04-23-2021 LETTING ITEM 133

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60T06		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

F.A.P. 348 (IL 43 / HARLEM AVENUE) NB OVER MWRDGC RR
(0.2 MILES NORTH OF I–55)
SECTION 0708.08B–R(11)
PROJECT: NHPP–Q8IL(767)
BRIDGE REPLACEMENT
COOK COUNTY

C–91–282–12

D–91–281–12

LOCATION OF SECTION INDICATED THUS: –

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN
VILLAGE OF LYONS AND
VILLAGE OF FOREST VIEW

TRAFFIC DATA
OTHER PRINCIPLE ARTERIAL

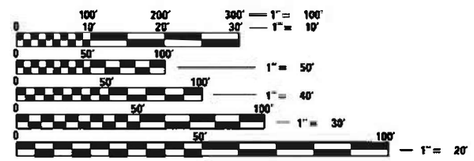
IL ROUTE 43
POSTED SPEED LIMIT = 40 MPH
DESIGN SPEED LIMIT = 40 MPH
TRAFFIC = 38000 ADT (2012)
TRAFFIC = 45000 ADT (2030)

PROJECT BEGINS: STA. 20+10.7
STRUCTURE NO.: EX: 016–0314
PR: 016–1330
PROJECT ENDS: STA. 31+21

LYONS AND STICKNEY TOWNSHIP

LOCATION MAP

GROSS LENGTH = 1110.7 FT. = 0.21 MILE
NET LENGTH = 1110.7 FT. = 0.21 MILE



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

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

PROJECT ENGINEER: CRAIG BAUER (847) 705–4265
PROJECT MANAGER: LONG TRAN (847) 705–4232

CONTRACT NO. 60T06

ESI CONSULTANTS, LTD.

062-046136 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS MARK A. REZNICEK

Mark Reznicek

MARK A. REZNICEK, P.E.
EXP: 11/30/2021
SHEETS 1–23, 82–105

STATE OF ILLINOIS LICENSED STRUCTURAL ENGINEER GARY P. MRAZ NUMBER 81-005893

GARY P. MRAZ, S.E.
EXP: 11/30/2022
SHEETS 36–80

062-065244 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS BRENDA D. LOWERY

BRENDA D. LOWERY, P.E.
EXP: 11/30/2021
SHEETS 24–35

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 4 20 21

REGIONAL ENGINEER

March 19, 2021

ENGINEER OF DESIGN AND ENVIRONMENT

March 19, 2021

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV-SEP

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GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 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 LOCAL MUNICIPALITY.

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

4. ALL DAMAGE TO EXISTING PAVEMENT MARKING OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINES SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

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

6. THE ENGINEER SHALL CONTACT MS. PATRICE HARRIS, AREA TRAFFIC FIELD TECHNICIAN, AT (847) 705-4412 (TUESDAY) OR AT PATRICE.HARRIS@ILLINOIS.GOV, A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

7. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATION SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED AT THE UNIT PRICE BID FOR THE WORK.

8. THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW, WASTE, USE (BWU) AREAS. PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER PERMITS. IN ADDITION TO THE BORROW REVIEW (BDE 2289) AND USE/WASTE REVIEW (BDE 2290) SUBMITTALS, THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION II.G.1 AND 2 OF THE SWPPP. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

GENERAL NOTES (CONT.)

9. THE SUBGRADE STABILITY SHALL BE VERIFIED BY PROOF ROLLING WITH A FULLY LOADED TANDEM-AXLE TRUCK.

10. ANY AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR$^{5}/_{32}$ S VEHICLES AND/OR EQUIPMENTS IS TO BE REMOVED AND REPLACED AS DIRECT BY THE ENGINEER AT CONTRACTOR EXPENSE.

11. PIPE UNDERDRAINS SHALL BE INSTALLED ACCORDING TO SECTION 601 OF THE SSRBC AND STANDARD 601001-05. TOP OF PIPE UNDERDRAINS SHALL BE PLACED MINIMUM $6^{9}/_{32}$ BELOW THE AGGREGATE SUBGRADE IMPROVEMENT LAYER. THE COST OF MAKING PIPE UNDERDRAINS CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF THE PIPE UNDERDRAINS.

12. BACKFILLING STORM SEWER CONSTRUCTED UNDER THE ROADWAY SPECIFIED UNDER ART. 550.07(b, c) OF THE SSRBC WILL NOT BE ALLOWED.

MAINTENANCE OF TRAFFIC GENERAL NOTES

1. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGES TO THE MOT PLANS

2. ALL EXISTING PAVEMENT MARKING IN CONFLICT WITH THE MAINTENANCE OF TRAFFIC STRIPING SHALL BE REMOVED. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT, FOR "PAVEMENT MARKING REMOVAL."

3. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY PAVEMENT MARKING TAPE WHICH CONFLICTS WITH THE NEXT STAGE OR FINAL STRIPING. REMOVAL OF TEMPORARY PAVEMENT MARKING TAPE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT, FOR "WORK ZONE PAVEMENT MARKING REMOVAL".

4. ALL TRAFFIC CONTROL DEVICES USED FOR THE MAINTENANCE OF TRAFFIC, AS DETAILED ON THE PLANS, OR HIGHWAY STANDARDS SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN THE MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

5. ALL DRUMS, VERTICAL PANELS AND BARRICADES ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH STEADY-BURNING MONO-DIRECTIONAL LIGHTS.

6. ALL EXISTING SIGNS WITHIN THE LIMITS OF MAINTENANCE OF TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH ARTICLE 107.25 OF THE IDOT STANDARD SPECIFICATIONS.

7. ALL TEMPORARY INFORMATION SIGNS SHALL BE PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR "TEMPORARY INFORMATION SIGNING".

8. FOR ADDITIONAL BRIDGE CONSTRUCTION STAGING INFORMATION, SEE STRUCTURAL PLANS.

9. CONTRACTOR SHALL LOCATE AND PROVIDE ALL APPROACH SIGNAGE PER REFERENCED HIGHWAY STANDARDS. SIGN LOCATIONS SHOWN ARE SCHEMATIC ONLY.

10. TRAFFIC CONDITIONS, ACCIDENTS, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY, OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL RESPOND TO ANY REQUEST MADE BY THE ENGINEER FOR CORRECTION WITHIN TWO HOURS FORM THE TIME OF NOTIFICATION.

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

12. THE EXISTING CLEARANCE OF 18.07 FEET FROM THE TOP OF THE RAIL MUST BE MAINTAINED AT ALL TIMES.

13. ALL CONTRACTOR ACTIVITY MUST BE COORDINATED WITH THE MWRDGC RAILROAD CONTACT PERSON, TOM RYAN. CONTACT MR. RYAN AT (708) 588-4065, SO THAT CONTRACTOR PERSONNEL AND EQUIPMENT CAN BE REMOVED TO A SAFE DISTANCE ALLOWING PASSAGE OF THE DISTRICT'S TRAIN. TYPICALLY, THE DISTRICT'S TRAIN MAKES SEVERAL TRIPS THROUGH THE SUBJECT AREA DURING WEEKDAYS AND WEEKENDS WHEN SCHEDULED.

PRINTED DATE: 3/15/2021
FILE NAME: 82_D1E0708-sht-gennote.dgn

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USER NAME = elleo	DESIGNED - JY	REVISED -
	DRAWN - DN	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MR	REVISED -
PLOT DATE = 3/15/2021	DATE - 3/15/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STATE STANDARDS, & GENERAL NOTES
IL ROUTE 43 (HARLEM AVE)

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	2
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 0004 ROADWAY FED 80% / ST 20% URBAN	0010 BRIDGE SN: 016-1330 FED 80% / ST 20% URBAN	0021 LIGHTING FED 80% / ST 20% URBAN	0028 SHARED-USE PATH FOREST VIEW FED 80% / LOCAL 20% URBAN
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	421	421			
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	18	18			
20200100	EARTH EXCAVATION	CU YD	2234	2234			
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	75	75			
20400800	FURNISHED EXCAVATION	CU YD	4631	4631			
20700220	POROUS GRANULAR EMBANKMENT	CU YD	75	75			
20800150	TRENCH BACKFILL	CU YD	85	85			
20900110	POROUS GRANULAR BACKFILL	CU YD	393.2	335	58.2		
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	508	508			
25000210	SEEDING, CLASS 2A	ACRE	0.3	0.3			
25000310	SEEDING, CLASS 4	ACRE	0.3	0.3			
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	26	26			
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	26	26			
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	26	26			
25100115	MULCH, METHOD 2	ACRE	0.5	0.5			
25100630	EROSION CONTROL BLANKET	SQ YD	2822	2822			
28000305	TEMPORARY DITCH CHECKS	FOOT	40	40			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 0004 ROADWAY FED 80% / ST 20% URBAN	0010 BRIDGE SN: 016-1330 FED 80% / ST 20% URBAN	0021 LIGHTING FED 80% / ST 20% URBAN	0028 SHARED-USE PATH FOREST VIEW FED 80% / LOCAL 20% URBAN
28000400	PERIMETER EROSION BARRIER	FOOT	1074	1074			
28000500	INLET AND PIPE PROTECTION	EACH	16	16			
28100103	STONE RIPRAP, CLASS A2	SQ YD	252		252		
28200200	FILTER FABRIC	SQ YD	252		252		
30300112	AGGREGATE SUBGRADE IMPROVEMENT, 12"	SQ YD	3283	3283			
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	730				730
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	6431	6431			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL- BUTT JOINT	SQ YD	206	206			
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	1075	1075			
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	294	215			79.0
40604172	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70	TON	17	17			
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	108	108			
42001300	PROTECTIVE COAT	SQ YD	2724	2724			
42000501	PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)	SQ YD	2079	2079			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1441	1441			
42400800	DETECTABLE WARNINGS	SQ FT	20				20

* SPECIALTY ITEMS
♦ CONSTRUCTION TYPE CODE : 0042
** QUANTITY INCLUDES TEXTURED EPOXY COATED REINFORCEMENT BARS, SEE BRIDGE PLANS.

REV-SEP

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 0004 ROADWAY	0010 BRIDGE SN: 016-1330	0021 LIGHTING	0028 SHARED-USE PATH FOREST VIEW
				FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / LOCAL 20%
				URBAN	URBAN	URBAN	URBAN
44000100	PAVEMENT REMOVAL	SQ YD	4979	4979			
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	525	525			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1424	1424			
44000600	SIDEWALK REMOVAL	SQ FT	3137	3137			
44003100	MEDIAN REMOVAL	SQ FT	511	511			
48101620	AGGREGATE SHOULDERS, TYPE B 10"	SQ YD	698	698			
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1		
50102400	CONCRETE REMOVAL	CU YD	50		50		
50157300	PROTECTIVE SHIELD	SQ YD	115		115		
50200100	STRUCTURE EXCAVATION	CU YD	299.6		299.6		
50300225	CONCRETE STRUCTURES	CU YD	395.5		395.5		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	231.3		231.3		
50300260	BRIDGE DECK GROOVING	SQ YD	726		726		
50300300	PROTECTIVE COAT	SQ YD	1156		1156		
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	170.0		170.0		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 0004 ROADWAY	0010 BRIDGE SN: 016-1330	0021 LIGHTING	0028 SHARED-USE PATH FOREST VIEW
					FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / LOCAL 20%
					URBAN	URBAN	URBAN	URBAN
	50500505	STUD SHEAR CONNECTORS	EACH	5040		5040		
	50800105	REINFORCEMENT BARS	POUND	5880		5880		
**	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	164910		164910		
*	50800515	BAR SPLICERS	EACH	704		704		
*	50900105	ALUMINUM RAILING, TYPE L	FOOT	188		188		
*	50901720	BICYCLE RAILING	FOOT	188		188		
*	50901750	PARAPET RAILING	FOOT	188		188		
*	51200959	FURNISHING METAL SHELL PILES 14" X 0.312"	FOOT	872		872		
*	51202305	DRIVING PILES	FOOT	872		872		
*	51203200	TEST PILE METAL SHELLS	EACH	2		2		
	51500100	NAME PLATES	EACH	3		3		
	51603000	DRILLED SHAFT IN SOIL	CU YD	137.8		137.8		
	51604000	DRILLED SHAFT IN ROCK	CU YD	3.7		3.7		
	52100520	ANCHOR BOLTS, 1"	EACH	36		36		
	52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1128		1128		
	52200100	FURNISHING SOLDIER PILES (HP SECTION)	FOOT	95.9		95.9		

* SPECIALTY ITEMS
♦ CONSTRUCTION TYPE CODE : 0042
** QUANTITY INCLUDES TEXTURED EPOXY COATED REINFORCEMENT BARS, SEE BRIDGE PLANS.

REV-SEP

PRINTED DATE: 3/5/2021
FILE NAME: 03.D160T06-sht-S00 2.dgn

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	DRAWN - DN	REVISED -
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PLOT DATE = 3/5/2021	DATE - 3/5/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	4

CONTRACT NO 60T06

FED. ROAD DIST. NO. 1 ILLINOIS FEDERAL AID PROJECT

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				0004	0010	0021	0028
				ROADWAY	BRIDGE	LIGHTING	SHARED-USE PATH
					SN: 016-1330		FOREST VIEW
				FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / LOCAL 20%
				URBAN	URBAN	URBAN	URBAN
52200105	FURNISHING SOLDIER PILES (W SECTION)	FOOT	2242.8		2242.8		
52200200	DRILLING AND SETTING SOLDIER PILES (IN SOIL)	CU FT	13126		13126		
52200250	UNTREATED TIMBER LAGGING	SQ FT	5223		5223		
52200500	MECHANICALLY STABILIZED EARTH RETAINING WALL	SQ FT	3611		3611		
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1	1			
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	179	179			
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	87	87			
550A0450	STORM SEWERS, CLASS A, TYPE 2 36"	FOOT	63	63			
55100400	STORM SEWER REMOVAL 10"	FOOT	145	145			
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	91		91		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	635		635		
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	2	2			
60108204	PIPE UNDERDRAINS, TYPE 2, 4"	FOOT	304	304			
60200805	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 8 GRATE	EACH	1	1			
60201330	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 23 FRAME AND GRATE	EACH	3	3			
60223800	MANHOLES, TYPE A, 6' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				0004	0010	0021	0028
				ROADWAY	BRIDGE	LIGHTING	SHARED-USE PATH
					SN: 016-1330		FOREST VIEW
				FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / LOCAL 20%
				URBAN	URBAN	URBAN	URBAN
60224446	MANHOLES, TYPE A, 7' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2			
60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	1	1			
60237460	INLETS, TYPE A, TYPE 23 FRAME AND GRATE	EACH	3	3			
60250400	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1	1			
60260300	INLETS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1	1			
60500050	REMOVING CATCH BASINS	EACH	5	5			
60602800	CONCRETE GUTTER, TYPE B	FOOT	435	435			
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	54	54			
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1571	1571			
61140900	STORM SEWERS (SPECIAL), 24"	FOOT	114	114			
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	538	538			
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4			
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2			
63200310	GUARDRAIL REMOVAL	FOOT	909	909			
66400305	CHAIN LINK FENCE, 6'	FOOT	673	673			
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	625	625			

* SPECIALTY ITEMS

♦ CONSTRUCTION TYPE CODE : 0042

** QUANTITY INCLUDES TEXTURED EPOXY COATED REINFORCEMENT BARS, SEE BRIDGE PLANS.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	5
		CONTRACT NO 60706		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 0004 ROADWAY FED 80% / ST 20% URBAN	0010 BRIDGE SN: 016-1330 FED 80% / ST 20% URBAN	0021 LIGHTING FED 80% / ST 20% URBAN	0028 SHARED-USE PATH FOREST VIEW FED 80% / LOCAL 20% URBAN
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1			
*	66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1			
*	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1			
*	66901006	REGULATED SUBSTANCES MONITORING	CAL DA	60	60			
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	18	18			
	67100100	MOBILIZATION	L SUM	1	1			
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	60	60			
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	123	123			
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	8591	8591			
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	465	465			
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	170	170			
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	12	12			
	70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	7614	7614			
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	933	933			
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1264	1264			
	70600270	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	1	1			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 0004 ROADWAY FED 80% / ST 20% URBAN	0010 BRIDGE SN: 016-1330 FED 80% / ST 20% URBAN	0021 LIGHTING FED 80% / ST 20% URBAN	0028 SHARED-USE PATH FOREST VIEW FED 80% / LOCAL 20% URBAN
	70600330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	1	1			
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1504	1504			
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	93	93			
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	43	43			
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	22	22			
*	78009000	MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	83	83			
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	3063	3063			
*	78009008	MODIFIED URETHANE PAVEMENT MARKING - LINE 8"	FOOT	269	269			
*	78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	246	246			
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	12	12			
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6	6			
	78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	2957	2957			
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	41	41			
*	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	170			170	
*	81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	170			170	
*	81300550	JUNCTION BOX EMBEDDED IN STRUCTURE 12" X 12" X 6"	EACH	2			2	

* SPECIALTY ITEMS
♦ CONSTRUCTION TYPE CODE : 0042
** QUANTITY INCLUDES TEXTURED EPOXY COATED REINFORCEMENT BARS, SEE BRIDGE PLANS.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	6

CONTRACT NO 60T06
FED. ROAD DIST. NO. 1 ILLINOIS FEDERAL AID PROJECT

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
					0004	0010	0021	0028
					ROADWAY	BRIDGE	LIGHTING	SHARED-USE PATH
						SN: 016-1330		FOREST VIEW
					FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / LOCAL 20%
					URBAN	URBAN	URBAN	URBAN
*	81603090	UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO. 6 GROUND, (XLP-TYPE USE) , 1 1/4" DIA. POLYETHYLENE	FOOT	1040			1040	
*	81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	176			176	
*	81702140	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	528			528	
*	81800300	AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	1184			1184	
*	82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	5			5	
*	83050810	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. MAST ARM	EACH	5			5	
*	83057355	LIGHT POLE, WOOD, 60 FOOT, CLASS 3, WITH 15FT MAST ARM	EACH	5			5	
*	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	50			50	
*	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	5			5	
*	84100110	REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	5			5	
*	84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	6			6	
*	84200804	REMOVAL OF POLE FOUNDATION	EACH	6			6	
	K1005418	TEMPORARY SEEDING	ACRE	1	1			
	X0327139	AGGREGATE COLUMN GROUND IMPROVEMENT	L SUM	1		1		
*	X0327004	TEMPORARY WOOD POLE, 60 FT., CLASS 4	EACH	1			1	
*	X1400023	CONDUIT, FLEXIBLE, LIQUID TIGHT, METALLIC 2" DIAMETER	FOOT	3			3	

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
					0004	0010	0021	0028
					ROADWAY	BRIDGE	LIGHTING	SHARED-USE PATH
						SN: 016-1330		FOREST VIEW
					FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / ST 20%	FED 80% / LOCAL 20%
					URBAN	URBAN	URBAN	URBAN
*	X2700003	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	395	395			
*	X2700004	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 7"	FOOT	395	395			
	X6330705	RUB RAIL	FOOT	330	330			
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1			
*	X8211008	TEMPORARY LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	5			5	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
	Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	9		9		
	Z0018800	DRAINAGE SYSTEM	L SUM	1		1		
	Z0023200	FILLING DRAINAGE STRUCTURES	EACH	1	1			
	Z0023500	FILLING EXISTING CULVERTS	CU YD	240	240			
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51	51			
*	Z0033020	LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	5			5	
*	Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	18			18	
	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	486		486		
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1			
♦	Z0076600	TRAINEES	HOUR	500	500			
	Z0076604	TRAINEES - TRAINING PROGRAM GRADUTE	HOUR	500	500			

* SPECIALTY ITEMS

♦ CONSTRUCTION TYPE CODE : 0042

** QUANTITY INCLUDES TEXTURED EPOXY COATED REINFORCEMENT BARS, SEE BRIDGE PLANS.

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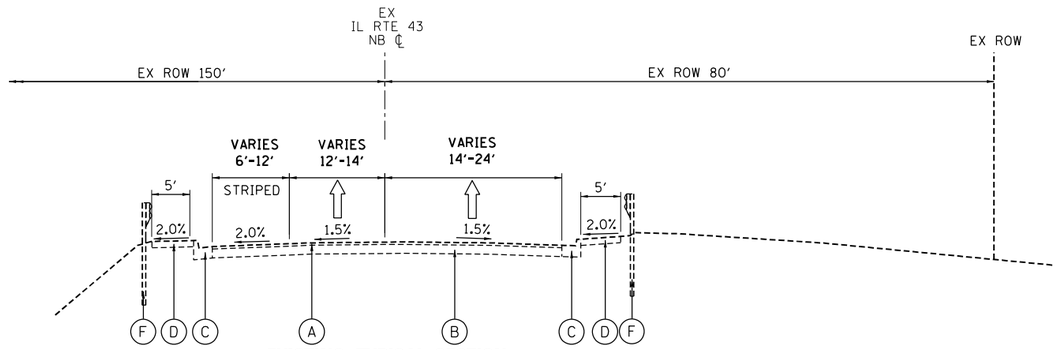
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

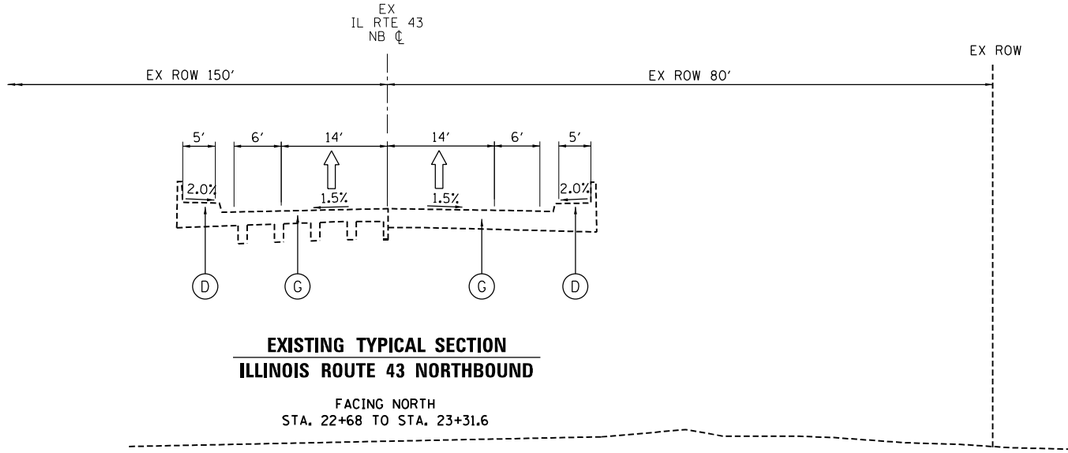
SUMMARY OF QUANTITIES

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	7
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		



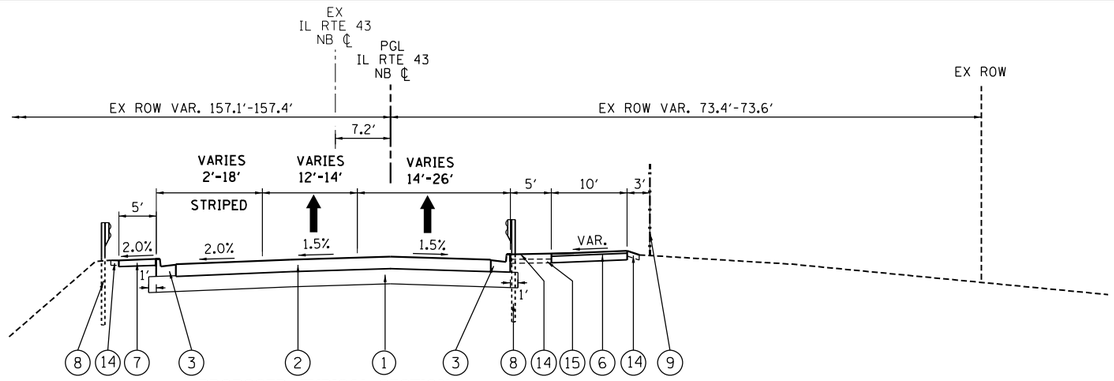
EXISTING TYPICAL SECTION
ILLINOIS ROUTE 43 NORTHBOUND

FACING NORTH
STA. 20+10.7 TO STA. 22+68



EXISTING TYPICAL SECTION
ILLINOIS ROUTE 43 NORTHBOUND

FACING NORTH
STA. 22+68 TO STA. 23+31.6



PROPOSED TYPICAL SECTION
ILLINOIS ROUTE 43 NORTHBOUND

FACING NORTH
STA. 20+10.7 TO STA. 22+35.1
BRIDGE OMISSION
STA. 22+35.1 TO STA. 24+22.9

LEGEND

- (A) EXISTING HMA SURFACE COURSE
- (B) EXISTING PCC PAVEMENT
- (C) EXISTING CURB AND GUTTER
- (D) EXISTING PCC SIDEWALK, 5′
- (E) EXISTING PCC MEDIAN
- (F) EXISTING GUARDRAIL
- (G) EXISTING BRIDGE DECK

- (1) PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, 12″
- (2) PROPOSED PCC PAVEMENT 10″ (JOINTED)
- (3) PROPOSED COMB. CONC. CURB AND GUTTER, TY-B 6.24
- (4) PROPOSED RETAINING WALL
- (6) PROPOSED HMA BIKE PATH (2″ HMA & 8″ AGG. BASE CRS)
- (7) PROPOSED PCC SIDEWALK, 5″
- (8) PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A
- (9) CHAIN LINK FENCE
- (11) NOT USED
- (12) NOT USED
- (13) NOT USED
- (14) PROPOSED TOPSOIL FURNISH AND PLACE, 6″ AND SEEDING, CLASS 2A
- (15) PROPOSED AGGREGATE SHOULDER, 10″

MIXTURE TABLE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		QUALITY MANAGEMENT PROGRAM (QMP)
MIXTURE TYPE	AIR VOIDS @ Ndes	
HMA BUTTJOINT		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX ″E″, N70 (IL-9.5 mm)	4% @ 70 GYR	QC / QA
HMA BIKE PATH		
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50 (IL-9.5 mm), 2″	4% @ 50 GYR	QC / QA
UTILITY ROAD (RECONSTRUCTION)		
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50 (IL-9.5 mm), 2″	4% @ 50 GYR	QC / QA
HOT-MIX ASPHALT BINDER COURSE, N50 (IL-19.0mm), 10″	4% @ 50 GYR	QC / QA
DRIVEWAY (RECONSTRUCTION)		
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50 (IL-9.5 mm), 2″	4% @ 50 GYR	QC / QA
HOT-MIX ASPHALT BINDER COURSE, N50 (IL-19.0mm), 10″	4% @ 50 GYR	QC / QA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)		

MIXTURE TABLE NOTES:

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN
2. THE ″AC TYPE″ FOR POLYMERIZED HMA MIXES SHALL BE ′SBS/SBR PG 76-22″ AND FOR NON-POLYMERIZED HMA THE ″AC TYPE″ SHALL BE ″PG 64-22″ UNLESS MODIFIED BY SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
3. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURES.

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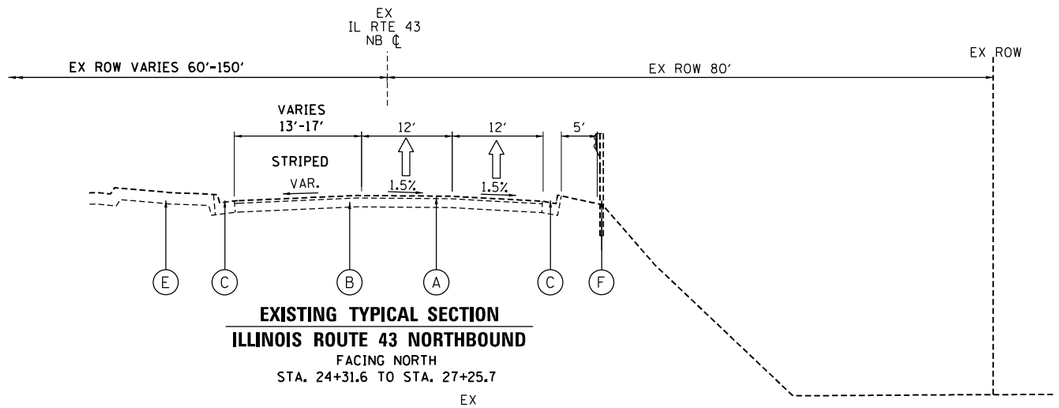
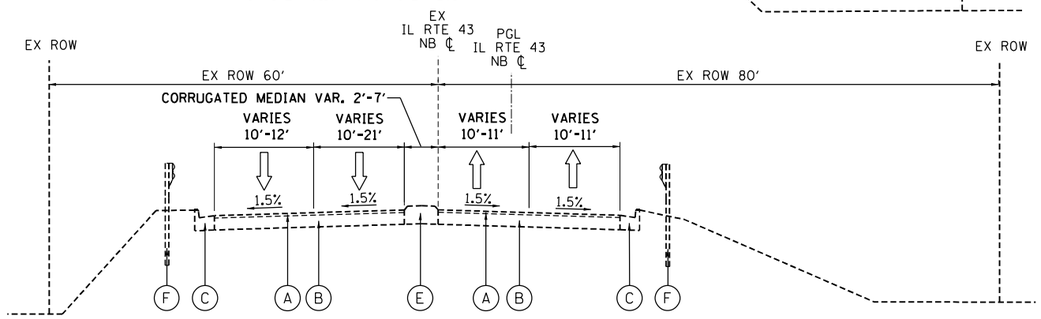
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED TYPICAL SECTIONS

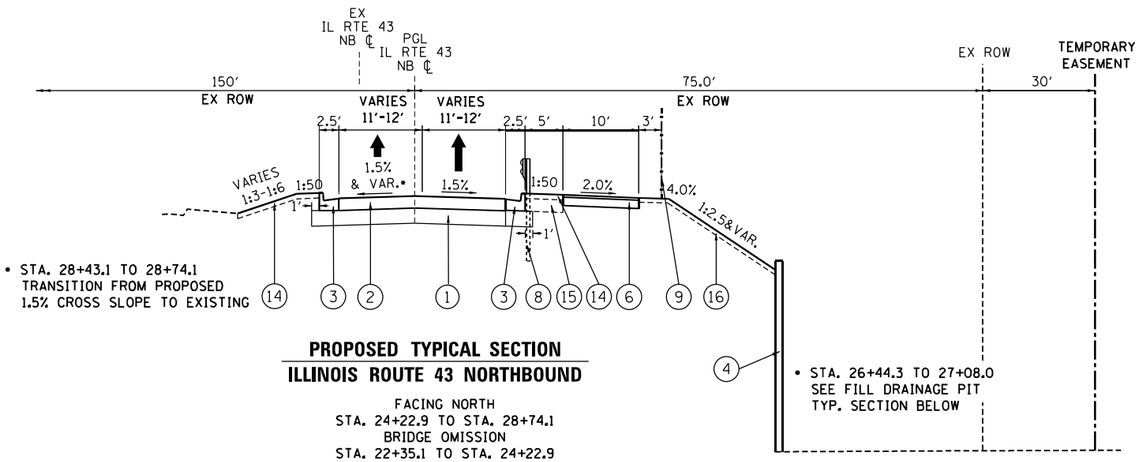
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	8
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		



EXISTING TYPICAL SECTION
ILLINOIS ROUTE 43 NORTHBOUND
FACING NORTH
STA. 24+31.6 TO STA. 27+25.7



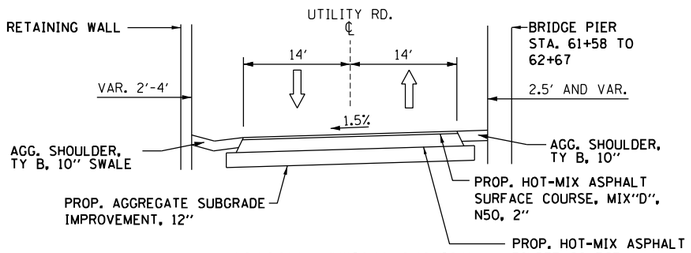
EXISTING TYPICAL SECTION
ILLINOIS ROUTE 43 NORTHBOUND
FACING NORTH
STA. 27+25.7 TO STA. 31+21



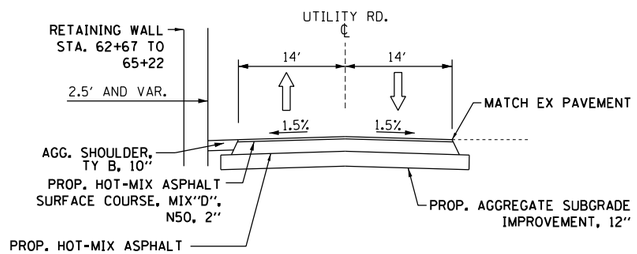
• STA. 28+43.1 TO 28+74.1
TRANSITION FROM PROPOSED
1.5% CROSS SLOPE TO EXISTING

• STA. 26+44.3 TO 27+08.0
SEE FILL DRAINAGE PIT
TYP. SECTION BELOW

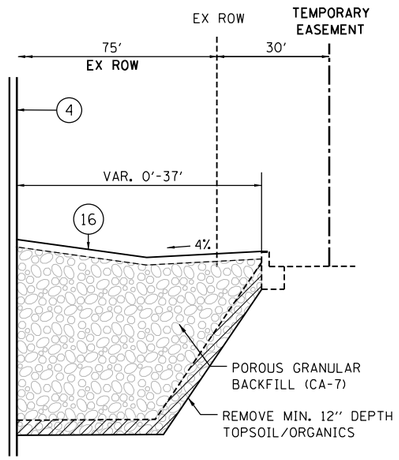
PROPOSED TYPICAL SECTION
ILLINOIS ROUTE 43 NORTHBOUND
FACING NORTH
STA. 24+22.9 TO STA. 28+74.1
BRIDGE OMISSION
STA. 22+35.1 TO STA. 24+22.9



PROPOSED TYPICAL SECTION
UTILITY ROAD
STA 60+57 TO 62+67



PROPOSED TYPICAL SECTION
UTILITY ROAD
STA. 62+67 TO 65+22



PROPOSED TYPICAL SECTION
FILL DRAINAGE PIT

LEGEND

(A)	EXISTING HMA SURFACE COURSE	(1)	PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, 12"
(B)	EXISTING PCC PAVEMENT	(2)	PROPOSED PCC PAVEMENT 10" (JOINTED)
(C)	EXISTING CURB AND GUTTER	(3)	PROPOSED COMB. CONC. CURB AND GUTTER, TY-B 6.24
(D)	EXISTING PCC SIDEWALK, 5'	(4)	PROPOSED RETAINING WALL
(E)	EXISTING PCC MEDIAN	(6)	PROPOSED HMA BIKE PATH (2" HMA & 8" AGG. BASE CRS) PROPSOED PCC BIKE PATH (5" PCC & 4" AGG. BASE CRS)
(F)	EXISTING GUARDRAIL	(7)	PROPOSED PCC SIDEWALK, 5"
(G)	EXISTING BRIDGE DECK	(8)	PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A
		(9)	CHAIN LINK FENCE
		(11)	NOT USED
		(12)	NOT USED
		(13)	NOT USED
		(14)	PROPOSED TOPSOIL FURNISH AND PLACE, 6" AND SEEDING, CLASS 2A
		(15)	PROPOSED AGGREGATE SHOULDER, 10"
		(16)	PROPOSED TOPSOIL FURNISH AND PLACE, 6" AND SEEDING, CLASS 4

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED TYPICAL SECTIONS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	9
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		

REMOVAL SCHEDULE

IL ROUTE 43 (HARLEM AVE)	PAVEMENT REMOVAL (SQ YD)	COMB. CURB AND GUTTER REMOVAL (FOOT)	MEDIAN REMOVAL (SQ FT)	GUARDRAIL REMOVAL (FOOT)	SIDEWALK REMOVAL (SQ FT)	HOT-MIX ASPHALT REMOVAL - BUTT JOINT (SQ YD)
HARLEM SOUTH	1,346	517	0	494	2,662	
HARLEM NORTH	1891	908	511	415	475	206
UTILITY ROAD	1741	0	0	0	0	
TOTAL	4,979	1,424	511	909	3,137	206

LANDSCAPING SCHEDULE

IL ROUTE 43 (HARLEM AVE)	TOPSOIL FURNISH AND PLACE, 6" (SQ YD)	SEEDING, CLASS 2A (ACRE)	SEEDING, CLASS 4 (ACRE)	EROSION CONTROL BLANKET (SQ YD)	NITROGEN FERTILIZER NUTRIENT (LBS)	PHOSPHORUS FERTILIZER NUTRIENT (LBS)	POTASSIUM FERTILIZER NUTRIENT (LBS)
HARLEM SOUTH	1,326.6	0.15	0.14	1411	13.2	13.2	13.2
HARLEM NORTH	1,326.6	0.14	0.12	1242	13.2	13.2	13.2
UTILITY ROAD	168.4	0	0.04	168	0	0	0
TOTAL	2,822	0.29	0.30	2821	26.4	26.4	26.4

EROSION SCHEDULE

IL ROUTE 43 (HARLEM AVE)	MULCH, METHOD 2	EROSION CONTROL BLANKET	TEMPORARY DITCH CHECH	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	STONE RIPRAP, CLASS A2
	(ACRE)	(SQ YD)	(EACH)	(FOOT)	(EACH)	(SQ YD)
HARLEM SOUTH	0.27	1410.8	20	552	8	3.3
HARLEM NORTH	0.27	1410.8	20	522	8	0
UTILITY ROAD	0.04	168.4	0	0	0	0
TOTAL	0.58	2990	40	1074	16	3

PAVEMENT MARKING SCHEDULE

IL ROUTE 43 (HARLEM AVE)	THERMO. PAVE. MARKING- LINE 4" (FOOT)	THERMO. PAVE. MARKING- LINE 8" (FOOT)	THERMO. PAVE. MARKING- LINE 12" (FOOT)	THERMO. PAVE. MARKING- LINE 24" (FOOT)	MODIFIED URETHANE PAVE. MARKING - LINE 4" (FOOT)	MODIFIED URETHANE PAVE. MARKING - LINE 8" (FOOT)	MODIFIED URETHANE PAVE. MARKING - LINE 12" (FOOT)
HARLEM SOUTH	1038.0	93	43	22	0	0	59
HARLEM NORTH	466.0	0	0	0	3063	269	187
UTILITY ROAD	0.0	0	0	0	0	0	0
TOTAL	1504.0	93	43	22	3,063	269	246

EARTHWORK SCHEDULE

IL ROUTE 43 (HARLEM AVE) STA. TO STA.	EARTH EXCAVATION	EMBANKMENT	EARTH EX. ADJUSTMENT FOR SHRINKAGE	EARTHWORK BALANCE	TOPSOIL, EXCAVATION AND PLACEMENT
	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
19+99 TO 24+00	783.8	1386.4	587.8	-798.5	135.0
24+00 TO 31+21	413.5	4881.5	310.1	-4610.6	372.9
60+66 TO 65+66	1037.0	0.0	777.8	777.8	0.0
TOTAL	2234.3	6267.9	1675.8	-4631.4	507.9

TREE REMOVAL SCHEDULE

IL ROUTE 43 (HARLEM AVE) STATIONS	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)
20+00 LT	8	
24+40 RT	11+12+7+12+8	
24+59 RT	11	
24+72 RT	7+8+8+7+10+8	
24+82 RT	14	
25+01 RT	8	
25+11 RT	9	
25+22 RT	7+10	
25+42 RT	8+8+6+7	
25+78 RT	9+11	
25+92 RT	6	
26+05 RT	14	
26+39 RT	7+8+12	
26+68 RT	12+12+6	
26+92 RT	6+7	
27+02 RT	7+7+8	
27+31 RT	11	
27+44 RT	10	
27+71 RT	12	
27+90 RT		18
28+12 RT	8	
28+45 RT	8+10+11+11+14	
TOTAL	421	18

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	10
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		

DRAINAGE – STORM SEWER STRUCTURE SCHEDULE

STRUCTURE NO.	STATION	OFFSET	LT/RT	STRUCTURE TYPE	RIM	INVERT ELEVATION			
					ELEVATION	N	S	E	W
FES-1	21+43	70	LT	PRC FLAR END SEC 15	-	602.00			
ST-1	21+43	16.1	LT	INLETS TA T23F&G	614.00				610.15
ST-2	21+43	23.4	LT	CB TA 4 DIA T23F&G	613.96			609.33	609.33
ST-3	24+75	13	RT	INLETS TA T23F&G	612.25				608.85
ST-4	24+75	13	LT	CB TA 4 DIA T23F&G	612.25			608.33	606.21
ST-5	24+64	44	LT	EX MANHOLE	610.32	604.92	605.57	605.57	605.32
ST-6	27+06	13.4	RT	INLETS TA T23F&G	603.20				599.51
ST-7	27+05	12.2	LT	CB TA 4 DIA T23F&G	603.21	598.99		598.99	598.89
ST-8	27+06	30	LT	INLETS ADJ NEW T1F OL	603.00		598.23	598.53	
ST-9	27+50	20.8	LT	INLETS TA T8G	601.07		599.99		
ST-10	28+82	11.7	LT	CB ADJ NEW T1F OL	-				
ST-11	26+36	39.2	RT	CONC HDWL FOR P DRAIN	-	589.32			
ST-12	28+36	39.2	RT	CONC HDWL FOR P DRAIN	-	589.32			
ST-13	26+82	53.5	RT	MH TA 6 DIA T1F CL	592.32		579.90		580.90
ST-14	26+47	59	RT	MH TA 7 DIA T1F CL	590.66	579.55		578.62	
ST-15	26+48	87	RT	MH TA 7 DIA T1F CL	590.46	578.24	578.24		578.34
ST-16	26+82	64.5	RT	CB TA 4 DIA T8G	590.97	588.13	587.6		586.08

DRAINAGE – STORM SEWER SCHEDULE

PIPE NO.	FROM	TO	SIZE	LENGTH	PIPE	INV	INV
	STR	STR	(IN)	(FT)	SLOPE %	FROM	TO
1	ST-1	ST-2	15	41	1.9	610.15	609.33
2	ST-2	FES-1	15	46	16.0	609.33	602.00
3	ST-3	ST-4	12	26	2.0	608.85	608.33
4	ST-4	ST-5	12	33	2.2	606.21	605.57
5	ST-6	ST-7	12	26	2.1	599.51	598.99
6	ST-7	ST-8	12	18	1.6	598.89	598.53
7	ST-9	ST-7	12	46	1.0	599.99	598.99
8	-	ST-13	24	114	-	-	580.90
9	ST 13	ST 14	36	35	1.0	579.90	579.55
10	ST-14	ST-15	36	28	1.0	578.62	578.34
11	ST-16	ST-13	12	11	1.0	586.08	585.9

DRAINAGE – REMOVAL SCHEDULE

STRUCTURE NO.	STATION	OFFSET	LT/RT	STRUCTURE TYPE	QTY
1	22+35	28	LT	REM EX CB	1 EACH
2	22+35	13	RT	REM EX CB	1 EACH
3	24+62	29	LT	REM EX CB	1 EACH
4	24+66	13	RT	REM EX CB	1 EACH
5	27+06	13	RT	REM EX CB	1 EACH
6	22+35	-	-	SS REM 10"	40 FT
7	24+64	-	-	SS REM 10"	60 FT
8	27+05	-	-	SS REM 10"	45 FT
9	26+68	72	RT	FILL DRAINAGE STRUCT	1 EACH
10	26+28	-	-	FILL EXIST CULVERTS	795 CU YD

DRAINAGE – PIPE UNDERDRAIN SCHEDULE

PIPE NO.	FROM	TO	LT/RT	SIZE	DEPTH	LENGTH
	STA	STA		(IN)	(IN)	(FT)
PUD-1	21+43	21+43	LT/RT	4	18	139
PUD-2	26+36	26+36	LT/RT	4	18	52
PUD-3	28+36	28+36	LT/RT	4	18	50
PUD-4	-	-	RT	4	30	35
PUD-5	-	-	RT	4	36	28

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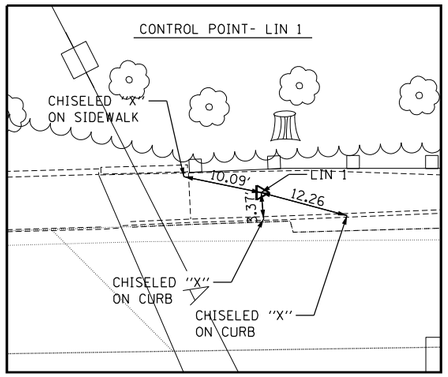
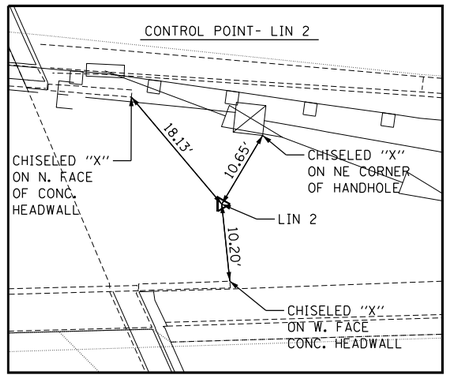
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

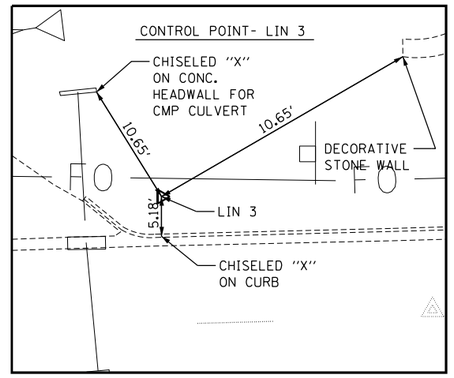
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	11
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		



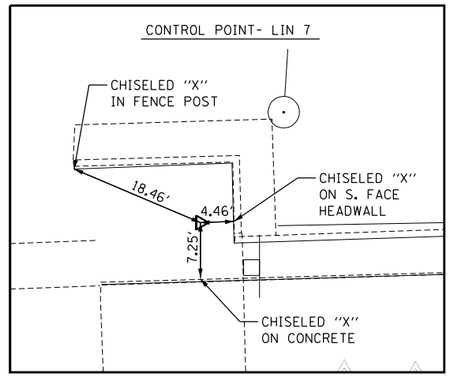
LIN 1- SET MAG NAIL; N: 1870778.4700; E: 1129139.3360



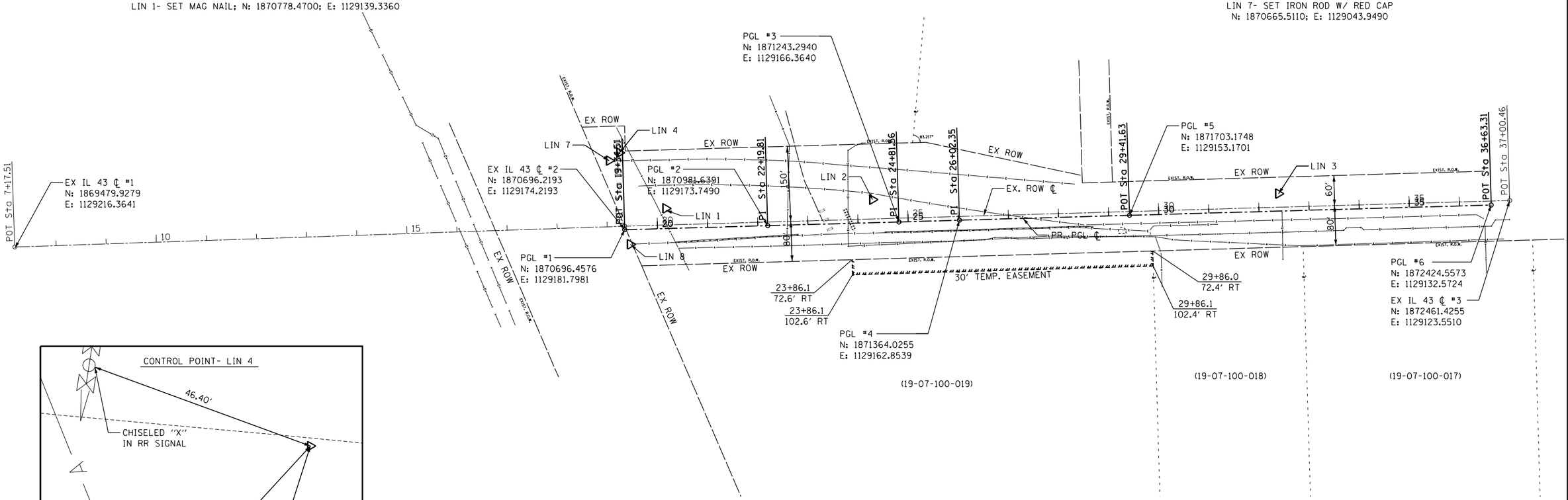
LIN 2- SET IRON ROD W/ RED CAP
N: 1871190.8590; E: 1129121.6720

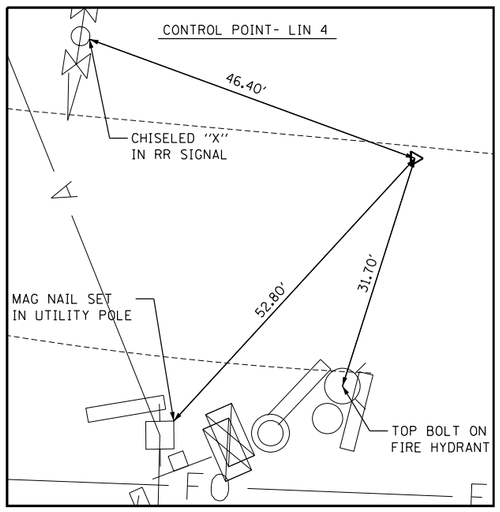


LIN 3- SET IRON ROD W/ RED CAP
N: 1872000.3660; E: 1129109.9360



LIN 7- SET IRON ROD W/ RED CAP
N: 1870665.5110; E: 1129043.9490





LIN 4- SET MAG NAIL; N: 1870686.0660; E: 1129028.2010

BENCHMARKS

BENCHMARK NO.	ELEVATION	DESCRIPTION
BM 1	618.46	SQUARE CHISLED IN TOP OF NORTH END OF NW WING WALL OF IL 43 NB OVER SHIP CANAL
BM 2	614.51	SQUARE CHISLED IN NE CORNER OF NW WINGWALL OF SB IL 43 BRIDGE OVER MWRD RR
BM 3	588.58	NE TAG BOLT OF FH, EAST OF IL 43, +/- 200' SOUTH OF FOREST VIEW TERMINAL DRIVE, AT FRONT OF BP BUILDING

I"=100' SCALE 100 0 100 200 FEET

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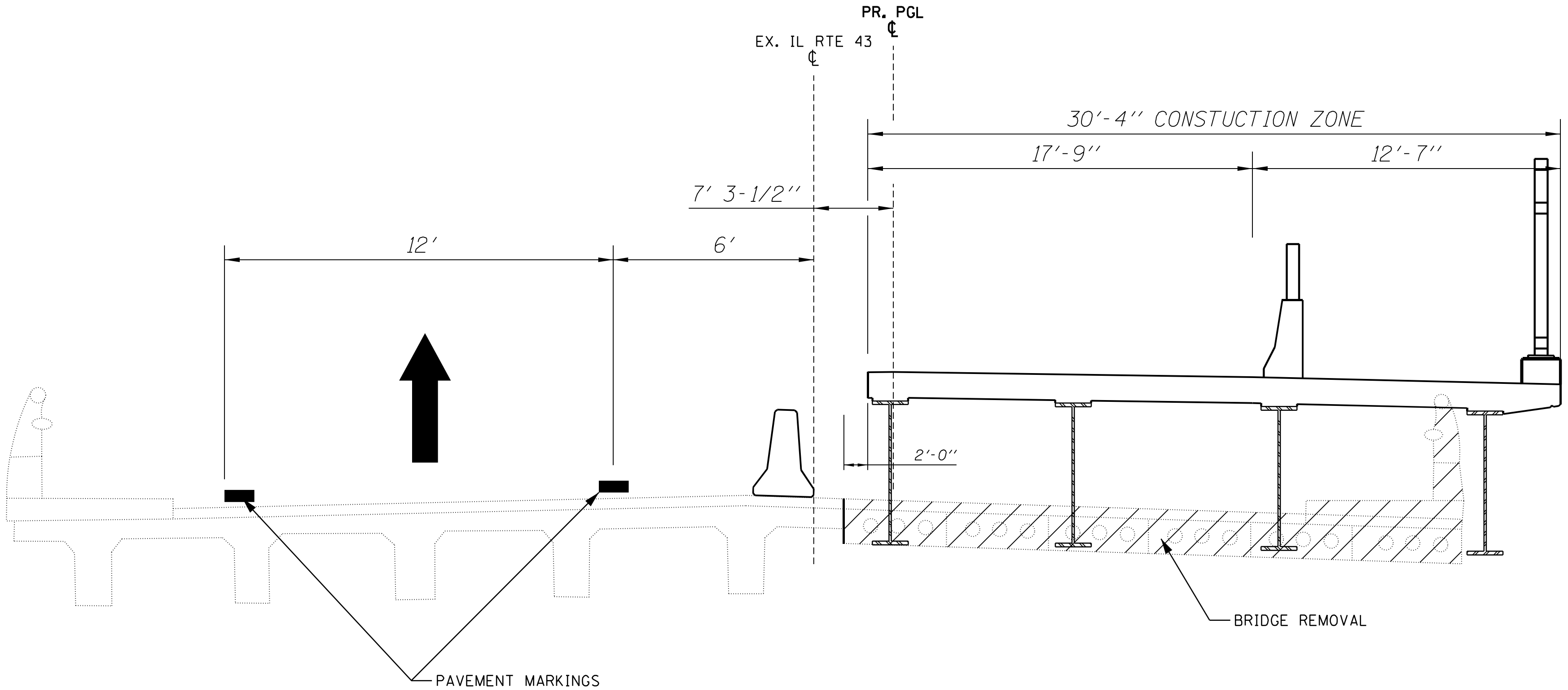
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES AND BENCHMARKS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(1)	COOK	105	12
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		



PRE-STAGE

-REMOVE CONCRETE MOUNTABLE MEDIAN AND REPLACE WITH FULL DEPTH HMA PAVEMENT- STA. 27+25 TO STA. 31+21

STAGE I

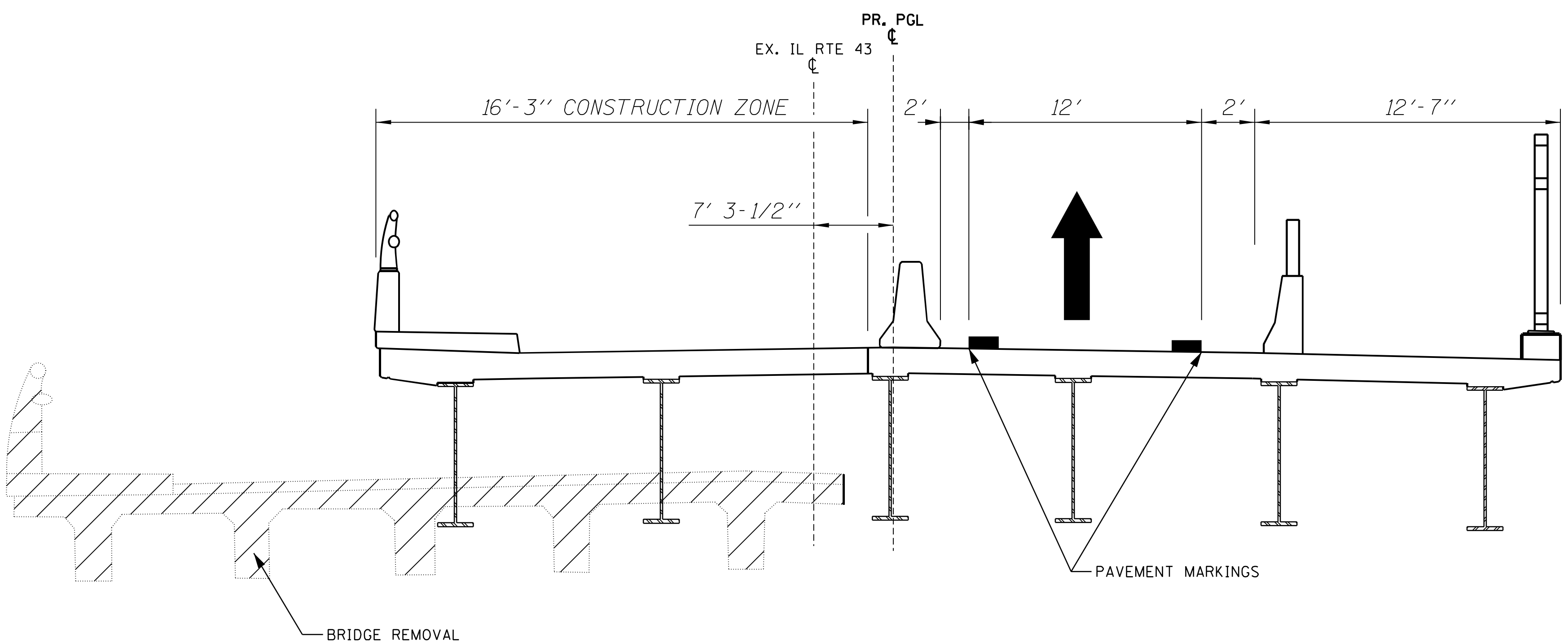
-ESTABLISH TRAFFIC CONTROL AS DETAILED IN THE TRAFFIC CONTROL PLANS

-INSTALL TEMPORARY CONCRETE BARRIERS, IMPACT ATTENUATOR AND TEMPORARY PAVEMENT MARKINGS AS SHOWN ON PLAN- STA. 8+65 TO STA. 31+73

-REMOVE EAST SIDE OF BRIDGE

-CONSTRUCT EAST SIDE OF PROPOSED BRIDGE

-RELOCATE TEMPORARY CONCRETE BARRIERS



STAGE II

-ESTABLISH TRAFFIC CONTROL AS DETAILED IN THE TRAFFIC CONTROL PLANS

-INSTALL TEMPORARY CONCRETE BARRIERS, IMPACT ATTENUATOR AND TEMPORARY PAVEMENT MARKINGS AS SHOWN ON PLAN- STA. 8+59 TO STA. 31+21

-REMOVE WEST SIDE OF BRIDGE

-CONSTRUCT WEST SIDE OF PROPOSED BRIDGE

-REMOVE TEMPORARY CONCRETE BARRIERS AND TRAFFIC CONTROL AND INSTALL POLYUREA PAVEMENT MARKINGS- STA. 8+59 TO STA. 31+21

NOTES:

ONE (1) CHANGEABLE MESSAGE SIGN IN ADVANCE OF CONSTRUCTION AREA (LOCATION AS DIRECTED BY THE ENGINEER) IN EACH DIRECTION.

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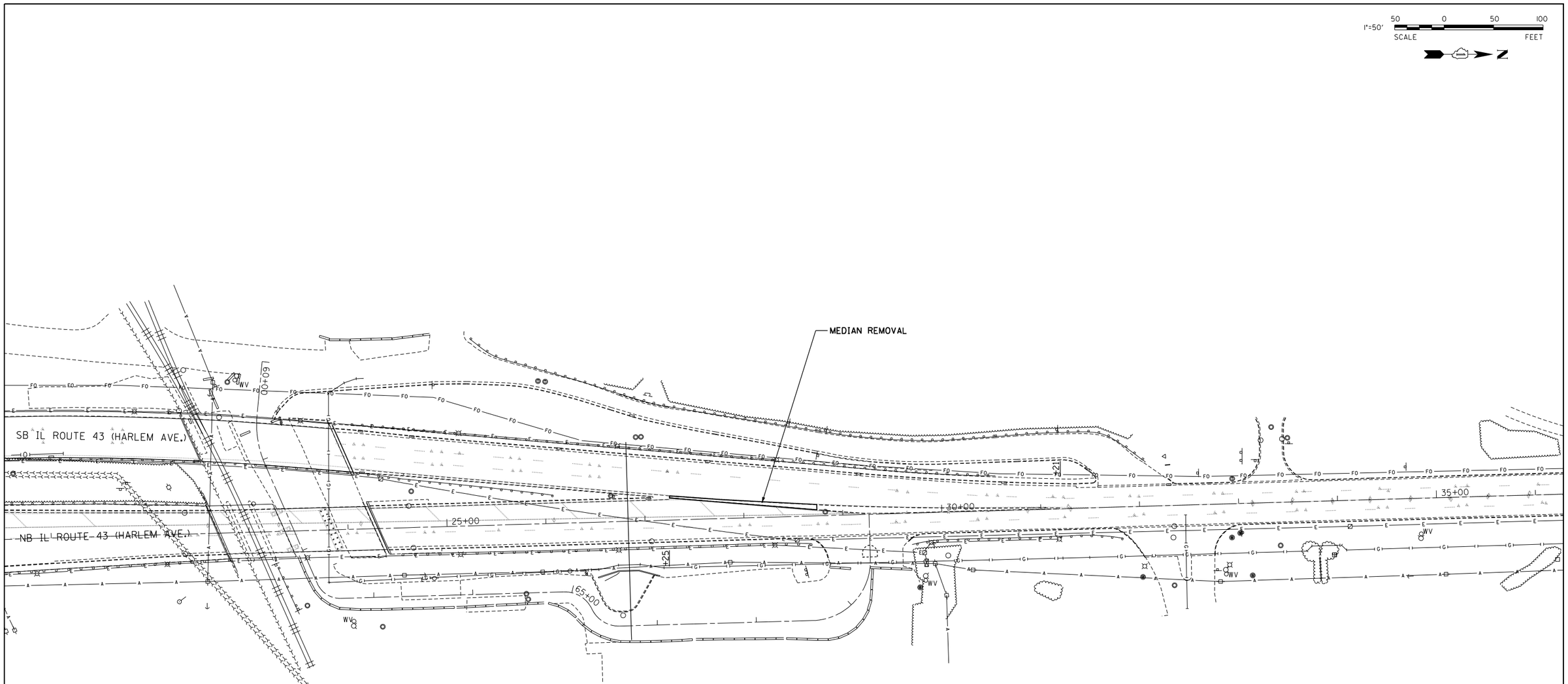
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(1)	COOK	105	13
		CONTRACT NO 60T06		

FED. ROAD DIST. NO. 1 ILLINOIS FEDERAL AID PROJECT



NOTE:

USE THE FOLLOWING TRAFFIC CONTROL AND PROTECTION STANDARDS:

701101-04	OFF-RD OPERATIONS, MULTILANE, 15' TO 24", FROM PAVEMENT EDGE
701427-02	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS < 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NON-TRAVERSABLE MEDIAN
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-03	TRAFFIC CONTROL DEVICES

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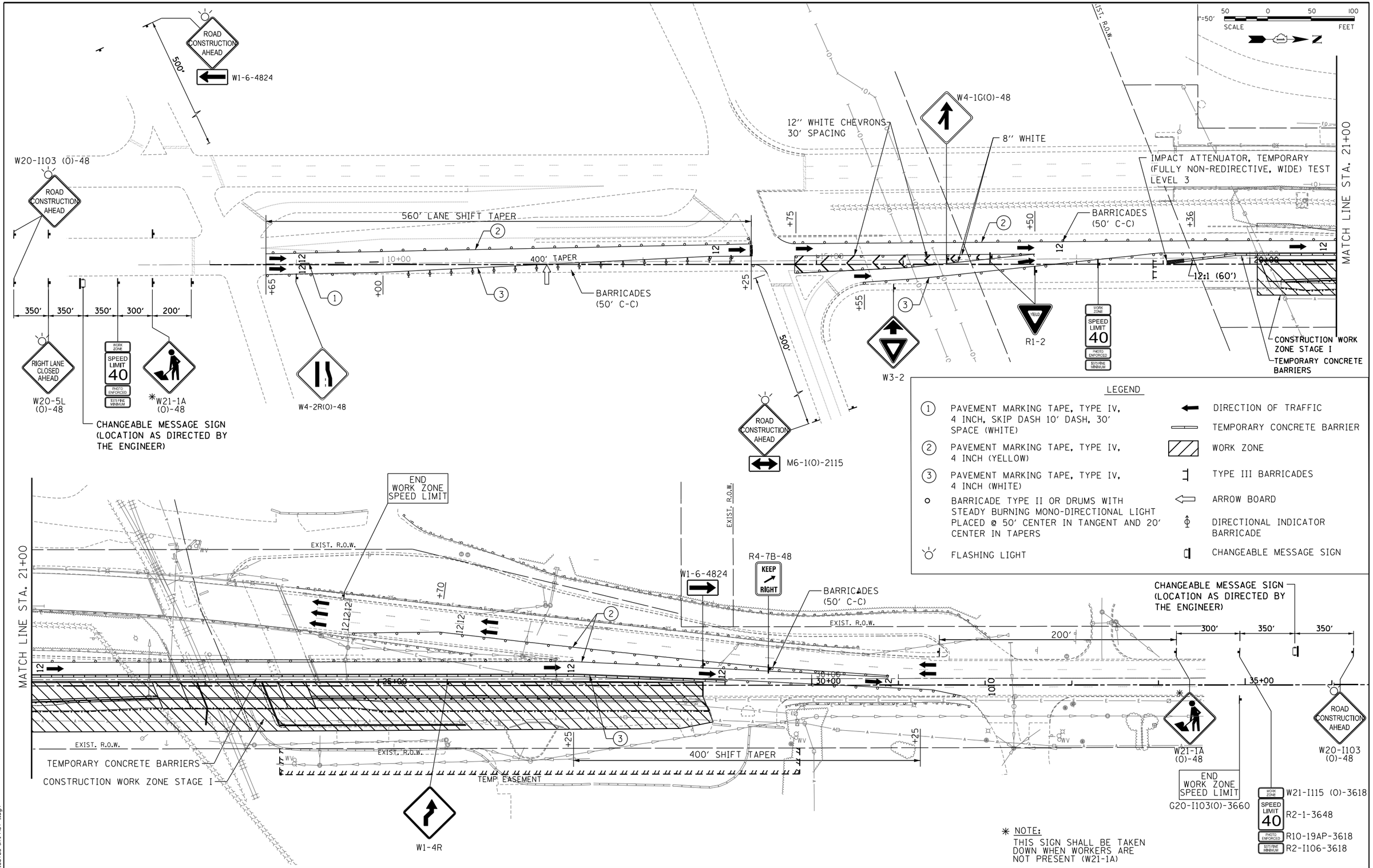
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC– PRE–STAGE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(1)	COOK	105	14
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		



LEGEND

(1)	PAVEMENT MARKING TAPE, TYPE IV, 4 INCH, SKIP DASH 10' DASH, 30' SPACE (WHITE)	⬅	DIRECTION OF TRAFFIC
(2)	PAVEMENT MARKING TAPE, TYPE IV, 4 INCH (YELLOW)	▭	TEMPORARY CONCRETE BARRIER
(3)	PAVEMENT MARKING TAPE, TYPE IV, 4 INCH (WHITE)	▨	WORK ZONE
○	BARRICADE TYPE II OR DRUMS WITH STEADY BURNING MONO-DIRECTIONAL LIGHT PLACED @ 50' CENTER IN TANGENT AND 20' CENTER IN TAPERS	⊣	TYPE III BARRICADES
		⇦	ARROW BOARD
		⇳	DIRECTIONAL INDICATOR BARRICADE
☼	FLASHING LIGHT	▯	CHANGEABLE MESSAGE SIGN

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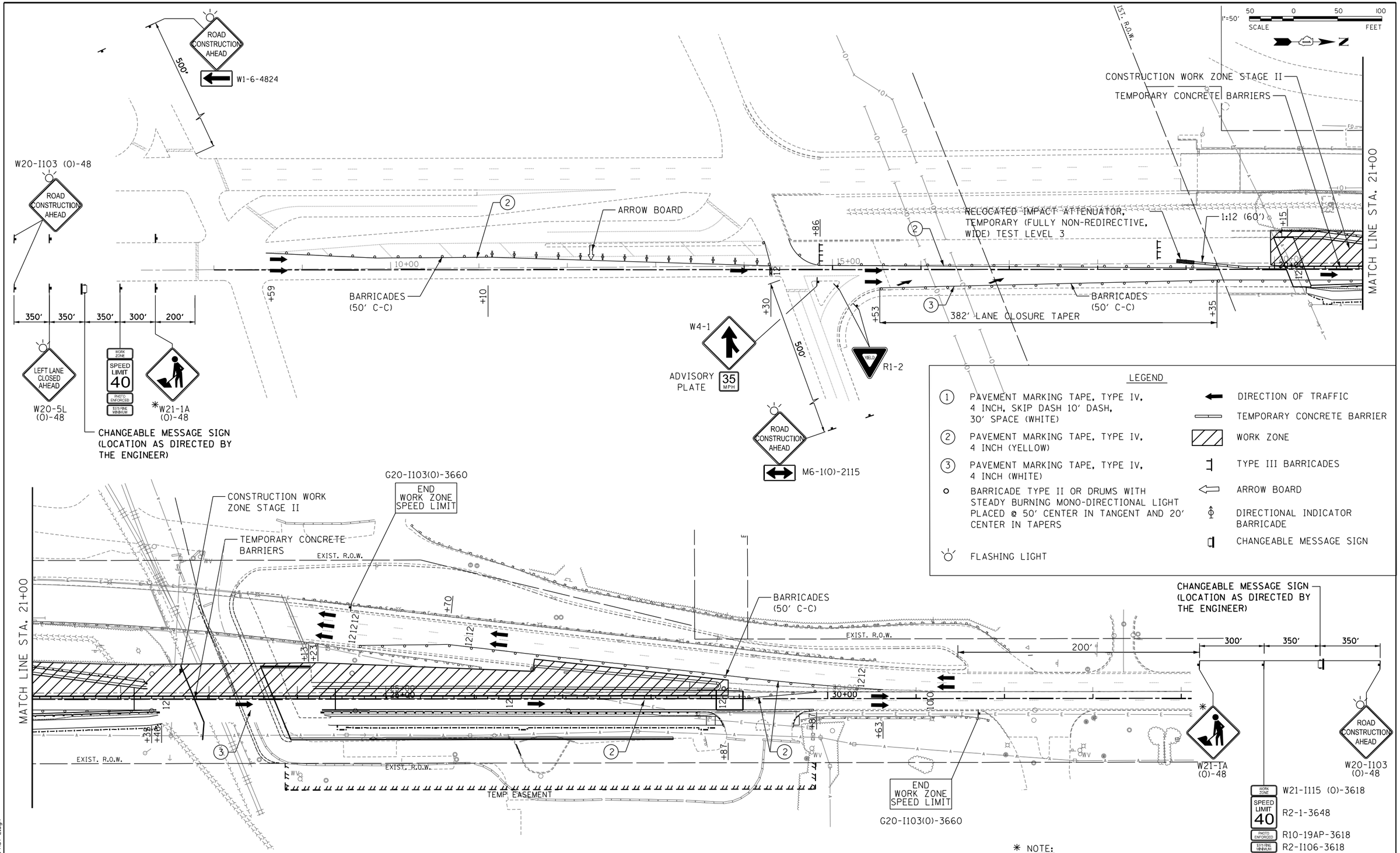
DEPARTMENT OF TRANSPORTATION

MAINTENENCE OF TRAFFIC– STAGE I

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	15
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		



