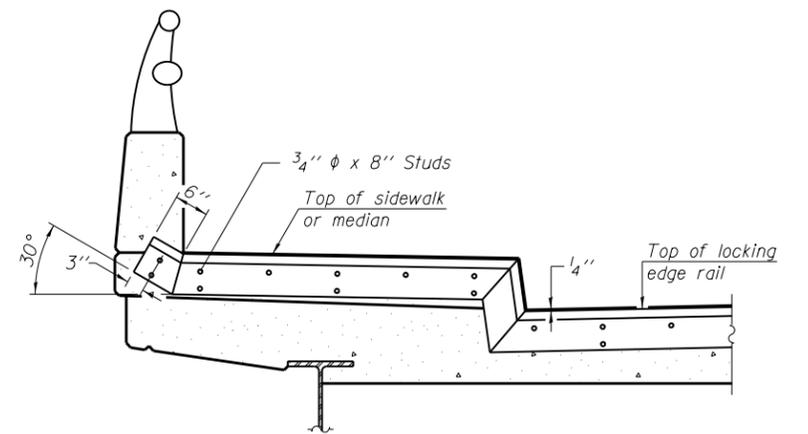
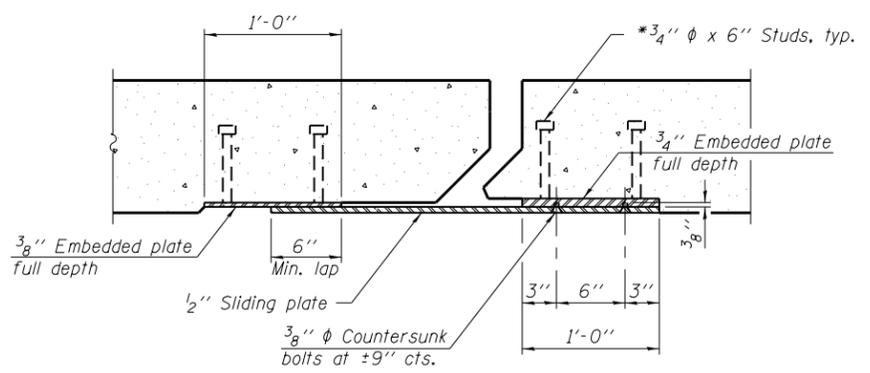
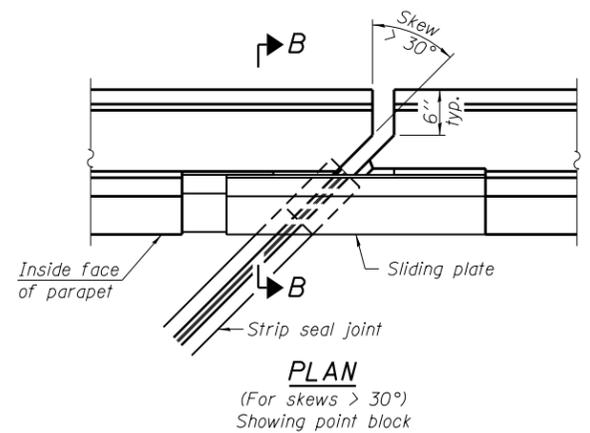
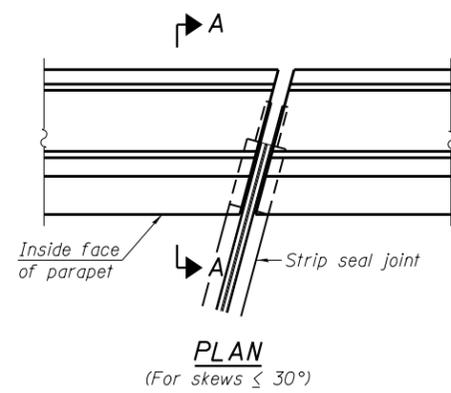
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PLOT SCALE =	CHECKED - JMS	REVISED -
PLOT DATE =	DRAWN - DR	REVISED -
	CHECKED - AMS	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

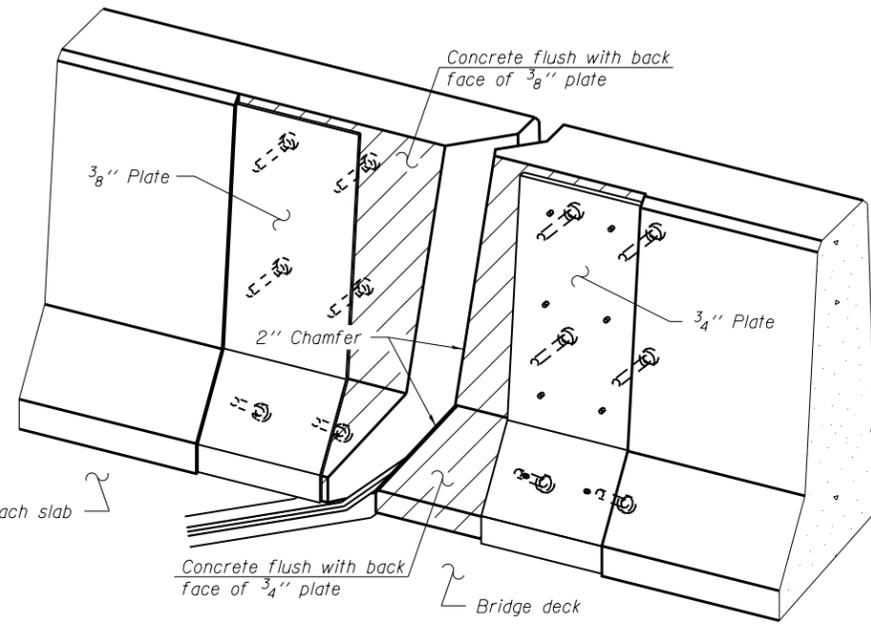
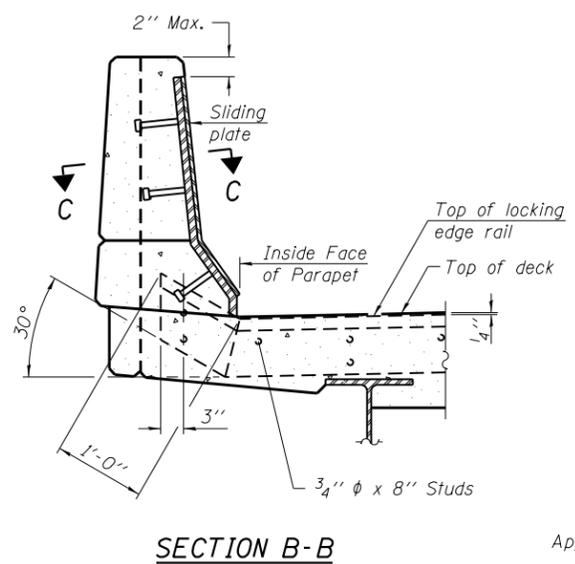
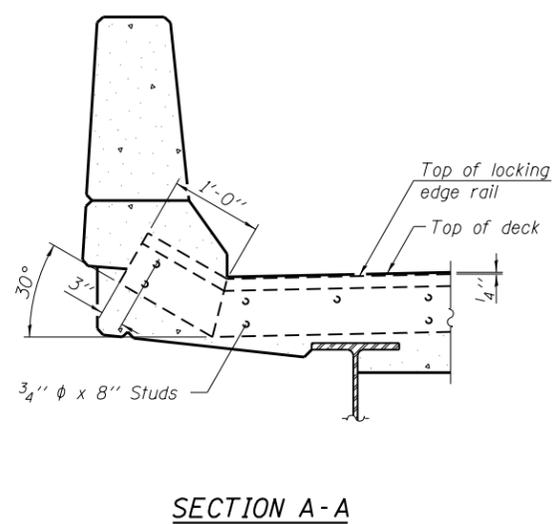
**DRAINAGE SCUPPER, DS-11
 STRUCTURE NO. 049-0087**

SHEET NO. S14 OF S24 SHEETS

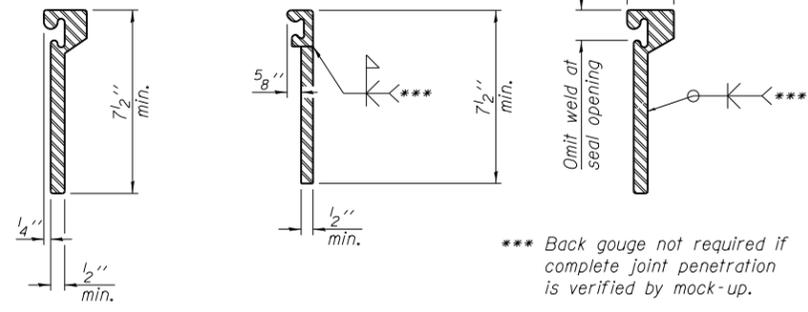
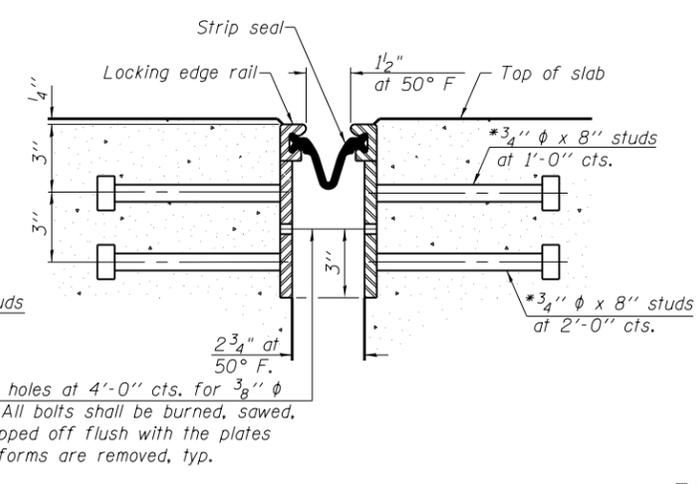
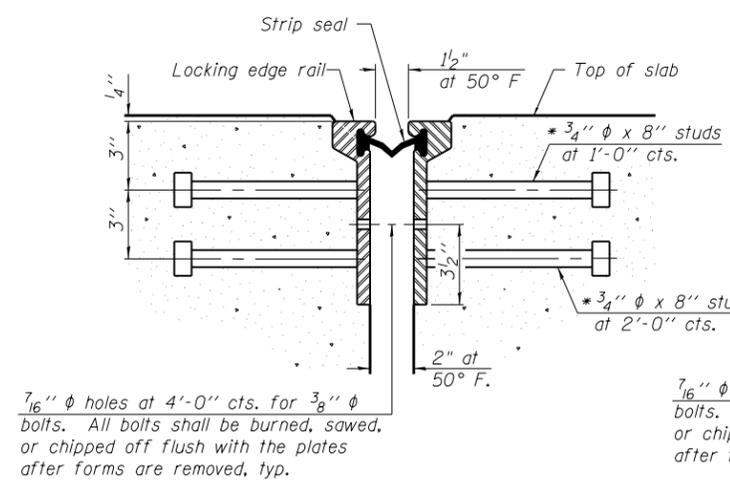
F.A.U. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	31
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				



TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN
 Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



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 shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
 Parapet plates and anchorage studs for skews > 30 degrees included in the cost of Preformed Joint Strip Seal.



SECTION THRU ROLLED RAIL JOINT

SECTION THRU WELDED RAIL JOINT

ROULDED EXTRUDED RAIL WELDED RAIL

LOCKING EDGE RAIL SPLICE

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

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	62.5

EJ-SSJ

1-27-12

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 Suite 300
 Chicago, IL 60606
 (312) 704-9300
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 PLOT DATE =

DESIGNED - AMS
 CHECKED - JMS
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 CHECKED - AMS

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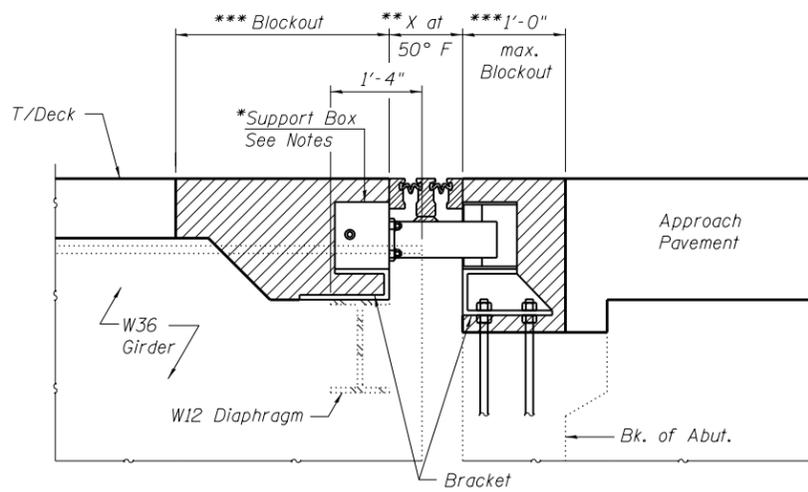
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 049-0087**

SHEET NO. S15 OF S24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	32

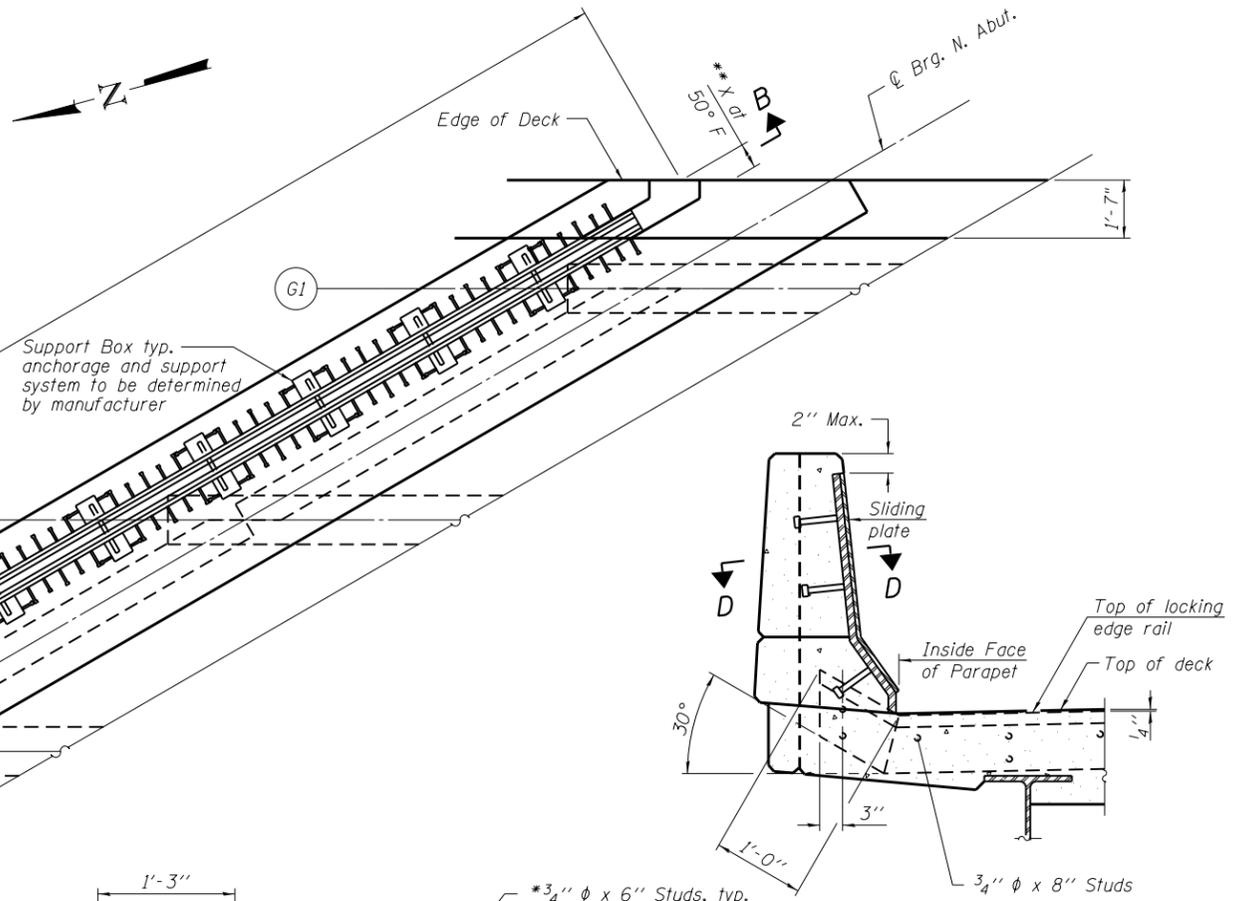
CONTRACT NO. 60R61
 ILLINOIS FED. AID PROJECT



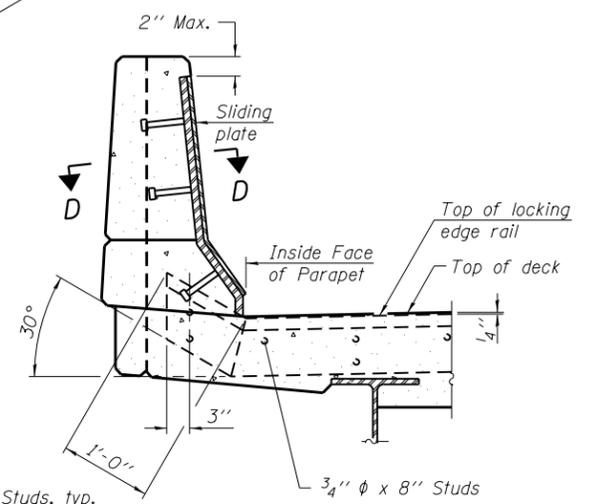
SECTION A-A

Reinforcing not shown for clarity.

