03-03-2017 LETTING ITEM 004

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	1
	ILLINOIS	CONTRACT NO. 62B02		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

FAP ROUTE 307: IL 64
AT E FERSON CREEK (0.9 MI E OF IL 47)
AT MILL CREEK TRIBUTARY (2.4 MI E OF IL 47)
SECTION 2015-041B
PROJECT ACNHPP-0307(042)
CULVERT REPLACEMENT
KANE COUNTY

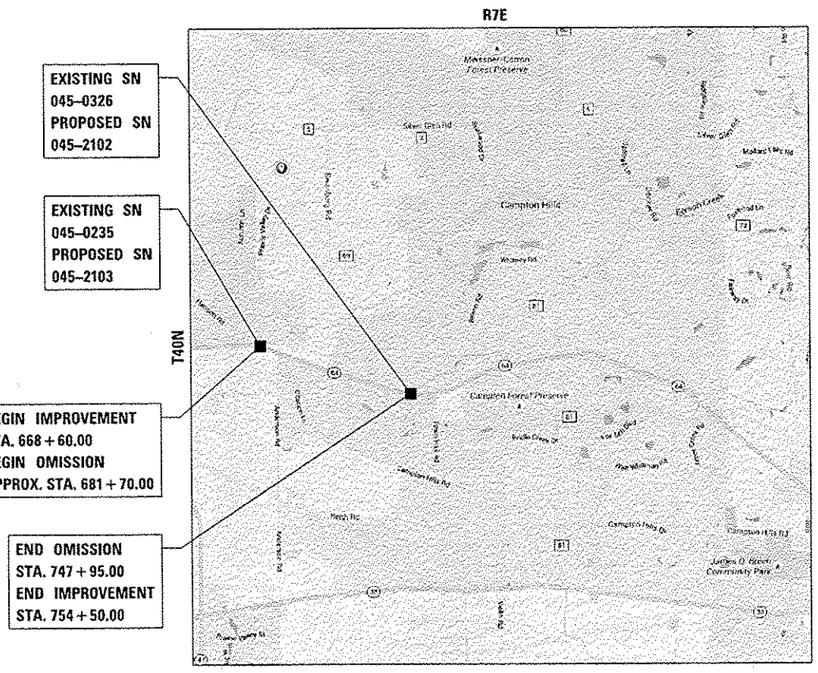
FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

IMPROVEMENTS ARE LOCATED IN THE VILLAGES OF LILY LAKE AND CAMPTON HILLS

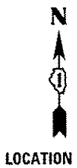
TRAFFIC DATA
FUNCTIONAL CLASSIFICATION: PRINCIPAL ARTERIAL
2015 ADT = 5900
P.V. = 91.19% S.U. = 2.88% M.U. = 5.93%
POSTED SPEED = 55 MPH
DESIGN SPEED = 60 MPH

C-91-369-15



CAMPTON TOWNSHIP

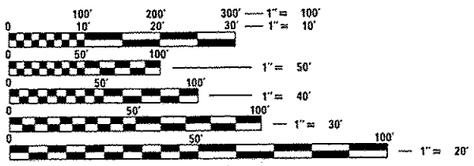
GROSS LENGTH = 8590.00 FT. = 1.627 MILE
NET LENGTH = 1965.00 FT. = 0.372 MILE



LOCATION MAP
NOT TO SCALE

D-91-369-15

LOCATION OF SECTION INDICATED THUS: –



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

JOSEPH D. HAVEL
062-042720
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Signed:
Date: 12/09/2016
License Expires: 11/30/2017
The seal shown above is valid for Sheets 1-21.

LICENSED STRUCTURAL ENGINEER
CHRIS LINNEMAN
081-006445
STATE OF ILLINOIS

Signed:
Date: 12/09/2016
License Expires: 11/30/2018
The seal shown above is valid for Sheets 22-42.

EFK•Moen, LLC
Civil Engineering Design
125 South Wacker Dr, Suite 2090
Chicago, IL 60606
Phone 312-396-4065

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 8 20 16
REGIONAL ENGINEER
Jan 27 20 17
ENGINEER OF DESIGN AND ENVIRONMENT
Jan 27 20 17
DIRECTOR OF PROGRAM DEVELOPMENT

PROJECT ENGINEER: MICHELLE AQUINO (847) 221-3053
PROJECT MANAGER: ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 62B02

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

HIGHWAY STANDARDS

280001-07	TEMPORARY EROSION CONTROL SYSTEMS
442201-03	CLASS D PATCHES
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
630001-11	STEEL PLATE BEAM GUARDRAIL
630106-02	LONG-SPAN GUARDRAIL OVER CULVERT
630301-07	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
642001-02	SHOULDER RUMBLE STRIPS, 16 IN.
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5M) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600mm) FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > OR = 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701321-16	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701901-06	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE VILLAGES OF LILY LAKE, CAMPTON HILLS, AND CAMPTON TOWNSHIP.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION OF ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, IDOT'S COMMUNICATIONS CENTER, SPRINGFIELD TRUCK PERMIT SECTION AND OTHER AGENCIES AFFECTED BY THE CLOSURE. THE CONTRACTOR SHALL ALSO RESPONSIBLE FOR POSTING SIGNS THAT WILL INDICATE THE DATES THE CLOSURE WILL BE IN PLACE.

4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

5. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD, FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

7. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

8. THE ENGINEER SHALL CONTACT DON CHIARUGI, AREA TRAFFIC FIELD ENGINEER, AT DON.CHIARUGI@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

9. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

10. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

11. THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN WILL NOT BE PAID FOR SEPARATELY, BUT ARE INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

12. ROW IS BASED ON CENTER OF ROADWAY. A DETAILED ROW SURVEY WAS NOT PERFORMED. ROW SHOULD BE VERIFIED BEFORE START OF CONSTRUCTION.

13. EARTH EXCAVATION PAY ITEM INCLUDES PLACING AND COMPACTING EMBANKMENT AND LEGAL OFFSITE DISPOSAL OF EXCESS MATERIAL.

14. DE-ENERGIZING COMED'S DISTRIBUTION LINES (LESS THAN OR EQUAL TO 34,000 VOLTS) OR TRANSMISSION LINES (GREATER THAN 34,000 VOLTS) MAY BE NECESSARY IN ORDER TO ACCOMMODATE CONTRACTOR'S EQUIPMENT. COSTS MAY BE INVOLVED. CALL 1 (800) EDISON1.

15. THE REMOVAL OF GUARDRAIL TERMINAL SECTIONS SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR "GUARDRAIL REMOVAL".

16. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

17. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.

18. SAW CUTS WILL NOT BE PAID FOR SEPARATELY, BUT ARE INCLUDED IN THE "PAVED SHOULDER REMOVAL", "PAVEMENT REMOVAL", AND "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)" PAY ITEMS.

19. SUBBASE GRANULAR MATERIAL, TYPE B SHALL BE CA-6 GRADATION.

COMMITMENTS

1. THE CONSTRUCTION RESIDENT ENGINEER WILL CONTACT THE FOREST PRESERVE DISTRICT OF KANE COUNTY PRIOR TO THE START OF CONSTRUCTION TO INFORM THEM OF THE INITIATION OF CONSTRUCTION ACTIVITIES NEAR THEIR PROPERTIES.

FILE NAME = $FILEL$ / $MODELNAME$	USER NAME = mcw	DESIGNED - JH	REVISED -
		DRAWN - MW	REVISED -
	PLOT SCALE = 100.0000 '/ in.	CHECKED - PJK	REVISED -
	PLOT DATE = 1/4/2017	DATE - 01/05/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, LIST OF IDOT HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	2
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004 CONSTRUCTION CODE 80% FEDERAL 20% STATE ROADWAY FERSON CREEK	80% FEDERAL 20% STATE ROADWAY MILL CREEK
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	26	12	14
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	36	0	36
20200100	EARTH EXCAVATION	CU YD	1165	515	650
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	124	124	0
20700220	POROUS GRANULAR EMBANKMENT	CU YD	670	337	333
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	92	36	56
25000210	SEEDING, CLASS 2A	ACRE	0.50	0.25	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	46	23	23
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	46	23	23
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	46	23	23
25100630	EROSION CONTROL BLANKET	SQ YD	816	320	496
28000400	PERIMETER EROSION BARRIER	FOOT	650	252	398
28100107	STONE RIPRAP, CLASS A4	SQ YD	203	68	135
28200200	FILTER FABRIC	SQ YD	203	68	135

14

• SPECIAL PROVISION REQUIRED.

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		DRAWN - MW	REVISED -
©MODELNAME©	PLOT SCALE = 100.0000 '/ in.	CHECKED - PJK	REVISED -
	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	3
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

REV

				URBAN	0604
				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
				ROADWAY	ROADWAY
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	FERSON CREEK	MILL CREEK
• 30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	13	13	0
• 30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	273	107	166
3101100	SUBBASE GRANULAR MATERIAL, TYPE B	CU YD	224	61	163
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	119	109	10
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	231	118	113
40701881	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10"	SQ YD	321	155	166
44000100	PAVEMENT REMOVAL	SQ YD	318	157	161
44004250	PAVED SHOULDER REMOVAL	SQ YD	193	104	89
48101200	AGGREGATE SHOULDERS, TYPE B	TON	4	0	4
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	68	29	39
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	190	106	84
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1	1	0
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1	0	1
50200100	STRUCTURE EXCAVATION	CU YD	473	0	473
50300225	CONCRETE STRUCTURES	CU YD	78.5	0	78.5

14

• SPECIAL PROVISION REQUIRED.

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		DRAWN - MW	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - PJK	REVISED -
●MODELNAME●	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	4
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

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URBAN

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FEDERAL 20% STATE ROADWAY FERSON CREEK	CONSTRUCTION CODE 80% FEDERAL 20% STATE ROADWAY MILL CREEK
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	38760	18150	20610
	50800515	BAR SPLICERS	EACH	177	97	80
	51500100	NAME PLATES	EACH	2	1	1
	52200010	TEMPORARY SHEET PILING	SQ FT	4000	1220	2780
	54003000	CONCRETE BOX CULVERTS	CU YD	179.0	117.9	61.1
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	39	0	39
	63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	62.5	0.0	62.5
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8	4	4
	63200310	GUARDRAIL REMOVAL	FOOT	896	463	433
	64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	2785	2785	0
*	66900200	Non-Special Waste Disposal	CU YD	1140	445	695
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	3	3
*	66900450	Special Waste Plans and Reports	LSUM	1	0.5	0.5
	67100100	MOBILIZATION	L SUM	1	0.5	0.5
*	66900530	Soil Disposal Analysis	EACH	2	1	1
	70106700	TEMPORARY RUMBLE STRIPS	EACH	12	6	6
	70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	3929	2008	1921

14

• SPECIAL PROVISION REQUIRED.

* Specialty Item

FILE NAME = *FILEL*	USER NAME = mow	DESIGNED - JH	REVISED -
MODELNAME		DRAWN - MW	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - PJK	REVISED -
	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	5
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

REV

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004 CONSTRUCTION CODE 80% FEDERAL 20% STATE ROADWAY FERSON CREEK	80% FEDERAL 20% STATE ROADWAY MILL CREEK
70300570	PAVEMENT MARKING TAPE, TYPE III 24"	FOOT	48	24	24
70400100	TEMPORARY CONCRETE BARRIER	FOOT	687.5	475.0	212.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	425.0	212.5	212.5
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	6	4	2
70600332	IMPACT ATTENUATORS, RELOCATE (FULLYREDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	2	2
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3820	1350	2470
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	86	68	18
* 78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	32	11	21
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	47	29	18
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	86	68	18
* 89000050	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	2	1	1
X0322128	MEMBRANE WATERPROOFING FOR BURIED STRUCTURES	SQ YD	195	116	79
* • X0326276	TEMPORARY LIGHTING FOR SINGLE LANE STAGING	L SUM	1	0.5	0.5
• X0326898	CENTER LINE - RUMBLE STRIP - 16"	FOOT	1310	1310	0

14

• SPECIAL PROVISION REQUIRED.

* Specialty Item

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		DRAWN - MW	REVISED -
MODELNAME	PLOT SCALE = 100.0000 ' / in.	CHECKED - PJK	REVISED -
	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	6
		CONTRACT NO. 62B02		
	ILLINOIS	FED. AID PROJECT		

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URBAN

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004 CONSTRUCTION CODE 80% FEDERAL 20% STATE ROADWAY FERSON CREEK	80% FEDERAL 20% STATE ROADWAY MILL CREEK
	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1256	851	405
•	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.5	0.5
•	X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	267	165	102
•	X7800815	HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINE - 4 INCH	FOOT	2620	2620	0
•	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.5	0.5
•	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	197	78	119
•	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	39	0	39
X •	Z0054505	ROCK FILL - REPLACEMENT	TON	187	187	0
•	Z0062456	TEMPORARY PAVEMENT	SQ YD	119	109	10
Ø	Z0076600	TRAINEES	HOUR	500	500	
•	X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	1324	678	646
Ø	Z0076604	TRAINEES- TRAINING PROGRAM GRADUATE	HOUR	500	500	
X •	X2300009	LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN (SPECIAL)	FOOT	337.50	0.00	337.50
X •	X2300010	LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN (SPECIAL)	FOOT	350.00	350.00	0.00

12

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• SPECIAL PROVISION REQUIRED.

X Specialty Item

FILE NAME =	USER NAME = mcw	DESIGNED - JH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES					F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILEL		DRAWN - MW	REVISED -							307	2015-041B	KANE	51	7
	PLOT SCALE = 100.0000 ' / in.	CHECKED - PJK	REVISED -									CONTRACT NO. 62B02		
MODELNAME	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT		

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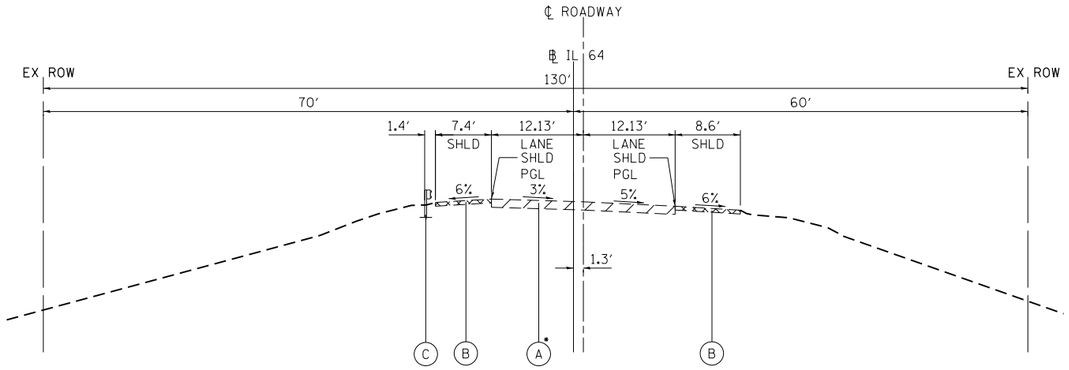
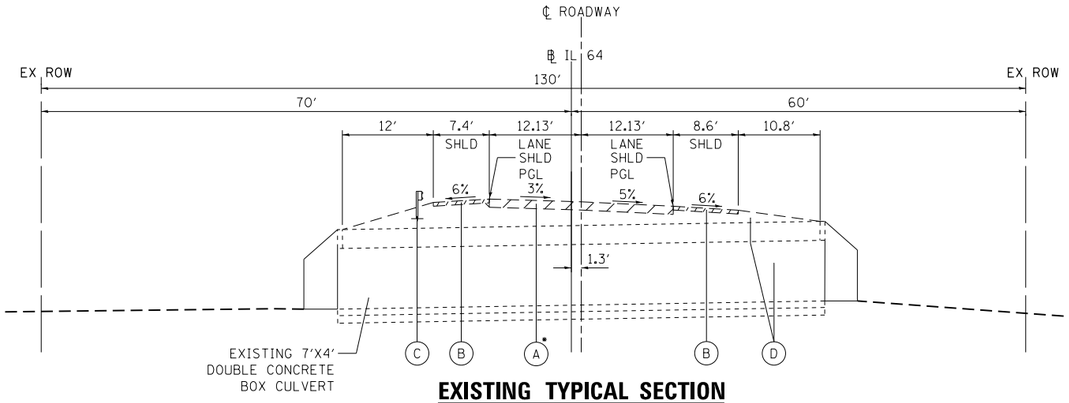


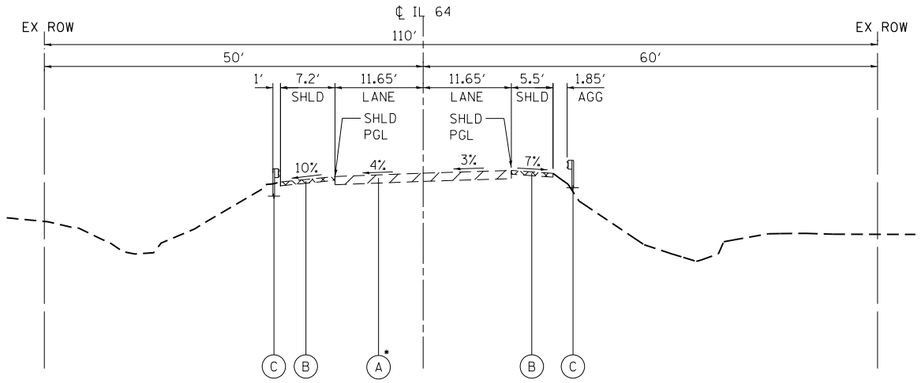
EXISTING TYPICAL SECTION

IL 64 AT FERSON CREEK
STA. 672+48 TO STA. 672+69
STA. 672+85 TO STA. 673+06



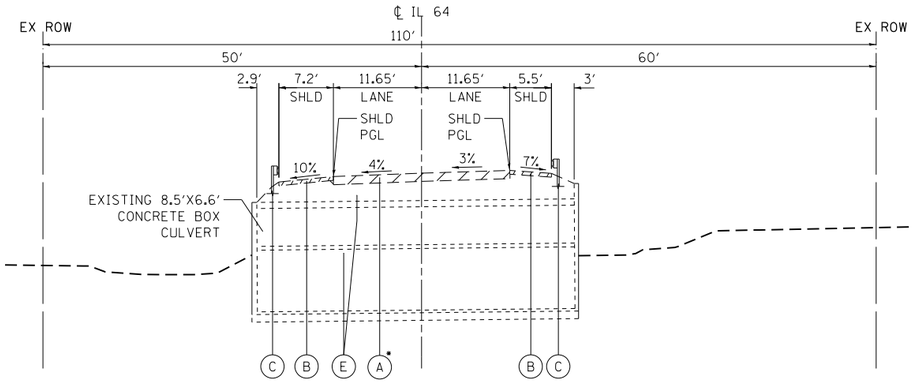
EXISTING TYPICAL SECTION

IL 64 AT FERSON CREEK
STA. 672+69 TO STA. 672+85



EXISTING TYPICAL SECTION

IL 64 AT MILL CREEK
STA. 750+90 TO STA. 751+15
STA. 751+26 TO STA. 751+52



EXISTING TYPICAL SECTION

IL 64 AT MILL CREEK
STA. 751+15 TO STA. 751+26

EXISTING LEGEND

- (A) PAVEMENT REMOVAL (44000100, SQ YD)
- (B) PAVED SHOULDER REMOVAL (44004250, SQ YD)
- (C) GUARDRAIL REMOVAL (63200310, FOOT)
- (D) REMOVAL OF EXISTING STRUCTURES NO. 1 (50100300, EACH)
- (E) REMOVAL OF EXISTING STRUCTURES NO. 2 (50100400, EACH)

• SEE SOIL BORING LOGS FOR EXISTING PAVEMENT THICKNESS.

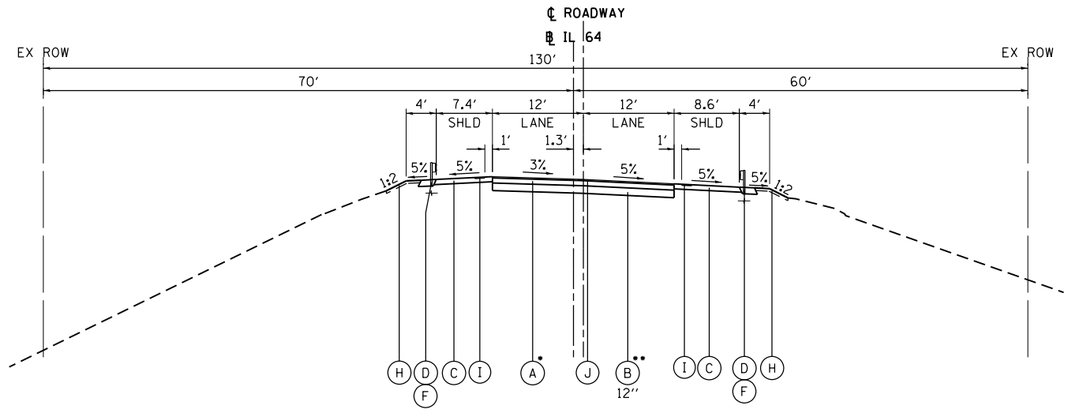
FILE NAME =	USER NAME = mcw	DESIGNED - JH	REVISED -
$FILEL$		DRAWN - MW	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - PJK	REVISED -
$MODELNAME$	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS

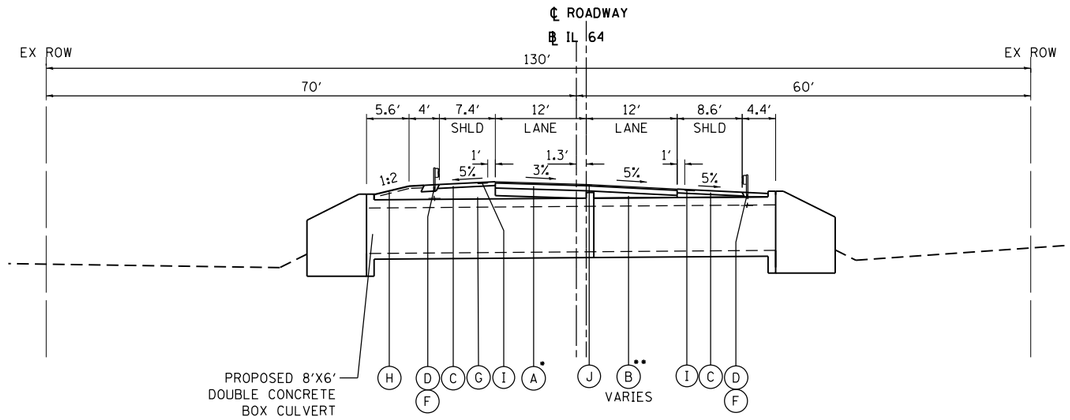
SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	8
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			



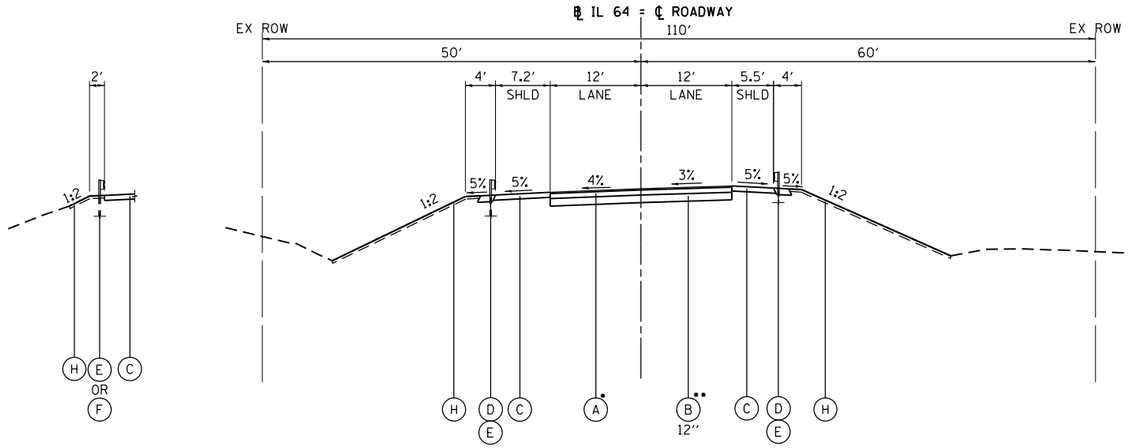
PROPOSED TYPICAL SECTION

IL 64 AT FERSON CREEK
STA. 672+48 TO STA. 672+68
STA. 672+86 TO STA. 673+06



PROPOSED TYPICAL SECTION

IL 64 AT FERSON CREEK
STA. 672+68 TO STA. 672+86

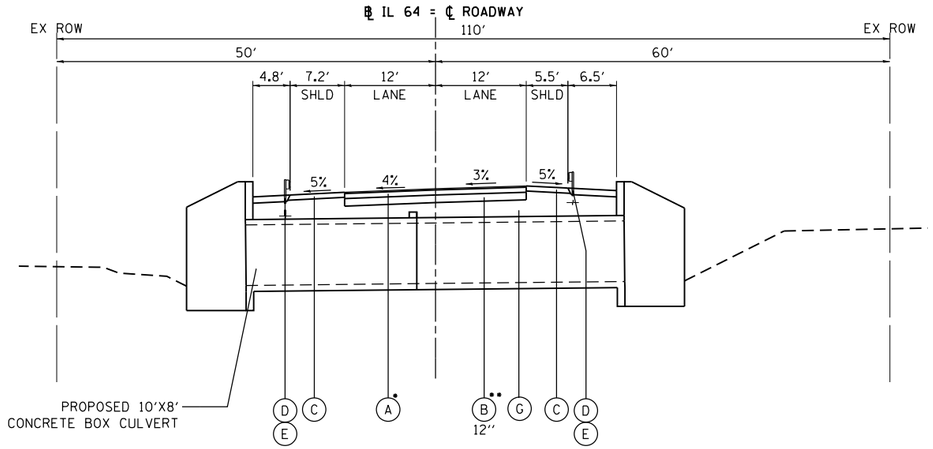


GUARDRAIL DETAIL

IL 64 AT FERSON AND MILL CREEKS
OUTSIDE OF PATCH LIMITS

PROPOSED TYPICAL SECTION

IL 64 AT MILL CREEK
STA. 750+90 TO STA. 751+15
STA. 751+27 TO STA. 751+52



PROPOSED TYPICAL SECTION

IL 64 AT MILL CREEK
STA. 751+15 TO STA. 751+27

PROPOSED LEGEND

- (A) HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10″ (40701881, SQ YD)
- (B) AGGREGATE SUBGRADE IMPROVEMENT 12″ (30300112, SQ YD)
  OR
  AGGREGATE SUBGRADE IMPROVEMENT (30300001, CU YD)
- (C) HOT-MIX ASPHALT SHOULDERS, 10″ (48203037, SQ YD)
- (D) AGGREGATE SHOULDERS, TYPE B 8″ (48101600, SQ YD)
- (E) LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN (SPECIAL) (FOOT)
- (F) LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN (SPECIAL) (FOOT)
- (G) SUBBASE GRANULAR MATERIAL, TYPE B (31101100, CU YD) •••
- (H) RESTORATION LANDSCAPING:
  - EROSION CONTROL BLANKET (25100630, SQ YD)
  - SEEDING, CLASS 2A (25000210, ACRE)
  - TOPSOIL EXCAVATION AND PLACEMENT (21101505, CU YD)
- (I) SHOULDER RUMBLE STRIPS, 16 INCH (64200116, FOOT)
- (J) CENTER LINE - RUMBLE STRIP - 16″ (X0326898, FOOT)

- • SEE MIXTURES TABLE ON SHEET NO. 10.
- •• AGGREGATE SUBGRADE IMPROVEMENT IS 12″ THICK (PAY ITEM 30300112), EXCEPT OVER THE FERSON CREEK CULVERT. THE THICKNESS VARIES OVER THE FERSON CREEK CULVERT (PAY ITEM 30300001).
- ••• SUBBASE GRANULAR MATERIAL, TYPE B (31101100, CU YD) OVER THE CULVERT.
  POROUS GRANULAR EMBANKMENT (20700220, CU YD) ON THE SIDES OF THE CULVERT.