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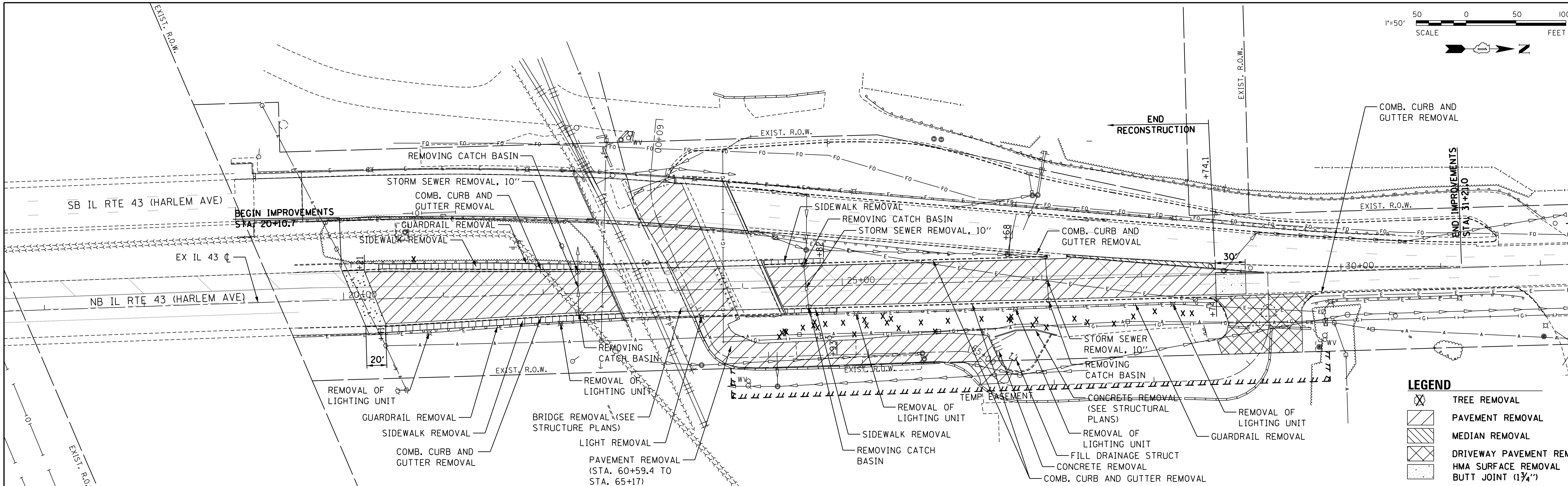
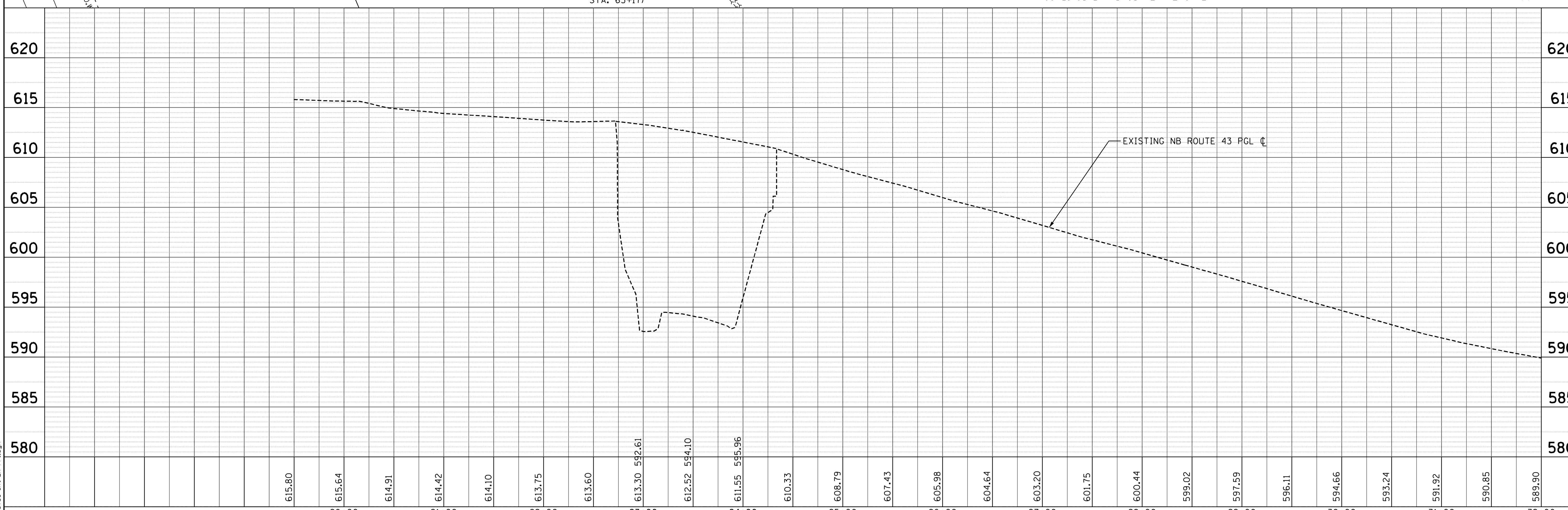
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENENCE OF TRAFFIC– STAGE II

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	16
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		





PLAN		
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	ALIGNMENT CHECKED	
	RT. OF WAY CHECKED	
	CADD FILE NAME	

PROFILE		
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	GRADES CHECKED	
	BM. NOTED	
	STRUCTURE NOTATNS CHK'D	

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REMOVAL PLAN AND PROFILE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(1)	COOK	105	17
		CONTRACT NO 60T06		

FED. ROAD DIST. NO. 1 | ILLINOIS | FEDERAL AID PROJECT

PLAN

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

PROFILE

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

PRINTED DATE: 3/5/2021
FILE NAME: 14_D160T06-sht-PP1.dgn

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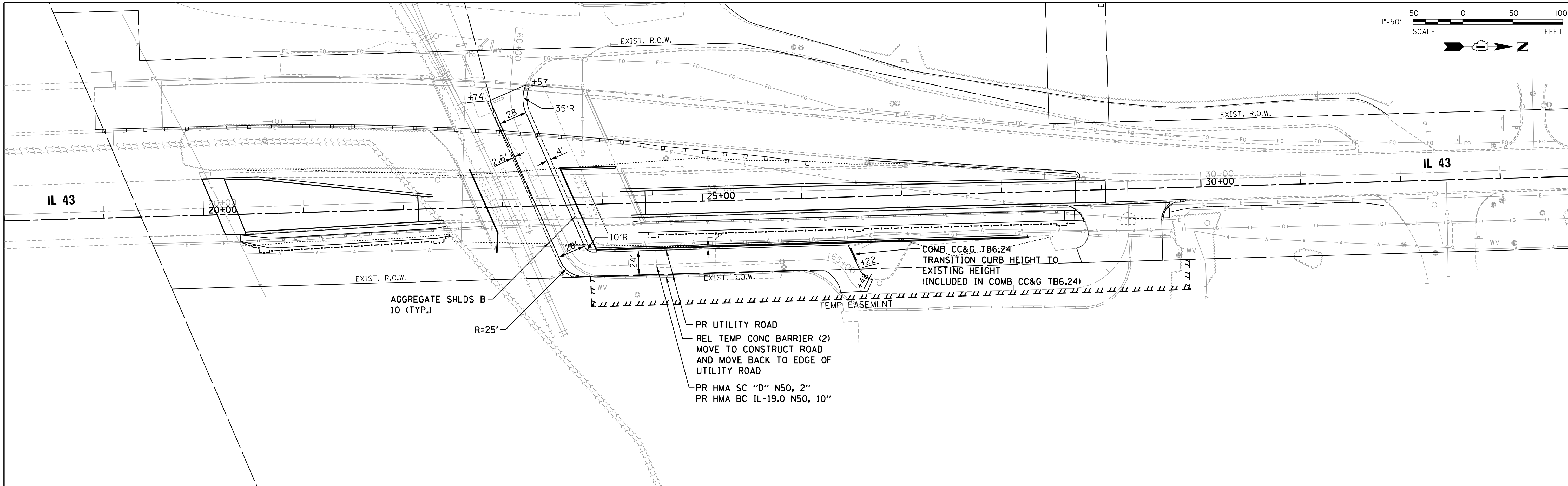
PLOT DATE = 3/5/2021	DATE -	REVISED -

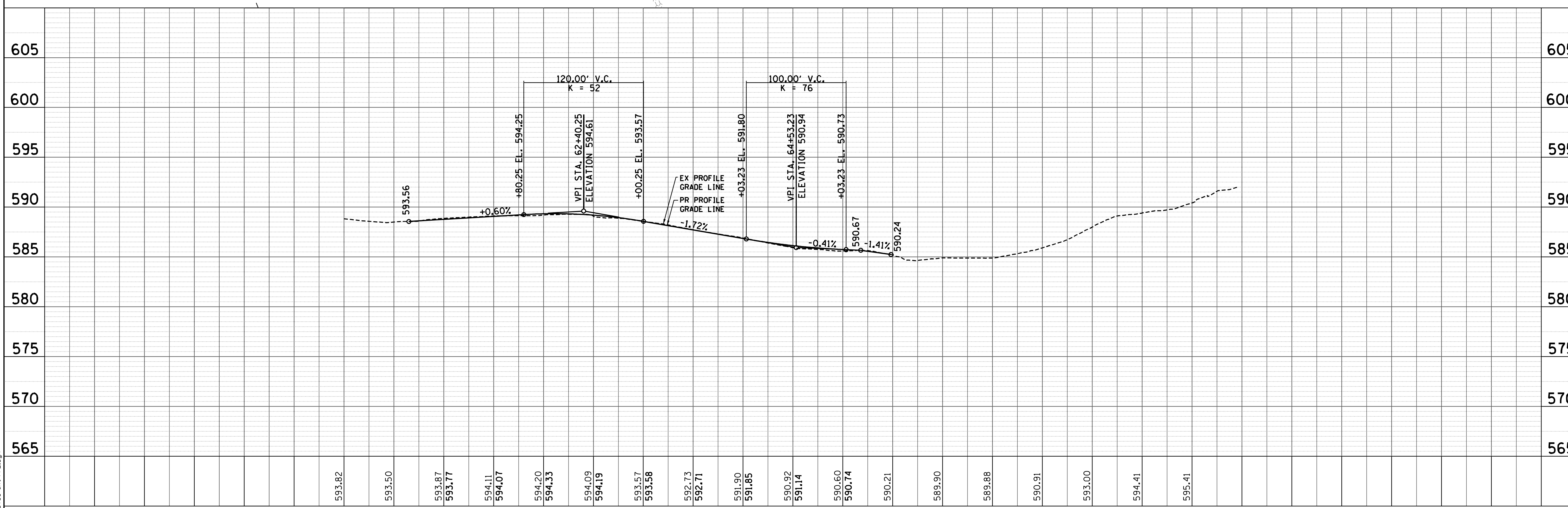
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN AND PROFILE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(1)	COOK	105	18
		CONTRACT NO 60T06		

FED. ROAD DIST. NO. 1 ILLINOIS FEDERAL AID PROJECT





PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.T. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO. — BY — DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO. — BY — DATE

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FILE NAME: 15.0160T06-sht-PP2.dgn

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PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = 3/5/2021	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED UTILITY ROAD PLAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(1)	COOK	105	19
		CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		

(1) 41' STORM SEWER, TYPE 2, CLASS A, 15" @ 1.9%
(2) 46' STORM SEWER, TYPE 2, CLASS A, 15" @ 16.0%
(3) 26' STORM SEWER, TYPE 2, CLASS A, 12" @ 2.0%
(4) 33' STORM SEWER, TYPE 2, CLASS A, 12" @ 2.2%
(5) 26' STORM SEWER, TYPE 2, CLASS A, 12" @ 2.1%
(6) 18' STORM SEWER, TYPE 2, CLASS A, 12" @ 1.6%
(7) 46' STORM SEWER, TYPE 2, CLASS A, 12" @ 1.0%
(8) 114' STORM SEWERS (SPECIAL), 24" INSTALL WITHIN EXISTING 11'x20' BOX CULVERT (SEE SPECIAL PROVISIONS)
(9) 35' STORM SEWER, TYPE 2, CLASS A, 36" @ 1.0%
(10) 28' STORM SEWER, TYPE 2, CLASS A, 36" @ 1.0%
(11) 11' STORM SEWER, TYPE 2, CLASS A, 12" @ 1.0%

PUD-1 139' PIPE UNDERDR T 2 4
PUD-2 52' PIPE UNDERDR T 2 4
PUD-3 50' PIPE UNDERDR T 2 4
PUD-4 40' PIPE UNDERDR T 2 4
PUD-5 23' PIPE UNDERDR T 2 4

1"=50' SCALE 50 0 50 100 FEET

N

EXIST. R.O.W.

BEGIN IMPROVEMENTS STA. 20+10.7

RIPRAP CL A4 3.3 SY

CONNECTION TO EXISTING 24" RCP (SEE SPECIAL PROVISION FOR STORM SEWERS (SPECIAL))

END RECONSTRUCTION | BEGIN MILL/ RESURFACING

+74.1

END IMPROVEMENTS STA. 31+21.0

+68

TEMP EASEMENT

FES-1 PRC FLAR END SEC 15
STA. 21+43, 70' LT
15" INV: 602.00

ST-1 INLETS TA T23F&G
STA. 21+43, 16.1' RT
RIM: 614.00
15" INV: 610.15 (W)

ST-2 CB TA 4 DIA T23F&G
STA. 21+43, 23.4' LT
RIM: 613.96
15" INV: 609.33 (E,W)

ST-3 INLETS TA T23F&G
STA. 24+75, 13' RT
RIM: 612.25
12" INV: 608.85 (W)

ST-4 CB TA 4 DIA T23F&G
STA. 24+75, 13' LT
RIM: 612.25
12" INV: 608.33 (E)
12" INV: 606.21 (W)

ST-5 EX MANHOLE, TYPE A W/ TYPE 1 F&CL
STA. 24+64, 44' LT
RIM: 610.32
EX 10" INV: 605.57 (S)
EX 10" INV: 604.92 (N)
EX 10" INV: 605.32 (W)
PR 12" INV: 605.57 (E)

ST-6 INLETS TA T23F&G
STA. 27+06, 13.4' RT
RIM: 603.20
12" INV: 599.51 (W)

ST-7 CB TA 4 DIA T23F&G
STA. 27+05, 12.2' LT
RIM: 603.21
12" INV: 598.89 (W)
12" INV: 598.99 (E)
12" INV: 598.99 (N)

ST-8 INLETS ADJ NEW T1F OL
STA. 27+06, 30' LT
RIM: 603.00
EX 10" INV: 598.23 (S)
PR 12" INV: 598.53 (E)

ST-9 INLETS TA T8G
STA. 27+50, 20.8' LT
RIM: 601.07
12" INV: 599.99 (S)

ST-10 CB ADJ NEW T1F OL
STA. 28+82, 11.7' LT

ST-11 CONC HDWL FOR P DRAIN
STA. 26+36, 39.2' RT
4" INV: 589.32 (N)

ST-12 CONC HDWL FOR P DRAIN
STA. 28+36, 39.2' RT
4" INV: 589.32 (N)

ST-13 MAN TA 6 DIA T1F CL
STA. 26+82, 53.5' RT
RIM: 591.46
12" INV: 585.90 (E)
24" INV: 580.90 (W)
36" INV: 579.90 (S)

ST-14 MAN TA 7 DIA T1F CL
STA. 26+47, 59' RT
RIM: 590.66
36" INV: 579.55 (N)
36" INV: 578.62 (E)

ST-15 MAN TA 7 DIA T1F CL
STA. 26+48, 87' RT
RIM: 590.46
CONNECT EX. 36" STORM SEWER
36" INV: 578.24 (N,S) (MATCH EX.)
PR. 36" INV: 578.34 (W)

ST-16 CB TA 4 DIA T8G
STA. 26+82, 64.5' RT
RIM: 590.57
4" INV: 588.13 (NW)
4" INV: 587.58 (SW)
12" INV: 586.08 (W)

(1) REMOV CATCH BAS, STA 22+35, 28' LT
(2) REMOV CATCH BAS, STA 22+35, 13' RT
(3) REMOV CATCH BAS, STA 24+62, 29' LT
(4) REMOV CATCH BAS, STA 24+66, 13' RT
(5) REMOV CATCH BAS, STA 27+06, 13' RT
(6) STORM SEWER REM 10, 40 LF
(7) STORM SEWER REM 10, 60 LF
(8) STORM SEWER REM 10, 45 LF
(9) FILL DRAINAGE STRUCT STA. 26+68, 72' RT
(10) FILL EXIST CULVERTS

PLAN: SURVEYED, PLOTTED, QUANTITIES CHECKED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE: SURVEYED, PLOTTED, QUANTITIES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO., BY, DATE

BEGIN IMPROVEMENTS STA. 20+10.7 ELEV. = 615.16

-1.24% +0.83% -3.97% -2.83%

EX PROFILE GRADE LINE
PR PROFILE GRADE LINE

INV: 610.15
INV: 609.33
INV: 608.85
INV: 608.33
INV: 606.21
INV: 599.51
INV: 598.89

RR
UTILITY RD

SEE STRUCTURAL PLANS

EX BOX CULVERT (10)

END RECONSTRUCTION
END IMPROVEMENTS
STA. 28+74.1
ELEV. = 598.34

	20+00	21+00	22+00	23+00	24+00	25+00	26+00	27+00	28+00	29+00	30+00	31+00	32+00	33+00
EX	615.80	615.64	614.91	614.42	614.10	613.75	613.60	613.30	612.52	611.55	609.30	608.42	608.79	606.55	607.43	604.57	605.98	603.16	604.64	602.95	603.20	599.77	601.75	600.44	599.02	597.59	596.11	594.66	593.24	591.92	590.85	589.90	589.19	588.77
PR			614.98	614.49	614.35	614.59	615.00	615.32	615.17	604.30	609.30	608.42	607.65	606.55	605.66	604.57	603.67	603.16	608.89	602.95	601.72	599.77	601.96	600.44	599.02	599.02	596.11	594.66	593.24	591.24	590.85	589.90	589.19	588.77

615 610 605 600 595 590 585

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN AND PROFILE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	20
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		

PRINTED DATE: 3/5/2021
FILE NAME: 16_D1601705-sht-DPP1.dgn

EROSION CONTROL GENERAL NOTES:

1. ALL SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSTALLED PER IDOT STANDARD 280001 OR AS SPECIFIED HEREIN AND PAID FOR IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS. ALL CONSTRUCTION ACTIVITIES WILL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMITS ILR10 AND ILR40.

2. EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE SEQUENCE OF STAGE CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE FOR APPROVAL.

3. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE THE PROJECT SITE IS OTHERWISE DISTURBED.

4. ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE CONCLUDED. ALL ERODIBLE/BARE AREAS SHALL BE SEEDED EVERY 7 DAYS WITH TEMPORARY EROSION CONTROL SEEDING. IF A TOPSOIL STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, EROSION CONTROL MEASURES WILL BE PROVIDED.

5. STOCKPILES AND MATERIAL STORAGE ARE PROHIBITED IN SPECIAL MANAGEMENT AREAS INCLUDING WETLANDS, WETLAND BUFFERS, AND FLOOD PLAINS. LOCATIONS OF STOCKPILES MUST BE APPROVED BY THE ENGINEER AND HAVE PROPER EROSION CONTROL MEASURES.

6. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING SHALL BE FILTERED TO THE SATISFACTION OF THE ENGINEER.

7. WHEN TEMPORARY DRAINAGE IS ESTABLISHED, EROSION CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER.

8. ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES IF NECESSARY, SHALL BE PROVIDED TO PREVENT SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED BEFORE THE END OF EACH WORKDAY AND AS NEEDED OR AS DIRECTED BY THE ENGINEER.

9. CLEANING OF VEHICLES AND EQUIPMENT, INCLUDING CONCRETE MIXERS, SHALL BE PERFORMED IN A MANNER TO REDUCE THE AMOUNT OF POLLUTANTS TRIBUTARY TO STORM SEWERS AND OPEN WATERS TO THE MAXIMUM EXTENT PRACTICAL.

10. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUNOFF. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.

11. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM EROSION CONTROL SYSTEMS WHEN THE HEIGHT OF THE SEDIMENT EXCEEDS ONE-HALF OF THE HEIGHT OF THE FILTER DEVICE.

12. ALL EROSION CONTROL MEASURES SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SEDIMENT AND EROSION CONTROL MEASURES ARE OPERATIONAL.

13. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED.

14. THE ENGINEER SHALL INSPECT EROSION CONTROL MEASURES PERIODICALLY AND WITHIN 24 HOURS OF ANY STORM EXCEEDING ½ INCH PRECIPITATION. DAMAGED AND INEFFECTIVE EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITHIN 24 HOURS. EROSION CONTROL SYSTEMS REPLACED DUE TO SEDIMENT LOADING WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE APPLICABLE EROSION CONTROL ITEM.

15. THE COST OF REMOVING SEDIMENT OR REPAIRING EROSION CONTROL SYSTEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE APPLICABLE EROSION CONTROL ITEM.

16. ALL ESC MEASURES WILL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION FOUND ON THE CONSTRUCTION TAB AT: (HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/ENVIRONMENT/EROSION-AND-SEDIMENT-CONTROL).

17. THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION.

18. THE CONTRACTOR SHALL CHECK ALL ESC MEASURES WEEKLY AND AFTER EACH RAINFALL, 0.5 INCHES OR GREATER IN A 24 HOUR PERIOD, OR EQUIVALENT SNOWFALL. ADDITIONALLY DURING WINTER MONTHS, ALL MEASURES SHOULD BE CHECKED BY THE CONTRACTOR AFTER EACH SIGNIFICANT SNOWMELT.

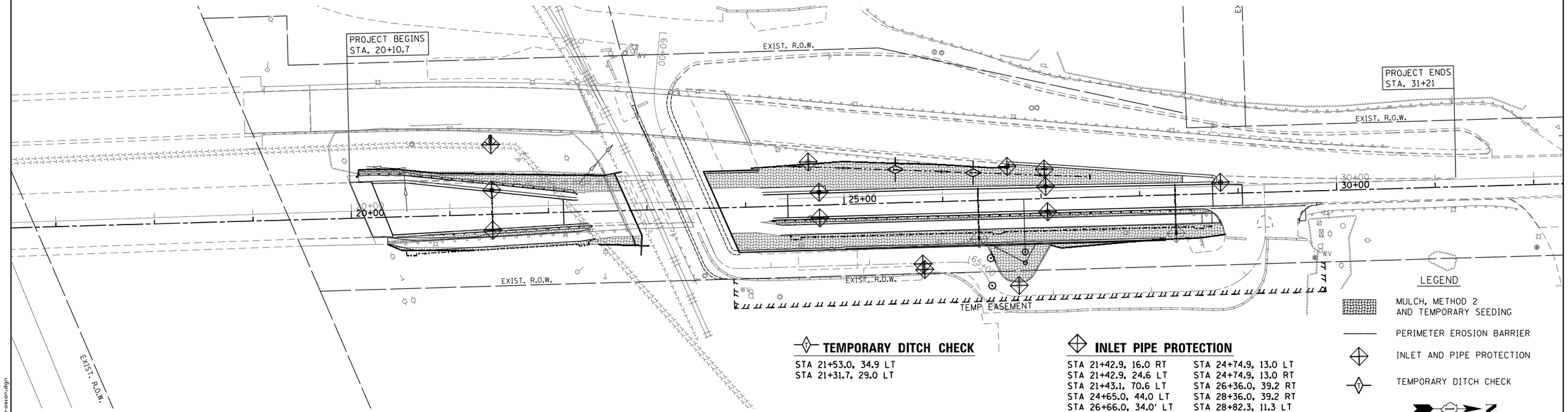
19. THE CONTRACTOR SHOULD PROVIDE TO THE RE A PLAN TO ENSURE THAT A STABILIZED FLOW LINE WILL BE PROVIDED DURING STORM SEWER CONSTRUCTION. THE USE OF A STABILIZED FLOW LINE BETWEEN INSTALLED STORM SEWER AND OPEN DISTURBANCE WILL REDUCE THE POTENTIAL FOR THE OFFSITE DISCHARGE OF SEDIMENT BERING WATERS, ESPECIALLY WHEN RAIN IS FORECASTED, SO THAT FLOW WILL NOT ERODE. LACK OF APPROVED PLAN OR FAILURE TO COMPLY WILL RESULT IN AN ESC DEFICIENCY DEDUCTION.

20. ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, WHICH OBSTRUCTS THE NATURAL FLOW OF WATER, SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCIDENTAL.

21. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED IMMEDIATELY UPON COMPLETION OF DISTURBANCE OR IF THE WORK AREA IS TO BE LEFT UNDISTURBED FOR 14 DAYS OR MORE.

22. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.

23. EROSION CONTROL ITEMS ARE CONSIDERED TO BE A HIGH PRIORITY ON THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE RE.



TEMPORARY DITCH CHECK

STA 21+53.0, 34.9 LT
STA 21+31.7, 29.0 LT

INLET PIPE PROTECTION

STA 21+42.9, 16.0 RT
STA 21+42.9, 24.6 LT
STA 21+43.1, 70.6 LT
STA 24+65.0, 44.0 LT
STA 26+66.0, 34.0' LT
STA 27+04.0, 29.9 LT
STA 27+04.8, 12.1 LT
STA 27+06.1, 13.5 RT
STA 24+74.9, 13.0 LT
STA 24+74.9, 13.0 RT
STA 26+36.0, 39.2 RT
STA 28+36.0, 39.2 RT
STA 28+82.3, 11.3 LT
STA 64+54.0, 1' RT
STA 64+56.0, 6' RT
STA 65+66.0, 11' LT

LEGEND

- MULCH, METHOD 2 AND TEMPORARY SEEDING
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK

1"=50' SCALE 50 0 50 100 FEET

PRINTED DATE: 3/15/2021
FILE NAME: 17_D160706-sht-Erosion.dgn

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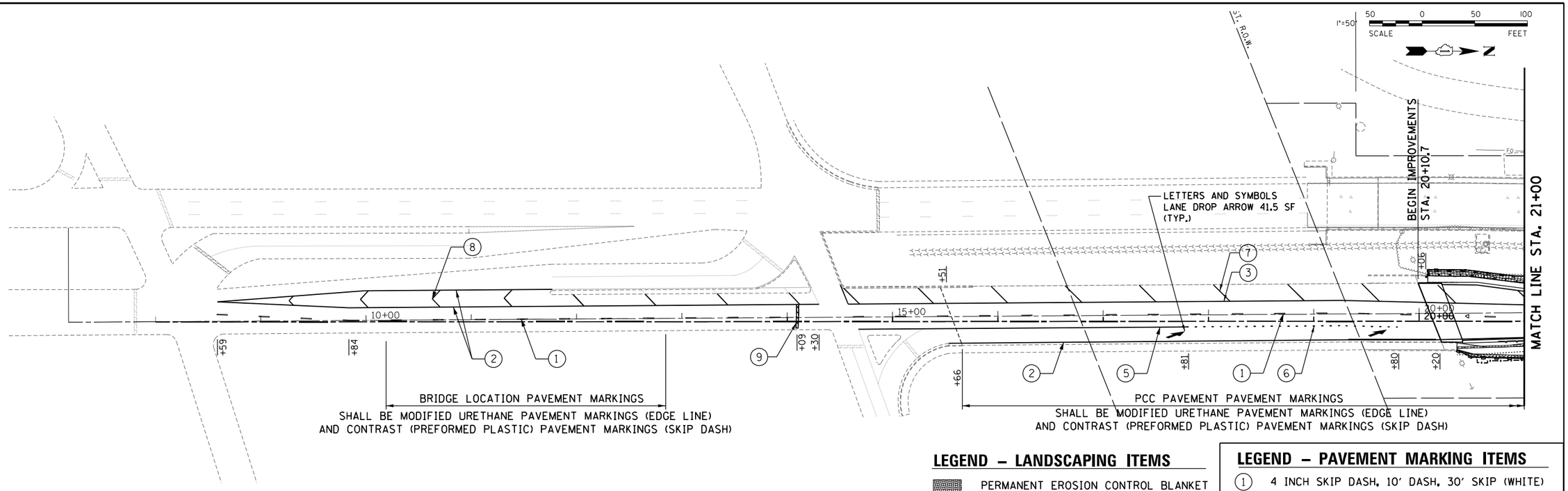
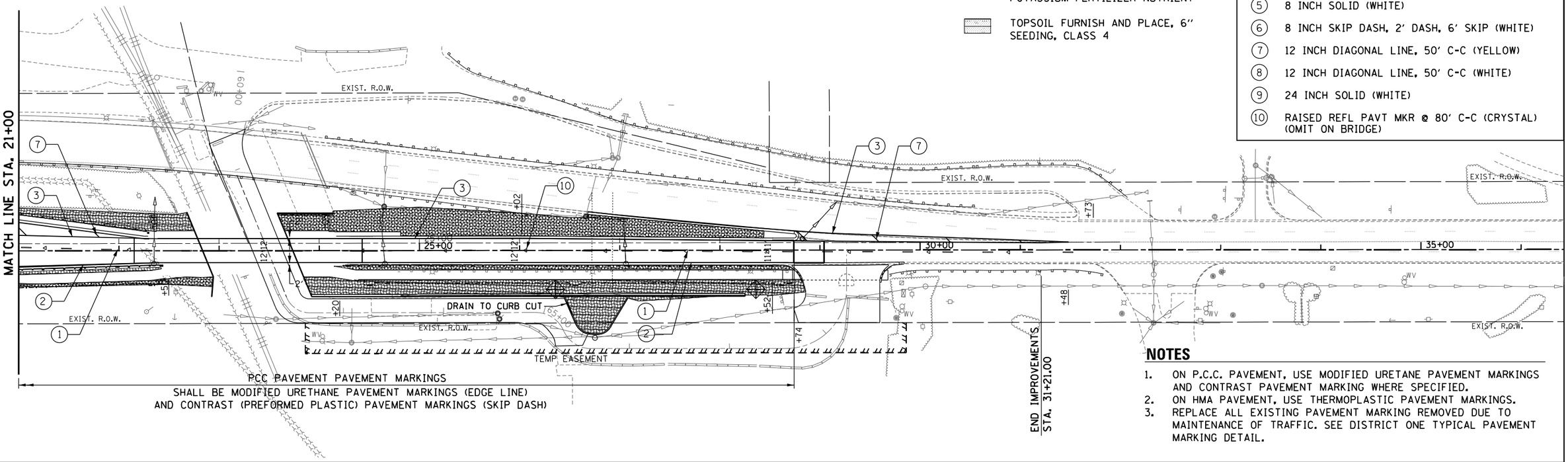
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	21
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		





LEGEND – LANDSCAPING ITEMS

- PERMANENT EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 6"
  SEEDING, CLASS 2A
  NITROGEN FERTILIZER NUTRIENT
  PHOSPHOROUS FERTILIZER NUTRIENT
  POTASSIUM FERTILIZER NUTRIENT
- TOPSOIL FURNISH AND PLACE, 6"
  SEEDING, CLASS 4

LEGEND – PAVEMENT MARKING ITEMS

1. 4 INCH SKIP DASH, 10' DASH, 30' SKIP (WHITE)
2. 4 INCH SOLID (WHITE)
3. 4 INCH SOLID (YELLOW)
4. 6 INCH SOLID (YELLOW)
5. 8 INCH SOLID (WHITE)
6. 8 INCH SKIP DASH, 2' DASH, 6' SKIP (WHITE)
7. 12 INCH DIAGONAL LINE, 50' C-C (YELLOW)
8. 12 INCH DIAGONAL LINE, 50' C-C (WHITE)
9. 24 INCH SOLID (WHITE)
10. RAISED REFL PAVT MKR @ 80' C-C (CRYSTAL) (OMIT ON BRIDGE)

NOTES

1. ON P.C.C. PAVEMENT, USE MODIFIED URETANE PAVEMENT MARKINGS AND CONTRAST PAVEMENT MARKING WHERE SPECIFIED.
2. ON HMA PAVEMENT, USE THERMOPLASTIC PAVEMENT MARKINGS.
3. REPLACE ALL EXISTING PAVEMENT MARKING REMOVED DUE TO MAINTENANCE OF TRAFFIC. SEE DISTRICT ONE TYPICAL PAVEMENT MARKING DETAIL.

PRINTED DATE: 3/5/2021
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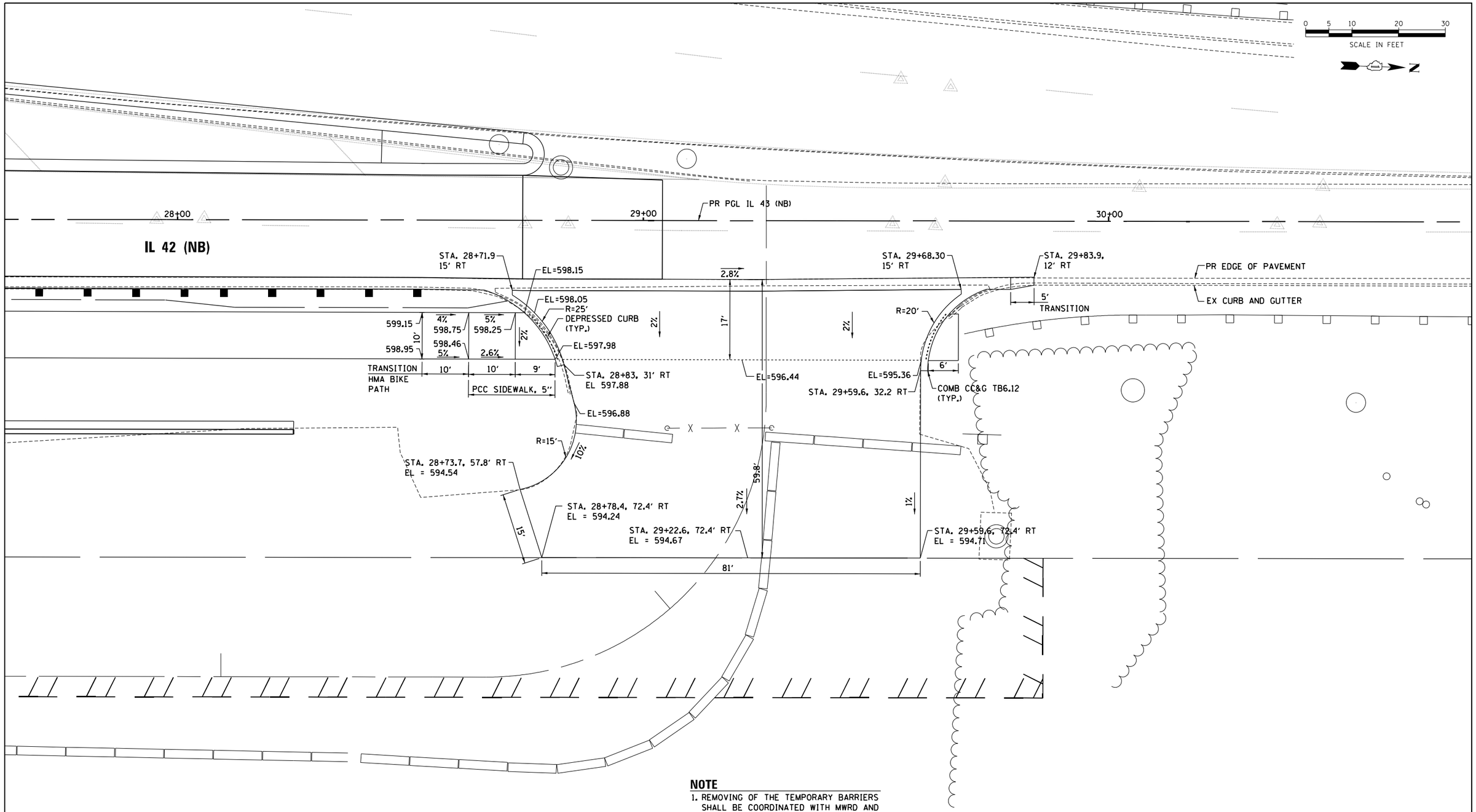
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND LANDSCAPING PLAN

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	22
		CONTRACT NO 60706		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		



NOTE

1. REMOVING OF THE TEMPORARY BARRIERS SHALL BE COORDINATED WITH MWRD AND MOT STAGING.
2. REMOVE AND REPLACE FENCE GATE POST (BY OTHERS).

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAIL SHEET
FRONTAGE ROAD

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	23
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		

GENERAL NOTES:

1. THIS PROJECT INCLUDES THE REPLACEMENT OF EXISTING LIGHT POLES WITH NEW LIGHTING UNITS ON EXISTING NB BRIDGE OF ROUTE 43 (HARLEM AVE.) OVER MWRDGC RR, BEING RECONSTRUCTED. PROPOSED LIGHTING SHALL BE OWNED AND MAINTAINED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION.

2. THESE ARE GENERAL NOTES PERTAINING TO THE PROJECT. SPECIFIC NOTES PERTAINING TO THE NATURE OF WORK WHICH ARE ALSO SHOWN ON CERTAIN DRAWING SHEETS.

3. APPLICABLE SECTIONS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED APRIL 1, 2016 SHALL BE FOLLOWED BY THE CONTRACTOR.

4. ALL ELECTRICAL SYSTEM, EQUIPMENT AND APPURTENANCES SHALL BE PROPERLY GROUNDED IN STRICT CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE (NEC), EVEN THOUGH EVERY DETAIL OF REQUIREMENTS IS NOT SPECIFIED OR SHOWN.

5. THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER OF EXISTING LIGHTING FROM THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION BEFORE ANY WORK PERTAINING TO LIGHTING OR OTHERWISE, BEGINS. MEADE ELECTRIC CO. DISTRICT 1 FOR ELECTRICAL MAINTENANCE CONTRACTOR LOCATES ELECTRICAL EQUIPMENT AND UNDERGROUND CABLES, CALL 773-287-7672 FOR MEADE ELECTRIC CO. TO TRANSFER IDOT MAINTAINED EQUIPMENT TO THE CONTRACTOR BEFORE THE START OF ANY WORK.

6. THE QUANTITIES OF RACEWAY WHERE INDICATED IN THESE PLANS ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.

7. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.

8. THE CONTRACTOR SHALL VERIFY LOCATIONS OF UNDERGROUND/OVERHEAD UTILITIES PRIOR TO INSTALLATION OF LIGHT POLES AND CONDUITS. IF THERE IS A CONFLICT WITH THE LIGHT POLES/CONDUITS AS SHOWN ON PLANS, THE CONTRACTOR SHALL SUGGEST ALTERNATIVE LOCATIONS AND COORDINATE WITH THE ENGINEER PRIOR TO PERFORMING WORK.

9. TRENCHES FOR LIGHTING RACEWAYS SHALL HAVE A MINIMUM DEPTH OF 30".

10. LIGHTING SYSTEM INSTALLATION SHALL CONFORM TO THE LATEST IDOT STANDARDS, NEC AND LOCAL CODES.

11. ALL ELECTRICAL EQUIPMENT AND PRODUCTS SHALL BE UL LISTED AND LABELED.

12. THE CONTRACTOR SHALL TAKE CARE WHEN INSTALLING UNIT DUCT TO AVOID CONFLICTS WITH EXISTING UNDERGROUND UTILITIES AND TREES ROOTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE AS DETERMINED BY THE ENGINEER, IF ANY.

SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	170
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	170
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12"X12"X6"	EACH	2
UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO. 6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	1040
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	176
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	528
AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	1184
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	5
LIGHT POLE, ALUMINUM, 47.5 FT. M.H. 15 FT. MAST ARM	EACH	5
LIGHT POLE, WOOD, 60 FOOT, CLASS 4, WITH 15 FT MAST ARM	EACH	5
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	50
BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	5
REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	5
REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	6
REMOVAL OF POLE FOUNDATION	EACH	6
TEMPORARY WOOD POLE, 60 FT., CLASS 4	EACH	1
CONDUIT, FLEXIBLE, LIQUID TIGHT, METALLIC, 2" DIAMETER	FOOT	3
TEMPORARY LUMINAIRE, LED, ROADWAY, OUTPOUT DESIGNATION H	EACH	5
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	5
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	18

LEGEND

- PROPOSED LIGHTING UNIT, 47.5 FT. MH, 15 FT. MAST ARM, 240V (LINE TO NEUTRAL), LED LUMINAIRE (238W) WITH BREAKAWAY DEVICE
- EXISTING LIGHTING UNIT TO BE REMOVED AND SALVAGED
- EXISTING LIGHTING UNIT TO REMAIN
- TEMPORARY WOOD POLE, 50 FT. MH, 15 FT. MAST ARM WITH 240V (LINE TO NEUTRAL), LED LUMINAIRE (238W)
- UNIT DUCT, 600V, 3-1/C #4, 1/C #6 GROUND (XLP-TYPE USE) 1 1/4" DIA. POLYETHYLENE
- A/C — AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE
- TEMPORARY WOOD POLE, 60 FT. LENGTH FOR TEMPORARY LIGHTING
- EXISTING LIGHTING CONTROLLER TO REMAIN
- 4" DIA. RIGID GALVANIZED STEEL CONDUIT PUSHED
- GROUND ROD 5/8" DIA. X 10 FT.
- J — JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12"X12"X6"
- CONDUIT EMBEDDED IN STRUCTURE, 2" DIA. PVC

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suit 4B
Downers Grove, IL 60515

USER NAME = mdeitche	DESIGNED - BL	REVISED -
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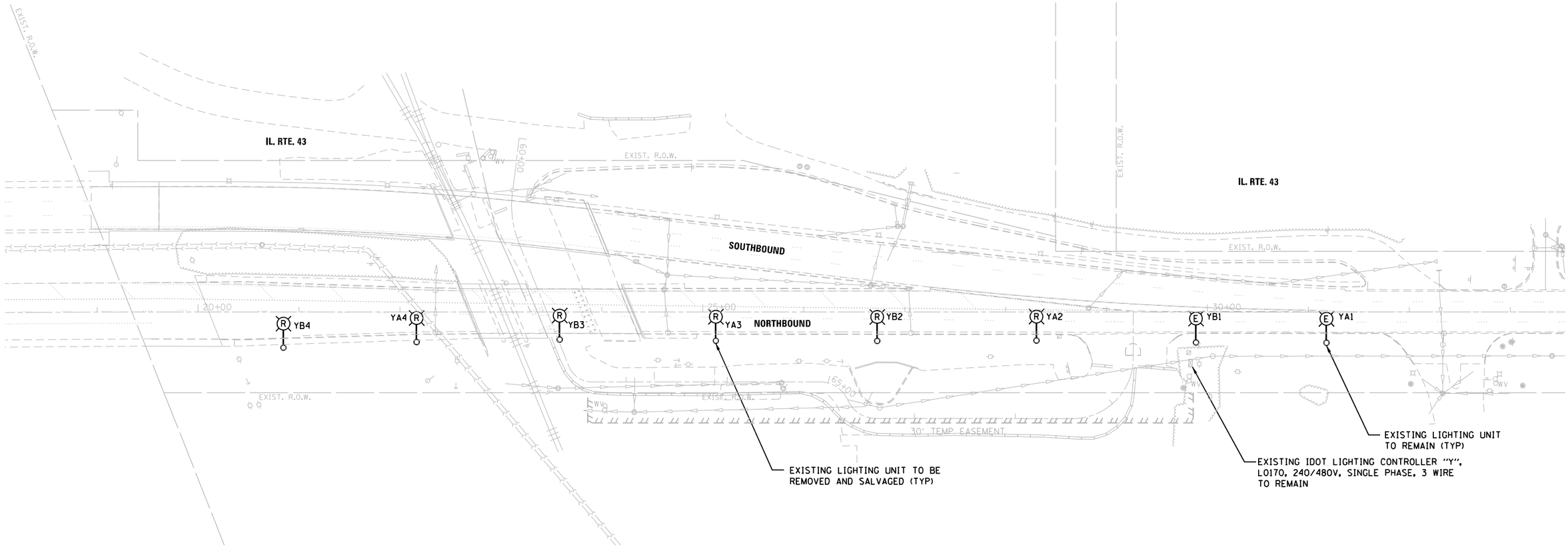
PLOT DATE = 3/5/2021	DATE - 3/5/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, LEGEND AND SCHEDULE OF QUANTITIES FOR LIGHTING PLANS
IL ROUTE 43 HARLEM AVE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	24
		CONTRACT NO 60T06		
	ILLINOIS	FEDERAL AID PROJECT		

FILE NAME = F:\Projects\1815 IESI-Harlem Ave Lighting\Design\Sht\D160706_sht_Lt_01.dgn



NOTES:

1. FOR LEGEND AND GENERAL NOTES, SEE SHEET LT-1.
2. THE EXISTING LIGHTING UNITS WHEN REMOVED SHALL BE SALVAGED PER IDOT MAINTENANCE REQUIREMENTS. THE CONTRACTOR SHALL CONTACT IDOT ELECTRICAL MAINTENANCE CONTRACTOR BY CALLING (708) 524-2145 TO FIND OUT SALVAGE LOCATION.

1"=50' SCALE: 50 0 50 100 FEET

LT-2

FILE NAME = F:\Projects\1015 IESI-Harlem Ave Lighting\Design\Sht\D160706_sht_Lt-02.dgn

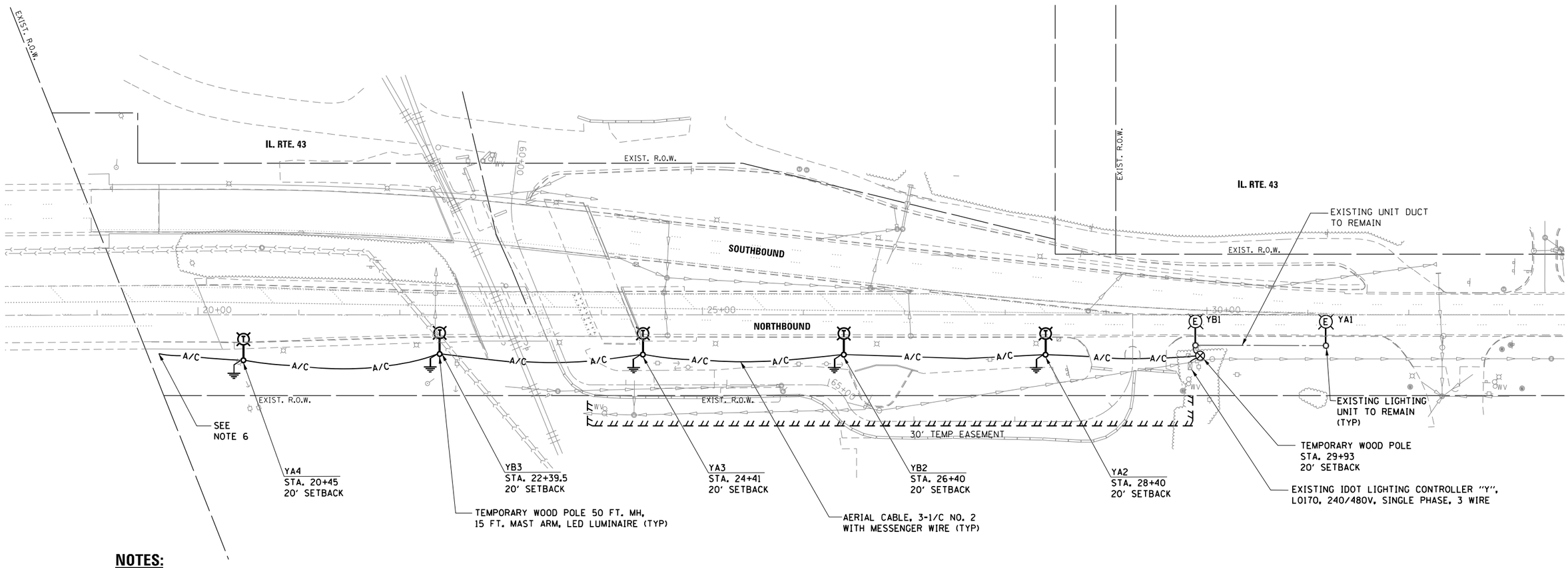
AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suit 4B
Downers Grove, IL 60515

USER NAME = Srahman	DESIGNED - BL	REVISED -
	DRAWN - RV/SR	REVISED -
PLOT SCALE = 100.000 ' / in.	CHECKED - MB	REVISED -
PLOT DATE = 3/4/2021	DATE - 3/4/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL LIGHTING PLAN
IL ROUTE 43 HARLEM AVE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	25
		CONTRACT NO 60T06		
	ILLINOIS FEDERAL AID PROJECT			



NOTES:

1. FOR LEGEND AND GENERAL NOTES, SEE SHEET LT-1.
2. DURING CONSTRUCTION THE POWER FEED TO THE EXISTING LIGHTING UNITS CONNECTED TO CONTROLLER "Y" SHALL REMAIN OPERATIONAL. THE EXISTING LIGHTING UNITS IMPACTED BY THE WORK SHALL REMAIN OPERATIONAL UNTIL THE PROPOSED/TEMPORARY LIGHTING IS INSTALLED AND READY FOR OPERATION.
3. THE TEMPORARY LIGHTING SHALL BE CONNECTED AS PART OF THE EXISTING CIRCUITS "A" AND "B" IN CONTROLLER "Y". THE TEMPORARY DISCONNECTION REQUIRED TO DISCONNECT THE EXISTING LIGHTING UNITS AND CONNECT THE TEMPORARY LIGHTING UNITS SHALL BE DONE DURING THE DAY WITH THE APPROVAL OF FIELD ENGINEER.
4. THE TEMPORARY LIGHTING SHALL REMAIN IN USE UNTIL THE PROPOSED LIGHTING IS INSTALLED, TESTED AND READY FOR OPERATION.
5. THE SET BACK IS FROM EDGE OF PAVEMENT TO CENTER OF POLE.
6. CONNECT TEMPORARY LIGHTING TO EXISTING LIGHT POLE YB4.

1"=50' SCALE 50 0 50 100 FEET

LT–3

FILE NAME = F:\Projects\1015 IESI-Harlem Ave Lighting\Design\Sht\D1607T06_sht_Lt-02.dgn

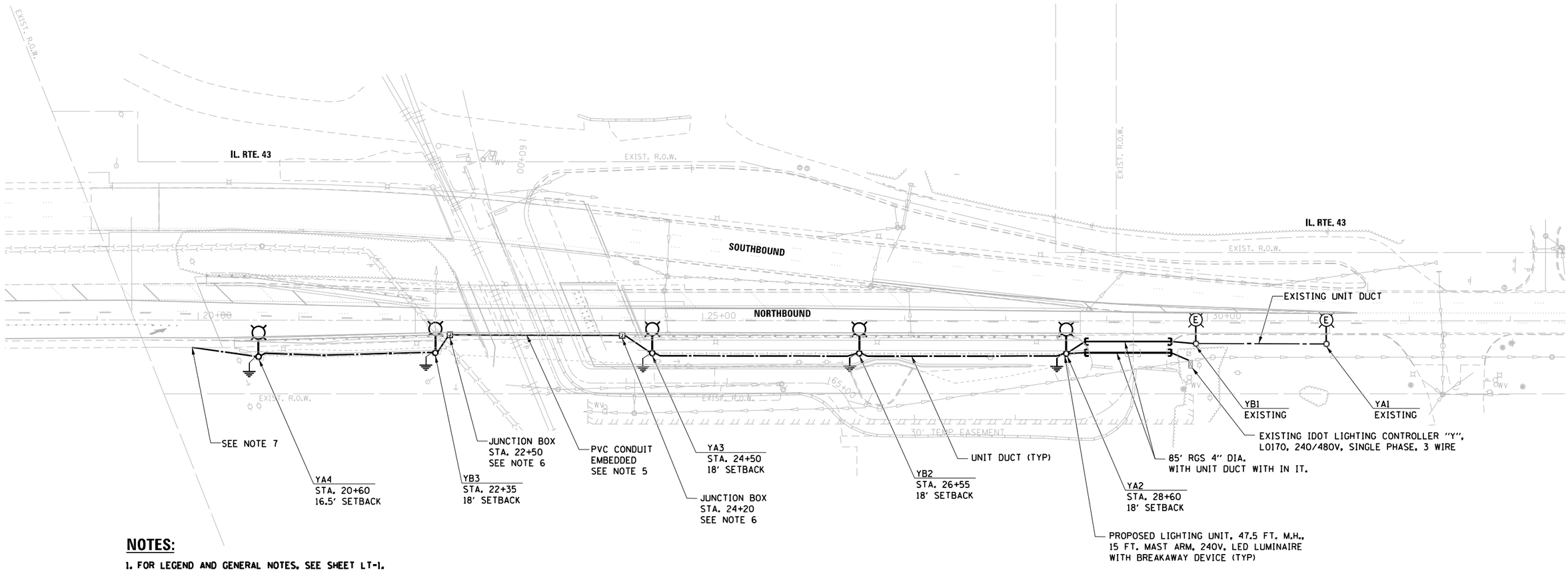
AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suit 4B
Downers Grove, IL 60515

USER NAME = Srahman	DESIGNED - BL	REVISED -
	DRAWN - RV/SR	REVISED -
PLOT SCALE = 100.000 ' / in.	CHECKED - MB	REVISED -
PLOT DATE = 3/4/2021	DATE - 3/4/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING PLAN
IL ROUTE 43 HARLEM AVE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	26
		CONTRACT NO 60T06		
	ILLINOIS FEDERAL AID PROJECT			



NOTES:

1. FOR LEGEND AND GENERAL NOTES, SEE SHEET LT-1.
2. PROPOSED LIGHTING UNITS SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF TEMPORARY LIGHTING UNITS.
3. PROPOSED LIGHTING UNITS SHALL BE CONNECTED TO THE EXISTING A & B CIRCUIT OF CONTROLLER "Y" AS SHOWN ON PLAN.
4. SET BACK IS FROM THE FACE OF THE CURB TO THE CENTER OF THE POLE.
5. PVC CONDUIT 2" DIA. EMBEDDED IN STRUCTURE WITH ELECTRIC CABLE 3-1/C #4 AND 1/C #6 GROUND.
6. JUNCTION BOX, STAINLESS STEEL, 12"X12"X6", ATTACHED TO STRUCTURE.
7. RECONNECT THE PROPOSED LIGHTING CIRCUIT TO THE EXISTING LIGHT POLE YB4. RUN PROPOSED CABLE IN EXISTING CONDUIT AS NEEDED.
8. LUMINAIRE SAFETY CABLE SHALL BE INSTALLED ON EACH PROPOSED LIGHT POLE.

1"=50' SCALE 50 0 50 100 FEET

LT-4

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suit 4B
Downers Grove, IL 60515

USER NAME = Srahman	DESIGNED - BL	REVISED -
	DRAWN - RV/SR	REVISED -
PLOT SCALE = 100.000 ' / in.	CHECKED - MB	REVISED -
PLOT DATE = 3/4/2021	DATE - 3/4/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING PLAN
IL ROUTE 43 HARLEM AVE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	27
		CONTRACT NO 60T06		
	ILLINOIS FEDERAL AID PROJECT			

FILE NAME = F:\Projects\1015 IESI-Harlem Ave Lighting\Design\Sht\D1607T06_sht_Lt-04.dgn

Lighting Inventory

Loc. # L0170 Name: I-55 @ Harlem County: Cook PC: Y Date 3-15-02

Unit Num	Fixture Type	LAMP Type	LAMP Wattage	LAMP Qty	Foundation Type	BASE Type	BASE Cover	Mast Arm Length	Fixture Qty	Mtg Height	Comments
YA5	P	HPS	200	1	WM	FM	L	15	1	32	
YB4	P	HPS	200	1	C	C	SH	12	1	32	
YA4	P	HPS	200	1	C	C	SH	12	1	32	
YB3	P	HPS	200	1	WM	FM	L	6	1	32	
YA3	P	HPS	200	1	C	C	SH	6	1	32	
YB2	P	HPS	200	1	C	C	SH	6	1	32	
YA2	P	HPS	200	1	C	C	SH	6	1	32	
YB1	P	HPS	200	1	C	C	L	8	1	32	
YA1	P	HPS	200	1	C	C	L	8	1	32	
YC1	P	HPS	200	1	C	C	SH	12	1	32	
YD1	P	HPS	200	1	C	C	SH	12	1	32	
YC2	P	HPS	200	1	C	C	SH	12	1	32	
YD2	P	HPS	200	1	WM	FM	L	8	1	32	
YC3	P	HPS	200	1	WM	FM	L	8	1	32	
YD3	P	HPS	200	1	WM	FM	L	8	1	32	
YC4	P	HPS	200	1	WM	FM	L	6	1	32	
YD4	P	HPS	200	1	WM	FM	L	6	1	32	
YB5	P	HPS	200	1	WM	FM	L	15	1	32	

TABLE LEGEND

Fixture Type: T=Tower, UP=Underpass, P= Poles DAV= Davit Pole N= Nav. Ltg. S= Sign Ltg.	Base: TB= T-Base, C= Couplings, FM= Flush Mount
Lamp Type: HPS, LPS, MH, MV	Cover: SK = AL Skirt, SH = Fiberglass Shroud, L = Leafs
Lamp Wattage: 55, 80, 100, 150, 250, 310, 400, 750, 1000	Mounting Height = Distance from pole base to luminaire
Foundation Type: C = Concrete, BM= Bridge Mount, WM = Wall Mount, H= Metal Helix	

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suit 4B
Downers Grove, IL 60515

USER NAME = Srahman	DESIGNED - BL	REVISED -
	DRAWN - RV/SR	REVISED -
PLOT SCALE = 0.0691 ' / in.	CHECKED - MB	REVISED -
PLOT DATE = 3/4/2021	DATE - 3/4/2021	REVISED -

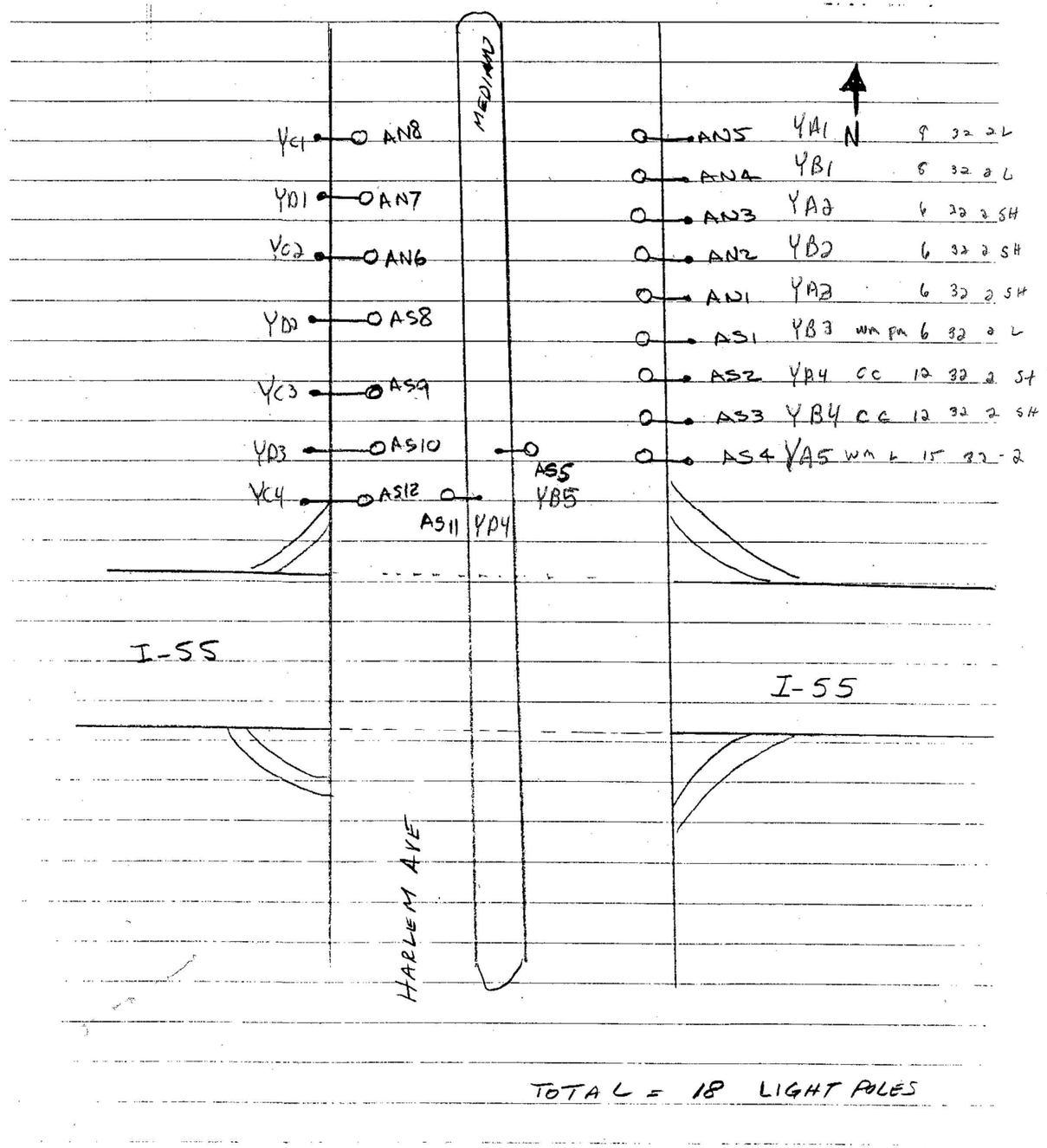
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RECORD DRAWINGS
FOR INFORMATION ONLY
IL ROUTE 43 HARLEM AVE

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	28
		CONTRACT NO 60T06		
	ILLINOIS FEDERAL AID PROJECT			

FILE NAME = F:\Projects\1815 IES\Harlem Ave Lighting\Design\Sht\D160706.ant.Lt.05.dgn

I-55 @ HARLEM AVE.

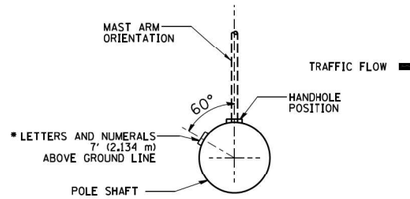


LT–6

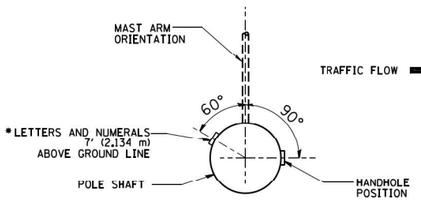
FILE NAME = F:\Projects\1015 (ESI-Harlem Ave Lighting)\Design\Sht\D1608706_sht_lt-06.dgn

AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suit 4B Downers Grove, IL 60515	USER NAME = Srahman	DESIGNED - BL	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**RECORD DRAWINGS FOR INFORMATION ONLY IL ROUTE 43 HARLEM AVE**
		DRAWN - RV/SR	REVISED -		
	PLOT SCALE = 0.0928 ' / in.	CHECKED - MB	REVISED -		
	PLOT DATE = 3/4/2021	DATE - 3/4/2021	REVISED -		

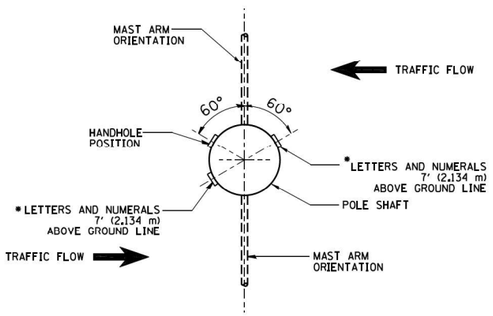
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	29
		CONTRACT NO 60T06		
	ILLINOIS	FEDERAL AID PROJECT		



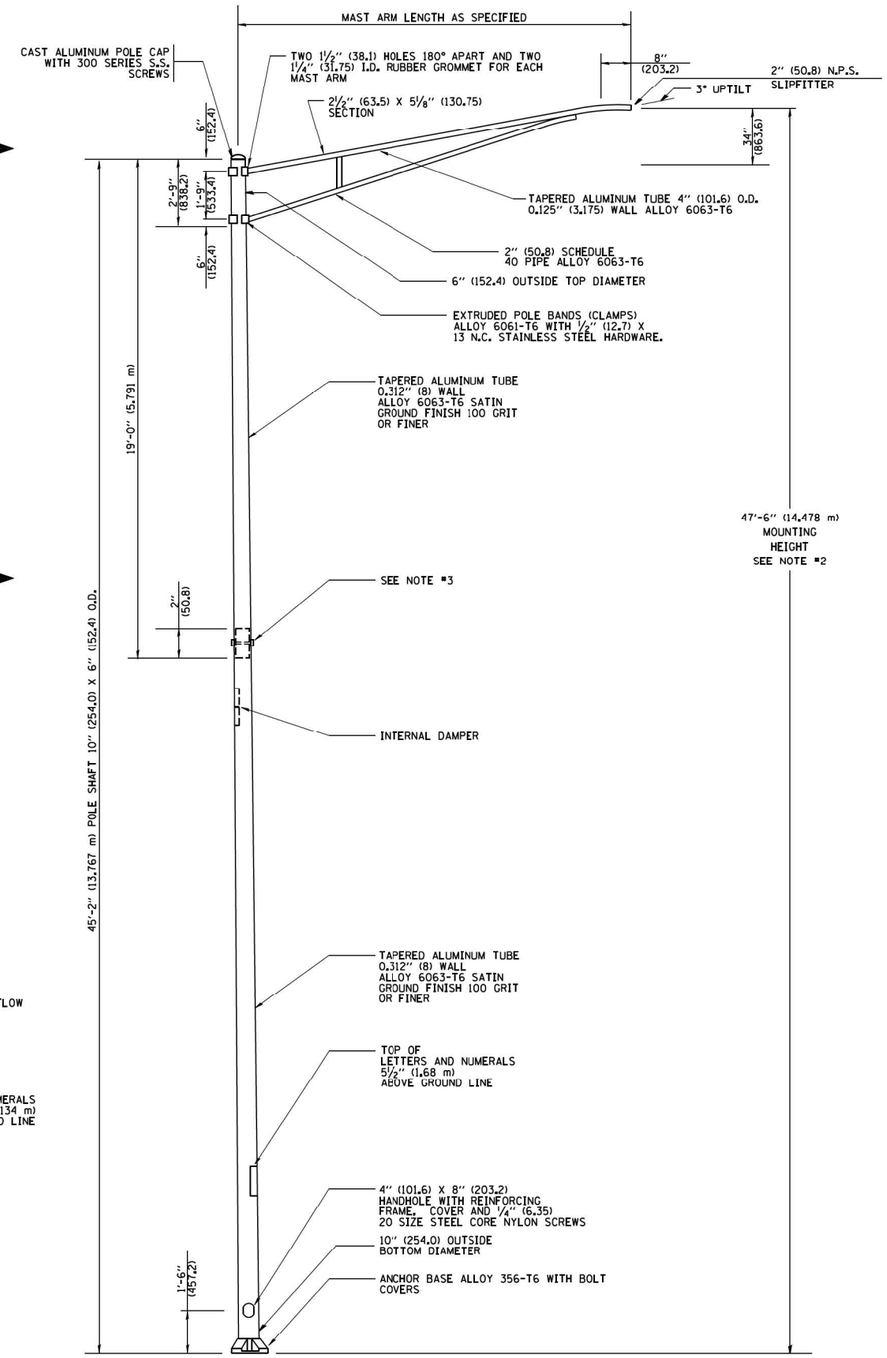
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL

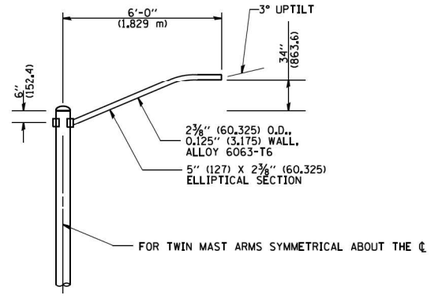


POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

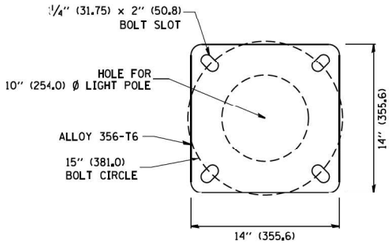




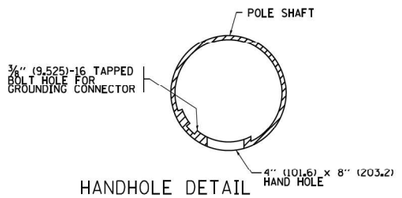
6' (1.8 m) SINGLE MEMBER MAST ARM
(N.T.S.)

NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



HANDHOLE DETAIL
(N.T.S.)