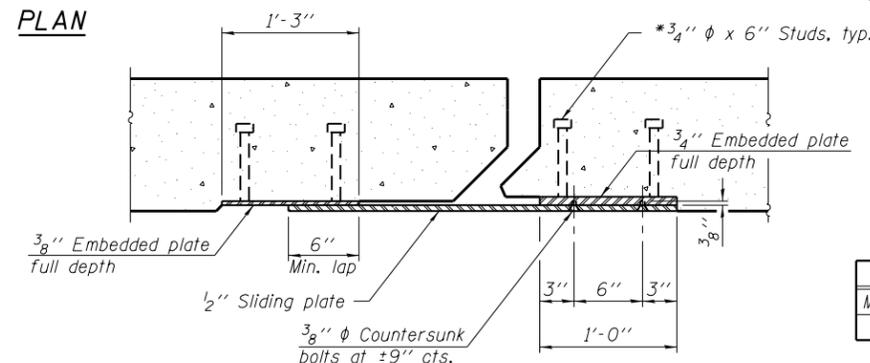
- * Support box shall be rigidly attached to diaphragm by adjustable brackets, stools or shims.
- ** Dimension X and no. of rails is determined by manufacturer. A dimension of 8 1/2" was assumed for detailing of structure.
- *** Blockout dimension to be verified by Contractor with manufacturer.



PLAN



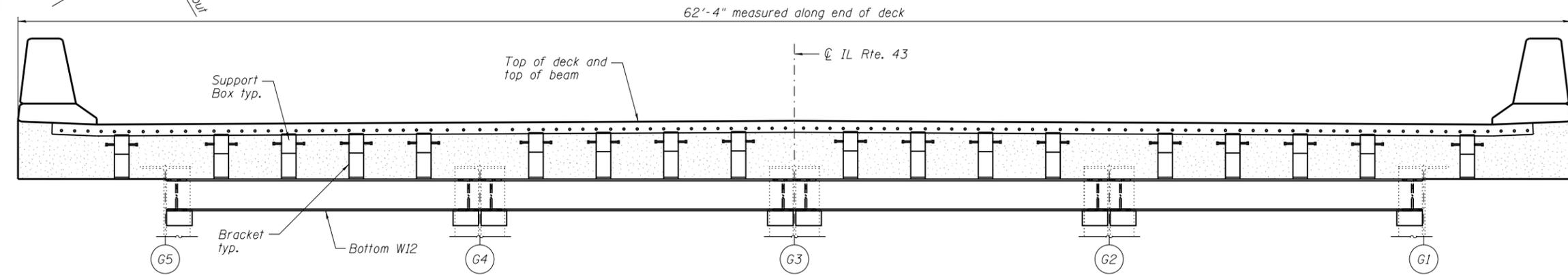
SECTION C-C



SECTION D-D

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint, 6"	Foot	62.5



SECTION B-B

Notes:
 Anchorage and support system shall be determined by manufacturer.
 Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
 For deck reinforcing see sheets S9 & S10 of S24.
 For isometric view of joint see sheet S15 of S24.

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PLOT SCALE =	CHECKED - JMS	REVISED -
PLOT DATE =	DRAWN - DR	REVISED -
	CHECKED - AMS	REVISED -

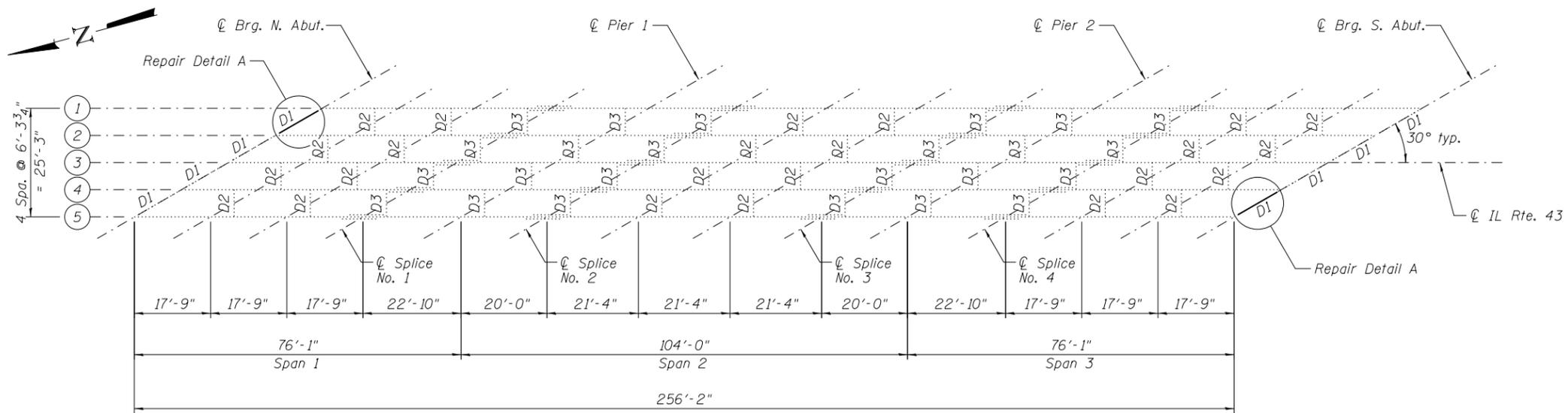
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MODULAR EXPANSION JOINT
 STRUCTURE NO. 049-0087**

SHEET NO. S16 OF S24 SHEETS

F.A.U. RTE. 2706	SECTION 125HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 33
CONTRACT NO. 60R61				

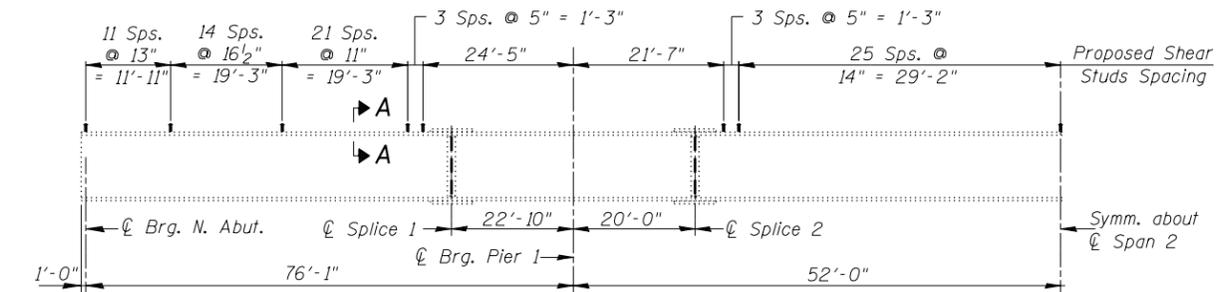
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INTERIOR BEAM MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 2	Pier	0.5 Sp. 2
I_s	(in ⁴) 15,000	21,254	15,000
$I_c(n)$	(in ⁴) 37,066		39,669
$I_c(3n)$	(in ⁴) 25,801		27,080
S_s	(in ³) 836	1,184	836
$S_c(n)$	(in ³) 1,266		1,274
$S_c(3n)$	(in ³) 1,097		1,108
Z	(in ³)	701	
ϕ	(k/ft.) 0.98	1.54	0.98
$M\phi$	(k) 318	1,262	466
$s\phi$	(k/ft.) 0.50		0.50
$M_s\phi$	(k) 191		284
M_L	(k) 522	423	654
M_I	(k) 130	98	152
$S_3 [M_L + I]$	(k) 1,087	868	1,343
M_a	(k) 2,074	2,769	2,721
M_u	(k) 3,996	3,504	4,076
$f_s \phi$ non-comp	(ksi) 4.6	12.8	6.7
$f_s \phi$ (comp)	(ksi) 2.1		3.1
$f_s S_3 [M_L + M_I]$	(ksi) 10.3	8.8	12.7
f_s (Overload)	(ksi) 17.0	21.6	22.4
f_s (Total)	(ksi)		
VR	(k)	54.6	56.6

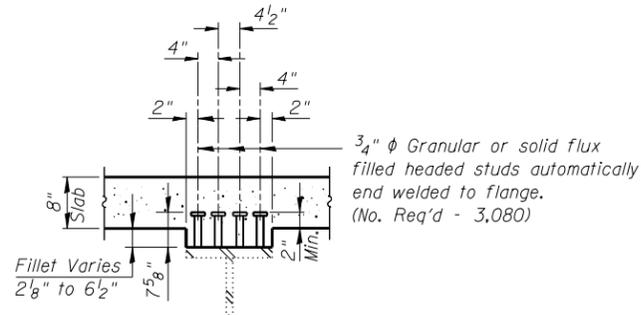
* Compact section
 ** Braced non-compact and partially braced section

INTERIOR BEAM REACTION TABLE		
	Abut.	Pier
$R\phi$	(k) 39.7	150.7
R_L	(k) 39.7	50.3
R_I	(k) 9.8	11.6
R_{Total}	(k) 89.2	212.6



TOP OF EXISTING BEAM ELEVATION (UNDEFLECTED) ***					
Beam	1	2	3	4	5
☉ Brg. N. Abut.	729.04	729.09	729.07	728.99	728.84
☉ Splice No. 1	729.21	729.28	729.28	729.21	729.08
☉ Pier No. 1	729.24	729.32	729.33	729.27	729.15
☉ Splice No. 2	729.27	729.35	729.37	729.32	729.21
☉ Splice No. 3	729.25	729.36	729.40	729.37	729.28
☉ Pier No. 2	729.21	729.32	729.37	729.35	729.27
☉ Splice No. 4	729.16	729.28	729.34	729.33	729.25
☉ Brg. S. Abut.	728.96	729.11	729.18	729.19	729.13

*** Elevations have been converted from the NGVD 29 datum on the Existing Plans dated May 15, 1956 to the current NAVD 88 datum by subtracting 0.322 ft.



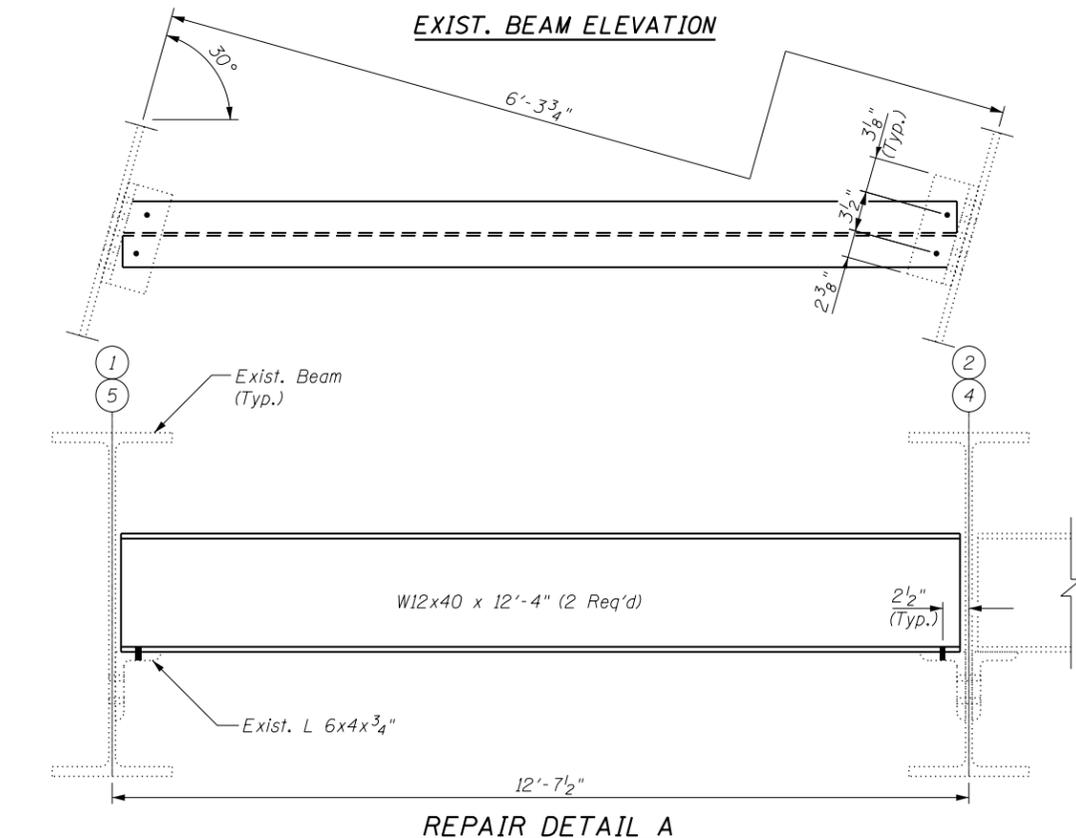
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	990
Stud Shear Connectors	Unit	3,080

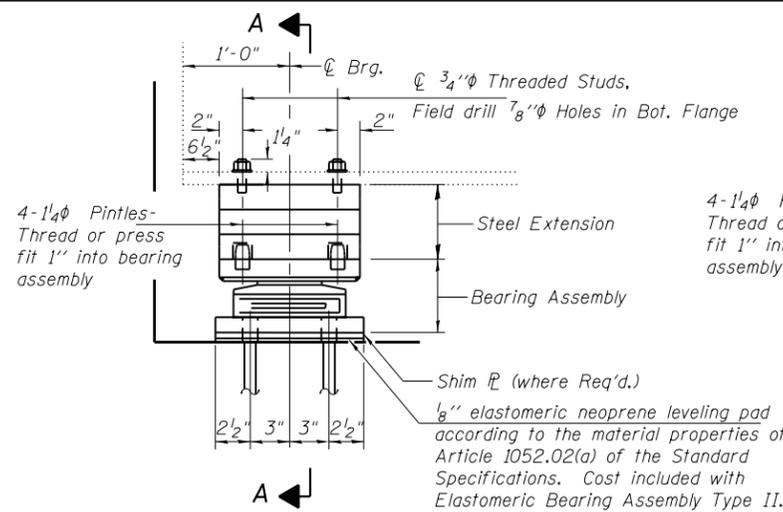
Notes:

Field drill holes in new diaphragms.

Cost of removal and disposal of existing diaphragms shall be included with Structural Steel Repair.



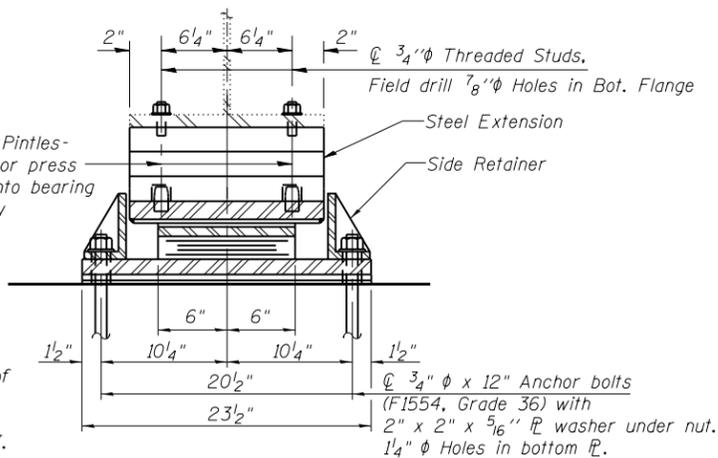
I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).
 $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) 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 and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).
 Z : Plastic Section Modulus of the steel section in non-composite areas (in³).
 ϕ : Un-factored non-composite dead load (kips/ft.).
 $M\phi$: Un-factored moment due to non-composite dead load (kip-ft.).
 $s\phi$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
 $M_s\phi$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
 M_L : Un-factored live load moment (kip-ft.).
 M_I : Un-factored moment due to impact (kip-ft.).
 M_a : Factored design moment (kip-ft.).
 $1.3 [M\phi + M_s\phi + \frac{5}{3} (M_L + M_I)]$
 M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
 f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M\phi + M_s\phi + \frac{5}{3} (M_L + M_I)$
 f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M\phi + M_s\phi + \frac{5}{3} (M_L + M_I)]$
 VR: Maximum ϕ + impact shear range within the composite portion of the span for stud shear connector design (kips).



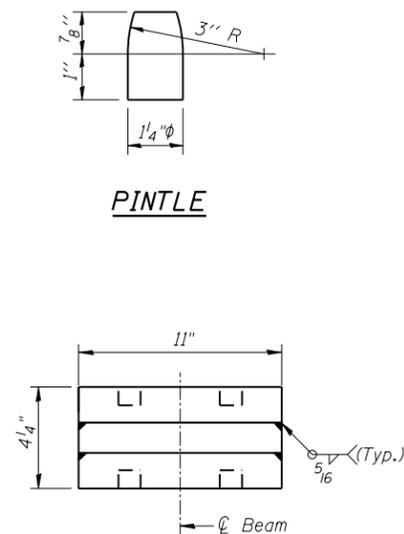
ELEVATION AT ABUT.

TYPE II ELASTOMERIC EXP. BRG.