FILE NAME = $FILEL$	USER NAME = mcw	DESIGNED - JH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TYPICAL SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - MW	REVISED -					307	2015-041B	KANE	51	9
	PLOT SCALE = 20.0000 ' / in.	CHECKED - PJK	REVISED -								CONTRACT NO. 62B02	
$MODELNAME$	PLOT DATE = 1/4/2017	DATE - 01/05/2017	REVISED -		SCALE: N.T.S.	SHEET OF SHEETS	STA. TO STA.			ILLINOIS	FED. AID PROJECT	

MIXTURES TABLE		
MIXTURE TYPE	AIR VOIDS @ Ndes	QUALITY MANAGEMENT PROGRAM (QMP)
PAVEMENT RECONSTRUCTION		
10" FULL DEPTH HMA PAVEMENT		
HOT-MIX-ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 MM); 2"	4% @ 70 Gyr.	QC/QA
HOT-MIX-ASPHALT BINDER COURSE, IL-19.0, N70; 8", MIN 2-¼" LIFTS	4% @ 70 Gyr.	QC/QA
12" AGGREGATE SUBGRADE IMPROVEMENT		
HMA SHOULDERS		
HOT-MIX-ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 MM); 2"	4% @ 70 Gyr.	QC/QA
HOT-MIX-ASPHALT BINDER COURSE, IL-19.0, N70; 8", MIN 2-¼" LIFTS	4% @ 70 Gyr.	QC/QA
TEMPORARY PAVEMENT		
8" FULL DEPTH TEMPORARY HMA PAVEMENT		
HOT-MIX-ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 MM); 2"	4% @ 70 Gyr.	QC/QA
HOT-MIX-ASPHALT BINDER COURSE, IL-19.0, N70; 6", MIN 2-¼" LIFTS	4% @ 70 Gyr.	QC/QA
4" SUBBASE GRANULAR MATERIAL, TYPE B (CA-6)		
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)		

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURE QUANTITIES IS 112 LBS/SQYD/IN.
2. FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
3. FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.
4. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

EARTHWORK SCHEDULE				
LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJUSTED FOR 15% SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) SHORTAGE (-) (CU YD)
FERSON CREEK CULVERT	455	385	60	
FERSON CREEK RIPRAP	60	50		
FERSON CREEK TOTAL	515	435	60	375
MILL CREEK CULVERT	530	450	340	
MILL CREEK RIPRAP	120	105		
BROOKSIDE W DR CULVERT			25	
MILL CREEK TOTAL	650	555	365	190
TOTAL	1165	990	425	565

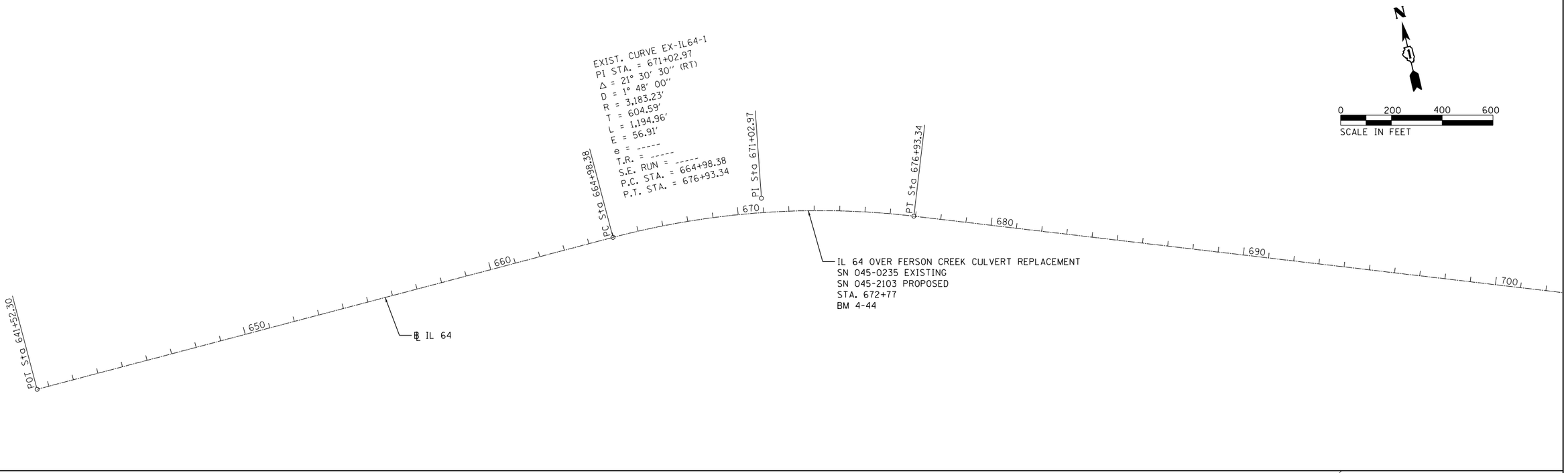
FILE NAME =	USER NAME = mcw	DESIGNED - JH	REVISED -
$FILEL$		DRAWN - MW	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - PJK	REVISED -
$MODELNAME$	PLOT DATE = 1/5/2017	DATE - 01/05/2017	REVISED -

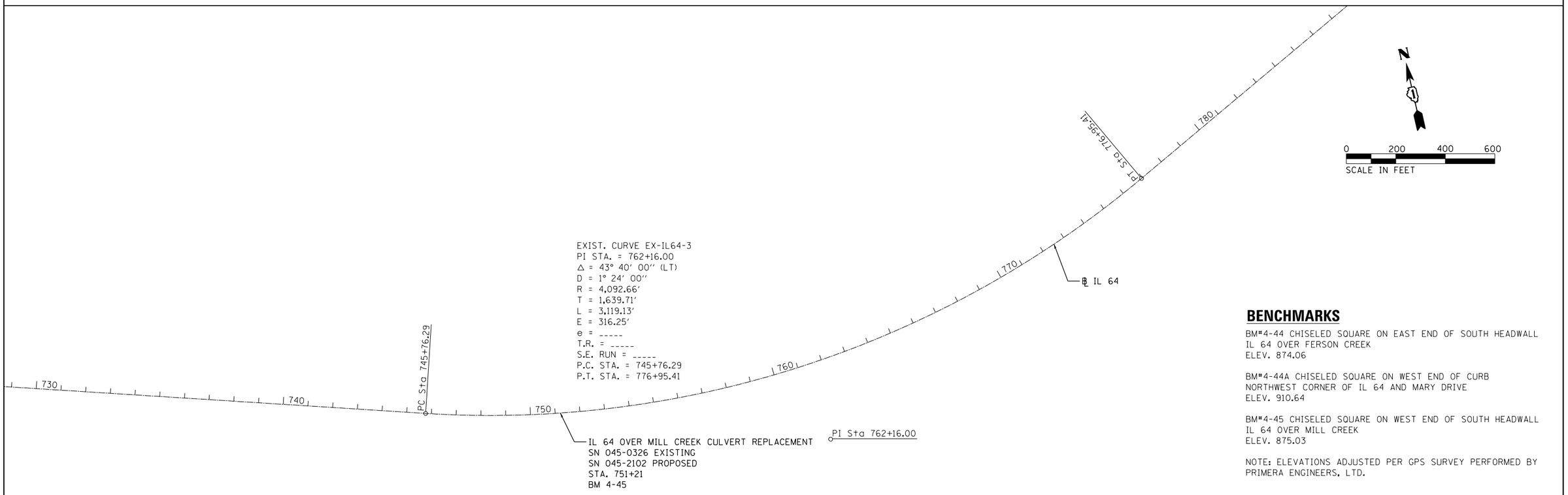
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	10
		CONTRACT NO. 62B02		
	ILLINOIS	FED. AID PROJECT		





BENCHMARKS

BM#4-44 CHISELED SQUARE ON EAST END OF SOUTH HEADWALL
IL 64 OVER FERSON CREEK
ELEV. 874.06

BM#4-44A CHISELED SQUARE ON WEST END OF CURB
NORTHWEST CORNER OF IL 64 AND MARY DRIVE
ELEV. 910.64

BM#4-45 CHISELED SQUARE ON WEST END OF SOUTH HEADWALL
IL 64 OVER MILL CREEK
ELEV. 875.03

NOTE: ELEVATIONS ADJUSTED PER GPS SURVEY PERFORMED BY PRIMERA ENGINEERS, LTD.

FILE NAME =	USER NAME = mcw	DESIGNED - JH	REVISED -
$FILEL$		DRAWN - MW	REVISED -
	PLOT SCALE = 400.0000 ' / in.	CHECKED - PJK	REVISED -
$MODELNAME$	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT AND BENCHMARKS

SCALE: 1"=200' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	11
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

PROPOSED LEGEND

(A) HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10" (40701881, SQ YD)

(B) PAVEMENT REMOVAL (44000100, SQ YD)

(C) PAVED SHOULDER REMOVAL (44004250, SQ YD)

(D) GUARDRAIL REMOVAL (63200310, FOOT)

(E) CONCRETE STRUCTURES (50300225, CU YD)

(F) HOT-MIX ASPHALT SHOULDERS, 10" (48203037, SQ YD)

(G) AGGREGATE SHOULDERS, TYPE B 8" (48101600, SQ YD)

(H) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT (63100167, EACH)

(I) LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN (SPECIAL) (FOOT)

(J) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS (63000003, FOOT)

(K) THERMOPLASTIC PAVEMENT MARKING - LINE 4" (78000200, FOOT)

(L) HOT SPRAY THERMOPLASTIC PAVEMENT MARKING - LINE 4 INCH (X7800815, FOOT)

(M) RAISED REFLECTIVE PAVEMENT MARKER (78100100, EACH)

(N) SHOULDER RUMBLE STRIPS, 16 INCH (64200116, FOOT)

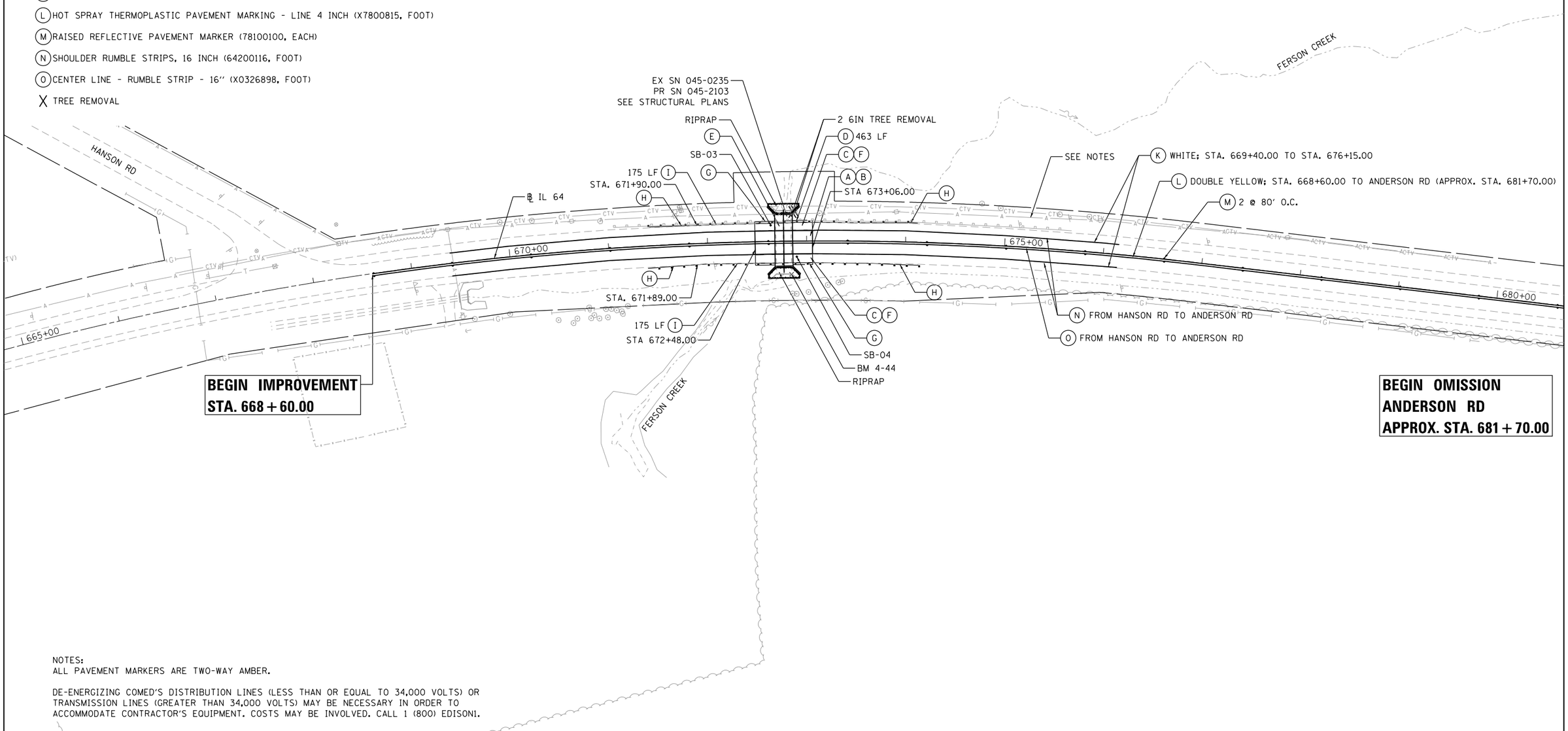
(O) CENTER LINE - RUMBLE STRIP - 16" (X0326898, FOOT)

X TREE REMOVAL

N

0 50 100 150

SCALE IN FEET



NOTES:
ALL PAVEMENT MARKERS ARE TWO-WAY AMBER.

DE-ENERGIZING COMED'S DISTRIBUTION LINES (LESS THAN OR EQUAL TO 34,000 VOLTS) OR TRANSMISSION LINES (GREATER THAN 34,000 VOLTS) MAY BE NECESSARY IN ORDER TO ACCOMMODATE CONTRACTOR'S EQUIPMENT. COSTS MAY BE INVOLVED. CALL 1 (800) EDISON1.

FILE NAME =	USER NAME = mcw	DESIGNED - JH	REVISED -
$FILEL$		DRAWN - MW	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - PJK	REVISED -
$MODELNAME$	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 64 AT FERSON CREEK
ROADWAY PLAN

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	12
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

PROPOSED LEGEND

(A) HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10" (40701881, SQ YD)

(B) PAVEMENT REMOVAL (44000100, SQ YD)

(C) PAVED SHOULDER REMOVAL (44004250, SQ YD)

(D) GUARDRAIL REMOVAL (63200310, FOOT)

(E) CONCRETE STRUCTURES (50300225, CU YD)

(F) HOT-MIX ASPHALT SHOULDERS, 10" (48203037, SQ YD)

(G) AGGREGATE SHOULDERS, TYPE B 8" (48101600, SQ YD)

(H) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT (63100167, EACH)

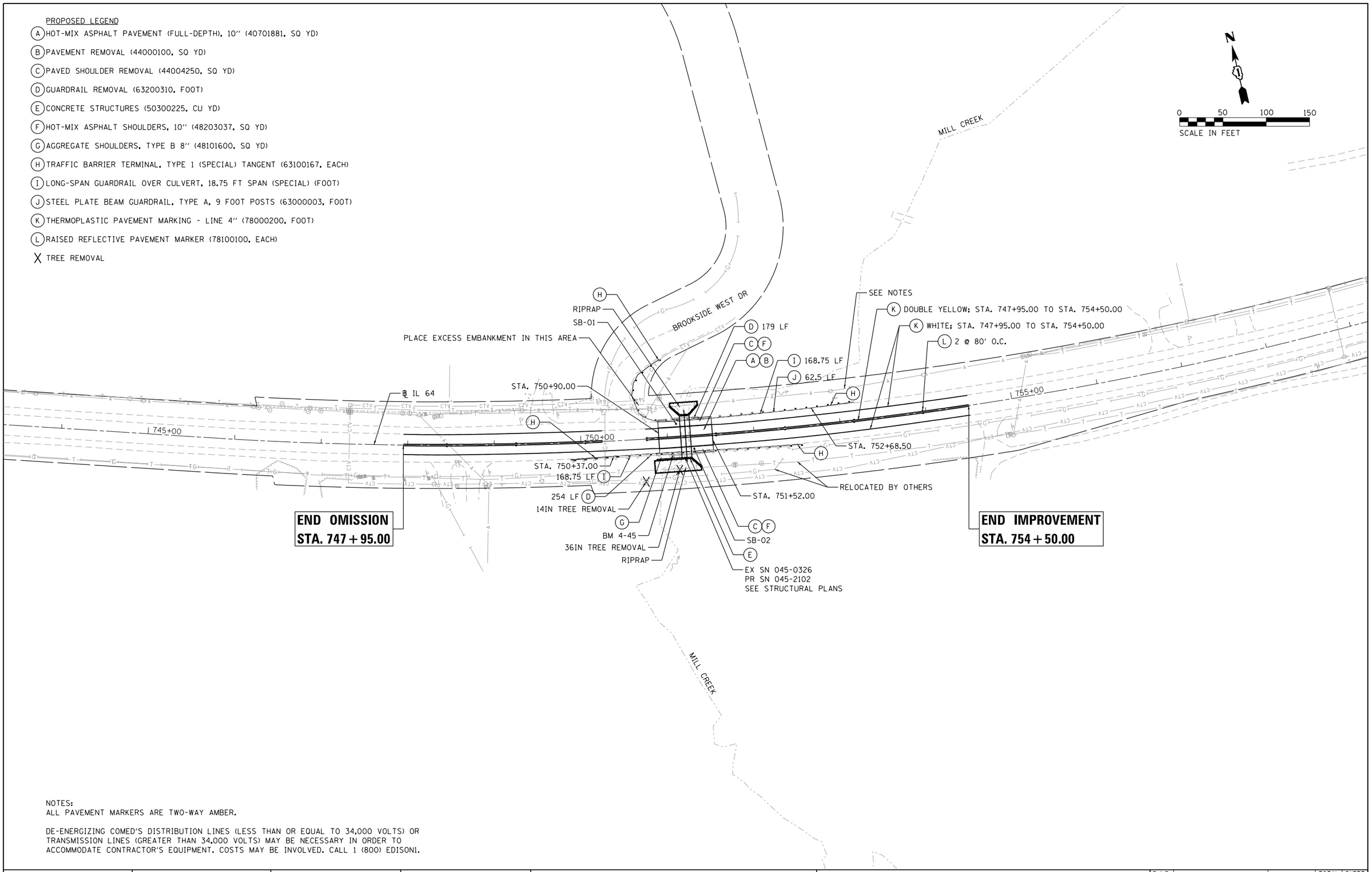
(I) LONG-SPAN GUARDRAIL OVER CULVERT, 18.75 FT SPAN (SPECIAL) (FOOT)

(J) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS (63000003, FOOT)

(K) THERMOPLASTIC PAVEMENT MARKING - LINE 4" (78000200, FOOT)

(L) RAISED REFLECTIVE PAVEMENT MARKER (78100100, EACH)

X TREE REMOVAL



NOTES:
ALL PAVEMENT MARKERS ARE TWO-WAY AMBER.

DE-ENERGIZING COMED'S DISTRIBUTION LINES (LESS THAN OR EQUAL TO 34,000 VOLTS) OR TRANSMISSION LINES (GREATER THAN 34,000 VOLTS) MAY BE NECESSARY IN ORDER TO ACCOMMODATE CONTRACTOR'S EQUIPMENT. COSTS MAY BE INVOLVED. CALL 1 (800) EDISON1.

FILE NAME = $FILEL$	USER NAME = mcw	DESIGNED - JH	REVISED -
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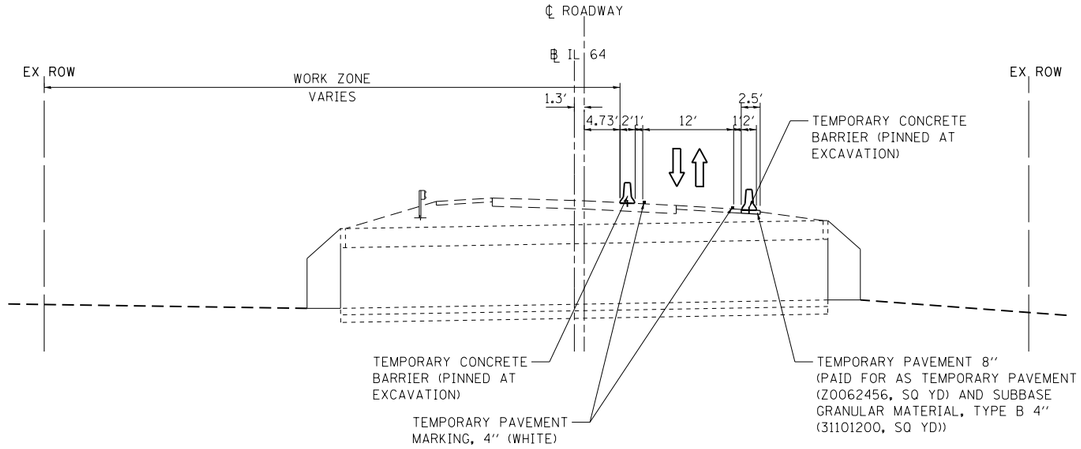
	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 64 AT MILL CREEK
ROADWAY PLAN

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	13
		CONTRACT NO. 62B02		
		ILLINOIS	FED. AID PROJECT	



STAGE 1 TYPICAL SECTION

IL 64 AT FERSON CREEK
STA. 672+48 TO STA. 673+06

PRE-STAGE 1 STAGING NOTES

IL 64 AT FERSON CREEK
STA. 672+48 TO STA. 673+06

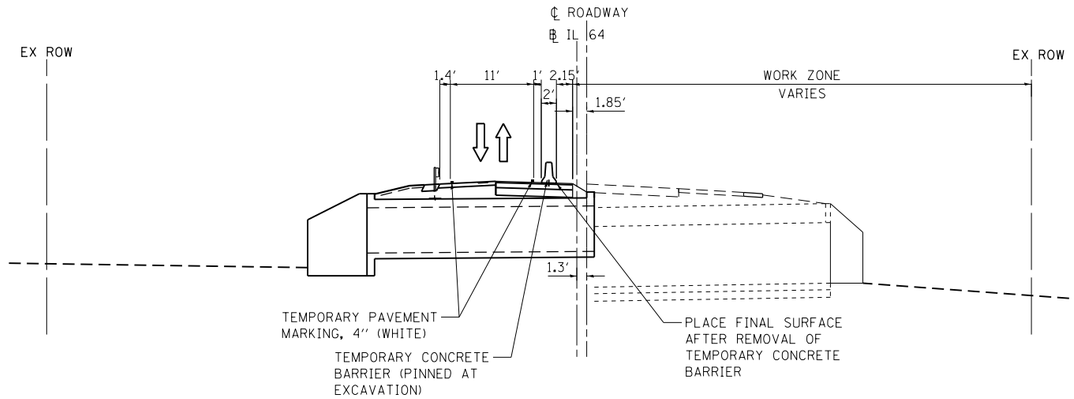
TRAFFIC CONTROL

1. SET UP DAYTIME LANE AND SHOULDER CLOSURE FOR THE EASTBOUND LANE. REFER TO STANDARD 701201 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > OR = TO 45 MPH.

CONSTRUCTION

1. SHIFT EASTBOUND TRAFFIC BY PLACING ALL REQUIRED TRAFFIC CONTROL DEVICES AND UTILIZING FLAGGERS.

2. INSTALL 2.5′ OF TEMPORARY PAVEMENT 8″ (PAID FOR AS TEMPORARY PAVEMENT (Z0062456, SQ YD) AND SUBBASE GRANULAR MATERIAL, TYPE B 4″ (31101200, SQ YD)).



STAGE 2 TYPICAL SECTION

IL 64 AT FERSON CREEK
STA. 672+48 TO STA. 673+06

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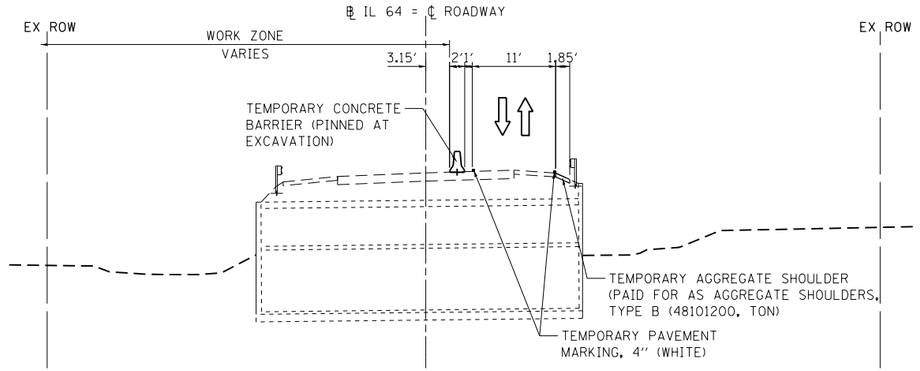
$MODELNAME$	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 64 AT FERSON CREEK
SUGGESTED STAGES OF CONSTRUCTION

SCALE: N.T.S. | SHEET OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	14
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			



STAGE 1 TYPICAL SECTION

IL 64 AT MILL CREEK
STA. 750+90 TO STA. 751+52

PRE-STAGE 1 STAGING NOTES

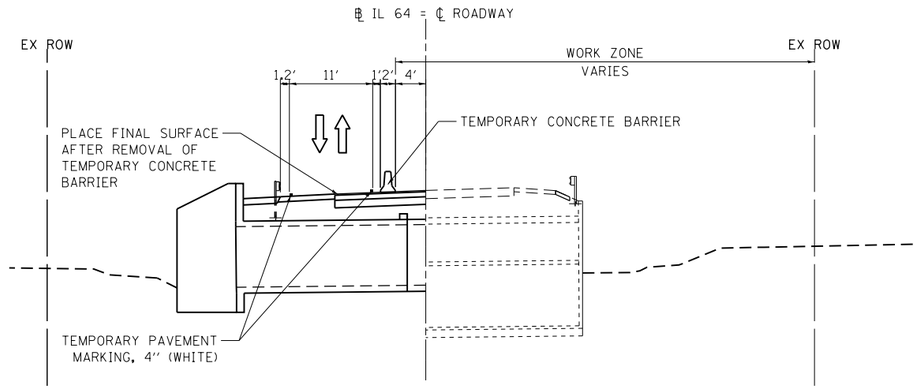
IL 64 AT MILL CREEK
STA. 750+90 TO STA. 751+52

TRAFFIC CONTROL

1. SET UP DAYTIME LANE AND SHOULDER CLOSURE FOR THE EASTBOUND LANE. REFER TO STANDARD 701201 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > OR = TO 45 MPH.

CONSTRUCTION

1. SHIFT EASTBOUND TRAFFIC BY PLACING ALL REQUIRED TRAFFIC CONTROL DEVICES AND UTILIZING FLAGGERS.
2. INSTALL TEMPORARY SHEET PILING ON SOUTHWEST WINGWALL TO STABILIZE SHOULDER.
3. PATCH EASTBOUND SHOULDER AS NEEDED WITH TEMPORARY PAVEMENT 8″ (PAID FOR AS TEMPORARY PAVEMENT (Z0062456, SQ YD) AND SUBBASE GRANULAR MATERIAL, TYPE B 4″ (31101200, SQ YD)).
4. INSTALL 1.85′ OF TEMPORARY AGGREGATE SHOULDER (PAID FOR AS AGGREGATE SHOULDERS, TYPE B (48101200, TON) BETWEEN THE EASTBOUND SHOULDER AND GUARDRAIL.