LT-7

AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60515	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 09-06-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALUMINUM LIGHT POLE 47'-6" (14.478 m) MOUNTING HEIGHT		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN	REVISED - R. TOMSONS 09-03-03				348	0708.08B-R(11)	COOK	105	30
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - R. TOMSONS 01-18-13					BE-400	CONTRACT NO. 60T06		
	PLOT DATE = 12/21/2015	DATE - 3/4/2021	REVISED - R. TOMSONS 03-18-15		SCALE:	SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT			

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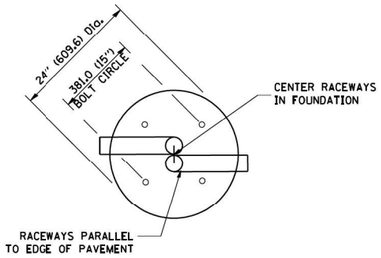
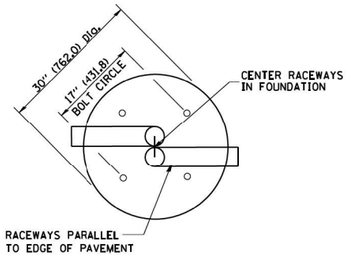
LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

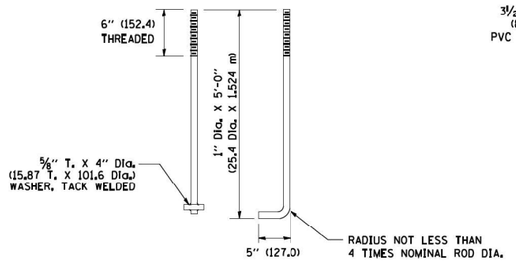
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.09 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND Ø = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND Ø = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND Ø = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



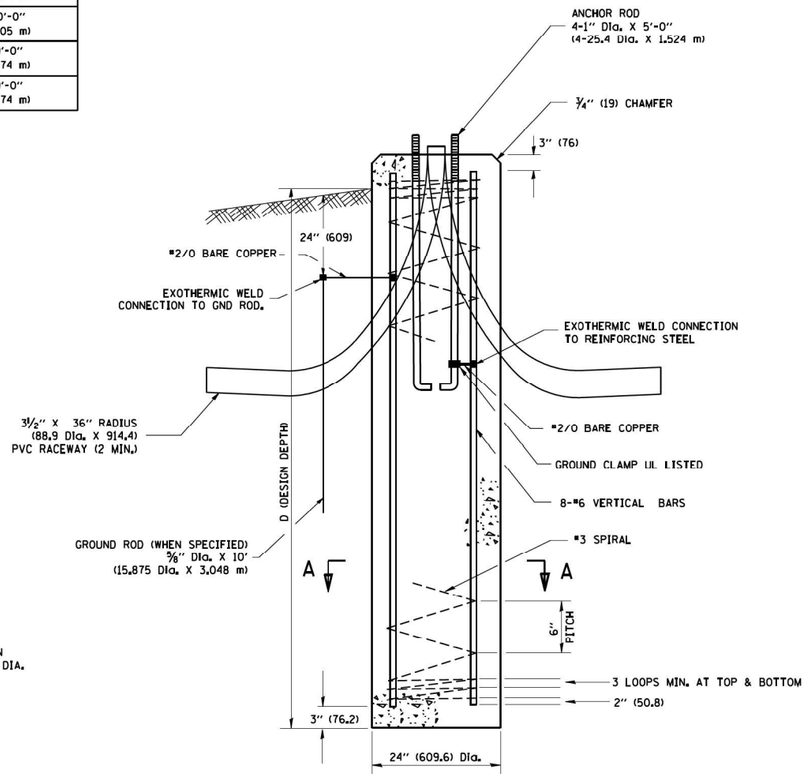
TOP VIEW



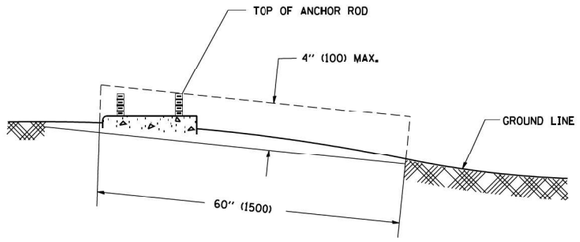
TOP VIEW



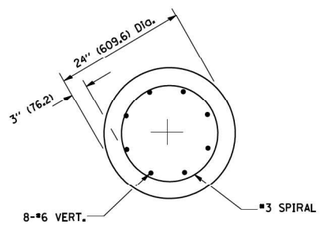
ANCHOR ROD DETAIL



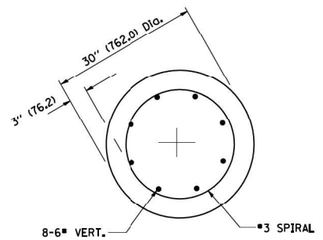
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
4. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
5. THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
6. THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
7. THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
8. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
9. ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232. THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
11. ANCHOR RODS SHALL PROJECT 2¾" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
12. THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS EFECTED.
14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60515

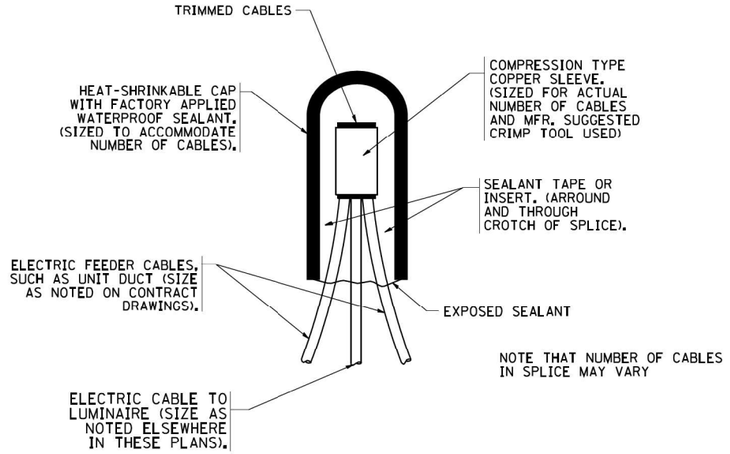
USER NAME = gaglianobt	DESIGNED -	REVISED - 04-22-02	
	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2008	DATE = 3/4/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE

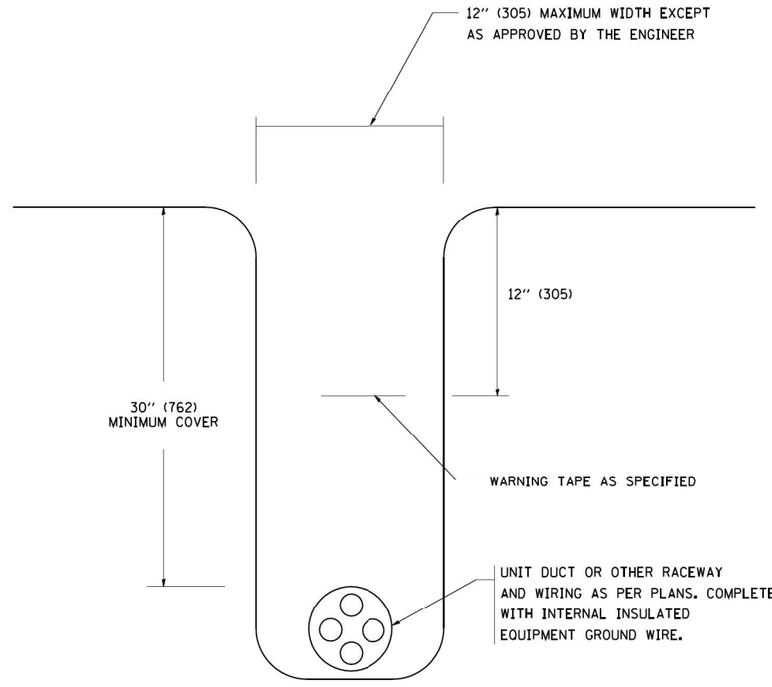
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	31
	BE-301	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



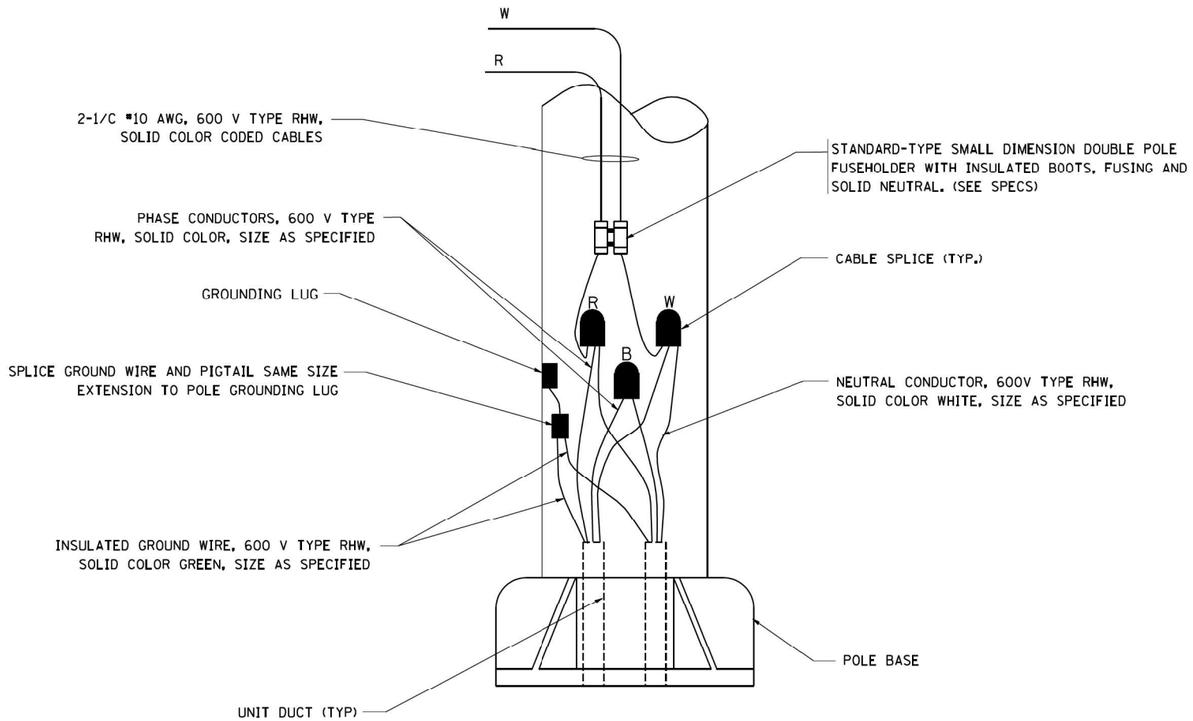
TYPICAL SPLICE DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.

LT-9

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60515

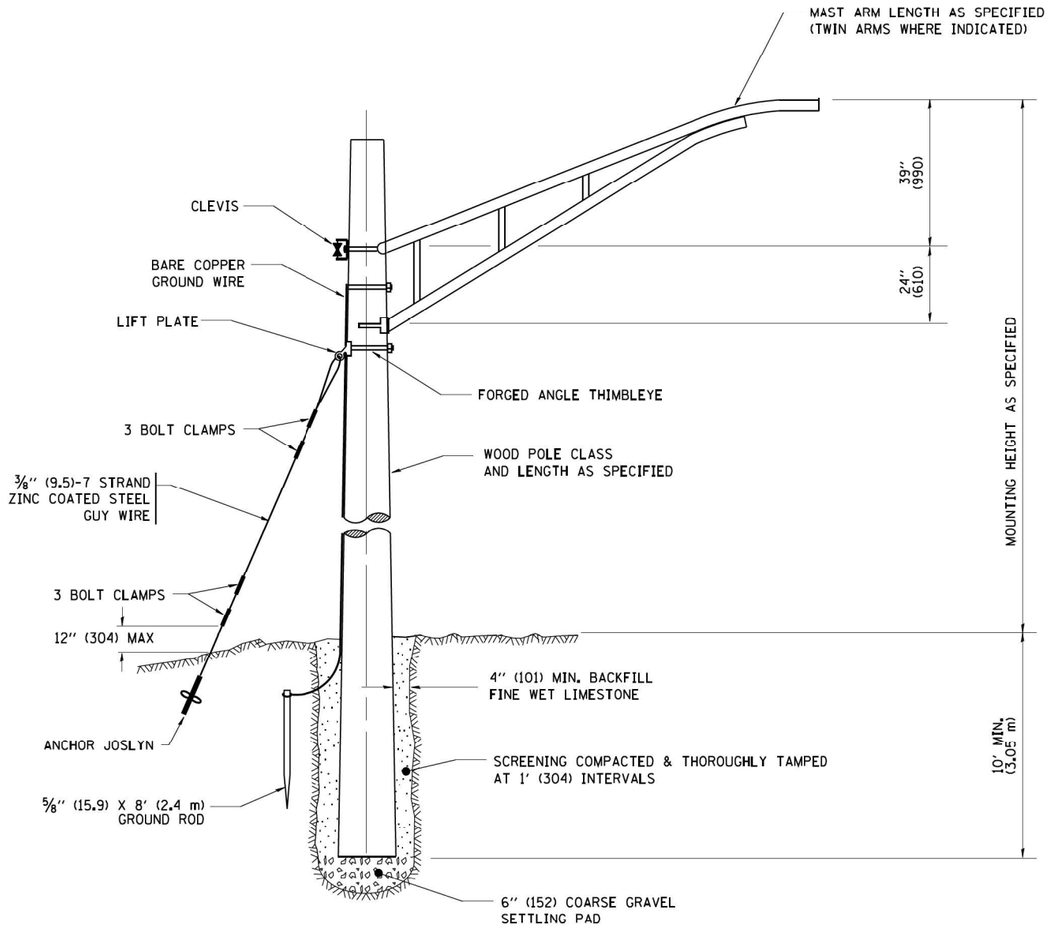
USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03
	DRAWN -	REVISED -
PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 1/4/2008	DATE - 3/4/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

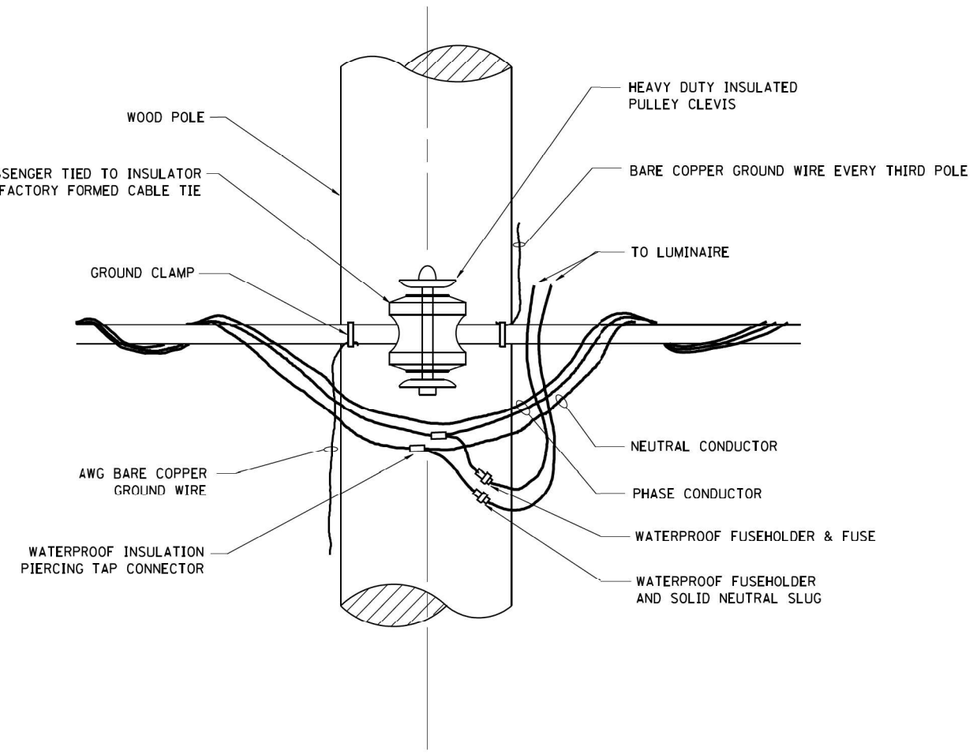
MISC. ELECTRICAL DETAILS
SHEET A

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	32
	BE-702	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

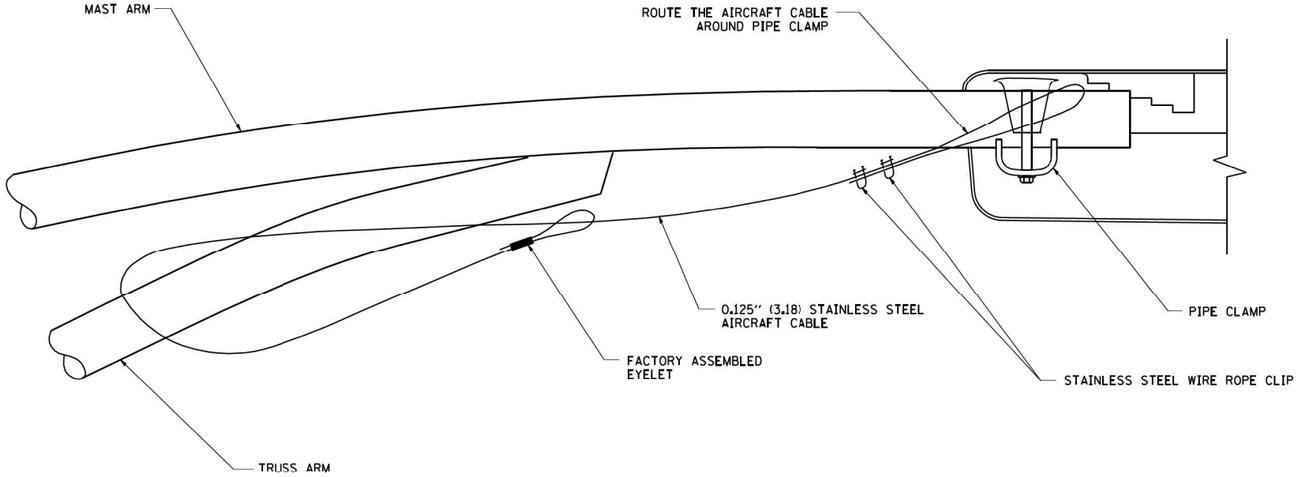
NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

LT-10

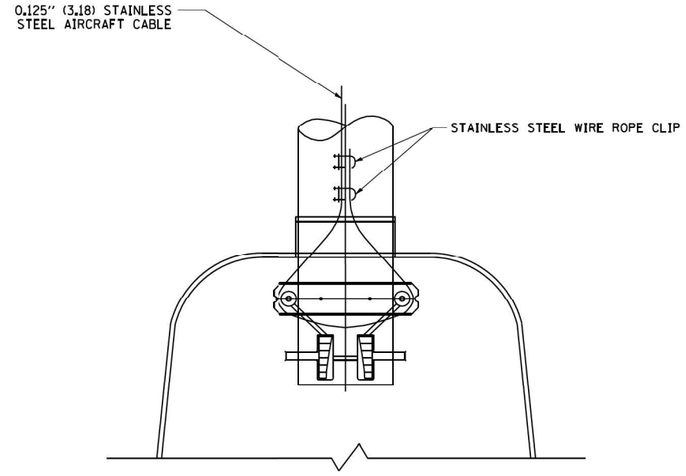
AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60515	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHT POLE DETAILS
		DRAWN -	REVISED -		
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -		SCALE: NONE / SHEET NO. 1 OF 1 SHEETS / STA. / TO STA.
	PLOT DATE = 1/4/2008	DATE - 3/4/2021	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	33
	BE-800	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



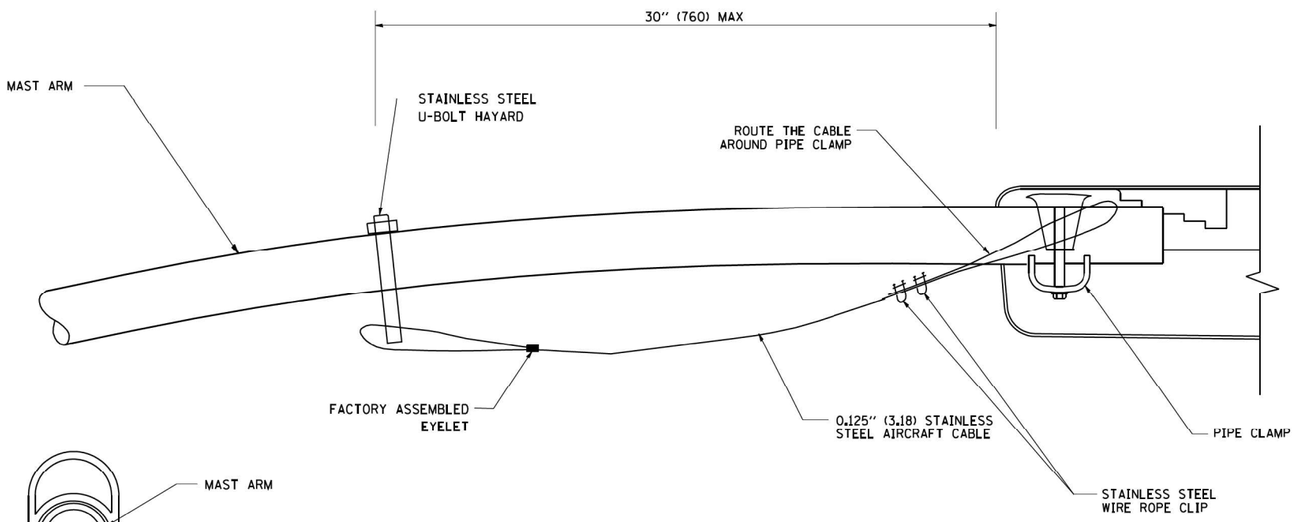
SIDE VIEW (TRUSS ARM)

N.T.S.



BOTTOM VIEW

N.T.S.



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)

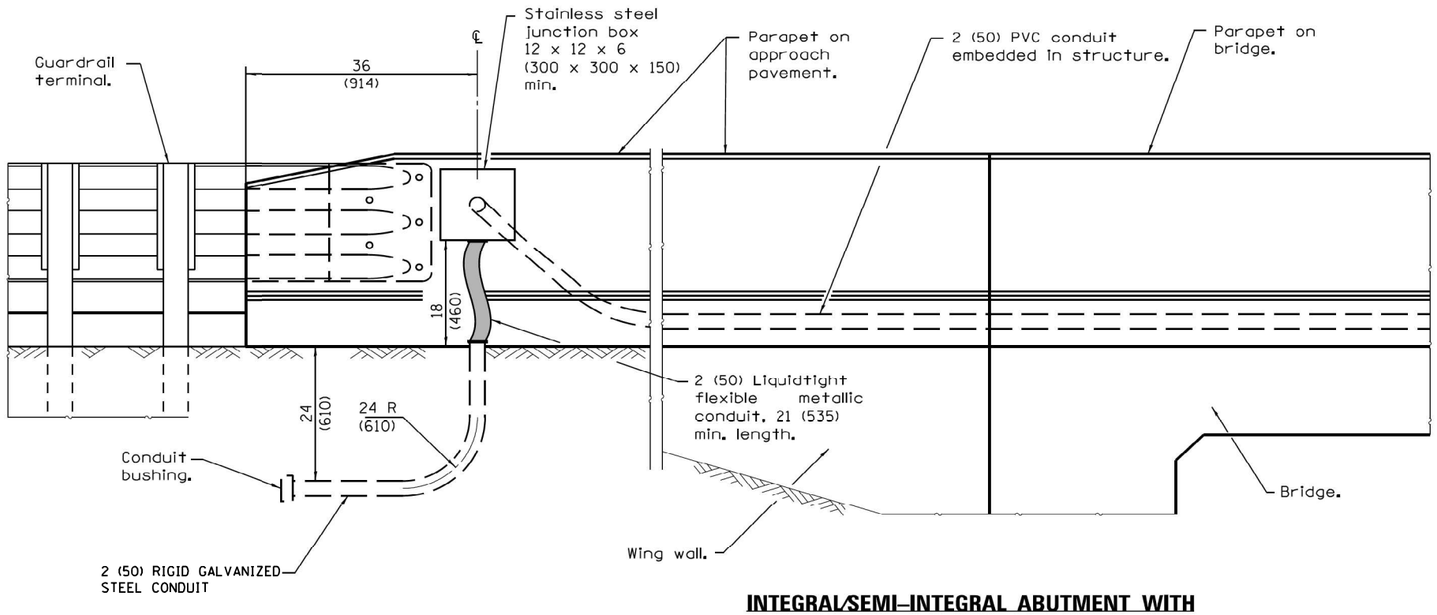
N.T.S.

NOTES:

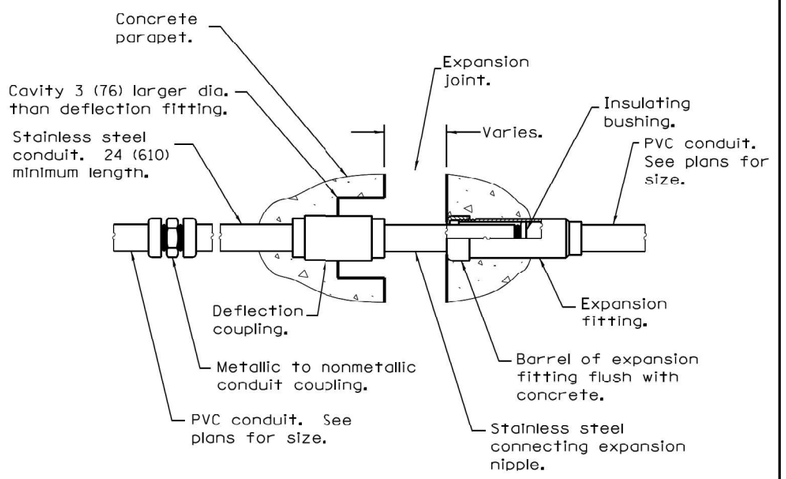
1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

LT-11

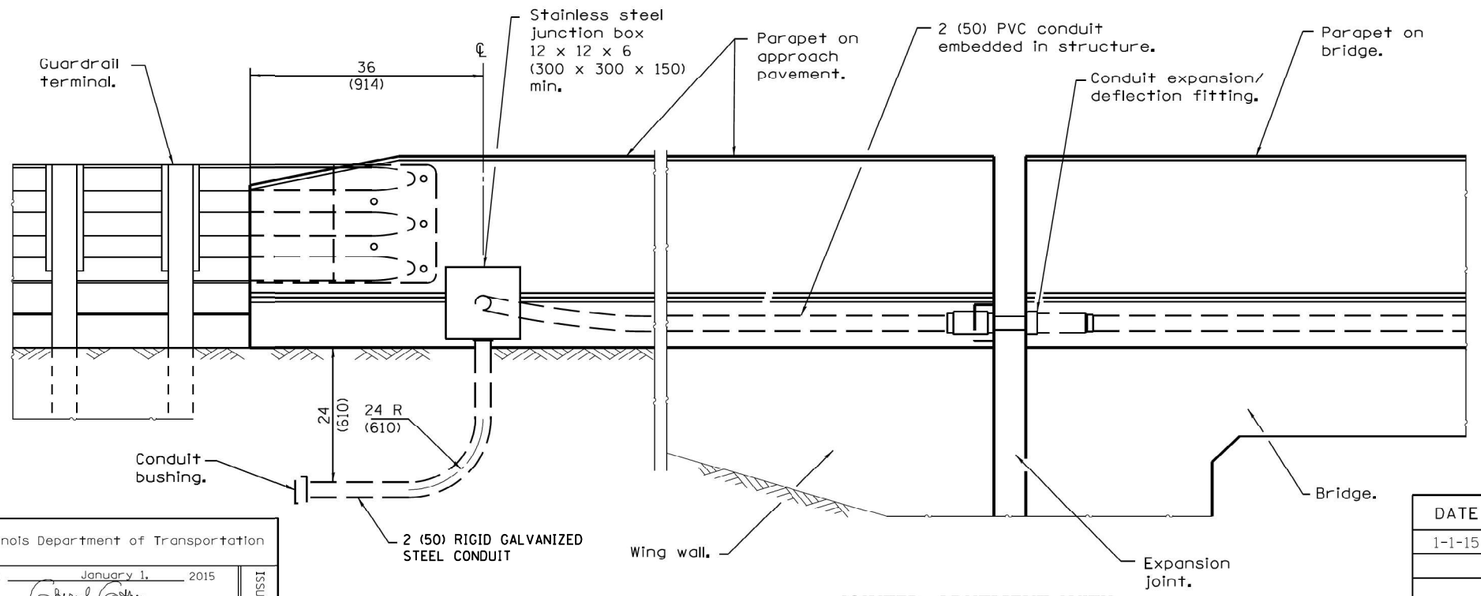
AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60515	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LUMINAIRE SAFETY CABLE ASSEMBLY	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			348	0708.08B-R(11)	COOK	105	34
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -				BE-701	CONTRACT NO. 60T06		
	PLOT DATE = 1/4/2008	DATE - 3/4/2021	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



INTEGRAL/SEMI-INTEGRAL ABUTMENT WITH PARAPET ON APPROACH PAVEMENT



COMBINATION EXPANSION/DEFLECTION FITTING



JOINTED ABUTMENT WITH PARAPET ON APPROACH PAVEMENT

GENERAL NOTES

The barrel in the expansion fitting shall be fully embedded in the concrete on one side of the expansion joint. One half the length of the deflection fitting shall be embedded in the concrete on the other side of the expansion joint.

The Contractor shall install combination expansion deflection fittings at all bridge expansion joints.

With the approval of the Engineer, the Contractor may substitute two 12 x 12 x 6 (300 x 300 x 150) min. stainless steel junction boxes attached to back of wall and connected with liquidtight flexible nonmetallic conduit for all expasion joints.

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

LT-12

Illinois Department of Transportation

PASSED January 1, 2015
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 15-1-1

DATE	REVISIONS
1-1-15	New standard.

RACEWAY EMBEDDED IN STRUCTURE

(Sheet 1 of 3)

STANDARD 812001

FILE NAME = F:\Projects\1015 (ESI-Harlem Ave Lighting\Design\Sht\D1508T06_sht_LT-12.dgn

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suit 4B
Downers Grove, IL 60515

USER NAME = Srahman	DESIGNED - BL	REVISED -
	DRAWN - RV/SR	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MB	REVISED -
PLOT DATE = 3/4/2021	DATE - 3/4/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RACEWAY EMBEDDED IN STRUCTURE

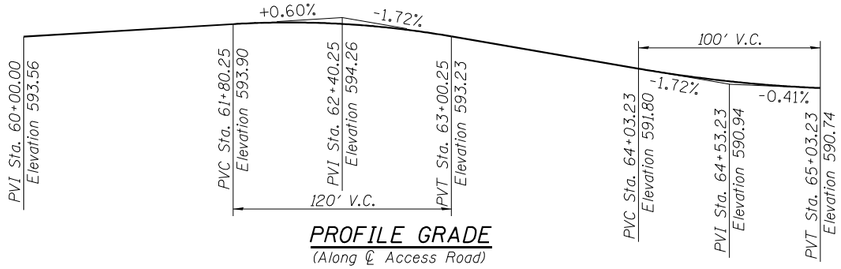
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	35
		CONTRACT NO 60T06		
		ILLINOIS FEDERAL AID PROJECT		

Bench Mark: Chiseled square on N.E. wingwall Sta. 20+35.58, 27.83' RT. Elev. 618.46

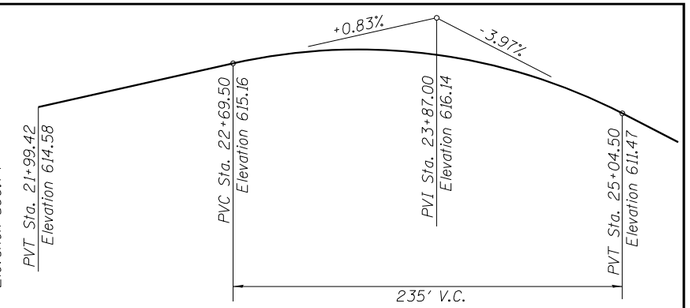
Existing Structure: SN. 016-0314 built in 1931 as FA 42, section 039-2323.3-15-D. Reconstructed, including superstructure replacement and lengthening of the bridge with construction of two additional spans, in 1970 as FA 42, section 207-0708.08-C.F. Structure consists of 5 total spans; 3 PPC Deck Beam spans (1 to 3) and 2 continuous spans (4 to 5) of reinforced concrete T-Beams. The superstructure is supported on 1 closed counterfort (spread footing) abut, 1 pile bent abutment and multi-column piers (Shaft - pier 10; Piles - pier 11; Spread Footing - piers 8 & 9). The structure is 163'-5¼" back-to-back of abutments, 56'-6" out-to-out deck. Structure is to be removed and replaced.

Traffic Control: Staged construction will be utilized by maintaining one NB lane of traffic in stage I and one NB lane of traffic during stage II construction.

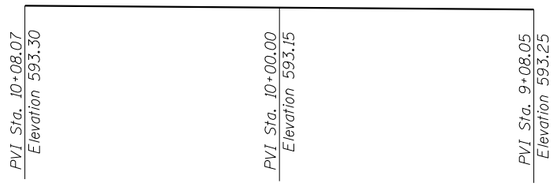
Salvage: Bridge handrail, posts, and temporary support beams.



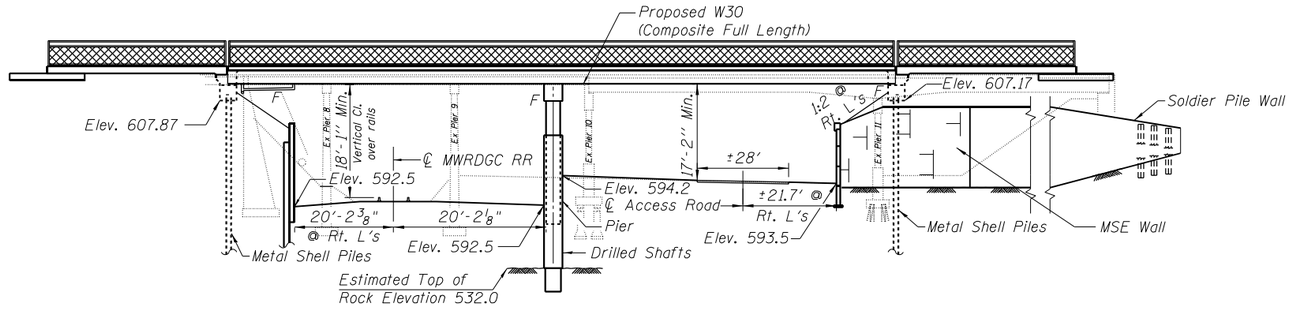
PROFILE GRADE
(Along ℄ Access Road)



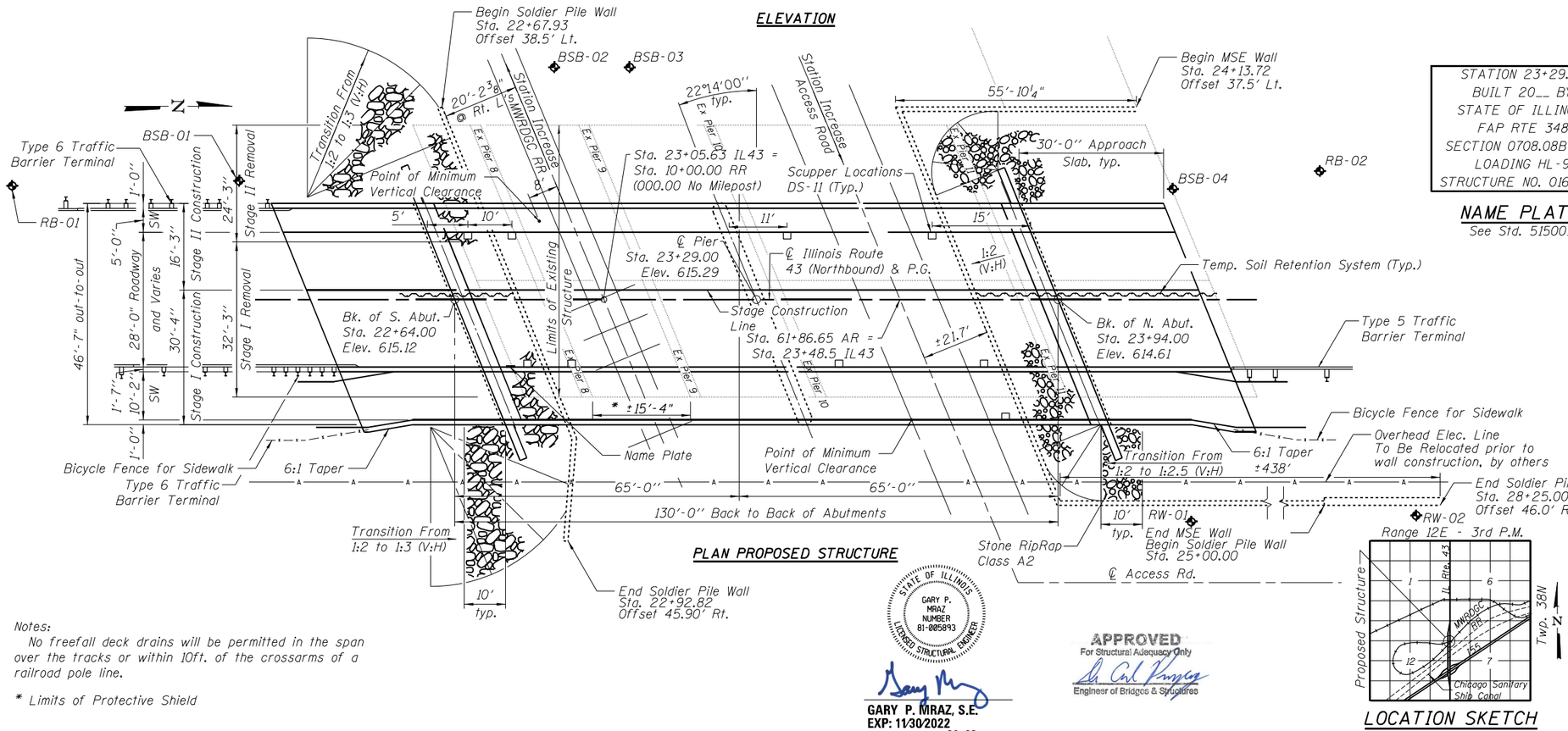
PR PROFILE GRADE
(Along ℄ Roadway)



PROFILE GRADE
(Along ℄ Railroad)



ELEVATION



PLAN PROPOSED STRUCTURE

Notes:
No freefall deck drains will be permitted in the span over the tracks or within 10ft. of the crossarms of a railroad pole line.

* Limits of Protective Shield

STATION 23+29.00
BUILT 20__ BY
STATE OF ILLINOIS
FAP RTE 348
SECTION 0708.08B-R(11)
LOADING HL-93
STRUCTURE NO. 016-1330

NAME PLATE
See Std. 515001

LOCATION SKETCH

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

DESIGN SPECIFICATIONS
2014 AASHTO LRFD Bridge Design Specifications
7th Edition with 2015 Interims

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (AASHTO M 270 Grade 50)
PRECAST UNITS
f'c = 4,500 psi (Precast Panels)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.062g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.115g
Soil Site Class = C

GENERAL PLAN & ELEVATION
IL ROUTE 43 (NORTHBOUND)
OVER MWRDGC RAILROAD
FAP ROUTE 348
SECTION 0708.08B-R(11)
COOK COUNTY
STATION 23+29.00
STRUCTURE NO. 016-1330

STATE OF ILLINOIS
GARY P. MRAZ
NUMBER
81-005893
LICENSED STRUCTURAL ENGINEER

GARY P. MRAZ, S.E.
EXP: 11/30/2022
SHEETS 36-80

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO 1 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	36
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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USER NAME = eliao	DESIGNED - SMA/PS	REVISED -
	CHECKED - CMW	REVISED -
PLOT SCALE = $SCALE$	DRAWN - JEH/SMA/PS	REVISED -
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -

PRINTED DATE: 3/5/2021
FILE NAME: 60T06_001_GPE.dgn

GENERAL NOTES

1. Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts $^{7}/_{8}$-in. ϕ, holes $^{15}/_{16}$-in. ϕ, unless otherwise noted.

2. Calculated weight of Structural Steel = 9120 lb (Grade 36)
   119080 lb (Grade 50)

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

4. Reinforcement bars designated (E) shall be epoxy coated.

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

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

7. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be reddish brown, Munsell No. 2.5YR3/4.

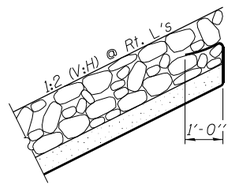
8. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

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

10. Existing Bridge Railing (including splices and posts) shall be salvaged by the Contractor and delivered to the IDOT District Bridge Maintenance Yard locaed at 1101 Biesterfield Road, Elk Grove Village, Illinois, 60007. Telephone number: (847) 956-1444 (48 hours advance notice required). This work shall include removing, transporting and unloading the Bridge Railing at the above yard, which cost shall be included in the cost of Removal of Existing Structures.

11. Slipforming of parapets is not allowed.

INDEX OF SHEETS

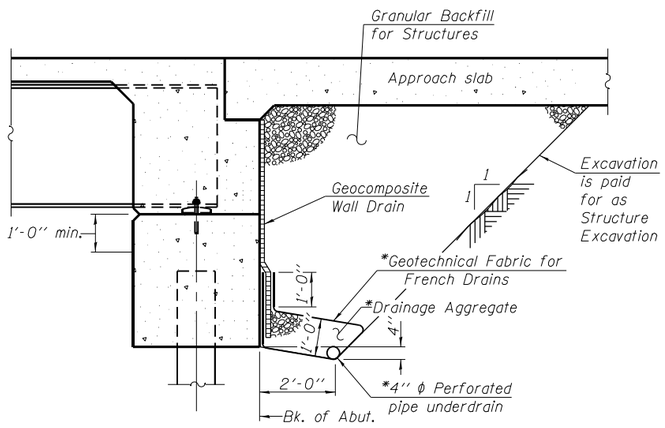


RIPRAP FOR SECTIONS THRU INTEGRAL ABUTMENT

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	S. SOLDIER PILE WALL	N. MSE WALL	N. SOLDIER PILE WALL	TOTAL
Porous Granular Backfill	Cu. Yd.	-	-	58.2	-	-	58.2
Stone Riprap, Class A2	Sq. Yd.	-	252	-	-	-	252
Filter Fabric	Sq. Yd.	-	252	-	-	-	252
Protective Coat	Sq. Yd.	1156	-	-	-	-	1156
Removal of Existing Structures	Each	-	-	-	-	-	1
Protective Shield	Sq. Yd.	115	-	-	-	-	115
Structure Excavation	Cu. Yd.	-	262	-	37.6	-	299.6
Concrete Structures	Cu. Yd.	33.2	164.2	37.7	-	160.4	395.5
Concrete Superstructure	Cu. Yd.	231.3	-	-	-	-	231.3
Bridge Deck Grooving	Sq. Yd.	726	-	-	-	-	726
Concrete Superstructure (Approach Slab)	Cu. Yd.	170.0	-	-	-	-	170.0
Furnishing and Erecting Structural Steel	L. Sum	1	-	-	-	-	1
Stud Shear Connectors	Each	4356	-	140	-	544	5040
Reinforcement Bars	Pound	-	5880	-	-	-	5880
Reinforcement Bars, Epoxy Coated**	Pound	103120	29280	4180	-	28330	164910
Bar Splicers	Each	624	80	-	-	-	704
Aluminum Railing, Type L	Foot	188	-	-	-	-	188
Bicycle Railing	Foot	188	-	-	-	-	188
Parapet Railing	Foot	188	-	-	-	-	188
Furnishing Metal Shell Piles 14" X 0.312"	Foot	-	872	-	-	-	872
Driving Piles	Foot	-	872	-	-	-	872
Test Pile Metal Shells	Each	-	2	-	-	-	2
Name Plates	Each	1	-	1	-	1	3
Drilled Shaft in Soil	Cu. Yd.	-	137.8	-	-	-	137.8
Drilled Shaft in Rock	Cu. Yd.	-	3.7	-	-	-	3.7
Anchor Bolts, 1"	Each	-	36	-	-	-	36
Temporary Soil Retenton System	Sq. Ft.	-	-	-	-	-	1128
Furnishing Soldier Piles (HP Section)	Foot	-	-	95.9	-	-	95.9
Furnishing Soldier Piles (W Section)	Foot	-	-	397.5	-	1845.3	2242.8
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	-	-	1986	-	11140	13126
Untreated Timber Lagging	Sq. Ft.	-	-	909	-	4314	5223
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	-	-	-	3611	-	3611
Geocomposite Wall Drain	Sq. Yd.	-	54	101	-	480	635
Granular Backfill for Structures	Cu. Yd.	-	91	-	-	-	91
Drainage System	L. Sum	1	-	-	-	-	1
Drainage Scuppers, DS-11	Each	9	-	-	-	-	9
Pipe Underdrains for Structures, 4"	Foot	-	161	-	-	325	486
Aggregate Column Ground Improvement	L. Sum	-	-	-	1	-	1
Concrete Removal	Cu. Yd.	-	-	-	-	50	50

** All reinforcement bars in the superstructure and approaches shall be textured epoxy coated reinforcement bars. See special provisions.

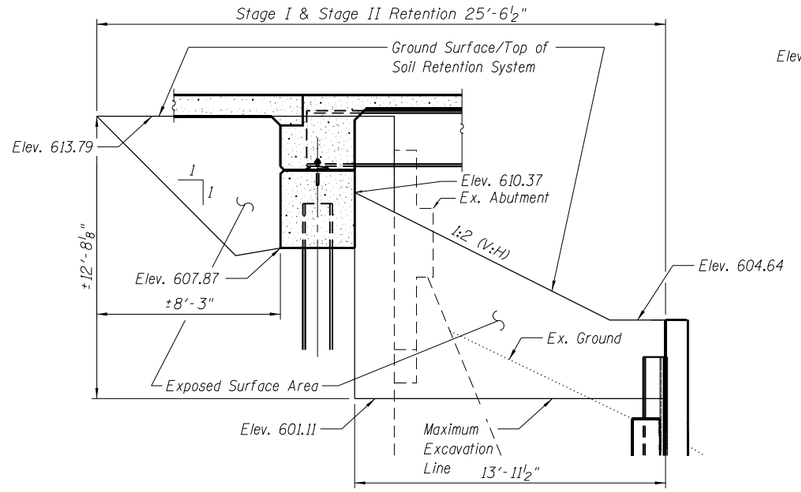


SECTION THRU INTEGRAL ABUTMENT

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

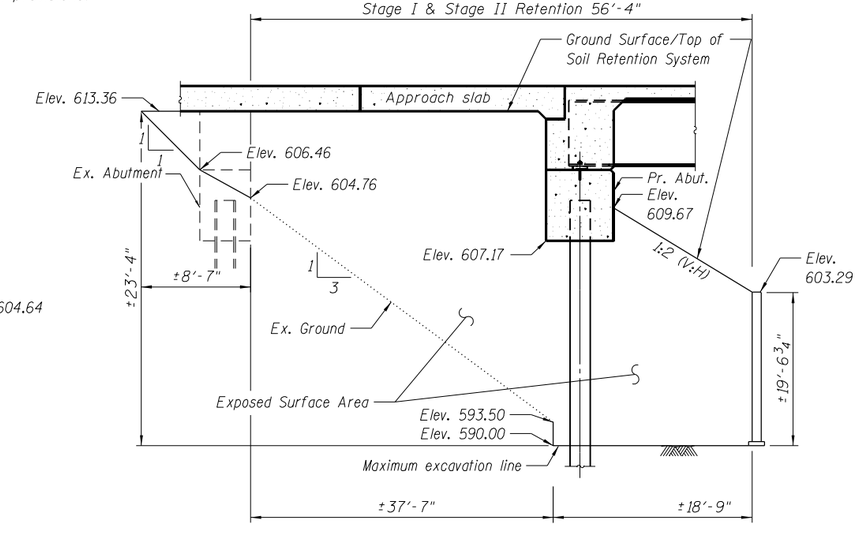
*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

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



TEMPORARY SOIL RETENTION SYSTEM

(Staging construction at S. Abut.)



TEMPORARY SOIL RETENTION SYSTEM

(Staging construction at N. Abut.)

PRINTED DATE: 3/18/2021
FILE NAME: 60106_002_GN.dgn

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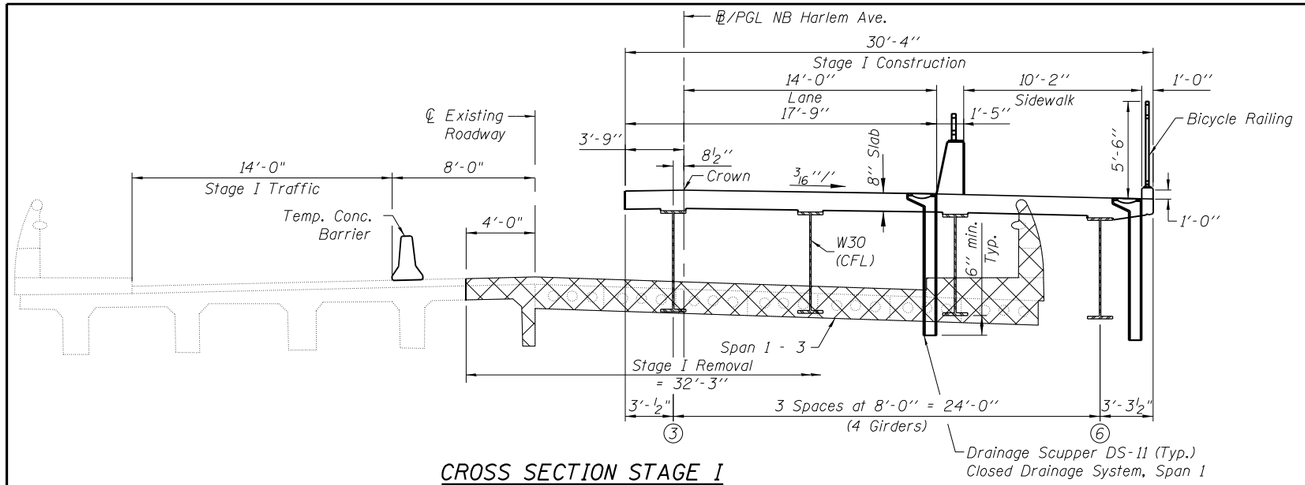
USER NAME = eliao	DESIGNED - SMA/PS	REVISED -
	CHECKED - CMW	REVISED -
PLOT SCALE = $SCALE$	DRAWN - JEH/SMA/PS	REVISED -
PLOT DATE = 3/18/2021	CHECKED - CMW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

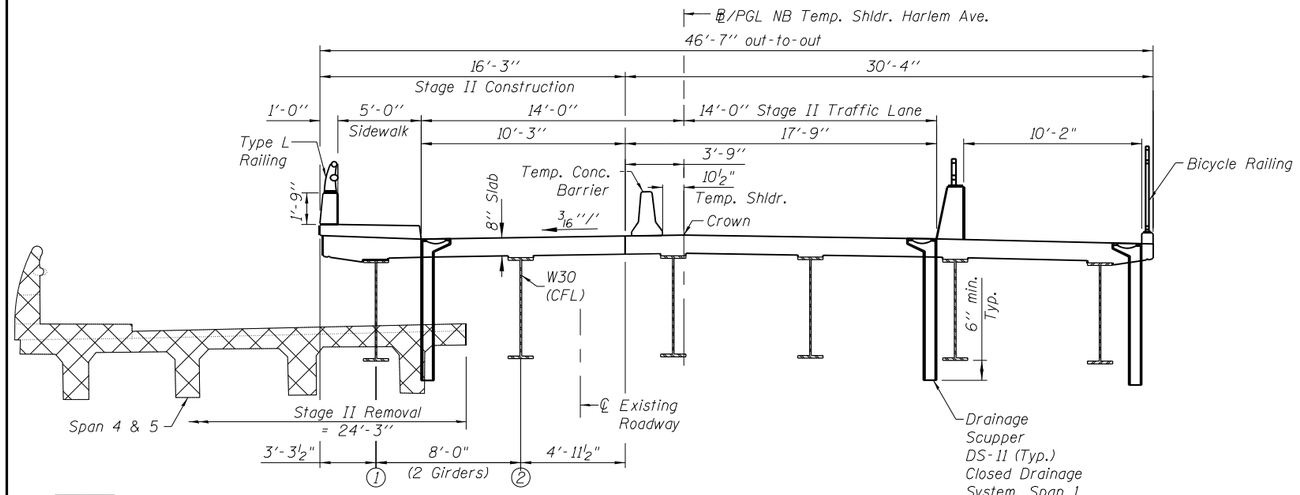
GENERAL DATA
STRUCTURE NO. 016-1330
SHEET NO 2 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	37
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



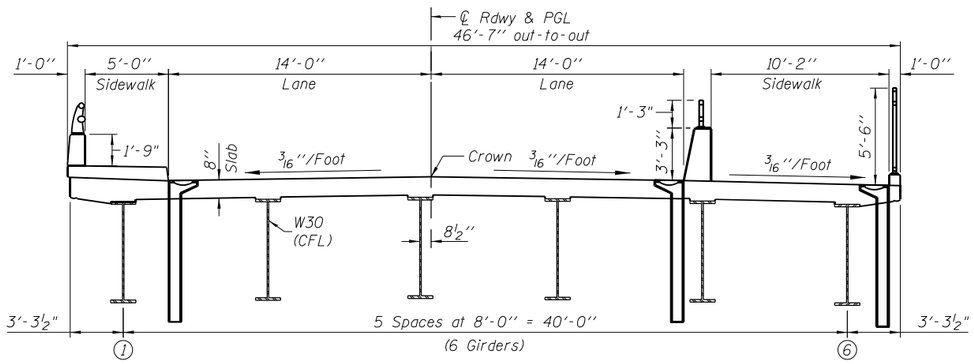
CROSS SECTION STAGE I

(Looking North)
(Existing steel WF beam supports not shown for clarity.)



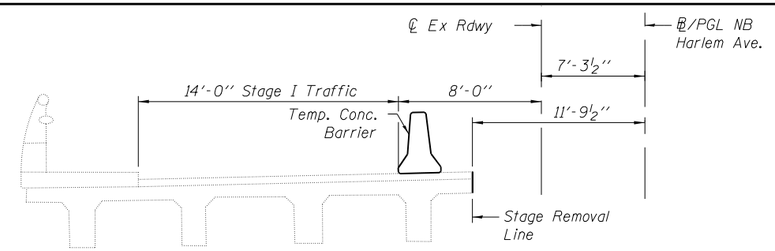
CROSS SECTION STAGE II

(Looking North)
(Existing steel WF beam supports not shown for clarity.)



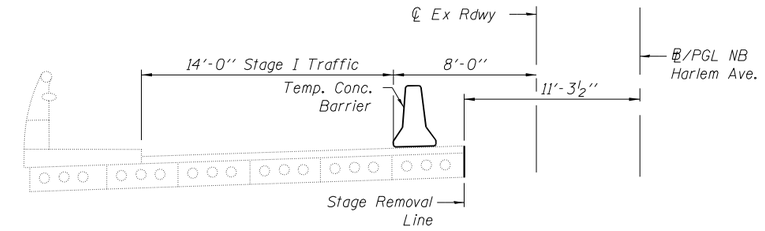
PROPOSED CROSS SECTION

(Looking North)



EXISTING SECTION SPANS (4-5)

(Looking North)



EXISTING SECTION SPANS (1-3)

(Looking North)

SEQUENCE OF CONSTRUCTION

Stage I
1. Shift one northbound lane to left side of northbound bridge.
2. Erect temporary soil retention system at both abutments.
3. Perform removal of stage I superstructure and substructure.
4. Erect stage I part of soldier pile wall at south abutment.
5. Erect stage I part of MSE wall at north abutment including aggregate columns.
6. Erect stage I part of substructure.
7. Erect stage I part of superstructure.
8. Erect north drilled soldier pile wall
   - A. Perform concrete removal of culvert headwall and wingwalls.
   - B. Install storm sewer through existing pipe culvert and pit.
   - C. Fill the culvert
   - D. Fill the pit, at least to level of proposed ground at front face of wall
   - E. Drill and install soldier piles
   - F. Install timber lagging, excavating as required
   - G. Place drains, excavating as required
   - H. Place fill behind wall to top of piles
   - I. Install shear studs on piles
   - J. Construct concrete facing
   - K. Complete grading at front face of wall
   - L. place fill to bottom of gutter behind wall
   - M. Construct gutter
9. Complete Stage I roadway

Stage II
1. Move traffic off of southbound lanes, onto completed northbound lanes.
2. Perform removal of stage II superstructure and substructure.
3. Erect stage II part of soldier pile wall at south abutment.
4. Erect stage II part of MSE wall at north abutment including aggregate columns.
5. Erect stage II part of substructure.
6. Erect stage II part of superstructure.
7. Complete stage II roadway.
8. Open completed project to traffic.

Notes:
Cross Hatched areas indicate removal of existing structure.
Removal of existing overlay and railing is included with Removal of Existing Structures.
See Roadway plans for quantity of Temporary Concrete Barrier.
See Sheet 4 of 44 for details of Temporary Concrete Barrier.
See Sheet 23 of 44 for substructure removal details.
Pier Removal: Piers may be left in place during Stage I removal and removed during Stgae II construction.

PRINTED DATE: 3/5/2021
FILE NAME: 60106.002.StgConstrdgn

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PLOT SCALE = $SCALE$	DRAWN - JEH/SMA/PS	REVISED -	
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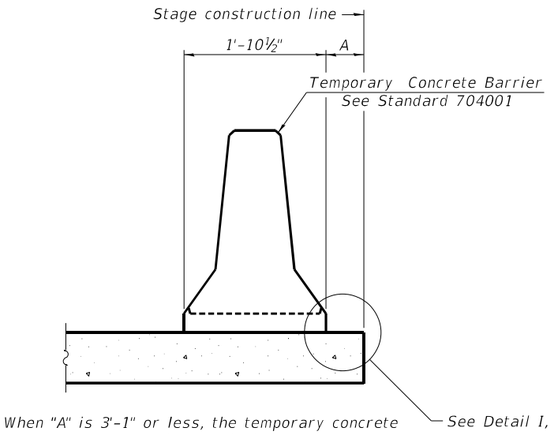
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

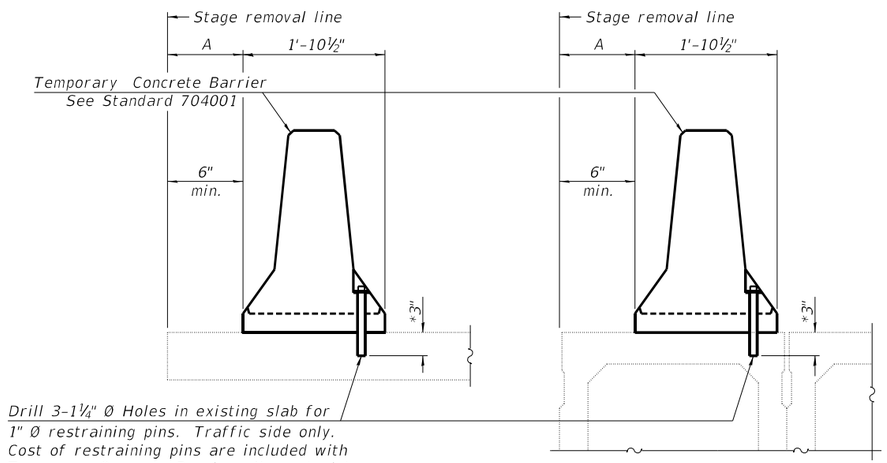
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-1330
SHEET NO 3 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	38
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	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



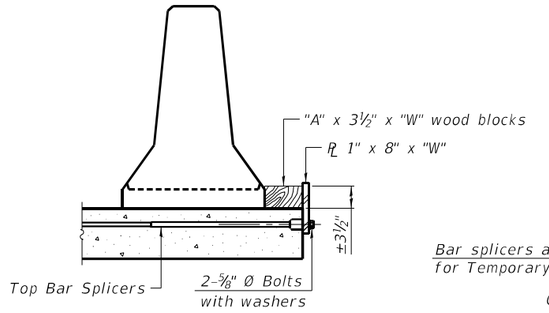
Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

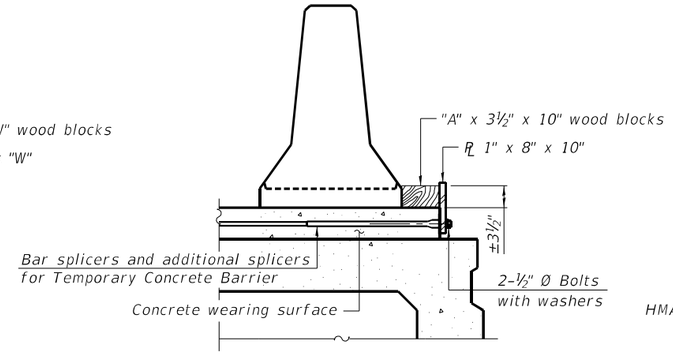
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

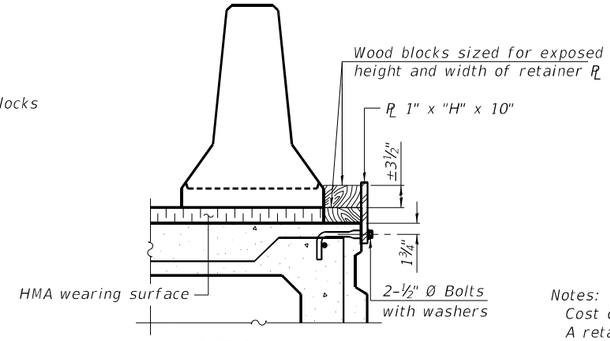
SECTIONS THRU SLAB OR DECK BEAM



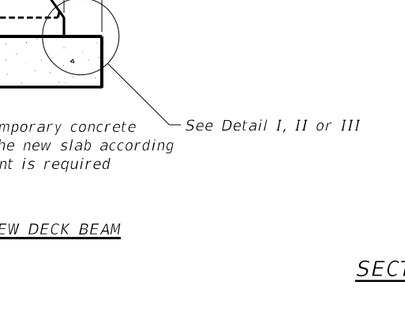
DETAIL I



DETAIL II

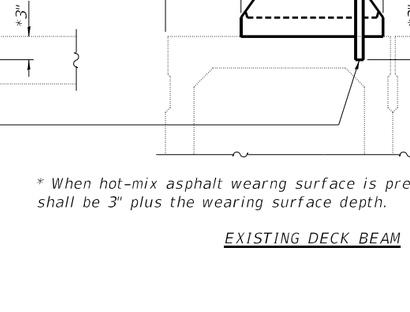


DETAIL III



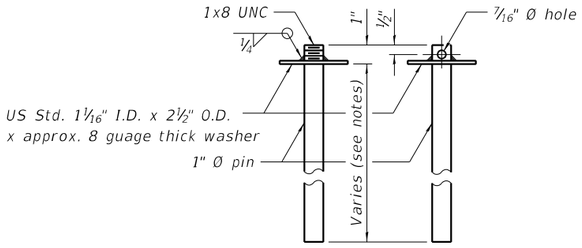
STEEL RETAINER ℄ 1" x 8" x "W"

(Detail I and II)

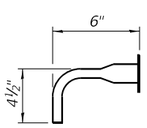


STEEL RETAINER ℄ 1" x "H" x 10"

(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

8-11-2017

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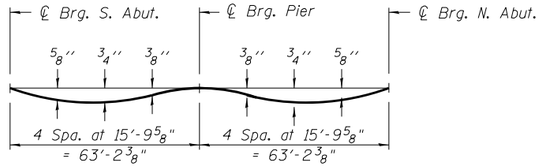
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 016-1330

SHEET NO 4 OF 44 SHEETS

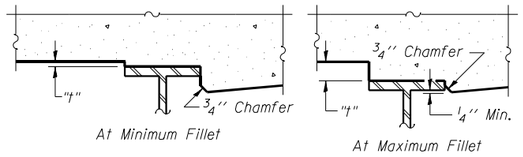
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	39
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



DEAD LOAD DEFLECTION DIAGRAM

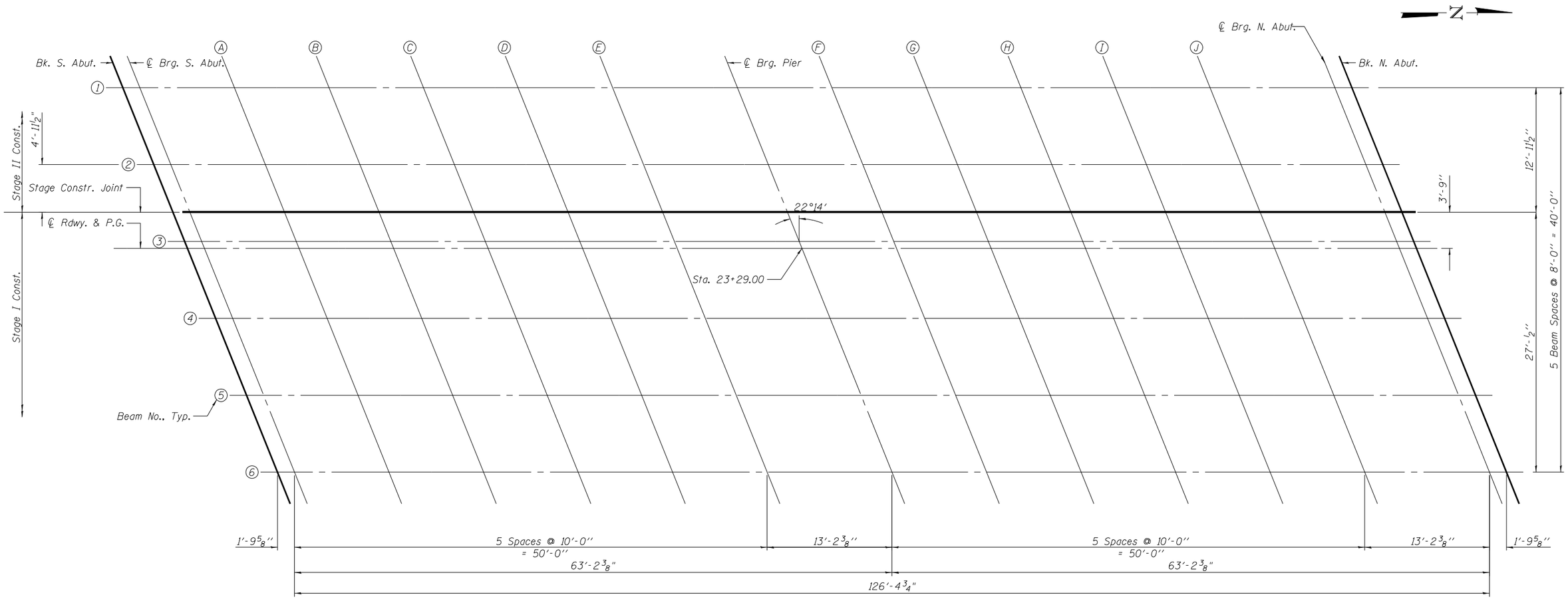
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheet 6 of 44.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet 6 of 44, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 016-1330
SHEET NO 5 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	40
		CONTRACT NO 60706		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut	22+57.17	-16.71	614.93	614.93
CL Brg. S. Abut	22+58.97	-16.71	614.95	614.95
A	22+68.97	-16.71	615.03	615.07
B	22+78.97	-16.71	615.10	615.16
C	22+88.97	-16.71	615.16	615.22
D	22+98.97	-16.71	615.19	615.24
E	23+08.97	-16.71	615.20	615.23
CL Brg. Pier	23+22.17	-16.71	615.19	615.19
F	23+32.17	-16.71	615.15	615.17
G	23+42.17	-16.71	615.10	615.14
H	23+52.17	-16.71	615.02	615.08
I	23+62.17	-16.71	614.93	614.99
J	23+72.17	-16.71	614.81	614.86
CL Brg. N. Abut	23+85.37	-16.71	614.63	614.63
Bk N. Abut	23+87.17	-16.71	614.60	614.60

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut	22+60.44	-8.71	614.95	614.95
CL Brg. S. Abut	22+62.24	-8.71	614.97	614.97
A	22+72.24	-8.71	615.05	615.08
B	22+82.24	-8.71	615.11	615.17
C	22+92.24	-8.71	615.16	615.22
D	23+02.24	-8.71	615.19	615.23
E	23+12.24	-8.71	615.19	615.22
CL Brg. Pier	23+25.44	-8.71	615.17	615.17
F	23+35.44	-8.71	615.13	615.14
G	23+45.44	-8.71	615.07	615.11
H	23+55.44	-8.71	614.98	615.04
I	23+65.44	-8.71	614.88	614.94
J	23+75.44	-8.71	614.76	614.80
CL Brg. N. Abut	23+88.64	-8.71	614.56	614.56
Bk N. Abut	23+90.44	-8.71	614.53	614.53

STAGE CONST JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut	22+62.47	-3.75	615.04	615.04
CL Brg. S. Abut	22+64.27	-3.75	615.06	615.06
A	22+74.27	-3.75	615.14	615.17
B	22+84.27	-3.75	615.20	615.26
C	22+94.27	-3.75	615.24	615.31
D	23+04.27	-3.75	615.27	615.31
E	23+14.27	-3.75	615.27	615.29
CL Brg. Pier	23+27.47	-3.75	615.24	615.24
F	23+37.47	-3.75	615.19	615.21
G	23+47.47	-3.75	615.13	615.17
H	23+57.47	-3.75	615.04	615.10
I	23+67.47	-3.75	614.93	615.00
J	23+77.47	-3.75	614.81	614.85
CL Brg. N. Abut	23+90.67	-3.75	614.61	614.61
Bk N. Abut	23+92.47	-3.75	614.58	614.58

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut	22+63.71	-0.71	615.10	615.10
CL Brg. S. Abut	22+65.51	-0.71	615.12	615.12
A	22+75.51	-0.71	615.20	615.23
B	22+85.51	-0.71	615.26	615.31
C	22+95.51	-0.71	615.30	615.36
D	23+05.51	-0.71	615.32	615.36
E	23+15.51	-0.71	615.31	615.34
CL Brg. Pier	23+28.71	-0.71	615.28	615.28
F	23+38.71	-0.71	615.23	615.25
G	23+48.71	-0.71	615.17	615.21
H	23+58.71	-0.71	615.08	615.14
I	23+68.71	-0.71	614.97	615.03
J	23+78.71	-0.71	614.84	614.88
CL Brg. N. Abut	23+91.91	-0.71	614.63	614.63
Bk N. Abut	23+93.71	-0.71	614.60	614.60

PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut	22+64.00	0.00	615.12	615.12
CL Brg. S. Abut	22+65.80	0.00	615.13	615.13
A	22+75.80	0.00	615.21	615.24
B	22+85.80	0.00	615.27	615.33
C	22+95.80	0.00	615.31	615.37
D	23+05.80	0.00	615.33	615.37
E	23+15.80	0.00	615.33	615.35
CL Brg. Pier	23+29.00	0.00	615.29	615.29
F	23+39.00	0.00	615.24	615.26
G	23+49.00	0.00	615.17	615.21
H	23+59.00	0.00	615.08	615.14
I	23+69.00	0.00	614.97	615.04
J	23+79.00	0.00	614.84	614.89
CL Brg. N. Abut	23+92.20	0.00	614.64	614.64
Bk N. Abut	23+94.00	0.00	614.61	614.61

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut	22+66.98	7.29	615.03	615.03
CL Brg. S. Abut	22+68.78	7.29	615.04	615.04
A	22+78.78	7.29	615.11	615.15
B	22+88.78	7.29	615.17	615.23
C	22+98.78	7.29	615.20	615.26
D	23+08.78	7.29	615.21	615.26
E	23+18.78	7.29	615.21	615.23
CL Brg. Pier	23+31.98	7.29	615.17	615.17
F	23+41.98	7.29	615.11	615.13
G	23+51.98	7.29	615.04	615.08
H	23+61.98	7.29	614.94	615.00
I	23+71.98	7.29	614.82	614.89
J	23+81.98	7.29	614.69	614.73
CL Brg. N. Abut	23+95.18	7.29	614.48	614.48
Bk N. Abut	23+96.98	7.29	614.44	614.44

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut	22+70.25	15.29	614.93	614.93
CL Brg. S. Abut	22+72.05	15.29	614.94	614.94
A	22+82.05	15.29	615.01	615.04
B	22+92.05	15.29	615.06	615.11
C	23+02.05	15.29	615.08	615.14
D	23+12.05	15.29	615.09	615.14
E	23+22.05	15.29	615.08	615.10
CL Brg. Pier	23+35.25	15.29	615.03	615.03
F	23+45.25	15.29	614.96	614.98
G	23+55.25	15.29	614.88	614.92
H	23+65.25	15.29	614.78	614.84
I	23+75.25	15.29	614.66	614.72
J	23+85.25	15.29	614.51	614.56
CL Brg. N. Abut	23+98.45	15.29	614.29	614.29
Bk N. Abut	24+00.25	15.29	614.26	614.26

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut	22+73.52	23.29	614.83	614.83
CL Brg. S. Abut	22+75.32	23.29	614.84	614.84
A	22+85.32	23.29	614.90	614.94
B	22+95.32	23.29	614.94	615.00
C	23+05.32	23.29	614.96	615.02
D	23+15.32	23.29	614.96	615.01
E	23+25.32	23.29	614.94	614.96
CL Brg. Pier	23+38.52	23.29	614.88	614.88
F	23+48.52	23.29	614.81	614.83
G	23+58.52	23.29	614.73	614.77
H	23+68.52	23.29	614.62	614.68
I	23+78.52	23.29	614.49	614.55
J	23+88.52	23.29	614.34	614.38
CL Brg. N. Abut	24+01.72	23.29	614.11	614.11
Bk N. Abut	24+03.52	23.29	614.07	614.07

Note:
Offsets measured from ℄ roadway.