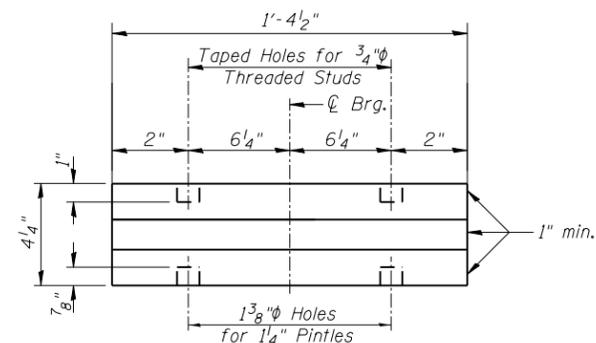
No. Required = 5



SECTION A-A



END VIEW STEEL EXTENSION



ELEVATION STEEL EXTENSION

(5 Required)
Weight included with Furnishing and Erecting Structural Steel.

* Existing Plate to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange.

* \varnothing Anchor Bolts Burn existing anchor bolts (2 bolts spa. @ 12" ea. side of \varnothing beam) flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost included with Jack & Remove Existing Bearings.

EXIST. ABUTMENT BEARINGS TO BE REMOVED

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	5
Jack & Remove Exist. Bearings	Each	5
Anchor Bolts, $\frac{3}{4}$ "	Each	20
Furnishing and Erecting Structural Steel	Pound	1120

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. 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.

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 elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

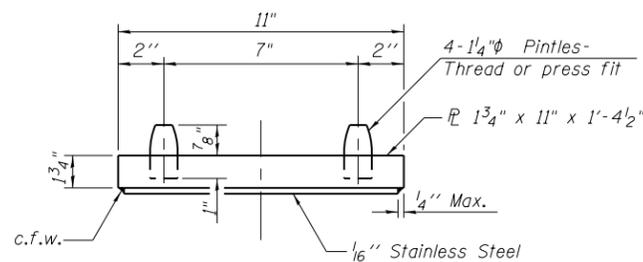
The $\frac{1}{8}$ " PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of $\frac{1}{8}$ " PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

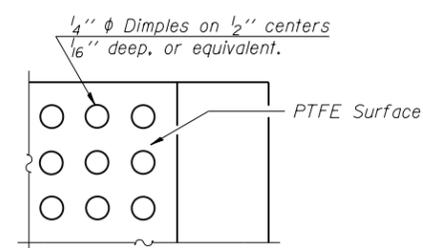
Two $\frac{1}{8}$ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Weight of steel extensions is included with Furnishing and Erecting Structural Steel.

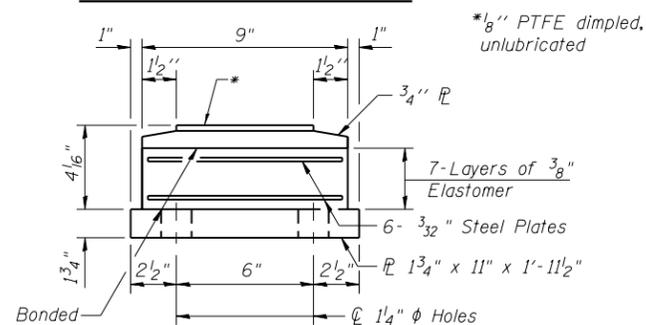
The overall depth dimension for the new bearing and steel extension shall match the total depth of the replaced existing bearing. The Contractor shall field verify existing dimensions before ordering material.



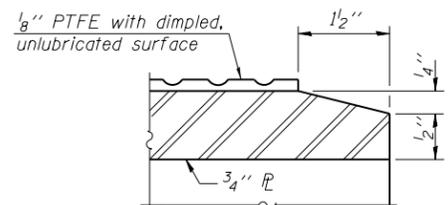
TOP BEARING ASSEMBLY



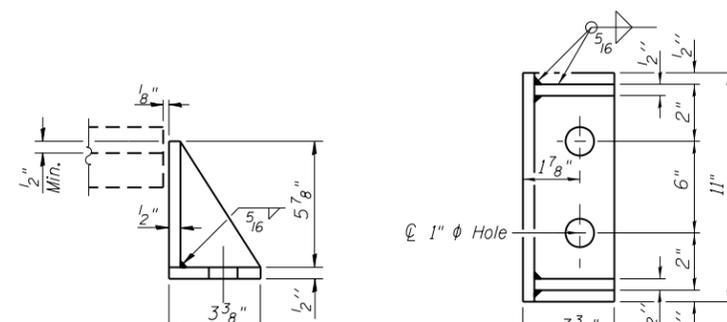
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

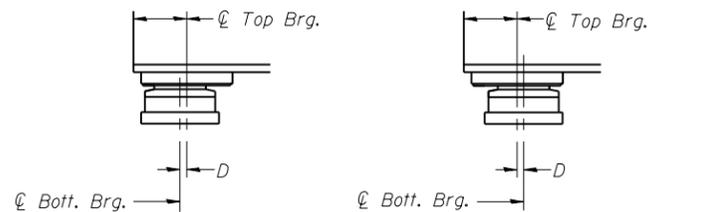


SECTION THRU PTFE



SIDE RETAINER

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

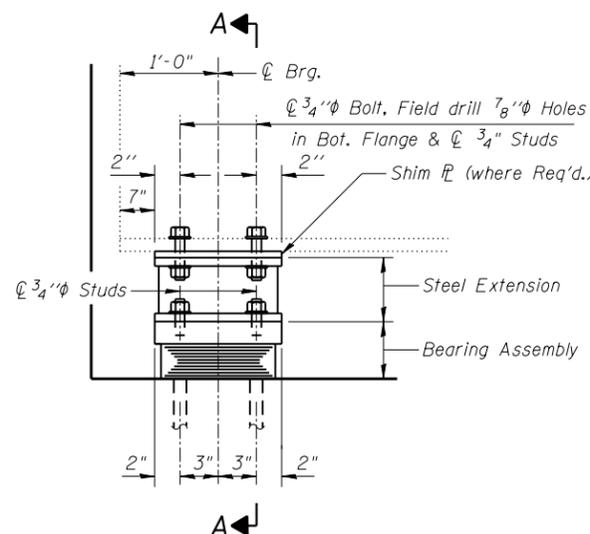


SETTING ANCHOR BOLTS AT EXP. BRG.

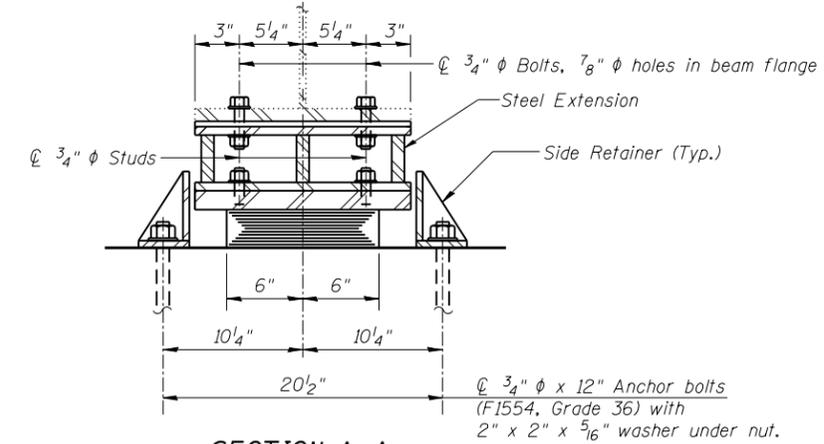
D= $\frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

NOTES - JACK AND REMOVE EXIST. BEARING

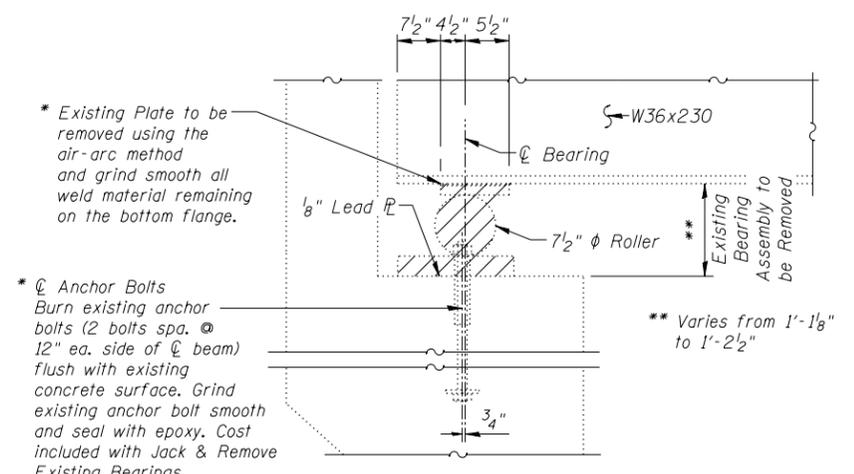
- The work shall be done in accordance with the special provision "Jack and Remove Existing Bearings."
- Jacking and removing existing bearings, including top and bottom plates and lead plates, shall be done after deck removal is completed and before the new deck is poured. Minimum Jack size = 10 tons. R_{Steel} = 7 kips
- The new bearings shall be in place and the jacks shall be lowered before the new deck is poured.
- Cost of field drilling holes in bottom flanges is included with Jack & Remove Exist. Bearing.



ELEVATION AT ABUT.



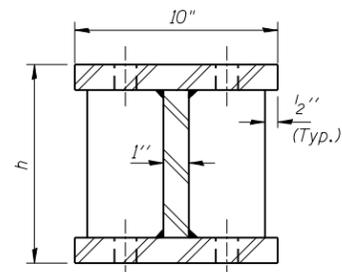
SECTION A-A



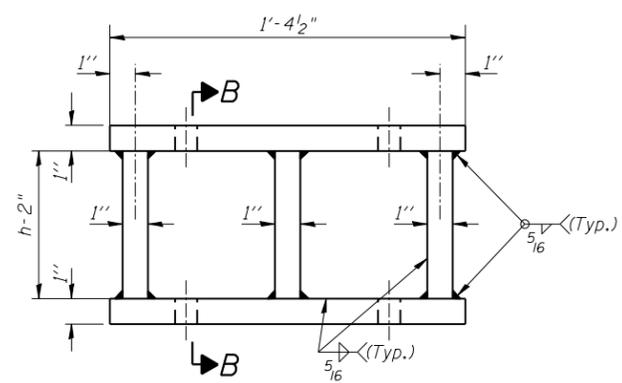
EXIST. ABUTMENT BEARINGS TO BE REMOVED

TYPE I ELASTOMERIC EXP. BRG.

No. Required = 5

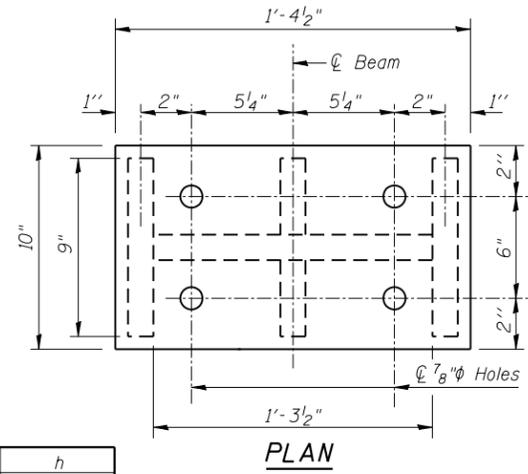


SECTION B-B



ELEVATION STEEL EXTENSION

(5 Required)
Weight included with Furnishing and Erecting Structural Steel.

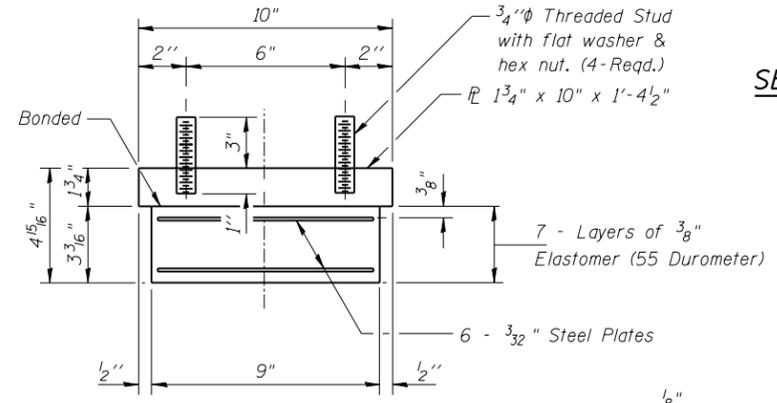


PLAN

Girder	h
5	8 ¹⁵ / ₁₆ "
4	8 ³ / ₁₆ "
3	8 ¹³ / ₁₆ "
2	9 ⁹ / ₁₆ "
1	8 ⁵ / ₁₆ "

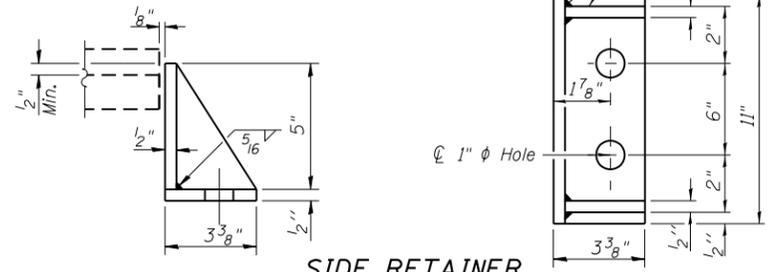
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Jack & Remove Exist. Bearings	Each	5
Anchor Bolts, 3/4"	Each	20
Furnishing and Erecting Structural Steel	Pound	870



BEARING ASSEMBLY

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



SIDE RETAINER

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

NOTES - JACK AND REMOVE EXIST. BEARING

- The work shall be done in accordance with the special provision "Jack and Remove Existing Bearings."
- Jacking and removing existing bearings, including top and bottom plates and lead plates, shall be done after deck removal is completed and before the new deck is poured. Minimum Jack size = 10 tons. R_{Steel} = 7 kips
- The new bearings shall be in place and the jacks shall be lowered before the new deck is poured.
- Cost of field drilling holes in bottom flanges is included with Jack & Remove Exist. Bearing.

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 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for side retainers shall be installed in holes drilled in concrete through holes inside retainers after members are in place.

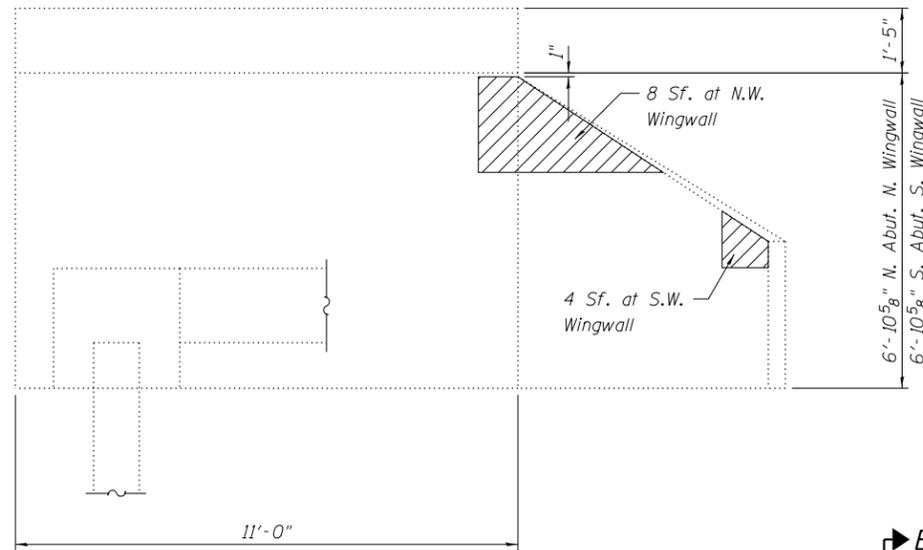
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

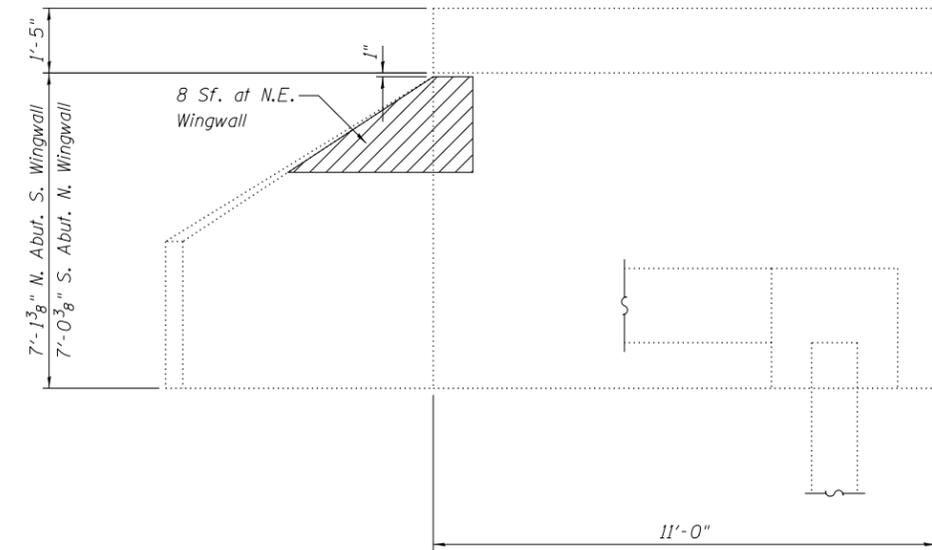
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Weight of steel extensions is included with Furnishing and Erecting Structural Steel.

