11-18-11 LETTING ITEM 057

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144 *	1
	ILLINOIS	CONTRACT NO. 70552		

* 144 + 1 = 145

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 315 (U.S. 136)
SECTION 121BR-2
PROJECT ACBRF-0315(061)
BRIDGE REPLACEMENT
MCLEAN COUNTY

C-95-066-06

OVER KICKAPOO CREEK 1.3 MI. W. OF U.S. 51

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES SEE SHEET NO. 6 THROUGH 11

CURRENT TRAFFIC DATA

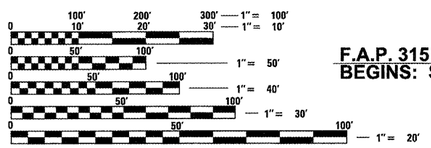
ADT = 3,100 (2009) 4,050 (2019)
20 YR ADT = 4,850
P.U. & P.C. % = 70.6
S.U. % = 10.4
M.U. % = 19.0

DESIGN DESIGNATION

N/A

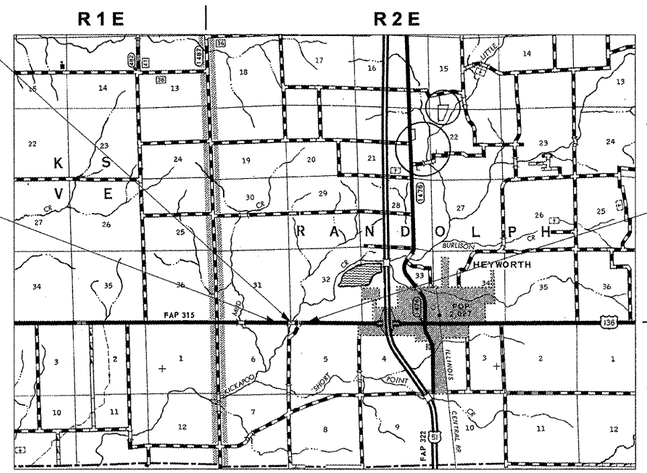
EXISTING SN 057-0093 AT STA. 428+16.72
CARRYING U.S. 136 OVER KICKAPOO CREEK
TO BE REMOVED AND REPLACED.
PROPOSED SN 057-0244 AT STA. 428+16.72
3 SPAN PLATE GIRDER BRIDGE 310'-0" BK-BK.
SKEW 0°

F.A.P. 315 SECTION 121BR-2
BEGINS: STA. 415+00.00



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 (RANDOLPH TOWNSHIP)

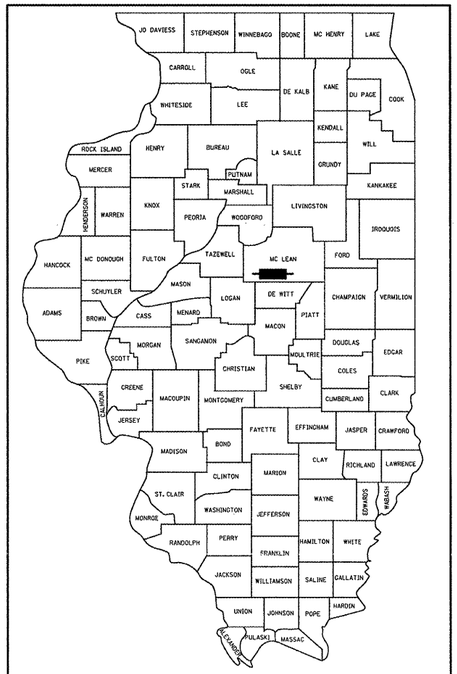


F.A.P. 315 SECTION 121BR-2
ENDS: STA. 442+00.00

N

GROSS LENGTH = 2,700.00 FT. = 0.511 MILE
NET LENGTH = 2,700.00 FT. = 0.511 MILE

D-95-066-06



LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/25 20 11
Russell R. Crowe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Oct 14 20 11
Scott E. Stitt, P.E. /BR
acting ENGINEER OF DESIGN AND ENVIRONMENT
Oct 14 20 11
Christine M. Reed /BR
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER: NANCY FASIG
SQUAD LEADER: BRIAN J. HOGAN
DESIGNER: BILLY J. MURPHY
(217)-465-4181

CONTRACT NO. 70552

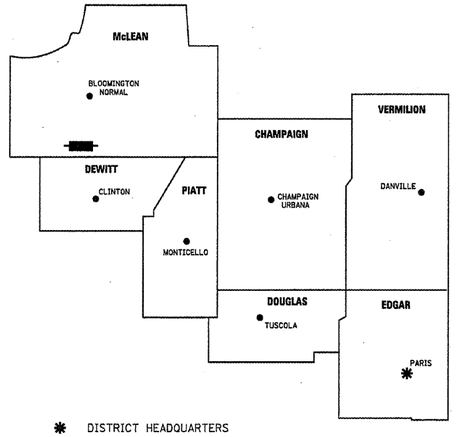
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315 (US 136)	121 BR-2	McLEAN	2	1A
F.H.W.A. REG.	ILLINOIS	PROJECT		

CONTRACT NO. 70552

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RIGHT OF WAY PLANS
FOR PROPOSED
FEDERAL AID HIGHWAY

FAP ROUTE 315 (U.S. 136)
SECTION 121 BR-2
JOB R-95-075-10
McLEAN COUNTY

REGION 3 / DISTRICT 5

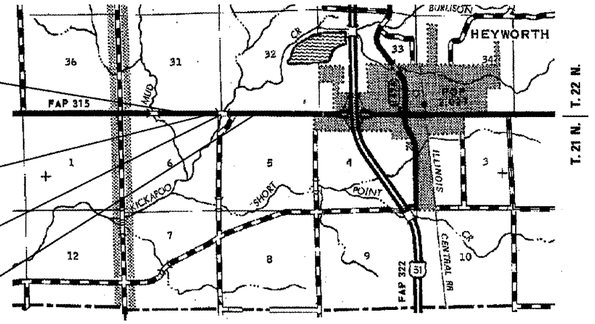


✱ DISTRICT HEADQUARTERS
▬ PROJECT LOCATION

N

NOT TO SCALE

R. 4 E. | R. 2 E. OF 3RD P.M.



LENGTH OF LAND ACQUISITION PROJECT = 592 LIN. FT. = 0.112 MILE

KENNETH W. HACKNEY 3135 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS PARIS, ILLINOIS

THIS IS TO CERTIFY THAT THIS IS A TRUE AND CORRECT SET OF RIGHT OF WAY PLANS MADE UNDER MY DIRECTION FOR THE DIVISION OF HIGHWAYS, STATE OF ILLINOIS.

Kenneth W Hackney 8/15/11
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3135 DATE
LICENSE EXPIRES 11/30/12

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/15 20 11
Joseph E. Crowe
JOSEPH E. CROWE, P.E.
DEPUTY DIRECTOR OF HIGHWAYS
REGION 3 ENGINEER

EXAMINED AUGUST 15 20 11
Kenneth W Hackney
DISTRICT CHIEF OF PLATS & PLANS

PASSED AUGUST 15 20 11
David L Fowler
DISTRICT LAND ACQUISITION ENGINEER

INDEX OF SHEETS

FILE NAME = c:\pw_work\pwidot\hoganby\d0142533\D570052-sht-index.dgn	USER NAME = hoganby	DESIGNED - ____	REVISED - ____ ____
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	PLOT DATE = 8/22/2011	DATE - ____	REVISED - ____ ____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

SCALE: ____ | SHEET NO. 1 OF 1 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	2
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

LIST OF HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001 - 06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001 - 02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001 - 05	TEMPORARY EROSION CONTROL SYSTEMS
420001 - 07	PAVEMENT JOINTS
420401 - 08	BRIDGE APPROACH PAVEMENT CONNECTOR
421001 - 02	BAR REINFORCEMENT FOR CRC PAVEMENT
515001 - 03	NAME PLATE FOR BRIDGES
542301 - 03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401 - 01	METAL END SECTION FOR PIPE CULVERTS
601101 - 01	CONCRETE HEADWALL FOR PIPE DRAIN
604001 - 03	FRAME AND LIDS, TYPE 1
630001 - 09	STEEL PLATE BEAM GUARDRAIL
630301 - 05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011 - 07	TRAFFIC BARRIER TERMINAL, TYPE 2
631031 - 09	TRAFFIC BARRIER TERMINAL, TYPE 6
635006 - 03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011 - 02	REFLECTOR MARKER AND MOUNTING DETAILS
666001 - 01	RIGHT-OF-WAY MARKERS
667101 - 01	PERMANENT SURVEY MARKERS

STANDARD NO.	DESCRIPTION
701001 - 02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006 - 03	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701201 - 04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH
701301 - 04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306 - 03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45 MPH
701311 - 03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321 - 11	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901 - 01	TRAFFIC CONTROL DEVICES
704001 - 06	TEMPORARY CONCRETE BARRIER
780001 - 02	TYPICAL PAVEMENT MARKINGS
781001 - 03	TYPICAL APPLICATIONS OF RAISED REFLECTIVE PAVEMENT MARKINGS
886001 - 01	DETECTOR LOOP INSTALLATIONS
886006 - 01	TYPICAL LAYOUT FOR DETECTION LOOPS

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	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIST OF HIGHWAY STANDARDS

SCALE: ____ | SHEET NO. 1 OF 1 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	3
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

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

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

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

G.N.-107.37
UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED (QUALITY LEVEL C &/OR QUALITY LEVEL D) AND THE ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY.

UTLILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THESE ADJUSTMENTS ARE BEING PERFORMED. J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM (800) 892-0123 OR 811.

G.N.-201
TREES THAT INTERFERE WITH THE CONSTRUCTION OPERATIONS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER. ANY TREE DUE TO ITS LOCATION AND DEEMED SUITABLE FOR SAVING BY THE ENGINEER SHALL BE PROTECTED DURING CLEARING AND SUBSEQUENT CONSTRUCTION OPERATIONS.

G.N.-202
GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH AS TO PRESERVE IN THE ORIGINAL STATE AS MUCH AREA OF TEMPORARY EASEMENTS AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE AS DIRECTED BY THE ENGINEER.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

G.N.-250C
SEEDING, CLASS 7 AND MULCH, METHOD 2 IS INCLUDED IN THIS CONTRACT TO SEED NEW EARTHWORK LOCATIONS DURING TIME PERIODS WHEN PERMANENT SEEDING IS NOT ALLOWED. SOME OR ALL OF THE CLASS 7 SEEDING AND MULCH WILL BE DELETED IF IT IS POSSIBLE TO PLACE PERMANENT SEEDING ON EARTH SHOULDERS AT THE TIME OF THEIR COMPLETION.

G.N.-280
TEMPORARY EROSION CONTROL SEEDING IS INCLUDED IN THIS CONTRACT TO SEED DISTURBED EARTH DURING TIME PERIODS WHEN PERMANENT SEEDING IS NOT ALLOWED. SOME OR ALL OF THE TEMPORARY EROSION CONTROL SEEDING WILL BE DELETED IF IT IS POSSIBLE TO PLACE PERMANENT SEEDING ON EARTH AT THE TIME OF THEIR COMPLETION.

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

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

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

G.N.-406H -- MIXTURE REQUIREMENTS Contract: 70552

Location	US 136	US 136
Mixture Use	Surface, Incid & Top Lift Shldr	Binder & Bott. Lifts Shldr
AC/PG	PG 64-22	PG 64-22
RAP % (Max)	10	15
Design Air Voids	4.0% @ Ndes=70	4.0% @ Ndes=70
Mix Comp(Gradation)	IL 9.5	IL 19.0
Friction Aggregate	Mix C	N.A.

G.N.-408B
THE INCIDENTAL HOT-MIX ASPHALT SURFACING SHALL BE COMPACTED AS REQUIRED BY THE SPECIFICATIONS FOR DESIGN NUMBER OF GYRATIONS BEING USED,

AT THE FOLLOWING LOCATIONS:
T.R. 190 (C.R. 1300 E)

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		DRAWN -	REVISED -
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	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	4
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

G.N.-540
THE CONTRACTOR SHALL ASSEMBLE AND MATCH-MARK THE PRECAST BOX CULVERT SECTIONS AND END SECTIONS PRIOR TO SHIPMENT OF THESE COMPONENTS FROM THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER FIT ON EACH JOINT. ANY SECTIONS OR END SECTIONS WHICH DO NOT PROVIDE A PROPER FIT AT THE JOINT SHALL BE REJECTED BY THE ENGINEER AND REPLACED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION BEING ALLOWED.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR PRECAST CONCRETE BOX CULVERTS OF THE SIZE SPECIFIED.

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

G.N.-542B SPL
THE C.E. @ 424+67.69 CULVERT LENGTH SHOWN IN THE PLANS WAS CALCULATED WITH THE ASSUMPTION THAT METAL PIPES AND METAL END SECTION WOULD BE USED.

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

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

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

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

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

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

NO COMMITMENTS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	5
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

				LOCATION OF WORK:	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	
				FUNDING BREAKOUT:	80% FEDERAL / 20% STATE	80% FEDERAL / 20% STATE	
				CONSTRUCTION TYPE CODE:	0004	0011	
	CODE NO.	ITEM	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY	
	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	750.0	0.0	750.0	
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	500.0	0.0	500.0	
	20200100	EARTH EXCAVATION	CU YD	3,350.0	0.0	3,350.0	
	20700220	POROUS GRANULAR EMBANKMENT	CU YD	265.0	0.0	265.0	
	21301072	EXPLORATION TRENCH 72" DEPTH	FOOT	40.0	0.0	40.0	
*	25000210	SEEDING, CLASS 2A	ACRE	4.0	0.0	4.0	
*	25000350	SEEDING, CLASS 7	ACRE	4.0	0.0	4.0	
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	360.0	0.0	360.0	
*	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	360.0	0.0	360.0	
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	360.0	0.0	360.0	
*	25100115	MULCH, METHOD 2	ACRE	8.0	0.0	8.0	
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	400.0	0.0	400.0	
	28000305	TEMPORARY DITCH CHECKS	FOOT	180.0	0.0	180.0	
	28000400	PERIMETER EROSION BARRIER	FOOT	3,950.0	0.0	3,950.0	
	28000500	INLET AND PIPE PROTECTION	EACH	5.0	0.0	5.0	
	28100107	STONE RIPRAP, CLASS A4	SQ YD	350.0	908.0	1,258.0	
	28200200	FILTER FABRIC	SQ YD	350.0	908.0	1,258.0	
	31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	170.0	705.0	875.0	
	35800200	AGGREGATE BASE REPAIR	TON	11.0	0.0	11.0	
	40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	100.0	0.0	100.0	
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	725.0	0.0	725.0	

* DENOTES SPECIALTY ITEM

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	PLOT SCALE = 100.0000 ' / in.	DRAWN - ____	REVISED -			315	121BR-2	MCLEAN	144	6
	PLOT DATE = 8/22/2011	CHECKED - ____	REVISED -		SCALE: ____ SHEET NO. 1 OF 6 SHEETS STA. ____ TO STA. ____			CONTRACT NO. 70552		
		DATE - _____	REVISED -					ILLINOIS FED. AID PROJECT		

		LOCATION OF WORK:	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	
		FUNDING BREAKOUT:	80% FEDERAL / 20% STATE	80% FEDERAL / 20% STATE	
		CONSTRUCTION TYPE CODE:	0004	0011	
CODE NO.	ITEM	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY
40600300	AGGREGATE (PRIME COAT)	TON	15.0	0.0	15.0
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	560.0	0.0	560.0
40600990	TEMPORARY RAMP	SQ YD	800.0	1,200.0	2,000.0
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	4,575.0	0.0	4,575.0
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	750.0	0.0	750.0
40800010	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	100.0	0.0	100.0
40800030	AGGREGATE (PRIME COAT)	TON	2.0	0.0	2.0
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	75.0	0.0	75.0
44000100	PAVEMENT REMOVAL	SQ YD	82.0	353.0	435.0
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	105.0	0.0	105.0
44004000	PAVED DITCH REMOVAL	FOOT	60.0	0.0	60.0
44004250	PAVED SHOULDER REMOVAL	SQ YD	0.0	550.0	550.0
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	1,550.0	0.0	1,550.0
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	1,025.0	0.0	1,025.0
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	0.0	1.0	1.0
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1.0	0.0	1.0
50105220	PIPE CULVERT REMOVAL	FOOT	263.0	0.0	263.0
50200100	STRUCTURE EXCAVATION	CU YD	0.0	374.0	374.0
50300100	FLOOR DRAINS	EACH	0.0	36.0	36.0
50300225	CONCRETE STRUCTURES	CU YD	0.0	162.0	162.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	0.0	543.3	543.3

* DENOTES SPECIALTY ITEM

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	PLOT DATE = 8/22/2011	DATE - _____	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: ____ | SHEET NO. 2 OF 6 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	7
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

		LOCATION OF WORK:	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	
		FUNDING BREAKOUT:	80% FEDERAL / 20% STATE	80% FEDERAL / 20% STATE	
		CONSTRUCTION TYPE CODE:	0004	0011	
CODE NO.	ITEM	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY
50300260	BRIDGE DECK GROOVING	SQ YD	0.0	1,401.0	1,401.0
50300280	CONCRETE ENCASEMENT	CU YD	0.0	19.8	19.8
50300300	PROTECTIVE COAT	SQ YD	0.0	1,773.0	1,773.0
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	0.0	1.0	1.0
50500505	STUD SHEAR CONNECTORS	EACH	0.0	8,406.0	8,406.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	0.0	147,390.0	147,390.0
50800515	BAR SPLICERS	EACH	0.0	1,368.0	1,368.0
~~51200959~~	~~FURNISHING METAL SHELL PILES 14" X 0.312"~~	~~FOOT~~	~~0.0~~	~~810.0~~	~~810.0~~
51201800	FURNISHING STEEL PILES HP14X73	FOOT	0.0	2,699.0	2,699.0
51202305	DRIVING PILES	FOOT	0.0	2,699.0	2,699.0
~~51203200~~	~~TEST PILE METAL SHELLS~~	~~EACH~~	~~0.0~~	~~2.0~~	~~2.0~~
51203800	TEST PILE STEEL HP14X73	EACH	0.0	4.0	4.0
51500100	NAME PLATES	EACH	0.0	1.0	1.0
52100520	ANCHOR BOLTS, 1" ø	EACH	0.0	48.0	48.0
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	1.0	0.0	1.0
54001002	BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	1.0	0.0	1.0
54001061	GRATED BOX CULVERT END SECTIONS, CULVERT NO. 01	EACH	1.0	0.0	1.0
54001062	GRATED BOX CULVERT END SECTIONS, CULVERT NO. 02	EACH	1.0	0.0	1.0
54010503	PRECAST CONCRETE BOX CULVERTS 5' X 3'	FOOT	40.0	0.0	40.0
54020706	PRECAST CONCRETE BOX CULVERTS 7' X 6' (M273)	FOOT	48.0	0.0	48.0
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	1.0	0.0	1.0

* DENOTES SPECIALTY ITEM

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\D570552-sht-SQQ.dgn	USER NAME = hoganbj	DESIGNED - BJH 7/12/2011	REVISED -
		DRAWN - ___	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ___	REVISED -
	PLOT DATE = 8/22/2011	DATE - _____	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: ____ | SHEET NO. 3 OF 6 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	8
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

			LOCATION OF WORK:	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	
			FUNDING BREAKOUT:	80% FEDERAL / 20% STATE	80% FEDERAL / 20% STATE	
			CONSTRUCTION TYPE CODE:	0004	0011	
	CODE NO.	ITEM	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY
	54215559	METAL END SECTIONS 24"	EACH	2.0	0.0	2.0
	542D1069	PIPE CULVERTS, CLASS D, TYPE 2 24"	FOOT	74.0	0.0	74.0
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	0.0	81.0	81.0
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	0.0	4.0	4.0
	60255800	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	1.0	0.0	1.0
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	212.5	0.0	212.5
*	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2.0	0.0	2.0
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4.0	0.0	4.0
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2.0	0.0	2.0
	63200310	GUARDRAIL REMOVAL	FOOT	454.0	0.0	454.0
*	63300725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	100.0	0.0	100.0
	66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	2.0	0.0	2.0
	67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	2.0	10.0	12.0
	67100100	MOBILIZATION	L SUM	0.2	0.8	1.0
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	0.0	1.0	1.0
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0	0.0	1.0
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1.0	0.0	1.0
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	0.0	1.0	1.0
	70106700	TEMPORARY RUMBLE STRIPS	EACH	0.0	6.0	6.0
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	1,000.0	0.0	1,000.0
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	6,100.0	0.0	6,100.0

* DENOTES SPECIALTY ITEM

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	PLOT SCALE = 100.0000 ' / in.	CHECKED - ____	REVISED -
	PLOT DATE = 8/22/2011	DATE - _____	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: ____ | SHEET NO. 4 OF 6 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	9
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

				LOCATION OF WORK:	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	
				FUNDING BREAKOUT:	80% FEDERAL / 20% STATE	80% FEDERAL / 20% STATE	
				CONSTRUCTION TYPE CODE:	0004	0011	
	CODE NO.	ITEM	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2,150.0	0.0	2,150.0
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	0.0	687.5	687.5
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	0.0	562.5	562.5
*	70500100	TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	0.0	50.0	50.0
*	70500665	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	0.0	2.0	2.0
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	5,200.0	0.0	5,200.0
*	78008310	POLYUREA PAVEMENT MARKING TYPE II - LINE 4"	FOOT	0.0	850.0	850.0
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	30.0	0.0	30.0
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	0.0	5.0	5.0
*	78200420	GUARDRAIL MARKERS, TYPE B	EACH	11.0	0.0	11.0
*	78200520	BARRIER WALL MARKERS, TYPE B	EACH	0.0	10.0	10.0
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2.0	2.0	4.0
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	0.0	350.0	350.0
	78300200	RAISED REFLECTIVE PAVMENT MARKER REMOVAL	EACH	30.0	5.0	35.0
*	D2001724	EVERGREEN, PICEA ABIES (NORWAY SPRUCE), 2' HEIGHT, BALLED AND BURLAPPED	EACH	96.0	0.0	96.0
	X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	0.0	153.0	153.0
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	0.0	1.0	1.0
	X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	0.0	1.0	1.0
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	3.0	0.0	3.0
*	X7050167	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	0.0	2.0	2.0

* DENOTES SPECIALTY ITEM

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	PLOT DATE = 8/22/2011	DATE - _____	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: ____ | SHEET NO. 5 OF 6 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	10
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

			LOCATION OF WORK:	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	US 136 RURAL TWO LANE BRIDGE REPLACEMENT MCLEAN COUNTY STA. 415+00 TO STA 442+00 OVER KICKAPOO CREEK 1.3 MI W OF U.S. 51	
			FUNDING BREAKOUT:	80% FEDERAL / 20% STATE	80% FEDERAL / 20% STATE	
			CONSTRUCTION TYPE CODE:	0004	0011	
CODE NO.	ITEM	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY	
X7200201	WIDTH RESTRICTION SIGNING	L SUM	0.0	1.0	1.0	
XZ193400	SURVEY MARKER, TYPE 2 (SPECIAL)	EACH	2.0	0.0	2.0	
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	0.0	140.0	140.0	
Z0002900	BASE COURSE (OPTION)	SQ YD	0.0	500.0	500.0	
Z0013798	CONSTRUCTION LAYOUT	L SUM	0.2	0.8	1.0	
Z0026407	TEMPORARY SHEET PILING	SQ FT	0.0	932.0	932.0	
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	0.0	1,318.0	1,318.0	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	0.0	2.0	2.0	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	0.0	2.0	2.0	
Z0038700	PERMANENT BENCH MARKS	EACH	0.0	1.0	1.0	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	0.0	150.0	150.0	
Z0070100	SURVEY MONUMENT COVER ASSEMBLY	EACH	2.0	0.0	2.0	

* DENOTES SPECIALTY ITEM

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	PLOT DATE = 8/22/2011	DATE - _____	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

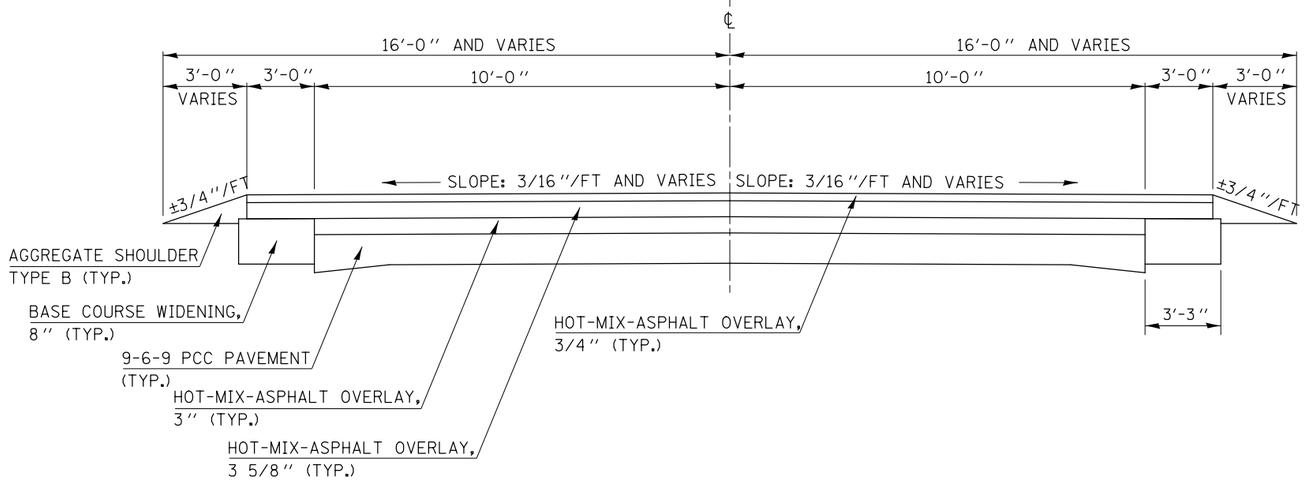
SCALE: ____ | SHEET NO. 6 OF 6 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	11
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

EXISTING TYPICAL CROSS SECTION

F.A.P. 315 (U.S. 136)

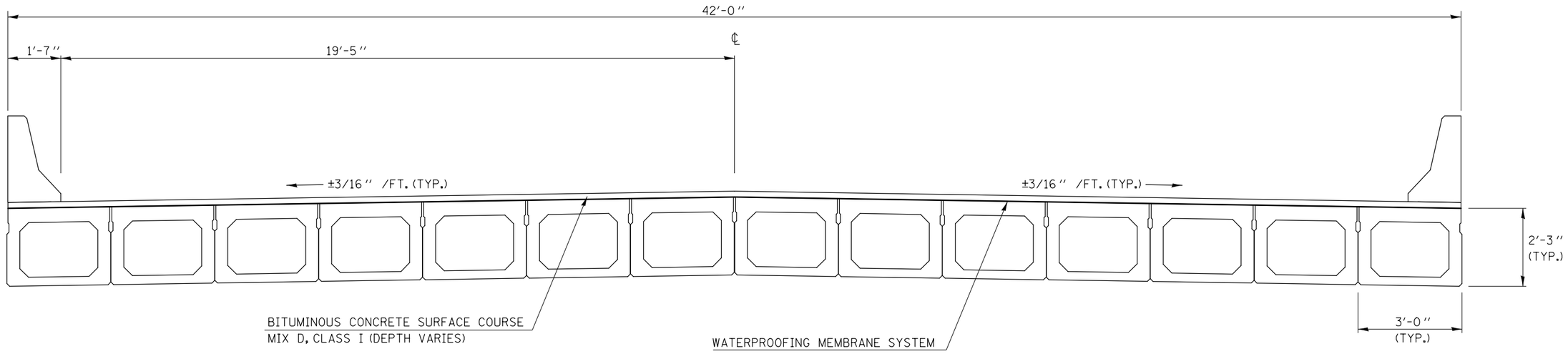
STATION	TO	STATION
415+00.00		426+71.48
429+61.97		442+00.00



EXISTING TYPICAL CROSS SECTION

F.A.P. 315 (U.S. 136)

STATION	TO	STATION
426+71.48		429+61.97



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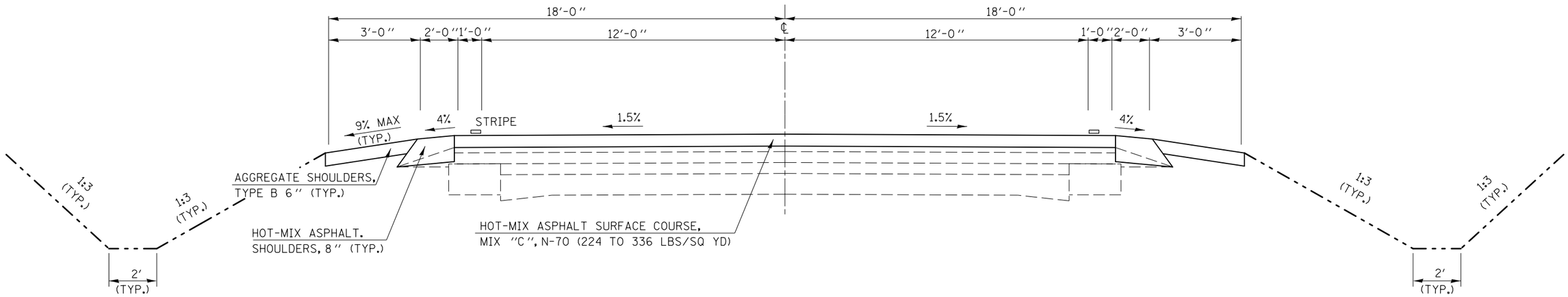
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -					315	121 BR-2	MCLEAN	144	12
	PLOT DATE = 8/22/2011	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.			CONTRACT NO. 70552		
										ILLINOIS FED. AID PROJECT		

PROPOSED TYPICAL CROSS SECTION (1)

F.A.P. 315 (U.S. 136)

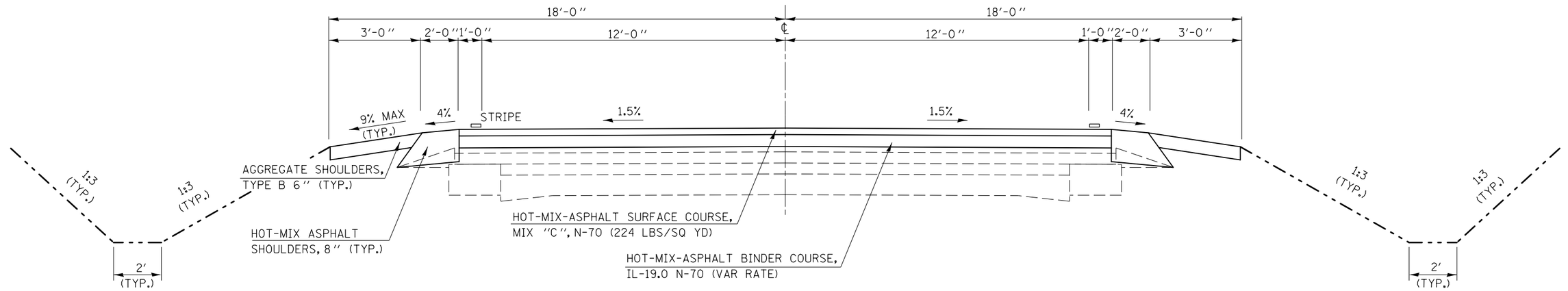
STATION	TO	STATION
415+00.00		417+80.00 (2)
(2) 438+75.00		442+00.00



PROPOSED TYPICAL CROSS SECTION (2)

F.A.P. 315 (U.S. 136)

STATION	TO	STATION
(1) 417+80.00		426+31.72 (3)
(3) 430+01.72		438+75.00 (1)



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	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL CROSS SECTION

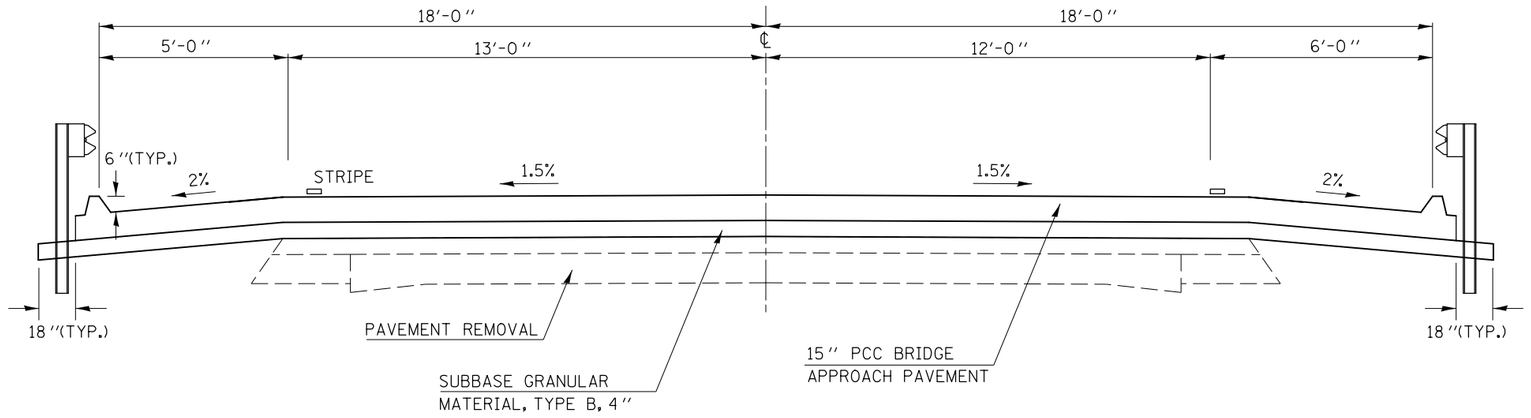
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	13
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

PROPOSED TYPICAL CROSS SECTION (3)

F.A.P. 315 (U.S. 136)

STATION	TO	STATION
(2) 426+31.72		426+61.72 (4)
(4) 429+71.72		430+01.72 (2)



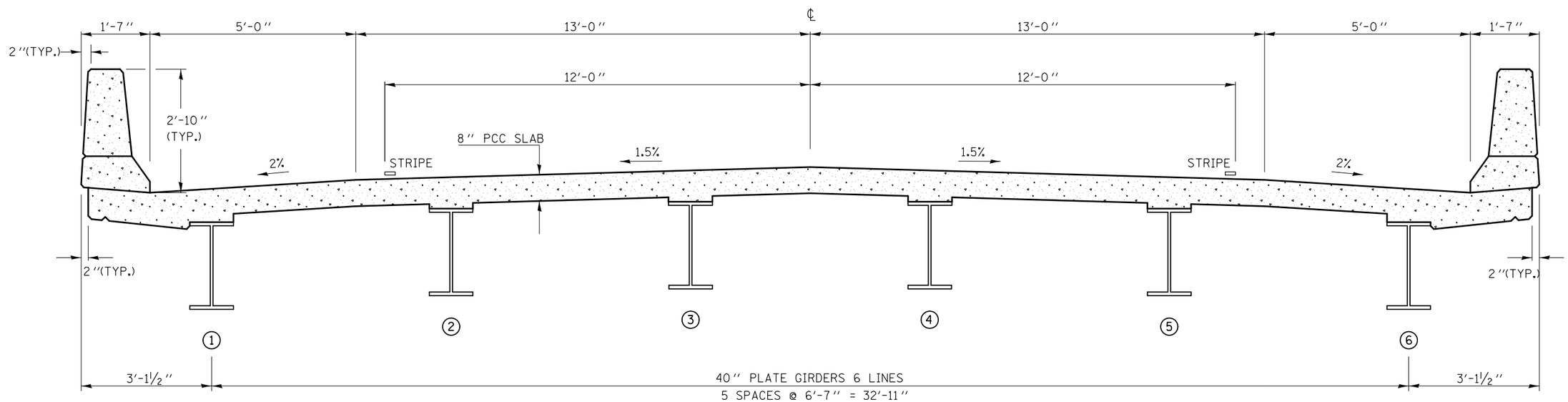
NOTES:

PARAPET WALL: STA. 426+46.72 - STA. 429+86.72
TRAFFIC BARRIER TERMINAL TYPE 6: STA. 426+03.57 - STA. 426+49.22
STA. 429+84.22 - STA. 430+29.87

PROPOSED TYPICAL CROSS SECTION (4)

F.A.P. 315 (U.S. 136)

STATION	TO	STATION
(3) 426+61.72		429+71.72 (3)



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	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL CROSS SECTION

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	14
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

SCHEDULES OF QUANTITIES

TREE REMOVAL

STA.	OFFSET	Tree Removal 6 - 15 Units 20100110 UNIT	Tree Removal Over 15 Units 20100210 UNIT
416+01	52' Rt.		18.0
416+32	53' Rt.	9.0	
416+42	45' Rt.	14.0	
416+52	45' Rt.	10.0	
417+11	50' Rt.	9.0	
417+38	49' Rt.	8.0	
417+48	52' Rt.	10.0	
417+48	53' Rt.		18.0
417+97	47' Rt.	6.0	
418+02	49' Rt.	15.0	
418+60	44' Rt.	6.0	
418+84	48' Rt.	15.0	
419+07	45' Rt.	8.0	
419+23	43' Rt.	10.0	
419+27	43' Rt.	12.0	
419+28	43' Rt.	8.0	
419+47	47' Rt.	8.0	
419+58	44' Rt.	7.0	
419+61	44' Rt.	9.0	
419+64	55' Rt.		19.0
419+73	43' Rt.	6.0	
419+76	53' Rt.	12.0	
419+79	43' Rt.	9.0	
419+83	45' Rt.	7.0	
419+90	55' Rt.		26.0
419+95	44' Rt.	8.0	
419+95	55' Rt.		20.0
420+03	56' Rt.	6.0	
420+11	45' Rt.	6.0	
420+17	52' Rt.		17.0
420+40	55' Rt.		36.0
420+43	53' Rt.	14.0	
421+00	54' Rt.		24.0
421+23	51' Rt.		20.0
421+25	52' Rt.	15.0	
421+36	55' Rt.	8.0	
421+49	54' Rt.	8.0	
421+51	53' Rt.	10.0	
421+65	53' Rt.	6.0	
421+76	53' Rt.		30.0

TREE REMOVAL CONTINUED

STA.	OFFSET	Tree Removal 6 - 15 Units 20100110 UNIT	Tree Removal Over 15 Units 20100210 UNIT
421+86	53' Rt.		24.0
421+96	52' Rt.		18.0
422+36	52' Rt.		48.0
423+79	61' Rt.	15.0	
424+02	63' Rt.		18.0
424+03	63' Rt.	14.0	
424+55	38' Lt.	10.0	
424+55	33' Lt.		18.0
424+55	35' Lt.		18.0
424+57	38' Lt.	12.0	
424+60	36' Lt.		18.0
424+80	40' Lt.	12.0	
424+81	39' Lt.	9.0	
424+84	40' Lt.		20.0
426+90	53' Rt.	12.0	
426+87	56' Rt.	10.0	
426+99	48' Rt.	8.0	
427+14	55' Rt.		24.0
427+23	54' Rt.	8.0	
427+34	52'Rt.	10.0	
427+41	54' Rt.	10.0	
427+41	50' Rt.	6.0	
427+43	50' Rt.	15.0	
427+48	52' Rt.	12.0	
427+52	52' Rt.	12.0	
427+48	55' Rt.	8.0	
427+55	48' Rt.	10.0	
427+69	54' Rt.	12.0	
427+67	51' Rt.	12.0	
427+66	48' Rt.	12.0	
427+70	51' Rt.	12.0	
427+71	50' Rt.	10.0	
427+68	42' Rt.	15.0	
427+72	43' Rt.	15.0	
427+75	41' Rt.	6.0	
427+76	42' Rt.	12.0	
427+78	43' Rt.	12.0	
427+75	46' Rt.	12.0	
427+78	46' Rt.	15.0	
427+77	48' Rt.	15.0	

TREE REMOVAL CONTINUED

STA.	OFFSET	Tree Removal 6 - 15 Units 20100110 UNIT	Tree Removal Over 15 Units 20100210 UNIT
428+92	37' Lt.	15.0	
431+67	51' Rt.		16.0
431+84	47' Rt.		16.0
432+59	51' Rt.	8.0	
432+71	55' Rt.	10.0	
432+76	56' Rt.	8.0	
432+77	56' Rt.	10.0	
432+81	56' Rt.	8.0	
432+73	45' Rt.	12.0	
432+83	53' Rt.	6.0	
433+05	37' Rt.	6.0	
433+11	48' Rt.		34.0
433+14	49' Rt.	6.0	
433+21	49' Rt.	6.0	
433+25	49' Rt.	6.0	
433+32	39' Rt.	8.0	
	TOTAL:	741.0	500.0
	ROUND TO:	750.0	500.0

POROUS GRANULAR EMBANKMENT

LOCATION	AREA (SQ FT)	LENGTH (FOOT)	Porous Granular Embankment 20700220 (CU YD)
Box Culvert @ TR 190 Sta.200+55.32	83.1	45.0	138.4
Box Culvert @ F.E. Sta.431+93.39 Lt.	120.0	28.0	124.4
		TOTAL:	262.8
		ROUND TO:	265.0

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	PLOT SCALE = 100.0000 ' / in.	CHECKED - ___	REVISED - ___ _____
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - ___ _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: ____ | SHEET NO. 1 OF 9 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	15
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

SCHEDULES OF QUANTITIES

EARTH EXCAVATION

DESCRIPTION	EARTH EXCAVATION 20200100 (CU YD)	BOX CULVERT STRUCTURE EXCAVATION (NOTE 4) (CU YD)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)	FURNISHED EXCAVATION 20400800 (CU YD)
FAP 315 LT STA 415+00 TO 442+00	1553.0		1164.8	1132.2	32.6	0.0
FAP 315 RT STA 415+00 TO 442+00	1715.2		1286.4	1595.6	-309.2	0.0
C.E. @ STA. 424+67.69	3.4		2.6	11.7	-9.2	0.0
TR 190 (CR 1300 E) @ STA. 431+72.21	45.4	307.6	264.8	40.9	223.9	0.0
F.E. @ STA. 431+90.15	1.2	210.7	158.9	93.9	65.0	0.0
TOTALS:	3318.2		2877.4	2874.3	3.1	0.0
ROUND TO:	3350.0					0.0

NOTES:
1. THE SHRINKAGE FACTOR USED IS 25%.
2. SHRINKAGE, EMBANKMENT AND BALANCE IS FOR INFORMATION ONLY.
3. NO PAYMENT WILL BE ALLOWED FOR OVERHAUL
4. BOX CULVERT STRUCTURE EXCAVATION IS NOT PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE PRECAST BOX CULVERT AND PRECAST END SECTION PAY ITEMS.

EXPLORATION TRENCH

STA.	OFFSET	Explor Trench 72" 21301072 (FOOT)
430+95	37' Rt.-57' Rt.	20
431+90	32' Rt.-52' Rt.	20
	Total:	40

SUBBASE GRANULAR MATERIAL

STA.	TO	STA.	LENGTH (FOOT)	WIDTH (FOOT)	Subbase Gran Mat B 4 31101200 (SQ YD)
426+38.72		426+46.72	8	40	35.6
426+46.72		426+61.72	15	42.16	70.3
429+71.72		429+86.72	15	42.16	70.3
429+86.72		429+94.72	8	40	35.6
424+50 Lt.		426+71.48 Lt.	221.48	6	147.7
429+61.97 Lt.		431+75 Lt.	213.03	6	142.0
424+75 Rt.		426+31.72 Rt.	156.72	6	104.5
430+01.72 Rt.		431+50 Rt.	148.28	6	98.9
TR 190 (CR 1300 E) STA. 431+72.21			VAR.	VAR.	122.0
CE @ STA. 424+67.69			VAR.	VAR.	40.0
				TOTAL:	866.7
				ROUND TO:	875.0

EROSION CONTROL

STATION TO STATION			OFFSET	TEMP. DITCH CHECKS 28000305 (FOOT)	PERIMETER EROSION BARRIER 28000400 (FOOT)	INLET AND PIPE PROTECTION 28000500 (EACH)
418+00		418+00	LT&RT	30.0		
415+00		427+70.7	LT		1279.0	
415+00		415+85.5	RT		92.0	
421+00		421+00	LT&RT	30.0		
424+00		424+00	LT	15.0		
424+32		424+32	RT			1.0
426+34.8		427+87.7	RT		154.0	
427+00		427+00	LT&RT	30.0		
428+39.4		431+89.2	LT		350.0	
429+00		429+00	LT&RT	30.0		
432+00		437+06	LT		506.0	
432+30		432+30	LT			1.0
428+43.2		430+94.2	RT		257.0	
430+94.2		430+83.4	RT		33.0	
431+90		431+90	RT			1.0
434+00		434+00	RT			1.0
435+00		435+00	LT&RT	30.0		
437+26.5		442+00	LT		478.0	
437+27		437+27	LT			1.0
434+00		442+00	RT		801.0	
440+00		440+00	LT	15.0		
			TOTALS:	180.0	3950.0	5.0

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	PLOT SCALE = 100.0000 ' / in.	CHECKED - ___	REVISED - ___ _____
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - ___ _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: ____ | SHEET NO. 2 OF 9 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	16
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

SCHEDULES OF QUANTITIES

RIPRAP

LOCATION	STATION	TO	STATION	OFFSET	LENGTH (FEET)	WIDTH (FEET)	FILTER FABRIC 28200200 (SQ YD)	STONE RIPRAP CLASS A4 28100107 (SQ YD)	STONE RIPRAP CLASS A4 (TONS)	BEDDING STONE (TONS)
DITCH	428+43.72		430+96.34	RT	252.62	12.00	336.83	336.83	235.00	105.50
AROUND PRCP END	428+43.72		428+63.72	RT	20.00	5.05	11.22	11.22	11.50	3.50
WEST ABUTMENT	426+52.72		426+82.72	CL	30.00	63.17	185.70	185.70	154.00	56.00
WEST PIER	427+49.72		427+89.72	CL	40.00	63.17	303.70	303.70	233.00	92.00
EAST PIER	428+43.72		428+83.72	CL	40.00	63.17	303.70	303.70	233.00	92.00
EAST ABUTMENT	429+50.72		429+80.72	CL	30.00	63.17	185.70	185.70	154.00	56.00
NW APPROACH	426+25.72		426+31.72	LT	6.00	40.00	29.40	29.40	20.00	9.00
SW APPROACH	426+25.72		426.31.72	RT	6.00	40.00	29.40	29.40	20.00	9.00
NE APPROACH	430+01.72		430+07.72	LT	6.00	36.00	26.60	26.60	18.00	8.00
SE APPROACH	430+01.72		430+07.72	RT	6.00	29.00	21.70	21.70	14.50	6.50
						TOTALS =	1,433.95	1,433.95	1,093.00	437.50
						ROUND TO:	1,440.0	1,440.0		

NOTES:
1. STONE RIPRAP AND BEDDING STONE TONNAGE QUANTITIES ARE ESTIMATES AND FOR INFORMATION ONLY.
2. STONE RIPRAP IS ESTIMATED BASED ON 1.5 TONS PER CU YD.
3. BEDDING STONE IS ESTIMATED BASED ON 1.8 TONS PER CU YD.

ENTRANCE AGGREGATE

LOCATION	Agg Base Repair 35800200 (TON)	Agg Surf Cse B 40200800 (TON)	HMA SURF REM 2" 44000157 (SQ YD)
CE 424+67.69 RT	11.0		103.0
TR 190 431+72.21 RT			
FE 431+91.22 LT		45.4	
FE 437+16.49 LT		47.0	
TOTAL:	10.3	92.3	103.0
ROUND TO:	11.0	100.0	105.0

REMOVAL

STA.	TO	STA.	LENGTH (FOOT)	WIDTH (FOOT)	HMA SURFACE REMOVAL (BUTT JOINT) 40600982 (SQ YD)	PAVEMENT REMOVAL 44000100 (SQ YD)	PAVED DITCH REMOVAL 44004000 (FOOT)	PAVED SHOULDER REMOVAL 44004250 (SQ YD)
415+00		415+85	85	26	245.6			
441+15		442+00	85	26	245.6			
426+25.72		426+71.48	45.76	26		132.2		
428+47		428+99	52				52.0	
429+61.97		430+07.72	45.75	26		132.2		
CE @ 424+68.11 RT.			2.5	24	6.7			
TR 190 @ 431+72.21 RT.			28.5	18.1	57.3			
TR 190 @ 431+72.21 RT.			PCBC INSTALLATION			81.2		
FOR BASE COURSE (OPTION):								
424+50 Lt.		426+71.48 Lt.	221.48	6				147.7
424+75 Rt.		426+31.72 Rt.	156.72	9				156.7
429+61.97 Lt.		431+75 Lt.	213.03	6				142.0
430+01.72 Rt.		431+10.97 Rt.	109.25	8				97.1
431+10.97 Rt.		431+50 Rt.	39.03	6		26.0		
BASE COURSE (OPTION) TO BE REMOVED IN STAGE II								
426+25.72 Lt.		426+71.48 Lt.	45.76	6		30.5		
429+61.97 Lt.		430+07.72 Lt.	45.75	6		30.5		
				TOTAL	555.2	432.6	52.0	543.5
				ROUND TO:	560.0	435.0	60.0	550.0

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		DRAWN - ___	REVISED - ___ _____
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ___	REVISED - ___ _____
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - ___ _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: ____ | SHEET NO. 3 OF 9 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	17
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

SCHEDULES OF QUANTITIES

TEMPORARY RAMP

STA.	VERTICAL DROPOFF (IN)	LENGTH (FEET)	WIDTH (FEET)	TEMPORARY RAMP 40600990 (SQ YD)
415+00	2.0	6.7	26.0	19.3
417+80	1.0	3.3	30.0	11.1
419+13.64	1.0	3.3	30.0	11.1
420+21.43	1.0	3.3	30.0	11.1
426+28.72	20.8	69.2	36.0	276.7
426+28.72	14.0	46.7	36.0	186.7
426+28.72	8.0	26.7	36.0	106.7
426+28.72	2.0	6.7	36.0	26.7
430+04.72	20.3	67.5	36.0	270.0
430+04.72	14.0	46.7	36.0	186.7
430+04.72	8.0	26.7	36.0	106.7
430+04.72	2.0	6.7	36.0	26.7
436+50	1.0	3.3	30.0	11.1
437+63.64	1.0	3.3	30.0	11.1
438+75	1.0	3.3	30.0	11.1
442+00	2.0	6.7	26.0	19.3
CE 424+67.69 RT	20.5	20	60	133.3
CE 424+67.69 RT	14.0	14.5	60	96.7
CE 424+67.69 RT	8.0	8.3	60	55.3
CE 424+67.69 RT	2.0	6.7	60	44.5
CE 424+67.69 RT	2.0	6.7	24	17.8
TR 190 431+72.21 RT	20.4	20.0	60	133.3
TR 190 431+72.21 RT	14.0	14.5	60	96.7
TR 190 431+72.21 RT	8.0	8.3	60	55.3
TR 190 431+72.21 RT	2.0	6.7	60	44.5
TR 190 431+72.21 RT	2.0	6.7	16	11.9
			TOTAL:	1981.4
			ROUND TO:	2000.0

SHOULDERS

STA.	TO	STA.	LENGTH (FOOT)	WIDTH (FOOT)	AGG SHOULDERS TYPE B, 6" 48101500 (SQ YD)	HMA SHOULDERS 8" 48203029 (SQ YD)
415+00 Rt.		424+17 Rt.	917	3.0	305.7	
425+03 Rt.		426+31.72 Rt	128.72	3.0	42.9	
430+01.72 Rt.		431+13 Rt.	111.28	3.0	37.1	
431+75 Rt.		442+00 Rt.	1025	3.0	341.7	
415+00 Lt.		426+31.72 Lt.	1131.72	3.0	377.2	
430+01.72 Lt.		431+60 Lt.	158.28	3.0	52.8	
432+23 Lt.		436+80 Lt.	457	3.0	152.3	
437+50 Lt.		442+00 Lt.	450	3.0	150.0	
C.E. cl Sta.424+68.11 Rt.			105	2.0	23.3	
TR 190 cl Sta.431+72.21 Rt.			226	2.0	50.2	
415+00 Lt.		426+31.72 Lt.	1131.72	2.0		251.5
430+01.72 Lt.		442+00 Lt.	1198.28	2.0		266.3
415+00 Rt.		426+31.72 Rt.	1131.72	2.0		251.5
430+01.72 Rt.		431+12 Rt.	110.28	2.0		24.5
432+00 Rt.		442+00 Rt.	1000	2.0		222.2
				TOTAL:	1533.2	1016.0
				ROUND TO:	1,550 SQ YD	1,025 SQ YD

DRAINAGE

LOCATION	PIPE CULVERT REMOVAL 50105220 (FOOT)	P Cul Cl D 2 24 542D1069 (FOOT)	Prc Flar End Sec 18 54213663 (EACH)	Met End Sec 24 54215559 (EACH)	PCBC 5'x3' 54010503 (FOOT)	PCBC 7'x6' (M273) 54020706 (FOOT)	Box Cul End Sec C1 54001001 (EACH)	Box Cul End Sec C2 54001002 (EACH)	Grated BC End Sec C1 54001061 (EACH)	Grated BC End Sec C2 54001062 (EACH)	Man Adj New T1 F CL 60255800 (EACH)
CE 424+67.69 RT	76.0	74.0		2.0							
FE 431+90.15 LT	31.0				40.0			1.0		1.0	
TR 190 431+72.21 RT	148.0					48.0	1.0		1.0		
STA.428+56, 34' RT	8.0		1.0								
STA.432+20, 19' RT											1.0
TOTAL:	263.0	74.0	1.0	2.0	40.0	48.0	1.0	1.0	1.0	1.0	1.0

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	PLOT SCALE = 100.0000 ' / in.	DRAWN - ___	REVISED - ___ _____		SCALE: ____	SHEET NO. 4 OF 9 SHEETS	STA. ____ TO STA. ____	315	121BR-2	MCLEAN	144	18
	PLOT DATE = 8/22/2011	CHECKED - ___	REVISED - ___ _____							CONTRACT NO. 70552		
		DATE - _____	REVISED - ___ _____							ILLINOIS FED. AID PROJECT		

SCHEDULES OF QUANTITIES

HOT–MIX ASPHALT (US 136)

LOCATION	STA.	TO	STA.	LENGTH (FEET)	WIDTH (FEET)	BINDER AVG. END AREA FROM CADD (SQ FT)	SURFACE AVG. END AREA FROM CADD (SQ FT)	LEFT SHLDR WIDTH (FT)	RIGHT SHLDR WIDTH (FT)	BINDER THICKNESS (IN)	SURFACE THICKNESS (IN)	BIT. MATLS (PRIME COAT) 40600100 (GALLONS)	AGGREGATE (PRIME COAT) 40600300 (TON)	HMA BINDER COURSE, IL-19.0 N70 40603085 (TON)	HMA SURFACE COURSE, MIX "C", N70 40603315 (TON)	HMA SHOULDERS 8" 48203029 (SQ YD)
US 136	415+00.00		416+00.00	100.0	26.7	0.0	2.2	2.0	2.0			29.6	0.6	0.0	16.7	44.4
US 136	416+00.00		417+00.00	100.0	26.7	0.0	4.5	2.0	2.0			29.6	0.6	0.0	33.5	44.4
US 136	417+00.00		418+00.00	100.0	26.7	1.1	4.4	2.0	2.0			29.6	0.6	8.4	33.0	44.4
US 136	418+00.00		419+00.00	100.0	26.7	6.9	4.4	2.0	2.0			29.6	0.6	51.8	32.6	44.4
US 136	419+00.00		419+13.64	13.6	26.7	18.5	4.4	2.0	2.0			4.0	0.1	18.8	4.4	6.1
US 136	419+13.64		420+00.00	86.4	27.8	18.5	4.4	2.0	2.0			26.7	0.5	119.0	28.1	38.4
US 136	420+00.00		420+21.43	21.4	27.8	29.2	4.4	2.0	2.0			6.6	0.1	46.6	7.0	9.5
US 136	420+21.43		421+00.00	78.6	28.9	29.2	4.4	2.0	2.0			25.2	0.5	171.0	25.6	34.9
US 136	421+00.00		422+00.00	100.0	28.9	35.5	4.4	2.0	2.0			32.1	0.6	264.9	32.6	44.4
US 136	422+00.00		423+00.00	100.0	28.9	38.4	4.4	2.0	2.0			32.1	0.6	286.4	32.6	44.4
US 136	423+00.00		424+00.00	100.0	28.9	40.6	4.4	2.0	2.0			32.1	0.6	302.9	32.6	44.4
US 136	424+00.00		425+00.00	100.0	28.9	42.2	4.4	2.0	2.0			32.1	0.6	314.7	32.6	44.4
US 136	425+00.00		426+00.00	100.0	28.9	42.6	4.4	2.0	2.0			32.1	0.6	318.0	32.6	44.4
US 136	426+00.00		426+28.72	28.7	28.9	43.3	4.4	2.0	2.0			9.2	0.2	92.8	9.4	12.8
US 136	426+28.72		426+31.72	3.0	28.9			2.0	2.0	13	2.0	1.0	0.0	7.01	1.08	1.3
US 136	430+01.72		430+04.72	3.0	28.9			2.0	2.0	13	2.0	1.0	0.0	7.00	1.08	1.3
US 136	430+04.72		431+00.00	95.3	28.9			2.0	2.0	18.32	2.0	30.6	0.6	313.45	34.22	42.3
US 136	431+00.00		431+12.00	12.0	28.9	41.6	4.4	2.0	2.0			3.8	0.1	37.3	3.9	5.3
US 136	431+12.00		432+00.00	88.0	28.9	41.6	4.4	2.0	0.0			28.2	0.6	273.4	28.7	19.6
US 136	432+00.00		433+00.00	100.0	28.9	42.1	4.4	2.0	2.0			32.1	0.6	314.6	32.6	44.4
US 136	433+00.00		434+00.00	100.0	28.9	41.9	4.4	2.0	2.0			32.1	0.6	313.1	32.6	44.4
US 136	434+00.00		435+00.00	100.0	28.9	41.4	4.4	2.0	2.0			32.1	0.6	309.1	32.6	44.4
US 136	435+00.00		436+00.00	100.0	28.9	36.9	4.4	2.0	2.0			32.1	0.6	275.4	32.6	44.4
US 136	436+00.00		436+50.00	50.0	28.9	27.1	4.4	2.0	2.0			16.0	0.3	101.0	16.3	22.2
US 136	436+50.00		437+00.00	50.0	27.8	27.1	4.4	2.0	2.0			15.5	0.3	101.0	16.3	22.2
US 136	437+00.00		437+63.64	63.6	27.8	15.0	4.4	2.0	2.0			19.7	0.4	71.1	20.7	28.3
US 136	437+63.64		438+00.00	36.4	26.7	15.0	4.4	2.0	2.0			10.8	0.2	40.6	11.8	16.2
US 136	438+00.00		439+00.00	100.0	26.7	4.3	4.3	2.0	2.0			29.6	0.6	32.1	32.0	44.4
US 136	439+00.00		440+00.00	100.0	26.7	0.0	4.3	2.0	2.0			29.6	0.6	0.0	31.8	44.4
US 136	440+00.00		441+00.00	100.0	26.7	0.0	4.5	2.0	2.0			29.6	0.6	0.0	33.7	44.4
US 136	441+00.00		442+00.00	100.0	26.7	0.0	2.4	2.0	2.0			29.6	0.6	0.0	17.7	44.4
											US 136 TOTALS =	724.1	14.5	4,191.6	732.8	1,016.0
											ROUNDED	725.0	15.0	-	750.0	1,025.0

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		DRAWN - ___	REVISED - ___ _____
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ___	REVISED - ___ _____
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - ___ _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: ____ | SHEET NO. 5 OF 9 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	19
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

SCHEDULES OF QUANTITIES

INCIDENTAL HOT–MIX ASPHALT

LOCATION	STA.	TO	STA.	AVERAGE BINDER THICKNESS FROM CADD (IN)	SURFACE THICKNESS (IN)	AREA FROM CADD (SQ FT)	BIT. MATLS (PRIME COAT) 40800010 (GALLONS)	AGGREGATE (PRIME COAT) 40800030 (TON)	INCIDENTAL HMA SURFACING 40800050 (TON)	HMA BINDER COURSE, IL-19.0 N70 40603085 (TON)
CE @ 424+67.69	300+13.00		300+75.50	9.9	2.0	2,165.1	24.1	0.48	26.9	133.9
TR 190 (HMA BASE)	200+16.18		201+16.18	10.2	2.0	2,718.7	30.2	0.60	33.8	172.4
TR 190 (AGG BASE)	200+16.18		201+16.18	10.2	2.0	692.2	38.5	0.23	8.6	43.9
FE @ 431+91.22 LT				12.0	0.0	115.8	0.0	0.00	0.0	8.6
FE @ 437+16.49 LT				2.4	0.0	107.6	0.0	0.00	0.0	1.6

HOT–MIX ASPHALT AND INCIDENTAL HOT–MIX ASPHALT SUMMARY

	BIT. MATLS (PRIME COAT) 40600100 (GALLONS)	AGGREGATE (PRIME COAT) 40600300 (TON)	HMA BINDER COURSE, IL-19.0 N70 40603085 (TON)	HMA SURFACE COURSE, MIX "C", N70 40603315 (TON)	HMA SHOULDERS 8" 48203029 (SQ YD)	BIT. MATLS (PRIME COAT) 40800010 (GALLONS)	AGGREGATE (PRIME COAT) 40800030 (TON)	INCIDENTAL HMA SURFACING 40800050 (TON)
US 136	724.1	14.5	4,191.6	732.8	1,016.0	0.0	0.0	0.0
CE @ 424+67.69	0.0	0.0	133.9	0.0	0.0	24.1	0.5	26.9
TR 190 (CR 1300 E)	0.0	0.0	216.2	0.0	0.0	68.7	0.8	42.4
FE @ 431+91.22 LT	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0
FE @ 437+16.49 LT	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
GRAND TOTAL	724.1	14.5	4,552.0	732.8	1,016.0	92.7	1.3	69.4
ROUNDED TOTAL	725.0	15.0	4,575.0	750.0	1,025.0	100.0	2.0	75.0

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	20
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

SCHEDULES OF QUANTITIES

GUARDRAIL

STATION	TO	STATION	OFFSET	GUARDRAIL REMOVAL 63200310 (FOOT)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' PO 63000001 (FOOT)	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) (30' RADIUS) 63300725 (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT 63100167 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 2 63100045 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 6 63100085 (EACH)	GUARDRAIL MARKER, TYPE B 78200420 (EACH)	TERMINAL MARKER - DIRECT APPLIED 78201000 (EACH)
424+85		425+16.1	RT			50.0		1.0			
425+16.1		426+03.6	RT		87.5					3.0	
426+03.6		426+49.2	RT						1.0		
429+84.2		430+29.9	RT						1.0		
430+29.9		430+79.9	RT				1.0			2.0	1.0
425+53.6		426+03.6	LT				1.0			2.0	1.0
426+03.6		426+49.2	LT						1.0		
429+84.2		430+29.9	LT						1.0		
430+29.9		431+54.9	LT		125.0					4.0	
431+54.9		431+80.8	LT			50.0		1.0			
425+72.0		426+85.5	RT	113.5							
429+47.8		430+61.3	RT	113.5							
425+72.0		426+85.5	LT	113.5							
429+47.8		430+61.3	LT	113.5							
			TOTALS =	454	212.5	100.0	2.0	2.0	4.0	11.0	2.0

TEMPORARY GUARDRAIL

STATION	TO	STATION	OFFSET	TEMP. STEEL PLATE BEAM GUARDRAIL, TYPE A 70500100 (FOOT)	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) X7050167 (EACH)	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6 70500665 (EACH)	TERMINAL MARKER - DIRECT APPLIED 78201000 (EACH)
425+03.6		425+53.6	RT		1.0		1.0
425+53.6		426+03.6	RT	50.0			
426+03.6		426+49.2	RT			1.0	
429+84.2		430+29.9	RT			1.0	
430+29.9		430+79.9	RT		1.0		1.0
			TOTALS =	50.0	2.0	2.0	2.0

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\IDOT_eng3d.dgn	USER NAME = hoganbj	DESIGNED - ___	REVISED - ___ _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULES OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000 ' / in.	DRAWN - ___	REVISED - ___ _____		SCALE: ____	SHEET NO. 7 OF 9 SHEETS	STA. ____ TO STA. ____	315	121BR-2	MCLEAN	144	21
	PLOT DATE = 8/22/2011	CHECKED - ___	REVISED - ___ _____							CONTRACT NO. 70552		
		DATE - _____	REVISED - ___ _____							ILLINOIS FED. AID PROJECT		

SCHEDULES OF QUANTITIES

PAVEMENT MARKING

STA.	TO	STA.	Sequence	Short-Term Pavt Mking 70300100 (FOOT)	Temp Pvt Mk Line 4 70300220 (FOOT)	Work Zone Pavt Mk Rem 70301000 (SQ FT)	Paint Pvt Mk Line 4 78001110 (FOOT)	Polyurea Pm T 2 Ln 4 78008310 (FOOT)	Raised Refl Pvt Mkr 78100100 (EACH)	Raised Refl Pvt Mkr Br 78100105 (EACH)	Pavt Marking Removal 78300100 (SQ FT)	Raised Ref Pvt Mk Rem 78300200 (EACH)
415+00		442+00	cl After Bridge Complete	272.0		13.3						
420+21.43		426+31.72	cl After 1st Lift Binder	64.0								
430+01.72		436+50	cl After 1st Lift Binder	68.0								
419+13.64		426+31.72	cl After 2nd Lift Binder	72.0								
430+01.72		437+63.64	cl After 2nd Lift Binder	80.0								
417+83.33		426+31.72	cl After 3rd Lift Binder	88.0								
430+01.72		438+75	cl After 3rd Lift Binder	88.0								
415+00		426+31.72	cl After Surface	116.0		38.7						
430+01.72		442+00	cl After Surface	120.0		40.0						
426+31.72 Lt.		430+01.72 Lt.	Edgeline (4'/100')	16.0		5.3						
426+31.72 Rt.		430+01.72 Rt.	Edgeline (4'/100')	16.0		5.3						
415+00		442+00	cl		680.0	226.7						
415+01		442+00	Edgelines		5,400.0	1,800.0						
415+00		426+31.72	cl				290.0		15.0			15.0
415+00 Lt.		426+31.72 Lt.	Edgeline				1,131.7					
415+00 Rt.		426+31.72 Rt.	Edgeline				1,131.7					
430+01.72		442+00	cl				300.0					
430+01.72 Lt.		442+00 Lt.	Edgeline				1,198.3		15.0			15.0
430+01.72 Rt.		431+04 Rt.	Edgeline				102.3					
432+04 Rt.		442+00 Rt.	Edgeline				996.0					
426+31.72		430+01.72	cl					100.0		5.0		5.0
426+31.72 Lt.		430+01.72 Lt.	Edgeline					370.0				
426+31.72 Rt.		430+01.72 Rt.	Edgeline					370.0				
422+98		425+60	Stage 1 cl								23.3	
424+76.34 Lt.		431+57.10 Lt.	Stage 1 Edgeline								226.9	
430+70		433+41	Stage 1 cl								23.3	
430+69.22 Rt.		431+39.72 Rt.	Stage 2 Edgeline								23.5	
425+62.55 Rt.		424+93.72 Rt.	Stage 2 Edgeline								23.0	
			TOTAL:	1,000.0	6,080.0	2,129.3	5,150.0	840.0	30.0	5.0	320.0	35.0
			ROUND TO:	1,000.0	6,100.0	2,150.0	5,200.0	850.0	30.0	5.0	350.0	35.0

SCHEDULES OF QUANTITIES

R.O.W. MARKERS

STA.	OFFSET	FURNISHING & ERECT ROW MARKERS 66600105 (EACH)
419+00	55' RT	1.0
419+00	70' RT	1.0
	TOTAL:	2.0

TEMPORARY CONCRETE BARRIER & IMPACT ATTENUATOR

STA.	OFFSET	TO	STA.	OFFSET	TEMPORARY CONCRETE BARRIER 70400100 (FOOT)	RELOCATE TEMPORARY CONCRETE BARRIER 70400200 (FOOT)	IMPACT ATTENUATOR, TEMP NR TEST LEVEL 3 Z0030250 (EACH)	IMPACT ATTENUATOR RELOC NR TEST LEVEL 3 Z0030350 (EACH)
425+35.47	4.0' RT		425+97.97	6.48' LT	62.5		1.0	
425+97.97	6.48' LT		430+35.47	6.48' LT	437.5			
430+35.47	6.48' LT		430+97.97	4.0' RT	62.5		1.0	
424+72.97	4.0' LT		425+97.97	5.06' RT		125.0		1.0
425+97.97	5.06' RT		430+35.47	5.06' RT		437.5		
430+35.47	5.06' RT		431+60.47	4.0' LT	125.0			1.0
				TOTAL:	687.5	562.5	2.0	2.0

BARRIER WALL MARKER

STA.	TO	STA.	LENGTH (FOOT)	LENGTH / SPACING (80' CTRS.)	Barrier Wall Marker, Type B 78200520 (EACH)
426+46.72 Lt.		429+86.72 Lt.	340	4.25	5
426+46.72 Rt.		429+86.72 Rt.	340	4.25	5
				TOTAL:	10

SURVEY MARKER & MONUMENT

DESCRIPTION	STATION	OFFSET	SURVEY MARKER TYPE 2 (SPL) XZ193400 (EACH)	SURVEY MONUMENT COVER ASSY Z0070100 (EACH)	PERMANENT BENCH MARKS Z0038700 (EACH)
POT #14	418+19.81	ON CL	1.0		
SEC. CORNER	422+95.51	9.05' RT		1.0	
SEC. CORNER	424+78.41	8.78' RT		1.0	
PI KINK #46	436+54.04	ON CL	1.0		
BM ON 057-0244	NA	NA			1.0
		TOTAL:	2.0	2.0	1.0

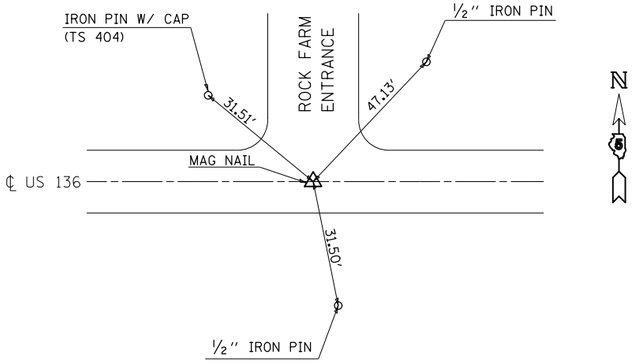
ASBESTOS BEARING PAD REMOVAL

LOCATION	Asbestos Bearing Pad Removal Z0001900 (EACH)
WEST ABUTMENT	14
PIER #2 (WEST SIDE)	14
PIER #2 (EAST SIDE)	14
PIER #3 (EAST SIDE)	14
EAST ABUTMENT	14
TOTAL:	70

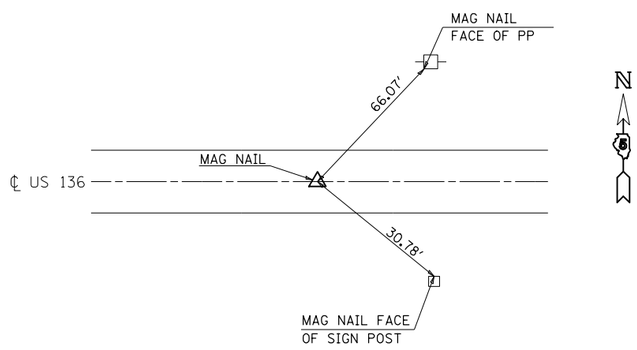
BASE COURSE (OPTION)

STA.	TO	STA.	LENGTH (FEET)	WIDTH (FEET)	Base Course (Option) Z0002900 (SQ YD)
STAGE 1 TRAFFIC					
424+50 Lt.		426+71.48 Lt.	221.48	6.0	147.7
429+61.97 Lt.		431+75 Lt.	213.03	6.0	142.0
STAGE 2 TRAFFIC					
424+75 Rt.		426+31.72 Rt.	156.72	6.0	104.5
430+01.72 Rt.		431+50 Rt.	148.28	6.0	98.9
				TOTAL:	493.0
				ROUND TO:	500.0

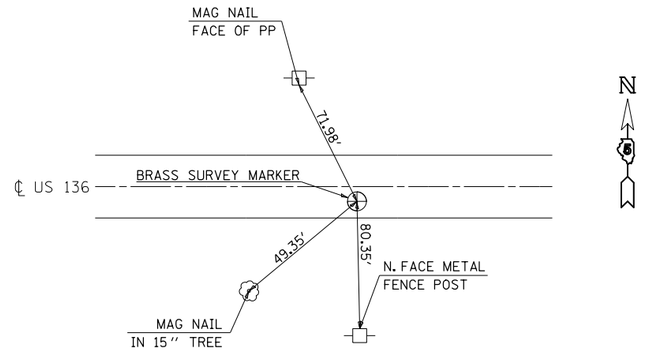
P.I. #4
STATION 393 + 81.44



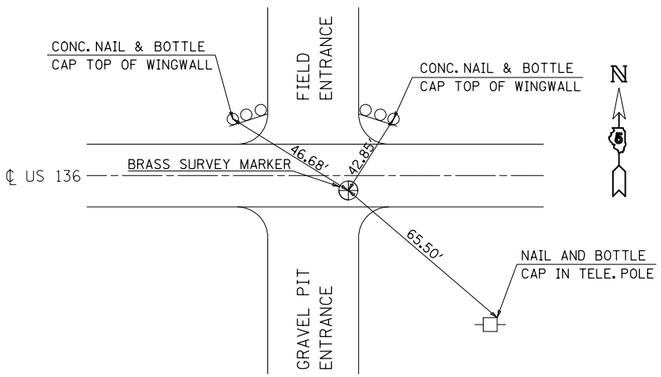
P.O.T. #14
STATION 418 + 19.81



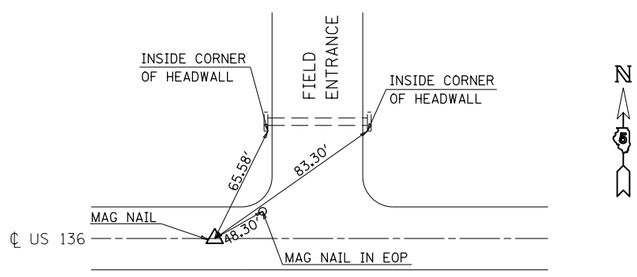
SECTION CORNER
N.E. COR. N.E. 1/4 SEC 6, T21N, R2E, 3RD PM
STATION 422 + 95.51 9.05' RT



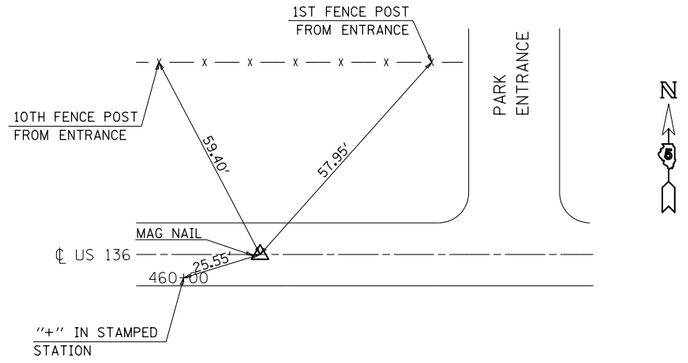
SECTION CORNER
S.E. COR. S.E. 1/4 SEC 31, T22N, R2E, 3RD PM
STATION 424 + 78.41 8.78' RT



P.I. KINK #46
STATION 436 + 54.04



P.O.T. #47
STATION 459 + 97.11



BENCHMARKS

B.M. 4865-1 STA. 426+70.76, (21.13' RT.)
MCLEAN COUNTY
CHISELED SQUARE
TO REACH FROM THE INTERSECTION OF US 136 & US 51,
GO WEST ON US 136 FOR 1.3 MILES TO MARK ON THE LEFT.
SAID MARK IS A CHISELED SQUARE ON THE S.W. WINGWALL OF S.N. 057-0093.
ELEV. = 684.99

B.M. 4865-2 STA. 429+62.04, (21.48' LT.)
MCLEAN COUNTY
CHISELED SQUARE
TO REACH FROM THE INTERSECTION OF US 136 & US 51,
GO WEST ON US 136 FOR 1.3 MILES TO MARK ON THE RIGHT.
SAID MARK IS A CHISELED SQUARE ON THE N.E. WINGWALL OF S.N. 057-0093.
ELEV. = 685.12

B.M. 4865-3 STA. 442+27.01, (29.12' LT.)
MCLEAN COUNTY
CHISELED SQUARE
TO REACH FROM THE INTERSECTION OF US 136 & US 51,
GO WEST ON US 136 FOR 1.0 MILE TO MARK ON THE RIGHT.
SAID MARK IS A CHISELED SQUARE ON THE TOP OF THE NORTH END
OF AN AR BOX CULVERT.
ELEV. = 684.45

B.M. 139 STA. 437+05.91, (40.46' LT.)
MCLEAN COUNTY
CHISELED SQUARE
TO REACH FROM THE INTERSECTION OF US 136 & US 51,
GO WEST ON US 136 FOR 1.1 MILES TO MARK ON THE RIGHT.
SAID MARK IS A CHISELED SQUARE ON THE S.W. HEADWALL OF F.E. CULVERT.
ELEV. = 682.57

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\D570552-sht-ATB.dgn	USER NAME = hoganbj	DESIGNED - BJH 6/24/2011	REVISED -
		DRAWN - BJH 6/24/2011	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ___	REVISED -
	PLOT DATE = 8/22/2011	DATE - _____	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TIE POINTS AND BENCHMARKS

SCALE: ____ | SHEET NO. _ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	24
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

SEC. 31, T 22 N, R 2 E, 3RD PM

NOTE: MAG NAILS ARE SET AT 200' INTERVALS ALONG THE ℄ OF F.A.P. 315 (US 136)

N

EXISTING R.O.W 60' LT.

EXISTING R.O.W 60' LT.

201' Sta 418+19.81

MATCHLINE STATION 419+00.00

413 414 415+00 416 417 418

℄ FAP 315 (US 136)

179°-58'-51"

13' 13' 13' 13'

SECTION 121BR-2
BEGINS STA. 415+00.00

EXISTING R.O.W 55' RT.

EXISTING R.O.W 55' RT.

+00

PROPOSED R.O.W. 70' RT.

HMA SURFACE REMOVAL, BUTT JOINT

SEC. 6, T 21 N, R 2 E, 3RD PM

PROFILE — SURVEYED, PLOTTED, CROSS SECTIONS CHECKED, BAK. NOTED, STRUCTURE NOTATNS CHKD — NOTE BOOK NO. ____ — BY — DATE

683.93

EXISTING LEFT DITCH PROFILE

EXISTING RIGHT DITCH PROFILE

PROPOSED DESIGN
HEADWATER ELEV = 683.3
FREEBOARD = 0.45 FT

PROPOSED LEFT DITCH PROFILE

PROPOSED RIGHT DITCH PROFILE

695 690 685 680 675 670 665

	413+00	413+50	414+00	414+50	415+00	415+50	416+00	416+50	417+00	417+50	418+00	418+50	419+00
LEFT DITCH	683.94	683.93	683.91	683.89	683.88	683.89	683.90	683.92	683.93 683.93	683.89 683.94	683.86 683.95	683.82 683.96	683.78 683.97	683.75 683.94	683.72 683.91	683.70 683.89	683.67 683.86	683.64 683.86	683.62 683.85	683.60 683.84	683.57 683.84	683.54 683.88	683.51 683.93	683.48 683.99	683.45 684.06
RIGHT DITCH									675.94 675.94	676.05 675.93	676.16 675.92	676.27 675.91	676.38 675.90	676.43 675.88	676.49 675.85	676.54 675.82	676.59 675.80	676.59 675.77	676.59 675.75	676.58 675.73	676.58 675.70	676.50 675.68	676.41 675.65	676.33 675.63	676.25 675.60
					677.04 677.04	677.03 676.76	677.02 676.47	677.01 676.18	677.00 675.90	676.94 675.88	676.88 675.85	676.81 675.82	676.75 675.80	676.69 675.77	676.63 675.75	676.56 675.73	676.50 675.70	676.46 675.68	676.41 675.65	676.37 675.63	676.32 675.60				

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\d570552-sht-plnprf.dgn	USER NAME = hoganbj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE SHEET	
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -			
	PLOT DATE = 8/22/2011	DATE -	REVISED -		SCALE:	SHEET NO. 1 OF 5 SHEETS STA. 415+00.00 TO STA. 419+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	McLean	144	25
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

SEC. 31, T 22 N, R 2 E, 3RD PM

SEC. 6, T 21 N, R 2 E, 3RD PM

SEC. 5, T 21 N, R 2 E, 3RD PM

N

+00 EXISTING R.O.W 80' LT.

EXISTING R.O.W 60' LT.

EXISTING R.O.W 60' LT.

TEMPORARY EASEMENT 125' LT.

16.0' AGG.

+37

+92

REMOVAL OF EXISTING STRUCTURE NO. 2 1.0 EACH

+73.19 F.E. TBR

MATCHLINE STATION 419+00.00

MATCHLINE STATION 425+00.00

419

℄ FAP 315 (US 136)

420+00

421

422

423

424

13'

13'

13'

13'

89°-17'-42"

SECTION CORNER STA. 422+95.51 9.05' RT.

PIPE CULVERT REMOVAL 76', EXISTING 24" CMP

SECTION CORNER STA. 424+78.41 8.78' RT.

STA. 424+68.36 54.36' RT
PROPOSED 74' PIPE CULVERT, CLASS D, TYPE 2, 24"
U.S. INVERT = 675.07 / D.S. INVERT = 674.99
2°-17'-02" SKEW LEFT FORWARD

+67.69 30' HMA C.E.

EXISTING R.O.W 55' RT.

+00 PROPOSED R.O.W. 70' RT.

PROPOSED R.O.W. 70' RT.

+18

EXISTING R.O.W 70' RT.

METAL END SECTION 24" 1.0 EACH

24.0' HMA

HMA SURFACE REMOVAL, BUTT JOINT

EXISTING LEFT DITCH PROFILE

EXISTING RIGHT DITCH PROFILE

PROPOSED LEFT DITCH PROFILE

PROPOSED RIGHT DITCH PROFILE

	695	690	685	680	675	670	665	660	655
LEFT DITCH								676.25 675.58	676.18 675.55
RIGHT DITCH								676.24 675.58	676.24 675.55
	683.45 684.06	683.41 684.13	683.38 684.22	683.34 684.31	683.30 684.41	683.32 684.50	683.35 684.59	683.38 684.69	683.40 684.78

	695	690	685	680	675	670	665	660	655
LEFT DITCH	676.11 675.52	676.04 675.50	675.99 675.48	675.94 675.45	675.90 675.42	675.85 675.40	675.82 675.38	675.79 675.35	675.76 675.32
RIGHT DITCH	676.23 675.52	676.22 675.50	676.16 675.48	676.11 675.45	676.06 675.42	676.00 675.40	675.93 675.38	675.86 675.35	675.79 675.32
	683.34 684.31	683.30 684.41	683.32 684.50	683.35 684.59	683.38 684.69	683.40 684.78	683.45 684.88	683.51 684.97	683.56 685.07

	695	690	685	680	675	670	665	660	655
LEFT DITCH	675.73 675.30	675.70 675.27	675.67 675.25	675.65 675.23	675.62 675.20	675.53 675.18	675.45 675.15	675.37 675.13	675.28 675.10
RIGHT DITCH	675.72 675.30	675.71 675.27	675.70 675.25	675.68 675.23	675.67 675.20	675.61 675.18	675.54 675.15	675.47 675.13	675.41 675.10
	683.61 685.16	683.70 685.26	683.79 685.35	683.87 685.45	683.96 685.54	684.03 685.64	684.09 685.73	684.16 685.83	684.22 685.92

	695	690	685	680	675	670	665	660	655
LEFT DITCH	675.36 675.08	675.43 675.05	675.51 675.02	675.58 675.00					
RIGHT DITCH	675.37 675.08	675.33 675.05	675.29 675.02	675.25 675.00					
	684.32 686.02	684.41 686.11	684.51 686.21	684.60 686.30					

419+00 419+50 420+00 420+50 421+00 421+50 422+00 422+50 423+00 423+50 424+00 424+50 425+00

PROFILE
NOTE BOOK NO.
SURVEYED
PLOTTED
PLANS CHECKED
BAR NOTED
STRUCTURE NOTATNS CHKD
DATE
BY

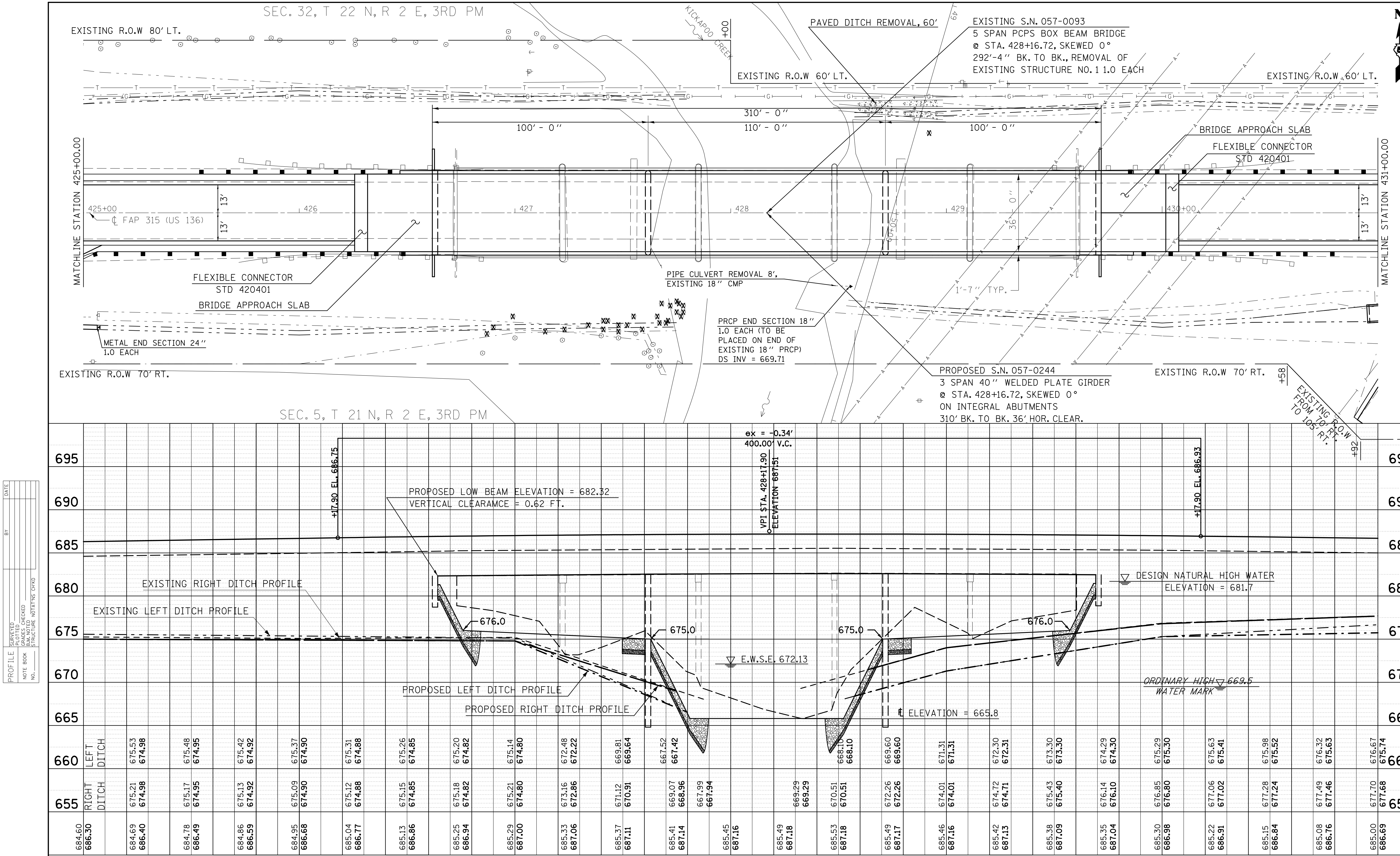
FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\d570552-sht-plnprf.dgn	USER NAME = hoganbj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SHEET

SCALE: | SHEET NO. 2 OF 5 SHEETS | STA. 419+00.00 TO STA. 425+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	McLean	144	26
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		



SEC. 32, T 22 N, R 2 E, 3RD PM
EXISTING R.O.W 80' LT.
KICKAPOO CREEK
PAVED DITCH REMOVAL, 60'
EXISTING S.N. 057-0093
5 SPAN PCPS BOX BEAM BRIDGE
@ STA. 428+16.72, SKEWED 0°
292'-4" BK. TO BK., REMOVAL OF
EXISTING STRUCTURE NO. 1 1.0 EACH
EXISTING R.O.W 60' LT.
310' - 0"
100' - 0"
110' - 0"
100' - 0"
BRIDGE APPROACH SLAB
FLEXIBLE CONNECTOR
STD 420401
MATCHLINE STATION 425+00.00
MATCHLINE STATION 431+00.00
℄ FAP 315 (US 136)
13'
36' - 0"
1'-7" TYP.
FLEXIBLE CONNECTOR
STD 420401
BRIDGE APPROACH SLAB
PIPE CULVERT REMOVAL 8',
EXISTING 18" CMP
PRCP END SECTION 18"
1.0 EACH (TO BE
PLACED ON END OF
EXISTING 18" PRCP)
DS INV = 669.71
METAL END SECTION 24"
1.0 EACH
EXISTING R.O.W 70' RT.
PROPOSED S.N. 057-0244
3 SPAN 40" WELDED PLATE GIRDER
@ STA. 428+16.72, SKEWED 0°
ON INTEGRAL ABUTMENTS
310' BK. TO BK. 36' HOR. CLEAR.
EXISTING R.O.W 70' RT.
EXISTING R.O.W FROM 70' RT. TO 105' RT.
SEC. 5, T 21 N, R 2 E, 3RD PM
ex = -0.34'
400.00' V.C.
VPI STA. 428+17.90
ELEVATION 687.51
+17.90 EL. 686.75
+17.90 EL. 686.93
PROPOSED LOW BEAM ELEVATION = 682.32
VERTICAL CLEARAMCE = 0.62 FT.
EXISTING RIGHT DITCH PROFILE
EXISTING LEFT DITCH PROFILE
676.0
675.0
675.0
676.0
E.W.S.E. 672.13
PROPOSED LEFT DITCH PROFILE
PROPOSED RIGHT DITCH PROFILE
DESIGN NATURAL HIGH WATER
ELEVATION = 681.7
ORDINARY HIGH WATER MARK 669.5
℄ ELEVATION = 665.8
695
690
685
680
675
670
665
660
655
LEFT DITCH
675.53 674.98
675.48 674.95
675.42 674.92
675.37 674.90
675.31 674.88
675.26 674.85
675.20 674.82
675.14 674.80
672.48 672.22
669.81 669.64
667.52 667.42
668.10 668.10
669.60 669.60
671.31 671.31
672.30 672.31
673.30 673.30
674.29 674.30
675.29 675.30
675.63 675.41
675.98 675.52
676.32 675.63
676.67 675.74
RIGHT DITCH
675.21 674.98
675.17 674.95
675.13 674.92
675.09 674.90
675.12 674.88
675.15 674.85
675.18 674.82
675.21 674.80
673.16 672.86
671.12 670.91
669.07 668.96
667.99 667.94
669.29 669.29
670.51 670.51
672.26 672.26
674.01 674.01
674.72 674.71
675.43 675.40
676.14 676.10
676.85 676.80
677.06 677.02
677.28 677.24
677.49 677.46
677.70 677.68
684.60 686.30
684.69 686.40
684.78 686.49
684.86 686.59
684.95 686.68
685.04 686.77
685.13 686.86
685.25 686.94
685.29 687.00
685.33 687.06
685.37 687.11
685.41 687.14
685.45 687.16
685.49 687.18
685.53 687.18
685.49 687.17
685.46 687.16
685.42 687.13
685.38 687.09
685.35 687.04
685.30 686.98
685.22 686.91
685.15 686.84
685.08 686.76
685.00 686.69
425+00
425+50
426+00
426+50
427+00
427+50
428+00
428+50
429+00
429+50
430+00
430+50
431+00
PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHK'D
NOTE BOOK NO.
BY
DATE

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SHEET

SCALE: | SHEET NO. 3 OF 5 SHEETS | STA. 425+00.00 TO STA. 431+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	McLean	144	27

CONTRACT NO. 70552

ILLINOIS FED. AID PROJECT

SEC. 32, T 22 N, R 2 E, 3RD PM

N

STA. 431+93.38 47.71' LT
PROPOSED 5'X3'X40' PCBC,
U.S. INVERT = 676.30
D.S. INVERT = 676.01
3°-18'-33" SKEW
RIGHT FORWARD

PIPE CULVERT REMOVAL 31',
EXISTING 48" CMP

EXISTING R.O.W 60' LT.

EXISTING R.O.W 60' LT.

20.0' AGG.

STA. 431+72.21 US 136 =
STA. 200+00.00 TR 190

+30.15 30' AGG.

MATCHLINE STATION 431+00.00

MATCHLINE STATION 437+00.00

℄ FAP 315 (US 136)

431 | 432 | 433 | 434 | 435+00 | 436 | POT Sta 436+54.04

86°-7'-22"

53°-26'-27"

200+00

POT Sta 200+00.00

22" TILE

13'

180°-00'-38"

MANHOLE TO BE ADJUSTED WITH
NEW TYPE 1 FRAME, CLOSED LID
1.0 EACH STA. 432+20 19.0' RT.

PIPE CULVERT REMOVAL 148',
EXISTING DUAL 36" CMP'S

10" VCP

EXISTING R.O.W 40' RT.

MANHOLE, OPEN LID TO BE LEFT
IN PLACE AND GRADED AROUND
STA. 434+00 34.0' RT.

STA. 200+55.32
PROPOSED 7'X6'X48' PCBC,
U.S. INVERT = 678.46
D.S. INVERT = 677.64
39°-39'-8" SKEW
RIGHT FORWARD

TR 190 (1300 E) 16' HMA

102'

16.0' OIL&CHIP

EXISTING R.O.W FROM 105' RT. TO 70' RT.

EXISTING R.O.W 70' RT.

EXISTING R.O.W 70' RT.

+28

+38

SEC. 5, T 21 N, R 2 E, 3RD PM

EXISTING LEFT DITCH PROFILE

EXISTING RIGHT DITCH PROFILE

PROPOSED LEFT DITCH PROFILE

PROPOSED RIGHT DITCH PROFILE

	431+00	431+50	432+00	432+50	433+00	433+50	434+00	434+50	435+00	435+50	436+00	436+50	437+00
LEFT DITCH	685.00 **686.69**	684.92 **686.62**	684.85 **686.55**	684.78 **686.47**	684.70 **686.40**	684.63 **686.33**	684.56 **686.26**	684.48 **686.18**	684.41 **686.11**	684.34 **686.04**	684.27 **685.97**	684.21 **685.89**	684.14 **685.82**
RIGHT DITCH	678.14 **677.90**	678.58 **678.12**	679.02 **678.34**	679.46 **678.56**	679.48 **678.78**	679.51 **679.00**	679.53 **679.22**	679.55 **679.44**	679.71 **679.66**	679.87 **679.88**	680.03 **680.10**	680.19 **680.32**	680.45 **680.55**
LEFT DITCH	676.84 **675.85**	677.01 **675.96**	677.18 **676.07**	677.35 **676.18**	677.52 **676.29**	677.68 **676.40**	677.85 **676.51**	678.02 **676.62**	678.19 **676.73**	678.36 **676.84**	678.53 **676.95**	678.70 **677.06**	678.86 **677.17**
RIGHT DITCH	680.72 **680.78**	680.98 **681.01**	681.24 **681.24**	681.30 **681.30**	681.36 **681.36**	681.41 **681.41**	681.47 **681.47**	681.54 **681.54**	681.62 **681.62**	681.69 **681.69**	681.76 **681.76**		
LEFT DITCH	679.03 **677.28**	679.19 **677.39**	679.35 **677.50**	679.45 **677.61**	679.54 **677.72**	679.63 **677.83**	679.73 **677.94**	679.72 **678.06**	679.71 **678.17**	679.69 **678.28**	679.68 **678.40**		
RIGHT DITCH	680.72 **680.78**	680.98 **681.01**	681.24 **681.24**	681.30 **681.30**	681.36 **681.36**	681.41 **681.41**	681.47 **681.47**	681.54 **681.54**	681.62 **681.62**	681.69 **681.69**	681.76 **681.76**		
LEFT DITCH	680.72 **680.68**	683.94 **685.60**	683.87 **685.53**	683.87 **685.46**	683.87 **685.39**	683.87 **685.31**	683.87 **685.24**	683.90 **685.17**	683.93 **685.10**	683.97 **685.04**	684.00 **684.98**		

695 690 685 680 675 670 665 660 655

PROFILE
SURVEYED
PLOTTED
CHANGES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHK'D
NOTE BOOK
NO.
BY
DATE

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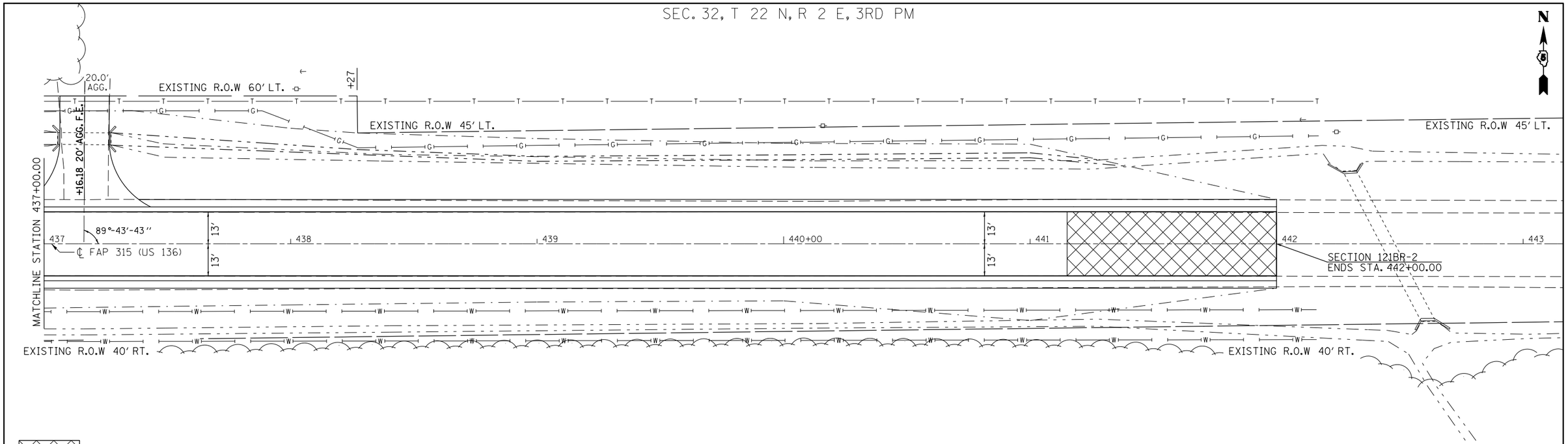
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SHEET

SCALE: | SHEET NO. 4 OF 5 SHEETS | STA. 431+00.00 TO STA. 437+00.00

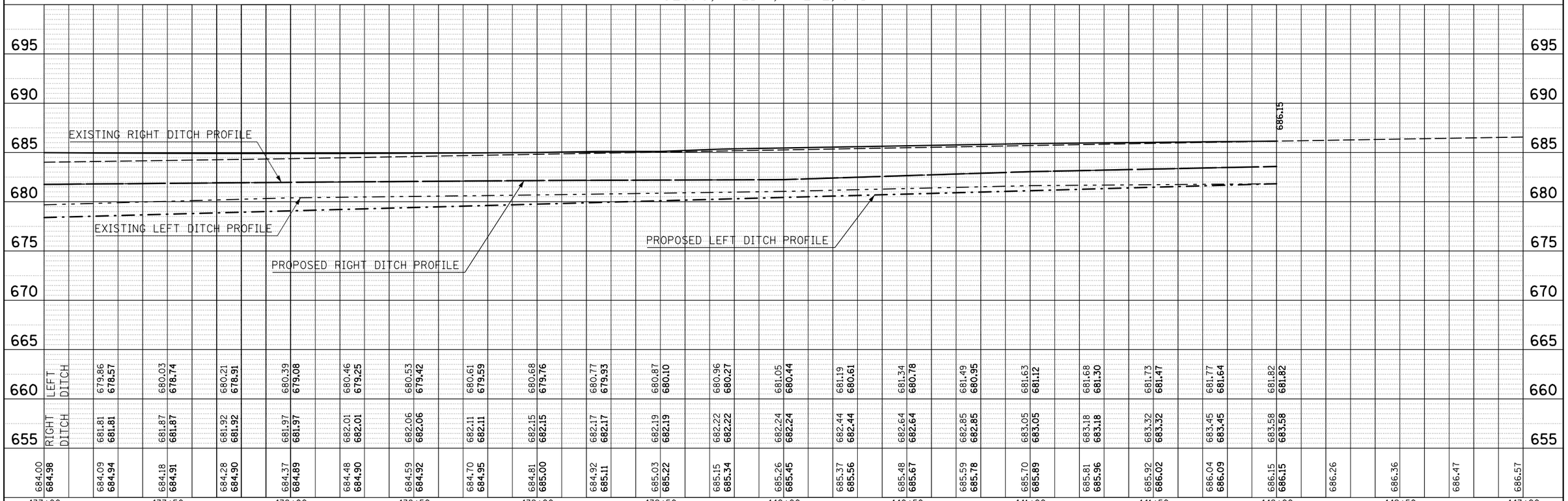
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	McLean	144	28
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

SEC. 32, T 22 N, R 2 E, 3RD PM



HMA SURFACE REMOVAL, BUTT JOINT

SEC. 5, T 21 N, R 2 E, 3RD PM



	LEFT DITCH	RIGHT DITCH
437+00	679.86	681.81
	678.57	**681.81**
437+50	680.03	681.87
	678.74	**681.87**
438+00	680.21	681.92
	678.91	**681.92**
	680.39	681.97
	679.08	**681.97**
438+50	680.46	682.01
	679.25	**682.01**
	680.53	682.06
	679.42	**682.06**
439+00	680.61	682.11
	679.59	**682.11**
	680.68	682.15
	679.76	**682.15**
439+50	680.77	682.17
	679.93	**682.17**
	680.87	682.19
	680.10	**682.19**
440+00	680.96	682.22
	680.27	**682.22**
	681.05	682.24
	680.44	**682.24**
440+50	681.19	682.44
	680.61	**682.44**
	681.34	682.64
	680.78	**682.64**
441+00	681.49	682.85
	680.95	**682.85**
	681.63	683.05
	681.12	**683.05**
441+50	681.68	683.18
	681.30	**683.18**
	681.73	683.32
	681.47	**683.32**
442+00	681.77	683.45
	681.64	**683.45**
	681.82	683.58
	681.82	**683.58**
442+50	684.00	686.15
	684.98	**686.15**
	684.09	686.26
	684.94	
443+00	684.18	686.36
	684.91	
	684.28	686.47
	684.90	
	684.37	686.57
	684.89	
	684.48	
	684.90	
	684.59	
	684.92	
	684.70	
	684.95	
	684.81	
	685.00	
	684.92	
	685.11	
	685.03	
	685.22	
	685.15	
	685.34	
	685.26	
	685.45	
	685.37	
	685.56	
	685.48	
	685.67	
	685.59	
	685.78	
	685.70	
	685.89	
	685.81	
	685.96	
	685.92	
	686.02	
	686.04	
	686.09	

PROFILE — SURVEYED; PLOTTED; CROSS SECTIONS CHECKED; BAR. NOTED; STRUCTURE NOTATNS CHKD; NOTE BOOK; NO. ____ — DATE; BY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SHEET

SCALE: | SHEET NO. 5 OF 5 SHEETS | STA. 437+00.00 TO STA. 442+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	McLean	144	29
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

PLAN		BY	DATE
NOTE BOOK NO.____	SURVEYED PLOTTED ALIGNMENT CHECKED R/T OF WAY CHECKED CADD FILE NAME		

PROFILE		BY	DATE
NOTE BOOK NO.____	SURVEYED PLOTTED GRADES CHECKED B.M. NOTED STRUCTURE NOTAT'NS CHK'D		

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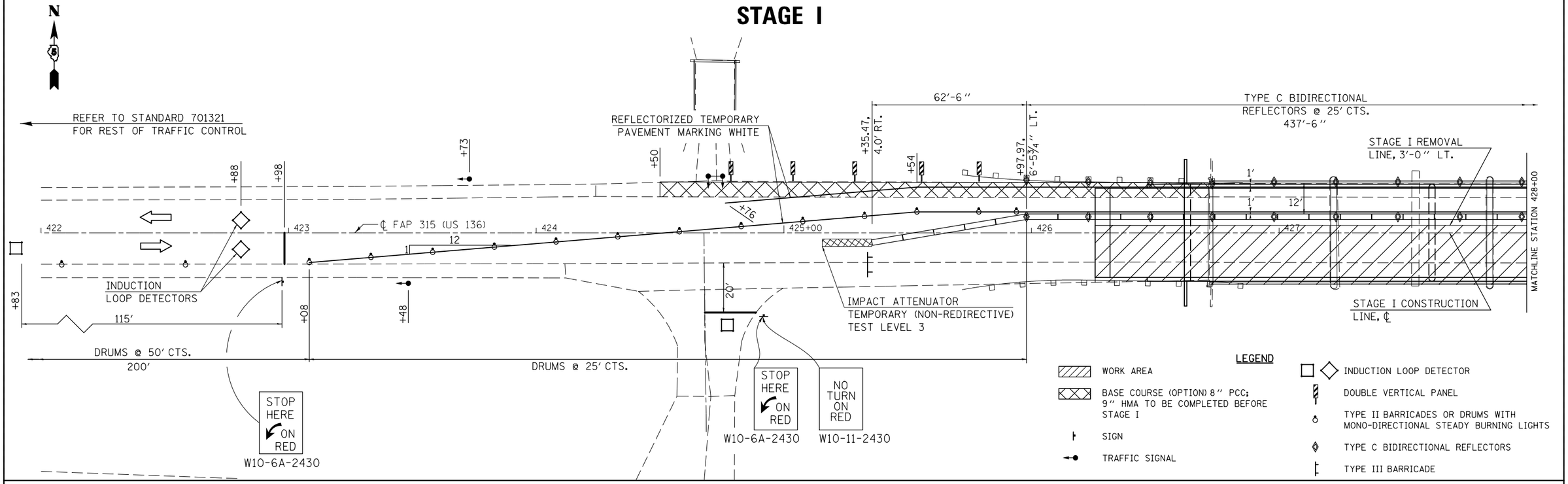
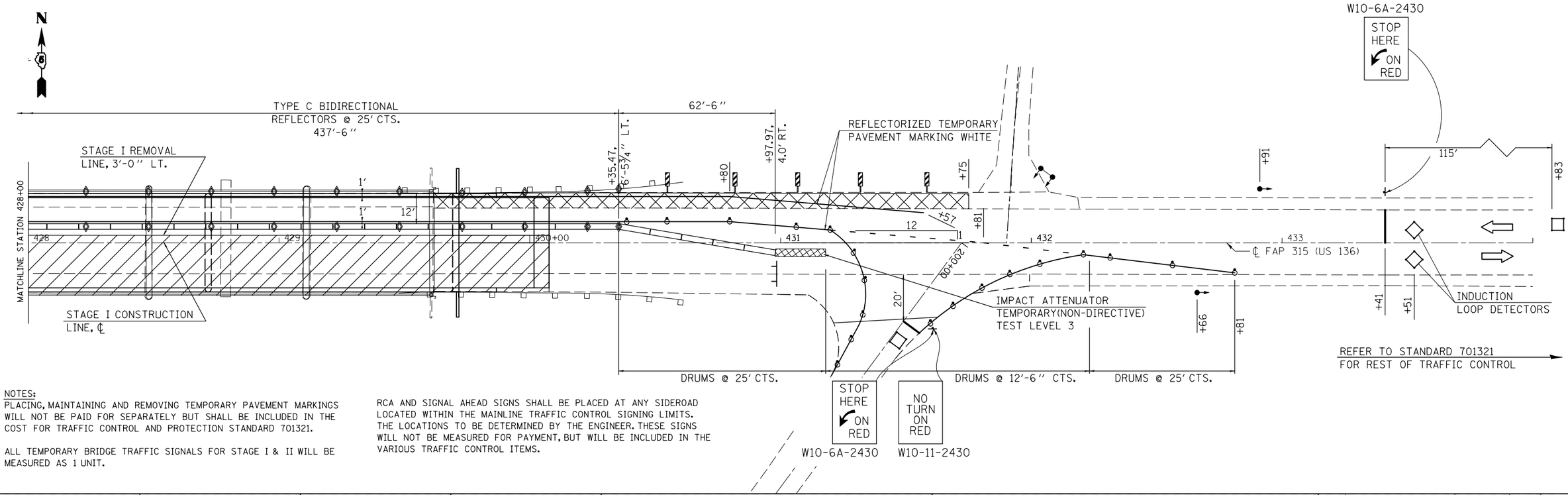
	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -		
	PLOT DATE = 8/22/2011	CHECKED -	REVISED -		SCALE:
		DATE -	REVISED -		SHEET NO. 1 OF 1 SHEETS
					STA. 200+00.00 TO STA. 201+25.65

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	McLean	144	30
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

STAGE I





NOTES:

PLACING, MAINTAINING AND REMOVING TEMPORARY PAVEMENT MARKINGS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

ALL TEMPORARY BRIDGE TRAFFIC SIGNALS FOR STAGE I & II WILL BE MEASURED AS 1 UNIT.

RCA AND SIGNAL AHEAD SIGNS SHALL BE PLACED AT ANY SIDEROAD LOCATED WITHIN THE MAINLINE TRAFFIC CONTROL SIGNING LIMITS. THE LOCATIONS TO BE DETERMINED BY THE ENGINEER. THESE SIGNS WILL NOT BE MEASURED FOR PAYMENT, BUT WILL BE INCLUDED IN THE VARIOUS TRAFFIC CONTROL ITEMS.

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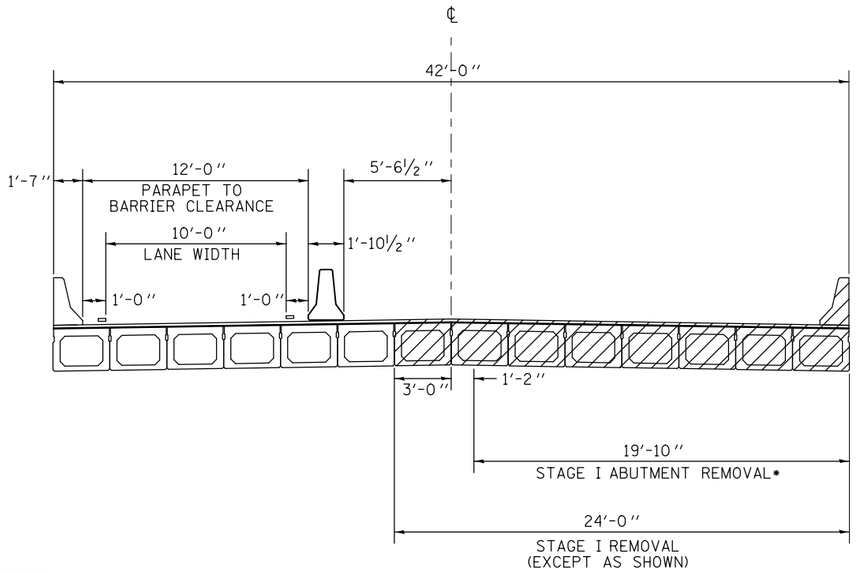
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION STAGE I
F.A.P. ROUTE 315 (U.S. ROUTE 136)

SCALE: ____ | SHEET NO. 1 OF 1 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	31
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

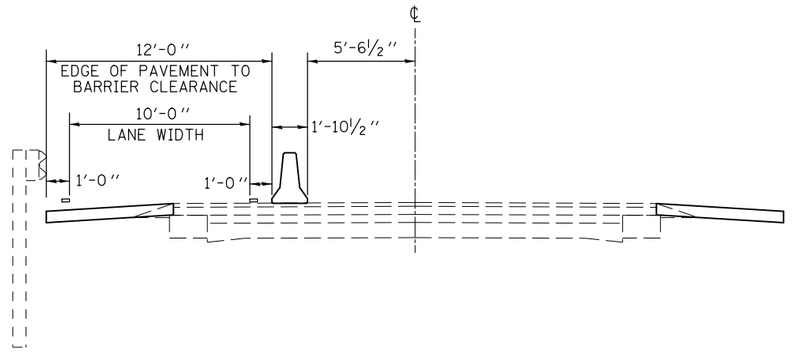
STAGE I REMOVAL DETAIL
S.N. 057–0093 BRIDGE



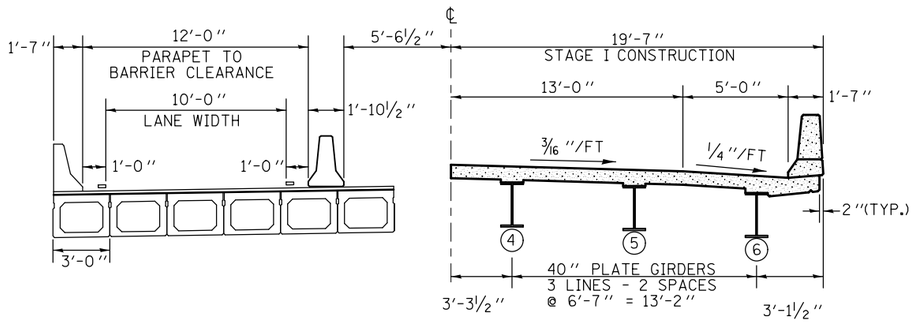
REMOVAL

* THE EXISTING ABUTMENTS ARE 3 COLUMN FRAMES. THE CENTER COLUMN SHALL BE LEFT IN PLACE AS SHOWN DURING STAGE I REMOVAL. THE PIERS MY BE STAGE REMOVED SIMILAR TO THE SUPERSTRUCTURE.

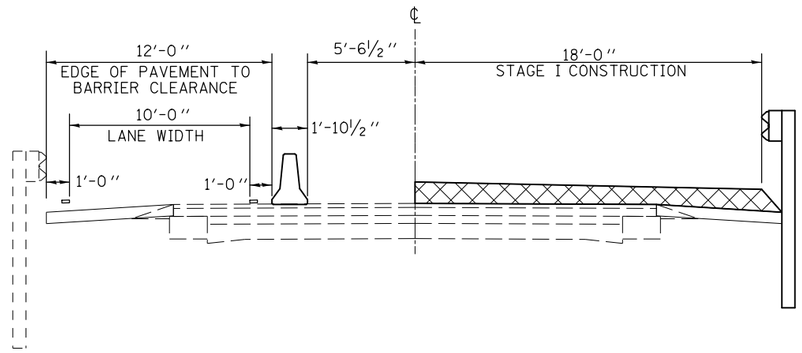
PRE–STAGE CONSTRUCTION DETAIL
ROADWAY



STAGE I CONSTRUCTION DETAIL
S.N. 057–0244 BRIDGE



STAGE I CONSTRUCTION DETAIL
ROADWAY



TEMPORARY RAMP

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	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

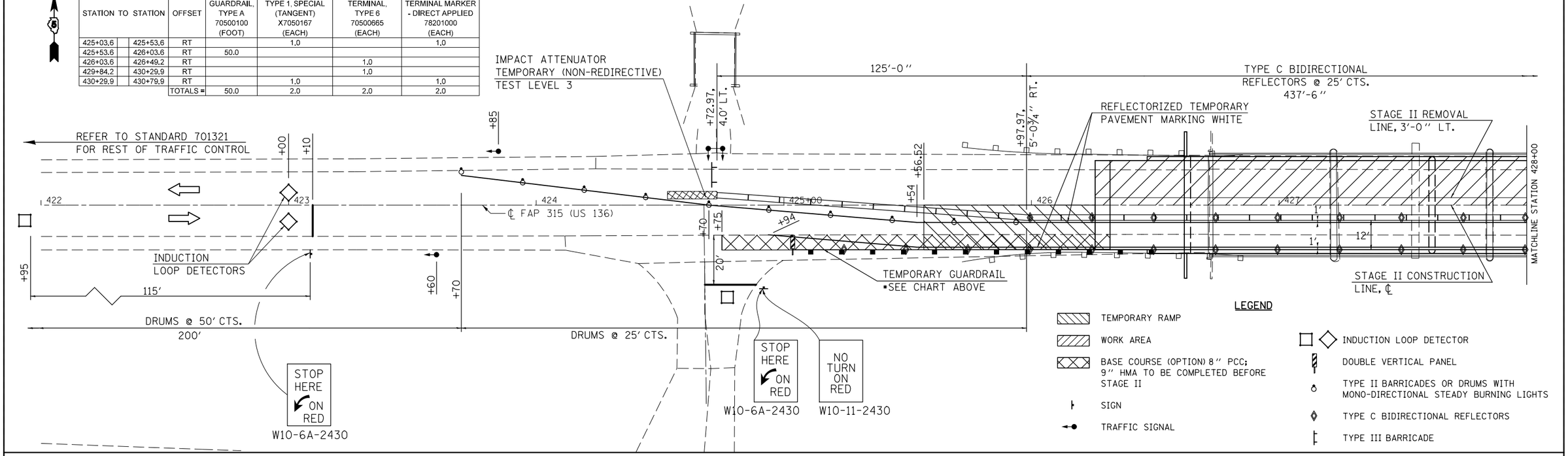
STAGE 1 REMOVAL & CONSTRUCTION DETAILS

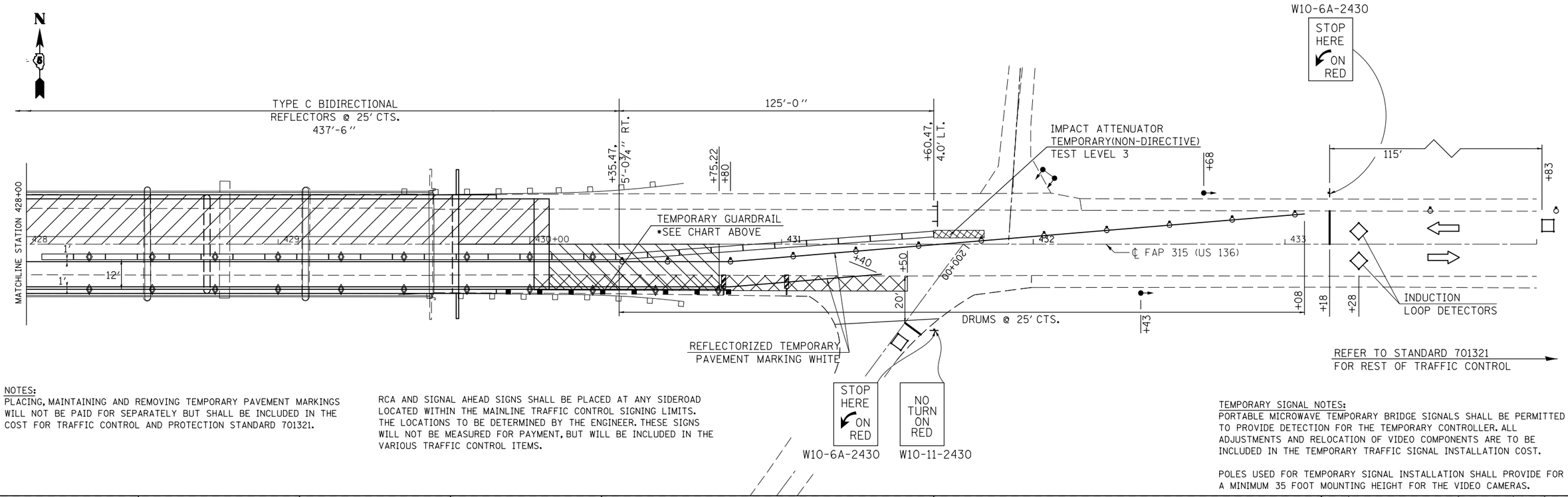
SCALE: ____ | SHEET NO. 1 OF 1 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	32
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

STATION TO STATION		OFFSET	TEMP. STEEL PLATE BEAM GUARDRAIL, TYPE A 70500100 (FOOT)	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) X7050167 (EACH)	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6 70500665 (EACH)	TERMINAL MARKER - DIRECT APPLIED 78201000 (EACH)
425+03.6	425+53.6	RT		1.0		1.0
425+53.6	426+03.6	RT	50.0			
426+03.6	426+49.2	RT			1.0	
429+84.2	430+29.9	RT			1.0	
430+29.9	430+79.9	RT		1.0		1.0
		TOTALS =	50.0	2.0	2.0	2.0

STAGE II





NOTES:
PLACING, MAINTAINING AND REMOVING TEMPORARY PAVEMENT MARKINGS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

RCA AND SIGNAL AHEAD SIGNS SHALL BE PLACED AT ANY SIDEROAD LOCATED WITHIN THE MAINLINE TRAFFIC CONTROL SIGNING LIMITS. THE LOCATIONS TO BE DETERMINED BY THE ENGINEER. THESE SIGNS WILL NOT BE MEASURED FOR PAYMENT, BUT WILL BE INCLUDED IN THE VARIOUS TRAFFIC CONTROL ITEMS.

TEMPORARY SIGNAL NOTES:
PORTABLE MICROWAVE TEMPORARY BRIDGE SIGNALS SHALL BE PERMITTED TO PROVIDE DETECTION FOR THE TEMPORARY CONTROLLER. ALL ADJUSTMENTS AND RELOCATION OF VIDEO COMPONENTS ARE TO BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL INSTALLATION COST.

POLES USED FOR TEMPORARY SIGNAL INSTALLATION SHALL PROVIDE FOR A MINIMUM 35 FOOT MOUNTING HEIGHT FOR THE VIDEO CAMERAS.

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		DRAWN - 5/9/2011	REVISED -
	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 8/24/2011	DATE -	REVISED -

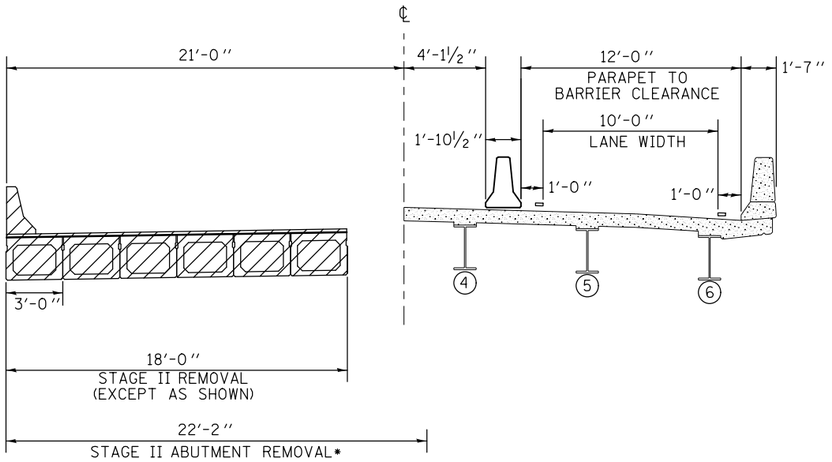
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION STAGE II
F.A.P. ROUTE 315 (U.S. ROUTE 136)

SCALE: ____ | SHEET NO. 1 OF 1 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	33
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

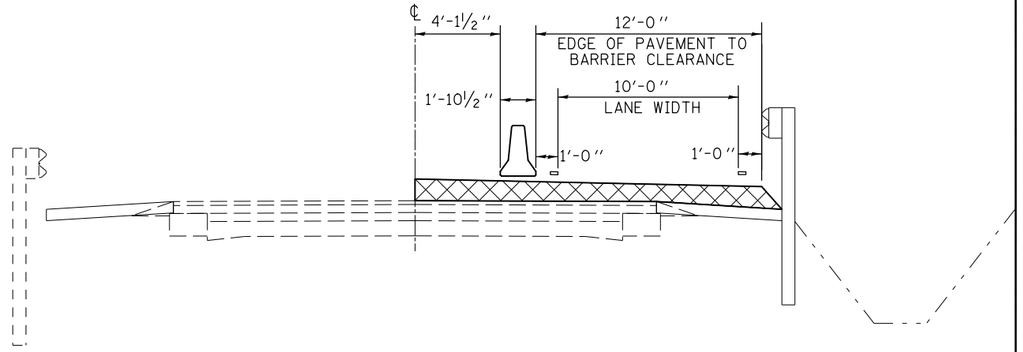
STAGE II REMOVAL DETAIL
S.N. 057–0093 BRIDGE



REMOVAL

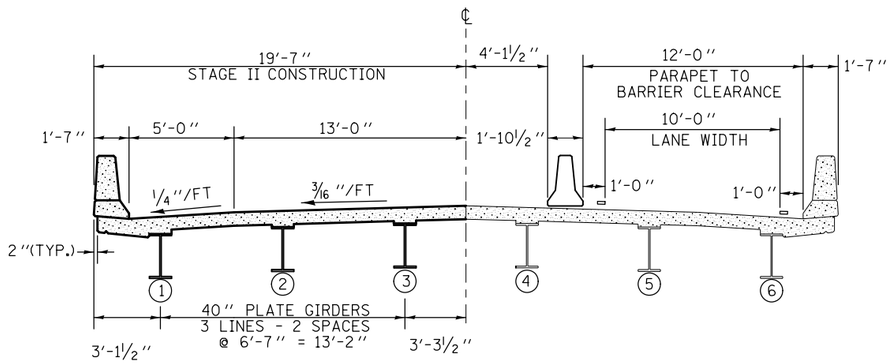
* THE EXISTING ABUMENTS ARE 3 COLUMN FRAMES. THE REMAINDER OF THE ABUTMENTS AND PIERS SHALL BE REMOVED IN STAGE II REMOVAL.

STAGE II REMOVAL DETAIL
ROADWAY

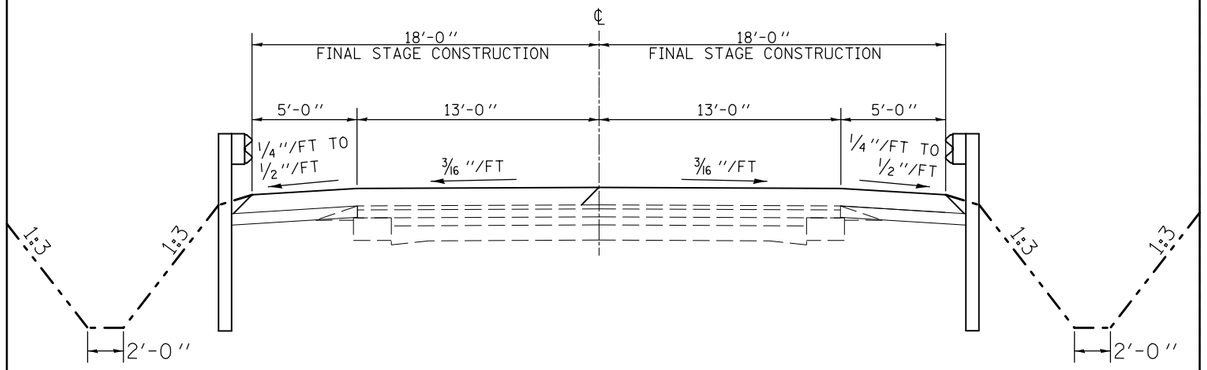


TEMPORARY RAMP

STAGE II CONSTRUCTION DETAIL
S.N. 057–0244 BRIDGE



FINAL STAGE CONSTRUCTION DETAIL
ROADWAY



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	PLOT SCALE = 40.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 2 REMOVAL & CONSTRUCTION DETAILS

SCALE: ____ | SHEET NO. 1 OF 1 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	34
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

STATION TO STATION			OFFSET	TEMP. DITCH CHECKS 28000305 (FOOT)	PERIMETER EROSION BARRIER 28000400 (FOOT)	INLET AND PIPE PROTECTION 28000500 (EACH)
418+00		418+00	LT&RT	30.0		
415+00		421+00	LT		605.0	
415+00		415+85.5	RT		92.0	

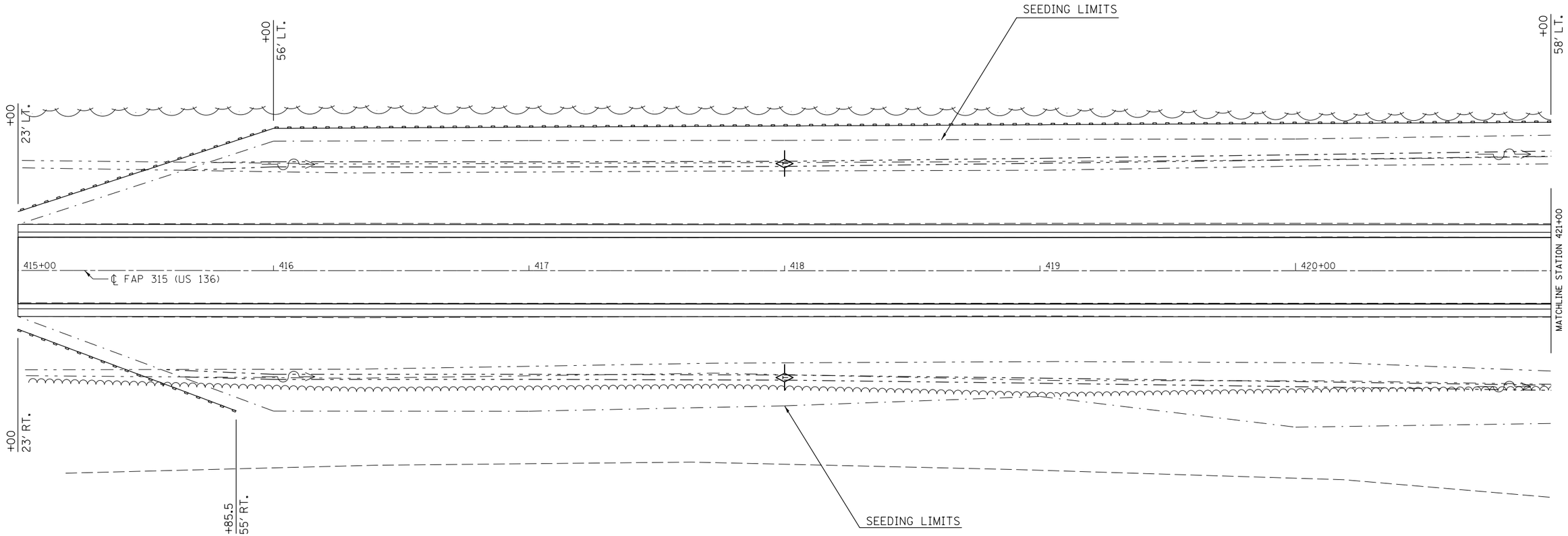
LEGEND

TEMPORARY DITCH CHECK

ROADWAY DITCH FLOW

INLET AND PIPE PROTECTION

PERIMETER EROSION BARRIER



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	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN SHEET

SCALE: ____ | SHEET NO. 1 OF 5 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	35
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

STATION TO STATION			OFFSET	TEMP. DITCH CHECKS 28000305 (FOOT)	PERIMETER EROSION BARRIER 28000400 (FOOT)	INLET AND PIPE PROTECTION 28000500 (EACH)
421+00		421+00	LT&RT	30.0		
421+00		427+00	LT		603.0	
424+00		424+00	LT	15.0		
424+32		424+32	RT			1.0
426+34.8		427+00	RT		66.0	

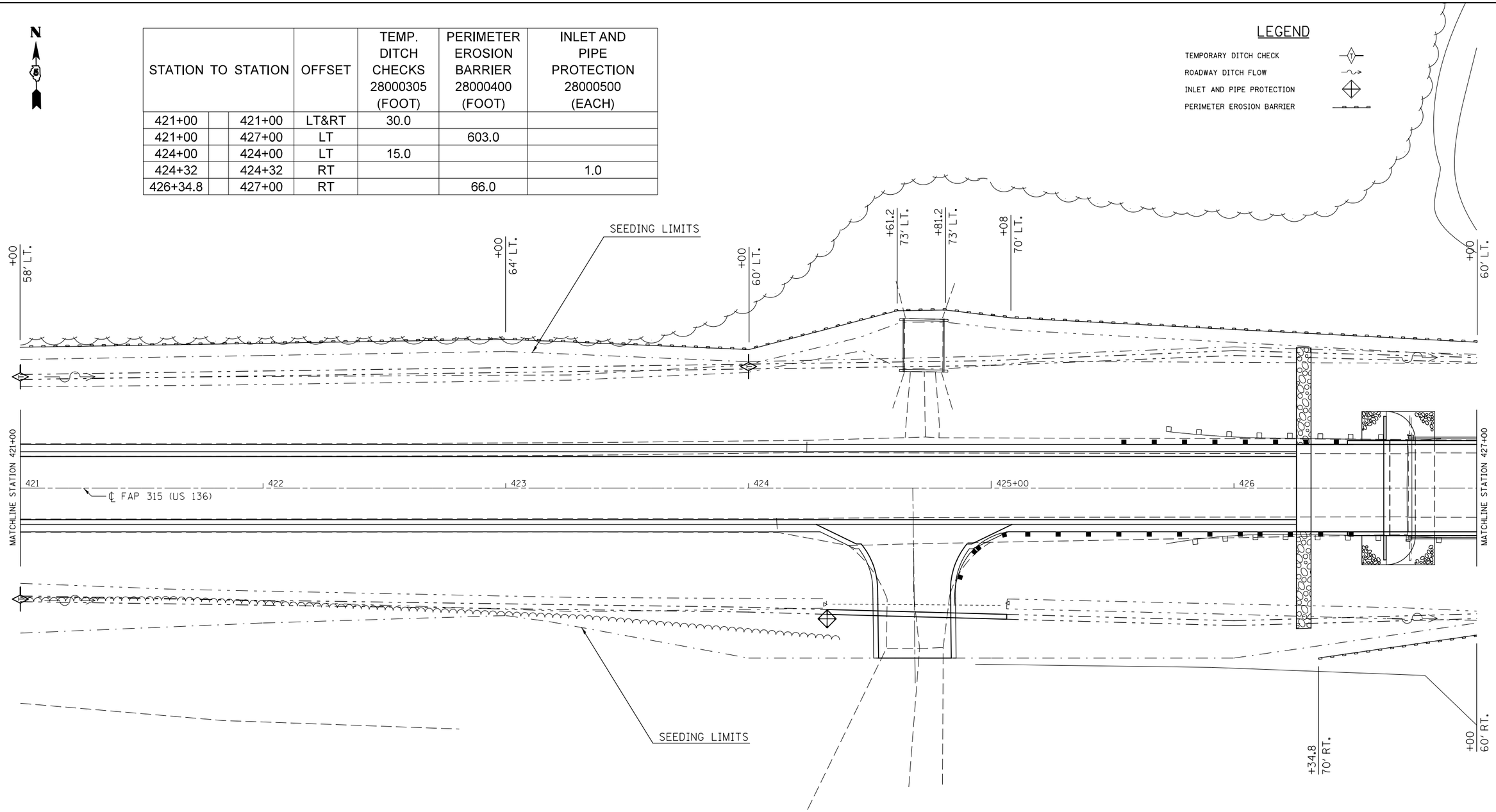
LEGEND

TEMPORARY DITCH CHECK

ROADWAY DITCH FLOW

INLET AND PIPE PROTECTION

PERIMETER EROSION BARRIER



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	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN SHEET

SCALE: ____ | SHEET NO. 2 OF 5 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	36
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

STATION TO STATION			OFFSET	TEMP. DITCH CHECKS 28000305 (FOOT)	PERIMETER EROSION BARRIER 28000400 (FOOT)	INLET AND PIPE PROTECTION 28000500 (EACH)
427+00		427+00	LT&RT	30.0		
427+00		427+70.7	LT		71.0	
428+39.4		431+89.2	LT		350.0	
429+00		429+00	LT&RT	30.0		
432+00		433+00	LT		100.0	
432+30		432+30	LT			1.0
427+00		427+87.7	RT		88.0	
428+43.2		430+94.2	RT		257.0	
430+94.2		430+83.4	RT		33.0	
431+90		431+90	RT			1.0

LEGEND

TEMPORARY DITCH CHECK

ROADWAY DITCH FLOW

INLET AND PIPE PROTECTION

PERIMETER EROSION BARRIER

N

5

+00 60' LT.

+70.7 61' LT.

KICKAPOO CREEK

+39.4 59' LT.

SEEDING LIMITS

+89.2 59' LT.

+00 59' LT.

+00 59' LT.

MATCHLINE STATION 427+00

427

428

429

430+00

431

432

MATCHLINE STATION 433+00

℄ FAP 315 (US 136)

50+00

220+00

+00 60' RT.

+87.7 59' RT.

SEEDING LIMITS

+43.2 52' RT.

+00 62' RT.

201

+94.2 65' RT.

SEEDING LIMITS

SEEDING LIMITS

+83.4 96' RT.

202

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\D570552-sht-details.CEL	USER NAME = hoganbj	DESIGNED - BJH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION CONTROL PLAN SHEET
	PLOT SCALE = 40.0000 ' / in.	DRAWN - 5/18/2011	REVISED -		SCALE: ____ SHEET NO. 3 OF 5 SHEETS STA. ____ TO STA. ____
	PLOT DATE = 8/24/2011	CHECKED - ____	REVISED -		
		DATE - ____	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	37
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

STATION TO STATION			OFFSET	TEMP. DITCH CHECKS 28000305 (FOOT)	PERIMETER EROSION BARRIER 28000400 (FOOT)	INLET AND PIPE PROTECTION 28000500 (EACH)
433+00		437+06	LT		406.0	
434+00		434+00	RT			1.0
435+00		435+00	LT&RT	30.0		
437+26.5		439+00	LT		175.0	
437+27		437+27	LT			1.0
434+00		439+00	RT		501.0	

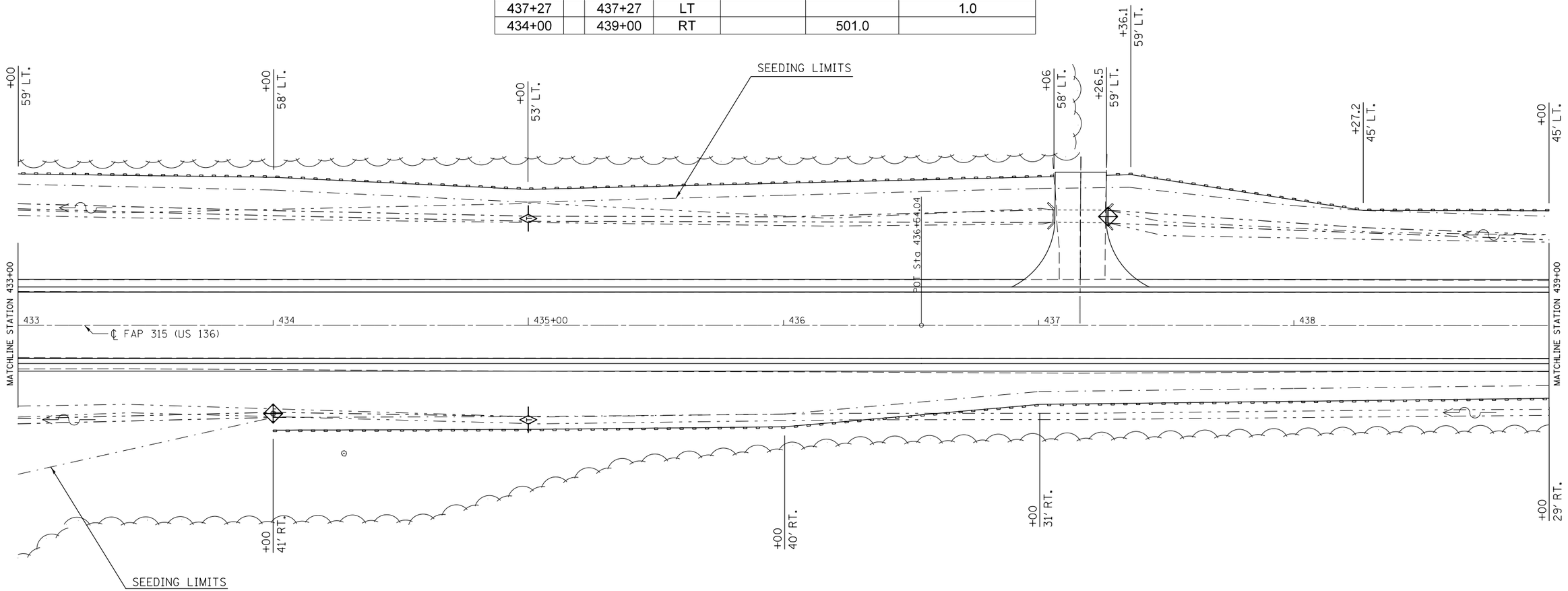
LEGEND

TEMPORARY DITCH CHECK

ROADWAY DITCH FLOW

INLET AND PIPE PROTECTION

PERIMETER EROSION BARRIER



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		DRAWN - 5/18/2011	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN SHEET

SCALE: _____ | SHEET NO. 4 OF 5 SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	38
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

N

STATION TO STATION			OFFSET	TEMP. DITCH CHECKS 28000305 (FOOT)	PERIMETER EROSION BARRIER 28000400 (FOOT)	INLET AND PIPE PROTECTION 28000500 (EACH)
439+00		442+00	LT		303.0	
440+00		440+00	LT	15.0		
439+00		442+00	RT		300.0	
SHEET 1 THROUGH 5 TOTALS =				180.0	3950.0	5.0

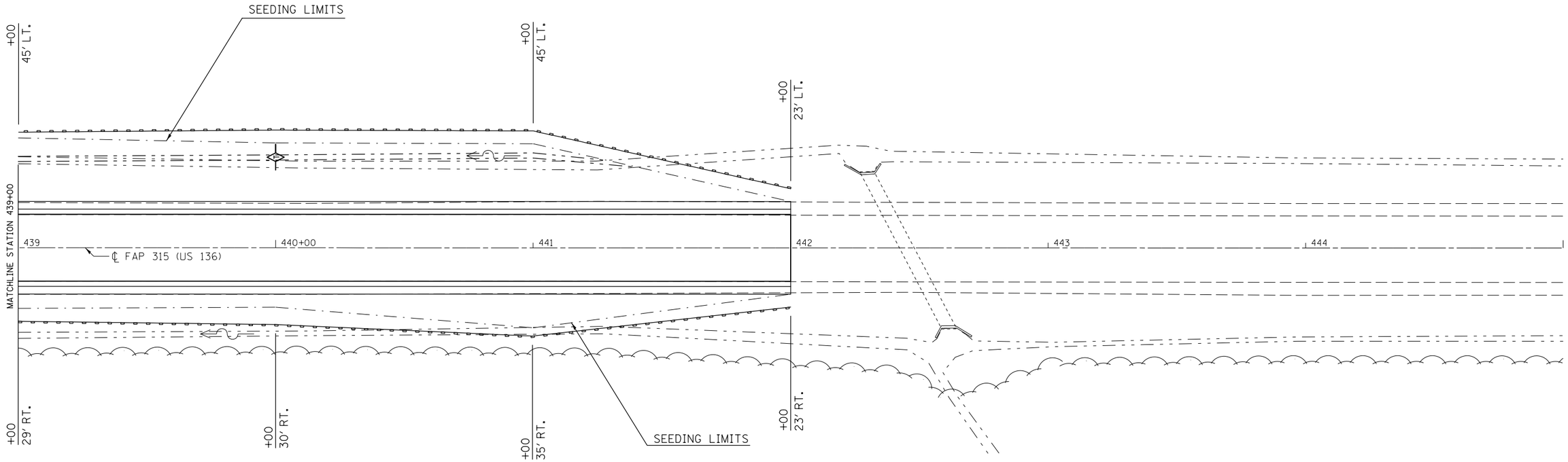
LEGEND

TEMPORARY DITCH CHECK

ROADWAY DITCH FLOW

INLET AND PIPE PROTECTION

PERIMETER EROSION BARRIER



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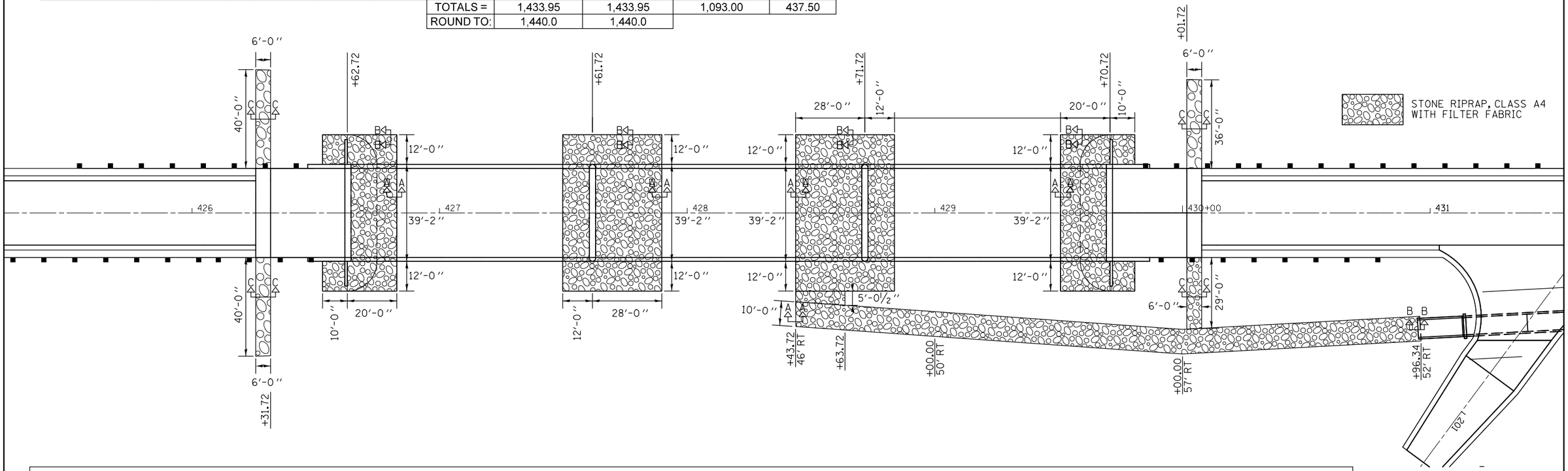
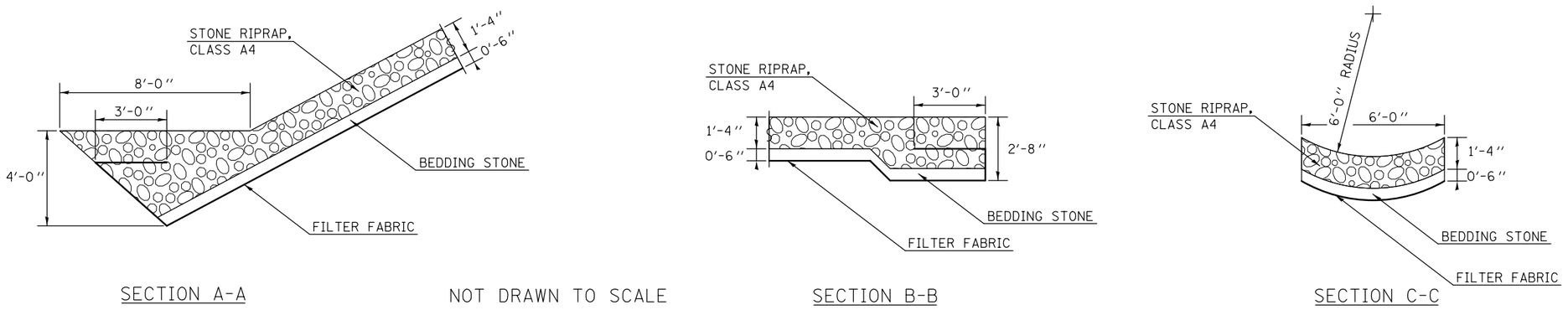
		DRAWN - 5/18/2011	REVISED -		
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -		
	PLOT DATE = 8/22/2011	DATE -	REVISED -		SCALE: ____ SHEET NO. 5 OF 5 SHEETS STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	39
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

LOCATION	STATION	TO	STATION	OFFSET	LENGTH (FEET)	WIDTH (FEET)	FILTER FABRIC 28200200 (SQ YD)	STONE RIPRAP CLASS A4 28100107 (SQ YD)	STONE RIPRAP CLASS A4 (TONS)	BEDDING STONE (TONS)
DITCH	428+43.72		430+96.34	RT	252.62	12.00	336.83	336.83	235.00	105.50
AROUND PRCP END	428+43.72		428+63.72	RT	20.00	5.05	11.22	11.22	11.50	3.50
WEST ABUTMENT	426+52.72		426+82.72	CL	30.00	63.17	185.70	185.70	154.00	56.00
WEST PIER	427+49.72		427+89.72	CL	40.00	63.17	303.70	303.70	233.00	92.00
EAST PIER	428+43.72		428+83.72	CL	40.00	63.17	303.70	303.70	233.00	92.00
EAST ABUTMENT	429+50.72		429+80.72	CL	30.00	63.17	185.70	185.70	154.00	56.00
NW APPROACH	426+25.72		426+31.72	LT	6.00	40.00	29.40	29.40	20.00	9.00
SW APPROACH	426+25.72		426.31.72	RT	6.00	40.00	29.40	29.40	20.00	9.00
NE APPROACH	430+01.72		430+07.72	LT	6.00	36.00	26.60	26.60	18.00	8.00
SE APPROACH	430+01.72		430+07.72	RT	6.00	29.00	21.70	21.70	14.50	6.50
						TOTALS =	1,433.95	1,433.95	1,093.00	437.50
						ROUND TO:	1,440.0	1,440.0		

NOTES:
1. STONE RIPRAP AND BEDDING STONE TONNAGE QUANTITIES ARE ESTIMATES AND FOR INFORMATION ONLY.
2. STONE RIPRAP IS ESTIMATED BASED ON 1.5 TONS PER CU YD.
3. BEDDING STONE IS ESTIMATED BASED ON 1.8 TONS PER CU YD.





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	PLOT DATE = 8/22/2011	DATE -	REVISED -

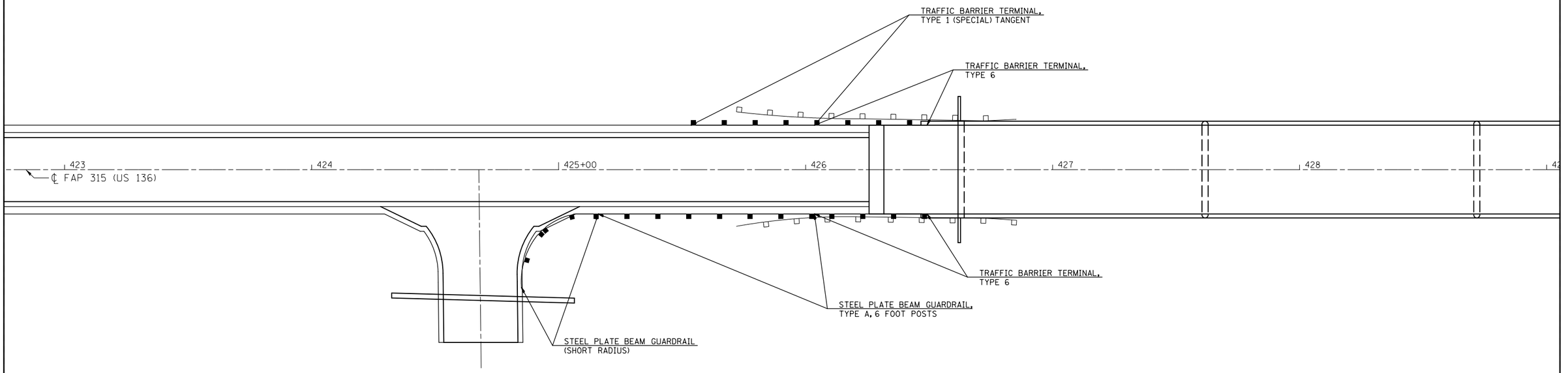
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIPRAP PLAN SHEET

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	40
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

STATION TO STATION			OFFSET	GUARDRAIL REMOVAL 63200310 (FOOT)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' PO 63000001 (FOOT)	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) (30' RADIUS) 63300725 (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT 63100167 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 2 63100045 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 6 63100085 (EACH)	GUARDRAIL MARKER, TYPE B 78200420 (EACH)	TERMINAL MARKER - DIRECT APPLIED 78201000 (EACH)
425+53.6		426+03.6	LT				1.0			2.0	1.0
426+03.6		426+49.2	LT						1.0		
425+72.0		426+85.5	LT	113.5							



STATION TO STATION			OFFSET	GUARDRAIL REMOVAL 63200310 (FOOT)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' PO 63000001 (FOOT)	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) (30' RADIUS) 63300725 (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT 63100167 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 2 63100045 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 6 63100085 (EACH)	GUARDRAIL MARKER, TYPE B 78200420 (EACH)	TERMINAL MARKER - DIRECT APPLIED 78201000 (EACH)
424+85		425+16.1	RT			50.0		1.0			
425+16.1		426+03.6	RT		87.5					3.0	
426+03.6		426+49.2	RT						1.0		
425+72.0		426+85.5	RT	113.5							

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		DRAWN - 4/6/2011	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

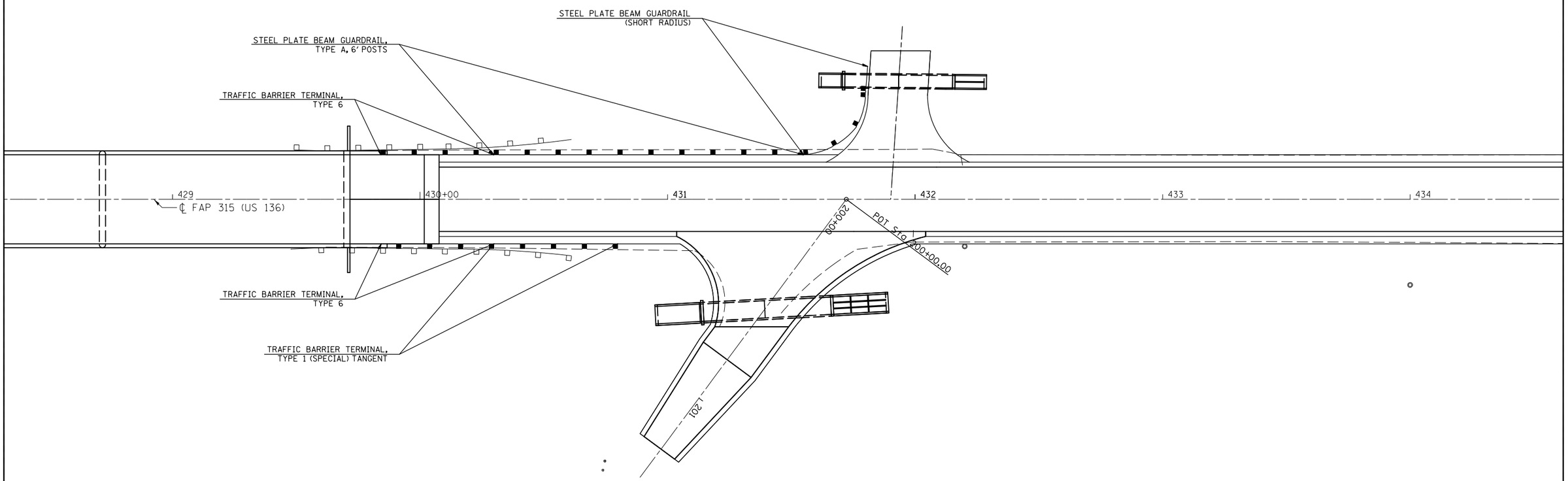
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL PLAN SHEET

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	41
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

STATION TO STATION			OFFSET	GUARDRAIL REMOVAL 63200310 (FOOT)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' PO 63000001 (FOOT)	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) (30' RADIUS) 63300725 (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT 63100167 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 2 63100045 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 6 63100085 (EACH)	GUARDRAIL MARKER, TYPE B 78200420 (EACH)	TERMINAL MARKER - DIRECT APPLIED 78201000 (EACH)
429+84.2		430+29.9	LT						1.0		
430+29.9		431+54.9	LT		125.0					4.0	
431+54.9		431+80.8	LT			50.0		1.0			
429+47.8		430+61.3	LT	113.5							



STATION TO STATION			OFFSET	GUARDRAIL REMOVAL 63200310 (FOOT)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' PO 63000001 (FOOT)	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) (30' RADIUS) 63300725 (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT 63100167 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 2 63100045 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 6 63100085 (EACH)	GUARDRAIL MARKER, TYPE B 78200420 (EACH)	TERMINAL MARKER - DIRECT APPLIED 78201000 (EACH)
429+84.2		430+29.9	RT						1.0		
430+29.9		430+79.9	RT				1.0			2.0	1.0
429+47.8		430+61.3	RT	113.5							

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	PLOT SCALE = 40.0000 ' / in.	DRAWN - 4/6/2011	REVISED -				COUNTY MCLEAN
	PLOT DATE = 8/24/2011	CHECKED -	REVISED -		SCALE:		TOTAL SHEETS 144
		DATE -	REVISED -		SHEET NO. 2 OF 2 SHEETS		SHEET NO. 42
					STA. TO STA.		CONTRACT NO. 70552
						ILLINOIS	FED. AID PROJECT

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315 (US 136)	121 BR-2	McLEAN	2	1
F.H.W.A. REG.	ILLINOIS	PROJECT		

CONTRACT NO. 70552

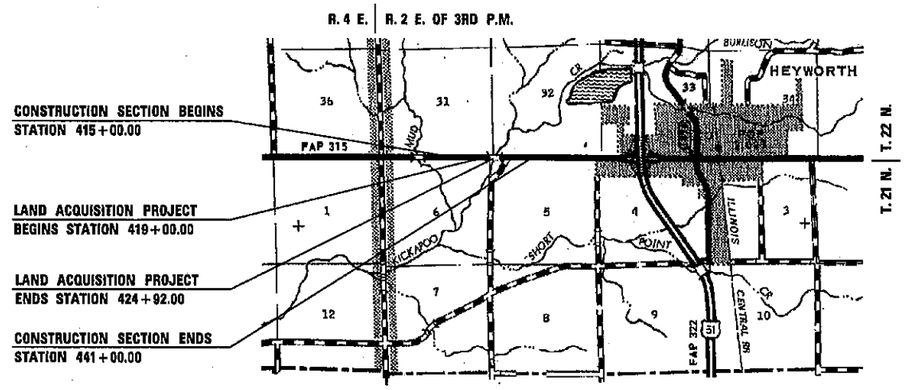
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RIGHT OF WAY PLANS
FOR PROPOSED
FEDERAL AID HIGHWAY

FAP ROUTE 315 (U.S. 136)
SECTION 121 BR-2
JOB R-95-075-10
McLEAN COUNTY

N

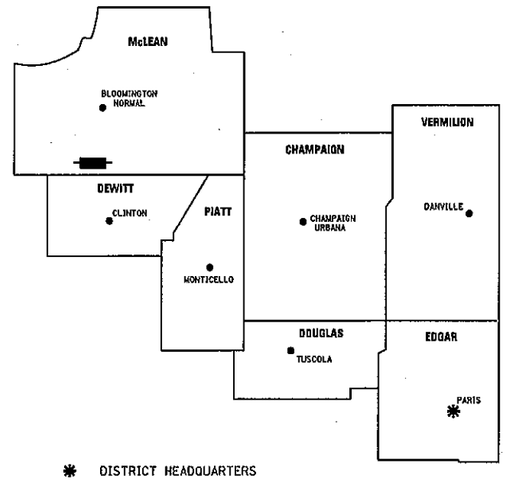
NOT TO SCALE

R. 4 E. | R. 2 E. OF 3RD P.M.



LENGTH OF LAND ACQUISITION PROJECT = 592 LIN. FT. = 0.112 MILE

REGION 3 / DISTRICT 5



✱ DISTRICT HEADQUARTERS
PROJECT LOCATION

KENNETH W. HACKNEY
3135
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
PARIS, ILLINOIS

THIS IS TO CERTIFY THAT THIS IS A TRUE AND CORRECT SET OF RIGHT OF WAY PLANS MADE UNDER MY DIRECTION FOR THE DIVISION OF HIGHWAYS, STATE OF ILLINOIS.

Kenneth W Hackney 8/15/11
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3135 DATE
LICENSE EXPIRES 11/30/12

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/15 20 11
Joseph E. Crowe
JOSEPH E. CROWE, P.E.
DEPUTY DIRECTOR OF HIGHWAYS
REGION 3 ENGINEER

EXAMINED August 15 20 11
Kenneth W Hackney
DISTRICT CHIEF OF PLATS & PLANS

PASSED August 15 20 11
David L Bayler
DISTRICT LAND ACQUISITION ENGINEER

8/12/2011

SE 1/4 SEC 31, T. 22 N., R. 2 E., 3RD P.M.

SW 1/4 SEC 32, T. 22 N., R. 2 E., 3RD P.M.

N

NOTES
BEARINGS BASED ON ILLINOIS STATE PLANE COORDINATES, EAST ZONE NAD 83(07).
● IRON PIN OR PIPE FOUND
⊠ EXISTING RIGHT OF WAY MARKER
-I-I-I- EXISTING FENCE
○ FENCE POST FOUND
⊗ SURVEY MONUMENT FOUND
X CHISELED "X" FOUND
( ) RECORD DATA
FIELD WORK COMPLETED = APRIL 2010

5750001
COMMERCE TRUST COMPANY, AS SUCCESSOR TRUSTEE UNDER CLAUSES 8 AND 9 OF THE LAST WILL AND TESTAMENT OF DAVID DAVIS, IV

TEMPORARY EASEMENT AREA REQUIRED = 0.057 AC.±
PURPOSE OF TEMPORARY EASEMENT: I-BEAM BRIDGE REMOVAL, GRADING AND WORKING AREA

EAST LINE SE 1/4 SEC. 31-22-2
WEST LINE SW 1/4 SEC. 32-22-2

PROPOSED TEMPORARY EASEMENT LINE

LAND ACQUISITION PROJECT ENDS
STATION 424+92.00

424+37.00
80.00' LT.
125.00' LT.

424+92.00
80.00' LT.
126.00' LT.

NE COR. NE 1/4
SEC. 6-21-2
FOUND BRASS
IDOT MARKER PER
MONUMENT RECORD
DOCUMENT NO. 2010-6020

422+95.51
9.05' RT.

CONSTRUCTION SECTION BEGINS
STATION 415+00.00

LAND ACQUISITION PROJECT BEGINS
STATION 419+00.00

EXISTING R.O.W. LINE

PI Kink
Sta 418+19.61

I-BEAM BRIDGE WITH RETAINING WALLS TO BE REMOVED

℄ FAP RTE. 315 (U.S. 136)
S 89° 18' 00" E

182.90'

NORTH LINE SEC. 6-21-2 S 89° 23' 11" E 5389.67'

PI Kink Sta 436+54.04

415 420 425 430 435

EXISTING R.O.W. LINE

418+00.00
9.63' RT.

418+00.00
55.00' RT.
70.00' RT.

PROPOSED R.O.W. LINE

422+97.40
70.00' RT.

424+78.41
6.78' RT.

EXISTING BRIDGE
STATION 428+16.72
S.N. 057-0093

SE COR. SE 1/4
SEC. 31-22-2
FOUND BRASS
IDOT MARKER PER
MONUMENT RECORD
DOCUMENT NO. 2010-6021

KICKAPOO CREEK

TOWNSHIP ROAD

CONSTRUCTION SECTION ENDS
STATION 441+00.00

369+05.81
50.00' RT.
8.18' LT.

NW COR. NW 1/4
SEC. 6-21-2
FOUND BRASS
IDOT MARKER PER
MONUMENT RECORD
DOCUMENT NO. 2010-6020

5750002
WILLIAM PAUL KROGER, III AS TRUSTEE UNDER THE KROGER FAMILY TRUST (1/4 INT.) SKADE FAMILY, LLC, AN OREGON LIMITED LIABILITY COMPANY (1/4 INT.) DARRAH CLOUD (1/4 INT.) AND JAIMIE CLOUD (1/4 INT.)

DOC. NO. 2011-13910 TRUSTEE'S DEED
DOC. NO. 2011-13911 WARRANTY DEED (LLC)
DOC. NO. 2011-13912 WARRANTY DEED
DOC. NO. 2011-13913 WARRANTY DEED

TOTAL ROW AREA REQUIRED = 0.552 AC.±
AREA IN EXISTING ROW = 0.415 AC.±
NET ROW AREA REQUIRED = 0.137 AC.±
ESTIMATED REMAINING AREA = 352.228 AC.±

EAST LINE NE 1/4 SEC. 6-21-2 S 1°04' 41" E 2668.52'

NE 1/4 SEC 6, T. 21 N., R. 2 E., 3RD P.M.

NW 1/4 SEC 5, T. 21 N., R. 2 E., 3RD P.M.

SE COR. NE 1/4 SEC. 6-21-2
FOUND PINCHED PIPE PER
UNRECORDED PLAT OF SURVEY
BY KRAUSE SURVEYING INC.

R.O.W. PLAT NOTEBOOK NO.	BY	DATE

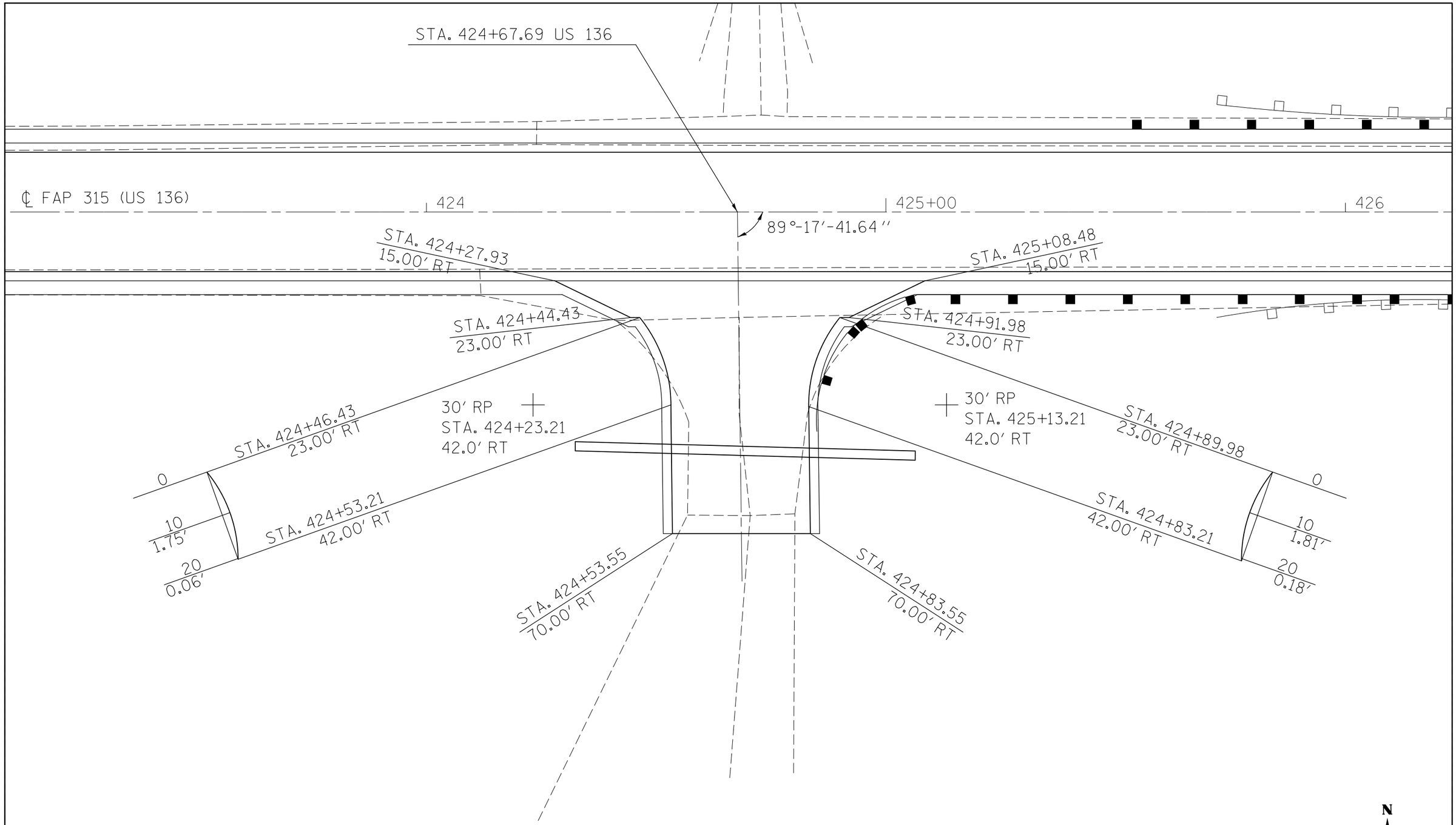
CONTRACT NO. 70552

REVISION DATE	DESCRIPTION

ILLINOIS DEPT. OF TRANSPORTATION
RIGHT OF WAY PLAN

ROUTE FAP 315 (U.S. 136)
SECTION 121BR-2
COUNTY McLEAN
JOB# R-95-075-10
SEC 6, T. 21 N., R. 2 E. OF 3RD P.M.
SEC 31 & 32, T. 22 N., R. 2 E. OF 3RD P.M.
STA 419+00.00 TO STA 424+92.00
DRAWN M.L.W. CHECKED K.W.H.
SCALE: 1"= 80' SHEET NO. 2 OF 2

c:\pw_work\pwidot\wadam\d0142538\D570552-ROW.dgn



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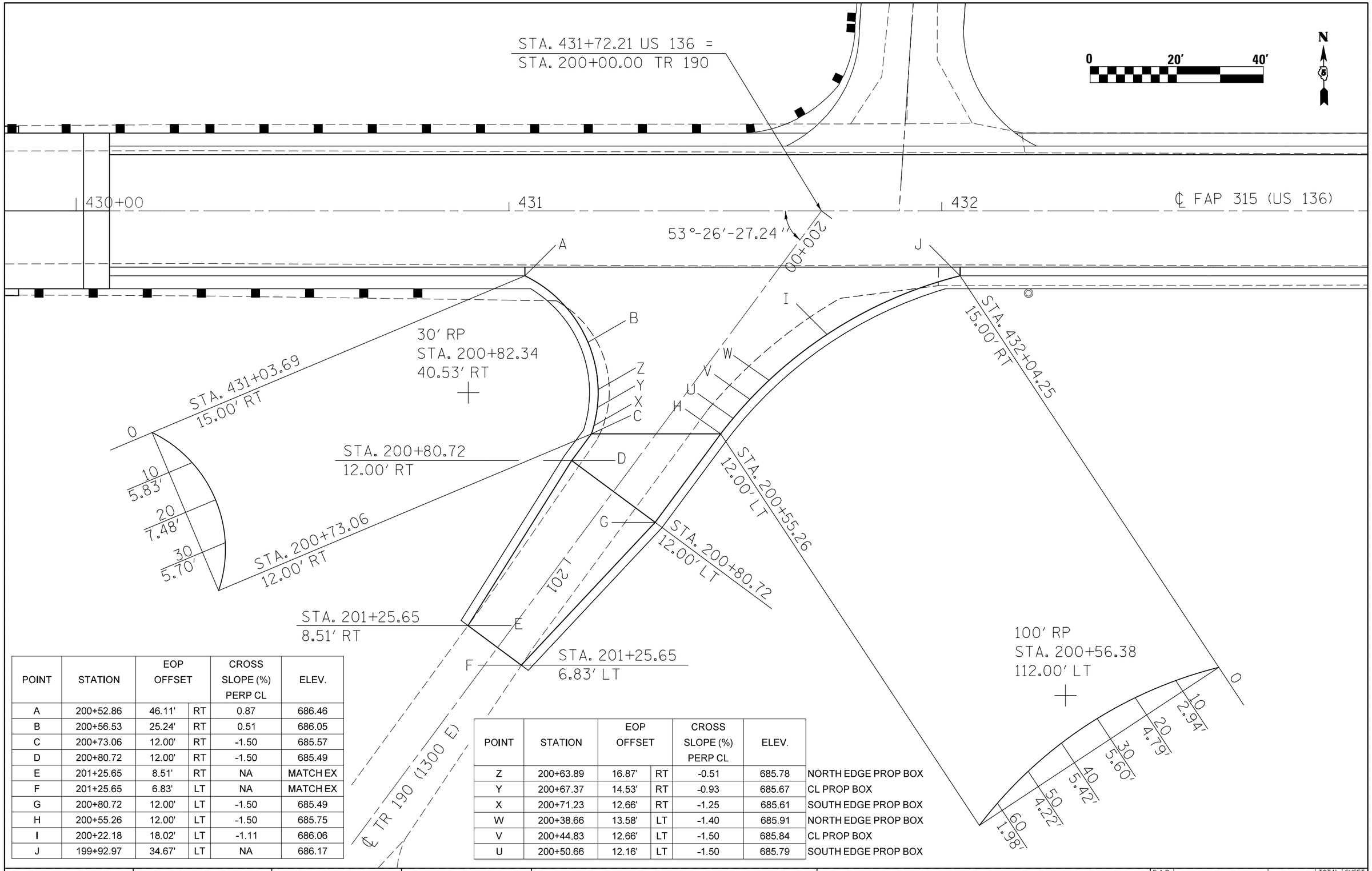
		DRAWN - 4/5/2011	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMMERCIAL ENTRANCE DETAIL
STA. 424 + 67.69 RT.

SCALE: ____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	45
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		



POINT	STATION	EOP OFFSET		CROSS SLOPE (%) PERP CL	ELEV.
A	200+52.86	46.11'	RT	0.87	686.46
B	200+56.53	25.24'	RT	0.51	686.05
C	200+73.06	12.00'	RT	-1.50	685.57
D	200+80.72	12.00'	RT	-1.50	685.49
E	201+25.65	8.51'	RT	NA	MATCH EX
F	201+25.65	6.83'	LT	NA	MATCH EX
G	200+80.72	12.00'	LT	-1.50	685.49
H	200+55.26	12.00'	LT	-1.50	685.75
I	200+22.18	18.02'	LT	-1.11	686.06
J	199+92.97	34.67'	LT	NA	686.17

POINT	STATION	EOP OFFSET		CROSS SLOPE (%) PERP CL	ELEV.	
Z	200+63.89	16.87'	RT	-0.51	685.78	NORTH EDGE PROP BOX
Y	200+67.37	14.53'	RT	-0.93	685.67	CL PROP BOX
X	200+71.23	12.66'	RT	-1.25	685.61	SOUTH EDGE PROP BOX
W	200+38.66	13.58'	LT	-1.40	685.91	NORTH EDGE PROP BOX
V	200+44.83	12.66'	LT	-1.50	685.84	CL PROP BOX
U	200+50.66	12.16'	LT	-1.50	685.79	SOUTH EDGE PROP BOX

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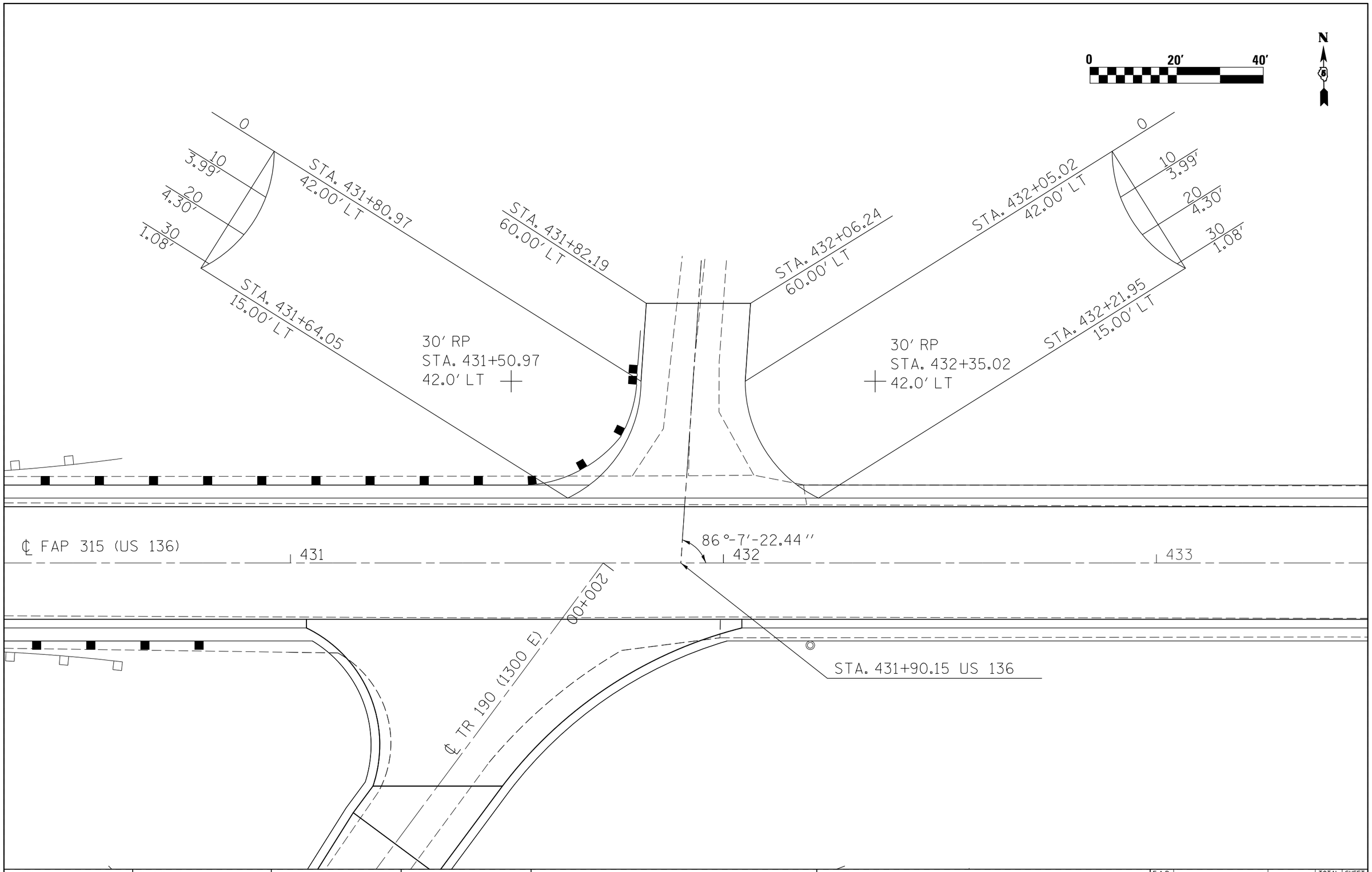
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TR 190 (1300 E) DETAIL
STA. 431 + 72.21 RT.

SCALE: ____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	46
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			



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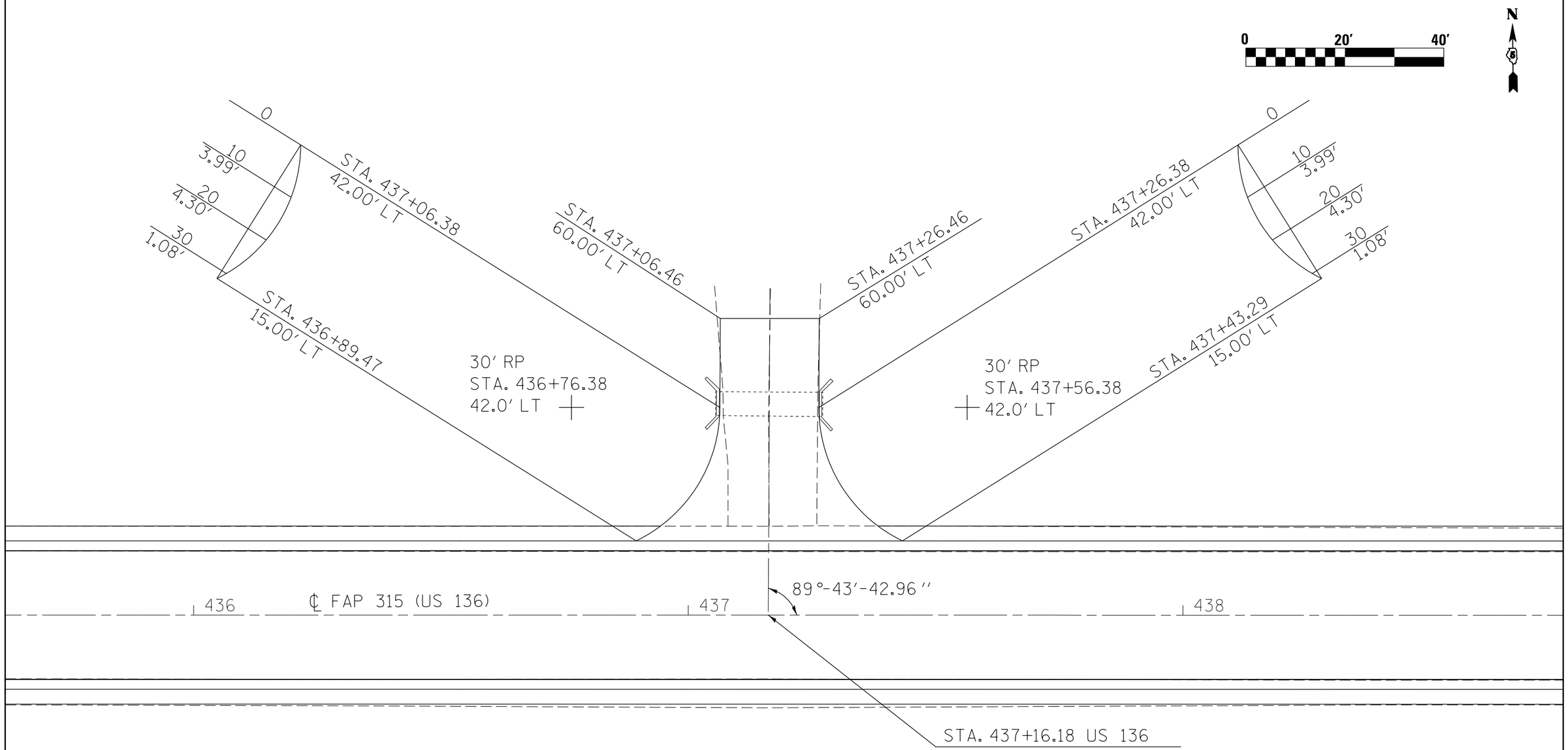
		DRAWN - 3/15/2011	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIELD ENTRANCE DETAIL
STA. 431+90.15 LT.

SCALE: ____ | SHEET NO. _ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	47
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		



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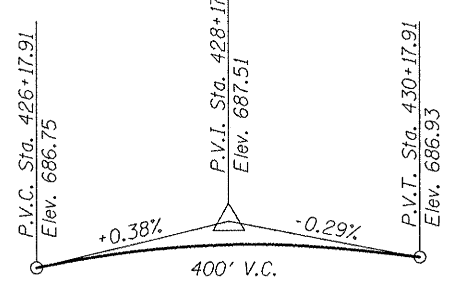
	PLOT SCALE = 20.0000 ' / in.	DRAWN - 4/7/2011	REVISED -		SCALE: ____ SHEET NO. _ OF ___ SHEETS STA. _____ TO STA. _____
	PLOT DATE = 8/22/2011	CHECKED - ___	REVISED -		
		DATE - _____	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	48
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

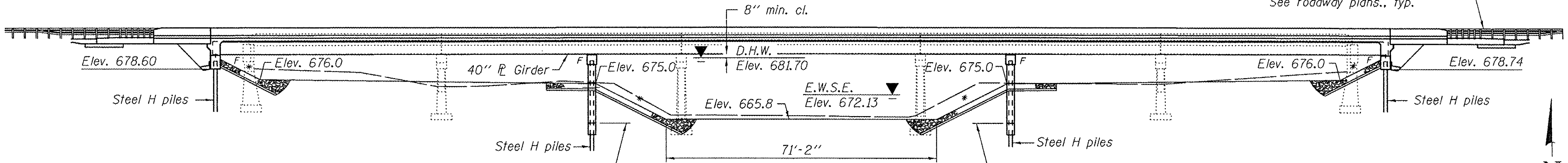
Benchmark: 4865-1: Chiseled on top of the Southwest wingwall of S.N. 057-0093. Sta. 426+70.76, 21.13' Rt. Elev. 685.00

Existing structure: Structure No. 057-0093 originally built in 1936 as F.A. Route 119, Section 121-B W.P.H. Rebuilt in 1980 as F.A. Route 53, Section 121 BR-1. The existing structure consists of a 5 span PPC deck beam structure supported on 3 column abutments and solid wall piers. 292-4" back to back abutments and 42'-0" out to out of deck. Structure to be removed and replaced. Traffic to be maintained utilizing stage construction.

No salvage.



PROFILE GRADE
(Along ℄ roadway)

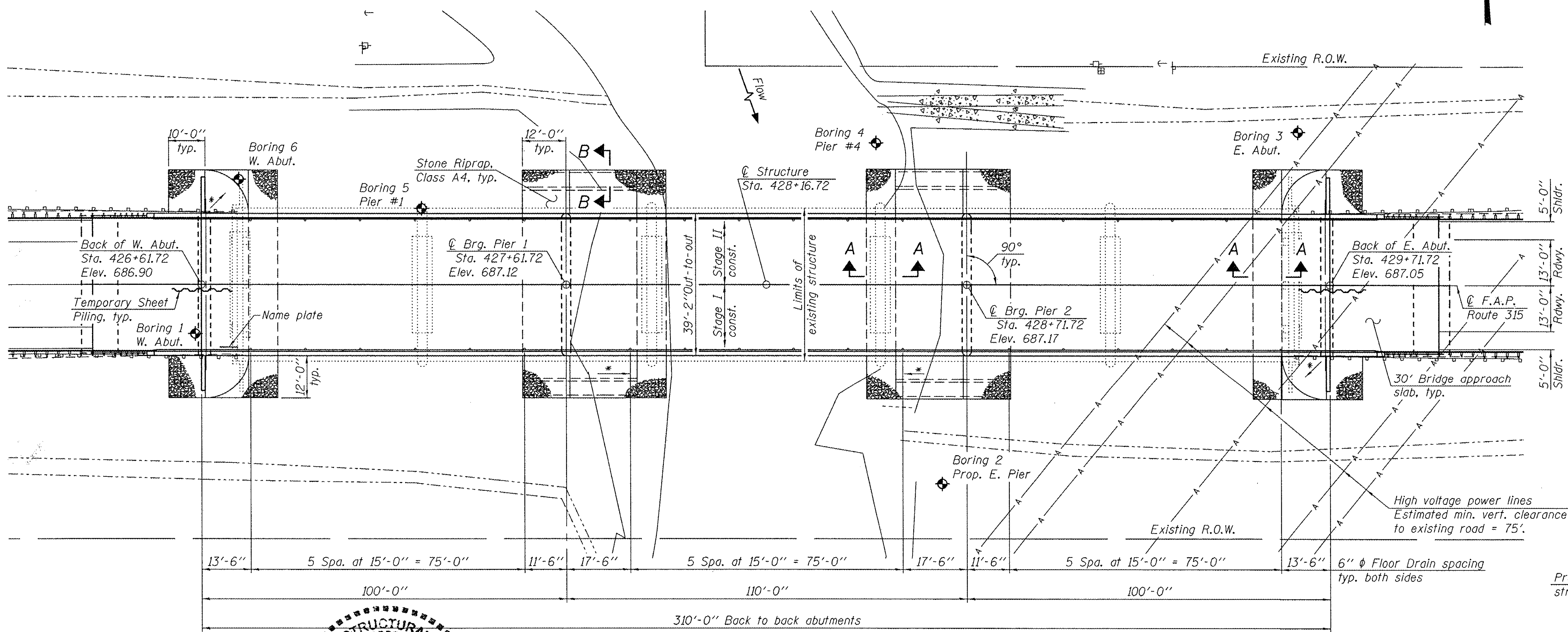


* 1:2 (V:H)

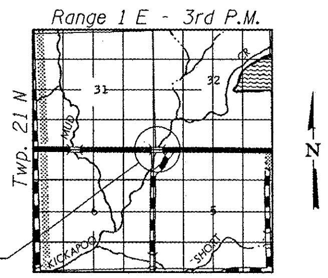
ELEVATION

STATION 428+16.72
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 315 SEC. 121 BR-2
LOADING HL93
STRUCTURE NO. 057-0244

NAME PLATE
See Std. 515001



PLAN



Proposed structure

LOCATION SKETCH

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
081-005470
SPRINGFIELD ILLINOIS
STATE OF ILLINOIS
EXPIRES 11-30-2012

* See Special Provision for Structural Steel for Bridges.

DESIGN SPECIFICATIONS
2010 AASHTO LRFD Bridge Design Specifications, 5th Edition

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Grade 50W) *

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.128 g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.214 g
Soil Site Class = D

GENERAL PLAN AND ELEVATION
U.S. RTE. 136 OVER KICKAPOO CREEK
F.A.P. RT. 315 - SEC. 121 BR-2
MCLEAN COUNTY
STATION 428+16.72
STRUCTURE NO. 057-0244

DESIGNED - [signature]	EXAMINED [signature] ENGINEER OF BRIDGE DESIGN	DATE - October 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - [signature]			
DRAWN - h.t. duong	PASSED [signature] ENGINEER OF BRIDGES AND STRUCTURES		
CHECKED - MDR / NRS			

GENERAL PLAN & ELEVATION
STRUCTURE NO. 057-0244
SHEET NO. 1 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	49
		CONTRACT NO. 70552		

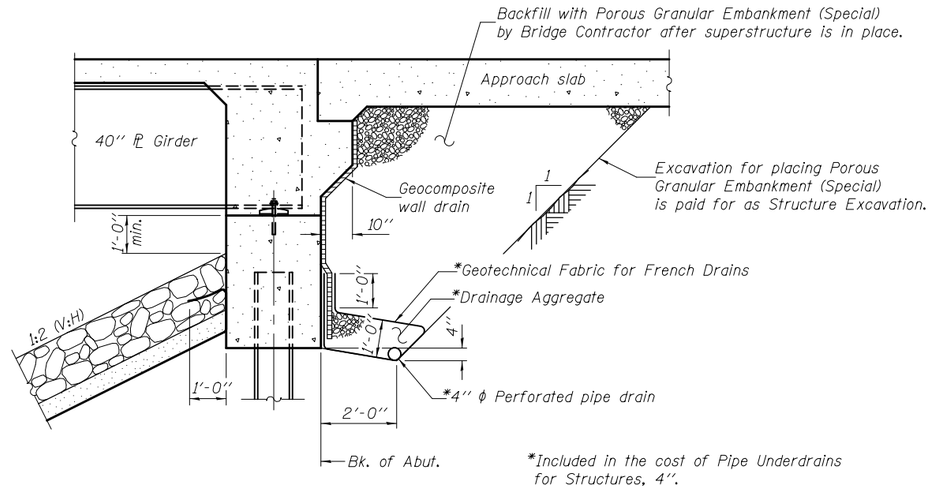
ILLINOIS FED. AID PROJECT

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Porous Granular Embankment (Special)	Cu. Yd.		153	153
	Stone Riprap, Class A4	Sq. Yd.		908	908
	Filter Fabric	Sq. Yd.		908	908
	Removal of Existing Structures	Each			1
	Structure Excavation	Cu. Yd.		374	374
	Floor Drains	Each	36		36
	Concrete Structures	Cu. Yd.		162.0	162.0
	Concrete Superstructure	Cu. Yd.	543.3		543.3
	Bridge Deck Grooving	Sq. Yd.	1401		1401
	Concrete Encasement	Cu. Yd.		19.8	19.8
	Protective Coat	Sq. Yd.	1773		1773
**	Furnishing and Erecting Structural Steel	L. Sum			1
	Stud Shear Connectors	Each	8406		8406
	Reinforcement Bars, Epoxy Coated	Pound	132450	14940	147390
	Bar Splicers	Each	1188	180	1368
	Furnishing Steel Piles HP14x73	Foot		2699	2699
	Driving Piles	Foot		2699	2699
	Test Pile Steel HP14x73	Each		4	4
	Temporary Sheet Piling	Sq. Ft.		932	932
	Name Plates	Each	1		1
	Anchor Bolt 1″ ϕ	Each		48	48
	Geocomposite Wall Drain	Sq. Yd.		81	81
	Pipe Underdrains for Structures, 4″	Foot		150	150
	Diamond Grinding (Bridge Section)	Sq. Yd.	1318		1318
	Asbestos Bearing Pad Removal	Each		140	140
	Underwater Structure Excavation Protection, Location 1	Each			1
	Underwater Structure Excavation Protection, Location 2	Each			1

** See Special Provision for Structural Steel for Bridges.

INDEX OF SHEETS



SECTION THRU INTEGRAL ABUTMENT

Notes: All drainage system components shall extend to 2′-0″ from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 3. Bolts $\frac{7}{8}$″ ϕ, holes $\frac{15}{16}$″. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 324620 lbs.

All structural steel shall be Grade 50W. ** All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

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

Reinforcement bars designated (E) shall be epoxy coated.

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

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

Reinforcement bars shall conform to the requirements of AASHTO A 706, Grade 60.

Up to $\frac{1}{4}$″ shall be ground off the bridge slab and the bridge approach slab. The profile grade shown on sheet 1 of 30 is the final elevation after grinding.

All test piles shall be driven utilizing dynamic pile monitoring procedures. See Special Provisions.

Slipforming of the parapets is not allowed.

WATERWAY INFORMATION

Drainage Area = 118.2 mi.²

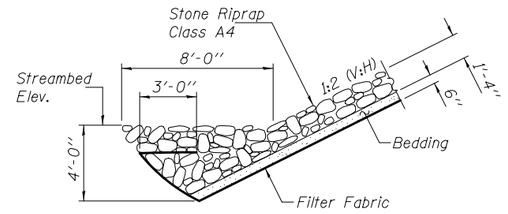
Existing Low Grade Elev. 683.30 @ Sta. 420+00
Proposed Low Grade Elev. 683.75 @ Sta. 417+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	6410	1799	2050	680.4	1.0	1.0	681.4	681.4
Design	50	10200	2159	2436	681.7	1.7	1.6	683.4	683.3
Base	100	11800	2270	2556	682.1	2.1	2.0	684.2	684.1
Overtop Exist.	250	14100	2388		682.7	1.0		683.7	
Overtop Prop.	450	15600		2672	683.0		0.8		683.8
Max. Calc.	500	15800	2388	2672	683.1	1.1	0.8	684.2	683.9

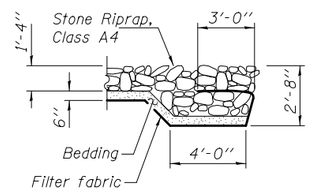
10 year velocity through existing bridge = 3.2 ft/s
10 year velocity through proposed bridge = 2.8 ft/s

DESIGN SCOUR ELEVATION TABLE

Design scour elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	678.6	647.8	647.8	678.7

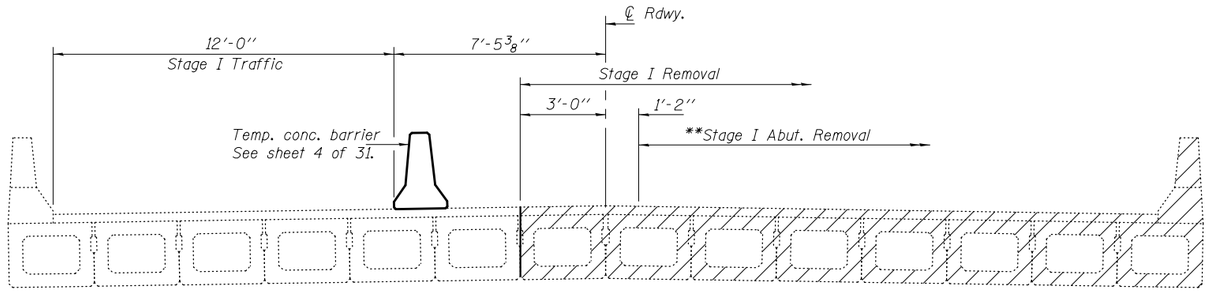


SECTION A-A



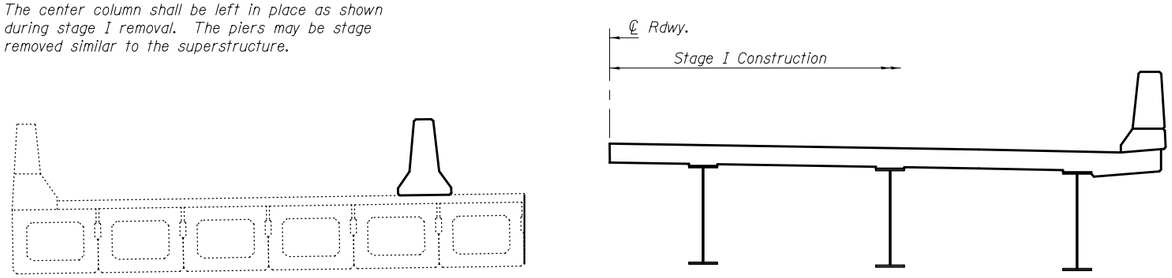
SECTION B-B

DESIGNED	-	Michael D. Rolape	EXAMINED	Thomas J. Domagalski	DATE	-	OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL DATA STRUCTURE NO. 057-0244	F.A.P. RTE. 315	SECTION 121 BR-2	COUNTY MCLEAN	TOTAL SHEETS 144	SHEET NO. 50
CHECKED	-	Nicholas R. Barnett		ENGINEER OF BRIDGE DESIGN										
DRAWN	-	h.t. duong	PASSED	Carl Puzey								CONTRACT NO. 70552		
CHECKED	-	MDR/NRB		ENGINEER OF BRIDGES AND STRUCTURES					SHEET NO. 2 OF 30 SHEETS			ILLINOIS FED. AID PROJECT		

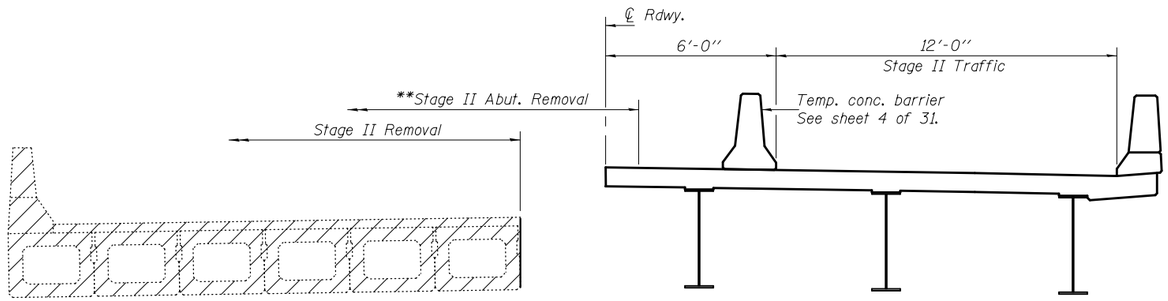


STAGE I REMOVAL

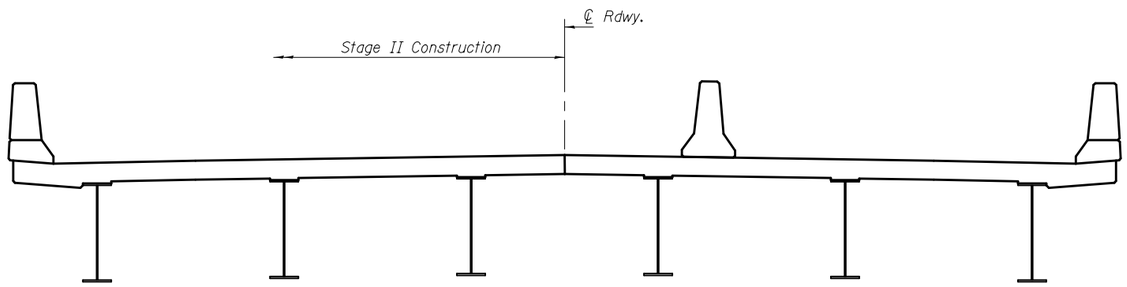
**The existing abutments are 3 column frames. The center column shall be left in place as shown during stage I removal. The piers may be stage removed similar to the superstructure.



STAGE I CONSTRUCTION

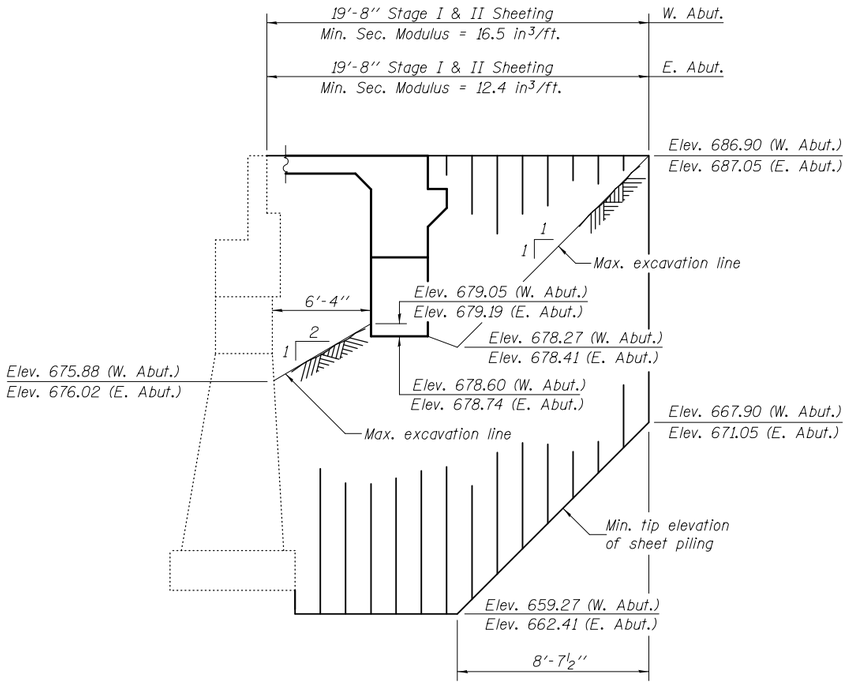


STAGE II REMOVAL



STAGE II CONSTRUCTION

Notes: All sections are looking East.
Hatched area indicates removal of existing superstructure.
For quantity of temporary concrete barrier, see Roadway Plans.



TEMPORARY SHEET PILING AT ABUTMENTS

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

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

DESIGNED	-	Michael D. Rolape	
CHECKED	-	Nicholas R. Barnett	
DRAWN	-	h.t. duong	
CHECKED	-	MDR/NRB	

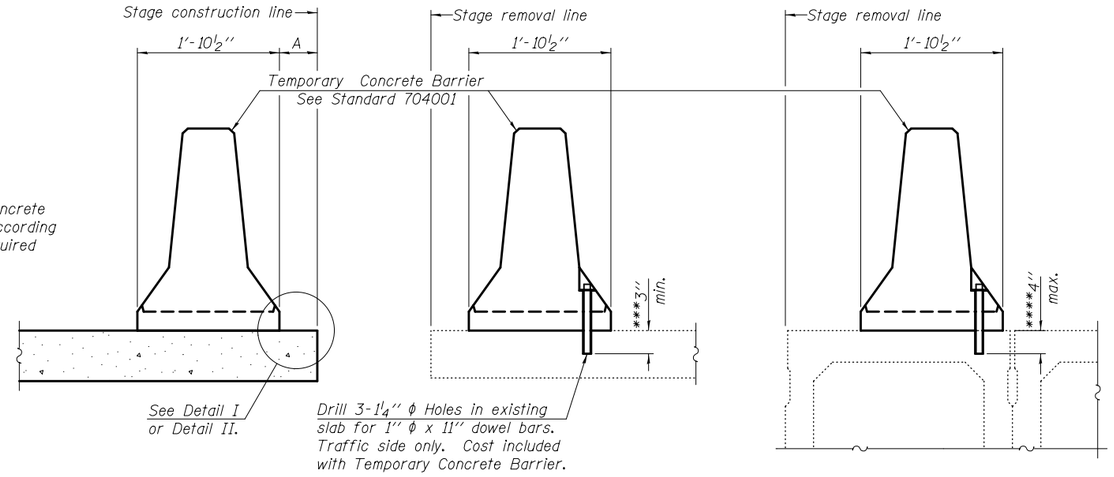
EXAMINED — Thomas J. Domagalski — ENGINEER OF BRIDGE DESIGN
PASSED — J. Carl Tracy — ENGINEER OF BRIDGES AND STRUCTURES
DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION & TEMPORARY SHEET PILING DETAILS
STRUCTURE NO. 057-0244
SHEET NO. 3 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	51
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

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



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7¼" x "W" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7¼" x "W" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

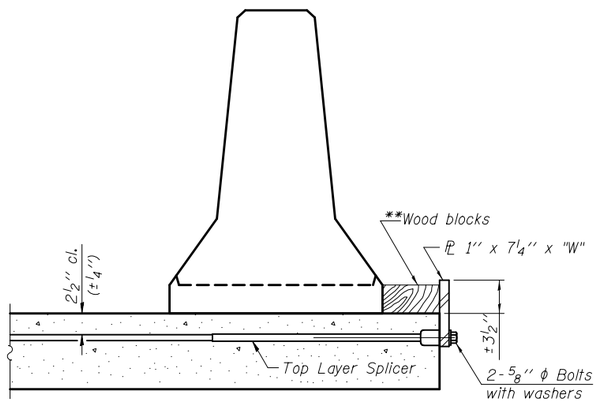
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7¼" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

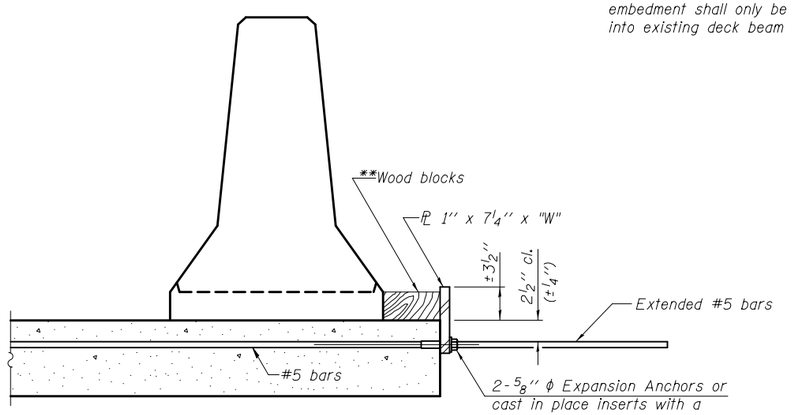
SECTIONS THRU SLAB OR DECK BEAM

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

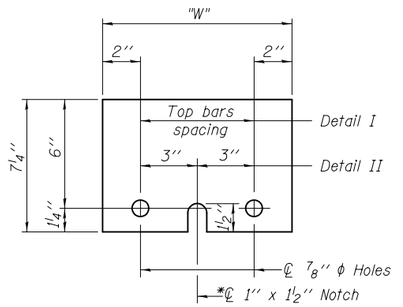
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



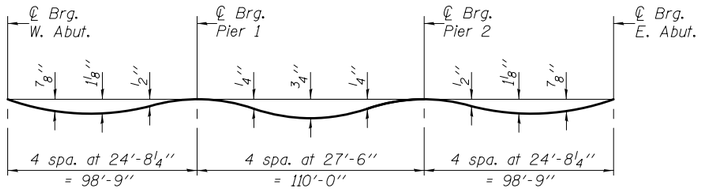
STEEL RETAINER ℙ 1" x 7¼" x "W"

* Required only with Detail II

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

"W" = Top bars spacing + 4"

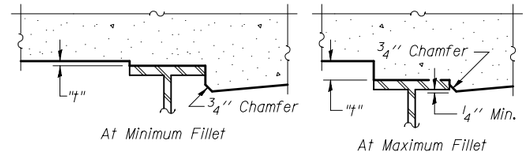
DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski, ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MODIFIED TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett						315	121 BR-2	MCLEAN	144	52
DRAWN - h.t. duong	PASSED	A. Carl Long, ENGINEER OF BRIDGES AND STRUCTURES			SHEET NO. 4 OF 30 SHEETS			CONTRACT NO. 70552		
CHECKED - MDR/NRB								ILLINOIS FED. AID PROJECT		



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on sheets 6, 7, & 8 of 30.

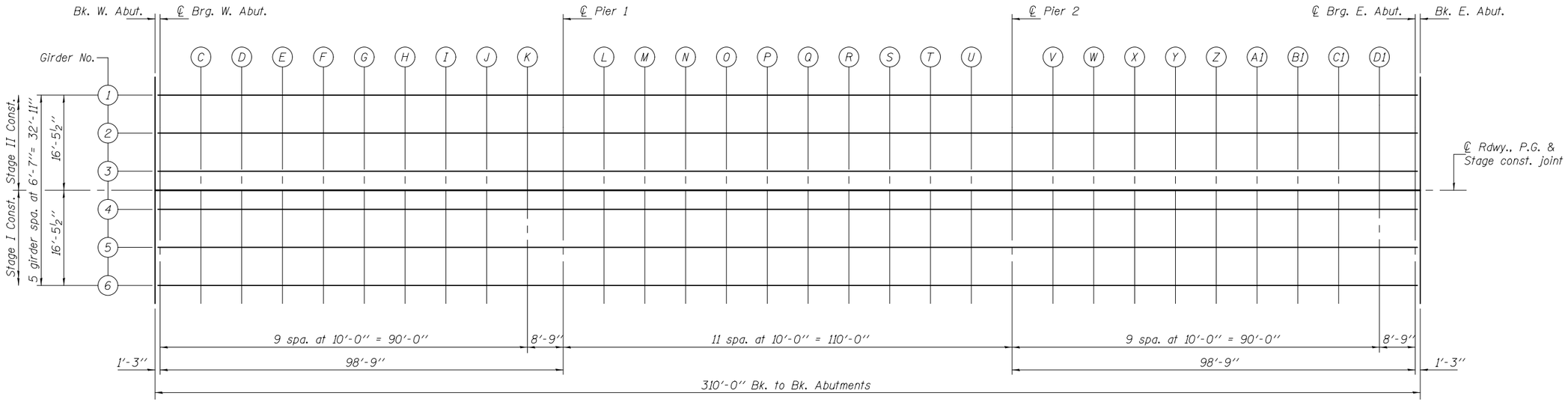


To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets 6, 7, & 8 of 30, minus the 8 1/4" slab thickness, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets 6, 7, & 8 of 30. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

N



PLAN

DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski	DATE -	**STATE OF ILLINOIS**	**TOP OF SLAB ELEVATIONS**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett		ENGINEER OF BRIDGE DESIGN		**DEPARTMENT OF TRANSPORTATION**	**STRUCTURE NO. 057-0244**	315	121 BR-2	MCLEAN	144	53
DRAWN - h.t. duong	PASSED	Carl Puzey			SHEET NO. 5 OF 30 SHEETS			CONTRACT NO. 70552		
CHECKED - MDR/NRB		ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS FED. AID PROJECT		

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	42661.72	-16.46	686.63	686.65
CL Brg. W. Abut.	42662.97	-16.46	686.63	686.65
C	42672.97	-16.46	686.66	686.71
D	42682.97	-16.46	686.69	686.77
E	42692.97	-16.46	686.71	686.81
F	42702.97	-16.46	686.74	686.85
G	42712.97	-16.46	686.76	686.87
H	42722.97	-16.46	686.78	686.88
I	42732.97	-16.46	686.80	686.88
J	42742.97	-16.46	686.82	686.88
K	42752.97	-16.46	686.84	686.87
CL Pier 1	42761.72	-16.46	686.85	686.87
L	42771.72	-16.46	686.86	686.89
M	42781.72	-16.46	686.87	686.91
N	42791.72	-16.46	686.88	686.93
O	42801.72	-16.46	686.89	686.95
P	42811.72	-16.46	686.90	686.97
Q	42821.72	-16.46	686.90	686.97
R	42831.72	-16.46	686.90	686.97
S	42841.72	-16.46	686.91	686.96
T	42851.72	-16.46	686.91	686.95
U	42861.72	-16.46	686.90	686.93
CL Pier 2	42871.72	-16.46	686.90	686.92
V	42881.72	-16.46	686.89	686.93
W	42891.72	-16.46	686.89	686.95
X	42901.72	-16.46	686.88	686.96
Y	42911.72	-16.46	686.87	686.97
Z	42921.72	-16.46	686.86	686.97
A1	42931.72	-16.46	686.84	686.95
B1	42941.72	-16.46	686.83	686.93
C1	42951.72	-16.46	686.81	686.89
D1	42961.72	-16.46	686.79	686.84
CL Brg. E. Abut.	42970.47	-16.46	686.77	686.79
Bk. of E. Abut.	42971.72	-16.46	686.77	686.79

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	42661.72	-9.88	686.75	686.77
CL Brg. W. Abut.	42662.97	-9.88	686.75	686.77
C	42672.97	-9.88	686.78	686.83
D	42682.97	-9.88	686.81	686.89
E	42692.97	-9.88	686.83	686.94
F	42702.97	-9.88	686.86	686.97
G	42712.97	-9.88	686.88	687.00
H	42722.97	-9.88	686.90	687.00
I	42732.97	-9.88	686.92	687.00
J	42742.97	-9.88	686.94	687.00
K	42752.97	-9.88	686.96	686.99
CL Pier 1	42761.72	-9.88	686.97	686.99
L	42771.72	-9.88	686.98	687.01
M	42781.72	-9.88	686.99	687.03
N	42791.72	-9.88	687.00	687.05
O	42801.72	-9.88	687.01	687.07
P	42811.72	-9.88	687.02	687.09
Q	42821.72	-9.88	687.02	687.10
R	42831.72	-9.88	687.03	687.09
S	42841.72	-9.88	687.03	687.08
T	42851.72	-9.88	687.03	687.07
U	42861.72	-9.88	687.02	687.05
CL Pier 2	42871.72	-9.88	687.02	687.04
V	42881.72	-9.88	687.02	687.05
W	42891.72	-9.88	687.01	687.07
X	42901.72	-9.88	687.00	687.08
Y	42911.72	-9.88	686.99	687.09
Z	42921.72	-9.88	686.98	687.09
A1	42931.72	-9.88	686.96	687.07
B1	42941.72	-9.88	686.95	687.05
C1	42951.72	-9.88	686.93	687.01
D1	42961.72	-9.88	686.91	686.96
CL Brg. E. Abut.	42970.47	-9.88	686.89	686.91
Bk. of E. Abut.	42971.72	-9.88	686.89	686.91

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	42661.72	-3.29	686.85	686.87
CL Brg. W. Abut.	42662.97	-3.29	686.85	686.87
C	42672.97	-3.29	686.88	686.93
D	42682.97	-3.29	686.91	686.99
E	42692.97	-3.29	686.94	687.04
F	42702.97	-3.29	686.96	687.07
G	42712.97	-3.29	686.98	687.10
H	42722.97	-3.29	687.01	687.10
I	42732.97	-3.29	687.02	687.10
J	42742.97	-3.29	687.04	687.10
K	42752.97	-3.29	687.06	687.10
CL Pier 1	42761.72	-3.29	687.07	687.09
L	42771.72	-3.29	687.08	687.11
M	42781.72	-3.29	687.10	687.14
N	42791.72	-3.29	687.11	687.16
O	42801.72	-3.29	687.11	687.18
P	42811.72	-3.29	687.12	687.19
Q	42821.72	-3.29	687.13	687.20
R	42831.72	-3.29	687.13	687.19
S	42841.72	-3.29	687.13	687.18
T	42851.72	-3.29	687.13	687.17
U	42861.72	-3.29	687.13	687.16
CL Pier 2	42871.72	-3.29	687.12	687.14
V	42881.72	-3.29	687.12	687.16
W	42891.72	-3.29	687.11	687.17
X	42901.72	-3.29	687.10	687.18
Y	42911.72	-3.29	687.09	687.19
Z	42921.72	-3.29	687.08	687.19
A1	42931.72	-3.29	687.07	687.17
B1	42941.72	-3.29	687.05	687.15
C1	42951.72	-3.29	687.03	687.11
D1	42961.72	-3.29	687.02	687.06
CL Brg. E. Abut.	42970.47	-3.29	687.00	687.02
Bk. of E. Abut.	42971.72	-3.29	686.99	687.01

DESIGNED - Michael D. Rolape
CHECKED - Nicholas R. Barnett
DRAWN - h.t. duong
CHECKED - MDR/NRB

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 057-0244
SHEET NO. 6 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	54
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

℄ ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	42661.72	0.00	686.90	686.92
CL Brg. W. Abut.	42662.97	0.00	686.90	686.92
C	42672.97	0.00	686.93	686.99
D	42682.97	0.00	686.96	687.05
E	42692.97	0.00	686.99	687.09
F	42702.97	0.00	687.01	687.12
G	42712.97	0.00	687.04	687.15
H	42722.97	0.00	687.06	687.15
I	42732.97	0.00	687.08	687.15
J	42742.97	0.00	687.09	687.15
K	42752.97	0.00	687.11	687.15
CL Pier 1	42761.72	0.00	687.12	687.14
L	42771.72	0.00	687.14	687.17
M	42781.72	0.00	687.15	687.19
N	42791.72	0.00	687.16	687.21
O	42801.72	0.00	687.17	687.23
P	42811.72	0.00	687.17	687.25
Q	42821.72	0.00	687.18	687.25
R	42831.72	0.00	687.18	687.24
S	42841.72	0.00	687.18	687.23
T	42851.72	0.00	687.18	687.22
U	42861.72	0.00	687.18	687.21
CL Pier 2	42871.72	0.00	687.17	687.19
V	42881.72	0.00	687.17	687.21
W	42891.72	0.00	687.16	687.22
X	42901.72	0.00	687.15	687.23
Y	42911.72	0.00	687.14	687.24
Z	42921.72	0.00	687.13	687.25
A1	42931.72	0.00	687.12	687.23
B1	42941.72	0.00	687.10	687.20
C1	42951.72	0.00	687.09	687.16
D1	42961.72	0.00	687.07	687.11
CL Brg. E. Abut.	42970.47	0.00	687.05	687.07
Bk. of E. Abut.	42971.72	0.00	687.05	687.07

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	42661.72	3.29	686.85	686.87
CL Brg. W. Abut.	42662.97	3.29	686.85	686.87
C	42672.97	3.29	686.88	686.93
D	42682.97	3.29	686.91	686.99
E	42692.97	3.29	686.94	687.04
F	42702.97	3.29	686.96	687.07
G	42712.97	3.29	686.98	687.10
H	42722.97	3.29	687.01	687.10
I	42732.97	3.29	687.02	687.10
J	42742.97	3.29	687.04	687.10
K	42752.97	3.29	687.06	687.10
CL Pier 1	42761.72	3.29	687.07	687.09
L	42771.72	3.29	687.08	687.11
M	42781.72	3.29	687.10	687.14
N	42791.72	3.29	687.11	687.16
O	42801.72	3.29	687.11	687.18
P	42811.72	3.29	687.12	687.19
Q	42821.72	3.29	687.13	687.20
R	42831.72	3.29	687.13	687.19
S	42841.72	3.29	687.13	687.18
T	42851.72	3.29	687.13	687.17
U	42861.72	3.29	687.13	687.16
CL Pier 2	42871.72	3.29	687.12	687.14
V	42881.72	3.29	687.12	687.16
W	42891.72	3.29	687.11	687.17
X	42901.72	3.29	687.10	687.18
Y	42911.72	3.29	687.09	687.19
Z	42921.72	3.29	687.08	687.19
A1	42931.72	3.29	687.07	687.17
B1	42941.72	3.29	687.05	687.15
C1	42951.72	3.29	687.03	687.11
D1	42961.72	3.29	687.02	687.06
CL Brg. E. Abut.	42970.47	3.29	687.00	687.02
Bk. of E. Abut.	42971.72	3.29	686.99	687.01

DESIGNED - Michael D. Rolape
CHECKED - Nicholas R. Barnett
DRAWN - h.t. duong
CHECKED - MDR/NRB

EXAMINED — Thomas J. Domagalski, ENGINEER OF BRIDGE DESIGN
PASSED — ENGINEER OF BRIDGES AND STRUCTURES
DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 057-0244
SHEET NO. 7 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	55
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	42661.72	9.87	686.75	686.77
CL Brg. W. Abut.	42662.97	9.87	686.75	686.77
C	42672.97	9.87	686.78	686.83
D	42682.97	9.87	686.81	686.89
E	42692.97	9.87	686.83	686.94
F	42702.97	9.87	686.86	686.97
G	42712.97	9.87	686.88	687.00
H	42722.97	9.87	686.90	687.00
I	42732.97	9.87	686.92	687.00
J	42742.97	9.87	686.94	687.00
K	42752.97	9.87	686.96	686.99
CL Pier 1	42761.72	9.87	686.97	686.99
L	42771.72	9.87	686.98	687.01
M	42781.72	9.87	686.99	687.03
N	42791.72	9.87	687.00	687.05
O	42801.72	9.87	687.01	687.07
P	42811.72	9.87	687.02	687.09
Q	42821.72	9.87	687.02	687.10
R	42831.72	9.87	687.03	687.09
S	42841.72	9.87	687.03	687.08
T	42851.72	9.87	687.03	687.07
U	42861.72	9.87	687.02	687.05
CL Pier 2	42871.72	9.87	687.02	687.04
V	42881.72	9.87	687.02	687.05
W	42891.72	9.87	687.01	687.07
X	42901.72	9.87	687.00	687.08
Y	42911.72	9.87	686.99	687.09
Z	42921.72	9.87	686.98	687.09
A1	42931.72	9.87	686.96	687.07
B1	42941.72	9.87	686.95	687.05
C1	42951.72	9.87	686.93	687.01
D1	42961.72	9.87	686.91	686.96
CL Brg. E. Abut.	42970.47	9.87	686.89	686.91
Bk. of E. Abut.	42971.72	9.87	686.89	686.91

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. W. Abut.	42661.72	16.46	686.63	686.65
CL Brg. W. Abut.	42662.97	16.46	686.63	686.65
C	42672.97	16.46	686.66	686.71
D	42682.97	16.46	686.69	686.77
E	42692.97	16.46	686.71	686.81
F	42702.97	16.46	686.74	686.85
G	42712.97	16.46	686.76	686.87
H	42722.97	16.46	686.78	686.88
I	42732.97	16.46	686.80	686.88
J	42742.97	16.46	686.82	686.88
K	42752.97	16.46	686.84	686.87
CL Pier 1	42761.72	16.46	686.85	686.87
L	42771.72	16.46	686.86	686.89
M	42781.72	16.46	686.87	686.91
N	42791.72	16.46	686.88	686.93
O	42801.72	16.46	686.89	686.95
P	42811.72	16.46	686.90	686.97
Q	42821.72	16.46	686.90	686.97
R	42831.72	16.46	686.90	686.97
S	42841.72	16.46	686.91	686.96
T	42851.72	16.46	686.91	686.95
U	42861.72	16.46	686.90	686.93
CL Pier 2	42871.72	16.46	686.90	686.92
V	42881.72	16.46	686.89	686.93
W	42891.72	16.46	686.89	686.95
X	42901.72	16.46	686.88	686.96
Y	42911.72	16.46	686.87	686.97
Z	42921.72	16.46	686.86	686.97
A1	42931.72	16.46	686.84	686.95
B1	42941.72	16.46	686.83	686.93
C1	42951.72	16.46	686.81	686.89
D1	42961.72	16.46	686.79	686.84
CL Brg. E. Abut.	42970.47	16.46	686.77	686.79
Bk. of E. Abut.	42971.72	16.46	686.77	686.79

DESIGNED - Michael D. Rolape
CHECKED - Nicholas R. Barnett
DRAWN - h.t. duong
CHECKED - MDR/NRB

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 057-0244
SHEET NO. 8 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	56
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

NORTH CURB LINE

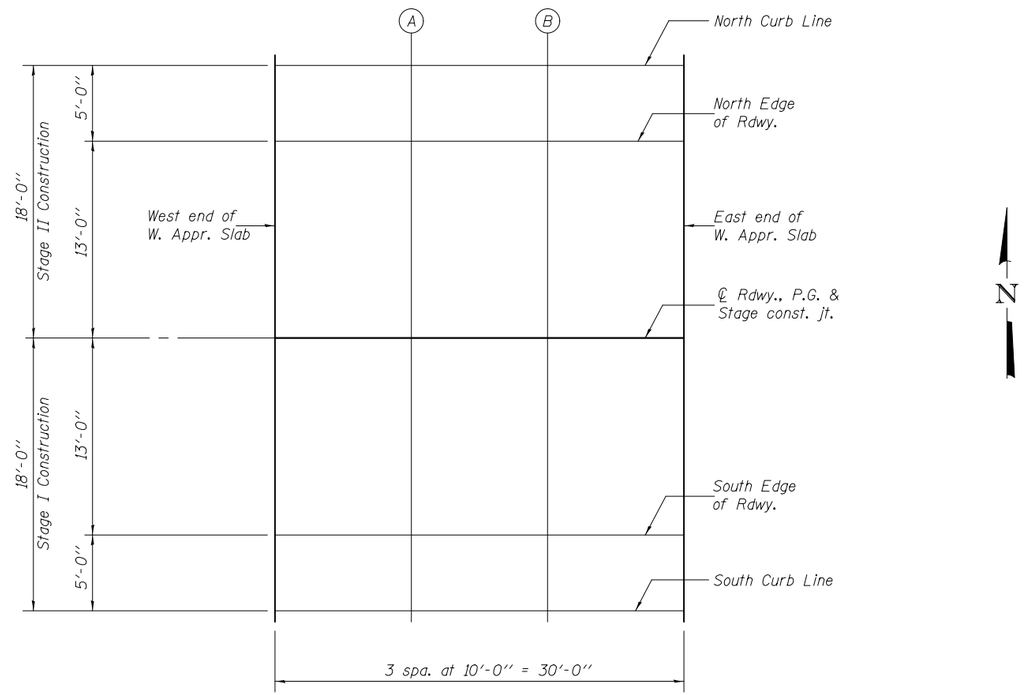
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of W. Appr. Slab	42631.72	-18.00	686.49	686.51
A	42641.72	-18.00	686.53	686.55
B	42651.72	-18.00	686.56	686.58
East end of W. Appr. Slab	42661.72	-18.00	686.59	686.61

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of W. Appr. Slab	42631.72	-13.00	686.60	686.62
A	42641.72	-13.00	686.63	686.65
B	42651.72	-13.00	686.67	686.69
East end of W. Appr. Slab	42661.72	-13.00	686.70	686.72

℄ ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of W. Appr. Slab	42631.72	0.00	686.80	686.82
A	42641.72	0.00	686.84	686.86
B	42651.72	0.00	686.87	686.89
East end of W. Appr. Slab	42661.72	0.00	686.90	686.92



PLAN

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of W. Appr. Slab	42631.72	13.00	686.60	686.62
A	42641.72	13.00	686.63	686.65
B	42651.72	13.00	686.67	686.69
East end of W. Appr. Slab	42661.72	13.00	686.70	686.72

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of W. Appr. Slab	42631.72	18.00	686.49	686.51
A	42641.72	18.00	686.53	686.55
B	42651.72	18.00	686.56	686.58
East end of W. Appr. Slab	42661.72	18.00	686.59	686.61

DESIGNED - Michael D. Rolape
CHECKED - Nicholas R. Barnett
DRAWN - h.t. duong
CHECKED - MDR/NRB

EXAMINED — Thomas J. Domagalski — ENGINEER OF BRIDGE DESIGN
PASSED — ENGINEER OF BRIDGES AND STRUCTURES
DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 057-0244
SHEET NO. 9 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	57
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

NORTH CURB LINE

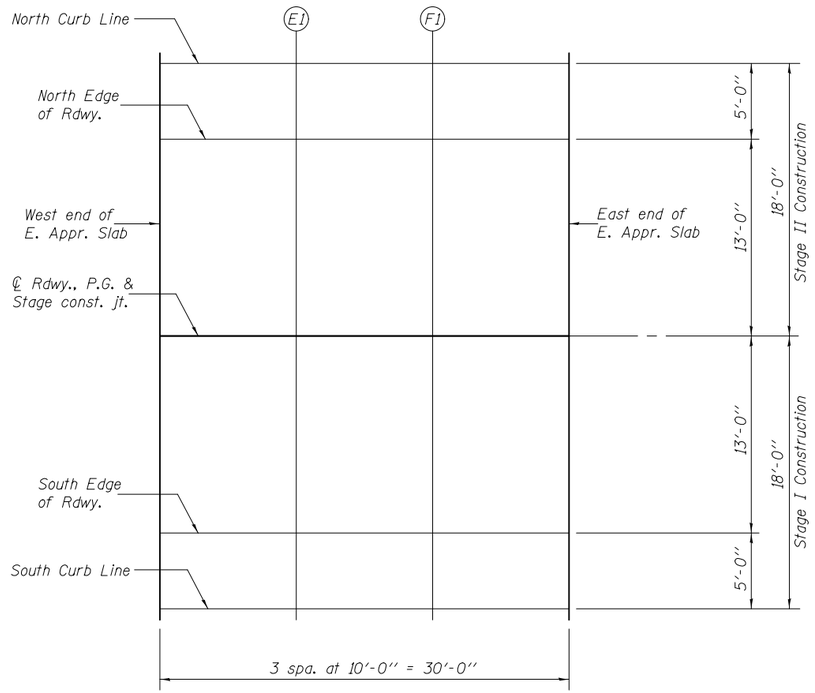
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of E. Appr. Slab	42971.72	-18.00	686.74	686.76
E1	42981.72	-18.00	686.72	686.74
F1	42991.72	-18.00	686.69	686.71
East end of E. Appr. Slab	43001.72	-18.00	686.67	686.69

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of E. Appr. Slab	42971.72	-13.00	686.84	686.86
E1	42981.72	-13.00	686.82	686.84
F1	42991.72	-13.00	686.80	686.82
East end of E. Appr. Slab	43001.72	-13.00	686.77	686.79

℄ ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of E. Appr. Slab	42971.72	0.00	687.05	687.07
E1	42981.72	0.00	687.02	687.04
F1	42991.72	0.00	687.00	687.02
East end of E. Appr. Slab	43001.72	0.00	686.97	686.99



PLAN

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of E. Appr. Slab	42971.72	13.00	686.84	686.86
E1	42981.72	13.00	686.82	686.84
F1	42991.72	13.00	686.80	686.82
East end of E. Appr. Slab	43001.72	13.00	686.77	686.79

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
West end of E. Appr. Slab	42971.72	18.00	686.74	686.76
E1	42981.72	18.00	686.72	686.74
F1	42991.72	18.00	686.69	686.71
East end of E. Appr. Slab	43001.72	18.00	686.67	686.69

DESIGNED -	Michael D. Rolape	EXAMINED	Thomas J. Domagalski
CHECKED -	Nicholas R. Barnett		ENGINEER OF BRIDGE DESIGN
DRAWN -	h.t. duong	PASSED	Carl Lang
CHECKED -	MDR/NRB		ENGINEER OF BRIDGES AND STRUCTURES

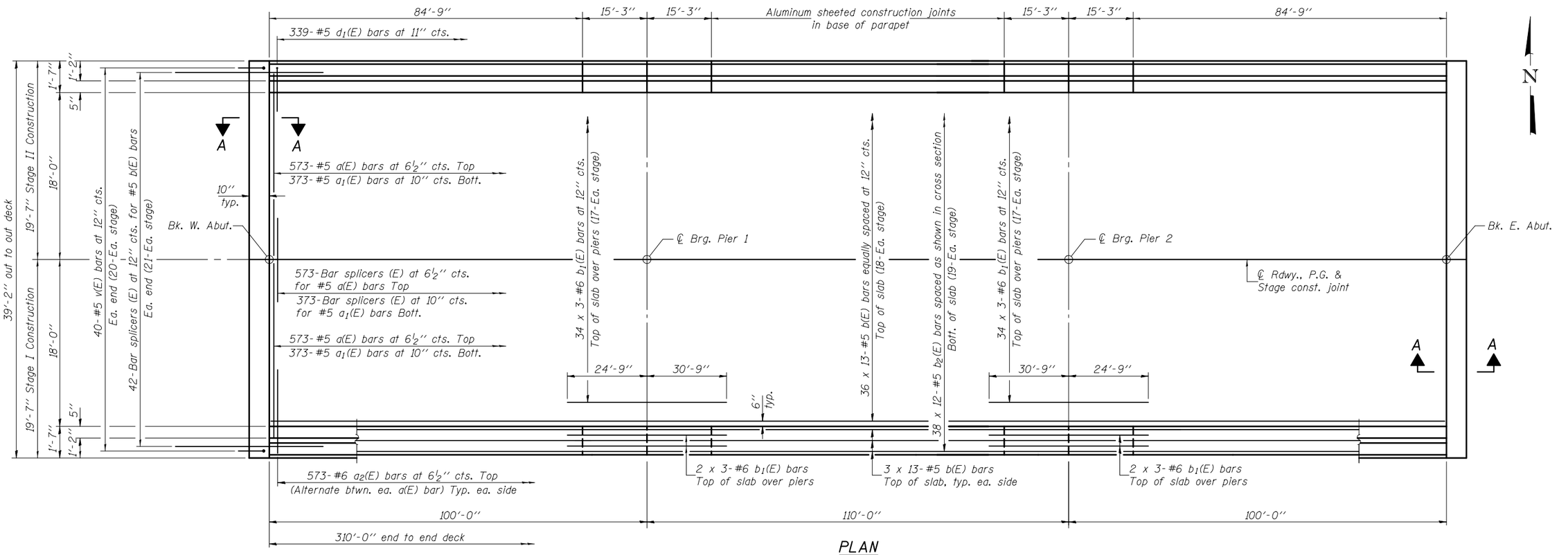
DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 057-0244

SHEET NO. 10 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	58
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

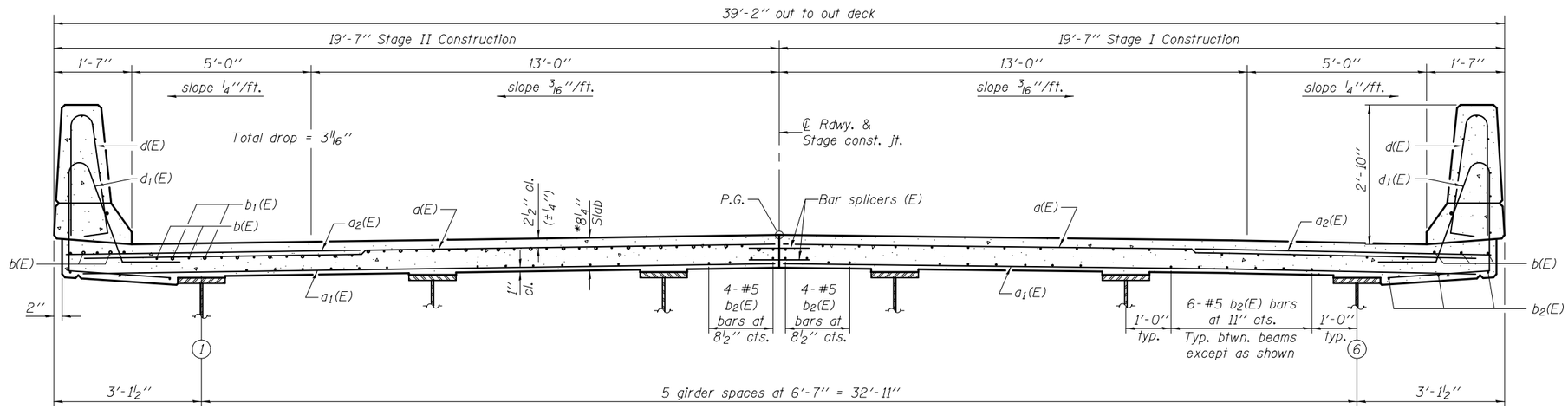


PLAN

MIN. BAR LAPS

#5 bar = 3'-3''
#6 bar = 3'-10''

Notes: See sheet 12 of 30 for superstructure details and Bill of Material.
Bars indicated thus 36 x 13-#5 etc. indicates 36 lines of bars with 13 lengths per line.
See sheet 12 of 30 for parapet reinforcement.
See sheet 13 of 30 for Section A-A.
See sheet 23 of 30 for bar splicer details.



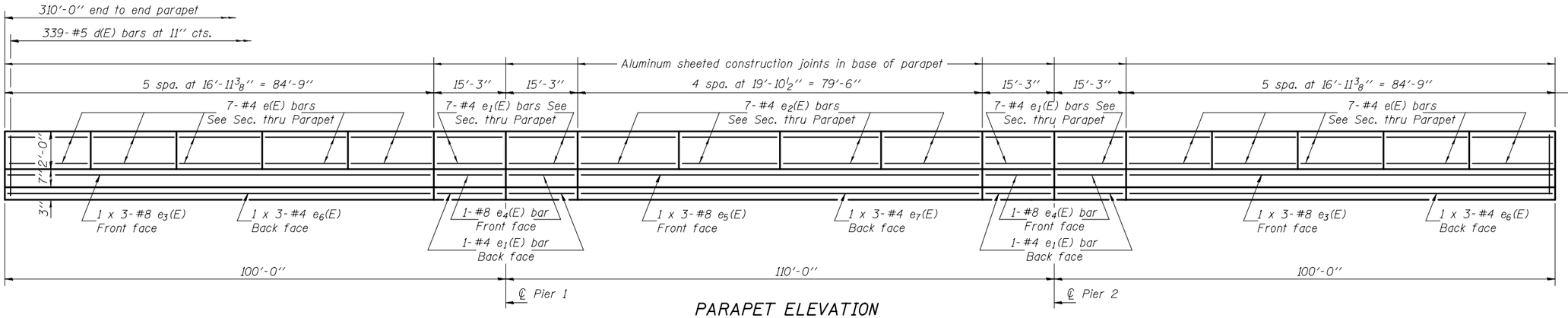
NEAR PIER NEAR MIDSPAN

CROSS SECTION
(Looking east)

*Prior to grinding.

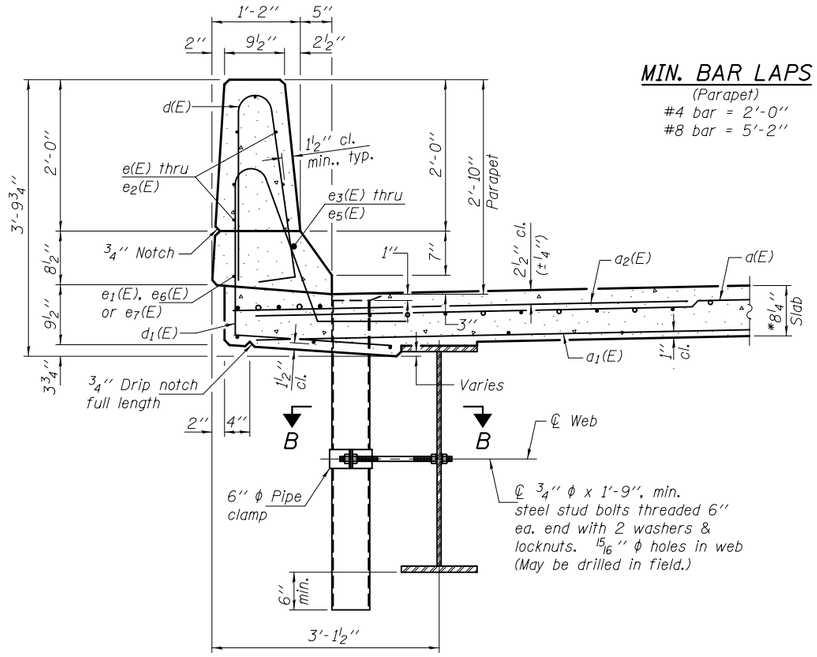
DESIGNED - Michael D. Rolape	EXAMINED		DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett						315	121 BR-2	MCLEAN	144	59
DRAWN - h.t. duong	PASSED							CONTRACT NO. 70552		
CHECKED - MDR/NRB					SHEET NO. 11 OF 30 SHEETS			ILLINOIS FED. AID PROJECT		

Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
Carl Puzey
ENGINEER OF BRIDGES AND STRUCTURES



PARAPET ELEVATION

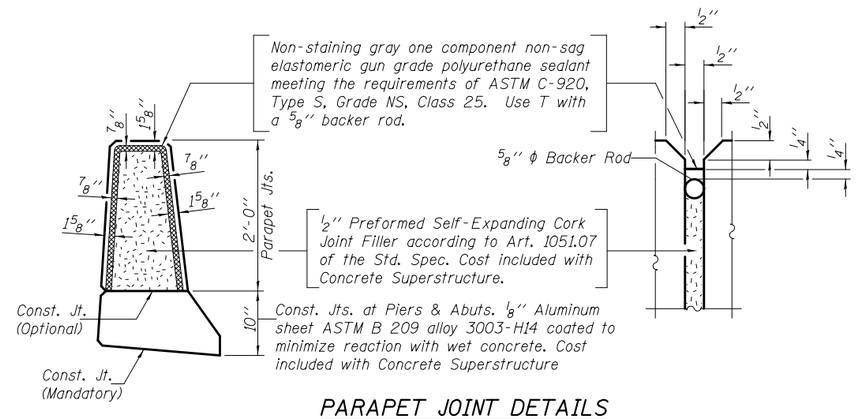
(Measured along inside face)



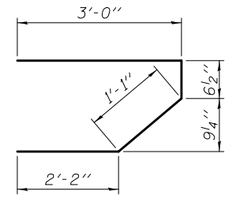
SECTION THRU PARAPET

MIN. BAR LAPS

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



PARAPET JOINT DETAILS

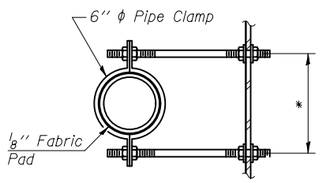


BAR s(E)

SUPERSTRUCTURE BILL OF MATERIAL

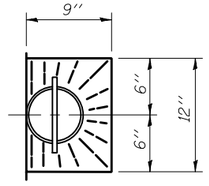
Bar	No.	Size	Length	Shape
a(E)	1146	#5	19'-2"	
a1(E)	746	#5	18'-3"	
a2(E)	1146	#6	6'-6"	
b(E)	546	#5	26'-10"	
b1(E)	228	#6	21'-1"	
b2(E)	456	#5	28'-10"	
d(E)	678	#5	5'-7"	
d1(E)	678	#5	7'-10"	
e(E)	140	#4	16'-8"	
e1(E)	64	#4	15'-0"	
e2(E)	56	#4	19'-7"	
e3(E)	12	#8	31'-8"	
e4(E)	8	#8	15'-0"	
e5(E)	6	#8	29'-11"	
e6(E)	12	#4	29'-6"	
e7(E)	6	#4	27'-9"	
m(E)	8	#6	8'-3"	
m1(E)	16	#6	9'-5"	
m2(E)	8	#6	6'-4"	
m3(E)	4	#6	3'-0"	
m4(E)	4	#6	2'-10"	
m5(E)	20	#6	19'-4"	
s(E)	84	#5	6'-10"	
s1(E)	76	#4	11'-6"	
v(E)	80	#5	3'-10"	
Reinforcement Bars, Epoxy Coated		Pound	101610	
Concrete Superstructure		Cu. Yds.	425.1	

Bars indicated thus 1 x 3-#4 etc. indicates 1 line of bars with 3 lengths per line.

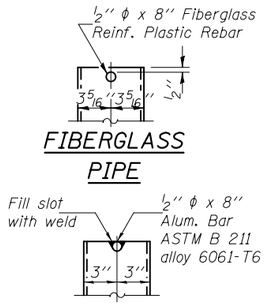


SECTION B-B

*Dimension as required by Pipe Clamp

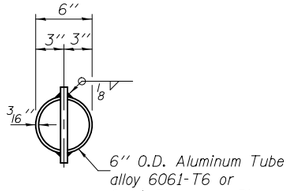


TOP PLAN



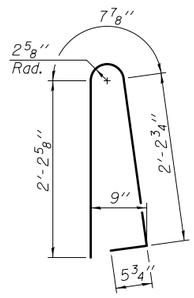
FIBERGLASS PIPE

ALUMINUM TUBE

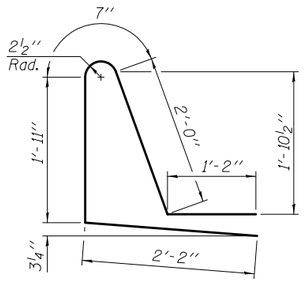


TOP PLAN

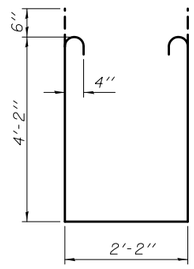
(Showing Aluminum Tube)



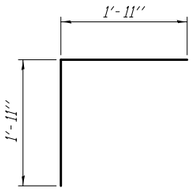
BAR d(E)



BAR d1(E)



BAR s1(E)



BAR v(E)

*Prior to grinding.

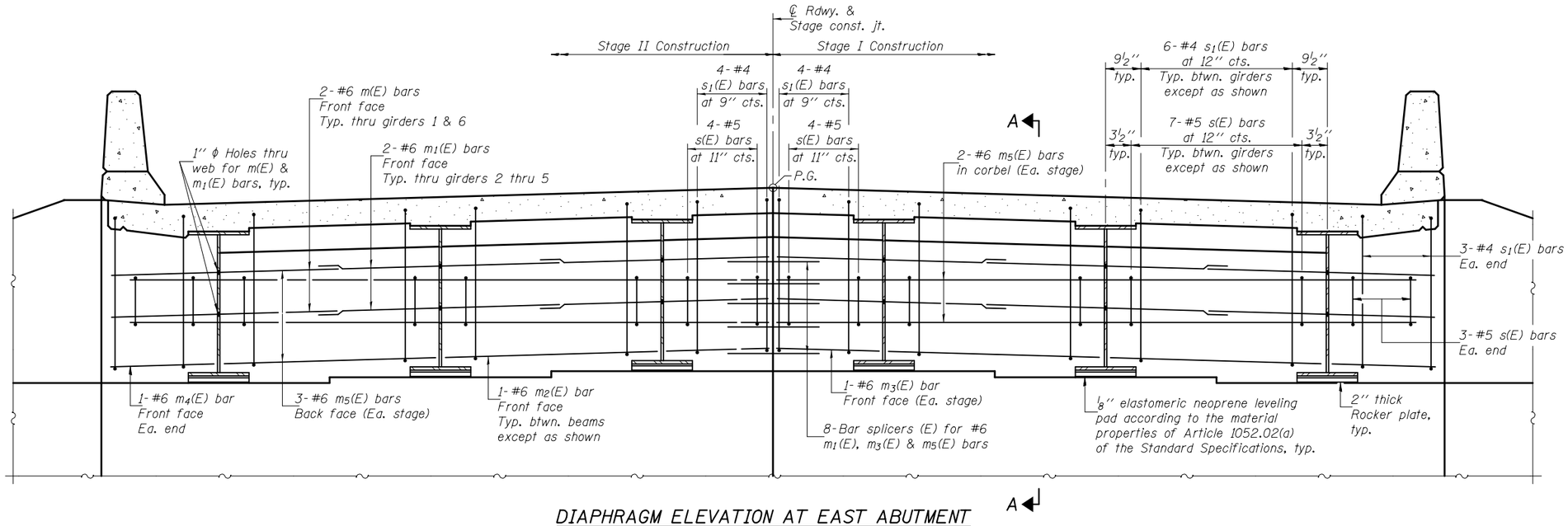
Notes:

The exterior surfaces of the floor drains shall not be painted.

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.

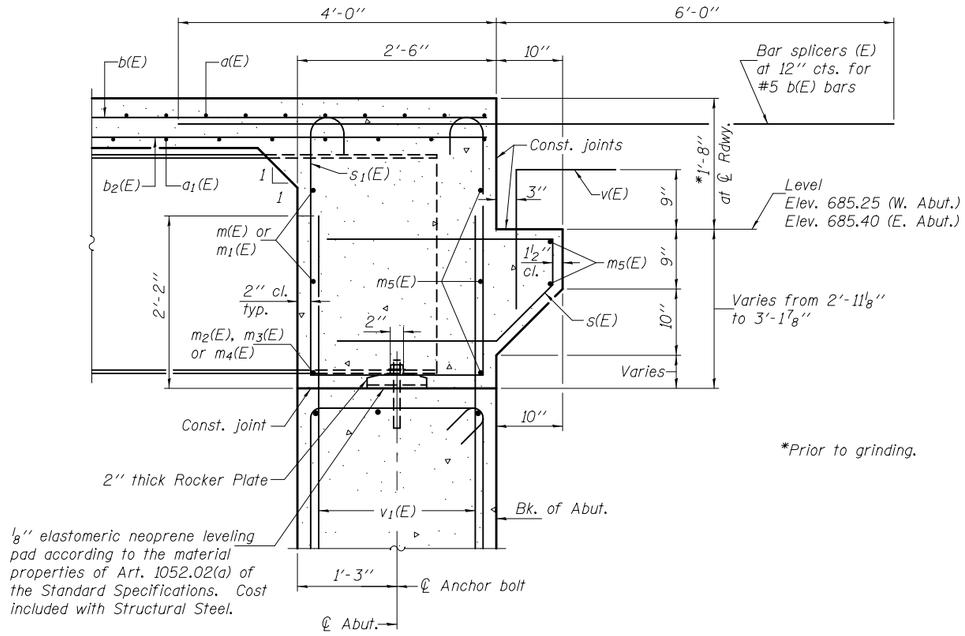
DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski (ENGINEER OF BRIDGE DESIGN)	DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett	PASSED	D. Carl Peterson (ENGINEER OF BRIDGES AND STRUCTURES)			SHEET NO. 12 OF 30 SHEETS	315	121 BR-2	MCLEAN	144	60
DRAWN - h.t. duong									CONTRACT NO. 70552	
CHECKED - MDR/NRB								ILLINOIS	FED. AID PROJECT	



DIAPHRAGM ELEVATION AT EAST ABUTMENT

(Looking east - West abutment similar)

Notes: Reinforcement bars in diaphragm are billed with superstructure on sheet 12 of 30.
Concrete in diaphragm is included with Concrete Superstructure on sheet 12 of 30.
For details of bars s(E) & s_1(E) see sheet 12 of 30.
For bar splicer (E) details see sheet 23 of 30.



*Prior to grinding.

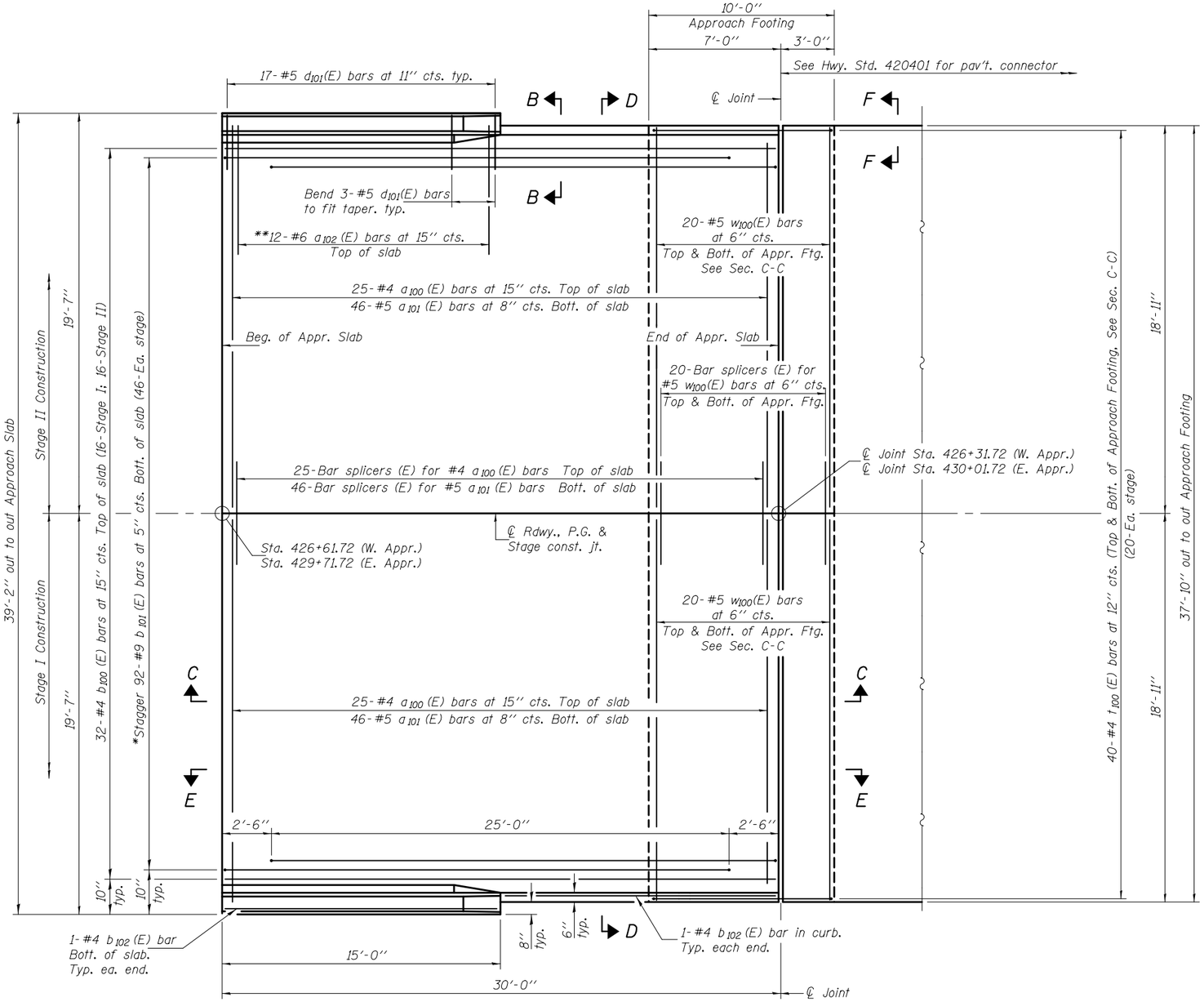
SECTION A-A

MIN. BAR LAP

#6 bar = 3'-10''

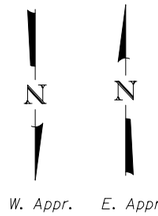
SI-DS1 7-1-10

DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski	DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTEGRAL ABUTMENT DIAPHRAGM DETAILS STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett		ENGINEER OF BRIDGE DESIGN				315	121 BR-2	MCLEAN	144	61
DRAWN - h.t. duong	PASSED	J. Carl Piercy							CONTRACT NO. 70552	
CHECKED - MDR/NRB		ENGINEER OF BRIDGES AND STRUCTURES			SHEET NO. 13 OF 30 SHEETS			ILLINOIS	FED. AID PROJECT	

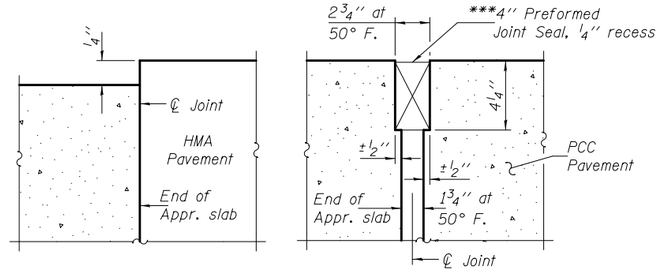


PLAN

(East Approach shown - West Approach similar by mirror image)

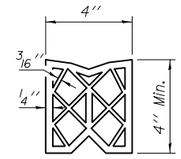


Notes: See sheet 15 of 30 for Sections C-C & D-D and View E-E.
a_{100} (E), a_{101} (E), and w_{100} (E) bar spacings measured perpendicular to ℄ Rdwy.

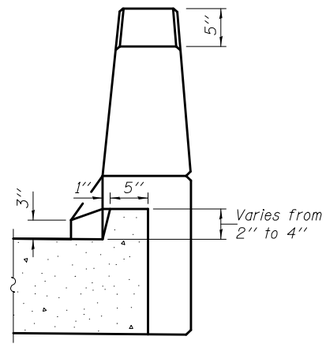


FLEXIBLE PAVEMENT — RIGID PAVEMENT

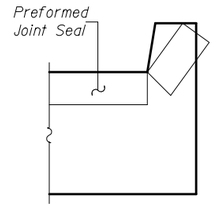
DETAIL A



PREFORMED JOINT SEAL



VIEW B-B

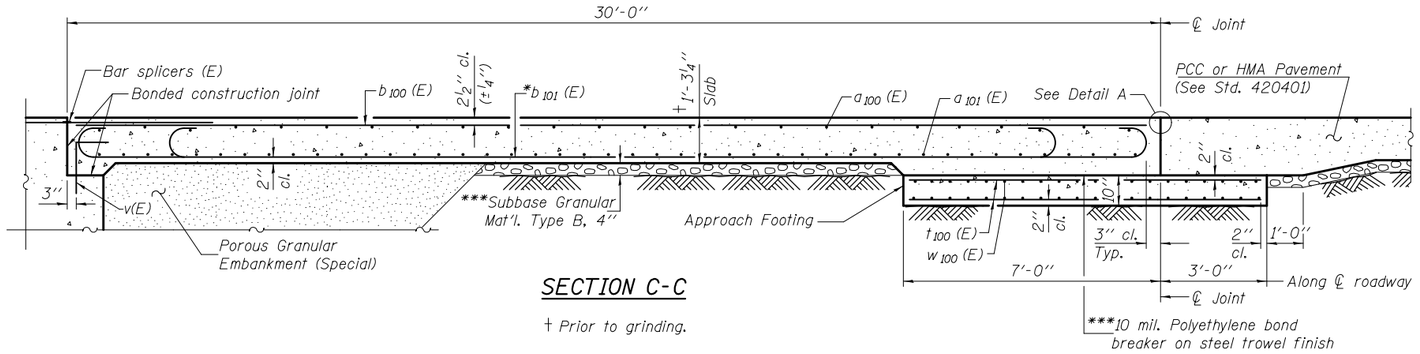


VIEW F-F

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

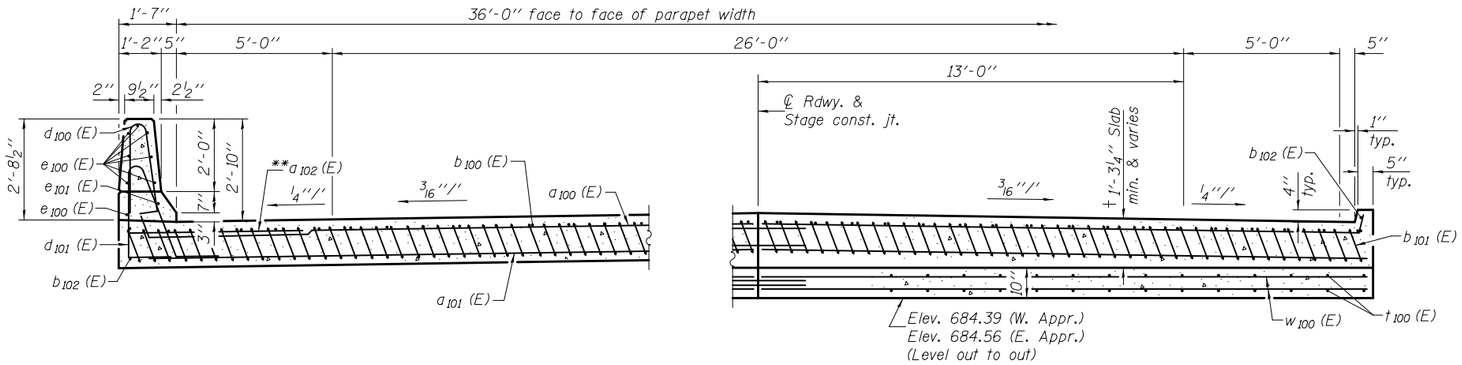
*Tilt #9 b_{101} (E) bars as required to maintain clearance.
**Spaced between a_{100} (E) bars, typ. ea. parapet.
***Cost included with Concrete Superstructure.

DESIGNED - Michael D. Rolape	EXAMINED		DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett		Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN				315	121 BR-2	MCLEAN	144	62
DRAWN - h.t. duong	PASSED							CONTRACT NO. 70552		
CHECKED - MDR/NRB		ENGINEER OF BRIDGES AND STRUCTURES			SHEET NO. 14 OF 30 SHEETS		ILLINOIS FED. AID PROJECT			



SECTION C-C

+ Prior to grinding.

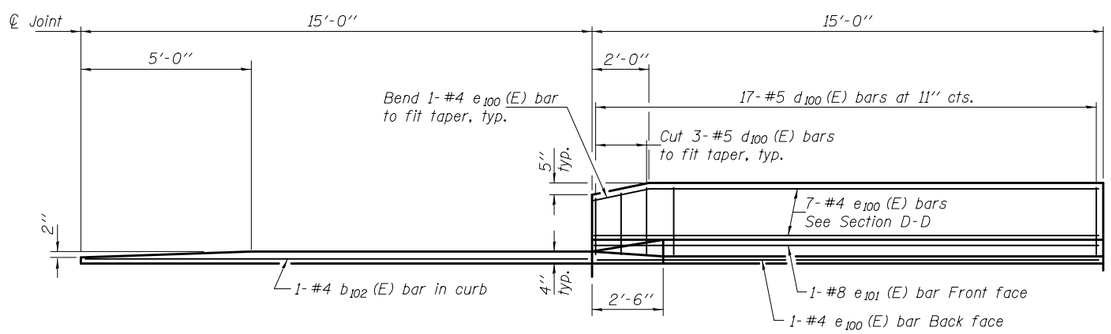


NEAR ABUTMENT

SECTION D-D

(See Plan for dimensions not shown)

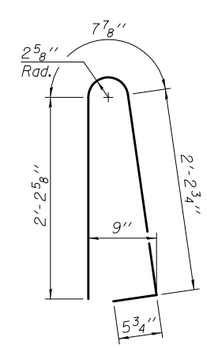
AT APPROACH FOOTING



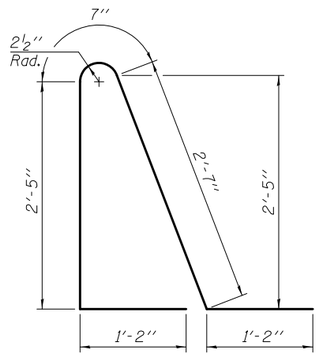
VIEW E-E

Notes:

See sheet 14 of 30 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.
For v(E) bar details, see sheet 12 of 30.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 23 of 30.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 30.
For additional parapet details, see sheet 12 of 30.



BAR d 100 (E)

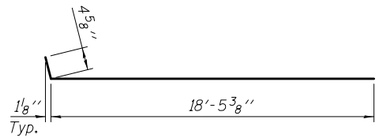


BAR d 101 (E)

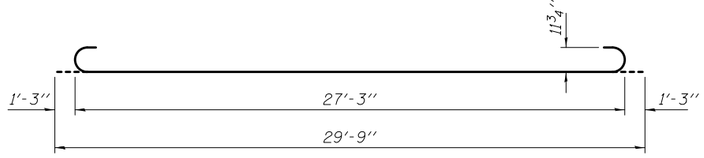
*Tilt #9 b 101 (E) bars as required to maintain clearance.
**Spaced between a 100 (E) bars, typ. ea. parapet.
***Cost included with Concrete Superstructure.

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a 100 (E)	100	#4	18'-10"	
a 101 (E)	184	#5	18'-8"	
a 102 (E)	48	#6	6'-6"	
b 100 (E)	64	#4	29'-8"	
b 101 (E)	184	#9	29'-9"	
b 102 (E)	8	#4	14'-8"	
d 100 (E)	68	#5	5'-7"	
d 101 (E)	68	#5	7'-11"	
e 100 (E)	32	#4	14'-8"	
e 101 (E)	4	#8	14'-8"	
t 100 (E)	160	#4	9'-8"	
w 100 (E)	160	#5	18'-8"	
Concrete Superstructure			Cu. Yd.	118.2
Concrete Structures			Cu. Yd.	23.4
Reinforcement Bars, Epoxy Coated			Pound	30840



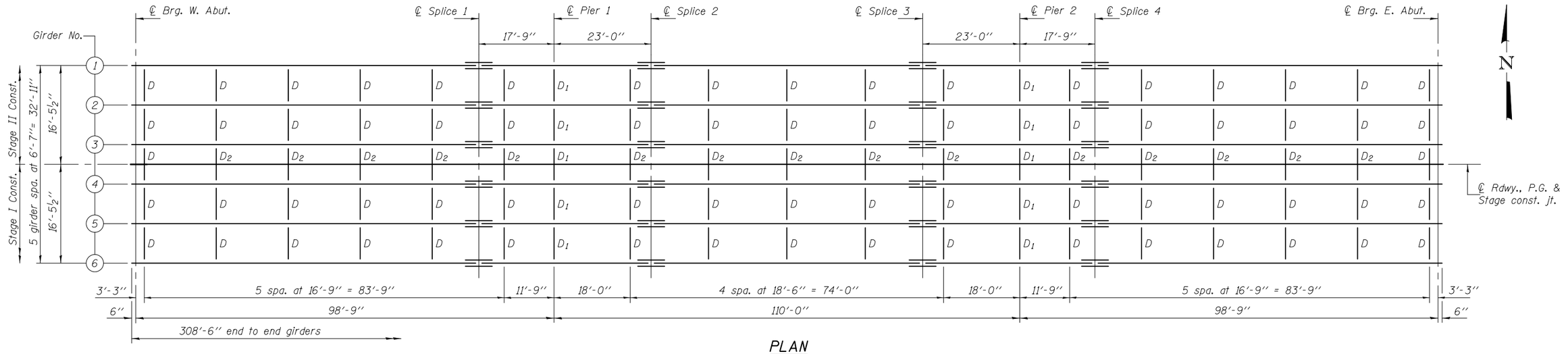
BAR a 100 (E)



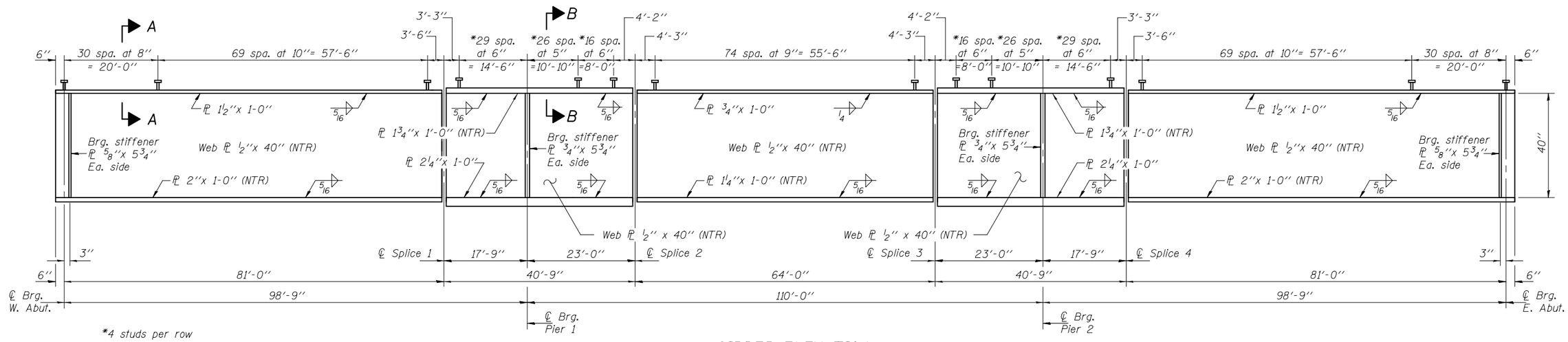
BAR b 101 (E)

DESIGNED - Michael D. Rolape	EXAMINED		DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett						315	121 BR-2	MCLEAN	144	63
DRAWN - h.t. duong	PASSED							CONTRACT NO. 70552		
CHECKED - MDR/NRB					SHEET NO. 15 OF 30 SHEETS			ILLINOIS FED. AID PROJECT		

Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN
Carl Puzey ENGINEER OF BRIDGES AND STRUCTURES



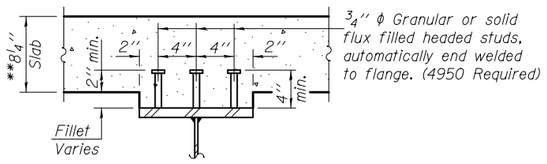
PLAN



GIRDER ELEVATION

*4 studs per row

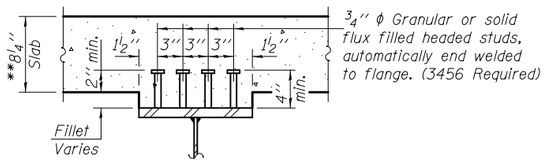
All structural steel shall be Grade 50W. ***



¾" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (4950 Required)

SECTION A-A

**Prior to grinding.



¾" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (3456 Required)

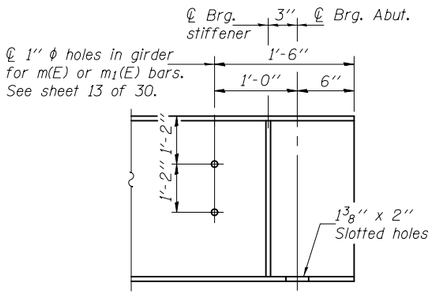
SECTION B-B

*** See Special Provision for Structural Steel for Bridges.

Notes:

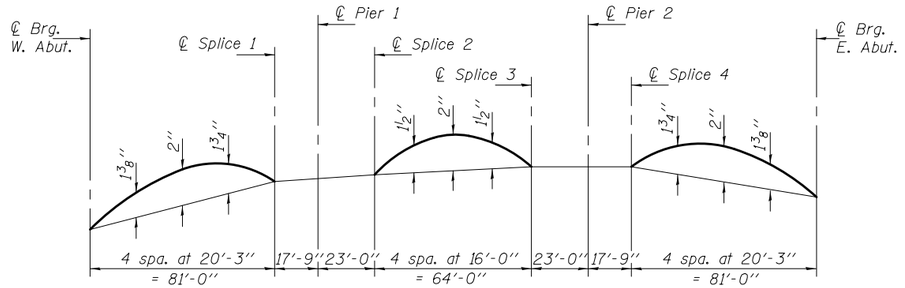
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the impact testing requirements given in the special provision for Structural Steel for Bridges.

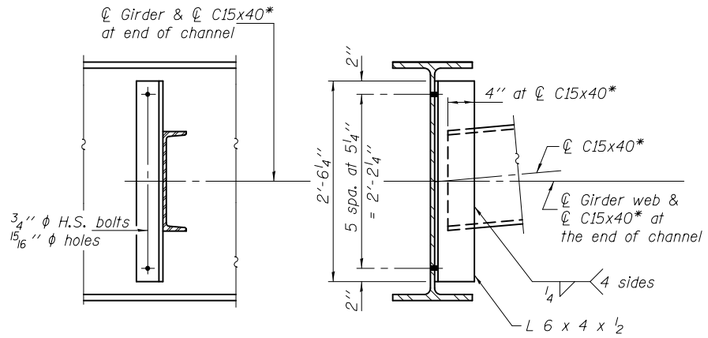


END OF GIRDER ELEVATION

DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 5, 2011	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**STRUCTURAL STEEL STRUCTURE NO. 057-0244**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett						315	121 BR-2	MCLEAN	144	64
DRAWN - h.t. duong	PASSED							CONTRACT NO. 70552		
CHECKED - MDR/NRB		ENGINEER OF BRIDGES AND STRUCTURES			SHEET NO. 16 OF 30 SHEETS			ILLINOIS FED. AID PROJECT		

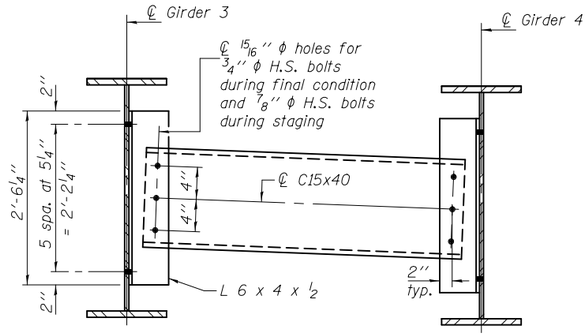


CAMBER DIAGRAM



DIAPHRAGM D

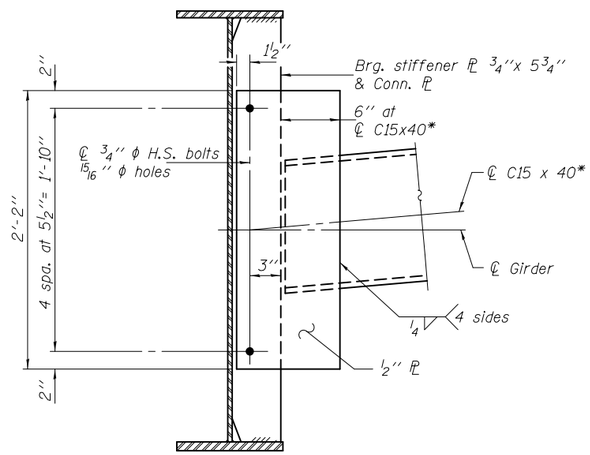
(70 Required)



DIAPHRAGM D2

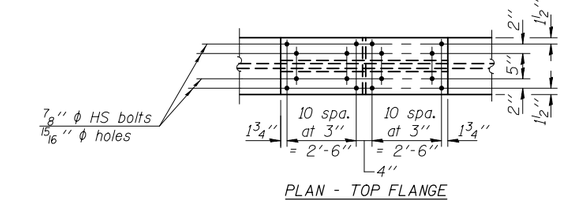
(15 Required)

Install only one 7/8" ϕ H.S. bolt in center hole at each end of Diaphragm D2. The bolts shall be finger tightened prior to deck pour to permit rotation of diaphragm D2. Install 3/4" ϕ H.S. bolts and fully tighten after Stage II deck pour is complete.

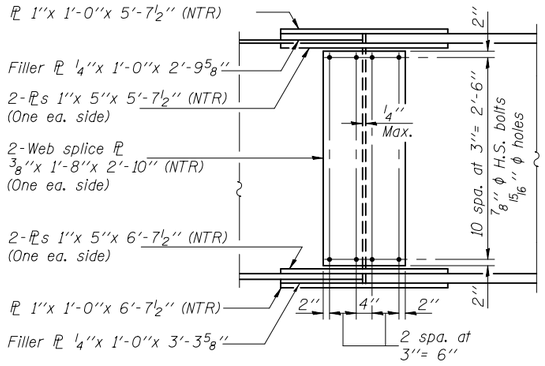


DIAPHRAGM D1

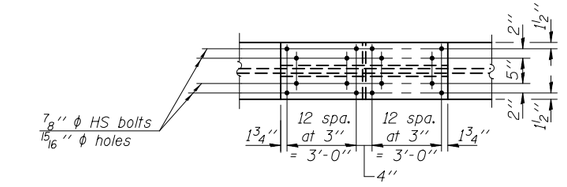
(10 Required)



PLAN - TOP FLANGE

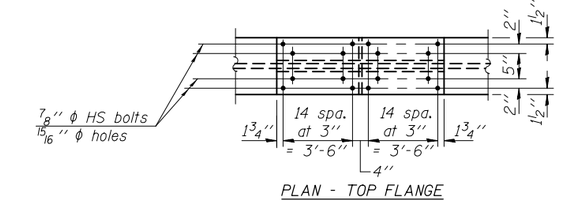


ELEVATION

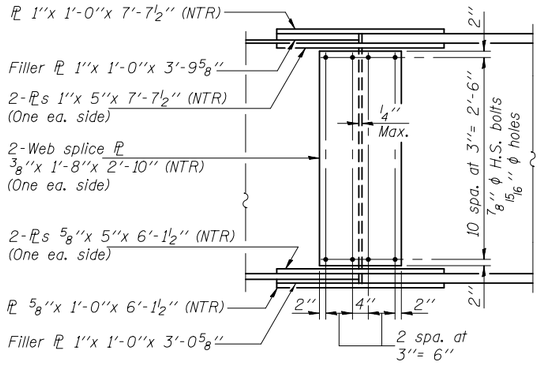


PLAN - BOTTOM FLANGE

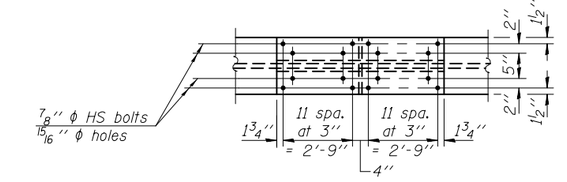
SPLICES 1 & 4



PLAN - TOP FLANGE

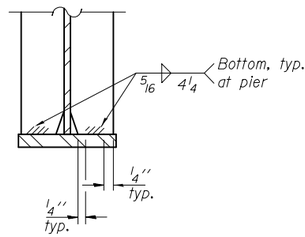


ELEVATION

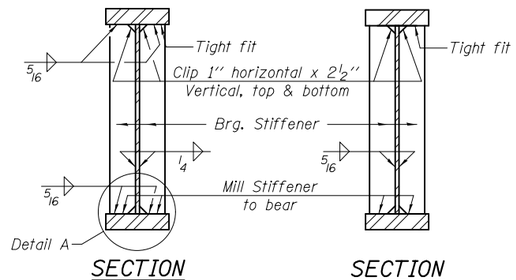


PLAN - BOTTOM FLANGE

SPLICES 2 & 3



DETAIL A



SECTION AT PIER

SECTION AT ABUTMENT

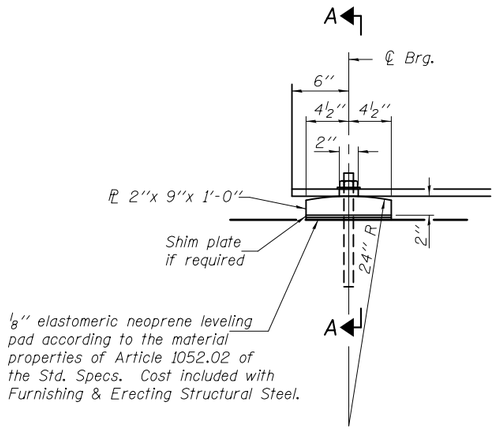
Notes:

Load carrying components designated "NTR" shall conform to the impact testing requirements given in the special provision for Structural Steel for Bridges.

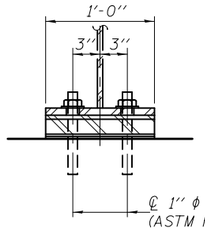
Two hardened washers shall be required for all oversized holes in diaphragms.

*Alternate channel C15x50 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on lighter section. The alternate, if utilized, shall be provided at no cost to the department.

DESIGNED - Michael D. Rolape	EXAMINED Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL DETAILS STRUCTURE NO. 057-0244	F.A.P. RTE. 315 | SECTION 121 BR-2 | COUNTY MCLEAN | TOTAL SHEETS 144 | SHEET NO. 65
CHECKED - Nicholas R. Barnett					CONTRACT NO. 70552
DRAWN - h.t. duong	PASSED			SHEET NO. 17 OF 30 SHEETS	ILLINOIS | FED. AID PROJECT
CHECKED - MDR/NRB	ENGINEER OF BRIDGES AND STRUCTURES				



ELEVATION AT ABUTMENT



SECTION A-A

FIXED BEARING
(12 Required)

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 0.6 Sp. 3	0.5 Sp. 2	Piers 1 & 2
I_s	(in^4)	20737	12425	23627
$I_{c(n)}$	(in^4)	47665	34604	52039
$I_{c(3n)}$	(in^4)	34611	24908	37931
$I_{c(cr)}$	(in^4)	———	———	28658
S_s	(in^3)	1042	676	997
$S_{c(n)}$	(in^3)	1361	964	2903
$S_{c(3n)}$	(in^3)	1248	880	1511
$S_{c(cr)}$	(in^3)	———	———	1062
DC1	(k/′)	0.920	0.847	0.945
M_{DC1}	(′k)	665.3	274.8	1032.2
DC2	(k/′)	0.150	0.150	0.150
M_{DC2}	(′k)	107.2	56.1	170.8
DW	(k/′)	0.329	0.329	0.329
M_{DW}	(′k)	235.2	123.1	374.6
M_{L+IM}	(′k)	1233.2	955.0	1300.9
M_u (Strength I)	(′k)	3476.3	2269.5	4342.2
$\phi_f M_n$	(′k)	6475.3	4878.7	———
f_s DC1	(ksi)	7.7	4.9	12.4
f_s DC2	(ksi)	1.0	0.8	1.9
f_s DW	(ksi)	2.3	1.7	4.2
f_s (L+IM)	(ksi)	10.9	11.9	14.7
f_s (Service II)	(ksi)	25.2	22.9	37.6
$0.95R_hF_{yf}$	(ksi)	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	———	———	49.9
$\phi_f F_n$	(ksi)	———	———	50.0
Vf	(k)	56.2	44.1	61.3

INTERIOR GIRDER REACTION TABLE			
		Abuts.	Piers
R_{DC1}	(k)	35	105.1
R_{DC2}	(k)	5.7	17.4
R_{DW}	(k)	12.5	38.1
R_{L+IM}	(k)	80.9	148.3
R_{Total}	(k)	134.1	308.9

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_{c(n)}$, $S_{c(n)}$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short term composite live loads ($in.^4$ and $in.^3$).

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

$I_{c(cr)}$, $S_{c(cr)}$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

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

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

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

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_{c(3n)}$ or $M_{DC2} / S_{c(cr)}$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_{c(3n)}$ or $M_{DW} / S_{c(cr)}$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
$M_{L+IM} / S_{c(n)}$ or $M_{L+IM} / S_{c(cr)}$ as applicable.

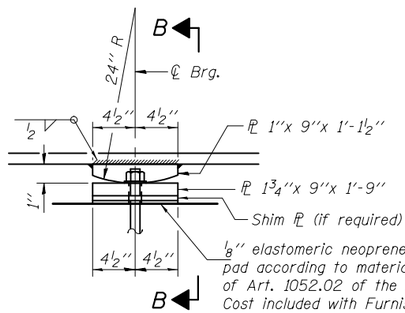
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_{sL+IM}$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

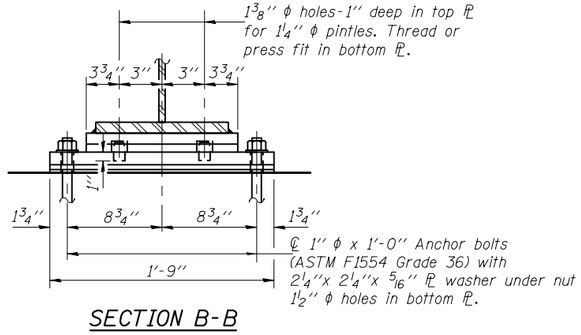
f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_{sL+IM}$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7.2 (ksi).

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

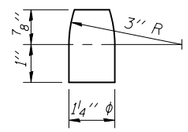


ELEVATION AT PIER



SECTION B-B

FIXED BEARING
(12 Required)



PINTLE

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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

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

All bearing plates and pintles shall be Grade 50W.**

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

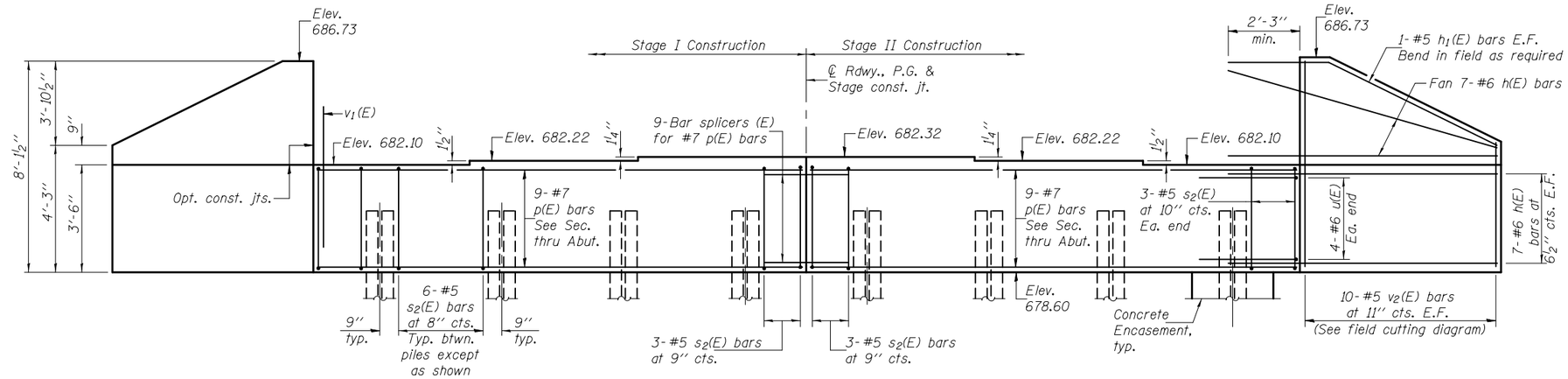
** See Special Provision for Structural Steel for Bridges.

*TOP OF GIRDER WEB ELEVATIONS

Location	℄ Brg. W. Abut.	℄ Splice 1	℄ Brg. Pier 1	℄ Splice 2	℄ Splice 3	℄ Brg. Pier 2	℄ Splice 4	℄ Brg. E. Abut.
Girder 1	685.78	685.86	685.91	685.91	685.95	685.97	685.93	685.92
Girder 2	685.90	685.98	686.03	686.03	686.07	686.09	686.05	686.04
Girder 3	686.00	686.08	686.13	686.14	686.17	686.19	686.15	686.15
Girder 4	686.00	686.08	686.13	686.14	686.17	686.19	686.15	686.15
Girder 5	685.90	685.98	686.03	686.03	686.07	686.09	686.05	686.04
Girder 6	685.78	685.86	685.91	685.91	685.95	685.97	685.93	685.92

*For fabrication use only.

DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEARING DETAILS STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett						315	121 BR-2	MCLEAN	144	66
DRAWN - h.t. duong	PASSED	Carl Puzey ENGINEER OF BRIDGES AND STRUCTURES						CONTRACT NO. 70552		
CHECKED - MDR/NRB					SHEET NO. 18 OF 30 SHEETS			ILLINOIS FED. AID PROJECT		

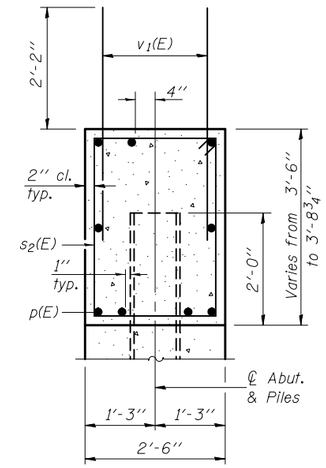


PILE DATA

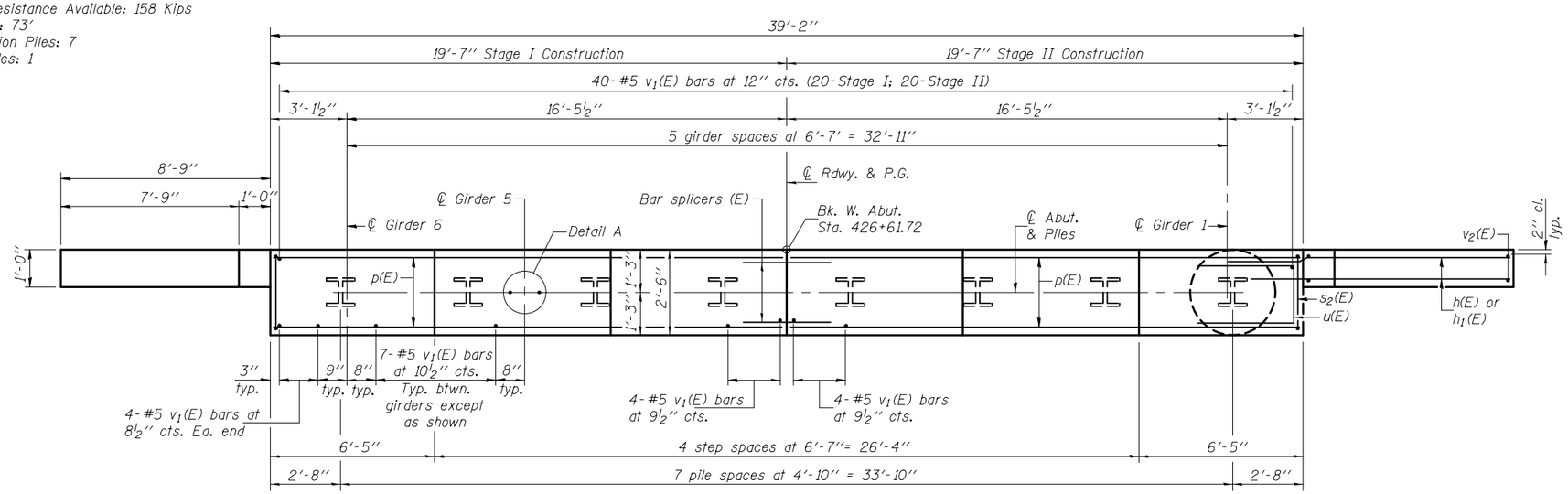
Type: Steel HP14x73
Nominal Required Bearing: 287 Kips
Factored Resistance Available: 158 Kips
Est. Length: 73'
No. Production Piles: 7
No. Test Piles: 1

ELEVATION

(Looking west)



SEC. THRU ABUT.

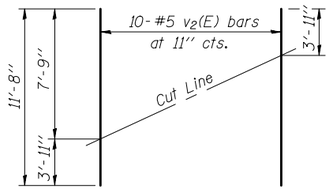


PLAN

BILL OF MATERIAL

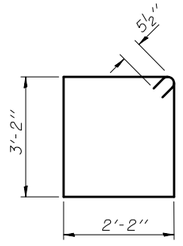
Bar	No.	Size	Length	Shape
h(E)	56	#6	10'-10"	——
h1(E)	4	#5	11'-10"	——
p(E)	18	#7	19'-3"	——
s2(E)	48	#5	11'-7"	⌐
u(E)	8	#6	9'-9"	⊐
v1(E)	84	#5	4'-4"	——
v2(E)	20	#5	11'-8"	——
Structure Excavation		Cu. Yd.	93	
Concrete Structures		Cu. Yd.	17.4	
Reinforcement Bars, Epoxy Coated		Pound	2990	
Furnishing Steel Piles HP14x73		Foot	511	
Driving Piles		Foot	511	
Test Pile Steel HP14x73		Each	1	
Concrete Encasement		Cu. Yd.	4.4	
Anchor Bolts, 1" ϕ		Each	12	

Notes: Pour steps monolithically with cap.
For details of piles and concrete encasement, see sheet 24 of 30.
For bar splicer details, see sheet 23 of 30.

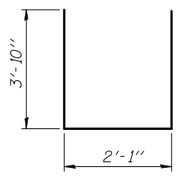


FIELD CUTTING DIAGRAM

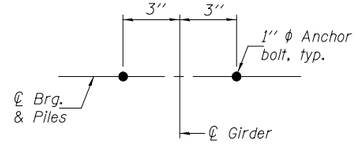
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s2(E)

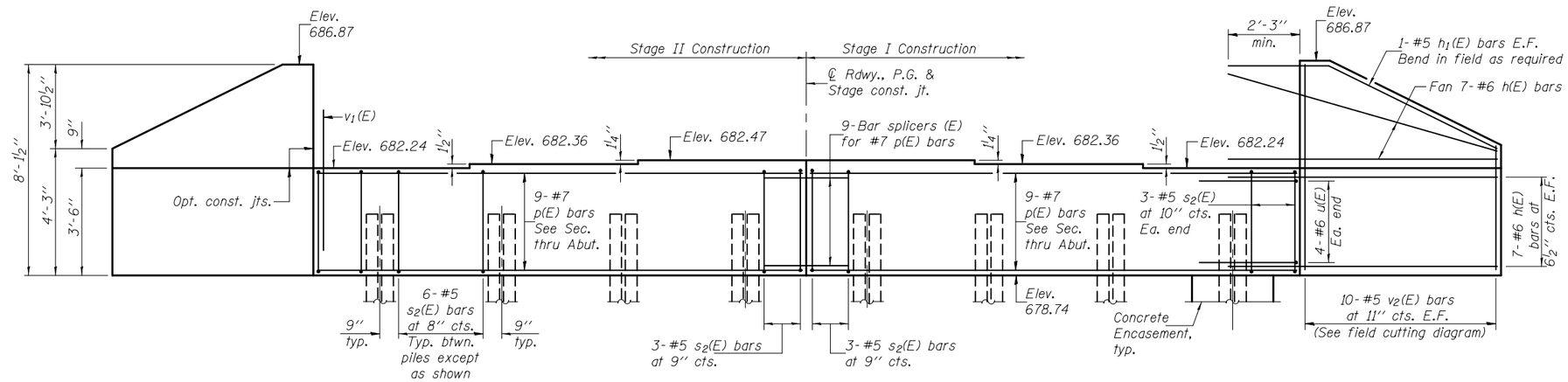


BAR u(E)

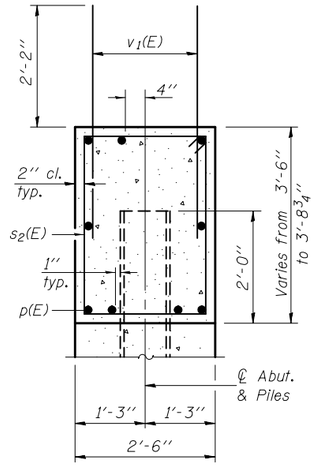


DETAIL A

DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett						315	121 BR-2	MCLEAN	144	67
DRAWN - h.t. duong	PASSED	J. Carl Piney ENGINEER OF BRIDGES AND STRUCTURES			SHEET NO. 19 OF 30 SHEETS			CONTRACT NO. 70552		
CHECKED - MDR/NRB								ILLINOIS FED. AID PROJECT		



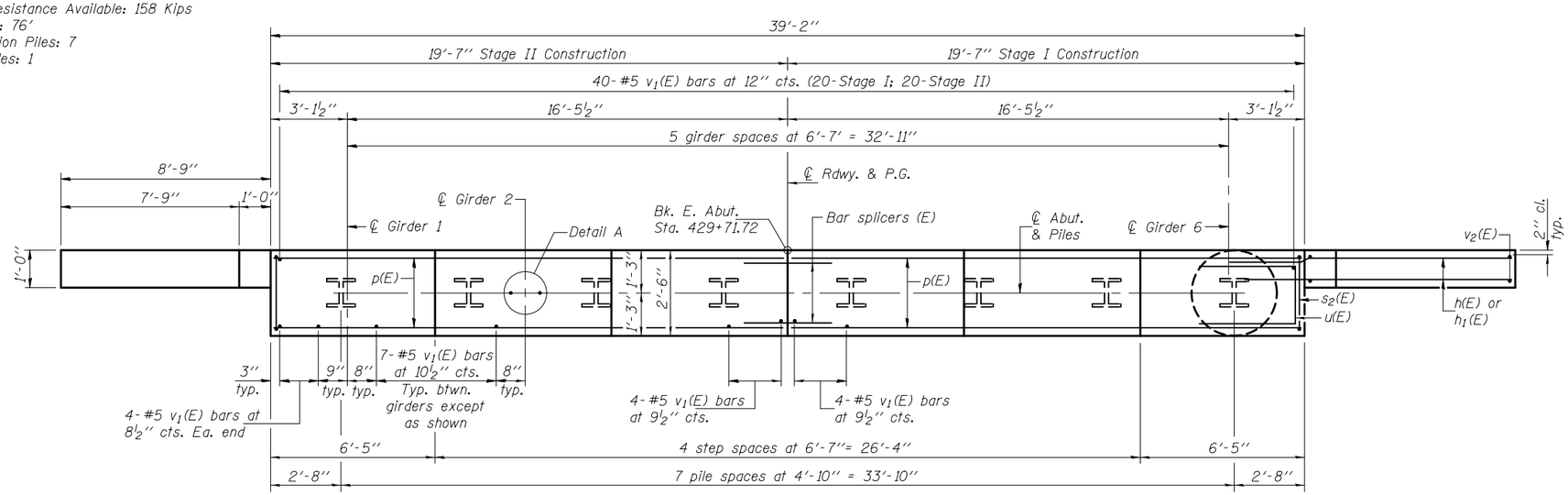
ELEVATION
(Looking east)



SEC. THRU ABUT.

PILE DATA

Type: Steel HP14x73
Nominal Required Bearing: 287 Kips
Factored Resistance Available: 158 Kips
Est. Length: 76'
No. Production Piles: 7
No. Test Piles: 1

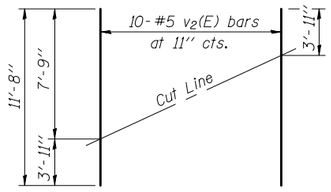


PLAN

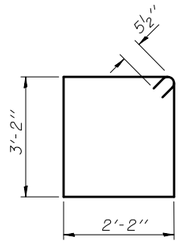
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#6	10'-10"	——
h1(E)	4	#5	11'-10"	——
p(E)	18	#7	19'-3"	——
s2(E)	48	#5	11'-7"	⌐
u(E)	8	#6	9'-9"	⊐
v1(E)	84	#5	4'-4"	——
v2(E)	20	#5	11'-8"	——
Structure Excavation		Cu. Yd.	93	
Concrete Structures		Cu. Yd.	17.4	
Reinforcement Bars, Epoxy Coated		Pound	2990	
Furnishing Steel Piles HP14x73		Foot	532	
Driving Piles		Foot	532	
Test Pile Steel HP14x73		Each	1	
Concrete Encasement		Cu. Yd.	4.4	
Anchor Bolts, 1" ϕ		Each	12	

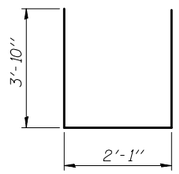
Notes: Pour steps monolithically with cap.
For details of piles and concrete encasement, see sheet 24 of 30.
For bar splicer details, see sheet 23 of 30.



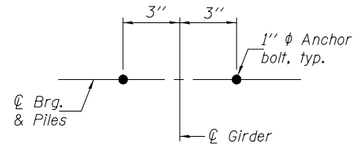
FIELD CUTTING DIAGRAM
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s2(E)



BAR u(E)



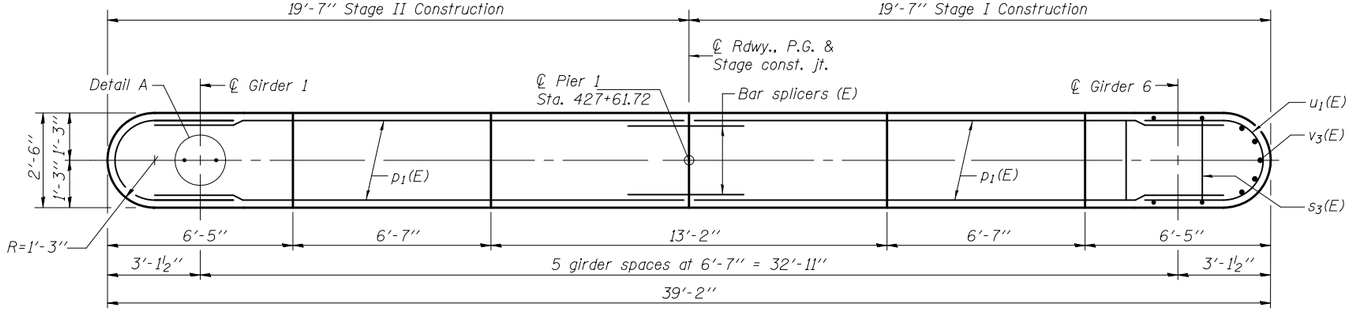
DETAIL A

DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST ABUTMENT STRUCTURE NO. 057-0244	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Nicholas R. Barnett						315	121 BR-2	MCLEAN	144	68
DRAWN - h.t. duong	PASSED	J. Carl Puzey ENGINEER OF BRIDGES AND STRUCTURES			SHEET NO. 20 OF 30 SHEETS			CONTRACT NO. 70552		
CHECKED - MDR/NRB								ILLINOIS FED. AID PROJECT		

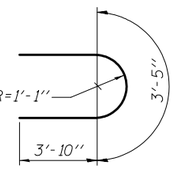
Notes: Pour steps monolithically with cap.
For bar splicer details, see sheet 23 of 30.

PILE DATA

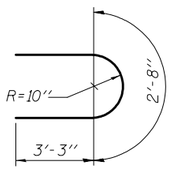
Type: Steel HP14x73
Nominal Required Bearing: 500 Kips
Factored Resistance Available: 246 Kips
Est. Length: 90'
No. Production Piles: 9
No. Test Piles: 1



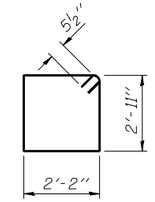
TOP PLAN



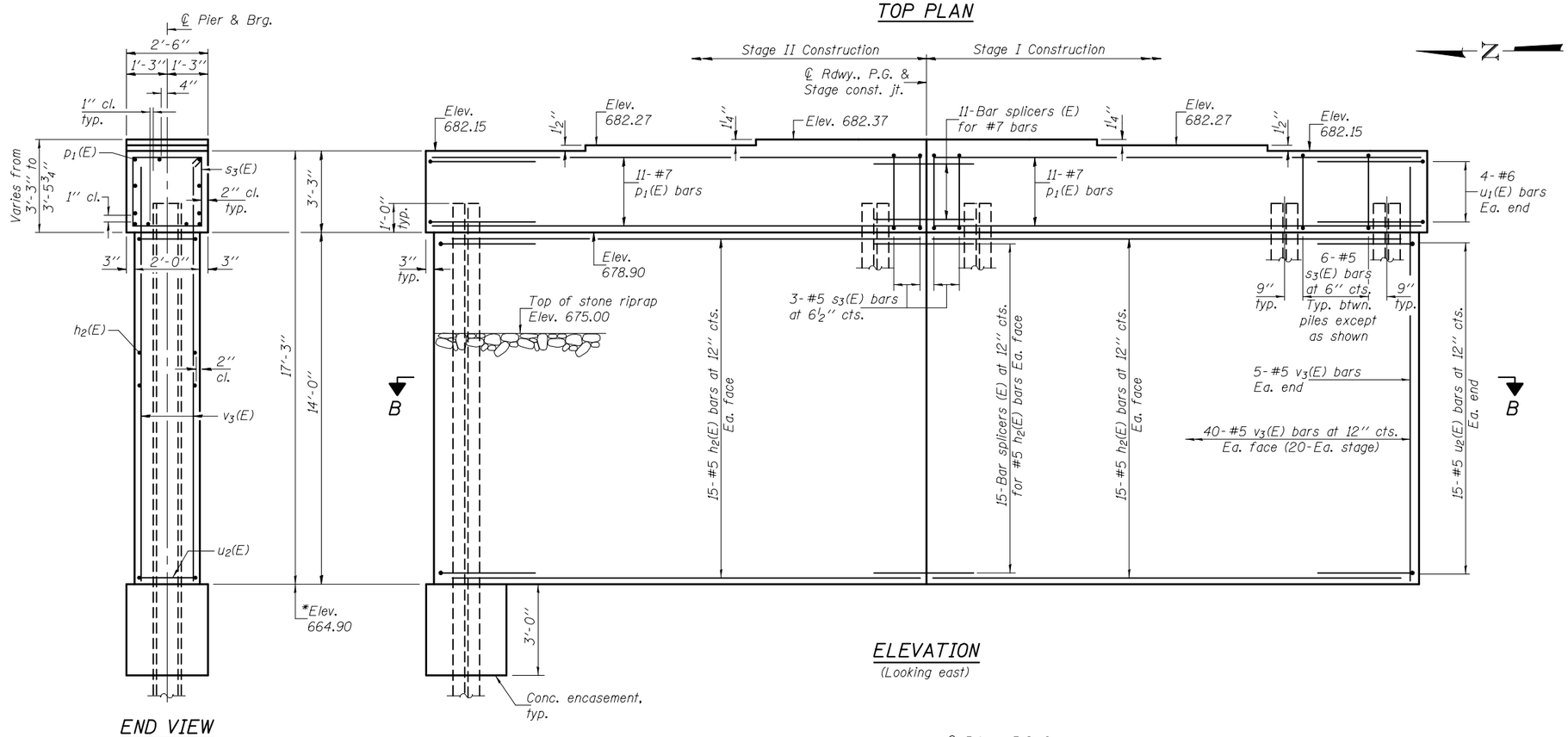
BAR u_1(E)



BAR u_2(E)

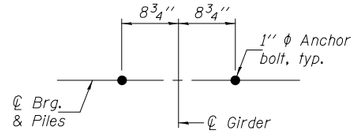


BAR s_3(E)



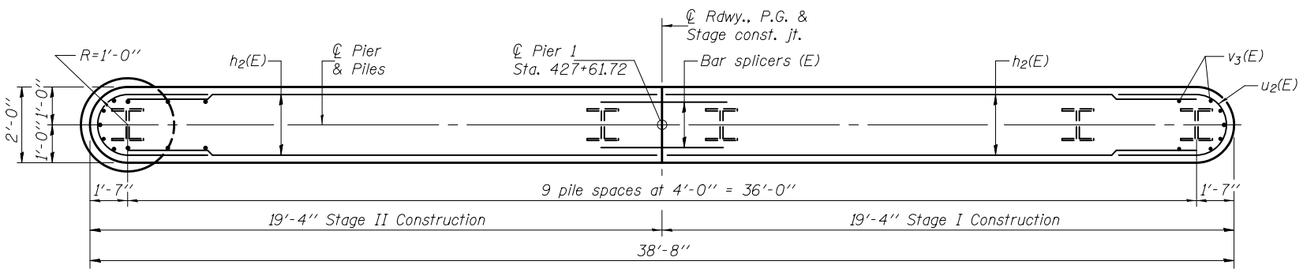
ELEVATION
(Looking east)

END VIEW



DETAIL A

*Forms shall be placed below Elev. 664.90 after excavation for pier walls. Reinforcement and concrete encasement shall be placed underwater into forms. The cost of concrete encasement, reinforcement, form excavation, and furnishing and placing form is included with Concrete Encasement. If a portion of the pier wall is under water, concrete shall be trimied under water into forms according to Article 503.08 of the Standard Specifications. Concrete shall be trimied to an elevation 1'-0" above the water level at the time of construction.



SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_2(E)	60	#5	18'-2"	——
p_1(E)	22	#7	18'-2"	——
s_3(E)	54	#5	11'-1"	□
u_1(E)	8	#6	11'-1"	⊃
u_2(E)	30	#5	9'-2"	⊃
v_3(E)	90	#5	15'-9"	——
Concrete Structures		Cu. Yd.	51.9	
Structure Excavation		Cu. Yd.	94	
Reinforcement Bars, Epoxy Coated		Pound	4480	
Furnishing Steel Piles HP14x73		Foot	810	
Driving Piles		Foot	810	
Test Pile Steel HP14x73		Each	1	
Anchor Bolts, 1" ϕ		Each	12	
Concrete Encasement		Cu. Yd.	5.5	
Underwater Structure Excavation Protection Location 1		Each	1	

DESIGNED	-	Michael D. Rolape	
CHECKED	-	Nicholas R. Barnett	
DRAWN	-	h.t. duong	
CHECKED	-	MDR/NRB	

EXAMINED — Thomas J. Domagalski, ENGINEER OF BRIDGE DESIGN
PASSED — L. Carl Tracy, ENGINEER OF BRIDGES AND STRUCTURES
DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

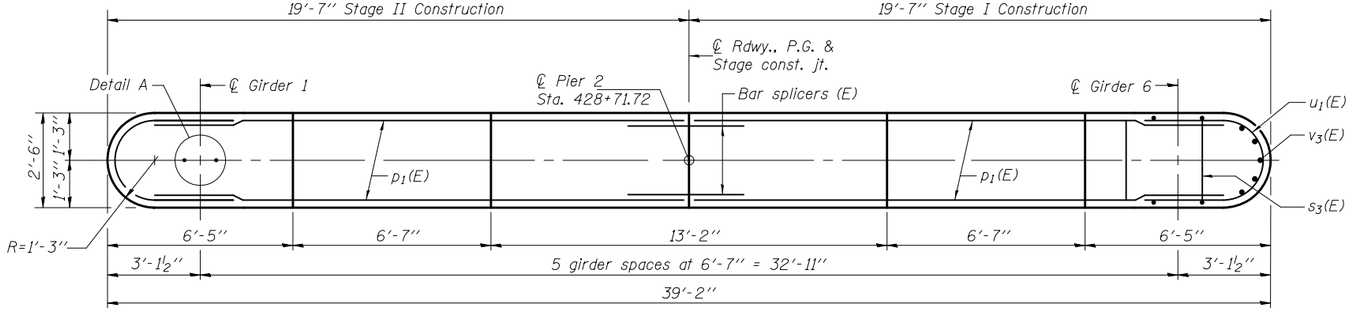
PIER 1
STRUCTURE NO. 057-0244
SHEET NO. 21 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	69
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

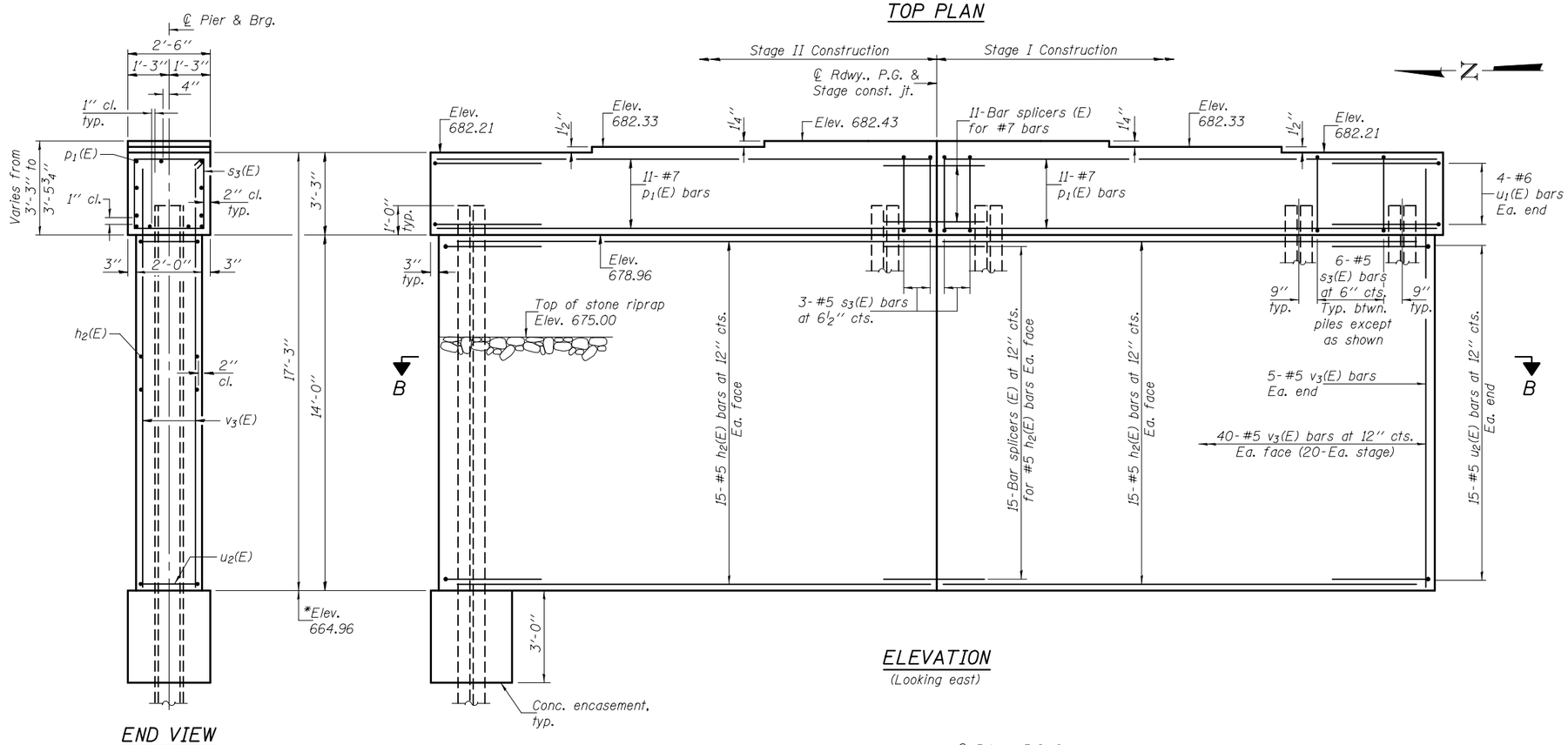
Notes: Pour steps monolithically with cap.
For bar splicer details, see sheet 23 of 30.

PILE DATA

Type: Steel HP14x73
Nominal Required Bearing: 480 Kips
Factored Resistance Available: 246 Kips
Est. Length: 94'
No. Production Piles: 9
No. Test Piles: 1



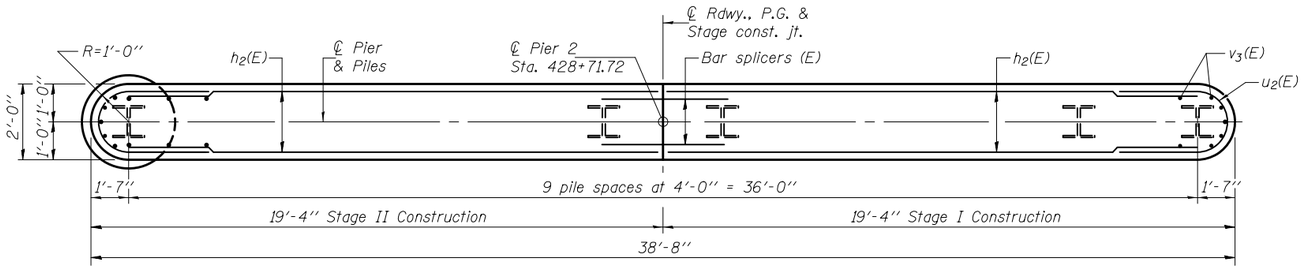
TOP PLAN



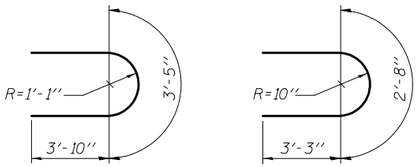
END VIEW

ELEVATION
(Looking east)

*Forms shall be placed below Elev. 664.96 after excavation for pier walls. Reinforcement and concrete encasement shall be placed underwater into forms. The cost of concrete encasement, reinforcement, form excavation, and furnishing and placing form is included with Concrete Encasement. If a portion of the pier wall is under water, concrete shall be trimied under water into forms according to Article 503.08 of the Standard Specifications. Concrete shall be trimied to an elevation 1'-0" above the water level at the time of construction.

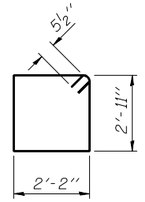


SECTION B-B

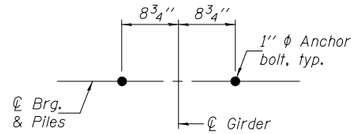


BAR u_1(E)

BAR u_2(E)



BAR s_3(E)



DETAIL A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_2(E)	60	#5	18'-2"	——
p_1(E)	22	#7	18'-2"	——
s_3(E)	54	#5	11'-1"	□
u_1(E)	8	#6	11'-1"	⊃
u_2(E)	30	#5	9'-2"	⊃
v_3(E)	90	#5	15'-9"	——
Concrete Structures		Cu. Yd.	51.9	
Structure Excavation		Cu. Yd.	94	
Reinforcement Bars, Epoxy Coated		Pound	4480	
Furnishing Steel Piles HP14x73		Foot	846	
Driving Piles		Foot	846	
Test Pile Steel HP14x73		Each	1	
Anchor Bolts, 1" ϕ		Each	12	
Concrete Encasement		Cu. Yd.	5.5	
Underwater Structure Excavation Protection Location 2		Each	1	

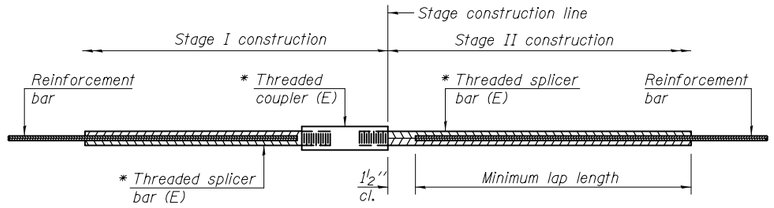
DESIGNED	-	Michael D. Rolape	
CHECKED	-	Nicholas R. Barnett	
DRAWN	-	h.t. duong	
CHECKED	-	MDR/NRB	

EXAMINED — Thomas J. Domagalski, ENGINEER OF BRIDGE DESIGN
PASSED — L. Carl Tracy, ENGINEER OF BRIDGES AND STRUCTURES
DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2
STRUCTURE NO. 057-0244
SHEET NO. 22 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	70
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

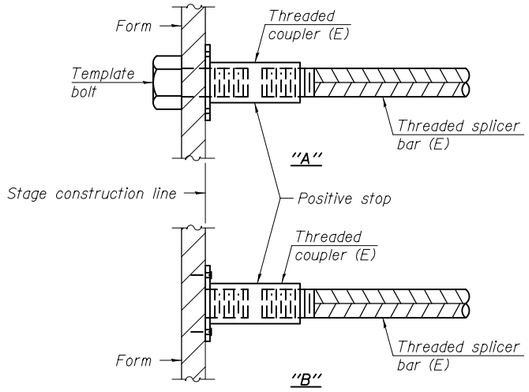
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

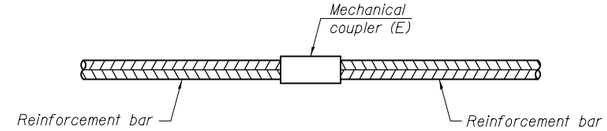
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Approach Slab	#4	50	4
Deck, Appr. Slab, Approach Footing, & Pier Wall	#5	1178	3
Abut. & Pier caps	#7	40	4
Diaphragm	#6	16	4



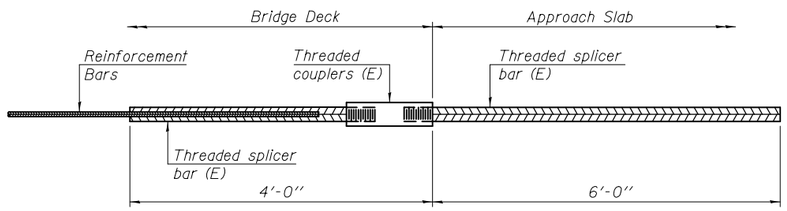
INSTALLATION AND SETTING METHODS

"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.



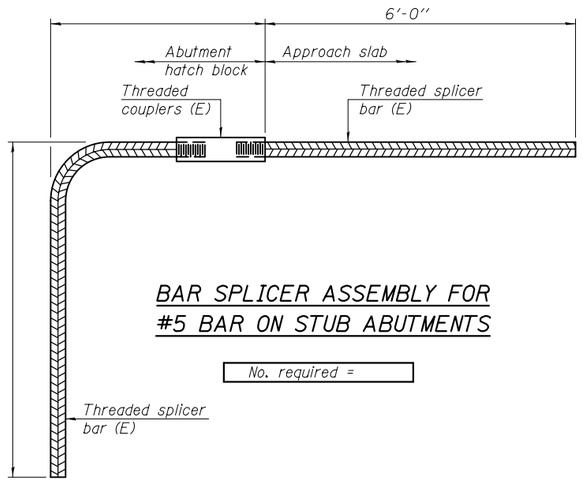
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required = 84



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

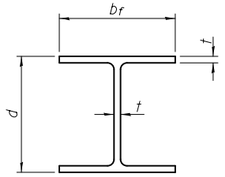
See special provision for Mechanical Splicers.

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

BSD-1 7-1-10

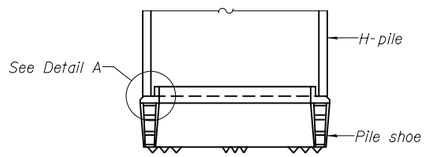
DESIGNED - Michael D. Rolape	EXAMINED	Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 5, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 057-0244
CHECKED - Nicholas R. Barnett	PASSED	J. Carl Piney ENGINEER OF BRIDGES AND STRUCTURES			SHEET NO. 23 OF 30 SHEETS
DRAWN - h.t. duong					
CHECKED - MDR/NRB					

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	71
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

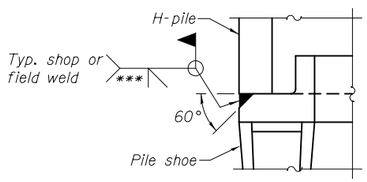


STEEL PILE TABLE

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

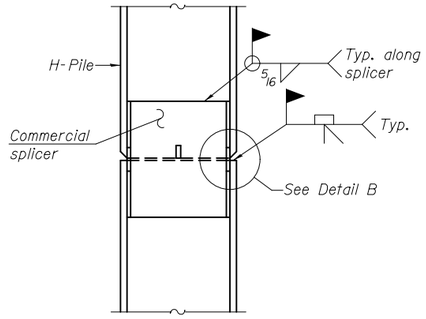


ELEVATION

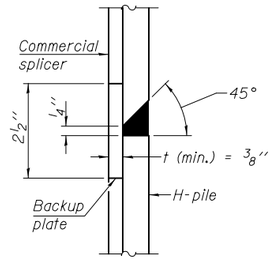


DETAIL A

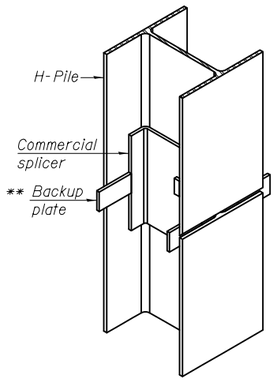
H-PILE SHOE ATTACHMENT



ELEVATION

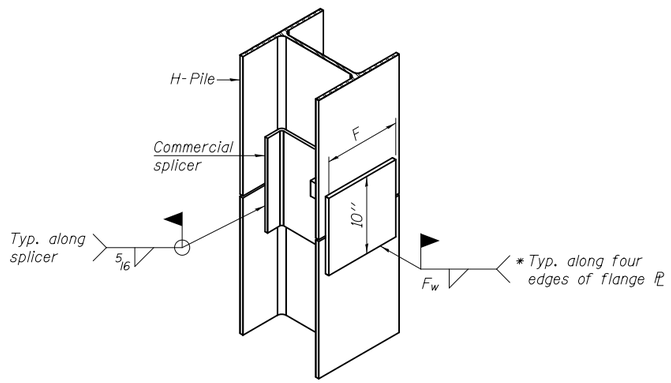


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



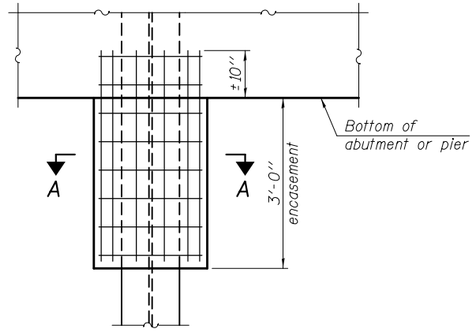
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

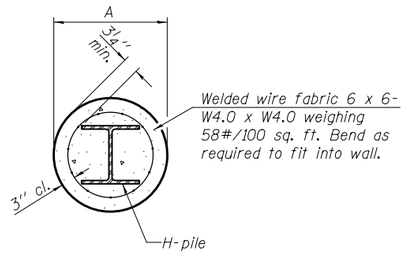
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



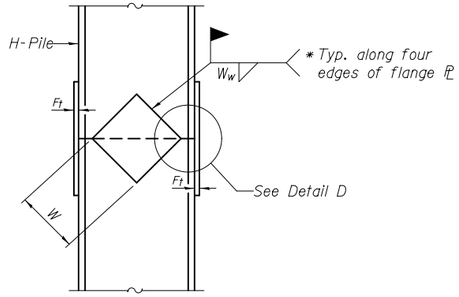
ELEVATION



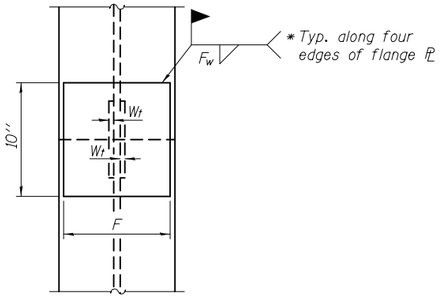
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

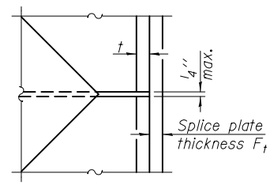
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

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

WELDED PLATE FIELD SPLICE

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

F-HP 7-1-10

DESIGNED	-	Michael D. Rolape
CHECKED	-	Nicholas R. Barnett
DRAWN	-	h.t. duong
CHECKED	-	MDR/NRB

EXAMINED — ENGINEER OF BRIDGE DESIGN

PASSED — ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 057-0244
SHEET NO. 24 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	72
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Page 1 of 2

Date 8/27/09

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY CNA

SECTION 121 BR–2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 057–0093 (Exist)
Station 428+16.72

BORING NO. 1 W. Abut
Station 426+60
Offset 13.5 ft Rt.
Ground Surface Elev. 685.0 ft

Surface Water Elev. 671.0 ft
Stream Bed Elev. 666.0 ft

Groundwater Elev.:
First Encounter 670.0 ft
Upon Completion Washed ft ▼
After ______ Hrs. ______ ft

		DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Asphalt (Shoulder Pavement)	685.0				
	683.5				
Black/Brown Silty Clay Loam (Embankment)					
			1		
			2		21
		–5	2		
			4		
			4		21
			3		
	677.0				
Black to Brown Silty Clay Loam (Alluvium)			0		
			0		
(No Sample Obtained)		–10	3		
			1		
			2	0.6	25
			1	B	
	672.0				
Red/Brown to Gray Oxidized Poorly Sorted Dirty Medium Sand & Gravel			2		
	670.5		2		
Red/Brown Oxidized Dirty Coarse Sand with Gravel		▼ –15	2		
			2		
			5		
			5		
	667.0				
Gray Poorly Sorted Very Coarse Sand & Gravel			1		
			3		
		–20	5		

		DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Poorly Sorted Very Coarse Sand & Gravel (continued)					
			5		
			18		
(No Sample Obtained – Drove Sampler on Rock)		–25	21		
			3		
			6		
		–30	7		
			5		
			6		
		–35	8		
			5		
			6		
		–40	8		

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

BBS, form 137 (Rev. 8–99)

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Page 2 of 2

Date 8/27/09

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY CNA

SECTION 121 BR–2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 057–0093 (Exist)
Station 428+16.72

BORING NO. 1 W. Abut
Station 426+60
Offset 13.5 ft Rt.
Ground Surface Elev. 685.0 ft

Surface Water Elev. 671.0 ft
Stream Bed Elev. 666.0 ft

Groundwater Elev.:
First Encounter 670.0 ft ▼
Upon Completion Washed ft
After ______ Hrs. ______ ft

		DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Poorly Sorted Very Coarse Sand & Gravel (continued)					
			5		
			6		
		–45	8		
			13		
			16		
		–50	10		
(52' to 54' – Drilled Very Rough/Large Gravel & Cobbles)	631.0		10		
Gray Sandy Clay Loam Till			16	10.7	9
		–55	23	S	
(Drilled Very Hard From 54' Down)			15		
			27	10.0	9
		–60	30	E	

		DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Sandy Clay Loam Till (continued)					
			16		
			36	12.0	9
	620.0	–65	43	S	
End of Boring					
		–70			
		–75			
		–80			

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

BBS, form 137 (Rev. 8–99)

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED D. Carl Puzey
ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 5, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 057–0244
SHEET NO. 25 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	73

CONTRACT NO. 70552

ILLINOIS FED. AID PROJECT

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 9909

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY CNA

SECTION 121 BR-2 LOCATION SW, SEC, 32, TWP, 22N, RNG, 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72

BORING NO. 2 Prop. E. Pier
Station 428+65
Offset 55.0 ft Rt.
Ground Surface Elev. 676.5 ft

Surface Water Elev. 671.0 ft
Stream Bed Elev. 666.0 ft

Groundwater Elev.:
First Encounter 668.5 ft ▼
Upon Completion Washed ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Black Silty Clay Loam with Trace Organics (Alluvium) 676.5			
	2		
	2		47
-5	3		
	1		
	2	0.5	38
668.5 ▼	2	B	
Red/Brown to Gray Oxidized Poorly Sorted Dirty Coarse Sand & Gravel	4		
-10	3		
	1		
	4		
	3		
	4		
	4		
-15	5		
660.5			
Gray Poorly Sorted Very Coarse Sand & Gravel			
	5		
-20	5 6		
Gray Poorly Sorted Very Coarse Sand & Gravel (continued)			
	6		
	6		
-25	8		
	5		
	5		
-30	6		
	6		
	13		
-35	19		
	17		
-40	15		

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 9909

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY CNA

SECTION 121 BR-2 LOCATION SW, SEC, 32, TWP, 22N, RNG, 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72

BORING NO. 2 Prop. E. Pier
Station 428+65
Offset 55.0 ft Rt.
Ground Surface Elev. 676.5 ft

Surface Water Elev. 671.0 ft
Stream Bed Elev. 666.0 ft

Groundwater Elev.:
First Encounter 668.5 ft ▼
Upon Completion Washed ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Gray Poorly Sorted Very Coarse Sand & Gravel (continued)			
	7		
	8		
-45	8		
628.5			
Gray Sandy Clay Loam Till	15		
	24		9
-50	21		
	50-4"		
(No Sample Obtained – Large Coble Stuck in Drill Head) 621.5	-55		
End of Boring			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

DESIGNED -	EXAMINED Thomas J. Domagalski	DATE - OCTOBER 5, 2011	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 057-0244**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF BRIDGE DESIGN				315	121 BR-2	MCLEAN	144	74
DRAWN -	PASSED J. Carl Puzey			SHEET NO. 26 OF 30 SHEETS			CONTRACT NO. 70552		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 3/22/76

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY W. Pearce

SECTION 121 BR-2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72E

BORING NO. 3 E. Abut
Station 429+63
Offset 42.0 ft Lt.
Ground Surface Elev. 678.0 ft

Surface Water Elev. 672.6 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 668.0 ft ▼
Upon Completion Washed ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff Brownish Black Silty Clay			
	9	1.0 P	38
673.5			
Medium Mottled Yellow Brown Sandy Loam –5			
	5	0.8 P	21
671.0			
Loose Gray Brown Dirty Sand & Gravel			
	8		12
▼–10 (Water @ 10.0')			
	9		
	4		
–15			
	11		
661.0			
Medium Brown Sand & Gravel			
–20	13		
Medium Brown Sand & Gravel (continued) (Fairly clean, poorly Sorted)	14		
	17		
–25			
	19		
651.0			
Medium Grey Sand & Gravel			
	28		
–30			
(Fairly Clean, Poorly Sorted)	19		
	27		10
–35			
	20		
	23		
–40			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B–Bulge, S–Shear, P–Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8–99)

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 3/22/76

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY W. Pearce

SECTION 121 BR-2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72E

BORING NO. 3 E. Abut
Station 429+63
Offset 42.0 ft Lt.
Ground Surface Elev. 678.0 ft

Surface Water Elev. 672.6 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 668.0 ft ▼
Upon Completion Washed ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium Grey Sand & Gravel (continued)			
	22		
	19		
–45			
	19		
631.5			
End of Boring			
–50			
–55			
–60			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B–Bulge, S–Shear, P–Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8–99)

DESIGNED -	EXAMINED Thomas J. Domagalski	DATE - OCTOBER 5, 2011	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 057-0244**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF BRIDGE DESIGN				315	121 BR-2	MCLEAN	144	75
DRAWN -	PASSED J. Carl Piercy			SHEET NO. 27 OF 30 SHEETS			CONTRACT NO. 70552		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 3/24/76

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY W. Pearce

SECTION 121 BR-2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72E

BORING NO. 4 Pier #4
Station 428+47
Offset 39.0 ft Lt.
Ground Surface Elev. 677.4 ft

Surface Water Elev. 672.6 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 667.9 ft ▼
Upon Completion Washed ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				Stiff Dark Brownish Black Silty Clay
	5	1.0 P	25	
–5				
	9	1.0 P	46	
670.4				
				Medium Gray Brown Sand & Gravel
	11		17	
667.9 ▼				
–10				Loose Brown Sand & Gravel
	7			
				(Poorly sorted, sub-angular to sub-rounded particles)
	11			
–15				
	10			(Water at 9.5')
	16			
–20				
	15		12	Loose Brown Sand & Gravel (continued)
655.4				
				Loose Brown Sand & Gravel
	20			
				(Poorly sorted, sub-angular to sub-rounded particles)
–25				
	19			
	17			
–30				
	18			
	28			
642.9				
–35				Dense gray gravel
	33			(Fairly Clean)
	29			
637.9				
–40				Medium Gray Sandy Gravel

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

BBS, form 137 (Rev. 8–99)

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 3/24/76

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY W. Pearce

SECTION 121 BR-2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72E

BORING NO. 4 Pier #4
Station 428+47
Offset 39.0 ft Lt.
Ground Surface Elev. 677.4 ft

Surface Water Elev. 672.6 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 667.9 ft ▼
Upon Completion Washed ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Soil Description
	20		12	Medium Gray Sandy Gravel (continued)
				(Clean)
	21			
–45				
	18			
630.9				
				End of Boring
–50				
–55				
–60				

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

BBS, form 137 (Rev. 8–99)

DESIGNED –	EXAMINED Thomas J. Domagalski	DATE – OCTOBER 5, 2011	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 057-0244**	F.A.P. RTE. 315 | SECTION 121 BR-2 | COUNTY MCLEAN | TOTAL SHEETS 144 | SHEET NO. 76
CHECKED –	ENGINEER OF BRIDGE DESIGN			SHEET NO. 28 OF 30 SHEETS	CONTRACT NO. 70552
DRAWN –	PASSED				ILLINOIS | FED. AID PROJECT
CHECKED –	ENGINEER OF BRIDGES AND STRUCTURES				

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 3/25/76

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY W. Pearce

SECTION 121 BR-2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72E

BORING NO. 5 Pier #1
Station 427+22
Offset 21.0 ft Lt.
Ground Surface Elev. 680.6 ft

Surface Water Elev. 672.6 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion Washed ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Medium Dark Brownish Black Silty Clay
	5	0.6 S	25	
		0.7 S	19	
675.6 –5	2	0.1 S	15	Very Soft Gray Brown Sandy Loam
	5			
	2		19	
671.6				Very Soft Dark Brownish Black Sandy Loam
–10	6	0.2 B	61	
669.1				Loose Brown Dirty Sand & Gravel
	9			
–15	10			
	10			
661.6				Medium Brown Dirty Sand & Gravel
–20				
				Medium Brown Dirty Sand & Gravel (continued)
			13	
659.1				Medium Gray Sandy Gravel
			21	
–25				
	17		16	(Sub-angular to sub-rounded particles)
	18			(Clean)
–30				
	21			
	17			
–35				
	24			
	28		10	
–40				

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B–Bulge, S–Shear, P–Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 3/25/76

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY W. Pearce

SECTION 121 BR-2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72E

BORING NO. 5 Pier #1
Station 427+22
Offset 21.0 ft Lt.
Ground Surface Elev. 680.6 ft

Surface Water Elev. 672.6 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion Washed ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Material Description
	28			Medium Gray Sandy Gravel (continued)
639.6				End of Boring
–45				
–50				
–55				
–60				

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B–Bulge, S–Shear, P–Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

DESIGNED -	EXAMINED Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 5, 2011	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 057-0244**	F.A.P. RTE. 315 / SECTION 121 BR-2 / COUNTY MCLEAN / TOTAL SHEETS 144 / SHEET NO. 77
CHECKED -					CONTRACT NO. 70552
DRAWN -	PASSED Carl Lang			SHEET NO. 29 OF 30 SHEETS	ILLINOIS FED. AID PROJECT
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES				

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 3/2976

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY W. Pearce

SECTION 121 BR-2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72E

BORING NO. 6 W. Abut.
Station 426+72
Offset 29.0 ft Lt.
Ground Surface Elev. 681.2 ft

Surface Water Elev. 672.6 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion Washed ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				Stiff Dark Brownish Black Sandy Clay to Silty Clay
	6	1.2 P	23	
-5				
	8	1.3 B	24	
674.2				
				Very Loose Brown Dirty Sand & Gravel
	4			
671.7				
-10				Soft Dark Brown Clay with sand seams
	4	0.4 B	86	
669.2				
				Loose Gray Brown Sand & Gravel
	7		17	
-15				
	10			
664.2				
				Medium Gray Sand & Gravel
	13			
-20				
				Medium Gray Sand & Gravel (continued)
	11			
-25				
	17			
	19			
	28			
-30				
	25			
649.2				
				Dense Gray Sand & Gravel
	33			
-35				
	32		10	(Poorly sorted)
644.2				
				Medium Gray Clean Sand & Gravel
	28			
-40				

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT – Region 3 / District 5

SOIL BORING LOG

Date 3/2976

ROUTE FAP 315 (US 136) DESCRIPTION US 136 over Kickapoo Creek 1.3 Miles West of US 51 LOGGED BY W. Pearce

SECTION 121 BR-2 LOCATION SW, SEC. 32, TWP. 22N, RNG. 2E, 3rd PM GPS:

COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO. 057-0093 (Exist)
Station 428+16.72E

BORING NO. 6 W. Abut.
Station 426+72
Offset 29.0 ft Lt.
Ground Surface Elev. 681.2 ft

Surface Water Elev. 672.6 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion Washed ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				Medium Gray Clean Sand & Gravel (continued)
	17			
639.7				
				End of Boring
-45				
-50				
-55				
-60				

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

DESIGNED -	EXAMINED Thomas J. Domagalski	DATE - OCTOBER 5, 2011	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED -	ENGINEER OF BRIDGE DESIGN		
DRAWN -	PASSED J. Carl Loney		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES		

SOIL BORING LOGS
STRUCTURE NO. 057-0244
SHEET NO. 30 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121 BR-2	MCLEAN	144	78
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		

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FILE NAME = c:\pw_work\pwidot\cearlockjd\d0142533\D570552-sht-index.dgn	USER NAME = cearlockjd	DESIGNED - ___	REVISED - ___ _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	S.N. 057-0244 PLAN SHEET			F.A.P. RTE. 315	SECTION 121BR-2	COUNTY MCLEAN	TOTAL SHEETS 144	SHEET NO. 79
	PLOT SCALE = 100.0000 ' / in.	DRAWN - ___	REVISED - ___ _____								CONTRACT NO. 70552	
	PLOT DATE = 10/5/2011	CHECKED - ___	REVISED - ___ _____		SCALE: _____	SHEET NO. 31 OF 31 SHEETS	STA. _____ TO STA. _____			ILLINOIS	FED. AID PROJECT	
		DATE - _____	REVISED - ___ _____									

THIS DETAIL IS INCLUDED FOR INFORMATION ONLY

BENCHMARK #138: Orange Paint in S.W. Corner of Bridge, 48' left of Sta. 424+64. Elev = 685.15

EXISTING STRUCTURE: #057-0093 — Built in 1936 as FA 119, Sec. 121-BWPH at Sta. 428+40. Consists of a 5-span continuous haunched R.C.D.G. on concrete piers and R.C. split-thru abutments. Contractor shall remove existing superstructure and widen substructure using stage construction. One lane traffic shall be maintained using temporary bridge rail. No salvage. See Special Provisions for deck removal sequence.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT	REGION	COUNTY	TOTAL SHEETS	SHEET NO.
** 53	121-BR-1	McLEAN	7	7

SHEETS 9

R2E 3rd PM — T23N — T22N — Rt. 53 — Proposed Reconstruction — 31 — 32 — 5 — 6

LOCATION SKETCH

Traffic Barrier Terminal Type 6 (Standard 2341)

Span #1 | Pier 1 | Span #2 | Pier 2 | Span #3 | Pier 3 | Span #4 | Pier 4 | Span #5

West Abut. — Elev 667.70 — Elev 668.71 — Concrete Piles — PS Typ. — 21" PRC Deck Beams — Design H.W. Elev. 680.0 — Channel Bed Elev. — Elev 661.83 — Structure excav, typ. — 6' — East Abutment — Elev 667.70

To be removed
Prop. embankment

ELEVATION

(Class 4a channel excav. Estimated quantity = 385 Cu. Yd.)

Proposed Embankment elevs:
West Abut. 680.86
East Abut. 681.03

B-4, Sta. 426+72, 29' left
B-2, Sta. 428+47, 39' Left.
B-3, Sta. 427+22, 21' left
B-1, Sta. 429+63, 42' left

NOTE: See sheet 7 for Stage Construction Sequence

7', typ. — 1'-7", typ. — 20°

Ex. N. Abut (Exist) Sta 426+70.59 Elev 667.45
℄ Pier 1 (Exist.) Sta 427+22.19 Elev 685.61
℄ Pier 2 (Exist.) Sta 427+83.79 Elev 685.72
℄ Pier 3 (Exist.) Sta 428+45.39 Elev 685.76
℄ Pier 4 (Exist.) Sta 429+07.09 Elev 685.72
Ex. S. Abut (Exist.) Sta 429+68.59 Elev 685.62
℄ Structure Sta 428+16.72
Limits of Existing Structure
Stage Construction Line
160'
40'-0" Sta. to Sta.
19'-5" Face to Face
19'-5"
10" P.C.C. Pavement
℄ Rt. 53

℄ of Bearing — 1'-9" — 49'-10" — 68'-0" — 132'-4" Ex. to Ex. Exist. Abuts. — ℄ Brg. 50'-0½" — 1'-9½"

Remove and clean exist. name plate and place below new Name Plate @ SW. Corner.

PLAN

Sta 426+11.12 — 50'-6" — 1" — 62'-10" — 2" — 62'-10" — 1¾" — 62'-10" — 1" — 50'-6" — Sta 429+61.71
3/8" Min. ℄ of Supports ℄ Roadway
5/8" — 1/4" — Camber — 5/8"
West Abutment — East Abutment

PC Sta 426+30.00 Elev 685.29 — +0.44% — PI Sta 428+30.00 Elev 686.17 — -0.38% — PT Sta 430+30.00 Elev 685.41
V.C. = 400'

PROFILE GRADE LINE

STA. 428+16.72
BUILT 197 BY
STATE OF ILLINOIS
F.A. RT. 53 SEC. 121BR-1
F.A. PROJ. BR-F-53(24)
LOADING HS 20
STR. NO. 057-0093

NAME PLATE
(See standard 2113)

BITUMINOUS SURFACE PROFILE (along ℄ Roadway)
(Limits of Bit. Conc. Surf. Crse. Mixt. D, Class I. Thickness shown includes 1½" Waterproofing Membrane System.)

DESIGNED
CHECKED
DRAWN
CHECKED
EXAMINED — ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — DIRECTOR OF HIGHWAYS
19

DESIGN STRESSES

FIELD UNITS
f'_c = 3500 p.s.i.
f_y = 60,000 p.s.i.
n = 9

PRECAST PRESTRESSED UNITS
f'_c = 5000 psi
f'_{ci} = 4000 psi, spans 1, 4 5-4100 psi spans 2, 3 & 4
f_c = 2250 psi (Use $\frac{f'_c}{2}$ or 2250 psi)
f_s = 189,000 psi (Use $\frac{f_y}{2}$ or 20 ksi)

DESIGN SPECIFICATIONS: 1977 AASHTO w/ 1978 Interim Specifications
DESIGN LOADING HS 20-44
ADD'L 25 PSF for Future Wearing Surface

WATERWAY INFORMATION

Drainage Area	.124 sq. miles
Roadway	rolling cultivated
Present Opening	1750 sq. ft.
Relief Opening	0 sq. ft.
Backwater Upper Fr.	1790 Elev.
Overtop Fr.	1791 Elev.
Flood	1790 cfs

(10-8-76 Woodrow) C. Chenault
DATE WOODROW C. CHENAULT, JR.
ILL. REG. STRUCTURAL ENGINEER
NO. 3567

NOTES

1. THE "STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JULY 1, 1976, SHALL APPLY.
2. CONCRETE: CLASS X CONCRETE SHALL BE USED THROUGHOUT EXCEPT FOR PRECAST PRESTRESSED UNITS. SEE THE APPLICABLE SPECIFICATIONS FOR CONCRETE REQUIREMENTS FOR PRECAST PRESTRESSED UNITS.
3. ALL BAR BEND DIMENSIONS ARE SHOWN OUT TO OUT OF BARS
5. EXPANSION BOLTS SHALL CONSIST OF SELF DRILLING EXPANSION ANCHORS AND 5/8" ø x 12" HOOKED BOLTS
6. ALL STRUCTURAL STEEL SHALL BE SHOP PRIMED WITH 2 COATS OF BASIC LEAD STEEL LINSEED PAINT
7. THE CONCRETE RAIL SECTION ABOVE THE TOP OF THE DECK BEAM FLANGE CONSTRUCTION JOINT CLOSER IS CONCRETE, EXCEPT THE ASPHERALTIC SHALL CONFORM TO THE REQUIREMENTS FOR BARRIER CONCRETE.
8. PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED
9. SEE SPECIAL PROVISIONS FOR SOIL BORING DATA
10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS
11. THE TOP SURFACE OF THE BEAMS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 503.06 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE SURFACE SHALL NOT BE TESTED WITH A STRAIGHT EDGE. THE FINISHED SURFACE SHALL BE FREE OF DEPRESSIONS OR HIGH SPOTS WITH SHARP CORNERS.
12. REINFORCEMENT BARS SHALL CONFORM TO ASTM-A615 GRADE 60.
13. THE CONTRACTOR SHALL DRIVE TWO TEST PILES AT PIER #3, AS DIRECTED BY THE ENGINEER, BEFORE ORDERING THE REMAINDER OF THE PILES.

BILL OF MATERIALS

ITEM	UNIT	SUPERSTR.	SUBSTR.	TOTAL
CHANNEL EXCAVATION	CU. YD.	---	---	385
STR. EXCA. & BACKFILL CREEK, W.I. & E.	LUMP	LUMP	---	LUMP
REM. OF EXIST. STRUCTURES	EACH	1	---	1
CONC. REMOVAL	CU. YD.	---	9.6	9.6
EXPANSION BOLTS 5/8" ø x 12"	EACH	---	220	220
STRUCTURE EXCAVATION	CU. YD.	---	84	84
GEOTEXTILE FABRIC	SQ. YD.	247	---	247
CLASS "X" CONC.	CU. YD.	70.8	787.6	858.4
PRECAST PRESTRESSED CONC. DECK BEAM 21"	SQ. FT.	16,159	---	16,159
WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	1,080	---	1,080
STRUCTURAL STEEL	LB.	5,493	---	5,493
REINFORCEMENT BARS	LB.	5,993	71,661	77,654
REINFORCEMENT BARS EPOXY COATED	LB.	882	---	882
CONCRETE PILES	LIN. FT.	---	720	720
TEST PILE STRIKEOFF	EACH	---	1	1
NAME PLATES	EACH	---	---	1
PAVEMENT REMOVAL	SQ. YD.	---	---	19
PAVEMENT REPLACEMENT	SQ. YD.	---	---	19
MEDIAN EXPANSION JOINT, 1"	LIN. FT.	42	---	42
PREFORMED JOINT SEALER (Type B)	LIN. FT.	126	---	126
TEMPL. BR. DECK FILL	LIN. FT.	252	---	252
SPECIAL FRONT MORTAR FACING COURSE	LIN. FT.	3,764	---	3,764

GENERAL PLAN AND ELEVATION
FA RTE 53 OVER KICKAPOO CREEK
EL STE 53 SEC 121BR-1
McLEAN COUNTY
STATION 428+16.72

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	PLOT DATE = 8/22/2011	DATE -	REVISED -

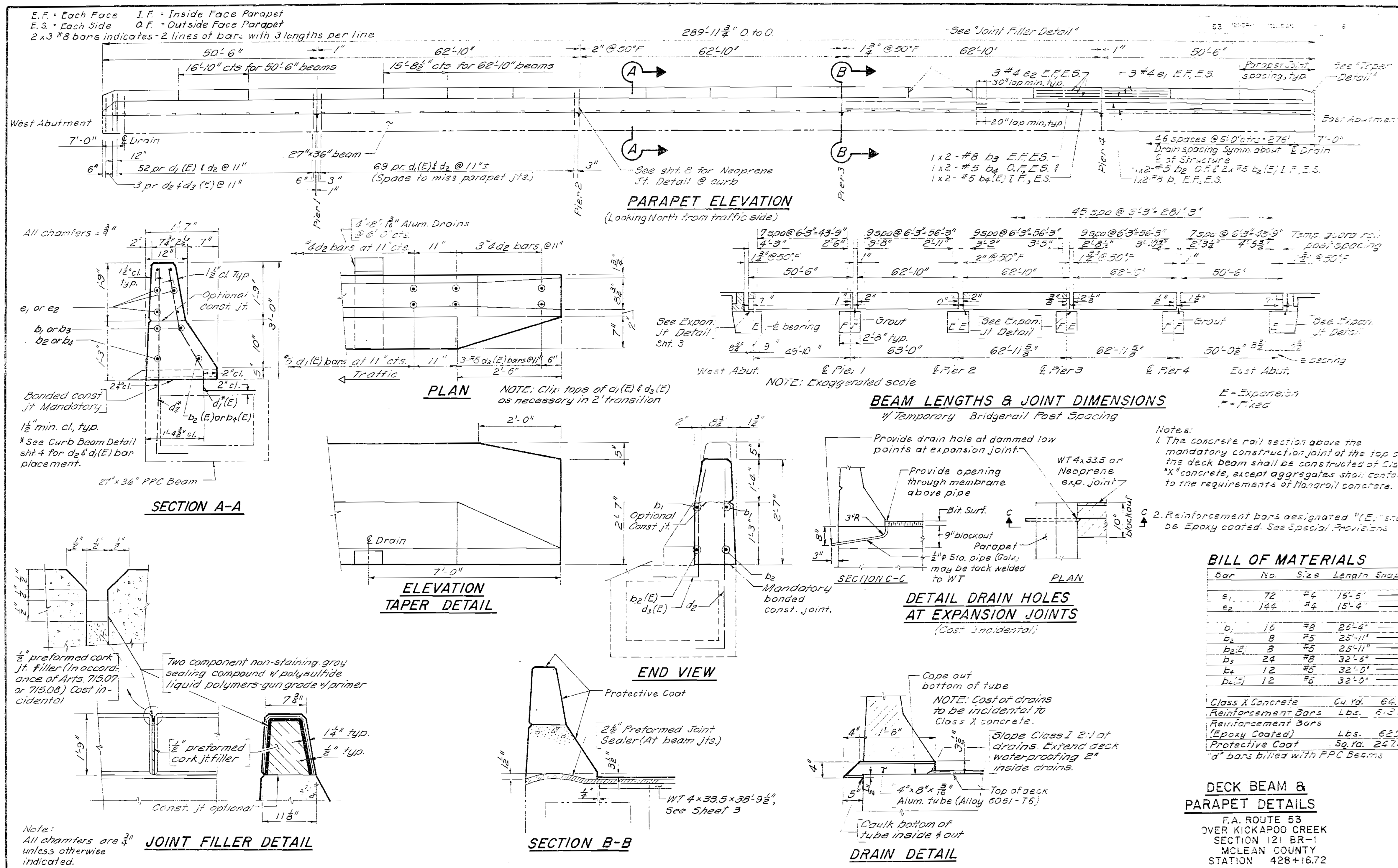
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS

SCALE: ____ | SHEET NO. 1 OF 6 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	80
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

THIS DETAIL IS INCLUDED FOR INFORMATION ONLY



BILL OF MATERIALS

Bar	No.	Size	Length	Shape
e_1	72	#4	15'-5"	——
e_2	144	#4	15'-4"	——
b_1	16	#8	25'-4"	——
b_2	8	#5	25'-11"	——
b_2(E)	8	#5	25'-11"	——
b_3	24	#8	32'-5"	——
b_4	12	#5	32'-0"	——
b_4(E)	12	#5	32'-0"	——

Class X Concrete	Cu. Yd.	64.5
Reinforcement Bars	Lbs.	6130
Reinforcement Bars (Epoxy Coated)	Lbs.	620
Protective Coat	Sq. Yd.	2474

"d" bars billed with PPC Beams

DECK BEAM & PARAPET DETAILS

F.A. ROUTE 53
OVER KICKAPOO CREEK
SECTION 121 BR-1
MCLEAN COUNTY
STATION 428+16.72

D/A 305 07

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS

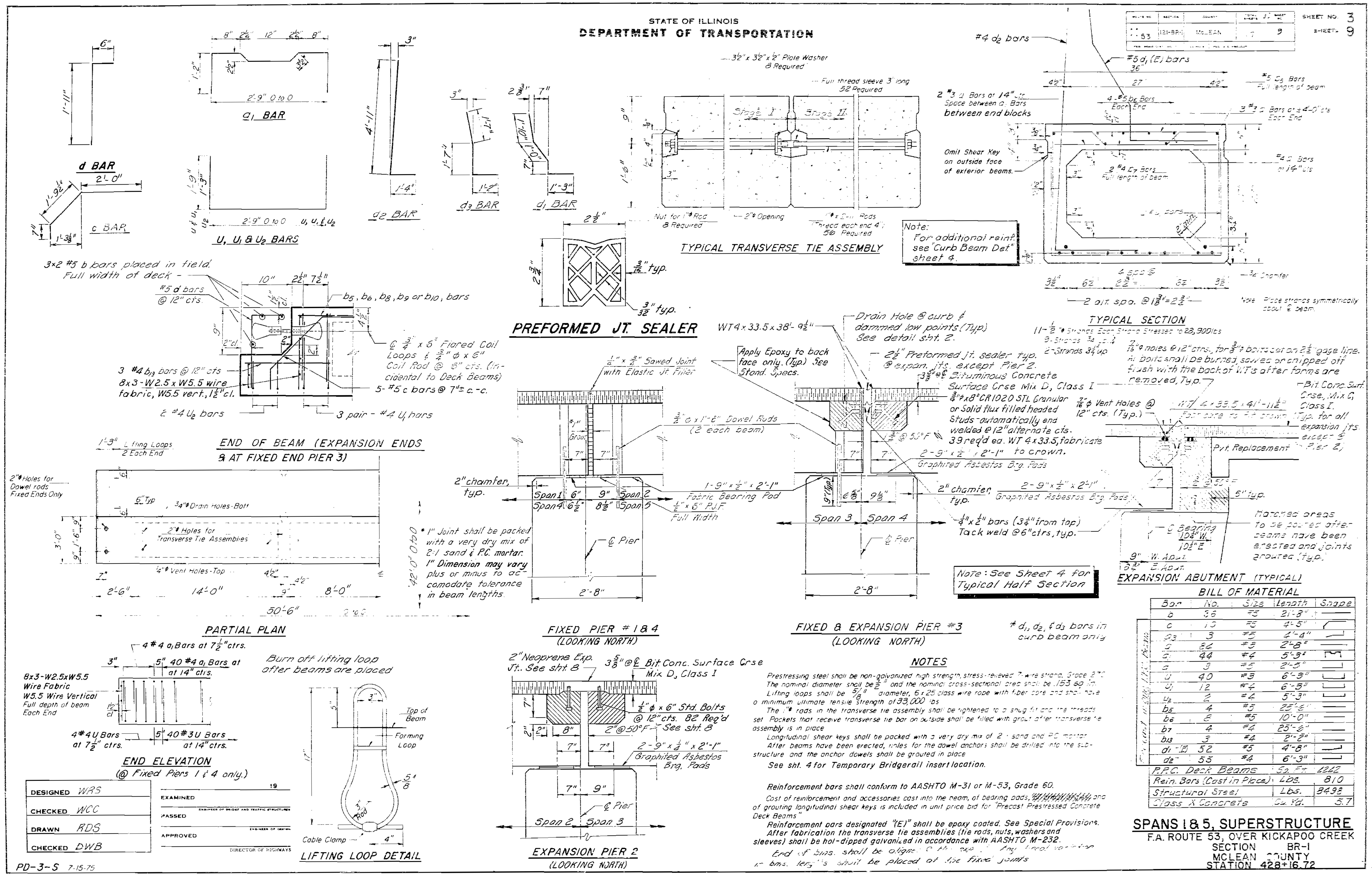
SCALE: | SHEET NO. 2 OF 6 SHEETS | STA. ___ TO STA. ___

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	81

CONTRACT NO. 70552

ILLINOIS FED. AID PROJECT

THIS DETAIL IS INCLUDED FOR INFORMATION ONLY



NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be .153 sq. in.

Lifting loops shall be ⅝" diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and PC mortar.

After beams have been erected, holes for the dowel anchors shall be drilled into the substructure and the anchor dowels shall be grouted in place.

See sht. 4 for Temporary Bridgerail insert location.

Reinforcement bars shall conform to AASHTO M-31 or M-53, Grade 60.

Cost of reinforcement and accessories cast into the beam, of bearing pads, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams".

Reinforcement bars designated "(E)" shall be epoxy coated. See Special Provisions.

After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with AASHTO M-232.

End of bms. shall be aligned [illegible]. Any [illegible] variation in bms. lengths shall be placed at the fixed joints.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b	36	#5	21'-8"	
c	10	#5	4'-5"	
a_3	3	#5	4'-4"	
a	84	#3	2'-8"	
a_1	44	#4	5'-3"	
a	3	#5	2'-5"	
U	40	#3	6'-3"	
U_1	12	#4	6'-3"	
U_2	2	#4	5'-3"	
b_5	4	#5	25'-6"	
b_6	6	#5	10'-0"	
b_7	4	#4	25'-6"	
b_{13}	3	#4	2'-2"	
d_1 (E)	52	#5	4'-8"	
d_2	55	#4	6'-3"	
P.P.C. Deck Beams			Sq. Ft.	4242
Rein. Bars (Cast in Place)			Lbs.	810
Structural Steel			Lbs.	8498
Class X Concrete			Cu. Yd.	5.7

SPANS 1 & 5, SUPERSTRUCTURE

F.A. ROUTE 53, OVER KICKAPOO CREEK
SECTION BR-1
MCLEAN COUNTY
STATION 428+16.72

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	PLOT DATE = 8/22/2011	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS

SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	82

CONTRACT NO. 70552

ILLINOIS FED. AID PROJECT

THIS DETAIL IS INCLUDED FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Note: For placement of d_1 & d_2 bars see, "Curb Beam Detail", see this sht. and Section A-A, Sht. 2. For placement of b_2, b_{13}, d & U_2 bars, see "End of Beam Detail", sht. 3.

FABRIC BEARING PAD
70 req'd

d_1 BAR

d_2 BAR

GRAPHITED ASBESTOS BEARING PAD
70 pair req'd

c BAR

U_1, U_1 & U_2 BARS

*Lap Waterproofing during Stage II Construction after removal of Temporary Bridgerail.

WATERPROOFING TREATMENT

TYPICAL TRANSVERSE TIE ASSEMBLY

#4 d_2 bars @ 11" cts.
#5 d_1(E) bars @ 11" cts
No shear keys on outside of curb beam
See "Taper Detail" Sht. 2 for d_3 bars

CURB BEAM DETAIL

#4 d_2 bars
#5 d_1(E) bars
#3 a Bars at 14" cts. 108 in Spans 2 & 4, 108 in Span 3. Space between a, Bars, between end blocks
Omit shear key on outside face of exterior beam.
#4 a Bars
#4 d_{11} Bars (Spans 2 & 4), #4 b_{12} Bars (Span 3) Full length of beam
U_1 & U_2 bars
Note: For additional reinf. see "Curb Beam Detail" this sheet.

TYPICAL SECTION

18-½" ϕ Strands Each Shown Stressed 1288.00 ksi
6 Strands 3/4 in. B Strands 3/4 in. 2 Strands 42" up
& 2 Strands 7½" up.

Parapet
Curb beam
b_{11} (Spans 2 & 4); b_{12} (Span 3)
b_{10} (typ)
b_8 (Spans 2 & 4); b_9 (Span 3)
Exp. Ends
51 #3 U Bars @ 14"
2 U_2's & 2 pair U_1's @ 7½", "See End of Beam" Detail Sht. 3.
1'-3" Lifting Loops, 2 each end, typ.
6" typ.
2" Holes for Transverse Tie Assemblies
4" vent holes-Top
2" ϕ Holes for Dowel rods Fixed Ends Only
2'-6"
18'-0"
10'-2"
62'-10"

PARTIAL PLAN

3"x 12"x 3/16" Steel Tubing (ASTM A-500 Grade B)
2-¾"ϕ x 5" Button Hd. Mech. Bolts (with slot or approved recess in head) with lockn. & flat washer.
W 6 x 25 at 7'-9" max. cts. (AASHTO M-188)
1¼" Base Pl.
1" Fabric Pad
7ϕ 1" ϕ Holes in Post (7ϕ 1" ϕ Holes in tubing may be drilled in field)

6" #3 Tie bars Tack weld
Wing type threaded insert tapped for 1"ϕ H.S. bolt (Insert Load Capacity = 14^k min./bolt)
INSERT DETAIL

BASE PL.

4 #4 a_1 Bars at 8" ctrs.
6x 3-W2.5 x W5.5 Wire Fabric W5.5 Wire Vertical Full depth of Beam Each End
8" 51 #4 a_1 Bars at 14" ctrs
4 #4 U_1 Bars at 8" ctrs
6" 51 #3 U Bars at 14" cts.

END ELEVATION
(@ Fixed ends, Pier 1 & 4 only)

Burn off lifting loops after beams are placed.
Forming Loop
Cable Clamp

LIFTING LOOP DETAIL

4-Wing type threaded inserts for 1"ϕ H.S. bolts with flat washer. Grout holes after removal.
Drill 4-1¼"ϕ holes for 1"ϕ threaded rods with hex. nut & flat washer. Epoxy grout rods.

P.P.C. DECK BEAMS
ANCHORAGE DETAILS
EXISTING DECK

TEMPORARY BRIDGERAIL DETAIL
(See Special Provisions)

Parapet
3'-10"
2'-3"

See Expansion Joint & End of Beam Details Sht. 3

ELEVATION AT END OF BEAM

40'-0" Face - Face Parapet
19'-3"
Insert for Temp. Bridge Rail
℄ Roadway
Bituminous Conc. Surf. Crse. Mix D, Class I, Varies min. thickness shown
Waterproofing Membrane System (see Detail this sht.)
1⅛" min. @ ℄ spans 2, 3 & 4
2⅜" min. @ ℄ spans 2, 3 & 4
Curb beam 7'-5" @ ½"/ft.
Stage Const. Line
Bit. Surf. Crse. Slopes, Total Drop = 4⅜"
14" Precast Prestressed Concrete Deck Beams (Typ.) 121'-2⅜" c-c Brgs.
42'-0"
Bituminous Surf. Crse.
Overrun

HALF CROSS SECTION
(Looking West)

Note: See Sht. 3 for End of Beam Details. Cast-In-Place Reinforcement & Class X Concrete @ Expan. Joints included in Bill of Materials, sheet 3.

*d_1 & d_2 bars in curb beam only.

NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be .153 sq.in.
Lifting loops shall be ⅝" diameter, 6 x 26 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs.
The ℄ rods in the transverse tie assembly shall be fastened to a strand and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Longitudinal shear keys shall be packed with a very dry mix of 2 - sand and no mortar.
After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place.

After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with AASHTO M-232.
Cost of reinforcement and accessories cast into the beam, of bearing pads, of anchor bolts, and of grooving longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams".
Reinforcement bars designated "(E)" shall be epoxy coated. See Special Provisions.
Reinforcement bars shall conform to AASHTO M-31 or M-53, Grade 60.

BILL OF MATERIALS (One Beam)

BAR	NO. (SPANS 2 & 4)	NO. (SPAN 3)	SIZE	LENGTH	SHAPE
a	108	108	#3	2'-8"	
a_1	55	51	#4	6'-9"	
U	51	51	#3	6'-3"	
U_1	12	12	#4	6'-3"	
U_2	2	4	#4	6'-3"	
b_8	4	—	#5	31'-9"	
b_9	—	4	#5	31'-9"	
b_{10}	8	8	#5	12'-6"	
b_{11}	4	—	#4	31'-9"	
b_{12}	—	4	#4	31'-3"	
b_{13}	3	6	#4	21'-9"	
d	3	6	#5	21'-5"	
*d_1(E)	63	63	#5	4'-8"	
*d_2	69	69	#4	6'-3"	
c	5	10	#5	4'-3"	
Precast prestressed conc deck beams			Sq.ft.	7317	

Precast in One A.P.C. Plant

SPANS 2, 3 & 4, SUPERSTRUCTURE
F.A. ROUTE 53
OVER KICKAPOO CREEK
SECTION 121 BR-i
MCLEAN COUNTY
STATION 428+16.72

DESIGNED WRS
CHECKED WCC
DRAWN CHB
CHECKED DWB

EXAMINED
PASSED
APPROVED
19

PD-3-S 7-15-75

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	PLOT DATE = 8/22/2011	DATE -	REVISED -

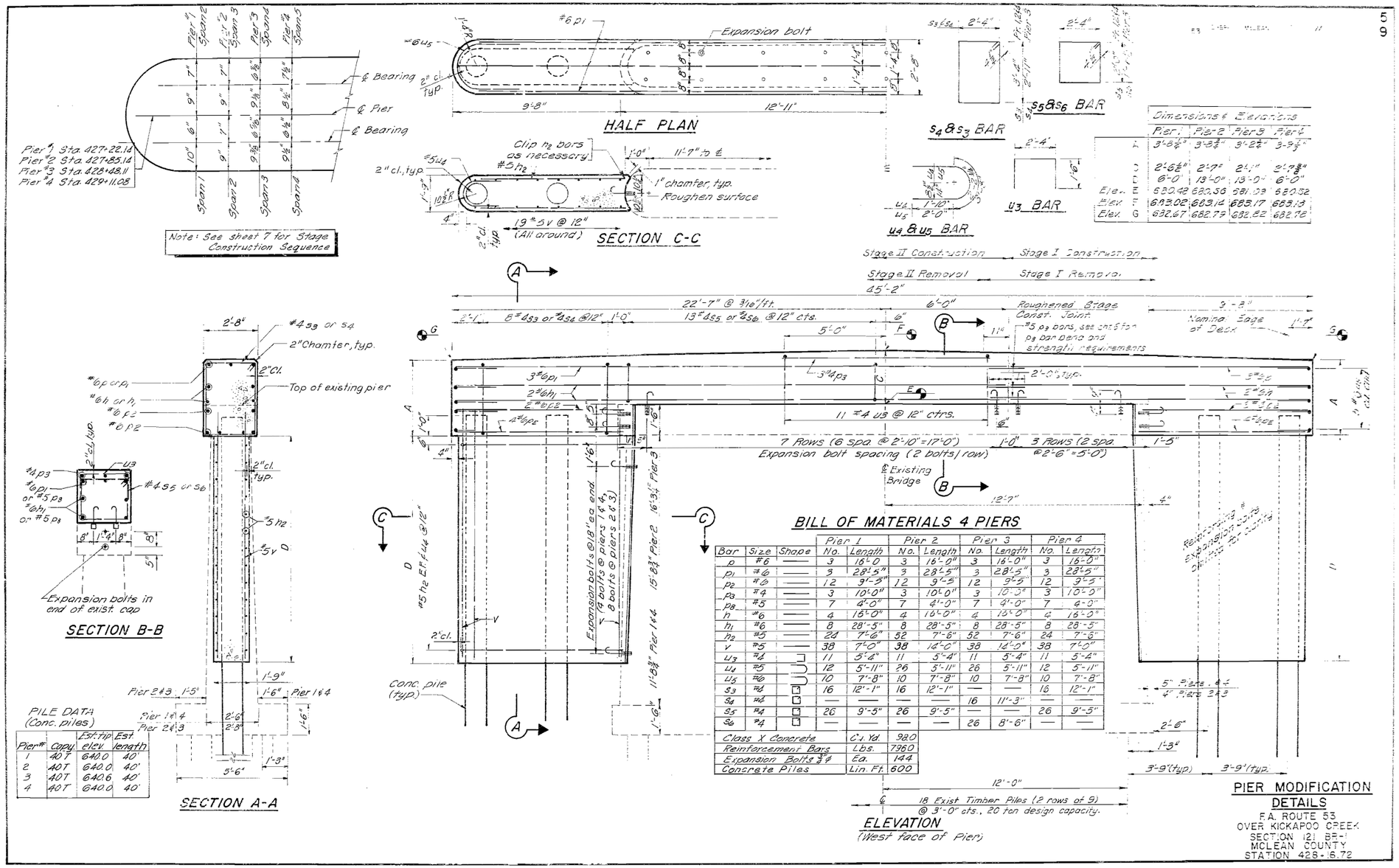
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS

SCALE: | SHEET NO. 4 OF 6 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	83
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

THIS DETAIL IS INCLUDED FOR INFORMATION ONLY



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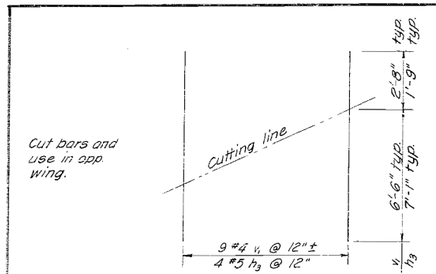
		DRAWN - 5/12/2011	REVISED -	EXISTING STRUCTURE DETAILS
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	SCALE: — SHEET NO. 5 OF 6 SHEETS STA. — TO STA. —
	PLOT DATE = 8/22/2011	DATE -	REVISED -	

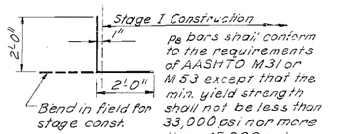
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	84
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

THIS DETAIL IS INCLUDED FOR INFORMATION ONLY



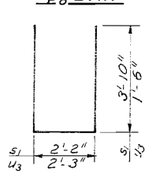
CUTTING DIAGRAM

h3 & v1 bars

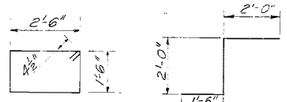


p8 bars shall conform to the requirements of AASHTO M31 or M53 except that the min. yield strength shall not be less than 33,000 psi nor more than 45,000 psi, (Grade 40)

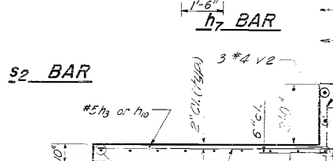
p8 BAR



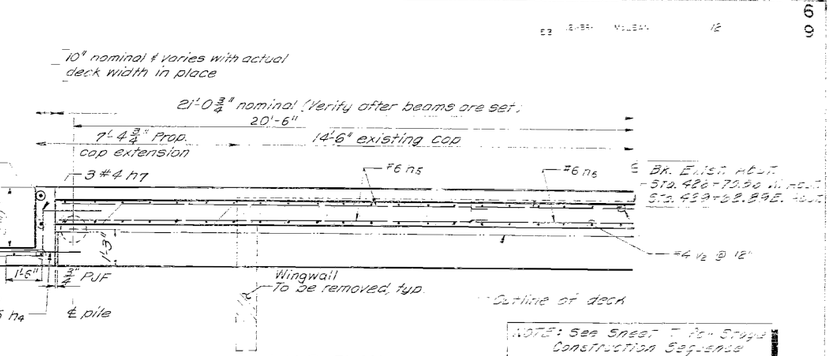
s1 & u3 BARS



h7 BAR

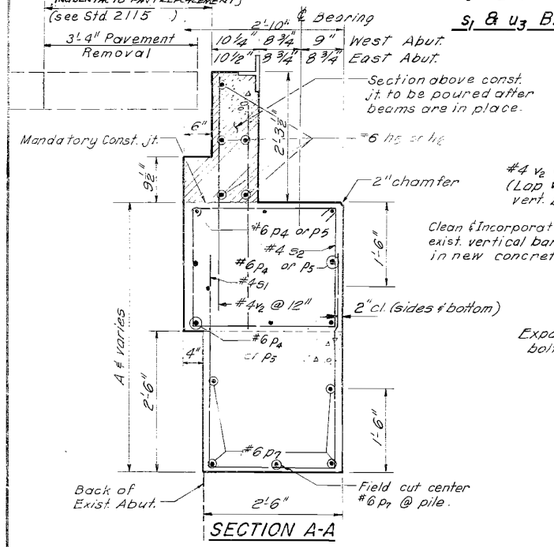


s2 BAR

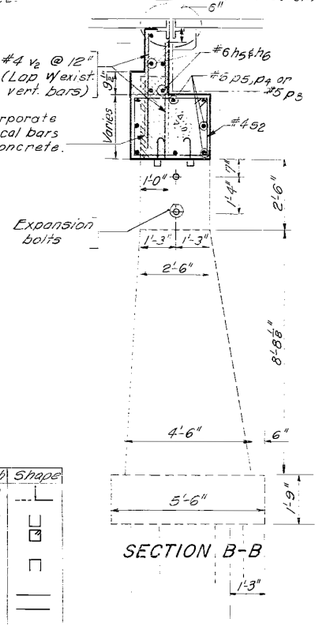


PILE DATA (Conc. Piles)	Capacity	Est. tip elev.	Est. length
West Abut.	25 tons	649.1	30 ft.
East Abut.	25 tons	647.1	30 ft.

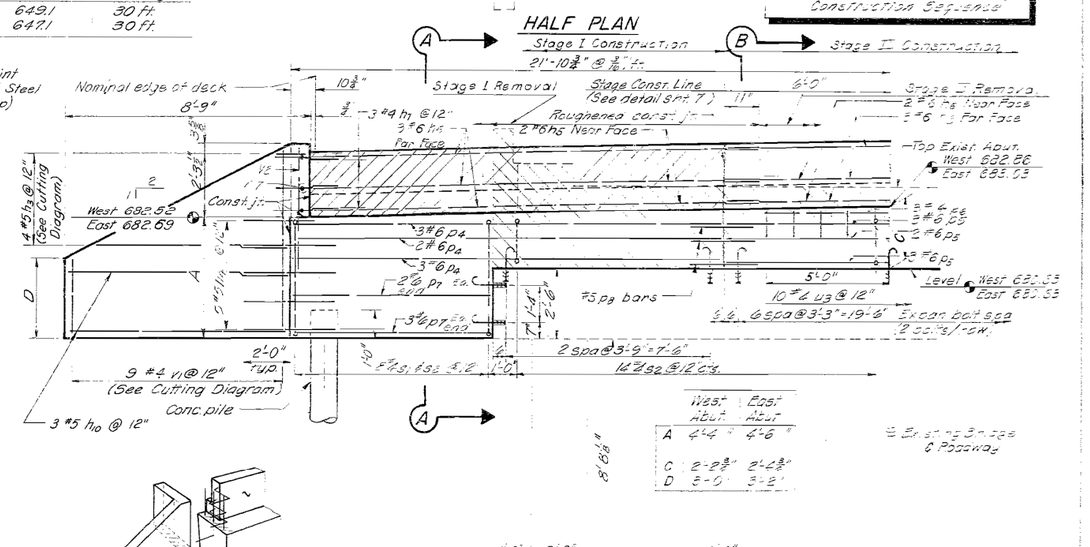
NOTE: See Sheet 7 for Stage Construction Sequence



SECTION A-A

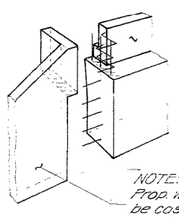


SECTION B-B

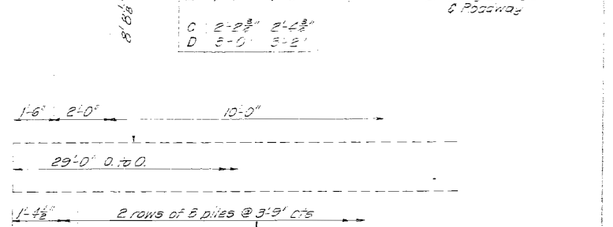


	West Abut.	East Abut.
A	4'-4"	4'-6"
C	2'-2 3/8"	2'-2 3/8"
D	5'-0"	5'-2"

Excav. bet. sta. 3 spa @ 3'-3" = 9'-9" C. Roadway



NOTE:
Prop. wingwall & backwall to be cast after deck beams are in place.



ELEVATION OF PROPOSED ABUTMENT EXTENSION AND WINGWALL

(E. face of W. Abutment)

Indicates Existing Cap & Wingwall Removal.
Indicates Area To Be Poured After Beams Are In Place.

BILL OF MATERIALS (2 ABUTS)

Bar	No.	Size	Length	Shape
h3	8	#5	8'-10"	——
h4	20	#5	4'-0"	——
h5	10	#6	14'-10"	——
h6	10	#6	26'-9"	——
h7	12	#4	5'-6"	⌐
h10	12	#5	7'-8"	——
p4	16	#6	14'-10"	——
p5	16	#6	26'-10"	——
p6	6	#4	10'-0"	——
p7	20	#6	7'-2"	——
Class "X" concrete			Cu. Yd.	39.5
Reinforcement bars			Lb.	3600

Bar	No.	Size	Length	Shape
p8	26	#5	4'-0"	⌐—⌐
s1	32	#4	9'-10"	⌐ ⌐
s2	88	#4	8'-9"	⌐ ⌐
u3	20	#4	5'-3"	⌐ ⌐
v1	18	#4	9'-2"	——
v2	184	#4	4'-0"	——

Pavement Removal	Sq. Yds	15	Concrete Piles	Lin. Ft.	120
Pavement Replacement	Sq. Yds	21			
Concrete removal	Cu. Yd.	9.2			
Expansion bolts	Ea.	60			

ABUTMENT MODIFICATIONS, WINGWALL, & DETAILS

F.A. ROUTE 53
OVER KICKAPOO CREEK
SECTION 121 BR-1
MCLEAN COUNTY
STATION 428+16.72

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\D570552-sht-details.CEL	USER NAME = hoganbj	DESIGNED - BJH	REVISED -
		DRAWN - 5/12/2011	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

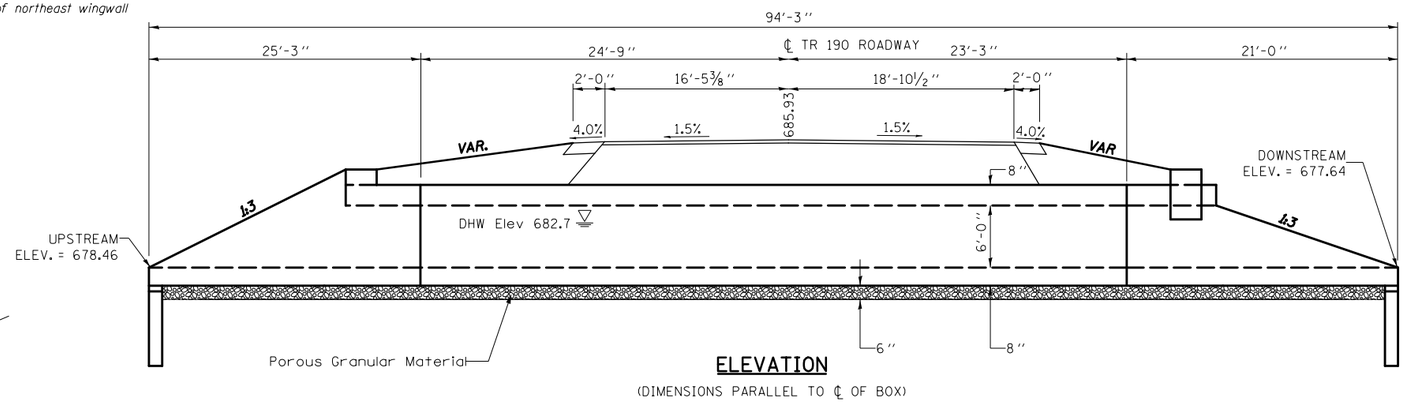
EXISTING STRUCTURE DETAILS

SCALE: ____ | SHEET NO. 6 OF 6 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	85
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

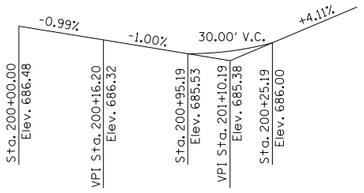
EXISTING STRUCTURE: DUAL 36" CMP'S

BENCHMARK ELEV. = 685.12 Chiseled square in top of northeast wingwall of S.N. 057-0093 at Sta. 429+62.04, 21.12' LT.



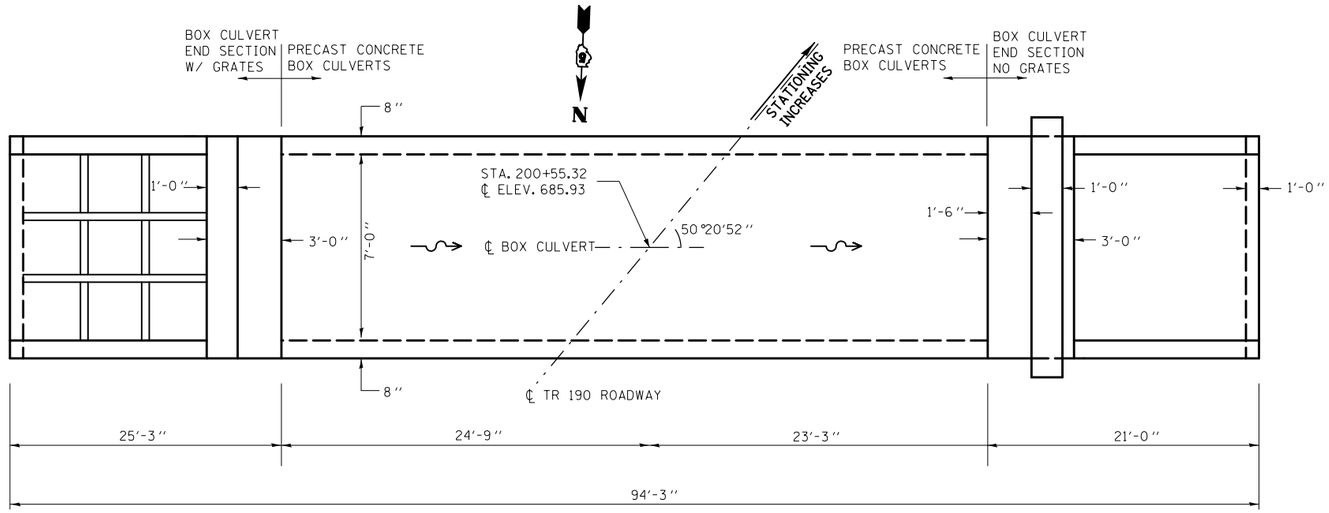
ELEVATION

(DIMENSIONS PARALLEL TO ℄ OF BOX)



Profile Grade

Along ℄ TR 190 Roadway



PLAN

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 65,000 psi (welded wire fabric)

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (welded wire fabric)

General Notes

See 'Precast Box Culvert End Sections' for end section details. The design reinforcement for a 6 foot rise shall be used for A_{slm}.

The design reinforcement areas for the Precast Concrete Box Culverts shall conform to those found in Table 1 of the AASHTO M 273 Specification for a 7' x 6' box section with a design fill height of 1.0 feet.

The joints between precast box sections shall be sealed, all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

All dimensions are in FEET (') - INCHES (") unless otherwise noted.

Drawings not to scale.

TOTAL BILL OF MATERIAL

Item	Unit	Total
Precast Concrete BC 7'x6' (M273)	Foot	48
Box Culvert End Sections C*01	Each	1
Grated Box Culvert End Sections C*01	Each	1

WATERWAY INFORMATION TABLE

Route:	FAP 315 (US136)	*S.N.:*	
Section:	121 BR-2		Under TR 190
County:	Mclean	*Waterway:*	Unnamed
Date:	2/23/2011	*By:*	EDG

Existing Low Grade Elev. = 684.45 @ Sta. 431+72.2 Rt 46.5'

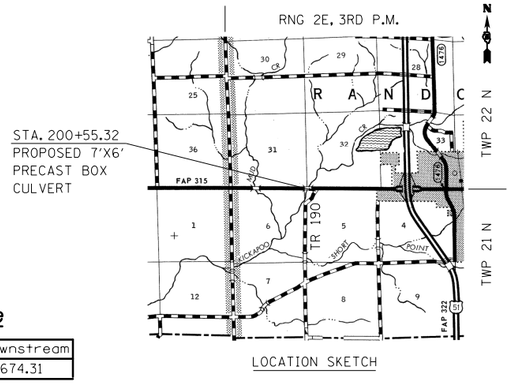
Drainage Area = 0.44mi² *Proposed Low Grade Elev. = 685.75 @ Sta. 431+72.2 Rt 75'*

Flood	*Freq. Yr.*	*Q C.F.S.*	*Opening Sq. Ft. Existing*	*Opening Sq. Ft. Proposed*	*Natural H.W.E.*	*Head - Ft. Existing*	*Head - Ft. Proposed*	*Headwater Elevation Existing*	*Headwater Elevation Proposed*
	10	*137*	*13.1*	*19.4*	*681.6*	*3.1*	*0.5*	*684.7*	*682.1*
Design	50	279	14.1	*25.9*	*682.7*	*2.7*	*1.9*	685.4	684.6
Base	100	345	14.1	*28.2*	*683.1*	*2.5*	*2.7*	685.6	685.8
Overtopping Exist.	10	137	13.1		*681.6*	*3.1*		684.7	
Overtopping Prop.	100	345		*28.5*	*683.1*		*2.7*		685.8

10 YEAR VELOCITY THROUGH EXISTING BRIDGE = 9.4 fps ***10 YEAR VELOCITY THROUGH PROPOSED BRIDGE = 11.1 fps***

Design Scour Elevation Table

Design Scour Elevation (ft.)	Upstream	Downstream
	675.13	674.31



GENERAL PLAN AND ELEVATION
7'x6' PRECAST BOX CULVERT
F.A.P. ROUTE 315 - SECTION 121BR-2
MCLEAN COUNTY
STATION 200+55.32

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		DRAWN - BJH 5/24/2011	REVISED -		
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -		
	PLOT DATE = 8/22/2011	DATE -	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

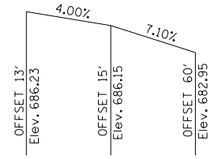
GENERAL PLAN AND ELEVATION
TR 190 BOX CULVERT STA 200+55.32

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

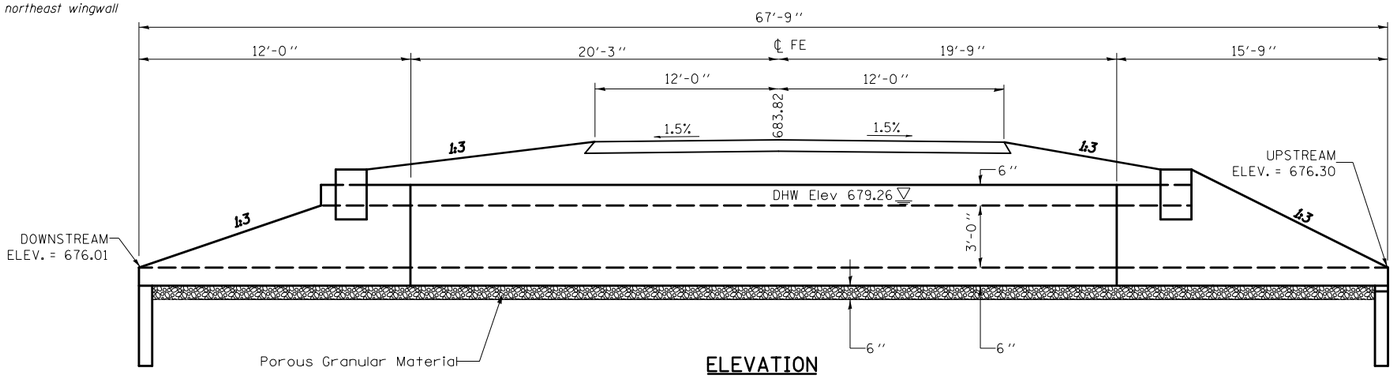
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	86
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

EXISTING STRUCTURE: 48" CMP

BENCHMARK ELEV. = 685.12 Chiseled square in top of northeast wingwall of S.N. 057-0093 at Sta. 429+62.04, 21.12' LT.



Profile Grade
Along ℄ FIELD ENTRANCE



ELEVATION
(DIMENSIONS PARALLEL TO ℄ OF BOX)

General Notes

See 'Precast Box Culvert End Sections' for end section details. The design reinforcement for a 3 foot rise shall be used for A_{slm}.

The design reinforcement areas for the Precast Concrete Box Culverts shall conform to those found in Table 1 of the AASHTO M 259 Specification for a 5' x 3' box section with a design fill height of 3.7 feet.

The joints between precast box sections shall be sealed, all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

All dimensions are in FEET (') - INCHES (") unless otherwise noted.

Drawings not to scale.

DESIGN SPECIFICATIONS

2002 AASHTO

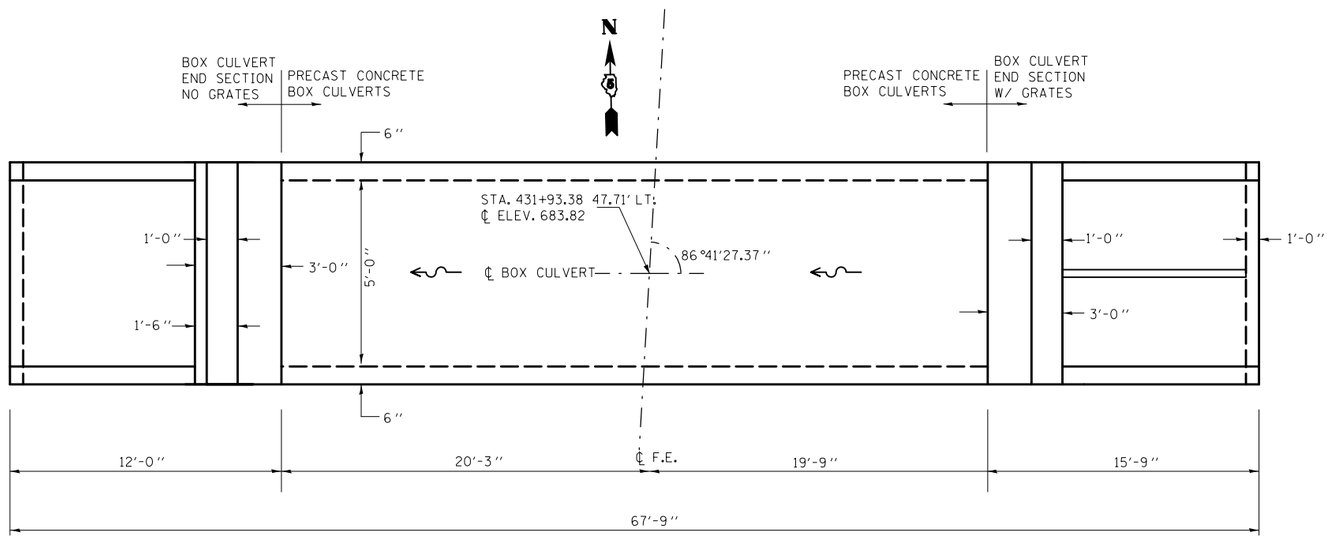
LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 65,000 psi (welded wire fabric)

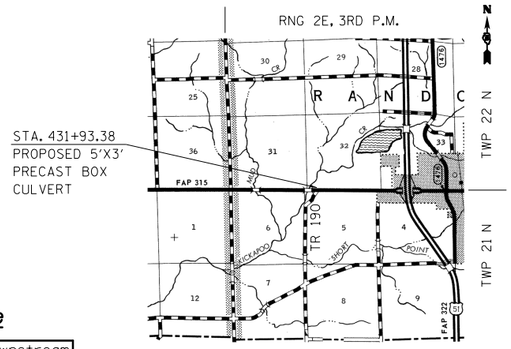
PRECAST UNITS
f'c = 5,000 psi
fy = 65,000 psi (welded wire fabric)



PLAN

Design Scour Elevation Table

	Upstream	Downstream
Design Scour Elevation (ft.)	672.97	672.68



LOCATION SKETCH

TOTAL BILL OF MATERIAL

Item	Unit	Total
Precast Concrete Box Culverts 5'x3'	Foot	40
Box Culvert End Sections C*02	Each	1
Grated Box Culvert End Sections C*02	Each	1

GENERAL PLAN AND ELEVATION
5'x3' PRECAST BOX CULVERT
F.A.P. ROUTE 315 - SECTION 121BR-2
MCLEAN COUNTY
STATION 431+93.38

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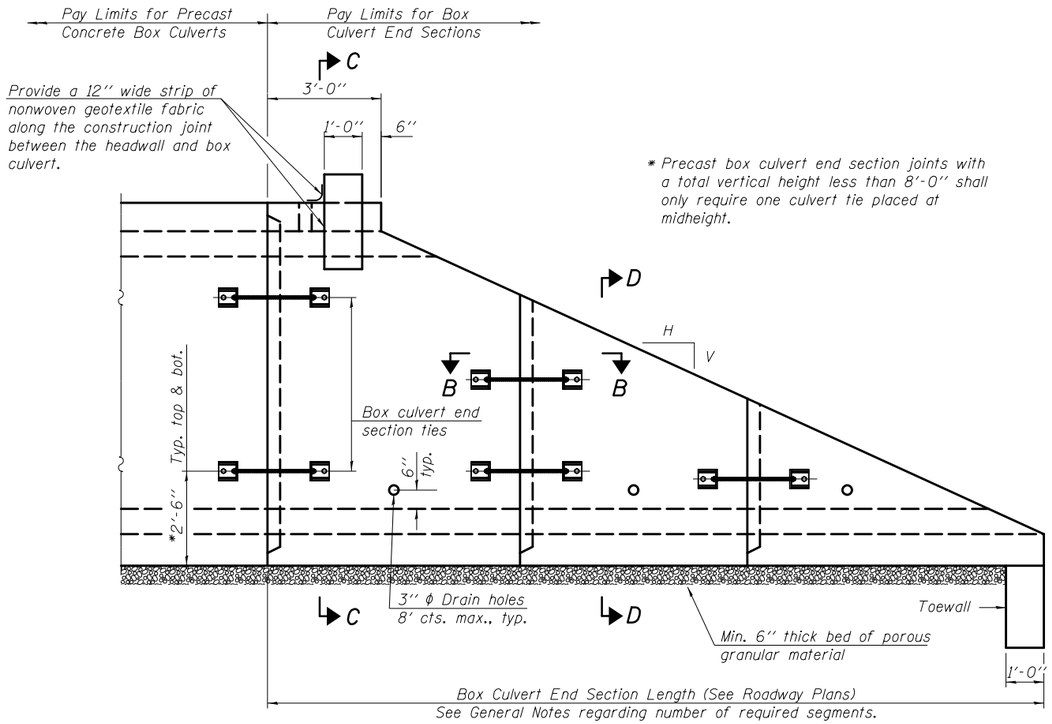
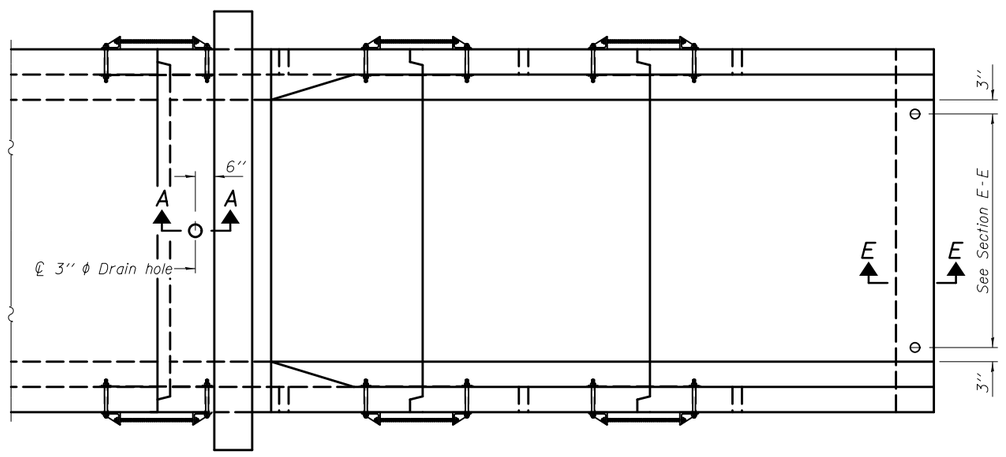
	PLOT SCALE = 40.0000 ' / in.	DRAWN - BJH 5/26/2011	REVISED -		SCALE: ____ SHEET NO. 1 OF 1 SHEETS STA. ____ TO STA. ____
	PLOT DATE = 8/22/2011	CHECKED - ____	REVISED -		
		DATE - ____	REVISED -		

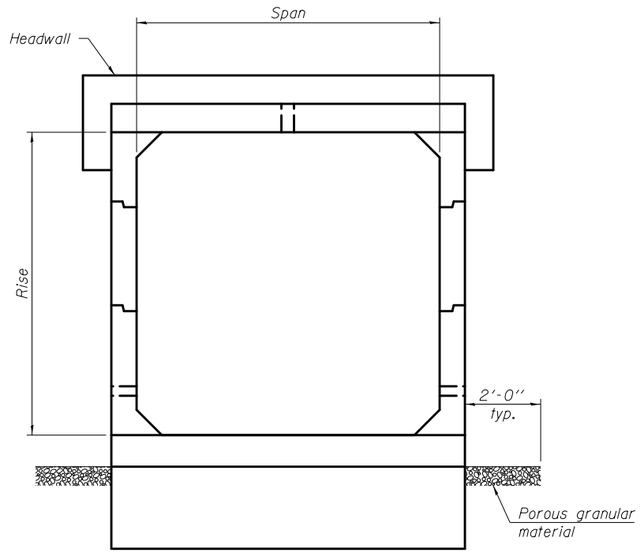
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	87
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		



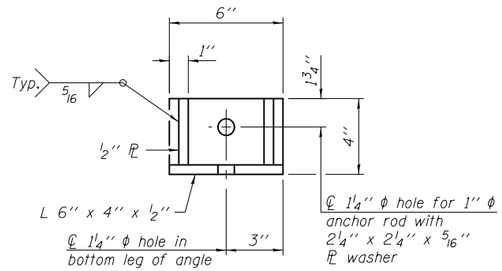
SIDE ELEVATION



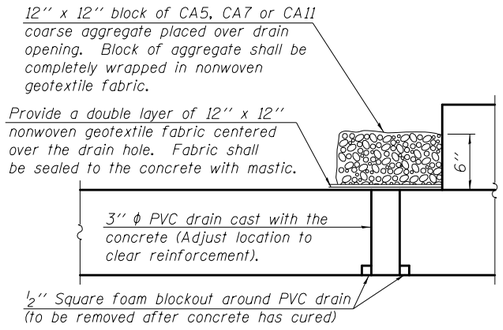
PLAN VIEW



END VIEW



RESTRAINT ANGLE DETAIL



SECTION A-A

(All costs associated with furnishing and constructing the above drain details will not be measured for payment but shall be included in the contract unit price for the end section.)

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of AASHTO M 259 or M 273 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of sections shown in Side Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

1" ϕ anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2¼" x 2¼" x 5/16" plate washers shall be provided under each nut required for the anchor rods. All anchor rods in a culvert tie assembly shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

Alternate culvert ties similar in strength and stiffness to the plan details may be provided by the Contractor. Alternate culvert ties shall be subject to approval of the Engineer.

The superimposed headwall shall be cast directly onto the box sections. Class SI concrete may be used for construction of superimposed headwall.

In lieu of using expansion anchors or ferrule loop inserts, the Contractor may attach the superimposed headwall to the box section by epoxy grouting reinforcement bars or threaded rods according to the requirements of Section 584 of the Standard Specifications. Anchor rods shall conform to the requirements of Article 1006.09 of the Standard Specifications and the anchor rods and associated hardware for securing the superimposed headwall to the box section shall be galvanized according to the requirements of AASHTO 111 or M 232 as applicable. The chemical adhesive system shall be capable of achieving the minimum proof load stated with drilled hole depths that do not exceed 2/3 of the thickness of the slab of the box section.

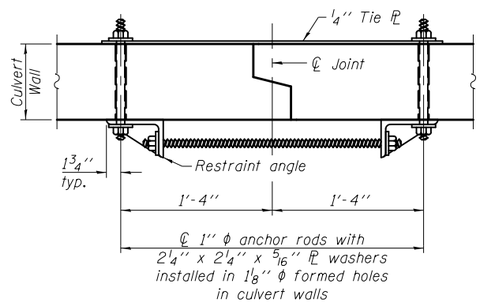
All costs associated with furnishing and installing or constructing the geotextile fabric, toewall, headwall, and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Reinforcement bars designated (E) shall be epoxy coated.

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

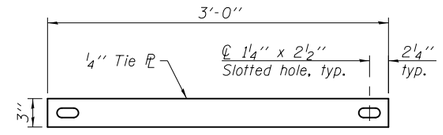
Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd.



SECTION B-B

(Showing culvert tie details)



TIE PLATE DETAIL

2-16-11

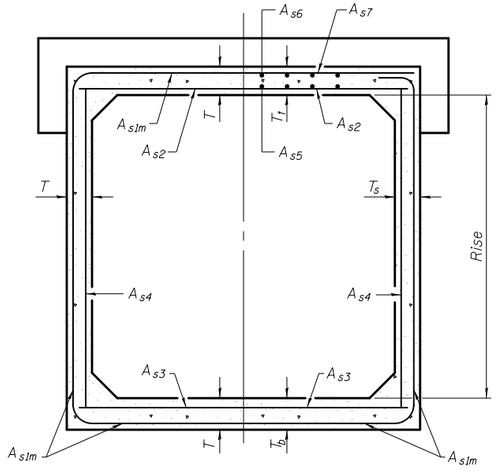
FILE NAME =	USER NAME =	DESIGNED - ___	REVISED - ·
		CHECKED - ___	REVISED - ·
	PLOT SCALE =	DRAWN - ___	REVISED - ·
	PLOT DATE =	CHECKED - ___	REVISED - ·

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SINGLE CELL PRECAST BOX CULVERT END SECTIONS

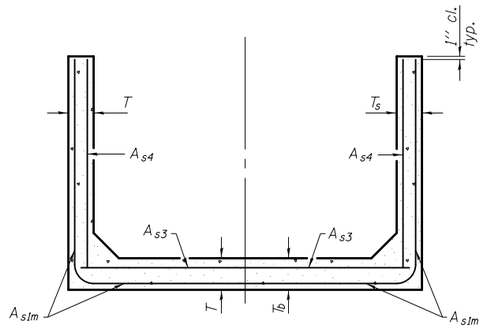
SHEET NO. _ OF ___ SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	88
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			



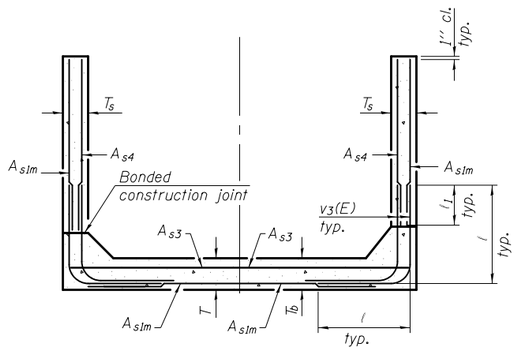
(AASHTO M 259 Details) (AASHTO M 273 Details)

SECTION C-C



(AASHTO M 259 Details) (AASHTO M 273 Details)

SECTION D-D



(AASHTO M 259 Details) (AASHTO M 273 Details)

ALTERNATE SECTION D-D

Rise (ft.) / T(in.), T_s(in.)	Reinforcing Steel A_{s1m} (in.²/ft.)										
	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.15									
5	0.26	0.21	0.18								
6		0.26	0.23	0.22							
7		0.33	0.59	0.27	0.28						
8			0.43	0.39	0.36	0.34	0.40				
9				0.43	0.40	0.37	0.36	0.48			
10				0.47	0.44	0.41	0.38	0.42	0.56		
11			0.54		0.46		0.41		0.50	0.65	
12			0.58		0.50		0.45		0.46		0.75

(A_{s1m} reinforcement based upon welded wire fabric conforming to AASHTO M 55 or M 221).

l_1 DIMENSION

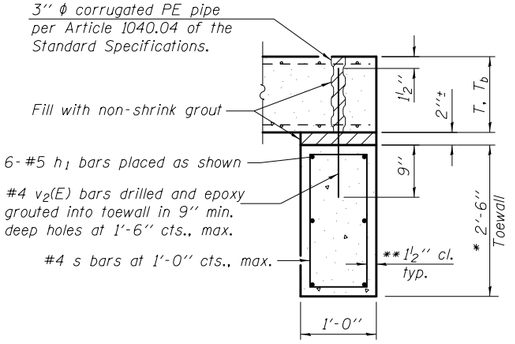
#3 bar = 2'-0''
#4 bar = 2'-8''
#5 bar = 3'-4''
#6 bar = 3'-11''

Notes:

Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

The size and spacing of the $v_3(E)$ bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to 1.10*(A_{s1m}). $v_3(E)$ bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

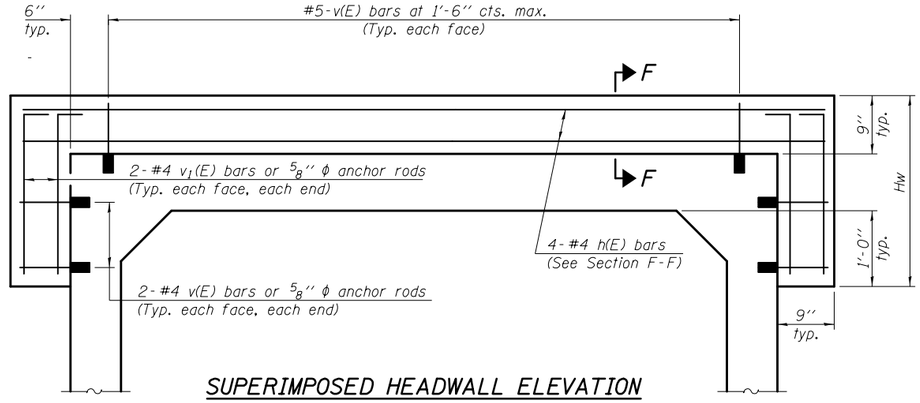
Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.



SECTION E-E

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.

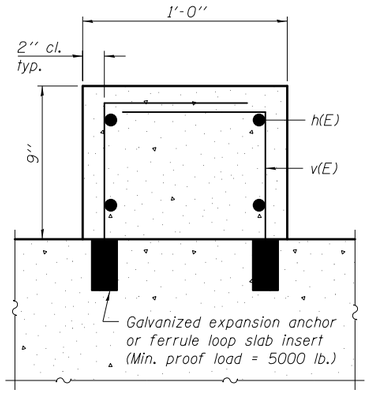
** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3'' by increasing the thickness of the toewall.



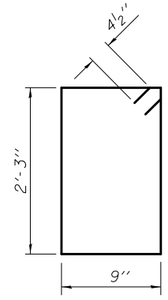
SUPERIMPOSED HEADWALL ELEVATION

TOEWALL CONSTRUCTION SEQUENCE

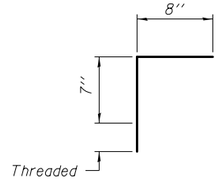
1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end sections in place.
4. Drill and epoxy grout reinforcement in toewall according to Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.



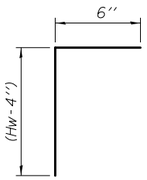
SECTION F-F



BAR s



BAR v(E)

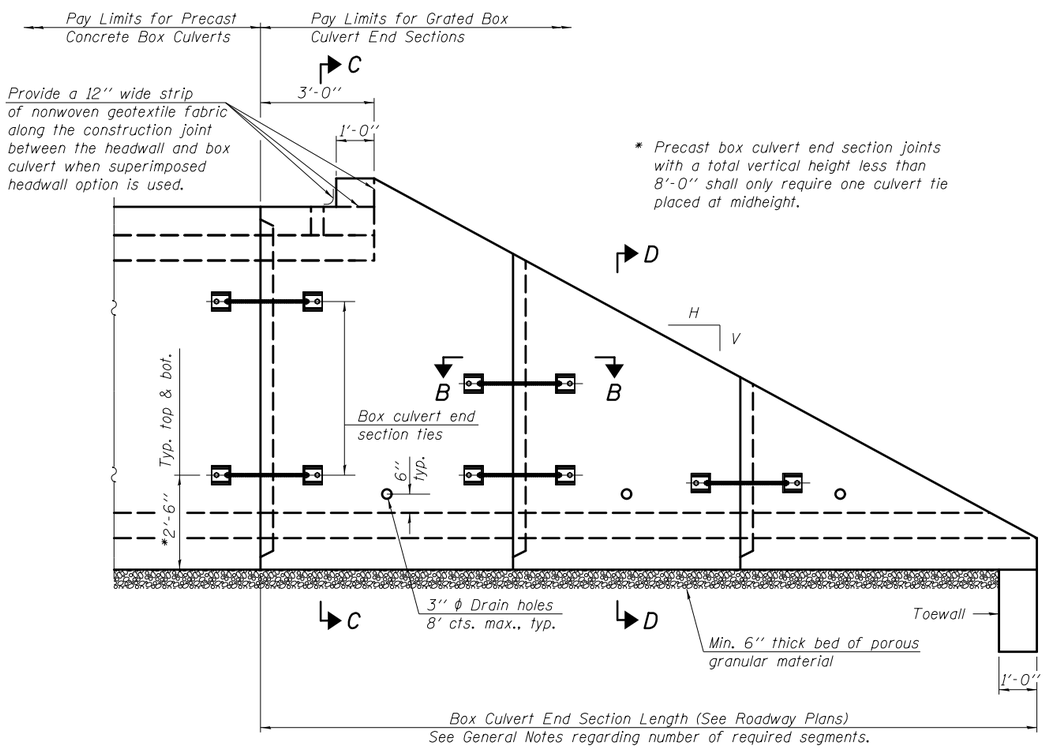


BAR $v_1(E)$

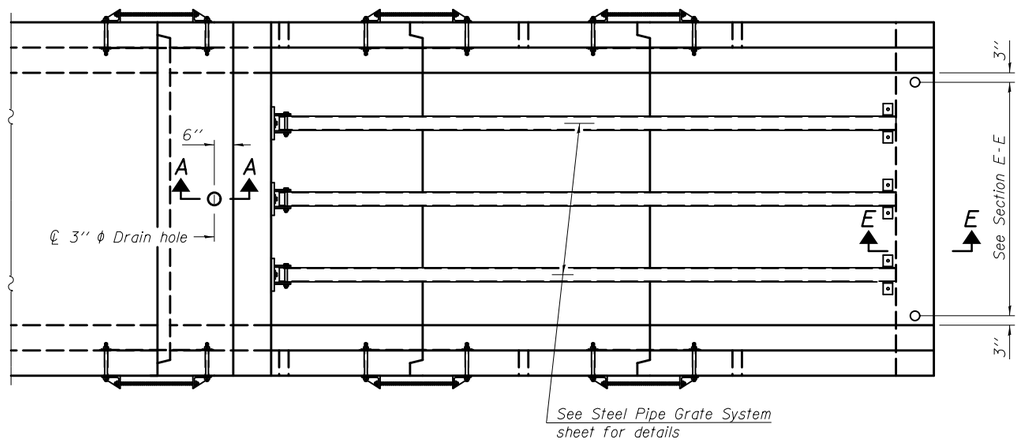
2-16-11

(Sheet 2 of 2)

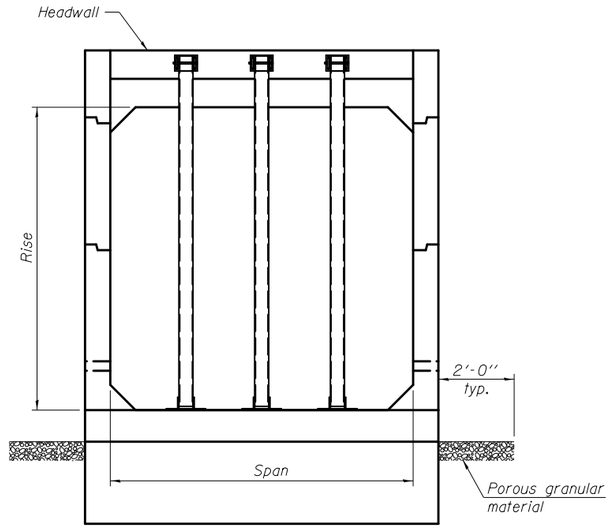
FILE NAME =	USER NAME =	DESIGNED - ___	REVISED - ·	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SINGLE CELL PRECAST BOX CULVERT END SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ___	REVISED - ·			315	121BR-2	MCLEAN	144	89
	PLOT SCALE =	DRAWN - ___	REVISED - ·					CONTRACT NO. 70552		
	PLOT DATE =	CHECKED - ___	REVISED - ·		SHEET NO. _ OF ___ SHEETS			ILLINOIS FED. AID PROJECT		



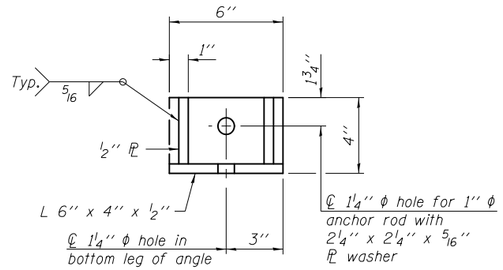
SIDE ELEVATION



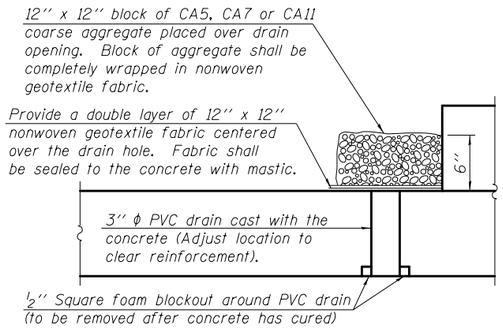
PLAN VIEW



END VIEW

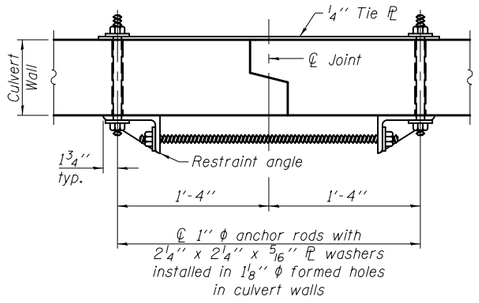


RESTRAINT ANGLE DETAIL



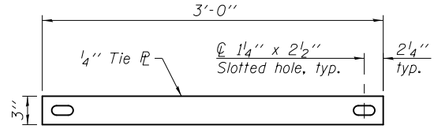
SECTION A-A

(All costs associated with furnishing and constructing the above drain details will not be measured for payment but shall be included in the contract unit price for the end section.)



SECTION B-B

(Showing culvert tie details)



TIE PLATE DETAIL

GENERAL NOTES

Grated Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Grated Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of AASHTO M 259 or M 273 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of sections shown in Side Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

1" ϕ anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2¼" x 2¼" x 5/16" plate washers shall be provided under each nut required for the anchor rods. All anchor rods in a culvert tie assembly shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

Alternate culvert ties similar in strength and stiffness to the plan details may be provided by the Contractor. Alternate culvert ties shall be subject to approval of the Engineer.

The headwall may be cast monolithically with the box section or a superimposed headwall may be cast directly onto the box sections. Anchor rods shall conform to the requirements of Article 1006.09 of the Standard Specifications and the anchor rods and associated hardware for securing the superimposed headwall to the box section shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. Class SI concrete may be used for construction of superimposed headwall.

In lieu of using ferrule loop inserts, the Contractor may attach the superimposed headwall to the box section by epoxy grouting reinforcement bars according to the requirements of Section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving the minimum proof load stated with drilled hole depths that do not exceed 2/3 of the thickness of the slab of the box section.

All costs associated with furnishing and installing or constructing the geotextile fabric, toewall, headwall, and culvert ties will not be measured for payment but shall be included in the contract unit price for Grated Box Culvert End Sections of the culvert number specified.

Reinforcement bars designated (E) shall be epoxy coated.

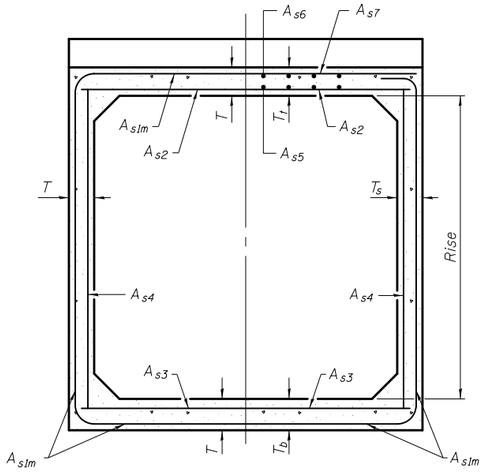
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60.

Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

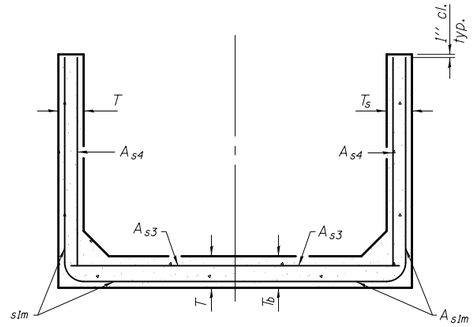
2-16-11

FILE NAME =	USER NAME =	DESIGNED - ___	REVISED - ·	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SINGLE CELL PRECAST BOX CULVERT END SECTIONS WITH PIPE GRATES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ___	REVISED - ·			315	121BR-2	MCLEAN	144	90
	PLOT SCALE =	DRAWN - ___	REVISED - ·						CONTRACT NO. 70552	
	PLOT DATE =	CHECKED - ___	REVISED - ·		SHEET NO. _ OF ___ SHEETS			ILLINOIS	FED. AID PROJECT	



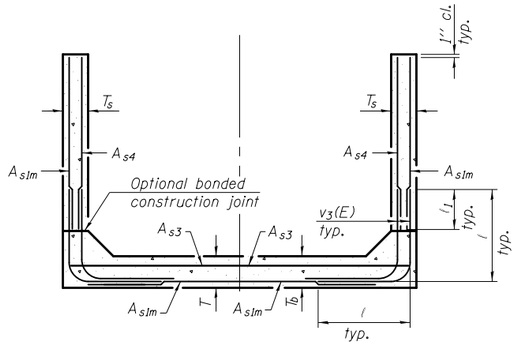
(AASHTO M 259 Details) (AASHTO M 273 Details)

SECTION C-C



(AASHTO M 259 Details) (AASHTO M 273 Details)

SECTION D-D



(AASHTO M 259 Details) (AASHTO M 273 Details)

ALTERNATE SECTION D-D

Rise (ft.) / T(in.), T_s (in.)	Reinforcing Steel A_{s1m} (in.²/ft.)										
	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.15									
5	0.26	0.21	0.18								
6		0.26	0.23	0.22							
7		0.33	0.59	0.27	0.28						
8			0.43	0.39	0.36	0.34	0.40				
9				0.43	0.40	0.37	0.36	0.48			
10				0.47	0.44	0.41	0.38	0.42	0.56		
11			0.54		0.46		0.41		0.50	0.65	
12			0.58		0.50		0.45		0.46		0.75

(A_{s1m} reinforcement based upon welded wire fabric conforming to AASHTO M 55 or M 221).

ℓ_1 DIMENSION

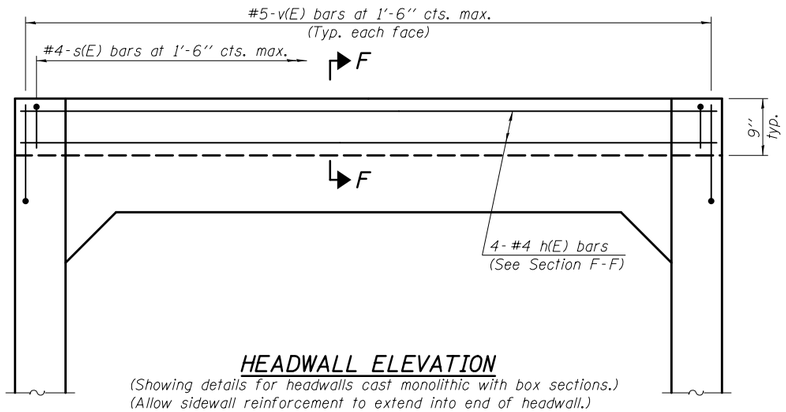
#3 bar = 2'-0''
#4 bar = 2'-8''
#5 bar = 3'-4''
#6 bar = 3'-11''

Notes:

Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

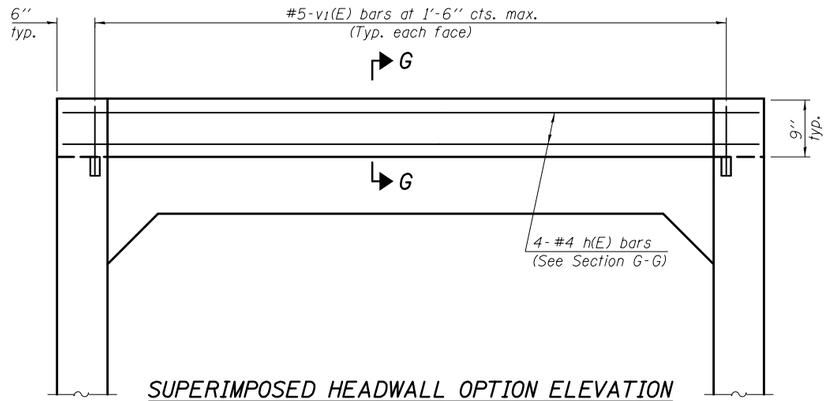
The size and spacing of the $v_3(E)$ bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to 1.10(A_{s1m}). $v_3(E)$ bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.*

Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

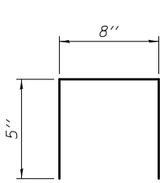


HEADWALL ELEVATION

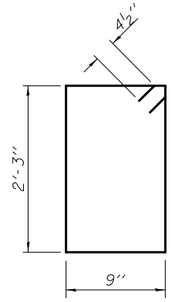
(Showing details for headwalls cast monolithic with box sections.)
(Allow sidewall reinforcement to extend into end of headwall.)



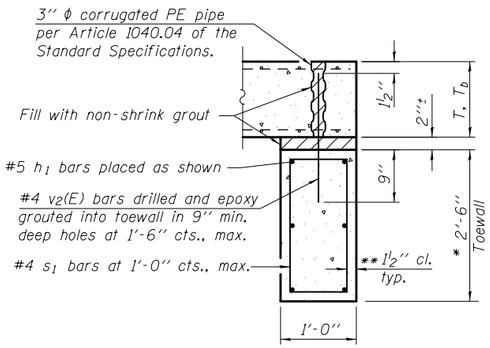
SUPERIMPOSED HEADWALL OPTION ELEVATION



BAR s(E)



BAR s_1



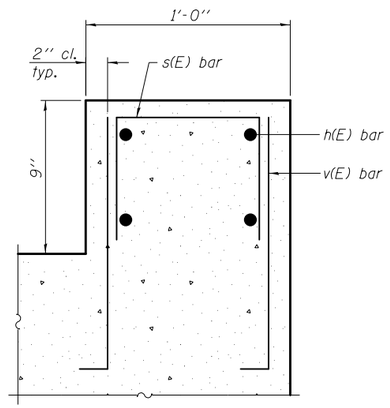
SECTION E-E

TOEWALL CONSTRUCTION SEQUENCE

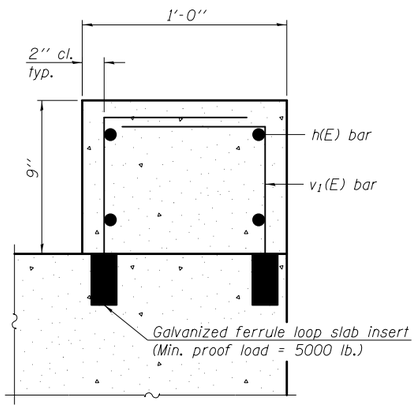
Perform excavation and construct toewall.
1. *Backfill accordingly and place bedding for*
2. *precast box culvert end sections.*
3. *Set precast box culvert end sections in place.*
4. *Drill and epoxy grout reinforcement in toewall in accordance*
5. *with Section 584 of the Standard Specifications. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.*

* *The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.*

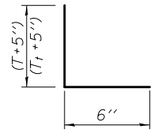
** *If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3'' by increasing the thickness of the toewall.*



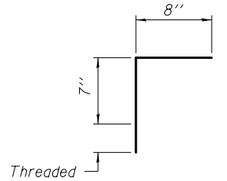
SECTION F-F



SECTION G-G



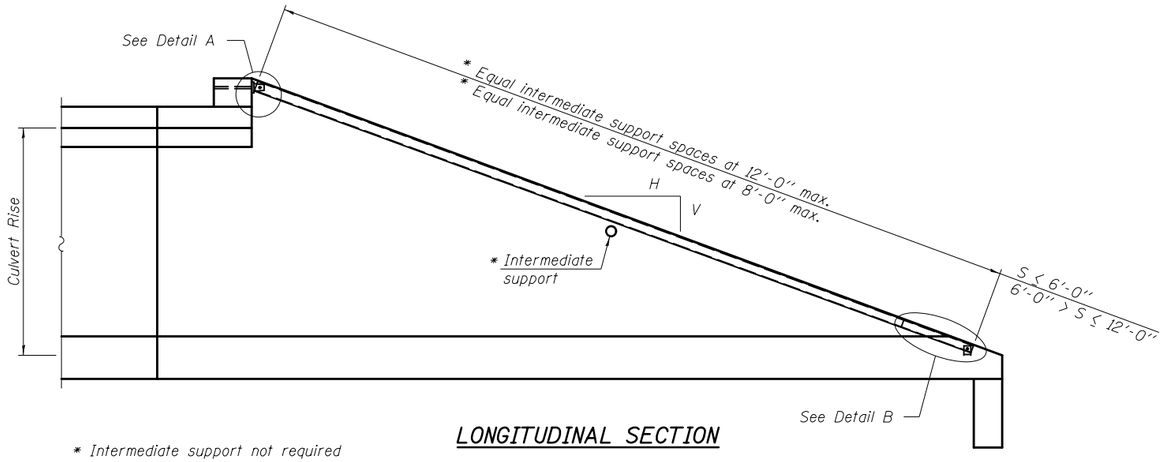
BAR v(E)



BAR v_1(E)

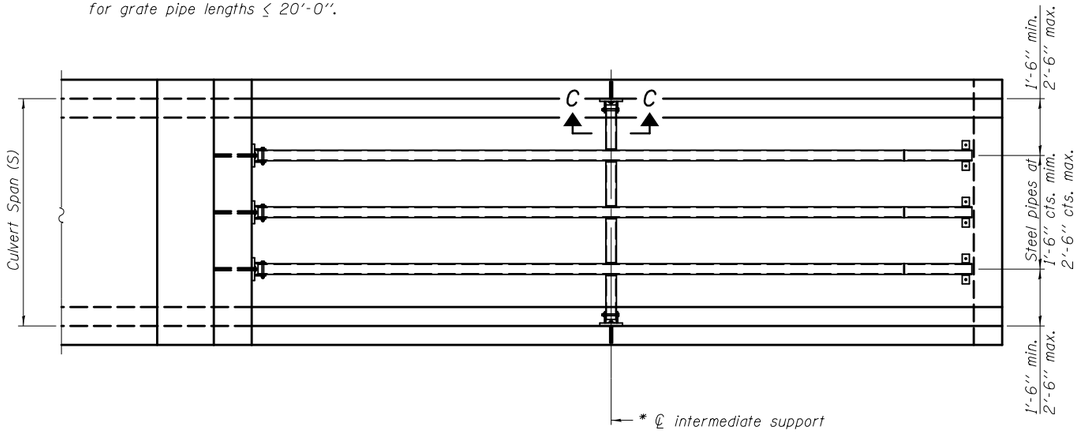
2-16-11

FILE NAME =	USER NAME =	DESIGNED - ___	REVISED - ·	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SINGLE CELL PRECAST BOX CULVERT END SECTIONS WITH PIPE GRATES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ___	REVISED - ·			315	121BR-2	MCLEAN	144	91
	PLOT SCALE =	DRAWN - ___	REVISED - ·						CONTRACT NO. 70552	
	PLOT DATE =	CHECKED - ___	REVISED - ·		SHEET NO. _ OF ___ SHEETS			ILLINOIS	FED. AID PROJECT	

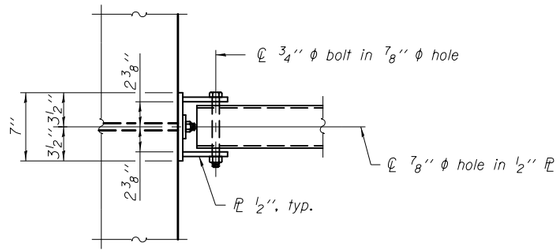


LONGITUDINAL SECTION

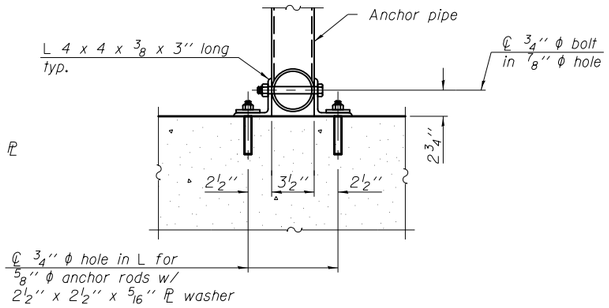
* Intermediate support not required for grate pipe lengths ≤ 20'-0".



PLAN VIEW



VIEW A-A



SECTION B-B

GENERAL NOTES

Length and number of steel pipes shall be determined by the Contractor except as shown. All steel pipe shall be standard weight (Sch. 40) unless otherwise noted.

All components of the Steel Pipe Grate System shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Fabrication of the Steel Pipe Grate System shall conform to the requirements in Section 505 of the Standard Specifications unless noted otherwise.

Structural steel shapes and plates shall conform to the requirements of Article 1006.04 of the Standard Specifications. Steel pipes shall conform to the requirements of ASTM A 53 (Type E or S), Grade B.

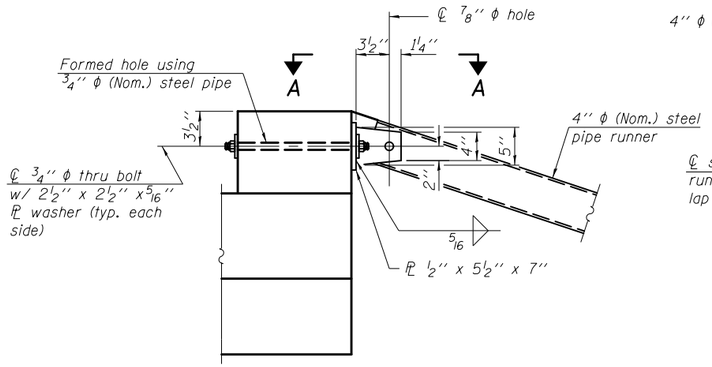
Anchor rods shall conform to the requirements of ASTM F1554, Grade 105. Anchor rods shall be drilled and epoxy grouted according to the requirements of Section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving a minimum proof load of 5000 pounds and an ultimate shear capacity of 8000 pounds per anchor.

Bolts and thru bolts shall conform to the requirements of Article 1006.08 of the Standard Specifications except threaded rods conforming to the requirements of ASTM F1554, Grade 105 may be used for the thru bolts.

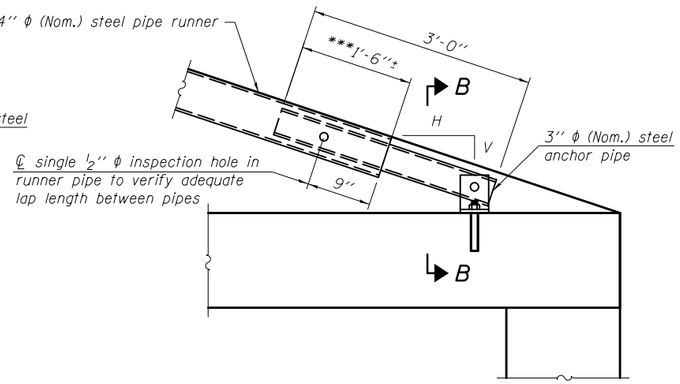
The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.

Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench.

All cost associated with fabricating, furnishing, and installing the Steel Pipe Grate System shall be included in the contract unit price for Grated Box Culvert End Sections of the culvert number specified.

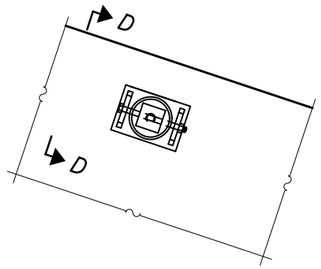


DETAIL A



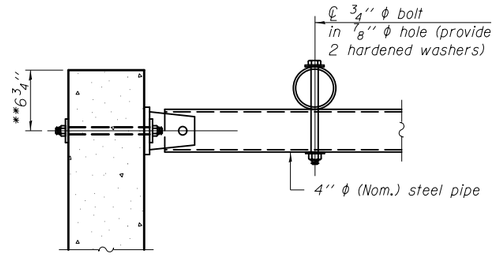
DETAIL B

*** The lap length between pipes may be adjusted in the field to accommodate construction tolerances but shall not be less than 9".



SECTION C-C

(See Detail A for dimensions and details not shown.)



SECTION D-D

** Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.

2-16-11

FILE NAME =	USER NAME =	DESIGNED - ___	REVISED - ·
		CHECKED - ___	REVISED - ·
	PLOT SCALE =	DRAWN - ___	REVISED - ·
	PLOT DATE =	CHECKED - ___	REVISED - ·

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

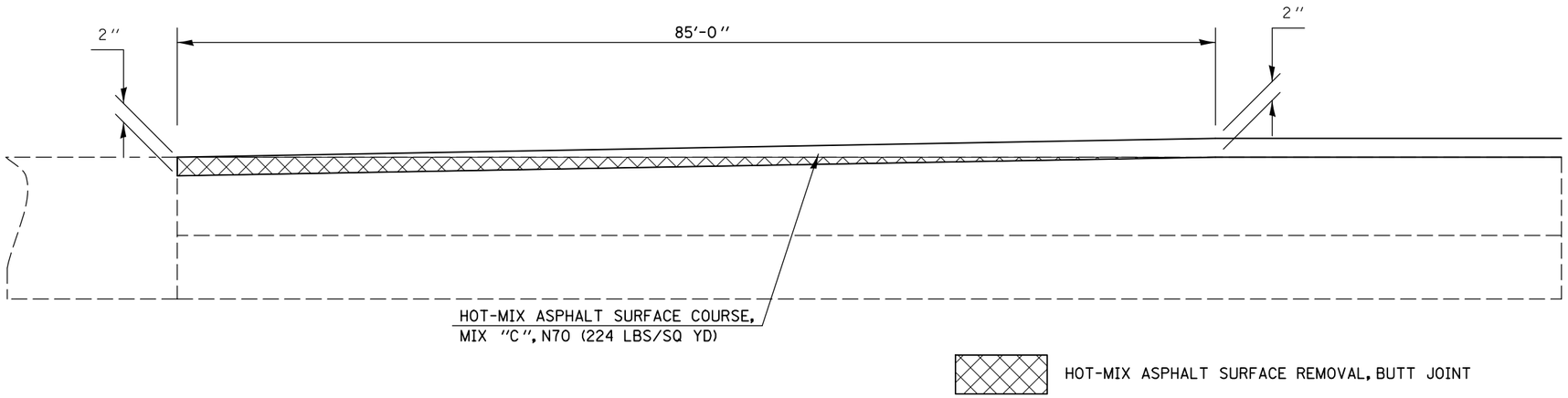
STEEL PIPE GRATE SYSTEM

SHEET NO. _ OF ___ SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	92
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			

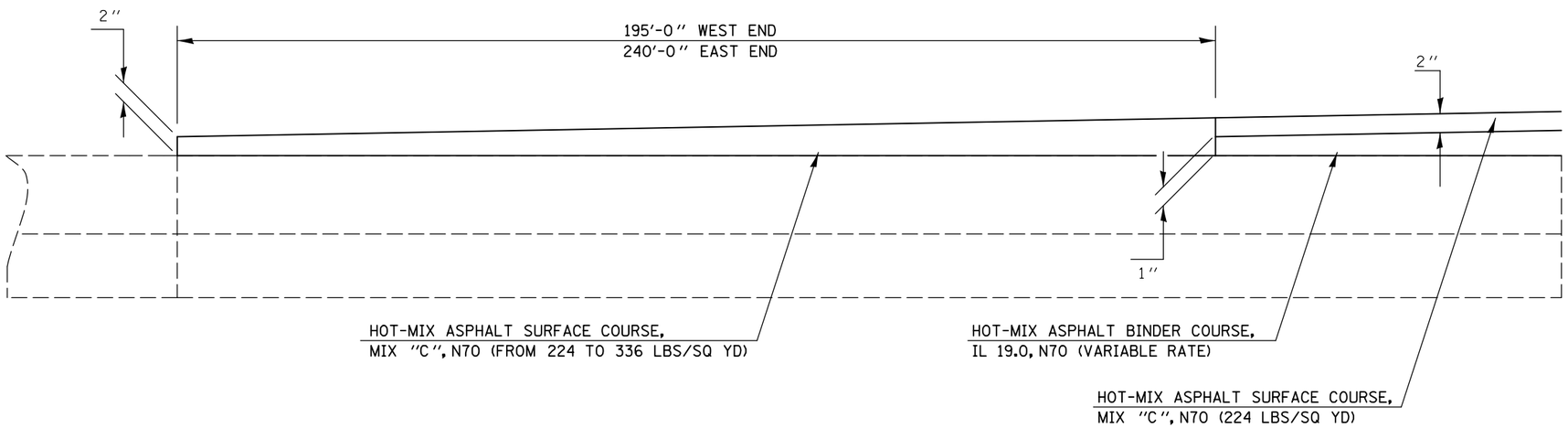
DETAIL FOR F.A.P. 315 MILLING AND PAVING TRANSITIONS AT EAST AND WEST ENDS OF JOB

STATION	TO	STATION
415+00.00		415+85.00
442+00.00		441+15.00



DETAIL FOR F.A.P. 315 PAVING TRANSITIONS AT EAST AND WEST ENDS OF JOB

STATION	TO	STATION
415+85.00		417+80.00
441+15.00		438+75.00



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		DRAWN - 3/15/2011	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/22/2011	DATE -	REVISED -

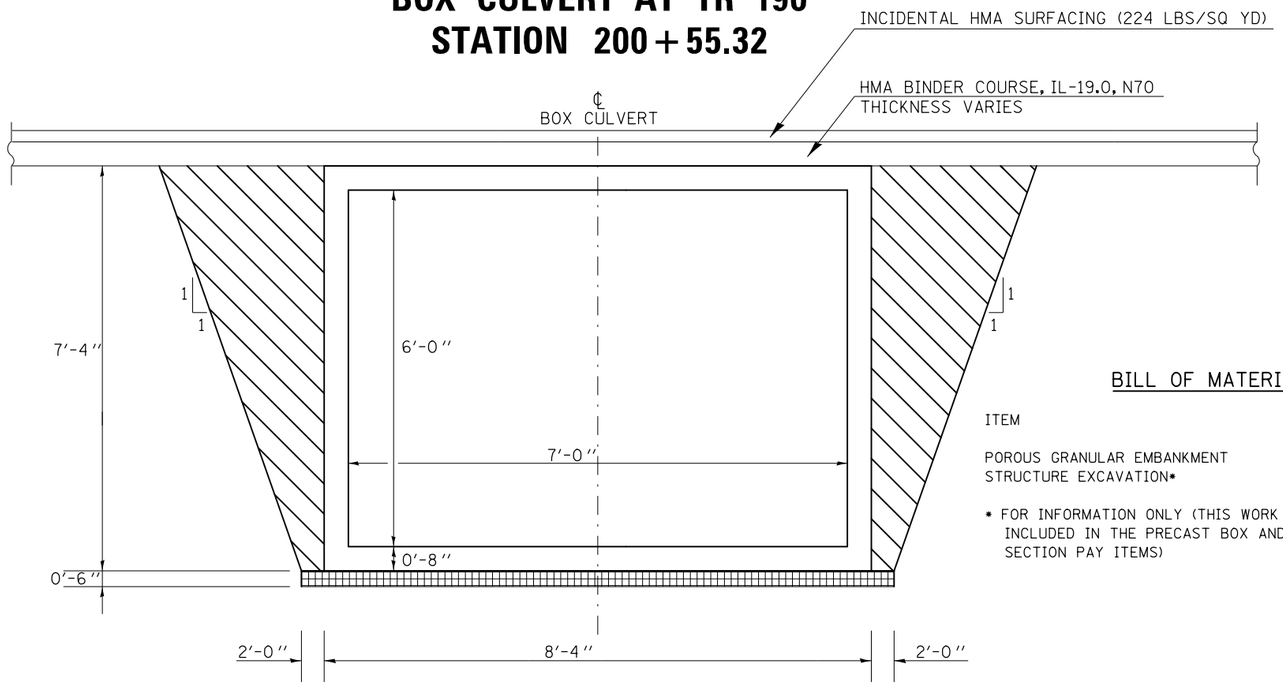
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MILLING AND PAVING TRANSITION DETAILS

SCALE: ____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	93
		CONTRACT NO. 70552		
		ILLINOIS FED. AID PROJECT		

BOX CULVERT AT TR 190
STATION 200 + 55.32



BILL OF MATERIAL

ITEM	UNIT	QUANT.
POROUS GRANULAR EMBANKMENT	CU YD	140.0
STRUCTURE EXCAVATION*	CU YD	307.6

* FOR INFORMATION ONLY (THIS WORK SHALL BE INCLUDED IN THE PRECAST BOX AND END SECTION PAY ITEMS)

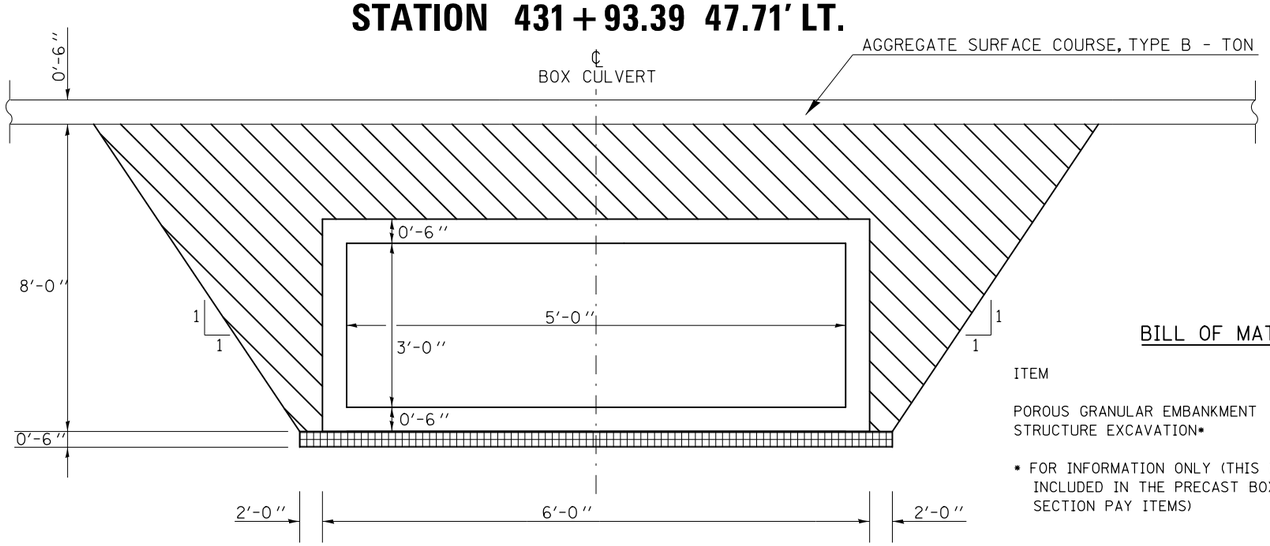
NOTES:

1. POROUS GRANULAR EMBANKMENT SHALL EXTEND 2′-0″ BEYOND THE AGGREGATE OR EARTH SHOULDER.
2. WORK SHOWN IN THIS DETAIL SHALL BE PERFORMED ACCORDING TO THE APPLICABLE PORTIONS OF ARTICLES 207 AND 540 OF THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.
3. ADDITIONAL UNDERCUT MAY BE SPECIFIED AT SOME BOX CULVERTS.
4. THIS DETAIL IS NOT DRAWN TO SCALE.

PAY LIMITS OF POROUS GRANULAR EMBANKMENT - CA-6

POROUS GRANULAR MATERIAL - CA 7 (6″) INCLUDED IN PAY ITEM FOR BOX CULVERT

BOX CULVERT AT F.E.
STATION 431 + 93.39 47.71′ LT.



BILL OF MATERIAL

ITEM	UNIT	QUANT.
POROUS GRANULAR EMBANKMENT	CU YD	125.0
STRUCTURE EXCAVATION*	CU YD	210.7

* FOR INFORMATION ONLY (THIS WORK SHALL BE INCLUDED IN THE PRECAST BOX AND END SECTION PAY ITEMS)

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

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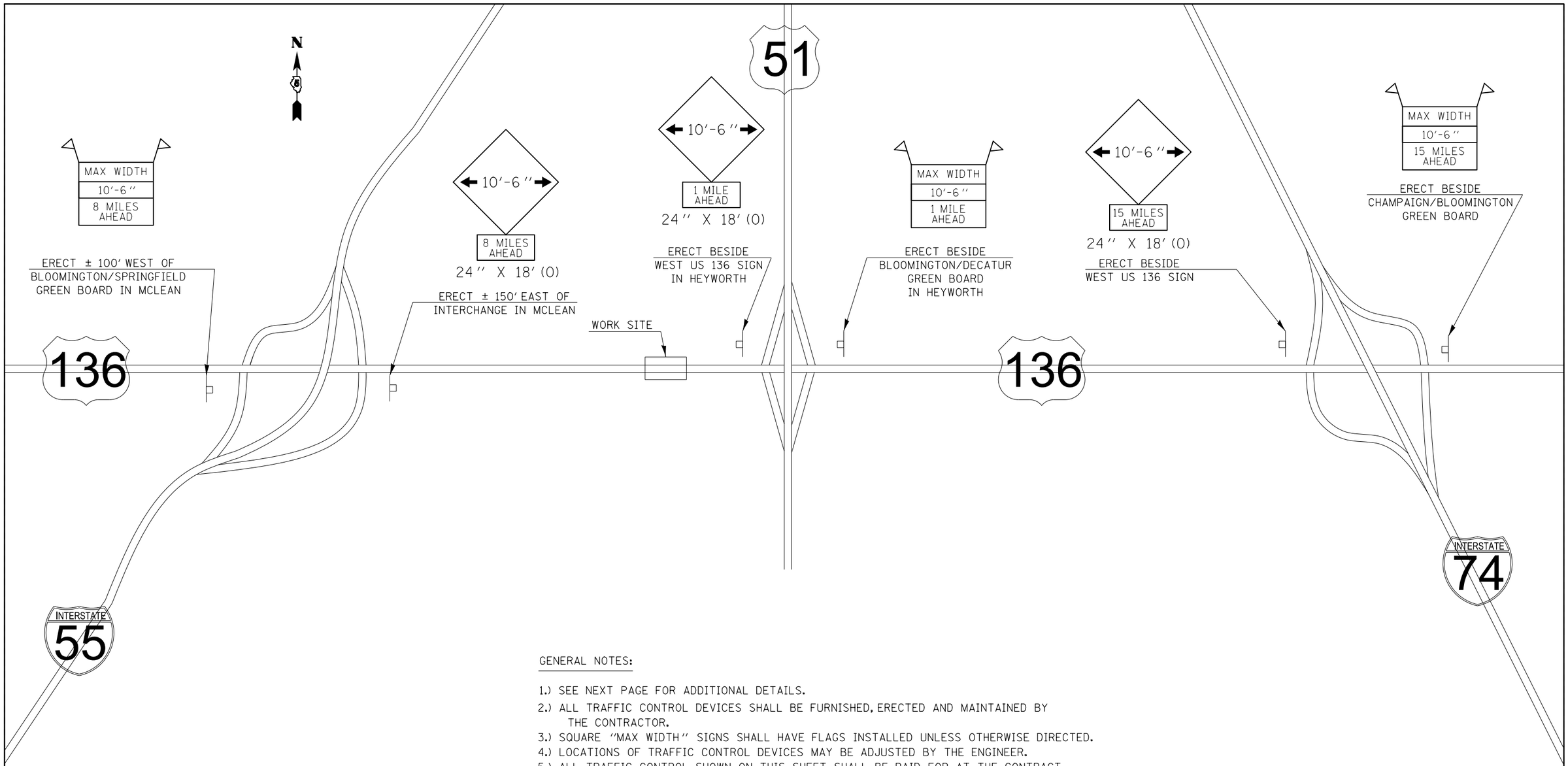
		DRAWN - 3/15/2011	REVISED -
	PLOT SCALE = 40.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 8/24/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

POROUS GRANULAR EMBANKMENT DETAILS

SCALE: ____ | SHEET NO. _ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	94
		CONTRACT NO. 70552		
	ILLINOIS FED. AID PROJECT			



GENERAL NOTES:

1.) SEE NEXT PAGE FOR ADDITIONAL DETAILS.
2.) ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
3.) SQUARE "MAX WIDTH" SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
4.) LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
5.) ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
6.) THE ILLINOIS DEPARTMENT OF TRANSPORTATION WILL SUPPLY ALL "ROUTE MARKER" SIGNS, IF APPLICABLE. THE CONTRACTOR SHALL NOTIFY THE DISTRICT BUREAU OF OPERATIONS A MINIMUM OF 10 WORKING DAYS PRIOR TO PLACEMENT OF WIDTH RESTRICTION SIGNING TO ENSURE AVAILABILITY OF FABRICATION OF THE "ROUTE MARKER" SIGNS.
7.) ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
8.) ALL SIGNS SHOWN ORANGE SHALL BE FLUORESCENT ORANGE.
9.) SIGNS SHALL BE INSTALLED AT THE FOLLOWING MINIMUM HEIGHTS:
RURAL 5'-0" (1.52 m) (MIN.)
URBAN 7'-0" (2.13 m) (MIN.)

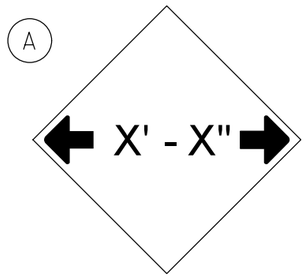
FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\D570552-sht-details.CEL	USER NAME = hoganbj	DESIGNED - BJH	REVISED - ___ _____
		DRAWN - 5/11/2011	REVISED - ___ _____
	PLOT SCALE = 40.0000 '/ in.	CHECKED - ___	REVISED - ___ _____
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - ___ _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

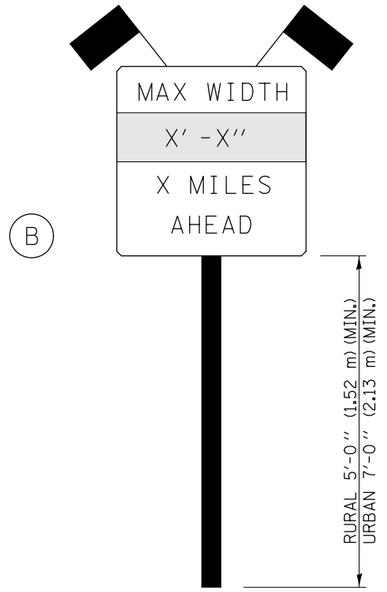
WIDTH RESTRICTION SIGNING DETAIL

SCALE: _____ | SHEET NO. 1 OF 1 SHEETS | STA. _____ TO STA. _____

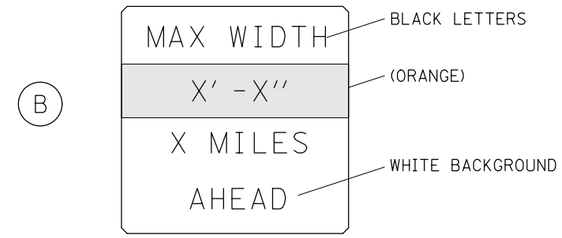
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	95
		CONTRACT NO. 70552		
	ILLINOIS	FED. AID PROJECT		



W12-2(0)-48″x48″(1200x1200)



SIGN PANEL, TYPE II



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

SIGN (A) 2 SIGNS - W12-2(0)-48″x48″(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

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

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

DISTRICT 5 DETAIL NO. X7200201

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\D570552-sht-details.CEL	USER NAME = hoganbj	DESIGNED - ____	REVISED - 11/06
		DRAWN - ____	REVISED - 05/08
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ____	REVISED - 10/08 - KJI
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - 7/09 - KJI

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

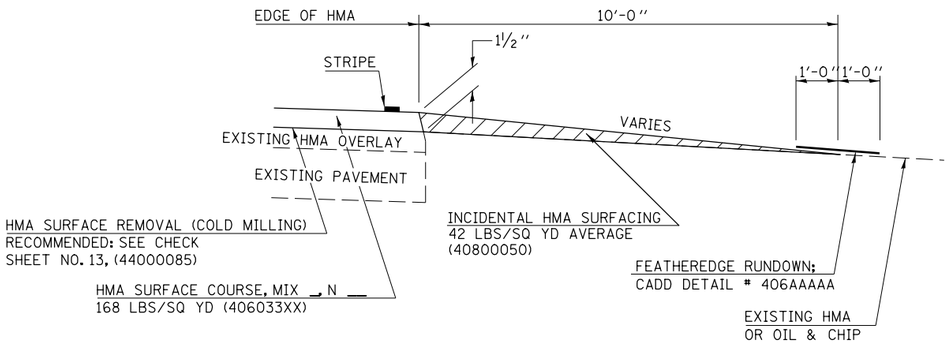
WIDTH RESTRICTION SIGNING

SCALE: ____ | SHEET NO. _ OF ___ SHEETS | STA. _____ TO STA. _____

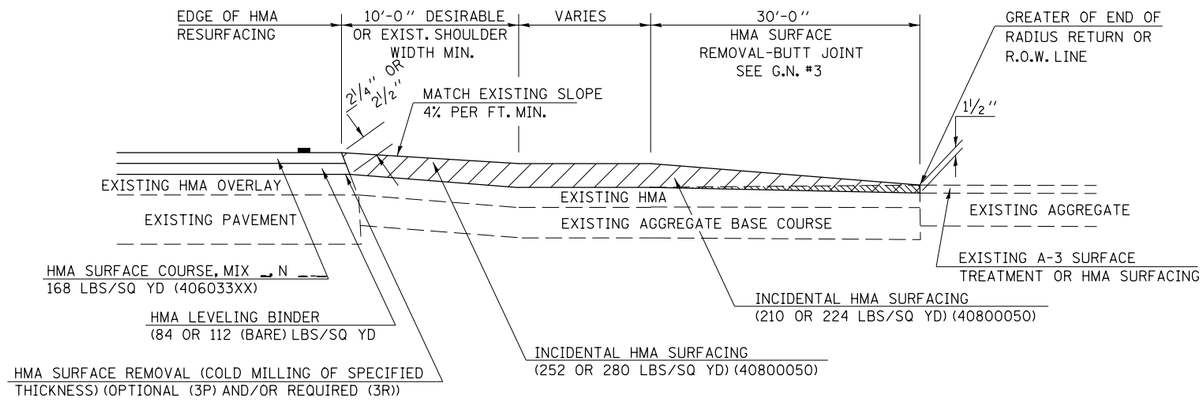
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	96
		CONTRACT NO. 70552		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

PROJECTS WITHOUT RECONSTRUCTION

S.M.A.R.T. IMPROVEMENTS
(ALSO CONTRACT MAINTENANCE)

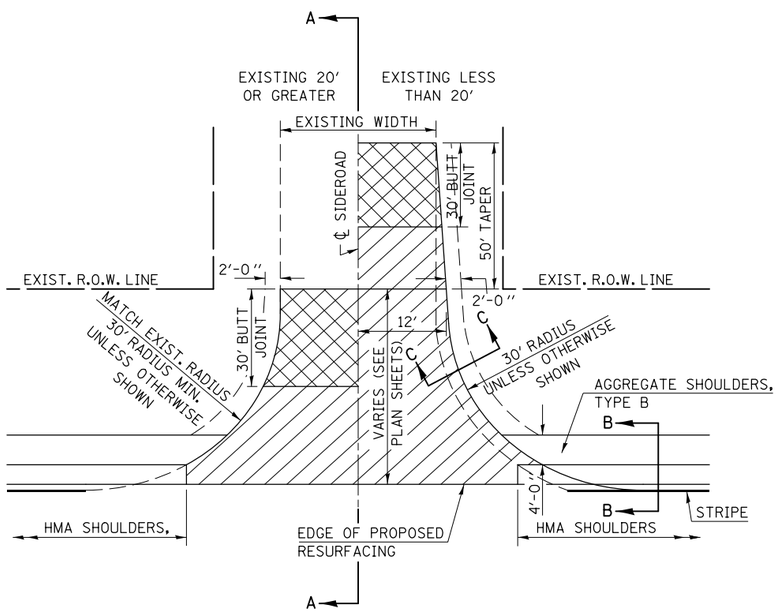


"3P" OR "3R" IMPROVEMENTS

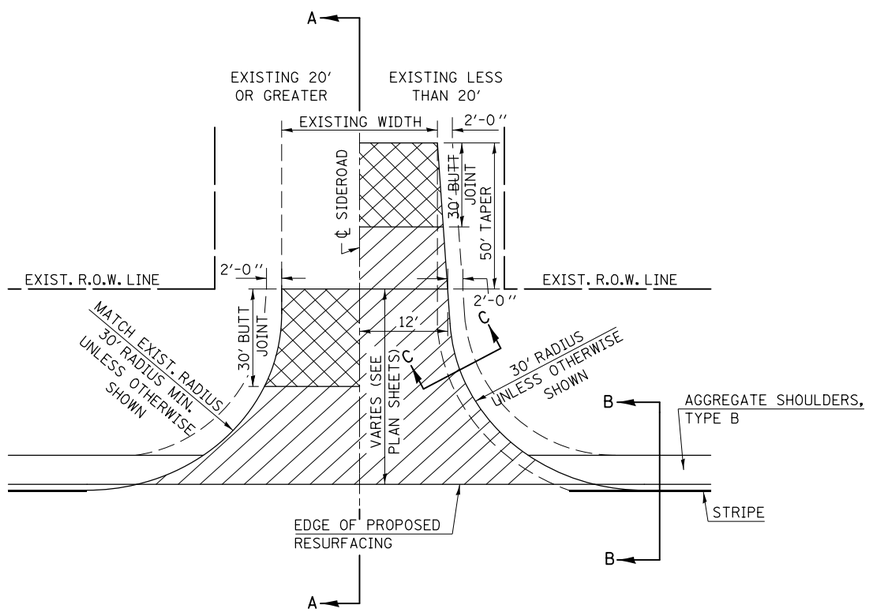


PROJECTS WITH RECONSTRUCTION
("3R" IMPROVEMENTS)

WITH HMA SHOULDER



WITHOUT HMA SHOULDER



GENERAL NOTES

1. THE EXISTING SURFACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS

2. PROPOSED SIDEROAD GRADES SHALL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

3. MAJOR SIDEROAD/SIDESTREETS (>400 ADT) SHALL HAVE "BUTT JOINTS" CONSTRUCTED WHETHER THE EXISTING ENTRANCE IS HMA OR PCC. MINOR SIDEROAD/SIDESTREETS (<400 ADT) SHALL HAVE "FEATHEREDGE RUNDOWNS".

4. AGGREGATE BASE COURSE, TYPE B OF THE THICKNESS SPECIFIED IN THE PLANS 6" MIN. SHALL BE USED WHERE IN THE OPINION OF THE ENGINEER THERE IS NOT 6" EXISTING BASE MATERIAL FOR THE PROPOSED SIDEROAD RETURNS. THIS MATERIAL SHALL BE USED TO WIDEN SIDEROAD RETURNS.

5. THE AGGREGATE BASE COURSE SHALL BE CONSTRUCTED 1' WIDER THAN THE SURFACE DIMENSIONS.

6. AGGREGATE SHOULDERS, TYPE B WILL BE WRAPPED AROUND THE SIDEROAD RETURNS. TAPER WIDTH FROM 4' ALONG MAINLINE TO 2' AT BACK OF RETURN.

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

DISTRICT 5 DETAIL NO. 408000AA

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\D570552-sht-details.CEL	USER NAME = hoganbj	DESIGNED - ___	REVISED - 12/13/06 TJB
		DRAWN - ___	REVISED - 09/21/07 KAG
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ___	REVISED - 12/21/09 KJI
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - ___

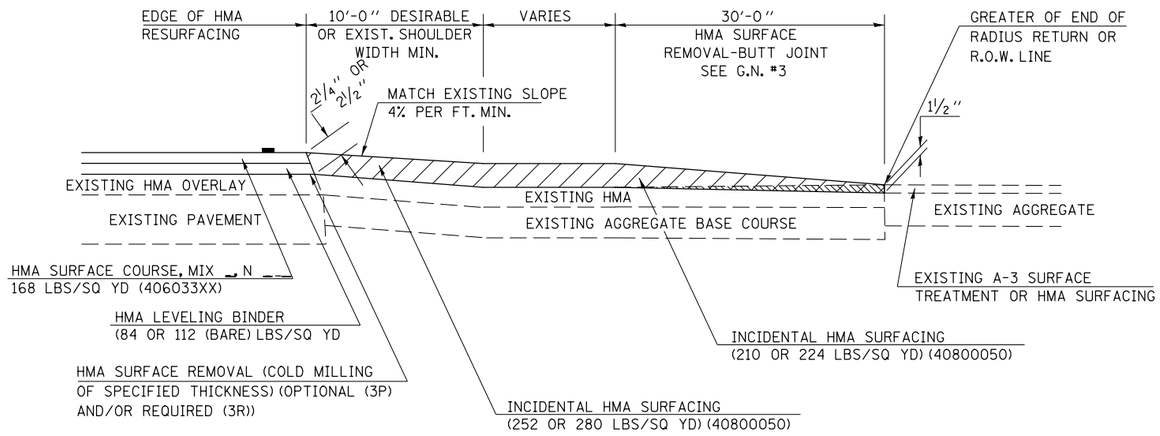
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEROADS & SIDESTREETS (RURAL)

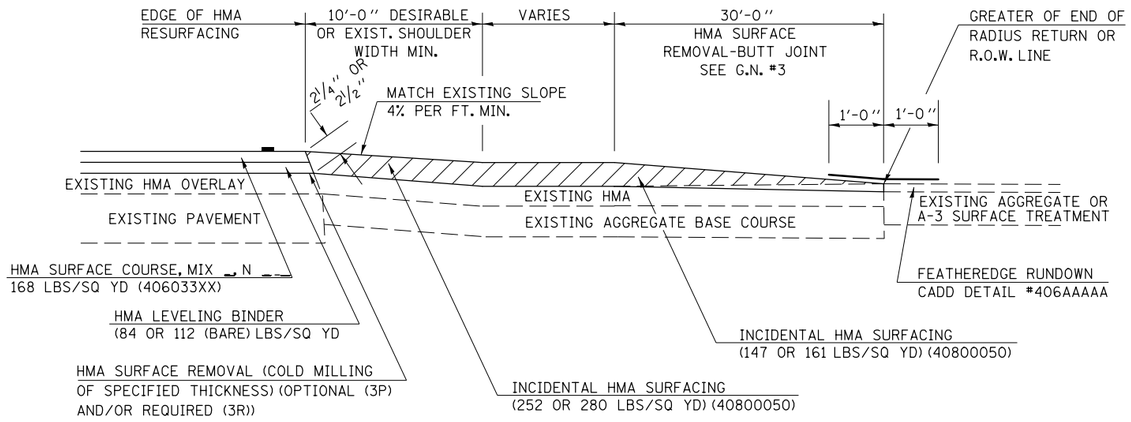
SCALE: NA | SHEET NO. 1 OF 2 SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	97
		CONTRACT NO. 70552		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

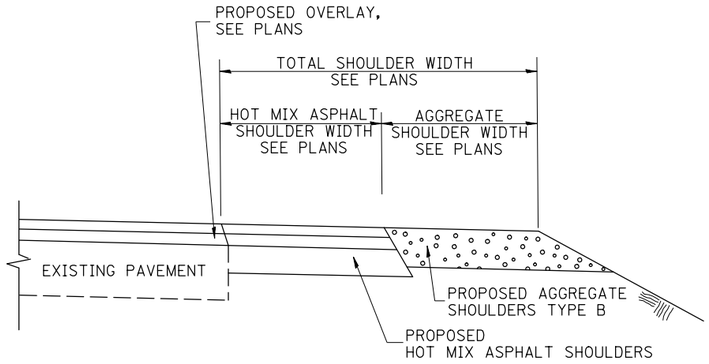
SECTION A-A
EXISTING HMA OR PCC SIDEROAD (>400 ADT)



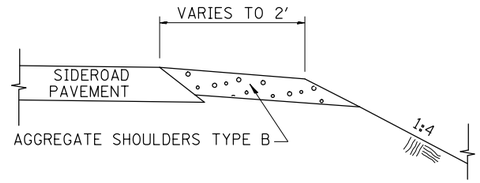
SECTION A-A
EXISTING AGGREGATE OR SEAL COAT SIDEROAD (<400 ADT)



RURAL SIDEROAD DESIGN STANDARDS (PPM 40-06)									
	New Construction & 3R (Existing Width Less Than 20 ft)			3R (Existing Width 20 ft or Greater) & 3P			SMART & Contract Maintenance		
DESIGN ELEMENT	min.	des.	max.	min.	des.	max.	min.	des.	max.
SURFACE WIDTH (FT); (measured at end of radius or row line; greatest distance from edge of traveled way)	24	24	Coordinate with Geometrics Engineer	resurface existing configuration to completion of radius return or row line; greatest distance from edge of traveled way; major sideroads (> 400 adt) shall have "butt joints" constructed whether the entrance is hma or pcc; minor sideroads (< 400 adt) shall have "featheredge rundown" as shown in district cadd detail 406AAAAA			resurface existing configuration with the completion of a 10 ft. featheredge rundown for ALL sideroads as shown in district cadd detail 406AAAAA		
RADIUS (FT)	30	30							
SHOULDER WIDTH (FT)	4	8	10						
SHOULDER SLOPE (%)	2	4	12						
ENTRANCE GRADE (%)	1	1 to 4	4						
BREAKOVER (%)	0	5	10						
SIDE SLOPE	1:10	1:6	1:4						
INTERSECTION ANGLE	60	75 to 90							
SURFACE TYPE									
INCIDENTAL HMA SURFACING (INCH)	4			taper from 2 1/4" to 1 1/2" or featheredge			taper from 1 1/2" to featheredge		
AGGREGATE BASE COURSE, TYPE A (INCH)	8	4		if applicable use item: 35800100 Preparation of Base					
PCC PAVEMENT (INCH)		8							



SECTION B-B
MAINLINE SHOULDER TREATMENT



SECTION C-C
SIDEROAD SHOULDER TREATMENT

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

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	PLOT SCALE = 40.0000 ' / in.	DRAWN - ___	REVISED - 09/21/07 KAG		
	PLOT DATE = 8/22/2011	CHECKED - ___	REVISED - 12/21/09 KJI		SCALE: NA SHEET NO. 2 OF 2 SHEETS STA. ____ TO STA. ____
		DATE - _____	REVISED - ___		

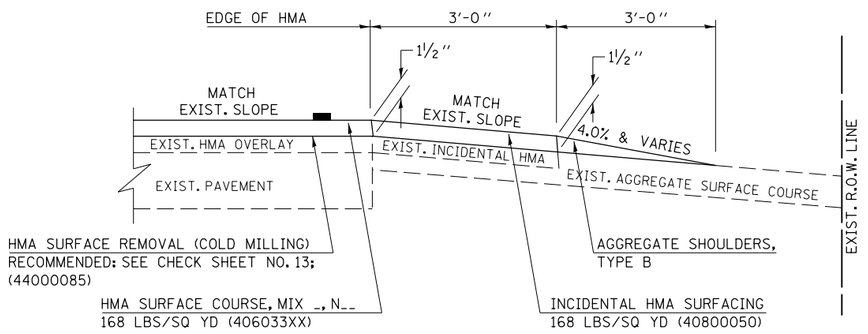
DISTRICT 5 DETAIL NO. 408000AA

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	98
		CONTRACT NO. 70552		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

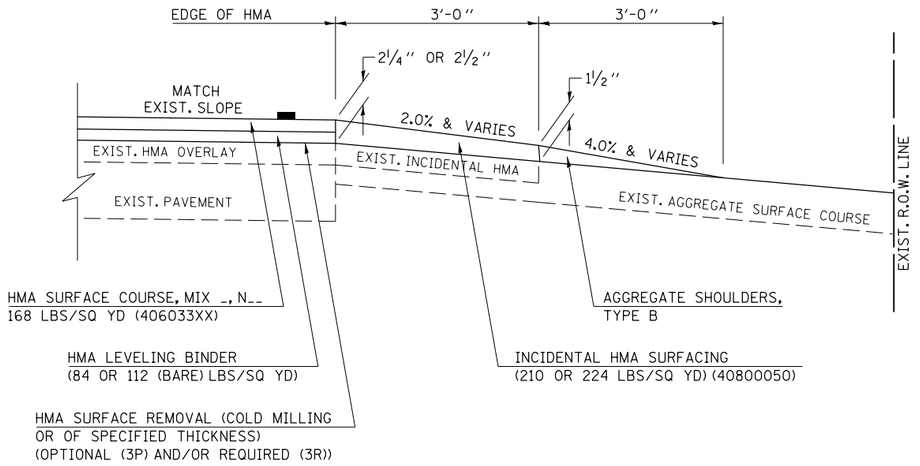
PROJECTS WITHOUT RECONSTRUCTION

("3R" WITHOUT RECONSTRUCTION, 3P, SMART AND CM)

S.M.A.R.T. IMPROVEMENTS
(POLICY RESURFACING; BDE 53-4.03; 1½")



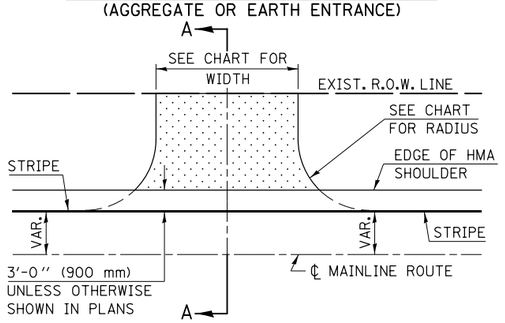
"3P" OR "3R" IMPROVEMENTS
(POLICY RESURFACING; BDE 53-4.02; 2¼" OR 2½" ON BARE CONCRETE)



PROJECTS WITH RECONSTRUCTION

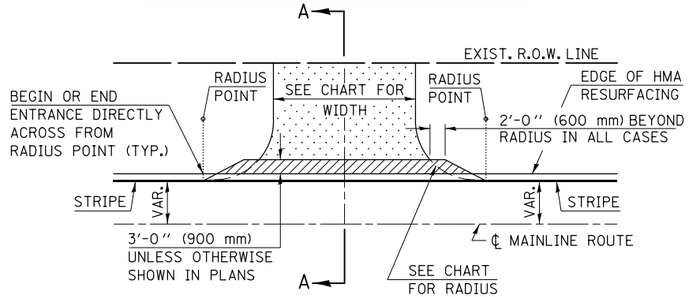
("3R" IMPROVEMENTS AND SMART/3P "SPOT" LOCATIONS)

ADJACENT TO PROPOSED HMA SHOULDERS
(AGGREGATE OR EARTH ENTRANCE)

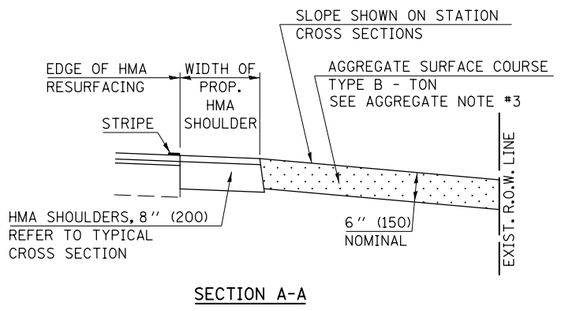


TYPICAL APPLICATION

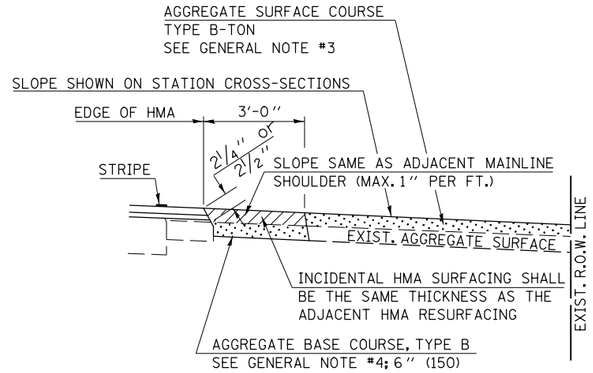
EXISTING AGGREGATE OR EARTH ENTRANCE



TYPICAL APPLICATION



SECTION A-A



SECTION A-A

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

DISTRICT 5 DETAIL NO. 40800050A

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		DRAWN - ___	REVISED - 09/21/07 KAG
	PLOT SCALE = 40.0000 '/ in.	CHECKED - ___	REVISED - 04/30/08 KJT
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIELD ENTRANCES (NONCOMMERCIAL RURAL)

SCALE: NA | SHEET NO. 1 OF 2 SHEETS | STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	99
		CONTRACT NO. 70552		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

RURAL ENTRANCE DESIGN STANDARDS (PPM 40-09)															
	NEW CONSTRUCTION & 3R with RECONSTRUCTION								3R w/out RECONSTRUCTION, 3P, SMART & CM						
	NONCOMMERCIAL								NONCOMMERCIAL						
	PRIVATE & FIELD			FIELD W/ FARM IMPLEMENTS		COMMERCIAL			PRIVATE & FIELD			COMMERCIAL			
DESIGN ELEMENT	min.	des.	max.	min.	max.	min.	des.	max.	min.	des.	max.	min.	des.	max.	
SURFACE WIDTH (FT)	12	16	24	24	30	1 LANE, 1 WAY 14	16	24				1 LANE, 1 WAY			
						2 LANE, 2 WAY 24	30	35				2 LANE, 2 WAY			
RADIUS (FT)	15	25	40	30		20	30	50	resurface existing configuration; existing aggregate or earth entrances shall have the continuation of aggregate shoulders placed behind them						
SHOULDER WIDTH (FT)	2	2		2		1	3								
SHOULDER SLOPE (%)	2	4	6	4		2	4	6							
ENTRANCE GRADE (%)	0	2 to 5	10 or 12	2 to 5	10 or 12	0	2 to 5	8 or 10							
SIDE SLOPE (FT)	1:4	1:6	1:10	1:4	1:6	1:4	1:6	1:10							
SURFACE TYPE															
INCIDENTAL HMA SURFACING (INCH)		2		2		3 or 4			taper from hma resurfacing thickness (2 1/2", 2 1/4" or 1 1/2") to 1 1/2" to minimize aggregate shoulder						
AGGREGATE SURFACE COURSE, TYPE B (INCH)		6		6		8			if applicable use items: Preparation of Base & Aggregate Base Repair; see PPM 30-02						
PCC DRIVEWAY PAVEMENT (INCH)		6						6 or 8							

GENERAL NOTES

1. THE EXISTING SURFACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS.
2. ANY NECESSARY WORK BEHIND THE HMA SHOULDER OR THE INCIDENTAL HMA SURFACING SHALL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
3. EARTH EXCAVATION REQUIRED FOR THE CONSTRUCTION OF THE AGGREGATE SURFACE COURSE SHALL BE INCLUDED IN THE COST OF AGGREGATE SURFACE COURSE.
4. AGGREGATE BASE COURSE, TYPE B, 6'' (150 mm) MIN. SHALL BE USED WHERE IN THE OPINION OF THE ENGINEER THERE IS NOT SUFFICIENT BASE MATERIAL FOR THE PROPOSED ENTRANCES. THIS MATERIAL SHALL GENERALLY BE USED TO WIDEN ANY EXISTING RETURN OR TO CONSTRUCT NEW ENTRANCES WHERE NONE NOW EXISTS.
5. THE AGGREGATE BASE COURSE SHALL BE CONSTRUCTED 12'' (300 mm) WIDER THAN THE SURFACE DIMENSIONS AS SHOWN ABOVE.
6. EXISTING FIELD ENTRANCES OF AGGREGATE OR EARTH WITH NO HMA APRON SHALL NOT RECEIVE A NEW HMA APRON WITHOUT PROPER APPROVAL THROUGH THE BUREAU OF OPERATIONS ''POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS''.
7. TO ASSURE APPROPRIATE ACCESS POLICIES ARE FOLLOWED ALL NEW ACCESS SHALL BE APPLIED FOR THROUGH THE BUREAU OF OPERATIONS PERMIT APPLICATION PROCESS. PLAN PREPARATION MEMORANDUMS 40-09 AND 40-11 ALONG WITH DISTRICT CONSTRUCTION MEMORANDUM 03/14 DISCUSS THIS PROCEDURE.

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

DISTRICT 5 DETAIL NO. 40800050A

FILE NAME = c:\pw_work\pwidot\hoganbj\d0142533\D570552-sht-details.CEL	USER NAME = hoganbj	DESIGNED - ____	REVISED - 12/01/06 TJB
		DRAWN - ____	REVISED - 09/21/07 KAG
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ____	REVISED - 04/30/08 KJT
	PLOT DATE = 8/22/2011	DATE - _____	REVISED - ____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIELD ENTRANCES (NONCOMMERCIAL RURAL)

SCALE: NA_____ | SHEET NO. 2 OF 2 SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	100
		CONTRACT NO. 70552		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		