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STATE OF ILLINOIS
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TOP OF SLAB ELEVATIONS
STRUCTURE NO. 016-1330

SHEET NO 6 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	41
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pavmt.	22+26.90	-20.00	614.67
A1	22+36.90	-20.00	614.76
A2	22+46.90	-20.00	614.84
N. End South Appr. Pavmt.	22+56.90	-20.00	614.92
S. End North Appr. Pavmt.	23+84.74	-20.00	614.62
A3	23+94.74	-20.00	614.46
A4	24+04.74	-20.00	614.28
N. End North Appr. Pavmt.	24+14.74	-20.00	614.08

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pavmt.	22+29.36	-14.00	614.61
A1	22+39.36	-14.00	614.69
A2	22+49.36	-14.00	614.78
N. End South Appr. Pavmt.	22+59.36	-14.00	614.86
S. End North Appr. Pavmt.	23+87.20	-14.00	614.50
A3	23+97.20	-14.00	614.34
A4	24+07.20	-14.00	614.15
N. End North Appr. Pavmt.	24+17.20	-14.00	613.94

STAGE CONSTRUCTION JOINT

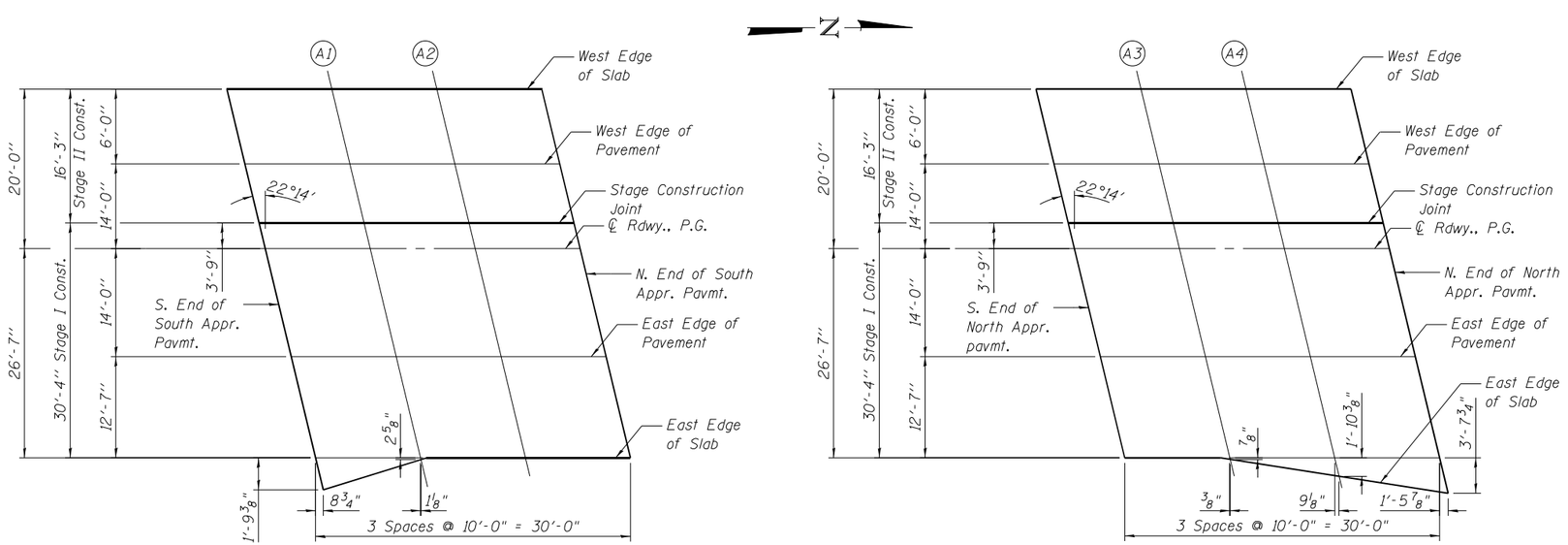
Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pavmt.	22+33.55	-3.75	614.80
A1	22+43.55	-3.75	614.89
A2	22+53.55	-3.75	614.97
N. End South Appr. Pavmt.	22+63.55	-3.75	615.05
S. End North Appr. Pavmt.	23+91.39	-3.75	614.60
A3	24+01.39	-3.75	614.42
A4	24+11.39	-3.75	614.22
N. End North Appr. Pavmt.	24+21.39	-3.75	614.01

℄ RDWY & PGL

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pavmt.	22+35.08	0.00	614.88
A1	22+45.08	0.00	614.96
A2	22+55.08	0.00	615.04
N. End South Appr. Pavmt.	22+65.08	0.00	615.12
S. End North Appr. Pavmt.	23+92.92	0.00	614.63
A3	24+02.92	0.00	614.45
A4	24+12.92	0.00	614.25
N. End North Appr. Pavmt.	24+22.92	0.00	614.03

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pavmt.	22+40.80	14.00	614.70
A1	22+50.80	14.00	614.79
A2	22+60.80	14.00	614.87
N. End South Appr. Pavmt.	22+70.80	14.00	614.95
S. End North Appr. Pavmt.	23+98.64	14.00	614.31
A3	24+08.64	14.00	614.12
A4	24+18.64	14.00	613.91
N. End North Appr. Pavmt.	24+28.64	14.00	613.68



PLAN

EAST EDGE OF SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pavmt.	22+46.67	28.36	614.53
A1	22+56.04	26.80	614.63
A2	22+65.95	26.58	614.72
N. End South Appr. Pavmt.	22+75.95	26.58	614.79
S. End North Appr. Pavmt.	24+03.79	26.58	614.02
A3	24+13.82	26.66	613.81
A4	24+24.55	28.44	613.55
N. End North Appr. Pavmt.	24+35.28	30.23	613.26

Note:
Offsets measured from ℄ Roadway.

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PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -

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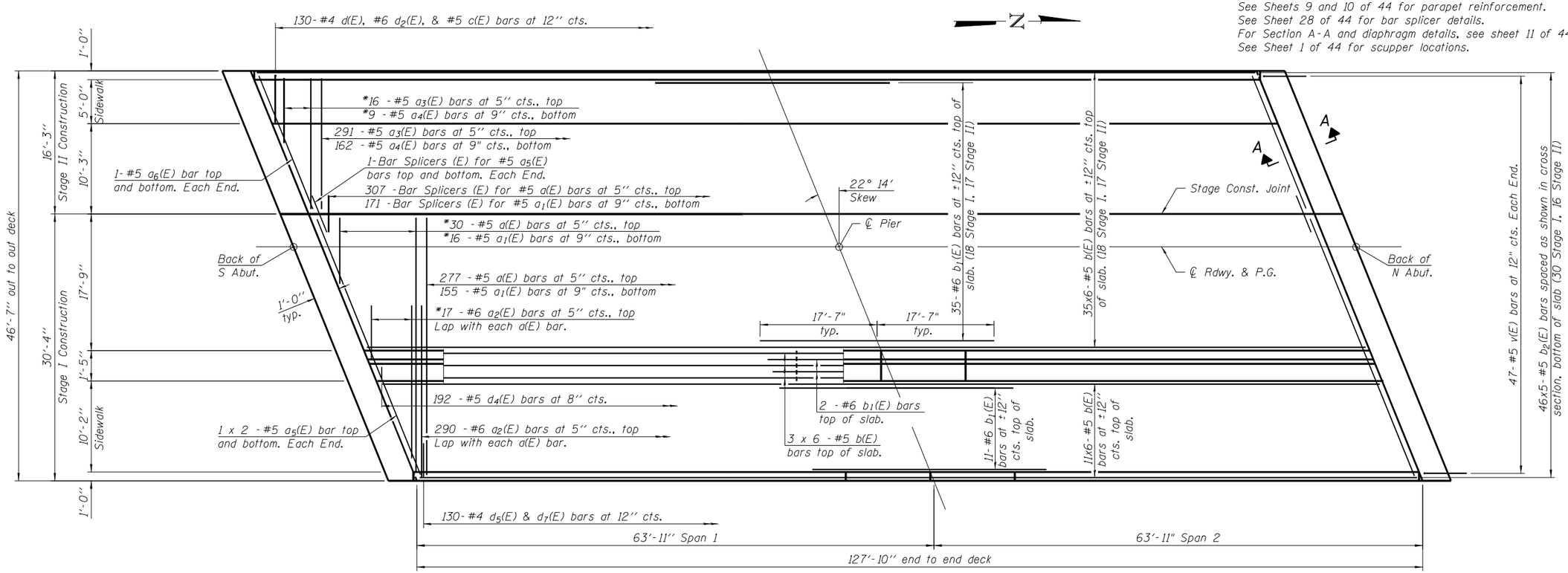
DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 016-1330
SHEET NO 7 OF 44 SHEETS

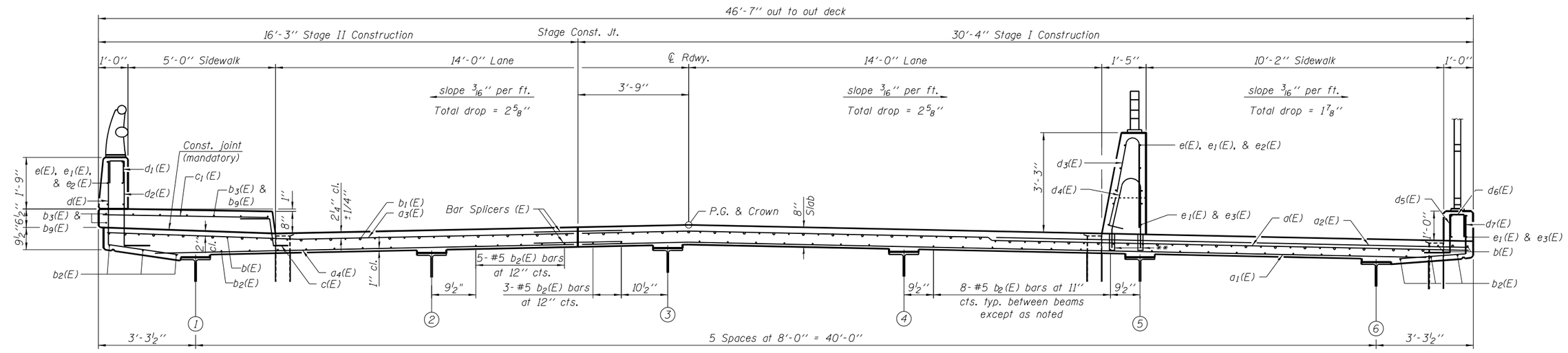
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	42
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

* Order d(E), a_1(E), a_2(E), a_3(E), and a_4(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

Notes:
See Sheets 9 and 10 of 44 for superstructure details and Bill of Material.
Bars indicated thus 36 x 2-#6 etc. indicates 36 lines of bars with 2 lengths per line.
See Sheets 9 and 10 of 44 for parapet reinforcement.
See Sheet 28 of 44 for bar splicer details.
For Section A-A and diaphragm details, see sheet 11 of 44.
See Sheet 1 of 44 for scupper locations.



PLAN



CROSS SECTION
(Looking North)

** Drill and set #5 d4(E) bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6". Contractor shall take all necessary precautions to prevent hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in the deck.

MIN. BAR LAP
(Slab)
#5 Bar = 3'-6''
#6 Bar = 4'-10''

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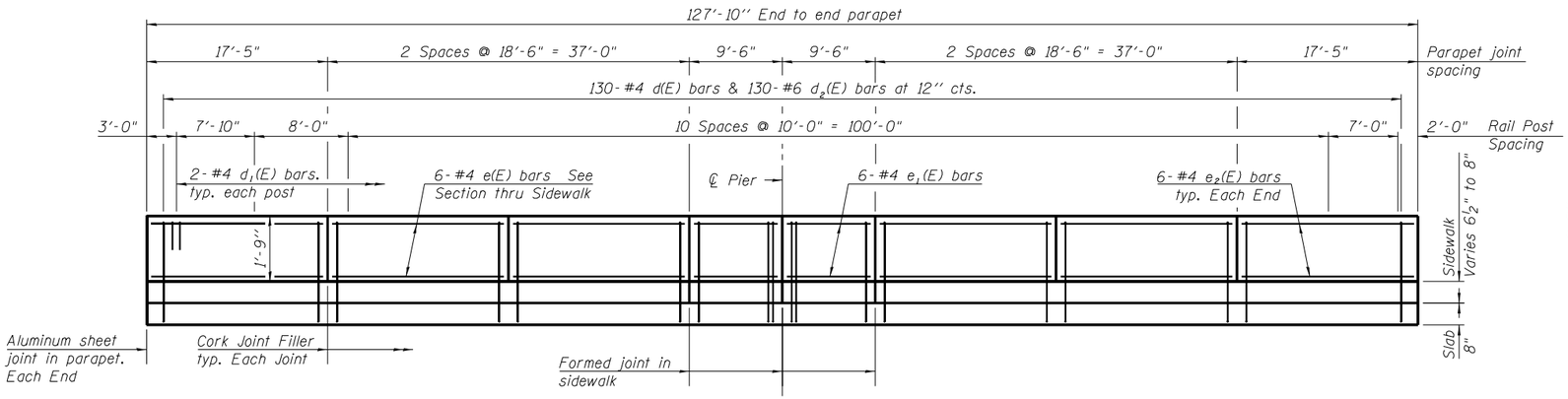
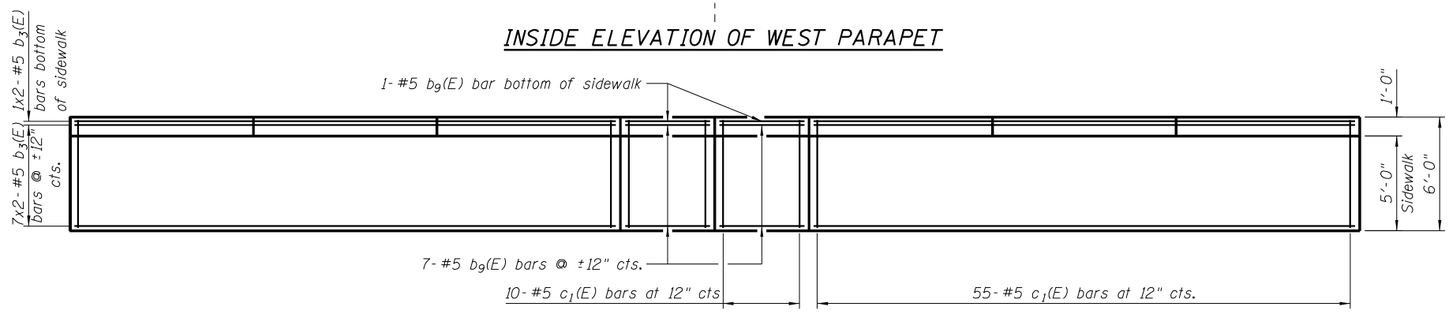
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 016-1330
SHEET NO 8 OF 44 SHEETS

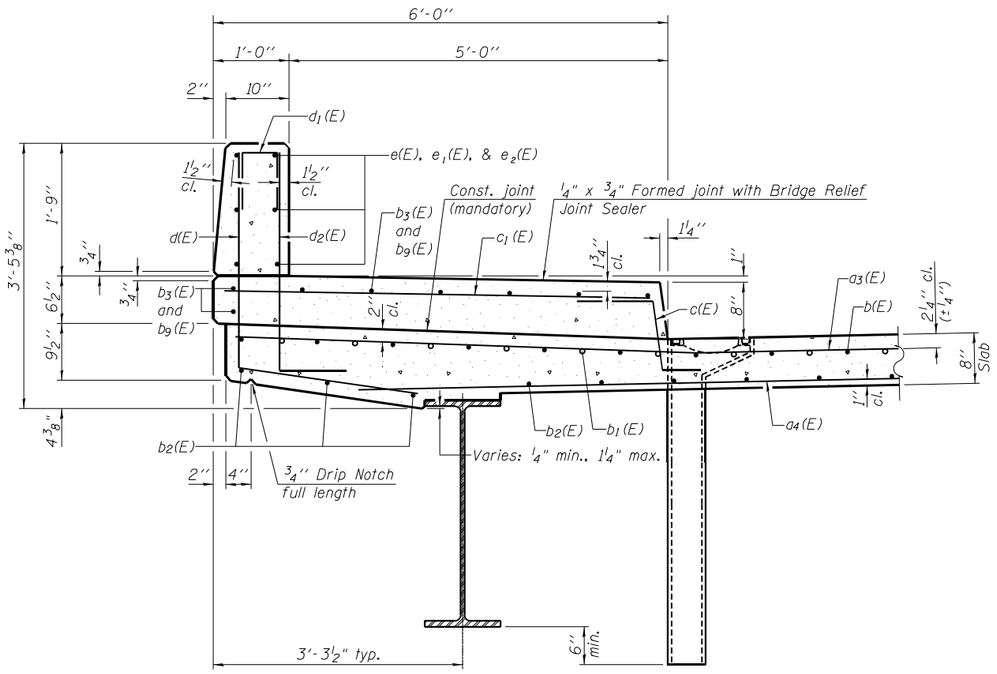
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	43
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF WEST PARAPET



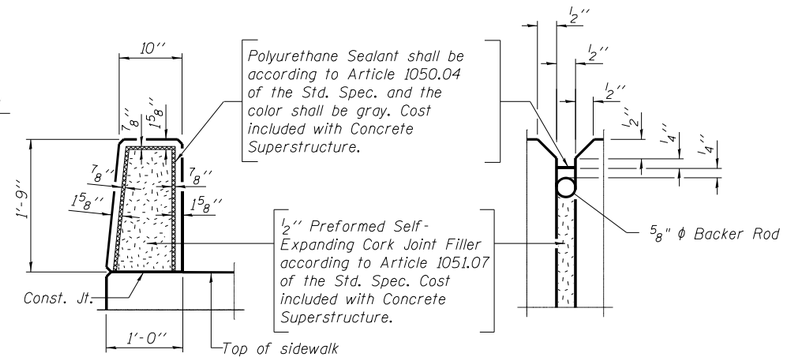
WEST SIDEWALK PLAN



SECTION THRU WEST SIDEWALK

SCUPPER REINFORCEMENT

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

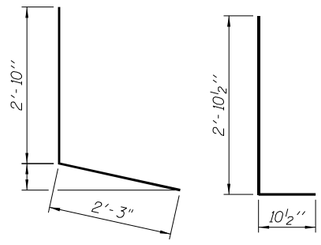


PARAPET JOINT DETAILS

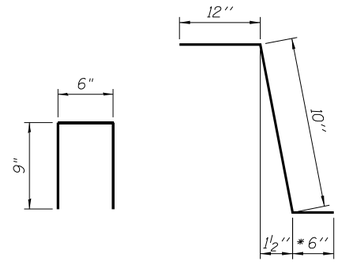
The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-8"
#8 bar = 5'-11"



BAR d(E) BAR d2(E)



BAR d1(E) BAR c(E)

* In lieu of bottom leg, c(E) bars may be drilled and set according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of drilled hole shall not exceed 6". Contractor shall take all necessary precautions to prevent hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in the deck.

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FILE NAME: 60106.dgn, Super-Detail

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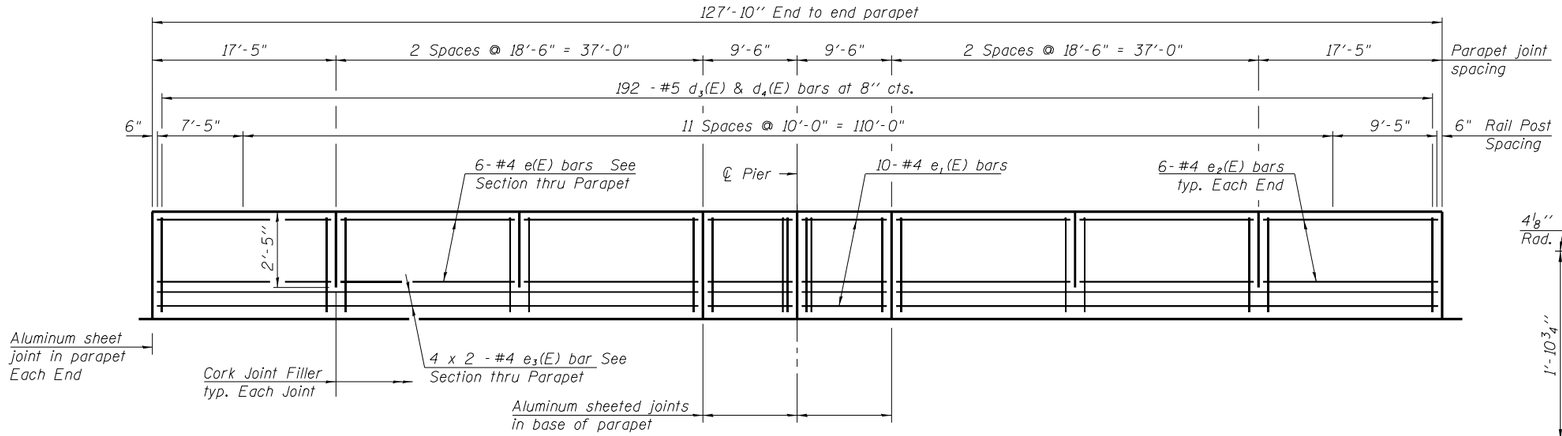
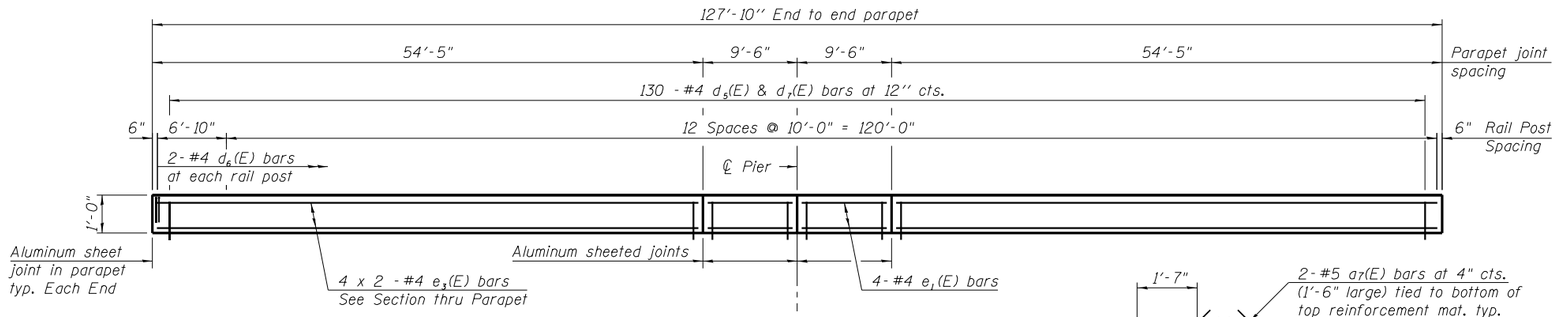
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-1330
SHEET NO 9 OF 44 SHEETS

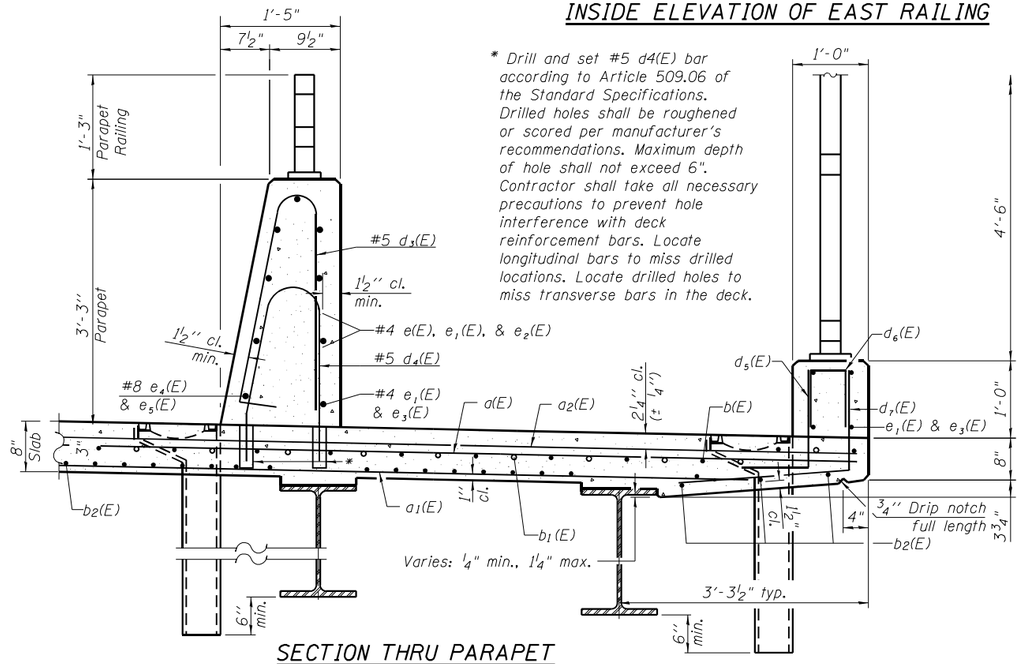
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	44
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF EAST PARAPET

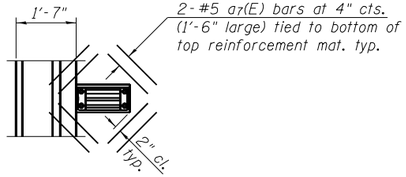


INSIDE ELEVATION OF EAST RAILING



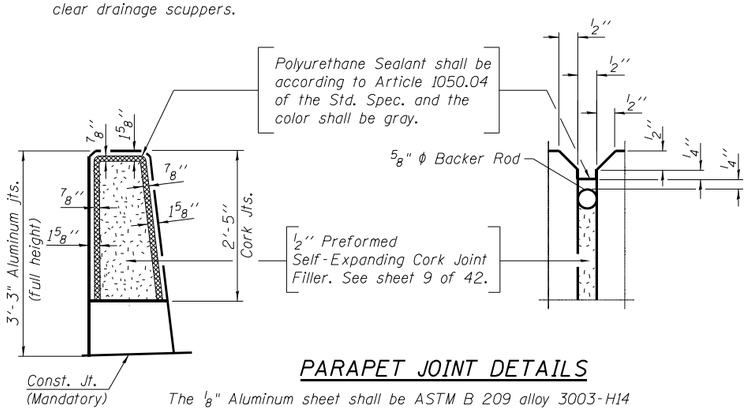
* Drill and set #5 d4(E) bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6". Contractor shall take all necessary precautions to prevent hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in the deck.

SECTION THRU PARAPET



SCUPPER REINFORCEMENT

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

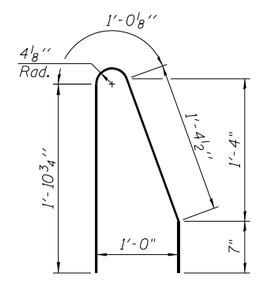


PARAPET JOINT DETAILS

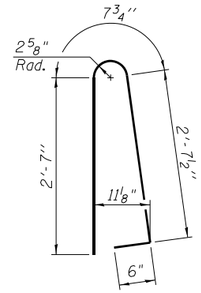
The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

MINIMUM BAR LAP

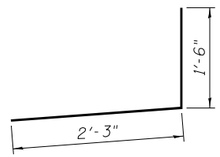
(Parapet)
#4 bar = 2'-8"
#8 bar = 5'-11"



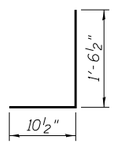
BAR d4(E)



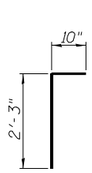
BAR d3(E)



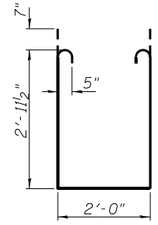
BAR d7(E)



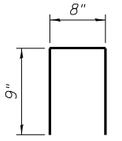
BAR d5(E)



BAR v(E)



BAR s1(E)



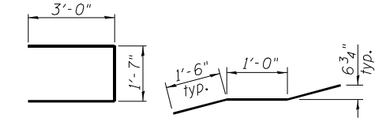
BAR d6(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	307	#5	30'-1"	
d1(E)	171	#5	30'-1"	
d2(E)	307	#6	17'-6"	
d3(E)	307	#5	16'-0"	
d4(E)	171	#5	16'-0"	
d5(E)	8	#5	18'-0"	
d6(E)	4	#5	17'-3"	
d7(E)	64	#5	1'-6"	
b(E)	294	#5	24'-2"	
b1(E)	48	#6	35'-2"	
b2(E)	230	#5	28'-4"	
b3(E)	32	#5	28'-10"	
b9(E)	16	#5	9'-2"	
c(E)	130	#5	2'-4"	
c1(E)	130	#5	5'-9"	
d(E)	130	#4	5'-1"	
d1(E)	28	#4	2'-0"	
d2(E)	130	#6	3'-9"	
d3(E)	192	#5	6'-4¼"	
d4(E)	192	#5	4'-10½"	
d5(E)	130	#4	2'-5"	
d6(E)	30	#4	2'-2"	
d7(E)	130	#4	3'-9"	
e(E)	48	#4	18'-3"	
e1(E)	40	#4	9'-3"	
e2(E)	24	#4	17'-2"	
e3(E)	32	#4	28'-5"	
m(E)	8	#6	32'-5"	
m1(E)	24	#6	8'-3"	
m2(E)	12	#6	3'-2"	
m3(E)	36	#5	4'-0"	
m4(E)	6	#6	2'-11"	
m5(E)	6	#6	5'-0"	
m6(E)	8	#6	17'-2"	
s(E)	96	#5	7'-7"	
s1(E)	96	#5	9'-1"	
v(E)	94	#5	3'-1"	
Reinforcement Bars, Epoxy Coated**		Pound	59,510	
Concrete Superstructure		Cu. Yds.	231.3	
Name Plates		Each	1	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

** All reinforcement bars in the superstructure and approaches shall be textured epoxy coated reinforcement bars. See special provisions.



BAR s(E)

BAR m3(E)

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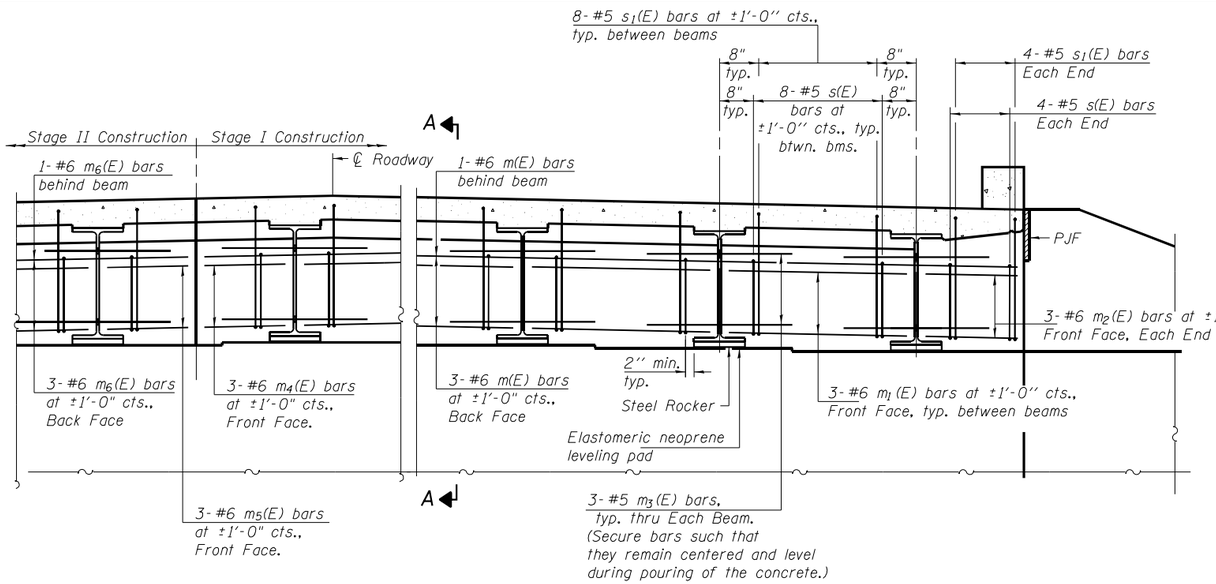
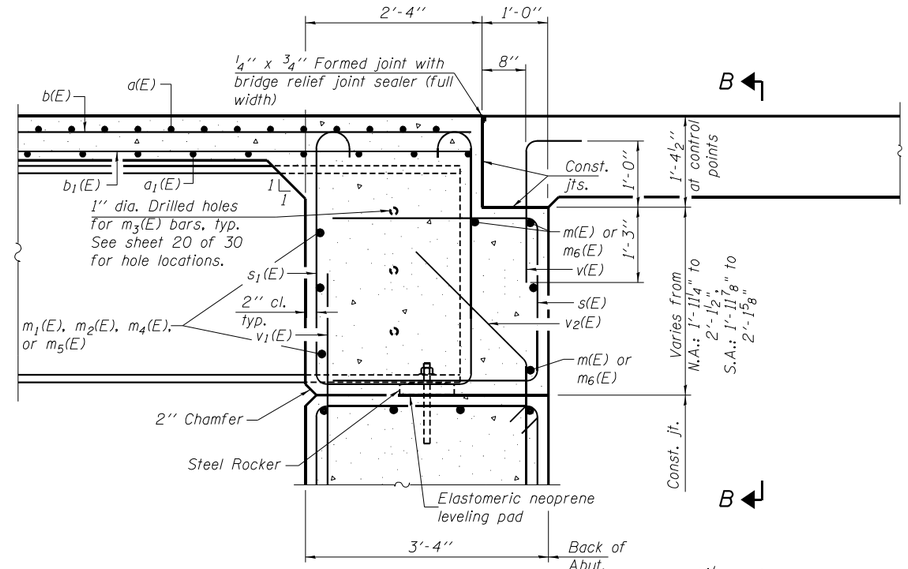
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-1330
SHEET NO 10 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	45
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



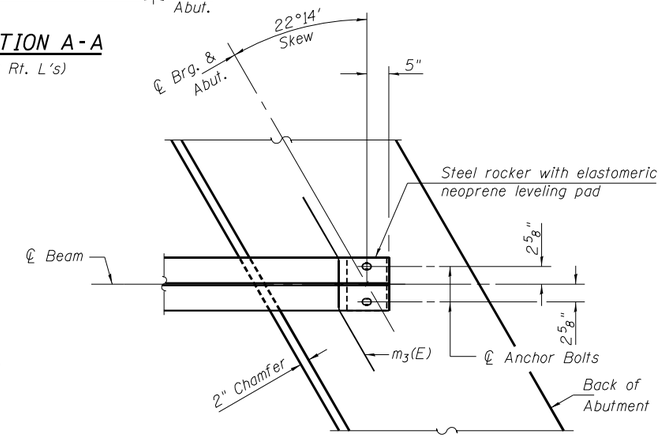
DIAPHRAGM ELEVATION AT ABUTMENT

(West Abut. shown, East Abut. similar)



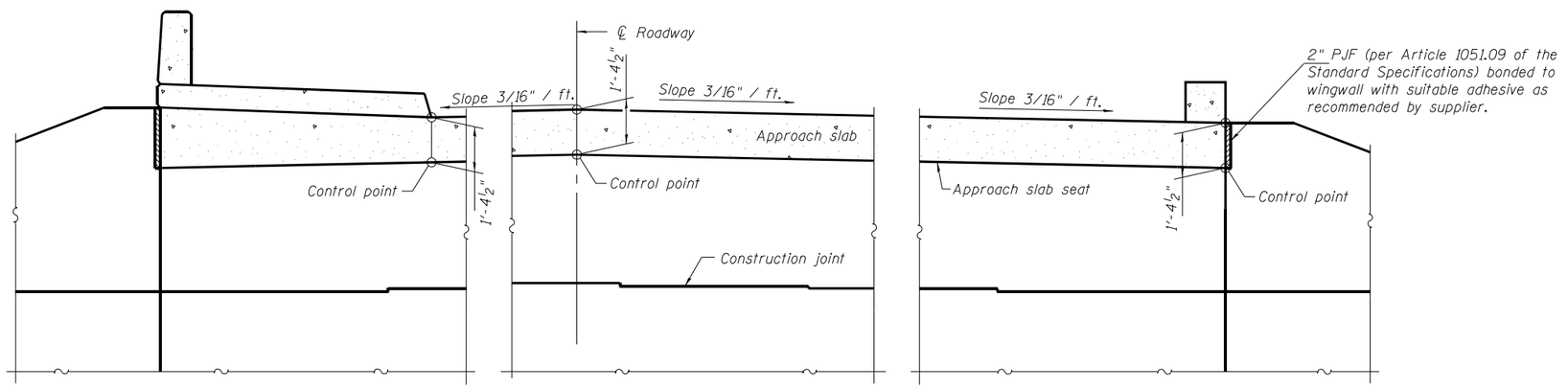
SECTION A-A

(at Rt. L's)



PARTIAL PLAN AT ABUTMENT

(Showing bottom flange of beam)



SECTION B-B

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 44.

Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 44.

For details of bars s(E), s_1(E) and v(E) see sheet 10 of 44.

The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

The approach slab seat shall have a constant slope determined from the control points shown.

For bearing details see sheet 22 of 44.

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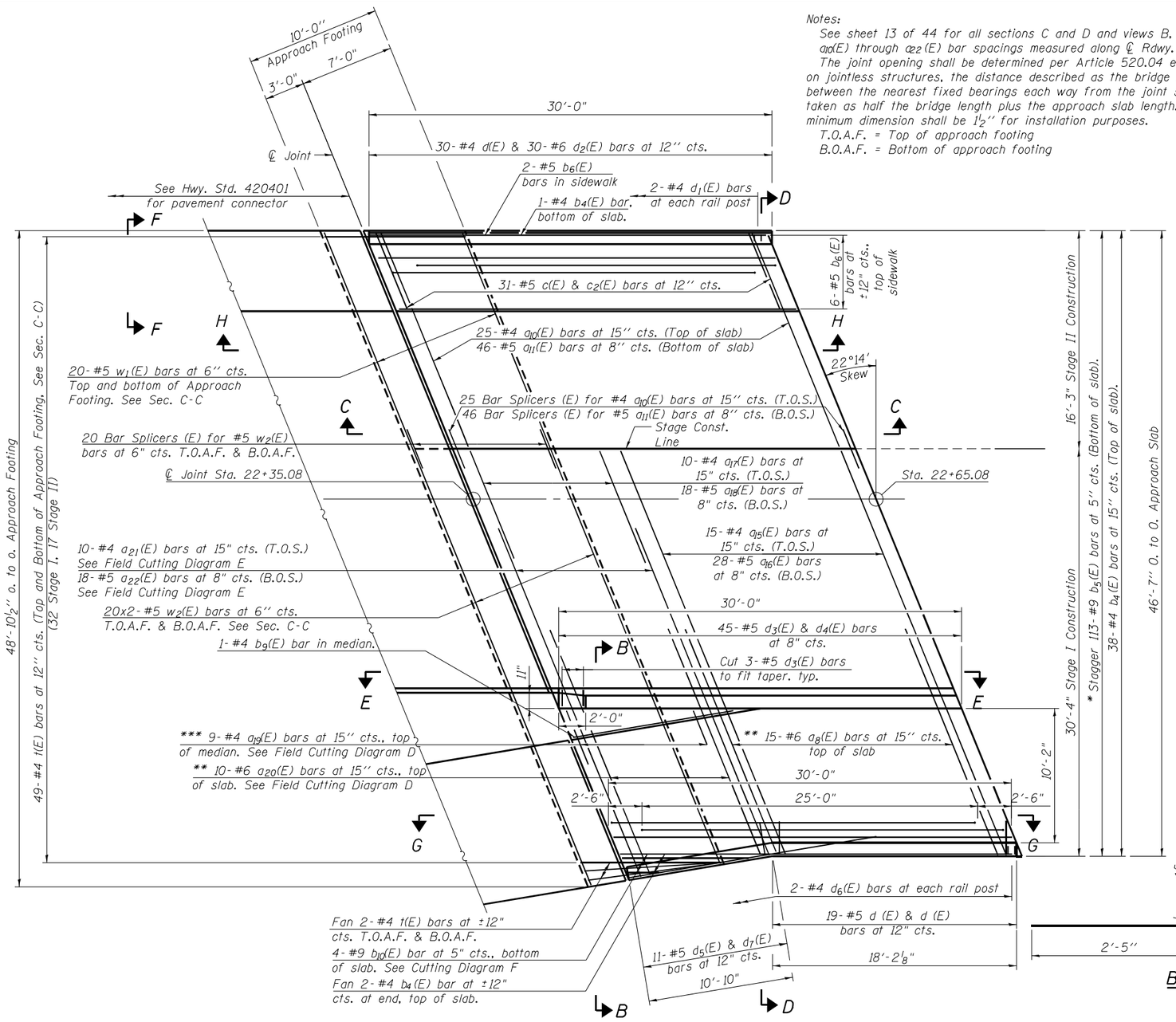
DIAPHRAGM DETAILS
STRUCTURE NO. 016-1330
SHEET NO 11 OF 44 SHEETS

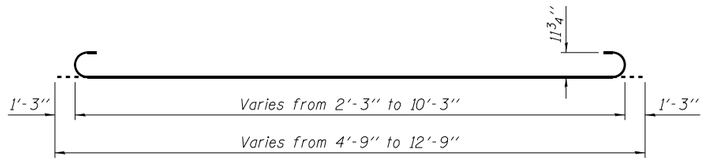
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	46
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Notes:
See sheet 13 of 44 for all sections C and D and views B, E, G, and H.
$a_{10}(E)$ through $a_{22}(E)$ bar spacings measured along ℄ Rdwy.
The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1\frac{1}{2}$" for installation purposes.
T.O.A.F. = Top of approach footing
B.O.A.F. = Bottom of approach footing

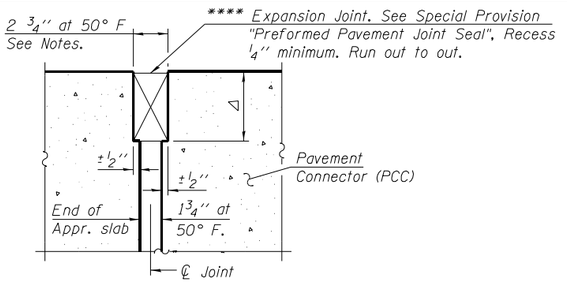


PLAN

* Tilt #9 $b_5(E)$ bars as required to maintain clearance.
** Space $a_{19}(E)$ and $a_8(E)$ between $a_{21}(E)$ and $a_{15}(E)$ bars respectively.
*** Tie to $a_{21}(E)$ bars.

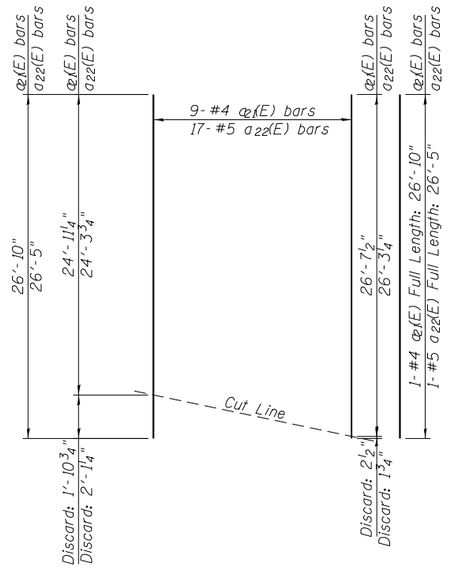


BAR $b_{10}(E)$



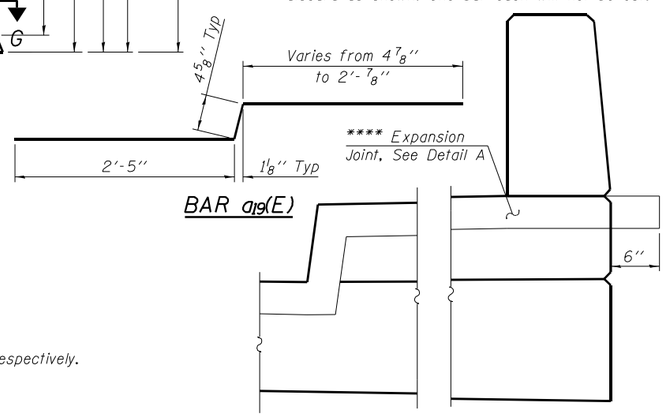
DETAIL A

**** Cost included with Concrete Superstructure (Approach Slab).
Δ Per manufacturer recommendations



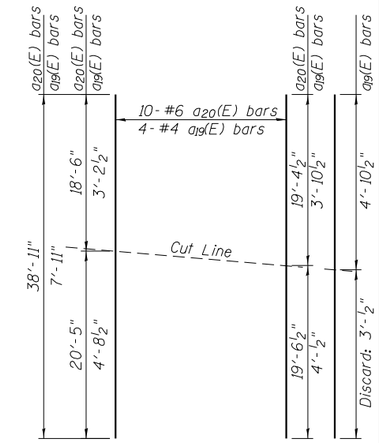
FIELD CUTTING DIAGRAM E

Order 10 $a_{21}(E)$ and 18 $a_{22}(E)$ full length. Cut and discard as shown. One bar each will not be cut.



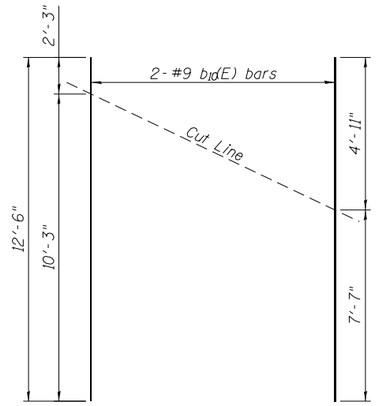
BAR $a_{19}(E)$

VIEW F-F



FIELD CUTTING DIAGRAM D

Order $a_{19}(E)$ and $a_{20}(E)$ full length. Cut as shown and use bars sequentially from smallest to largest. Bend $a_{19}(E)$ per diagram.



CUTTING DIAGRAM F

Order $b_{10}(E)$ full length. Cut as shown and use bars sequentially from largest to smallest. Bend per diagram.

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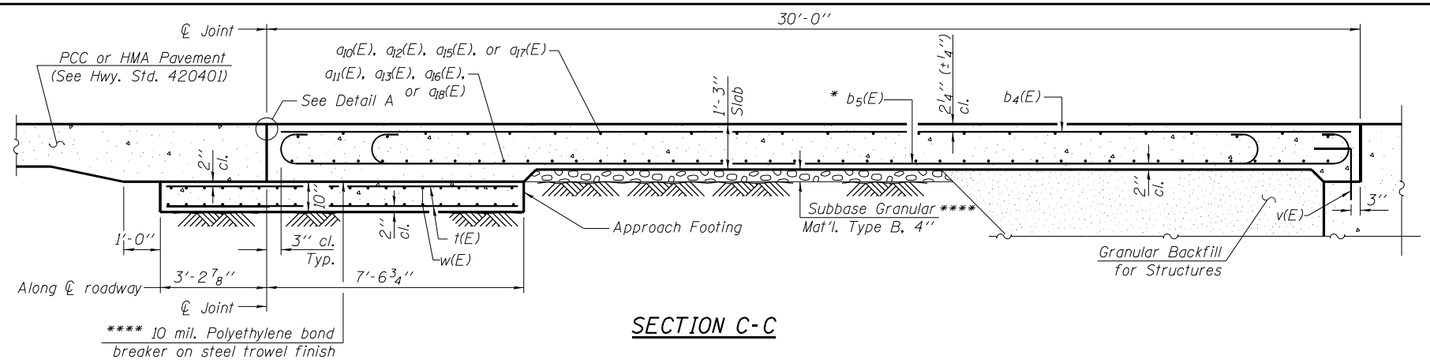
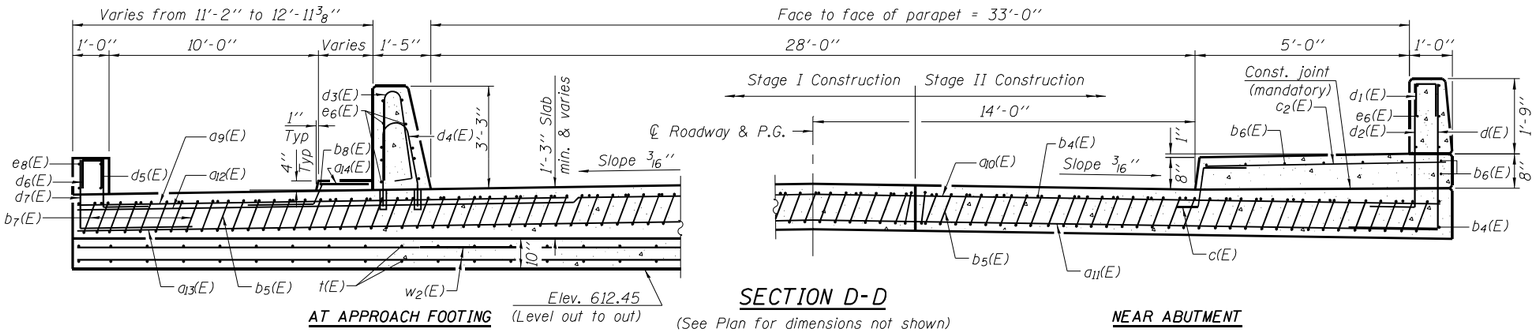
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-1330
SHEET NO 12 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	47
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SECTION C-C



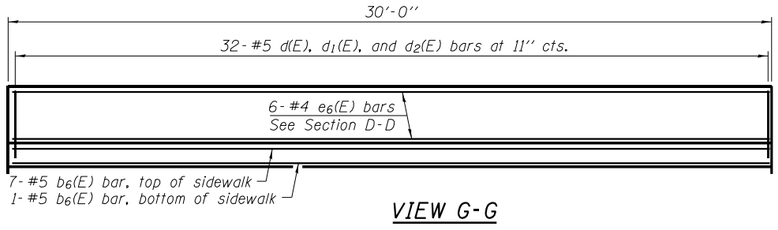
AT APPROACH FOOTING

SECTION D-D

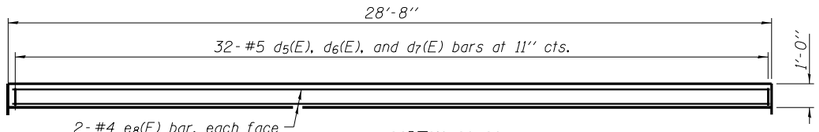
(See Plan for dimensions not shown)

NEAR ABUTMENT

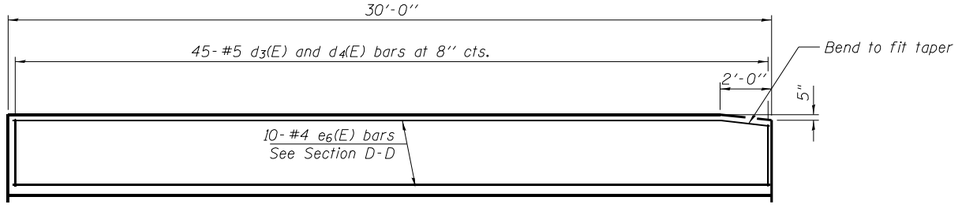
Note: Drill and set #5 d4(E) bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6". Contractor shall take all necessary precautions to prevent hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in the deck.



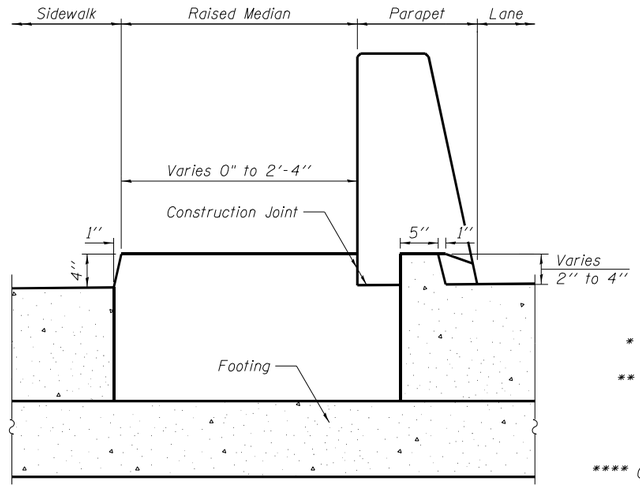
VIEW G-G



VIEW H-H



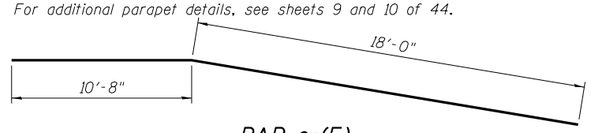
VIEW E-E



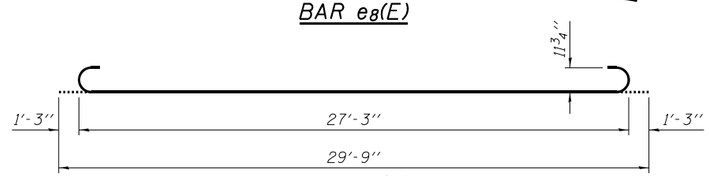
VIEW B-B

* In lieu of bottom leg, c(E) bars may be drilled and set according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of drilled hole shall not exceed 6". Contractor shall take all necessary precautions to prevent hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in the deck.

Notes:
See sheet 12 of 44 for Detail A and View F-F.
Parapet concrete shall be paid for as Concrete Superstructure.
Approach Slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 10 of 44.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 28 of 44.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 44.
For additional parapet details, see sheets 9 and 10 of 44.



BAR e8(E)



BAR b5(E)

SOUTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a8(E)	16	#6	18'-5"	
a20(E)	10	#6	38'-11"	
a10(E)	25	#4	17'-2"	
a11(E)	46	#5	17'-2"	
a21(E)	10	#4	26'-10"	
a22(E)	18	#5	26'-5"	
a19(E)	5	#4	8'-9"	
a15(E)	15	#4	32'-5"	
a16(E)	28	#5	32'-5"	
a17(E)	10	#4	8'-8"	
a18(E)	18	#5	9'-9"	
b4(E)	40	#4	29'-8"	
b5(E)	113	#9	29'-9"	
b6(E)	8	#5	29'-8"	
b10(E)	2	#9	12'-6"	
b9(E)	1	#4	12'-1"	
c(E)	31	#5	2'-4"	
c2(E)	31	#5	6'-2"	
d(E)	30	#4	5'-1"	
d1(E)	8	#4	2'-0"	
d2(E)	30	#6	3'-9"	
d3(E)	45	#5	6'-6 5/8"	
d4(E)	45	#5	5'-1 1/2"	
d5(E)	30	#4	2'-5"	
d6(E)	10	#4	2'-2"	
d7(E)	30	#4	3'-9"	
e6(E)	16	#4	29'-8"	
e8(E)	4	#4	28'-8"	
t(E)	102	#4	10'-6"	
w2(E)	80	#5	19'-2"	
w1(E)	40	#5	17'-2"	
Concrete Superstructure (Approach Slab)		Cu. Yd.	85.0	
Concrete Structures		Cu. Yd.	16.6	
Reinforcement Bars, Epoxy Coated**		Pound	21630	

* Tilt #9 b5(E) bars as required to maintain clearance.
** All reinforcement bars in the superstructure and approaches shall be textured epoxy coated reinforcement bars. See special provisions.
**** Cost included with Concrete Superstructure (Approach Slab).

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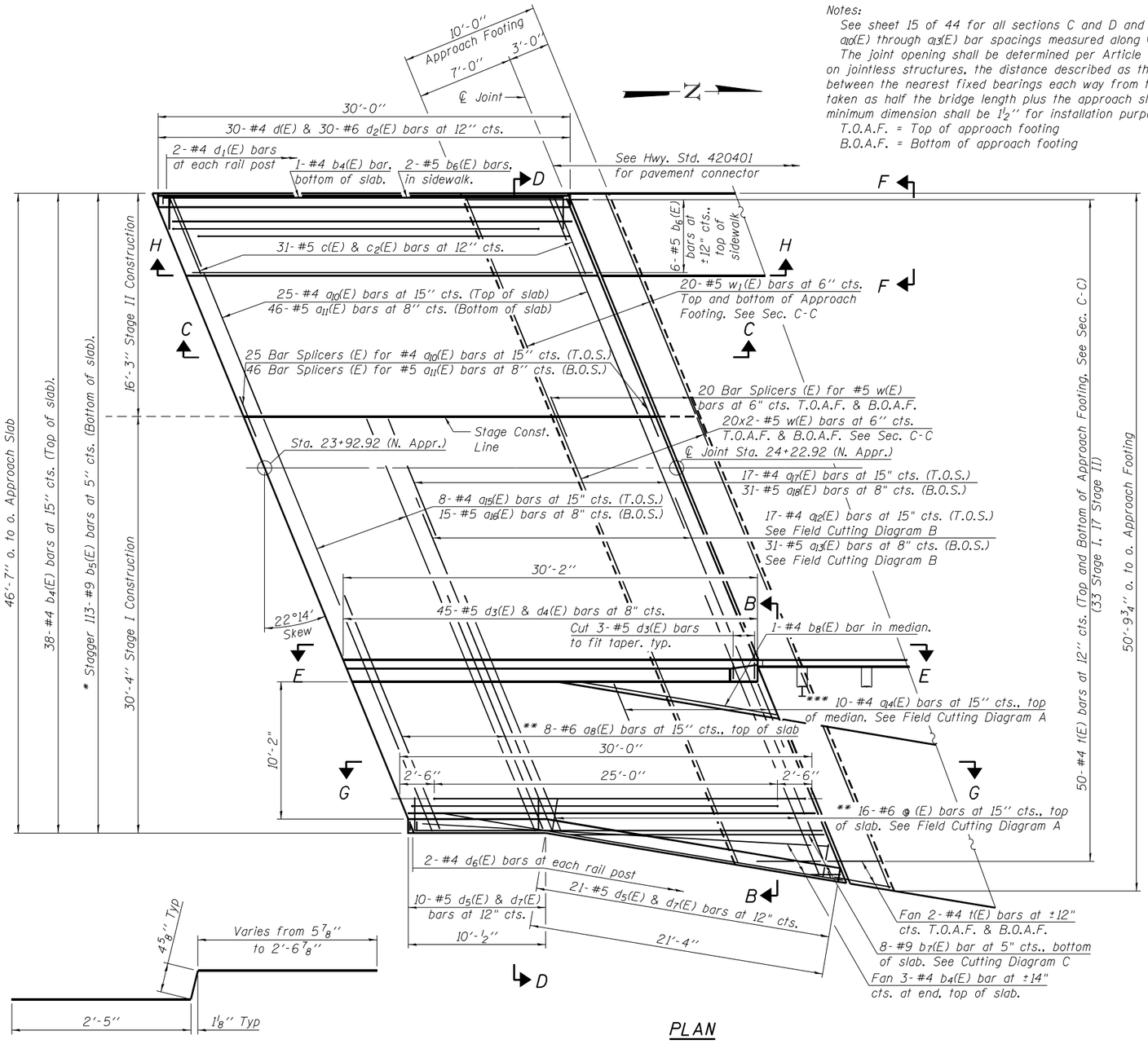
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-1330
SHEET NO 13 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	48
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

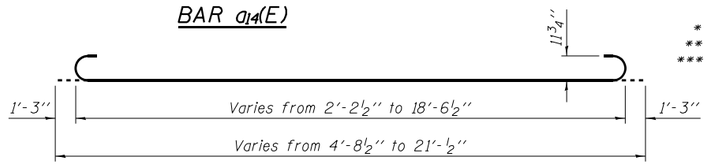
Notes:
See sheet 15 of 44 for all sections C and D and views B, E, G, and H.
a_{10}(E) through a_{13}(E) bar spacings measured along ℄ Rdwy.
The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1½" for installation purposes.
T.O.A.F. = Top of approach footing
B.O.A.F. = Bottom of approach footing



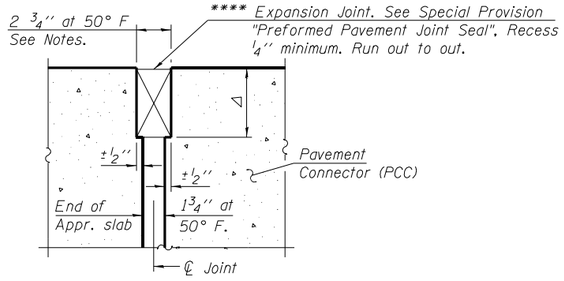
PLAN

* Tilt #9 b_5(E) bars as required to maintain clearance.
** Space a_9(E) and a_8(E) between a_{12}(E) and a_{15}(E) bars respectively.
*** Tie to a_{12}(E) bars.

BAR a_{14}(E)

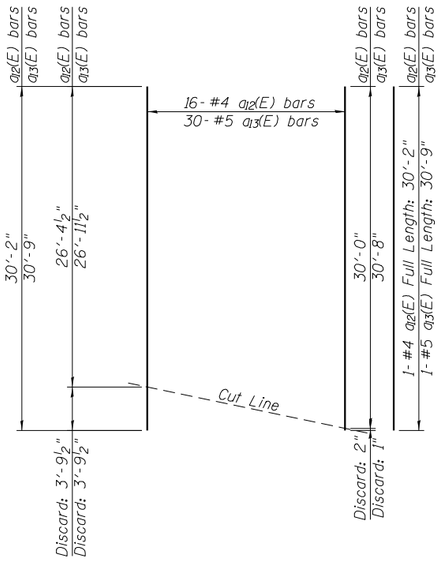


BAR b_7(E)



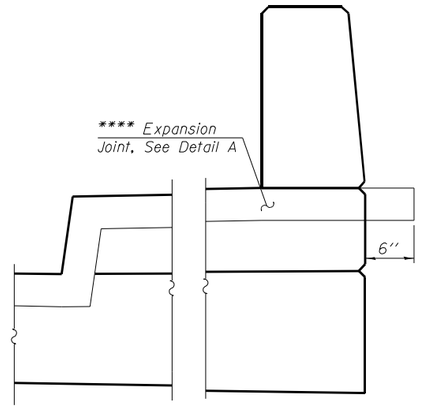
DETAIL A

**** Cost included with Concrete Superstructure (Approach Slab).
△ Per manufacturer recommendations

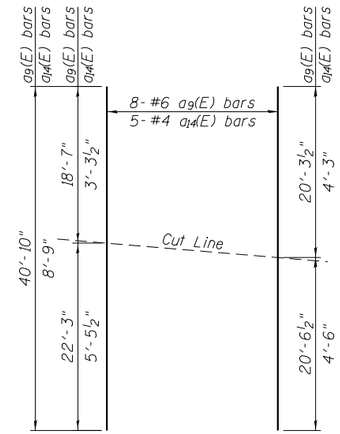


FIELD CUTTING DIAGRAM B

Order 17 a_{12}(E) and 31 a_{13}(E) full length. Cut and discard as shown. One bar each will not be cut.

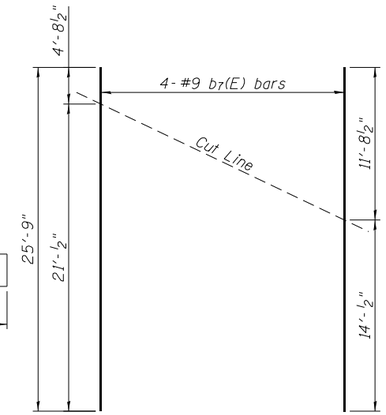


VIEW F-F



FIELD CUTTING DIAGRAM A

Order a_9(E) and a_{14}(E) full length. Cut as shown and use bars sequentially from smallest to largest. Bend a_{14}(E) per diagram.



CUTTING DIAGRAM C

Order b_7(E) full length. Cut as shown and use bars sequentially from largest to smallest. Bend per diagram.

(Sheet 1 of 2)

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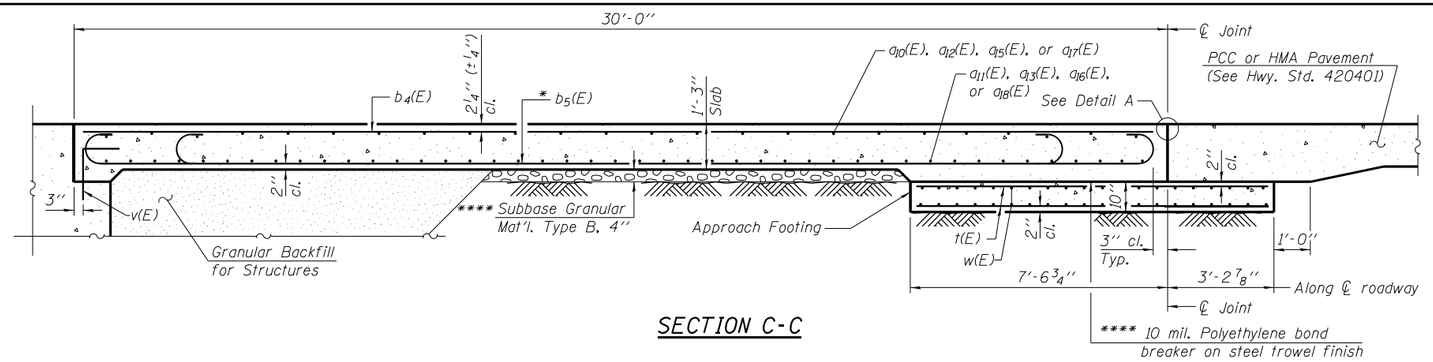
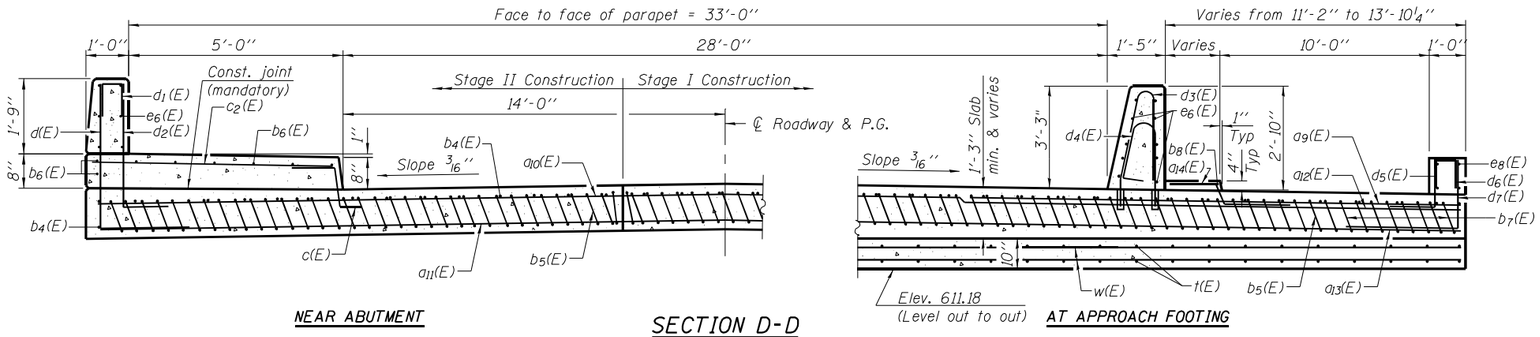
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-1330
SHEET NO 14 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	49
		CONTRACT NO 60706		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SECTION C-C



NEAR ABUTMENT

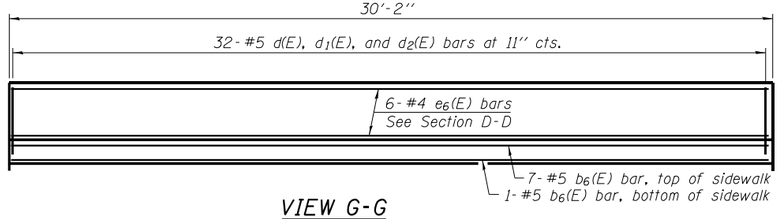
SECTION D-D

(See Plan for dimensions not shown)

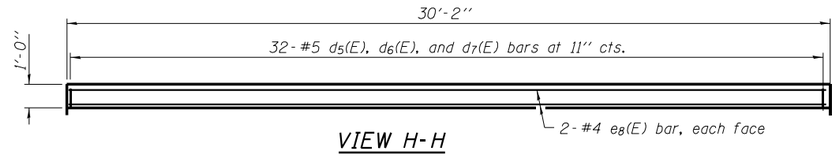
AT APPROACH FOOTING

* In lieu of bottom leg, c(E) bars may be drilled and set according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of drilled hole shall not exceed 6". Contractor shall take all necessary precautions to prevent hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in the deck.

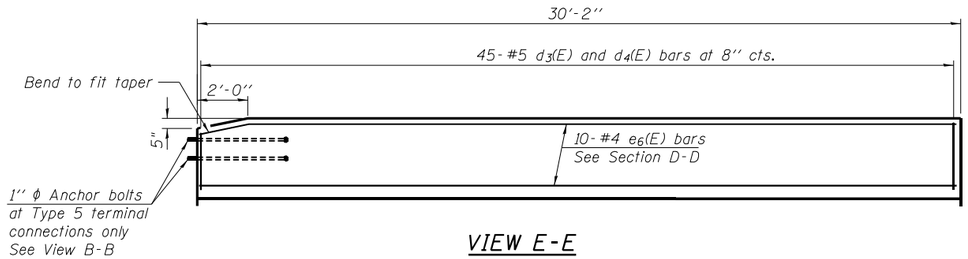
Note: Drill and set #5 d4(E) bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of drilled hole shall not exceed 6". Contractor shall take all necessary precautions to prevent hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in the deck.



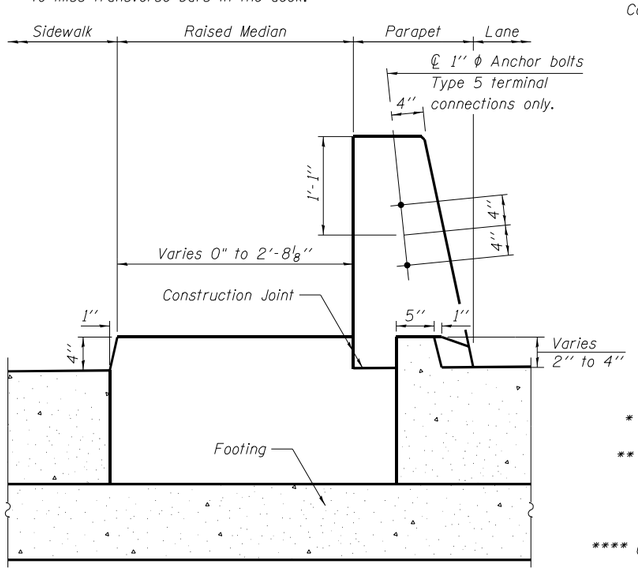
VIEW G-G



VIEW H-H



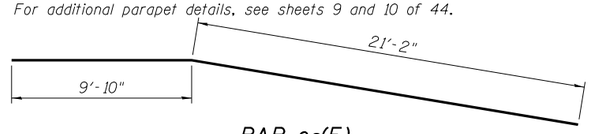
VIEW E-E



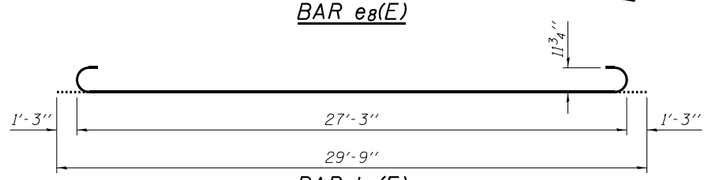
VIEW B-B

Notes:

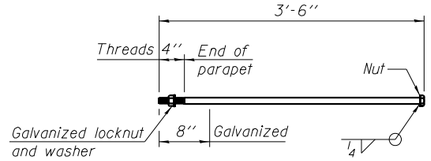
See sheet 14 of 44 for Detail A and View F-F.
Parapet concrete shall be paid for as Concrete Superstructure.
Approach Slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 10 of 44.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 26 of 44.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 44.
For additional parapet details, see sheets 9 and 10 of 44.



BAR e8(E)



BAR b5(E)



1"ϕ ANCHOR BOLT

(Cost included with Concrete Superstructure)

NORTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a8(E)	8	#6	18'-5"	—
a9(E)	8	#6	40'-10"	—
a10(E)	25	#4	17'-2"	—
a11(E)	46	#5	17'-2"	—
a12(E)	17	#4	30'-2"	—
a13(E)	31	#5	30'-9"	—
a14(E)	5	#4	8'-9"	—
a15(E)	8	#4	32'-5"	—
a16(E)	15	#5	32'-5"	—
a17(E)	17	#4	8'-8"	—
a18(E)	31	#5	9'-9"	—
b4(E)	42	#4	29'-8"	—
b5(E)	113	#9	29'-9"	⊂⊃
b6(E)	8	#5	29'-8"	—
b7(E)	4	#9	25'-9"	—
b8(E)	1	#4	14'-4"	—
c(E)	31	#5	2'-4"	⌝
c2(E)	31	#5	6'-2"	—
d(E)	30	#4	5'-1"	⌞
d1(E)	8	#4	2'-0"	⊓
d2(E)	30	#6	3'-9"	⌞
d3(E)	45	#5	6'-6⅝"	⌂
d4(E)	45	#5	5'-1½"	⌂
d5(E)	31	#4	2'-5"	⌟
d6(E)	10	#4	2'-2"	⊓
d7(E)	31	#4	3'-9"	⌟
e6(E)	16	#4	29'-8"	—
e8(E)	4	#4	31'-0"	—
t(E)	104	#4	10'-6"	—
w(E)	80	#5	20'-3"	—
w1(E)	40	#5	17'-2"	—
Concrete Superstructure (Approach Slab)			Cu. Yd.	85.0
Concrete Structures			Cu. Yd.	16.6
Reinforcement Bars, Epoxy Coated**			Pound	21980

* Tilt #9 b5(E) bars as required to maintain clearance.
** All reinforcement bars in the superstructure and approaches shall be textured epoxy coated reinforcement bars. See special provisions.
**** Cost included with Concrete Superstructure (Approach Slab).