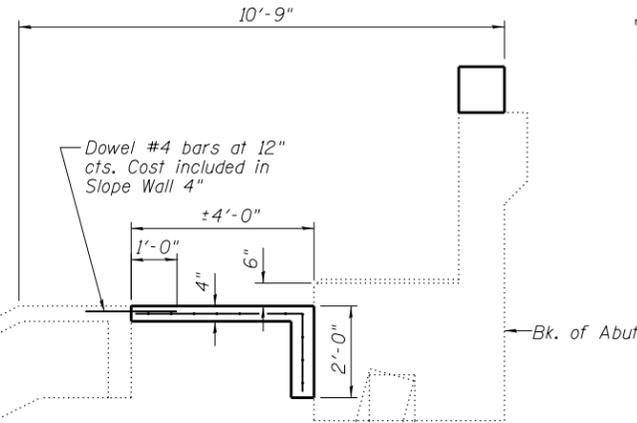
The overall depth dimension for the new bearing and steel extension shall match the total depth of the replaced existing bearing. The Contractor shall field verify existing dimensions before ordering material.



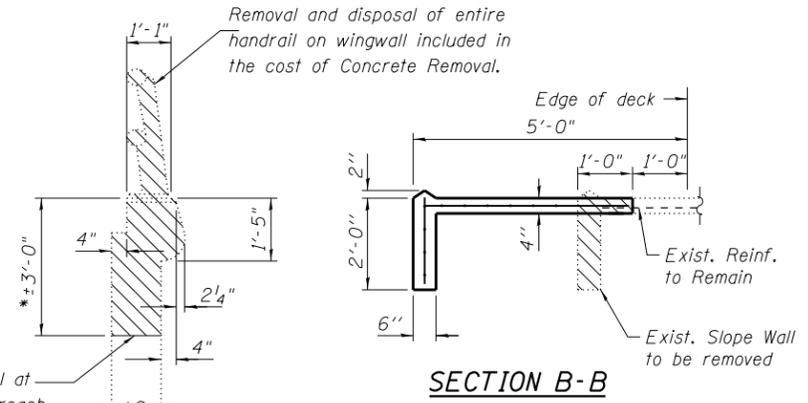
WINGWALL ELEVATION



WINGWALL ELEVATION



SECTION THRU CONCRETE SLOPE WALL



SECTION A-A

SECTION B-B

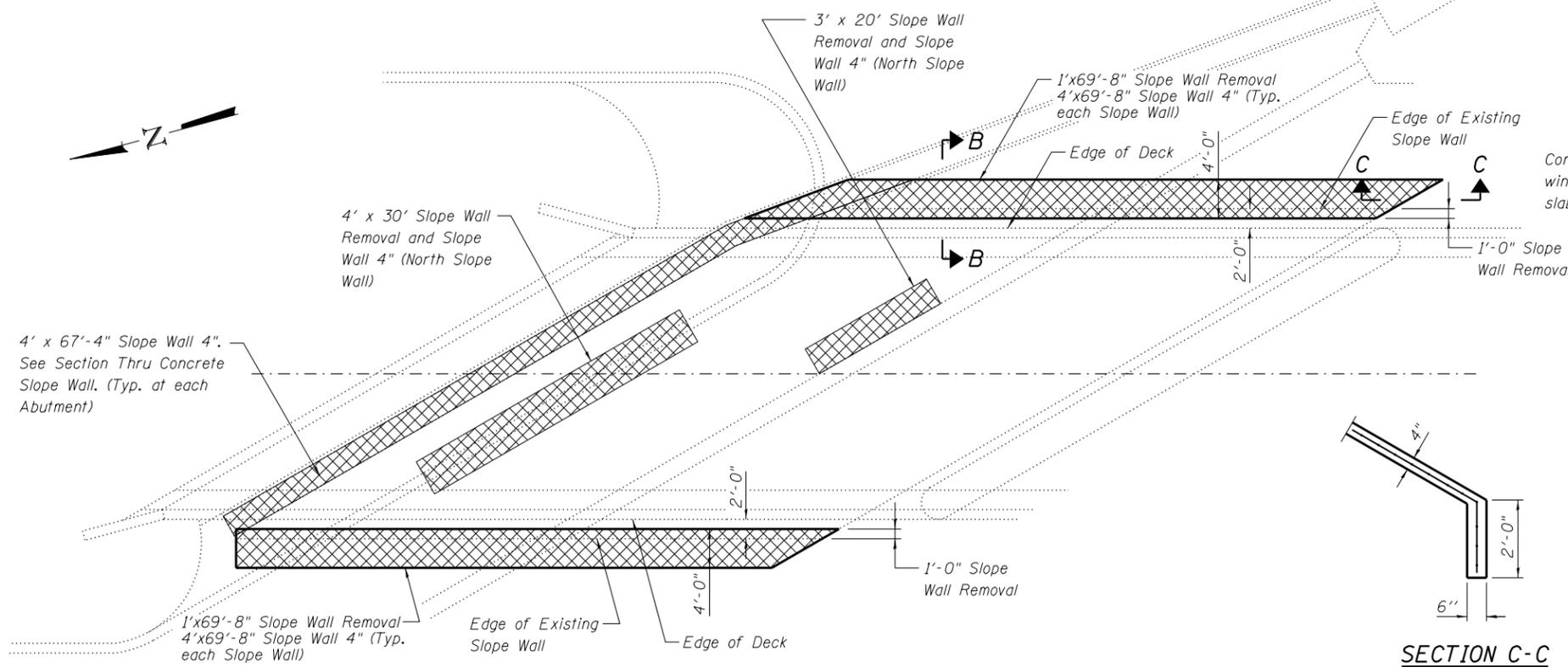
* Estimated removal height based on existing plans. Removal required to accommodate approach slab.

BILL OF MATERIAL

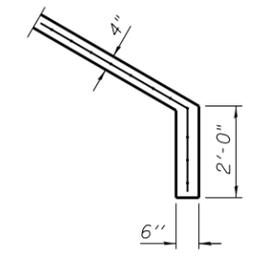
SYMBOL	ITEM	UNIT	QUANTITY
	Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	20
	Slope Wall Removal	Sq. Yd.	51
	Slope Wall 4"	Sq. Yd.	142

Notes:

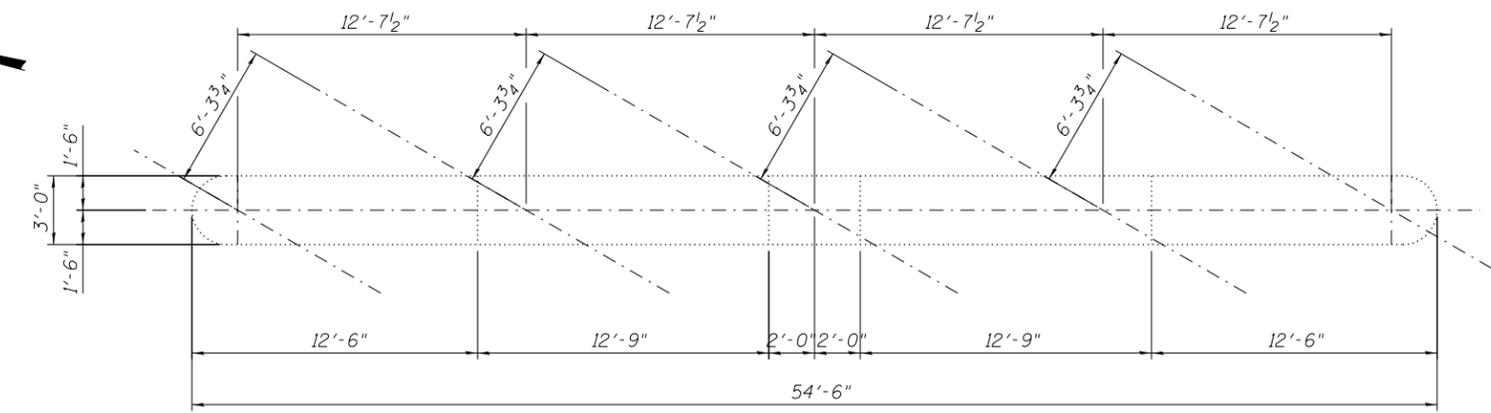
- Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft. Cost included with Slope Wall 4".
- Existing reinforcement shall be cleaned and incorporated into new construction. Cost included with Slope Wall Removal.
- Existing and new welded wire fabric must be lapped a minimum of 6".
- Excavation for the toe of the slope wall shall be included with the cost of Slope Wall 4".
- Porous Granular Embankment shall be used to in-fill void areas encountered beneath Slope Wall. Cost included with Slope Wall 4".



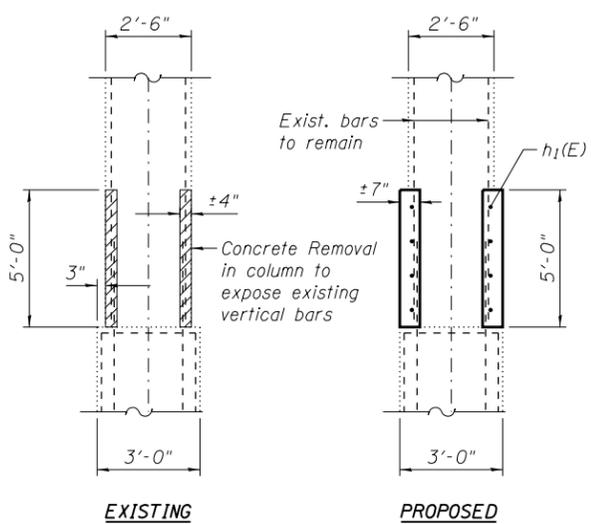
SLOPEWALL PLAN



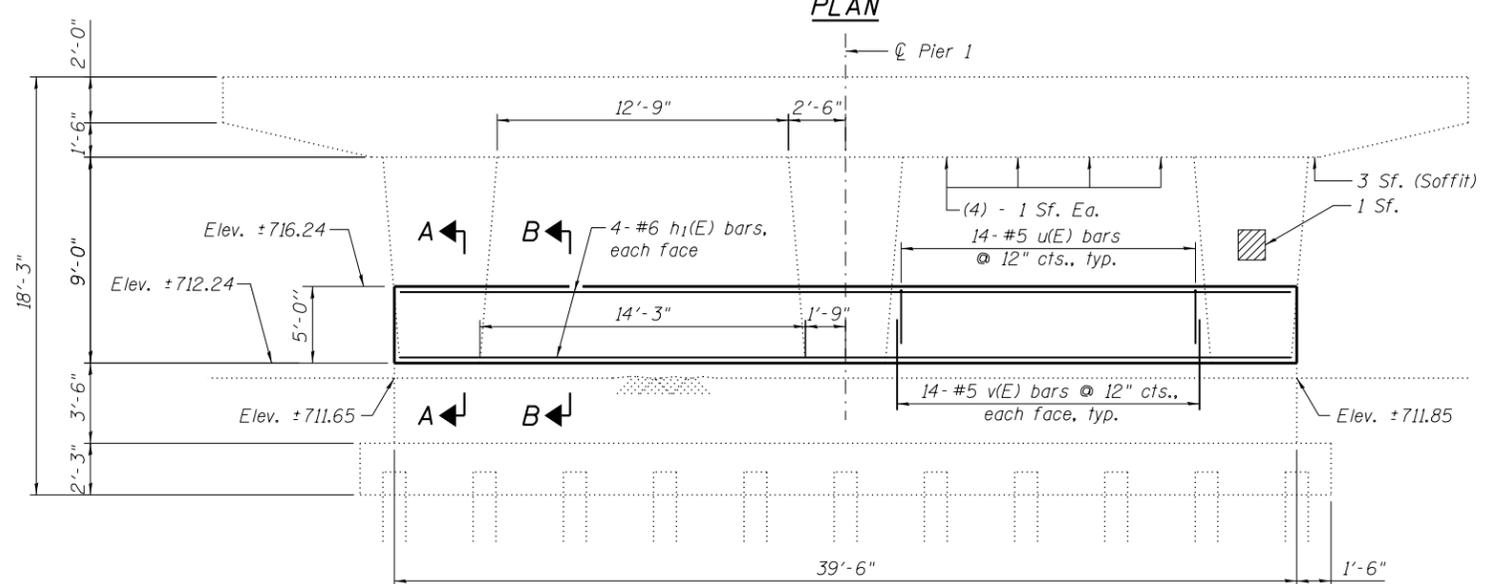
SECTION C-C



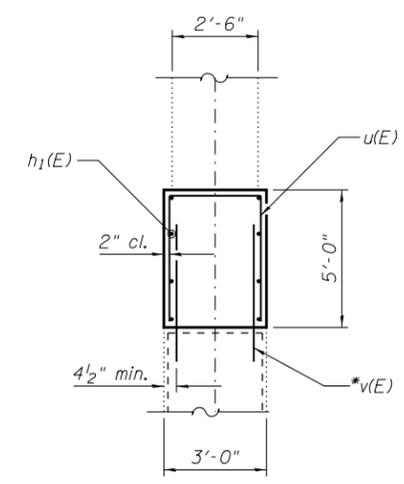
PLAN



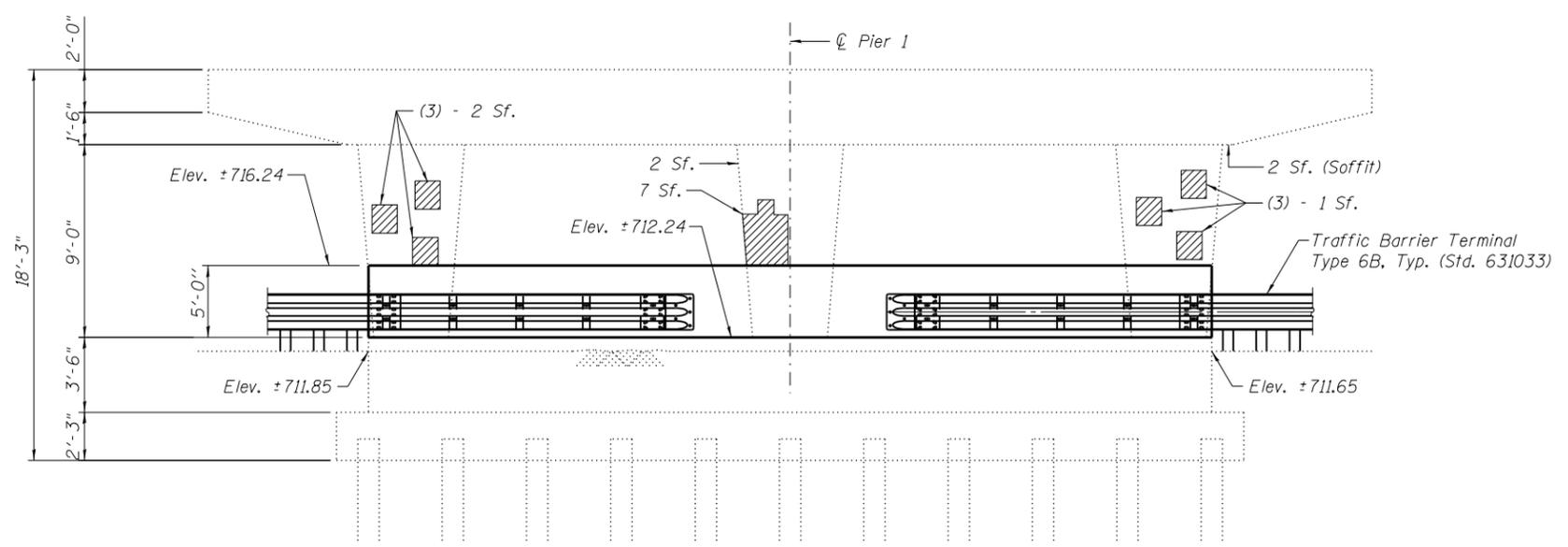
SECTION A-A



PIER 1 NORTH FACE
(Showing Rebar)



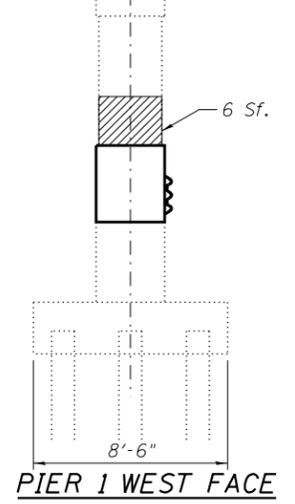
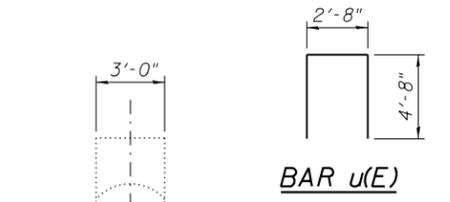
SECTION B-B



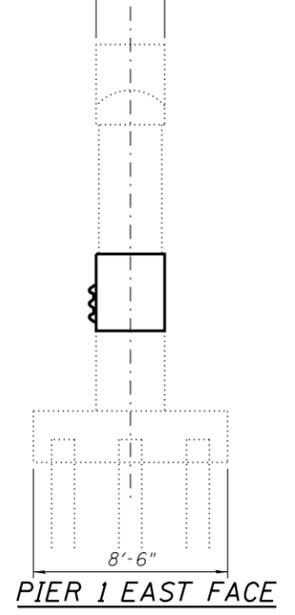
PIER 1 SOUTH FACE

BILL OF MATERIAL

SYMBOL	Bar	No.	Size	Length	Shape
	h ₁ (E)	8	#6	39'-2"	—
	u(E)	28	#5	12'-0"	□
	v(E)	56	#5	4'-0"	—
	Concrete Removal			Cu. Yd.	3.0
	Concrete Structures			Cu. Yd.	18.0
	Reinforcement Bars, Epoxy Coated			Pound	1,060
	Structural Repair of Concrete (Depth equal to or less than 5")			Sq. Ft.	34