STAGE 2 TYPICAL SECTION

IL 64 AT MILL CREEK
STA. 750+90 TO STA. 751+52

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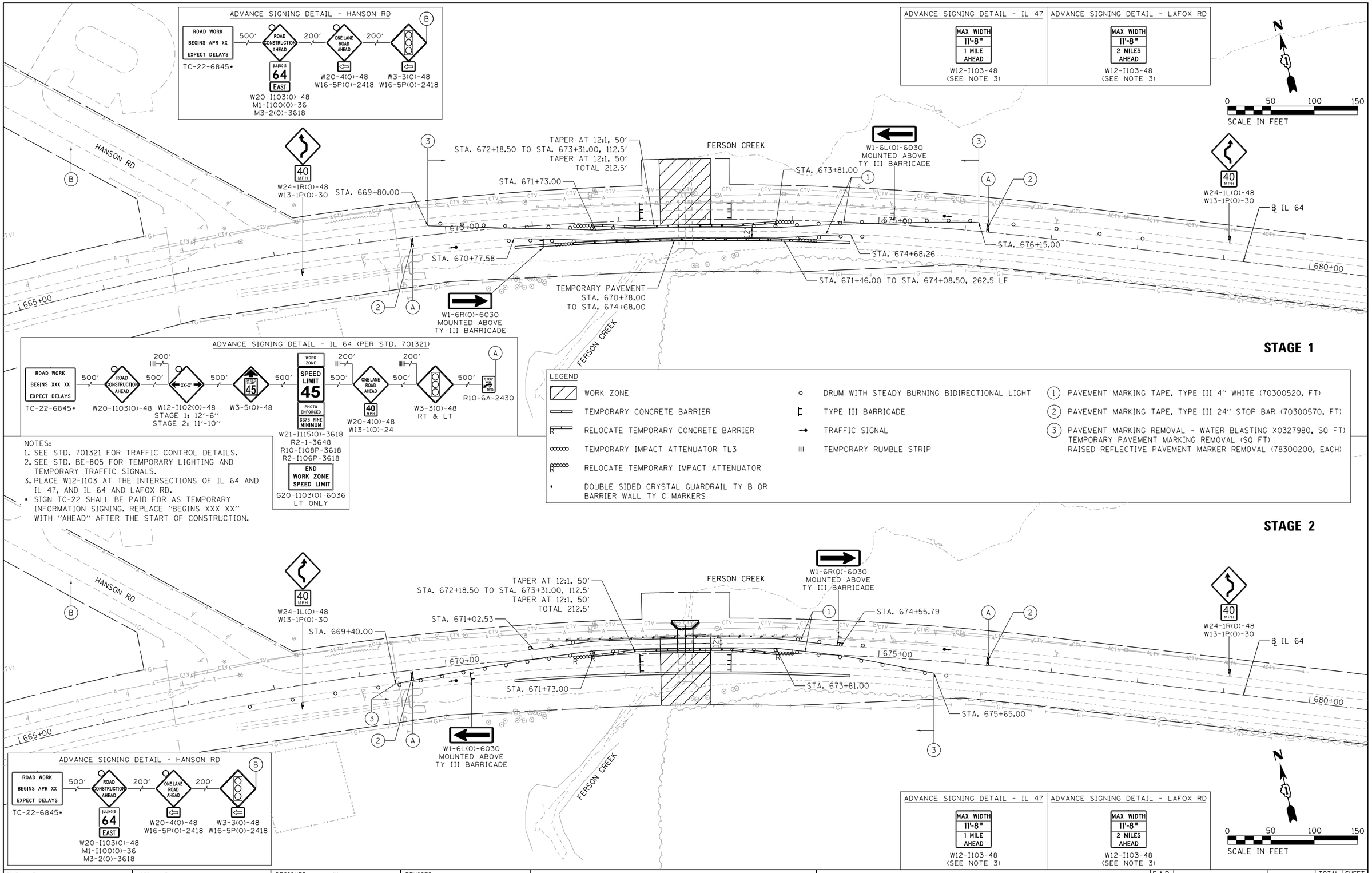
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 64 AT MILL CREEK
SUGGESTED STAGES OF CONSTRUCTION

SCALE: N.T.S. | SHEET OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	15
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			



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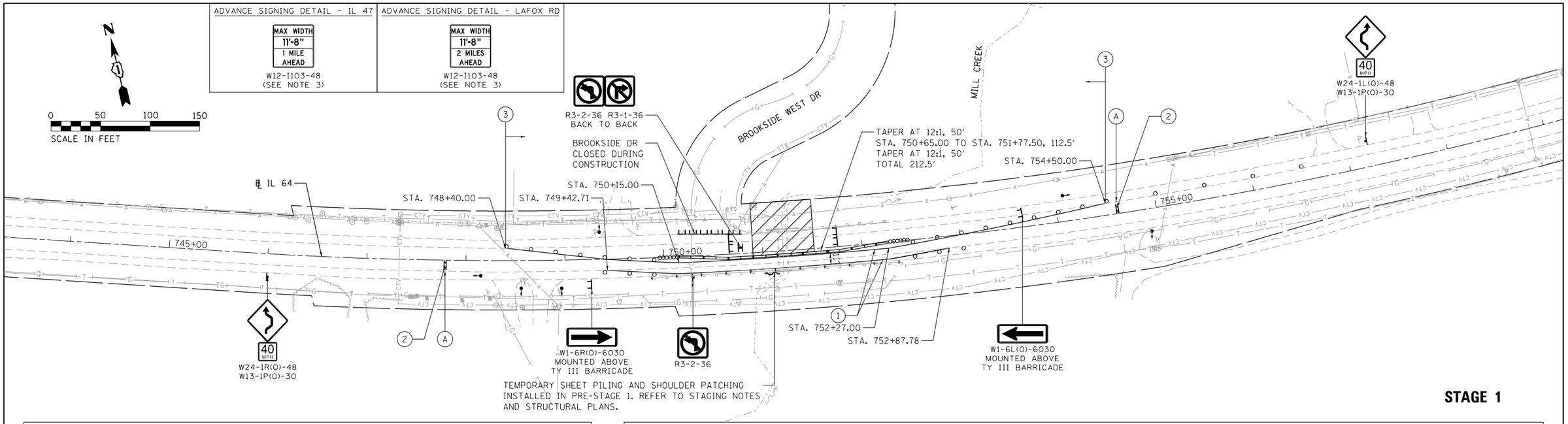
$MODELNAME$	PLOT DATE = 12/13/2016	DATE - 12/09/2016	REVISED -

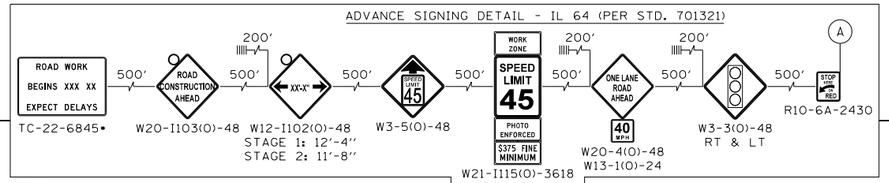
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 64 AT FERSON CREEK
SUGGESTED TRAFFIC CONTROL PLAN

SCALE: 1″=50′ | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	16
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		



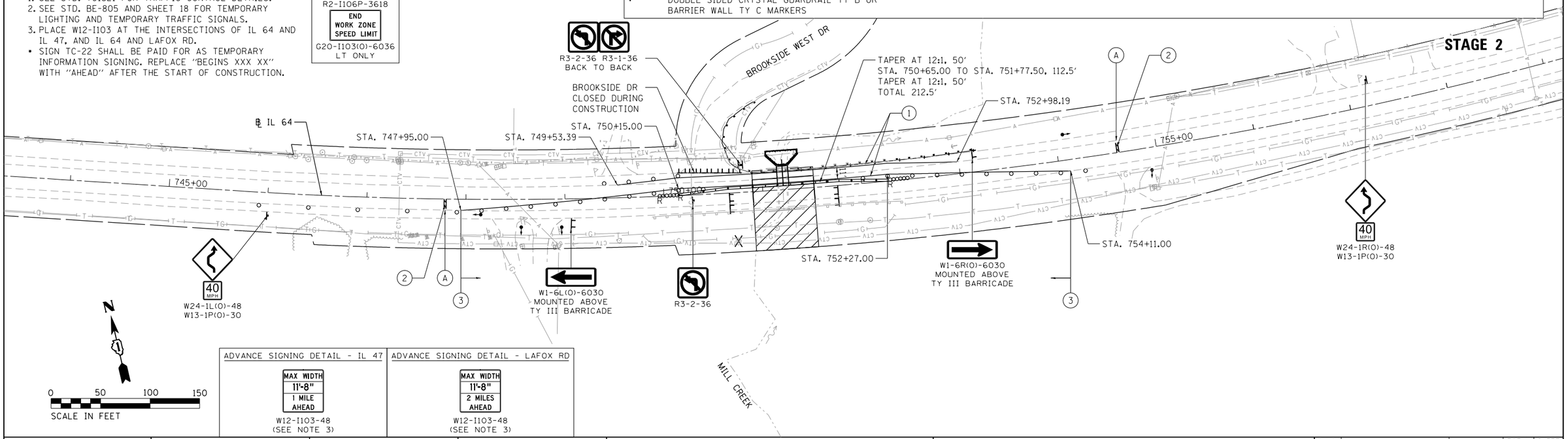


NOTES:
1. SEE STD. 701321 FOR TRAFFIC CONTROL DETAILS.
2. SEE STD. BE-805 AND SHEET 18 FOR TEMPORARY LIGHTING AND TEMPORARY TRAFFIC SIGNALS.
3. PLACE W12-I103 AT THE INTERSECTIONS OF IL 64 AND IL 47, AND IL 64 AND LAFOX RD.
- SIGN TC-22 SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING. REPLACE "BEGINS XXX XX" WITH "AHEAD" AFTER THE START OF CONSTRUCTION.

END WORK ZONE SPEED LIMIT
G20-I103(O)-6036
LT ONLY

LEGEND

- WORK ZONE
- TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- TEMPORARY IMPACT ATTENUATOR TL3
- RELOCATE TEMPORARY IMPACT ATTENUATOR
- DOUBLE SIDED CRYSTAL GUARDRAIL TY B OR BARRIER WALL TY C MARKERS
- DRUM WITH STEADY BURNING BIDIRECTIONAL LIGHT
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP
- (1) PAVEMENT MARKING TAPE, TYPE III 4" WHITE (70300520, FT)
- (2) PAVEMENT MARKING TAPE, TYPE III 24" STOP BAR (70300570, FT)
- (3) PAVEMENT MARKING REMOVAL - WATER BLASTING X0327980, SQ FT)
  TEMPORARY PAVEMENT MARKING REMOVAL (SQ FT)
  RAISED REFLECTIVE PAVEMENT MARKER REMOVAL (78300200, EACH)



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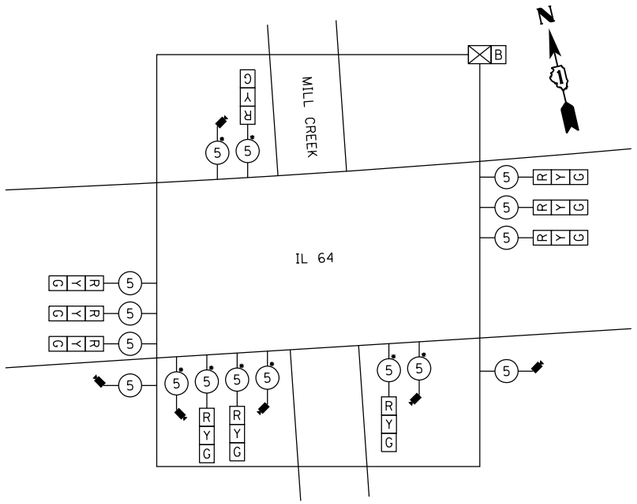
	PLOT DATE = 12/13/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

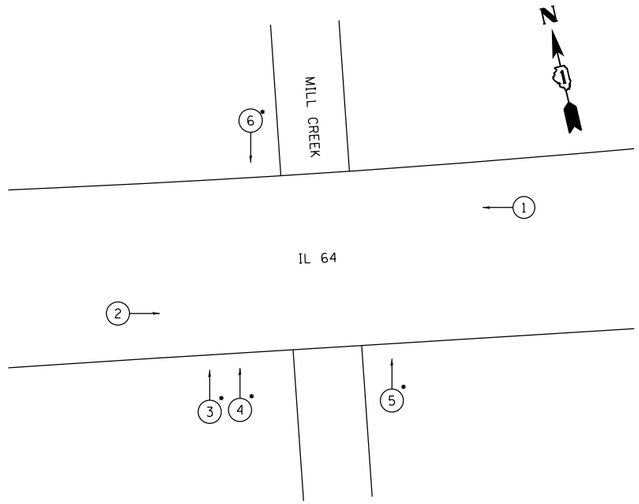
IL 64 AT MILL CREEK
SUGGESTED TRAFFIC CONTROL PLAN

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	17
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			



TEMPORARY CABLE PLAN
MILL CREEK
N.T.S.



TEMPORARY PHASE DESIGNATION DIAGRAM
MILL CREEK
N.T.S.

TEMPORARY CABLE PLAN LEGEND

- TEMPORARY VIDEO DETECTOR
- (5) INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 12 AWG WIRE UNLESS OTHERWISE NOTED.
- [R] TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)
- [B] TEMPORARY TRAFFIC CONTROLLER WITH UPS AND BOTTOM PLATE MOUNTED TO WOOD POLE
- • LOCATED AT DRIVEWAY

TEMPORARY PHASE DESIGNATION DIAGRAM LEGEND

- (X) DUAL ENTRY PHASE
- X NUMBER REFERS TO ASSOCIATED PHASE
- • LOCATED AT DRIVEWAY

NOTES

1. REFER TO DISTRICT STANDARD BE-805 FOR TYPICAL LAYOUT FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS AND GENERAL NOTES.
2. DRIVEWAY USE SHOULD BE MINOR. THE TEMPORARY TRAFFIC SIGNAL WILL OPERATE AS A TWO PHASE SIGNAL UNLESS A CALL IS RECEIVED FROM OF THE DRIVEWAYS. THE DRIVEWAY SIGNALS SHOULD REMAIN IN THE RED PHASE UNLESS A VEHICLE IS DETECTED.

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		DRAWN - MW	REVISED -
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	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 64 AT MILL CREEK
TEMPORARY TRAFFIC SIGNALS FOR SINGLE LANE STAGING

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	18
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

LEGEND

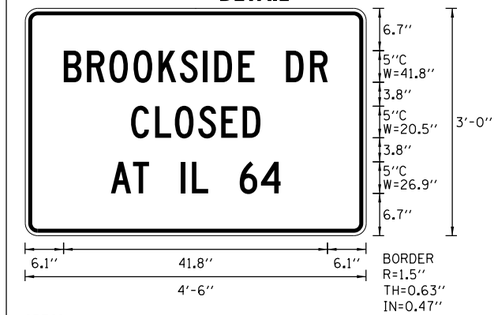
ILLINOIS 64	M1-1100-24
DETOUR	M4-8-2412
TO	M4-5-2412
EAST	M3-2-2412
WEST	M3-4-2412
↑	M6-3-2115
←	M6-1L-2115
→	M6-1R-2115
↰	M5-1L-2115
↱	M5-1R-2115
BROOKSIDE DRIVE	SPECIAL-3618
DETOUR ↑	SPECIAL-3024
DETOUR ←	M4-9L-3024
DETOUR →	M4-9R-3024
DETOUR ↰	SPECIAL-3024
DETOUR ↱	SPECIAL-3024
BROOKSIDE DR CLOSED AT IL 64	SPECIAL-5436
ROAD CLOSED	R11-2-4830 •
ROAD CLOSED TO THRU TRAFFIC	R11-4-6030 •
DETOUR ←	M4-10L-4818 •
DETOUR AHEAD	W20-2-48 WITH FLASHING LIGHT
ROAD CLOSED AHEAD / ROAD CLOSED 500 FT	W20-3-36 WITH FLASHING LIGHT
END DETOUR	M4-8A-2418

• MOUNT SIGN ON TYPE III BARRICADE WITH FLASHING LIGHTS.

NOTES:
SPECIAL SIGNS MUST USE MINIMUM 5" BLACK LETTERS ON AN ORANGE REFLECTIVE BACKGROUND.

DETOUR SIGNS WILL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION (SPECIAL) UNLESS NOTED OTHERWISE.

DETAIL



BORDER
R=1.5"
TH=0.63"
IN=0.47"

SPECIAL
PAID FOR AS TEMPORARY INFORMATION SIGNING.
NOTE: INSTALL SIGN TWO WEEKS BEFORE START OF CONSTRUCTION.

FILE NAME = $FILEL$	USER NAME = mcw	DESIGNED - JH	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**IL 64 AT MILL CREEK BROOKSIDE DR DETOUR ROUTE**				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -		SCALE: N.T.S.	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

PROPOSED LEGEND

PERIMETER EROSION BARRER (28000400, FOOT)

RESTORATION LANDSCAPING:
- EROSION CONTROL BLANKET (25100630, SQ YD)
- SEEDING, CLASS 2A (25000210, ACRE)
- TOPSOIL EXCAVATION AND PLACEMENT (21101505, CY YD)

WETLAND

N

0 50 100 150
SCALE IN FEET

HANSON RD

℄ IL 64

670+00

675+00

680+00

665+00

RIPRAP

FERSON CREEK

672+38.00
38.09' LT

673+16.00
38.09' LT

672+38.00
19.33' LT

673+16.00
20.02' LT

672+38.00
21.90' RT

673+16.00
21.82' RT

672+38.00
33.10' RT

673+16.00
40.00' RT

RIPRAP

FERSON CREEK

FILE NAME =	USER NAME = mcw	DESIGNED - JH	REVISED -
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$MODELNAME$	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 64 AT FERSON CREEK
EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	20
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

PROPOSED LEGEND

PERIMETER EROSION BARRER (28000400, FOOT)

RESTORATION LANDSCAPING:
- EROSION CONTROL BLANKET (25100630, SQ YD)
- SEEDING, CLASS 2A (25000210, ACRE)
- TOPSOIL EXCAVATION AND PLACEMENT (21101505, CY YD)

WETLAND

N

0 50 100 150
SCALE IN FEET

MILL CREEK

BROOKSIDE DR

℄ IL 64

745+00

750+00

755+00

750+80.00
43.00' LT

750+80.00
22.96' LT

RIPRAP

751+62.00
50.00' LT

751+62.00
19.74' LT

751+62.00
19.48' RT

751+62.00
60.00' RT

RIPRAP

750+73.00
19.15' RT

750+73.00
60.00' RT

750+81.10
60.00' RT

MILL CREEK

FILE NAME =	USER NAME = mcw	DESIGNED - JH	REVISED -
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	PLOT SCALE = 100.0000 ' / in.	CHECKED - PJK	REVISED -
$MODELNAME$	PLOT DATE = 12/7/2016	DATE - 12/09/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 64 AT MILL CREEK
EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=50' | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	21
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

Bench Mark: "X" on curb at northwest corner of Mary Drive. Elevation 910.64.

Existing Structure: S.N. 045-0235 built in 1946 as a double 7'x4' R.C. box culvert, 40'-0" edge of shoulder to edge of shoulder with culvert length of 41'-4". It was extended later on an unknown date at both ends to a culvert length of 64'-10". Traffic to be maintained utilizing stage construction.

No salvage.

LOADING HL-93

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

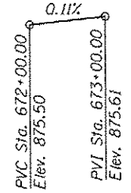
DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2016 Interims

DESIGN STRESSES

FIELD UNITS

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



PROFILE GRADE

(Along IL Rt. 64 PGL)

WATERWAY INFORMATION

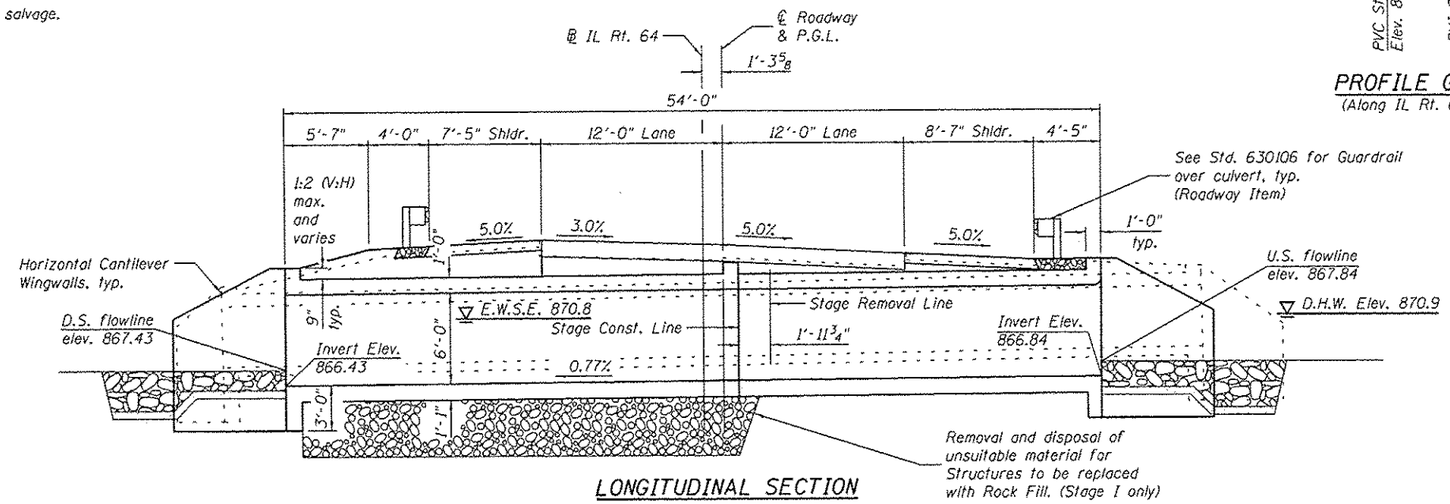
Drainage Area = 1.8 sq. mi

Exist. Overtopping Elev. 875.8 @ Sta. 672+02
Prop. Overtopping Elev 875.8 @ Sta. 672+02

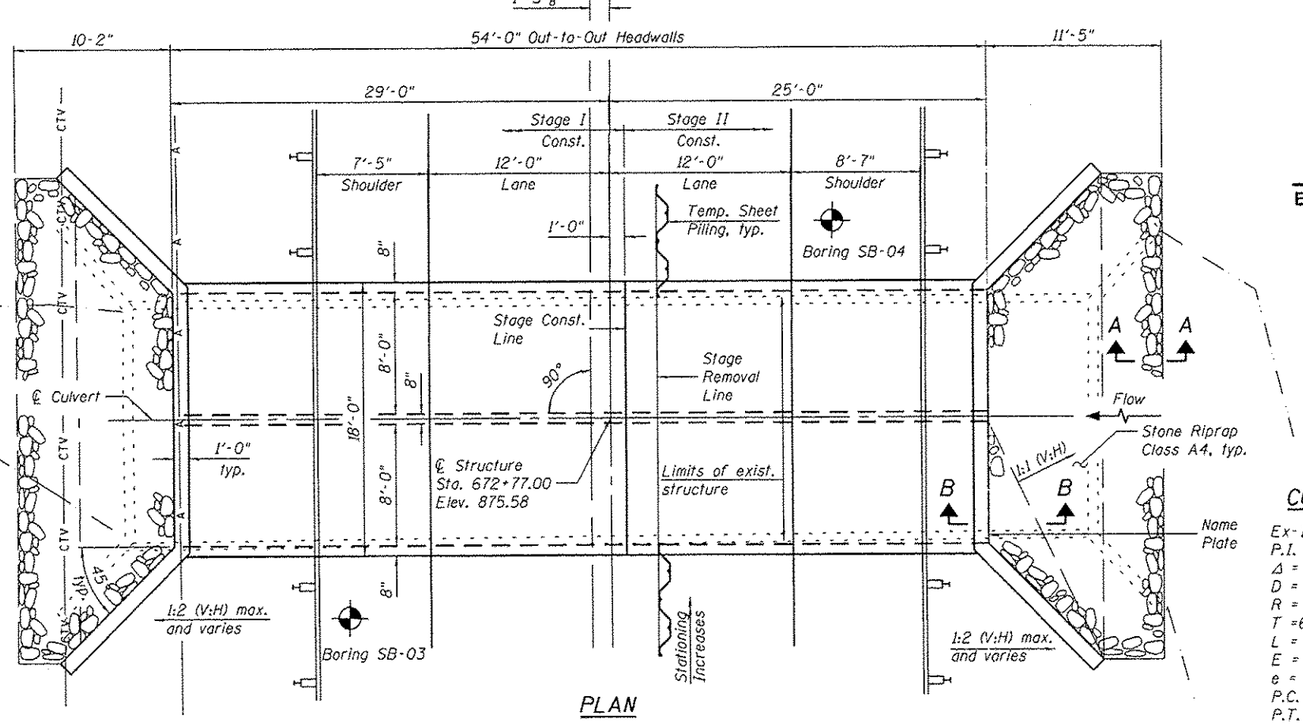
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	118	22	31	870.4	0.5	0.3	870.9	870.7
Design	50	260	29	39	870.9	1.4	1.0	872.3	871.9
Base	100	294	31	41	871.0	1.6	1.1	872.6	872.1
Overtopping									
Max. Calc.	500	558	39	51	871.6	3.0	2.4	874.6	874.0

10-Year Velocity Through Existing Structure = 3.2 fps
10-Year Velocity Through Proposed Structure = 3.0 fps

2-Year Peak Flow = 40 cfs
2-Year Peak Elevation = 869.83
2-Year Peak Bypass Opening = 15 sq. ft.



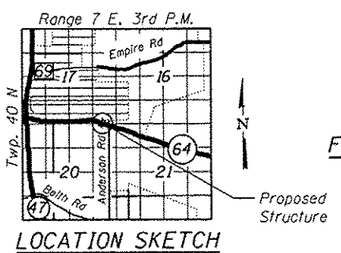
LONGITUDINAL SECTION



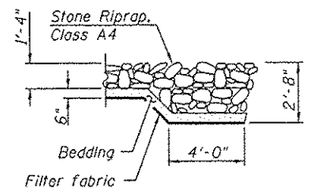
PLAN

CURVE DATA

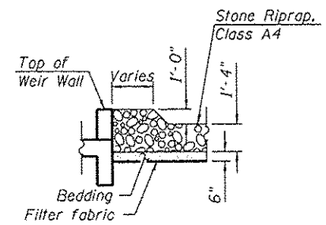
Ex-IL64-1
P.I. Sta. = 671+02.97
Δ = 21°30'30" (RT)
D = 1°48'00"
R = 3,183.23'
T = 604.59'
L = 1,194.96'
E = 56.91'
e = 4.7%
P.C. Sta. = 664+98.38
P.T. Sta. = 676+93.34



LOCATION SKETCH



SECTION A-A



SECTION B-B

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu. Yd.	124
Porous Granular Embankment	Cu. Yd.	330
Stone Riprap, Class A4	Sq. Yd.	68
Filter Fabric	Sq. Yd.	68
Removal of Existing Structures No. 1	Each	1
Reinforcement Bars, Epoxy Coated	Pound	17,490
Bar Splicers	Each	97
Name Plates	Each	1
Temporary Sheet Piling	Sq. Ft.	1220
Concrete Box Culverts	Cu. Yd.	117.9
Membrane Waterproofing for Culverts	Sq. Yd.	116
Rock Fill - Replacement	Ton	187

LICENSED STRUCTURAL ENGINEER
CHRIS LINNEMAN
081-006445
STATE OF ILLINOIS

Signed: _____
Date: 12/9/2016
License Expires: 11/30/2018

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

INDEX OF SHEETS

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 64 OVER FERSON CREEK
F.A.P. RTE 307 - SEC 2015-041B
KANE COUNTY
STATION 672+77.00
STRUCTURE NO. 045-2103

EFK·Moen, LLC
Civil Engineering Design
125 S. Wacker Drive, Suite 2090
Chicago, IL 60606
Phone 312-396-4065

USER NAME = cdl	DESIGNED - JSR	REVISED -	
	CHECKED - CDL	REVISED -	
PLOT SCALE = 0 1/0 ' / in.	DRAWN - KAW	REVISED -	
PLOT DATE = 12/7/2016	DATE - 12/9/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 045-2103
SHEET NO. 1 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	22
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		

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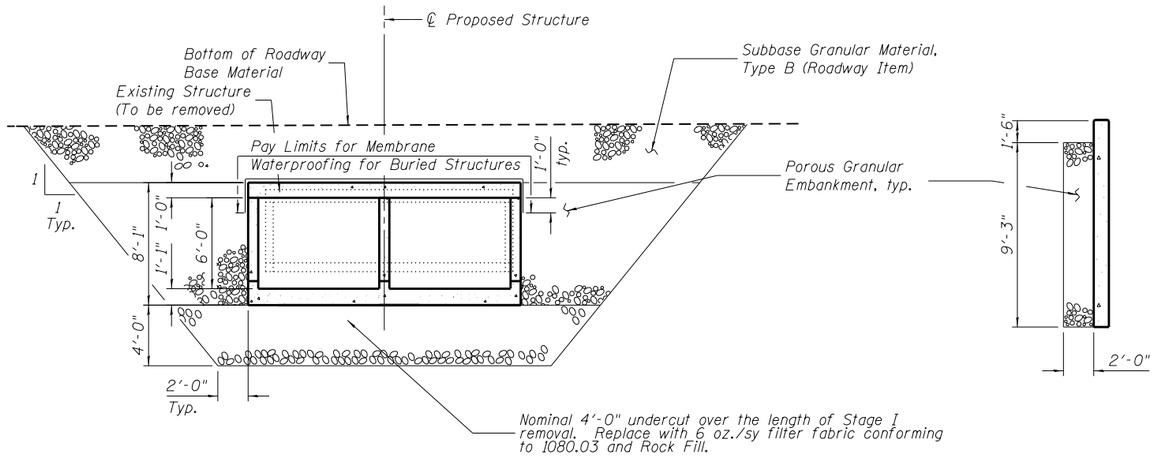
GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

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

Precast option is not allowed.



SECTION THRU BARREL

SECTION THRU WINGWALLS

1. The limits and quantities of Undercut removal and replacement shown are based on the recommenations of the Structural Geotechnical Report (SGR) and may be modified by the District Geotechnical and Field Engineer for variable subsurface conditions encountered in the field.

2. Excavation for construction of the box culvert and the wingwalls, including the excavation necessary to construct the granular backfill, is included in Removal of Existing Structures No. 1.