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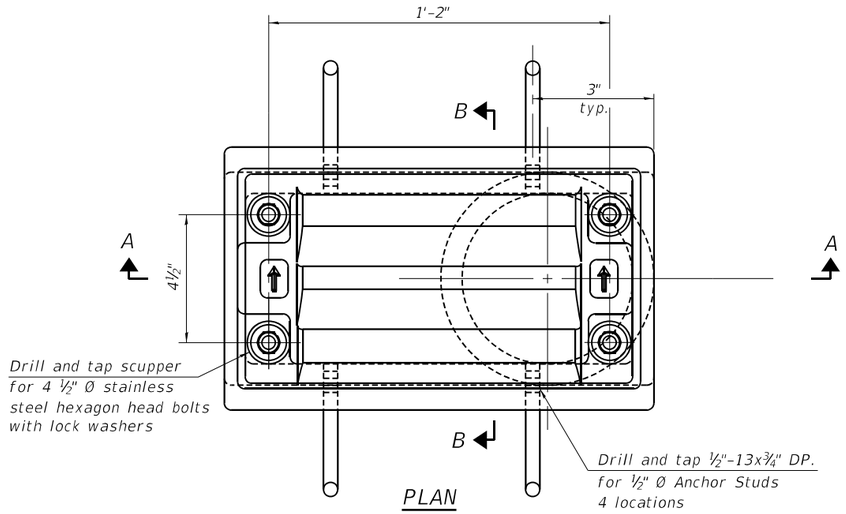
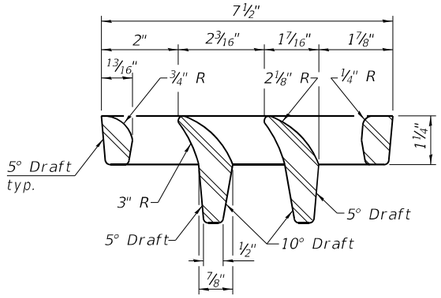
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-1330
SHEET NO 15 OF 44 SHEETS

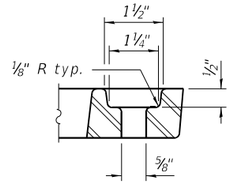
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	50
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

Notes:

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

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

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

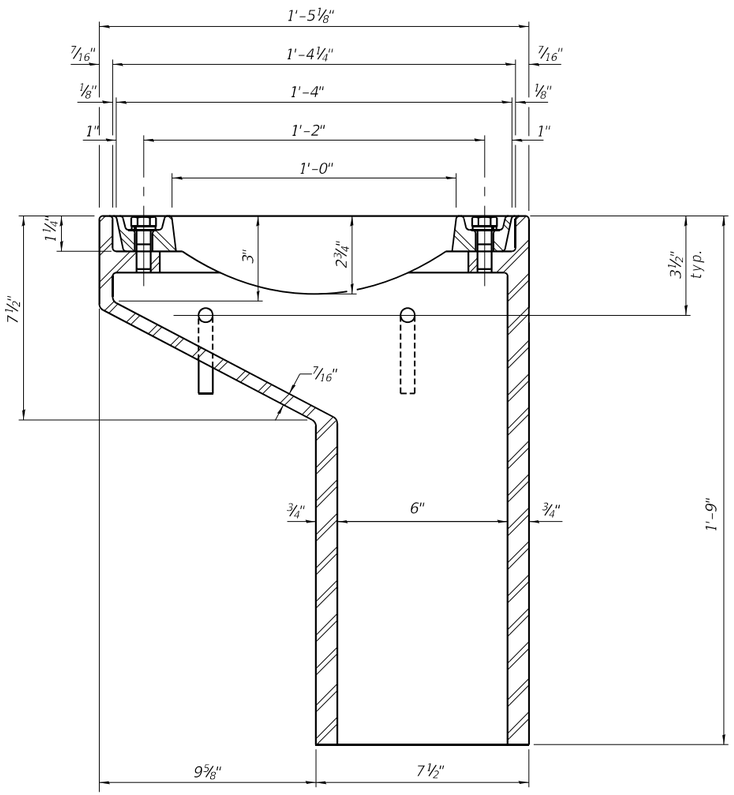
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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

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

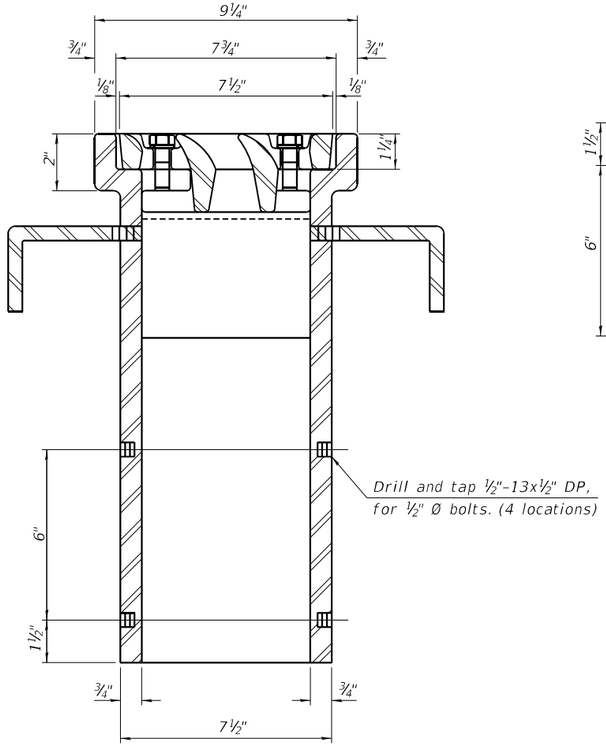
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

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

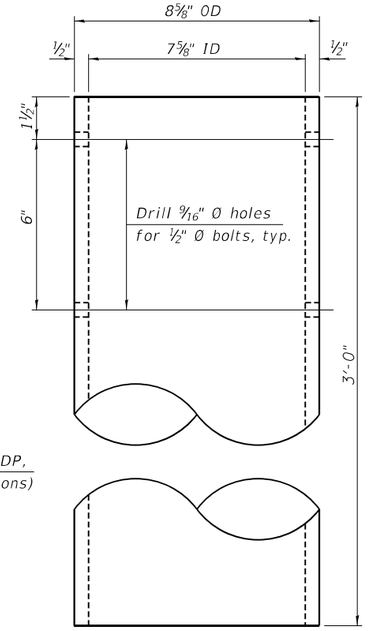


SECTION A-A

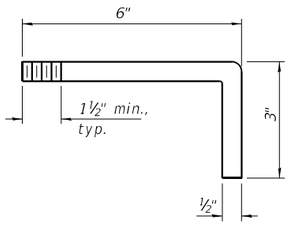
See sheet 9 and 10 of 44 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	9

DS-11

2-17-2017

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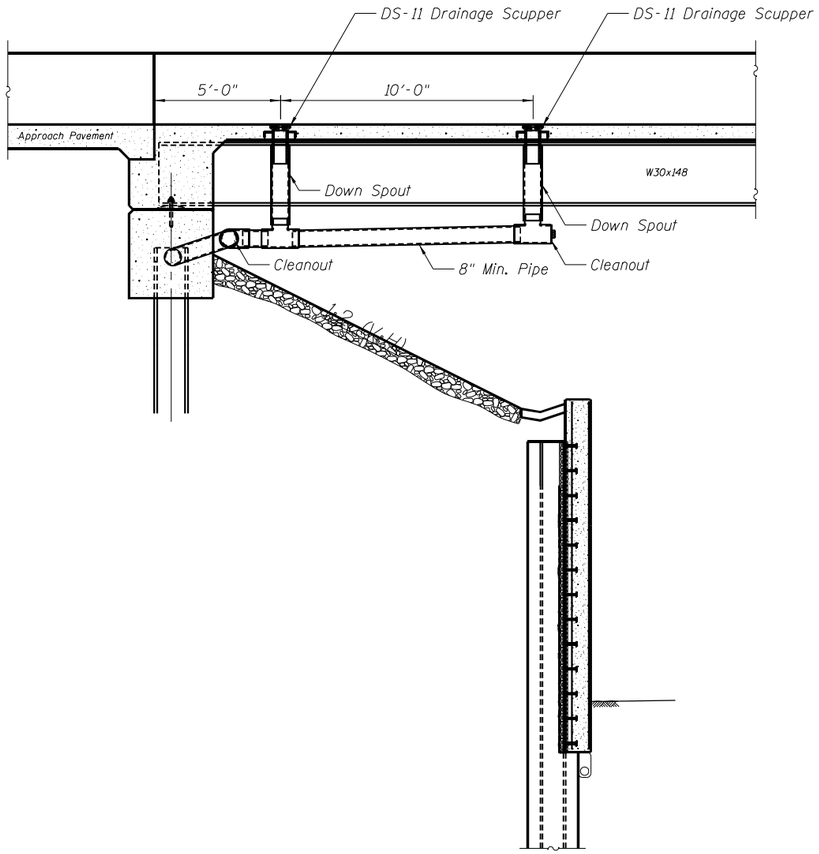
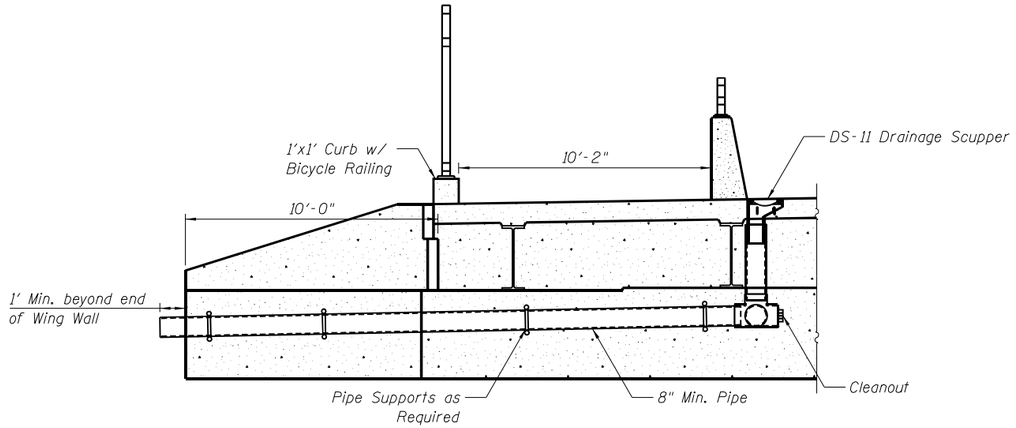
DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 016-1330
SHEET NO 16 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	51
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

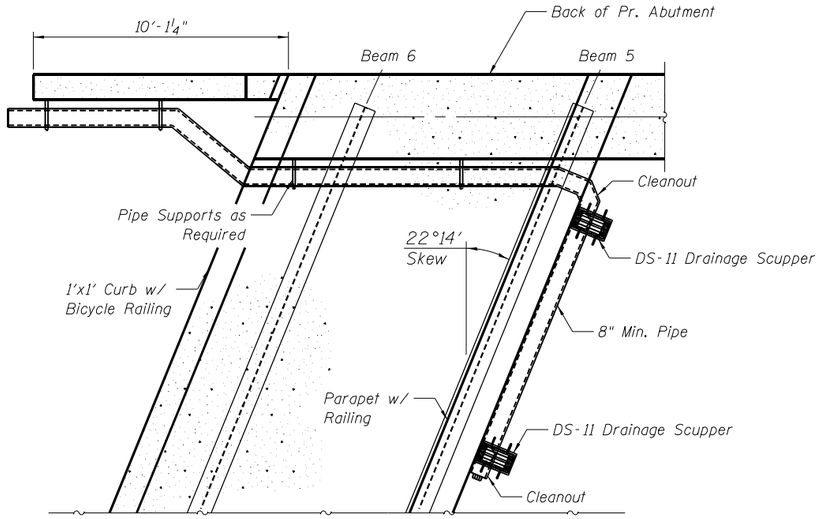
PRINTED DATE: 3/5/2021
FILE NAME: 60T06_016_DrainScup_DS-11.dgn



DRAINAGE AT SOUTH ABUTMENT



ELEVATION AT SOUTH ABUTMENT



PLAN AT SOUTH ABUTMENT

Notes:
The details represent the Drainage System located on the South East side of the structure. The drainage located on the South West will be similar in design.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage System	L. Sum	1

PRINTED DATE: 3/5/2021
FILE NAME: 60T06.017.DrainSysDet.dgn

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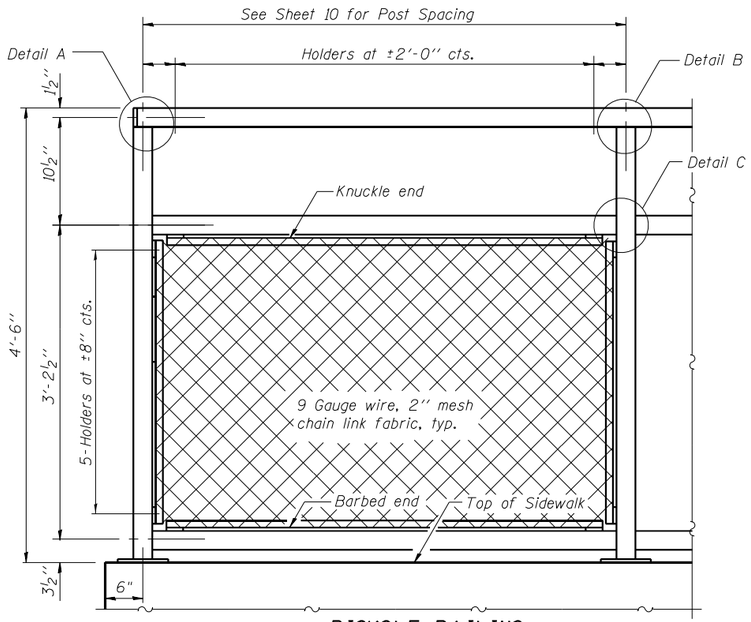
PLOT SCALE = $SCALE$	DRAWN - JEH	REVISED -
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -

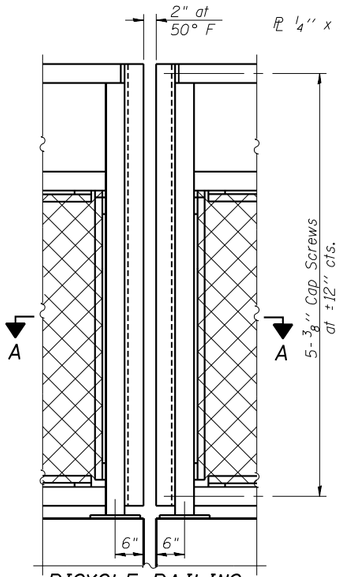
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE DRAINAGE SYSTEM
STRUCTURE NO. 016-1330
SHEET NO 17 OF 44 SHEETS

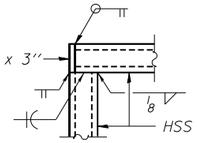
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	52
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



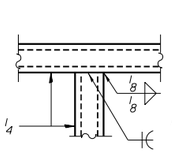
BICYCLE RAILING



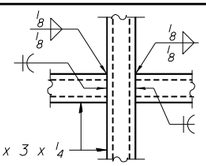
BICYCLE RAILING



DETAIL A

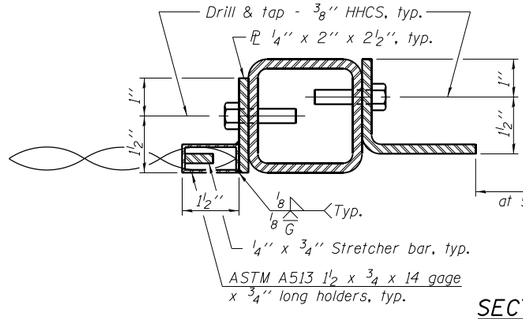


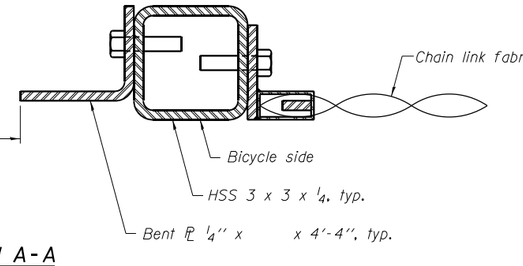
DETAIL B



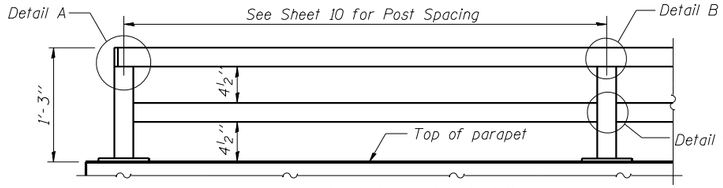
DETAIL C

Note:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

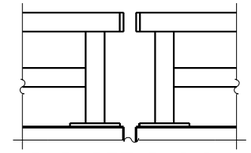




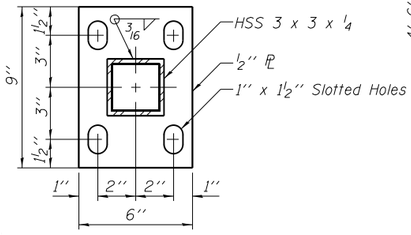
SECTION A-A



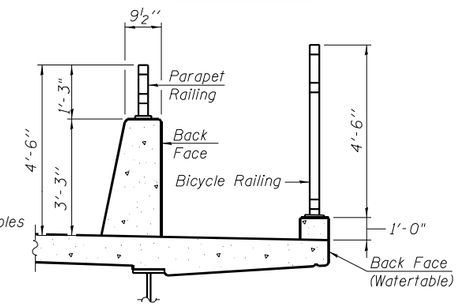
PARAPET RAILING ELEVATION
(Inside Face of Two Element Rail)



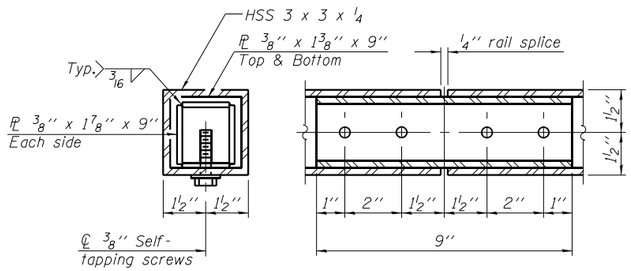
PARAPET RAILING ELEVATION AT EXPANSION JOINT
(Two Element Rail Shown - Three Element Rail Similar)



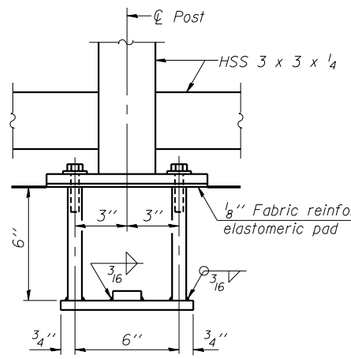
BASE PL

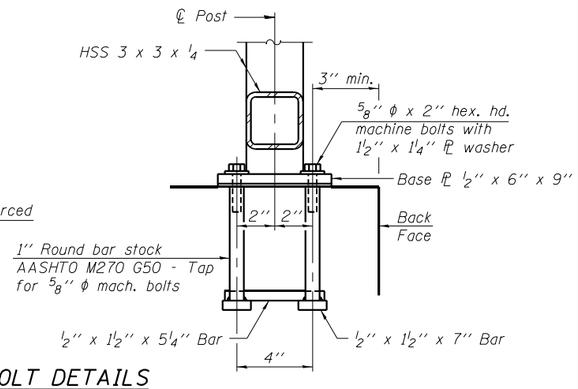


SECTION THRU DECK



RAIL SPLICE





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

Notes:

All structural steel tubing, post and railing, for parapet railing shall be CVN tested according to 1006.34 (b) of the Standard Specifications.

CVN testing may be omitted for the Bicycle Railing.

(10'-0" Maximum Post Spacing)

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	188
Parapet Railing	Foot	188

PRINTED DATE: 3/5/2021
FILE NAME: 60106.08B_BridgeRailDet1.dgn

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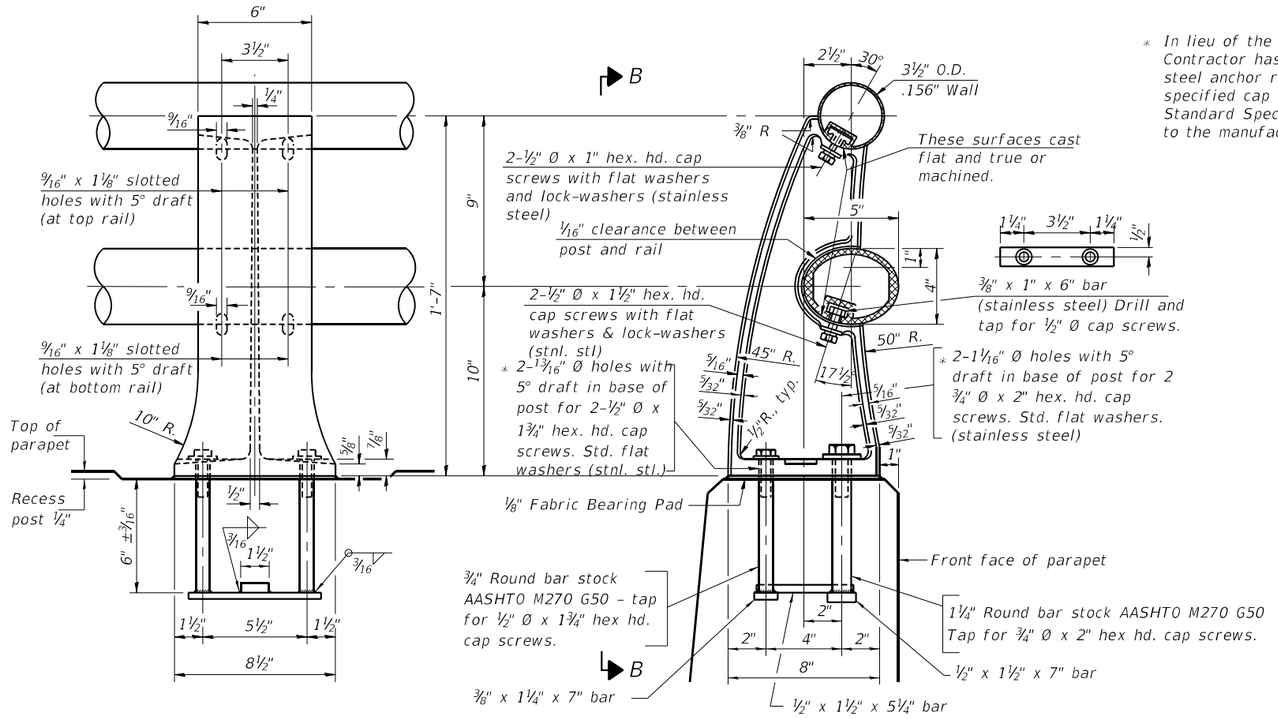
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -

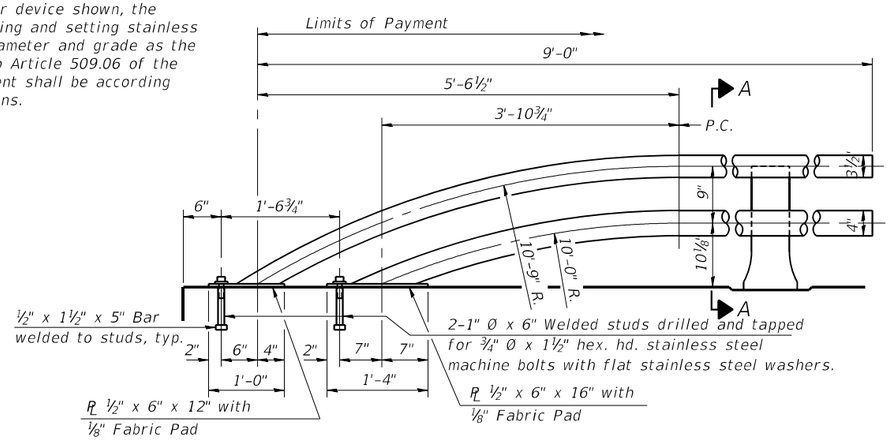
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

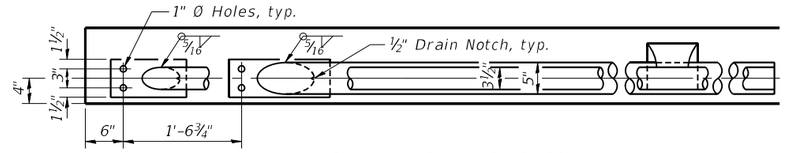
BICYCLE RAILING
STRUCTURE NO. 016-1330
SHEET NO 18 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	53
		CONTRACT NO 60706		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.*





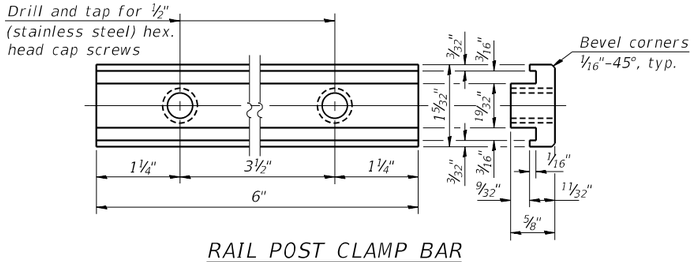
RAIL TERMINAL SECTION

Note: The end rail post shall be set back as required for the terminal rail section.

VIEW B-B

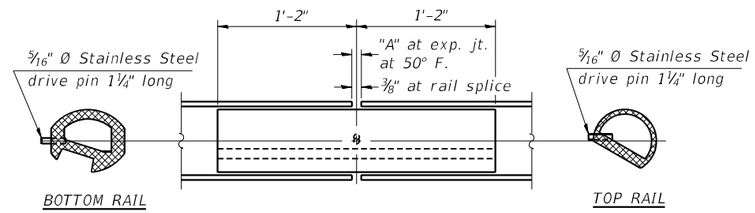
SECTION A-A

RAIL POST DETAILS



RAIL POST CLAMP BAR

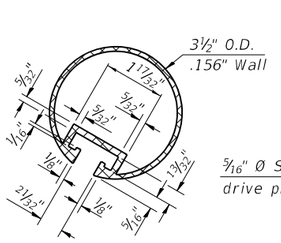
For Top Rail



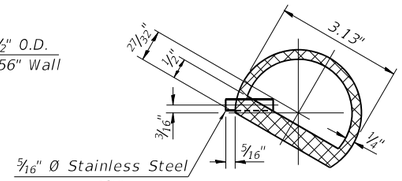
RAIL SPLICE

T	"A"
≤ 4"	2½"
> 4" ≤ 6½"	3¾"
> 6½" ≤ 9"	5"
> 9" ≤ 13"	7"

T = Total movement at expansion joint as shown on the design plans.

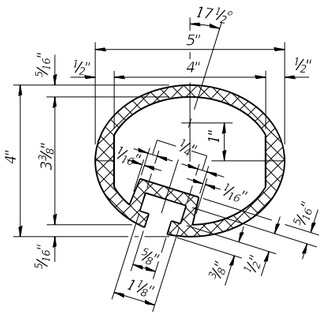


SECTION THRU TOP RAIL

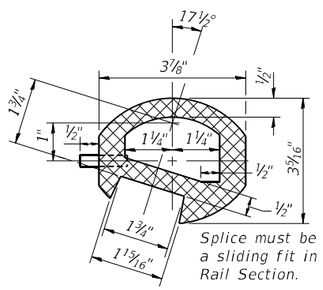


SECTION THRU SPLICE

For Top Rail

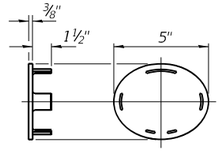


SEC. THRU ELLIPTICAL RAIL SECTION



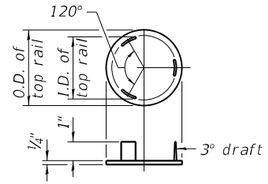
Splice must be a sliding fit in Rail Section.

SEC. THRU SPLICE



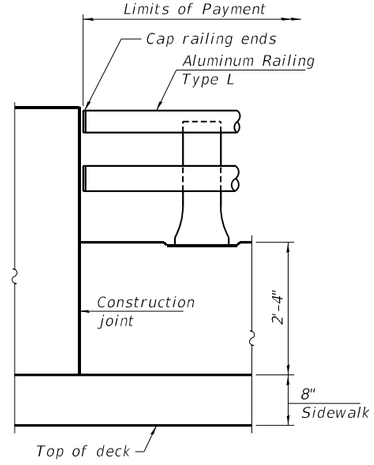
CAST END CAP

For bottom rail
DRIVE FIT TYPE



CAST END CAP

For top rail



RAIL END TREATMENT FOR TYPE 5 AND 6 TERMINAL

Notes:

All Posts shall be normal to parapet.

All joints in rail shall be spliced per detail.

All exposed rail ends shall be capped per detail.

Provide 1-⅛" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.

See sheet 9 of 44 for rail post spacing.

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	Foot	188

R-20 8-11-2017 (7'-0" to 10'-0" Post spacing)

PRINTED DATE: 3/5/2021
FILE NAME: 60106.01%_BridgeRailDet_2.dgn

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PLOT SCALE = $SCALE$	DRAWN - PS/SMA	REVISED -
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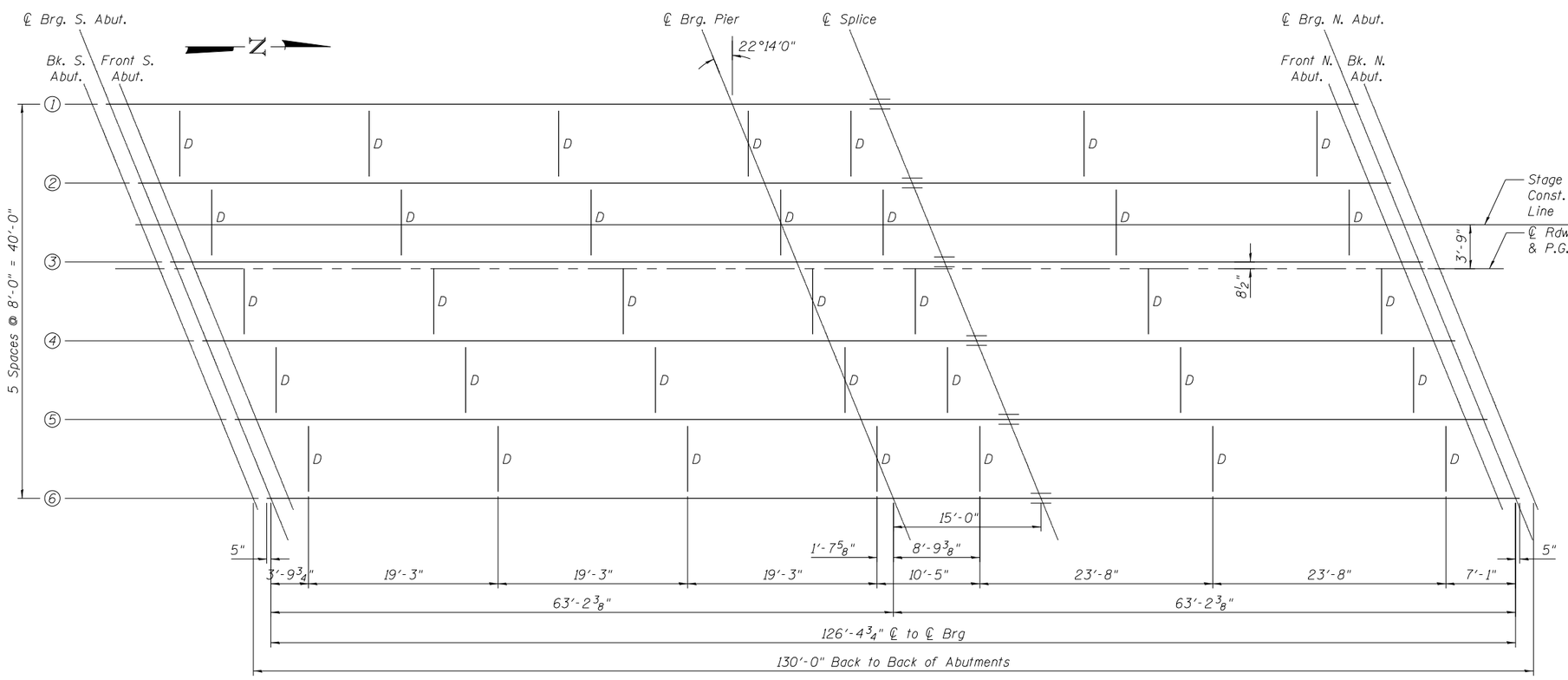
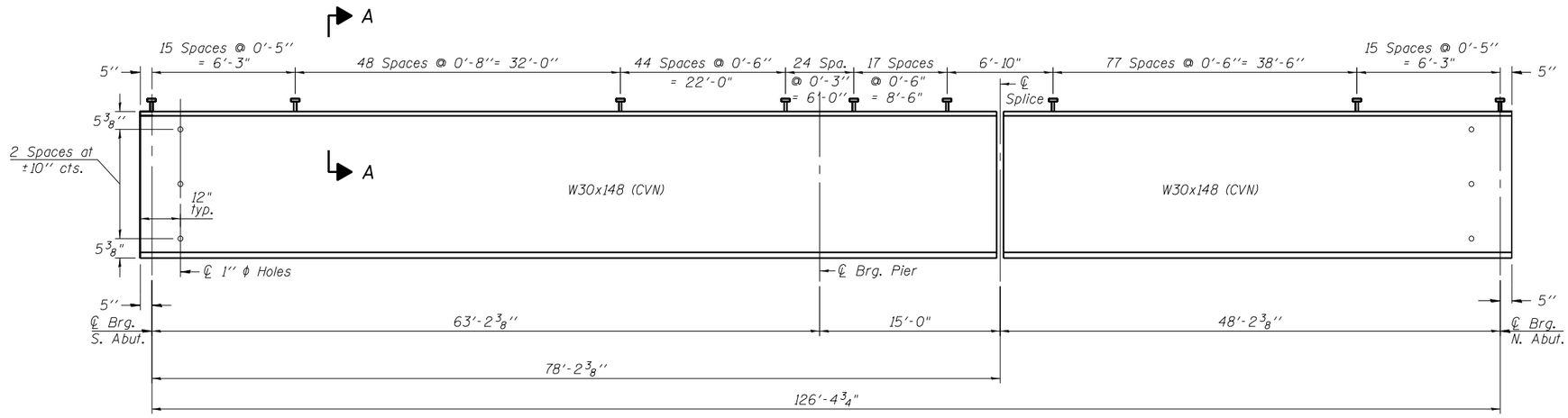
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALUMINUM RAILING, TYPE L
STRUCTURE NO. 016-1330
SHEET NO 19 OF 44 SHEETS

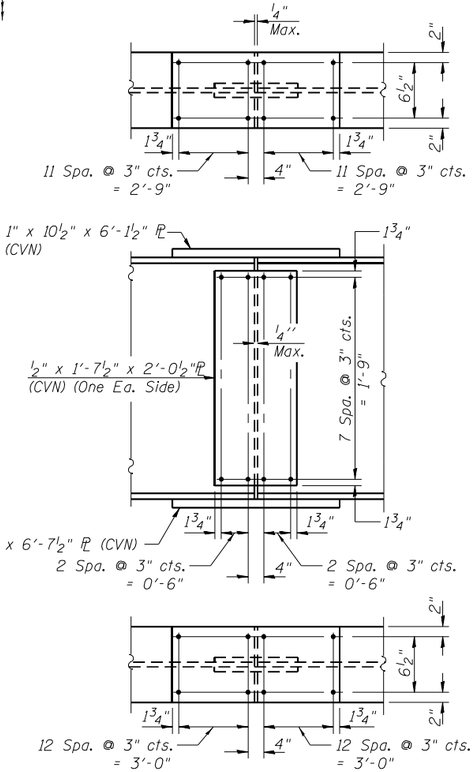
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(1)	COOK	105	54
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



FRAMING PLAN

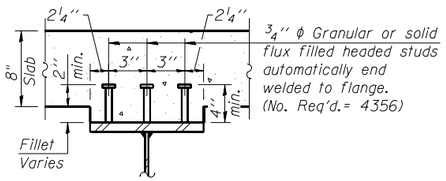


BEAM ELEVATION



FIELD SPLICE DETAIL

(6 Required)



SECTION A-A

Notes:

All Beams and Splice Plates shall be M270 Grade 50 (CVN).

Load carrying components designated "CVN" indicates Charpy-V-Notch impact energy requirements. Zone 2.

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

PRINTED DATE: 3/18/2021
FILE NAME: 60106.020.StructSteel1.dgn

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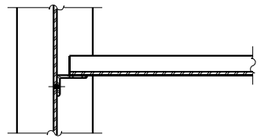
PLOT DATE = 3/18/2021	CHECKED - CMW	REVISED -

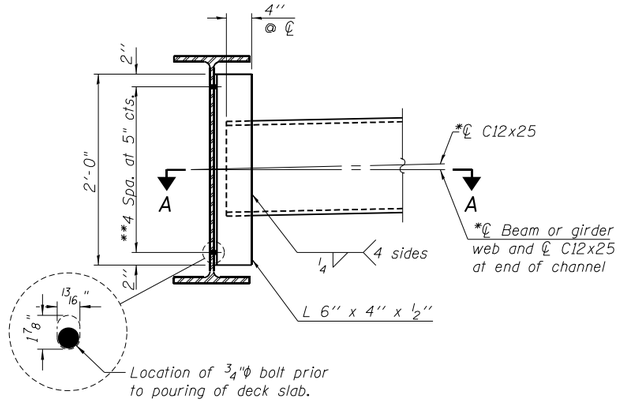
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL
STRUCTURE NO. 016-1330
SHEET NO 20 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	55
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SECTION A-A



INTERIOR DIAPHRAGM

(35 Required)

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

*Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on C12x25. The alternate, if utilized, shall be provided at no additional cost to the Department.

**¾'' ϕ HS bolts. 15/16'' ϕ holes in beam web and in the diaphragm angle attached to the Beam 2 side of the Stage Line. 13/16"x1 7/8" slotted holes in the diaphragm angle attached to the Beam 3 side of the Stage Line. Provide 5/16'' plate washers for slotted holes. The bolts for the slotted holes shall be finger tightened prior to the deck slab pouring of Stage II Construction and fully tightened after completion of stage II pour. Position slotted holes in connection plates so bolts start at one end with no concrete load and finish near the opposite end under deck load, allowing maximum displacement.

TOP OF BEAM ELEVATIONS*

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
CL Brg S. Abut.	614.10	614.26	614.41	614.33	614.23	614.13
CL Brg Pier	614.27	614.38	614.50	614.38	614.24	614.10
CL Splice	614.22	614.32	614.43	614.30	614.15	614.00
CL Brg N. Abut.	613.78	613.85	613.93	613.77	613.58	613.40

(*For Fabrication Only)

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. 1 or 0.6 Sp. 2	Pier
I_s	(in^4)	6680	6680
$I_c(n)$	(in^4)	18987	-
$I_c(3n)$	(in^4)	14115	-
$I_c(cr)$	(in^4)	-	9421
S_s	(in^3)	436	436
$S_c(n)$	(in^3)	655	-
$S_c(3n)$	(in^3)	594	-
$S_c(cr)$	(in^3)	-	510
DC1	(k/')	1.077	1.077
M_{DC1}	('k)	305.3	539.4
DC2	(k/')	0.291	0.291
M_{DC2}	('k)	82.2	145.6
DW	(k/')	0.233	0.233
M_{DW}	('k)	66.0	116.1
LLDF		0.683	0.683
M_{L+IM}	('k)	797.3	707.6
M_u (Strength I)	('k)	1972.9	2268.7
$\phi_f M_n$	('k)	3428.2	2679.7
f_s DC1	(ksi)	8.4	14.8
f_s DC2	(ksi)	1.7	2.3
f_s DW	(ksi)	1.3	1.8
f_s (L+IM)	(ksi)	14.6	16.6
f_s (Service II)	(ksi)	30.4	40.5
$0.95R_hF_{yf}$	(ksi)	47.5	47.5
f_s (Total)(Strength I)	(ksi)	-	-
$\phi_f F_n$	(ksi)	-	-
V_f	(k)	26.4	78.4

GIRDER REACTION TABLE

		Abut.		Pier	
		Interior	Exterior	Interior	Exterior
LLDF		0.879	0.625 Pedestrian 0.046 Truck&Lane	0.879	0.625 Pedestrian 0.046 Truck&Lane
OCF		-	1.082	-	1.082
R_{DC1}	(k)	25.7	24.8	85.4	82.4
R_{DC2}	(k)	6.9	6.9	23.0	23.0
R_{DW}	(k)	5.5	5.5	18.4	18.4
R_{L+IM}	(k)	84.6	61.1	126.1	92.4
R_{Total}	(k)	122.7	106.4	252.9	233.9

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

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

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

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

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

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

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

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

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

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

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

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

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

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

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

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

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

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

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

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

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

PRINTED DATE: 3/5/2021
FILE NAME: 60T06_021_StructSteel_2.dgn

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PLOT SCALE = $SCALE$	DRAWN - SMA/PS	REVISED -	
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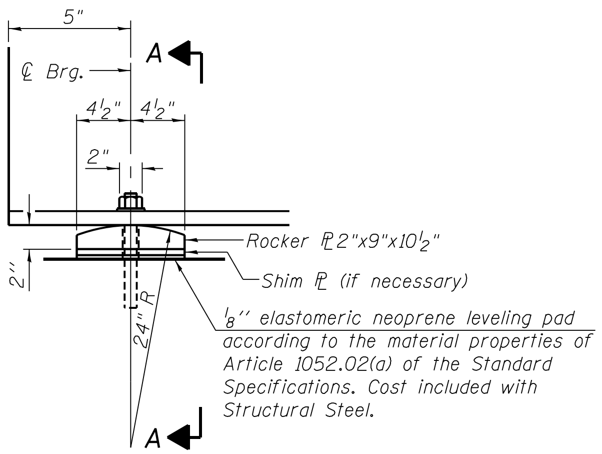
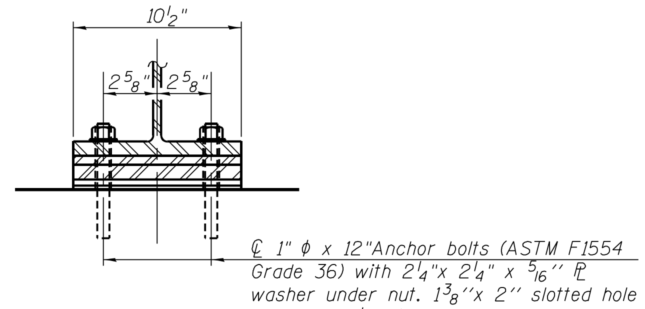
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 016-1330
SHEET NO 21 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	56
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

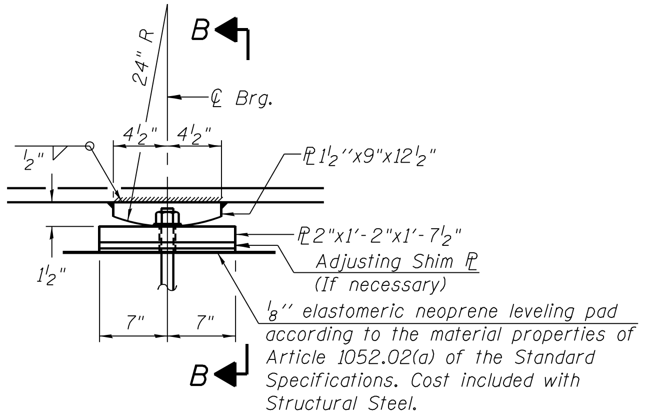


ELEVATION AT ABUTMENT

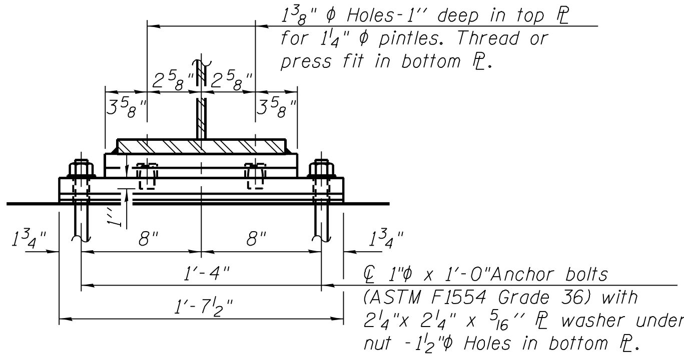


SECTION A-A

FIXED BEARING



ELEVATION AT PIER



SECTION B-B

FIXED BEARING

Notes:

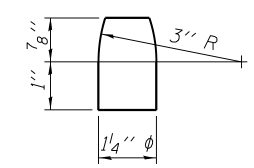
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

All structural steel for bearings shall be AASHTO M 270 Grade 50.

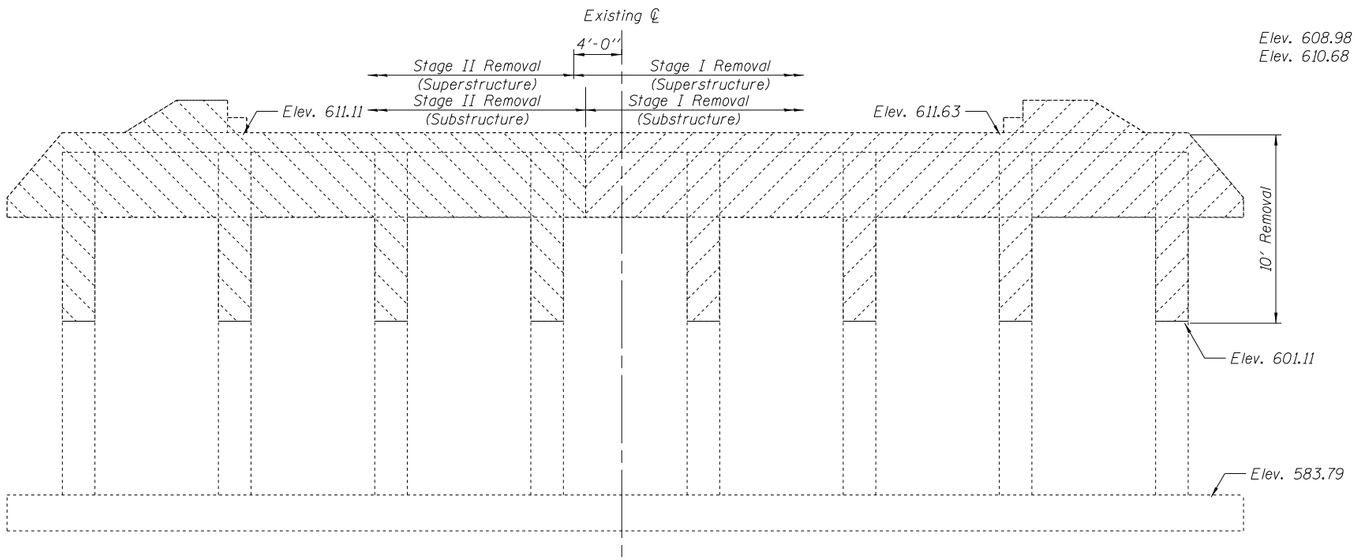
Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



PINTLE

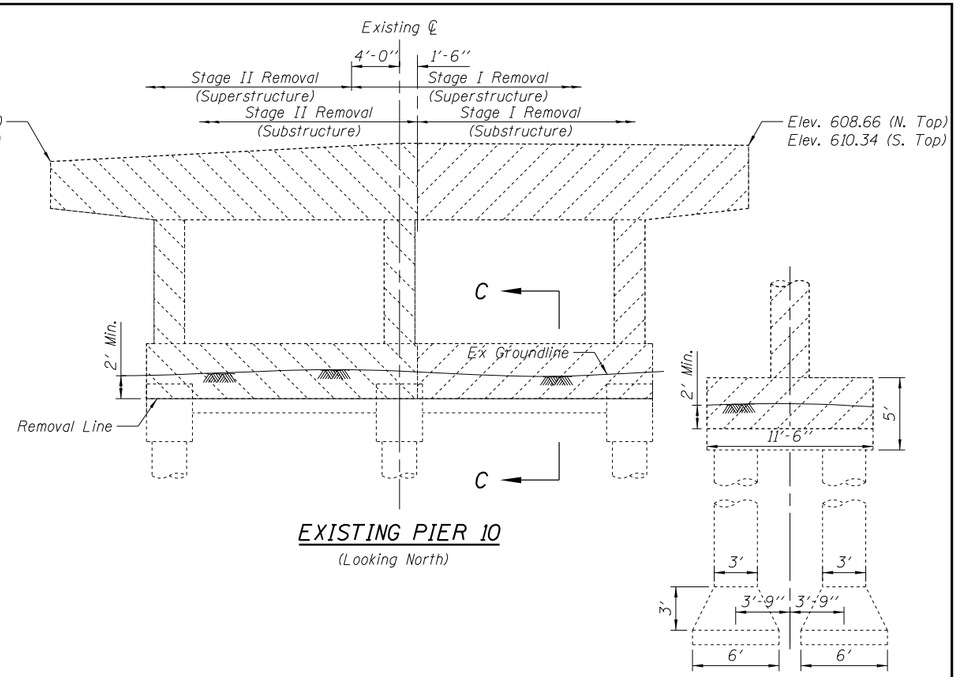
BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1''	Each	36



EXISTING SOUTH ABUTMENT

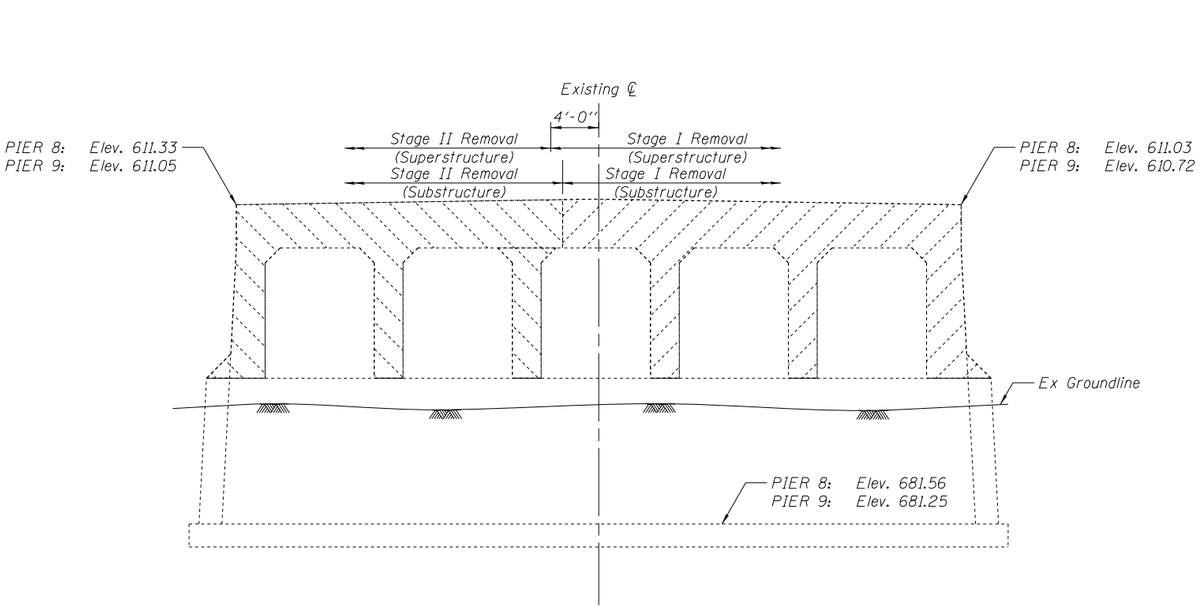
(Looking North)



EXISTING PIER 10

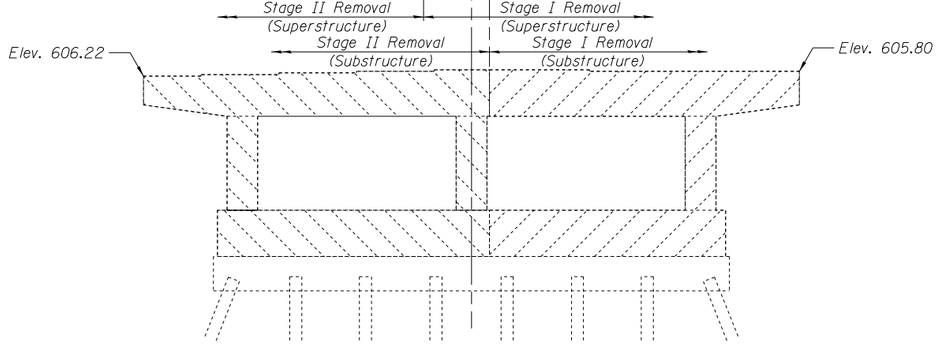
(Looking North)

SECTION C-C



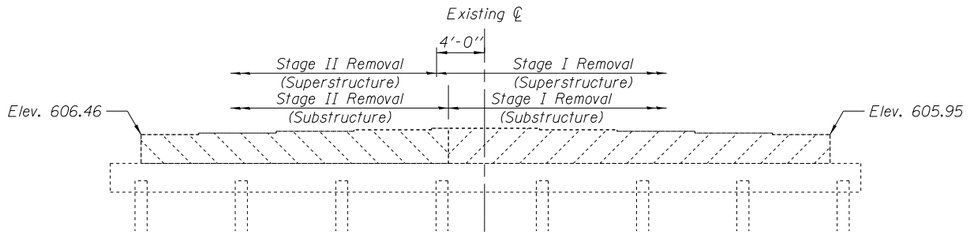
EXISTING PIERS 8 & 9

(Looking North)



EXISTING PIER 11

(Looking North)



EXISTING NORTH ABUTMENT

(Looking North)

Stage I Removal

Stage II Removal

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FILE NAME: 60T06.023.RemovalPlan.dgn

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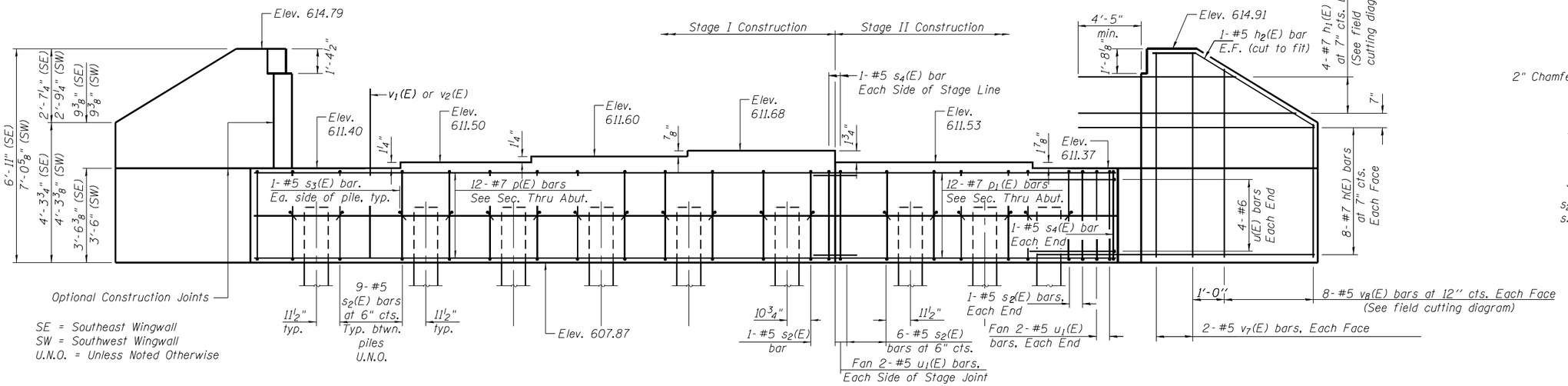
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

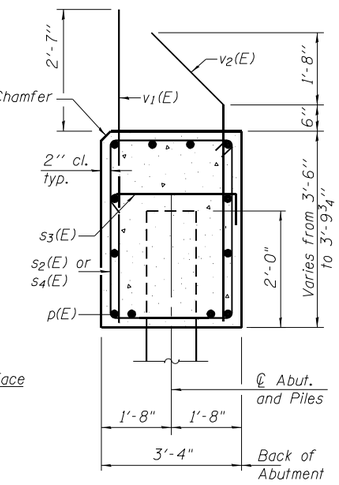
SUBSTRUCTURE REMOVAL
STRUCTURE NO. 016-1330
SHEET NO 23 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	58
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Notes:
Pour steps monolithically with cap.

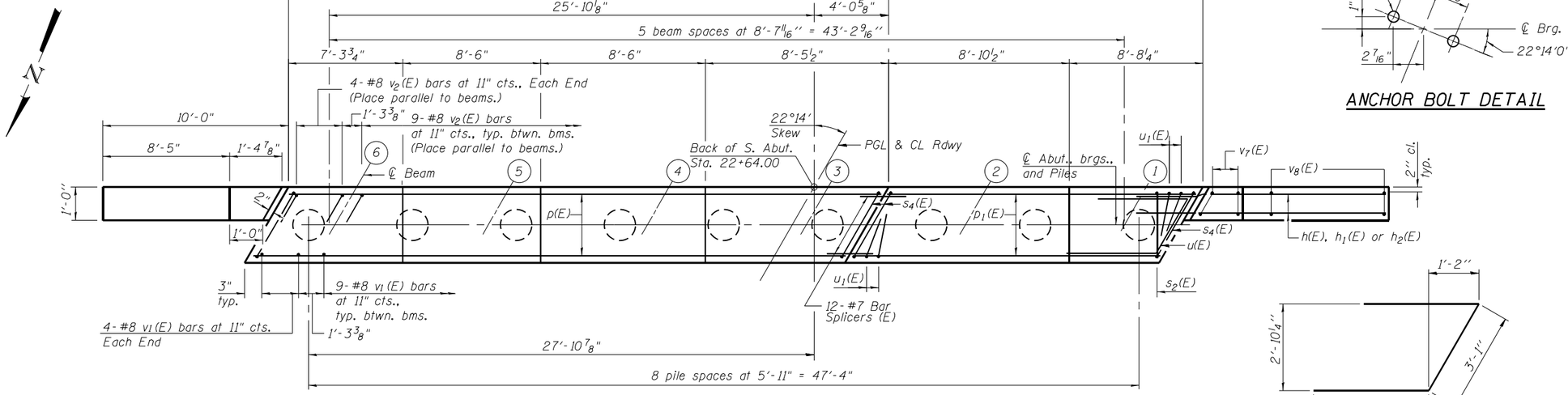


ELEVATION

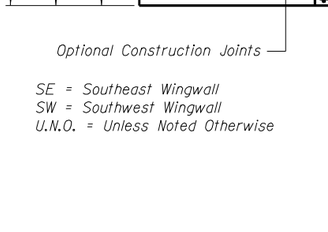


SEC. THRU ABUT.

Dimensions at right angles to abutment.

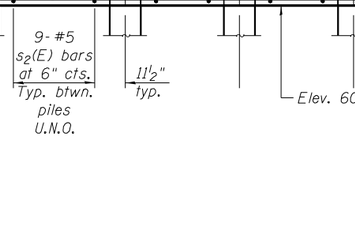


PLAN



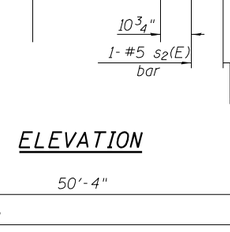
FIELD CUTTING DIAGRAM

Order $h_1(E)$ full length. Cut as shown and use remainder of bars in opposite face.

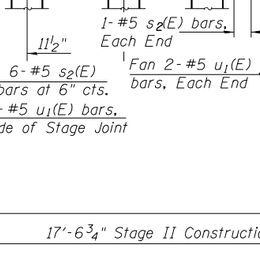


FIELD CUTTING DIAGRAM

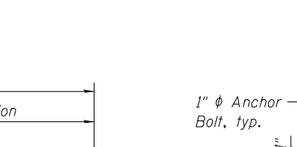
Order $v_8(E)$ full length. Cut as shown and use remainder of bars in opposite face.



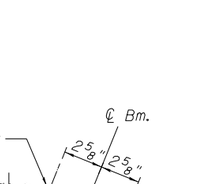
BAR $v_2(E)$ & $h_2(E)$



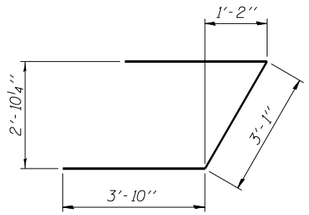
BAR $s_2(E)$ & $s_4(E)$



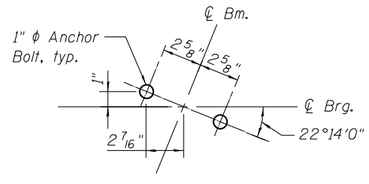
BAR $s_3(E)$



BAR $u_1(E)$



BAR u(E)



ANCHOR BOLT DETAIL

PILE DATA

Type: Metal Shell Pile 14"ϕ w/ 0.312" Walls
Nominal Required Bearing: 455 kips
Factored Resistance Available: 250 kips
Est. Length: 43 feet
No. Production Piles: 8
No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#7	14'-5"	
$h_1(E)$	4	#7	19'-3"	
$h_2(E)$	4	#5	9'-11"	
p(E)	12	#7	32'-4"	
$p_1(E)$	12	#7	17'-2"	
$s_2(E)$	72	#5	13'-3"	
$s_3(E)$	18	#5	4'-0"	
$s_4(E)$	4	#5	13'-8"	
u(E)	8	#6	10'-9"	
$u_1(E)$	8	#5	9'-2"	
$v_1(E)$	53	#8	5'-11"	
$v_2(E)$	53	#8	6'-2"	
$v_7(E)$	8	#5	6'-7"	
$v_8(E)$	16	#5	10'-2"	
Structure Excavation		Cu. Yd.	204.8	
Concrete Structures		Cu. Yd.	33.9	
Reinforcement Bars, Epoxy Coated		Pound	5510	
Furnishing Metal Shell Piles 14" X 0.312"		Foot	344	
Driving Piles		Foot	344	
Test Pile, Metal Shells		Each	1	
Geocomposite Wall Drain		Sq. Yd.	27	
Pipe Underdrains for Structures, 4"		Foot	80	

For details of piles see sheet 27 of 44.

PRINTED DATE: 3/18/2021
FILE NAME: 60106_024_Abut_South.dgn

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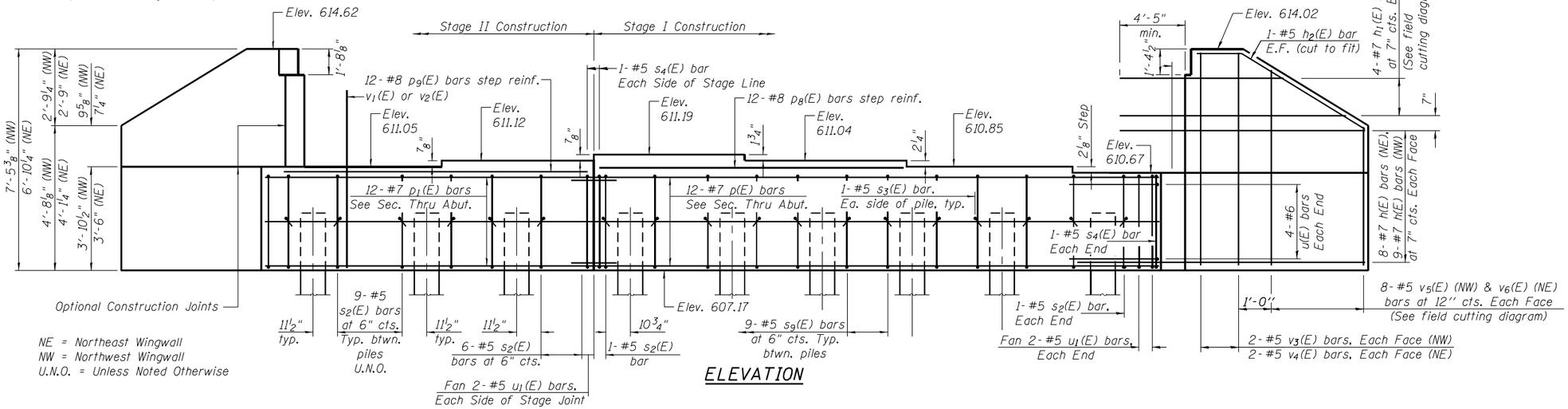
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 016-1330
SHEET NO 24 OF 44 SHEETS

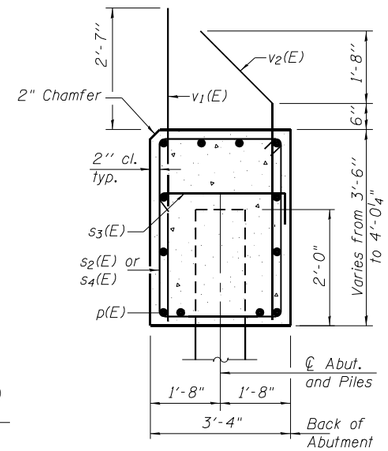
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	59
		CONTRACT NO 60706		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Notes:
Pour steps monolithically with cap.



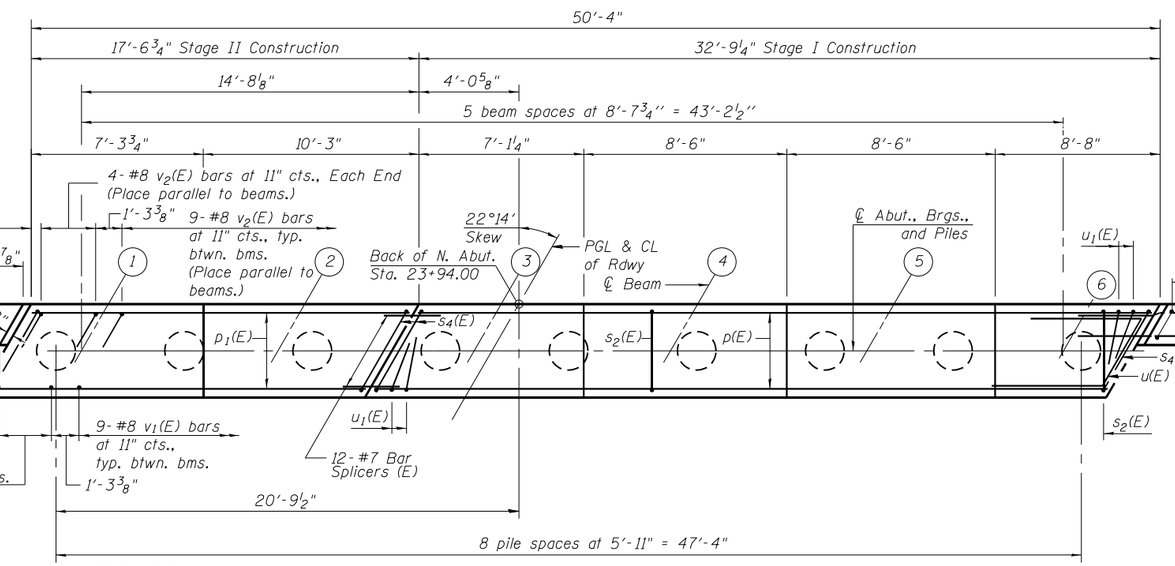
NE = Northeast Wingwall
NW = Northwest Wingwall
U.N.O. = Unless Noted Otherwise

ELEVATION



SEC. THRU ABUT.

Dimensions at right angles to abutment.



PLAN

FIELD CUTTING DIAGRAM

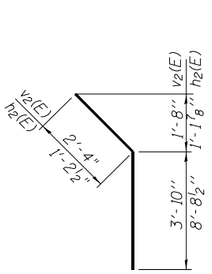
Order $h_1(E)$ full length. Cut as shown and use remainder of bars in opposite face.

FIELD CUTTING DIAGRAM

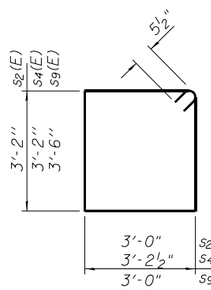
Order $v_5(E)$ and $v_6(E)$ full length. Cut as shown and use remainder of bars in opposite face.

NOTES:

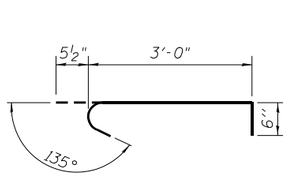
The North Abutment Piles are to be precored to the elevation 590.5 and piles driven through the precored holes. The annulus around the piles are to to be backfilled with dry loose sand. The cost shall be included in the cost of "Driving Piles".



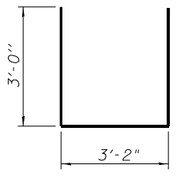
BAR $v_2(E)$ & $h_2(E)$



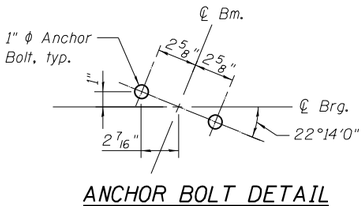
BAR $s_2(E)$ & $s_4(E)$



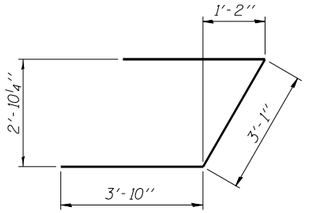
BAR $s_3(E)$



BAR $u_1(E)$



ANCHOR BOLT DETAIL



BAR u(E)

PILE DATA

Type: Metal Shell Pile 14"ϕ w/ 0.312" Walls
Nominal Required Bearing: 513 kips
Factored Resistance Available: 229 kips
Est. Length: 66 feet
No. Production Piles: 8
No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	34	#7	14'-5"	
$h_1(E)$	4	#7	19'-3"	
$h_2(E)$	4	#5	9'-11"	
p(E)	12	#7	32'-4"	
$p_1(E)$	12	#7	17'-2"	
$p_8(E)$	12	#7	15'-3"	
$p_9(E)$	12	#7	17'-2"	
$s_2(E)$	72	#5	13'-3"	
$s_3(E)$	18	#5	4'-0"	
$s_4(E)$	4	#5	13'-8"	
$s_9(E)$	54	#5	13'-11"	
u(E)	8	#6	10'-9"	
$u_1(E)$	8	#5	9'-2"	
$v_1(E)$	53	#8	5'-11"	
$v_2(E)$	53	#8	6'-2"	
$v_3(E)$	4	#5	7'-1"	
$v_4(E)$	4	#5	6'-6"	
$v_5(E)$	8	#5	11'-2"	
$v_6(E)$	8	#5	9'-11"	
Concrete Structures		Cu. Yd.	33.9	
Reinforcement Bars, Epoxy Coated		Pound	7270	
Furnishing Metal Shell Piles 14" X 0.312"		Foot	528	
Driving Piles		Foot	528	
Test Pile, Metal Shells		Each	1	
Geocomposite Wall Drain		Sq. Yd.	27	
Pipe Underdrains for Structures, 4"		Foot	81	

For details of piles see sheet 27 of 44.