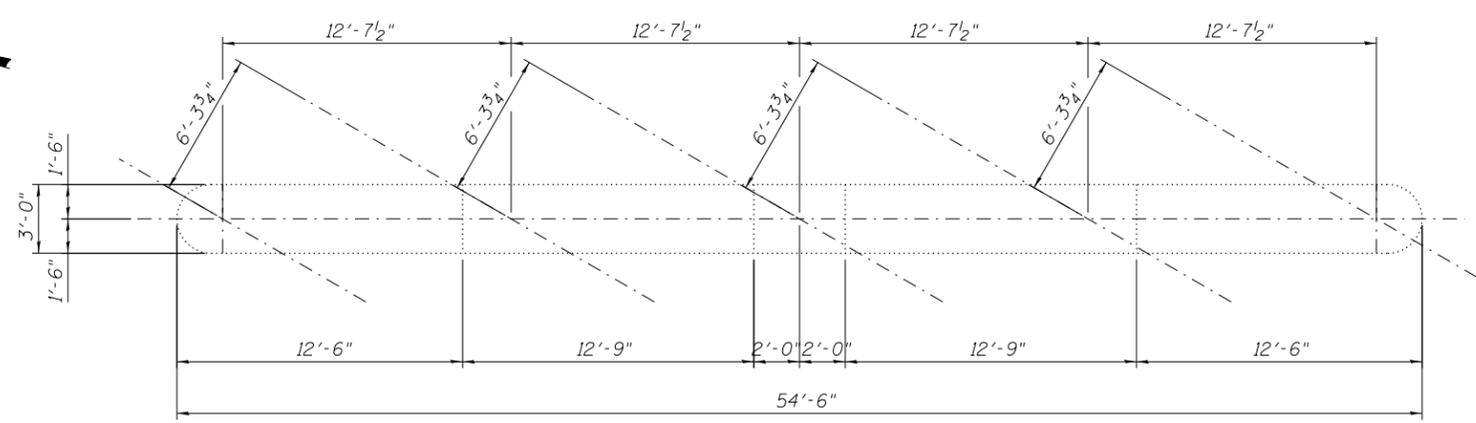


PIER 1 WEST FACE

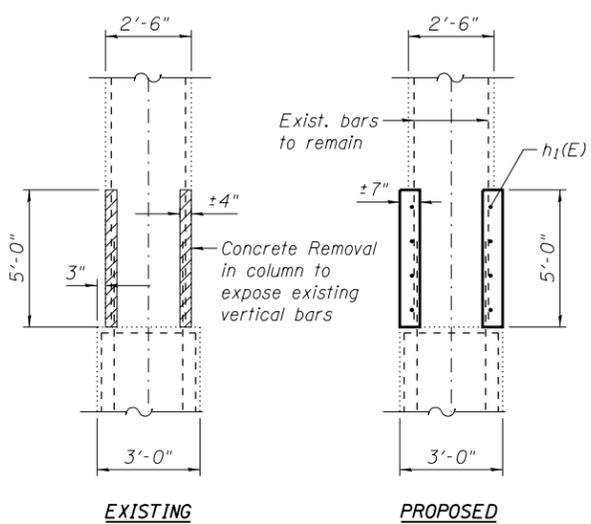


PIER 1 EAST FACE

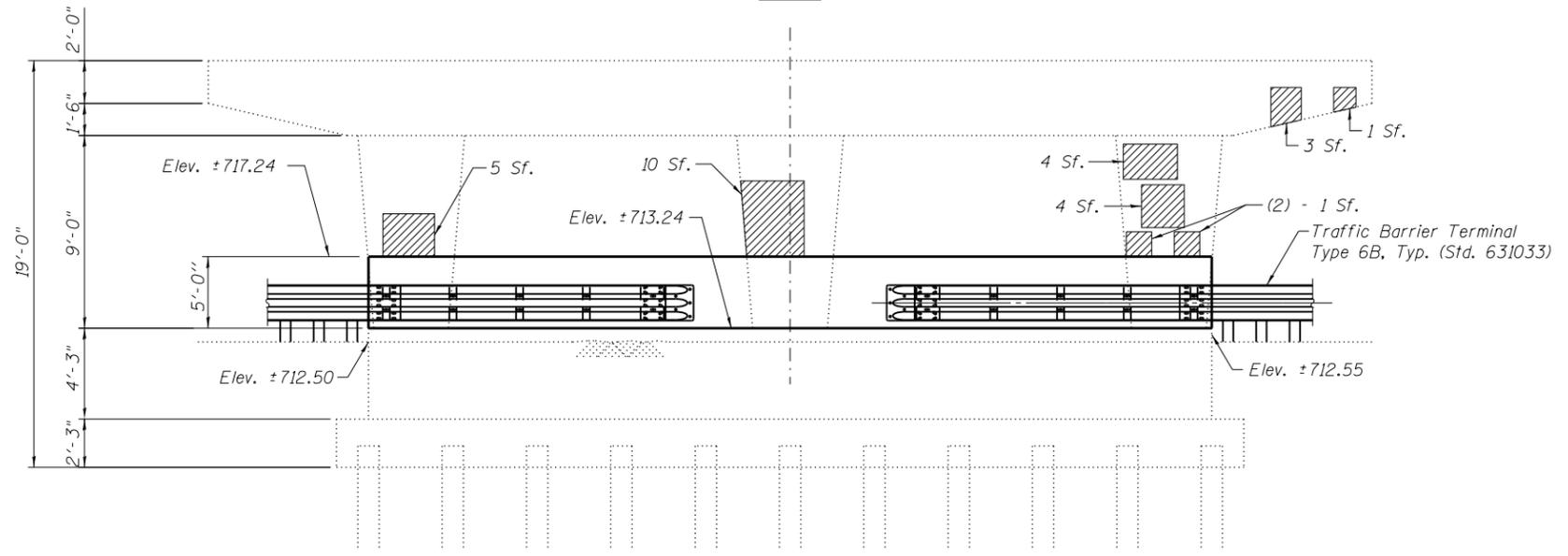
* Drill and grout bars 9" into existing pier wall according to Article 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.



PLAN



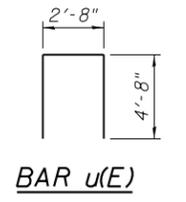
SECTION A-A



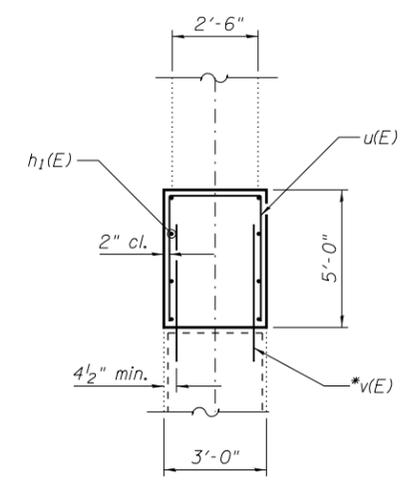
PIER 2 NORTH FACE

BILL OF MATERIAL

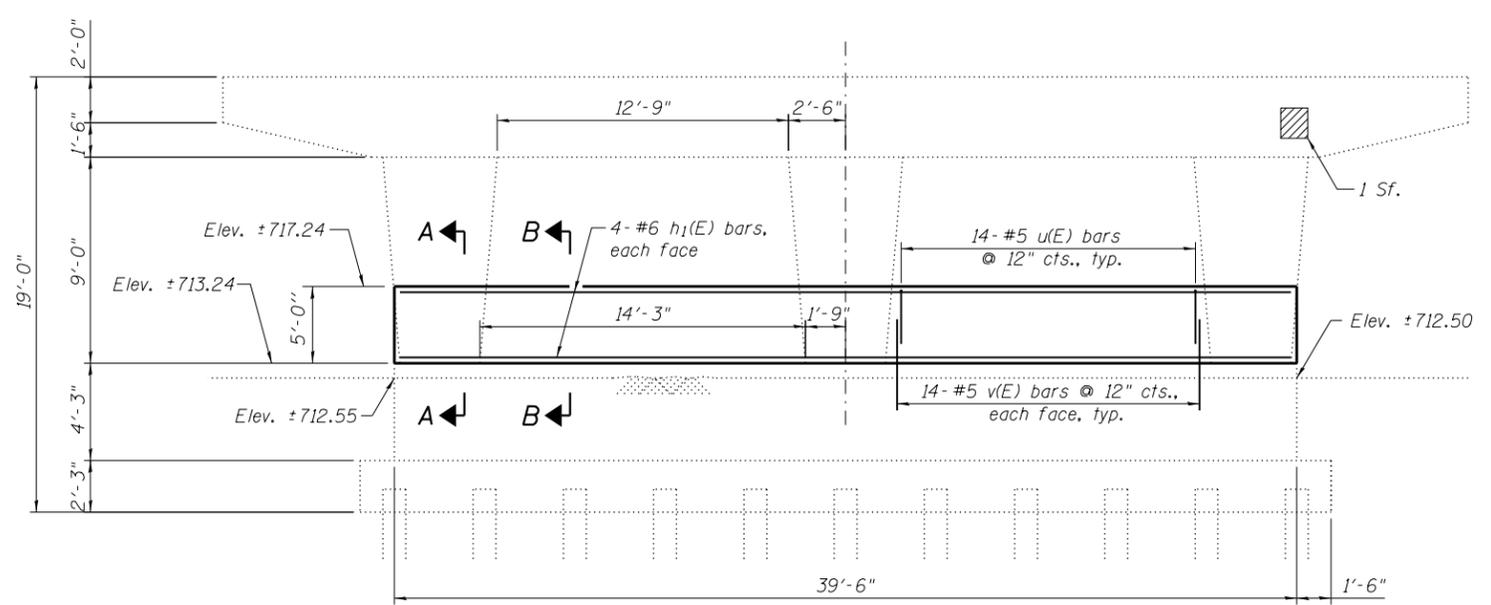
SYMBOL	Bar	No.	Size	Length	Shape
	h ₁ (E)	8	#6	39'-2"	—
	u(E)	28	#5	12'-0"	□
	v(E)	56	#5	4'-0"	—
	Concrete Removal			Cu. Yd.	3.0
	Concrete Structures			Cu. Yd.	18.0
	Reinforcement Bars, Epoxy Coated			Pound	1,060
	Structural Repair of Concrete, equal or less than 5"			Sq. Ft.	30



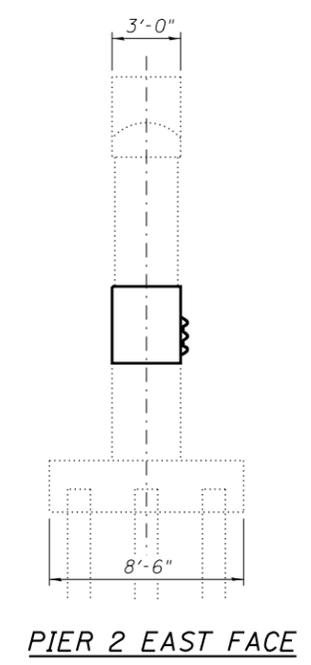
PIER 2 WEST FACE



SECTION B-B

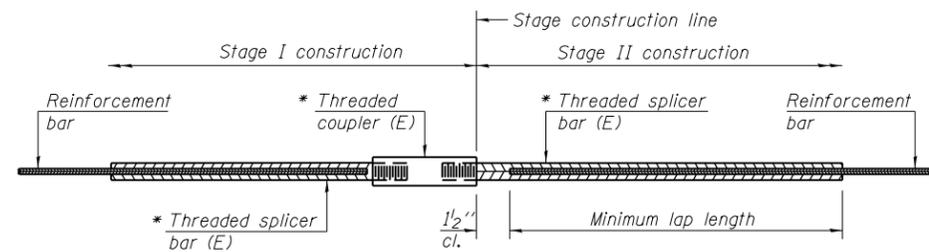


PIER 2 SOUTH FACE
(Showing Rebar)



PIER 2 EAST FACE

* Drill and grout bars 9" into existing pier wall according to Article 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.



STANDARD BAR SPLICER ASSEMBLY

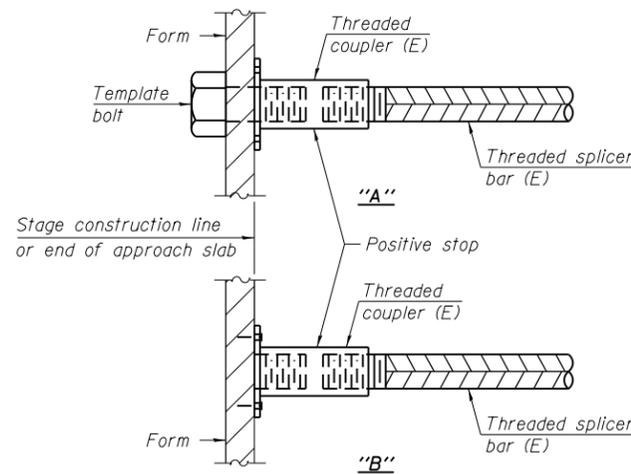
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- 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
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

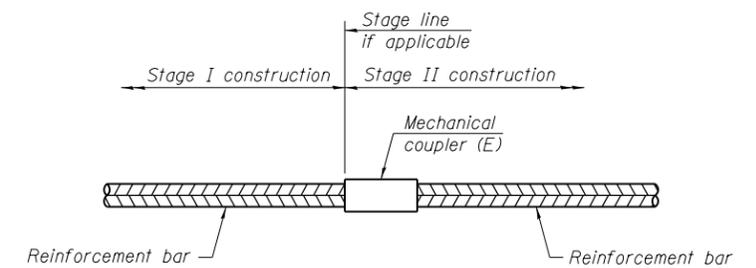
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



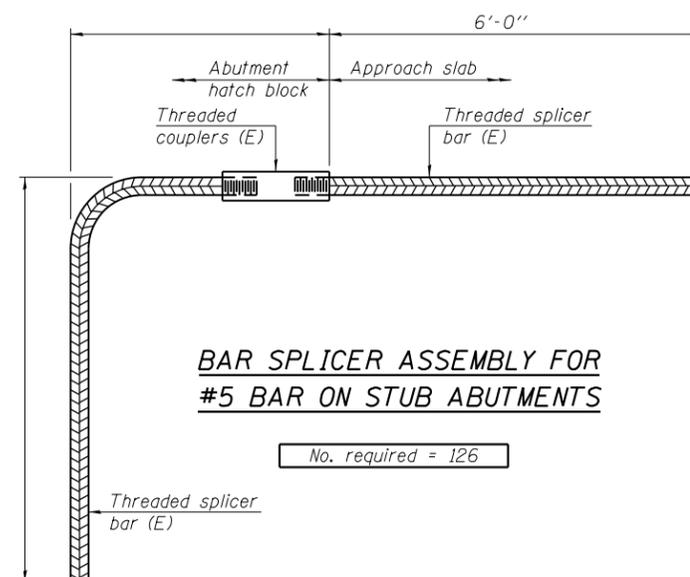
INSTALLATION AND SETTING METHODS

"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



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 126

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 approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 8-31-12

COLLINS ENGINEERS
 123 North Wacker Drive
 Suite 300
 Chicago, IL 60606
 (312) 704-9300
 www.collinsengr.com
 ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-009953

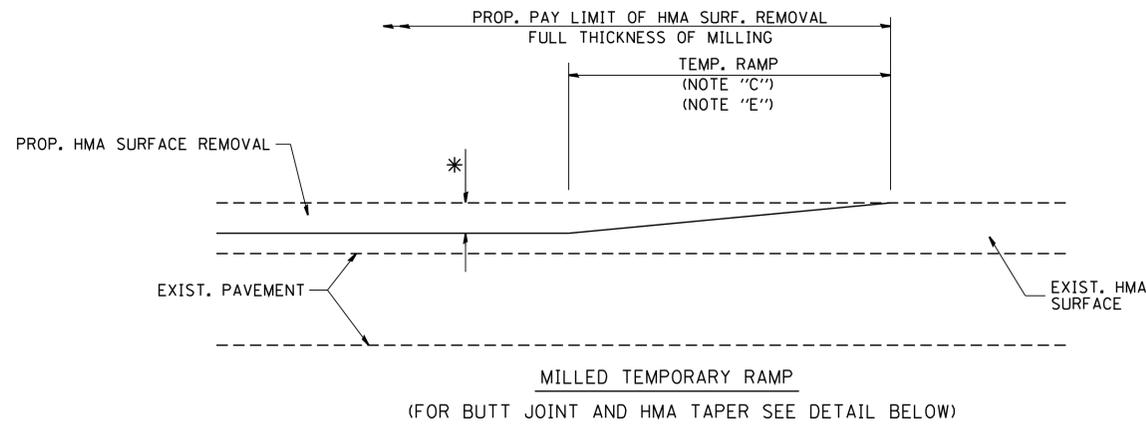
USER NAME =	DESIGNED - AMS	REVISED -
PLOT SCALE =	CHECKED - JMS	REVISED -
PLOT DATE =	DRAWN - DR	REVISED -
	CHECKED - AMS	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