STATION 672+77
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 307
SEC. 2015-041B
LOADING HL-93
STRUCTURE NO. 045-2103

NAME PLATE
See Std. 515001

PRINT DATE: 1/4/2017 2:24:06 PM Y:\1305.06 IDOT DIW06 IL64 over Ferson Mill Creek\DGN\Bridge\final\Plotsheets\Ferson\045203-002_General_Data.dgn

EFK•Moen, LLC
Civil Engineering Design
125 S. Wacker Drive, Suite 2090
Chicago, IL 60606
Phone 312-396-4065

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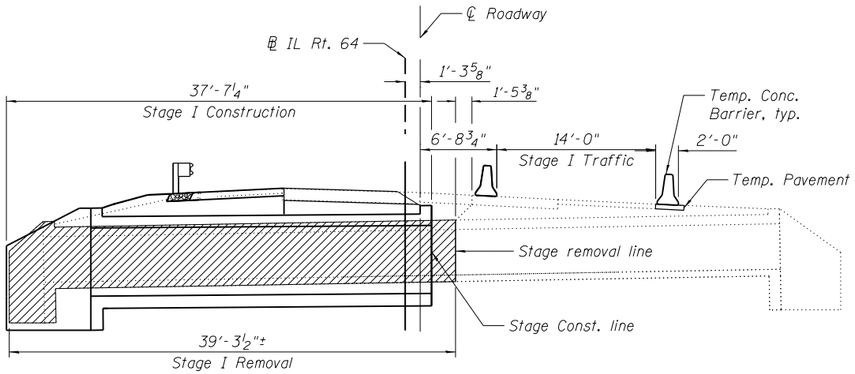
	CHECKED - CDL	REVISED -	
PLOT SCALE = 0.2 '/ in.	DRAWN - KAW	REVISED -	
PLOT DATE = 1/4/2017	DATE - 1/5/2017	REVISED -	

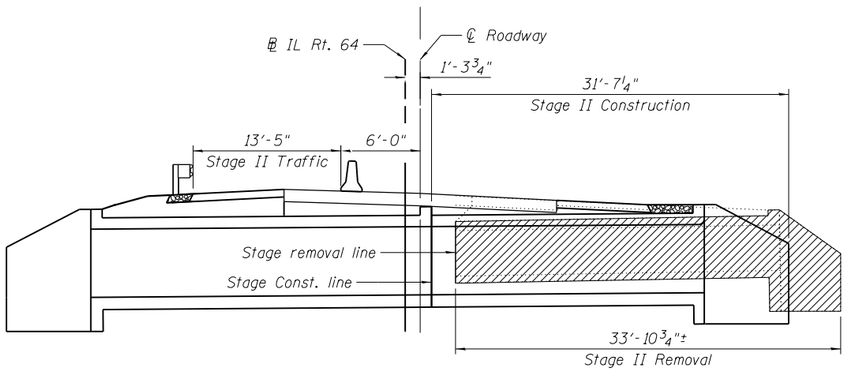
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 045-2103
SHEET NO. 2 OF 10 SHEETS

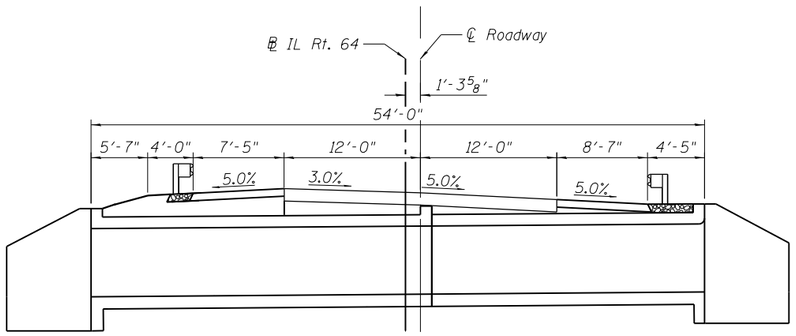
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	23
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		



STAGE I CONSTRUCTION

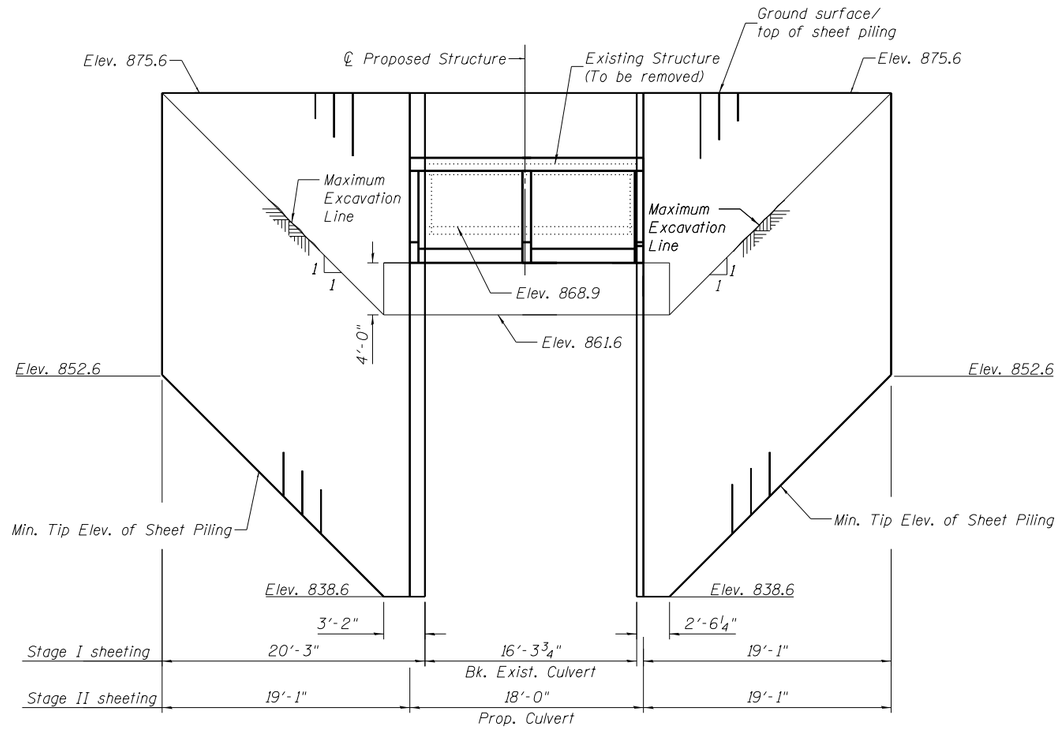


STAGE II CONSTRUCTION



FINAL CONSTRUCTION

Notes:
All staging sections are looking East.
For quantity of Temporary Concrete Barrier, see roadway plans.
For Temporary Concrete Barrier, see Sheet 4 of 10.
Crosshatched areas indicate Removal of Existing Structures.



Minimum Section Modulus = 52.3 in^3/ft

Minimum Section Modulus = 52.3 in^3/ft

TEMPORARY SHEET PILING DETAILS

(Looking North)

PRINT DATE: 1/4/2017 2:24:06 PM Y:\1305.06 IDOT DIW06 IL64 over Ferson Mill Creek\DGN\Bridge final\Plotsheets\Ferson\045203-003_Stage Construction.dgn

EFK•Moen, LLC
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USER NAME = jsr	DESIGNED - JSR	REVISED -
	CHECKED - CDL	REVISED -
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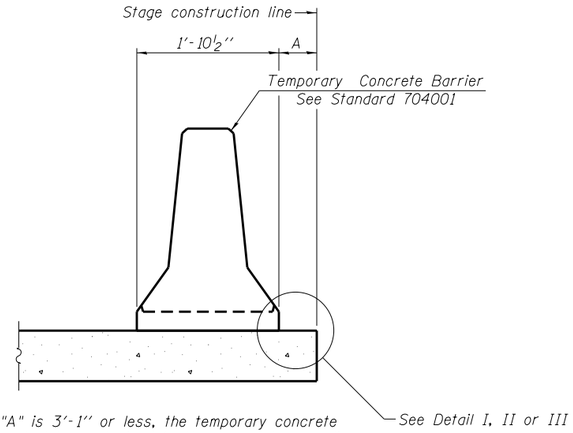
PLOT DATE = 1/4/2017	DATE - 1/5/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

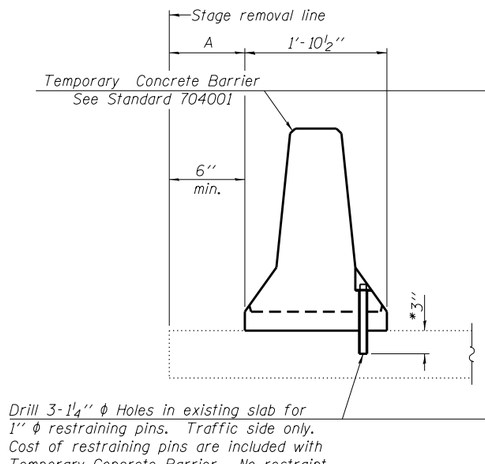
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 045-2103
SHEET NO. 3 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	24
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		



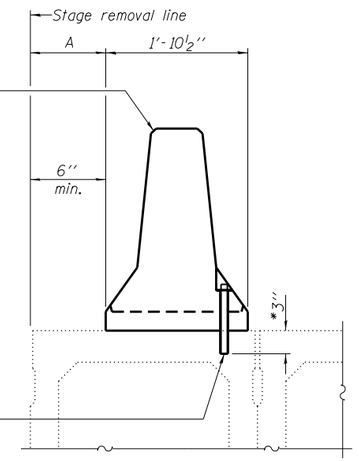
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" ϕ Holes in existing slab for 1" ϕ restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

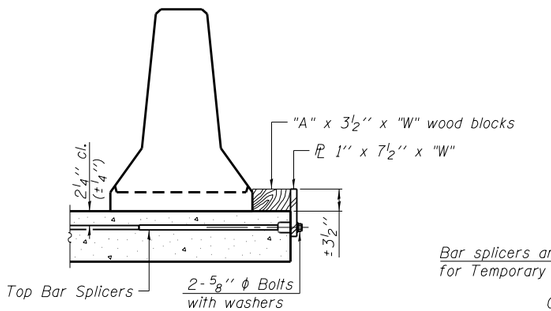
EXISTING SLAB



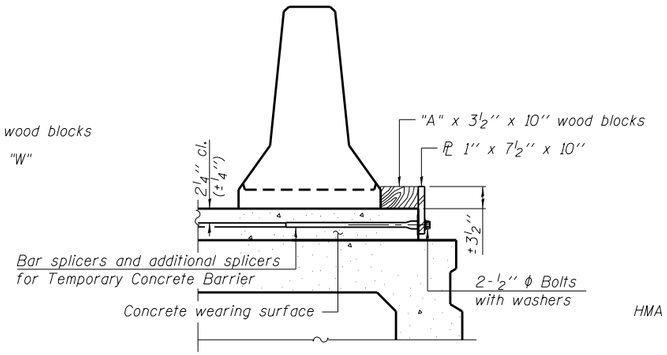
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

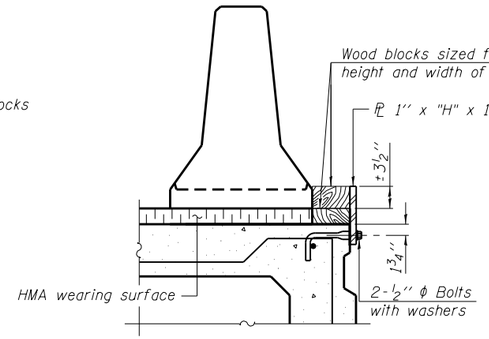
SECTIONS THRU SLAB OR DECK BEAM



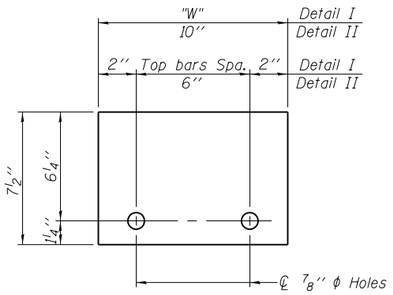
DETAIL I



DETAIL II

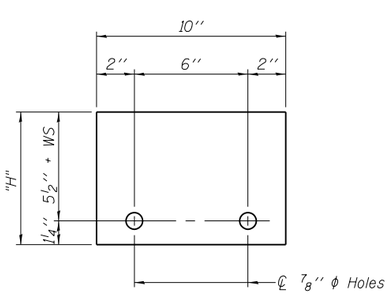


DETAIL III



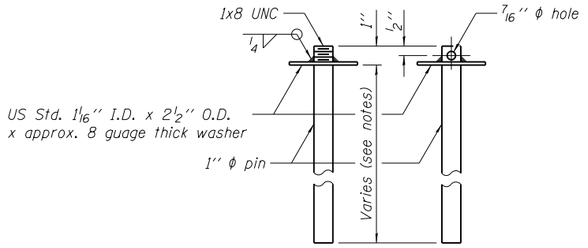
STEEL RETAINER ℄ 1" x 7½" x "W"

(Detail I and II)

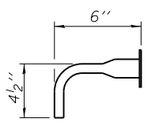


STEEL RETAINER ℄ 1" x "H" x 10"

(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

11-22-2016

EFK•Moen, LLC
Civil Engineering Design
125 S. Wacker Drive, Suite 2090
Chicago, IL 60606
Phone 312-396-4065

USER NAME = jsr	DESIGNED - JSR	REVISED -
	CHECKED - CDL	REVISED -
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PLOT DATE = 1/4/2017	DATE - 1/5/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 045-2103
SHEET NO. 4 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	25
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

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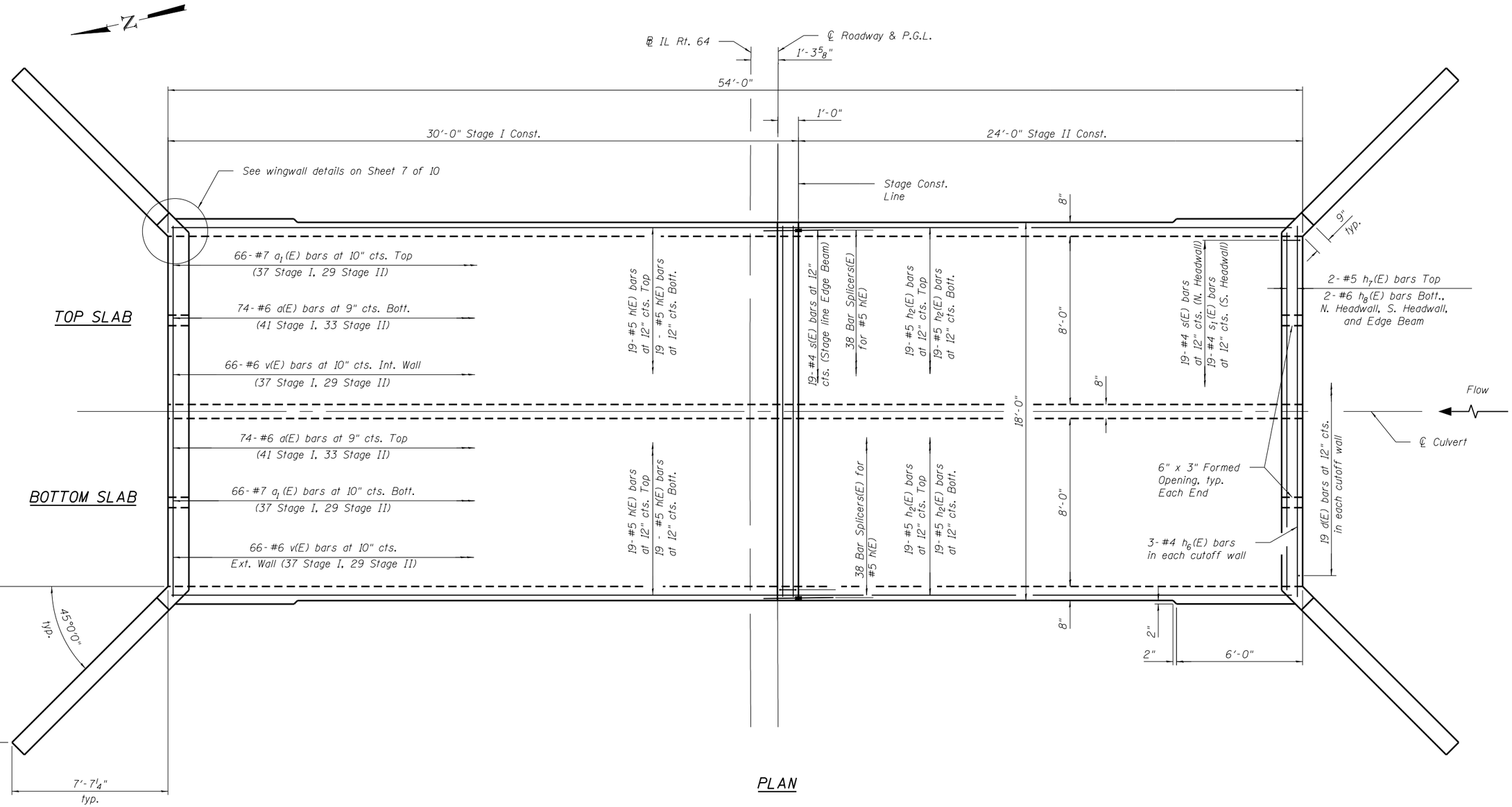

PLAN

EFK•Moen, LLC Civil Engineering Design 125 S. Wacker Drive, Suite 2090 Chicago, IL 60606 Phone 312-396-4065	USER NAME = jsr	DESIGNED - JSR	REVISED -
		CHECKED - CDL	REVISED -
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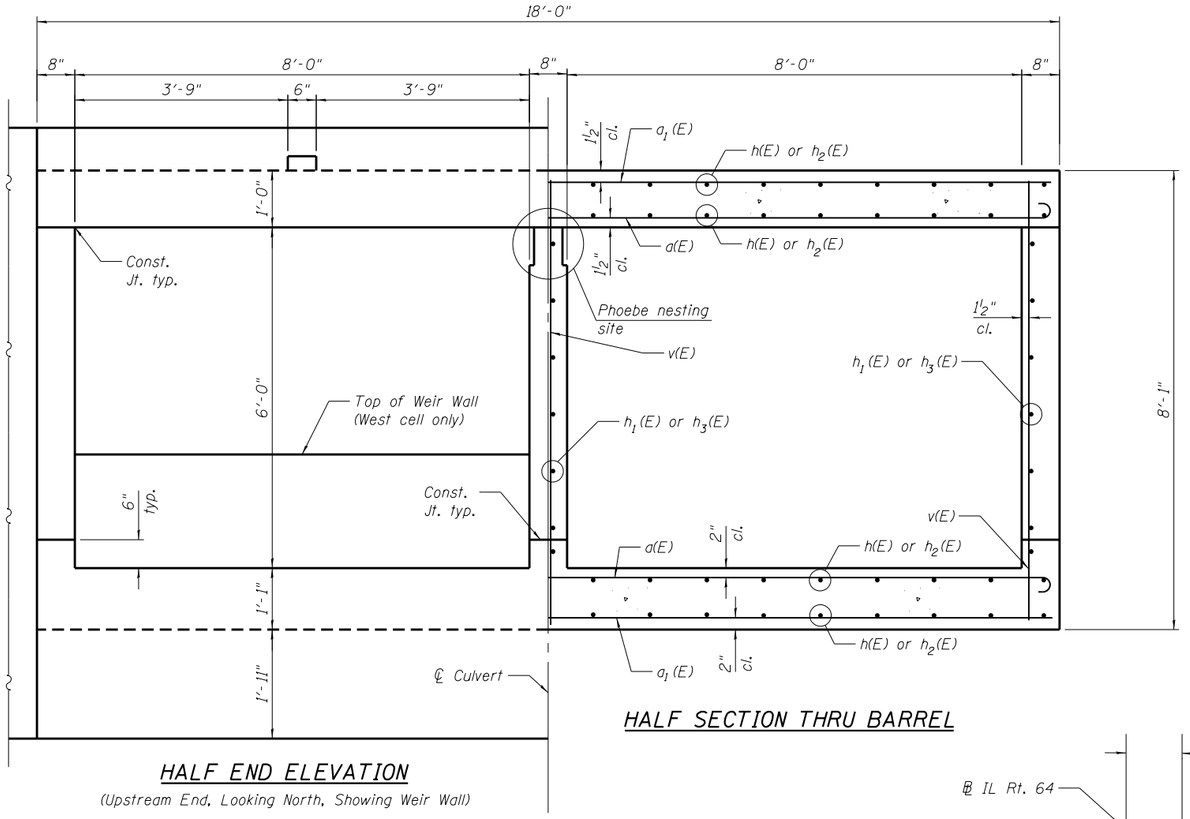
	PLOT DATE = 1/4/2017	DATE - 1/5/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – TOP AND BOTTOM SLAB
STRUCTURE NO. 045-2103
SHEET NO. 5 OF 10 SHEETS

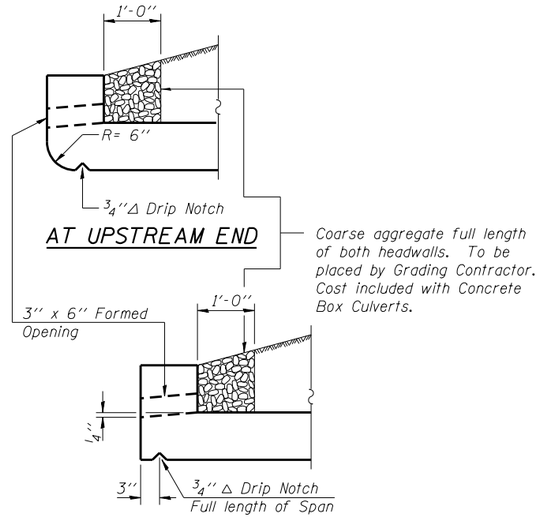
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	26
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		



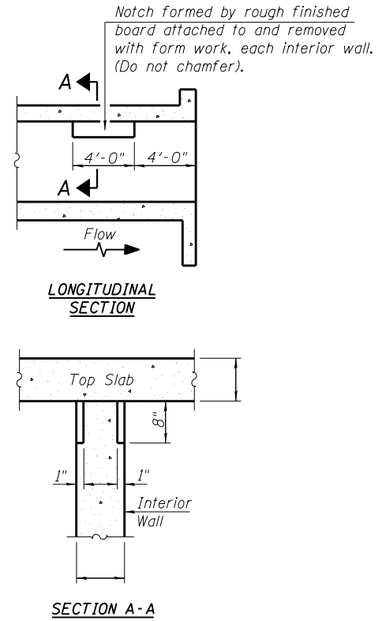
HALF END ELEVATION

(Upstream End, Looking North, Showing Weir Wall)

HALF SECTION THRU BARREL

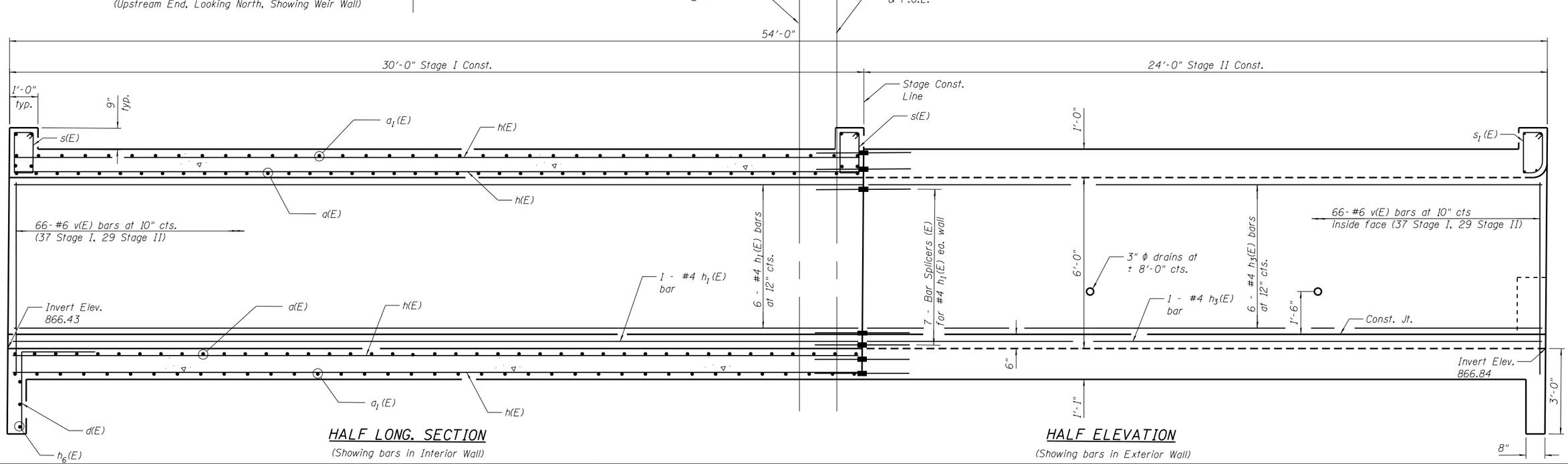


DRAIN DETAIL



PHOEBE NESTING SITE DETAILS

(Downstream End Only)



HALF LONG. SECTION

(Showing bars in Interior Wall)

HALF ELEVATION

(Showing bars in Exterior Wall)

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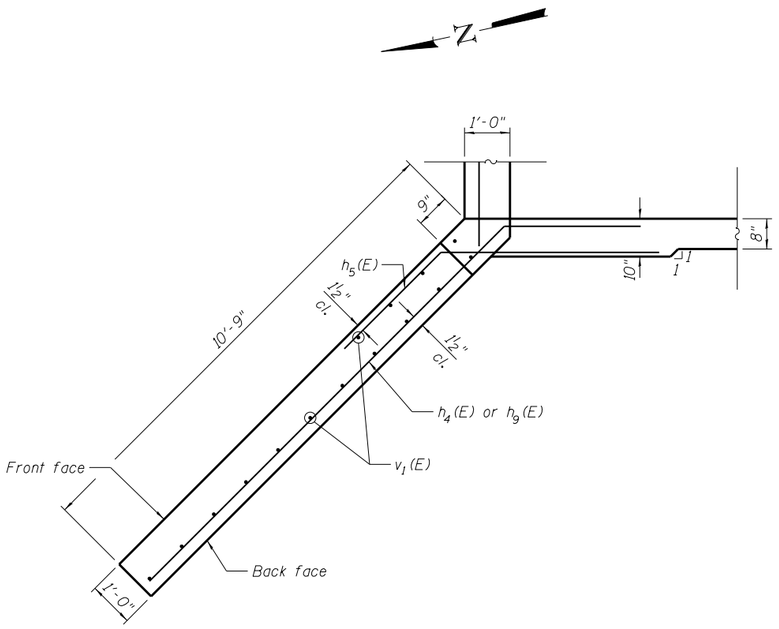
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

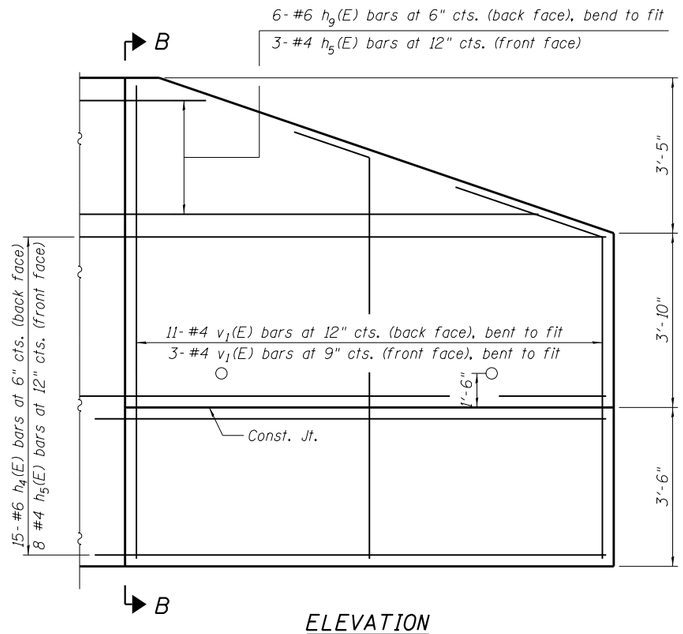
CULVERT DETAILS
STRUCTURE NO. 045-2103
SHEET NO. 6 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	27
		CONTRACT NO. 62B02		
	ILLINOIS	FED. AID PROJECT		



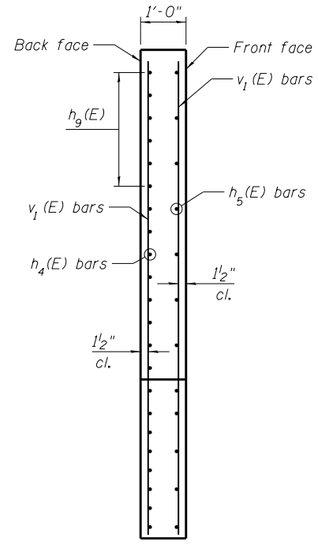
PLAN

(Horizontal Cantilever Wingwall)
(Northwest Wingwall shown, others similar)



ELEVATION

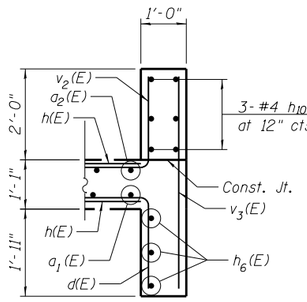
(Horizontal Cantilever Wingwall)



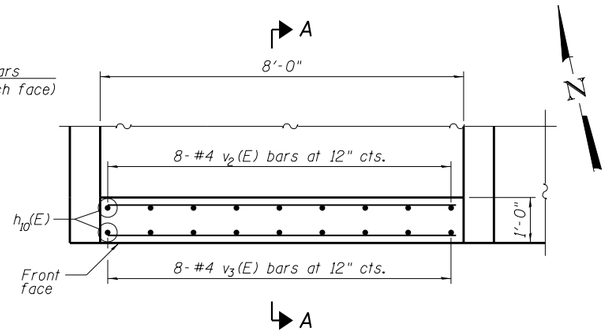
SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	148	#6	19'-0"	
a_1(E)	132	#7	17'-8"	
d(E)	38	#4	5'-3"	
h(E)	76	#5	29'-8"	
h_1(E)	21	#4	29'-8"	
h_2(E)	76	#5	23'-8"	
h_3(E)	21	#4	23'-8"	
h_4(E)	60	#6	15'-0"	
h_5(E)	32	#4	9'-0"	
h_6(E)	6	#4	17'-8"	
h_7(E)	6	#5	17'-8"	
h_8(E)	6	#6	17'-8"	
h_9(E)	24	#6	13'-6"	
h_{10}(E)	6	#4	5'-8"	
s(E)	38	#4	5'-1"	
s_1(E)	19	#4	4'-11"	
v(E)	198	#6	7'-9"	
v_1(E)	56	#4	10'-5"	
v_2(E)	8	#4	4'-7"	
v_3(E)	8	#4	4'-8"	
Concrete Box Culverts			Cu. Yd.	117.9
Reinforcement Bars, Epoxy Coated			Pound	18,150
Bar Splicers			Each	97



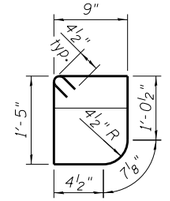
SECTION A-A



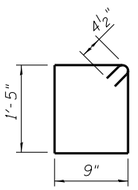
PLAN

UPSTREAM WEIR WALL

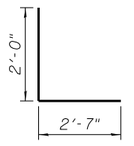
(West Cell Only)



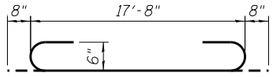
BAR s_1(E)



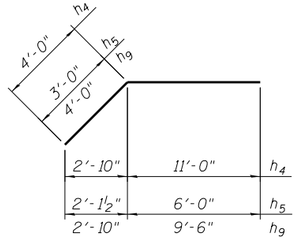
BAR s(E)



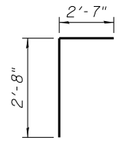
BAR v_2(E)



BAR a(E)



BAR h_4(E), h_5(E), and h_9(E)



BAR d(E)

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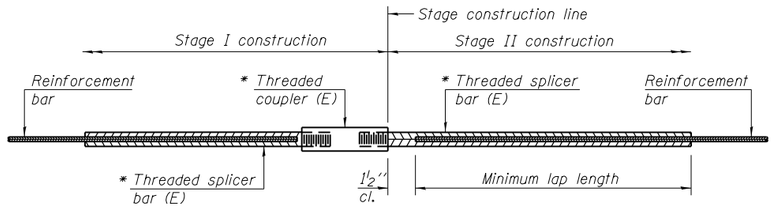
WINGWALL DETAILS
STRUCTURE NO. 045-2103
SHEET NO. 7 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	28
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