PRINTED DATE: 3/18/2021
FILE NAME: 607106_025_Abut_Nor-th.dgn

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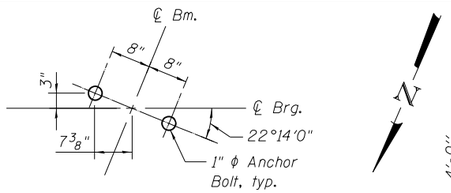
PLOT DATE = 3/18/2021	CHECKED - CMW	REVISED -

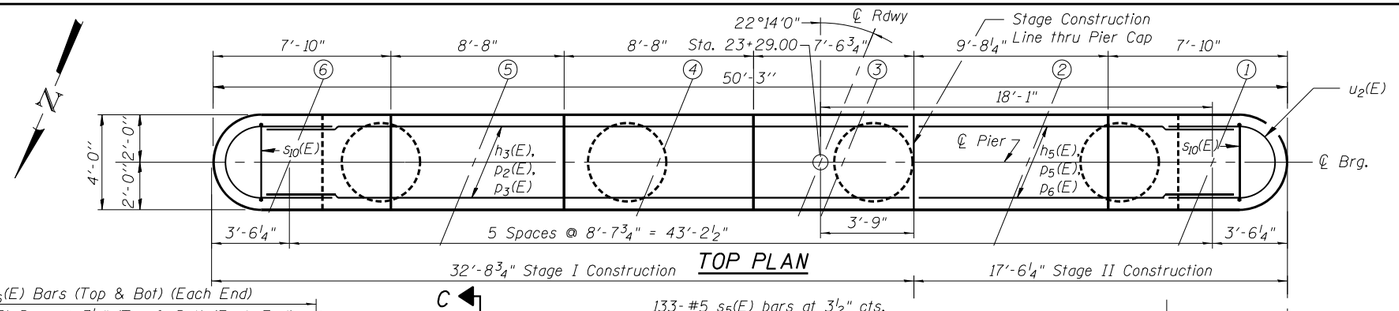
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 016-1330
SHEET NO 25 OF 44 SHEETS

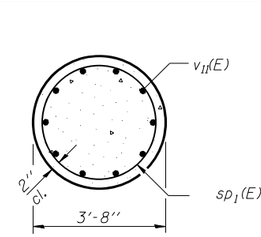
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	60
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



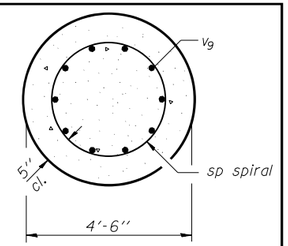
ANCHOR BOLT DETAIL



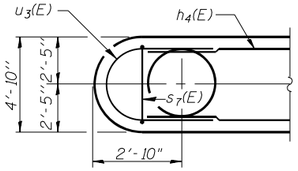
TOP PLAN



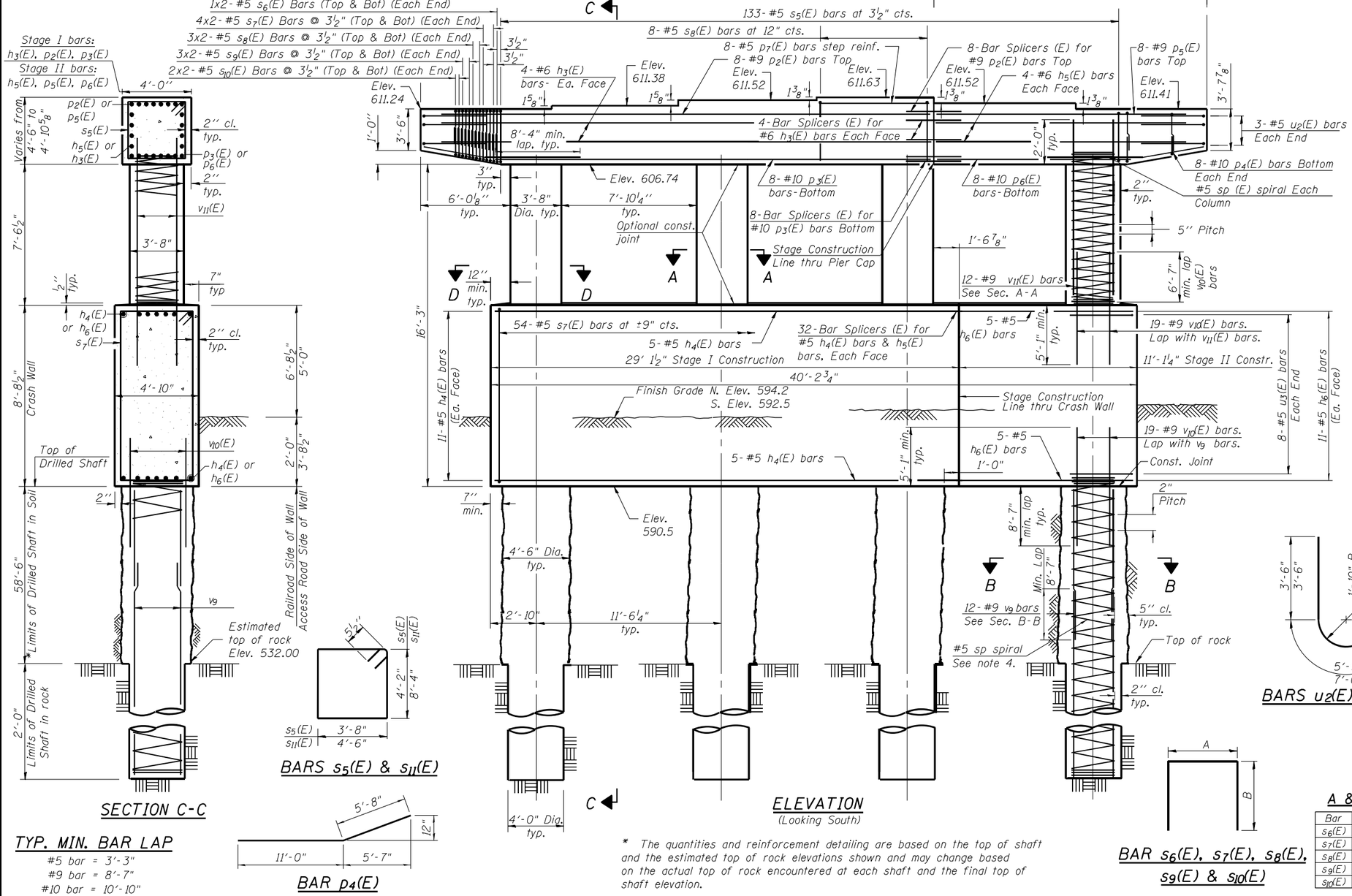
SECTION A-A



SECTION B-B



SECTION D-D



SECTION C-C

BARS $s_5(E)$ & $s_{11}(E)$

BAR $p_4(E)$

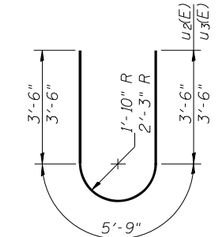
TYP. MIN. BAR LAP

#5 bar = 3'-3"
#9 bar = 8'-7"
#10 bar = 10'-10"

ELEVATION

(Looking South)

* The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.



BARS $u_2(E)$ and $u_3(E)$

BAR $s_6(E)$, $s_7(E)$, $s_8(E)$, $s_9(E)$ & $s_{10}(E)$

A & B DIMENSIONS

Bar	A	B	L
$s_6(E)$	3'-8"	3'-5"	10'-6"
$s_7(E)$	3'-8"	3'-6"	10'-8"
$s_8(E)$	3'-8"	3'-7"	10'-10"
$s_9(E)$	3'-8"	3'-8"	11'-0"
$s_{10}(E)$	3'-8"	3'-8½"	11'-1"

NOTES:

1. Cast steps monolithically with cap.
2. Space cap reinforcement to miss anchor bolts.
3. **Length is height of spiral.
4. #5 sp spiral, each drilled shaft and #5 $sp_1(E)$ sprial each column
   1. Provide 1½ extra turns top and bottom. Extend spiral 2" into crash wall or pier cap. Provide 4-#4 spacers or equivalent.
   2. When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_3(E)$	8	#6	30'-9"	—
$h_4(E)$	32	#5	26'-8"	—
$h_5(E)$	8	#6	15'-6"	—
$h_6(E)$	32	#5	8'-8"	—
$p_2(E)$	8	#9	30'-9"	—
$p_3(E)$	9	#10	26'-6"	—
$p_4(E)$	18	#10	16'-8"	⌒
$p_5(E)$	8	#9	15'-6"	—
$p_6(E)$	9	#10	11'-6"	—
$p_7(E)$	8	#5	7'-3"	—
$s_5(E)$	133	#5	16'-7"	□
$s_6(E)$	4	#5	10'-6"	⊓
$s_7(E)$	16	#5	10'-8"	⊓
$s_8(E)$	12	#5	10'-10"	⊓
$s_9(E)$	12	#5	11'-0"	⊓
$s_{10}(E)$	8	#5	11'-1"	⊓
$s_{11}(E)$	54	#5	26'-7"	□
** sp	4	#5	60'-8"	∿
** $sp_1(E)$	4	#5	7'-11"	∿
$u_2(E)$	6	#5	12'-9"	⊃
$u_3(E)$	22	#5	14'-0"	⊃
v_9	48	#9	34'-6"	—
$v_{10}(E)$	152	#9	13'-8"	—
$v_{11}(E)$	48	#9	10'-7"	—
Structure Excavation		Cu. Yd.	57.2	
Concrete Structures		Cu. Yd.	96.4	
Reinforcement Bars		Pound	5880	
Reinforcement Bars, Epoxy Coated		Pound	16,500	
Drilled Shaft in Soil		Cu. Yd.	137.8	
Drilled Shaft in Rock		Cu. Yd.	3.7	

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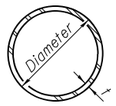
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

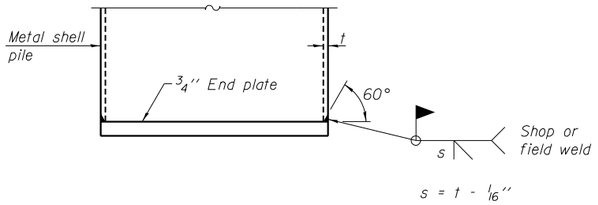
PIER
STRUCTURE NO. 016-1330
SHEET NO 26 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	61
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

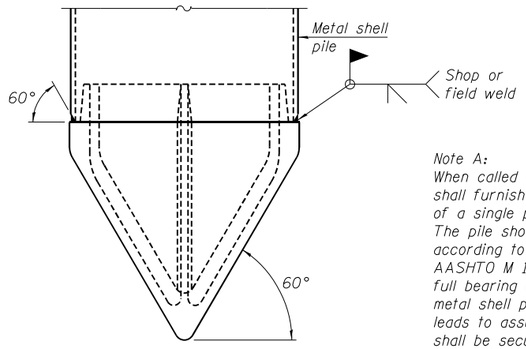


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$/ft.)
PP12	0.179''	22.60	0.0274
PP12	0.250''	31.37	0.0267
PP14	0.250''	36.71	0.0368
PP14	0.312''	45.61	0.0361



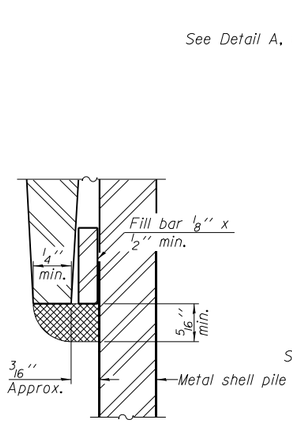
END PLATE ATTACHMENT



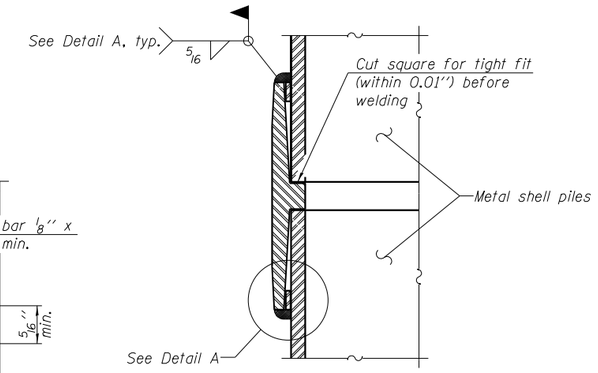
Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

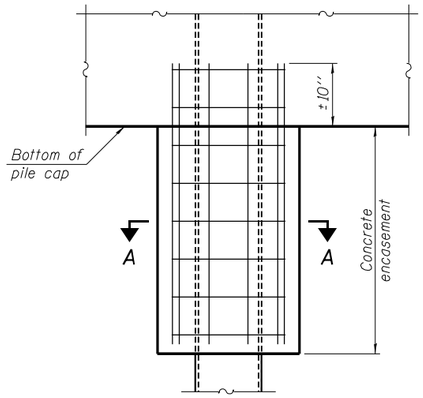


DETAIL A

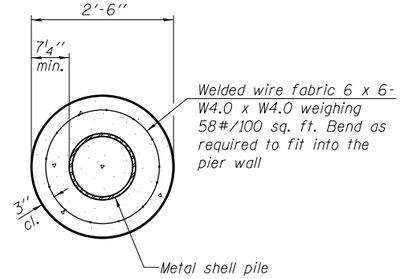


Notes:
The 1/8'' x 1/2'' min. fill bar may be constructed of 2 bars with a 1/8'' max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



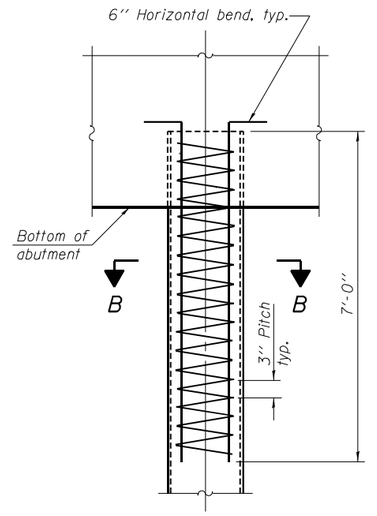
ELEVATION



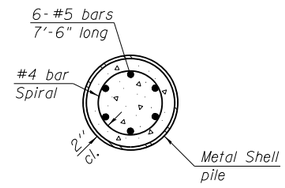
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



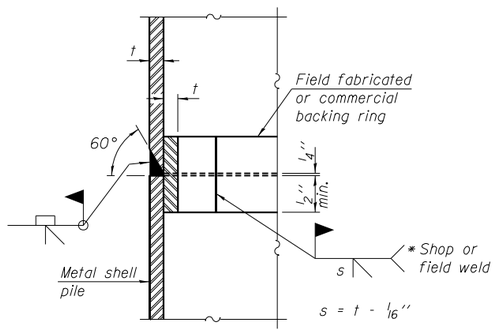
ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

F-MS 1-27-12

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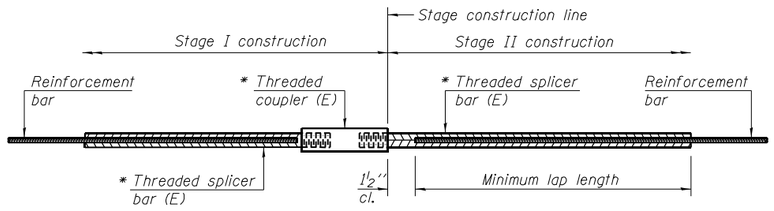
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO. 016-1330
SHEET NO 27 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	62
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

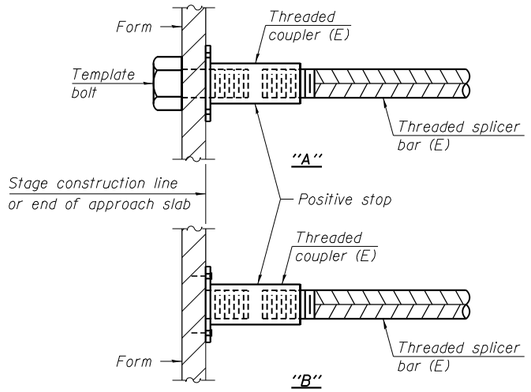
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

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

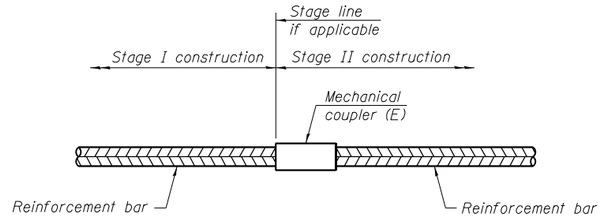
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Ends of Deck	#5	4	Table 3
Top of Deck	#5	307	Table 3
Bottom of Deck	#5	171	Table 3
Top of A. Slab	#4	50	Table 3
Bot. of A. Slab	#5	92	Table 3
North Abutment	#7	10	Table 3
South Abutment	#7	10	Table 3
North Diaphragm	#6	7	Table 3
South Diaphragm	#6	7	Table 3
Sides of Pier Cap	#6	6	Table 3
Top of Pier Cap	#9	8	Table 3
Top of Pier Cap	#9	12	Table 3
Sides of Cr. Wall	#5	20	Table 3



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.

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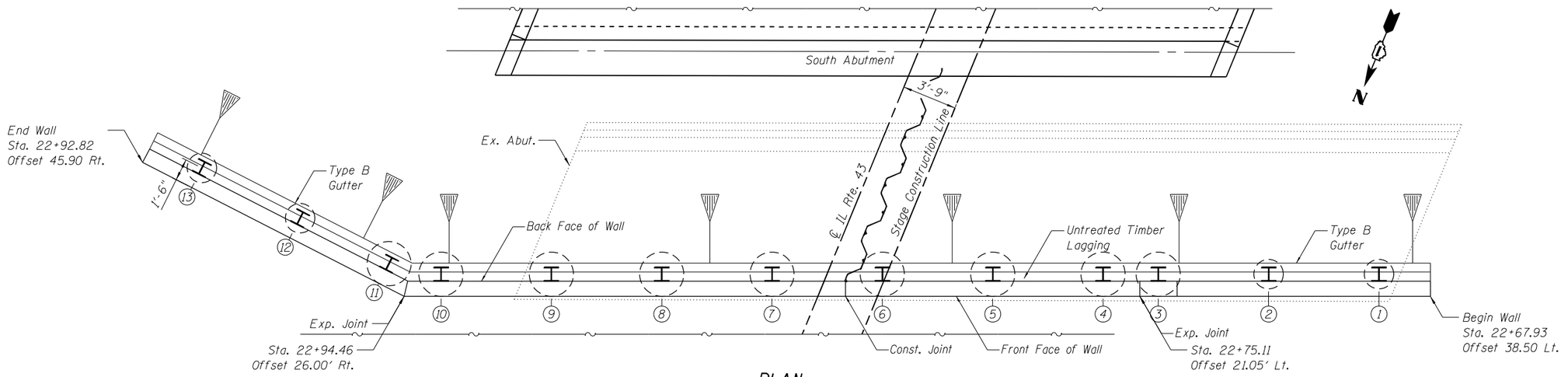
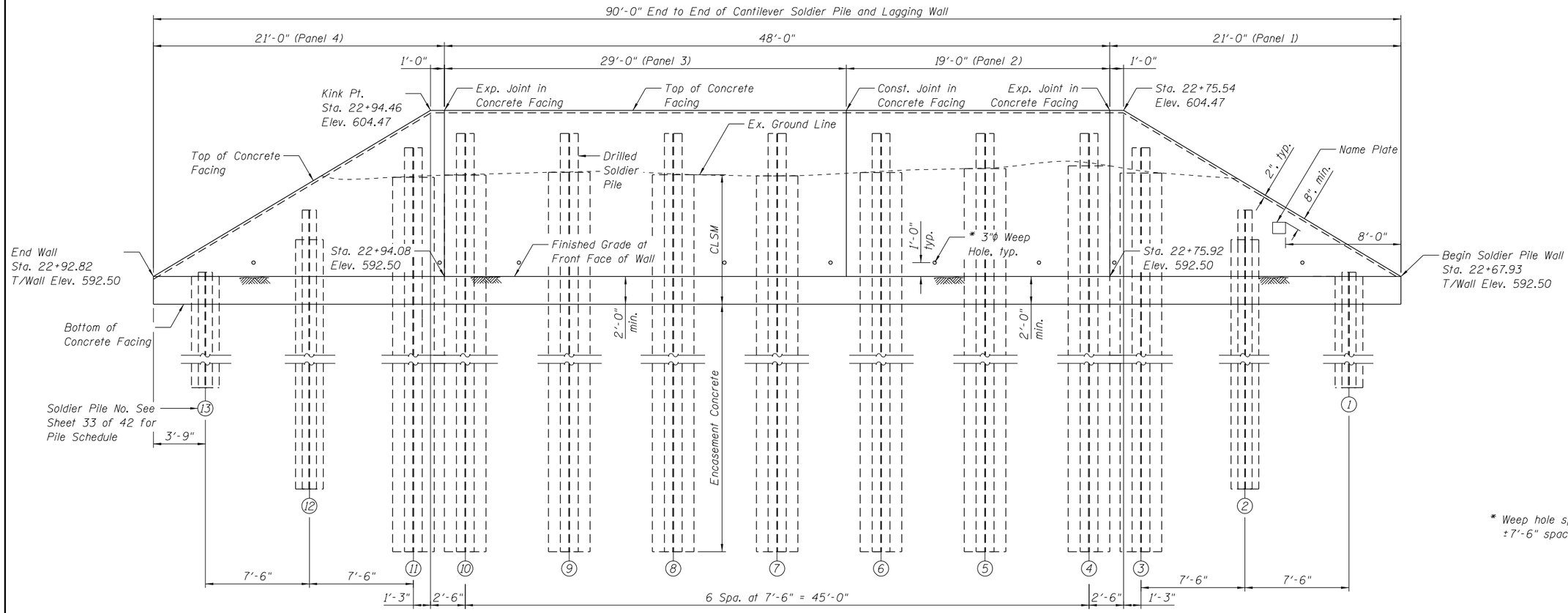
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-1330
SHEET NO 28 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	63
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



PLAN



* Weep hole spacing shall be at ±7'-6" spacing horizontally

ELEVATION

Piles 1, 2, 12 & 13 have 2' ϕ Drilled Shafts
and Piles 3 thru 11 have 3' ϕ Drilled Shafts.
(Looking at F.F. of Wall Unfolded)

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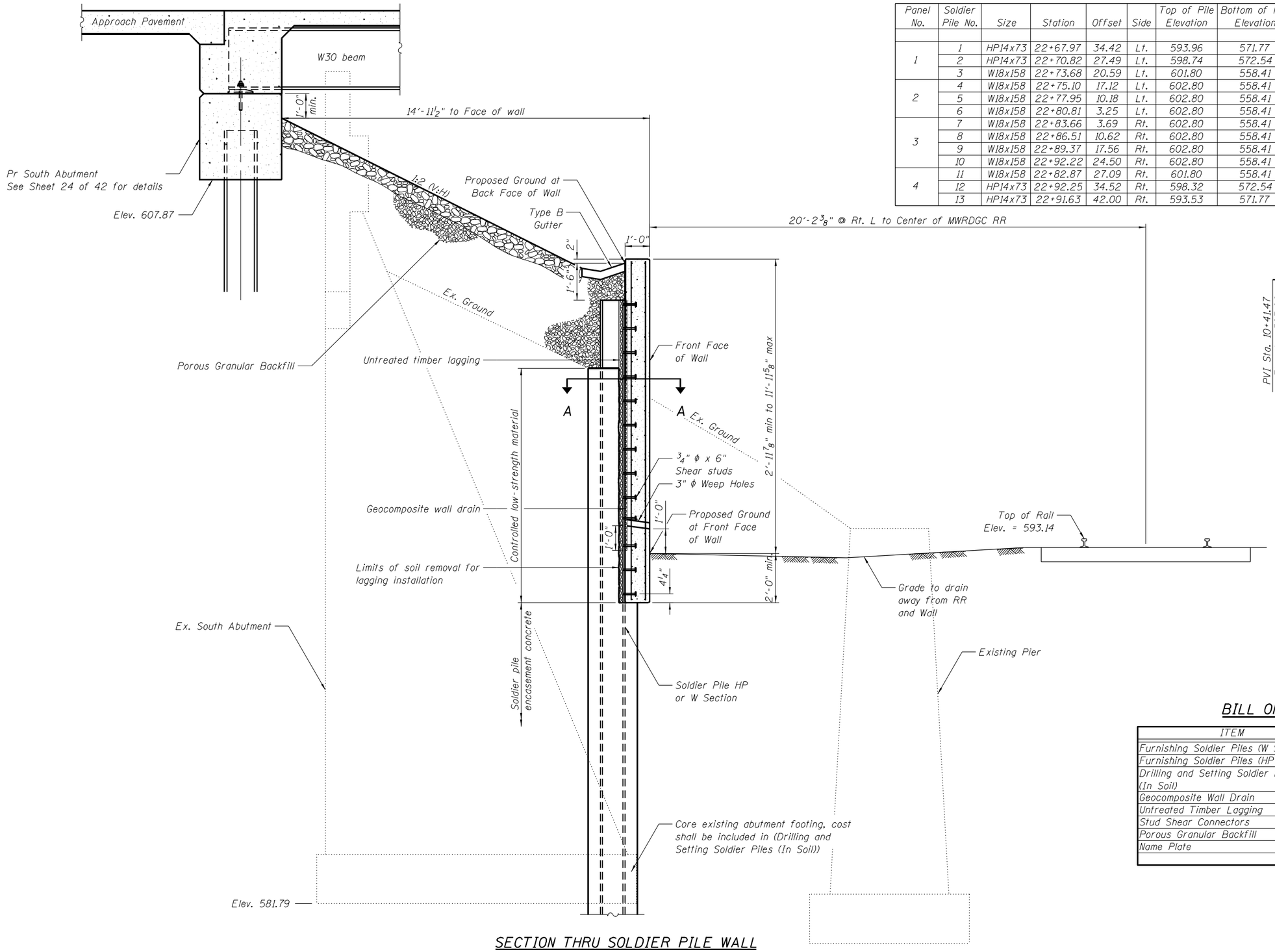
SOUTH SOLDIER PILE RETAINING WALL

SHEET NO 29 OF 44 SHEETS

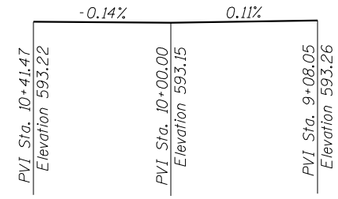
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	64
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

PILE SCHEDULE

Panel No.	Soldier Pile No.	Size	Station	Offset	Side	Top of Pile Elevation	Bottom of Pile Elevation	Top of Encasement Conc	Pile Length	No. of Studs Per Pile
1	1	HP14x73	22+67.97	34.42	Lt.	593.96	571.77	590.50	22.2	4
	2	HP14x73	22+70.82	27.49	Lt.	598.74	572.54	590.50	26.2	9
	3	W18x158	22+73.68	20.59	Lt.	601.80	558.41	590.50	43.4	12
2	4	W18x158	22+75.10	17.12	Lt.	602.80	558.41	590.50	44.4	13
	5	W18x158	22+77.95	10.18	Lt.	602.80	558.41	590.50	44.4	13
	6	W18x158	22+80.81	3.25	Lt.	602.80	558.41	590.50	44.4	13
3	7	W18x158	22+83.66	3.69	Rt.	602.80	558.41	590.50	44.4	13
	8	W18x158	22+86.51	10.62	Rt.	602.80	558.41	590.50	44.4	13
	9	W18x158	22+89.37	17.56	Rt.	602.80	558.41	590.50	44.4	13
	10	W18x158	22+92.22	24.50	Rt.	602.80	558.41	590.50	44.4	13
4	11	W18x158	22+82.87	27.09	Rt.	601.80	558.41	590.50	43.4	12
	12	HP14x73	22+92.25	34.52	Rt.	598.32	572.54	590.50	25.8	8
	13	HP14x73	22+91.63	42.00	Rt.	593.53	571.77	590.50	21.8	4



SECTION THRU SOLDIER PILE WALL



PROFILE GRADE

(Along ℄ Railroad)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing Soldier Piles (W Section)	Foot	397.5
Furnishing Soldier Piles (HP Section)	Foot	95.9
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	1986
Geocomposite Wall Drain	Sq. Yd.	101
Untreated Timber Lagging	Sq. Ft.	909
Stud Shear Connectors	Each	140
Porous Granular Backfill	Cu. Yd.	58.2
Name Plate	Each	1

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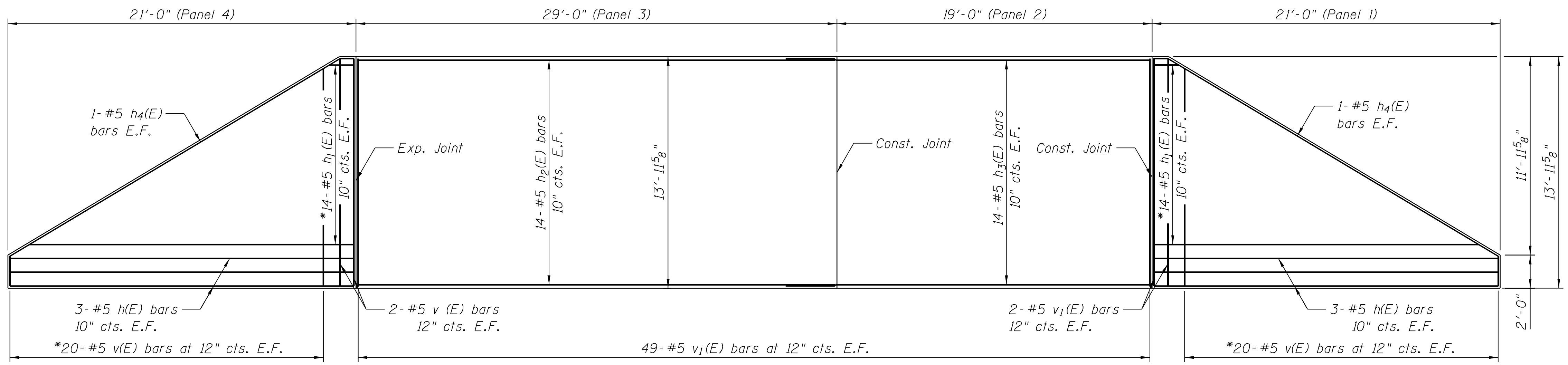
SOUTH SOLDIER PILE RETAINING WALL DETAILS

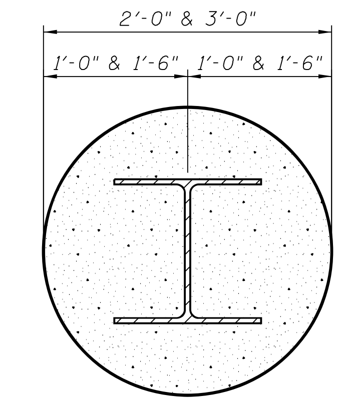
SHEET NO 30 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	65
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



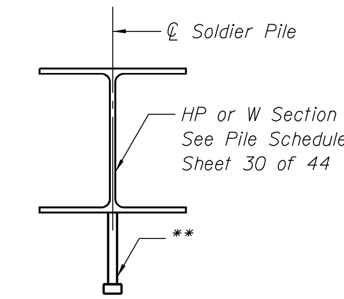
ELEVATION

* Order bars full length. Cut bar per cutting diagram and use remainder of bar in opposite face.



SECTION THRU SOLDIER PILE

Soldier Pile encasement Concrete below bottom of wall facing, CLSM above bottom of wall facing. Cost included with "Drilling and Setting Soldier Piles"



SOLDIER PILE DETAIL

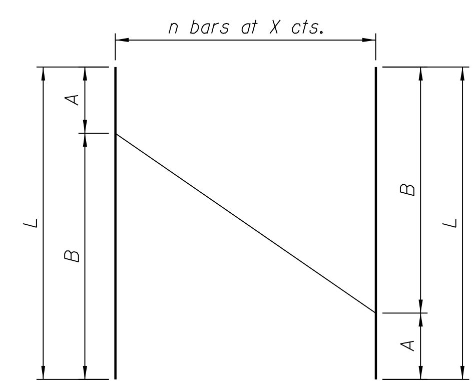
** ¾" ϕ x 6" Granular or Solid Flux Filled Headed Studs conforming to Article 1006.32 of the Std. Spec's. automatically end welded at 12" cts.

MIN. BAR LAP

#5 bar = 3'-4"

NOTES

See Sheet 32 of 44 for Joint details.

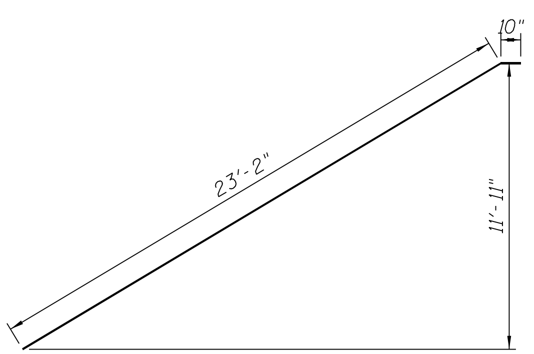


BAR CUTTING DIAGRAM

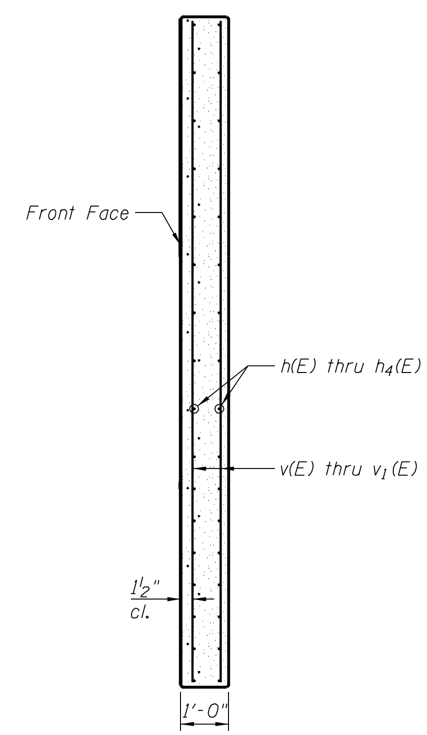
bars v(E) & h_1(E)

BAR CUTTING DIAGRAM SCHEDULE

Bar	A	B	L	n	X
h_1(E)	1'-6"	19'-7"	21'-1"	28	10"
v(E)	1'-9"	13'-1"	14'-10"	40	12"



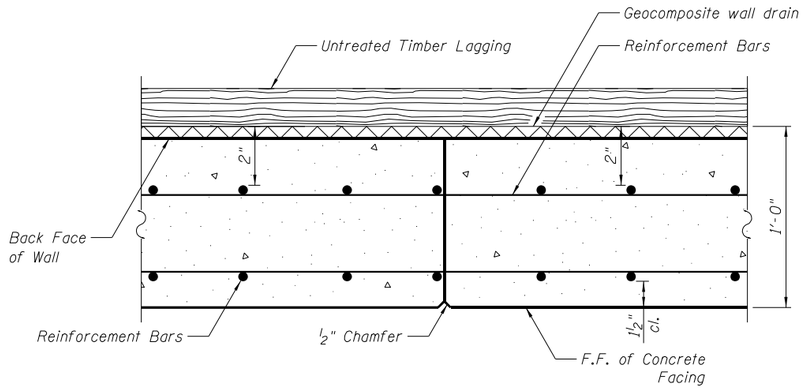
BAR h_6(E)



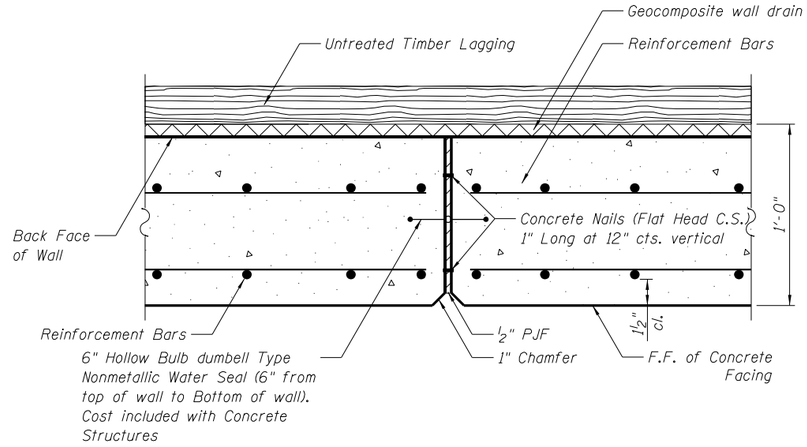
SECTION THRU FACING

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#5	20'-9"	——
h_1(E)	28	#5	21'-1"	——
h_2(E)	14	#5	28'-9"	——
h_3(E)	28	#5	22'-4"	——
h_4(E)	4	#5	24'-0"	——
v(E)	40	#5	14'-10"	——
v_1(E)	106	#5	13'-8"	——
Concrete Structures			Cu. Yd.	37.7
Reinforcement Bars, Epoxy Coated			Pound	4180

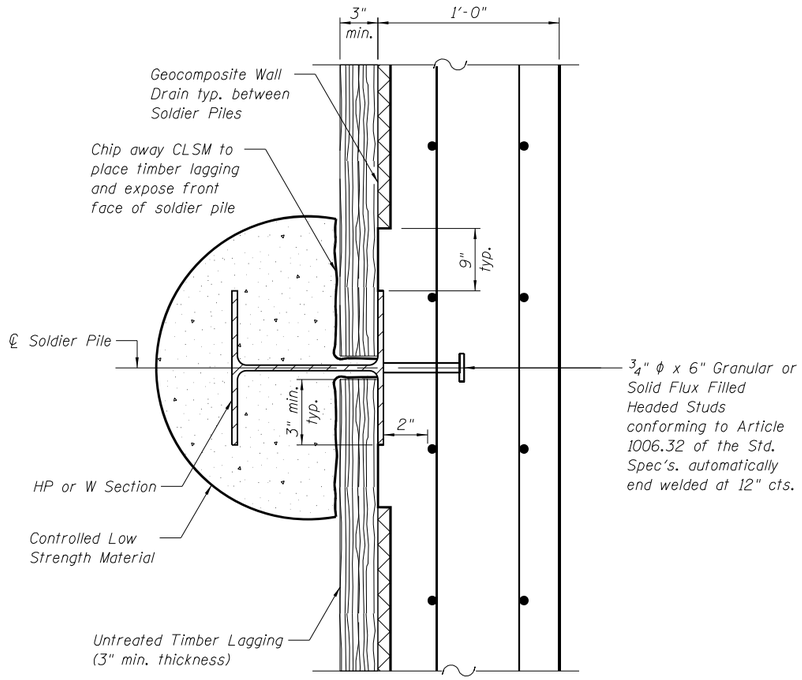


CONSTRUCTION JOINT DETAIL

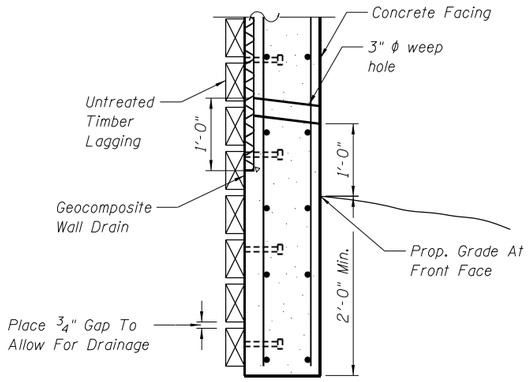


EXPANSION JOINT DETAIL

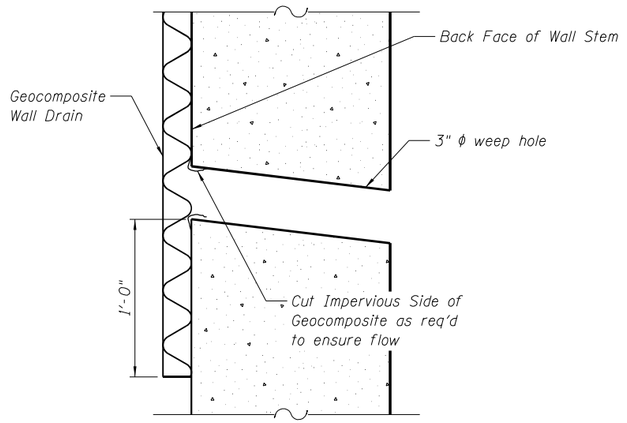
No Reinforcement to pass thru joint



SECTION A-A



WEEP HOLE DETAIL BETWEEN SOLDIER PILES



WEEP HOLE DRAIN DETAIL

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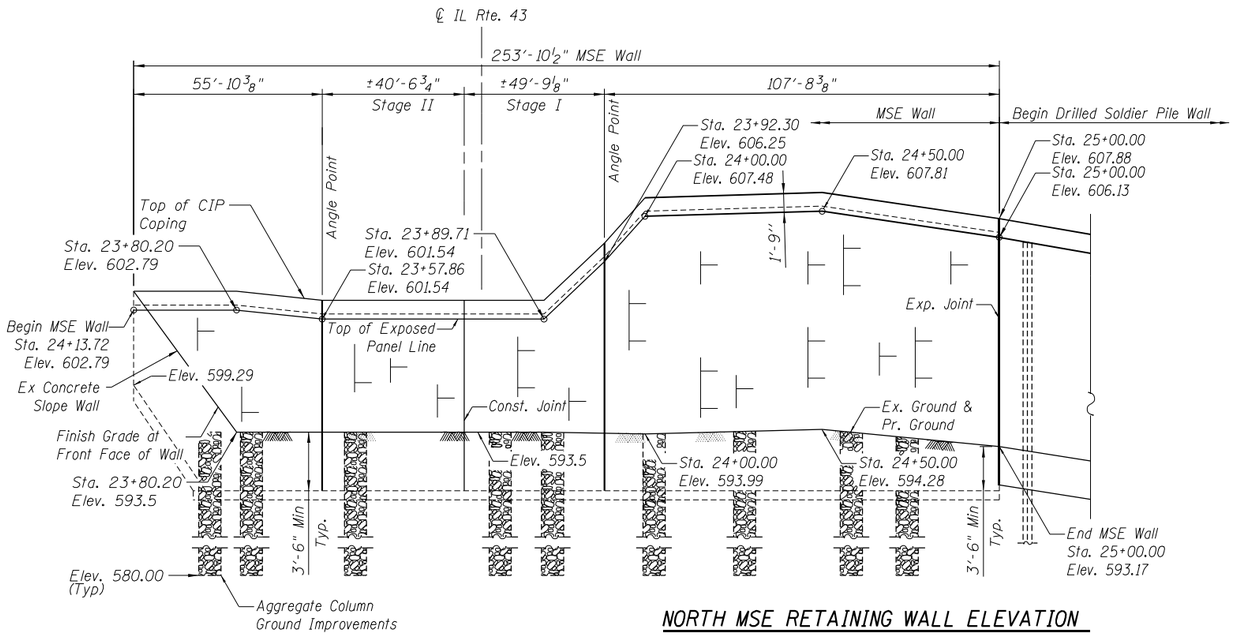
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH SOLDIER PILE RETAINING WALL
DETAILS
SHEET NO 32 OF 44 SHEETS

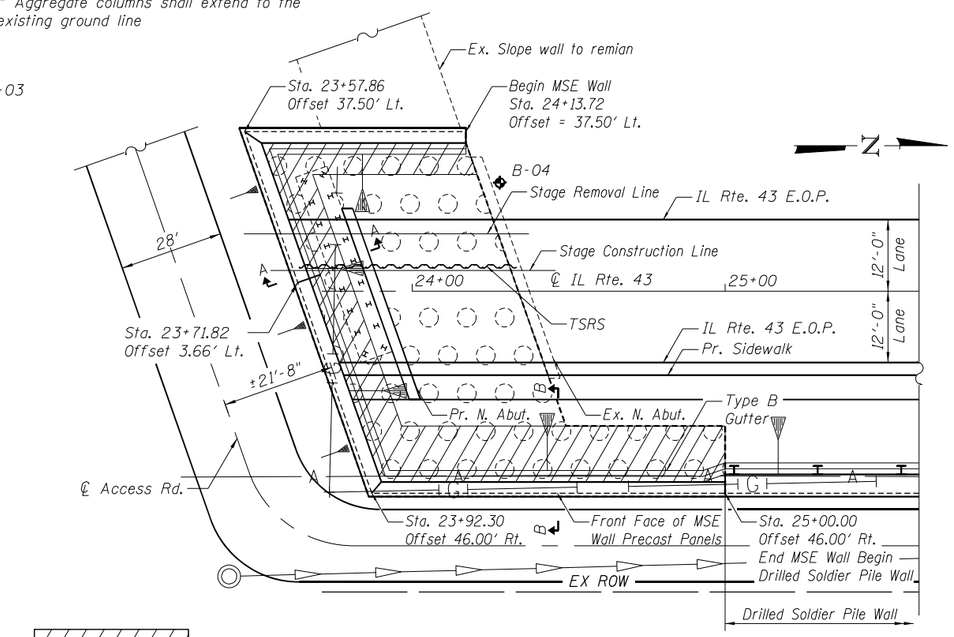
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	67
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NORTH MSE RETAINING WALL ELEVATION

(Looking @ F.F. of Wall Unfolded)

* Aggregate columns shall extend to the existing ground line



MSE Wall Soil Reinforcement

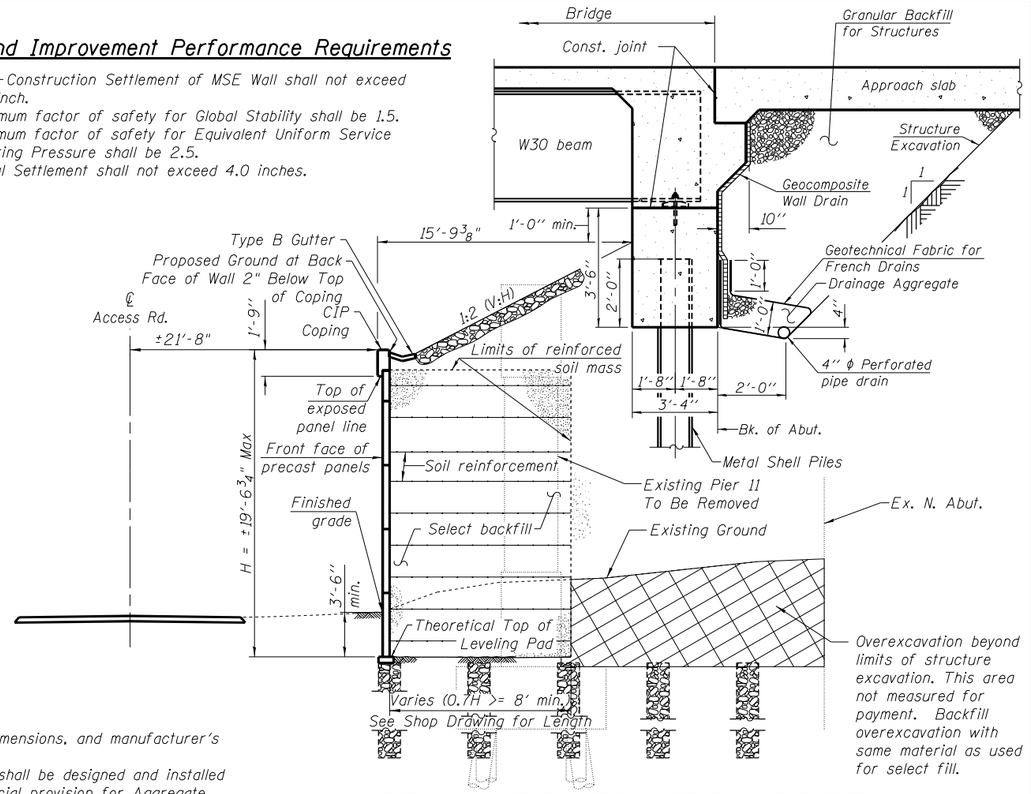
Aggregate Column Ground Improvements

Note: No Aggregate Column Ground Improvements placed where driving new piles or at existing.

NORTH MSE RETAINING WALL PLAN

Ground Improvement Performance Requirements

1. Post-Construction Settlement of MSE Wall shall not exceed 1.0 inch.
2. Minimum factor of safety for Global Stability shall be 1.5.
3. Minimum factor of safety for Equivalent Uniform Service Bearing Pressure shall be 2.5.
4. Total Settlement shall not exceed 4.0 inches.



SECTION A-A THRU NORTH INTEGRAL ABUTMENT

(Not to Scale - Horiz. dim. @ Rt. L's)

The North Abutment Piles are to be precored to the elevation 590.5 and piles driven through the precored holes. The annulus around the piles are to to be backfilled with dry loose sand. The cost shall be included in the cost of "Driving Piles".

NOTES:

Contractor shall verify all elevations, dimensions, and manufacturer's specifications prior to constructing wall.

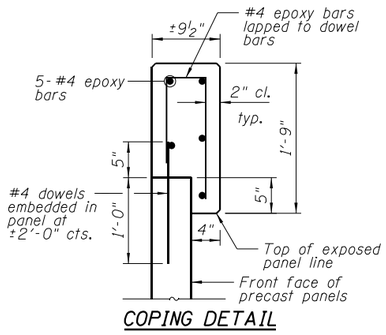
Aggregate column ground improvement shall be designed and installed by the Contractor in accordance with special provision for Aggregate Column Ground Improvement.

See MSE Wall supplier shop drawings for reinforced soil mass lengths.

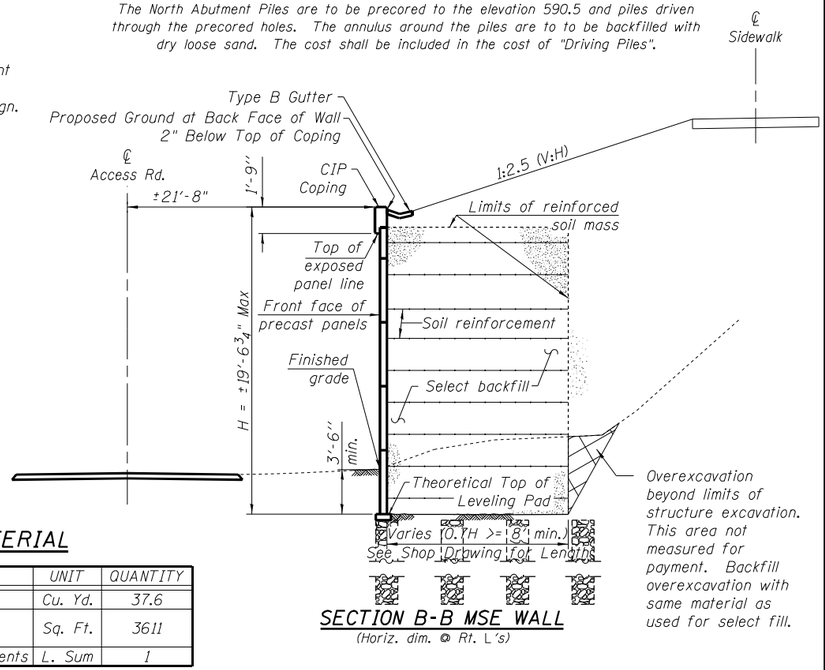
Concrete and reinforcement in coping are included in the cost of Mechanicallly Stabilized Earth Retaining Wall.

The MSE Wall supplier is alerted to the fact that 4.0" of settlement is anticipated from Stations 23+57.86 and 25+00.00 and shall take appropriate measures to accommodate this settlement in the wall design.

Contractor shall remove and replace slope wall as needed to erect MSE wall on the West side of wall. Cost included in the cost of Mechanically Stabilized Earth Retaining Wall.



COPING DETAIL



SECTION B-B MSE WALL

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

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structure Excavation	Cu. Yd.	37.6
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	3611
Aggregate Column Ground Improvements	L. Sum	1

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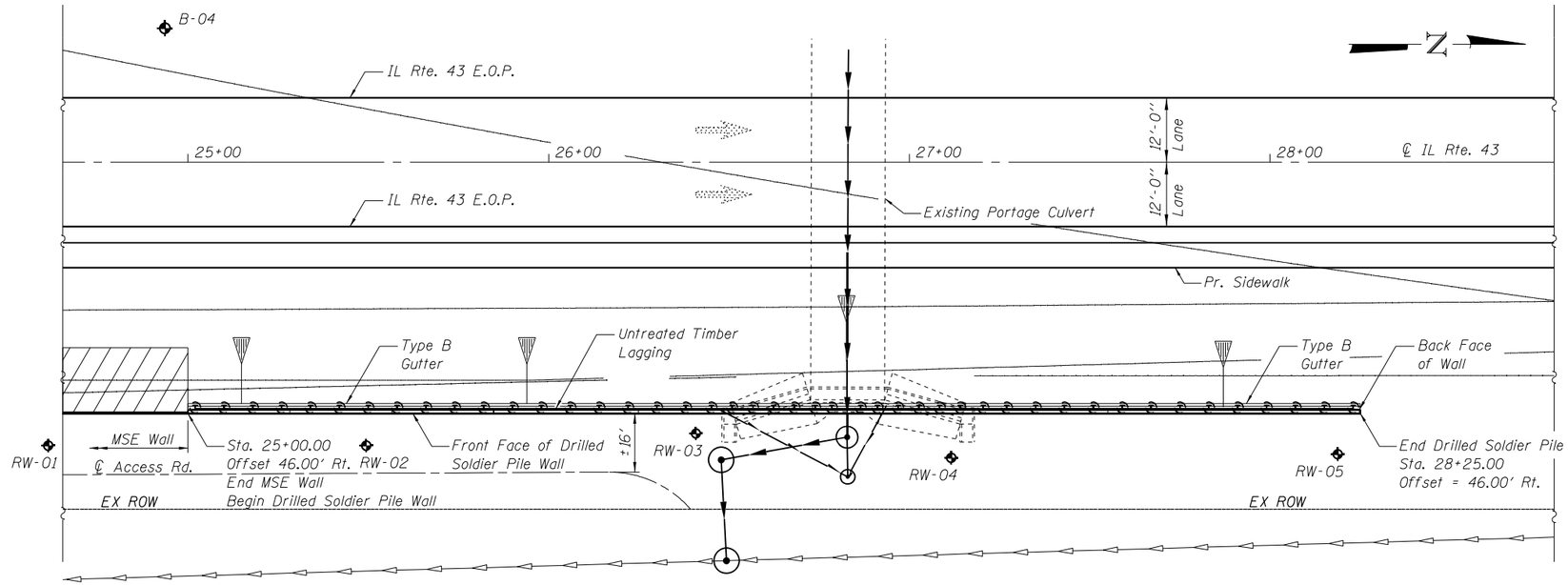
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH MSE RETAINING WALL
STRUCTURE NO. 016-1330
SHEET NO 33 OF 44 SHEETS

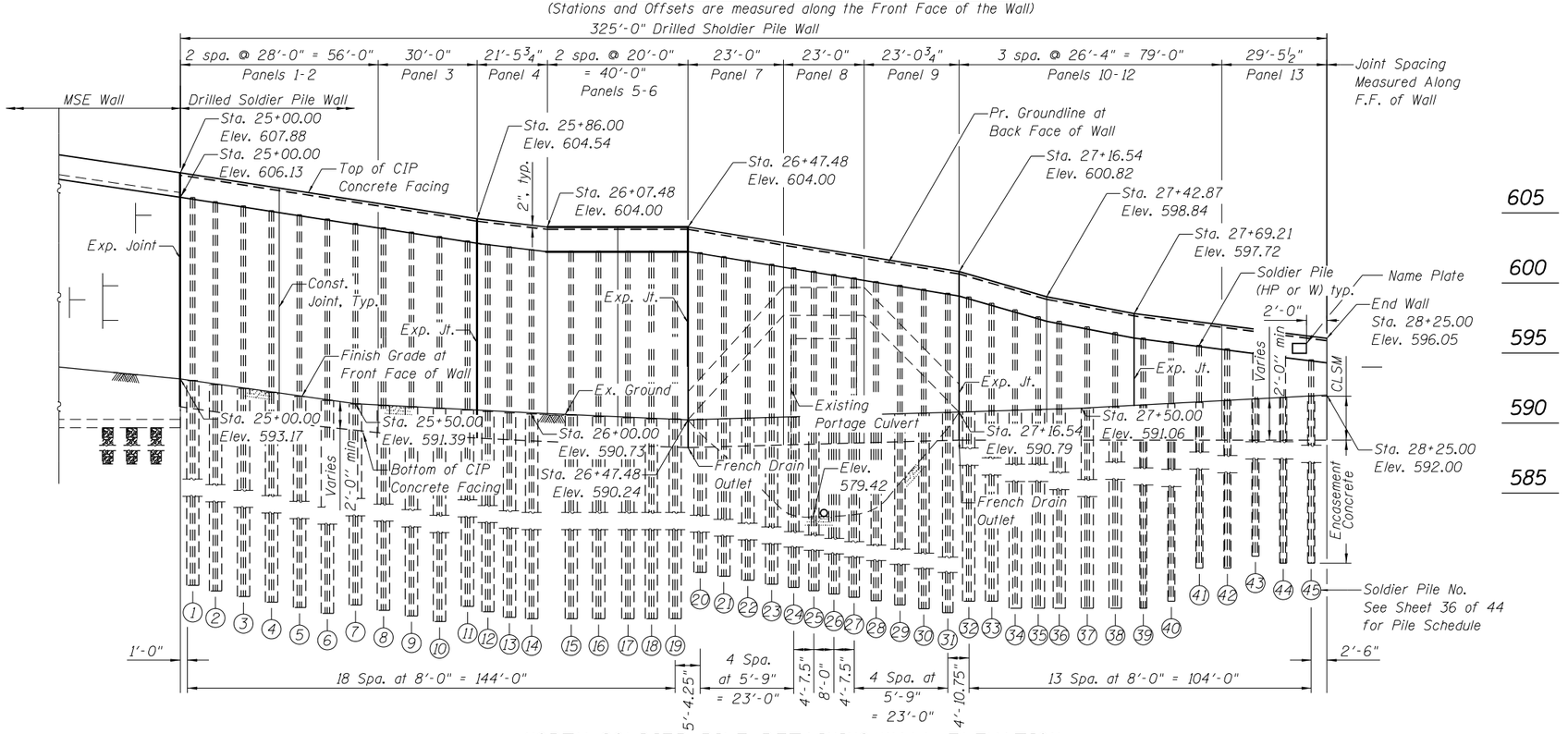
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	68
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MSE Wall Soil Reinforcement

NORTH SOLDIER PILE RETAINING WALL PLAN

(Stations and Offsets are measured along the Front Face of the Wall)



NORTH SOLDIER PILE RETAINING WALL ELEVATION

Piles 1-23 have 3.5' ϕ Drilled Shafts; Piles 24-31 have 3' ϕ Drilled Shafts; Piles 32-38 have 3.5' ϕ Drilled Shafts; Piles 39-45 have 2' ϕ Drilled Shafts.
(Looking @ F.F. of Wall) (Dimensions along Front Face of Wall)

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STATE OF ILLINOIS
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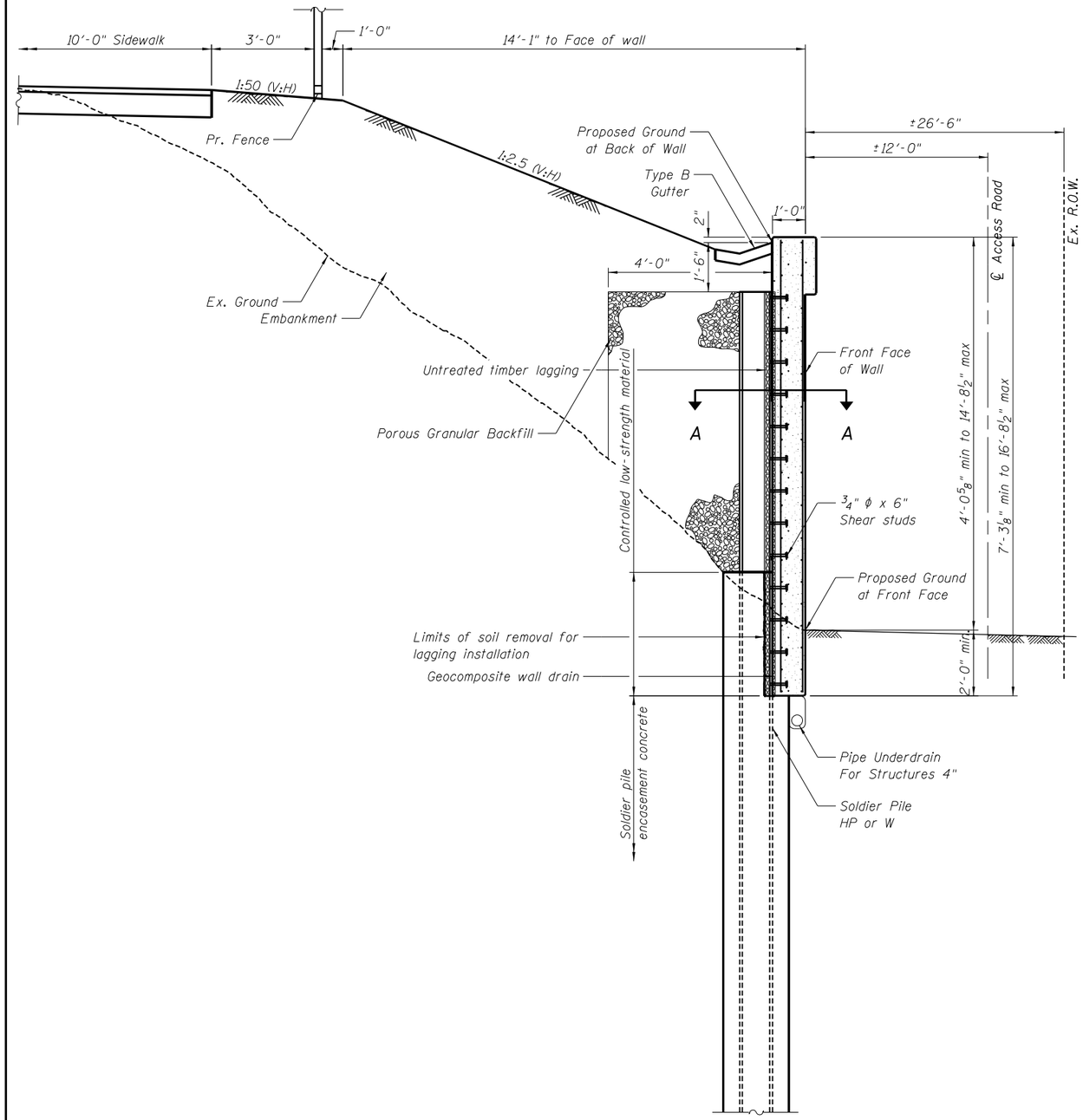
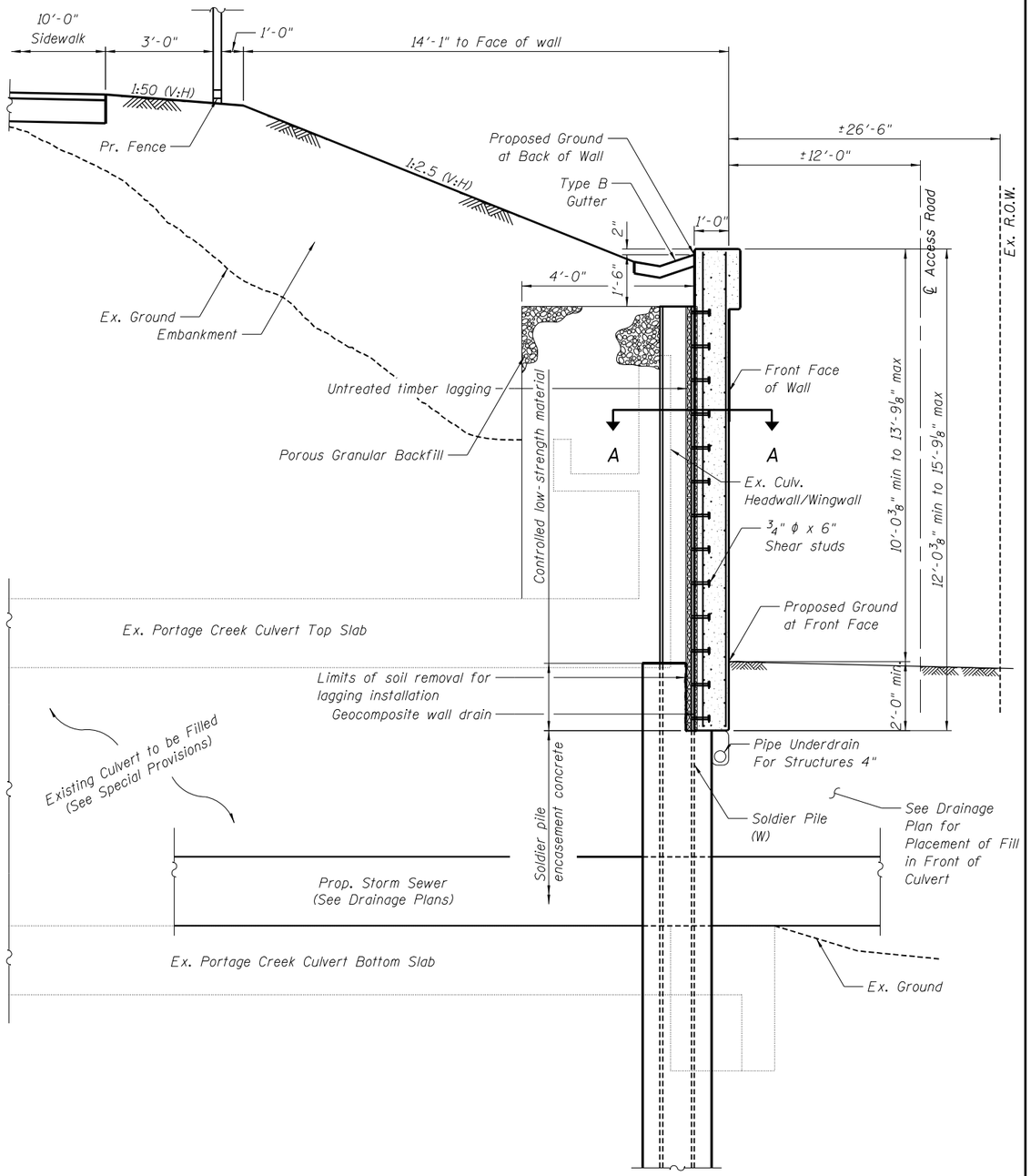
NORTH SOLDIER PILE RETAINING WALL
STRUCTURE NO. 016-1330
SHEET NO 34 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	69
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SECTION THRU SOLDIER PILE WALL



SECTION THRU SOLDIER PILE WALL AT CULVERT

Note:
For section A-A see sheet 39 of 44.

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NORTH SOLDIER PILE RETAINING WALL DETAILS

SHEET NO 35 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	70
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

PILE SCHEDULE

SOLDIER PILE NO.	SIZE	STATION	OFFSET	SIDE	TOP OF PILE ELEVATION	BOTTOM OF PILE ELEVATION	TOP OF ENCASEMENT CONCRETE	PILE LENGTH	NO. OF STUDS PER PILE
1	W33x141	25+01.00	43.61	Rt.	606.17	558.17	591.21	48	15
2	W33x141	25+09.00	43.61	Rt.	605.86	557.86	590.92	48	15
3	W33x141	25+17.00	43.61	Rt.	605.55	557.55	590.62	48	15
4	W33x141	25+25.00	43.61	Rt.	605.24	557.24	590.34	48	15
5	W33x141	25+33.00	43.61	Rt.	604.93	556.93	590.05	48	15
6	W33x141	25+41.00	43.61	Rt.	604.62	556.62	589.76	48	15
7	W33x141	25+49.00	43.61	Rt.	604.31	556.31	589.47	48	15
8	W33x141	25+57.00	43.61	Rt.	604.00	556.00	589.18	48	15
9	W33x141	25+65.00	43.61	Rt.	603.69	555.69	589.09	48	15
10	W33x141	25+73.00	43.61	Rt.	603.38	555.38	588.99	48	15
11	W33x141	25+81.00	43.61	Rt.	603.07	555.07	588.90	48	15
12	W33x130	25+89.00	43.62	Rt.	602.80	556.30	588.80	46.5	15
13	W33x130	25+97.00	43.62	Rt.	602.59	556.09	588.71	46.5	14
14	W33x130	26+05.00	43.62	Rt.	602.39	555.89	588.61	46.5	14
15	W33x130	26+13.00	43.62	Rt.	602.33	555.83	588.61	46.5	14
16	W33x130	26+21.00	43.62	Rt.	602.33	555.83	588.61	46.5	14
17	W33x130	26+29.00	43.62	Rt.	602.33	555.83	588.61	46.5	14
18	W33x130	26+37.00	43.62	Rt.	602.33	555.83	588.61	46.5	14
19	W33x130	26+45.0	43.62	Rt.	602.33	555.83	588.61	46.5	14
20	W33x201	26+50.35	43.60	Rt.	602.20	554.70	588.26	47.5	14
21	W33x201	26+56.10	43.60	Rt.	601.94	554.44	588.31	47.5	14
22	W33x201	26+61.85	43.60	Rt.	601.67	554.17	588.35	47.5	14
23	W33x201	26+67.60	43.60	Rt.	601.41	553.91	588.40	47.5	14
24	W30x132	26+73.35	43.74	Rt.	601.14	562.64	588.45	38.5	13
25	W30x132	26+77.98	43.74	Rt.	600.93	562.43	588.48	38.5	13
26	W30x132	26+85.98	43.74	Rt.	600.56	562.06	588.55	38.5	13
27	W30x132	26+90.60	43.74	Rt.	600.35	561.85	588.58	38.5	12
28	W30x132	26+96.35	43.74	Rt.	600.08	563.08	588.63	37.0	12
29	W30x132	27+02.10	43.74	Rt.	599.82	562.82	588.68	37.0	12
30	W30x132	27+07.85	43.74	Rt.	599.55	562.55	588.72	37.0	11
31	W30x132	27+13.60	43.74	Rt.	599.29	562.29	588.77	37.0	11
32	W33x130	27+18.50	43.62	Rt.	599.00	563.50	588.79	35.5	11
33	W33x130	27+26.50	43.62	Rt.	598.40	562.90	588.79	35.5	10
34	W33x130	27+34.50	43.62	Rt.	597.80	562.30	588.79	35.5	10
35	W33x130	27+42.50	43.62	Rt.	597.20	561.70	588.79	35.5	9
36	W33x130	27+50.50	43.62	Rt.	596.85	561.35	588.79	35.5	9
37	W33x130	27+58.50	43.62	Rt.	596.51	561.01	588.79	35.5	8
38	W33x130	27+66.50	43.62	Rt.	596.17	560.67	588.79	35.5	8
39	W16x89	27+74.50	44.30	Rt.	595.89	566.64	588.79	29.25	8
40	W16x89	27+82.50	44.30	Rt.	595.65	566.40	588.79	29.25	7
41	W16x89	27+90.50	44.30	Rt.	595.41	566.16	588.79	29.25	7
42	W16x89	27+98.50	44.30	Rt.	595.17	565.92	588.79	29.25	7
43	W16x89	28+06.50	44.30	Rt.	594.93	565.68	588.79	29.25	7
44	W16x89	28+14.50	44.30	Rt.	594.69	565.44	588.79	29.25	6
45	W16x89	28+22.50	44.30	Rt.	594.45	565.20	588.79	29.25	6

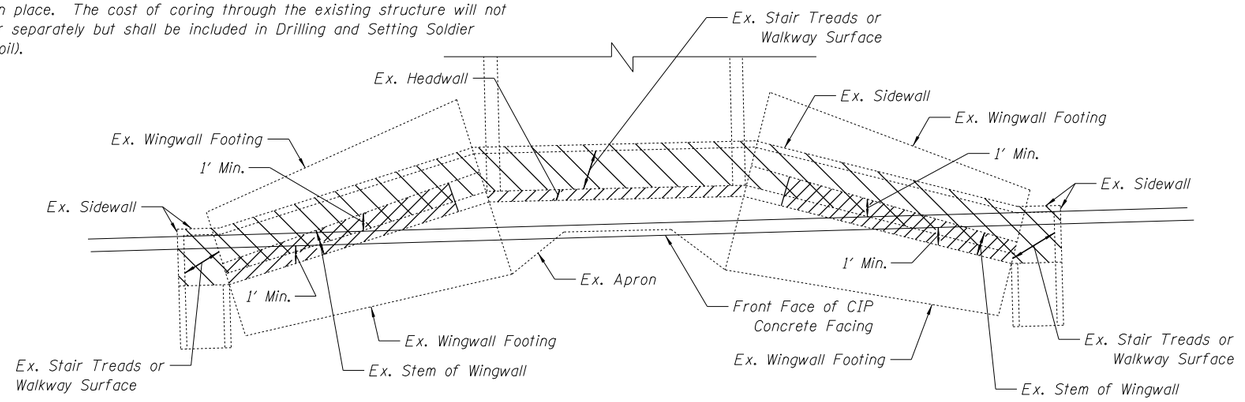
Note:
Station & offset is measured to the center of the pile.