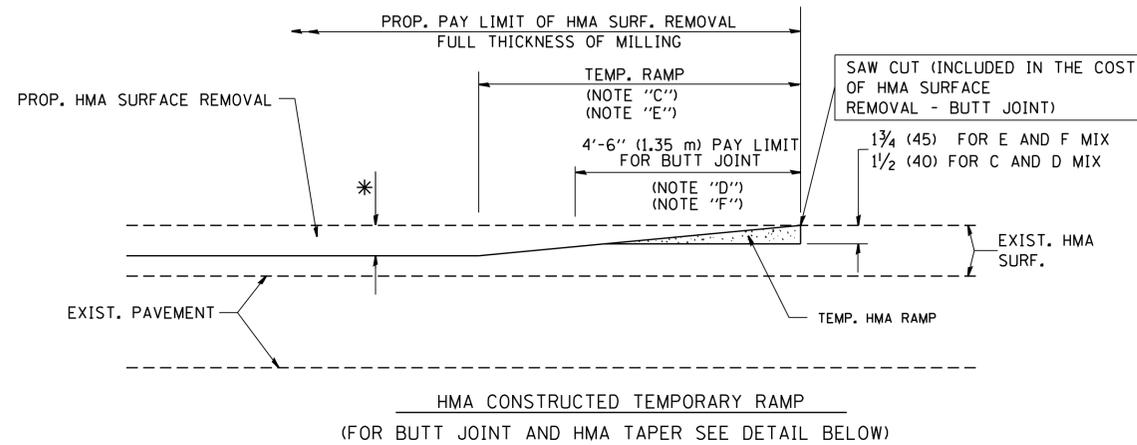
**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 049-0087**

SHEET NO. S24 OF S24 SHEETS

F.A.U. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125HB-BR	LAKE	51	41
CONTRACT NO. 60R61				
ILLINOIS FED. AID PROJECT				

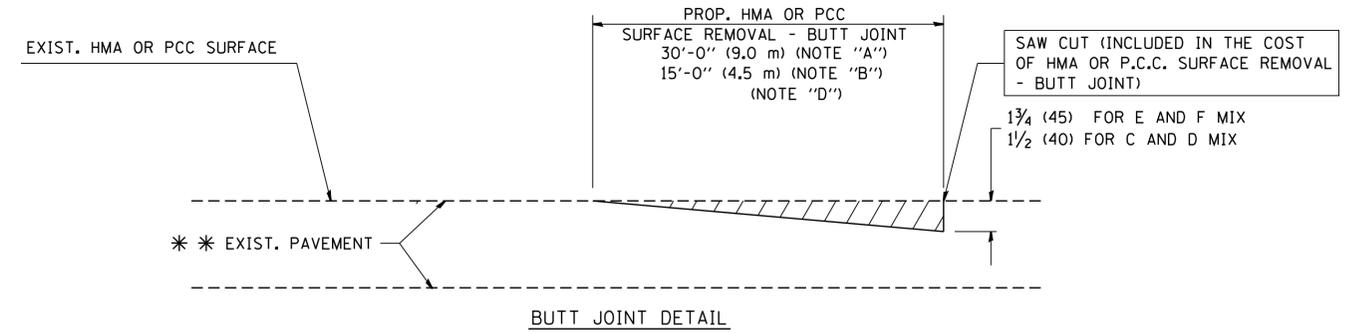


OPTION 1

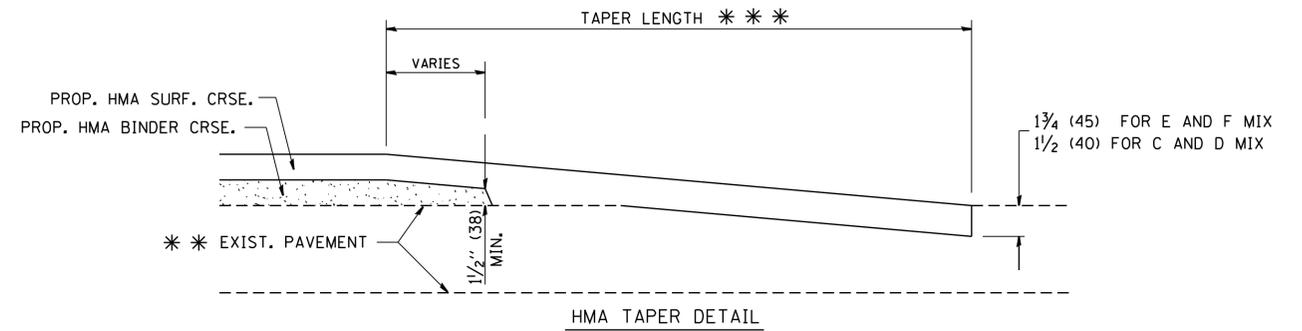


OPTION 2

TYPICAL TEMPORARY RAMP



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

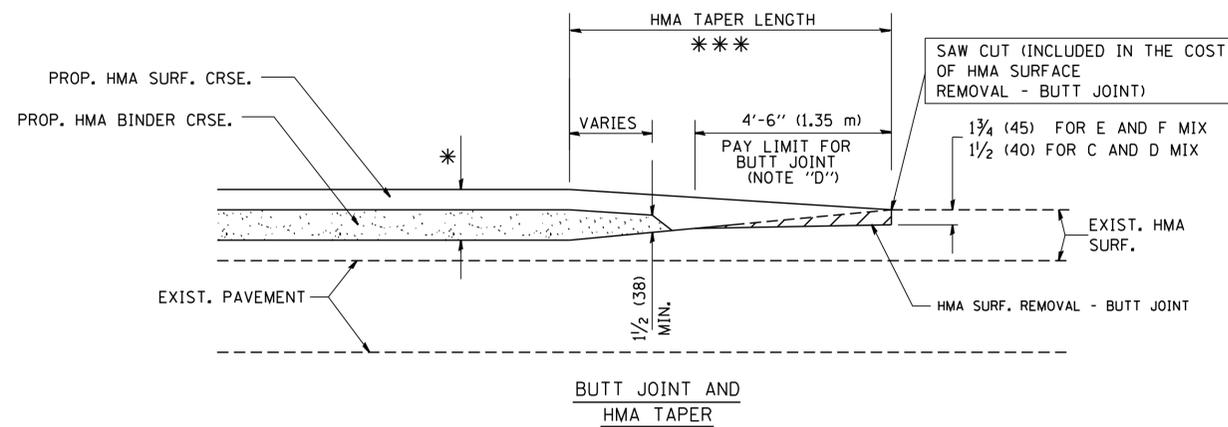
NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



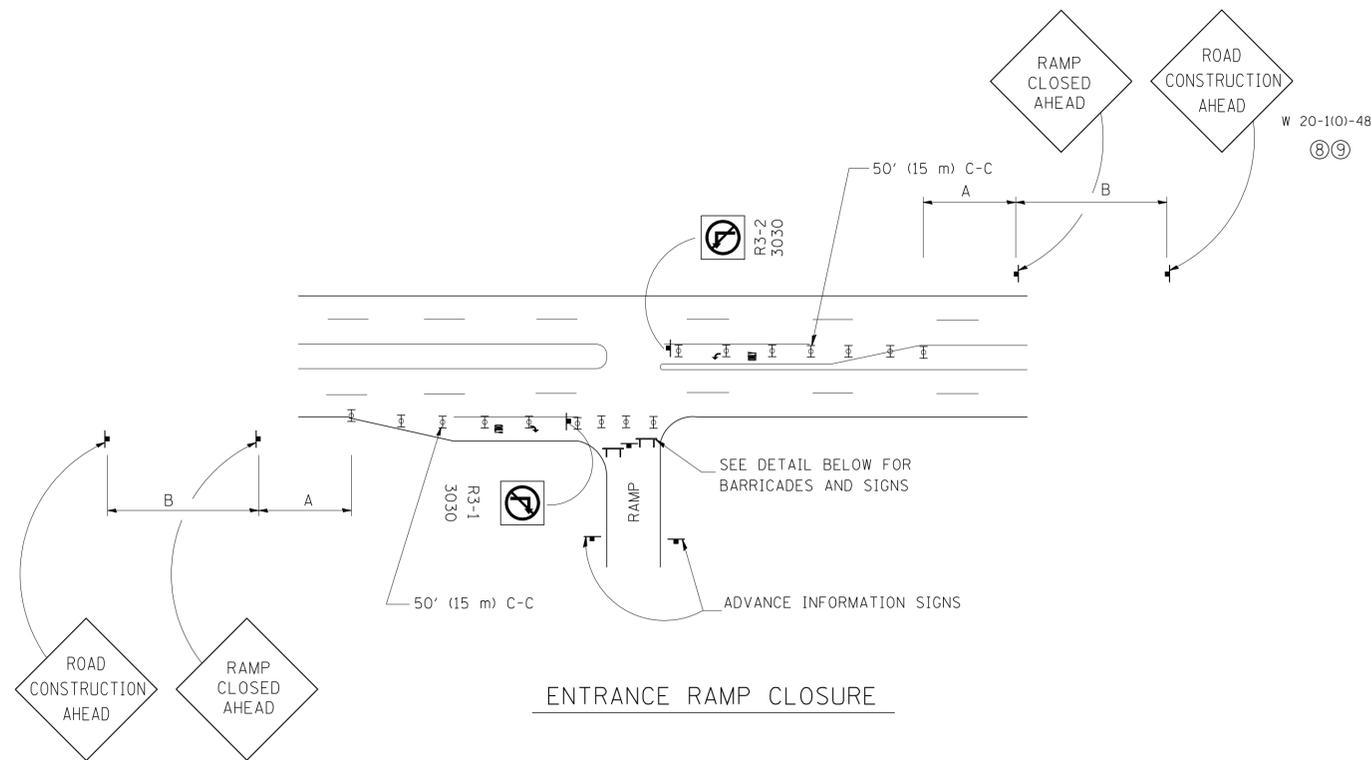
TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglionobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BUTT JOINT AND HMA TAPER DETAILS	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	42
BD400-05 BD32		CONTRACT NO. 60R61		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



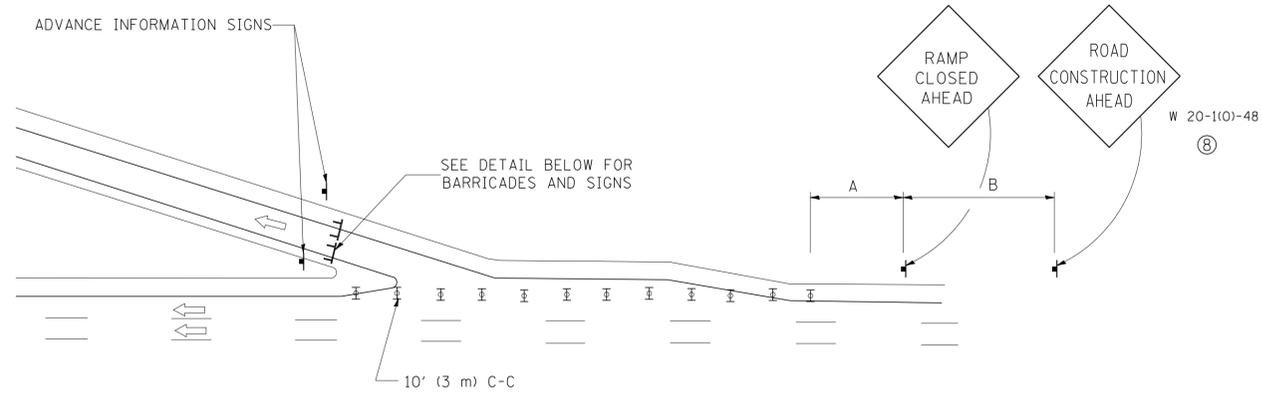
ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY <24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL ≥45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	150' (45 m)	150' (45 m)

DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

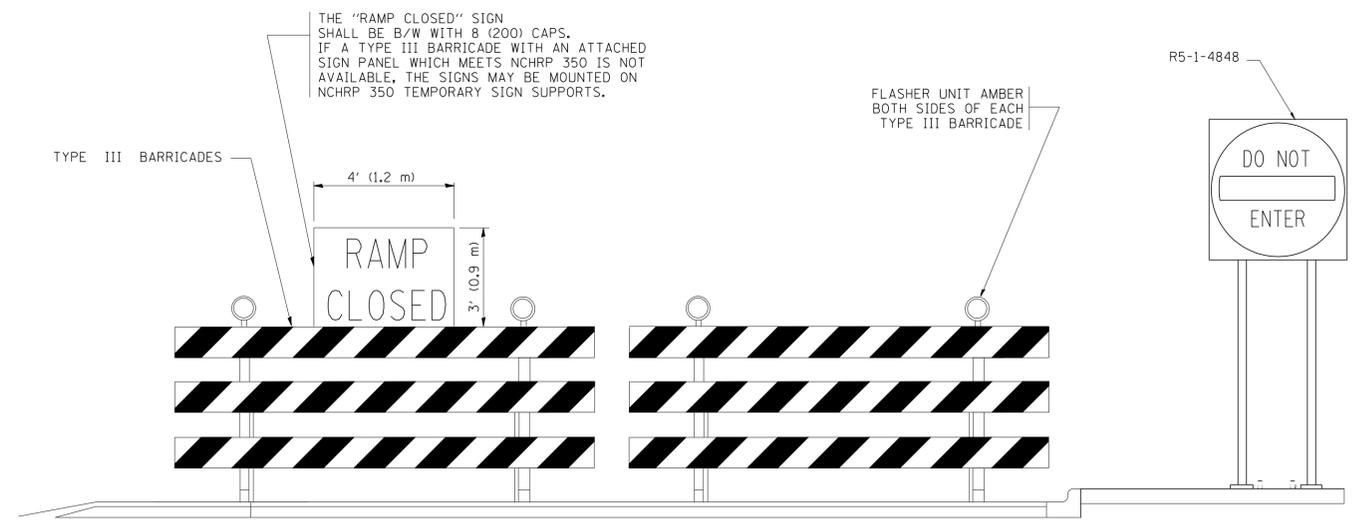
W 20-1(0)-48 (8)(9)



EXIT RAMP CLOSURE

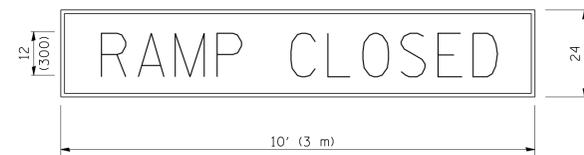
SYMBOLS

- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- ⊏ TYPE III BARRICADE WITH FLASHING LIGHT



DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN

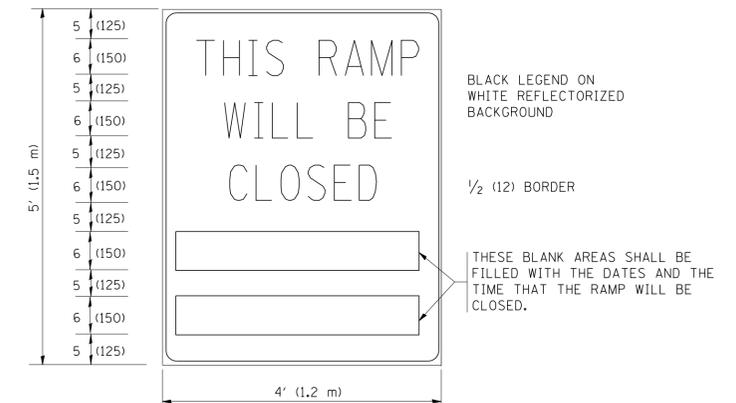


BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND

1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE REFLECTORIZED BACKGROUND

1/2 (12) BORDER

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY-FOUR (24) HOURS IN LENGTH.
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED ON CLOSURES LESS THAN 24 HOURS IN DURATION.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

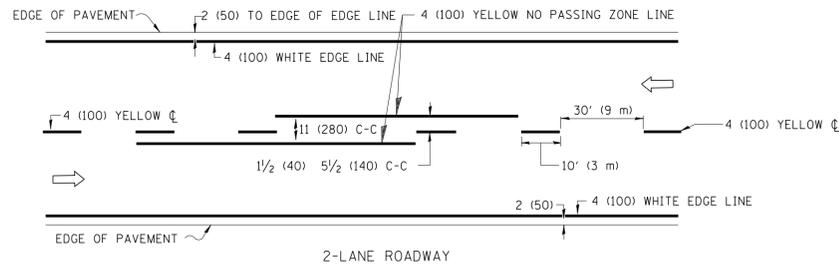
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		DRAWN -	REVISED - JAF 02-06
		CHECKED -	REVISED - SPB 01-07
		DATE - 02-83	REVISED - SPB 12-09

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

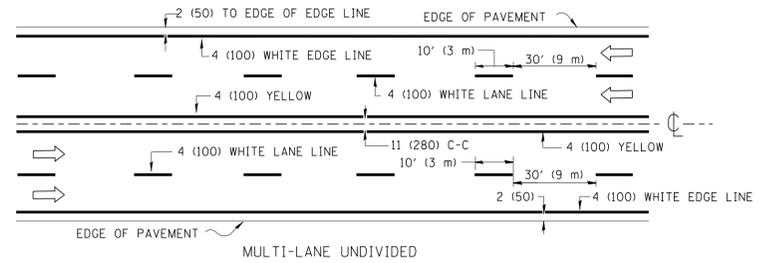
**FREEWAY ENTRANCE AND EXIT RAMP
CLOSURE DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