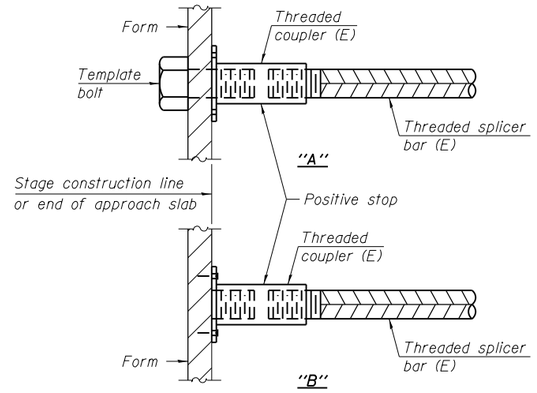


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + $1\frac{1}{2}''$ + thread length

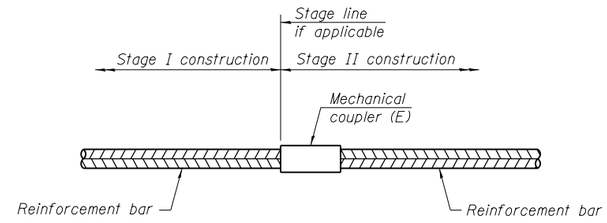
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Bott. of Bott. Slab	5	19	3'-2"
Top of Bott. Slab	5	19	3'-2"
Walls	4	21	2'-7"
Bott. of Top Slab	5	19	3'-2"
Top of Top Slab	5	19	3'-2"



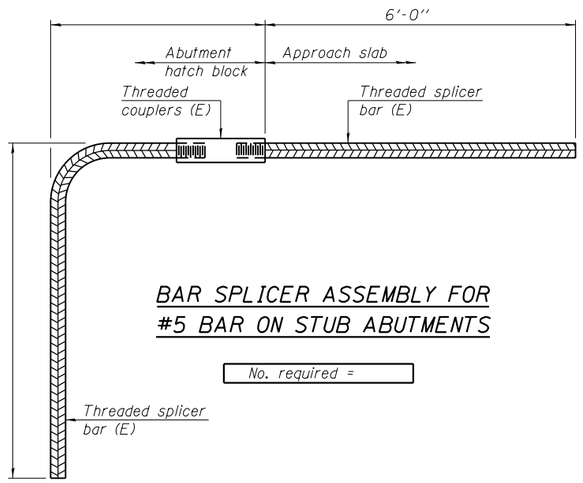
INSTALLATION AND SETTING METHODS

"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



NOTES

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

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

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

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

BSD-1

11-22-2016

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DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 045-2103
SHEET NO. 8 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	29
		CONTRACT NO. 62B02		
	ILLINOIS	FED. AID PROJECT		

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Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

DATE 7/31/2015
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GSI JOB No. 15112

ROUTE Il. Route 64 DESCRIPTION Illinois Route 64 Over Ferson Creek
SECTION – LOCATION SEC20 T40N R7E NE1/4 3rd PM, St. Charles, Kane County, Illinois
COUNTY Kane DRILLING METHOD 4.0" HSA/Rotary HAMMER TYPE CME Automatic
STRUCT. NO. Ex 045–0235, Pr 045–2103
Station 672+77
BORING NO. **SB–03**
Station 672+64
Offset 14.8' Left
Ground Surface Elev. *875.6*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *866.6*
Upon Completion *n/a*
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				6.5" ASPHALT
	4		*112*	CLAY LOAM–brown–very stiff (Fill)
	4			
	5	2.1B	15	
				SANDY CLAY LOAM–brown–very stiff (Fill)
	2			
–5	2			
	3	2.0P	14	
	1			ORGANIC SILTY CLAY–black–loose
	2			
	3	1.25P	47	
	2			
	3			SAND–gray–loose
–10	5		17	
	1			ORGANIC SILTY LOAM–dark gray–very loose
	1			
	2	0.25P	47	
	4			
	3			SILTY SAND with Gravel–gray–loose
–15	1		19	
	3			CLAYEY SAND with Gravel–gray–loose
	3			
	4		11	
	3			SANDY SILT–gray–loose to medium dense
	4			
–20	6		19	
	3			SANDY SILT–gray–loose to medium dense
	4			
	4		21	
–25	4			
	3			
	4			
	5		19	
	2		*108*	SILTY CLAY LOAM–gray–medium stiff
–30	4	0.6B	21	
	8			SANDY LOAM–gray–medium dense
	9			
	10		9	
	7			SILTY LOAM–gray–medium dense
	10			
–35	10		20	
	4			SAND & GRAVEL–gray–medium dense
	6			
	7		9	
	10			SAND–gray–medium dense
	11			
–40	10		23	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

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SOIL BORING LOG

DATE 7/31/2015
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ROUTE Il. Route 64 DESCRIPTION Illinois Route 64 Over Ferson Creek
SECTION – LOCATION SEC20 T40N R7E NE1/4 3rd PM, St. Charles, Kane County, Illinois
COUNTY Kane DRILLING METHOD 4.0" HSA/Rotary HAMMER TYPE CME Automatic
STRUCT. NO. Ex 045–0235, Pr 045–2103
Station 672+77
BORING NO. **SB–03**
Station 672+64
Offset 14.8' Left
Ground Surface Elev. *875.6*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *866.6*
Upon Completion *n/a*
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	6			SAND–gray–medium dense
	7			
	8		21	
	7			SAND with Gravel–gray–medium dense
–45	10			
	12		17	
	7			SAND–gray–medium dense
	14			
	12		16	
	9			SILT–gray–medium dense
	10			
–50	11		17	
				End Of Boring @ –50.0'
				Hollow Stem Augers To –10.0'
				Rotary Drilling To Completion
				CME Automatic Hammer
–55				
–60				
–65				
–70				
–75				
–80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

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DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 045–2103
SHEET NO. 9 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	30
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

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SOIL BORING LOG

PAGE 1 of 2
DATE 7/31/2015
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ROUTE Il. Route 64 DESCRIPTION Illinois Route 64 Over Ferson Creek
SECTION – LOCATION SEC20 T40N R7E NE1/4 3rd PM, St. Charles, Kane County, Illinois
COUNTY Kane DRILLING METHOD 4.0" HSA/Rotary HAMMER TYPE CME Automatic
STRUCT. NO. Ex 045–0235, Pr 045–2103
Station 672+77
BORING NO. **SB–04**
Station 672+90
Offset 17.3' Right
Ground Surface Elev. *874.8*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *868.8*
Upon Completion *n/a*
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				6.0" ASPHALT
	4			
	3			SILTY CLAY LOAM–dark brown & gray–
	3	1.5P	17	stiff (Fill)
	3			
	3			CLAY LOAM–dark brown & gray–
–5	2	–	17	loose (Fill)
	0			
	1			SANDY CLAY LOAM–dark brown & gray–
	2	1.5P	19	very loose (Fill)
	3			
	6			SANDY LOAM–gray–medium dense
–10	5		21	
	3			
	3			
	2		22	SILTY LOAM–gray–very loose to loose
	1			
	2			
–15	2		22	
	1			
	1			
	1		23	
	2			
	3			
–20	3		21	
				SILTY LOAM–gray–very loose to loose
	9			
	12			
	15		9	
	8			
	9			SAND & GRAVEL–gray–medium dense
–25	6		12	
	7			
	9			
	7		13	
	8			
	8			
–30	9		15	
	7			
	10			
	9		20	
	9			SAND–gray–medium dense
	9			
–35	10		18	
	10			SAND & GRAVEL–gray–medium dense
	9			
	10		11	
	9			SAND–gray–medium dense
	8			
–40	11		16	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

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SOIL BORING LOG

PAGE 2 of 2
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ROUTE Il. Route 64 DESCRIPTION Illinois Route 64 Over Ferson Creek
SECTION – LOCATION SEC20 T40N R7E NE1/4 3rd PM, St. Charles, Kane County, Illinois
COUNTY Kane DRILLING METHOD 4.0" HSA/Rotary HAMMER TYPE CME Automatic
STRUCT. NO. Ex 045–0235, Pr 045–2103
Station 672+77
BORING NO. **SB–04**
Station 672+90
Offset 17.3' Right
Ground Surface Elev. *874.8*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *868.8*
Upon Completion *n/a*
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				SAND–gray–medium dense
	7			
	6			
	6		15	
	9			SAND & GRAVEL–gray–medium dense
	8			
–45	8		10	
	6			
	7			
	6		12	
	10			
	9			
–50	10		17	
				End Of Boring @ –50.0'
				Hollow Stem Augers To –10.0'
				Rotary Drilling To Completion
				CME Automatic Hammer
–55				
–60				
–65				
–70				
–75				
–80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
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Phone 312-396-4065

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	CHECKED - CDL	REVISED -
PLOT SCALE = 82.0000 '' / in.	DRAWN - KAW	REVISED -
PLOT DATE = 1/4/2017	DATE - 1/5/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 045–2103
SHEET NO. 10 OF 10 SHEETS

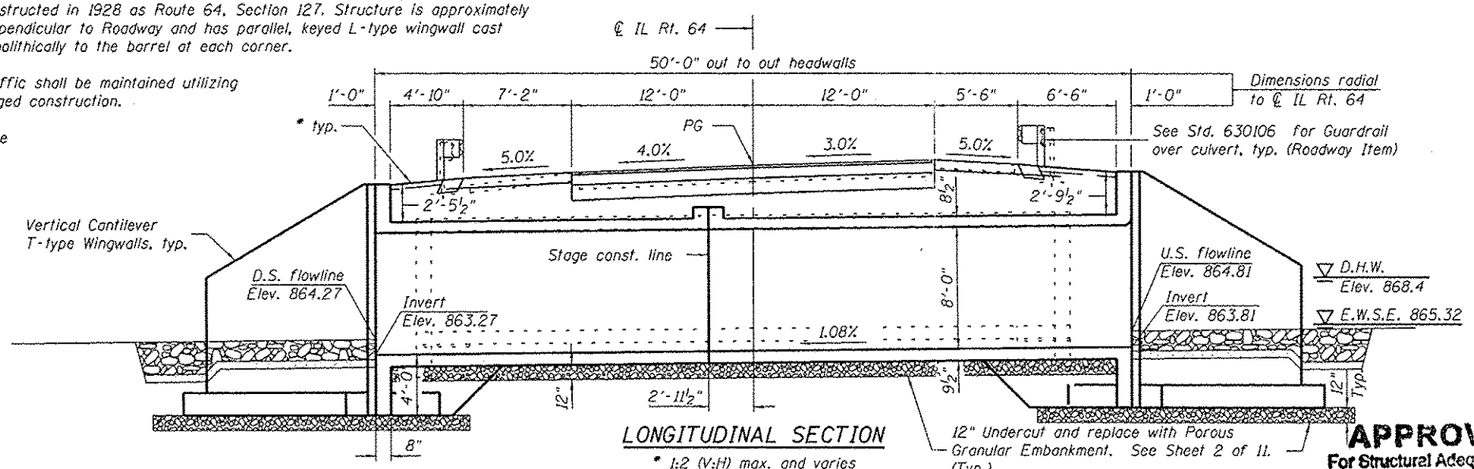
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	41	31
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

Benchmark: "X" on curb at northwest corner of Mary Drive. Elevation 910.64

Existing Structure: S.N. 045-0326 is an 8'-6" x 6'-6" x 45'-3"± C.I.P. single box culvert constructed in 1928 as Route 64, Section 127. Structure is approximately perpendicular to Roadway and has parallel, keyed L-type wingwall cast monolithically to the barrel at each corner.

Traffic shall be maintained utilizing staged construction.

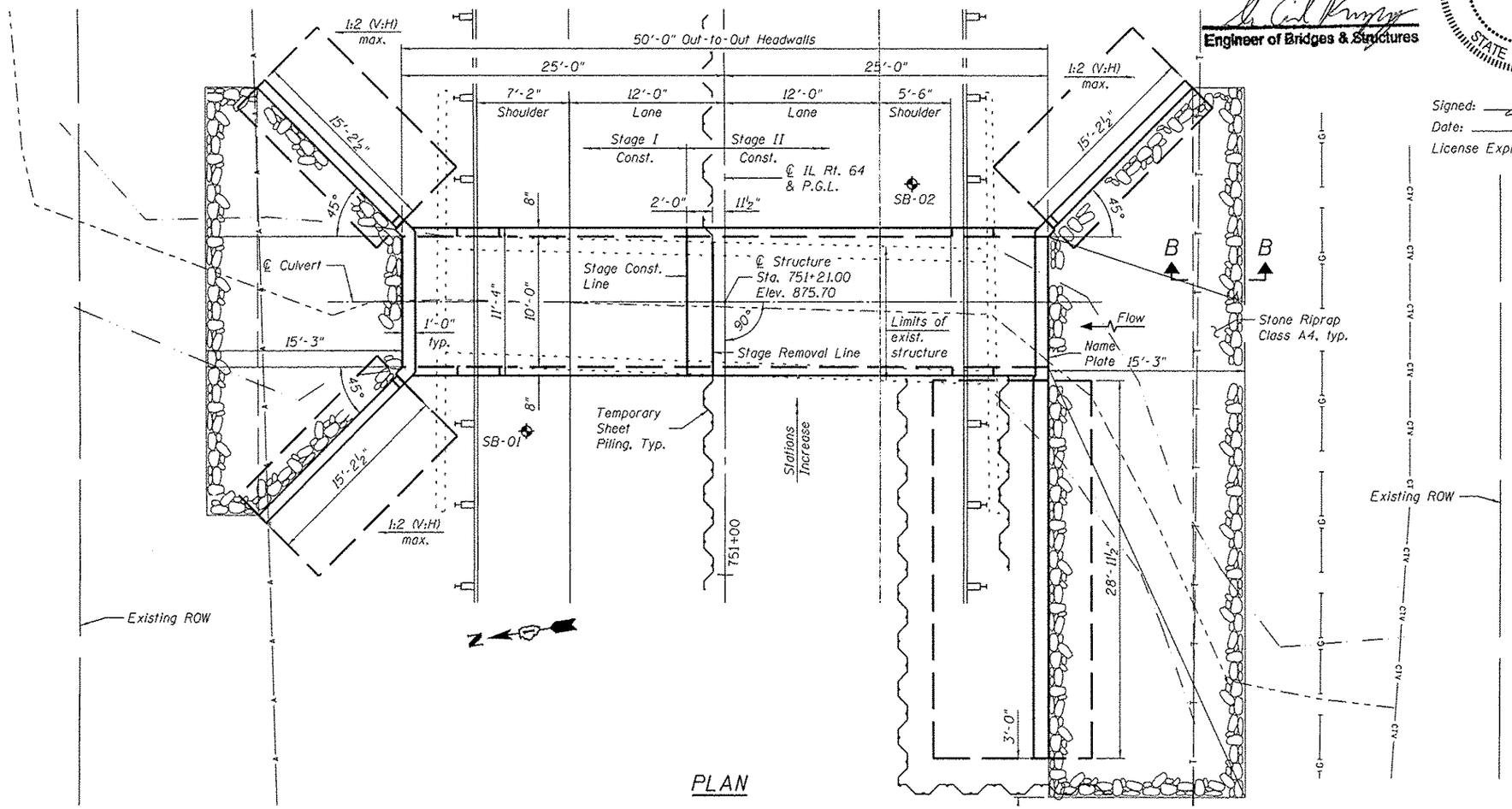
Salvage: None



LONGITUDINAL SECTION

* 1:2 (V:H) max. and varies

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	545
Stone Riprap, Class A4	Sq. Yd.	135
Filter Fabric	Sq. Yd.	135
Removal of Existing Structures No. 2	Each	1
Structure Excavation	Cu. Yd.	473
Concrete Structures	Cu. Yd.	78.5
Reinforcement Bars, Epoxy Coated	Pound	20,610
Bar Splicers	Each	80
Name Plates	Each	1
Temporary Sheet Piling	Sq. Ft.	2780
Concrete Box Culverts	Cu. Yd.	61.1
Geocomposite Wall Drain	Sq. Yd.	39
Membrane Waterproofing for Culverts	Sq. Yd.	79
Pipe Underdrains for Structures 4"	Foot	39

LICENSED STRUCTURAL ENGINEER
CHRIS LINNEMAN
081-006445
STATE OF ILLINOIS

Signed:
Date: 12/9/2016
License Expires: 11/30/2018

INDEX OF SHEETS

LOADING HL-93

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

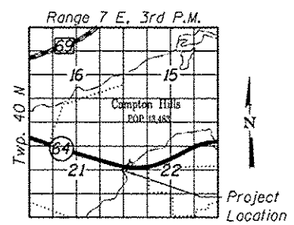
DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2016 Interims

DESIGN STRESSES

FIELD UNITS

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



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL 64 OVER MILL CREEK
F.A.P. RTE 307 - SEC 2015-041B
KANE COUNTY
STATION 751+21
STRUCTURE NO. 045-2102

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125 South Wacker Drive, Suite 2090
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PLOT DATE = 12/7/2016	DATE - 12/9/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 045-2102
SHEET NO. 1 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	32
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		

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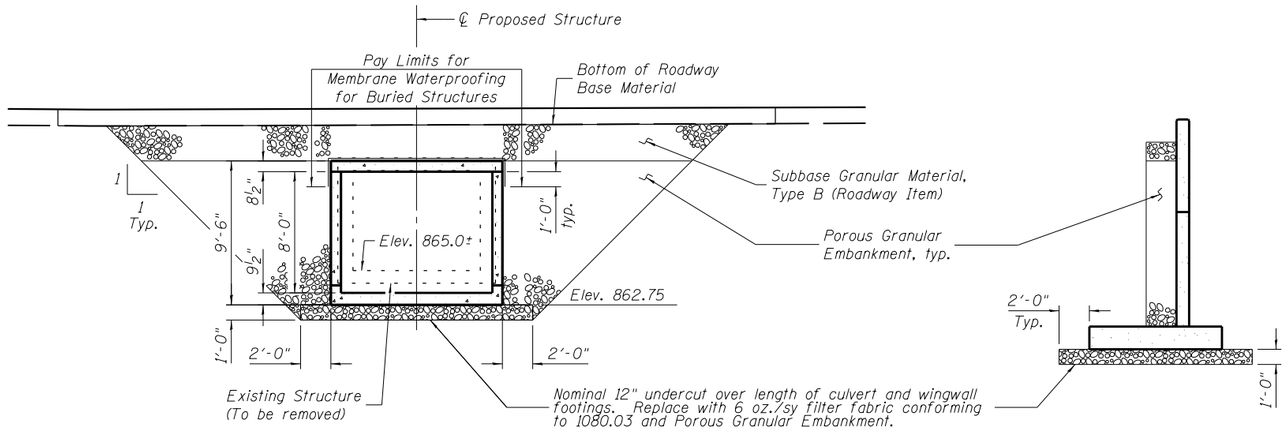


SECTION THRU BARREL

SECTION THRU WINGWALLS

1. The limits and quantities of Undercut removal and replacement shown are based on the recommendations of the Structural Geotechnical Report (SGR) and may be modified by the District Geotechnical and Field Engineer for variable subsurface conditions encountered in the field. Cost of the undercut, Porous Granular Embankment replacement with filter fabric, as specified above, for culvert barrel and wingwalls is included with Concrete Box Culverts.

2. Excavation for construction of the box culvert, and wingwalls (except SW wingwall) including the excavation necessary to construct the granular backfill, is included in Removal of Existing Structures. Excavation for SW wingwall shall be included in the cost of Structure Excavation.

3. See Wingwall Details Sheets for elevations and limits of Porous Granular Embankment at Wingwalls.

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

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

It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction area free of water. The method of the water diversion shall be subjected to the approval of the Engineer and the cost shall be included with the cost of the Concrete Box Culverts.

Precast alternate is not allowed.

WATERWAY INFORMATION

Drainage Area = 2.1 sq. mi.

Exist. Low Grade Elev. 876.00 @ Sta. 750+97
Prop. Low Grade Elev. 876.00 @ Sta. 750+97

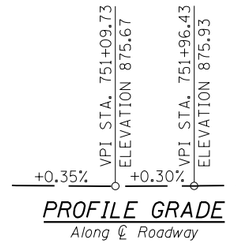
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	301	18	25	867.3	3.7	2.4	871.0	869.7
Design	50	524	27	36	868.4	5.2	3.6	873.6	872.0
Base	100	655	31	41	868.9	6.4	4.3	875.3	873.2
Overtop Exist.	200	765	35	45	869.3	7.1	5.1	876.4	874.4
Overtop Prop.	500	970		52	870.0		6.4		876.4
Max. Calc.	500	970	41	52	870.0	6.8	6.4	876.8	876.4

10-year existing velocity = 12.9 ft/s
10-year proposed velocity = 9.9 ft/s

2-year peak flow = 50 C.F.S.
2-year peak elevation = 866.97 ft
2-year peak bypass opening = 17 Sq. Ft.

CURVE DATA

P.I. Sta. = 762+16.00
Δ = 43°40'00" (LT)
D = 1°24'00"
R = 4,092.66'
T = 1,639.71'
L = 3,119.13'
E = 316.25'
P.C. Sta. = 745+76.29
P.T. Sta. = 776+95.41



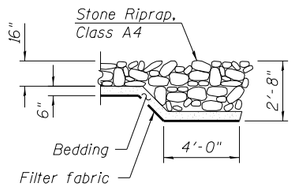
PROFILE GRADE

Along ℄ Roadway

STATION 751+21
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 307
SEC. 2015-041B
LOADING HL-93
STRUCTURE NO. 045-2102

NAME PLATE

See Std. 515001



SECTION B-B

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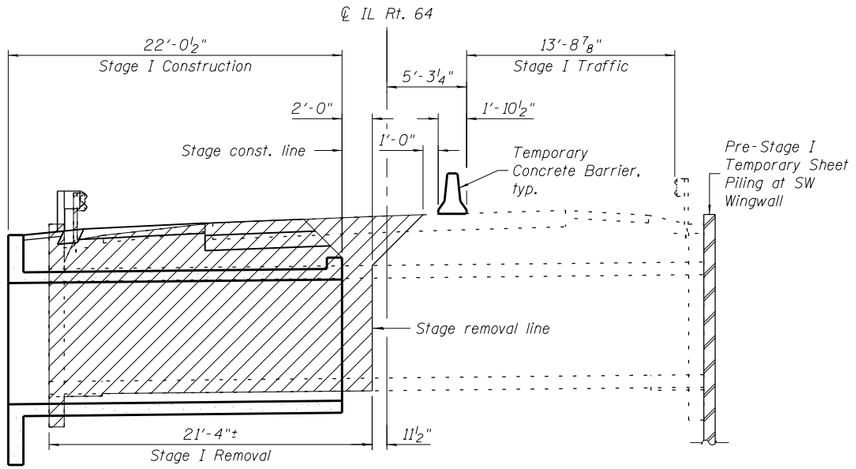
PLOT SCALE = 0.2 ' / in.	DRAWN - JAA	REVISED -
PLOT DATE = 1/5/2017	DATE - 1/5/2017	REVISED -

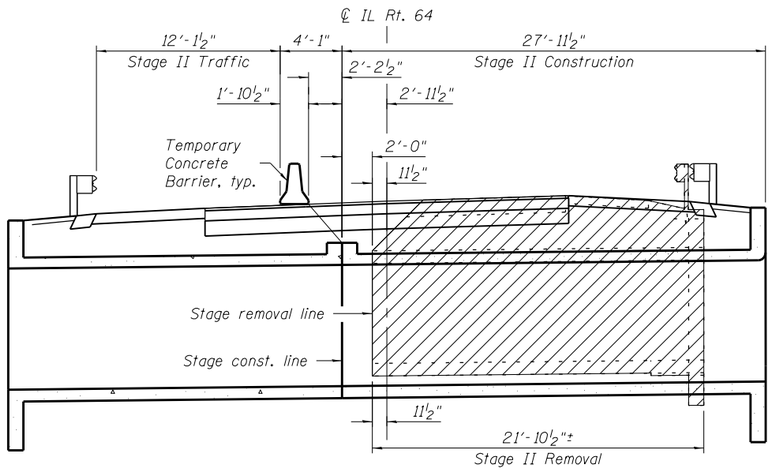
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 045-2102
SHEET NO. 2 OF 11 SHEETS

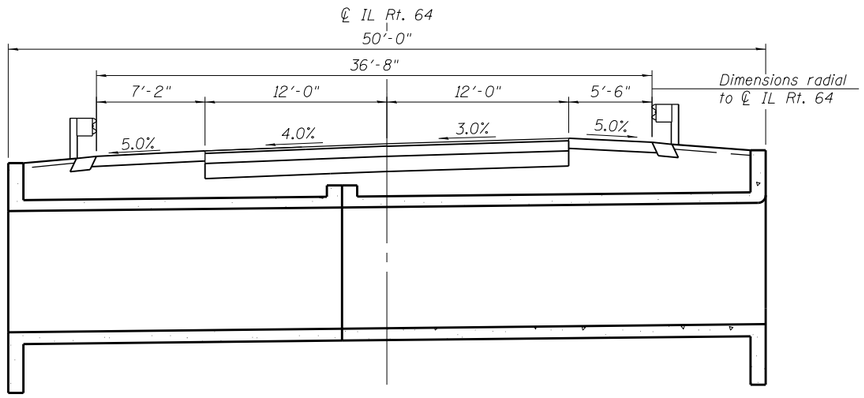
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	33
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			



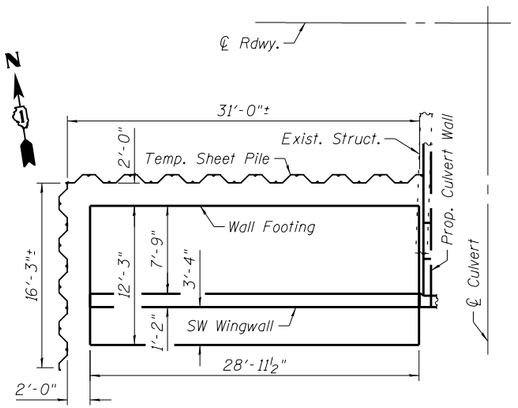
STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

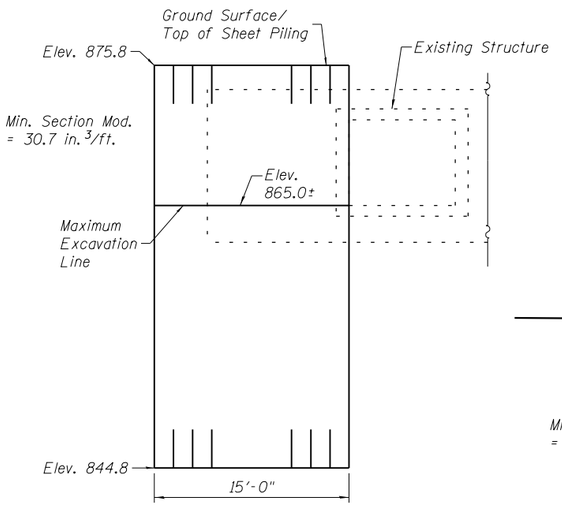


FINAL CONSTRUCTION



PART PLAN AT SW WINGWALL

(Showing Stage II Temp. Sheet Pile)



PRE-STAGE I TEMPORARY SHEET PILING DETAIL

(Looking North)

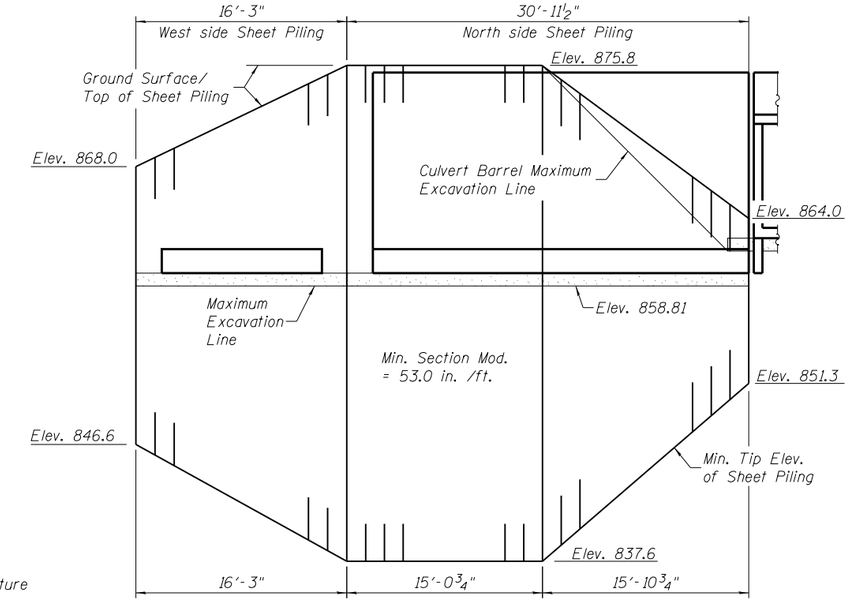
Notes:

All staging sections are looking East.

For quantity of Temporary Concrete Barrier, see roadway plans.