Concrete Removal Notes:

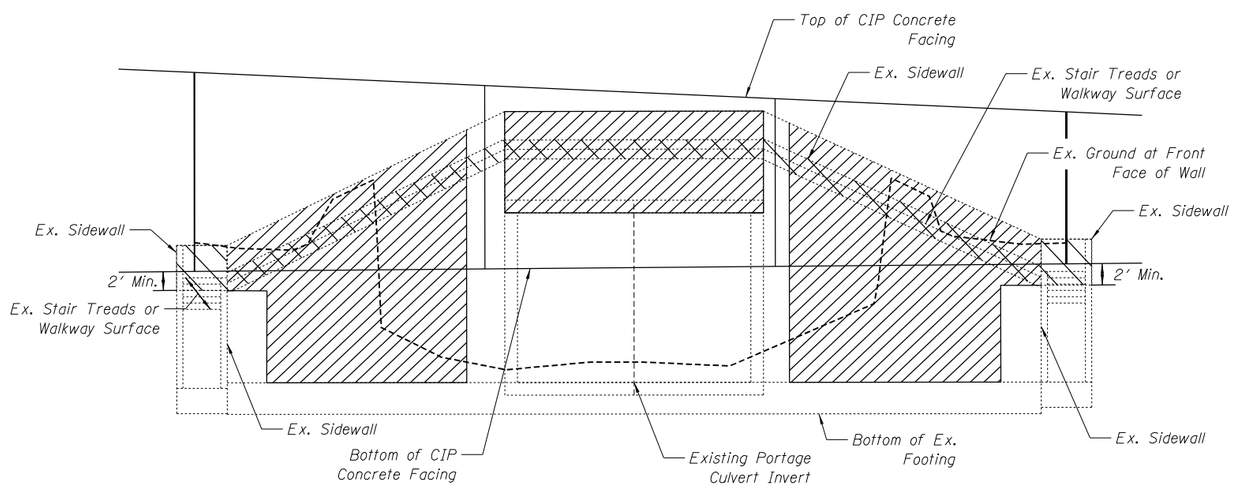
1. Unless noted otherwise, the removal of the existing items detailed in these notes will be measured and paid for as Concrete Removal in accordance with Section 501 of the Standard Specifications.
2. Sidewalls, stair treads, and walkway surfaces shall be removed in their entirety where located behind the existing headwall and wingwalls. When located in front of the proposed retaining wall, these items shall be removed to 2 feet below the bottom of the proposed CIP Concrete Facing.
3. The existing headwall shall be removed in its entirety.
4. The portion of the culvert top slab directly below existing headwall shall be removed. The minimum width of the removal, measured parallel to the length of the culvert, is 1 ft. Additional removal of the top slab may be necessary in order to avoid interference with the installation of proposed soldier piles.
5. The existing wingwall stems shall be removed to the top of the existing footing where it is anticipated that the stems will interfere with the proposed soldier piles or CIP Concrete Facing. Where not directly interfering with the proposed construction, the wingwall stems shall be removed to 2 feet below the bottom of the proposed CIP Concrete Facing, within 1 ft measured perpendicular to the front and back sides of the facing.
6. Proposed soldier piles located within the limits of the existing structure may need to be cored through existing reinforced concrete members that have been left in place. The cost of coring through the existing structure will not be paid for separately but shall be included in Drilling and Setting Soldier Piles (In Soil).

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing Soldier Piles (W Section)	Foot	1845.3
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	11140
Pipe Underdrains for Structures, 4"	Foot	325
Geocomposite Wall Drain	Sq. Yd.	480
Untreated Timber Lagging	Sq. Ft.	4314
Name Plates	Each	1
Stud Shear Connectors	Each	544
Concrete Removal	Cu. Yd.	50



PLAN - CONCRETE REMOVAL



ELEVATION - CONCRETE REMOVAL

Stair Tread / Walkway Removal

Headwall & Stem Removal

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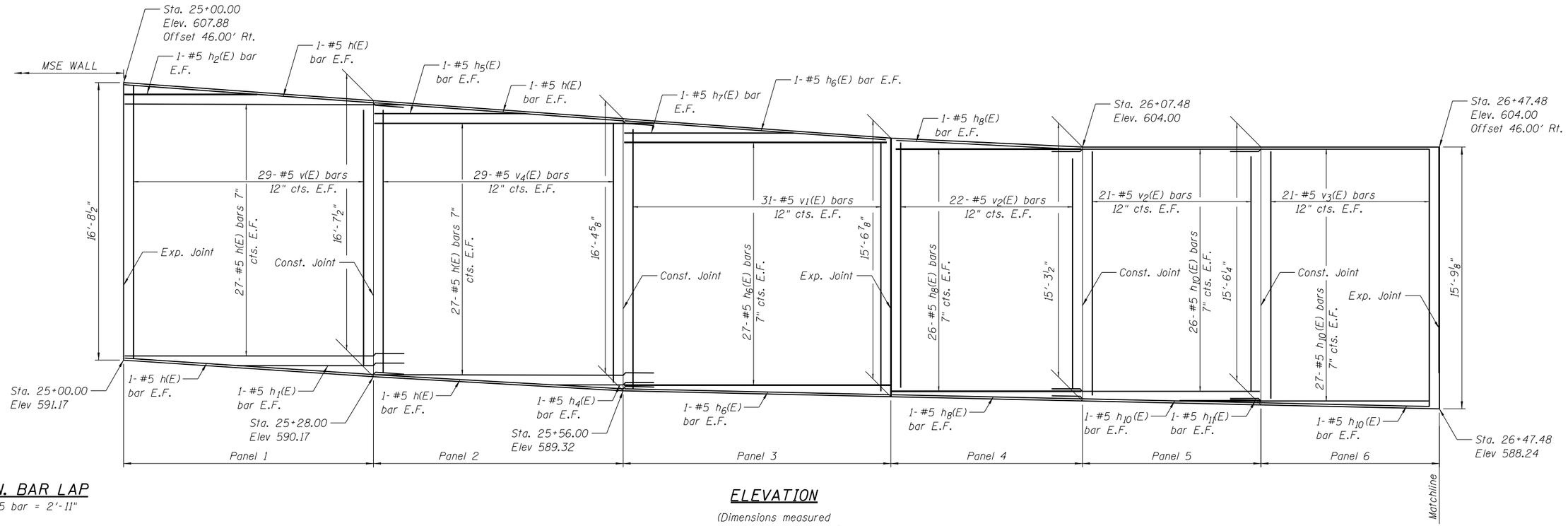
DEPARTMENT OF TRANSPORTATION

NORTH SOLDIER PILE WALL

SHEET NO 36 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(1)	COOK	105	71
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

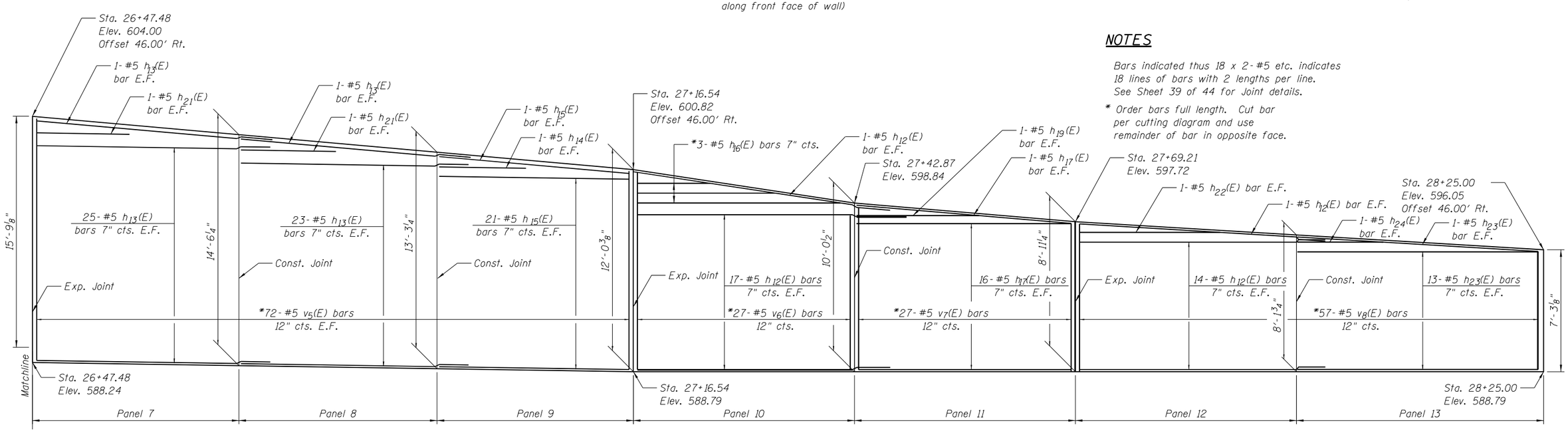


MIN. BAR LAP

#5 bar = 2'-11"

ELEVATION

(Dimensions measured along front face of wall)



NOTES

Bars indicated thus 18 x 2-#5 etc. indicates 18 lines of bars with 2 lengths per line.
See Sheet 39 of 44 for Joint details.

* Order bars full length. Cut bar per cutting diagram and use remainder of bar in opposite face.

ELEVATION

(Dimensions measured along front face of wall)

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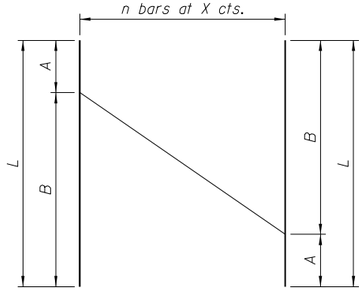
NORTH SOLDIER PILE RETAINING WALL
REINFORCEMENT DETAILS
SHEET NO 37 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	72
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

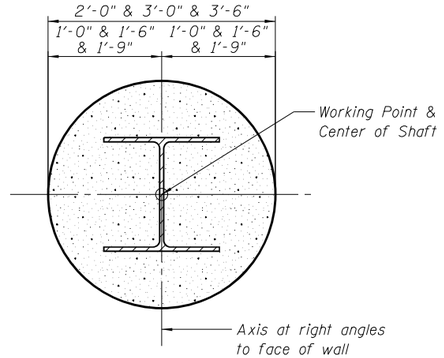


BAR CUTTING DIAGRAM

BAR CUTTING DIAGRAM SCHEDULE

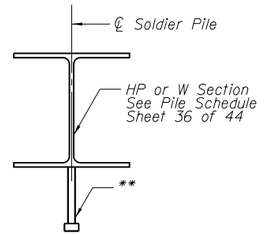
Bar	A	B	L	n	X
$h_{16}(E)$	9'-1"	24'-7"	33'-8"	3	7"

Bar	A	B	L	n	X
$v_1(E)$	15'-3"	16'-1"	31'-4"	31	12"
$v_5(E)$	15'-6"	11'-9"	27'-3"	72	12"
$v_6(E)$	11'-9"	9'-9"	21'-6"	27	12"
$v_7(E)$	8'-8"	9'-9"	18'-5"	27	12"
$v_8(E)$	7'-0"	8'-8"	15'-8"	57	12"



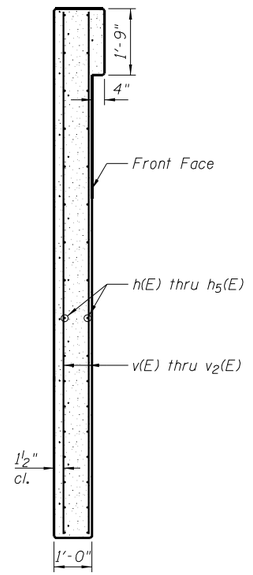
SECTION THRU SOLDIER PILE

Soldier Pile encasement Concrete below bottom of wall facing. CLSM above bottom of wall facing. Cost included with "Drilling and Setting Soldier Piles"



SOLDIER PILE DETAIL

** $\frac{3}{4}$" ϕ x 6" Granular or Solid Flux Filled Headed Studs conforming to Article 1006.32 of the Std. Spec's. automatically end welded at 12" cts.



SECTION THRU FACING

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	116	#5	31'-0"	
$h_1(E)$	2	#5	14'-6"	
$h_2(E)$	2	#5	18'-3"	
$h_4(E)$	2	#5	11'-9"	
$h_5(E)$	2	#5	15'-11"	
$h_6(E)$	120	#5	29'-9"	
$h_7(E)$	2	#5	9'-10"	
$h_8(E)$	56	#5	21'-2"	
$h_{10}(E)$	110	#5	22'-11"	
$h_{11}(E)$	2	#5	8'-11"	
$h_{12}(E)$	66	#5	29'-3"	
$h_{13}(E)$	100	#5	25'-11"	
$h_{14}(E)$	2	#5	14'-2"	
$h_{15}(E)$	44	#5	22'-9"	
$h_{16}(E)$	3	#5	33'-8"	
$h_{17}(E)$	34	#5	26'-1"	
$h_{19}(E)$	2	#5	10'-10"	
$h_{21}(E)$	4	#5	15'-7"	
$h_{22}(E)$	2	#5	17'-1"	
$h_{23}(E)$	28	#5	29'-2"	
$h_{24}(E)$	2	#5	10'-2"	
v(E)	58	#5	16'-4"	
$v_1(E)$	31	#5	31'-4"	
$v_2(E)$	86	#5	15'-0"	
$v_3(E)$	42	#5	15'-3"	
$v_4(E)$	58	#5	16'-1"	
$v_5(E)$	72	#5	27'-3"	
$v_6(E)$	27	#5	21'-6"	
$v_7(E)$	27	#5	18'-5"	
$v_8(E)$	57	#5	15'-8"	
Concrete Structures			Cu. Yd.	160.4
Reinforcement Bars, Epoxy Coated			Pound	28330

PRINTED DATE: 3/18/2021
FILE NAME: 60T06_038_North SP Wall Details_4.dgn

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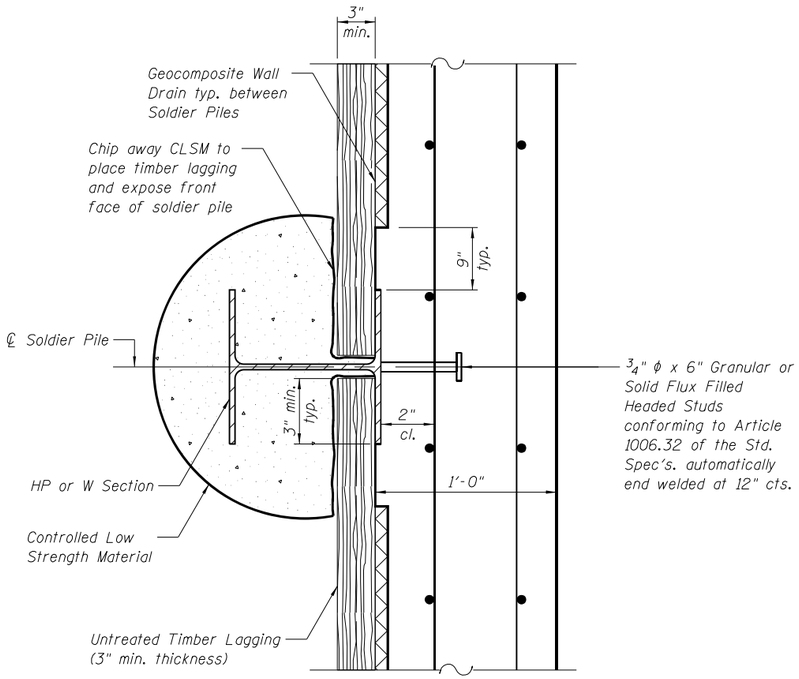
USER NAME = eliao	DESIGNED - JEH	REVISED -
	CHECKED - CMW	REVISED -
PLOT SCALE = $SCALE$	DRAWN - JEH	REVISED -
PLOT DATE = 3/18/2021	CHECKED - CMW	REVISED -

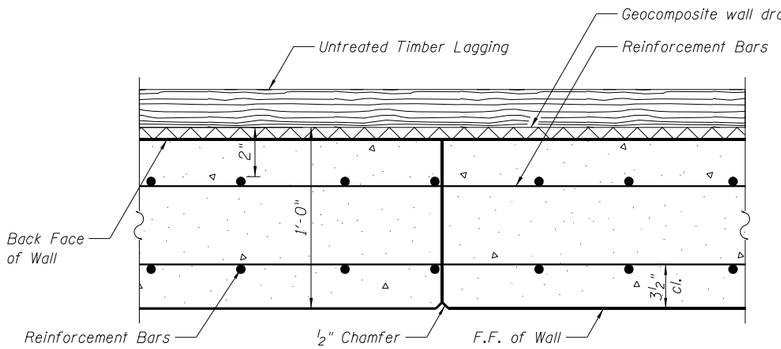
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH SOLDIER PILE RETAINING WALL
REINFORCEMENT DETAILS
SHEET NO 38 OF 44 SHEETS

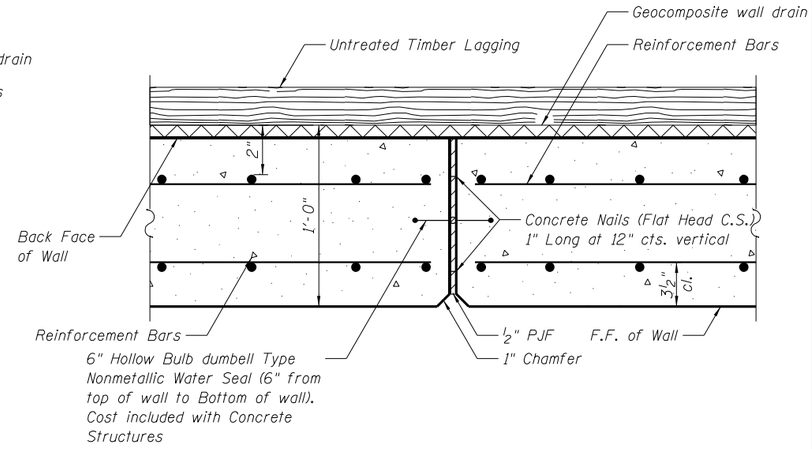
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	73
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SECTION A-A

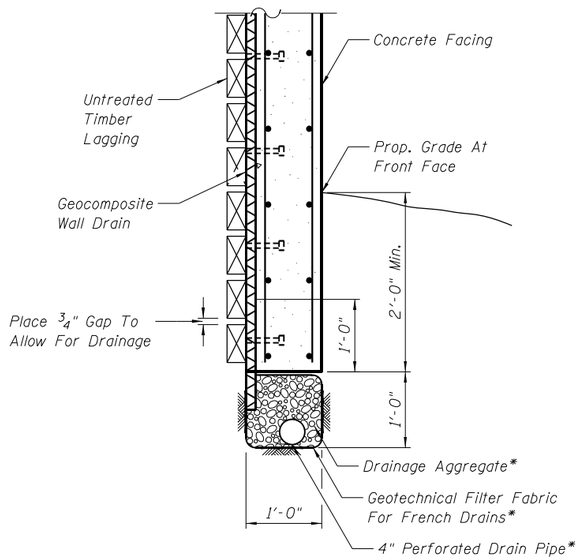


CONSTRUCTION JOINT DETAIL



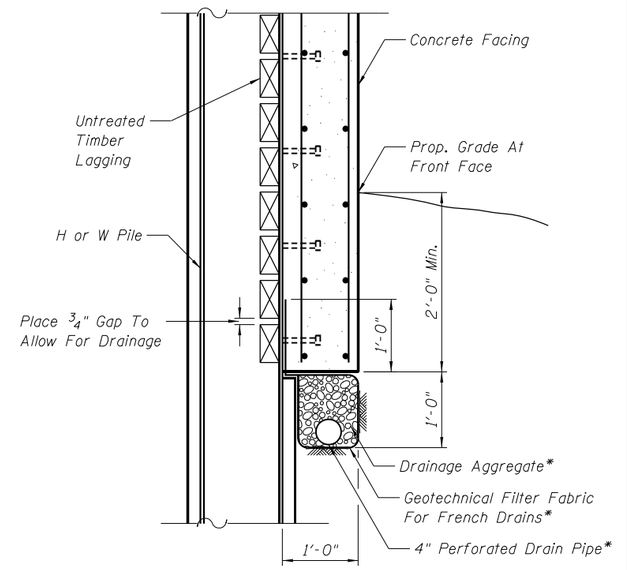
EXPANSION JOINT DETAIL

No Reinforcement to pass thru joint



UNDERDRAIN DETAIL BETWEEN SOLDIER PILES

* Include in the cost of Pipe Underdrains for Structures



UNDERDRAIN DETAIL AT SOLDIER PILES

PRINTED DATE: 3/5/2021
FILE NAME: 60T06_039_North SP Wall Details_5.dgn

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PLOT SCALE = $SCALE$	DRAWN - JEH	REVISED -
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH SOLDIER PILE RETAINING WALL DETAILS

SHEET NO 39 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	74
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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1145 N Main Street
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BORING LOG BSB-01

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 613.98 ft
North: 1870991.08 ft
East: 1129148.82 ft
Station: 22+30.00
Offset: 24.67 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in')	Qu (tsf)	Moisture Content (%)
	613.0	4-inch thick ASPHALT over 8-inch thick CONCRETE --PAVEMENT--						
	612.7	4-inch thick CRUSHED STONE --AGGREGATE BASE--						
		Hard, brown SILTY CLAY LOAM, trace gravel --FILL--			1	8 6 6	NP	7
			5		2	3 5 5	4.25 P	13
	608.5	Stiff to very stiff, gray SILTY CLAY LOAM, trace gravel and sand seams --FILL--			3	3 3 4	1.75 P	16
			10		4	2 4 5	1.97 B	18
					5	3 4 4	3.69 B	25
			15		6	2 3 5	1.64 B	16
					7	3 2 6	1.23 B	40
			20		8	2 3 4	1.48 B	34
	588.5	Stiff, gray SILT to SILTY LOAM, trace gravel	25		9	2 2 2	1.07 B	25
					10	5 7 7	NR	
					11	3 2 3	1.31 B	26
		6-inches brown SILTY LOAM	30		12	2 1 2	1.23 B	35
			35		13	2 1 2	0.98 B	33
	577.0	Very stiff to hard, gray SILTY CLAY to CLAY, trace gravel						
		2-inches gray SANDY GRAVEL,	40		14	7 9 13	6.97 B	16

GENERAL NOTES

Begin Drilling: 04-25-2013 Complete Drilling: 04-25-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: M. Snider
Drilling Method: 2.25-inch SSA to 10', Mud rotary 10' to 77', auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 39.75 ft
At Completion of Drilling: MUD
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 6/7/13

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Fax: 630 953-9938

BORING LOG BSB-01

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 613.98 ft
North: 1870991.08 ft
East: 1129148.82 ft
Station: 22+30.00
Offset: 24.67 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in')	Qu (tsf)	Moisture Content (%)
		wet						
			45		15	6 6 10	4.67 B	17
			50		16	12 20 22	6.64 B	12
			55		17	7 11 27	4.51 B	24
			60		18	12 11 14	5.82 B	14
	537.0	Very dense, gray SANDY GRAVEL, with pieces of clay --Hard Drilling, 77'--						
			65		19	3 6 8	3.28 B	31
			70		20	6 7 11	2.54 B	30
			75		21	5 8 12	2.13 B	14
			80		22	50/5"	NP	23

GENERAL NOTES

Begin Drilling: 04-25-2013 Complete Drilling: 04-25-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: M. Snider
Drilling Method: 2.25-inch SSA to 10', Mud rotary 10' to 77', auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 39.75 ft
At Completion of Drilling: MUD
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 6/7/13

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BORING LOG BSB-01

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 613.98 ft
North: 1870991.08 ft
East: 1129148.82 ft
Station: 22+30.00
Offset: 24.67 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in')	Qu (tsf)	Moisture Content (%)
		--Hard Drilling, 81'--						
	531.0	--AUGER REFUSAL, 83'--						
		Boring terminated at 83.00 ft						
			85					
			90					
			95					
			100					

GENERAL NOTES

Begin Drilling: 04-25-2013 Complete Drilling: 04-25-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: M. Snider
Drilling Method: 2.25-inch SSA to 10', Mud rotary 10' to 77', auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 39.75 ft
At Completion of Drilling: MUD
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 6/7/13

PRINTED DATE: 3/5/2021
FILE NAME: 60706.048.BorLog_1.dgn

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USER NAME = eliao	DESIGNED - SMA/PS	REVISED -	
	CHECKED - CMW	REVISED -	
PLOT SCALE = $SCALE$	DRAWN - SMA/PS	REVISED -	
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 016-1330
SHEET NO 40 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	75
		CONTRACT NO 60706		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Wang Engineering

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Lombard, IL 60148
Telephone: 630 953-9928
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BORING LOG BSB-02

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 594.00 ft
North: 1871068.03 ft
East: 1129123.03 ft
Station: 23+07.61
Offset: 48.26 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in;	Qu (tsf)	Moisture Content (%)
		Loose, gray CRUSHED STONE --RAIL BALLAST--			1	2 2 2	NP	
	591.0	Very soft, gray SILTY CLAY LOAM, trace gravel and organic matter	5		2	1 0 0	NP	
					3	0 0 0	NR	
	583.5		10		4	0 0 1	0.08 B	33
		Dense, black and brown SANDY LOAM, little gravel and organic matter			5	5 13 28	NP	30
	581.0	Very soft, brown SILT, trace gravel	15		6	2 1 0	< 0.25 P	41
	578.5	Very stiff, gray SILTY CLAY, trace gravel			7	3 3 9	3.28 B	19
			20		8	4 4 8	2.62 B	17
	566.0	Very stiff to hard, gray SILTY LOAM, trace to some gravel	25		9	3 3 8	3.69 D	18
					10	3 5 8	2.71 B	17
					11	4 7 12	3.53 B	16
			30		12	19 35 45	2.05 S	11
					13	9 17 28	5.08 B	13
			35		14	9 14 21	4.69 B	13
			40					

GENERAL NOTES

Begin Drilling: 04-30-2013 Complete Drilling: 04-30-2013
Drilling Contractor: K&S Drill Rig: CME-75 TMR
Driller: E,R&C Logger: D. Wind Checked by: N. Boddy
Drilling Method: 4.25-inch IDA HSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 8.00 ft
At Completion of Drilling: ▼ MUD
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 6/7/13

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Fax: 630 953-9938

BORING LOG BSB-02

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 594.00 ft
North: 1871068.03 ft
East: 1129123.03 ft
Station: 23+07.61
Offset: 48.26 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in;	Qu (tsf)	Moisture Content (%)
	552.3	Stiff, gray SILTY CLAY, trace gravel	45		15	11 15 15	1.07 B	14
	547.0	Very stiff, gray CLAY						
	542.0	Stiff, gray GRAVELLY SANDY LOAM	50		16	9 11 13	2.87 B	28
			55		17	50/1	NR	
			60		18	25 50/5	1.39 B	13

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	532.0	Strong, light gray to white, fair quality DOLOSTONE Run #1, 62.0' to 71.0' 62.0' to 63.5' fractured, highly weathered 63.5' to 71' intact, unweathered --Recovery = 97%-- --RQD = 65%--	65	CORE	1	CORE		
	523.0	Boring terminated at 71.00 ft	70					
			75					
			80					

GENERAL NOTES

Begin Drilling: 04-30-2013 Complete Drilling: 04-30-2013
Drilling Contractor: K&S Drill Rig: CME-75 TMR
Driller: E,R&C Logger: D. Wind Checked by: N. Boddy
Drilling Method: 4.25-inch IDA HSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 8.00 ft
At Completion of Drilling: ▼ MUD
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 6/7/13

PRINTED DATE: 3/5/2021
FILE NAME: 60706.041.Bor-Log.1b.dgn

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PLOT SCALE = $SCALE$	DRAWN - SMA/PS	REVISED -	
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 016-1330
SHEET NO 41 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	76
		CONTRACT NO 60706		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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BORING LOG BSB-03

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 593.20 ft
North: 1871117.93 ft
East: 1129123.16 ft
Station: 23+57.53
Offset: 46.73 LT

Depth (ft)	Elevation (ft)	Profile	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
0	593.2		3-inch thick ASPHALT --PAVEMENT--					
	592.7		2.5-inch thick CRUSHED STONE --AGGREGATE BASE--					
	590.2		Very stiff, gray SILTY LOAM, trace gravel --FILL--					
			Stiff, black SILTY LOAM --BURIED TOPSOIL--					
5					1	3 7 7	3.69 S	15
					2	2 3 4	1.97 S	31
	587.7		Soft to medium stiff, black to dark gray SILTY LOAM to SILTY CLAY LOAM, with sand seams and organic matter		3	0 1 1	0.33 B	22
			--L_L = 64%, P_L = 27%-- --% Gravel = 1.2%-- --% Sand = 12.5%-- --% Silt = 57.0%-- --% Clay = 29.3%--		4	1 2 1	0.90 B	55
10	582.7		Medium stiff, black and dark brown SILT, trace gravel		5	1 0 1	0.57 B	39
	580.2		Very stiff to hard, gray SILTY CLAY, trace gravel					
15					6	0 1 4	3.69 B	17
					7	7 10 13	< 4.50 P	19
	575.2		Very stiff, gray SILTY LOAM, trace gravel					
20					8	5 8 12	2.50 P	19
	570.2		Stiff to very stiff, gray SILTY CLAY, trace gravel					
25					9	3 8 8	2.25 P	21
					10	2 4 7	1.39 B	24
					11	6 11 50/5	3.85 B	16
30			--shale fragments at 28.5'--		12	17 34 36	NP	13
35					13	25 21 27	3.44 B	13
					14	13 14 25	NR	
40								

WANGENGINC 885201.GPJ WANGENG.GDT 6/7/13

GENERAL NOTES

Begin Drilling: 04-30-2013 Complete Drilling: 04-30-2013
Drilling Contractor: K&S Drill Rig: CME-75 TMR
Driller: E,R&C Logger: D. Wind Checked by: C. Marin
Drilling Method: 4.25-inch IDA HSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 13.50 ft
At Completion of Drilling: 6.00 ft
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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Telephone: 630 953-9928
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BORING LOG BSB-03

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 593.20 ft
North: 1871117.93 ft
East: 1129123.16 ft
Station: 23+57.53
Offset: 46.73 LT

Depth (ft)	Elevation (ft)	Profile	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
45			--shale fragments at 43.5'--		15	50/4	NP	16
50					16	6 9 14	1.39 B	17
	541.3		Loose, gray, fine SAND					
55					17	1 4 2	NP	24
	536.5		Very dense, gray GRAVELLY SANDY LOAM					
60	533.2		Boring terminated at 60.00 ft		18	25 18 38	NP	11

WANGENGINC 885201.GPJ WANGENG.GDT 6/7/13

GENERAL NOTES

Begin Drilling: 04-30-2013 Complete Drilling: 04-30-2013
Drilling Contractor: K&S Drill Rig: CME-75 TMR
Driller: E,R&C Logger: D. Wind Checked by: C. Marin
Drilling Method: 4.25-inch IDA HSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 13.50 ft
At Completion of Drilling: 6.00 ft
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG BSB-04

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 613.25 ft
North: 1871212.43 ft
East: 1129146.20 ft
Station: 24+51.34
Offset: 21.02 LT

Depth (ft)	Elevation (ft)	Profile	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
0	613.2		4-inch thick ASPHALT over 10-inch thick CONCRETE --PAVEMENT--					
	611.8		3-inch thick CRUSHED STONE --AGGREGATE BASE--					
			Stiff to hard, brown and gray SILTY CLAY LOAM, trace to little gravel and bioclasts/shells --FILL--					
5					1	3 6 9	4.50 P	
					2	2 2 4	1.07 B	39
					3	2 3 4	1.64 B	32
10					4	2 3 5	2.38 B	22
	602.8		Stiff to very stiff, brown and gray SILTY LOAM, trace gravel and organic matter, sand seams --FILL--		5	4 4 4	2.21 B	37
15					6	2 4 5	1.25 P	31
					7	2 4 3	2.13 B	41
			--L_L = 53%, P_L = 25%-- --% Gravel = 0.6%-- --% Sand = 13.3%--		8	2 2 2	1.31 B	45
20								
	592.8		--% Silt = 67.5%-- --% Clay = 18.7%-- Very stiff to hard, brown SILTY CLAY LOAM, trace gravel --FILL--		9	5 8 6	4.50 P	25
25					10	2 2 3	3.50 P	20
	587.8		Soft, gray SILTY CLAY LOAM, trace gravel		11	1 1 2	0.41 B	26
30	583.8		Very stiff to hard, gray SILTY CLAY to SILTY CLAY LOAM, trace to some gravel		12	1 1 1	1.31 B	47
35					13	7 15 10	2.13 B	15
					14	4 6 9	3.12 B	16
40								

WANGENGINC 885201.GPJ WANGENG.GDT 6/7/13

GENERAL NOTES

Begin Drilling: 04-29-2013 Complete Drilling: 04-29-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: P&N Logger: A. Happel Checked by: M. Snider
Drilling Method: 2.25-inch SSA to 10', Mud rotary 10' to 77', auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: NA
At Completion of Drilling: MUD
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

PRINTED DATE: 3/5/2021
FILE NAME: 60T06_042_BorLog_lc.dgn

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USER NAME = elsc	DESIGNED - SMA/PS	REVISED -	
	CHECKED - CMW	REVISED -	
PLOT SCALE = $SCALE$	DRAWN - SMA/PS	REVISED -	
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 016-1330
SHEET NO 42 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	77
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BORING LOG BSB-04

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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 613.25 ft
North: 1871212.43 ft
East: 1129146.20 ft
Station: 24+51.34
Offset: 21.02 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	613.25	4-inch thick, ASPHALT over 8-inch thick CONCRETE						
	612.3	--PAVEMENT--						
		2-inch thick, CRUSHED STONE --AGGREGATE BASE--						
		Hard, brown and gray SILTY CLAY LOAM, trace gravel --FILL--						
	608.3		5					
		Very stiff, gray SILTY CLAY LOAM, trace gravel --FILL--						
	602.3		10					
		Boring terminated at 11.00 ft						
			15					
			20					
			45		15	4 7 11	4.59 B	17
			50		16	11 14 19	8.20 B	12
	542.3	Very dense, gray SILTY LOAM, with gravel --Hard Drilling--						
			55		17	8 14 12	3.20 B	14
	536.3	--AUGER REFUSAL, 77'-- Boring terminated at 77.00 ft						
			60		18	7 16 19	6.40 B	14
			65		19	12 16 24	4.35 B	17
			70		20	4 6 12	2.38 B	20
			75		21	22 50/5"	NP	10
			80					

GENERAL NOTES

Begin Drilling: 04-29-2013 Complete Drilling: 04-29-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: P&N Logger: A. Happel Checked by: M. Snider
Drilling Method: 2.25-inch SSA to 10', Mud rotary 10' to 77', auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: NA
At Completion of Drilling: MUD
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8852201.GPJ WANGENG.GDT 6/7/13

BORING LOG RB-01

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 613.27 ft
North: 1870952.81 ft
East: 1129150.23 ft
Station: 21+91.69
Offset: 24.29 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	613.27	4-inch thick, ASPHALT over 8-inch thick CONCRETE						
	612.3	--PAVEMENT--						
		2-inch thick, CRUSHED STONE --AGGREGATE BASE--						
		Hard, brown and gray SILTY CLAY LOAM, trace gravel --FILL--			1	16 9 12 12	4.25 P	12
	608.3		5		2	9 7 5 9	5.17 B	21
		Very stiff, gray SILTY CLAY LOAM, trace gravel --FILL--			3	4 5 6 6	3.75 P	12
			10		4	3 6 4 5	2.38 B	13
	602.3	Boring terminated at 11.00 ft			5	3 4 6 6	1.64 B	16
			15					
			20					

GENERAL NOTES

Begin Drilling: 04-25-2013 Complete Drilling: 04-25-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: M. Snider
Drilling Method: 2.25-inch SSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8852201.GPJ WANGENG.GDT 6/7/13

BORING LOG RB-02

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Telephone: 630 953-9928
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WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 613.00 ft
North: 1871262.00 ft
East: 1129146.20 ft
Station: 25+00.89
Offset: 19.61 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	613.0	4-inch thick, ASPHALT over 10-inch thick CONCRETE						
	611.5	--PAVEMENT--						
	611.2	2-inch thick CRUSHED STONE --AGGREGATE BASE--			1	2 5 7 7	1.23 B	17
	610.3	Stiff, brown and gray SILTY CLAY LOAM to SILTY LOAM, seams of fine sand and silt, trace gravel --FILL--			2	3 2 3 2	2.25 P	29
	607.5	Loose, brown and gray LOAM, some gravel --FILL--	5		3	2 2 3 5	NP	33
		Stiff to very stiff, brown and g ray SILTY CLAY LOAM, trace gravel and organics (shells) --FILL--			4	15 28 5 6	1.00 P	15
	602.0	Boring terminated at 11.00 ft	10		5	2 5 4 6	2.21 B	26
			15					
			20					

GENERAL NOTES

Begin Drilling: 04-29-2013 Complete Drilling: 04-29-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: P&N Logger: A. Happel Checked by: M. Snider
Drilling Method: 3.25-inch IDA HSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8852201.GPJ WANGENG.GDT 6/7/13

PRINTED DATE: 3/5/2021
FILE NAME: 60T06_043_BorLog_2.dgn

ESI CONSULTANTS, LTD.
Excellence, Service, Integrity
www.esiltd.com

USER NAME = elao	DESIGNED - SMA/PS	REVISED -	
	CHECKED - CMW	REVISED -	
PLOT SCALE = $SCALE$	DRAWN - SMA/PS	REVISED -	
PLOT DATE = 3/5/2021	CHECKED - CMW	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 016-1330
SHEET NO 43 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	78
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BORING LOG RW-01

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 591.79 ft
North: 1871218.91 ft
East: 1129221.53 ft
Station: 24+55.69
Offset: 54.45 RT

Elevation (ft)	Soil and Rock Description
	7-inch thick ASPHALT --PAVEMENT--
591.2	4-inch thick CRUSHED STONE --AGGREGATE BASE--
590.9	Stiff to very stiff, black to gray SILTY CLAY, trace gravel
583.8	Medium stiff, gray SANDY LOAM
581.3	Soft, gray SILT --L_L = 47%, P_L = 26%-- --% Gravel = 0.0%-- --% Sand = 10.1%-- --% Silt = 84.4%-- --% Clay = 5.5%--
576.3	Hard, gray SILTY LOAM to SILTY LOAM CLAY, trace gravel
566.8	Boring terminated at 25.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	4, 4, 5	3.03 B	16
2	1, 3, 4	1.56 B	28
3	1, 1, 2	1.87 B	17
4	1, 2, 2	0.57 B	21
5	1, 0, 0	0.49 B	59
6	0, 0, 1	0.25 B	35
7	3, 6, 8	6.48 B	14
8	3, 6, 7	5.17 B	15
9	3, 5, 7	5.00 B	14
10	2, 5, 7	4.10 B	15

GENERAL NOTES

Begin Drilling: 05-02-2013 Complete Drilling: 05-02-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-75 TMR
Driller: C&R Logger: D. Wind Checked by: N. Boddy
Drilling Method: 3.25-inch IDA HSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 6/7/13

BORING LOG RW-02

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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 591.12 ft
North: 1871305.99 ft
East: 1129220.68 ft
Station: 25+42.72
Offset: 56.11 RT

Elevation (ft)	Soil and Rock Description
590.7	5-inch thick ASPHALT --PAVEMENT--
590.0	8-inch thick CRUSHED STONE --AGGREGATE BASE--
	Medium stiff to very stiff, black to gray SILTY CLAY, trace gravel and sand seams
566.1	Boring terminated at 25.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	3, 4, 5	2.05 B	27
2	2, 1, 3	NA	17
3	2, 1, 1	0.75 P	22
4	2, 2, 2	NR	
5	1, 3, 4	2.46 B	18
6	2, 3, 6	2.30 B	16
7	3, 4, 6	3.12 B	16
8	3, 4, 6	1.80 B	16
9	3, 4, 5	3.44 B	16
10	2, 5, 7	2.79 B	16

GENERAL NOTES

Begin Drilling: 05-02-2013 Complete Drilling: 05-02-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-75 TMR
Driller: C&R Logger: D. Wind Checked by: N. Boddy
Drilling Method: 3.25-inch IDA HSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 11.00 ft
At Completion of Drilling: 11.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 6/7/13

BORING LOG RW-03

Wang Engineering
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Telephone: 630 953-9928
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WEI Job No.: 885-02-01

Client: ESI Consultants, Ltd.
Project: IL 43 (Harlem Ave) over MWRDGC RR
Location: Forest View, Cook County, Illinois

Datum: NGVD
Elevation: 590.19 ft
North: 1871402.16 ft
East: 1129215.77 ft
Station: 26+38.98
Offset: 53.98 RT

Elevation (ft)	Soil and Rock Description
	Loose, brown SANDY GRAVEL --SURFACE AGGREGATE--
587.2	Soft, black CLAY LOAM
584.7	Soft, gray SILTY CLAY
582.2	Soft, gray CLAY LOAM
580.7	Very loose, black to gray, fine SAND
577.2	Very stiff, gray SILTY CLAY, trace gravel
574.7	Medium stiff to hard, gray SILTY LOAM to SILTY LOAM CLAY, trace gravel and sand seams
565.2	Boring terminated at 25.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	4, 4, 5	NP	6
2	2, 0, 2	0.33 B	32
3	1, 2, 2	0.41 B	20
4	1, 1, 1	NP	25
5	0, 1, 1	NP	27
6	2, 3, 6	3.12 B	19
7	6, 11, 11	0.98 B	25
8	4, 5, 8	4.58 B	16
9	4, 6, 9	3.53 B	16
10	4, 7, 11	5.58 B	16

GENERAL NOTES

Begin Drilling: 05-02-2013 Complete Drilling: 05-02-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-75 TMR
Driller: C&R Logger: D. Wind Checked by: N. Boddy
Drilling Method: 3.25-inch IDA HSA, auto hammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 11.00 ft
At Completion of Drilling: 11.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 6/7/13

Wang Engineering

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BORING LOG RW-04

WEI Job No.: 885-02-01

Client: **ESI Consultants, Ltd.**
Project: **IL 43 (Harlem Ave) over MWRDGC RR**
Location: **Forest View, Cook County, Illinois**

Datum: NGVD
Elevation: 589.97 ft
North: 1871474.64 ft
East: 1129219.40 ft
Station: 27+11.34
Offset: 59.68 RT

SOIL AND ROCK DESCRIPTION

Elevation (ft)	Soil and Rock Description
589.7	3-inch thick ASPHALT --PAVEMENT--
588.2	Medium dense, brown, fine to coarse SANDY GRAVEL; moist --BASE COURSE--
584.5	Stiff to very stiff, dark gray to gray SILTY CLAY LOAM, trace gravel and brick fragments --FILL--
582.0	Medium stiff, gray and dark gray SILTY CLAY LOAM, trace gravel
581.2	Dark gray SILTY LOAM, trace plant matter; moist
579.5	Medium stiff, gray SILTY CLAY LOAM, trace gravel
578.5	Very soft, gray SILTY CLAY, Qu <0.25 tsf
575.5	Stiff to very stiff, gray SILTY CLAY, trace gravel --few silt seams--
574.5	Gray SILT; moist
572.7	Very stiff, gray SILT YCLAY, trace gravel, few silt seams
572.0	Gray SILT; dry
562.0	Very stiff to hard, gray SILTY CLAY, trace gravel
558.0	Dense, gray SILT; moist to wet
555.5	Hard, gray SILTY CLAY, little gravel
	Boring terminated at 34.50 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	7, 6, 5	2.87 B	19
2	1, 2, 3	1.56 B	28
3	2, 3, 2	0.90 B	21
4	3, 3, 2	0.98 B	15
5	2, 2, 3	1.89 B	25
6	4, 8, 12	3.44 B	26
7	3, 5, 12	3.61 B	16
8	4, 5, 6	3.69 B	17
9	4, 5, 10	4.43 B	16
10	5, 9, 14	3.44 B	16
11	8, 17, 29	4.67 B	13
12	13, 18, 19	NP	11
13	14, 22, 20, 19	> 4.50 P	

GENERAL NOTES

Begin Drilling **11-23-2016** Complete Drilling **11-23-2016**
Drilling Contractor **Wang Testing Services** Drill Rig
Driller **R&K** Logger **J. Rowells** Checked by **M. Snider**
Drilling Method **3.25-inch IDA HSA, auto hammer, boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **31.00 ft**
At Completion of Drilling ▼ **DRY**
Time After Drilling **NA**
Depth to Water ▼ **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 1/11/17

Wang Engineering

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Fax:

BORING LOG RW-05

WEI Job No.: 885-02-01

Client: **ESI Consultants, Ltd.**
Project: **IL 43 (Harlem Ave) over MWRDGC RR**
Location: **Forest View, Cook County, Illinois**

Datum: NGVD
Elevation: 592.06 ft
North: 1871581.65 ft
East: 1129215.36 ft
Station: 28+18.44
Offset: 58.69 RT

SOIL AND ROCK DESCRIPTION

Elevation (ft)	Soil and Rock Description
591.7	4-inch thick ASPHALT --PAVEMENT--
591.0	9-inch thick, brown, coarse GRAVELLY SAND; moist --BASE COURSE--
589.1	Dark gray SILTY CLAY LOAM, some brick fragments --FILL--
586.6	Stiff, dark gray SILTY CLAY LOAM, trace gravel
585.8	Gray SILT; moist
585.3	Stiff, gray SILTY CLAY LOAM
582.8	Loose, gray SILT; damp to wet
580.3	Very loose to loose, gray SILTY LOAM, trace shells and organic matter; moist
579.1	Very loose, gray LOAM; moist
574.1	Hard, gray SILTY CLAY, trace gravel, few silt seams
569.1	Medium dense, gray SILT; moist to saturated
564.1	Hard, gray SILT YCLAY, trace gravel
557.7	Dense, gray SILT; saturated
555.3	Gray, fine SAND; wet
552.1	Very dense, gray SILT, trace to little gravel; dry
	Boring terminated at 40.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	9, 9, 3	NA	35
2	1, 2, 3	1.25 P	31
3	2, 2, 3	1.31 B	31
4	1, 2, 2	NP	91
5	0, 0, 0	NP	40
6	3, 4, 7	4.35 B	14
7	5, 6, 7	5.33 B	21
8	7, 7, 8	NP	19
9	4, 5, 8	NP	27
10	6, 9, 12	5.66 B	15
11	9, 16, 22	> 5.74 B	15
12	16, 21, 21	NP	24
13	11, 16, 25	NP	21
14	13, 21, 29	NP	11

GENERAL NOTES

Begin Drilling **11-23-2016** Complete Drilling **11-23-2016**
Drilling Contractor **Wang Testing Services** Drill Rig
Driller **R&K** Logger **J. Rowells** Checked by **M. Snider**
Drilling Method **3.25-inch IDA HSA, auto hammer, boring backfilled upon completion**

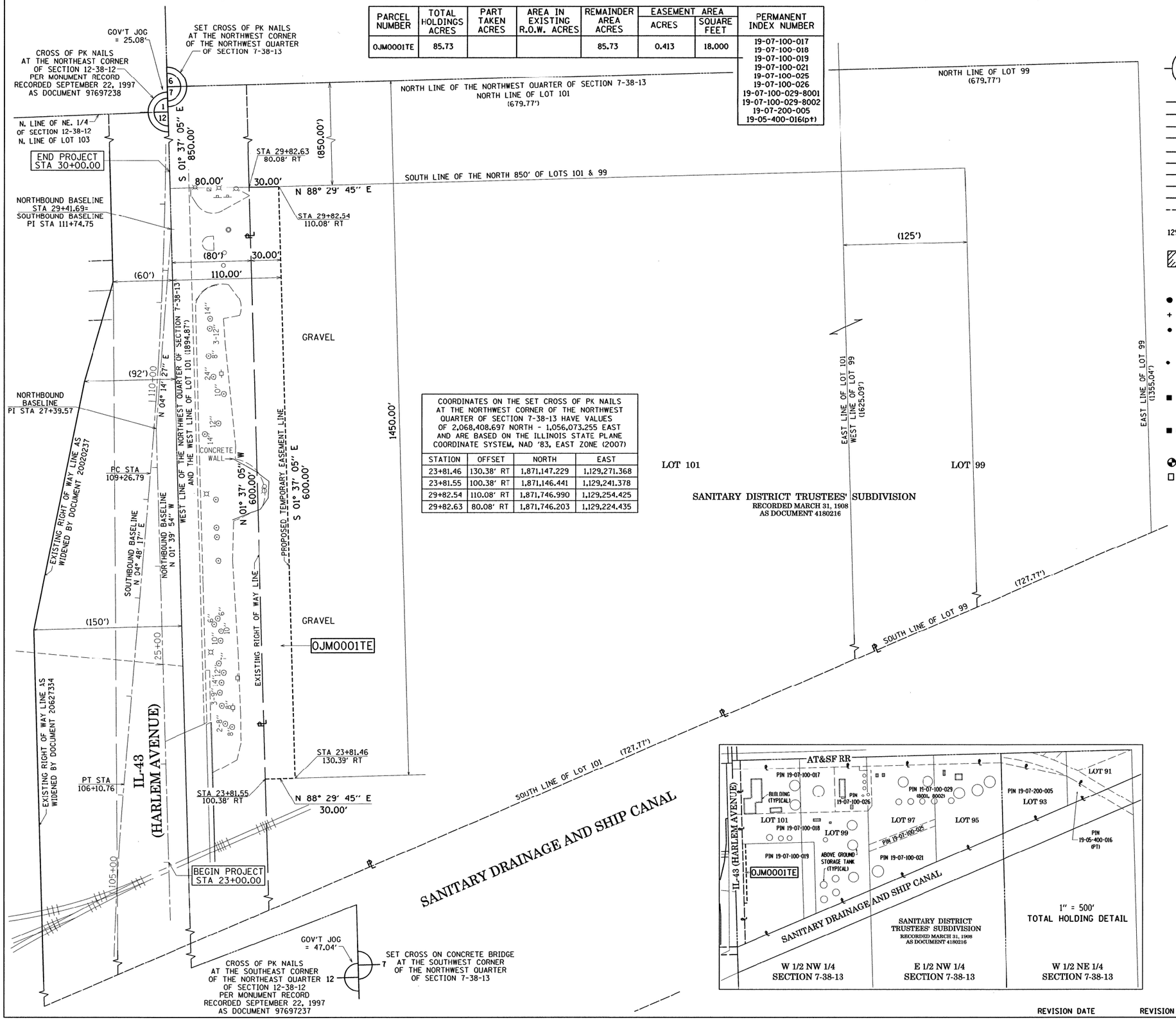
WATER LEVEL DATA

While Drilling ∇ **21.75 ft**
At Completion of Drilling ▼ **DRY**
Time After Drilling **NA**
Depth to Water ▼ **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 8850201.GPJ WANGENG.GDT 1/11/17

PART OF THE NORTHWEST QUARTER OF SECTION 7, TOWNSHIP 38 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, ILLINOIS.

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	PERMANENT INDEX NUMBER
OJM0001TE	85.73			85.73	0.413	18.000	19-07-100-017 19-07-100-018 19-07-100-019 19-07-100-021 19-07-100-025 19-07-100-026 19-07-100-029-8001 19-07-100-029-8002 19-07-200-005 19-05-400-016(pt)



COORDINATES ON THE SET CROSS OF PK NAILS AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SECTION 7-38-13 HAVE VALUES OF 2,068,408.697 NORTH - 1,056,073.255 EAST AND ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD '83, EAST ZONE (2007)

STATION	OFFSET	NORTH	EAST
23+81.46	130.38' RT	1,871,147.229	1,129,271.368
23+81.55	100.38' RT	1,871,146.441	1,129,241.378
29+82.54	110.08' RT	1,871,746.990	1,129,254.425
29+82.63	80.08' RT	1,871,746.203	1,129,224.435

LEGEND

SECTION CORNER (9 10 / 16 15)

16 — 15 QUARTER SECTION CORNER

- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINES
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE (APL)
- CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 129.32' MEASURED DIMENSION
- 129.32' (COMP) COMPUTED DIMENSION
- (129.32') RECORDED DIMENSION
- EXISTING BUILDING

N

GRAPHIC SCALE FEET 0 20

SCALE: 1" = 20'

BEARINGS ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011), EAST ZONE, AND THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 7-38-13 BEARS N 01° 37' 05" W

- ● IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- \+ CUT CROSS FOUND OR SET
- ○ 5/8 " REBAR SET
- ● T1 T2 T3 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ● BT1 BT2 BT3 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊕ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS).
- □ RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

THIS IS TO CERTIFY THAT I, WILLIAM J. FLEMING, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 7, TOWNSHIP 38 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT CHICAGO, ILLINOIS THIS 28TH DAY OF OCTOBER, A.D. 2016.

ILLINOIS PROFESSIONAL LAND SURVEYOR 35-3226
LICENSE EXPIRATION DATE: 11/30/2016

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS OF PRACTICE FOR A BOUNDARY SURVEY.

STATE OF ILLINOIS — WILLIAM J. FLEMING 35-3226 — PROFESSIONAL LAND SURVEYOR

GRAEF
8501 West Higgins Road
Suite 280
Chicago, IL 60631-2801
773 / 399 0112
www.graef-usa.com
Illinois Professional Design Corporation 184-000938

PTB 161-017 WO#6
GRAEF PROJECT 20123007.06

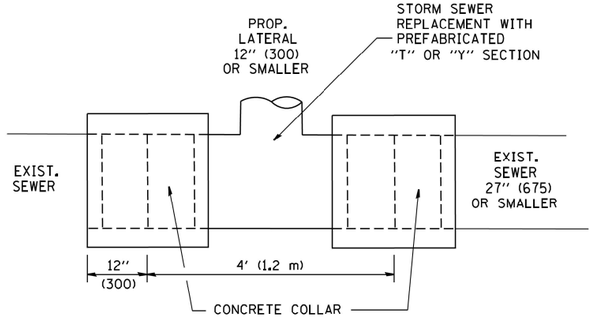
PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL-43 (HARLEM AVENUE)

SECTION: AT MWRDGC RR	COUNTY: COOK
PROJECT	JOB NO.: R-90-008-13
STATION 23+00.00	TO STATION 30+00.00
SCALE: 1" = 50'	SHEET 2 OF 2

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

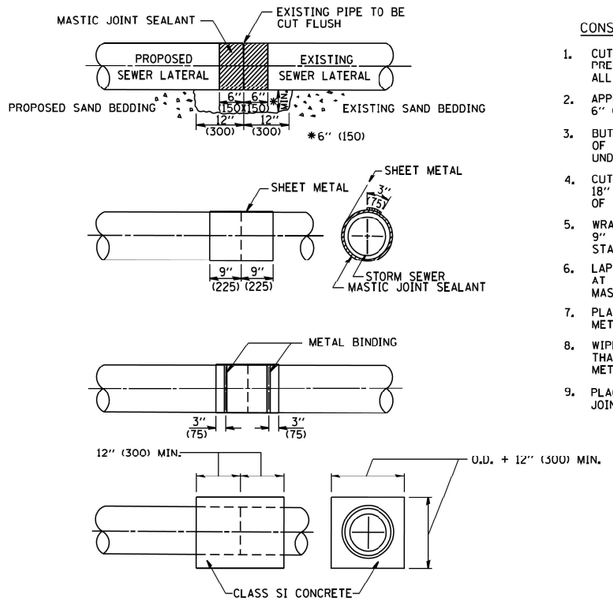
REVISION DATE	REVISION	MADE BY

ROUTE NAME: IL-43 (HARLEM AVENUE) | SECTION: AT MWRDGC RR | COUNTY: COOK | JOB NO.: R-90-008-13 | RECORDING: RECORDED ON



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER
OF 27" (675) OR SMALLER

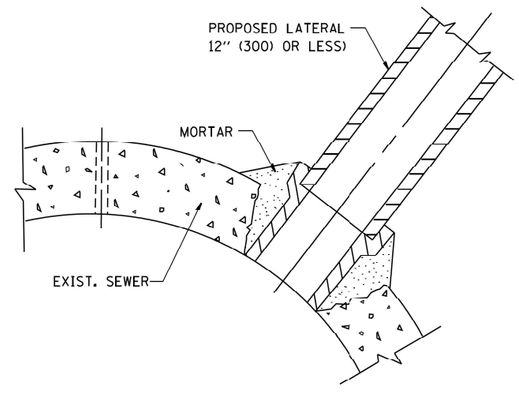


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12' x 6' (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERANCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL
CONNECTION TO EXISTING SEWER
OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.

II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:

A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".

B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

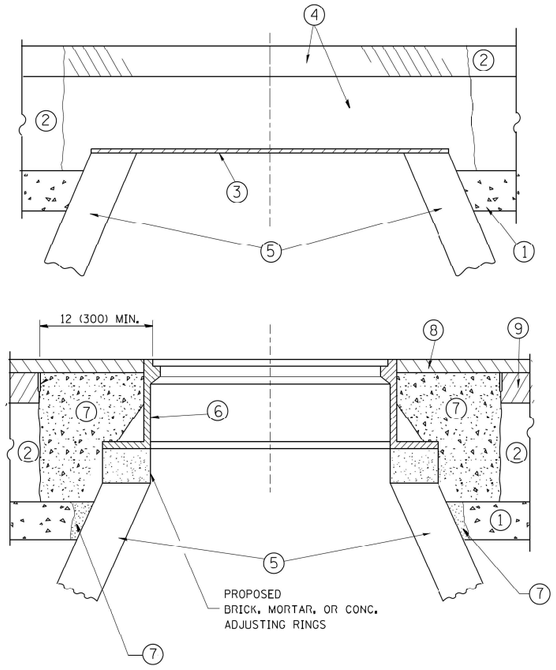
REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

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

FILE NAME = W:\diststd\22x34\bd07.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - M. DE YONG 05-08-92	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. SHAH 09-09-94					348	0708.08B-R(11)	COOK	105	82
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. SHAH 10-25-94					BD500-01 (BD-7)		CONTRACT NO. 60T06		
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

1. SUB-BASE GRANULAR MATERIAL
2. EXISTING PAVEMENT
3. 36 (900) DIAMETER METAL PLATE
4. PROPOSED CRUSHED STONE AND HMA SURFACE MIX
5. EXISTING STRUCTURE
6. FRAME AND LID (SEE NOTES)
7. CLASS PP-1* CONCRETE
8. PROPOSED HMA SURFACE COURSE
9. PROPOSED HMA BINDER COURSE

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = c:\pw_work\pwidot\bauerdl\d0108315\bd08.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04
		DRAWN -	REVISED - R. BORO 01-01-C7
	PLOT SCALE = 1968.5000 '/ m	CHECKED -	REVISED - R. BORO 03-09-11
	PLOT DATE = 12/6/2011	DATE - 10-25-94	REVISED - R. BORO 12-06-11

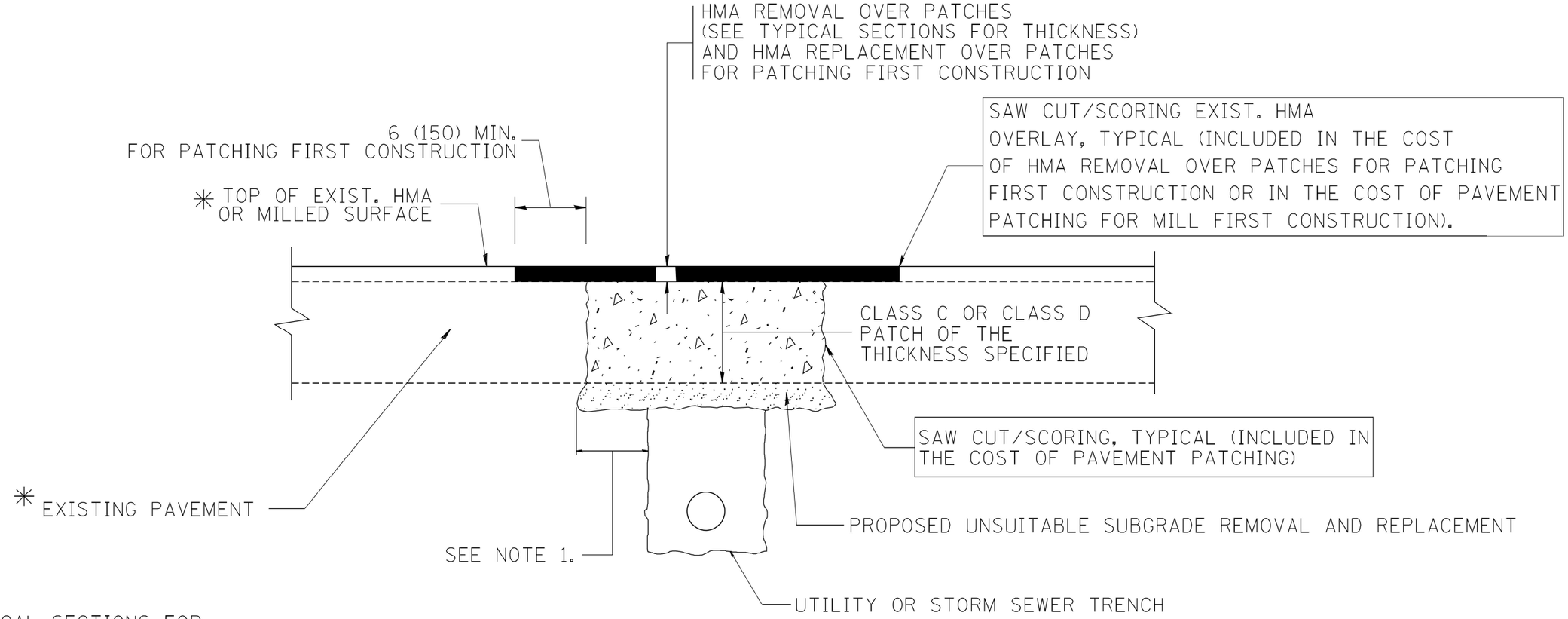
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	83
	BD600-03 (BD-8)	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

bd08.dgn 12/6/2011 10:53:13 AM User:bauerdl



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

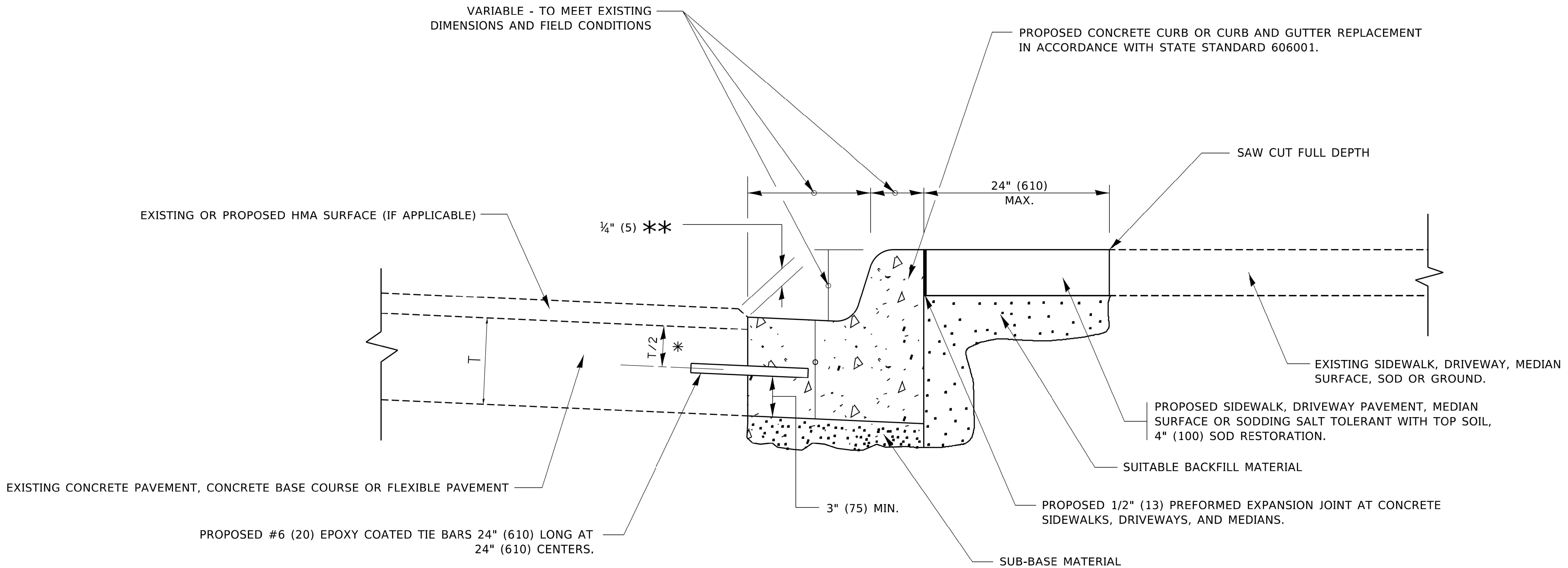
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. BORO 01-01-07					348	0708.08B-R(11)	COOK	105	84
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. BORO 09-04-07						BD400-04 (BD-22)		CONTRACT NO. 60T06	
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

USER NAME = footemj	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - M. GOMEZ 01-22-01	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - R. BORO 12-15-09	
PLOT DATE = 7/11/2019	DATE - 03-11-94	REVISED - K. SMITH 07-11-19	

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(1)	COOK	105	85
	BD600-06 (BD-24)	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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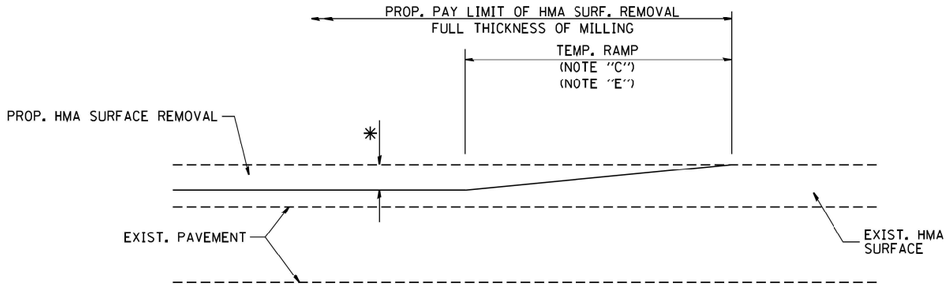
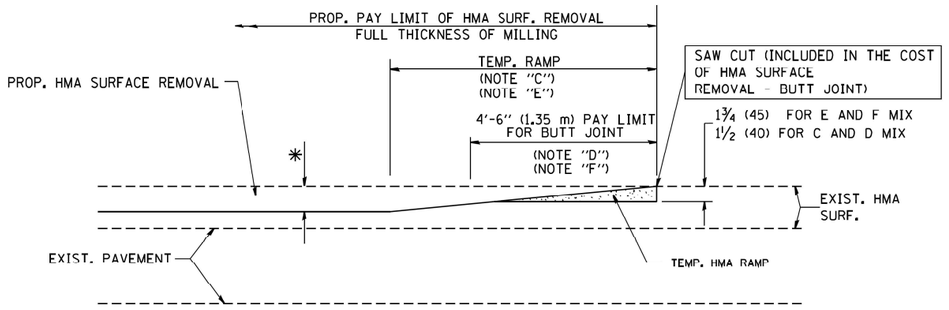


MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

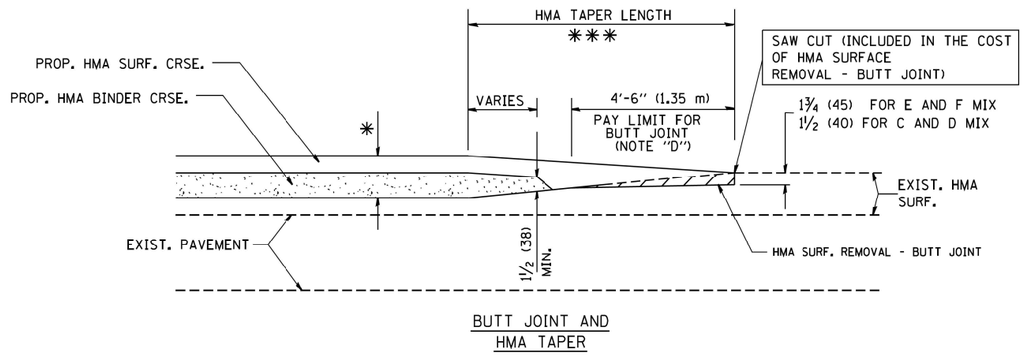


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

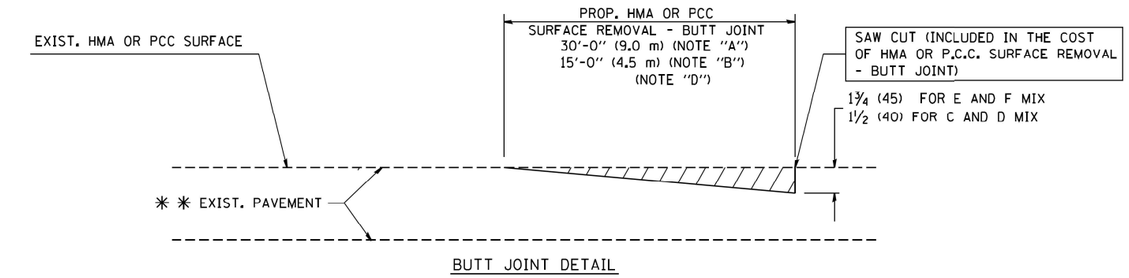
OPTION 2

TYPICAL TEMPORARY RAMP

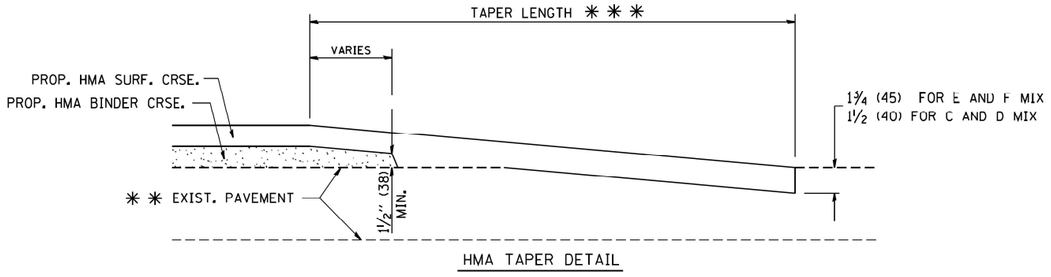


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

* * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

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

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

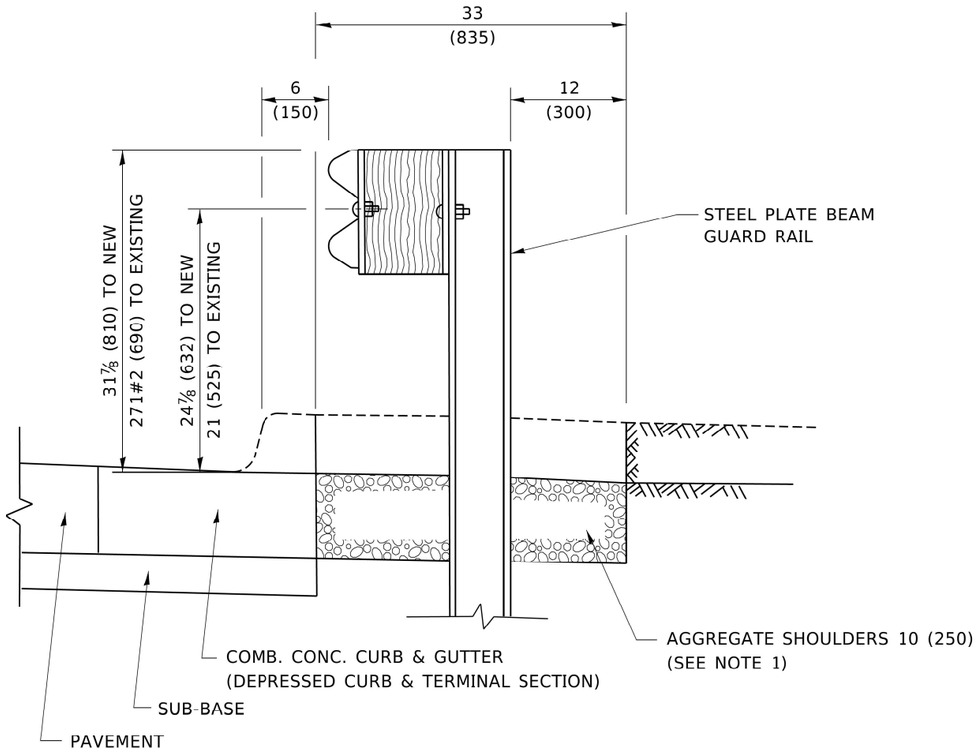
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	86
	BD400-05 BD32	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

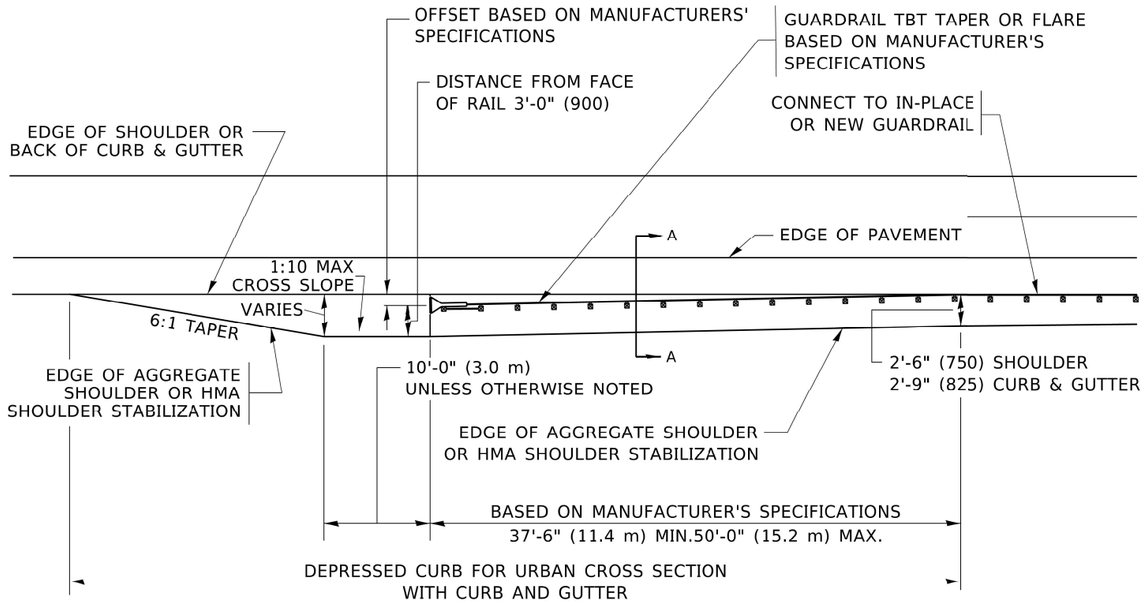


SECTION A–A

NOTES:

1. THE AGGREGATE SHOULDER, 10 (250) OR HMA SHOULDER, 6 (150) (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



DEPRESSED CURB AND GUTTER AND SHOULDER TREATMENT AT TBT TY. 1 SPL.