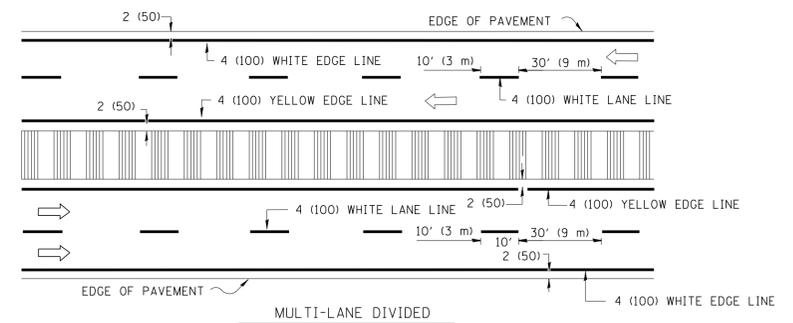
F.A. RTE. 2706	SECTION 125 HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 43
TC-08			CONTRACT NO. 60R61	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY



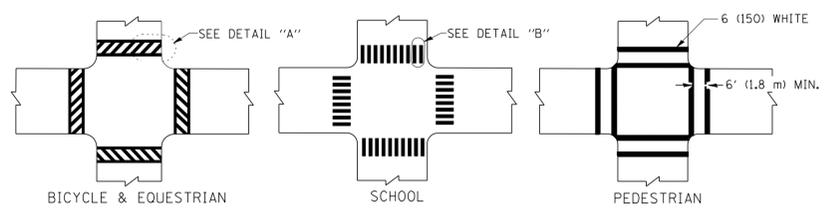
MULTI-LANE UNDIVIDED



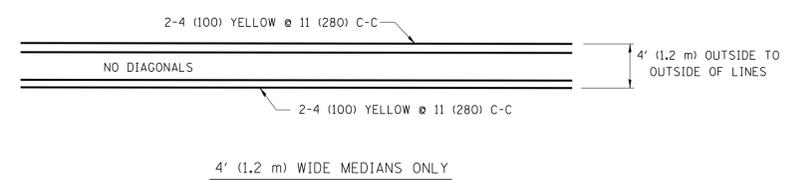
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIUM

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

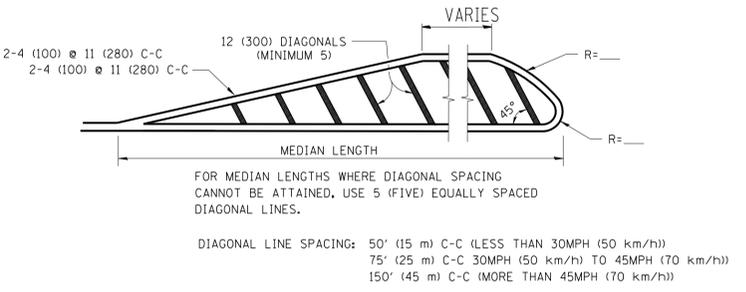
TYPICAL LANE AND EDGE LINE MARKING



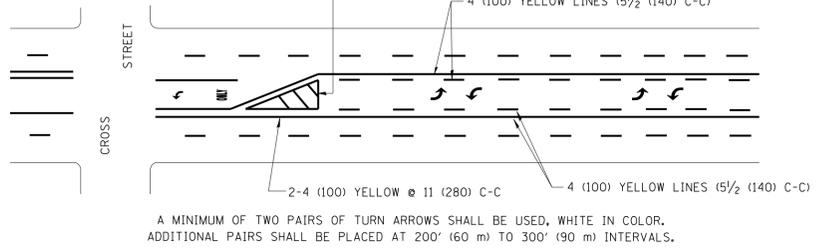
TYPICAL CROSSWALK MARKING



4' (1.2 m) WIDE MEDIANS ONLY

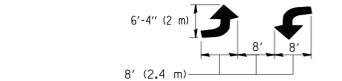


MEDIANS OVER 4' (1.2 m) WIDE



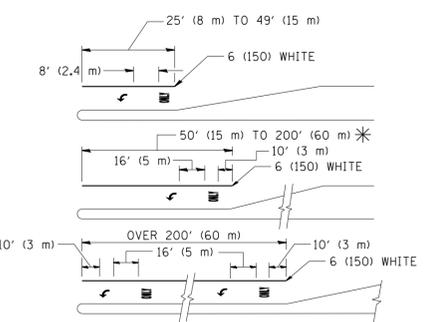
MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

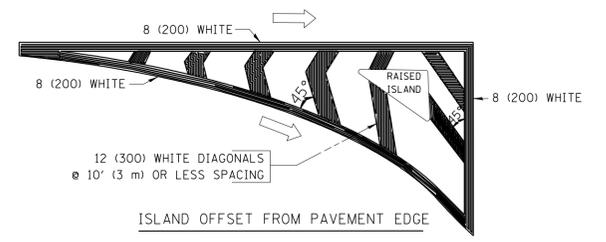
TYPICAL TURN LANE MARKING



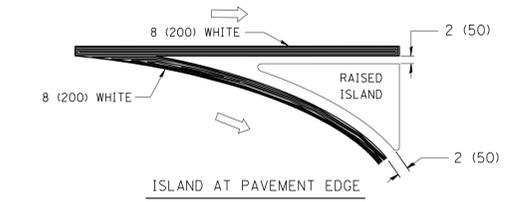
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

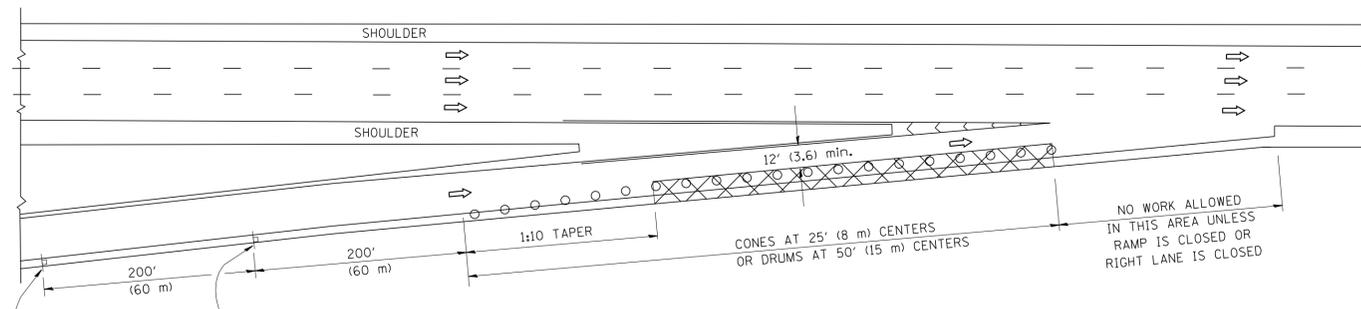
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	PLOT SCALE = 50.000 1/ IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

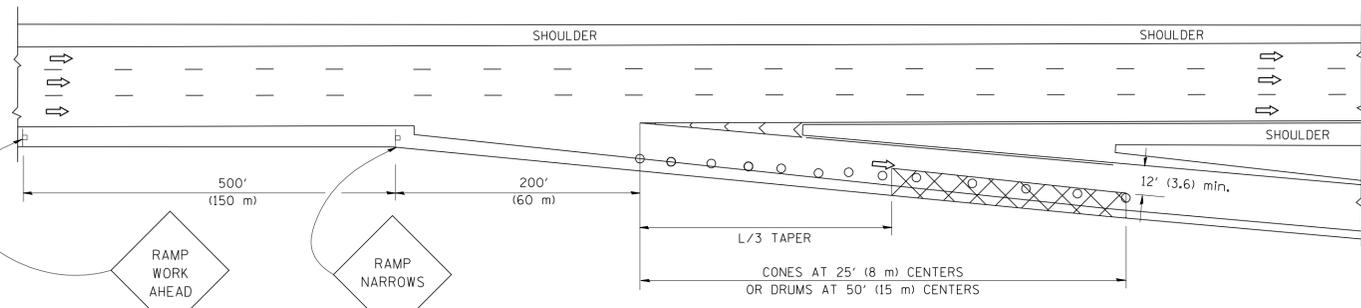
DISTRICT ONE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		2706	125 HB-BR	LAKE	51	44
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.	
		TC-13		CONTRACT NO. 60R61		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

PARTIAL RAMP CLOSURE DETAILS

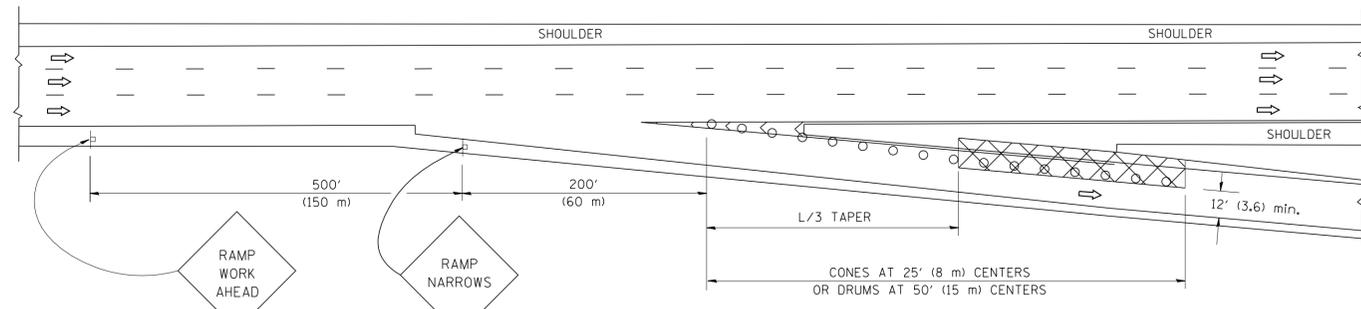
SHOULDER CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

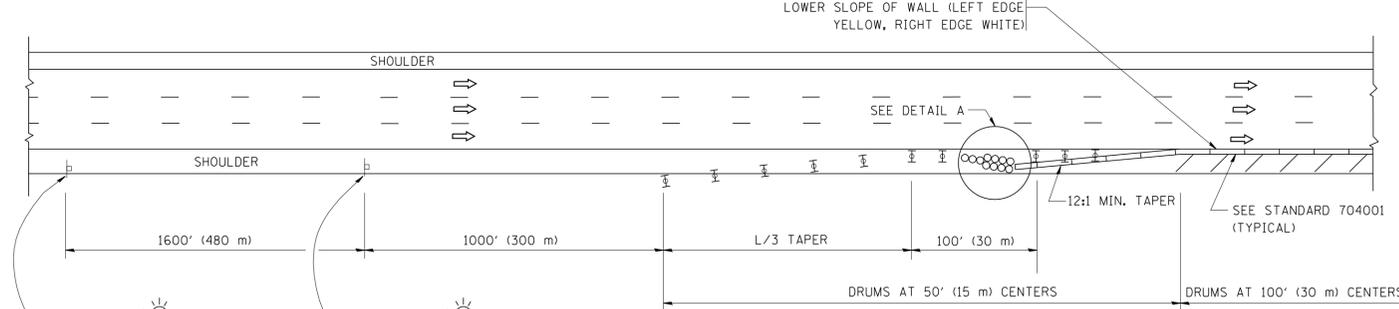
SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

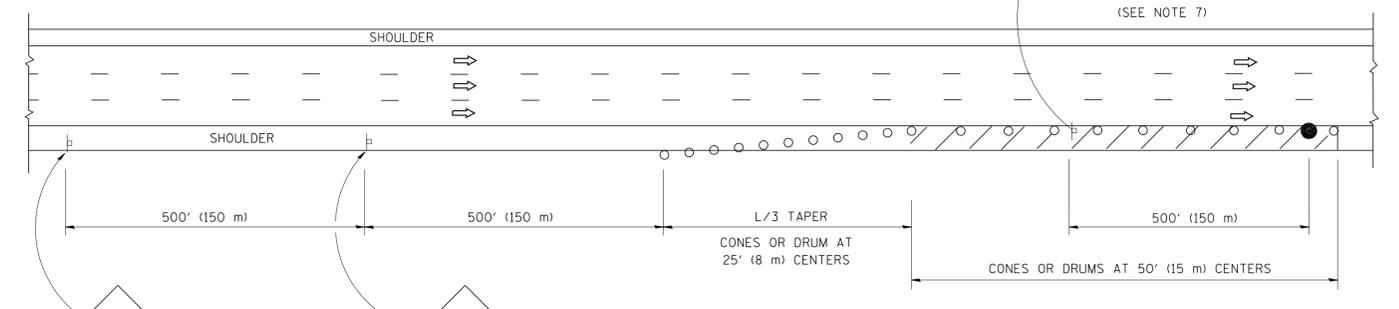
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS) S = NORMAL POSTED SPEED MPH (KM/H)	
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK ACTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

- THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\dststd\22x34\17.dgn	USER NAME = lqyso	DESIGNED -	REVISED - 04-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - D.W.S.	REVISED - J.A.F. 12-06			2706	125 HB-BR	LAKE	51	45	
		PLOT SCALE = 50.0000' / IN.	REVISED - S.P.B. 01-07			TC-17		CONTRACT NO. 60R61			
		PLOT DATE = 1/26/2010	REVISED - S.P.B. 12-09			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

ROUTE MARKERS

FOR U.S. ROUTES
M1-40-2424

FOR ILLINOIS ROUTES
M1-50-2424

R.R. UNMARKED ROUTES
SPECIAL 24" x 18" VARIABLE
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

ARROWS SIGNS

M5-1L-2115

M5-1R-2115

M6-1-2115

M6-1-2115

M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

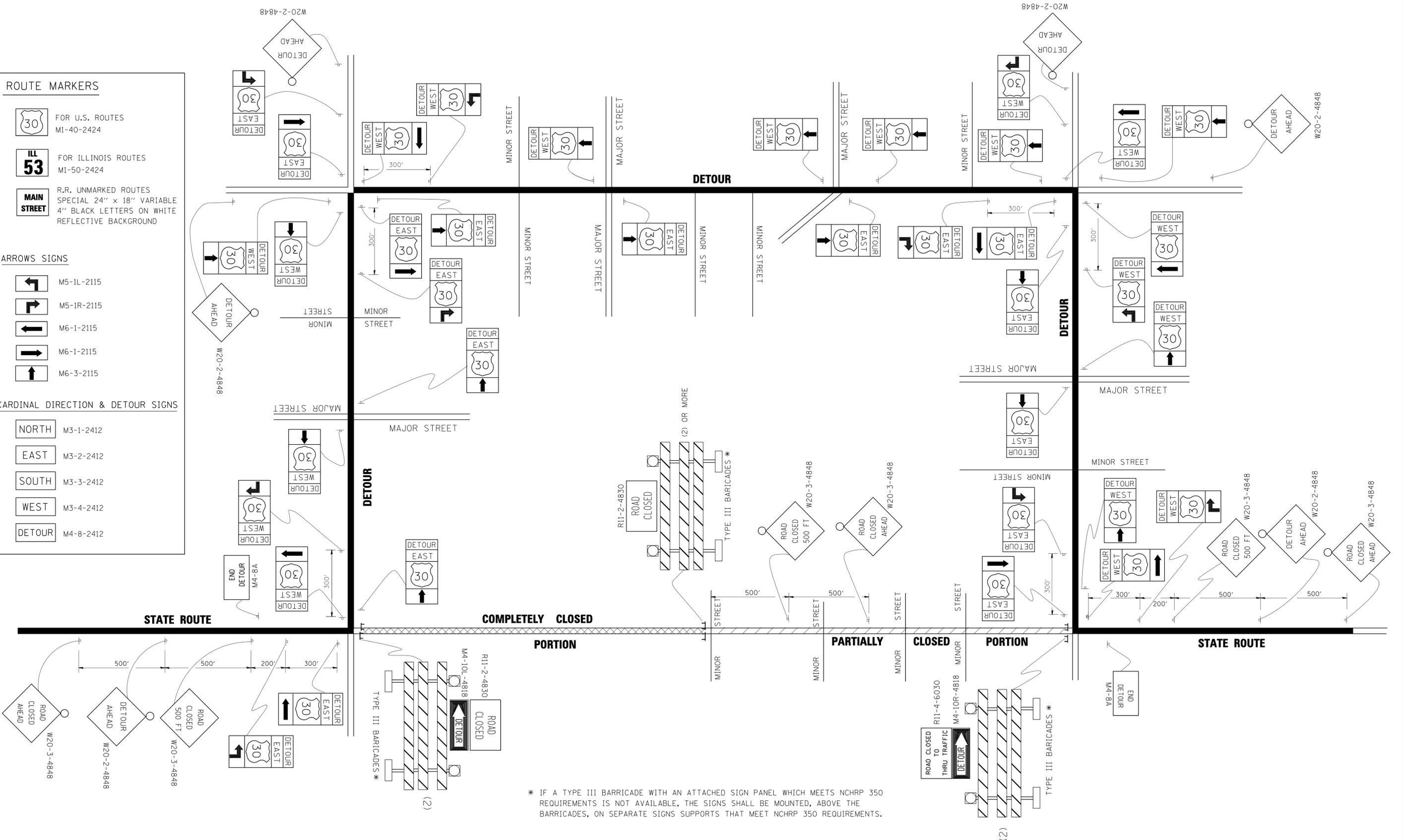
NORTH M3-1-2412

EAST M3-2-2412

SOUTH M3-3-2412

WEST M3-4-2412

DETOUR M4-8-2412

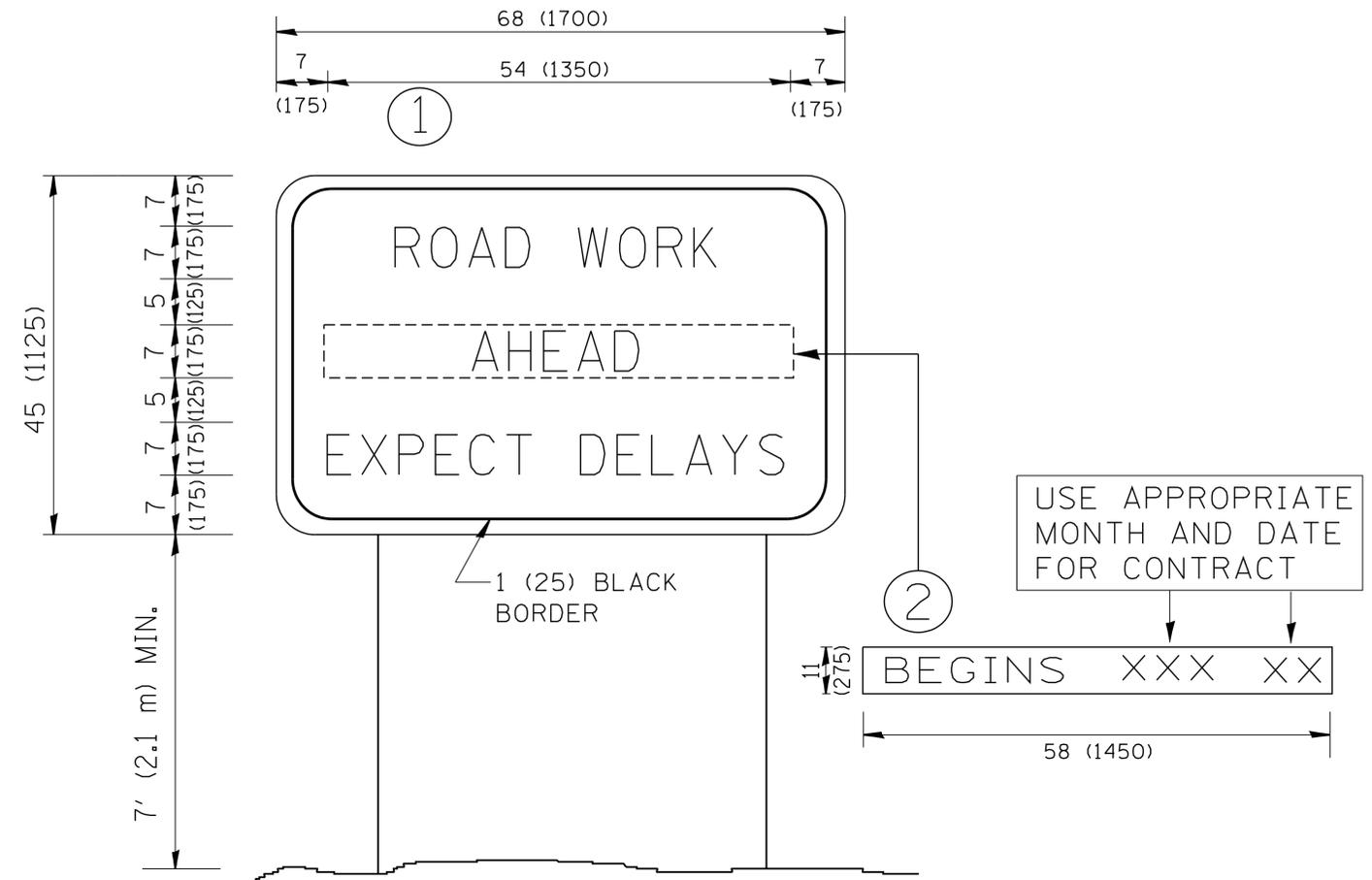


FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - 10-18-02
et:\pwwork\pwwork\DRIVAKOSGN\d0108315\1421.dgn		DRAWN -	REVISED - R. BORO 09-14-09
		PLOT SCALE = 49.9999' / IN.	REVISED -
		DATE - 9/14/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING FOR CLOSING STATE HIGHWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	46
TC-21		CONTRACT NO. 60R61		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegl@nbt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

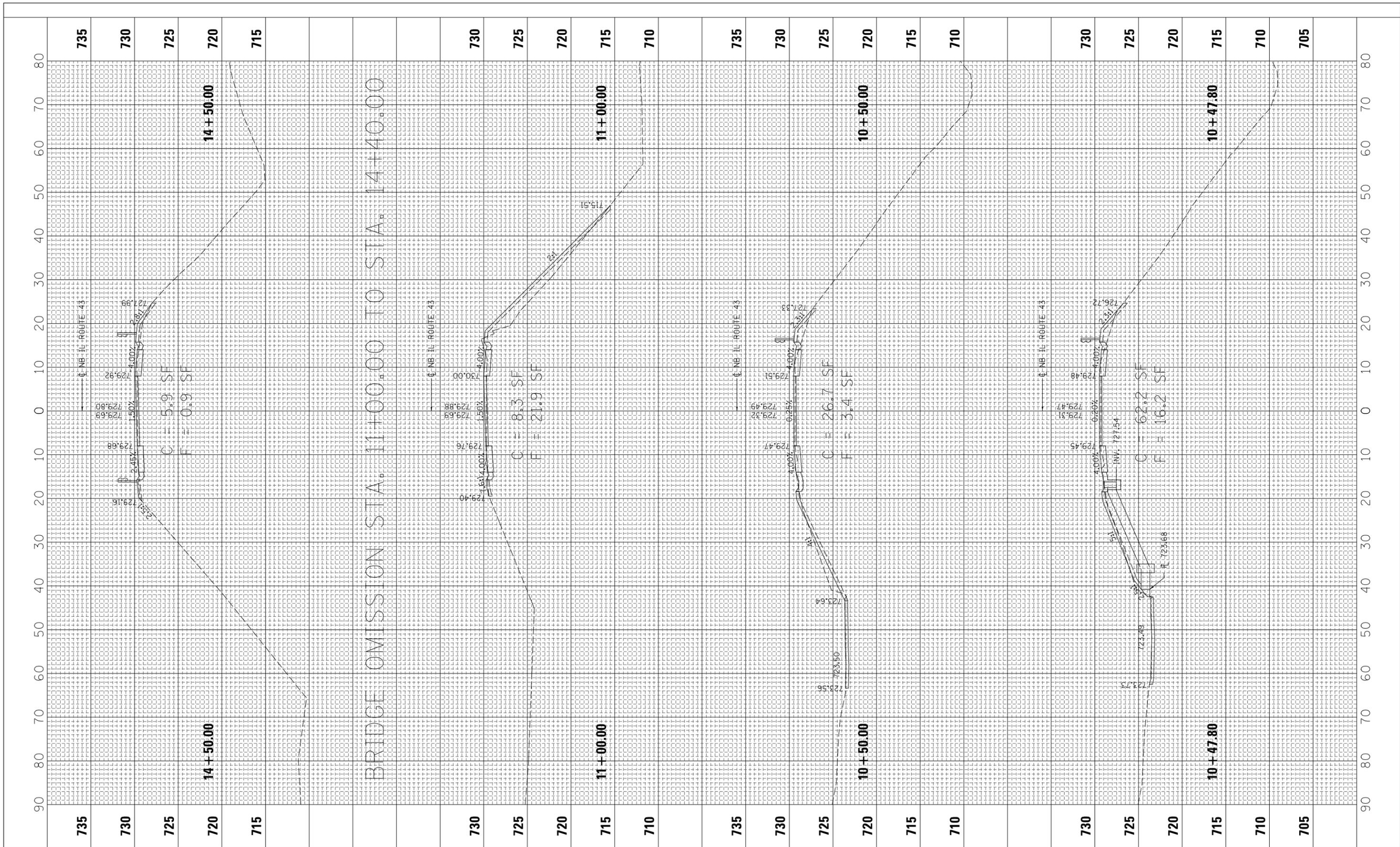
**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. 2706	SECTION 125 HB-BR	COUNTY LAKE	TOTAL SHEETS 51	SHEET NO. 47
TC-22		CONTRACT NO. 60R61		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



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USER NAME = *USER*

PLOT SCALE = *SCALE*

PLOT DATE = *DATE*

DESIGNED - SGL

DRAWN - SGL

CHECKED - FML

DATE - 032012

REVISED -

REVISED -

REVISED -

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

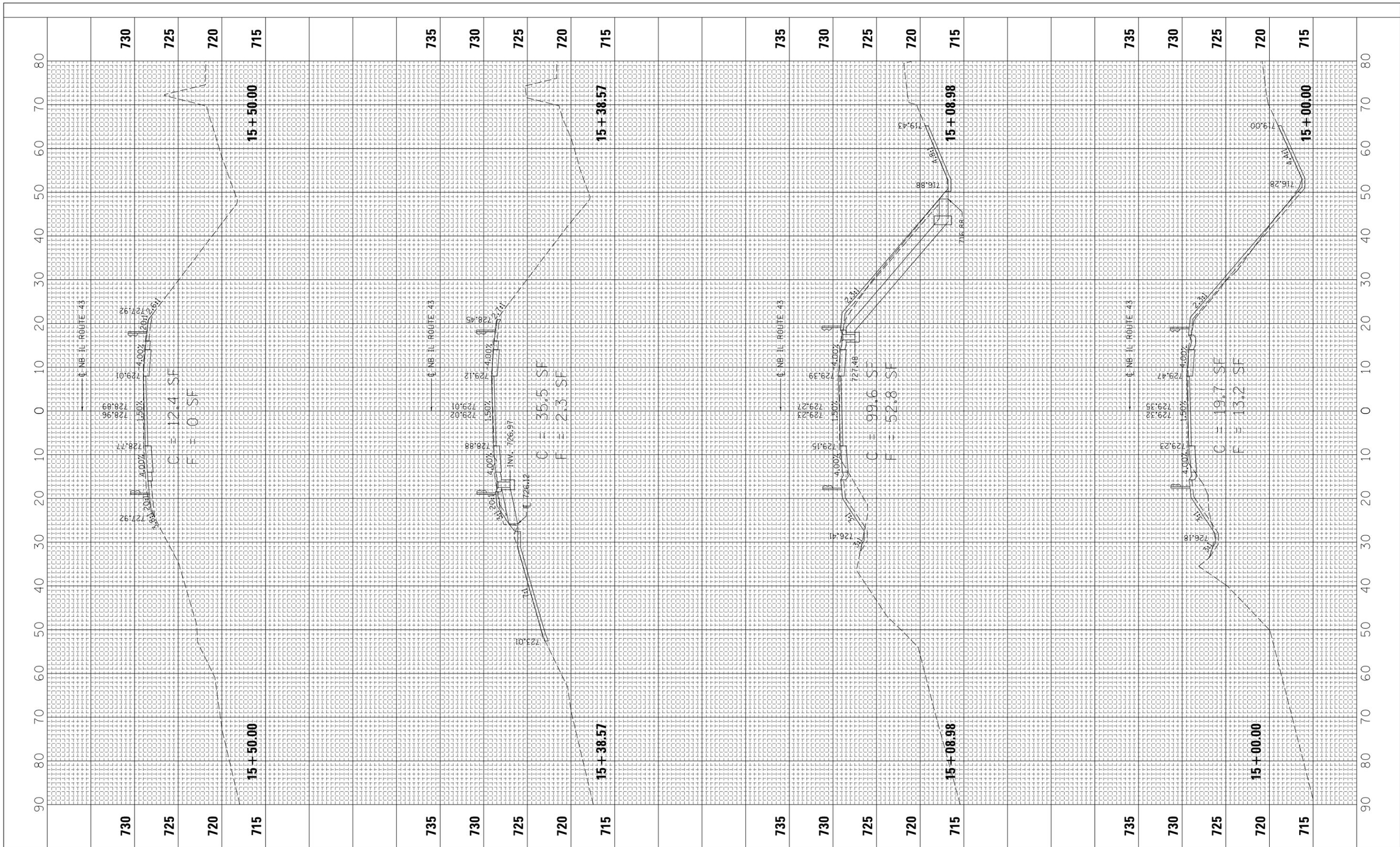
IL 43 (WAUKEGAN ROAD) AT US 41 (SB)
CROSS SECTIONS

SCALE: 5 V : 10 H SHEET NO. 2 OF 4 SHEETS STA. 10+47.80 TO STA. 14+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	49
CONTRACT NO. 60R61				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



FILE NAME = *FILEL*

USER NAME = *USER*

DESIGNED - SGL

DRAWN - SGL

CHECKED - FML

DATE - 032012

REVISED -

REVISED -

REVISED -

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

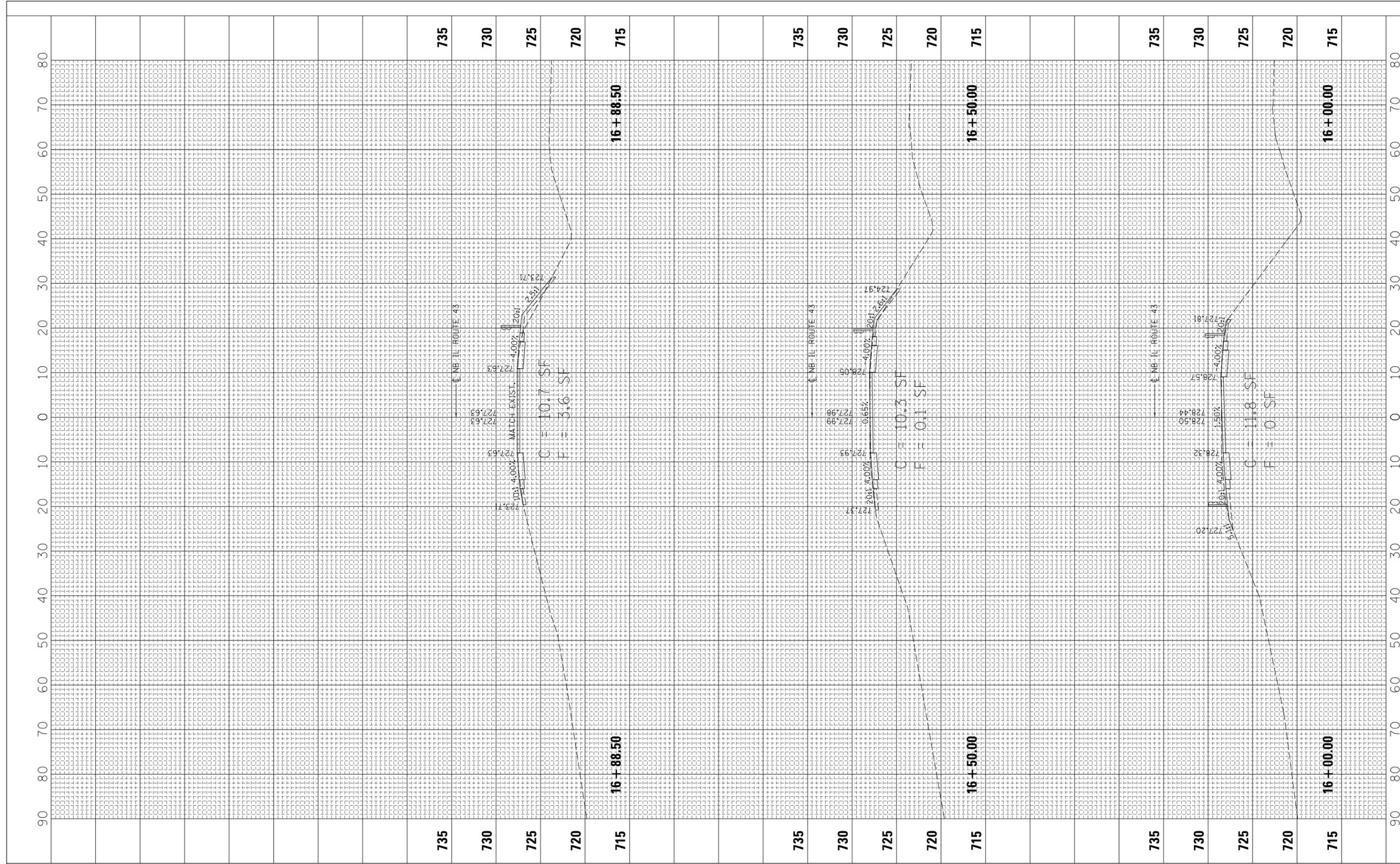
IL 43 (WAUKEGAN ROAD) AT US 41 (SB)
CROSS SECTIONS

SCALE: 5 V : 10 H SHEET NO. 3 OF 4 SHEETS STA. 15+00.00 TO STA. 15+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	50
CONTRACT NO. 60R61				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



FILE NAME =
FILEL

USER NAME = *USER*
DESIGNED - SGL
DRAWN - SGL
CHECKED - FML
DATE - 032012

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 43 (WAUKEGAN ROAD) AT US 41 (SB)
CROSS SECTIONS

SCALE: 5 V : 10 H SHEET NO. 4 OF 4 SHEETS STA. 16+00.00 TO STA. 16+88.50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	125 HB-BR	LAKE	51	51
CONTRACT NO. 60R61				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				