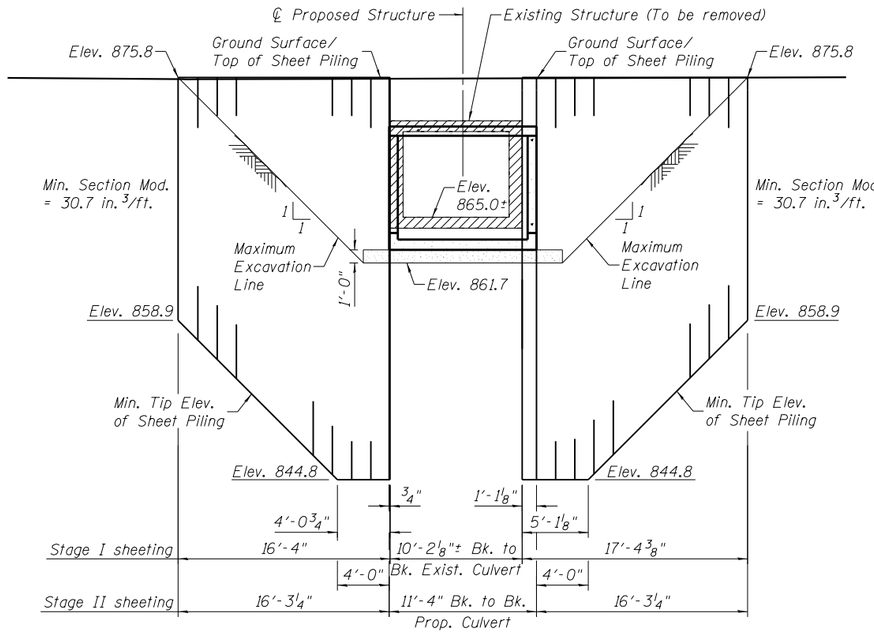
For Temporary Concrete Barrier, see Sheet 4 of 11.

Crosshatched areas indicate Removal of Existing Structures.



STAGE II TEMPORARY SHEET PILING DETAIL FOR SW WINGWALL

(Looking North - Developed Elevation)



TEMPORARY SHEET PILING DETAILS

(Looking North)

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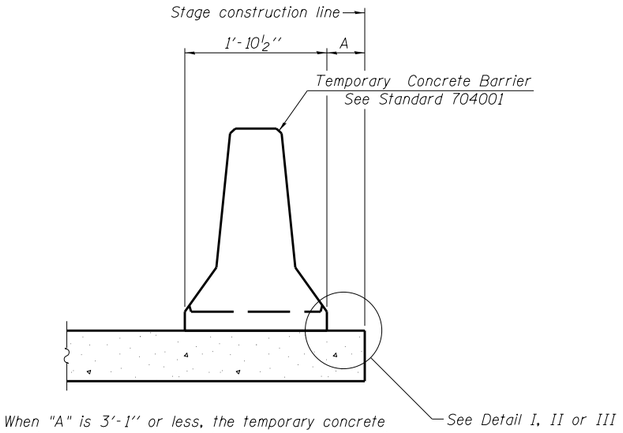
PLOT DATE = 12/7/2016	DATE - 12/9/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

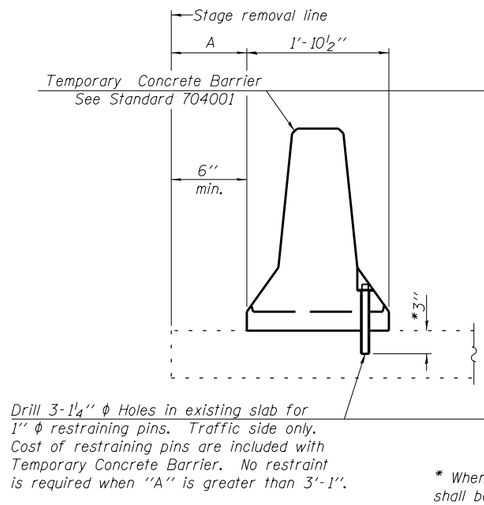
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 045-2102
SHEET NO. 3 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	34
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		



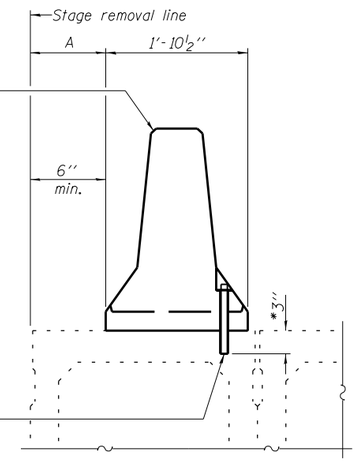
When "A" is 3'-1'' or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼'' ϕ Holes in existing slab for 1'' ϕ restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

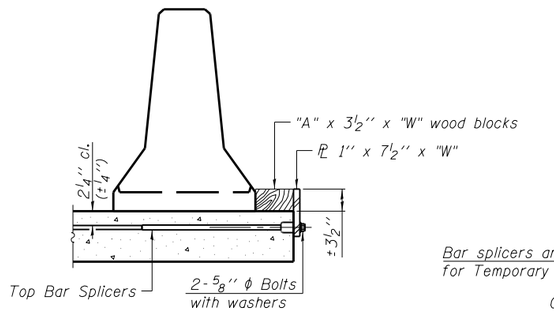
EXISTING SLAB



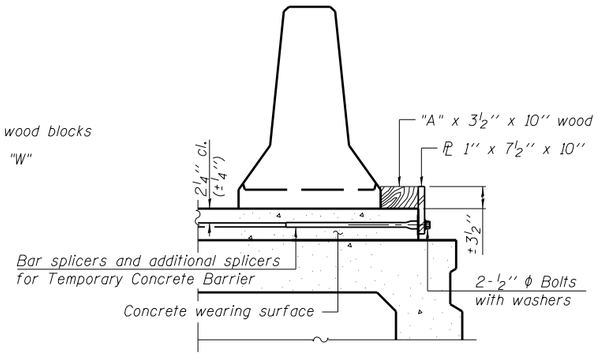
* When hot-mix asphalt wearng surface is present, embedment shall be 3'' plus the wearing surface depth.

EXISTING DECK BEAM

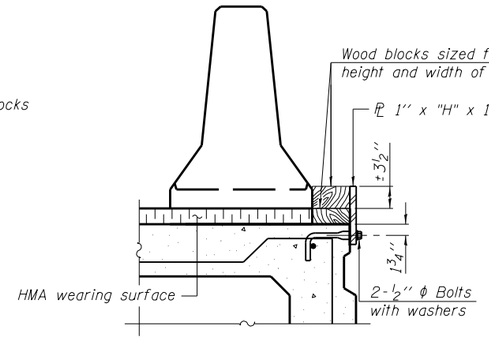
SECTIONS THRU SLAB OR DECK BEAM



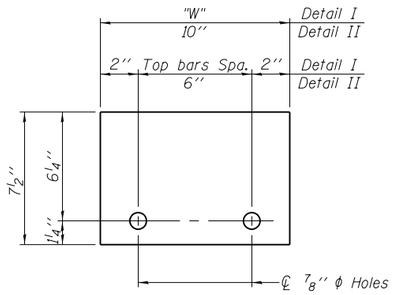
DETAIL I



DETAIL II

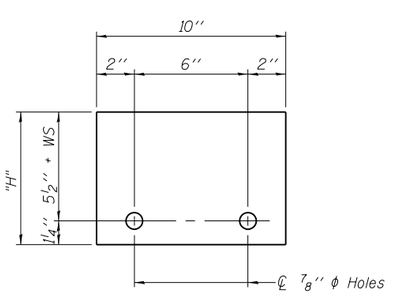


DETAIL III



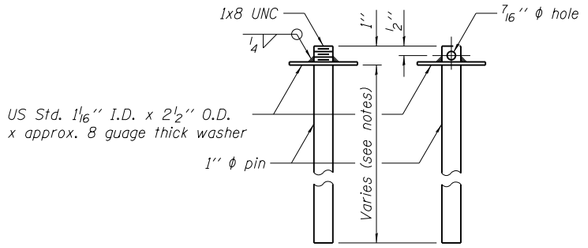
STEEL RETAINER ℄ 1'' x 7½'' x "W"

(Detail I and II)

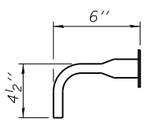


STEEL RETAINER ℄ 1'' x "H" x 10''

(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½'', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6'' to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0'' centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6'' apart, shall be placed at 6'-0'' centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

11-22-2016

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Phone: 312.396.4065

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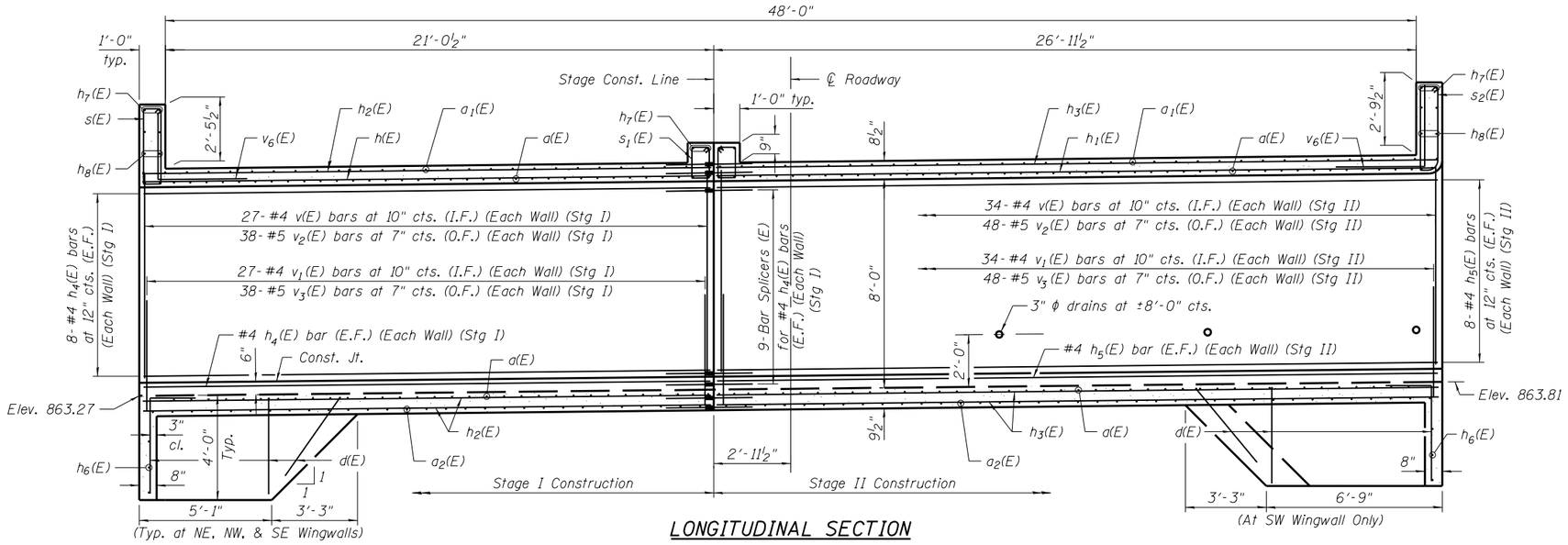
PLOT DATE = 12/7/2016	DATE - 12/9/2016	REVISED -

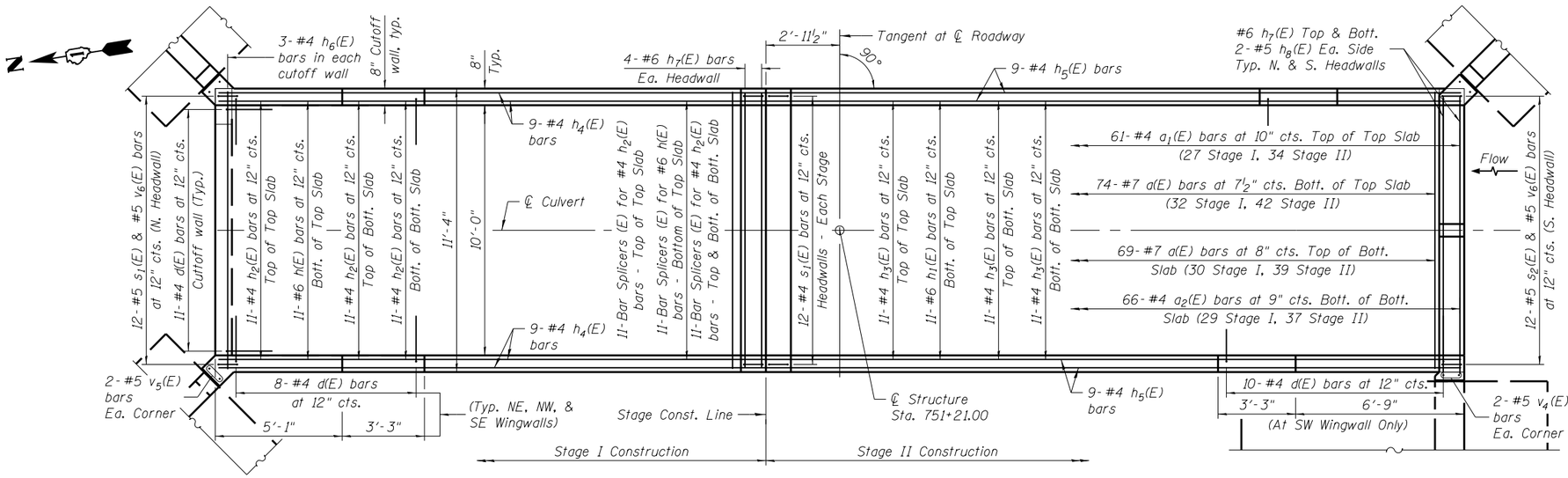
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 045-2102
SHEET NO. 4 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	35
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

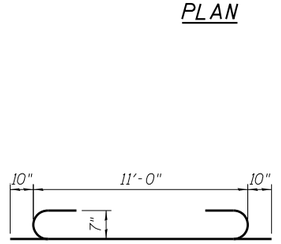


LONGITUDINAL SECTION

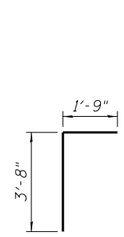


PLAN

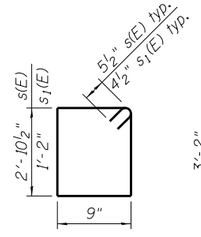
Note:
For Section Thru Barrel, Corner Details, Drainage Details and Headwall details not shown, see Sheet 6 of 11.
For Wingwall details see Sheets 8 and 9 of 11.



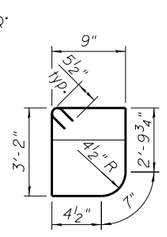
BAR d(E)



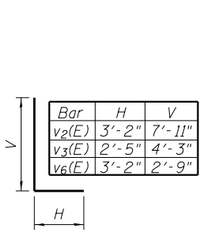
BAR d(E)



BAR s(E) & s1(E)



BAR s2(E)



Bar	H	V
v2(E)	3'-2"	7'-11"
v3(E)	2'-5"	4'-3"
v6(E)	3'-2"	2'-9"

BAR v2(E), v3(E) & v6(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	143	#7	12'-8"	
a1(E)	61	#4	11'-0"	
a2(E)	66	#4	10'-6"	
d(E)	56	#4	5'-5"	
h(E)	11	#6	21'-8"	
h1(E)	11	#6	27'-7"	
h2(E)	33	#4	21'-8"	
h3(E)	33	#4	27'-7"	
h4(E)	36	#4	21'-8"	
h5(E)	36	#4	27'-7"	
h6(E)	8	#4	11'-4"	
h7(E)	16	#6	11'-0"	
h8(E)	8	#5	11'-0"	
s(E)	12	#5	8'-2"	
s1(E)	24	#4	4'-7"	
s2(E)	12	#5	8'-7"	
v(E)	122	#4	7'-11"	
v1(E)	122	#4	3'-0"	
v2(E)	172	#5	11'-1"	
v3(E)	172	#5	6'-8"	
v4(E)	8	#5	10'-4"	
v5(E)	8	#5	7'-9"	
v6(E)	24	#5	5'-11"	
Concrete Box Culverts			Cu. Yd.	61.1
Reinforcement Bars, Epoxy Coated			Pound	12,970

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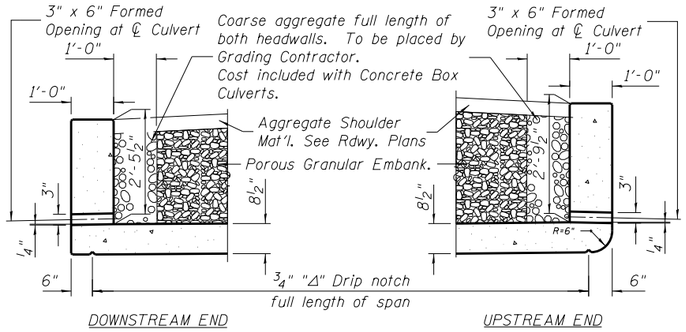
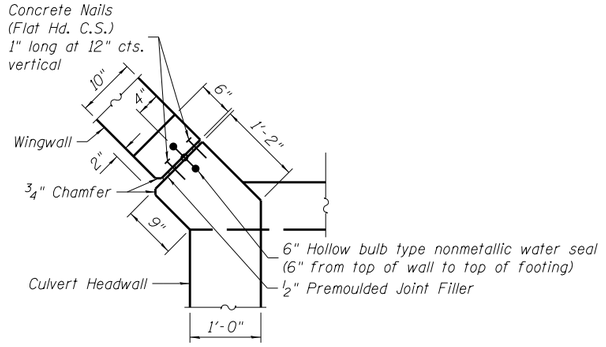
CULVERT DETAILS (1 OF 2)
STRUCTURE NO. 045-2102
SHEET NO. 5 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	36
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

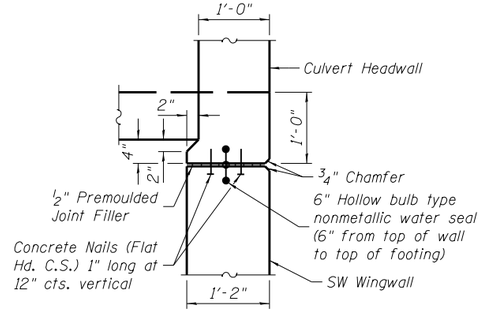


DRAIN DETAILS



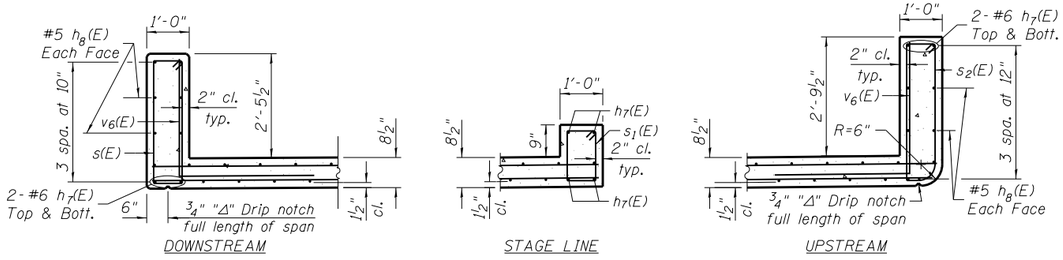
CORNER DETAIL

(NE Wingwall shown, NW & SE Wingwalls similar)



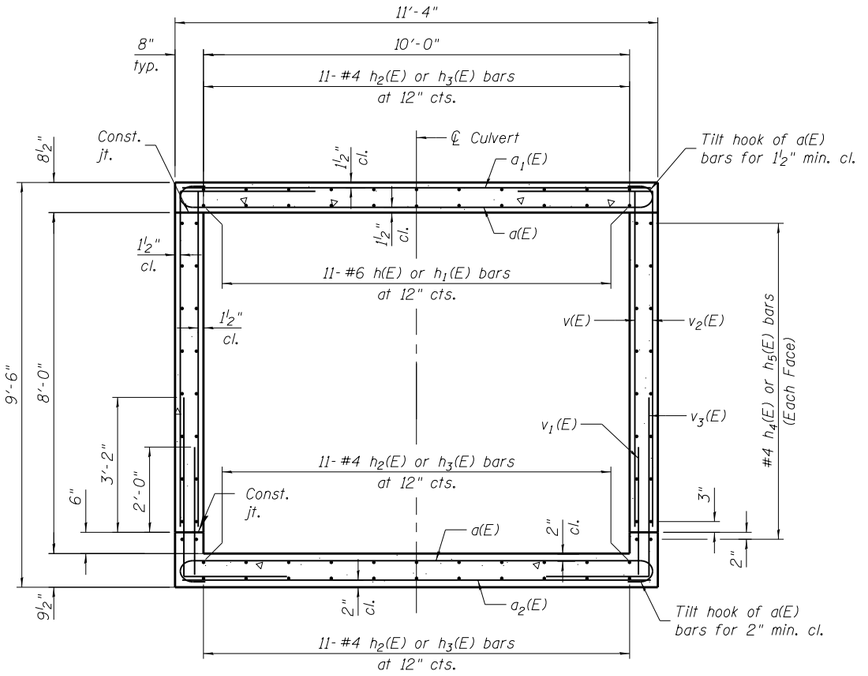
CORNER DETAIL

(SW Wingwall)



SECTION THRU HEADWALLS

Build headwalls parallel to grade.



SECTION THRU BARREL

Note:
- For Plan and Longitudinal Section views of Culvert, see Sheet 6 of 11.
- For Culvert Bill of Material and Bar Bend details, see Sheet 6 of 11.
- For Wingwall details see Sheets 8 and 9 of 11.

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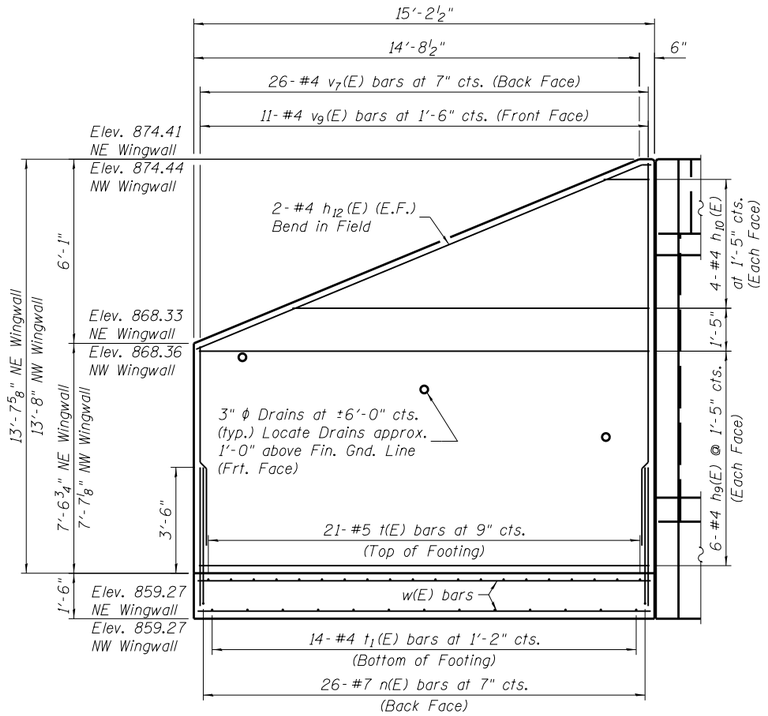
DEPARTMENT OF TRANSPORTATION

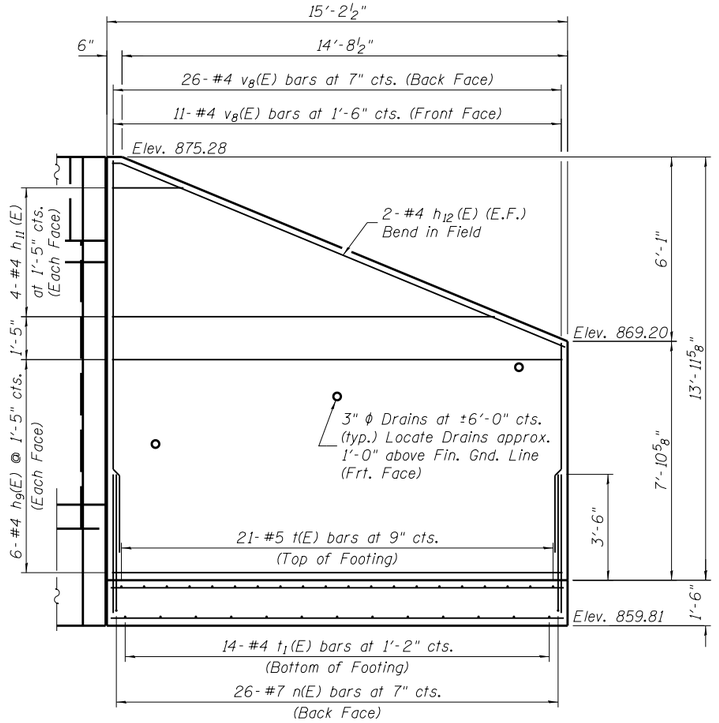
CULVERT DETAILS (2 OF 2)
STRUCTURE NO. 045-2102
SHEET NO. 6 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	37
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			



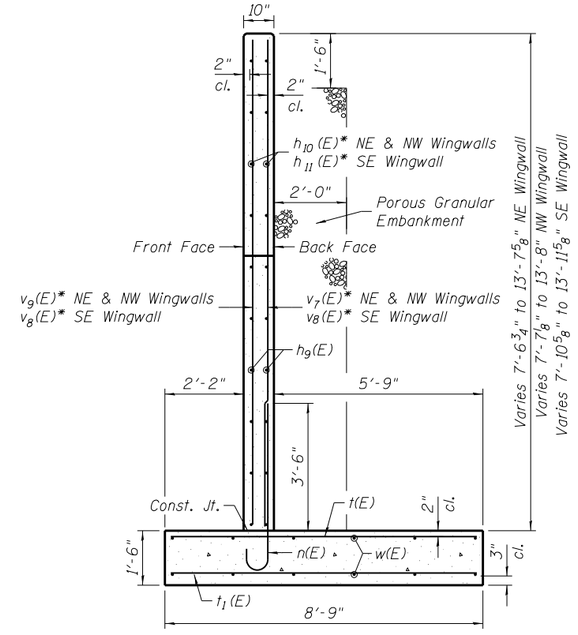
ELEVATION

(Northeast Wingwall shown, Northwest Wingwall opposite)



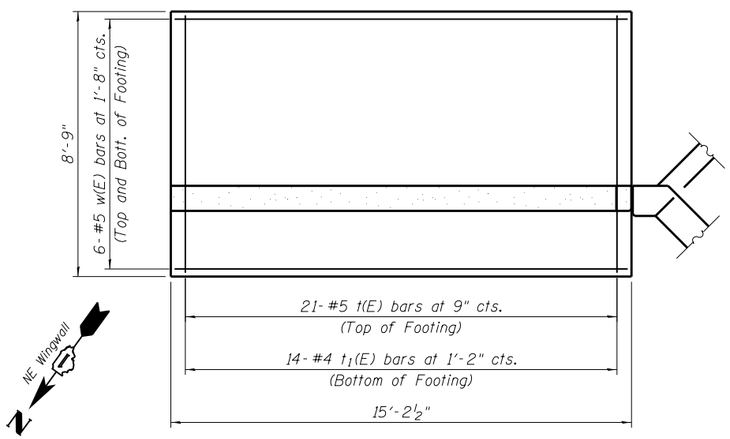
ELEVATION

(Southeast Wingwall)



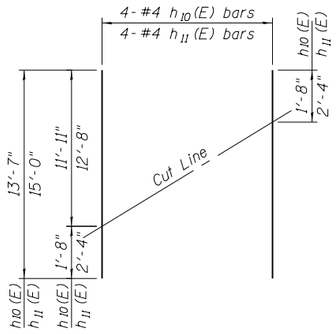
SECTION

*See Field Cutting Diagrams.



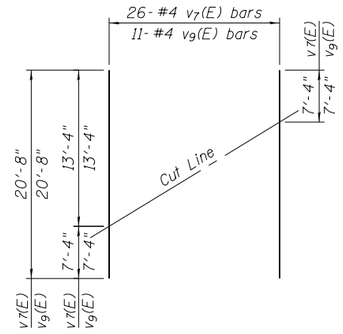
PLAN

Northeast wingwall shown, Northwest and Southeast wingwalls similar.



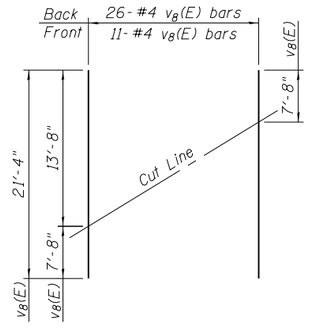
BAR CUTTING DIAGRAM

Order bars full length. Cut as shown and use remainder of bars in opposite face.



BAR CUTTING DIAGRAM

Order bars full length. Cut as shown for NE Wingwall and use remainder of bars in NW Wingwall face.

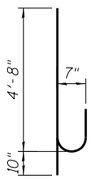


BAR CUTTING DIAGRAM

Order bars full length. Cut as shown for Back Face and use remainder of bars in opposite face. Discard unused bars.

BILL OF MATERIAL FOR THREE WINGWALLS

Bar	No.	Size	Length	Shape
$h_9(E)$	36	#4	14'-11"	
$h_{10}(E)$	8	#4	13'-7"	
$h_{11}(E)$	4	#4	15'-0"	
$h_{12}(E)$	6	#4	16'-1"	
n(E)	78	#7	5'-6"	
t(E)	63	#5	8'-3"	
$t_1(E)$	42	#4	8'-3"	
$v_7(E)$	26	#4	20'-8"	
$v_8(E)$	26	#4	21'-4"	
$v_9(E)$	11	#4	20'-8"	
w(E)	36	#5	14'-9"	
Structure Excavation			Cu. Yd.	255
Concrete Structures			Cu. Yd.	37.4
Reinforcement Bars, Epoxy Coated			Pound	3,620



BAR n(E)

NOTES

See Sheet 6 of 11 for corner detail.

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WINGWALL DETAILS
STRUCTURE NO. 045-2102
SHEET NO. 7 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	38
		CONTRACT NO. 62B02		
		ILLINOIS FED. AID PROJECT		

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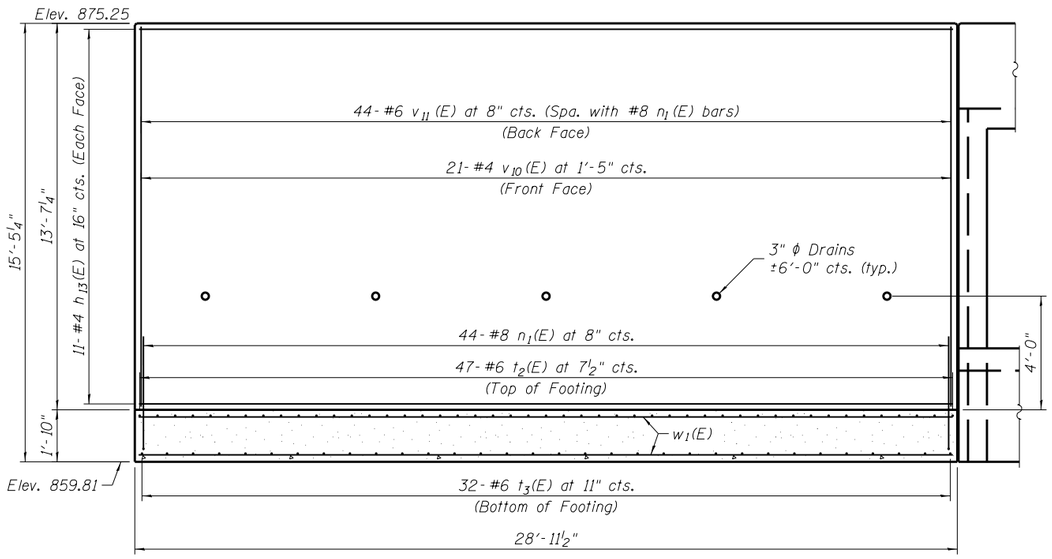
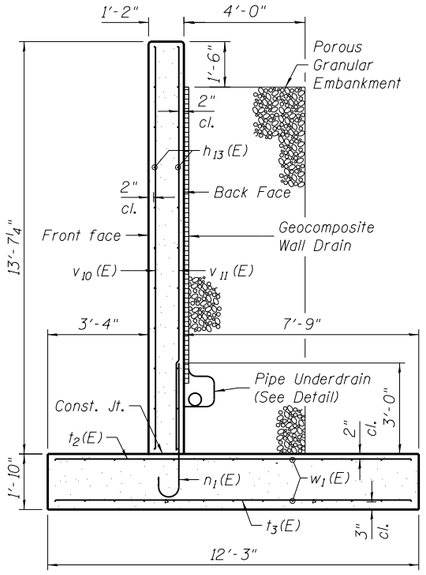


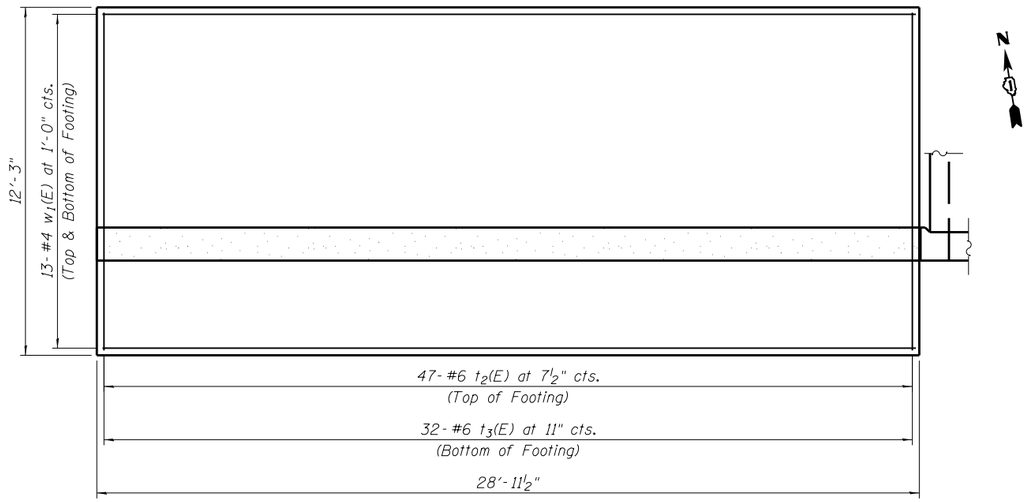
ELEVATION SOUTHWEST WINGWALL



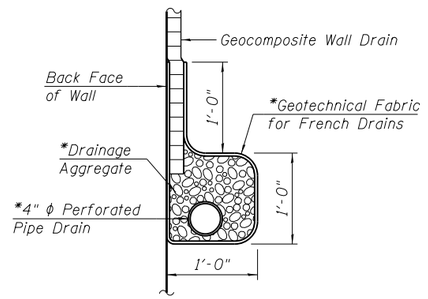
SECTION

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{13} (E)	22	#4	28'-7"	
n_1 (E)	44	#8	5'-5"	
t_2(E)	47	#6	11'-11"	
t_3(E)	32	#6	11'-9"	
v_{10} (E)	21	#4	13'-3"	
v_{11} (E)	44	#6	13'-3"	
w_1(E)	26	#4	28'-6"	
Structure Excavation			Cu. Yd.	218
Concrete Structures			Cu. Yd.	41.1
Reinforcement Bars, Epoxy Coated			Pound	4,020
Geocomposite Wall Drain			Sq. Yd.	39
Pipe Underdrains for Structures 4"			Foot	39

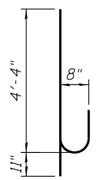


PLAN SOUTHWEST WINGWALL



PIPE UNDERDRAIN DETAIL

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



BAR n_1(E)

NOTES

See Sheet 6 of 11 for corner detail.

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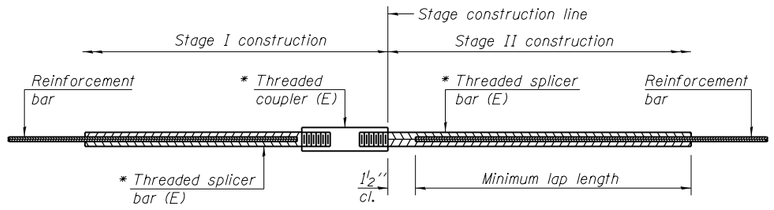
DEPARTMENT OF TRANSPORTATION

WINGWALL DETAILS
STRUCTURE NO. 045-2102
SHEET NO. 8 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	39
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

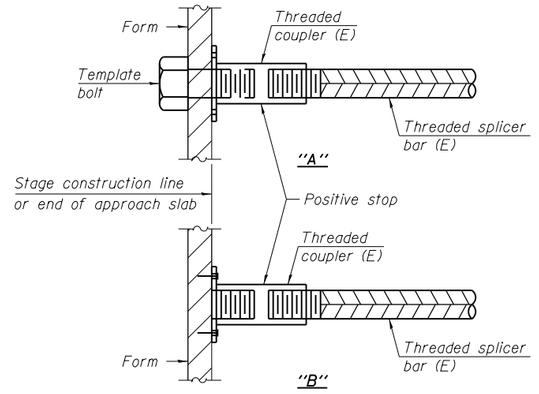


STANDARD BAR SPLICER ASSEMBLY

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

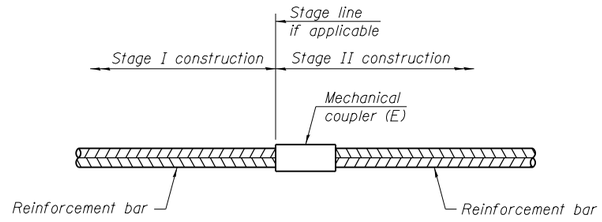
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Top of Top Slab	#4	11	2'-7"
Bottom of Top Slab	#6	11	3'-10"
Walls	#4	36	3'-7"
Top of Bottom Slab	#4	11	2'-7"
Bottom of Bottom Slab	#4	11	2'-7"



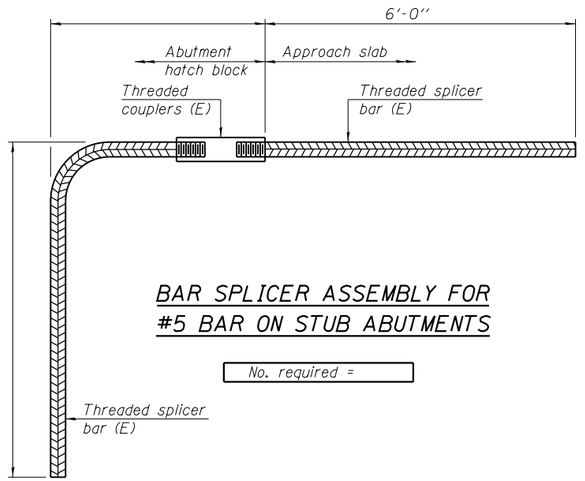
INSTALLATION AND SETTING METHODS

"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



NOTES

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

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

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

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

BSD-1

11-22-2016

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BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 045102-2102
SHEET NO. 9 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	40
		CONTRACT NO. 62B02		
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SOIL BORING LOG

PAGE 1 of 2
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ROUTE Il. Route 64 DESCRIPTION Illinois Route 64 Over Mill Creek
SECTION – LOCATION SEC22 T40N R7E NW1/4 3rd PM, St. Charles, Kane County, Illinois
COUNTY Kane DRILLING METHOD 4.0" HSA/Rotary HAMMER TYPE CME Automatic
STRUCT. NO. Ex 045-0236, Pr 045-2102
Station 751+21
BORING NO. SB-01
Station 751+11
Offset 15.4' Left
Ground Surface Elev. 874.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 865.8
Upon Completion n/a
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" ASPHALT							
TOPSOIL–black–very loose (Fill)	2		*98*		5		
	2 4	1.4B	20		5 7		20
SILTY CLAY–dark brown, gray & black–medium stiff (Fill)	1			SANDY SILT to SILT–gray–medium dense	5		
–5	1 2	0.75P	24	–25	6 11		21
	2				8		
TOPSOIL–black–loose (Fill)	2 3	1.25P	22		9 10		21
	3				5		
SANDY TOPSOIL with Cinders–black–loose (Fill)	4				7		
–10	5	–	23	–30	8		22
CLAYEY SAND & GRAVEL–gray–medium dense	10				5		
	15 12		13		8 9		18
	8				9		
–15	9 17		12	–35	10 12		24
CLAY LOAM–gray–stiff	6		*115*	SANDY SILT–brown–medium dense	7		
	8 8	1.1B	14		10 11		26
SANDY SILT to SILT–gray–medium dense	7				9		
–20	8 10		18	–40	11 15		25

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

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ROUTE Il. Route 64 DESCRIPTION Illinois Route 64 Over Mill Creek
SECTION – LOCATION SEC22 T40N R7E NW1/4 3rd PM, St. Charles, Kane County, Illinois
COUNTY Kane DRILLING METHOD 4.0" HSA/Rotary HAMMER TYPE CME Automatic
STRUCT. NO. Ex 045-0236, Pr 045-2102
Station 751+21
BORING NO. SB-01
Station 751+11
Offset 15.4' Left
Ground Surface Elev. 874.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 865.8
Upon Completion n/a
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY SILT–brown–medium dense							
	9						
	15 16		10				
SAND & GRAVEL–brown–medium dense to dense	15						
–45	17 10		8	–65			
	6						
	8 8	3.0P	14				
CLAY LOAM–gray–very stiff	5		*121*				
	9						
–50	11	2.0B	12	–70			
End Of Boring @ –50.0' Hollow Stem Augers To –10.0' Rotary Drilling To Completion CME Automatic Hammer							
–55				–75			
–60				–80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

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BORING LOGS
STRUCTURE NO. 045-2102
SHEET NO. 10 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	41
		CONTRACT NO. 62B02		
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SOIL BORING LOG

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ROUTE Il. Route 64 DESCRIPTION Illinois Route 64 Over Mill Creek
SECTION – LOCATION SEC22 T40N R7E NW1/4 3rd PM, St. Charles, Kane County, Illinois
COUNTY Kane DRILLING METHOD 4.0" HSA/Rotary HAMMER TYPE CME Automatic
STRUCT. NO. Ex 045-0236, Pr 045-2102
Station 751+21
BORING NO. SB-02
Station 751+30
Offset 14.5' Right
Ground Surface Elev. 875.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 868.7
Upon Completion n/a
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				13.0" ASPHALT
	2			
	3			SANDY TOPSOI-black-loose (Fill)
	4	1.25P	19	
	3			SANDY SILT to SILT-gray-medium dense
–5	4			SAND & GRAVEL-brown-loose (Fill)
	3		8	
	2			
	3			TOPSOIL-black-loose (Fill)
	4		7	
	2			
–10	2			SILTY CLAY-dark brown & gray-stiff
	2	1.0P	29	
	6			GRAVEL with Sand-gray-medium dense
	8			
	9		9	
	4			SAND & GRAVEL-gray-medium dense
	6			
–15	10		13	
	7			
	10			
	11		10	
	4			CLAY LOAM-gray-very stiff
	7	2.25P		SANDY SILT to SILT-gray-medium dense
–20	10		13	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	8			
	11			
	12		20	
	6			
	7			
–25	8		18	
	5			
	8			
	9		22	
	4			
	5			
–30	6		22	
	4			
	8			
	8		20	
	6			
	10			
–35	12		21	
	10			SAND-brown-medium dense
	12			SAND with Gravel-brown-medium dense
	13		16	
	9			SAND & GRAVEL-brown-medium dense
	10			
–40	15		15	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

PAGE 2 of 2
DATE 8/3/2015
LOGGED BY DR
GSI JOB No. 15112

ROUTE Il. Route 64 DESCRIPTION Illinois Route 64 Over Mill Creek
SECTION – LOCATION SEC22 T40N R7E NW1/4 3rd PM, St. Charles, Kane County, Illinois
COUNTY Kane DRILLING METHOD 4.0" HSA/Rotary HAMMER TYPE CME Automatic
STRUCT. NO. Ex 045-0236, Pr 045-2102
Station 751+21
BORING NO. SB-02
Station 751+30
Offset 14.5' Right
Ground Surface Elev. 875.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 868.7
Upon Completion n/a
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	9			SAND & GRAVEL-brown-medium dense
	10			
	12		11	
	9			SAND-brown-dense
–45	14			
	16		20	
				End Of Boring @ –45.0'
				Hollow Stem Augers To –10.0'
				Rotary Drilling To Completion
				CME Automatic Hammer
–50				
–55				
–60				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
–65			
–70			
–75			
–80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

PRINT DATE: 12/7/2016 1:31:11 PM Y:\13015.06 IDOT DIIL64 over Ferson & Mill Crks\DGN\Bridge\final\Plotsheets\Mill\045202-62B02-Oll-Borings.dgn

EFK•Moen, LLC
Civil Engineering Design
125 South Wacker Drive, Suite 2090
Chicago, IL 60606
Phone: 312.396.4065

USER NAME = cdl	DESIGNED - CTW	REVISED -
	CHECKED - CDL	REVISED -
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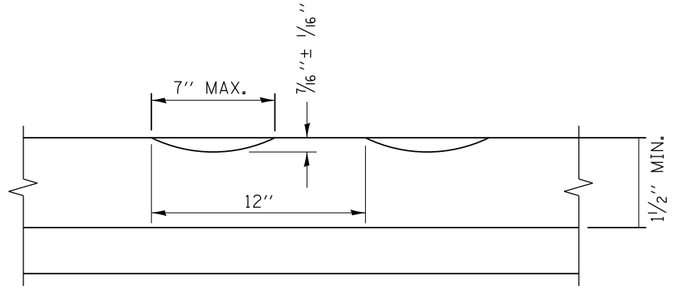
PLOT DATE = 12/7/2016	DATE - 12/9/2016	REVISED -

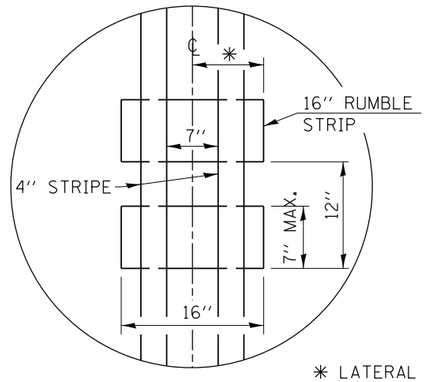
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 045-2102
SHEET NO. 11 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	42
		CONTRACT NO. 62B02		
	ILLINOIS FED. AID PROJECT			

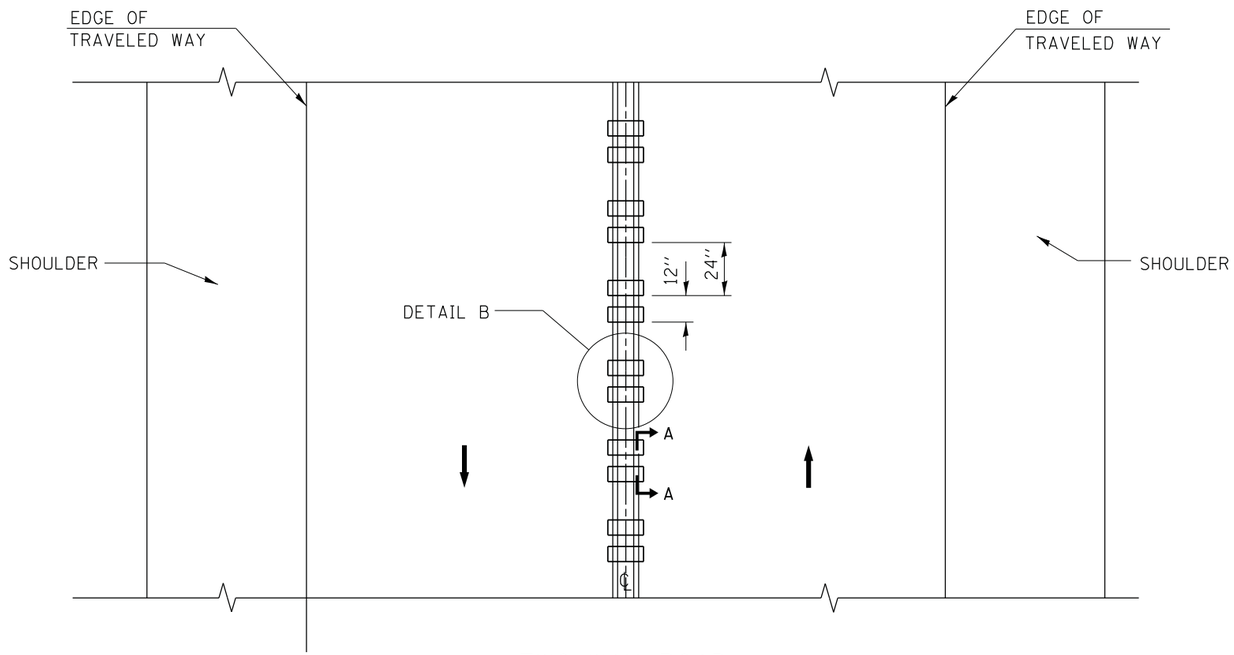


SECTION A-A



* LATERAL DEVIATION SHALL NOT EXCEED ONE INCH IN 100 FEET.

DETAIL B



TWO-WAY ROAD

GENERAL NOTES

CENTERLINE RUMBLE STRIPS SHALL BE CONSTRUCTED ACCORDING TO SECTION 642 ALONG THE CENTERLINE OF PAVEMENT.

SEE STANDARD 780001 FOR OTHER STRIPING LAYOUTS.

RUMBLE STRIPS SHALL NOT BE PLACED ON BRIDGES.

ALL RUMBLE STRIPS SHALL BE MILLED.

CENTERLINE RUMBLE STRIPS SHALL BE CONTINUOUS THROUGH CONNECTIONS OF SIDEROADS WITH NO LEFT TURN LANES.

DISCONTINUE CENTERLINE RUMBLE STRIPS THROUGH THE LIMITS OF ALL LEFT TURN LANES, INCLUDING ANY LANE TAPER SECTIONS.

AFTER RUMBLE STRIPS ARE INSTALLED, THE PAVEMENT SURFACE SHALL BE SWEPT CLEAN PRIOR TO THE PLACEMENT OF THE NEW PAVEMENT MARKINGS.

WHERE USED, ADJUST SPACING OF RAISED REFLECTIVE PAVEMENT MARKERS TO FALL IN WIDER GAP BETWEEN RUMBLE STRIPS.

BASIS OF PAYMENT

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR CENTERLINE-RUMBLE STRIP OF THE WIDTH SPECIFIED.

HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING WILL BE USED OVER THE RUMBLE STRIPS, AND WILL BE PAID FOR SEPARATELY.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RUMBLE STRIPES FOR CENTERLINE, NON-FREEWAY

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	43
	BD 55	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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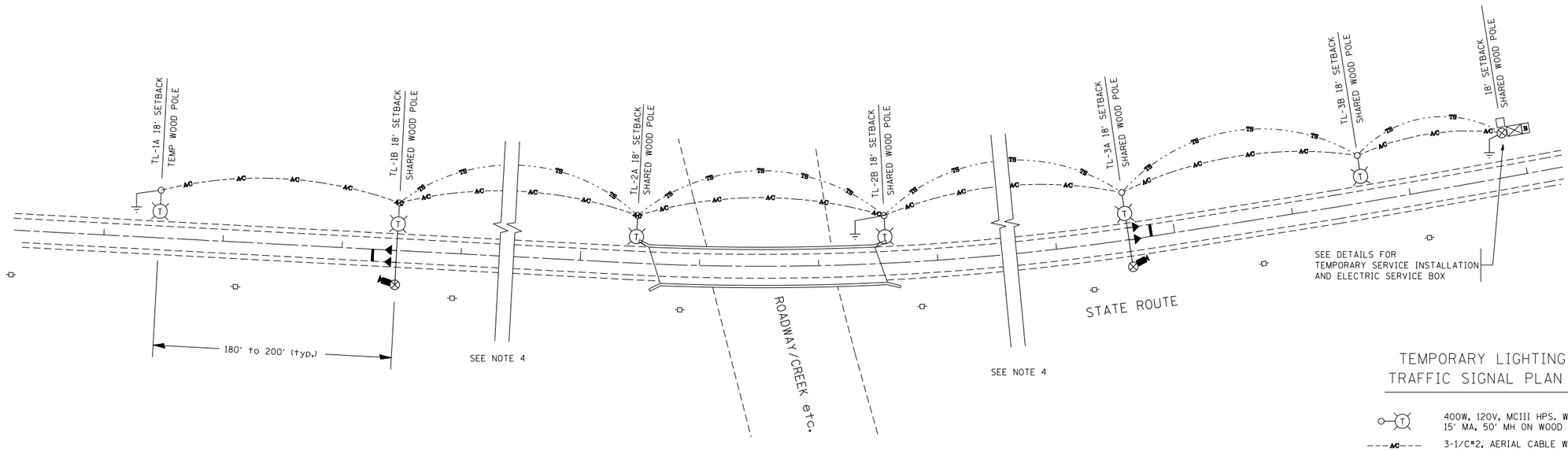


TYPICAL LAYOUT FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS

NOT TO SCALE

TEMPORARY LIGHTING AND TRAFFIC SIGNAL PLAN LEGEND

T	400W, 120V, MCIII HPS. WITH PHOTO CELL 15' MA, 50' MH ON WOOD POLE, CLASS 4
AC	3-1/C#2, AERIAL CABLE WITH MESSENGER WIRE UNLESS OTHERWISE NOTED
TL-1A	TEMPORARY LIGHTING UNIT NUMBER - ONE CIRCUIT A
	GROUND ROD 5/8" DIA. x 10'
	COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
	TEMPORARY WOOD POLE - NOMINAL 60 FT., CLASS 4
	TEMPORARY LED TRAFFIC SIGNAL HEAD, NUMBER OF SECTION AND DISPLAY AS REQUIRED.
TS	TEMPORARY TRAFFIC SIGNAL SPAN WIRE, NUMBER OF CONDUCTORS AS REQUIRED.
B	TEMPORARY TRAFFIC CONTROLLER WITH UPS AND BOTTOM PLATE MOUNTED TO WOOD POLE
	TEMPORARY VIDEO DETECTOR

GENERAL NOTES:

1. CONTACT TO THE ELECTRIC UTILITY SHALL BE INITIATED BEFORE THE PRECONSTRUCTION MEETING, AND DOCUMENTATION OF CONTACT SHALL BE PRESENTED AT THAT MEETING. NO PLACEMENT OF POLES WILL BE ALLOWED WITHOUT EVIDENSE OF A SIGNED AGREEMENT WITH THE ELECTRIC UTILITY, FURNISHED TO THE ENGINEER.

2. UNLESS OTHERWISE INDICATED, AND EXCEPT AS OTHERWISE NOTED, THIS STANDARDIZED LAYOUT SHALL APPLY FOR BRIDGES NOT EXCEEDING A 250-FOOT SPAN. FOR BRIDGE SPANS IN EXCESS OF 250 FEET, THE POLES IMMEDIATELY ADJACENT TO THE BRIDGE SHALL BE 100-FOOT POLES (90-FOOT MOUNTING HEIGHT), WITH 750-WATT TYPE III HIGH PRESSURE SODIUM HIGH-MAST LUMINAIRES AS APPROVED BY THE ENGINEER.

3. THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES, TRAFFIC SIGNALS, AND COMBINED SERVICE. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED

4. THE ELECTRIC SERVICE SHALL BE 240/120V. WHERE 240V SERVICE IS NOT AVAILABLE, THE CONTRACTOR MAY SUBMIT A PROPOSAL FOR 120V SERVICE. DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED

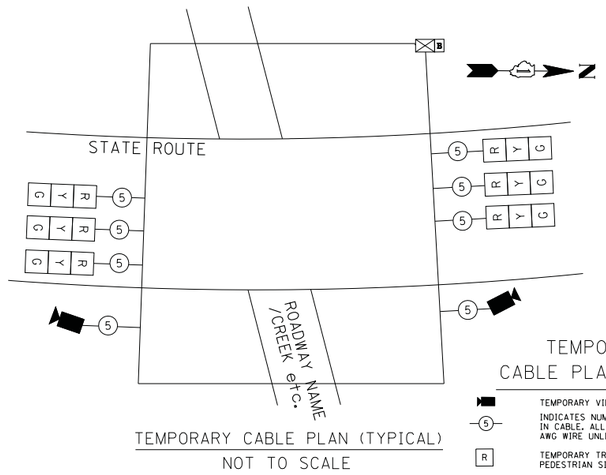
5. THE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATION SHALL SHARE ANY COMMON ELEMENTS SUCH AS WOOD POLES, ELECTRICAL SERVICE, ELECTRIC SERVICE BOX, CABLE, ETC. THE CONTRACTOR SHALL COORDINATE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATIONS.

6. THE LIGHT POLE SETBACK FROM THE EDGE OF TRAVEL PAVEMENT SHALL BE 18 FT. UNLESS THE LIGHT POLE IS BEHIND GUARDRAIL. THE LIGHT POLES INSTALLED BEHIND THE GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 8 FT. SETBACK FROM THE BACK OF THE SHOULDER AND OR AS DIRECTED BY THE ENGINEER.

7. EACH LIGHTING UNIT SHALL BE CONTROLLED BY A PHOTO CELL MOUNTED ON EACH LUMINAIRE WITH THE LIGHTING CIRCUIT FED FROM THE TEMPORARY SERVICE DISCONNECT BOX. OTHER MEANS OF LUMINAIRE CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER.

8. THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH THE FACTORY APPLIED WATERPROOF SEALENT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.

9. ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ENGINEER.



TEMPORARY CABLE PLAN (TYPICAL)

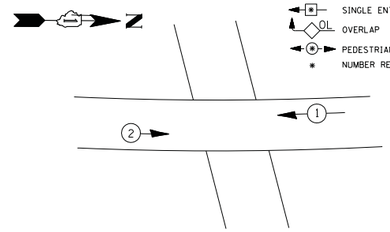
NOT TO SCALE

TEMPORARY CABLE PLAN LEGEND

	TEMPORARY VIDEO DETECTOR
5	INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
R	TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)

TEMPORARY PHASE DESIGNATION DIAGRAM LEGEND

	DUAL ENTRY PHASE
	SINGLE ENTRY PHASE
OL	OVERLAP
	PEDESTRIAN PHASE
*	NUMBER REFERS TO ASSOCIATED PHASE



TEMPORARY PHASE DESIGNATION DIAGRAM (TYPICAL)

NOT TO SCALE

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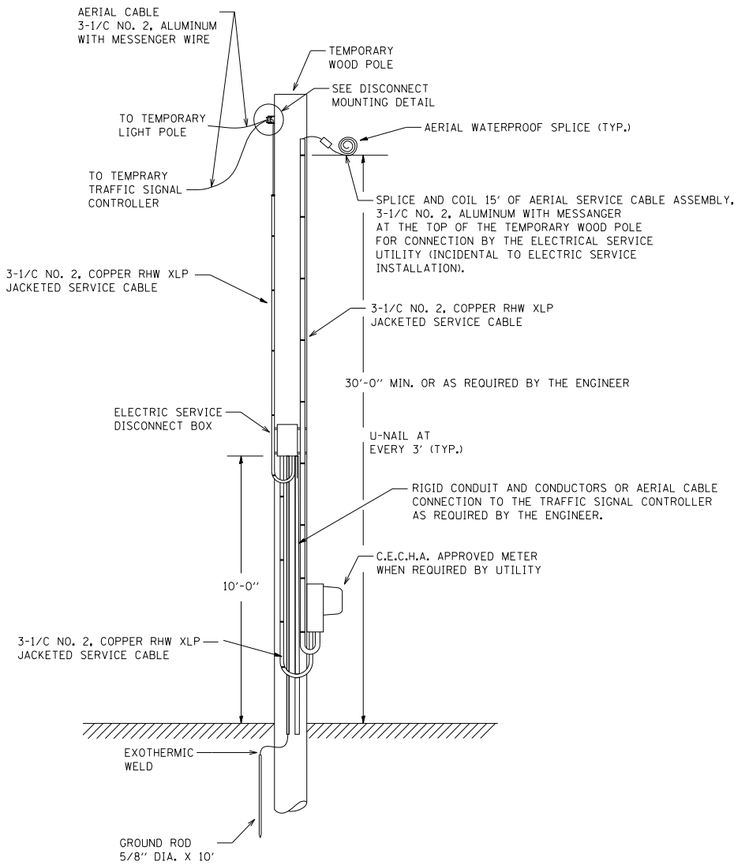
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING

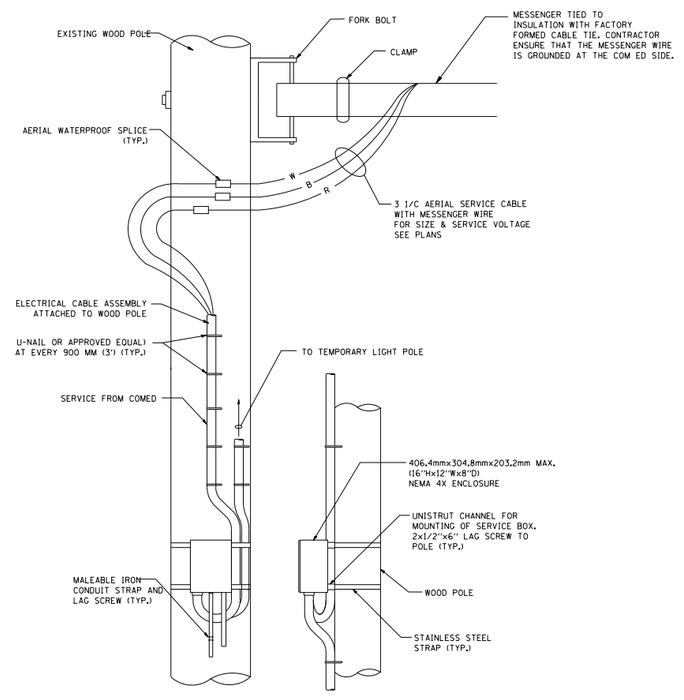
SCALE: NONE | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	44
	BE-805	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



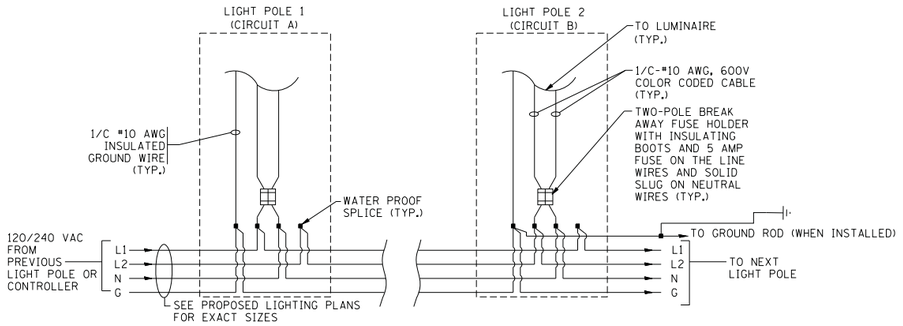
TEMPORARY SERVICE INSTALLATION DETAIL

NOT TO SCALE



DISCONNET MOUNTING DETAIL

NOT TO SCALE



LIGHT POLE WIRING DETAIL

NOT TO SCALE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING

SCALE: NONE | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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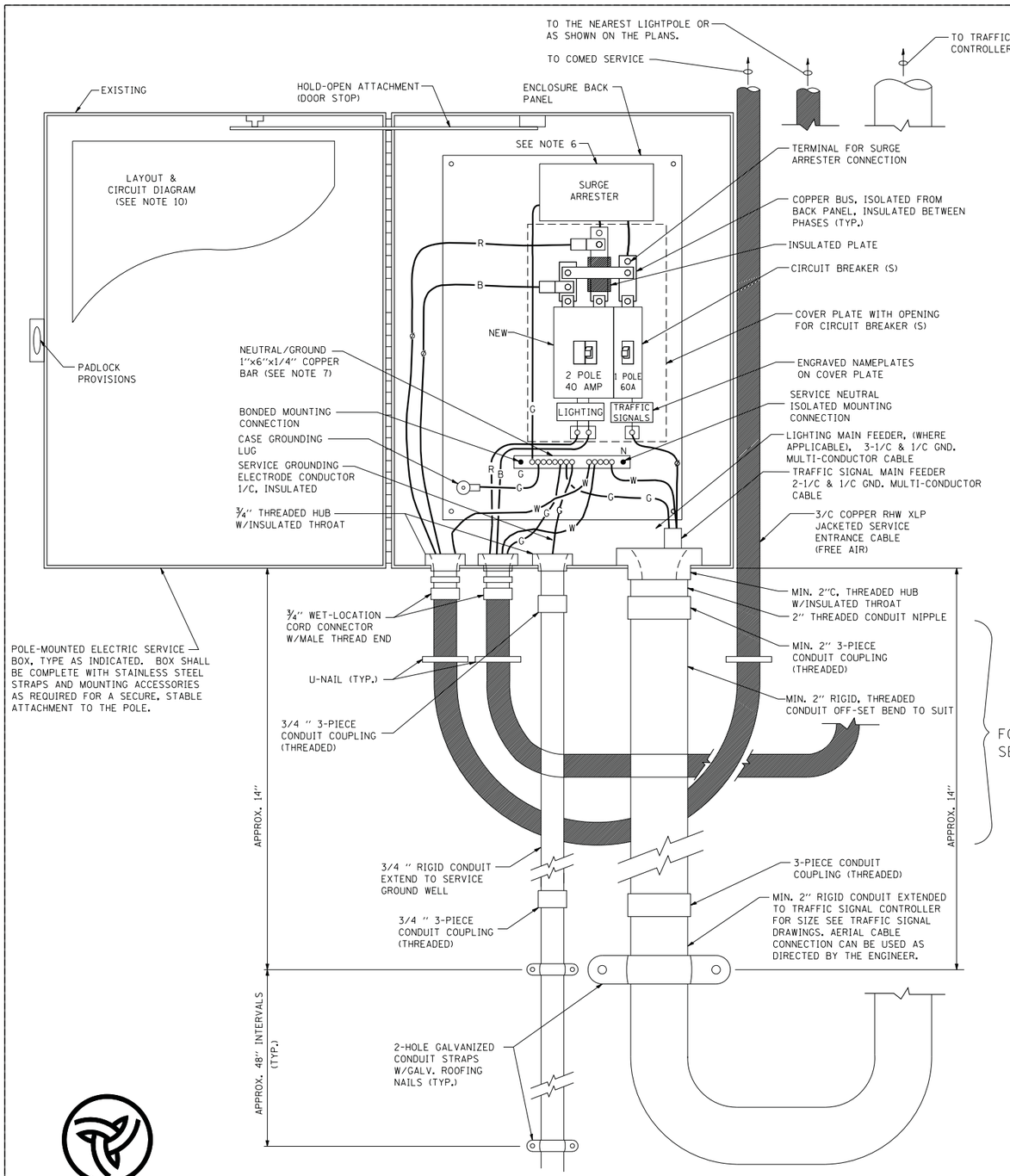
	BE-805	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

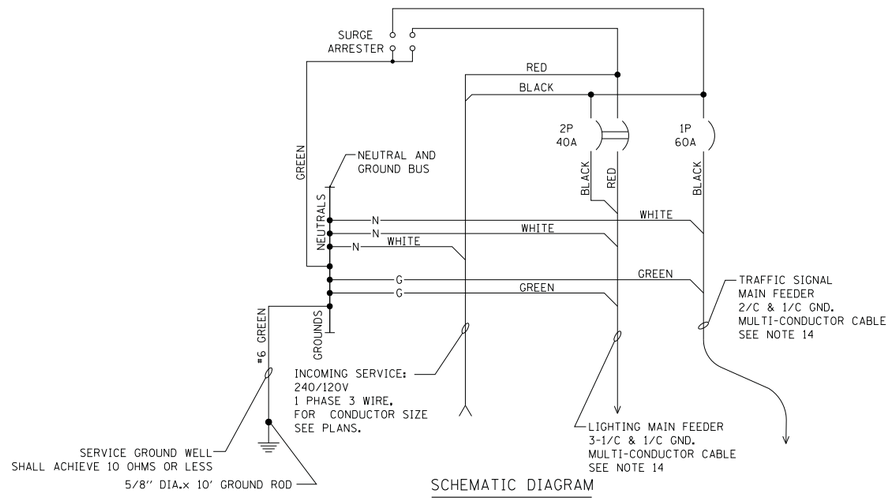


6" DECAL ON FRONT COVER

POLE-MOUNTED ELECTRIC SERVICE ENTRANCE
GENERAL LAYOUT DIAGRAM
NOT TO SCALE

NOTES:

1. ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
2. THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
3. THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
4. THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H1208SS6LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
5. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/ TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
6. THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CMOV230L065XST OR APPROVED EQUAL.
7. BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
8. THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
9. THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
10. A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
11. A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
12. LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
13. THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING

SCALE: NONE | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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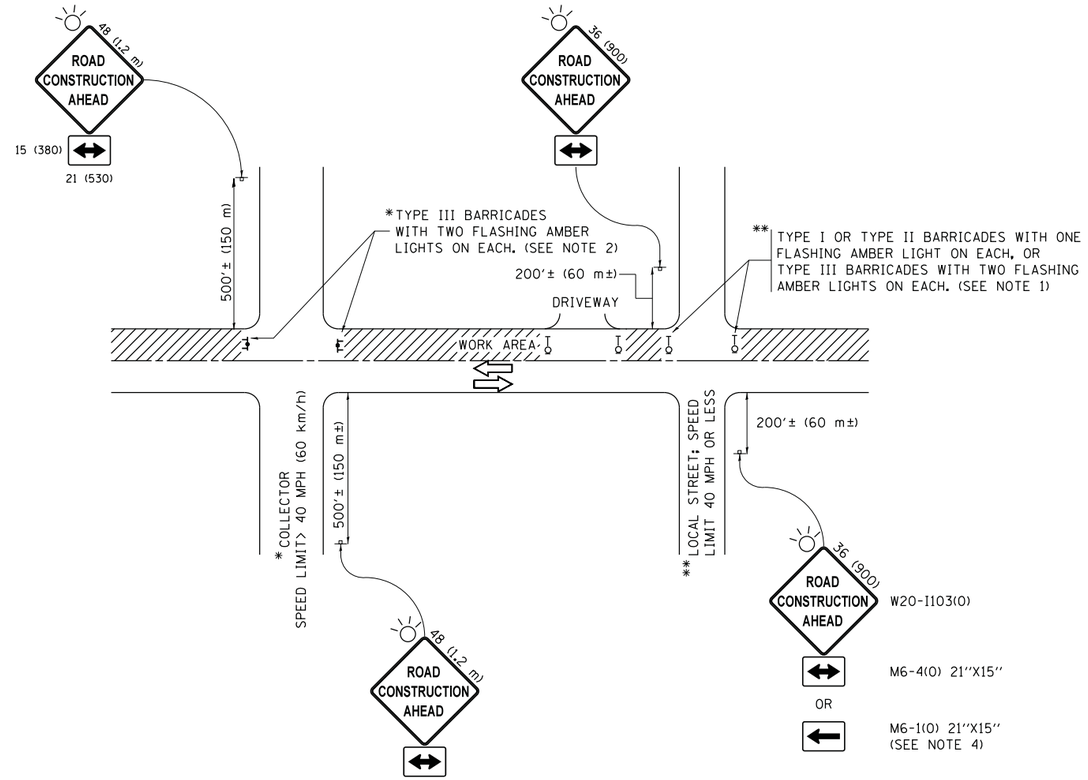
	BE-805	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ''ROAD CONSTRUCTION AHEAD'' SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ''ROAD CONSTRUCTION AHEAD'' SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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Default	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	47
	TC-10	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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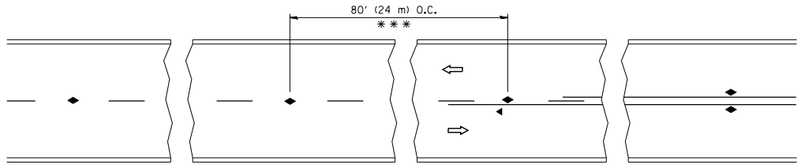
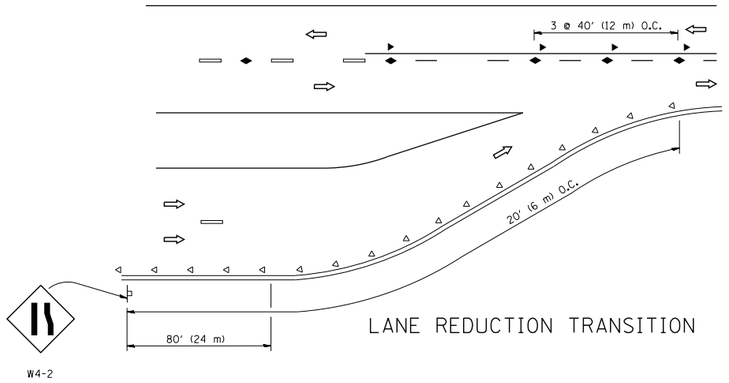
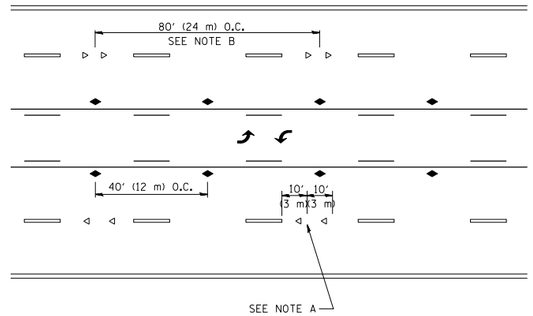


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

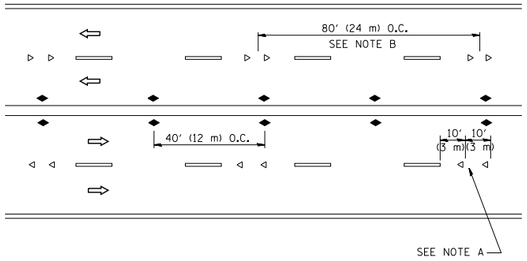
TWO-LANE/TWO-WAY



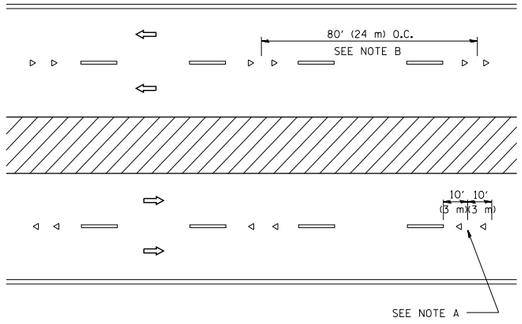
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

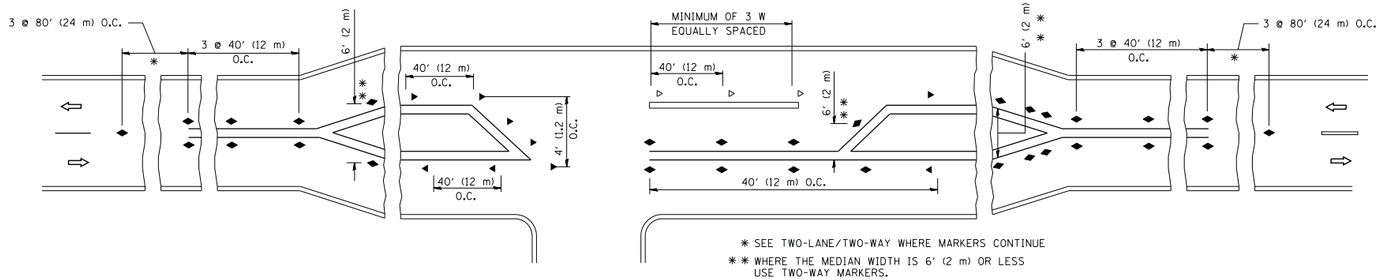
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



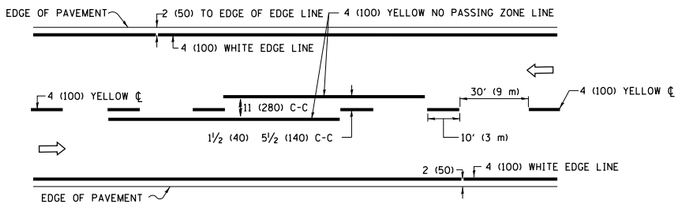
* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

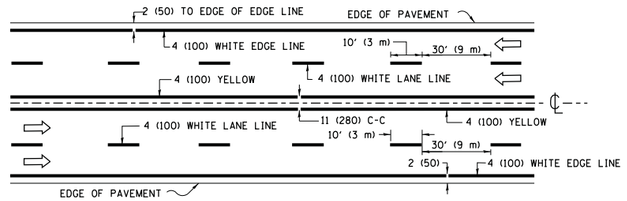
LEFT TURN

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

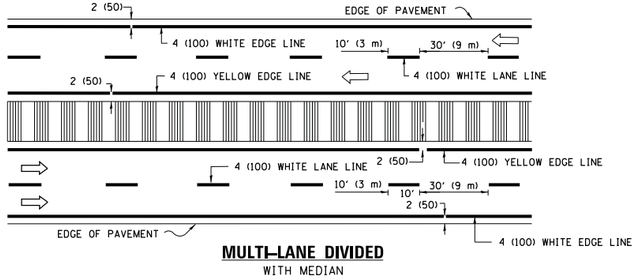
FILE NAME = c:\pw_work\pwidot\leysa\d0108315\tc11.dgn	USER NAME = leysa	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - T. RAMMACHER 03-12-99					307	2015-041B	KANE	51	48
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00						TC-11		CONTRACT NO.	
	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.		FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	



2–LANE ROADWAY

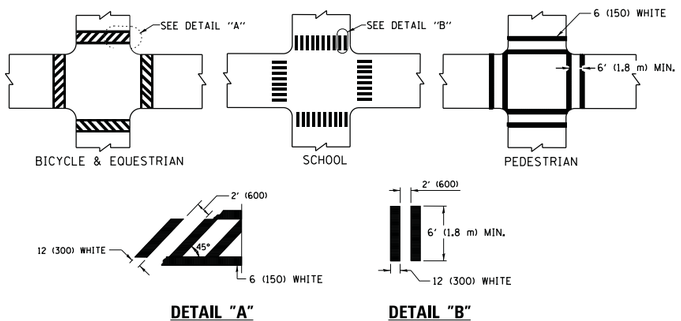


MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

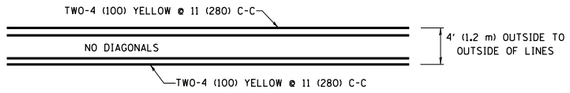
TYPICAL LANE AND EDGE LINE MARKING



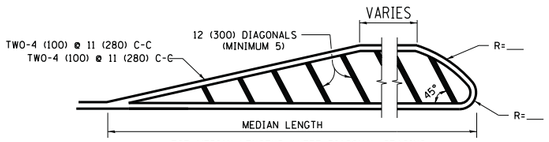
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

✳ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



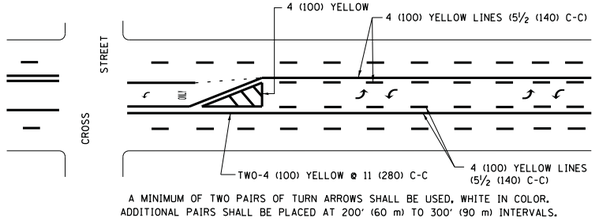
4' (1.2 m) WIDE MEDIANS ONLY



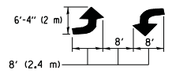
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

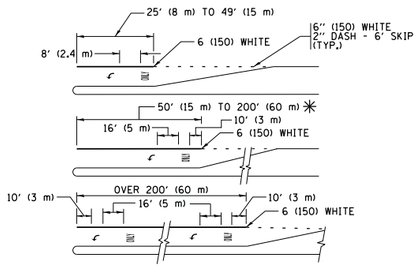


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

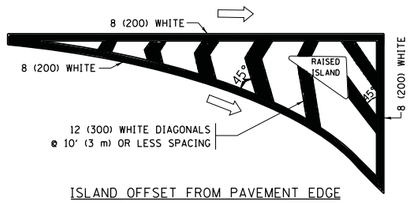


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

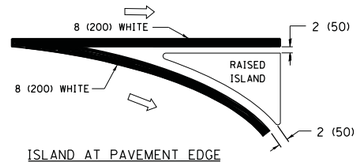
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

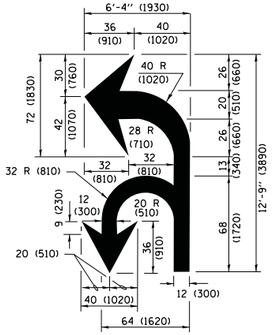


ISLAND OFFSET FROM PAVEMENT EDGE

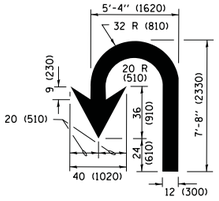


ISLAND AT PAVEMENT EDGE

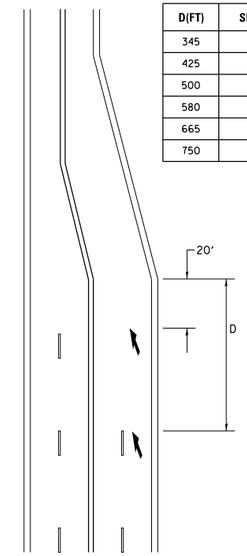
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN



U–TURN



LANE REDUCTION TRANSITION

✳ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ⊠ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⊠ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ⊠ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⊠ 6 (150) 12 (300) ⊠ 45° 12 (300) ⊠ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⊠ 4 (100) WITH 12 (300) DIAGONALS ⊠ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⊠ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) ⊠ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\DistStds\DRAWN\CADData\CADsheets\tc13.dgn Default	USER NAME = footemj	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - C. JUCIUS 07-01-13
	PLOT DATE = 4/13/2016	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
			REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	49
	TC–13	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

tc13.dgn 4/13/2016 2:04:04 PM User=footemj

ROUTE MARKERS

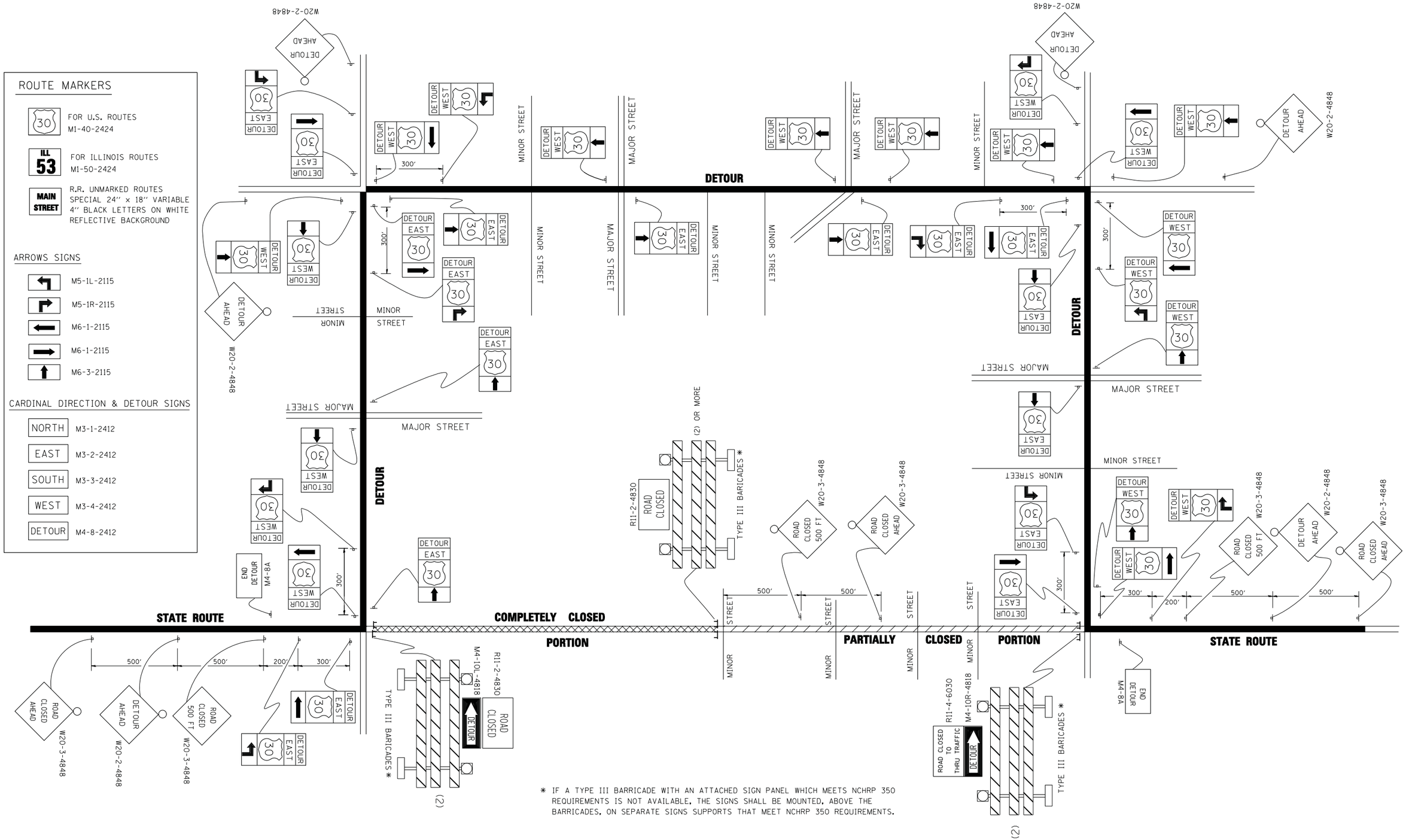
- 30 — FOR U.S. ROUTES M1-40-2424
- ILL 53 — FOR ILLINOIS ROUTES M1-50-2424
- MAIN STREET — R.R. UNMARKED ROUTES SPECIAL 24" x 18" VARIABLE 4" BLACK LETTERS ON WHITE REFLECTIVE BACKGROUND

ARROWS SIGNS

- M5-1L-2115
- M5-1R-2115
- M6-1-2115
- M6-1-2115
- M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

- NORTH M3-1-2412
- EAST M3-2-2412
- SOUTH M3-3-2412
- WEST M3-4-2412
- DETOUR M4-8-2412



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

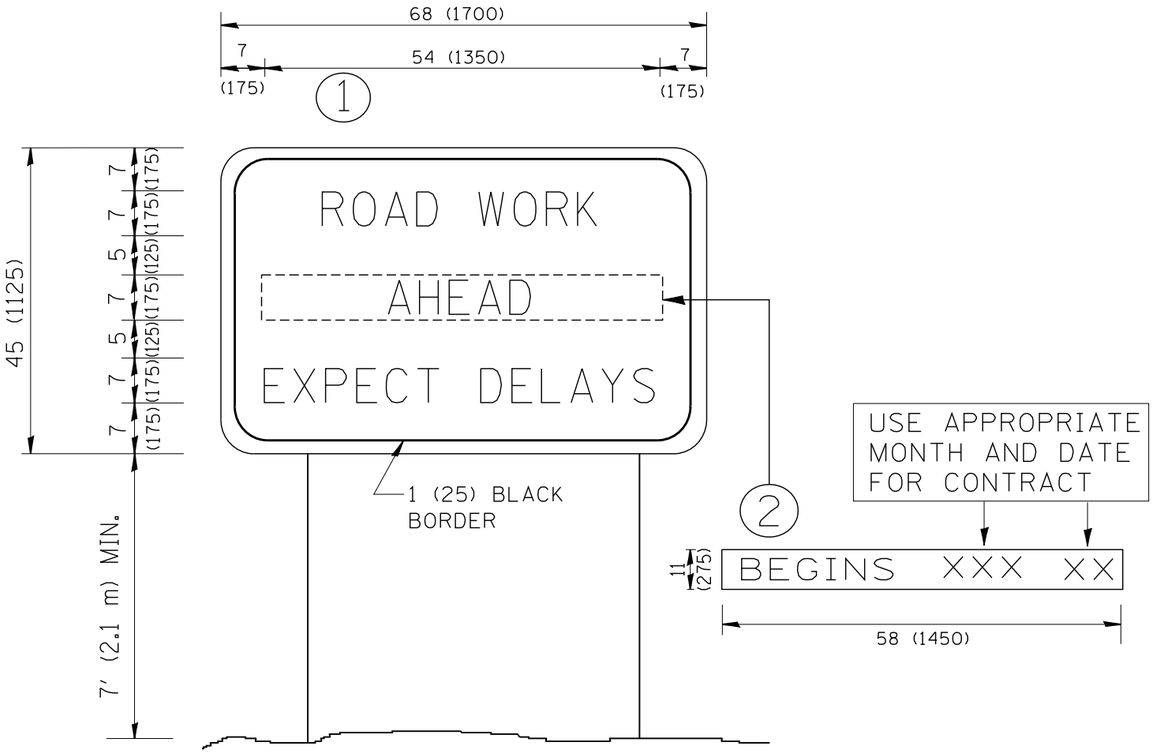
FILE NAME = c:\pw_work\PWIDOT\DRIVAKOSGN\d0108315\tc21.dgn	USER NAME = drivakosgn	DESIGNED -	REVISED - 10-18-02
		DRAWN -	REVISED - R. BORO 09-14-09
	PLOT SCALE = 49.9999 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/14/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING
FOR CLOSING STATE HIGHWAYS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	50
	TC-21	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

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

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

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2015-041B	KANE	51	51
	TC-22	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		