AGGREGATE SHOULDER, 10 (250) WILL BE PAID ACCORDING TO SECTION 481.

HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID ACCORDING TO SECTION 482.

COMB. CONC. C&G, STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL

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

USER NAME = footemj	DESIGNED - M. DE YONG	REVISED - R. BORO 12-06-2008	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - R. BORO 09-14-2009	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - R. BORO 08-06-2012	
PLOT DATE = 3/27/2019	DATE - 09-22-90	REVISED - R. BORO 05-06-2015	

DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY. 1 SPL.

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	87
	BD600–10 (BD 34)	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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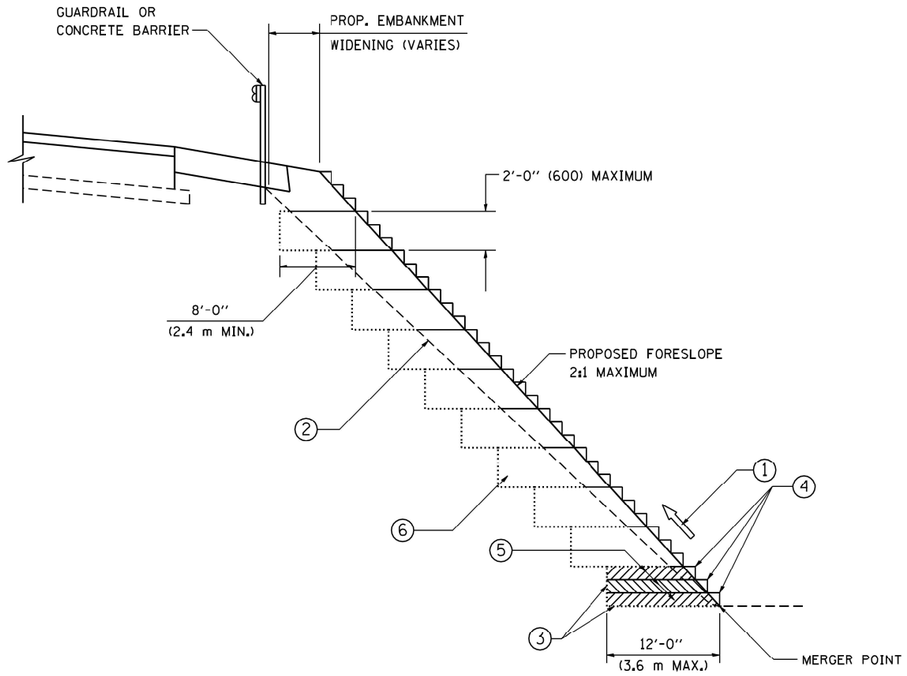


TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

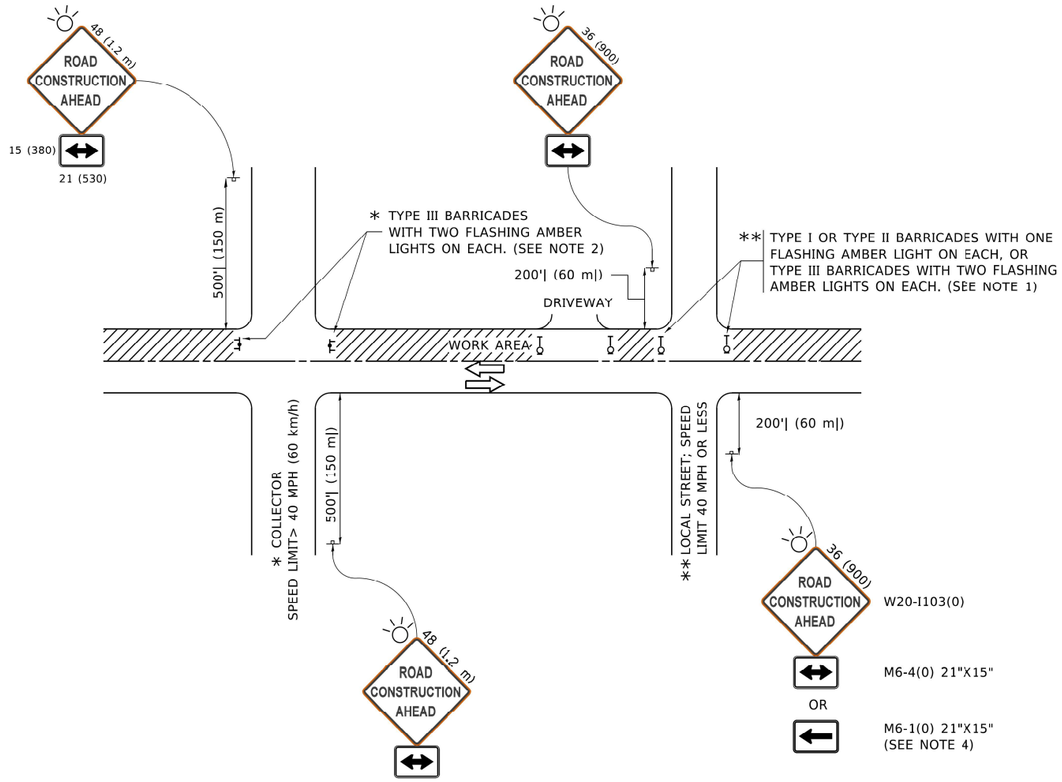
FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED -
		DRAWN - CADD	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - S.E.B.	REVISED -
	PLOT DATE = 1/4/2008	DATE - 06-16-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL
FOR EMBANKMENT WIDENING

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	88
	BD-51	CONTRACT NO. 60T06		
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.

USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96	
	DRAWN -	REVISED - T. RAMMACHER 01-06-00	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13	
PLOT DATE = 3/4/2019	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. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	89
	TC-10	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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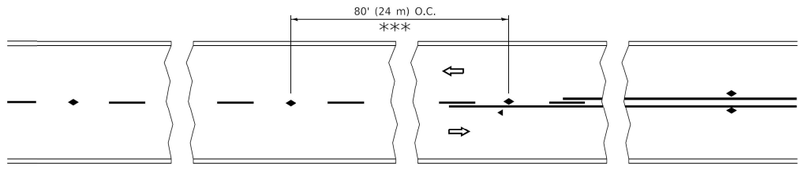
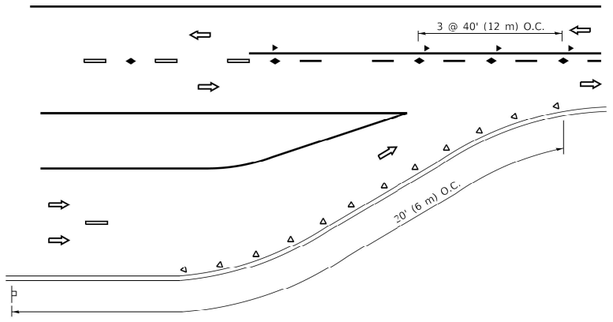
tc10.dgn 3/4/2019 10:27:07 AM User=footemj



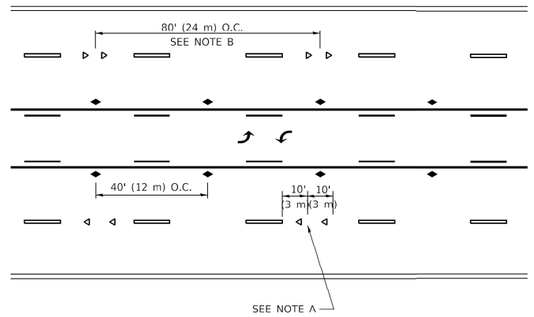
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO–LANE/TWO–WAY

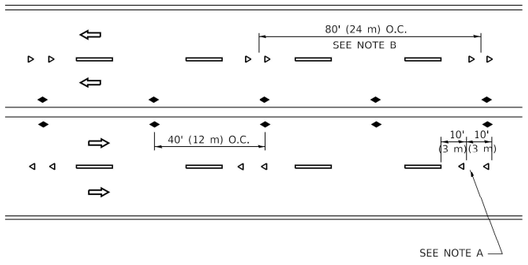
SEE FIGURE 3B-14 MUTCD



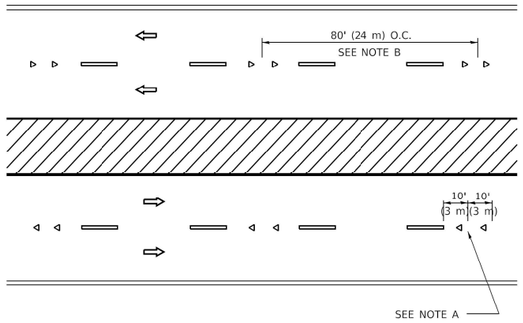
LANE REDUCTION TRANSITION



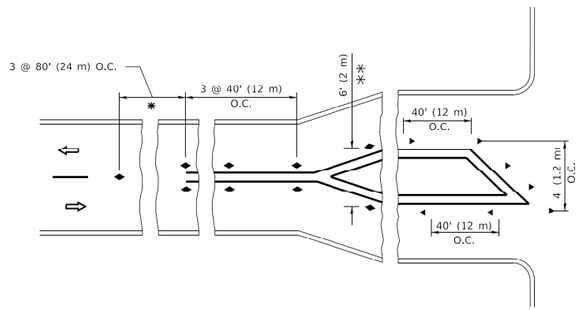
TWO–WAY LEFT TURN

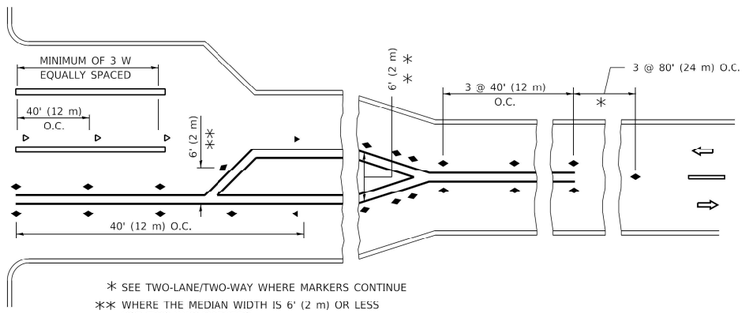


MULTI–LANE/UNDIVIDED



MULTI–LANE/DIVIDED





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

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

TURN LANES

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.
4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

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.

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

USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS
	DRAWN -	REVISED - T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 09-09-09	
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 07-01-13	

TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW–PLOW RESISTANT)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	90
	TC-11	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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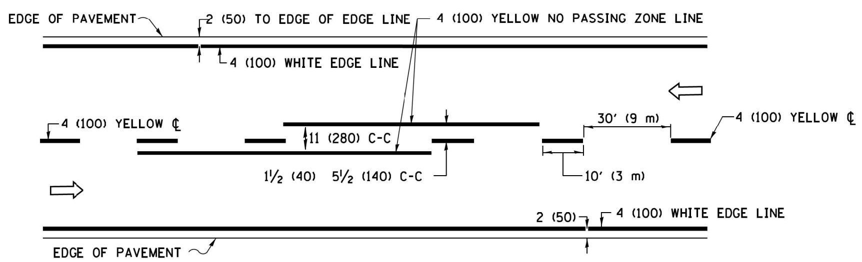
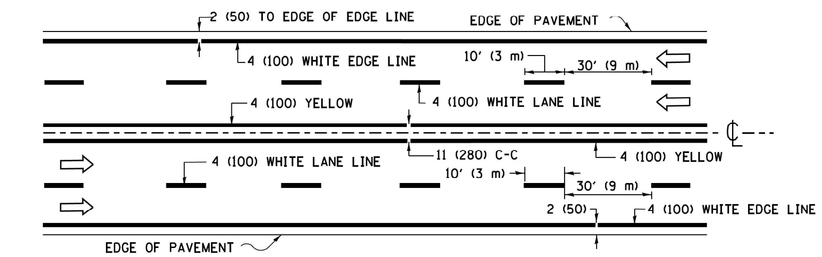
tc11.dan 3/4/2019 10:29:08 AM User=footemj

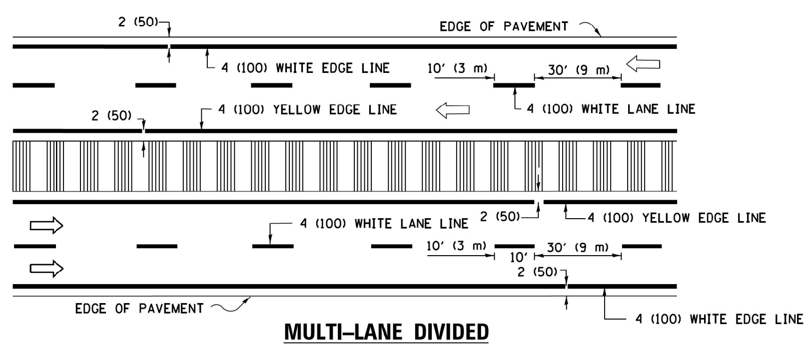
D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55



2–LANE ROADWAY

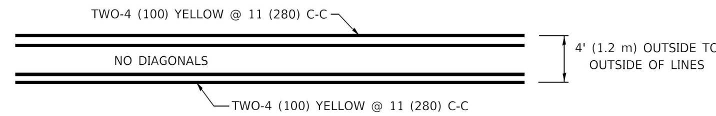


MULTI–LANE UNDIVIDED

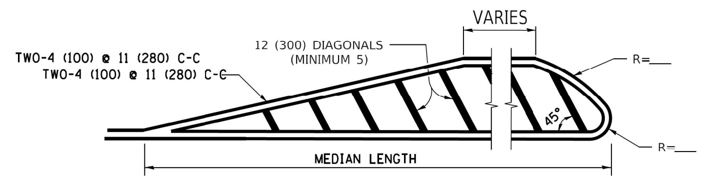


MULTI–LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING



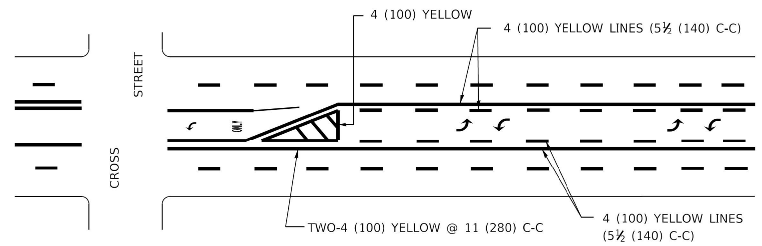
4' (1.2 m) WIDE MEDIANS ONLY



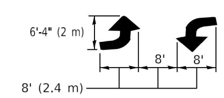
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

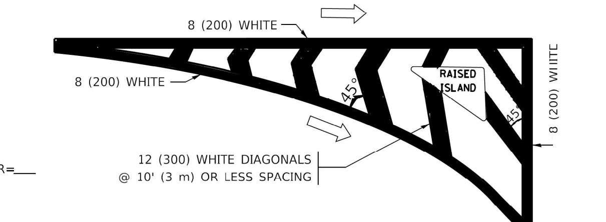


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

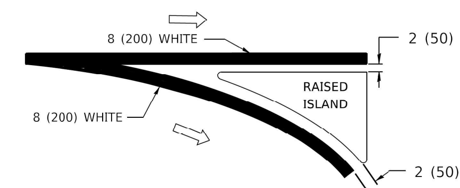


MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

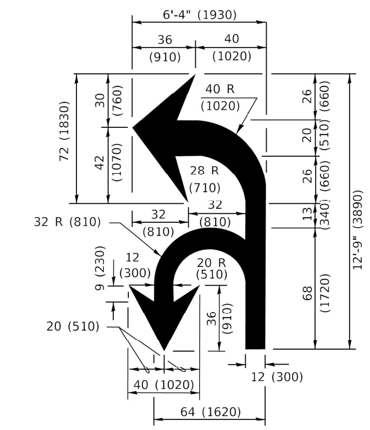


ISLAND OFFSET FROM PAVEMENT EDGE

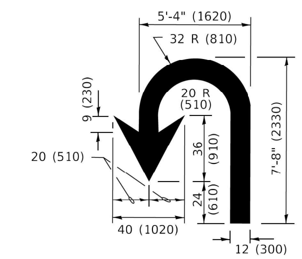


ISLAND AT PAVEMENT EDGE

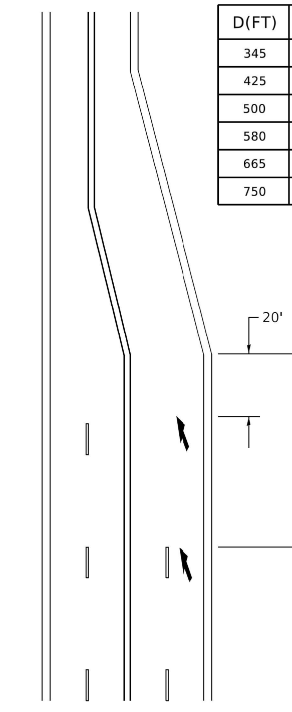
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN

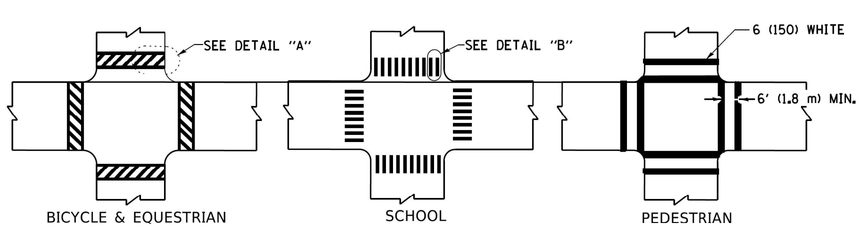


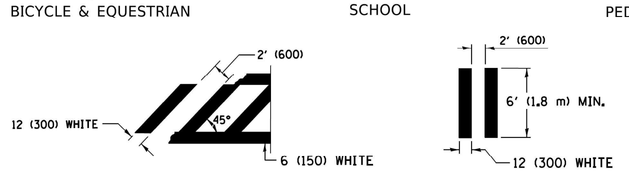
U–TURN



LANE REDUCTION TRANSITION

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

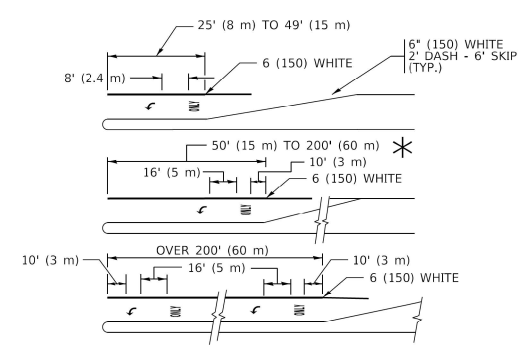




DETAIL "A"   DETAIL "B"

TYPICAL CROSSWALK MARKING

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



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²)   ONLY AREA = 20.8 SQ. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

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 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
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.

USER NAME = footemj	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09	
	DRAWN -	REVISED - C. JUCIUS 07-01-13	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15	
PLOT DATE = 3/4/2019	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708,08B-R(1)	COOK	105	91
	TC-13	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

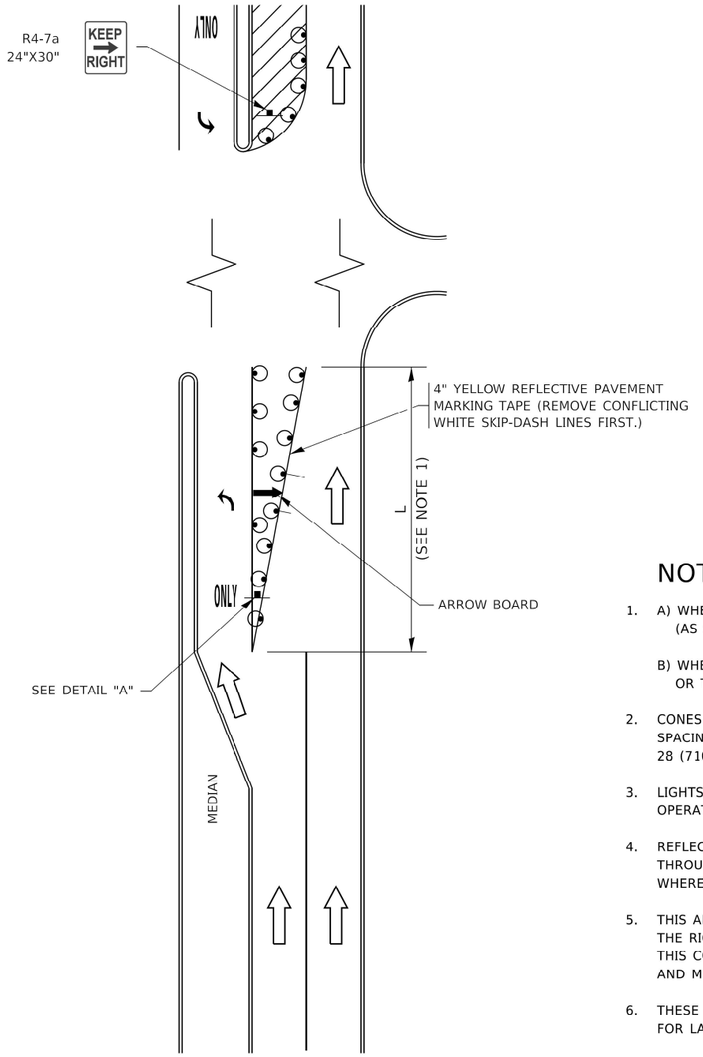


FIGURE 1

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

NOTES:

1. A) WHEN "L" IS ≤ THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.

   B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.

2. 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.

3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.

4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.

5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.

6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.

7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.

8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

TURN BAY ENTRANCE WITHIN A LANE CLOSURE

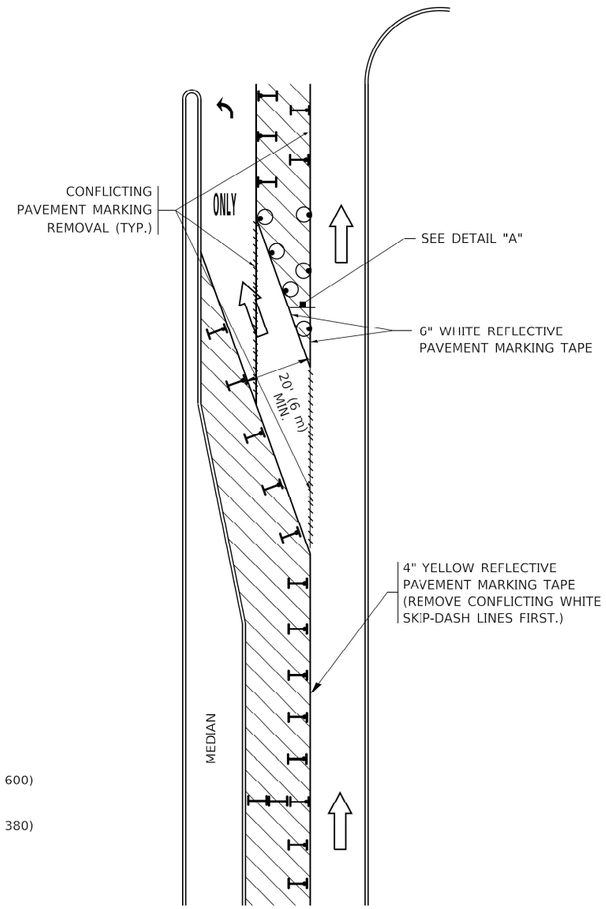
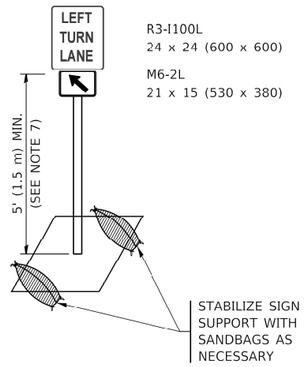


FIGURE 2



DETAIL A

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

USER NAME = footemj	DESIGNED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)	
	DRAWN - A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13			
PLOT SCALE = 50.0000 ' / in.	CHECKED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16			
PLOT DATE = 3/4/2019	DATE - T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE / SHEET 1 OF 1 SHEETS / STA. / TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	92
	TC-14	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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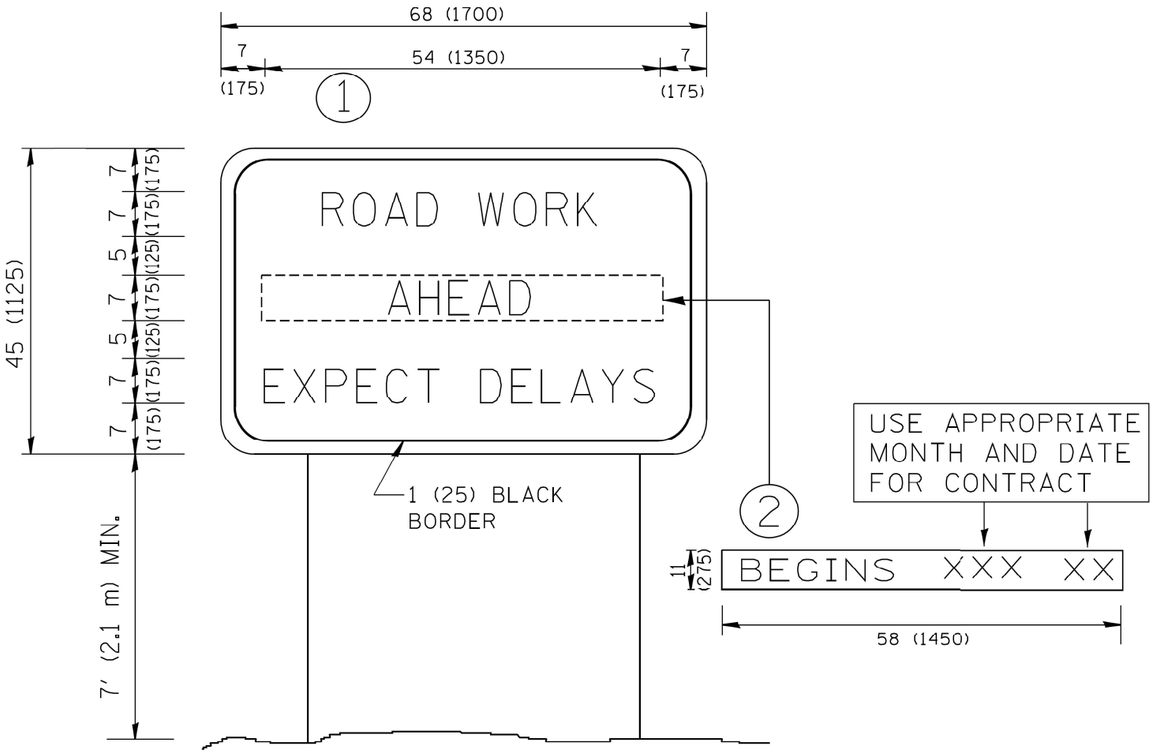


NOTES:

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.

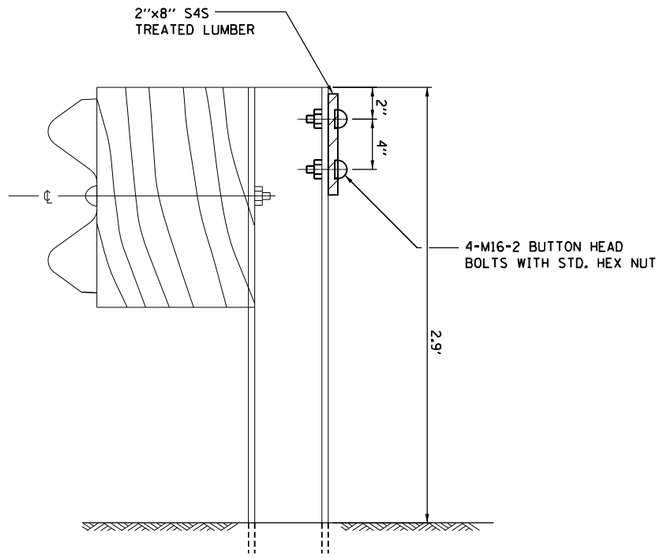
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

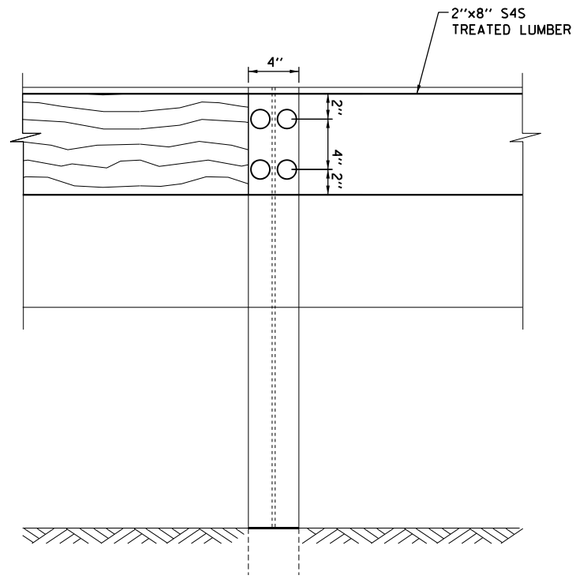
ARTERIAL ROAD INFORMATION SIGN

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	93
	TC-22	CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



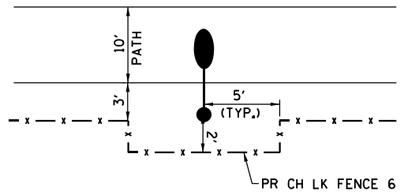
SECTION



ELEVATION

GUARDRAIL – BICYCLE RUB RAIL DETAIL

RUB RAIL PLACED AT BACK OF GUARDRAIL
ALONG BIKE PATH



CHAIN LINK FENCE AT LIGHT POLE DETAIL

PRINTED DATE: 3/5/2021
FILE NAME: DI60106_sht_det_20.dgn

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USER NAME = eliao	DESIGNED - JY	REVISED -
	DRAWN - DN	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MR	REVISED -
PLOT DATE = 3/5/2021	DATE - 3/5/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
348	0708.08B-R(11)	COOK	105	94
		CONTRACT NO 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FEDERAL AID PROJECT		

FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	BY
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

ORIGINAL SURVEY	
NOTE BOOK	
NO.	

DATE	BY
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

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

625 620 615 610 605 600

NORTHBOUND
IL RTE 43
℄

IL RTE 43
PR. PGL ℄

EX. ROW

614.97
614.91
614.98

1.5%
1.5%

CUT: 53.6 FILL: 0.8

20 + 50

NB IL ROUTE 43
℄

EX. ROW

615.75

CUT: 0.0 FILL: 0.0

20 + 00

NB IL ROUTE 43
℄

EX. ROW

615.90

CUT: 0.0 FILL: 0.0

19 + 50

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

ESI CONSULTANTS, LTD.
1979 N. MILL STREET, SUITE 130
NAPERVILLE, IL 60563
630.416.7500
Excellence, Service, Integrity
www.esiltd.com

USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

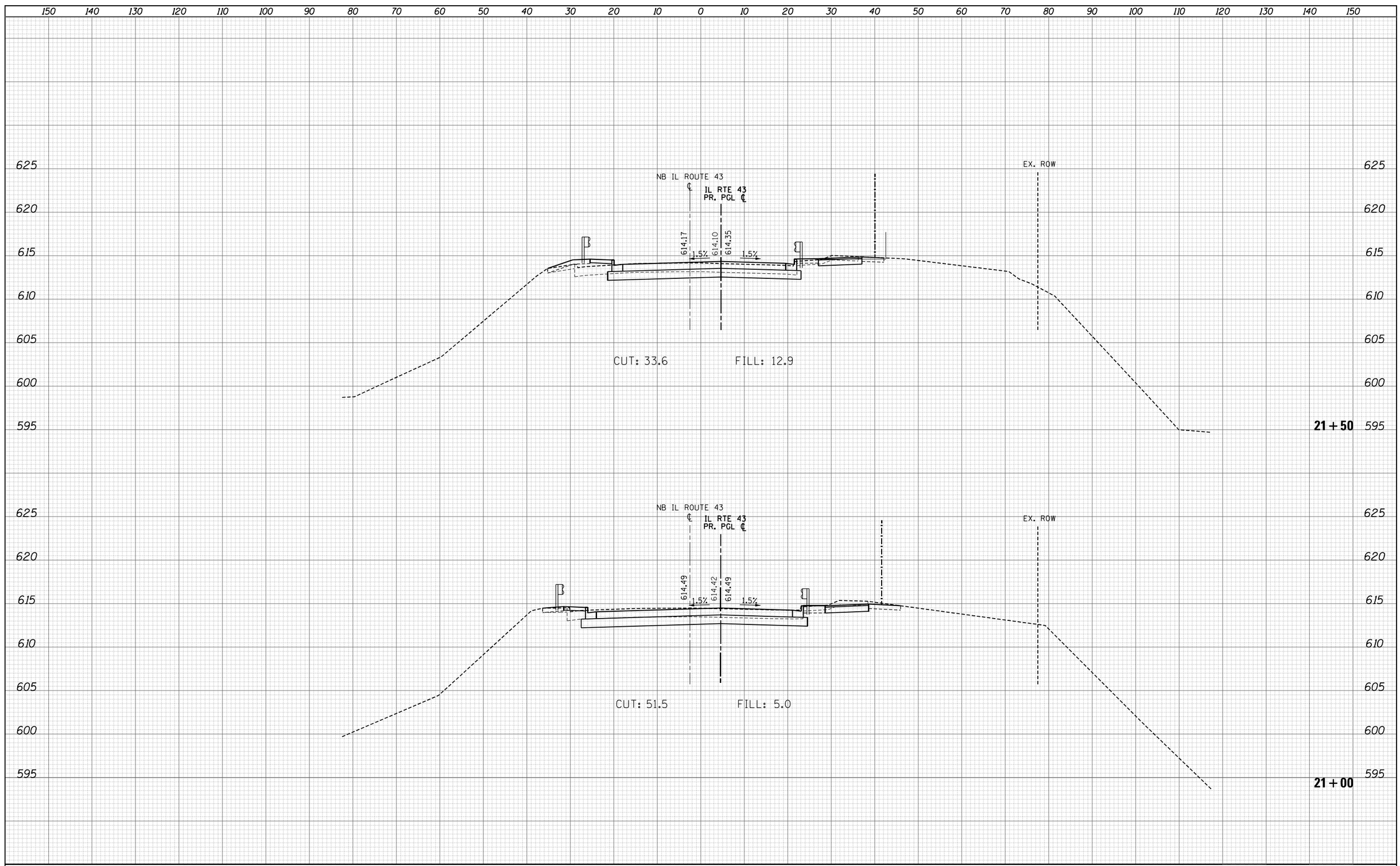
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	95
		CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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



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

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USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	96
		CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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

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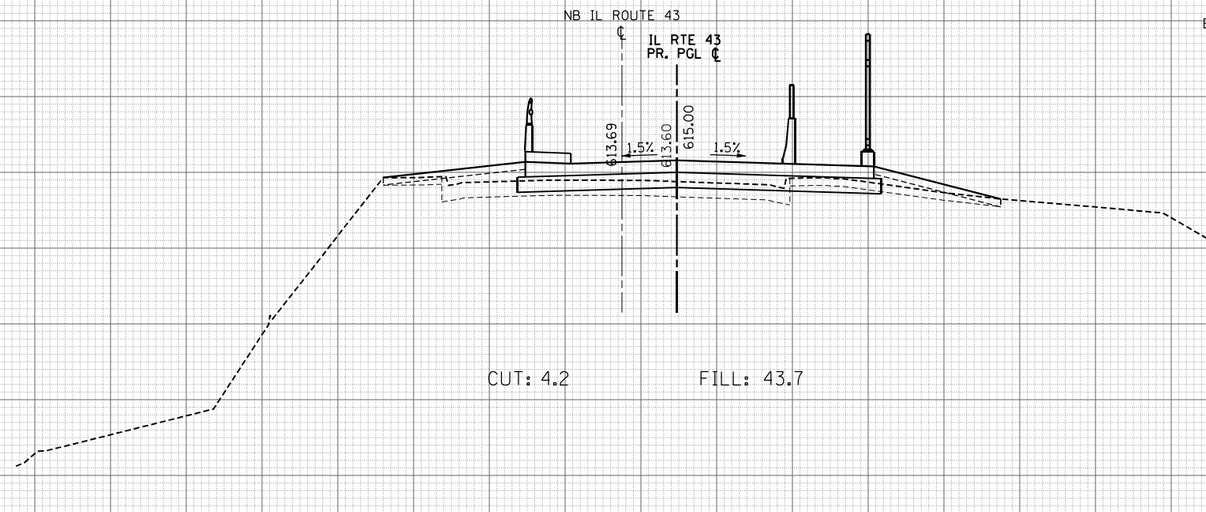
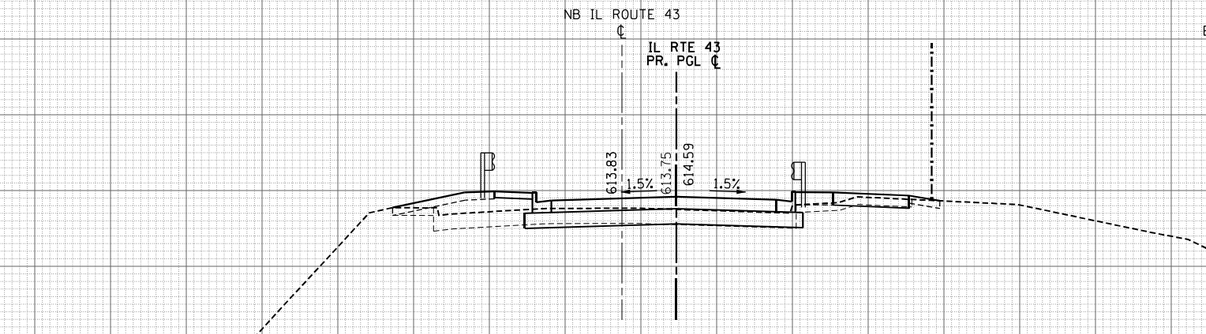
625 620 615 610 605 600 595



22 + 50



22 + 00

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

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

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USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	97
		CONTRACT NO. 60T06		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

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

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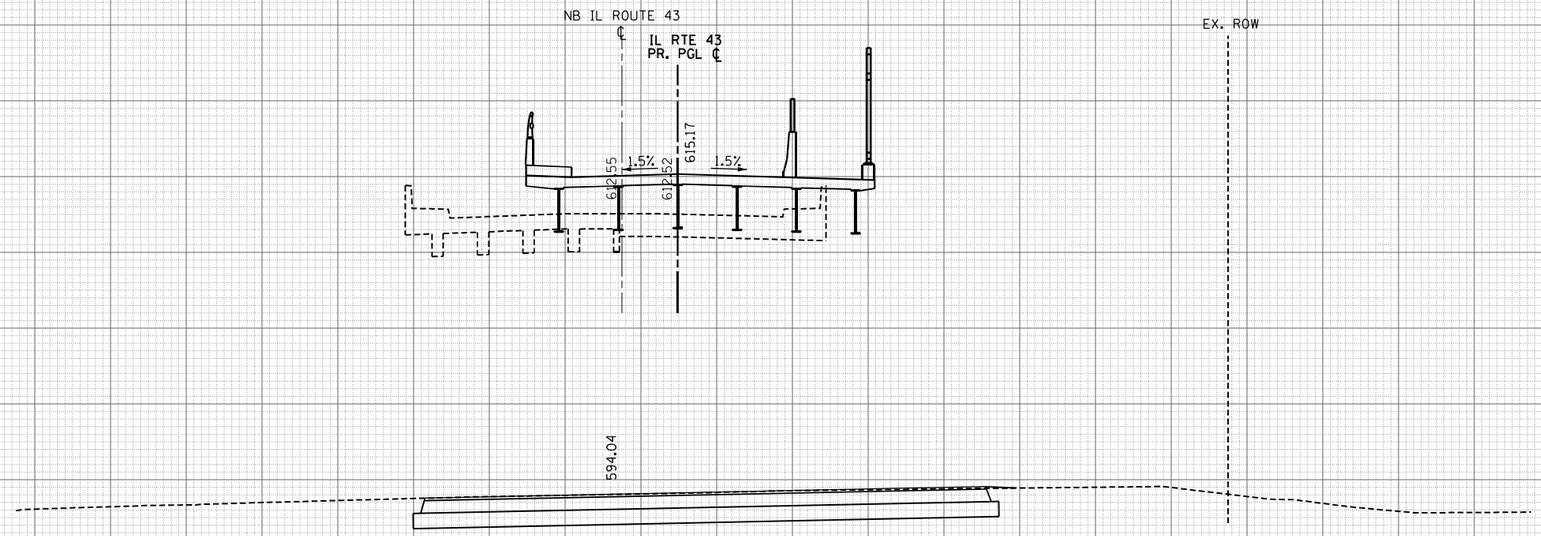
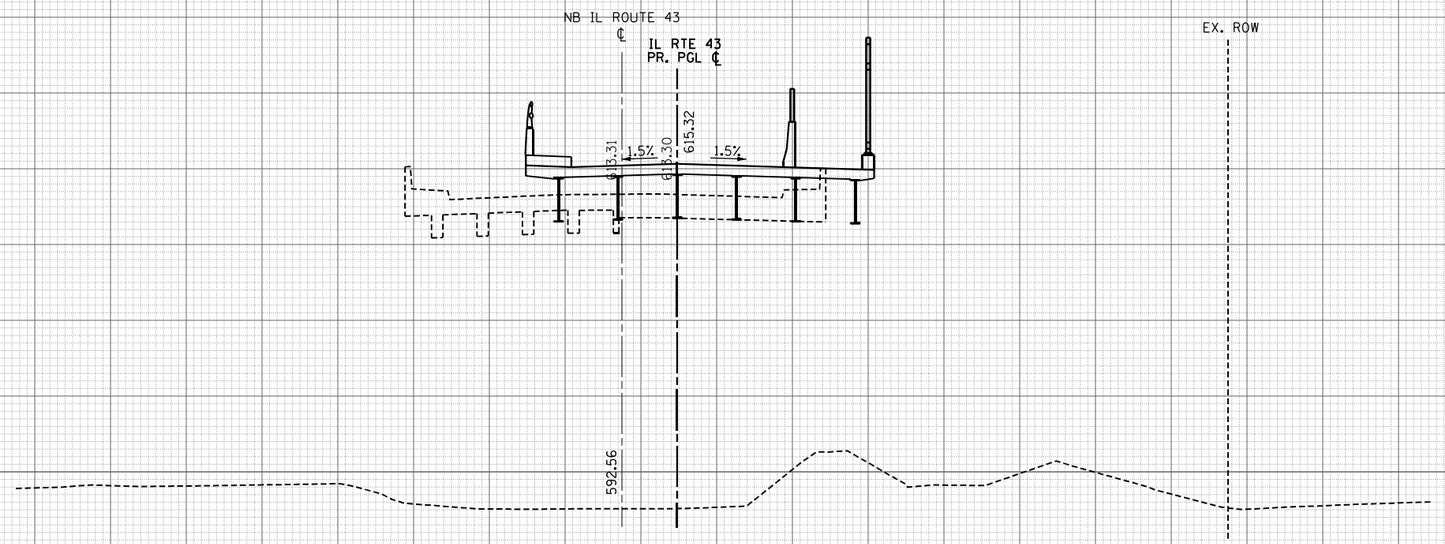
625 620 615 610 605 600 595



23 + 50

CUT: 0.0 FILL: 0.0



23 + 00

CUT: 0.0 FILL: 0.0

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

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USER NAME = eliaa	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

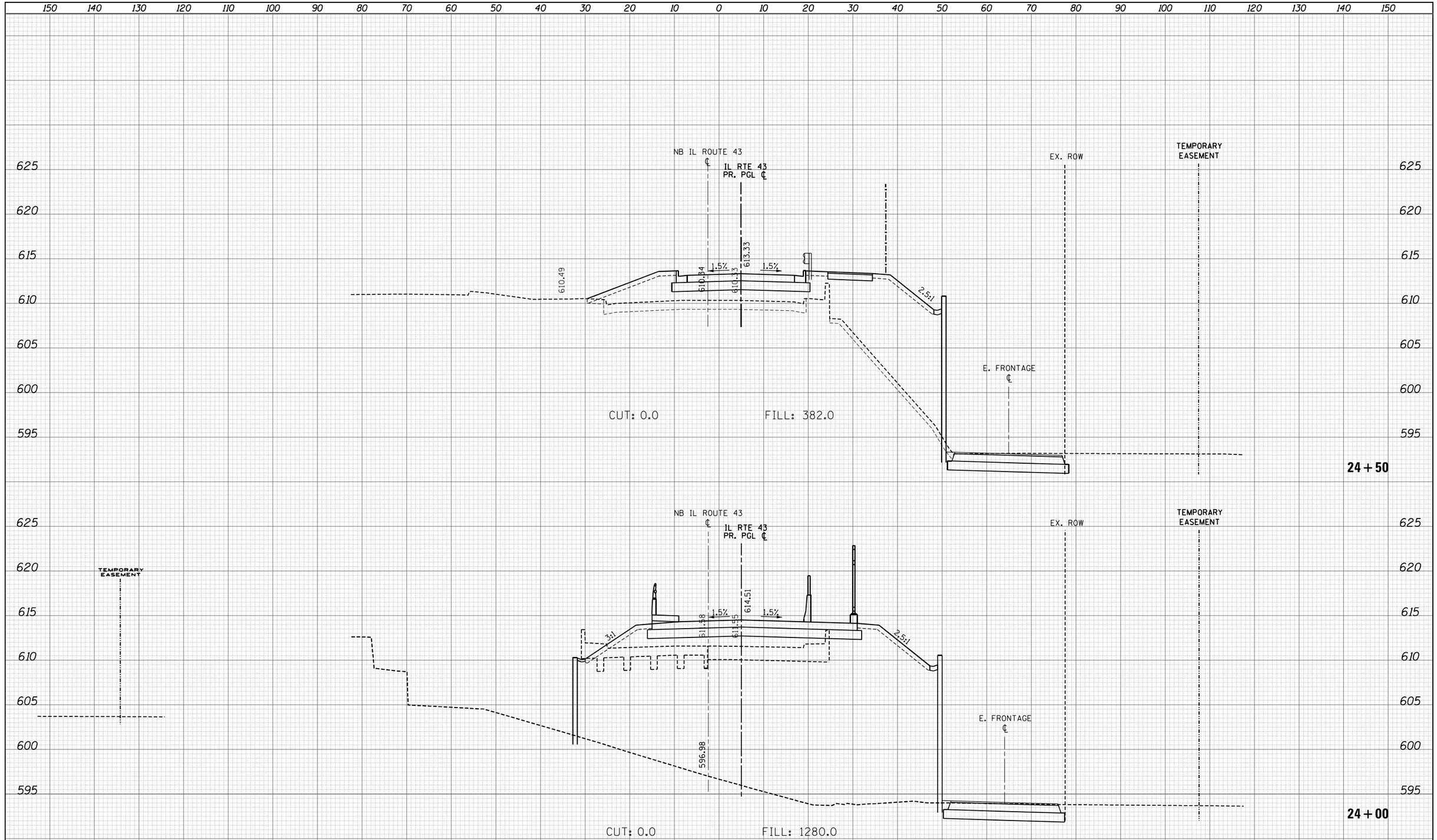
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	98
		CONTRACT NO. 60T06		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

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

BY	DATE



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

BY	DATE

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USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

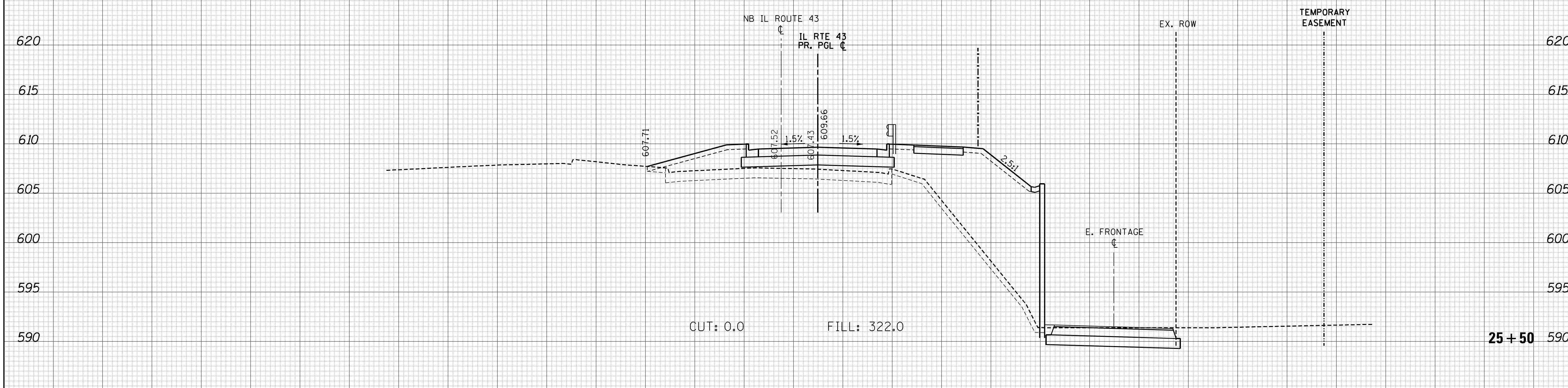
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

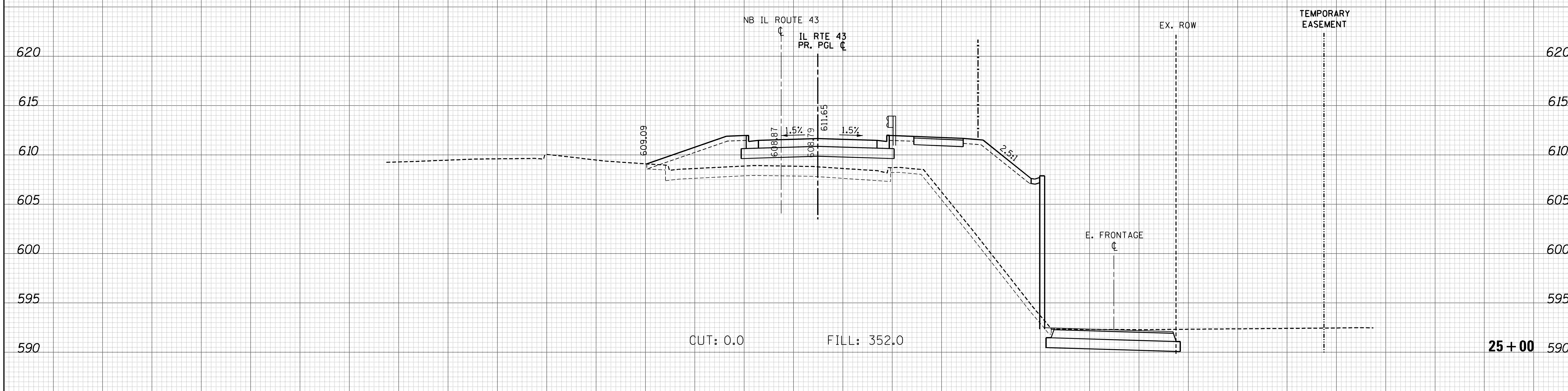
CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	99
		CONTRACT NO. 60T06		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT





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

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

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USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

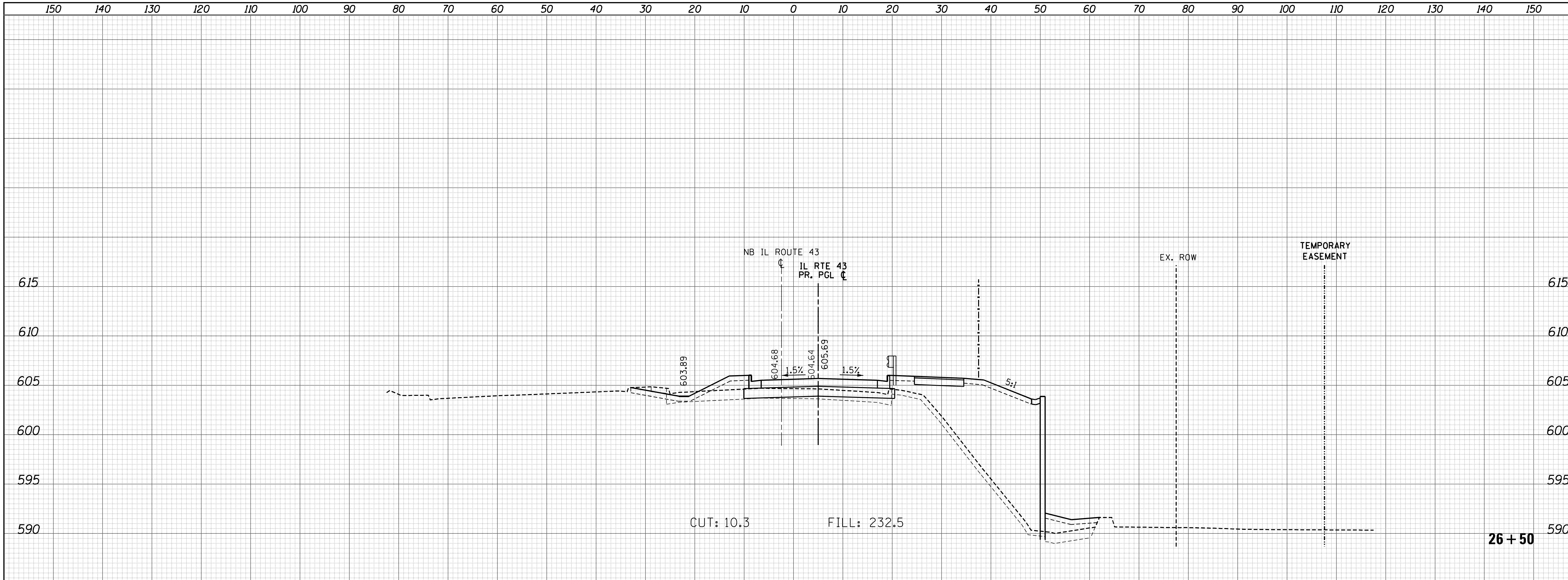
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(1)	COOK	105	100

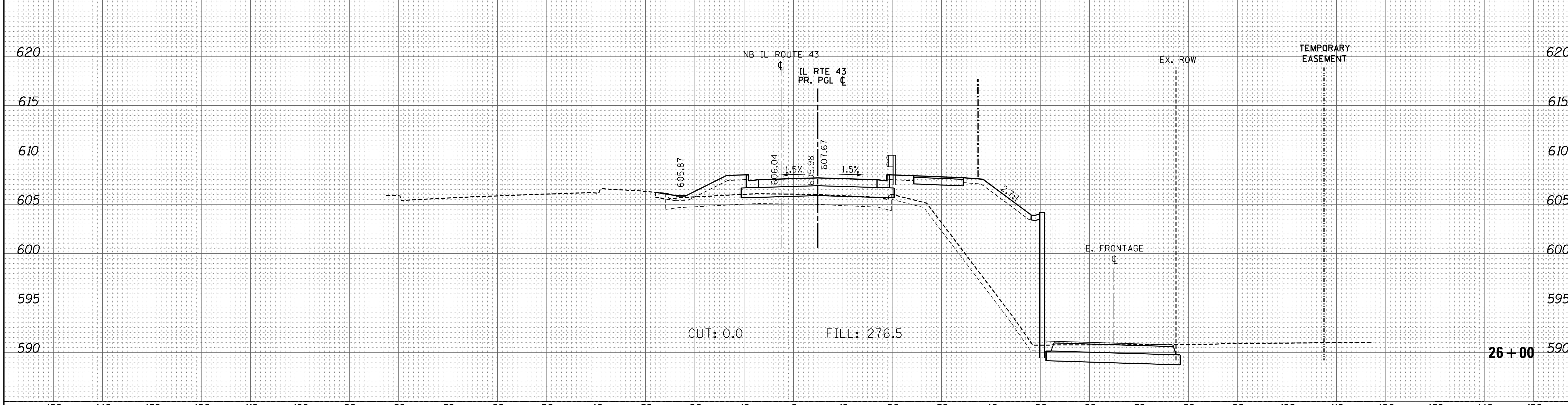
CONTRACT NO. 60T06

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

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



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



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USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

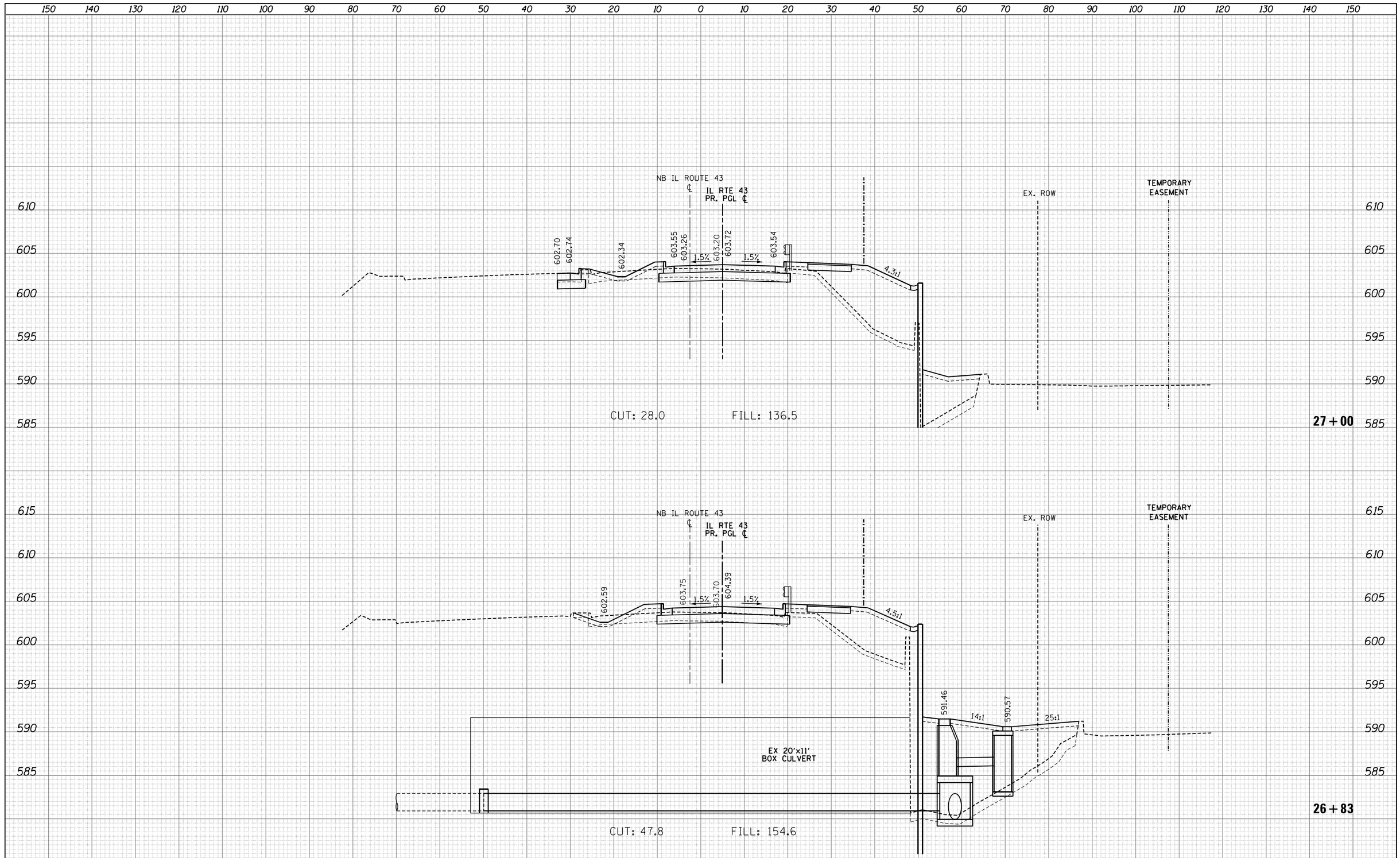
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(1)	COOK	105	101

CONTRACT NO. 60T06

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

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



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

ESI CONSULTANTS, LTD.
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USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

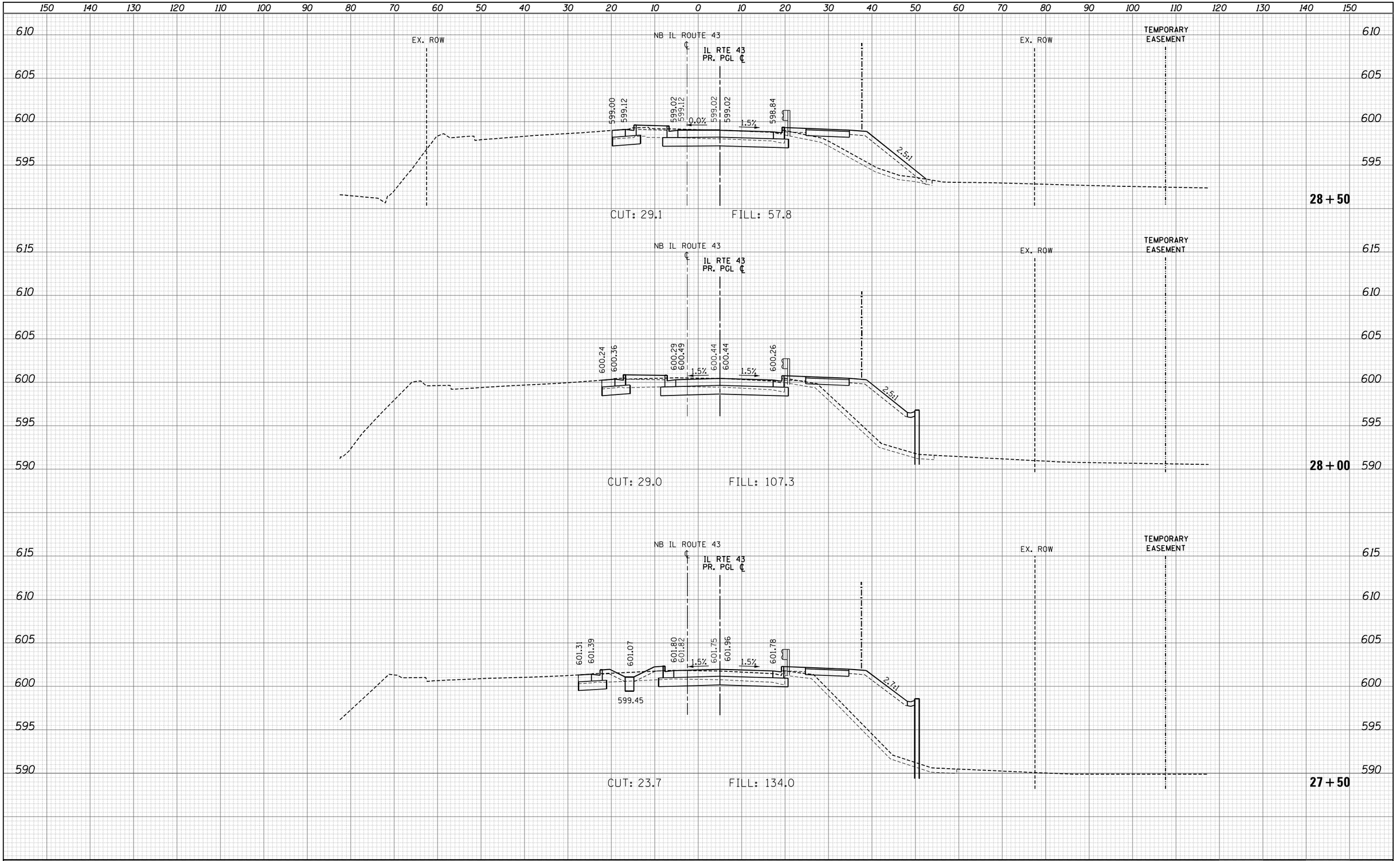
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	102
		CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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



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

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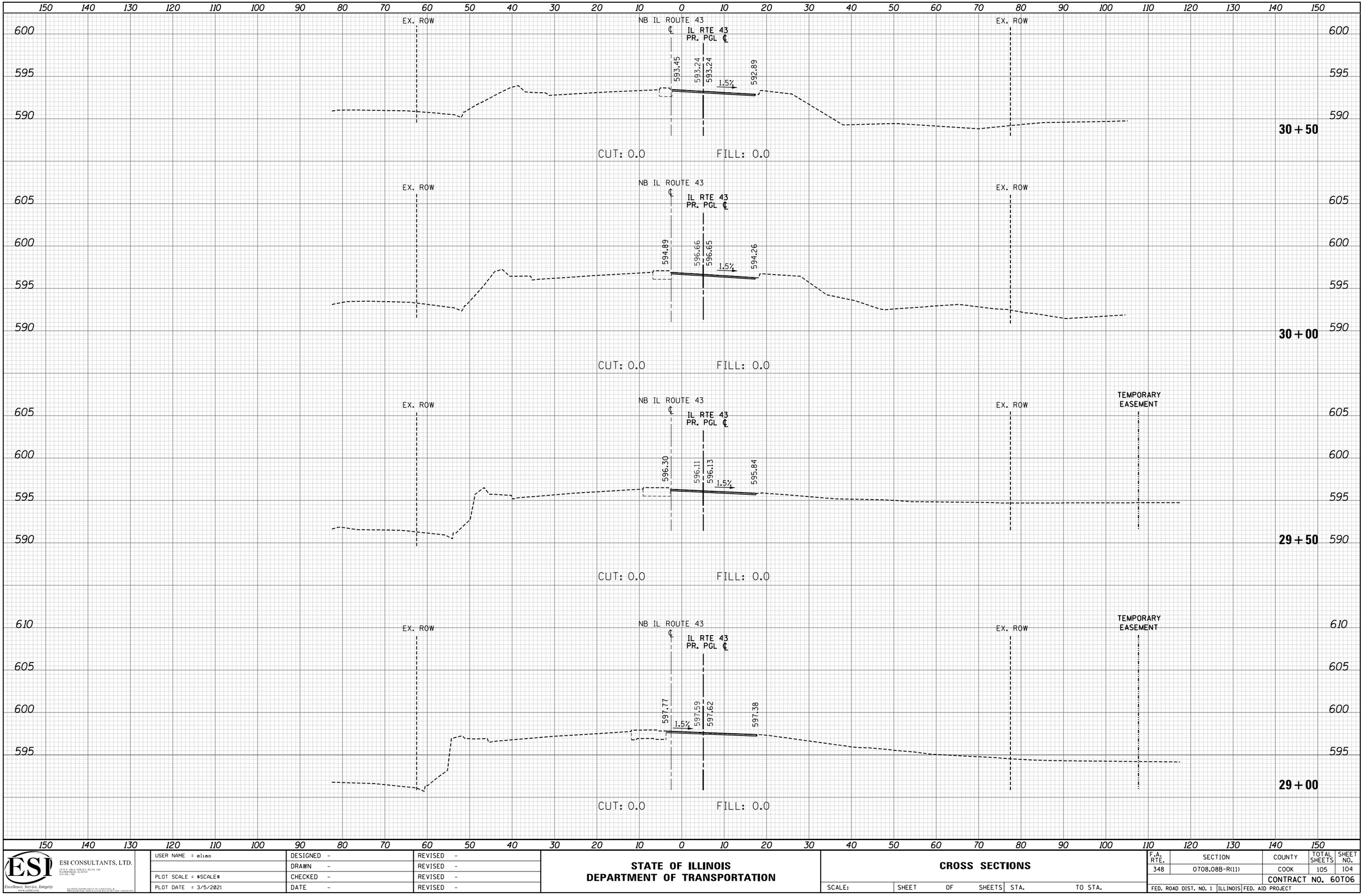
USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	103
		CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

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

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USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	104
		CONTRACT NO. 60T06		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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

BY	DATE

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

BY	DATE

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

600
595
590

EX. ROW
NB IL ROUTE 43 ℄
IL RTE 43 PR. PGL ℄
EX. ROW
590.96
590.85
CUT: 0.0
FILL: 0.0

31 + 50

600
595
590

EX. ROW
NB IL ROUTE 43 ℄
IL RTE 43 PR. PGL ℄
EX. ROW
591.60
591.43
591.43
591.14
1.5%
CUT: 0.0
FILL: 0.0

31 + 21

600
595
590

EX. ROW
NB IL ROUTE 43 ℄
IL RTE 43 PR. PGL ℄
EX. ROW
592.11
591.92
591.93
591.63
1.5%
CUT: 0.0
FILL: 0.0

31 + 00

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

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USER NAME = eliao	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/5/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	105	105
		CONTRACT NO. 60T06		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT