01-15-2021 LETTING ITEM 002

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	1
	ILLINOIS	CONTRACT NO. 62H50		

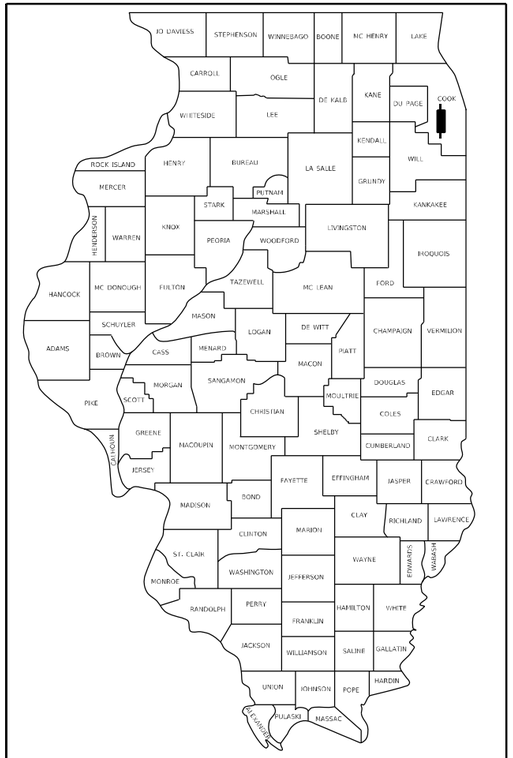
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 350: IL 50 (CICERO AVE) OVER BRC RR
SECTION 2018–124–BR
PROJECT NHPP–E856(707)
BRIDGE OVERLAY, JOINT REPLACEMENT, AND SUBSTRUCTURE REPAIRS
COOK COUNTY

C–91–260–19

D–91–055–19



LOCATION OF SECTION INDICATED THUS: –

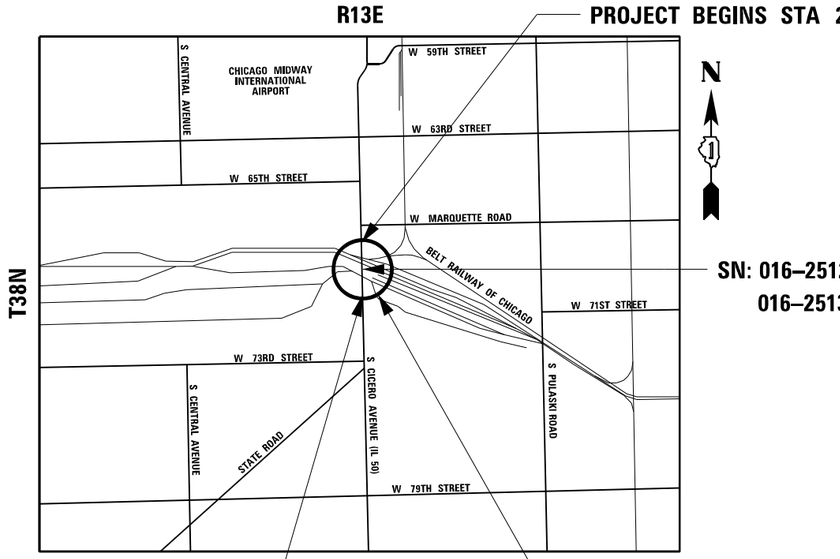
FOR INDEX OF SHEETS, SEE SHEET NO. 2

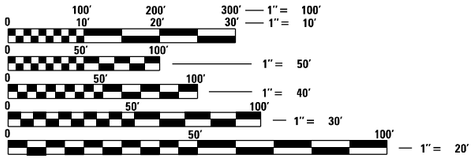
TRAFFIC DATA

CICERO AVENUE (IL 50)
ADT: 43,900
ADTT: 1,500
DESIGN SPEED: 35 MPH
POSTED SPEED: 35 MPH
DESIGN DESIGNATION: PRINCIPAL ARTERIAL

THE PROJECT LOCATED IN THE CITY OF CHICAGO AND IN THE VILLAGE OF BEDFORD PARK.

APPLIES TO SHEETS 38–76	APPLIES TO SHEETS 1–12 ; 15–16 ; 18–21 ; 23–30 ; 33 ; 35 ; 80–91
LICENSED STRUCTURAL ENGINEER, STATE OF ILLINOIS EXPIRES: 11 /30 /2020	LICENSED CIVIL ENGINEER, STATE OF ILLINOIS EXPIRES: 11 /30 /2021
APPLIES TO SHEETS 13–14 ; 22 ; 36–37 ; 92–95	APPLIES TO SHEETS 17 ; 31–32 ; 34
LICENSED CIVIL ENGINEER, STATE OF ILLINOIS EXPIRES: 11 /30 /2021	LICENSED CIVIL ENGINEER, STATE OF ILLINOIS EXPIRES: 11 /30 /2021





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 EXCAVATORS
1–800–892–0123
OR 811

PROJECT ENGINEER: PRAVEEN KAINI, P.E. (847)705–4237
PROJECT MANAGER: J. ALAIN MIDY, P.E. (847)221–3056

CONTRACT NO. 62H50

PROJECT LENGTH

GROSS AND NET LENGTH = 672.28 FT. = 0.127 MILE

GARZA KARHOFF ENGINEERING, LLC

ATLAS ENGINEERING GROUP, LTD.

exp U.S. Services Inc.
Chicago, IL
BUILDINGS • EARTH & ENVIRONMENT • ENERGY
INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED October 6 20 20

REGIONAL ENGINEER

December 4, 2020

ENGINEER OF DESIGN AND ENVIRONMENT

December 4, 2020

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
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2	INDEX OF SHEETS
3	GENERAL NOTES
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13-14	TYPICAL SECTIONS
15-16	SCHEDULE OF QUANTITIES
17	ALIGNMENT AND TIES
18	EXISTING PLAN
19-20	PROPOSED PLAN AND PROFILE
21	SUGGESTED STAGES OF CONSTRUCTION
22-33	STAGING AND TRAFFIC CONTROL
34	DRAINAGE AND UTILITY PLANS
35	RECORD RIGHT OF WAY
36-37	PAVEMENT MARKING PLANS
38-79	BRIDGE REPAIR PLANS
80-91	DISTRICT ONE DETAILS
92-95	CROSS SECTIONS

HIGHWAY STANDARDS

STANDARD NO.	TITLE
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
630001-12	STEEL PLATE BEAM GUARDRAIL
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
631032-09	TRAFFIC BARRIER TERMINAL, TYPE 6A
643001-02	SAND MODULE IMPACT ATTENUATORS
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.2 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRANSVERSABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER, OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
782001-01	CURB REFLECTORS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT

DISTRICT ONE DETAILS

DETAIL NO.	TITLE
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BD-08	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
TC-11	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
TC-16	SHORT-TERM PAVEMENT MARKING LETTERS AND SYMBOLS
TC-22	ARTERIAL ROAD INFORMATION SIGN
TC-24	CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS
TC-26	DRIVEWAY ENTRANCE SIGNING

COMMITTMENTS

NONE

REV-SEP

FILE NAME = D9105519-sht-Index of Sheets.dgn	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL ROUTE 50 (CICERO AVENUE) OVER BRC RAILROAD	INDEX OF SHEETS, HIGHWAY STANDARDS, DISTRICT ONE DETAILS & COMMITMENTS
GARZA KARHOFF ENGINEERING, LLC		DRAWN - AMF	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	2
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800)892-0123 OR 811 OR CALL "C.U.A.N." (CHICAGO UTILITY ALERT NETWORK) AT (312)744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)

2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO AND THE CITY OF BEDFORD PARK.

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. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

5. THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.

6. MATCH EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS.

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

8. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

9. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THAT NO DEBRIS WILL ENDANGER OR INTERFERE WITH THE RAILROAD BENEATH THE BRIDGE ACCORDING TO ARTICLE 107.12 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE APPROPRIATE PAY ITEM INVOLVED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

10. THERE IS EXISTING CONDUIT FOR FIBER OPTIC SIGNAL INTERCONNECT MOUNTED TO THE PARAPET ON THE WEST SIDE OF THE SOUTHBOUND BRIDGE. THE CONTRACTOR MUST PROTECT THIS CONDUIT AT ALL TIMES DURING CONSTRUCTION AND MUST USE EXTREME CARE WHILE REMOVING PORTIONS OF THE CONCRETE PARAPET FOR JOINT REPLACEMENT. THE CONDUIT MUST BE RIGIDLY SUPPORTED AT ALL TIMES IN ORDER TO MINIMIZE DEFLECTION AND MOVEMENT.

11. THE CITY OF CHICAGO HAS A 2" STREET LIGHTING CONDUIT EMBEDDED IN THE PARAPET ON THE WEST SIDE OF THE SOUTHBOUND BRIDGE AND ON THE EAST SIDE OF THE NORTHBOUND BRIDGE. CARE SHALL BE TAKEN NOT TO DAMAGE THIS CONDUIT DURING CONSTRUCTION.

12. 10 FOOT TRANSITIONS SHALL BE USED TO MATCH THE PROPOSED CURB & GUTTER TO THE EXISTING.

13. ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), GPS DERIVED.

14. TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS, THE ENGINEER SHALL CONTACT EMAD ALHUSSEINI ,AREA TRAFFIC FIELD ENGINEER AT EMAD.ALHUSSEINI@ILLINOIS.GOV OR AT (847)705-4412.

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

16. AT LEAST TWO (2) WEEKS PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY PACE ENGINEER, RICK WILLMAN AT (847)228-3584.

FILE NAME = D9105519-sht-General Notes	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** IL ROUTE 50 (CICERO AVENUE) OVER BRC RAILROAD
		DRAWN - AMF	REVISED -	
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -	
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -	

GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	3
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

				CONSTRUCTION CODE	
				80% Fed / 20% State	80% Fed / 20% State
				BRIDGE	BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0059	0059
				016-2512	016-2513
20200100	EARTH EXCAVATION	CU YD	1,146	573	573
20700220	POROUS GRANULAR EMBANKMENT	CU YD	5	5	
21101600	TOPSOIL FURNISH AND PLACE, VARIABLE DEPTH	SQ YD	67	33	34
25000210	SEEDING, CLASS 2A	ACRE	0.1	0.1	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	2	1	1
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	2	1	1
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	2	1	1
25100630	EROSION CONTROL BLANKET	SQ YD	67	33	34
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	3,108	1,554	1,554
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	796	398	398
40600958	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	586	293	293
42001300	PROTECTIVE COAT	SQ YD	1,309	654	655
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	708	354	354
44000100	PAVEMENT REMOVAL	SQ YD	369	184	185

* SPECIALTY ITEM

FILE NAME = D9105519-sht-Summary of Quantities-001	USER NAME = anthony.friedman	DESIGNED -	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	4
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

				CONSTRUCTION CODE	
				80% Fed / 20% State	80% Fed / 20% State
				BRIDGE	BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0059	0059
				016-2512	016-2513
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1,818	909	909
44000600	SIDEWALK REMOVAL	SQ FT	709	354	355
50102400	CONCRETE REMOVAL	CU YD	20.1	11.5	8.6
50104650	SLOPE WALL REMOVAL	SQ YD	3	3	
50157300	PROTECTIVE SHIELD	SQ YD	6,521	3,331	3,190
50300225	CONCRETE STRUCTURES	CU YD	1.7	0.8	0.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	24.1	13.8	10.3
50300260	BRIDGE DECK GROOVING	SQ YD	6,073	2,957	3,116
50300300	PROTECTIVE COAT	SQ YD	8,432	4,104	4,328
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	860		860
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4,590	2,590	2,000
50800515	BAR SPLICERS	EACH	56	32	24
51100100	SLOPE WALL 4 INCH	SQ YD	3	3	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	364	207	157

* SPECIALTY ITEM

REV-SEP

FILE NAME = D9105519-sht-Summary of Quantities-002	USER NAME = anthony.friedman	DESIGNED -	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	5
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% Fed / 20% State BRIDGE 0059 016-2512	CONSTRUCTION CODE 80% Fed / 20% State BRIDGE 0059 016-2513
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	1		1
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	8		8
52100520	ANCHOR BOLTS, 1"	EACH	68		68
550A0360	STORM SEWERS, CLASS A, TYPE 2, 15"	FOOT	10	5	5
58700300	CONCRETE SEALER	SQ FT	1,397	1,109	288
59000200	EPOXY CRACK INJECTION	FOOT	172	134	38
60240225	INLETS, TYPE B, TYPE 4 FRAME AND GRATE	EACH	2	1	1
60250200	CATCH BASINS TO BE ADJUSTED	EACH	30	15	15
60250700	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 4 FRAME AND GRATE	EACH	3	1	2
60255500	MANHOLES TO BE ADJUSTED	EACH	12	6	6
60256000	MANHOLES TO BE ADJUSTED WITH NEW TYPE 4 FRAME AND GRATE	EACH	1	1	
60260100	INLETS TO BE ADJUSTED	EACH	2	1	1
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	48	24	24
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1,447	723	724

* SPECIALTY ITEM

REV-SEP

FILE NAME = D9105519-sht-Summary of Quantities-003	USER NAME = anthony.friedman	DESIGNED -	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	6
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

				CONSTRUCTION CODE	
				80% Fed / 20% State	80% Fed / 20% State
				BRIDGE	BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0059	0059
				016-2512	016-2513
60604300	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (VARIABLE WIDTH GUTTER FLAG)	FOOT	369	184	185
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	151	75	76
60626300	STABILIZED MEDIAN SURFACE	SQ YD	4,024	2,012	2,012
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1,413	706	707
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	5	2	3
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	5	2	3
63200310	GUARDRAIL REMOVAL	FOOT	1,993	996	997
63800920	MODULAR GLARE SCREEN SYSTEM, TEMPORARY	FOOT	1,138	569	569
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	580	290	290
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	2	1	1
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1	0.5	0.5
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	0.5	0.5
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	6	6

* SPECIALTY ITEM

REV-SEP

FILE NAME = D9105519-sht-Summary of Quantities-004	USER NAME = anthony.friedman	DESIGNED -	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	7
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: 80% Fed / 20% State BRIDGE 0059 016-2512	CONSTRUCTION CODE: 80% Fed / 20% State BRIDGE 0059 016-2513
	67100100	MOBILIZATION	L SUM	1	0.5	0.5
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	42	21	21
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	336	168	168
*	70300100	SHORT TERM PAVEMENT MARKING	FOOT	2,228	1,114	1,114
*	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	743	371	372
*	70300900	PAVEMENT MARKING TAPE, TYPE IV - LETTERS AND SYMBOLS	SQ FT	37	18	19
*	70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	27,827	13,913	13,914
*	70300906	PAVEMENT MARKING TAPE, TYPE IV 6"	FOOT	675	337	338
*	70300908	PAVEMENT MARKING TAPE, TYPE IV 8"	FOOT	1,588	794	794
*	70300912	PAVEMENT MARKING TAPE, TYPE IV 12"	FOOT	216	108	108
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	2,238	1,119	1,119
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	3,975	1,987	1,988
	70500100	TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	250	125	125
	70500665	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	2	2

* SPECIALTY ITEM

MODEL: Default
FILE NAME: pw:\\ixp-pw.bentley.com:exa-pw-04\Documents\Projects\D91-055-19800 CADD Design\801 Contract\801.02 Civil\Sheet\D9105519-sht-Summary of Quantities-005

FILE NAME = D9105519-sht-Summary of Quantities-005	USER NAME = anthony.friedman	DESIGNED -	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	8
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: 80% Fed / 20% State BRIDGE 0059 016-2512	CONSTRUCTION CODE: 80% Fed / 20% State BRIDGE 0059 016-2513
	70600235	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE), TEST LEVEL 2	EACH	4	2	2
	70600240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	4	2	2
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	218	109	109
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	917	458	459
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	449	224	225
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	311	155	156
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	99	49	50
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	747	373	374
*	78009000	MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	68	34	34
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	4,712	2,356	2,356
*	78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	493	246	247
*	78009024	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	FOOT	50	25	25
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	32	16	16
*	78100300	REPLACEMENT REFLECTOR	EACH	112	56	56

* SPECIALTY ITEM

MODEL: Default
FILE NAME: pw:\\oxp-pw.bentley.com:oxp-ow-04\Documents\Projects\D91-055-19800 CADD Design\801 Contract\801.02 Civil\Sheet\D9105519-sht-Summary of Quantities-006

FILE NAME = D9105519-sht-Summary of Quantities-006	USER NAME = anthony.friedman	DESIGNED -	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	9
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

					CONSTRUCTION CODE	
					80% Fed / 20% State	80% Fed / 20% State
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 016-2512	BRIDGE 0059 016-2513
	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	45	22	23
	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	56	28	28
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	13	6	7
*	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2	1	1
	X0322463	CONNECTION TO EXISTING SEWER	EACH	1	1	
	X0325748	ACRYLIC COATING	SQ YD	165	86	79
	X0325749	FIBER WRAP	SQ FT	1,465	763	702
	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	5,491	2,745	2,746
*	X2700003	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	2,322	1,161	1,161
*	X2700004	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 7"	FOOT	2,322	1,161	1,161
	X4403800	MEDIAN SURFACE REMOVAL	SQ FT	37,530	18,765	18,765
	X6380200	RELOCATE MODULAR GLARE SCREEN SYSTEM	FOOT	1,138	569	569
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1	0.5	0.5
	X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	10,837	5,418	5,419

* SPECIALTY ITEM

REV-SEP

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FILE NAME = D9105519-sht-Summary of Quantities-007	USER NAME = anthony.friedman	DESIGNED -	REVISED -
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GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	10
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

				CONSTRUCTION CODE	
				80% Fed / 20% State	80% Fed / 20% State
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 016-2512	BRIDGE 0059 016-2513
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	6	3	3
X7050169	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED)	EACH	4	2	2
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	112	56	56
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	9		9
Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	6,571	3,193	3,378
Z0010605	CLEANING DRAINAGE SYSTEM	L SUM	1	0.5	0.5
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	6,571	3,193	3,378
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	2,076	1,532	544
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	32	8	24
Z0012800	CONCRETE PAVEMENT SCARIFICATION	SQ YD	586	293	293
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.5	0.5
** Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	1	0.5	0.5
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	2		2
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	54	54	

* SPECIALTY ITEM ** A NOMINAL DECK SLAB REPAIR (FULL DEPTH, TYPE I) QUANTITY HAS BEEN PROVIDED AS A GUIDE FOR BIDDING PURPOSES. ACTUAL FULL DEPTH REPAIR AREA SHALL BE DETERMINED BY THE ENGINEER.

REV-SEP

NON-PART 100% STATE

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GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	11
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			

				CONSTRUCTION CODE	
				80% Fed / 20% State	80% Fed / 20% State
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 016-2512	BRIDGE 0059 016-2513
Z0018051	DRAINAGE SCUPPERS TO BE ADJUSTED	EACH	16	8	8
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	32	16	16
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	74	37	37
Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	216	114	102
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1	0.5	0.5
Z0062456	TEMPORARY PAVEMENT	SQ YD	3,536	1,768	1,768
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	21	15	6
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2	1	1
Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	151	75	76
Ø Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOURS	500	500	

* SPECIALTY ITEM

Ø 0042

REV-SEP

☐ NON-PART 100% STATE

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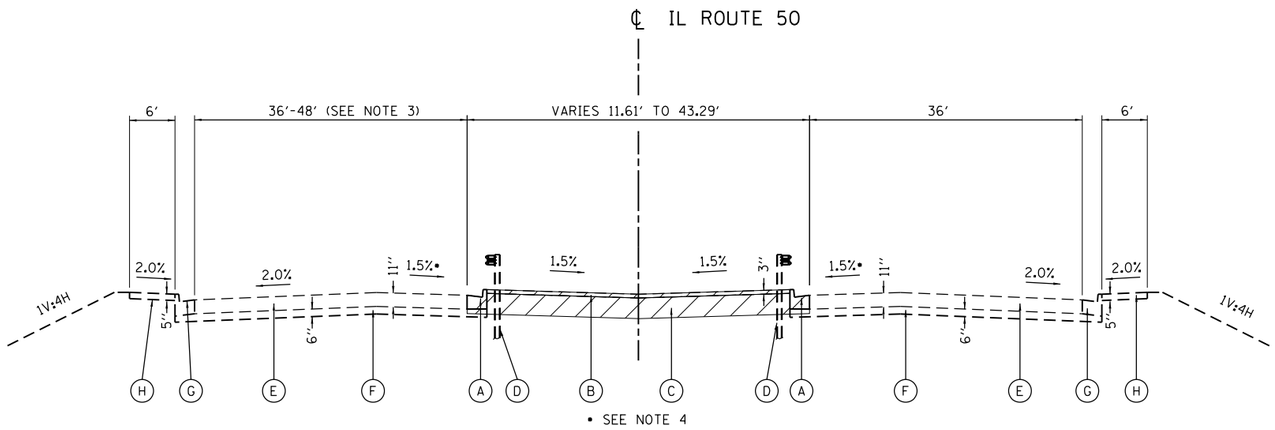
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SUMMARY OF QUANTITIES

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

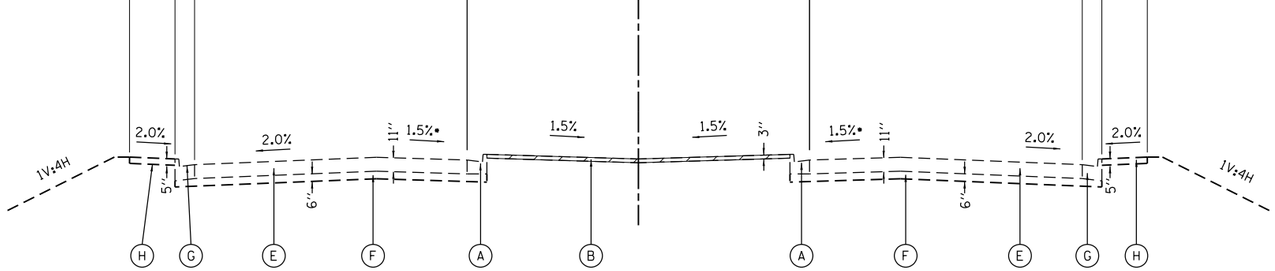
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	12
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



• SEE NOTE 4

EXISTING TYPICAL SECTION
IL ROUTE 50 (CICERO AVENUE)

STA. 293+29.10 TO STA. 297+39.43
STA. 304+35.69 TO STA. 308+65.00



• SEE NOTE 4

EXISTING TYPICAL SECTION
IL ROUTE 50 (CICERO AVENUE)

STA. 292+86.57 TO STA. 293+29.10
STA. 308+65.00 TO STA. 312+99.62

EXISTING LEGEND

- (A) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- (B) MEDIAN SURFACE REMOVAL
- (C) EARTH EXCAVATION (SEE NOTE 1)
- (D) GUARDRAIL (SEE NOTE 2)
- (E) PORTLAND CEMENT CONCRETE PAVEMENT
- (F) SUB-BASE GRANULAR MATERIAL, TYPE A
- (G) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- (H) PORTLAND CEMENT CONCRETE SIDEWALK

REMOVAL LEGEND

REMOVAL

GENERAL NOTES

1. EARTH EXCAVATION TO BOTTOM OF TEMPORARY PAVEMENT. SEE STAGING AND TRAFFIC CONTROL TYPICAL SECTIONS.
2. SEE ROADWAY PLANS FOR PAY ITEMS AND LIMITS.
3. FROM STA 292+85 TO STA 295+00, THE WIDTH VARIES FROM 36 FT TO 48 FT.
4. FROM STA 292+85 TO STA 295+00, THE CROSS SLOPE TRANSITIONS FROM 1.5% SLOPING AWAY FROM THE MEDIAN TO 1.5% TOWARD THE MEDIAN.

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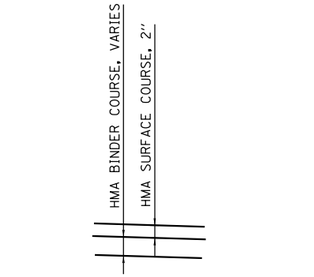
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

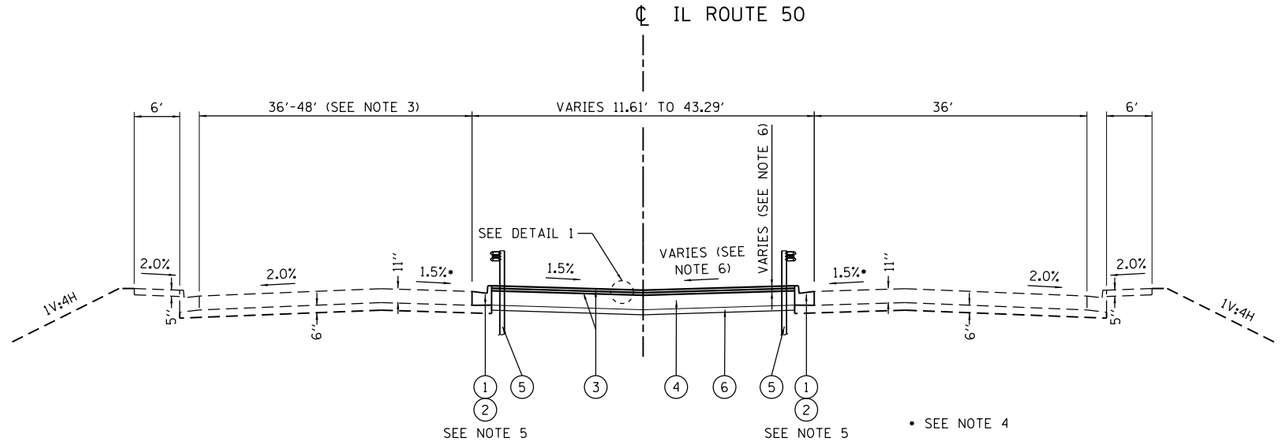
TYPICAL SECTIONS
EXISTING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	13
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

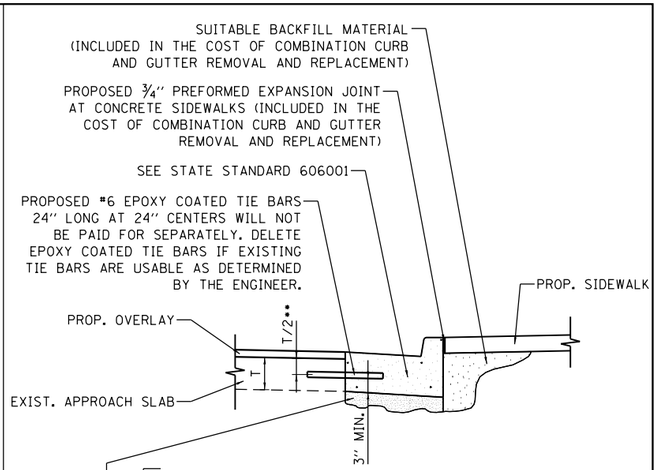


DETAIL 1 - STABILIZED MEDIAN SURFACE:
MIXTURE TYPES AND THICKNESSES



PROPOSED TYPICAL SECTION
IL ROUTE 50 (CICERO AVENUE)

STA. 293+29.10 TO STA. 297+39.43
STA. 304+35.69 TO STA. 308+65.00



UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 6'' OR LESS IS INCLUDED IN THE COST OF COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 6'' WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

DETAIL 3 - COMBINATION CURB AND GUTTER
REMOVAL AND REPLACEMENT

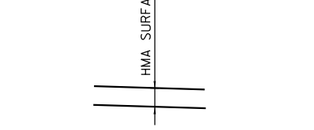
NB IL-50: STA. 297+20.89 TO 297+63.61
STA. 304+39.44 TO 304+69.65

SB IL-50: STA. 297+25.37 TO 297+55.46
STA. 303+87.59 TO 304+34.95

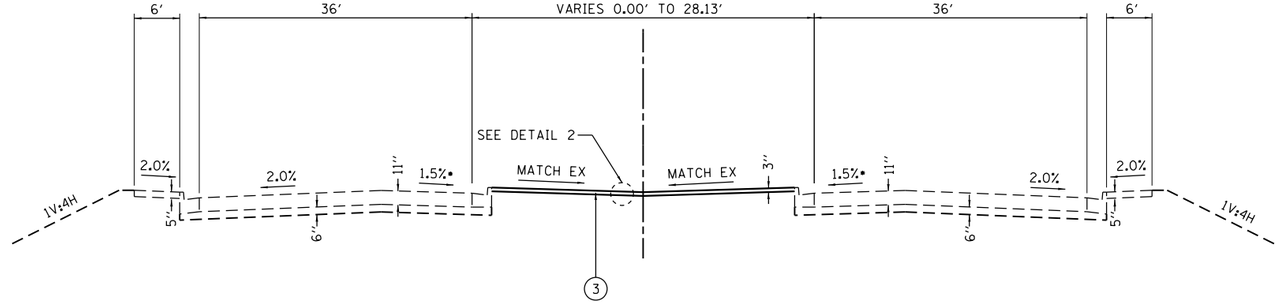
DETAIL 3 NOTES

•• 3'' MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

1. COMB. CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
2. LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT.
3. THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.



DETAIL 2 - STABILIZED MEDIAN SURFACE:
MIXTURE TYPES AND THICKNESSES



PROPOSED TYPICAL SECTION
IL ROUTE 50 (CICERO AVENUE)

STA. 292+86.57 TO STA. 293+29.10
STA. 308+65.00 TO STA. 312+99.62

PROPOSED LEGEND

1. COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SEE NOTE 5)
2. CONCRETE CURB, TYPE B
3. STABILIZED MEDIAN SURFACE
4. TEMPORARY PAVEMENT (SEE NOTE 1)
5. GUARDRAIL (SEE NOTE 2)
6. SUBBASE GRANULAR MATERIAL, TYPE B 4'' (SEE NOTE 1)

GENERAL NOTES

1. TEMPORARY PAVEMENT BENEATH THE PROPOSED STABILZED MEDIAN SURFACE SHALL REMAIN IN PLACE. TEMPORARY PAVEMENT THAT CONFLICTS WITH THE PROPOSED COMBINATION CURB AND GUTTER SHALL BE REMOVED. SEE STAGING AND TRAFFIC CONTROL TYPICAL SECTIONS.
2. SEE ROADWAY PLANS FOR PAY ITEMS AND LIMITS.
3. FROM STA 292+85 TO STA 295+00, THE WIDTH VARIES FROM 48 FT TO 36 FT.
4. FROM STA 292+85 TO STA 295+00, THE CROSS SLOPE TRANSITIONS FROM 1.5% SLOPING AWAY FROM THE MEDIAN TO 1.5% TOWARD THE MEDIAN.
5. TYPE OF CURB AND GUTTER VARIES. SEE ROADWAY PLANS FOR PAY ITEMS AND LIMITS.
6. SEE CROSS SECTIONS FOR PROPOSED GRADES OF STABILIZED MEDIAN SURFACE.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS @ NDES	QMP
STABILIZED MEDIAN SURFACE		
HOT-MIX ASPHALT SURFACE COURSE, MIX ''D'', N70	4% @ 70 GYR.	QC/QA
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	4% @ 70 GYR.	QC/QA
TEMPORARY PAVEMENT		
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	4% @ 70 GYR.	QC/QA

HMA MIXTURE REQUIREMENTS NOTES

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

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exp U.S. Services Inc. Chicago, IL BUILDINGS·EARTH & ENVIRONMENT·ENERGY INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY		DRAWN - BKW	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - DDH	REVISED -	
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -	

TYPICAL SECTIONS PROPOSED

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	14
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			

20200100			TOTAL: 1,146 CU YD
EARTH EXCAVATION			
STAGE	STATION	VOLUME (CU YD)	SUBTOTALS (CU YD)
NORTH MEDIAN			
PRE-STAGE	292+86.57	2.19	2.2
PRE-STAGE	293+00.00	19.72	19.7
PRE-STAGE	293+50.00	32.04	32.0
PRE-STAGE	294+00.00	47.78	47.8
PRE-STAGE	294+50.00	58.89	58.9
PRE-STAGE	295+00.00	61.48	61.5
PRE-STAGE	295+50.00	65.83	65.8
PRE-STAGE	296+00.00	74.81	74.8
PRE-STAGE	296+50.00	74.54	74.5
PRE-STAGE	297+00.00	62.65	62.6
PRE-STAGE	297+39.39	13.77	13.8
SOUTH MEDIAN			
PRE-STAGE	304+18.18	14.53	14.5
PRE-STAGE	304+33.56	24.04	24.0
PRE-STAGE	304+50.00	79.54	79.5
PRE-STAGE	305+00.00	72.96	73.
PRE-STAGE	305+50.00	75.83	75.8
PRE-STAGE	306+00.00	74.63	74.6
PRE-STAGE	306+50.00	72.59	72.6
PRE-STAGE	307+00.00	69.35	69.4
PRE-STAGE	307+50.00	64.35	64.4
PRE-STAGE	308+00.00	64.72	64.7
PRE-STAGE	308+50.00	19.33	19.3

42400200				TOTAL: 708 SQ FT
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH				
FROM STATION	TO STATION	DIRECTION	AREA (SQ FT)	SUBTOTALS (SQ FT)
STAGE 1B				
297+21.99	297+63.35	NB	221.4	221.4
304+39.44	304+69.65	NB	135.4	135.4
STAGE 2B				
297+25.37	297+56.23	SB	134.8	134.8
303+87.59	304+34.95	SB	216.4	216.4

44000100			TOTAL: 369 SQ YD
PAVEMENT REMOVAL			
FROM STATION	TO STATION	AREA (SQ YD)	SUBTOTALS (SQ YD)
293+29.10	297+55.12	91.1	91.1
293+29.10	297+39.41	87.7	87.7
304+18.18	308+65.00	92.5	92.5
304+21.43	308+65.00	97.8	97.8

44000500					TOTAL: 1,818 FOOT
COMBINATION CURB AND GUTTER REMOVAL					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
PRE-STAGE					
292+89.39	1.03	297+55.12	7.47	465.94	465.94
292+89.42	-4.72	297+39.41	-26.52	451.21	451.21
304+18.18	6.41	308+65.00	9.70	446.90	446.90
304+21.43	-27.59	308+65.00	-18.43	443.87	443.87
STAGE 3					
297+24.37	-31.15	297+29.37	-31.15	5.00	5.00
304+27.92	11.31	304+32.92	11.31	5.00	5.00

44000600			TOTAL: 709 SQ FT
SIDEWALK REMOVAL			
FROM STATION	TO STATION	AREA (SQ FT)	SUBTOTALS (SQ FT)
STAGE 1B			
297+21.99	297+63.35	221.4	221.4
304+39.44	304+69.65	133.3	133.3
STAGE 2B			
297+25.37	297+56.23	134.7	134.7
303+87.59	304+34.95	219.9	219.9

550A0360				TOTAL: 10 FOOT
STORM SEWERS, CLASS A, TYPE 2 15"				
BEGIN STA	OFFSET	END STA	OFFSET	SUBTOTALS
305+58.88	10.30 RT	305+59.00	19.87 RT	10.00

60240225		TOTAL: 2 EACH
INLETS, TYPE B, TYPE 4 FRAME AND GRATE		
STATION	OFFSET	SUBTOTALS
305+58.95	9.30 LT	1
307+27.39	7.86 LT	1

60250200		TOTAL: 30 EACH
CATCH BASINS TO BE ADJUSTED		
STATION	OFFSET	SUBTOTALS
TEMPORARY:		
294+98.19	-15.01	1
294+98.19	10.22	1
296+18.05	12.01	1
296+19.55	-30.83	1
297+50.92	9.06	1
304+23.36	8.50	1
305+67.34	-31.13	1
305+68.66	11.43	1
306+47.96	-8.88	1
307+17.53	11.51	1
307+19.13	-27.31	1
308+68.97	-19.73	1
FINAL CONDITION:		
293+26.40	-1.00	1
294+98.19	-15.01	1
294+98.19	10.22	1
295+49.58	-8.49	1
296+18.05	12.01	1
296+19.55	-30.83	1
297+37.24	49.03	1
297+50.92	9.06	1
304+08.09	48.56	1
304+23.36	8.50	1
304+57.34	-68.75	1
306+67.34	-31.13	1
305+68.66	11.43	1
306+47.96	-8.88	1
306+17.53	11.51	1
307+19.13	-27.31	1
308+68.97	-19.73	1
308+97.37	-3.49	1

60250700		TOTAL: 3 EACH
CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 4 FRAME AND GRATE		
STATION	OFFSET	SUBTOTALS
293+26.40	1.00 LT	1
295+49.58	8.49 LT	1
308+97.37	3.49 LT	1

60255500		TOTAL: 12 EACH
MANHOLES TO BE ADJUSTED		
STATION	OFFSET	SUBTOTALS
TEMPORARY:		
294+57.63	-15.10	1
297+21.72	-10.04	1
304+50.84	-21.88	1
305+78.80	-19.51	1
307+28.47	-15.02	1
FINAL CONDITION:		
294+57.63	-15.10	1
296+08.27	-10.26	1
297+21.72	-10.04	1
297+42.64	-69.04	1
304+50.84	-21.88	1
305+78.80	-19.51	1
307+28.47	-15.02	1

60256000		TOTAL: 1 EACH
MANHOLES TO BE ADJUSTED WITH NEW TYPE 4 FRAME AND GRATE		
STATION	OFFSET	SUBTOTALS
296+08.27	10.00 LT	1

60260100		TOTAL: 2 EACH
INLETS TO BE ADJUSTED		
STATION	OFFSET	SUBTOTALS
305+58.95	-9.30	1
307+27.39	-7.86	1

60240225		TOTAL: 2 EACH
INLETS, TYPE B, TYPE 4 FRAME AND GRATE		
STATION	OFFSET	SUBTOTALS
305+58.95	-9.30	1
307+27.39	-7.86	1

60300105		TOTAL: 48 EACH
FRAMES AND GRATES TO BE ADJUSTED		
STATION	OFFSET	SUBTOTALS
TEMPORARY:		
293+26.40	-1.00	1
294+57.63	-15.10	1
294+98.19	-15.01	1
294+98.19	10.22	1
295+49.58	-8.49	1
296+08.27	-10.26	1
296+18.05	12.01	1
296+19.55	-30.83	1
297+21.72	-10.04	1
297+50.92	9.06	1
304+23.36	8.50	1
304+50.84	-21.88	1
305+67.34	-31.13	1
305+68.66	11.43	1
305+78.80	-19.51	1
306+47.96	-8.88	1
307+17.53	11.51	1
307+19.13	-27.31	1
307+28.47	-15.02	1
308+68.97	-19.73	1
308+97.37	-3.49	1
FINAL CONDITION:		
293+26.40	-1.00	1
294+57.63	-15.10	1
294+98.19	-15.01	1
294+98.19	10.22	1
295+49.58	-8.49	1
296+08.27	-10.26	1
296+18.05	12.01	1
296+19.55	-30.83	1
297+21.72	-10.04	1
297+37.24	49.03	1
297+42.64	-69.04	1
297+50.92	9.06	1
304+08.09	48.56	1
304+23.36	8.50	1
304+50.84	-21.88	1
304+57.34	-68.75	1
305+58.95	-9.30	1
305+67.34	-31.13	1
305+68.66	11.43	1
305+78.80	-19.51	1
306+47.96	-8.88	1
307+17.53	11.51	1
307+19.13	-27.31	1
307+27.39	-7.86	1
307+28.47	-15.02	1
308+68.97	-19.73	1
308+97.37	-3.49	1

60603800					TOTAL: 1,447 FOOT
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
292+89.39	2.06	296+61.39	11.91	372.14	372.14
292+89.42	-6.40	296+58.23	-31.04	370.22	370.22
304+95.32	11.43	308+65.00	11.27	369.69	369.69
305+30.48	-31.13	308+65.00	-20.45	334.74	334.74

60604300					TOTAL: 369 FOOT
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (VARIABLE WIDTH GUTTER FLAG)					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
PRE-STAGE					
297+24.37	-31.15	297+39.37	-31.19	15.00	15.00
304+17.92	11.31	304+32.92	11.31	15.00	15.00
STAGE 3					
296+58.23	-31.04	297+29.37	-26.52	71.14	71.14
296+61.39	11.91	297+55.20	7.47	93.77	93.77
304+23.15	-31.59	305+30.48	-31.13	107.33	107.33
304+27.92	11.31	304+95.32	11.43	67.12	67.12

60605000					TOTAL: 151 FOOT
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
STAGE 1B					
297+21.99	-67.31	297+63.35	-67.43	41.36	41.36
304+38.56	-67.45	304+69.65	-67.62	31.09	31.09
STAGE 2B					
297+25.37	48.19	297+56.41	48.09	31.04	31.04
303+87.59	48.63	304+34.95	47.88	47.36	47.36

63000001					TOTAL: 1,413 FOOT
STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
292+42.96	46.5	297+05.23	56.4	462.5	462.5
296+18.29	11.0	297+18.28	9.3	100.0	100.0
304+34.30	55.9	310+96.68	61.5	662.5	662.5
304+70.45	-28.4	305+45.43	-30.2	75.0	75.0
304+91.19	-74.9	306+03.69	-75.2	112.5	112.5

63100085				TOTAL: 5 EACH
TRAFFIC BARRIER TERMINAL, TYPE 6				
FROM STATION	OFFSET	TO STATION	OFFSET	SUBTOTALS
297+05.23	56.4	297+42.10	55.1	1
297+18.28	9.3	297+55.16	8.0	1
303+97.42	54.8	304+34.30	55.9	1
304+33.56	-27.5	304+70.45	-28.4	1
304+54.29	-74.9	304+91.19	-74.9	1

63100167				TOTAL: 5 EACH
TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)				
FROM STATION	OFFSET	TO STATION	OFFSET	SUBTOTALS
291+92.96	46.4	292+42.96	46.5	1
295+68.29	10.7	296+18.29	10.8	1
305+45.43	-30.2	305+95.42	-29.1	1
306+03.69	-75.2	306+53.69	-75.3	1
310+96.68	61.5	311+46.60	64.4	1

63200310					TOTAL: 1,993 FOOT
GUARDRAIL REMOVAL					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
EXISTING GUARDRAIL					
291+93.02	46.4	297+42.10	55.1	549.3	549.3
296+32.69	8.0	297+55.10	7.2	122.4	122.4
296+81.89	4.0	297+39.40	-26.6	65.2	65.2
303+97.42	54.8	310+22.86	57.7	625.5	625.5
304+17.92	7.3	305+07.81	-24.9	95.5	95.5
304+33.55	-26.9	305+31.47	-28.7	97.9	97.9
304+54.29	-74.9	306+41.45	-75.3	187.2	187.2
TEMPORARY GUARDRAIL					
296+27.52	-25.4	297+02.49	-26.8	75.0	75.0
296+68.26	8.0	297+18.26	8.0	50.0	50.0
304+54.82	7.3	305+42.30	6.1	87.5	87.5
304+70.45	-27.5	305+07.95	-27.5	37.5	37.5

63800920					TOTAL: 1,138 FOOT
MODULAR GLARE SCREEN SYSTEM, TEMPORARY					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
STAGE 1A-1B					
295+98.87	8.9	307+33.34	-4.8	1,137.5	1,137.5

70400100					TOTAL: 2,238 FOOT
TEMPORARY CONCRETE BARRIER					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
STAGE 1A-2B					
297+37.50	-26.6	297+53.23	7.5	37.5	37.5
304+18.18	6.4	304+35.38	-26.9	37.5	37.5
STAGE 1A					
295+98.87	8.9	307+33.34	-4.8	1,137.5	1,137.5
296+39.94	-48.8	306+63.01	-31.2	1,025.0	1,025.0

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FILE NAME = D9105519-sht-Schedule of Quantities-001	USER NAME = anthony.friedman	DESIGNED -	REVISED -
GARZA KARHOFF ENGINEERING, LLC		DRAWN - AMF	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SCHEDULE OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	15
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

70400200					TOTAL: 3,975 FOOT
RELOCATE TEMPORARY CONCRETE BARRIER					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
STAGE 1B					
296+39.36	-50.6	306+25.64	-57.9	987.5	987.5
STAGE 2A					
294+39.72	-14.9	305+74.26	-29.1	1,137.5	1,137.5
295+86.13	18.4	305+09.40	28.0	925	925
STAGE 2B					
295+85.53	38.3	305+09.35	30.5	925	925

70500100					TOTAL: 250 FOOT
TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
STAGE 1A-1B					
304+54.82	7.32	305+42.30	6.14	87.5	87.5
304+70.45	-27.53	305+07.95	-27.52	37.5	37.5
STAGE 2A-2B					
296+27.52	-25.35	297+02.49	-26.75	75.0	75.0
296+68.26	8.02	297+18.26	7.95	50.0	50.0

70500665				TOTAL: 4 EACH
TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6				
FROM STATION	OFFSET	TO STATION	OFFSET	SUBTOTALS
STAGE 1A-1B				
304+17.92	7.3	304+54.82	7.3	1
304+33.56	-27.5	304+70.45	-27.5	1
STAGE 2A-2B				
297+02.49	-26.8	297+39.39	-26.8	1
297+18.26	8.0	297+55.16	8.0	1

70600235		TOTAL: 4 EACH
IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE), TEST LEVEL 2		
STATION	OFFSET	SUBTOTALS
STAGE 1A		
295+89.49	12.9	1
307+41.53	-6.0	1
STAGE 2A		
294+31.54	-13.6	1
305+83.59	-32.1	1

70600240		TOTAL: 4 EACH
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2		
STATION	OFFSET	SUBTOTALS
STAGE 1A		
306+71.61	-36.6	1
STAGE 1B		
306+34.57	-58.1	1
STAGE 2A		
295+76.98	17.9	1
STAGE 2B		
295+77.56	39.9	1

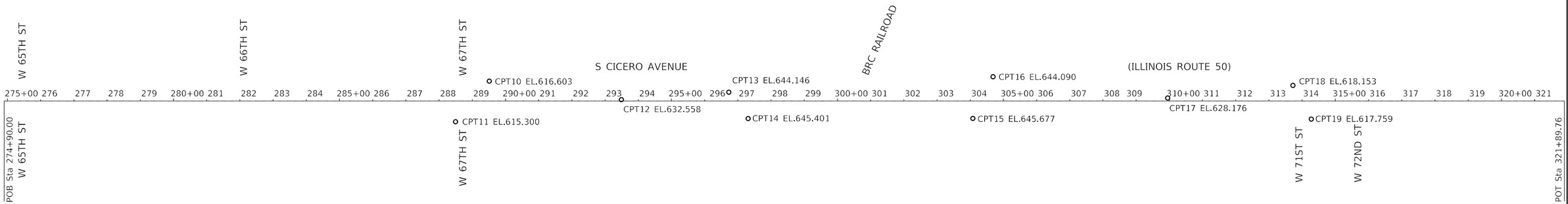
X6380200					TOTAL: 1,138 FOOT
RELOCATE MODULAR GLARE SCREEN SYSTEM					
FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FOOT)	SUBTOTALS (FOOT)
STAGE 2A-2B					
294+39.72	-14.9	305+74.26	-29.1	1,137.5	1,137.5

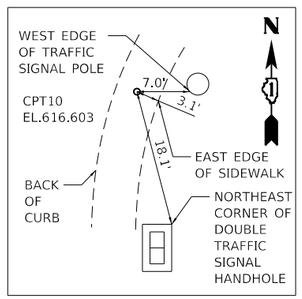
X7050169				TOTAL: 4 EACH
TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED)				
FROM STATION	OFFSET	TO STATION	OFFSET	SUBTOTALS
STAGE 1A-1B				
305+07.95	-27.5	305+57.95	-27.5	1
305+42.30	6.1	305+91.82	0.3	1
STAGE 2A-2B				
295+78.04	-18.6	296+27.52	-25.4	1
296+18.26	8.1	296+68.26	8.0	1

Z0018500	TOTAL: 32 EACH
DRAINAGE STRUCTURES TO BE CLEANED	
LOCATION	SUBTOTALS
REFER TO TEMPORARY PAVEMENT GRADING PLAN	32

XXXXXXXX				TOTAL: 151 FOOT
COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT				
FROM STATION	OFFSET	TO STATION	OFFSET	SUBTOTALS
STAGE 1B				
297+20.89	-67.31	297+63.61	-67.43	41.36
304+39.44	-67.45	304+69.65	-67.62	31.09
STAGE 2B				
297+25.37	48.19	297+55.46	48.09	31.04
303+87.59	48.63	304+34.95	47.88	47.36

ALIGNMENT COORDINATES - CICERO AVENUE			
	STATION	N	E
POB	274+90.00	1861149.345	1145498.229
POT	321+89.76	1856451.351	1145626.830

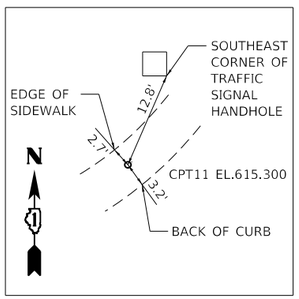




CONTROL POINT #10

SET CHX IN CONCRETE SIDEWALK

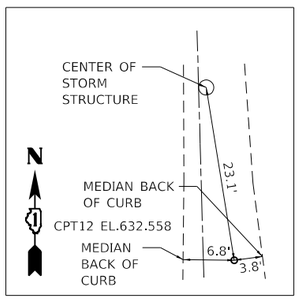
STA. 289+51.23, 59.82' RT.
N 1859690.302
E 1145598.014
ELEV. 616.603



CONTROL POINT #11

SET CHX IN CONCRETE SIDEWALK

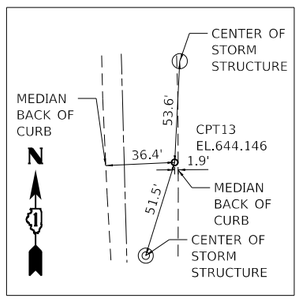
STA. 288+49.54, 62.53' LT.
N 1859788.608
E 1145472.923
ELEV. 615.300



CONTROL POINT #12

SET MAG NAIL IN CONCRETE PAVEMENT

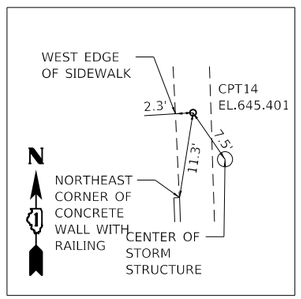
STA. 293+49.29, 4.09' RT.
N 1859290.867
E 1145553.191
ELEV. 632.558



CONTROL POINT #13

SET MAG NAIL IN CONCRETE PAVEMENT

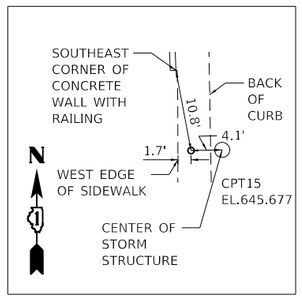
STA. 296+72.93, 26.61' RT.
N 1858967.960
E 1145584.564
ELEV. 644.146



CONTROL POINT #14

SET CHX IN CONCRETE SIDEWALK

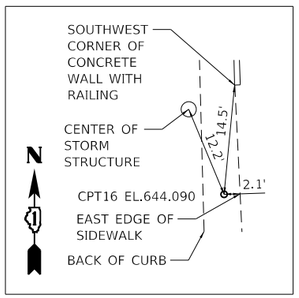
STA. 297+30.97, 53.09' LT.
N 1858907.763
E 1145506.484
ELEV. 645.401



CONTROL POINT #15

SET CHX IN CONCRETE SIDEWALK

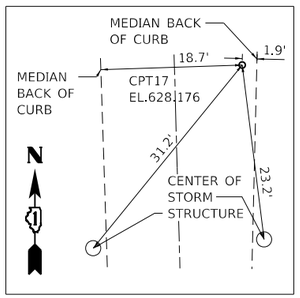
STA. 304+08.06, 52.65' LT.
N 1858230.934
E 1145525.442
ELEV. 645.677



CONTROL POINT #16

SET CHX IN CONCRETE SIDEWALK

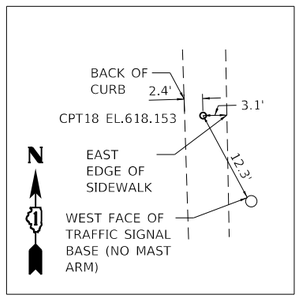
STA. 304+68.70, 73.11' RT.
N 1858173.761
E 1145652.820
ELEV. 644.090



CONTROL POINT #17

SET MAG NAIL IN CONCRETE PAVEMENT

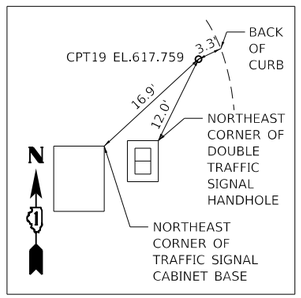
STA. 309+94.88, 8.94' RT.
N 1857646.024
E 1145603.073
ELEV. 628.176



CONTROL POINT #18

SET CHX IN CONCRETE SIDEWALK

STA. 313+72.18, 46.84' RT.
N 1857269.903
E 1145651.280
ELEV. 618.153



CONTROL POINT #19

SET CHX IN CONCRETE SIDEWALK

STA. 314+27.28, 54.53' LT.
N 1857212.045
E 1145551.453
ELEV. 617.759

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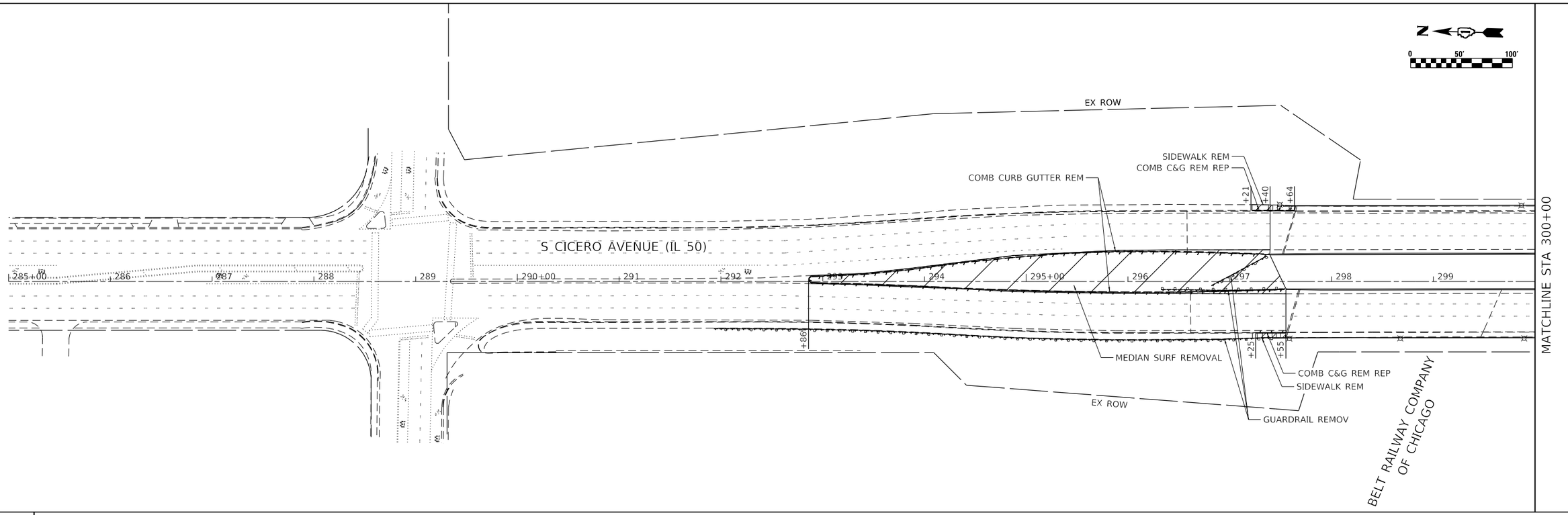
AEG ATLAS ENGINEERING GROUP, LTD.		DRAWN - SS	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

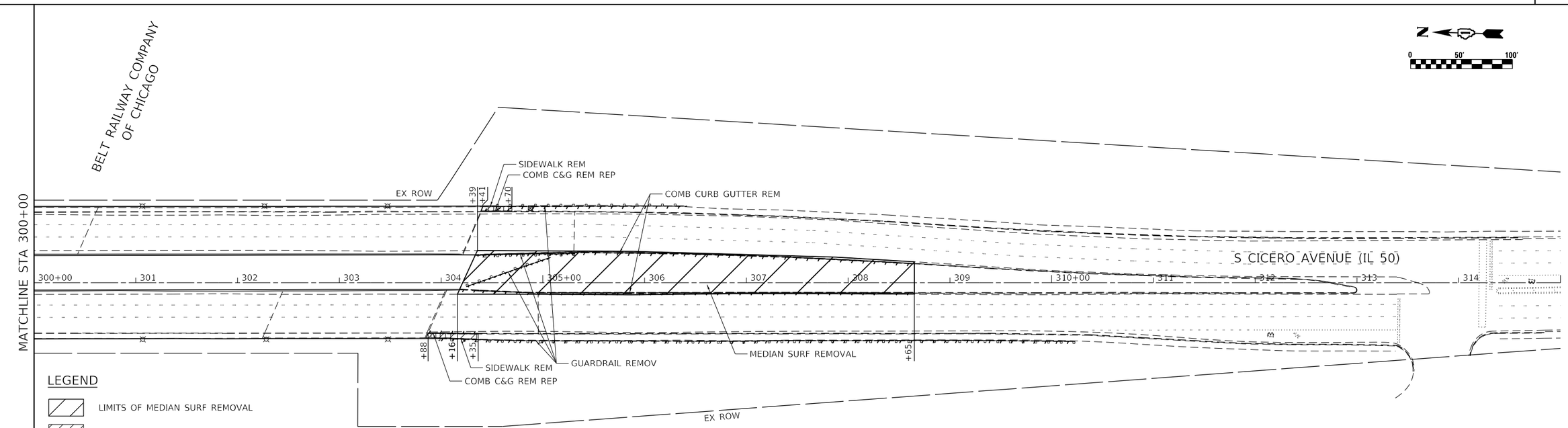
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

ALIGNMENT & TIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	17
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	





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		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

EXISTING CONDITIONS AND REMOVAL PLAN

SCALE: | SHEET OF SHEETS | STA. 293+09 | TO STA. 308+91

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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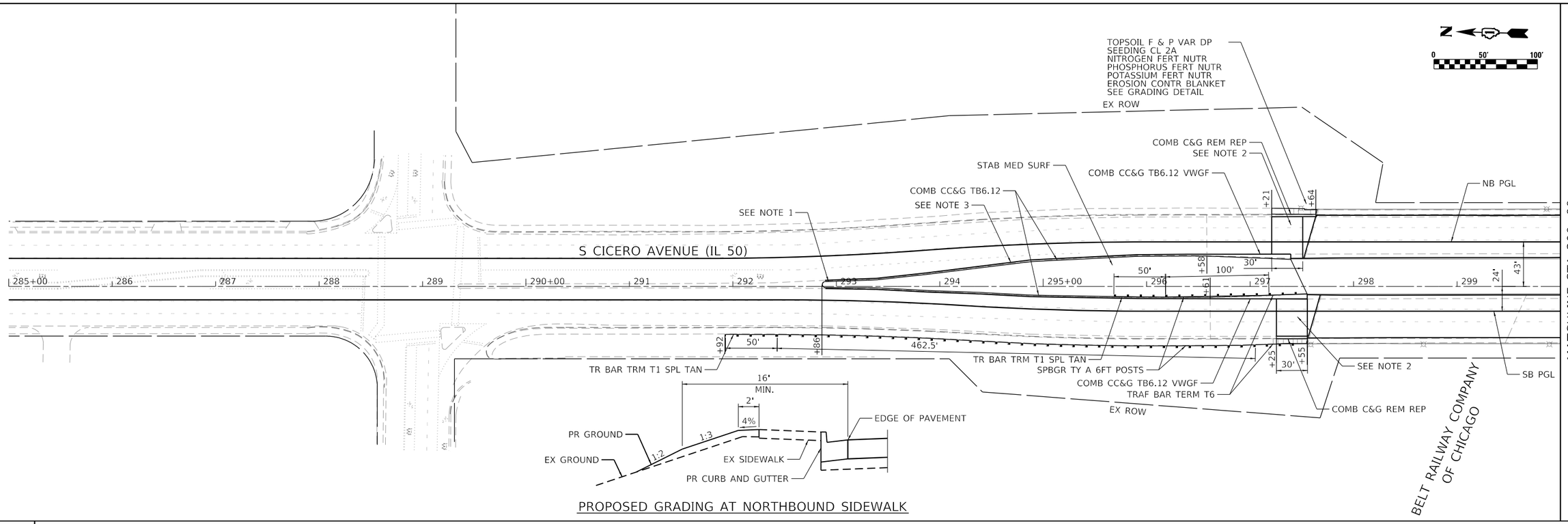
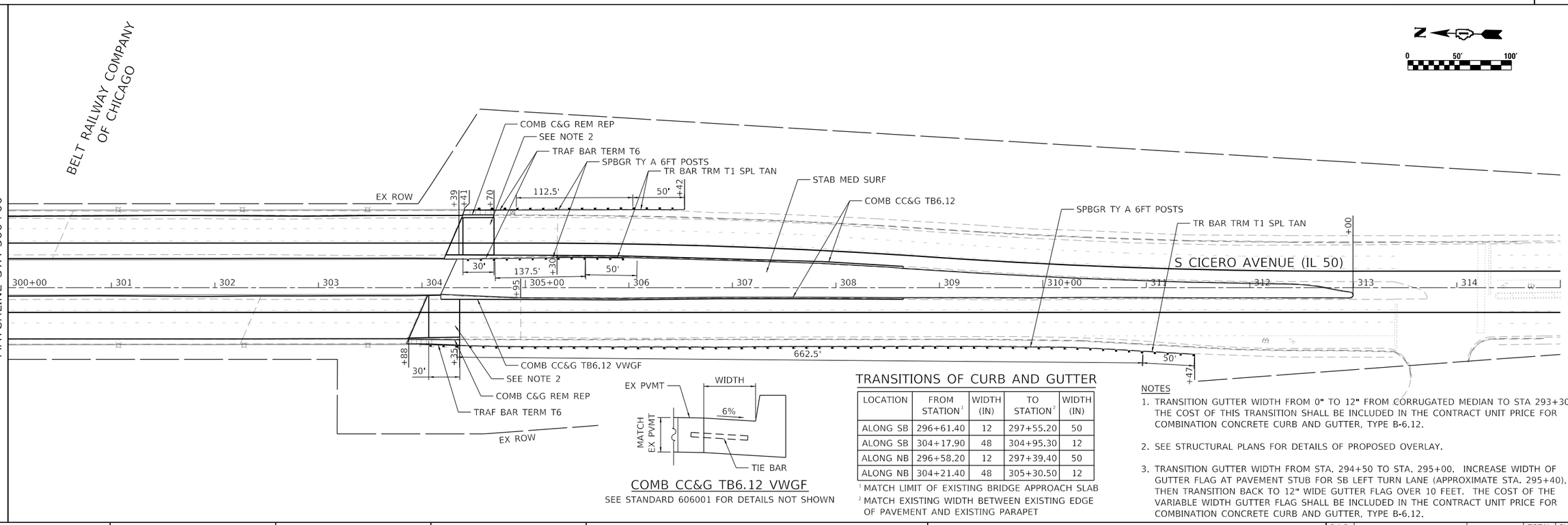
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



PROPOSED GRADING AT NORTHBOUND SIDEWALK



EX PVMT
WIDTH
6%
MATCH EX PVMT
TIE BAR

COMB CC&G TB6.12 VWGF

SEE STANDARD 606001 FOR DETAILS NOT SHOWN

TRANSITIONS OF CURB AND GUTTER

LOCATION	FROM STATION [1]	WIDTH (IN)	TO STATION [2]	WIDTH (IN)
ALONG SB	296+61.40	12	297+55.20	50
ALONG SB	304+17.90	48	304+95.30	12
ALONG NB	296+58.20	12	297+39.40	50
ALONG NB	304+21.40	48	305+30.50	12

[1] MATCH LIMIT OF EXISTING BRIDGE APPROACH SLAB
[2] MATCH EXISTING WIDTH BETWEEN EXISTING EDGE OF PAVEMENT AND EXISTING PARAPET

NOTES

1. TRANSITION GUTTER WIDTH FROM 0" TO 12" FROM CORRUGATED MEDIAN TO STA 293+30. THE COST OF THIS TRANSITION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12.
2. SEE STRUCTURAL PLANS FOR DETAILS OF PROPOSED OVERLAY.
3. TRANSITION GUTTER WIDTH FROM STA. 294+50 TO STA. 295+00. INCREASE WIDTH OF GUTTER FLAG AT PAVEMENT STUB FOR SB LEFT TURN LANE (APPROXIMATE STA. 295+40), THEN TRANSITION BACK TO 12" WIDE GUTTER FLAG OVER 10 FEET. THE COST OF THE VARIABLE WIDTH GUTTER FLAG SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12.

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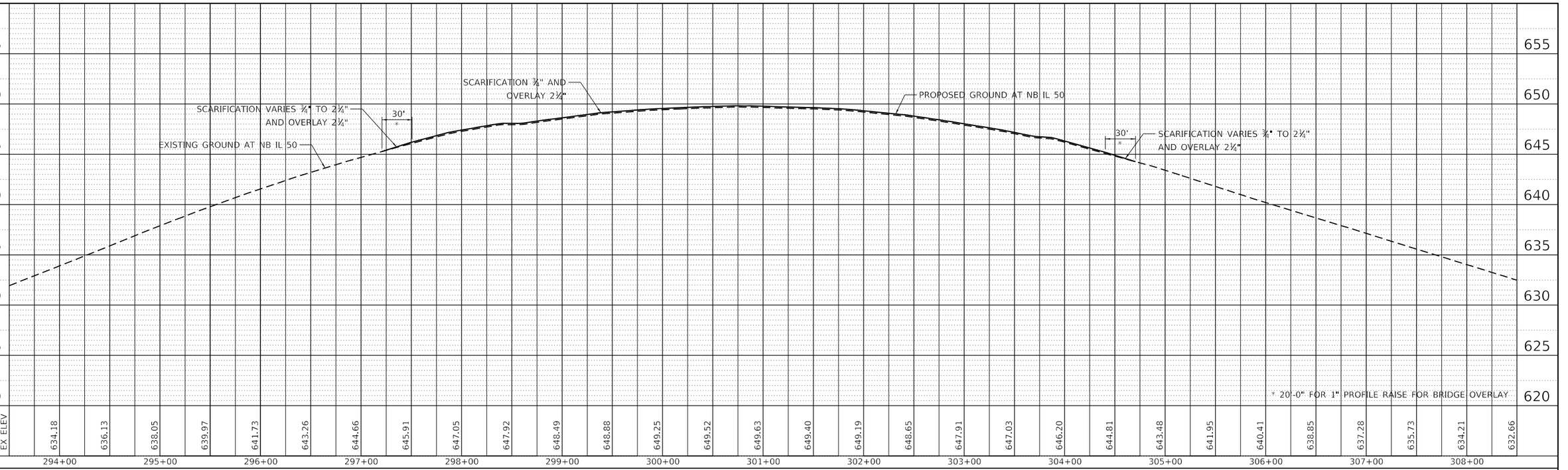
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

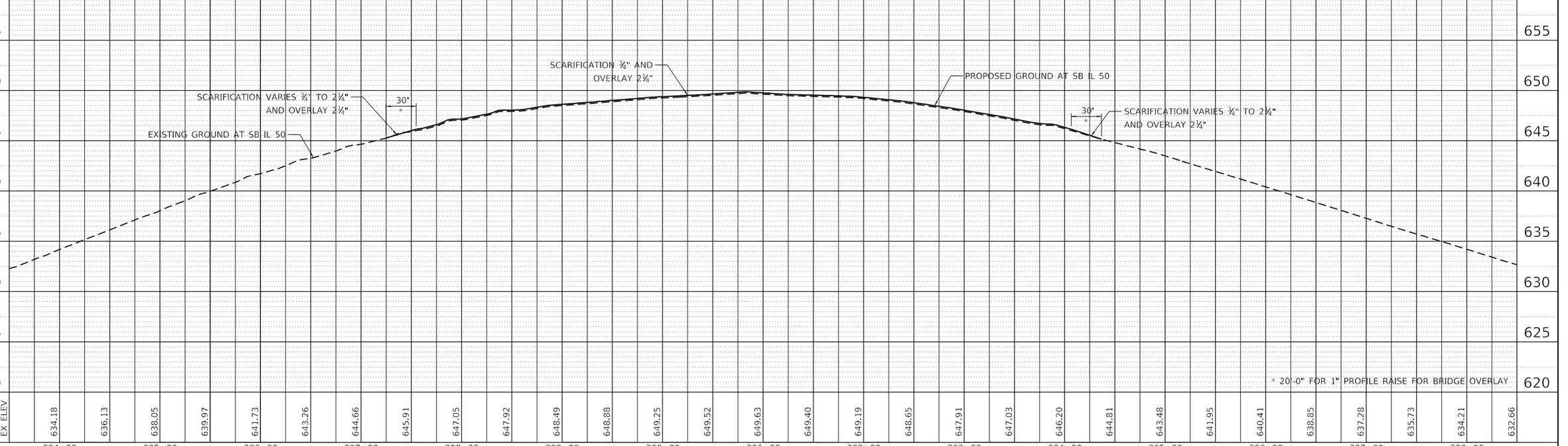
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

PROPOSED PLAN

SCALE: | SHEET OF SHEETS | STA. 293+09 | TO STA. 308+91

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	19
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		





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R.M. NOTED
STRUCTURE NO(S).
CHKD
CHKD
NOTE BOOK
NO.
BY
DATE

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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE
NB & SB IL 50 (CICERO AVENUE)

SCALE: | SHEET OF SHEETS | STA293+09 TO STA308+91

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR		95	20
			CONTRACT NO. 62H50	
		ILLINOIS	FED. AID PROJECT	

SUGGESTED SEQUENCE OF CONSTRUCTION AND MAINTENANCE OF TRAFFIC

PRE-STAGE

1. CLOSE INSIDE LANE OF BOTH NB AND SB IL 50 PER HIGHWAY STANDARD 701606.
2. REMOVE CURB AND GUTTER AND STABILIZED MEDIAN SURFACE AS SHOWN ON THE PLANS, AND COMPLETE CONSTRUCTION OF TEMPORARY PAVEMENT CROSSOVERS TO BE USED FOR STAGES 1A, 1B, 2A, AND 2B.
3. REMOVE EXISTING GUARDRAIL AND INSTALL TEMPORARY GUARDRAIL AND TRAFFIC BARRIER TERMINALS AT THE SOUTH END OF THE BRIDGES AS SHOWN ON PLANS, AND PLACE TEMPORARY CONCRETE BARRIER AT TOP OF SLOPEWALLS BETWEEN BRIDGE ABUTMENTS.
4. BEGIN WORK ON BRIDGE SUBSTRUCTURES.

STAGE 1A

1. CLOSE OUTSIDE LANE OF NB IL 50 AND INSIDE LANE OF SB IL 50.
2. UTILIZE A TEMPORARY PAVEMENT CROSSOVER TO DIRECT ONE LANE OF NB IL 50 ONTO THE INSIDE LANE OF SB IL 50.
3. SHIFT ONE LANE OF NB IL 50 ONTO THE OUTSIDE EDGE OF THE NB IL 50 BRIDGE.
4. COMPLETE DECK AND SUPERSTRUCTURE WORK ON INSIDE OF THE NB IL 50 BRIDGE.
5. CONTINUE WORK ON BRIDGE SUBSTRUCTURES.

STAGE 1B

1. MAINTAIN CLOSURE OF OUTSIDE LANE OF NB IL 50 AND INSIDE LANE OF SB IL 50.
2. MAINTAIN A TEMPORARY PAVEMENT CROSSOVER TO DIRECT ONE LANE OF NB IL 50 ONTO THE INSIDE LANE OF SB IL 50
3. SHIFT ONE LANE OF NB IL 50 ONTO THE INSIDE EDGE OF THE NB IL 50 BRIDGE.
4. COMPLETE DECK AND SUPERSTRUCTURE WORK ON OUTSIDE OF THE NB IL 50 BRIDGE.
5. CONTINUE WORK ON BRIDGE SUBSTRUCTURES.

STAGE 1C

1. CLOSE INSIDE LANE OF BOTH NB AND SB IL 50.
2. SHIFT 2 LANES OF NB IL 50 TRAFFIC ONTO OUTER TWO LANES OF NB IL 50.
3. REMOVE NB AND SB TEMPORARY GUARDRAIL AND TRAFFIC BARRIER TERMINALS AT THE SOUTH END OF BRIDGES.
4. INSTALL NB AND SB TEMPORARY GUARDRAIL AND TRAFFIC BARRIER TERMINALS AT THE NORTH END OF BRIDGES.

STAGE 2A

1. CLOSE OUTSIDE LANE OF SB IL 50 BY CONVERTING IT TO A RIGHT-TURN ONLY LANE NORTH OF THE 67TH STREET INTERSECTION. CLOSE INSIDE LANE OF NB IL 50.
2. UTILIZE A TEMPORARY PAVEMENT CROSSOVER TO DIRECT ONE LANE OF SB IL 50 ONTO THE INSIDE LANE OF NB IL 50.
3. SHIFT ONE LANE OF SB IL 50 ONTO THE OUTSIDE EDGE OF THE SB IL 50 BRIDGE.
4. COMPLETE DECK AND SUPERSTRUCTURE WORK ON INSIDE OF THE SB IL 50 BRIDGE.
5. CONTINUE WORK ON BRIDGE SUBSTRUCTURES.
6. REMOVE AND REPLACE OUTSIDE SIDEWALK AND CURB AND GUTTER AS SHOWN ON PLANS.

STAGE 2B

1. MAINTAIN CLOSURE OF OUTSIDE LANE OF SB IL 50 BY CONVERTING IT TO A RIGHT-TURN ONLY LANE NORTH OF THE 67TH STREET INTERSECTION. CLOSE INSIDE LANE OF NB IL 50.
2. MAINTAIN TEMPORARY PAVEMENT CROSSOVER TO DIRECT ONE LANE OF SB IL 50 ONTO THE INSIDE LANE OF NB IL 50.
3. SHIFT ONE LANE OF SB IL 50 ONTO THE INSIDE EDGE OF THE SB IL 50 BRIDGE.
4. COMPLETE DECK AND SUPERSTRUCTURE WORK ON OUTSIDE OF THE SB IL 50 BRIDGE.
5. CONTINUE WORK ON BRIDGE SUBSTRUCTURES.
6. REMOVE AND REPLACE OUTSIDE SIDEWALK AND CURB AND GUTTER AS SHOWN ON PLANS.

STAGE 3

1. CLOSE INSIDE LANE OF BOTH NB AND SB IL 50 PER HIGHWAY STANDARD 701606.
2. REMOVE TEMPORARY GUARDRAIL AND TRAFFIC BARRIER TERMINALS AT THE NORTH END OF BRIDGES.
3. COMPLETE PROPOSED WORK WITHING THE MEDIAN INCLUDING:
   A. DRAINAGE WORK
   B. CURB AND GUTTER
   C. STABILIZED MEDIAN SURFACE
   D. GUARDRAIL

STAGING AND TRAFFIC CONTROL GENERAL NOTES

1. THE TRAFFIC CONTROL DEPICTED HEREIN IS THE MINIMUM REQUIREMENT. ADDITIONAL TRAFFIC CONTROL DEVICES AS SPECIFIED IN THE HIGHWAY STANDARDS AS SHOWN IN THE INDEX OF SHEETS AND THE SPECIAL PROVISIONS SHALL BE PLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. ALL TRAFFIC CONTROL DEVICES SHALL BE CONSIDERED INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL) UNLESS OTHERWISE INDICATED WITHIN THESE GENERAL NOTES, PLANS, OR SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR MAINTENANCE OF TRAFFIC.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LABOR, SIGNS, AND TRAFFIC CONTROL DEVICES NECESSARY FOR THE MAINTENANCE OF TRAFFIC UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.
4. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISIOR, KALPANA KANNAN-HOSADURGA, AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING THE WORK.
5. IN ADVANCE OF ALL STAGE CHANGES ON IL 50, THE CONTRACTOR SHALL PLACE ONE (1) PORTABLE CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT ALONG IL 50 AS DIRECTED AT A LOCATION DESIGNATED BY THE ENGINEER TO INFORM MOTORISTS OF THE UPCOMING STAGE CHANGE ON IL 50. THE MESSAGE SHALL BE APPROVED BY THE ENGINEER.
6. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
7. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE DESIGNATED TRAFFIC CONTROL PLAN.
8. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER. ANY CHANGES TO THE MAINTENANCE OF TRAFFIC SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTING ANY CHANGES.
9. 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 PROMPLY RESPOND AT THE TIME OF NOTIFICATION BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC DEVICES.
10. THE ENGINEER SHALL BE INFORMED A MINIMUM OF 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN.
11. ALL TEMPORARY PAVEMENT MARKINGS SHOWING DETERIORATION AFTER SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. ALL MARKINGS THAT REQUIRE REPLACEMENT PRIOR TO SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
12. WHEN THEY ARE NO LONGER NECESSARY, ALL TRAFFIC CONTROL DEVICES SHALL IMMEDIATELY BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC. WHEN A SIGN IS COVERED, ITS POST SHALL HAVE A REFLECTIVE 3"×6" DELINEATOR INSTALLED. THE COST OF THE DELINEATOR SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
13. TEMPORARY CONCRETE BARRIERS AND TEMPORARY IMPACT ATTENUATORS SHALL BE PLACED AS SHOWN IN THE PLANS. FURNISHING, INSTALLING, AND RELOCATING TEMPORARY CONCRETE BARRIERS AND TEMPORARY IMPACT ATTENUATORS SHALL BE IN ACCORDANCE WITH IDOT SPECIAL PROVISIONS, IDOT HIGHWAY STANDARDS, STANDARD SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.
14. IMMEDIATELY AFTER THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE ALL PERMANENT PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES THAT WERE COVERED, REMOVED, DAMAGED, OR OTHERWISE AFFECTED BY CONSTRUCTION.
15. ACCESS TO ALL PRIVATE AND COMMERCIAL DRIVEWAYS AND ENTRANCES ARE TO BE MAINTAINED DURING CONSTRUCTION.
16. WHERE RAISED REFLECTIVE PAVEMENT MARKERS CONFLICT WITH TRAFFIC LANES DURING STAGING, THE REFLECTIVE ELEMENTS SHALL BE REMOVED FROM THE CASTINGS (RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL) PRIOR TO SHIFTING TRAFFIC INTO STAGE.
17. AT LEAST TWO (2) WEEKS PRIOR TO STARTING STAGE 2A, THE CONTRACTOR SHALL NOTIFY PACE ENGINEER, RICK WILLMAN AT (847)228-3584.

FILE NAME = D9105519-sht-Suggested Stages of Construction	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** IL ROUTE 50 (CICERO AVENUE) OVER BRC RAILROAD
		DRAWN - AMF	REVISED -	
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -	
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -	

SUGGESTED STAGES OF CONSTRUCTION

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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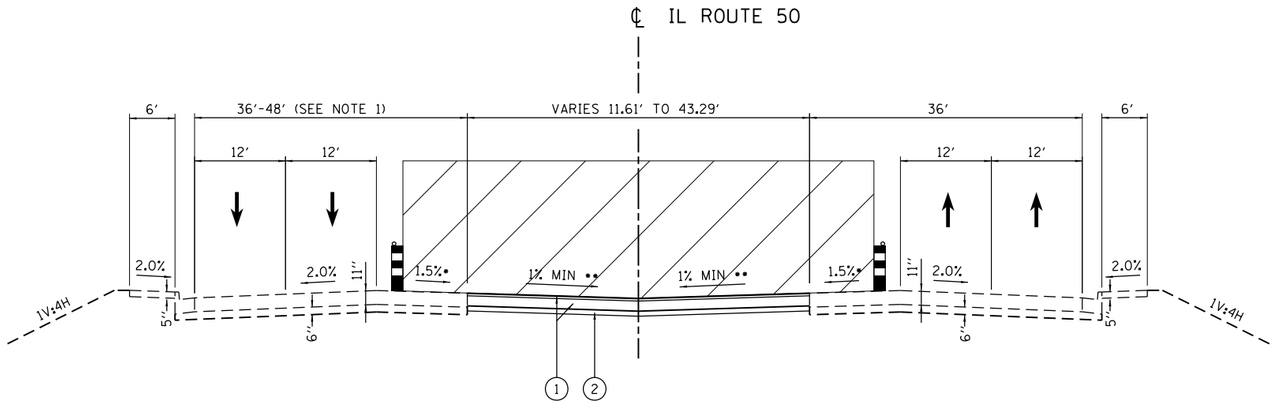
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



• SEE NOTE 2
•• SEE NOTE 3

PRE-STAGE TYPICAL SECTION
IL ROUTE 50 (CICERO AVENUE)

STA. 293+29.10 TO STA. 297+39.43
STA. 304+35.69 TO STA. 308+65.00

PROPOSED LEGEND

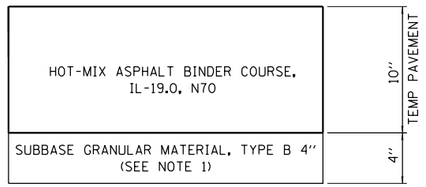
(1) TEMPORARY PAVEMENT

(2) SUBBASE GRANULAR MATERIAL, TYPE B, 4"

WORK AREA

STAGING TYPICAL SECTION NOTES

1. FROM STA 292+85 TO STA 295+00, THE WIDTH VARIES FROM 36 FT TO 48 FT.
2. FROM STA 292+85 TO STA 295+00, THE CROSS SLOPE TRANSITIONS FROM 1.5% SLOPING AWAY FROM THE MEDIAN TO 1.5% TOWARD THE MEDIAN.
3. SEE TEMPORARY PAVEMENT GRADING PLANS.
4. SEE CONSTRUCTION STAGING IN STRUCTURAL PLANS FOR STAGING TYPICAL SECTIONS ON BRIDGES.



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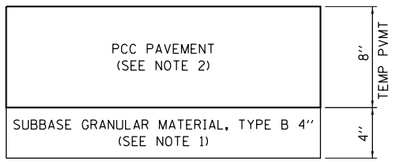

RIGID (PCC) DESIGN

TEMPORARY PAVEMENT

TEMPORARY PAVEMENT NOTES

1. COURSE AGGREGATE GRADATION CA-6 SHALL BE USED FOR SUBBASE GRANULAR MATERIAL, TYPE B BENEATH TEMPORARY PAVEMENT.
2. PC CONCRETE TEMPORARY PAVEMENT SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF ARTICLE 1020 OF THE STANDARD SPECIFICATIONS. TEMPORARY PCC PAVEMENT DOES NOT REQUIRE DOWEL BARS.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
TYPICAL SECTIONS AND TEMPORARY PAVEMENT DESIGN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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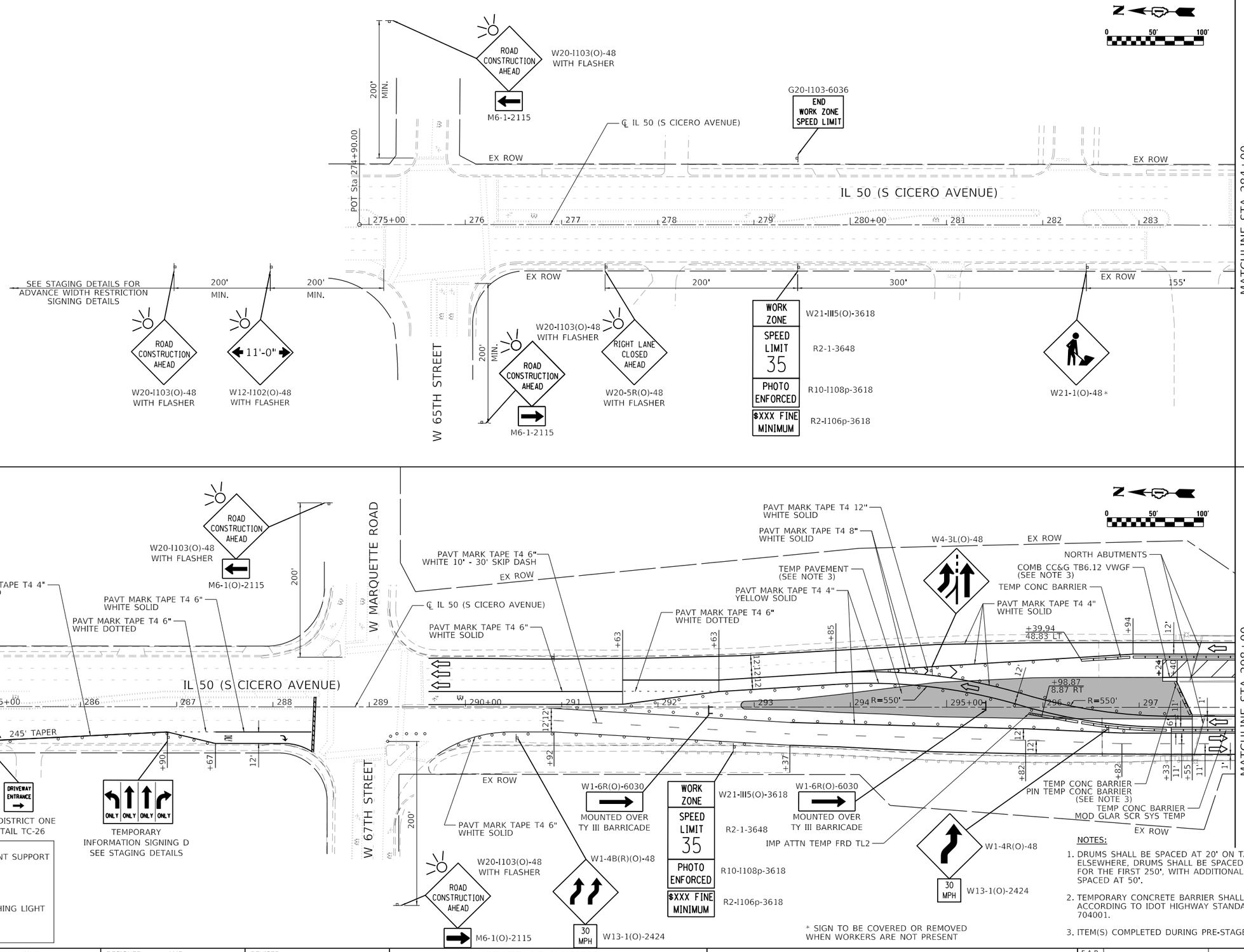

NOTES:

1. DRUMS SHALL BE SPACED AT 20' ON TAPERS. ELSEWHERE, DRUMS SHALL BE SPACED AT 25' FOR THE FIRST 250', WITH ADDITIONAL DRUMS SPACED AT 50'.
2. TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO IDOT HIGHWAY STANDARD 704001.
3. ITEM(S) COMPLETED DURING PRE-STAGE.

* SIGN TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT PRESENT

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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
STAGE 1A

SCALE: | SHEET OF SHEETS | STA. 275+00 | TO STA. 298+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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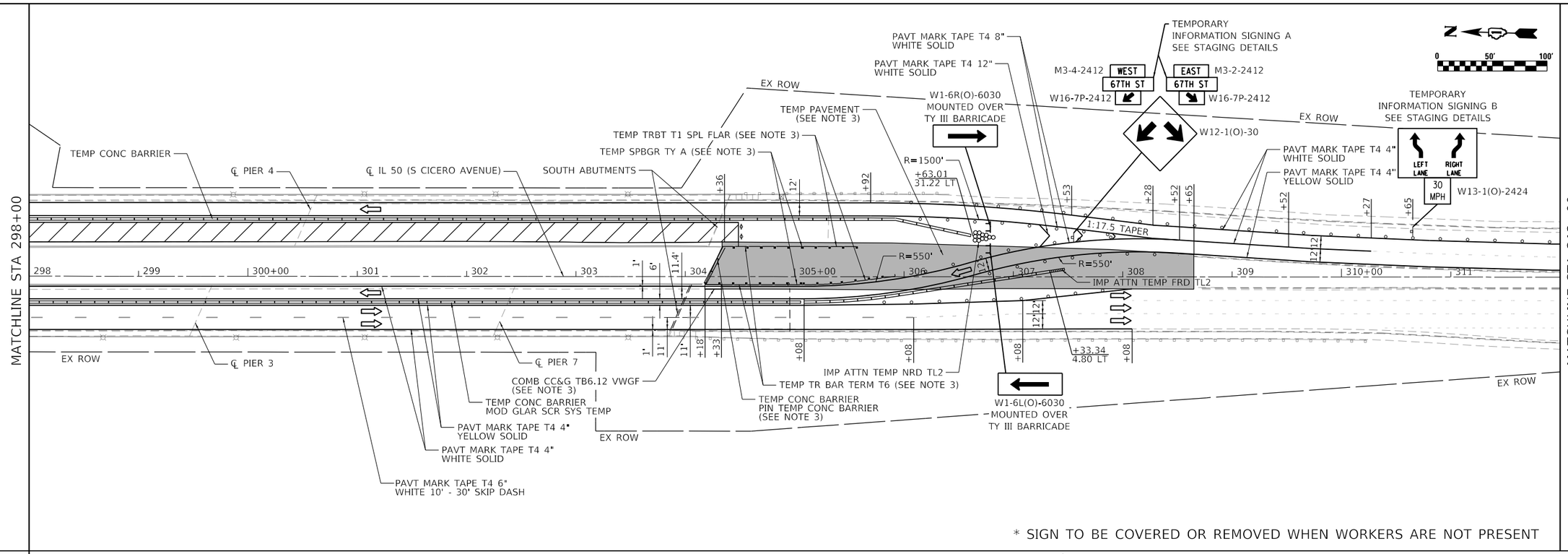

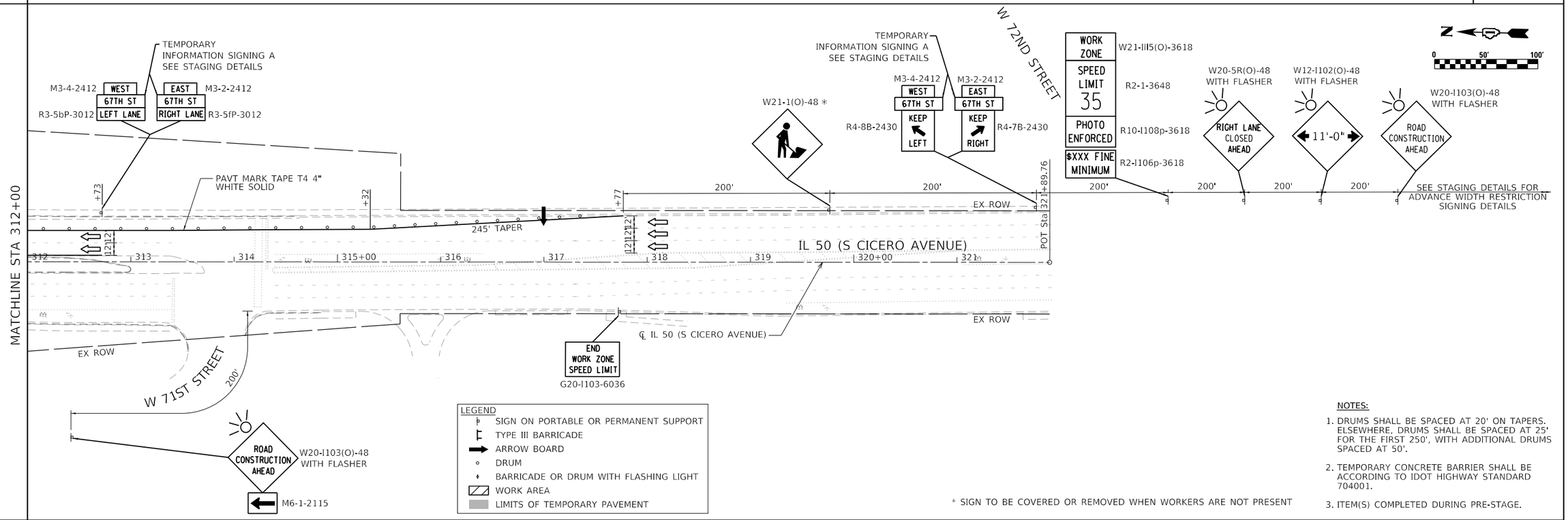

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE III BARRICADE
- ARROW BOARD
- DRUM
- BARRICADE OR DRUM WITH FLASHING LIGHT
- WORK AREA
- LIMITS OF TEMPORARY PAVEMENT

NOTES:

1. DRUMS SHALL BE SPACED AT 20' ON TAPERS. ELSEWHERE, DRUMS SHALL BE SPACED AT 25' FOR THE FIRST 250', WITH ADDITIONAL DRUMS SPACED AT 50'.
2. TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO IDOT HIGHWAY STANDARD 704001.
3. ITEM(S) COMPLETED DURING PRE-STAGE.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
STAGE 1A

SCALE: | SHEET OF SHEETS | STA. 298+00 | TO STA. 321+89.76

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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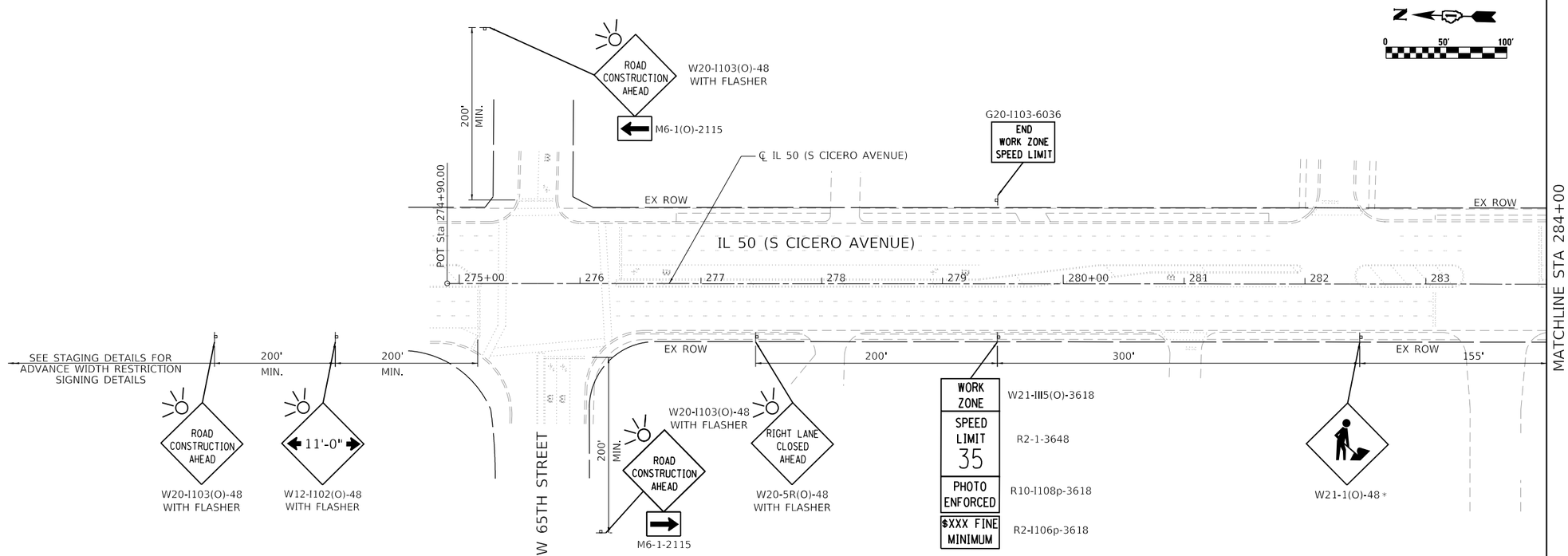
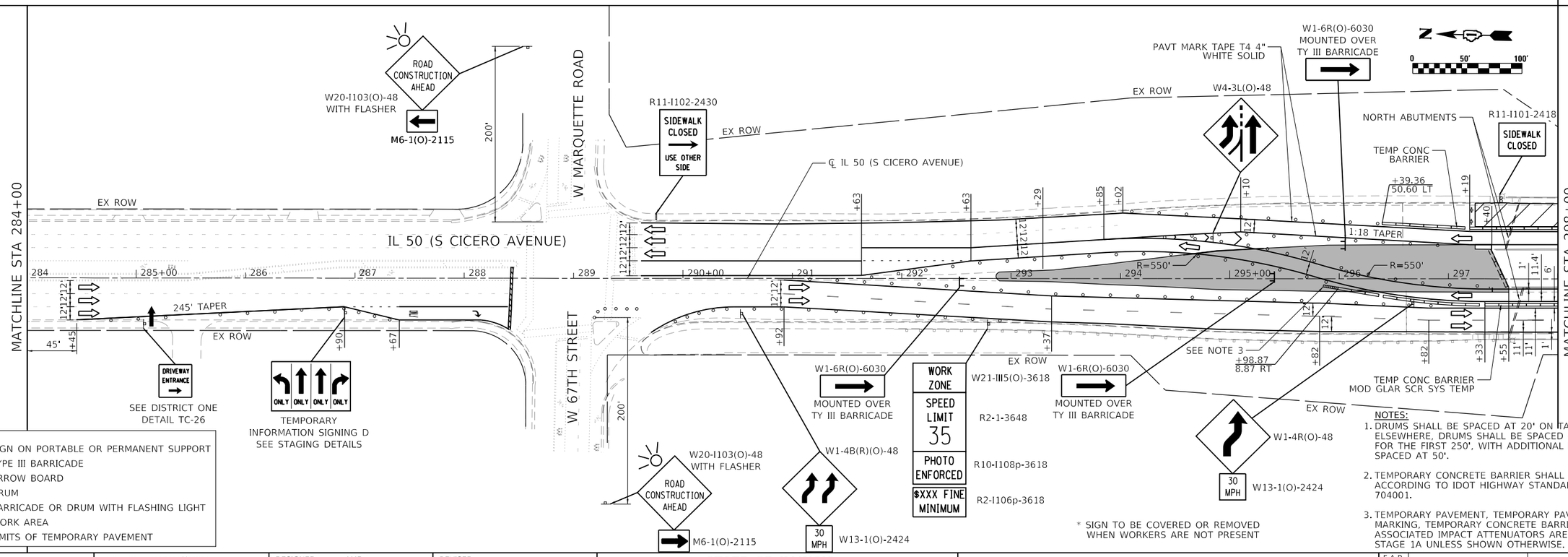
		ILLINOIS	FED. AID PROJECT	





LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE III BARRICADE
- ARROW BOARD
- DRUM
- BARRICADE OR DRUM WITH FLASHING LIGHT
- WORK AREA
- LIMITS OF TEMPORARY PAVEMENT

NOTES:

1. DRUMS SHALL BE SPACED AT 20' ON TAPERS. ELSEWHERE, DRUMS SHALL BE SPACED AT 25' FOR THE FIRST 250', WITH ADDITIONAL DRUMS SPACED AT 50'.
2. TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO IDOT HIGHWAY STANDARD 704001.
3. TEMPORARY PAVEMENT, TEMPORARY PAVEMENT MARKING, TEMPORARY CONCRETE BARRIER, AND ASSOCIATED IMPACT ATTENUATORS ARE SAME AS STAGE 1A UNLESS SHOWN OTHERWISE.

* SIGN TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT PRESENT

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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
STAGE 1B

SCALE: | SHEET OF SHEETS | STA. 275+00 | TO STA. 298+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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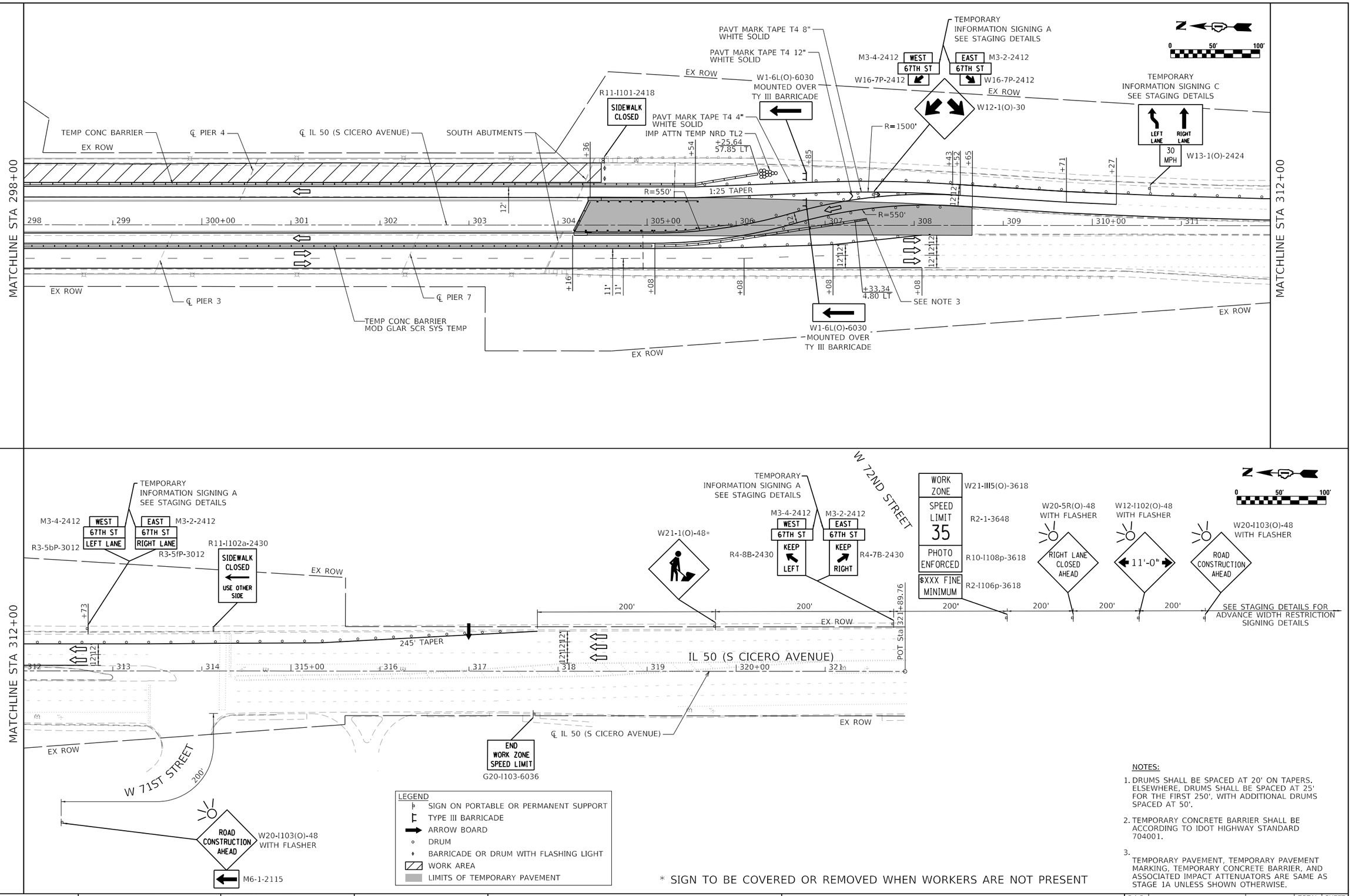

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE III BARRICADE
- ARROW BOARD
- DRUM
- BARRICADE OR DRUM WITH FLASHING LIGHT
- WORK AREA
- LIMITS OF TEMPORARY PAVEMENT

* SIGN TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT PRESENT

NOTES:

1. DRUMS SHALL BE SPACED AT 20' ON TAPERS. ELSEWHERE, DRUMS SHALL BE SPACED AT 25' FOR THE FIRST 250', WITH ADDITIONAL DRUMS SPACED AT 50'.
2. TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO IDOT HIGHWAY STANDARD 704001.
3. TEMPORARY PAVEMENT, TEMPORARY PAVEMENT MARKING, TEMPORARY CONCRETE BARRIER, AND ASSOCIATED IMPACT ATTENUATORS ARE SAME AS STAGE 1A UNLESS SHOWN OTHERWISE.

MODEL: Default
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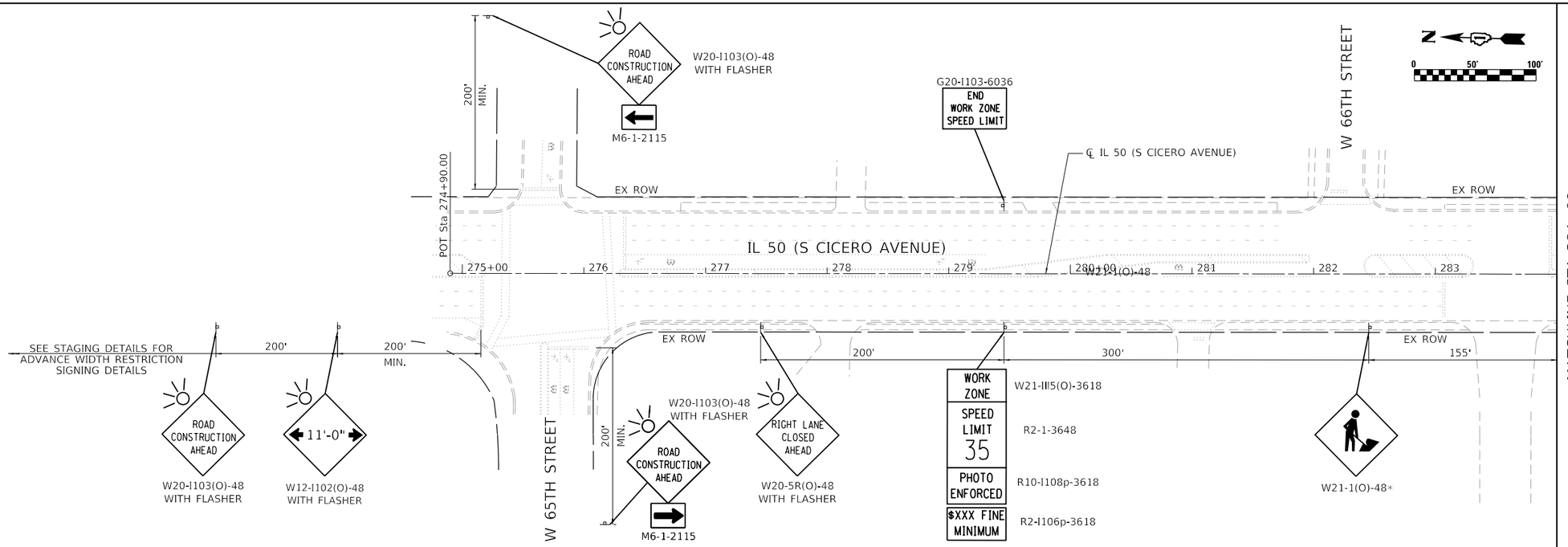
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

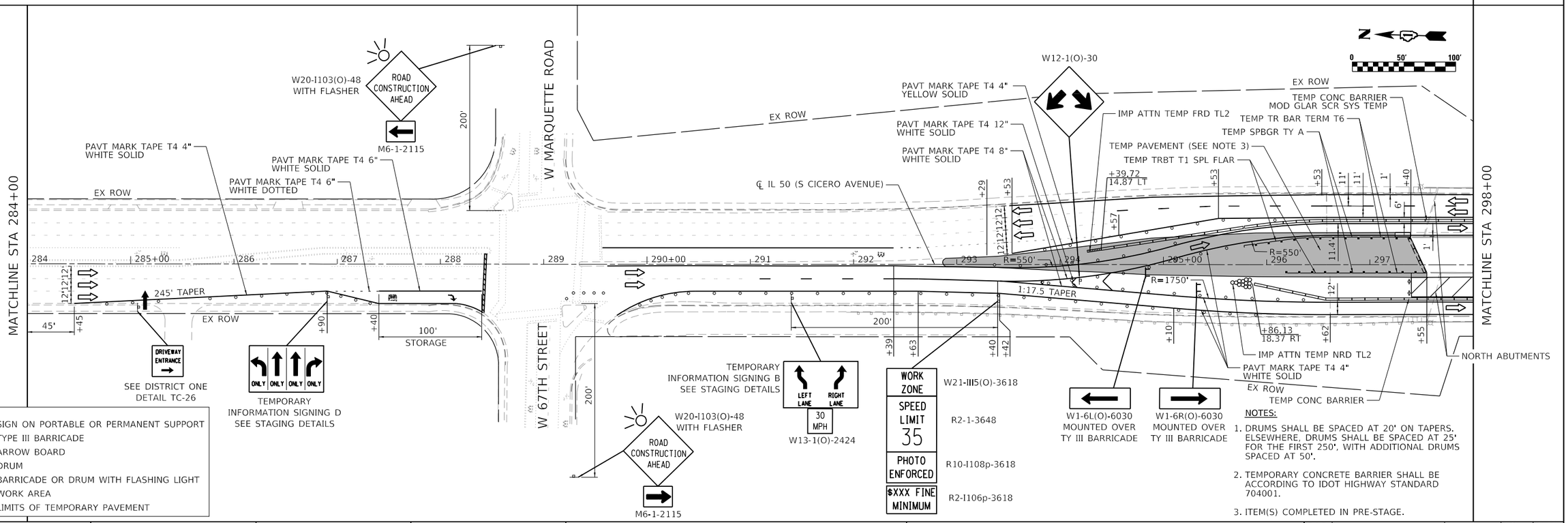
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
STAGE 1B

SCALE: | SHEET OF SHEETS | STA. 298+00 | TO STA. 321+89.76

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	26
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	





NOTES:

1. DRUMS SHALL BE SPACED AT 20' ON TAPERS. ELSEWHERE, DRUMS SHALL BE SPACED AT 25' FOR THE FIRST 250', WITH ADDITIONAL DRUMS SPACED AT 50'.
2. TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO IDOT HIGHWAY STANDARD 704001.
3. ITEM(S) COMPLETED IN PRE-STAGE.

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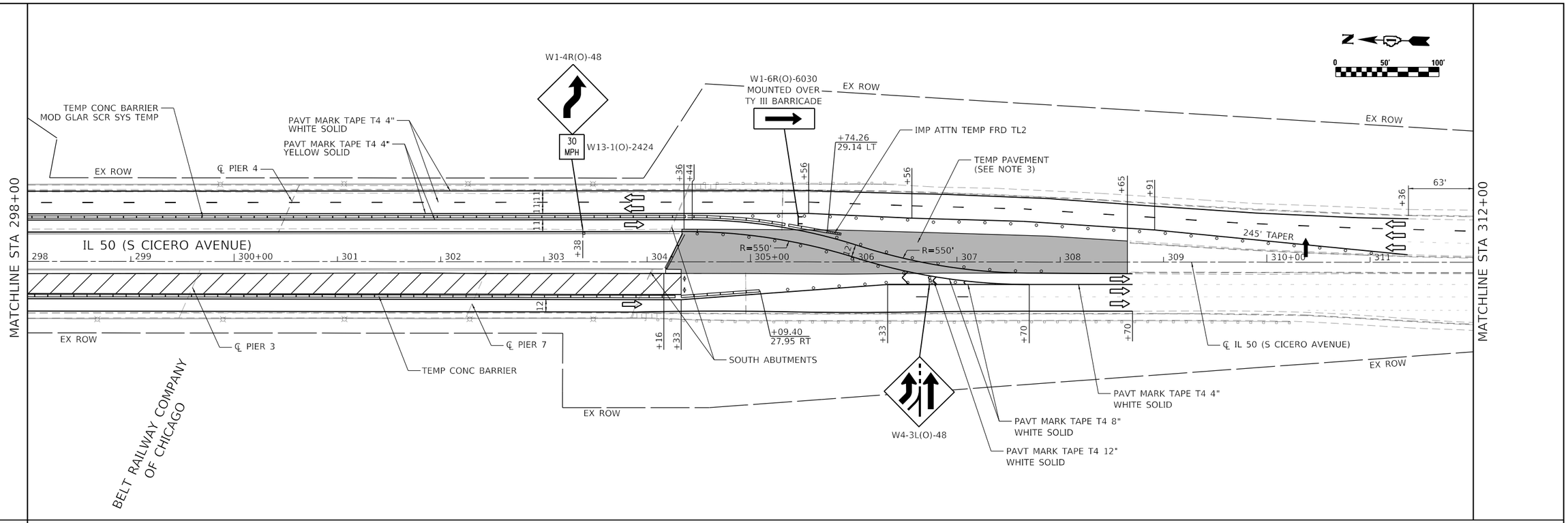
FILE NAME = D9105519-sht-MOT Stage 2A-1	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC		DRAWN - AMF	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

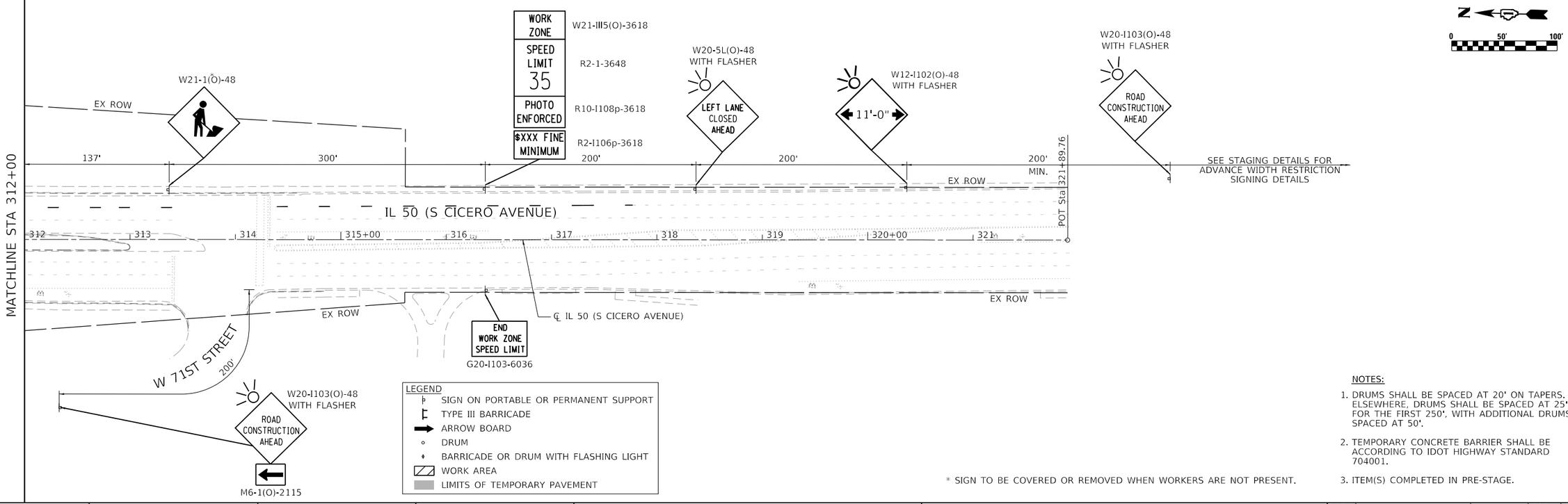
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
STAGE 2A

SCALE: | SHEET OF SHEETS | STA. 275+00 | TO STA. 298+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	27
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	





LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE III BARRICADE
- ARROW BOARD
- DRUM
- BARRICADE OR DRUM WITH FLASHING LIGHT
- WORK AREA
- LIMITS OF TEMPORARY PAVEMENT

* SIGN TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT PRESENT.

NOTES:

1. DRUMS SHALL BE SPACED AT 20' ON TAPERS. ELSEWHERE, DRUMS SHALL BE SPACED AT 25' FOR THE FIRST 250', WITH ADDITIONAL DRUMS SPACED AT 50'.
2. TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO IDOT HIGHWAY STANDARD 704001.
3. ITEM(S) COMPLETED IN PRE-STAGE.

FILE NAME = D9105519-sht-MOT Stage 2A-2	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
STAGE 2A

SCALE: | SHEET OF SHEETS | STA. 298+00 | TO STA. 321+89.76

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	28
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

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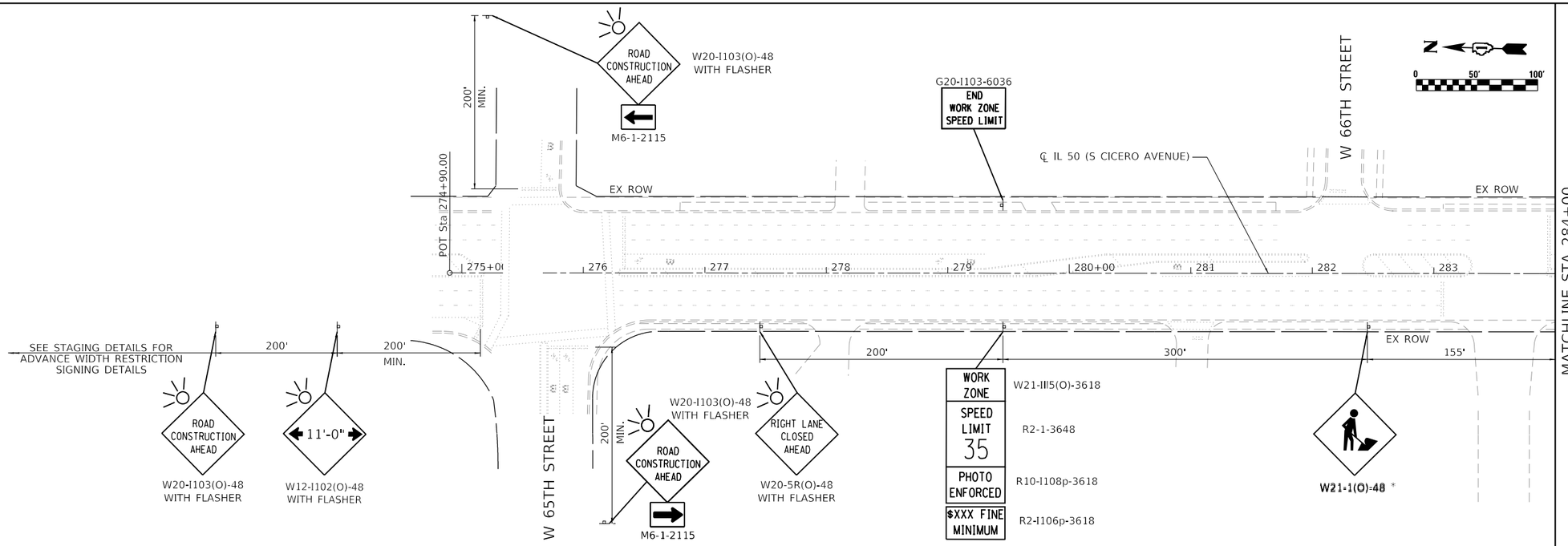

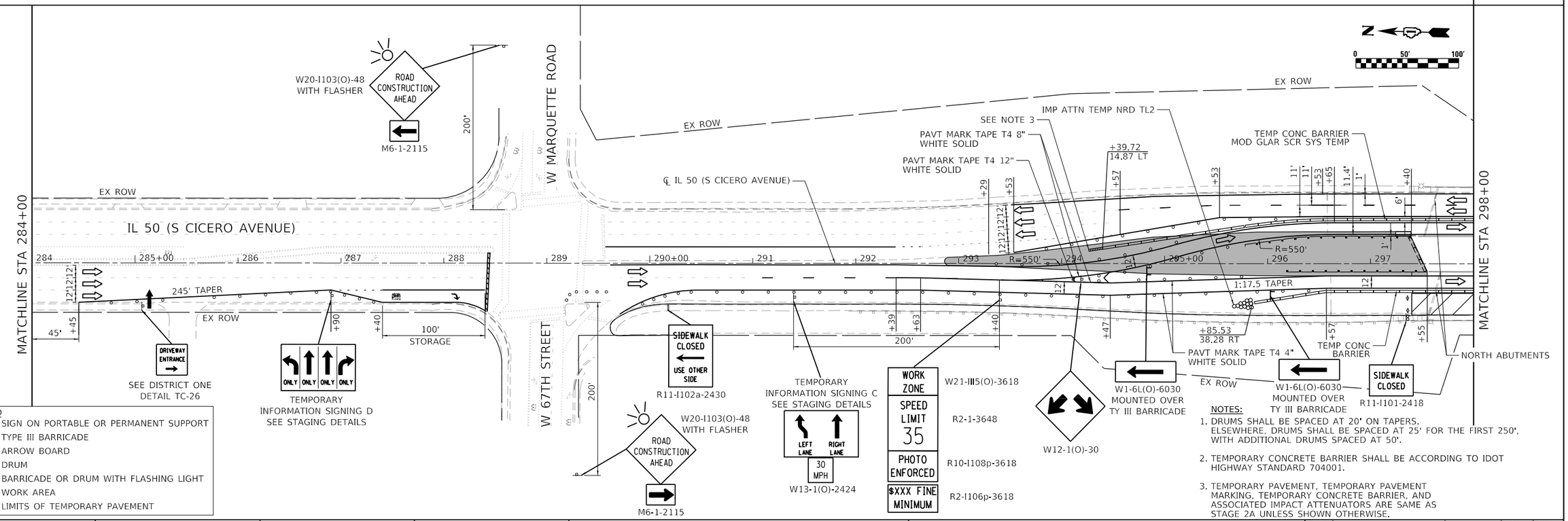

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE III BARRICADE
- ARROW BOARD
- DRUM
- BARRICADE OR DRUM WITH FLASHING LIGHT
- WORK AREA
- LIMITS OF TEMPORARY PAVEMENT

NOTES:

1. DRUMS SHALL BE SPACED AT 20' ON TAPERS. ELSEWHERE, DRUMS SHALL BE SPACED AT 25' FOR THE FIRST 250', WITH ADDITIONAL DRUMS SPACED AT 50'.
2. TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO IDOT HIGHWAY STANDARD 704001.
3. TEMPORARY PAVEMENT, TEMPORARY PAVEMENT MARKING, TEMPORARY CONCRETE BARRIER, AND ASSOCIATED IMPACT ATTENUATORS ARE SAME AS STAGE 2A UNLESS SHOWN OTHERWISE.

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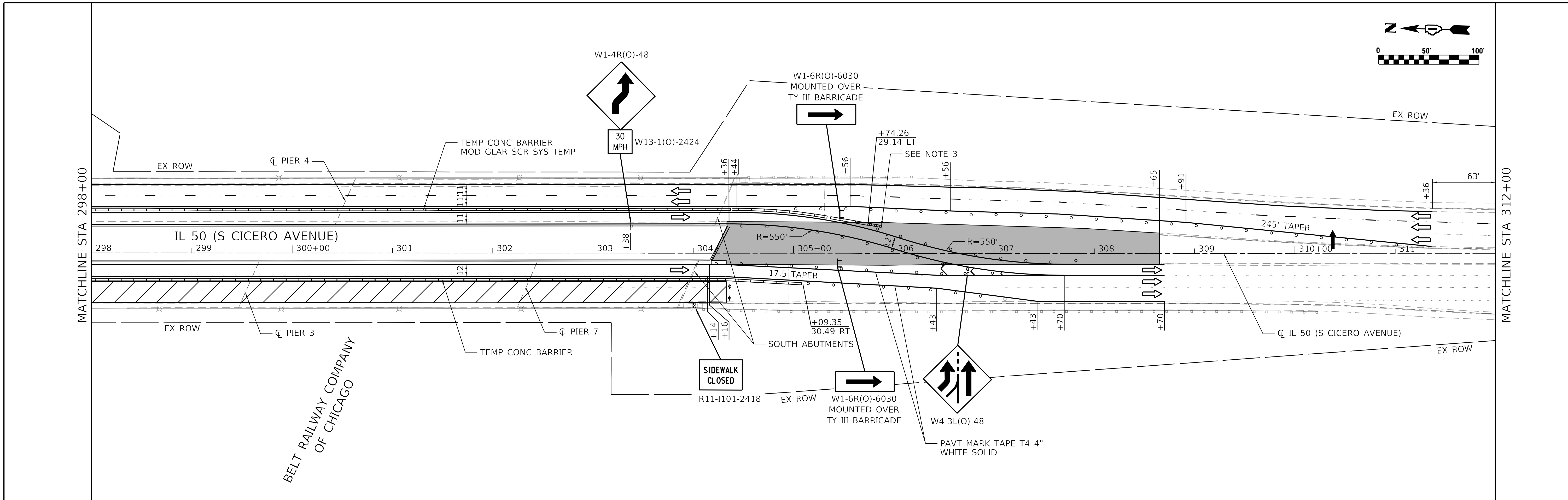
GARZA KARHOFF ENGINEERING, LLC		DRAWN - AMF	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - DDH	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

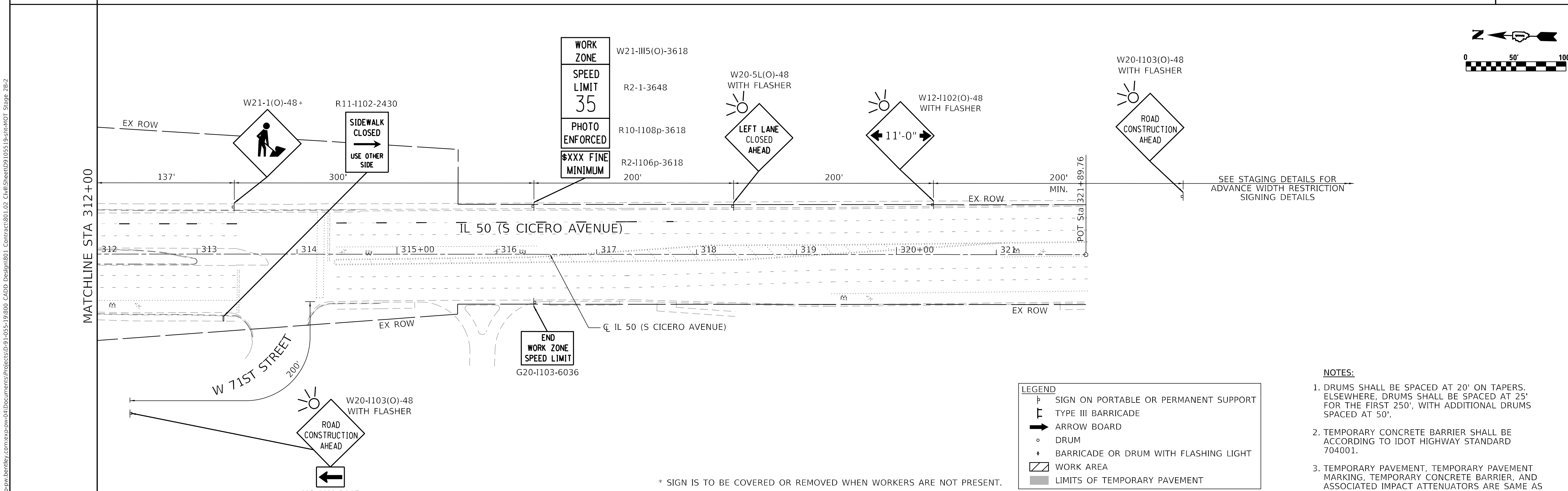
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
STAGE 2B

SCALE: | SHEET OF SHEETS | STA. 275+00 | TO STA. 298+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	29
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	





* SIGN IS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT PRESENT.

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE III BARRICADE
- ARROW BOARD
- DRUM
- BARRICADE OR DRUM WITH FLASHING LIGHT
- WORK AREA
- LIMITS OF TEMPORARY PAVEMENT

NOTES:

1. DRUMS SHALL BE SPACED AT 20' ON TAPERS. ELSEWHERE, DRUMS SHALL BE SPACED AT 25' FOR THE FIRST 250', WITH ADDITIONAL DRUMS SPACED AT 50'.
2. TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO IDOT HIGHWAY STANDARD 704001.
3. TEMPORARY PAVEMENT, TEMPORARY PAVEMENT MARKING, TEMPORARY CONCRETE BARRIER, AND ASSOCIATED IMPACT ATTENUATORS ARE SAME AS STAGE 2A UNLESS SHOWN OTHERWISE.

MODEL: Default
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GARZA KARHOFF ENGINEERING, LLC		DRAWN - AMF	REVISED -	
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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
STAGE 2B

SCALE: | SHEET OF SHEETS | STA. 298+00 TO STA. 321+89.76

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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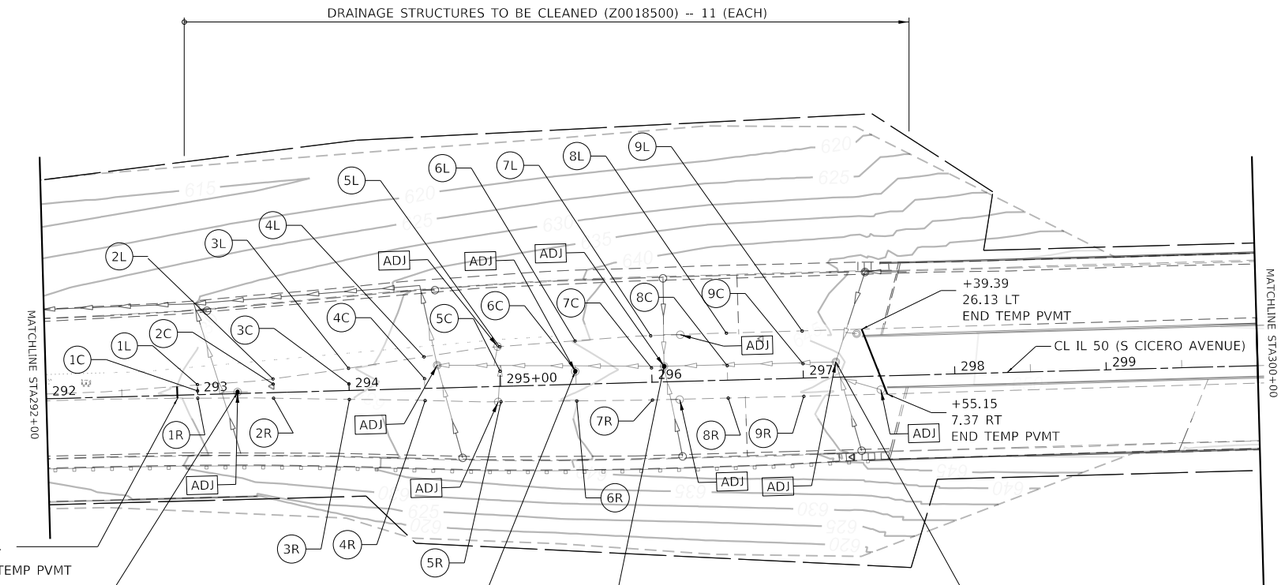
		CONTRACT NO. 62H50		
		ILLINOIS FED. AID PROJECT		



+86.57
1.86 RT
BEGIN TEMP PVMT

EX CB RIM=631.62
STA 293+26.47
N,S INV=626.02,12"CLAY
T/WATER=626.42
T/DEBRIS=625.32
ADJUST FOR TEMPORARY CONDITION
PR. TEMPORARY RIM ELEV= 631.53
W/NEW TYPE 4 F&G

EX CB RIM=638.90
STA295+49.51
T/WATER=634.49
T/DEBRIS=633.59
NO PIPES VISIBLE
ADJUST FOR TEMPORARY CONDITION
PR. TEMPORARY RIM ELEV= 639.42
W/NEW TYPE 4 F&G

EX MH RIM=641.10
STA 296+08.19
E INV=635.95,8"CLAY
S INV=635.75,12"CLAY
W INV=635.65,8"CLAY
N INV=635.60,12"CLAY
ADJUST FOR TEMPORARY CONDITION
PR. TEMPORARY RIM ELEV= 641.47
W/NEW TYPE 4 F&G

EX MH RIM=644.87
SE,SW INV=639.40,8"CLAY
TWO ELECTRIC LINES RUNNING
E-W THRU STRUCTURE
ADJUST FOR TEMPORARY CONDITION
PR. TEMPORARY RIM ELEV= 644.78
W/NEW TYPE 4 F&G

NOTES

1) ADJUSTMENTS FOR DRAINAGE STRUCTURES ACCOUNT FOR TEMPORARY CONDITIONS.

2) SLOPE VARIES FROM 2.71 TO 1.

NUMBER	STATION	EX EAST EOP ELEV	OFFSET FROM CL	PR EAST SLOPE (L)	PR DITCH BOTTOM ELEV (C)	OFFSET FROM CL	PR WEST SLOPE (R)	OFFSET FROM CL	EX WEST EOP ELEV
2	293+50	632.52	9.03	1.00	632.49	5.65	2.71	3.73	632.74
3	294+00	634.44	14.67	1.58	634.28	4.38	1.50	5.91	634.38
4	294+50	636.11	20.87	1.00	635.97	6.46	2.11	8.02	636.27
5	295+00	637.82	26.20	1.00	637.66	10.04	2.69	10.12	638.20
6	295+50	639.64	28.66	1.00	639.44	8.83	2.66	11.00	639.97
7	296+00	641.41	30.70	1.00	641.20	9.47	2.32	11.75	641.69
8	296+50	643.03	31.03	1.00	642.82	9.57	1.84	11.89	643.20
9	297+00	644.55	31.09	1.00	644.33	9.54	1.46	12.01	644.65

0 50' 100'

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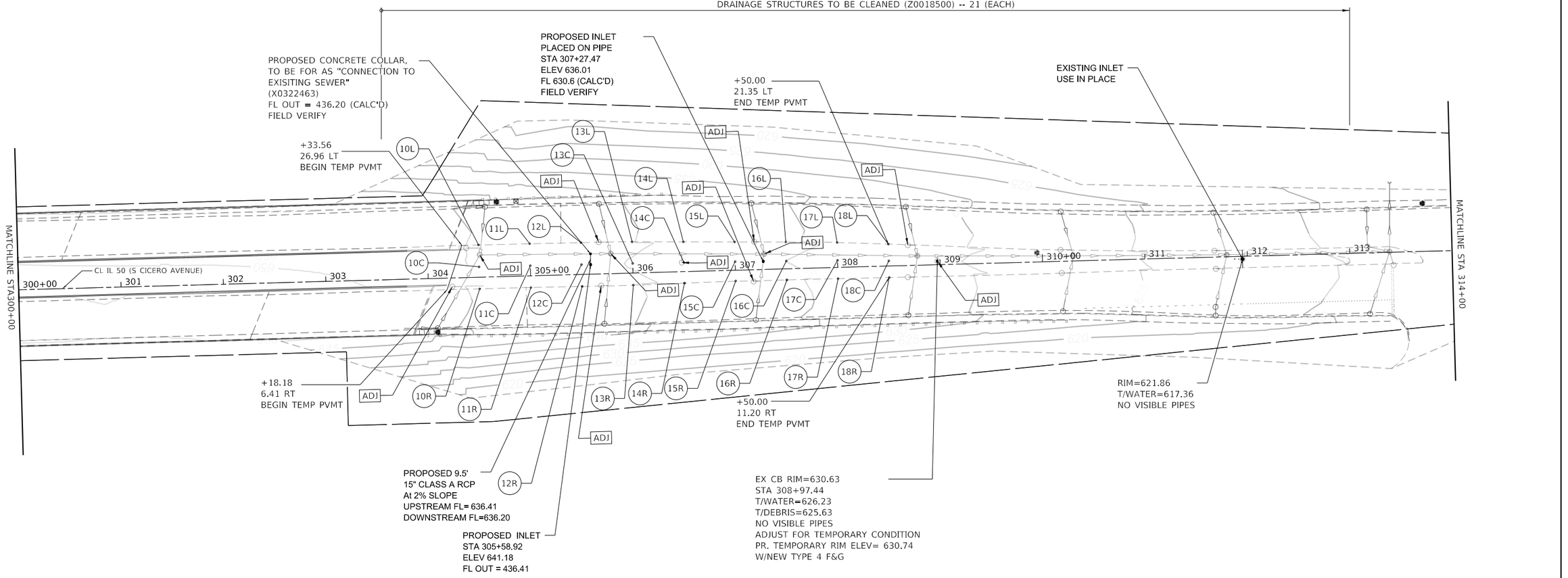
ATLAS ENGINEERING GROUP, LTD.	PLOT SCALE = 100.0000 ' / in.	CHECKED - JT	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL
TEMPORARY PAVEMENT GRADING PLAN

SCALE: | SHEET OF SHEETS | STA. 292+00 | TO STA. 300+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	86	31
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



NUMBER	STATION	EX WEST EOP ELEV	OFFSET FROM CL	PR EAST SLOPE (L)	PR DITCH BOTTOM ELEV C	OFFSET FROM CL	PR WEST SLOPE (R)	OFFSET FROM CL	EX WEST EOP ELEV
10	304+50	644.67	31.52	1.00	644.46	10.08	1.23	11.35	644.72
11	305+00	643.30	31.32	1.00	643.09	9.93	1.61	11.45	643.43
12	305+50	641.68	31.02	1.00	641.47	9.65	1.75	11.72	641.84
13	306+00	640.09	30.46	1.00	639.88	9.34	1.85	11.78	640.27
14	306+50	638.60	29.05	1.00	638.40	8.91	1.74	11.23	638.75
15	307+00	637.08	27.63	1.00	636.89	8.50	1.10	10.47	637.16
16	307+50	635.47	26.18	1.00	635.29	7.68	1.54	10.81	635.57
17	308+00	633.88	24.34	1.00	633.71	6.93	1.75	10.93	634.01
18	308+50	632.34	21.35	1.00	632.18	5.08	2.17	11.20	632.53

NOTES

1) ADJUSTMENTS FOR DRAINAGE STRUCTURES ACCOUNT FOR TEMPORARY CONDITIONS.

2) SLOPE VARIES FROM 2.17 TO 1.

0 50' 100'

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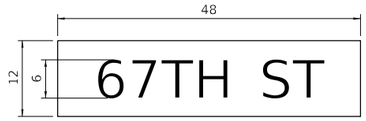
		DRAWN - BU	REVISED -
AEG ATLAS ENGINEERING GROUP, LTD.	PLOT SCALE = 100.0000 ' / in.	CHECKED - JT	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

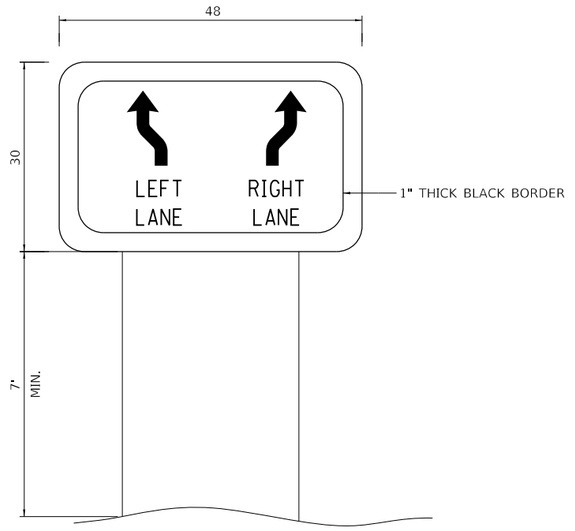
STAGING AND TRAFFIC CONTROL
TEMPORARY PAVEMENT GRADING PLAN

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

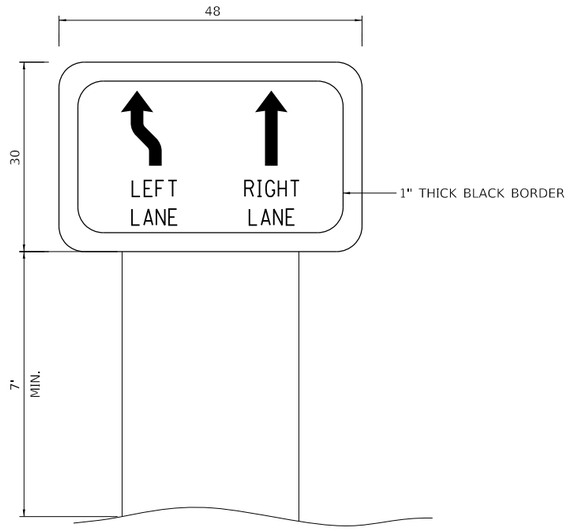
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	86	32
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



TEMPORARY INFORMATION
SIGNING A



TEMPORARY INFORMATION
SIGNING B



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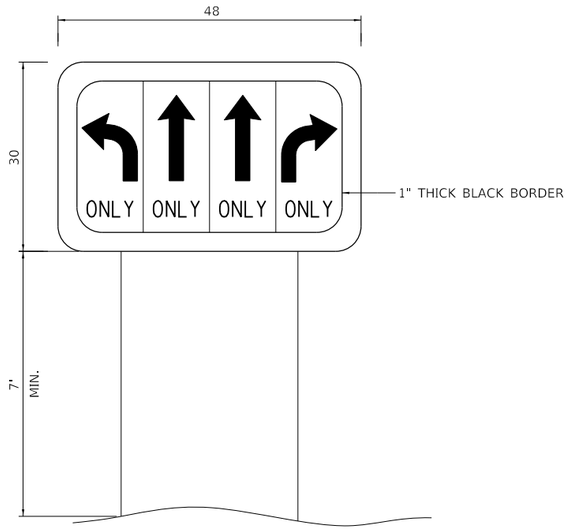
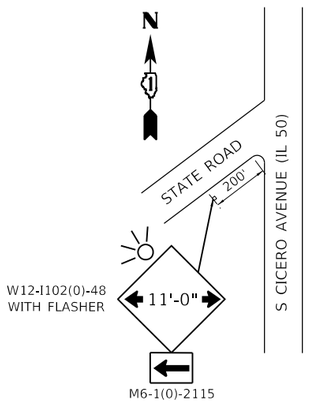
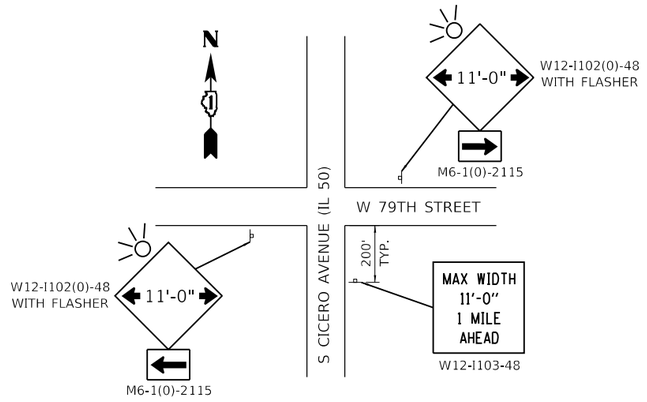
SIGNING C

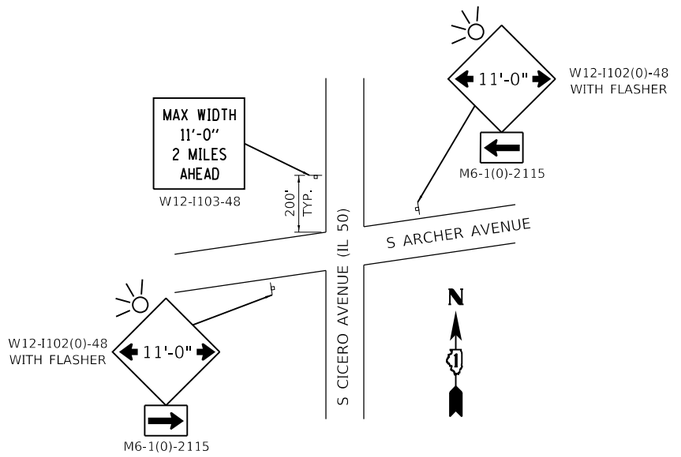


TEMPORARY INFORMATION
SIGNING D





WIDTH RESTRICTION SIGNING
FOR NORTHBOUND DIRECTION



WIDTH RESTRICTION SIGNING
FOR SOUTHBOUND DIRECTION

NOTES:
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.
2. USE BLACK LETTERING ON ORANGE BACKGROUND.
3. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
4. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

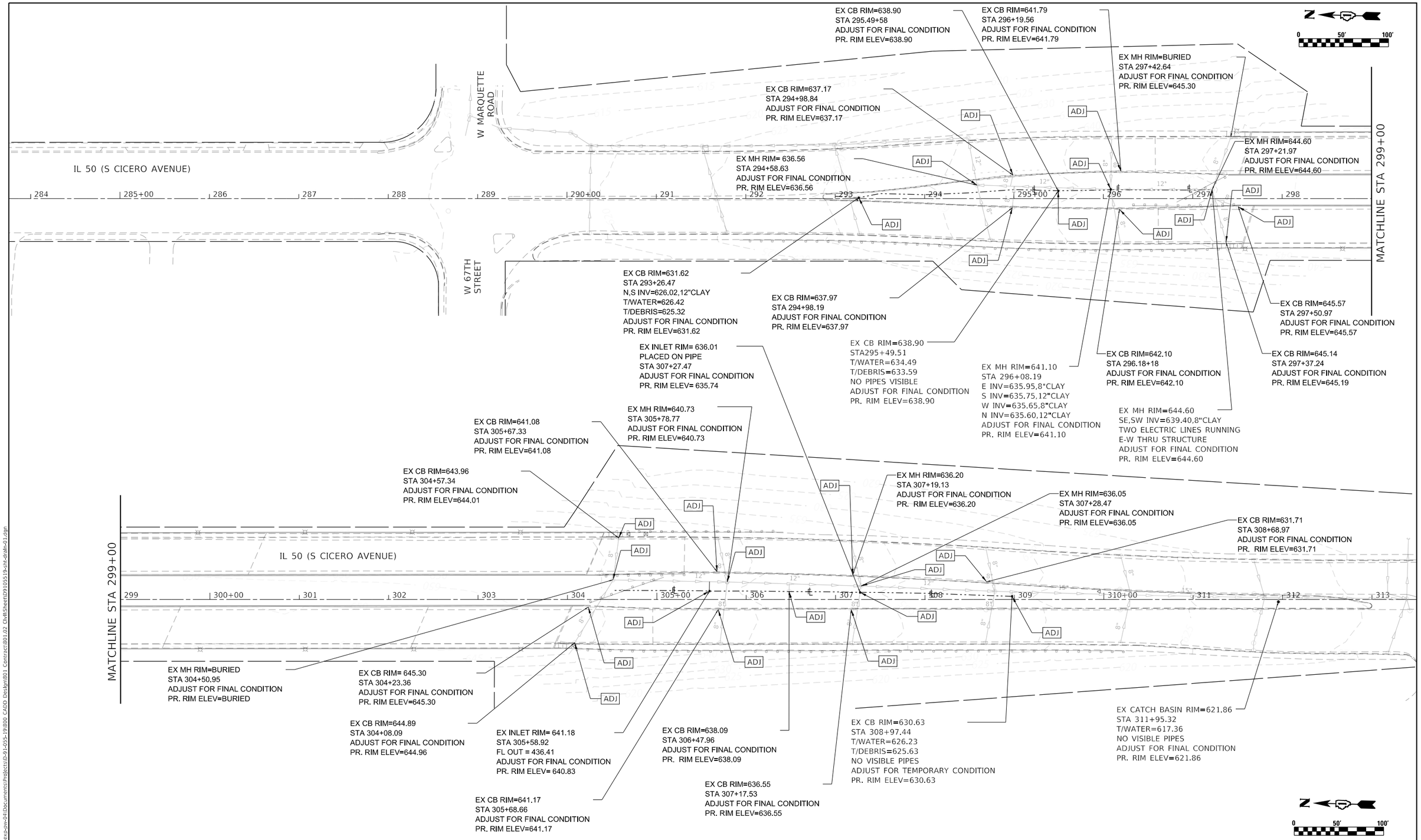
FILE NAME = D9105519-sht-Information Signing Details	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 2.0000 ' / in.	CHECKED - DDH	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

STAGING AND TRAFFIC CONTROL DETAILS
TEMPORARY INFORMATION SIGNING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	33
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



NOTES

1) ADJUSTMENTS FOR DRAINAGE STRUCTURES ACCOUNT FOR FINAL CONDITIONS.

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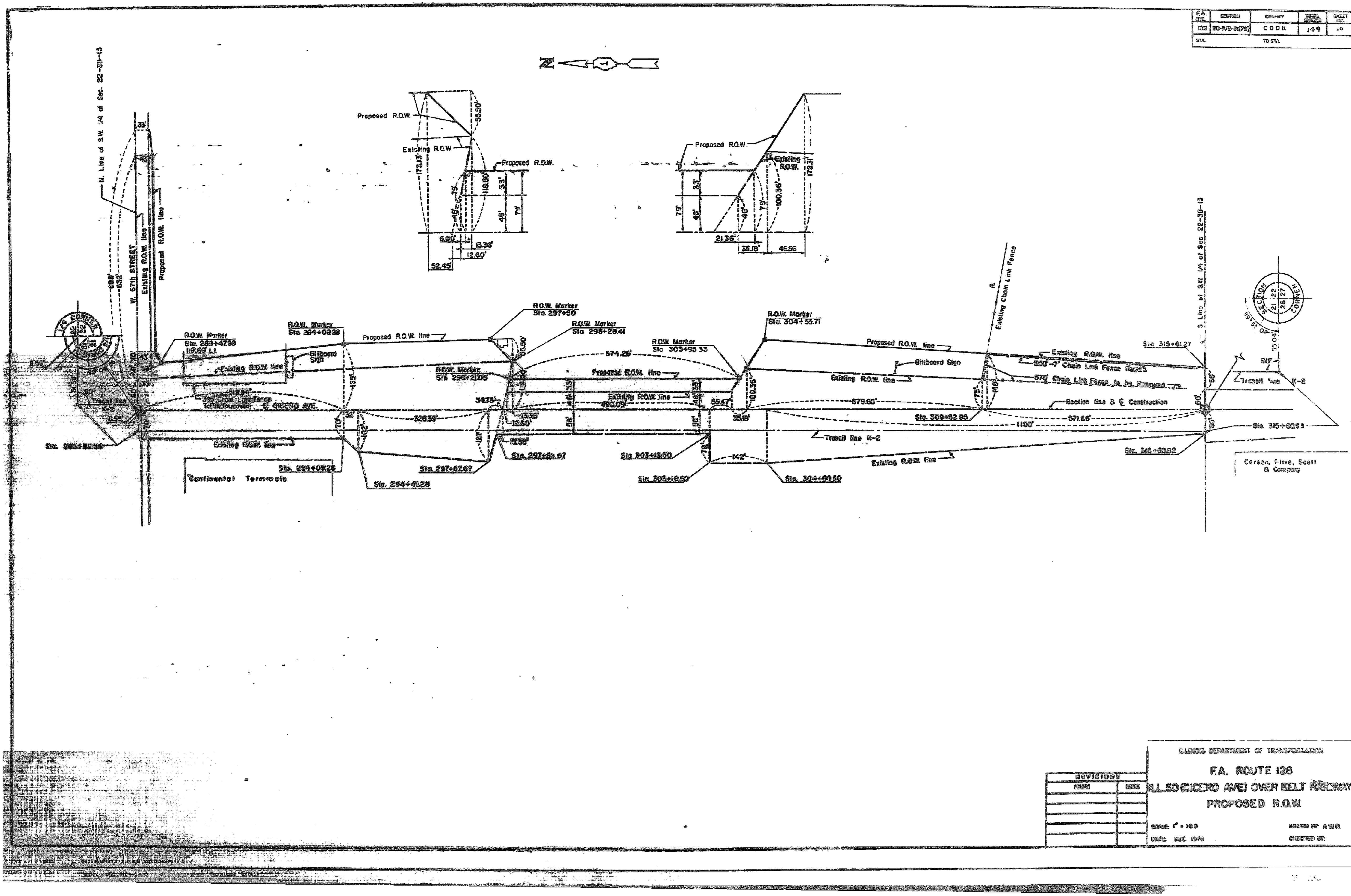
AEG ATLAS ENGINEERING GROUP, LTD.		DRAWN - JPZ	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

DRAINAGE AND UTILITY PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	34
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



FILE NAME = D9105519-sht-ExistingROW	USER NAME = anthony.friedman	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**RECORD RIGHT OF WAY**
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 2.0000 ' / in.	DRAWN - AMF	REVISED -	IL ROUTE 50 (CICERO AVENUE) OVER BRC RAILROAD	SCALE: SHEET OF SHEETS STA. TO STA.
	PLOT DATE = 10/14/2020	CHECKED -	REVISED -		
		DATE -	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	35

CONTRACT NO. 62H50

ILLINOIS FED. AID PROJECT

MODEL: Default
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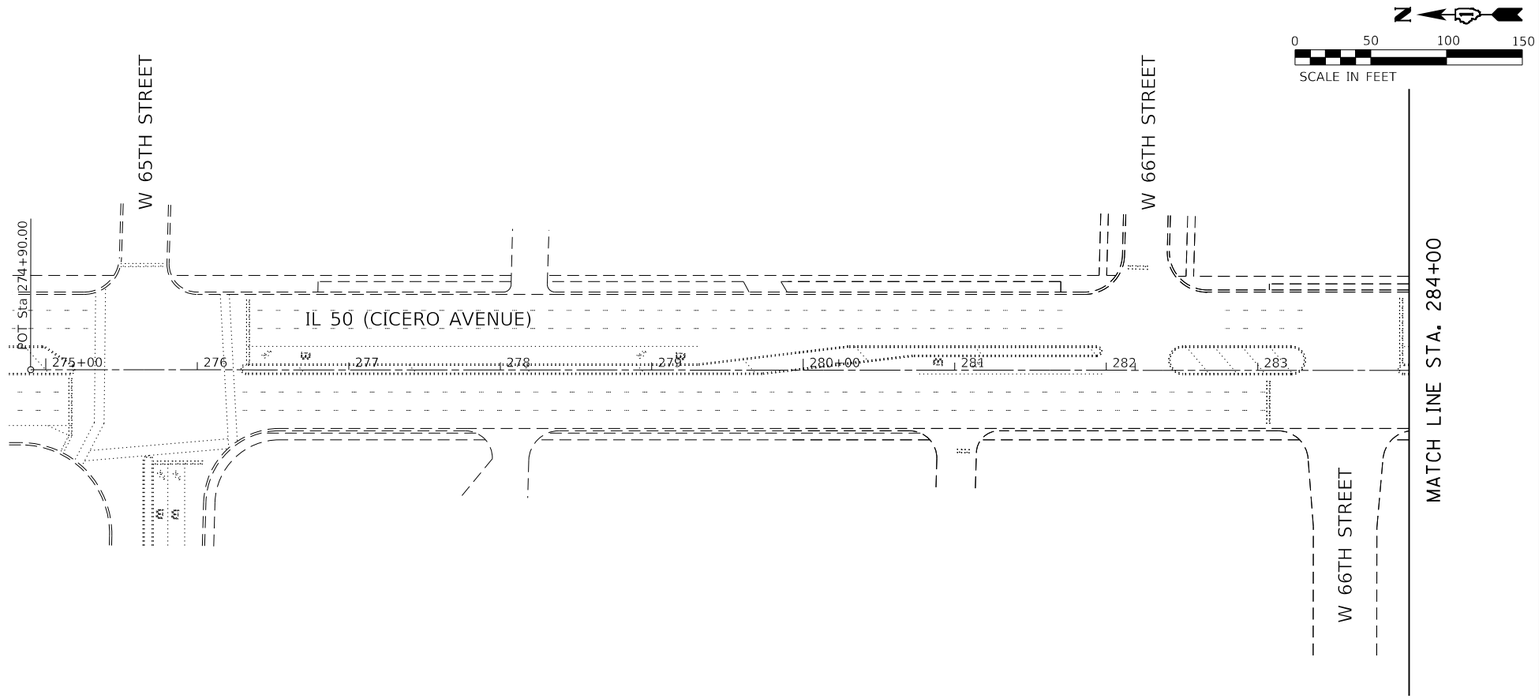
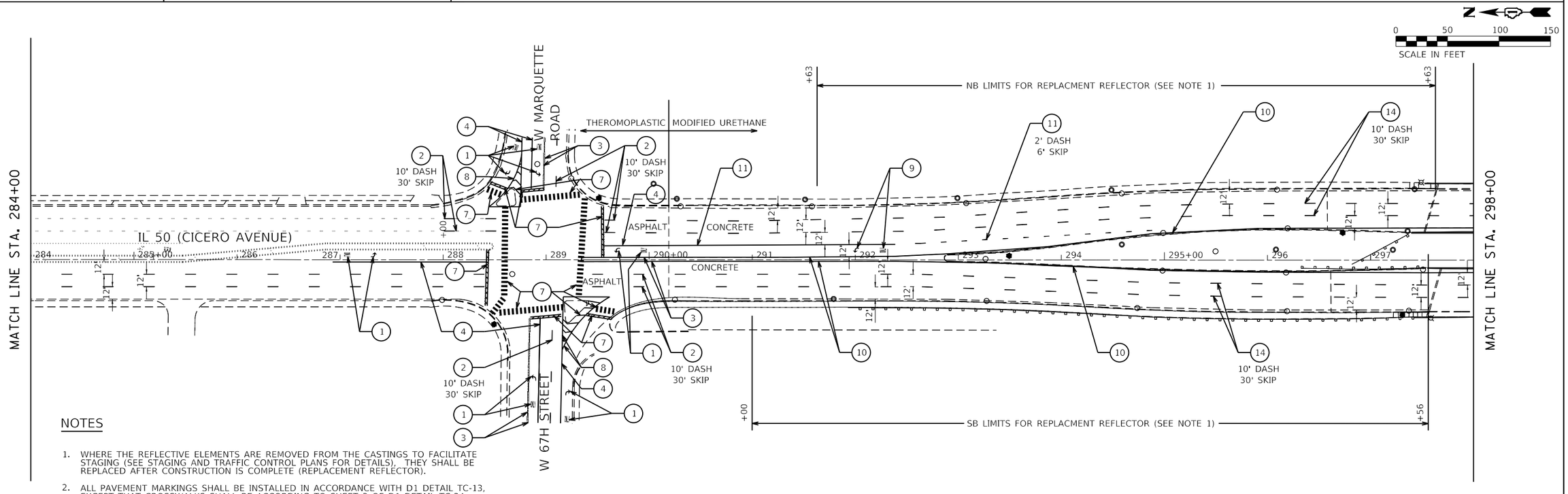
PAVEMENT MARKING LEGEND

1	THPL PVT MK LTR & SYM	8	THPL PVT MK LINE 8 WHITE
2	THPL PVT MK LINE 4 WHITE	9	MODIFIED URETHANE PM T1 LTR-SY
3	THPL PVT MK LINE 4 YELLOW	10	MODIFIED URETHANE PM T1 LN 4 YELLOW
4	THPL PVT MK LINE 6 WHITE	11	MODIFIED URETHANE PM T1 LN 6 WHITE
5	THPL PVT MK LINE 12 WHITE	12	MODIFIED URETHANE PM T1 LN 12 WHITE
6	THPL PVT MK LINE 12 YELLOW	13	MODIFIED URETHANE PM T1 LN 24 WHITE
7	THPL PVT MK LINE 24 WHITE	14	PREF PL PM TB LINE 7 GRV RCSD PVT MRKG 8





NOTES

1. WHERE THE REFLECTIVE ELEMENTS ARE REMOVED FROM THE CASTINGS TO FACILITATE STAGING (SEE STAGING AND TRAFFIC CONTROL PLANS FOR DETAILS), THEY SHALL BE REPLACED AFTER CONSTRUCTION IS COMPLETE (REPLACEMENT REFLECTOR).
2. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH D1 DETAIL TC-13, EXCEPT THAT CROSSWALKS SHALL BE ACCORDING TO SHEET 3 OF D1 DETAIL TC-24. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH D1 DETAIL TC-11.

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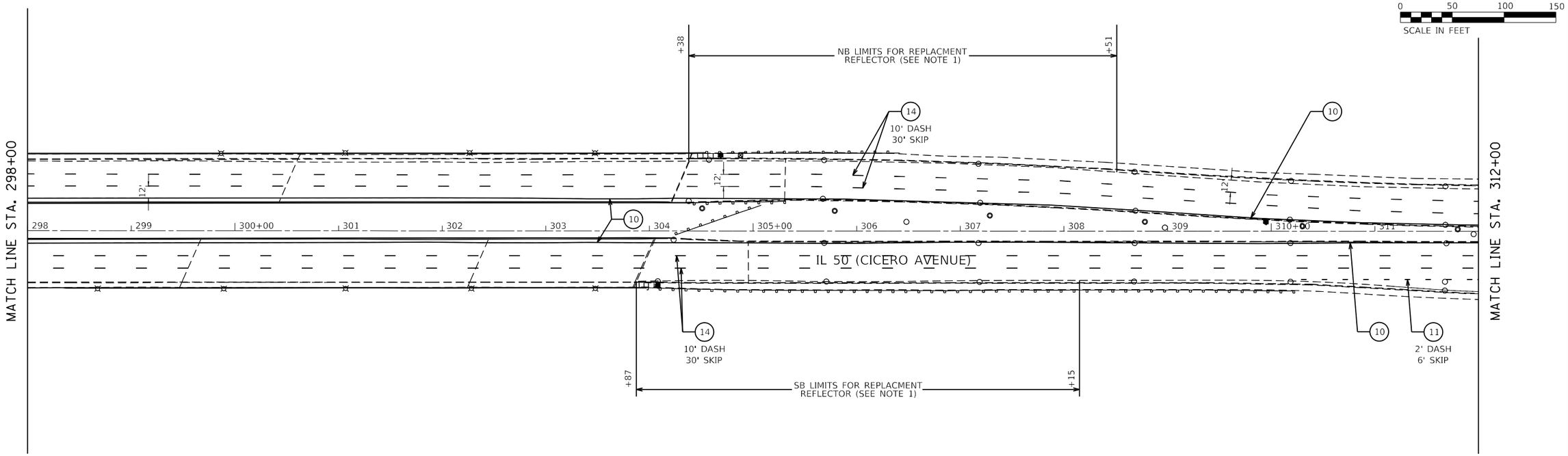
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -	

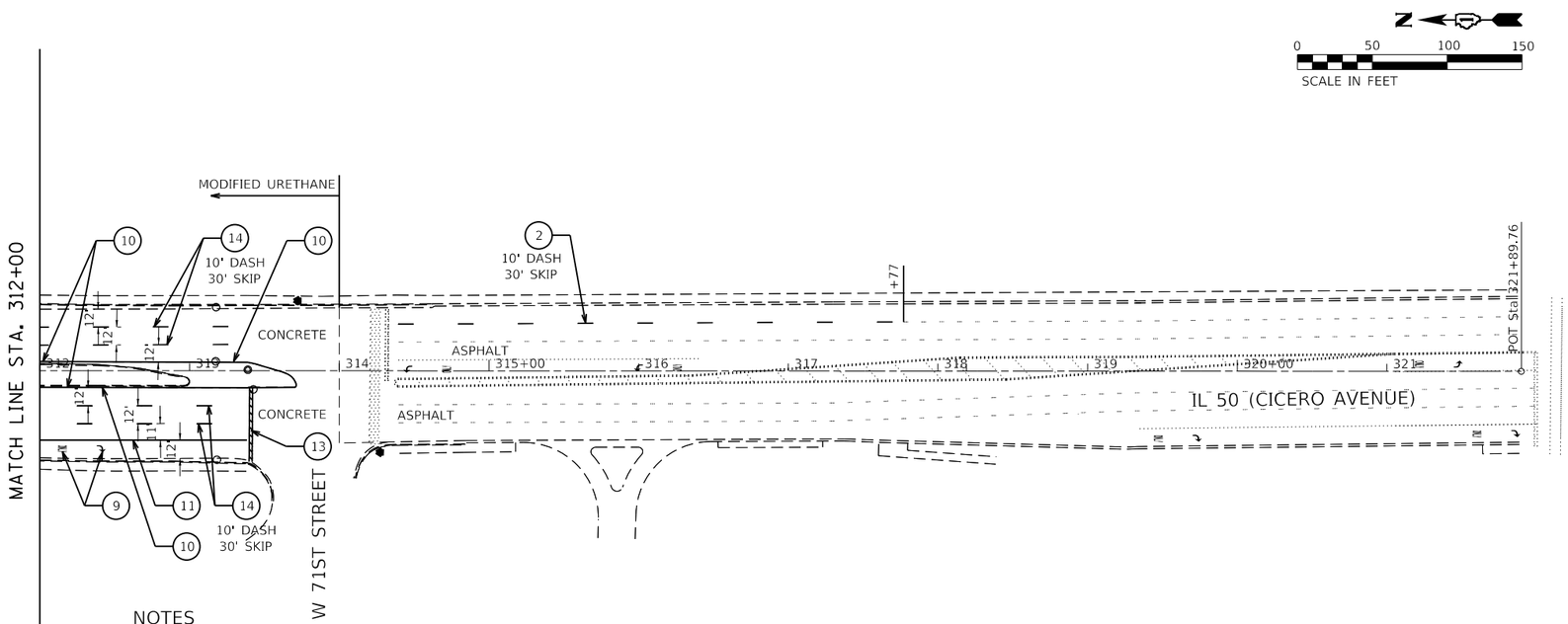
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

PAVEMENT MARKING PLAN

SCALE: | SHEET OF SHEETS | STA. 274+90 | TO STA. 298+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	36
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	





PAVEMENT MARKING LEGEND

1	THPL PVT MK LTR & SYM	8	THPL PVT MK LINE 8 WHITE
2	THPL PVT MK LINE 4 WHITE	9	MODIFIED URETHANE PM T1 LTR-SY
3	THPL PVT MK LINE 4 YELLOW	10	MODIFIED URETHANE PM T1 LN 4 YELLOW
4	THPL PVT MK LINE 6 WHITE	11	MODIFIED URETHANE PM T1 LN 6 WHITE
5	THPL PVT MK LINE 12 WHITE	12	MODIFIED URETHANE PM T1 LN 12 WHITE
6	THPL PVT MK LINE 12 YELLOW	13	MODIFIED URETHANE PM T1 LN 24 WHITE
7	THPL PVT MK LINE 24 WHITE	14	PREF PL PM TB LINE 7 GRV RCSD PVT MRKG 8

NOTES

1. WHERE THE REFLECTIVE ELEMENTS ARE REMOVED FROM THE CASTINGS TO FACILITATE STAGING (SEE STAGING AND TRAFFIC CONTROL PLANS FOR DETAILS), THEY SHALL BE REPLACED AFTER CONSTRUCTION IS COMPLETE (REPLACEMENT REFLECTOR).
2. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH D1 DETAIL TC-13. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH D1 DETAIL TC-11.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

PAVEMENT MARKING PLAN

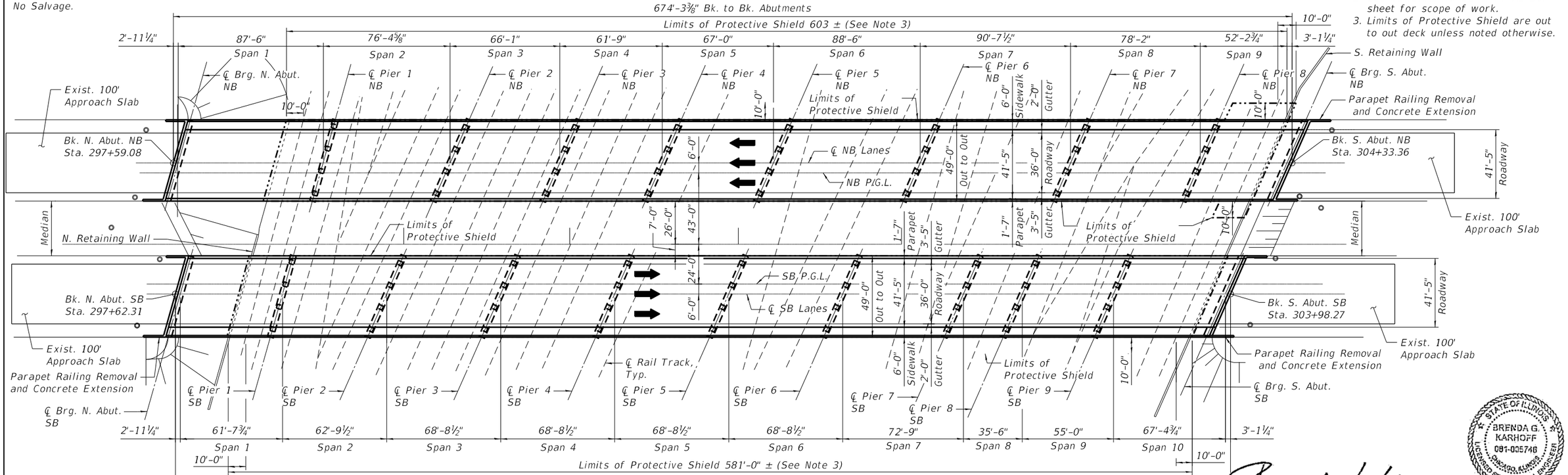
SCALE: | SHEET OF SHEETS | STA. 298+00 | TO STA. 321+89.76

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	37
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

The existing Cicero Avenue Northbound and Southbound bridges (IL Route 50) over BRC R.R. were built in 1981 as precast prestressed concrete I-beam superstructure on closed abutments and piers on creosoted piles.
The back to back abutment length for 9-span NB bridge is 674'-3⅜" in length and 49'-0" out to out deck. The back to back abutment length for 10-span SB bridge is 635'-11½" in length and 49'-0" out to out deck.
Expansion joints over piers were replaced and piers under expansion joints were repaired in 2009.
The bridge repairs shall be done under Staged Construction.
No Salvage.

Notes:

1. *Stations and dimensions based on exisiting plans. See General Notes.*
2. *See GENERAL NOTES & TOTAL BOM sheet for scope of work.*
3. *Limits of Protective Shield are out to out deck unless noted otherwise.*

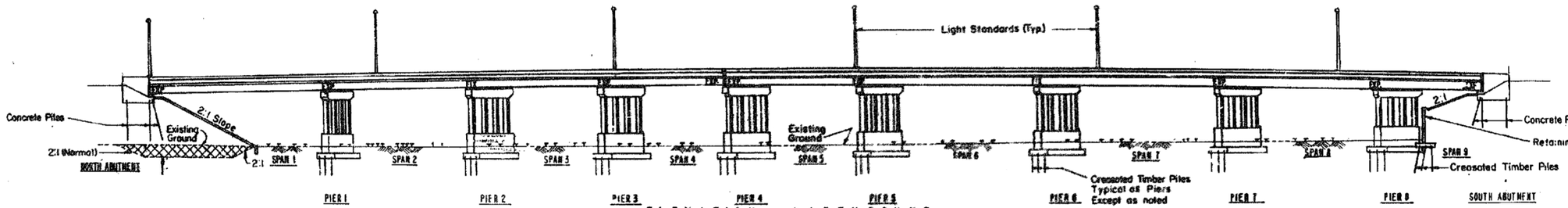


LEGEND:

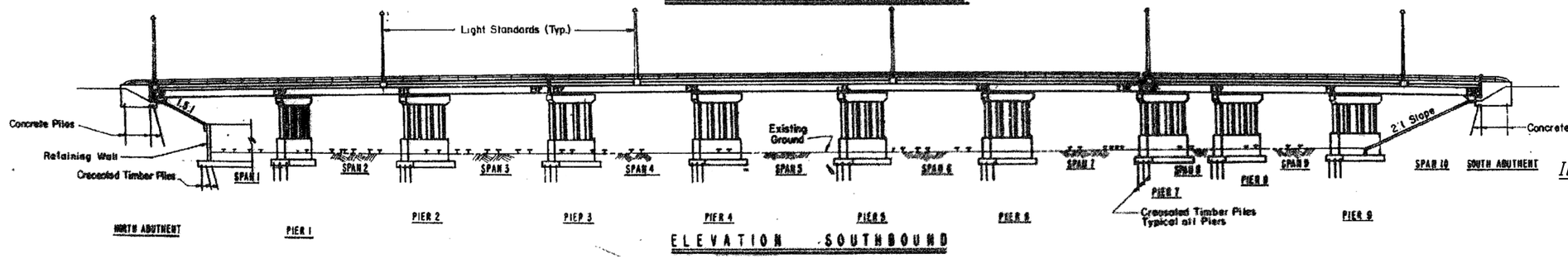
- Limits of Protective Shield
- Exist. Catch Basin
- ℄ Exist. Rail Track

GENERAL PLAN

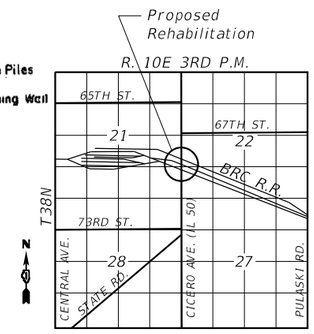
S.N. 016-2512 (SB), 016-2513 (NB)



ELEVATION NORTHBOUND



ELEVATION SOUTHBOUND



F.A.P. ROUTE 350
IL 50 (CICERO AVE) OVER BRC R.R.
SECTION 2018-124-BR
COOK COUNTY
SN 016-2512 (SB), 016-2513 (NB)

BRENDA G. KARHOFF 081-005746 LICENSED STRUCTURAL ENGINEER CHICAGO, ILLINOIS

Licensed Structural Engineer, State of Illinois
Expires 11/30/2020

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GARZA KARHOFF ENGINEERING, LLC		DRAWN - ZC	REVISED -		
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	PLOT DATE = 11/18/2020	DATE - 10/06/2020	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	38
		CONTRACT NO. 62H50		
		ILLINOIS FED. AID PROJECT		

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GENERAL NOTES:

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

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

3. Joint openings shall be adjusted according to Art. 520.04 in the Standard Specifications. when the deck is poured at an ambient temperature other than 50°F.

4. Expansion joints shall be fabricated and installed according to the Manufacturer's recommendations and as approved by the Engineer.

5. Expansion joints shall be fabricated to conform existing cross slopes of bridges.

6. Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

7. Concrete Sealer shall be applied to pier caps, pier columns, and abutments all exposed surfaces under deck joints. Concrete sealer shall only be applied to new concrete.

8. Protective coat shall be applied to the top and inside face of all concrete parapets, the top of all sidewalks, all new concrete and the latex concrete overlay.

9. An emptied Material Transfer Device (MTD) is allowed over SN 016-2512 but no MTD will be allowed over SN 016-2513. The emptied MTD must be transported over SN 016-2513 on a transport vehicle and the Contractor must provide information describing axle loads and axle spacing of the transport vehicle to the Engineer for review by the Bureau of Bridges and Structures.

10. Contractor shall be aware that the deck is constructed with precast planks and these planks cannot be damaged. Any damage to the plank will require full replacement of the whole plank and a full depth deck section at the Contractor's cost.

11. The Engineer shall be notified of concrete removal that exceeds 6 in. (150 mm) in depth, one fourth the cross section of a structural member, more than half the vertical column reinforcement is exposed in a cross section, more than 6 consecutive reinforcement bars are exposed in any direction, within 1.5 in. (38 mm) of a bearing area, or other structural concern. Excessive deterioration or removal may require further evaluation of the structure or installation of additional temporary shoring and cribbing support systems.

12. The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beams.

INDEX OF SHEETS

S-01 General Plan & Elevation
S-02 General Notes & Total BOM
S-03 Construction Staging
S-04 NB Bridge Deck Repair and Overlay Plan
S-05 SB Bridge Deck Repair and Overlay Plan
S-06 NB Parapet and Railing Repairs 1
S-07 NB Parapet and Railing Repairs 2
S-08 SB Parapet and Railing Repairs 1
S-09 SB Parapet and Railing Repairs 2
S-10 Parapet Extension
S-11 Expansion Joint, NB North Abutment
S-12 Expansion Joint, NB Pier 4
S-13 Expansion Joint, NB South Abutment
S-14 Expansion Joint, SB North Abutment
S-15 Expansion Joint, SB Pier 3
S-16 Expansion Joint, SB Pier 7
S-17 Expansion Joint, SB South Abutment
S-18 Typical Expansion Joint Details
S-19 Beam Repair Key Plan
S-20 NB Beam Repairs at North & South Abutment
S-21 NB Beam Repairs at Pier 4
S-22 SB Beam Repairs at North & South Abutment
S-23 SB Beam Repairs at Pier 3
S-24 SB Beam Repairs at Pier 7
S-25 Beam Repair Details
S-26 NB North & South Abutment Repairs
S-27 NB Pier 2 & Pier 3 Repairs
S-28 NB Pier 4 Repairs
S-29 SB North & South Abutment Repairs
S-30 SB Pier 3 Repairs
S-31 SB Pier 7 Repairs
S-32 SB Pier 8 & Pier 9 Repairs
S-33 Slopewall Repair Plan
S-34 Drainage Scupper Adjustment Details
S-35 Bar Splicers (Base Sheet)
S-36 Preformed Joint Strip Seal 1
S-37 Preformed Joint Strip Seal 2
S-38 Preformed Joint Strip Seal 3
S-39 Railing (Base Sheet)
S-40 Bearing Details - Pier 4; SN 016-2513 (NB)
S-41 Pedestal Details - Pier 4 (Beams C thru H); SN 016-2513 (NB)
S-42 NB Bearing Details - South Abutment; SN 016-2513 (NB)

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SN 016-2512 (SB)		SN 016-2513 (NB)		TOTAL
			SUPER	SUB	SUPER	SUB	
	Porous Granular Embankment	Cu. Yd.	0	5	0	0	5
	Portland Cement Concrete Surface Removal - Butt Joint	Sq. Yd.	293	0	293	0	586
	Concrete Removal	Cu. Yd.	11.5	0	8.6	0	20.1
	Slope Wall Removal	Sq. Yd.	0	3	0	0	3
	Protective Shield	Sq. Yd.	3,331	0	3,190	0	6,521
	Concrete Structures	Cu. Yd.	0.8	0	0.4	0.5	1.7
	Concrete Superstructure	Cu. Yd.	13.8	0	10.3	0	24.1
	Bridge Deck Grooving	Sq. Yd.	2,957	0	3,116	0	6,073
	Protective Coat	Sq. Yd.	4,101	3	4,328	0	8,432
	Furnishing and Erecting Structural Steel	Pound	0	0	860	0	860
	Reinforcement Bars, Epoxy Coated	Pound	2,590	0	1,890	110	4,590
	Bar Splicers	Each	32	0	24	0	56
	Slope Wall 4 Inch	Sq. Yd.	0	3	0	0	3
	Preformed Joint Strip Seal	Foot	207	0	157	0	364
	Elastomeric Bearing Assembly, Type I	Each	0	0	1	0	1
	Elastomeric Bearing Assembly, Type II	Each	0	0	8	0	8
	Anchor Bolts, 1"	Each	0	0	68	0	68
	Concrete Sealer	Sq. Ft.	0	1,109	0	288	1,397
	Epoxy Crack Injection	Foot	132	2	26	12	172
	Jack and Remove Existing Bearings	Each	0	0	9	0	9
	Bridge Deck Latex Concrete Overlay, 2¼ Inches	Sq. Yd.	3,193	0	3,378	0	6,571
	Cleaning Drainage System	L Sum	0.5	0	0.5	0	1
	Bridge Deck Scarification 3/4"	Sq. Yd.	3,193	0	3,378	0	6,571
	Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	371	1,161	198	346	2,076
	Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	0	8	2	22	32
*	Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	0.5	0	0.5	0	1
	Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	0	0	2	0	2
	Deck Slab Repair (Partial)	Sq. Yd.	54	0	0	0	54
	Drainage Scuppers to Be Adjusted	Each	8	0	8	0	16
	Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	114	0	102	0	216
	Acrylic Coating	Sq. Yd.	86	0	79	0	165
	Fiber Wrap	Sq. Ft.	763	0	702	0	1,465
	Temporary Shoring and Cribbing	Each	0	15	0	6	21

* A nominal full depth deck repair quantity has been provided as a guide for bidding purposes. Actual full depth repair area shall be determined in the field by the Engineer.

DESIGN STRESSES

EXISTING CONSTRUCTION

SUPERSTRUCTURE, SUBSTRUCTURE AND ABUTMENTS:
f'c = 3,500 psi (Reinforced Concrete)
fy = 60,000 psi (Reinforcement, Deck)
fs = 24,000 psi (Reinforcement)

PRESTRESSED CONCRETE I-BEAM:
f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (½ ø Strands)
f'si = 189,000 psi (½ ø Strands)

LOADING - HS 20-44

Original Construction

DESIGN SPECIFICATION

2002 AASHTO Standard Specification for Highway Bridges, 17th Edition

SCOPE OF WORK:

1. Substructure concrete repairs.
2. Slope wall repair.
3. PPC I-Beam & beam end repairs and diaphragm concrete repairs.
4. Remove & Replace Select Bearings & repair pedestals.
5. Bridge decks and approach slabs scarification.
6. Remove and replace existing deck expansion joints with preformed joint strip seals.
7. Repair bridge deck slabs, sidewalks and parapets and railing.
8. Construct parapet extensions at approach slab sidewalks.
9. Adjust deck drainage structures.
10. Apply Bridge Decks Latex Concrete Overlay 2 1/4" on bridge decks and approach slabs.
11. Apply protective coat to parapets, sidewalks and new concrete.
12. Clean drainage system.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
GENERAL NOTES & TOTAL BOM

SCALE: | SHEET S-02 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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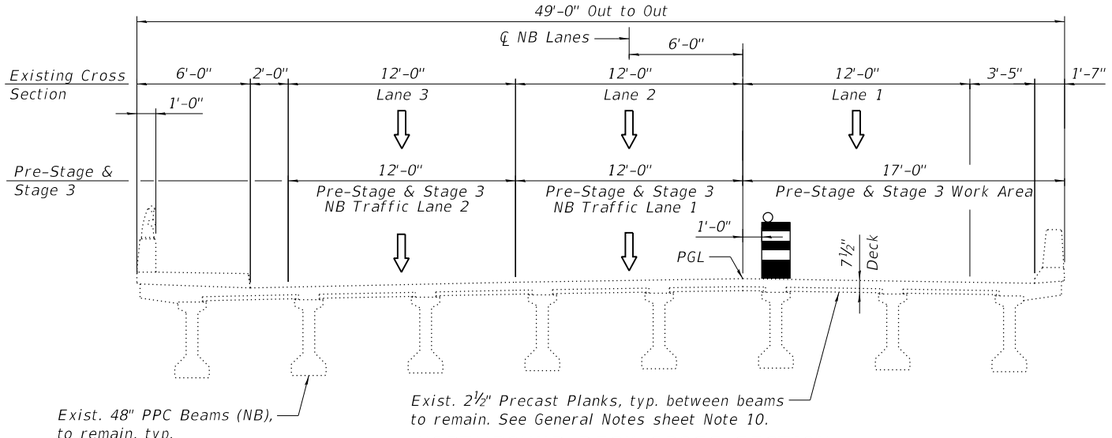
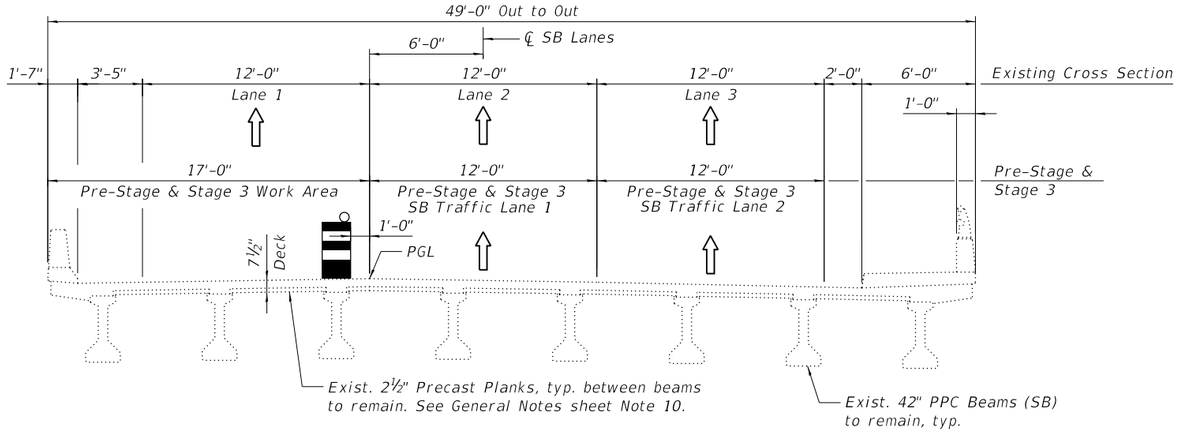
		ILLINOIS	FED. AID PROJECT	



NORTHBOUND DECK CROSS SECTION

SHOWING EXISTING, PRE-STAGE & STAGE 3
(Looking South)



SOUTHBOUND DECK CROSS SECTION

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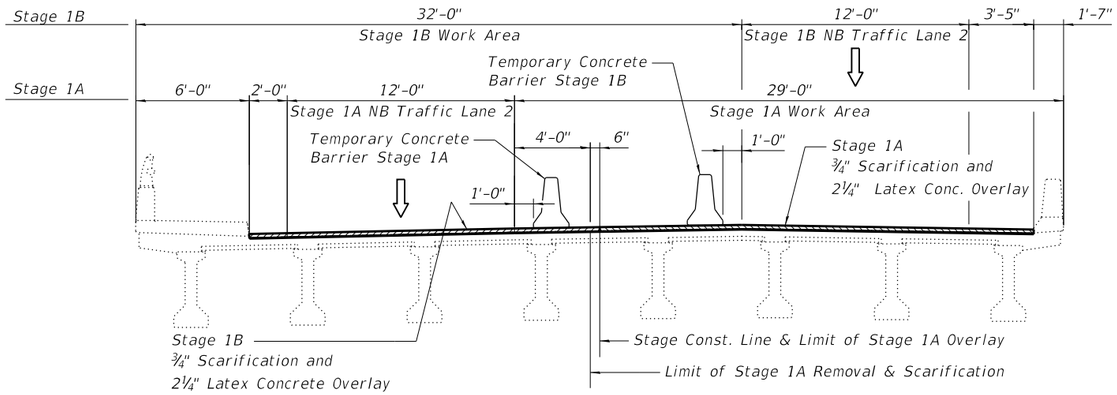
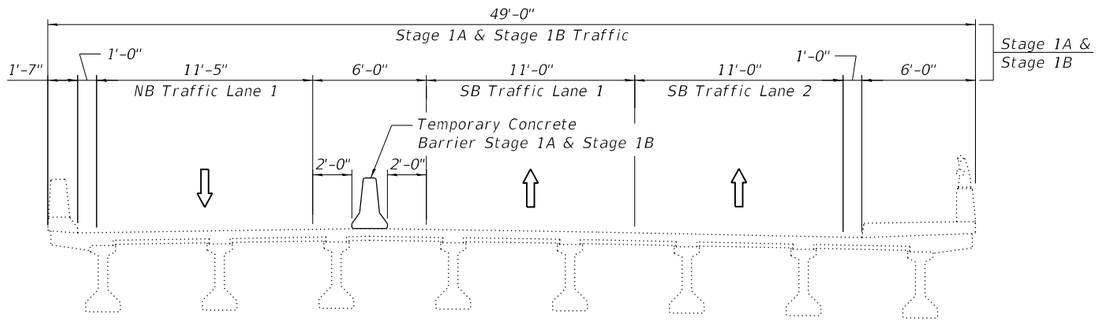
(Looking South)



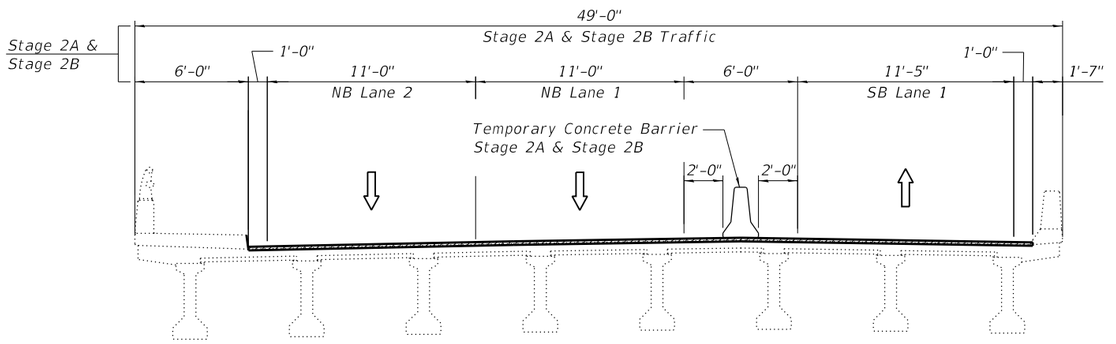
NORTHBOUND - STAGE 1A & 1B

(Looking South)



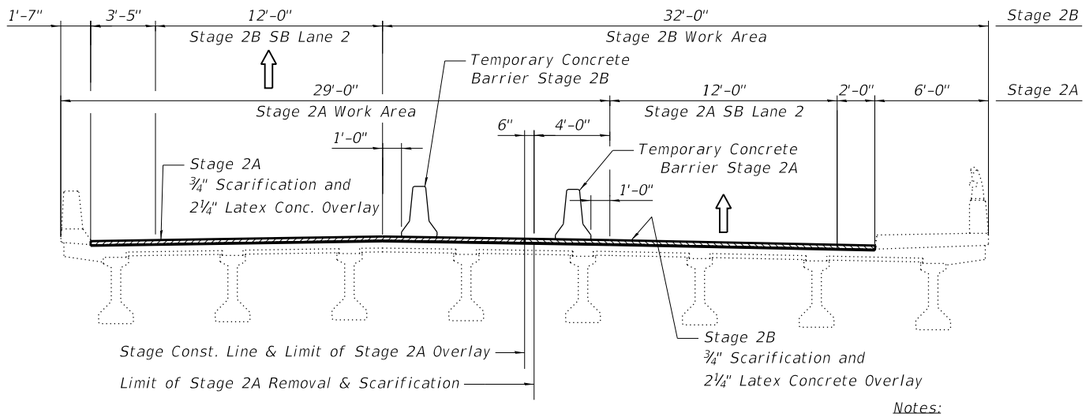
SOUTHBOUND - STAGE 1A & 1B

(Looking South)



NORTHBOUND - STAGE 2A & 2B

(Looking South)



SOUTHBOUND - STAGE 2A & 2B

(Looking South)

Notes:

1. All dimensions are perpendicular to ℄ Roadway

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		DRAWN - AMF	REVISED -	
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SN 016-2512 (SB), SN 016-2513 (NB)
CONSTRUCTION STAGING

SCALE: | SHEET S-03 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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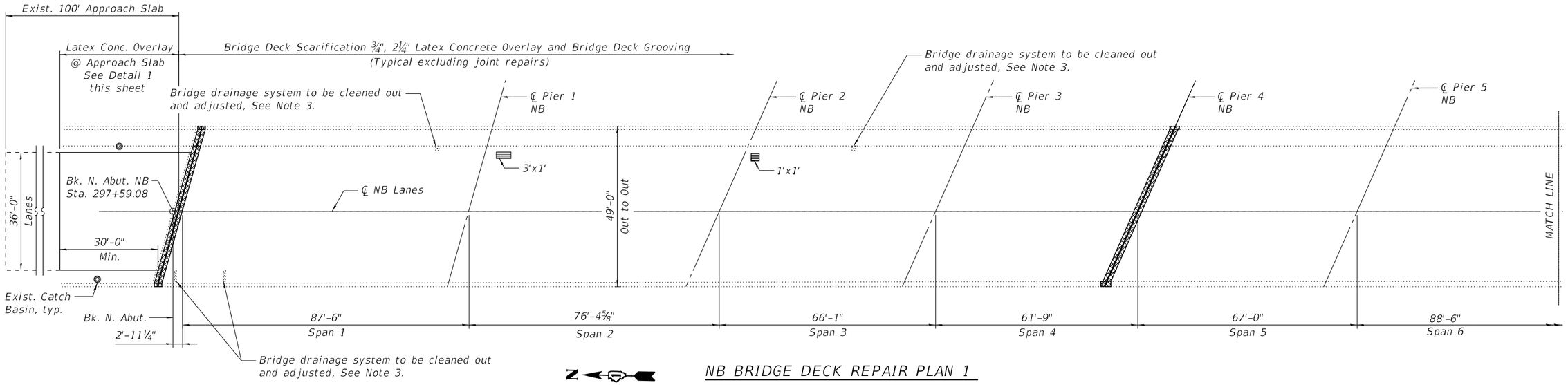
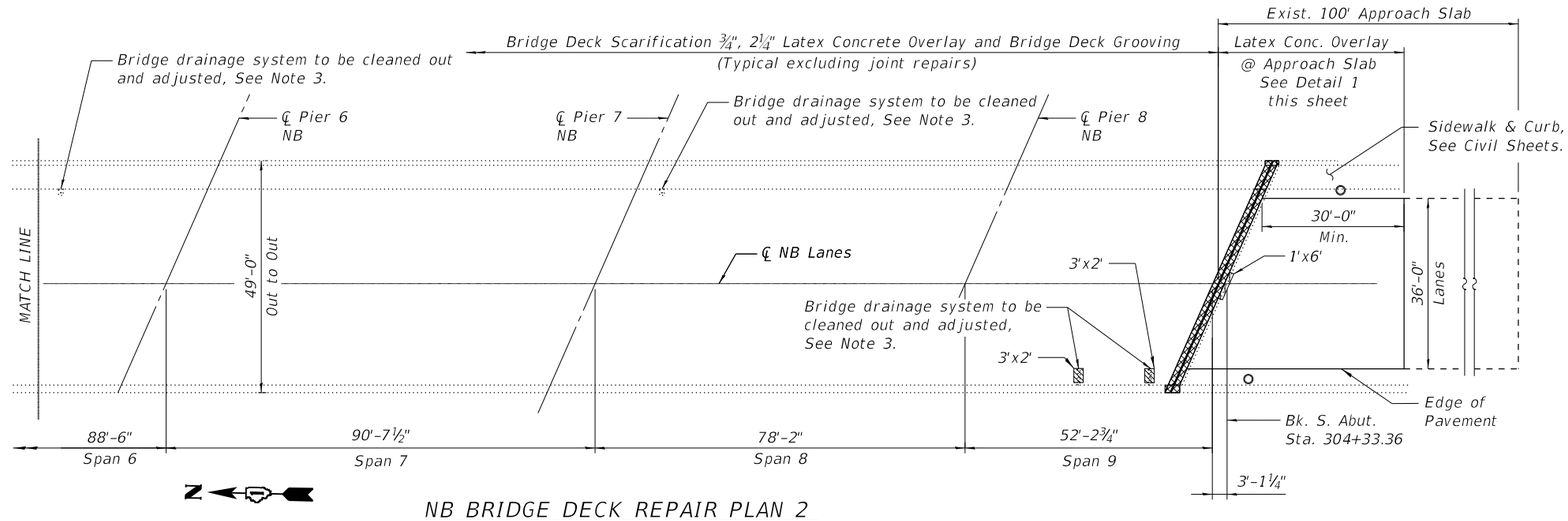
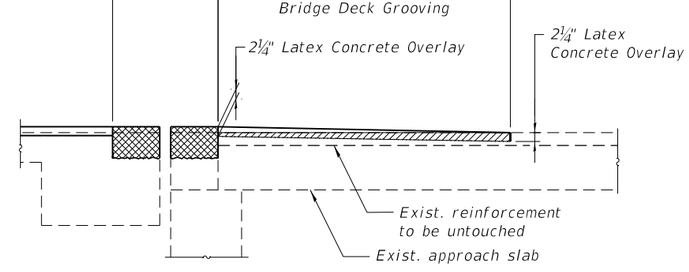
		CONTRACT NO. 62H50		
		ILLINOIS FED. AID PROJECT		



NB BRIDGE DECK REPAIR PLAN 1



NB BRIDGE DECK REPAIR PLAN 2



DETAIL 1
LATEX CONCRETE OVERLAY @ APPROACH SLAB

Not to Scale

LEGEND

- Area of Exp. Jt. Removal and Reconstruction
- Deck Slab Repair (Partial Depth) *
- Deck Slab Repair (Full Depth) at Deck Drains
- Approach Slab Repair (Partial Depth) *
- P.C.C. Surface Removal – Butt Joint

* Cost included in Bridge Deck Latex Concrete Overlay.

Notes:

1. Areas of deck repairs are estimated. Actual type, location and dimensions of deck repairs are to be determined and documented by the Engineer during construction.
2. See Expansion Joint sheets for expansion joint replacement details.
3. See "Drainage Scupper Adjustment Details" sheets for details. Existing deck drainage structures to be adjusted, Type "A" south curb and Type "B" north/sidewalk curb.
4. See SB Bridge Deck Repair and Overlay Plans Detail 2 for limits of Protective Coat application.

BILL OF MATERIAL
SN 016-2513 (NB)

ITEM	UNIT	QUANTITY
P.C.C. Surface Removal – Butt Joint	Sq. Yd.	293
Deck Slab Repair (Full Depth), Type II	Sq. Yd.	2
Protective Coat	Sq. Yd.	4,285
Bridge Deck Grooving	Sq. Yd.	3,116
Bridge Deck Latex Concrete Overlay 2 ¼ Inches	Sq. Yd.	3,378
Bridge Deck Scarification ¾"	Sq. Yd.	3,378
Cleaning Drainage System	L Sum	0.5
Drainage Scuppers to Be Adjusted	Each	8

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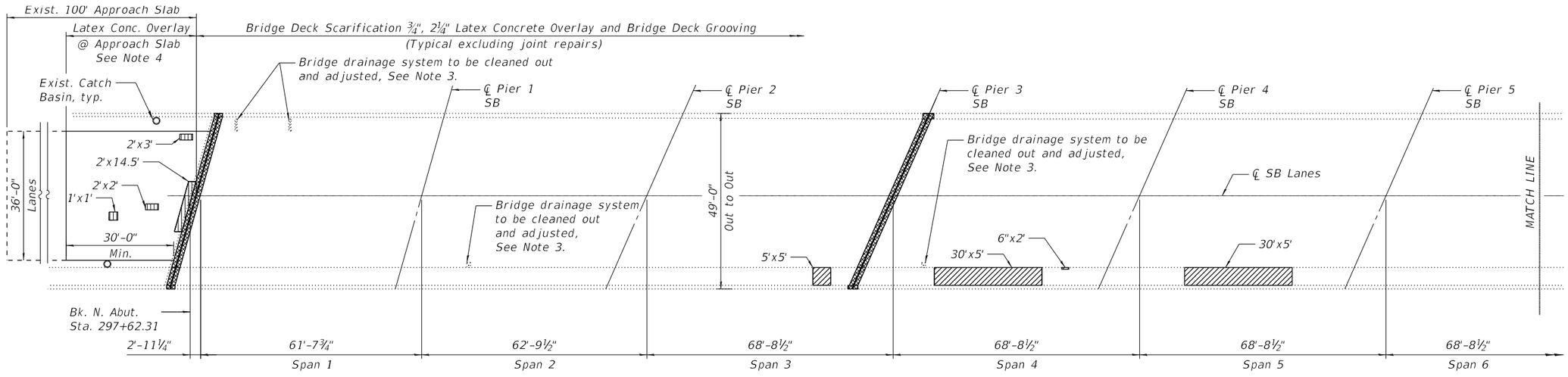
GARZA KARHOFF ENGINEERING, LLC	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

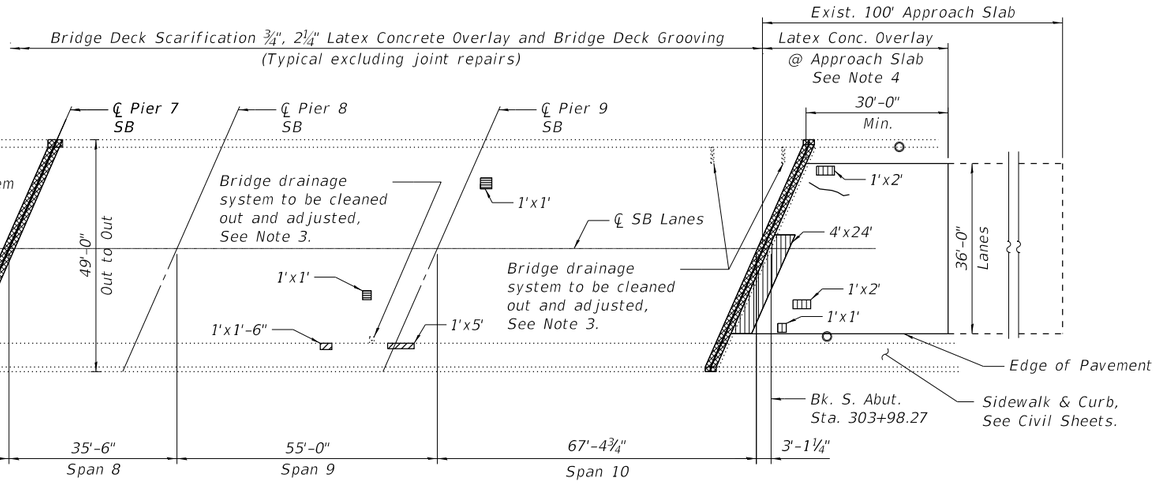
SN 016-2512 (SB), SN 016-2513 (NB)
NB BRIDGE DECK REPAIR AND OVERLAY PLAN

SCALE: | SHEET S-04 OF S-42 SHEETS | STA. | TO STA.

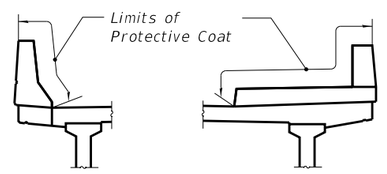
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	41
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



SB BRIDGE DECK REPAIR PLAN 1



SB BRIDGE DECK REPAIR PLAN 2



DETAIL 2
LIMITS OF PROTECTIVE COAT

LEGEND

- Area of Exp. Jt. Removal and Reconstruction
- Deck Slab Repair (Partial Depth) *
- Sidewalk Repair (Partial Depth) **
- Approach Slab Repair (Partial Depth) *

* Cost included in Bridge Deck Latex Concrete Overlay.
** Paid as Deck Slab Repairs (Partial Depth)

Notes:

1. Areas of deck repairs are estimated. Actual Type, location and dimensions of deck repairs are to be determined and documented by the Engineer during construction.
2. See Expansion Joint sheets for expansion joint replacement details.
3. See "Drainage Scupper Adjustment Details" sheets for details. Existing deck drainage structures to be adjusted, Type "A" south curb and Type "B" north/sidewalk curb.
4. See Detail 1 on NB Bridge Deck Repair and Overlay Plan sheet for Latex Concrete Overlay @ Approach Slab detail.

BILL OF MATERIAL
SN 016-2512 (SB)

ITEM	UNIT	QUANTITY
P.C.C. Surface Removal - Butt Joint	Sq. Yd.	293
Protective Coat	Sq. Yd.	4,045
Bridge Deck Grooving	Sq. Yd.	2,957
Deck Slab Repair (Partial)	Sq. Yd.	54
Bridge Deck Latex Concrete Overlay 2 ¼ Inches	Sq. Yd.	3,193
Bridge Deck Scarification ¾"	Sq. Yd.	3,193
Cleaning Drainage System	L Sum	0.5
Drainage Scuppers to Be Adjusted	Each	8

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GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 32:0.0000 ':' / in.	DRAWN - AMF	REVISED -
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		DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
SB BRIDGE DECK REPAIR AND OVERLAY PLAN

SCALE: | SHEET S-05 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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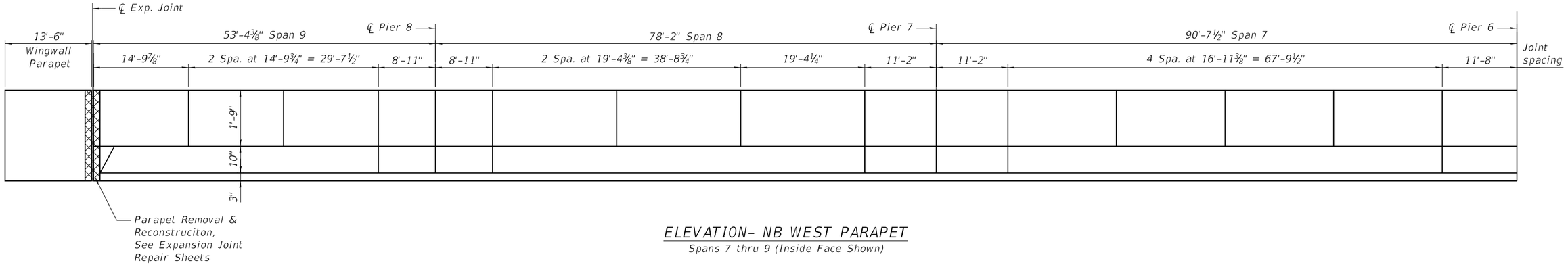
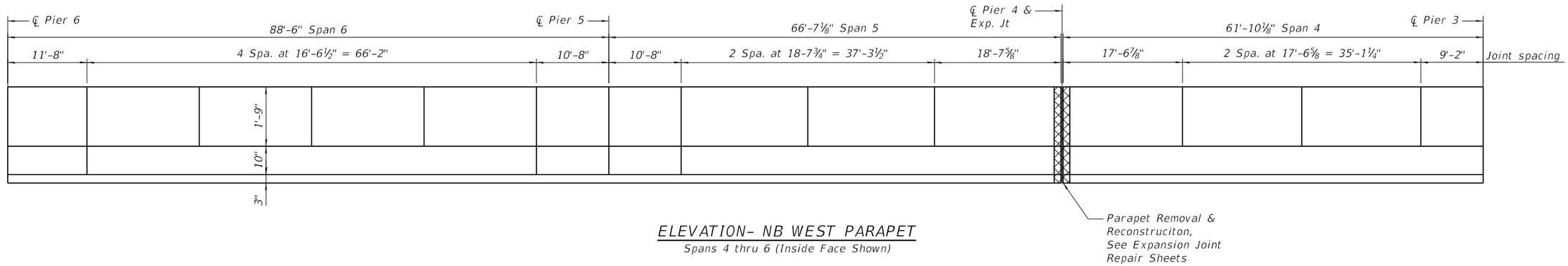
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



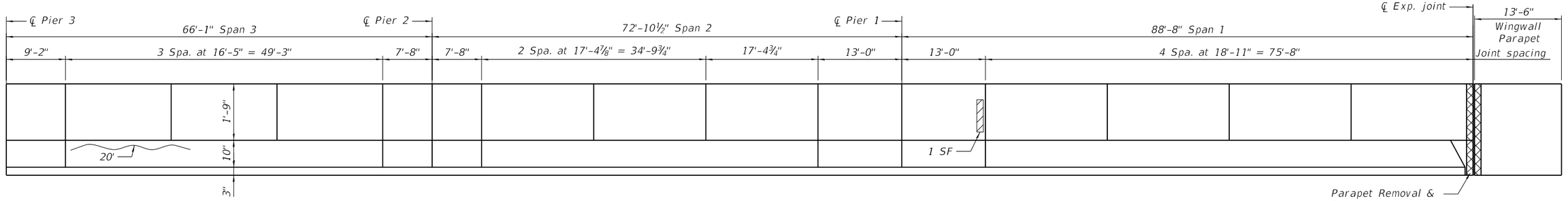
ELEVATION- NB WEST PARAPET

Spans 7 thru 9 (Inside Face Shown)



ELEVATION- NB WEST PARAPET

Spans 4 thru 6 (Inside Face Shown)



ELEVATION- NB WEST PARAPET

Spans 1 thru 3 (Inside Face Shown)

LEGEND:

Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

4' Epoxy Crack Injection

BILL OF MATERIAL

SN 016-2513 (NB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	1
Epoxy Crack Injection	Foot	20

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
NB PARAPET AND RAILING REPAIRS 1

SCALE: | SHEET S-06 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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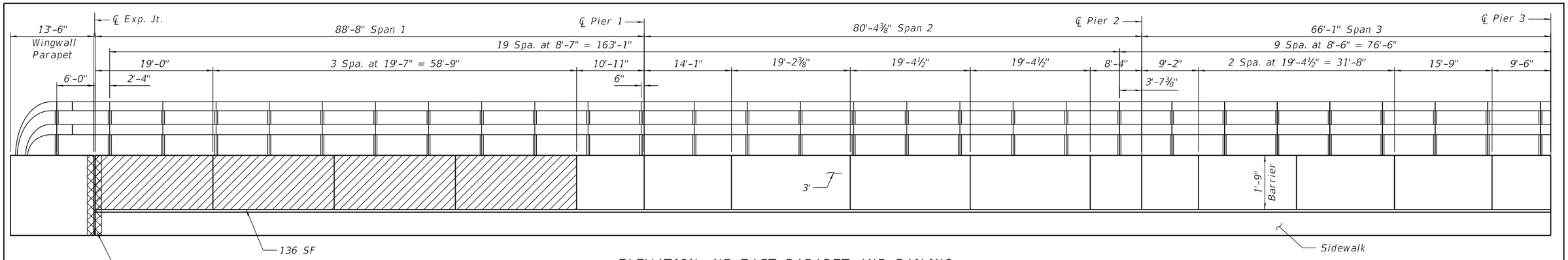
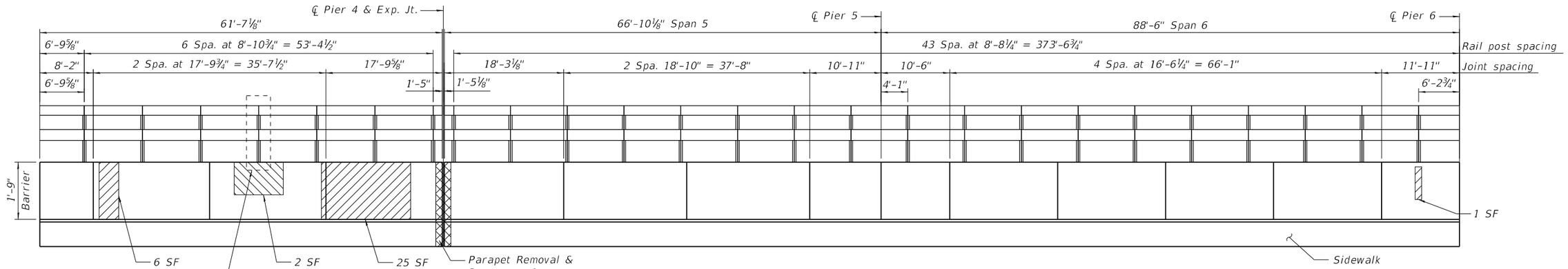
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



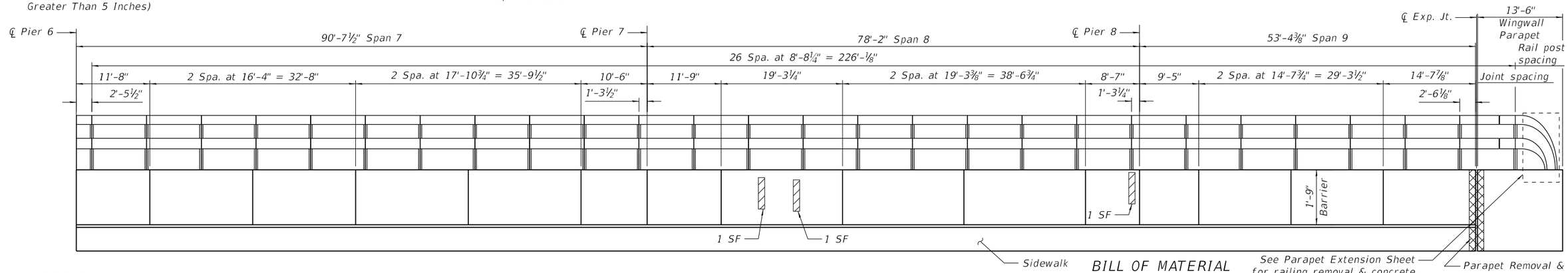
ELEVATION- NB EAST PARAPET AND RAILING

Spans 1 thru 3 (Inside Face Shown)



ELEVATION- NB EAST PARAPET AND RAILING

Spans 4 thru 6 (Inside Face Shown)



ELEVATION- NB EAST PARAPET AND RAILING

Spans 7 thru 9 (Inside Face Shown)

LEGEND:

- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
- Structural Repair of Concrete (Depth Greater Than 5 Inches)
- 4' Epoxy Crack Injection

BILL OF MATERIAL

SN 016-2513 (NB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	171
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	2
Epoxy Crack Injection	Foot	3

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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
NB PARAPET AND RAILING REPAIRS 2

SCALE: | SHEET S-07 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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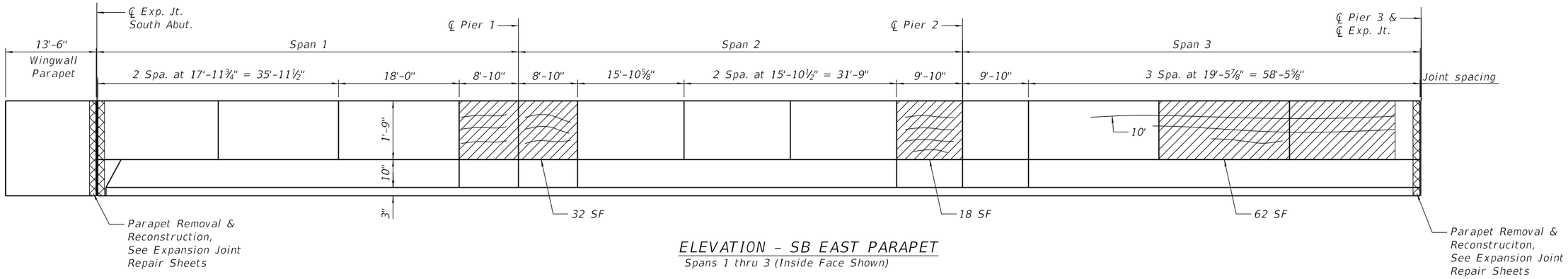
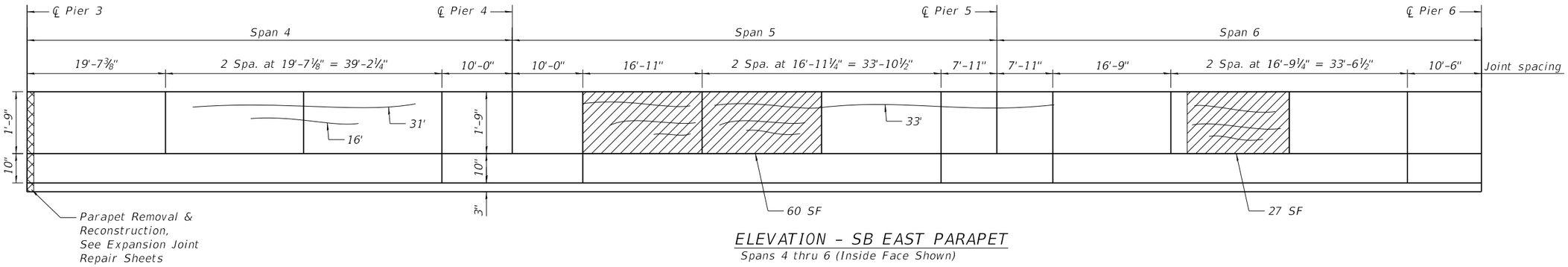
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



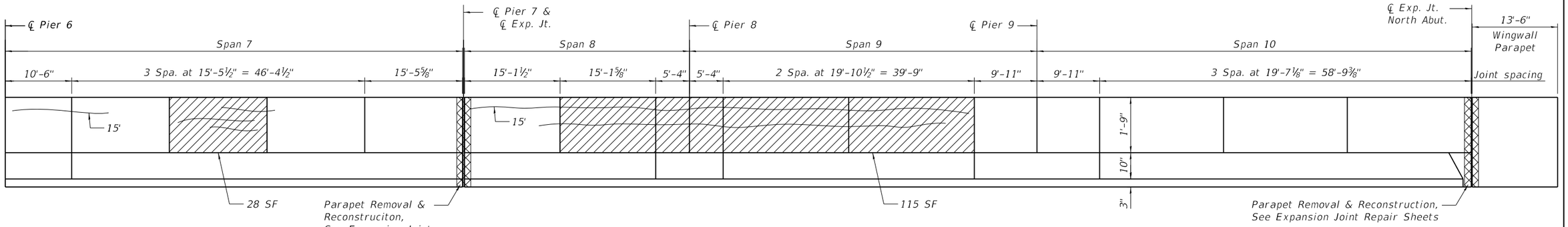
ELEVATION - SB EAST PARAPET

Spans 1 thru 3 (Inside Face Shown)



ELEVATION - SB EAST PARAPET

Spans 4 thru 6 (Inside Face Shown)



ELEVATION - SB EAST PARAPET

Spans 7 thru 10 (Inside Face Shown)

LEGEND:

Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

4' Epoxy Crack Injection

BILL OF MATERIAL

SN 016-2512 (SB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	342
Epoxy Crack Injection	Foot	120

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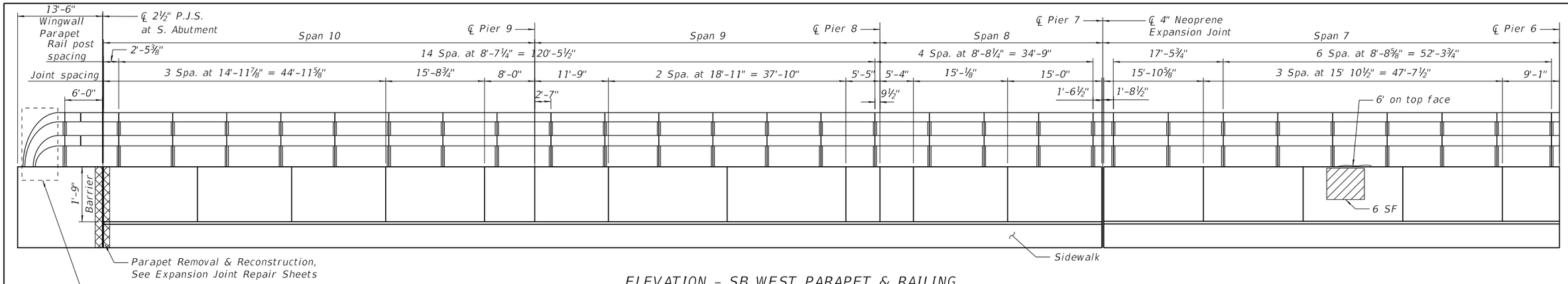
	PLOT DATE = 10/14/2020	CHECKED - BGK	REVISED -
		DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
SB PARAPET AND RAILING REPAIRS 1

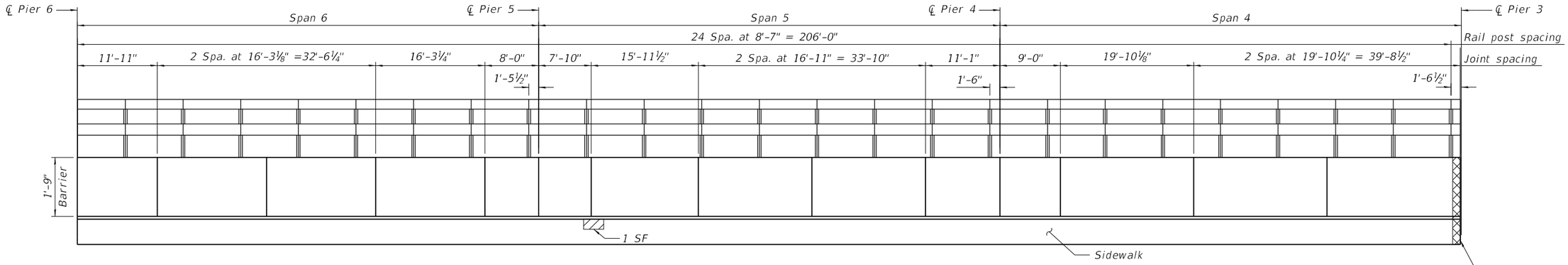
SCALE: | SHEET S-08 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	45
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



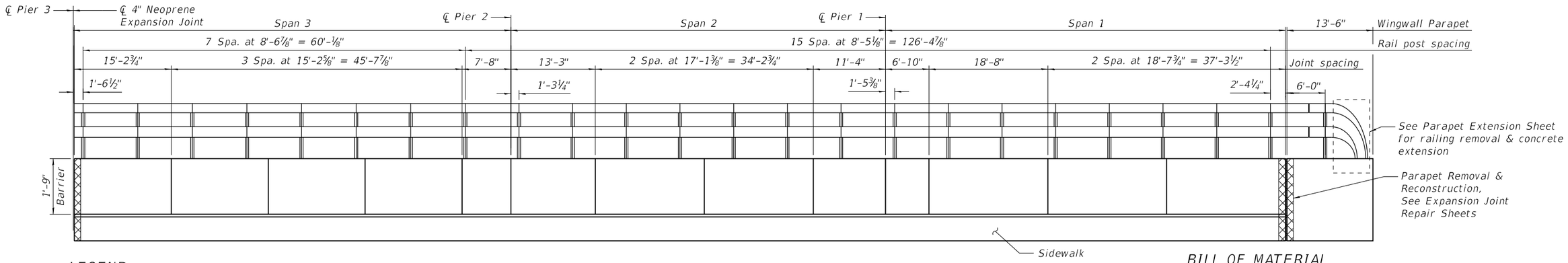
ELEVATION – SB WEST PARAPET & RAILING

Spans 7 thru 10 (Inside Face Shown)



ELEVATION – SB WEST PARAPET & RAILING

Spans 4 thru 6 (Inside Face Shown)



ELEVATION – SB WEST PARAPET & RAILING

Spans 1 thru 3 (Inside Face Shown)

LEGEND:

Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

Epoxy Crack Injection
4'

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	7
Epoxy Crack Injection	Foot	6

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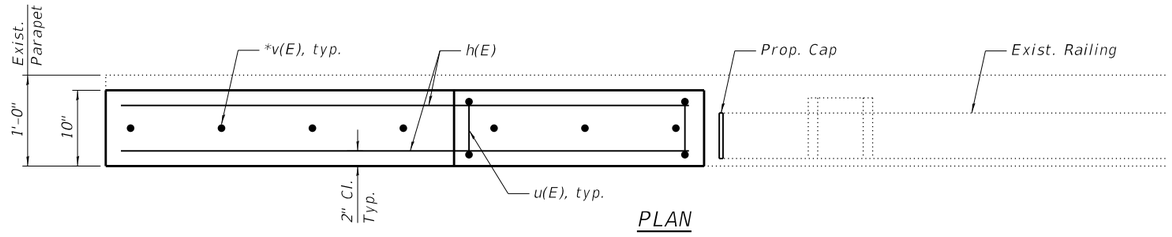
		DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

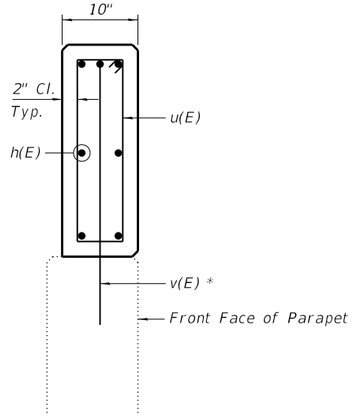
SN 016-2512 (SB), SN 016-2513 (NB)
SB PARAPET AND RAILING REPAIRS 2

SCALE: | SHEET S-09 OF S-42 SHEETS | STA. | TO STA.

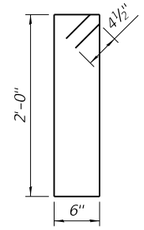
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	46
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



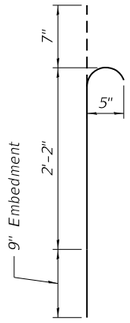
PLAN



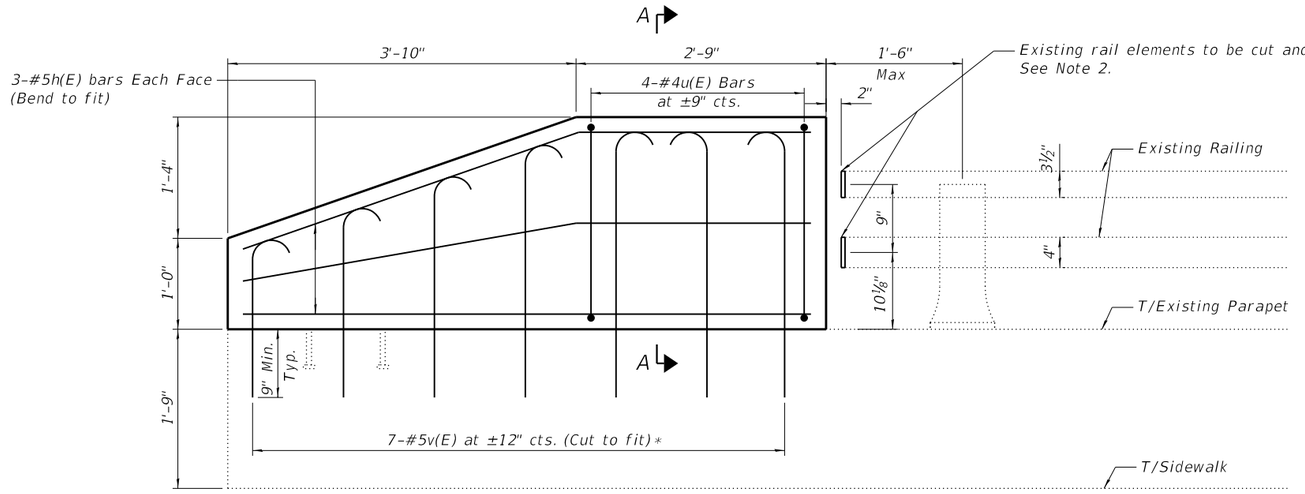
SECTION A-A



BAR u(E)



BAR v(E)

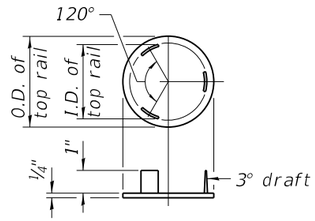


PROPOSED ELEVATION

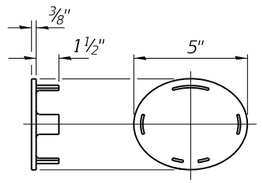
Location: SN 016-2512 (SB West Parapet) North Appr. Wingwall
South Appr. Wingwall

SN 016-2513 (NB East Parapet) South Appr. Wingwall

* Epoxy grout v(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.



CAST END CAP
For top rail



CAST END CAP
For bottom rail

DRIVE FIT TYPE

BAR LIST

Shown for 1 Wingwall (3 Thus)

Bar	No.	Size	Length	Shape
h(E)	6	#5	6'-3"	
u(E)	4	#4	5'-9"	
v(E)	7	#5	3'-6"	

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Concrete Structures	Cu. Yd.	0.8
Reinforcement Bars, Epoxy Coated	Pound	170
Protective Coat	Sq. Yd.	4

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Concrete Structures	Cu. Yd.	0.4
Reinforcement Bars, Epoxy Coated	Pound	90
Protective Coat	Sq. Yd.	2

Notes:

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

FILE NAME = D9105519-sht-Parapet Extension	USER NAME = c-friedmana	DESIGNED - AMF	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 1.6667 ' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
PARAPET EXTENSION

SCALE: | SHEET S-10 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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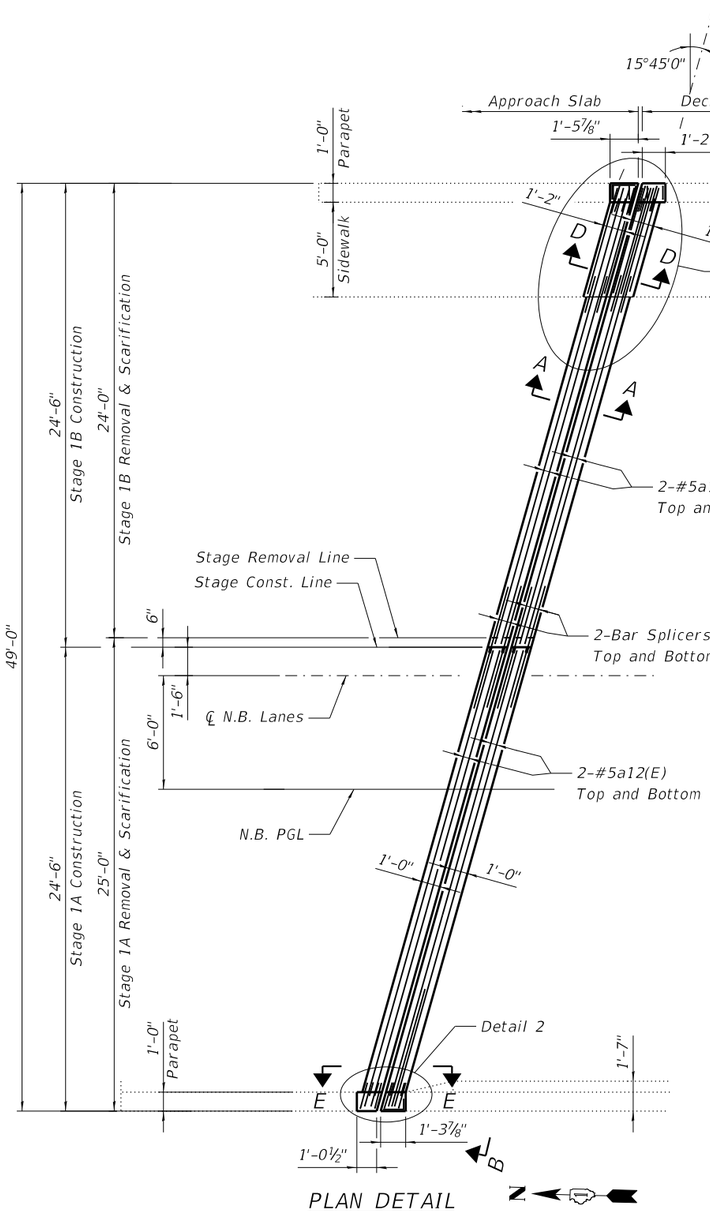
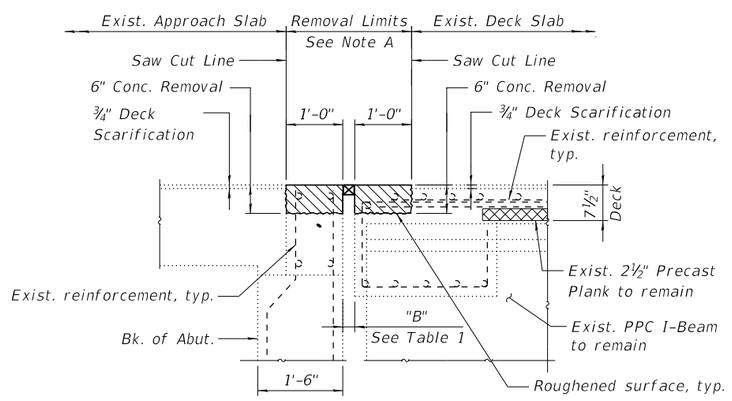
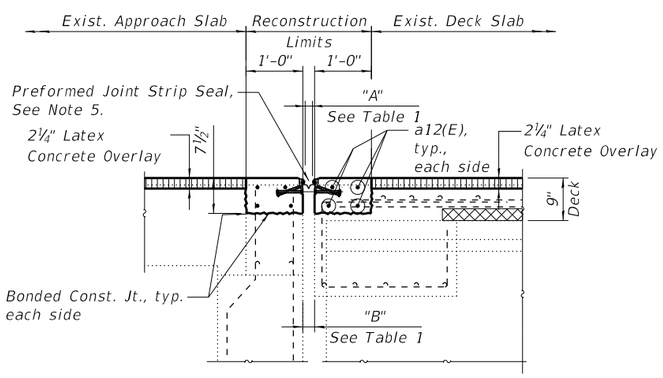
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



PLAN DETAIL

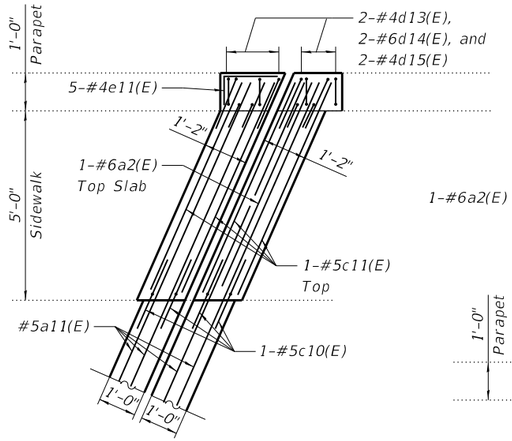


SECTION A-A
CONCRETE REMOVAL

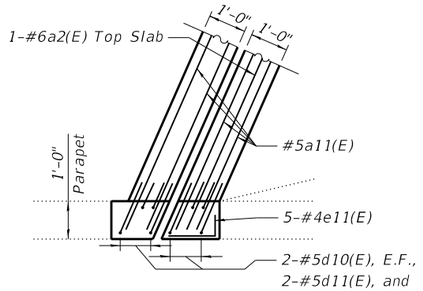


SECTION A-A
CONCRETE REPLACEMENT

Note A:
Remove existing concrete, joint assembly, plates, bars and anchor bolts, including any fast setting concrete patches that were used to replace damaged sections of the existing expansion joint. Any existing expansion joint steel exceeding the 6" removal depth should be cut and left in place. Cost included in Concrete Removal.



DETAIL 1



DETAIL 2

TABLE 1

A		B	
@ 50° F	@ 70° F	@ 50° F	@ 70° F
2"	1¾"	2½"	2¼"

BAR LIST

Bar	No.	Size	Length	Shape
a2(E)	2	#6	6'-6"	
a12(E)	16	#5	24'-11"	
c10(E)	4	#5	2'-5"	
c11(E)	4	#5	6'-0"	
d10(E)	8	#5	3'-0"	
d11(E)	4	#5	3'-9"	
d13(E)	4	#4	4'-8"	
d14(E)	4	#6	3'-9"	
d15(E)	4	#4	2'-0"	
d16(E)	4	#5	2'-4"	
e11(E)	10	#4	1'-8"	

LEGEND:

- Concrete Removal
- Existing Reinforcment
- Proposed Reinforcement

NOTES:

1. *For removal elevation of joint and removal at parapets, see "Typical Expansion Joint Details" sheet.*
2. *The existing PPC Beams and Existing Precast Planks shall not be damaged. See "General Notes".*
3. *Existing horizontal bars in parapet and exisitng longitudinal bars in slab and sidewalk shall remain and incorporated in the new construction. Existing vertical bars in the approach slab parapet shall be reused.*
4. *Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.*
5. *For Preformed Joint Strip Seal details see sheet "Preformed Joint Strip Seal 1 thru 3".*
6. *See sheet "Typical Expansion Joint Details" for Sections B-B, D-D, E-E, and bar bending details.*

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.8
Concrete Superstructure	Cu. Yd.	3.3
Protective Coat	Sq. Yd.	13
Reinforcement Bars, Epoxy Coated	Pound	580
Bar Splicers	Each	8
Preformed Joint Strip Seal	Foot	52

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FILE NAME: pw:\\dexp-pw.bentley.com:exp-pw-341Documents\Projects\D-91-095-19\800 CADD Design\801 Contract\801110 Structural\Sheet\D9105515-sht-NB Expansion Joint, North Abutment

FILE NAME = D9105515-sht-NB Expansion Joint, North Abutment	USER NAME = c-friedmana	DESIGNED - LS	REVISED -
		DRAWN - ZC	REVISED -
	PLOT SCALE = 8:0.0000 ':' / in.	CHECKED - BGK	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
EXPANSION JOINT, NB NORTH ABUTMENT

SCALE: | SHEET S-11 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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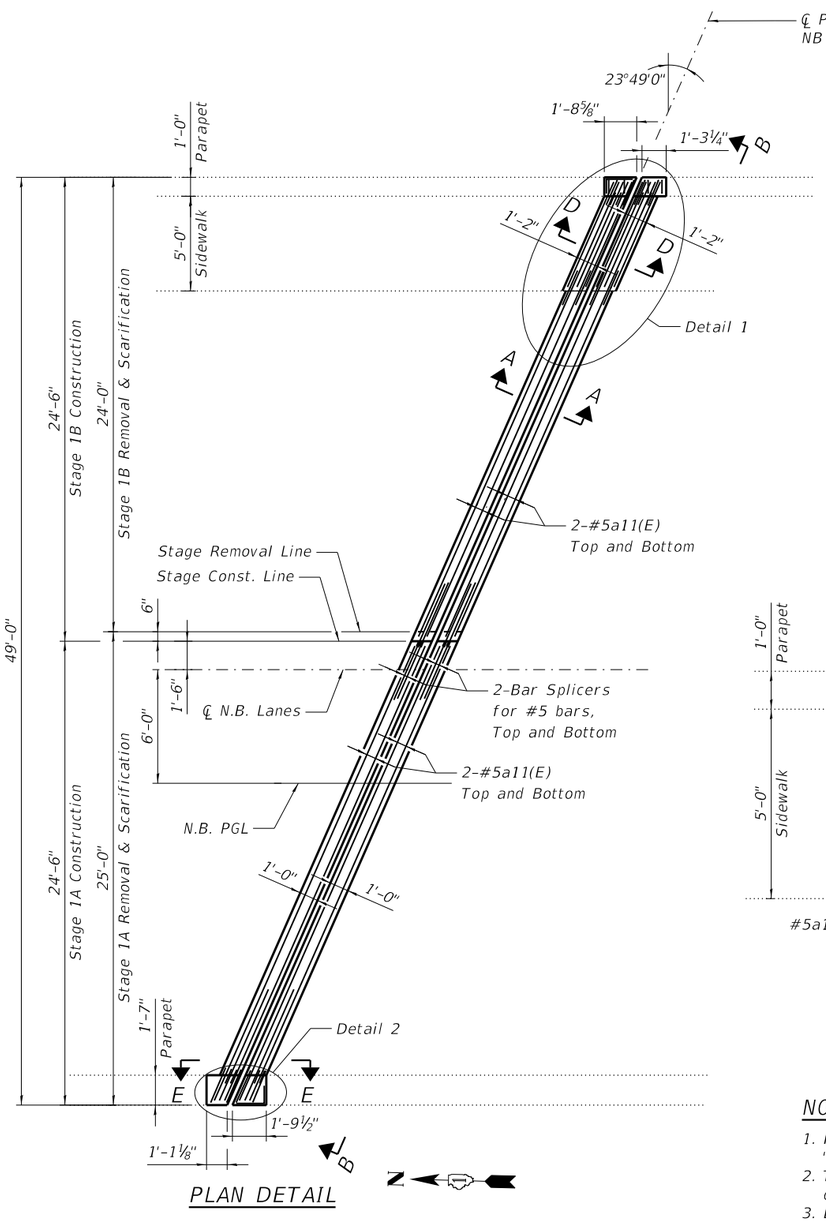
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



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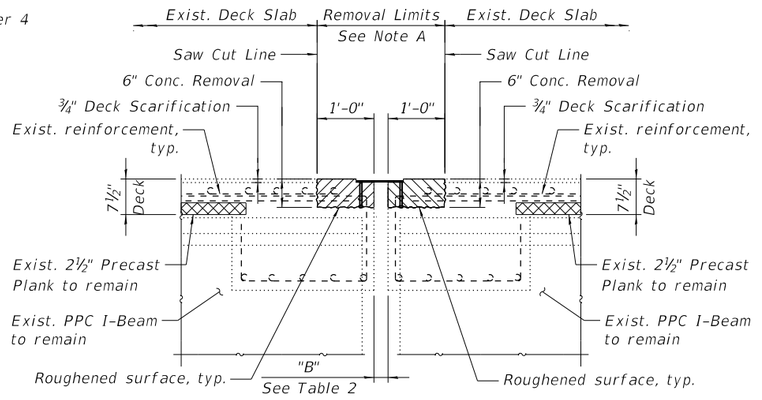
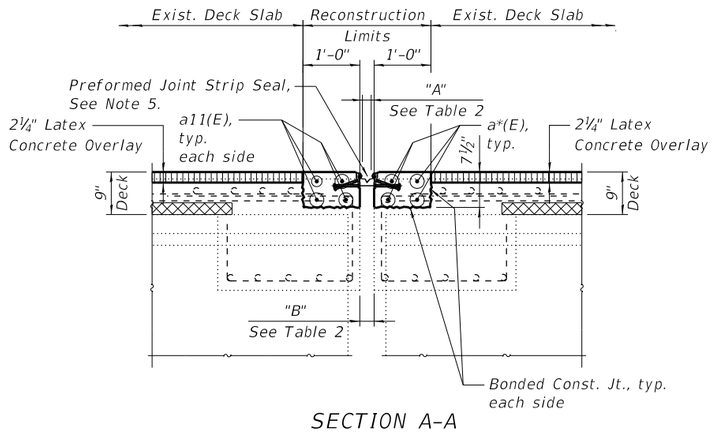


SECTION A-A
CONCRETE REMOVAL



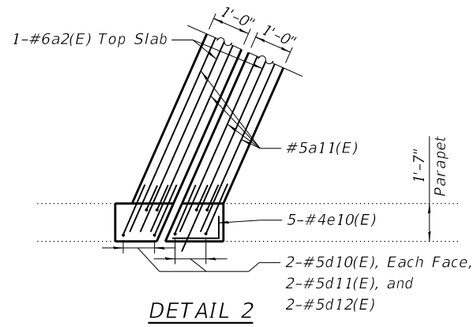
SECTION A-A
CONCRETE REPLACEMENT

Note A:
Remove existing concrete, joint assembly, plates, bars and anchor bolts, including any fast setting concrete patches that were used to replace damaged sections of the existing expansion joint. Any existing expansion joint steel exceeding the 6" removal depth should be cut and left in place. Cost included in Concrete Removal.

TABLE 2

A		B	
@ 50° F	@ 70° F	@ 50° F	@ 70° F
2½"	2"	3"	2½"

DETAIL 1



DETAIL 2

BAR LIST

Bar	No.	Size	Length	Shape
a2(E)	4	#6	6'-6"	
a11(E)	16	#5	26'-1"	
c10(E)	4	#5	2'-5"	
c11(E)	4	#5	6'-0"	
d10(E)	8	#5	3'-0"	
d11(E)	4	#5	3'-9"	
d12(E)	4	#5	2'-7"	
d13(E)	4	#4	4'-8"	
d14(E)	4	#6	3'-9"	
d15(E)	4	#4	2'-0"	
e10(E)	10	#4	1'-10"	

LEGEND:

- Concrete Removal
- Existing Reinforcment
- Proposed Reinforcement

NOTES:

1. *For removal elevation of joint and removal at parapets, see "Typical Expansion Joint Details" sheet.*
2. *The existing PPC Beams and Existing Precast Planks shall not be damaged. See "General Notes".*
3. *Existing horizontal bars in parapet and exisitng longitudinal bars in slab and sidewalk shall remain and incorporated in the new construction. Existing vertical bars in the approach slab parapet shall be reused.*
4. *Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.*
5. *For Preformed Joint Strip Seal details see sheet "Preformed Joint Strip Seal 1 thru 3".*
6. *See sheet "Typical Expansion Joint Details" for Sections B-B, D-D, E-E, and bar bending details.*

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.9
Concrete Superstructure	Cu. Yd.	3.5
Protective Coat	Sq. Yd.	14
Reinforcement Bars, Epoxy Coated	Pound	620
Bar Splicers	Each	8
Preformed Joint Strip Seal	Foot	52

FILE NAME = D9105515-sht-NB Expansion Joint, Pier 4	USER NAME = c-friedmana	DESIGNED - LS	REVISED -
		DRAWN - ZC	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 8:0.0000 '=' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
EXPANSION JOINT, NB PIER 4

SCALE: | SHEET S-12 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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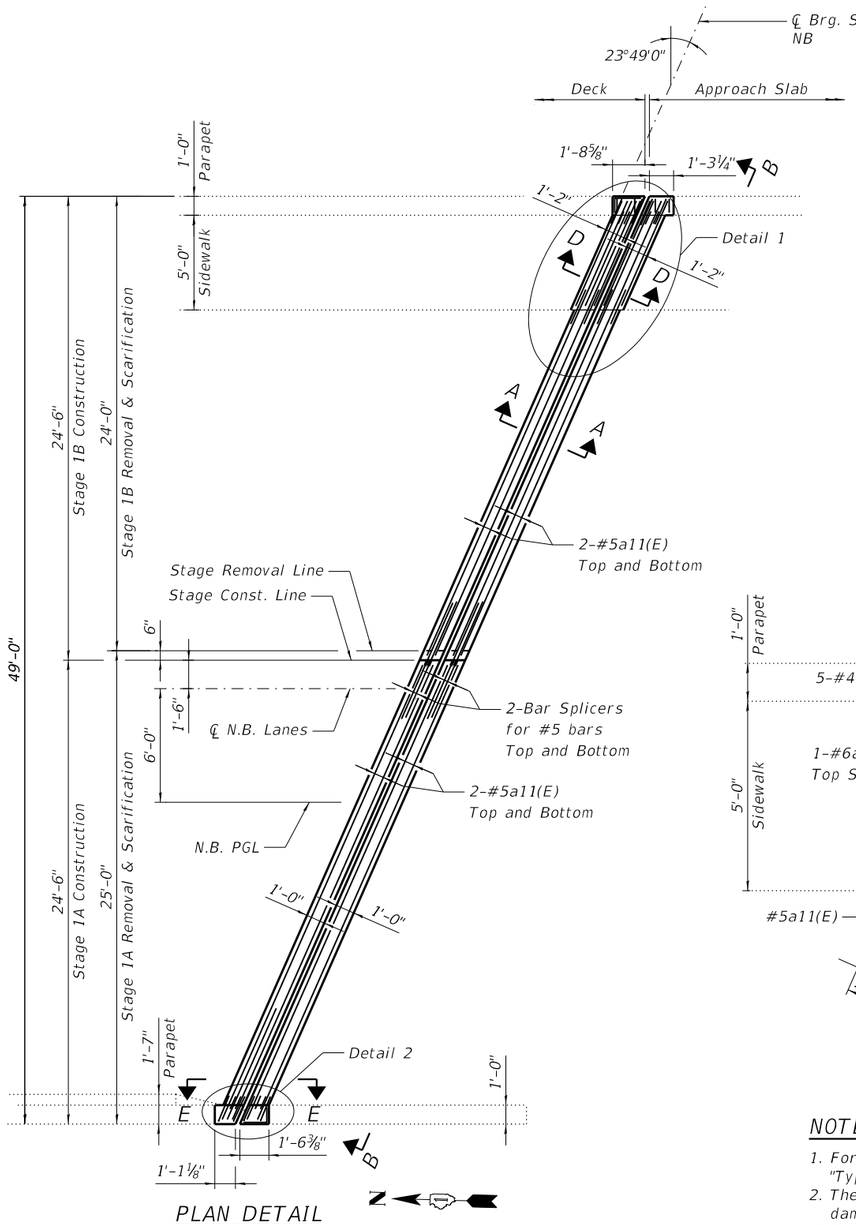
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



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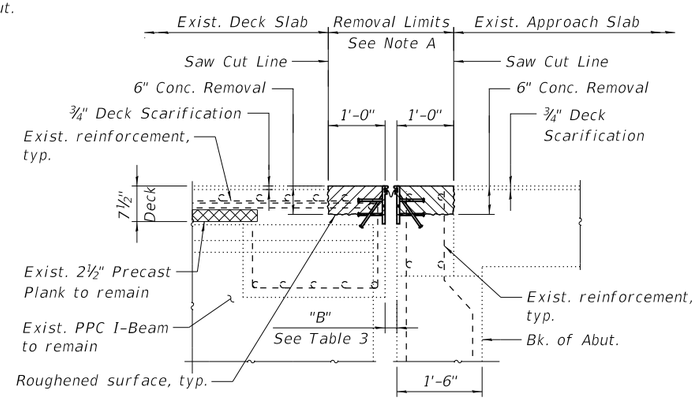
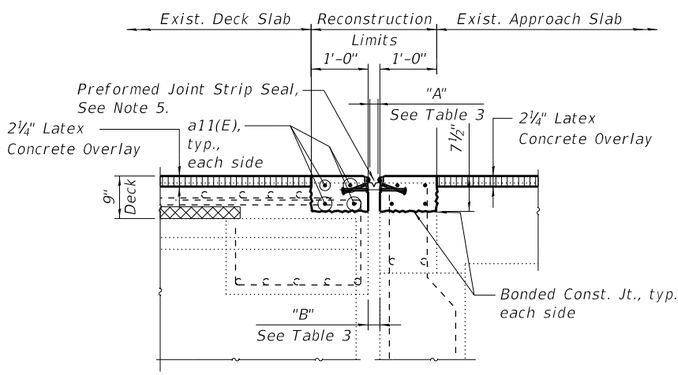


SECTION A-A
CONCRETE REMOVAL

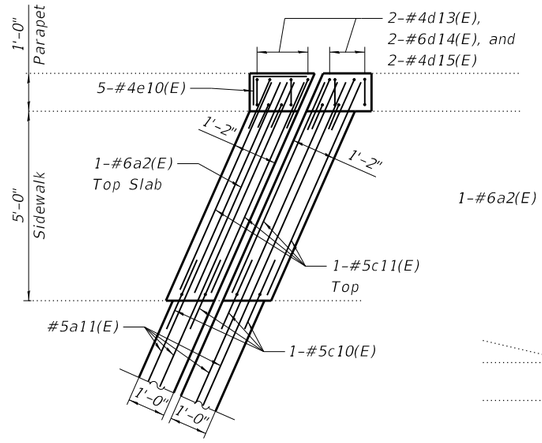


SECTION A-A
CONCRETE REPLACEMENT

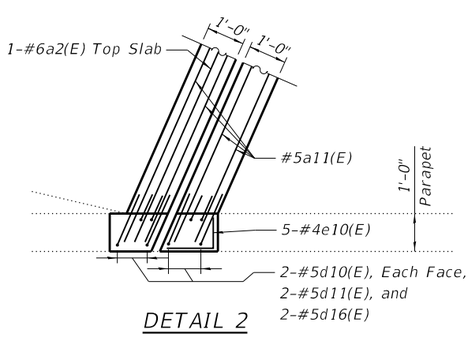
Note A:
Remove existing concrete, joint assembly, plates, bars and anchor bolts, including any fast setting concrete patches that were used to replace damaged sections of the existing expansion joint. Any existing expansion joint steel exceeding the 6" removal depth should be cut and left in place. Cost included in Concrete Removal.

TABLE 3

A		B	
@ 50° F	@ 70° F	@ 50° F	@ 70° F
2¼"	2"	2½"	2¼"



DETAIL 1



DETAIL 2

BAR LIST

Bar	No.	Size	Length	Shape
a2(E)	2	#6	6'-6"	———
a11(E)	16	#5	26'-1"	———
c10(E)	4	#5	2'-5"	⌐
c11(E)	4	#5	6'-0"	———
d10(E)	8	#5	3'-0"	⌐¬
d11(E)	4	#5	3'-9"	⌐¬
d13(E)	4	#4	4'-8"	⌐¬
d14(E)	4	#6	3'-9"	⌐¬
d15(E)	4	#4	2'-0"	⌐¬
d16(E)	4	#5	2'-4"	⌐¬
e10(E)	10	#4	1'-10"	⌐¬

LEGEND:

- Concrete Removal
- Existing Reinforcment
- Proposed Reinforcement

NOTES:

1. For removal elevation of joint and removal at parapets, see "Typical Expansion Joint Details" sheet.
2. The existing PPC Beams and Existing Precast Planks shall not be damaged. See "General Notes".
3. Existing horizontal bars in parapet and exisitng longitudinal bars in slab and sidewalk shall remain and incorporated in the new construction. Existing vertical bars in the approach slab parapet shall be reused.
4. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
5. For Preformed Joint Strip Seal details see sheet "Preformed Joint Strip Seal 1 thru 3".
6. See sheet "Typical Expansion Joint Details" for Sections B-B, D-D, E-E, and bar bending details.

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.9
Concrete Superstructure	Cu. Yd.	3.5
Protective Coat	Sq. Yd.	14
Reinforcement Bars, Epoxy Coated	Pound	600
Bar Splicers	Each	8
Preformed Joint Strip Seal	Foot	53

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GARZA KARHOFF ENGINEERING, LLC		DRAWN - ZC	REVISED -
	PLOT SCALE = 8:0.0000 ':' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
EXPANSION JOINT, NB SOUTH ABUTMENT

SCALE: | SHEET S-13 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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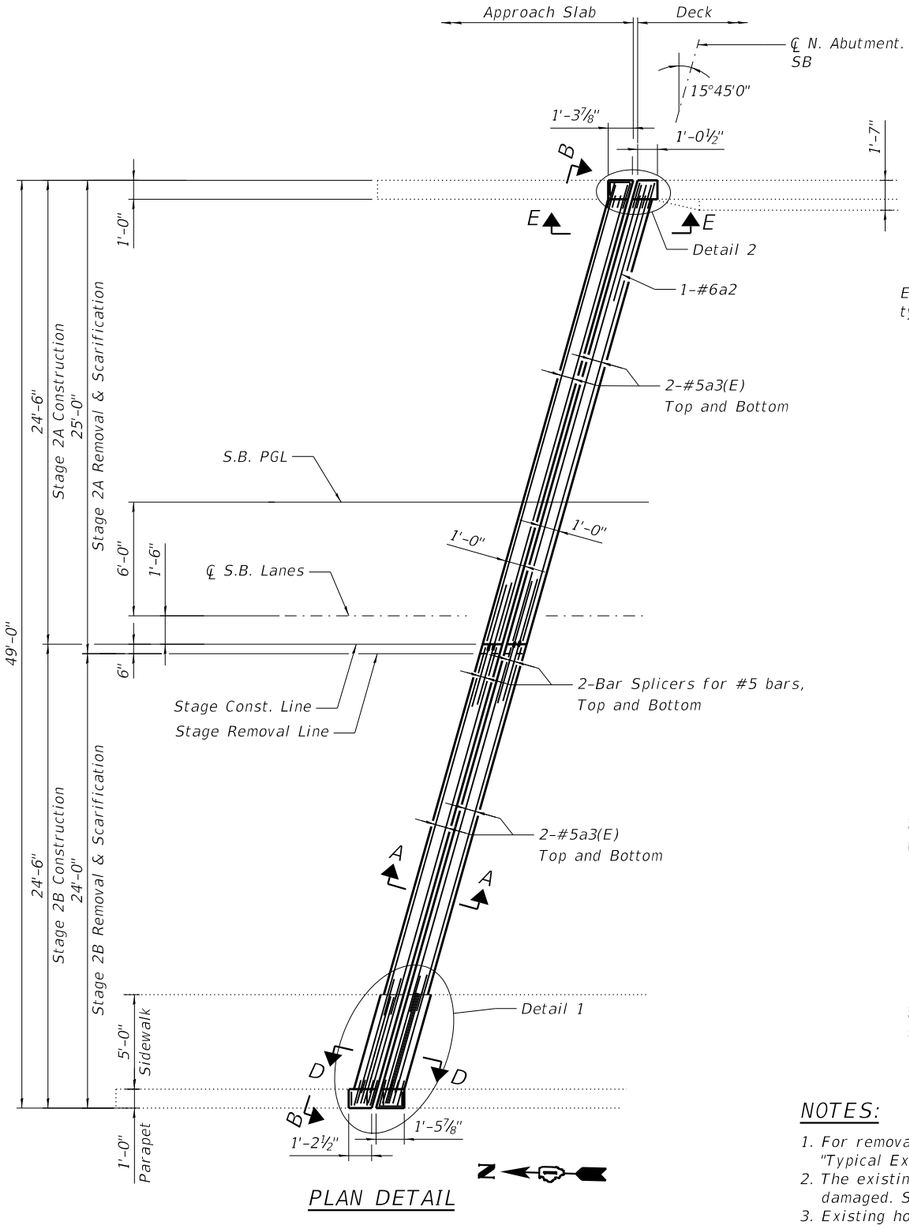
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



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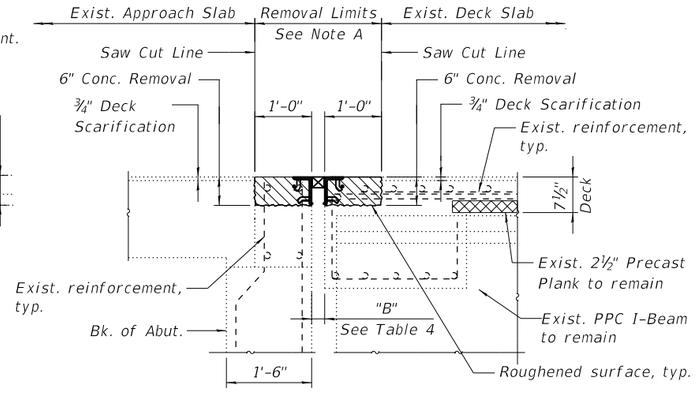
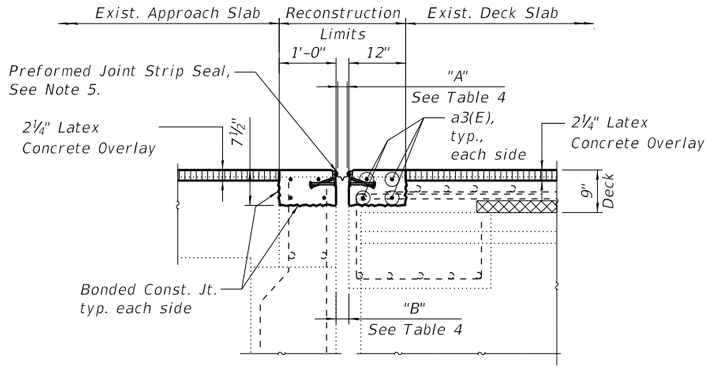


SECTION A-A
CONCRETE REMOVAL

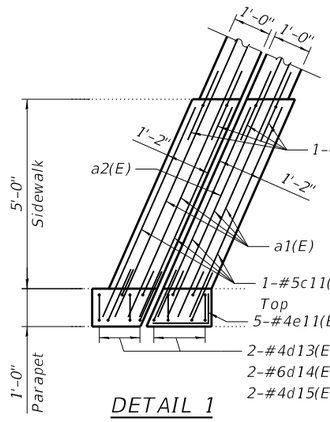


SECTION A-A
CONCRETE REPLACEMENT

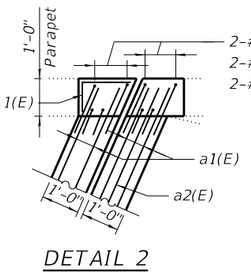
Note A:
Remove existing concrete, joint assembly, plates, bars and anchor bolts, including any fast setting concrete patches that were used to replace damaged sections of the existing expansion joint.Any existing expansion joint steel exceeding the 6" removal depth should be cut and left in place. Cost included in Concrete Removal.

TABLE 4

A		B	
@ 50° F	@ 70° F	@ 50° F	@ 70° F
2¼"	2"	2¾"	2½"



DETAIL 1



DETAIL 2

BAR LIST

Bar	No.	Size	Length	Shape
a2(E)	2	#6	6'-6"	
a3(E)	16	#5	24'-11"	
c10(E)	4	#5	2'-5"	
c11(E)	4	#5	6'-0"	
d10(E)	8	#5	3'-0"	
d11(E)	4	#5	3'-9"	
d13(E)	4	#4	4'-8"	
d14(E)	4	#6	3'-9"	
d15(E)	4	#4	2'-0"	
d16(E)	4	#5	2'-4"	
e11(E)	10	#4	1'-8"	

LEGEND:

- Concrete Removal
- Existing Reinforcment
- Proposed Reinforcement

NOTES:

1. For removal elevation of joint and removal at parapets, see "Typical Expansion Joint Details" sheet.
2. The existing PPC Beams and Existing Precast Planks shall not be damaged. See "General Notes".
3. Existing horizontal bars in parapet and exisitng longitudinal bars in slab and sidewalk shall remain and incorporated in the new construction. Existing vertical bars in the approach slab parapet shall be reused.
4. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
5. For Preformed Joint Strip Seal details see sheet "Preformed Joint Strip Seal 1 thru 3".
6. See sheet "Typical Expansion Joint Details" for Sections B-B, D-D, E-E, and bar bending details.

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.8
Concrete Superstructure	Cu. Yd.	3.3
Protective Coat	Sq. Yd.	13
Reinforcement Bars, Epoxy Coated	Pound	580
Bar Splicers	Each	8
Preformed Joint Strip Seal	Foot	50

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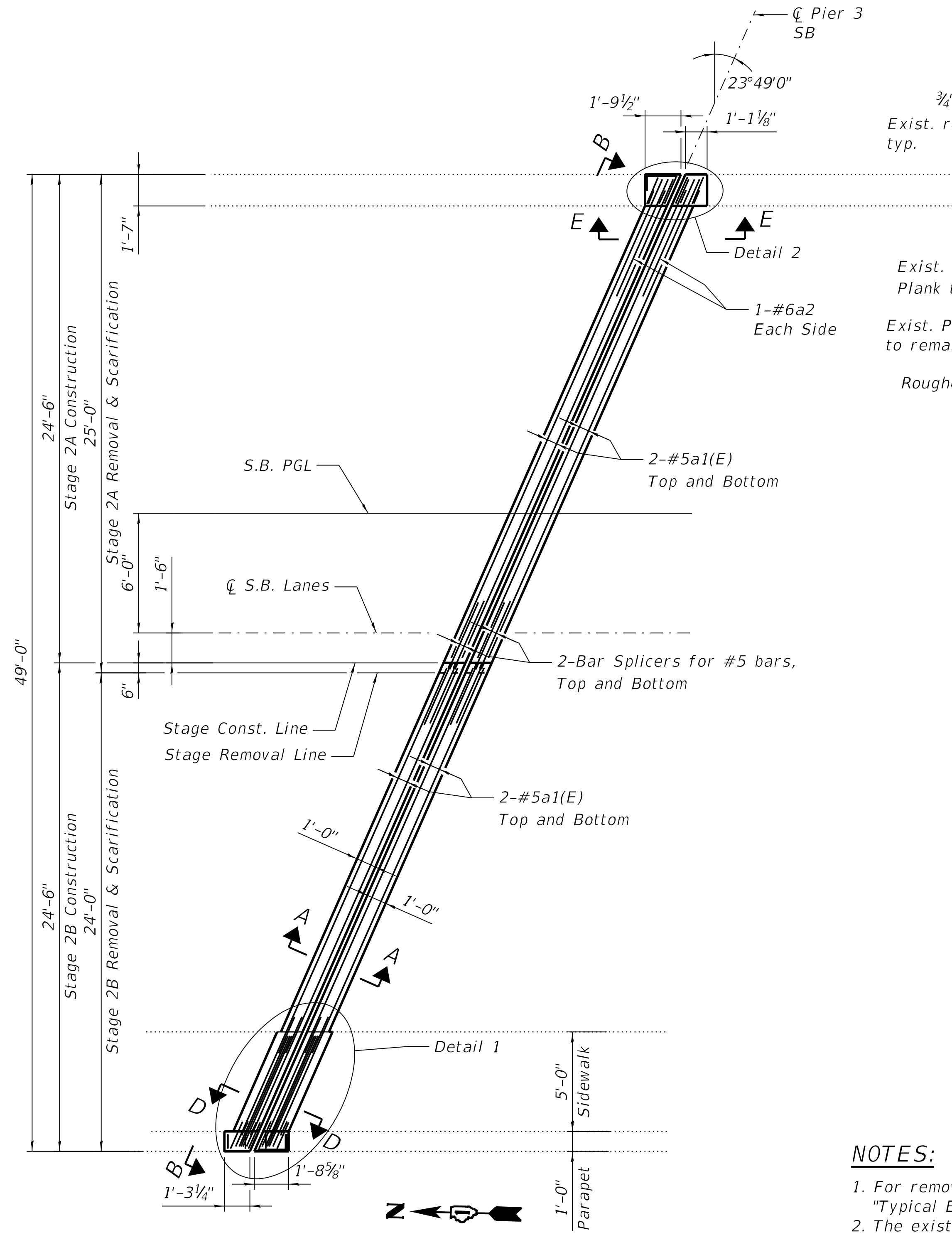
FILE NAME = D9105515-sht-SB Expansion Joint, North Abutment	USER NAME = c-friedmana	DESIGNED - LS	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 8:0.0000 ':' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

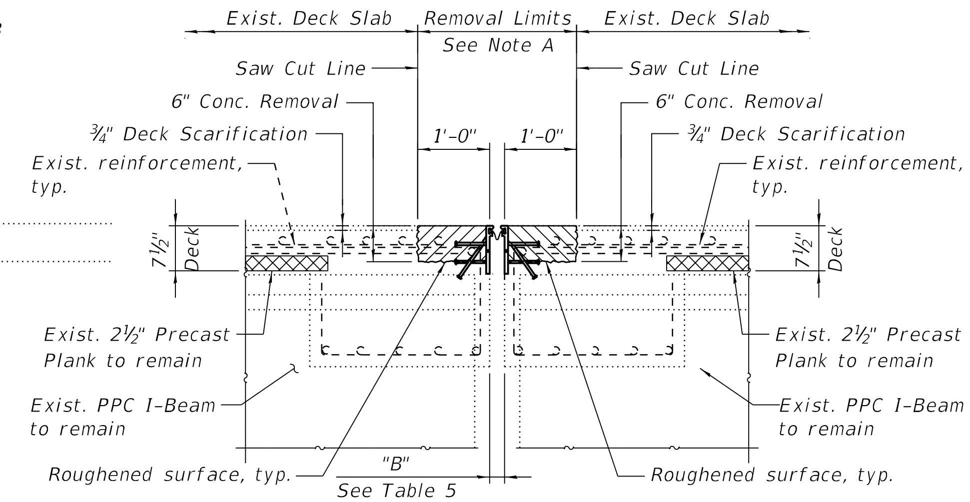
SN 016-2512 (SB), SN 016-2513 (NB)
EXPANSION JOINT, SB NORTH ABUTMENT

SCALE: | SHEET S-14 OF S-42 SHEETS | STA. | TO STA.

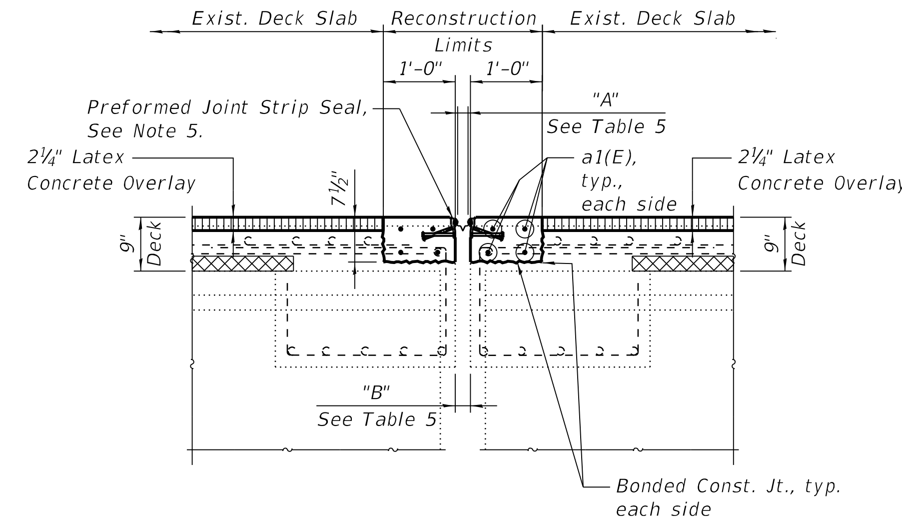
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	51
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



PLAN DETAIL



SECTION A-A
CONCRETE REMOVAL

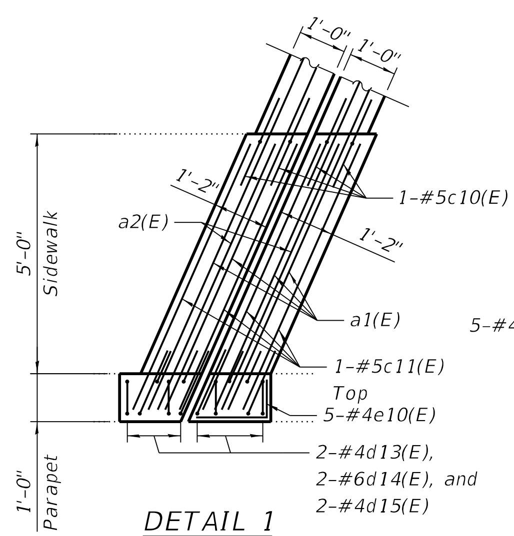


SECTION A-A
CONCRETE REPLACEMENT

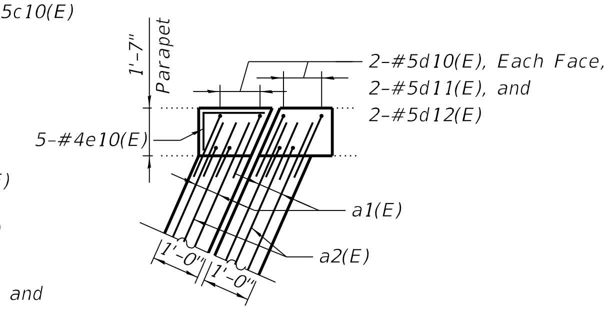
Note A:
Remove existing concrete, joint assembly, plates, bars and anchor bolts, including any fast setting concrete patches that were used to replace damaged sections of the existing expansion joint. Any existing expansion joint steel exceeding the 6" removal depth should be cut and left in place. Cost included in Concrete Removal.

TABLE 5

A		B	
@ 50° F	@ 70° F	@ 50° F	@ 70° F
2"	1¾"	2½"	2¼"



DETAIL 1



DETAIL 2

BAR LIST

Bar	No.	Size	Length	Shape
a1(E)	16	#5	26'-1"	
a2(E)	2	#6	6'-6"	
c10(E)	4	#5	2'-5"	
c11(E)	4	#5	6'-0"	
d10(E)	8	#5	3'-0"	
d11(E)	4	#5	3'-9"	
d12(E)	4	#5	2'-7"	
d13(E)	4	#4	4'-8"	
d14(E)	4	#6	3'-9"	
d15(E)	4	#4	2'-0"	
e10(E)	10	#4	1'-10"	

NOTES:

1. For removal elevation of joint and removal at parapets, see "Typical Expansion Joint Details" sheet.
2. The existing PPC Beams and Existing Precast Planks shall not be damaged. See "General Notes".
3. Existing horizontal bars in parapet and exisitng longitudinal bars in slab and sidewalk shall remain and incorporated in the new construction. Existing vertical bars in the approach slab parapet shall be reused.
4. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
5. For Preformed Joint Strip Seal details see sheet "Preformed Joint Strip Seal 1 thru 3".
6. See sheet "Typical Expansion Joint Details" for Sections B-B, D-D, E-E, and bar bending details.

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.9
Concrete Superstructure	Cu. Yd.	3.5
Protective Coat	Sq. Yd.	13
Reinforcement Bars, Epoxy Coated	Pound	620
Bar Splicers	Each	8
Preformed Joint Strip Seal	Foot	52

LEGEND:

Concrete Removal

Existing Reinforcment

Proposed Reinforcement

MODEL: Default
FILE NAME: pw:\\exp-pw.bentley.com:exp-pw-04\Documents\Projects\D-91-055-19\800 CADD Design\801 Contract\801.10 Structural\Sheet\D9105515-sht-SB Expansion Joint, Pier 3

FILE NAME = D9105515-sht-SB Expansion Joint, Pier 3	USER NAME = c-friedmana	DESIGNED - LS	REVISED -
GARZA KARHOFF ENGINEERING, LLC		DRAWN - AMF	REVISED -
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	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

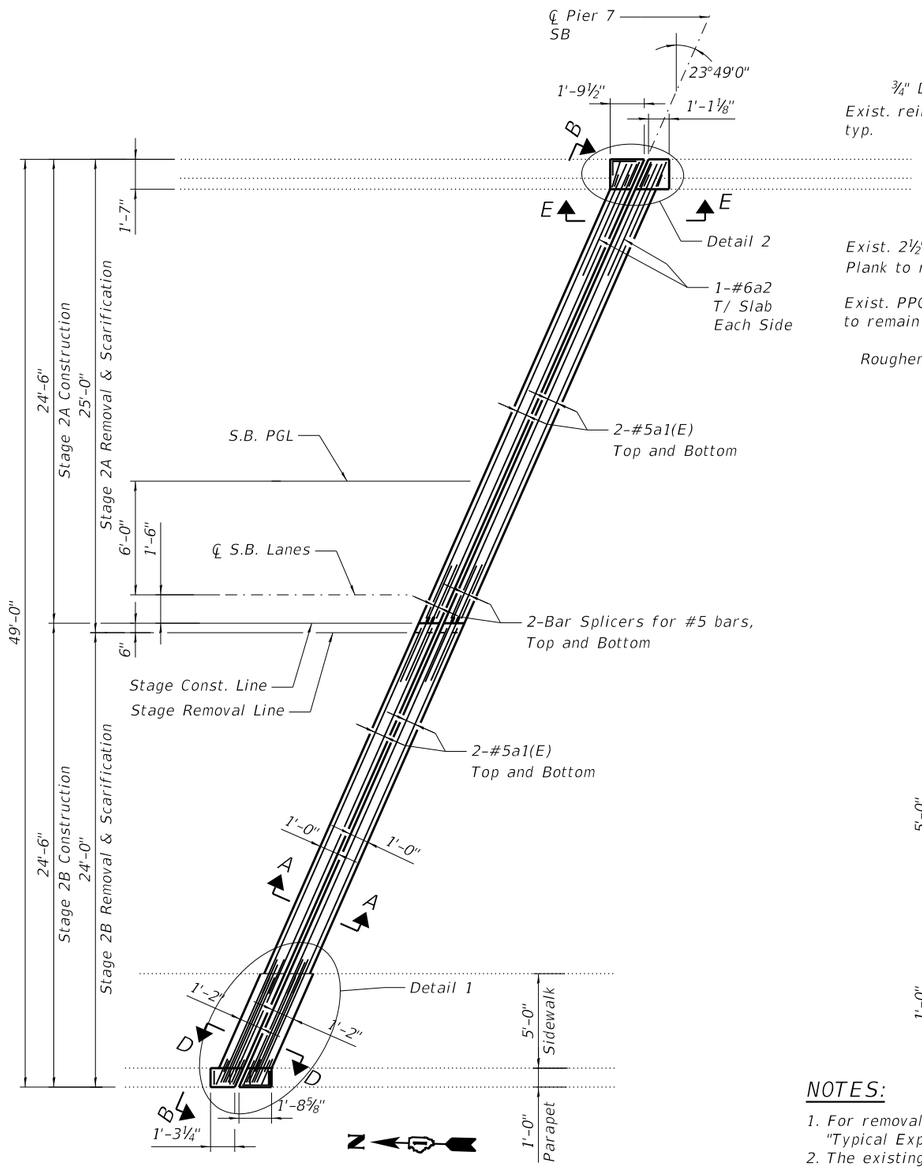
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
EXPANSION JOINT, SB PIER 3

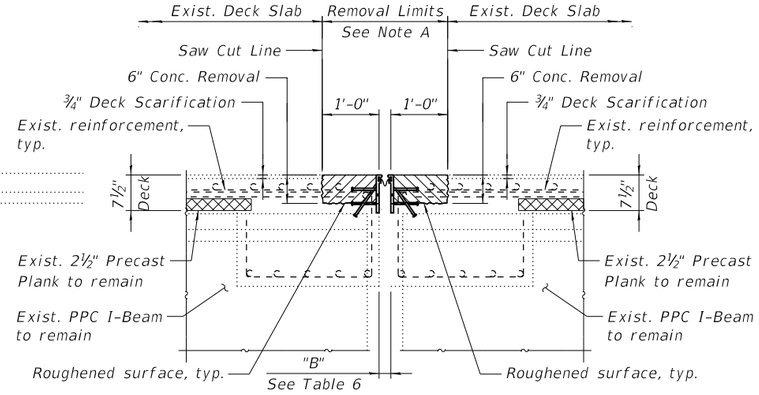
SCALE: | SHEET S-15 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	52

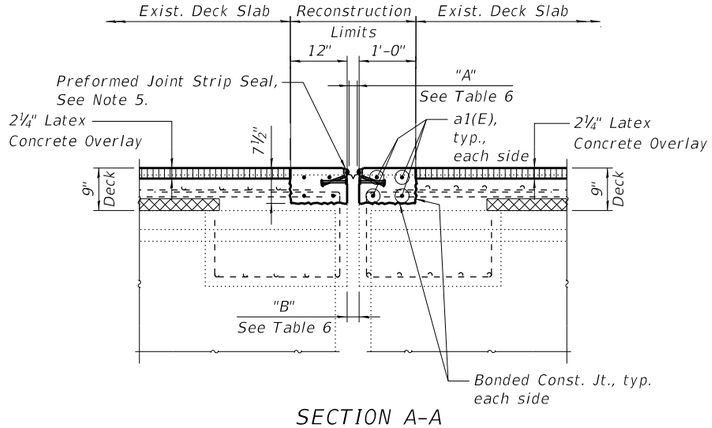
CONTRACT NO. 62H50
ILLINOIS | FED. AID PROJECT



PLAN DETAIL



SECTION A-A
CONCRETE REMOVAL

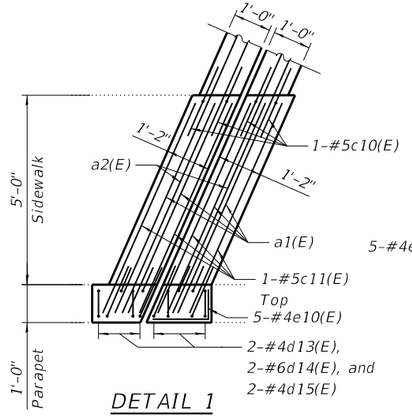


SECTION A-A
CONCRETE REPLACEMENT

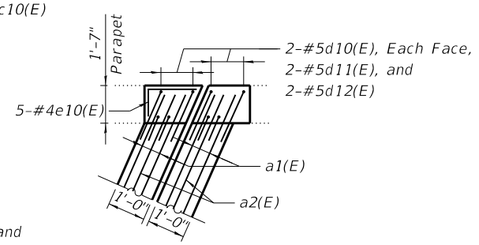
Note A:
Remove existing concrete, joint assembly, plates, bars and anchor bolts, including any fast setting concrete patches that were used to replace damaged sections of the existing expansion joint. Any existing expansion joint steel exceeding the 6" removal depth should be cut and left in place. Cost included in Concrete Removal.

TABLE 6

A		B	
@ 50° F	@ 70° F	@ 50° F	@ 70° F
2"	1¾"	2½"	2¼"



DETAIL 1



DETAIL 2

BAR LIST

Bar	No.	Size	Length	Shape
a1(E)	16	#5	26'-1"	
a2(E)	2	#6	6'-6"	
c10(E)	4	#5	2'-5"	
c11(E)	4	#5	6'-0"	
d10(E)	8	#5	3'-0"	
d11(E)	4	#5	3'-9"	
d12(E)	4	#5	2'-7"	
d13(E)	4	#4	4'-8"	
d14(E)	4	#6	3'-9"	
d15(E)	4	#4	2'-0"	
e10(E)	10	#4	1'-10"	

LEGEND:

- Concrete Removal
- Existing Reinforcment
- Proposed Reinforcement

NOTES:

1. For removal elevation of joint and removal at parapets, see "Typical Expansion Joint Details" sheet.
2. The existing PPC Beams and Existing Precast Planks shall not be damaged. See "General Notes".
3. Existing horizontal bars in parapet and exisitng longitudinal bars in slab and sidewalk shall remain and incorporated in the new construction. Existing vertical bars in the approach slab parapet shall be reused.
4. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
5. For Preformed Joint Strip Seal details see sheet "Preformed Joint Strip Seal 1 thru 3".
6. See sheet "Typical Expansion Joint Details" for Sections B-B, D-D, E-E, and bar bending details.

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.9
Concrete Superstructure	Cu. Yd.	3.5
Protective Coat	Sq. Yd.	13
Reinforcement Bars, Epoxy Coated	Pound	620
Bar Splicers	Each	8
Preformed Joint Strip Seal	Foot	52

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FILE NAME = D9105515-sht-SB Expansion Joint, Pier 7	USER NAME = c-friedmana	DESIGNED - LS	REVISED -
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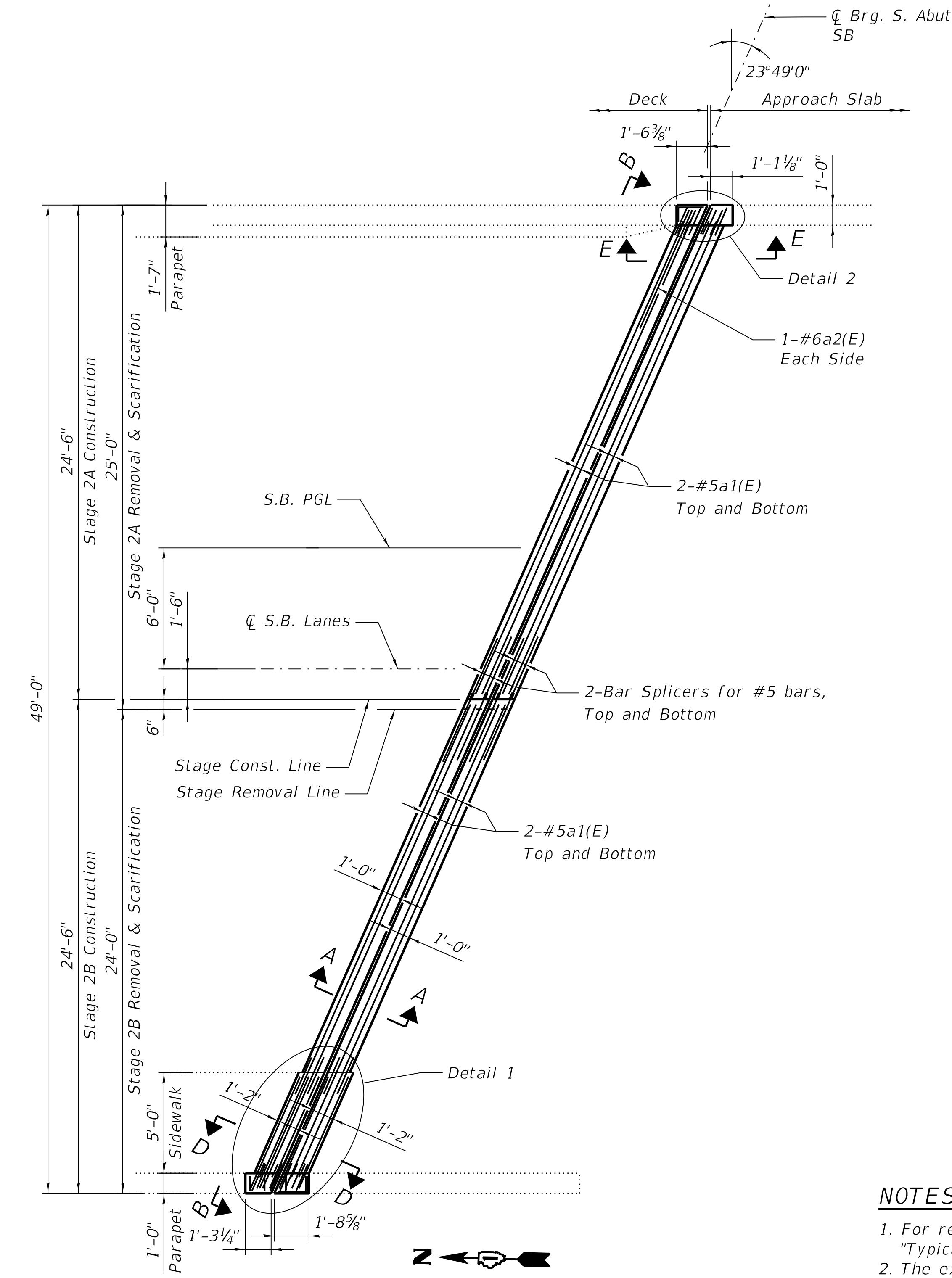
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 8:0.0000 ':' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

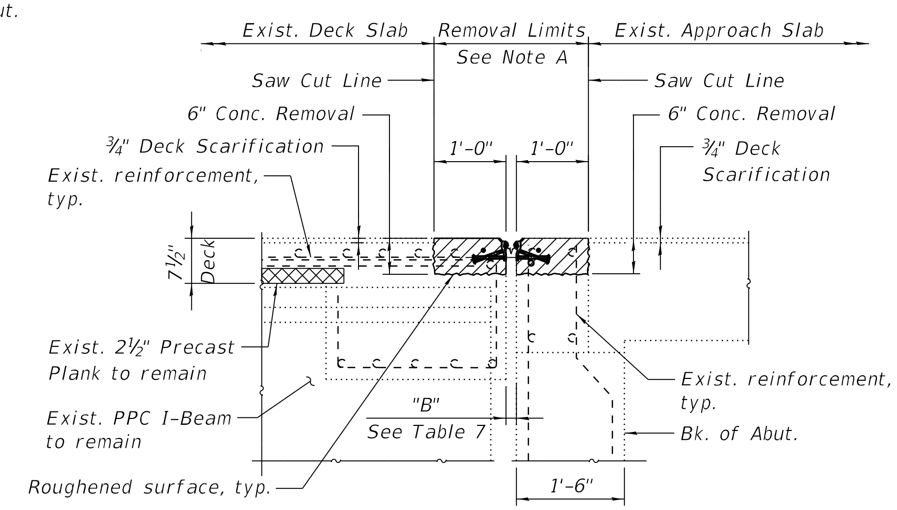
SN 016-2512 (SB), SN 016-2513 (NB)
EXPANSION JOINT, SB PIER 7

SCALE: | SHEET S-16 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	53
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

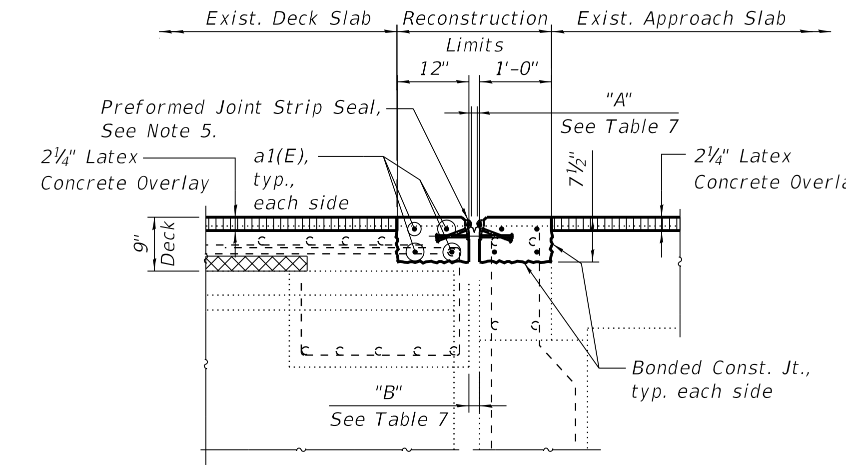


PLAN DETAIL



SECTION A-A
CONCRETE REMOVAL

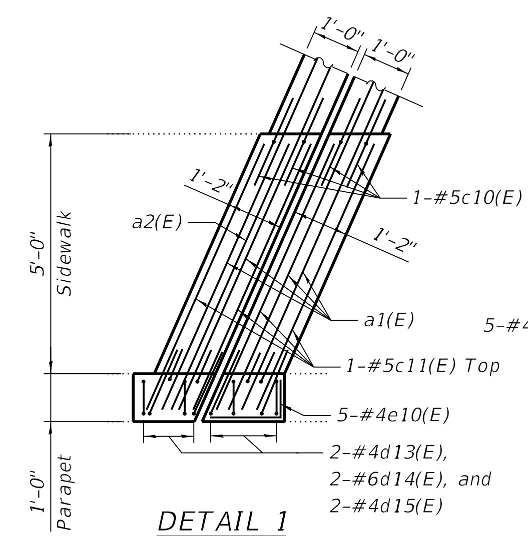
Note A:
Remove existing concrete, joint assembly, plates, bars and anchor bolts, including any fast setting concrete patches that were used to replace damaged sections of the existing expansion joint. Any existing expansion joint steel exceeding the 6" removal depth should be cut and left in place. Cost included in Concrete Removal.



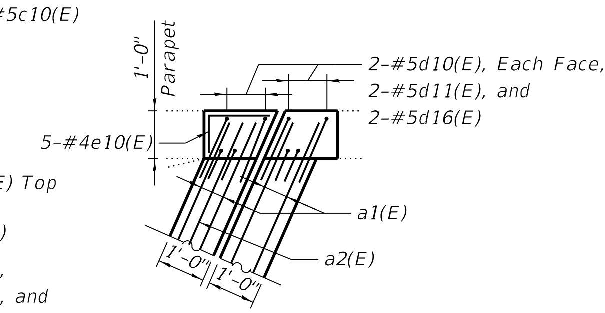
SECTION A-A
CONCRETE REPLACEMENT

TABLE 7

A		B	
@ 50° F	@ 70° F	@ 50° F	@ 70° F
1½"	1¼"	1¾"	1½"



DETAIL 1



DETAIL 2

BAR LIST

Bar	No.	Size	Length	Shape
a1(E)	16	#5	26'-1"	
a2(E)	2	#6	6'-6"	
c10(E)	4	#5	2'-5"	
c11(E)	4	#5	6'-0"	
d10(E)	8	#5	3'-0"	
d11(E)	4	#5	3'-9"	
d13(E)	4	#4	4'-8"	
d14(E)	4	#6	3'-9"	
d15(E)	4	#4	2'-0"	
d16(E)	4	#5	2'-4'	
e10(E)	10	#4	1'-10"	

N (north arrow)

NOTES:

1. For removal elevation of joint and removal at parapets, see "Typical Expansion Joint Details" sheet.
2. The existing PPC Beams and Existing Precast Planks shall not be damaged. See "General Notes".
3. Existing horizontal bars in parapet and exisitng longitudinal bars in slab and sidewalk shall remain and incorporated in the new construction. Existing vertical bars in the approach slab parapet shall be reused.
4. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
5. For Preformed Joint Strip Seal details see sheet "Preformed Joint Strip Seal 1 thru 3".
6. See sheet "Typical Expansion Joint Details" for Sections B-B, D-D, E-E, and bar bending details.

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.9
Concrete Superstructure	Cu. Yd.	3.5
Protective Coat	Sq. Yd.	13
Reinforcement Bars, Epoxy Coated	Pound	600
Bar Splicers	Each	8
Preformed Joint Strip Seal	Foot	53

LEGEND:

Concrete Removal
Existing Reinforcment
Proposed Reinforcement

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GARZA KARHOFF ENGINEERING, LLC		DRAWN - AMF	REVISED -
	PLOT SCALE = 8:0.0000 ':" / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
EXPANSION JOINT, SB SOUTH ABUTMENT

SCALE: | SHEET S-17 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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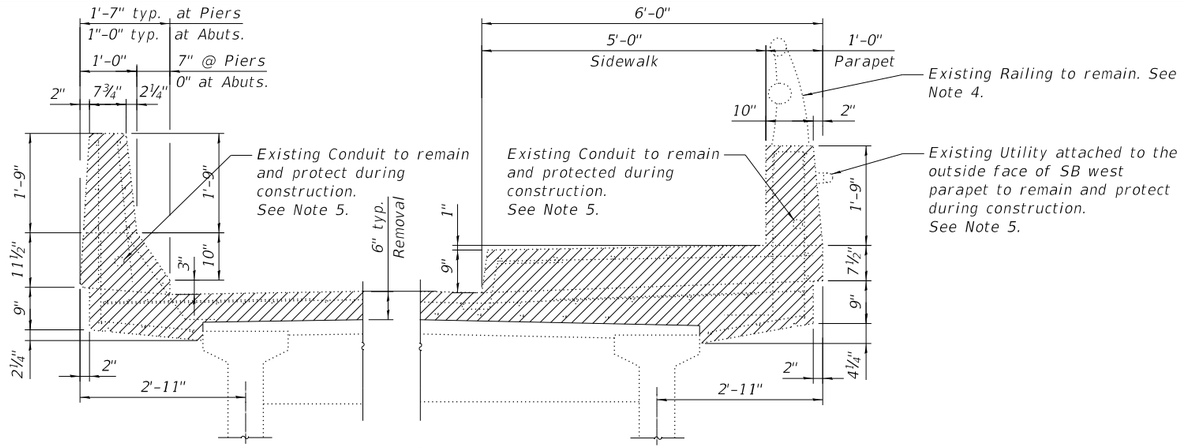
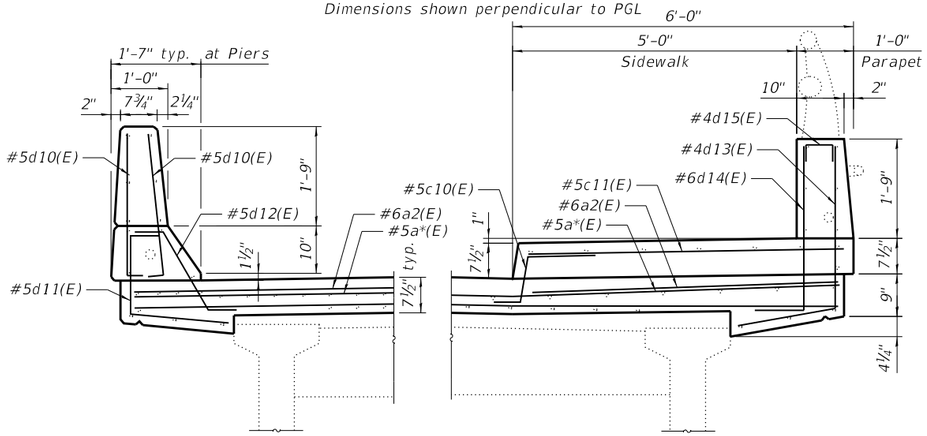
CONTRACT NO. 62H50
ILLINOIS | FED. AID PROJECT



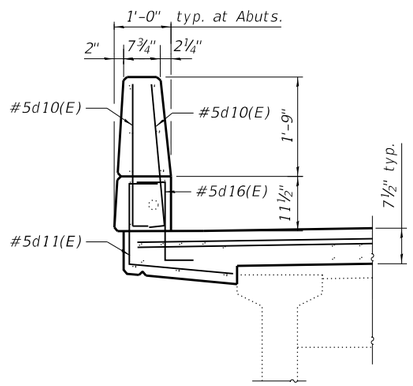
SECTION B-B
TYPICAL REMOVAL AT PIER EXP. JOINTS

Dimensions shown perpendicular to PGL

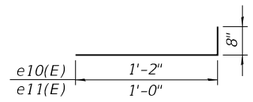


SECTION B-B
TYPICAL RECONSTRUCTION AT PIER EXP. JOINTS

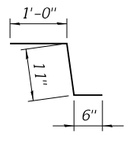
Dimensions shown perpendicular to PGL



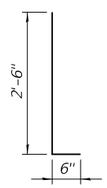
SECTION B-B
TYPICAL RECONSTRUCTION AT ABUTMENT EXP. JOINTS



BARS e10(E) & e11(E)



BAR c10(E)



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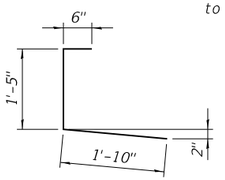

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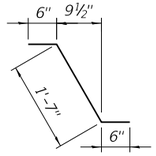
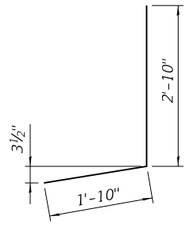
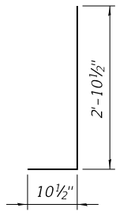


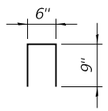
BAR d12(E)



BAR d13(E)



BAR d14(E)



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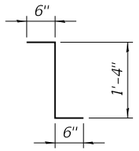

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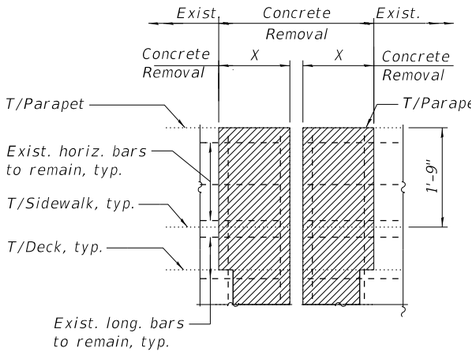
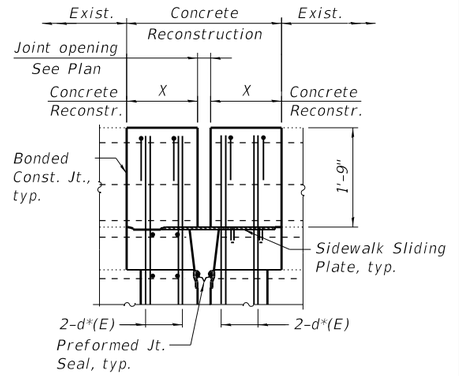


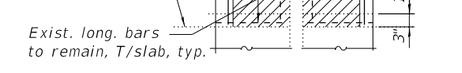
LIMITS OF REMOVAL



RECONSTRUCTION

SECTION D-D

For dimension "X" see Expansion Joint Plans
Parapet Railing not shown for clarity. See Note 4.



LIMITS OF REMOVAL

RECONSTRUCTION

SECTION E-E

For dimension "X" see Expansion Joint Plans

LEGEND:

Concrete Removal

NOTES:

1. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
2. For Preformed Joint Strip Seal and sidewalk sliding plate details see sheet Preformed Joint Strip Seal sheets.
3. Apply protective coat to top surfaces and inside face of new concrete.
4. Existing Railing and posts in areas of parapet reconstruction shall be supported and reattached to the new parapet concrete. New anchors, nuts and washers shall be provided. Cost included with Concrete Superstructure.
5. Any damage to the lighting cable or conduit embedded in the parapet, or the fiber optic cable or conduit attached to the parapet should be repaired by the contractor at no additional cost. Cost included with Concrete Superstructure.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2153 (NB)
TYPICAL EXPANSION JOINT DETAILS

SCALE: | SHEET S-18 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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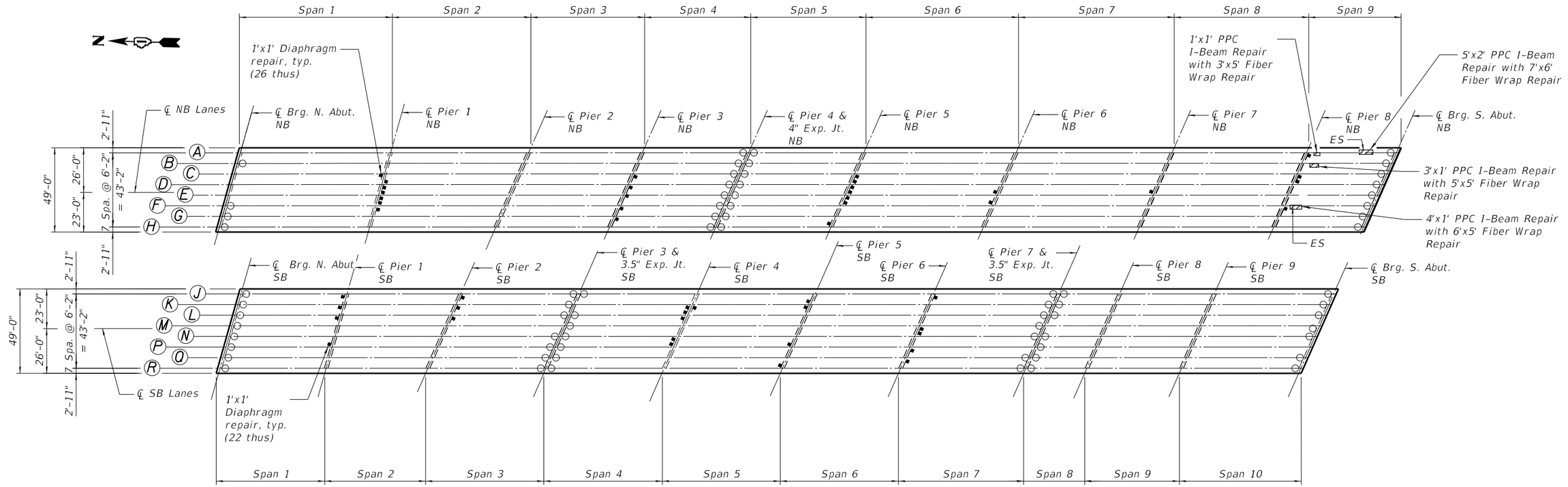
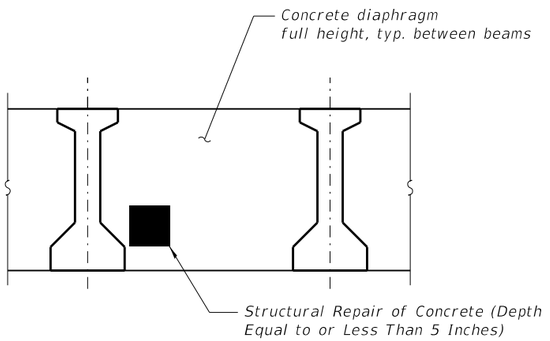
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



BEAM REPAIR KEY PLAN

S.N. 016-2512 (SB), 016-2513 (NB)



CONCRETE DIAPHRAGM REPAIR

LEGEND:

- ■ Diaphragm Repair - Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
- ▱ Fiber Wrap Repair and Acrylic Coating (Midspan Beam) - See BEAM REPAIR DETAILS Sheet for Details
- ○ Fiber Wrap Repair (Beam End) - See Beam Repairs Sheets for Repair Sizes and Bill of Material
- ES ⊤ Exposed Strand

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	26
Fiber Wrap	Sq. Ft.	112
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	18
Acrylic Coating	Sq. Yd.	13

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	22

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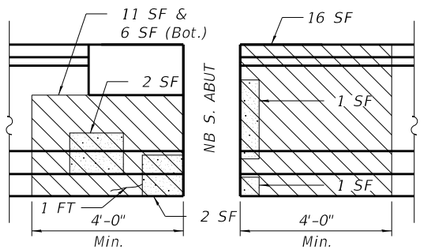
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
BEAM REPAIR KEY PLAN

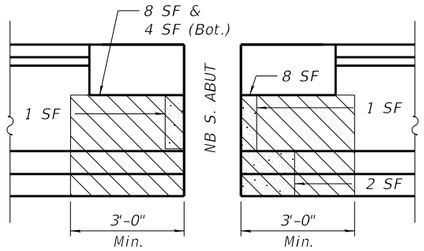
SCALE: | SHEET S-19 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	56
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



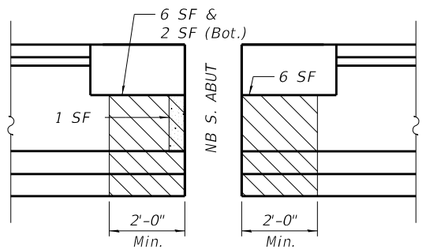
BEAM (A)
Looking East

BEAM (A)
Looking West



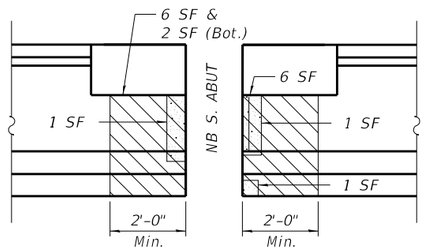
BEAM (B)
Looking East

BEAM (B)
Looking West



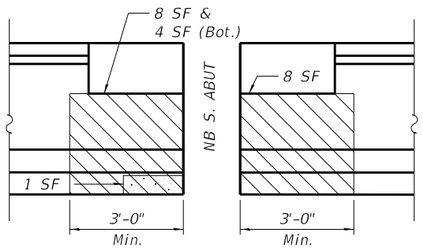
BEAM (C)
Looking East

BEAM (C)
Looking West



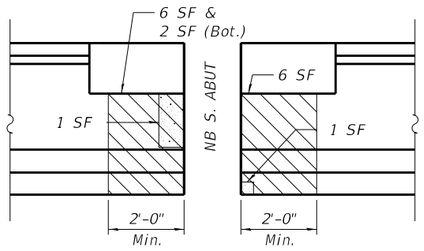
BEAM (D)
Looking East

BEAM (D)
Looking West



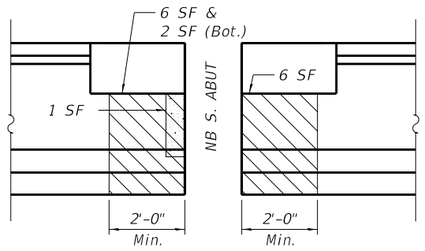
BEAM (E)
Looking East

BEAM (E)
Looking West



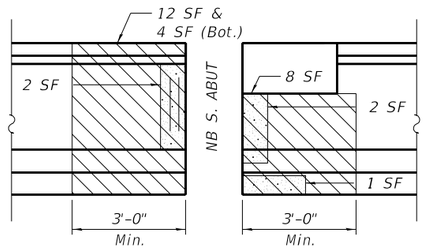
BEAM (F)
Looking East

BEAM (F)
Looking West



BEAM (G)
Looking East

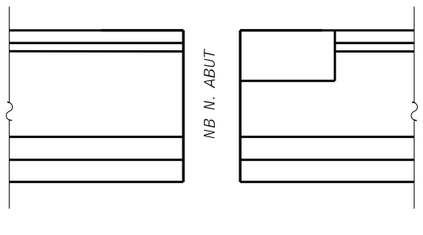
BEAM (G)
Looking West



BEAM (H)
Looking East

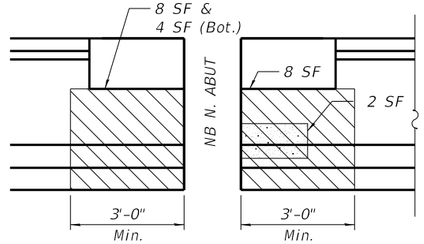
BEAM (H)
Looking West

NB BEAM REPAIR ELEVATIONS AT SOUTH ABUTMENT



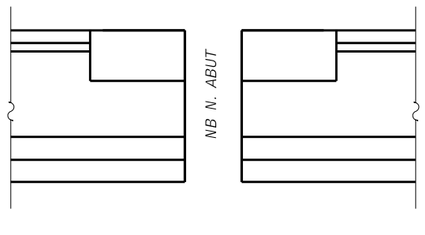
Beam (A)
Looking West

BEAM (A)
Looking East



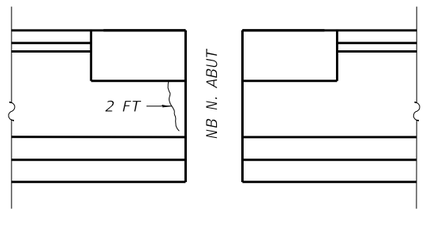
BEAM (B)
Looking West

BEAM (B)
Looking East



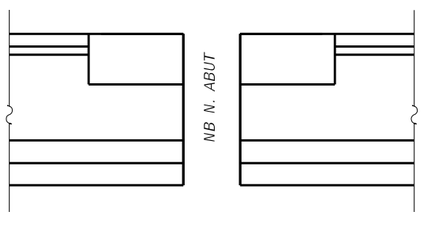
BEAM (C)
Looking West

BEAM (C)
Looking East



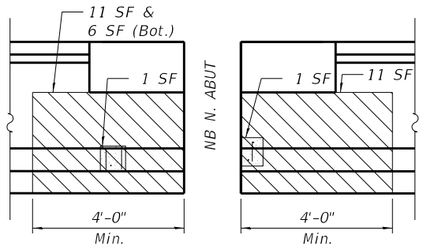
BEAM (D)
Looking West

BEAM (D)
Looking East



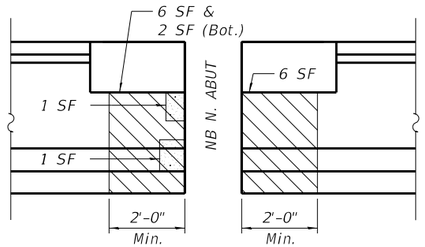
BEAM (E)
Looking West

BEAM (E)
Looking East



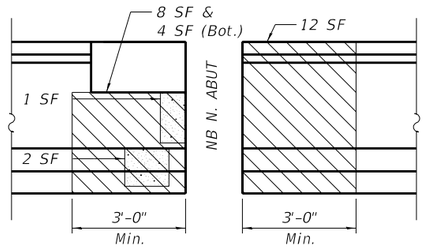
BEAM (F)
Looking West

BEAM (F)
Looking East



BEAM (G)
Looking West

BEAM (G)
Looking East



BEAM (H)
Looking West

BEAM (H)
Looking East

NB BEAM REPAIR ELEVATIONS AT NORTH ABUTMENT

Notes:

1. Beams to be repaired with Precast Prestressed Concrete I-Beam Repair and Fiber Wrap Repair. See PPC beam repair details on "BEAM REPAIR DETAILS" Sheet.

LEGEND

Precast Prestressed Concrete I-Beam Repair

1 FT — Crack - High Pressure Epoxy Injection

Exposed Rebar

ES — Exposed Strand

Fiber Wrap Repair and Acrylic Coating

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Fiber Wrap	Sq. Ft.	239
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	32
Epoxy Crack Injection	Foot	3
Acrylic Coating	Sq. Yd.	27

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FILE NAME = D9105519-sht-NB Beam Repairs at North & South Abutments	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 4:0.0000 ':' / in.	DRAWN - AMF	REVISED -
	PLOT DATE = 10/14/2020	CHECKED - BGK	REVISED -
		DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
NB BEAM REPAIRS AT NORTH & SOUTH ABUTMENTS

SCALE: | SHEET S-20 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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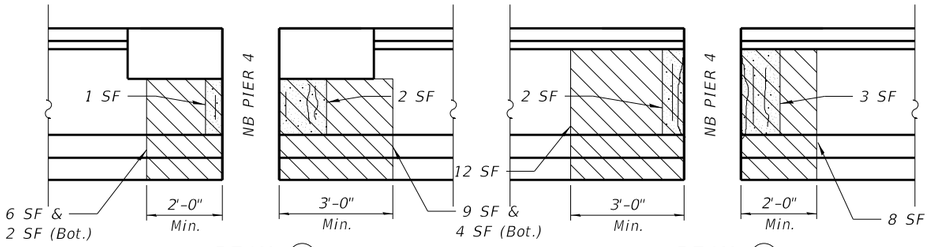
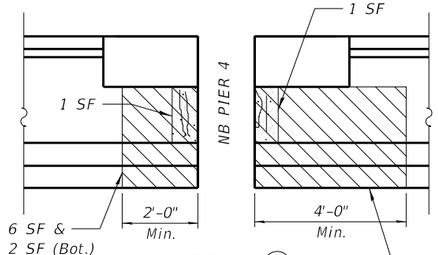
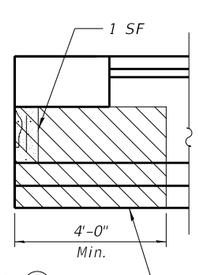
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



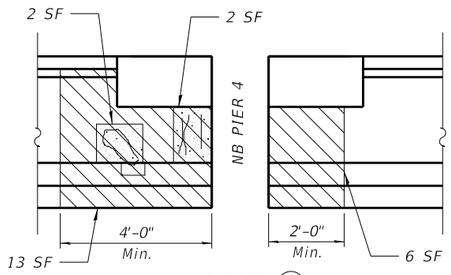
BEAM (A)
Looking East

BEAM (A)
Looking West

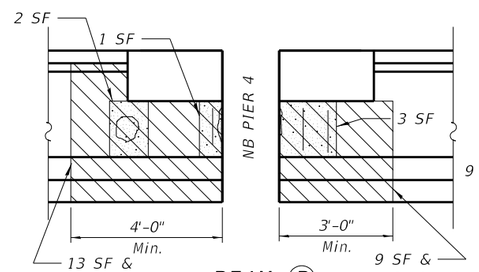




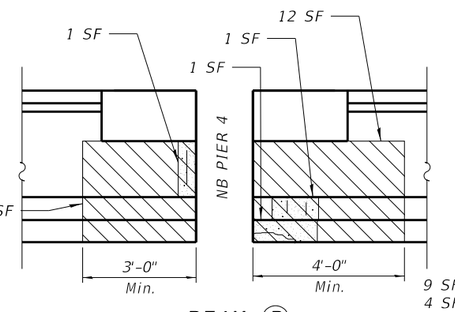
BEAM (E)
Looking East



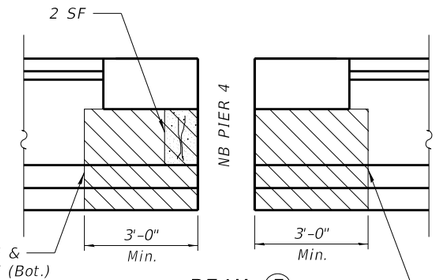
BEAM (E)
Looking West



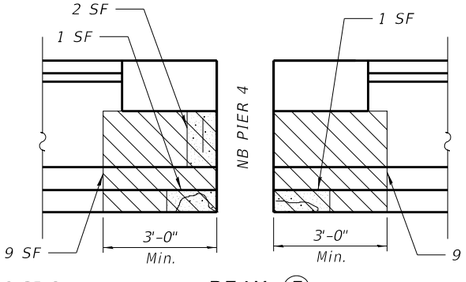
BEAM (B)
Looking East



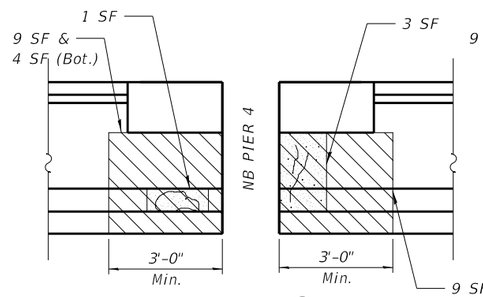
BEAM (B)
Looking West



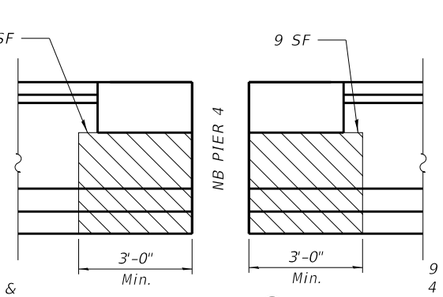
BEAM (F)
Looking East



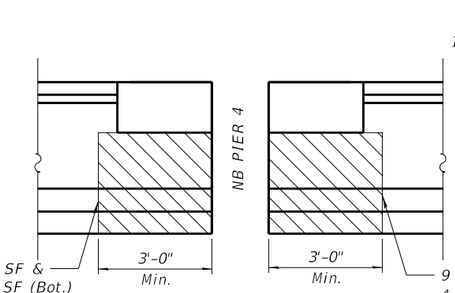
BEAM (F)
Looking West



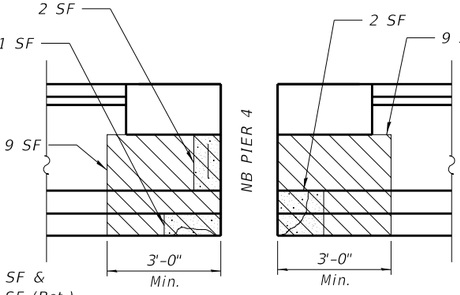
BEAM (C)
Looking East



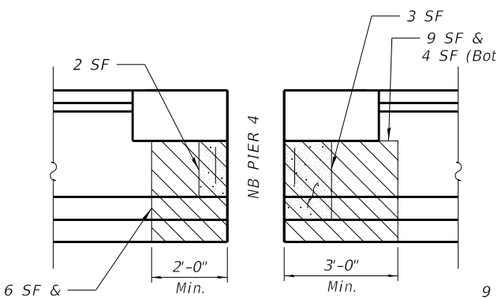
BEAM (C)
Looking West



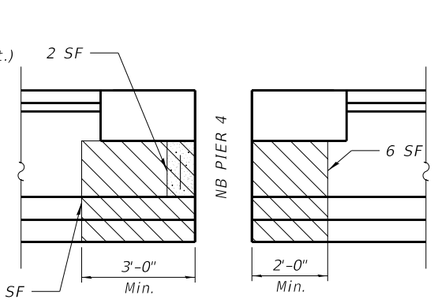
BEAM (G)
Looking East



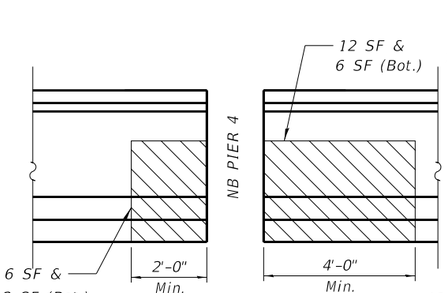
BEAM (G)
Looking West



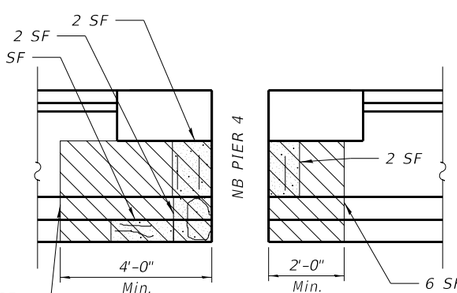
BEAM (D)
Looking East



BEAM (D)
Looking West



BEAM (H)
Looking East



BEAM (H)
Looking West

NB BEAM REPAIR ELEVATIONS AT PIER 4

Notes:

1. Beams to be repaired with Precast Prestressed Concrete I-Beam Repair and Fiber Wrap Repair. See PPC beam repair details on "BEAM REPAIR DETAILS" Sheet.

LEGEND:

- Precast Prestressed Concrete I-Beam Repair
- 1 FT — Crack - Epoxy Crack Injection
- Exposed Rebar
- ES — Exposed Strand
- Fiber Wrap Repair and Acrylic Coating

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Fiber Wrap	Sq. Ft.	351
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	52
Epoxy Crack Injection	Foot	0
Acrylic Coating	Sq. Yd.	39

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GARZA KARHOFF ENGINEERING, LLC		DRAWN - ZC	REVISED -
	PLOT SCALE = 4:0.0000 '=' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
NB BEAM REPAIRS AT PIER 4

SCALE: | SHEET S-21 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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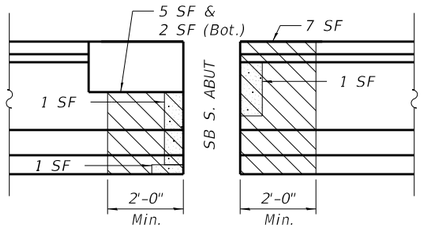
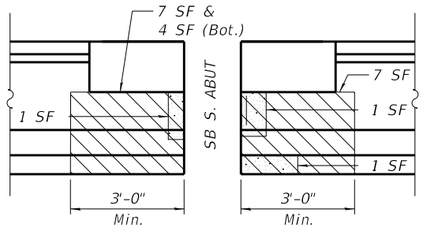
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



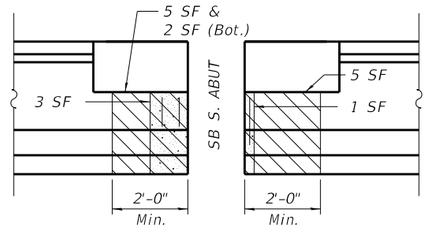
BEAM (J)
Looking East

BEAM (J)
Looking West



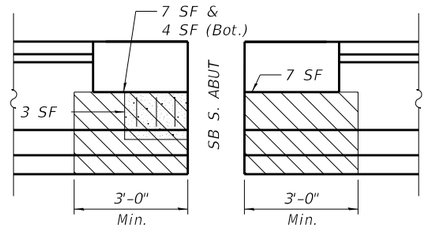
BEAM (K)
Looking East

BEAM (K)
Looking West



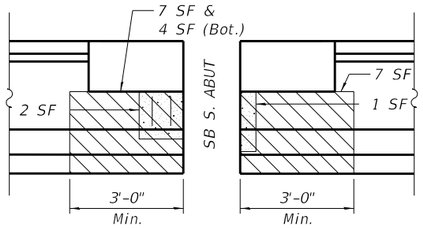
BEAM (L)
Looking East

BEAM (L)
Looking West



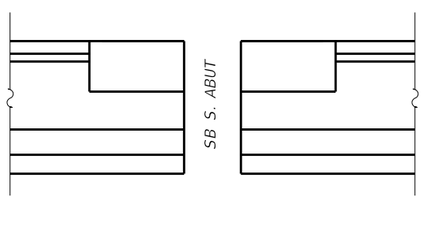
BEAM (M)
Looking East

BEAM (M)
Looking West



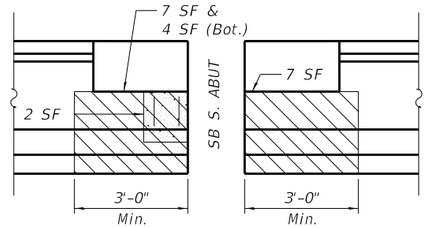
BEAM (N)
Looking East

BEAM (N)
Looking West



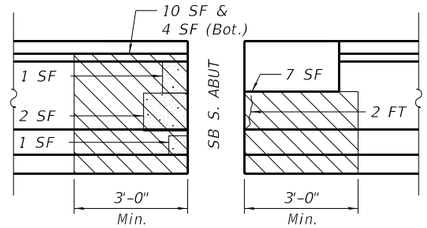
BEAM (P)
Looking East

BEAM (P)
Looking West



BEAM (Q)
Looking East

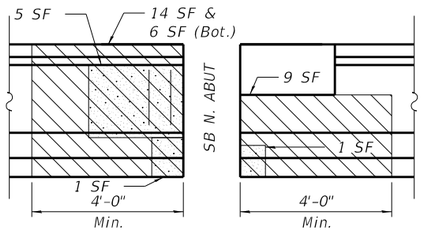
BEAM (Q)
Looking West



BEAM (R)
Looking East

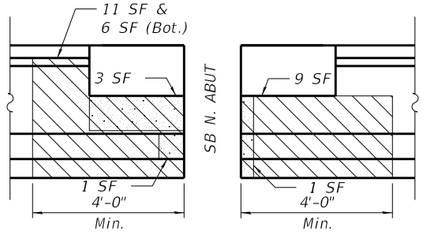
BEAM (R)
Looking West

SB BEAM REPAIR ELEVATIONS AT SOUTH ABUTMENT



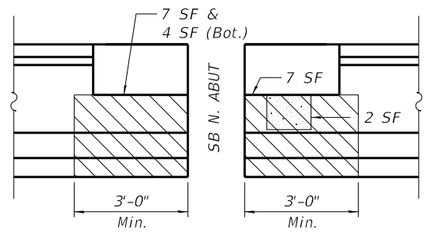
BEAM (J)
Looking West

BEAM (J)
Looking East



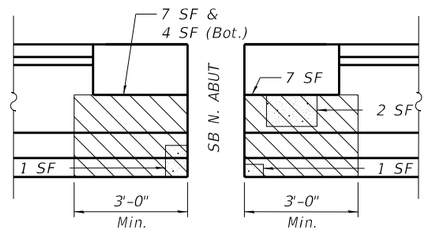
BEAM (K)
Looking West

BEAM (K)
Looking East



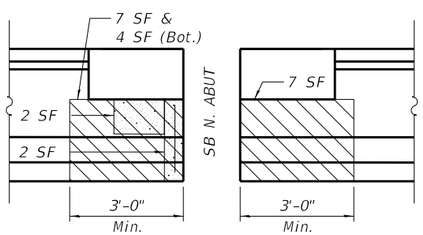
BEAM (L)
Looking West

BEAM (L)
Looking East



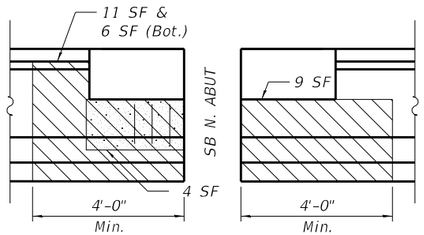
BEAM (M)
Looking West

BEAM (M)
Looking East



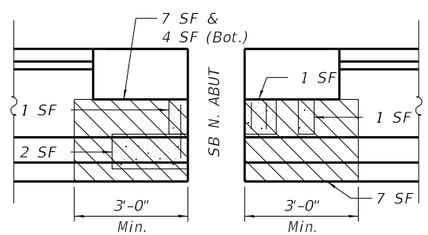
BEAM (N)
Looking West

BEAM (N)
Looking East



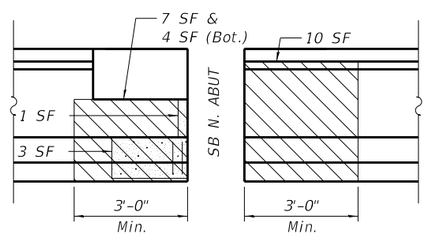
BEAM (P)
Looking West

BEAM (P)
Looking East



BEAM (Q)
Looking West

BEAM (Q)
Looking East



BEAM (R)
Looking West

BEAM (R)
Looking East

SB BEAM REPAIR ELEVATIONS AT NORTH ABUTMENT

Notes:

1. Beams to be repaired with Precast Prestressed Concrete I-Beam Repair and Fiber Wrap Repair. See PPC beam repair details on "BEAM REPAIR DETAILS" Sheet.

LEGEND

- Precast Prestressed Concrete I-Beam Repair
- 1 FT — Crack - High Pressure Epoxy Injection
- Exposed Rebar
- ES — Exposed Strand
- Fiber Wrap Repair and Acrylic Coating

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Fiber Wrap	Sq. Ft.	293
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	57
Epoxy Crack Injection	Foot	2
Acrylic Coating	Sq. Yd.	33

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FILE NAME: pw:\\exp-pw.bentley.com:exp-pw-04\Documents\Projects\D-91-035-19800 CADD Design\801 Contract\801.10 Structural\Sheet\D9105519-sht-SB Beam Repairs at North & South Abutments

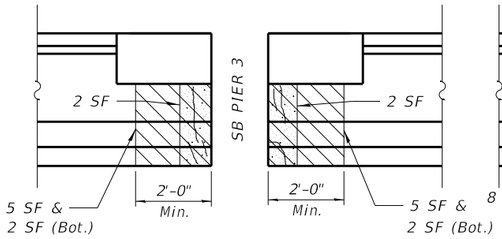
FILE NAME = D9105519-sht-SB Beam Repairs at North & South Abutments	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 4:0.0000 '-" / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

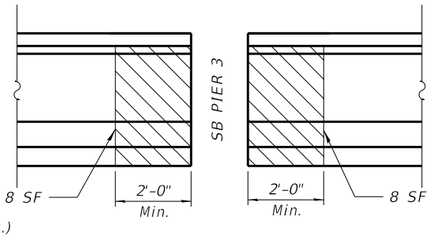
SN 016-2512 (SB), SN 016-2513 (NB)
SB BEAM REPAIRS AT NORTH & SOUTH ABUTMENTS

SCALE: | SHEET S-22 OF S-42 SHEETS | STA. | TO STA.

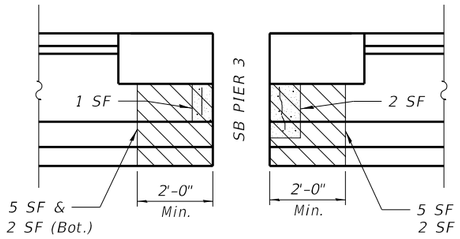
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	59
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



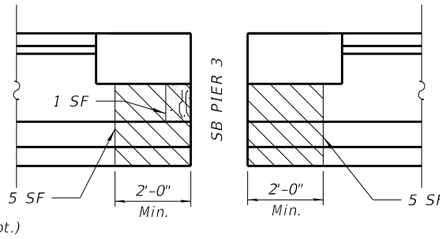
BEAM (J)
Looking East



BEAM (J)
Looking West



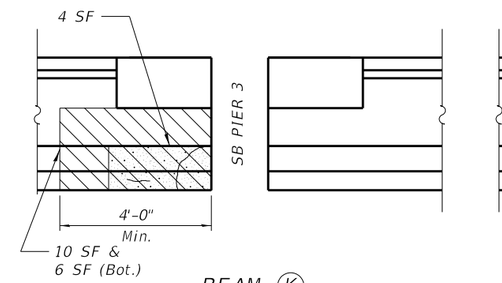
BEAM (N)
Looking East



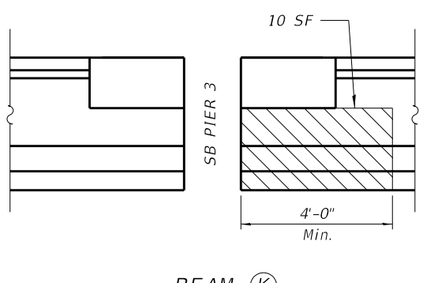
BEAM (N)
Looking West

Notes:

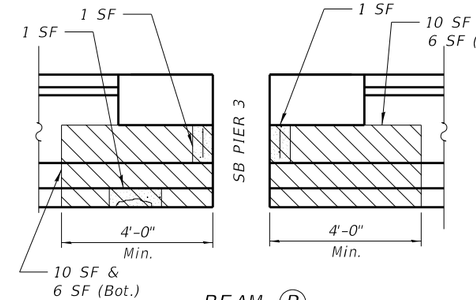
1. Beams to be repaired with Precast Prestressed Concrete I-Beam Repair and Fiber Wrap Repair. See PPC beam repair details on "BEAM REPAIR DETAILS" Sheet.



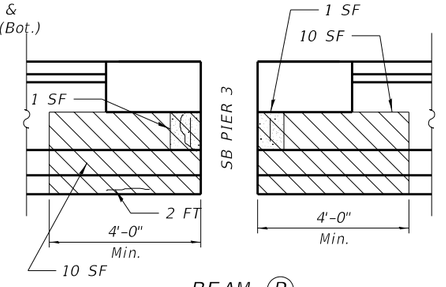
BEAM (K)
Looking East



BEAM (K)
Looking West



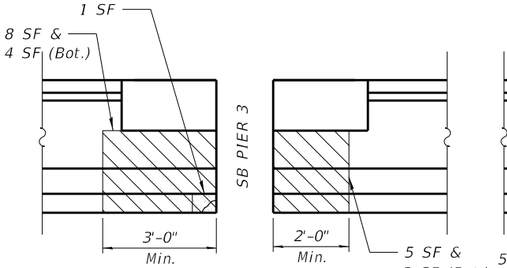
BEAM (P)
Looking East



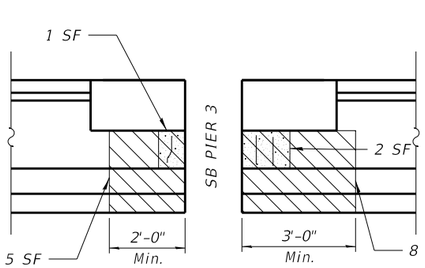
BEAM (P)
Looking West

LEGEND:

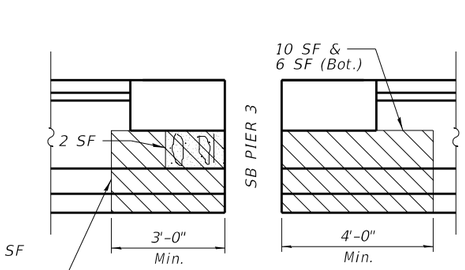
- Precast Prestressed Concrete I-Beam Repair
- 1 FT — Crack - Epoxy Crack Injection
- Exposed Rebar
- ES — Exposed Strand
- Fiber Wrap Repair and Acrylic Coating



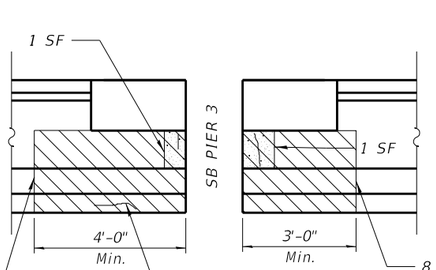
BEAM (L)
Looking East



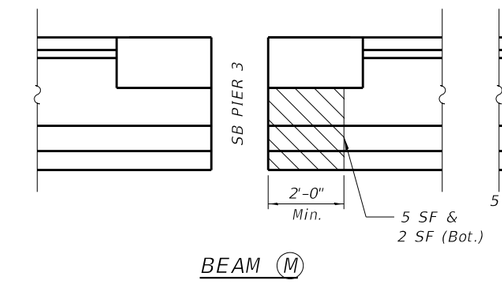
BEAM (L)
Looking West



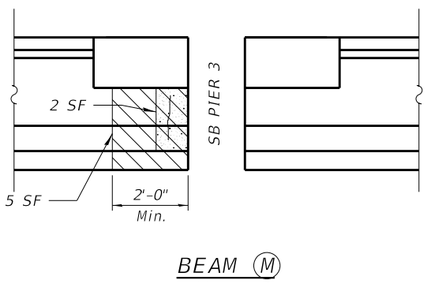
BEAM (Q)
Looking East



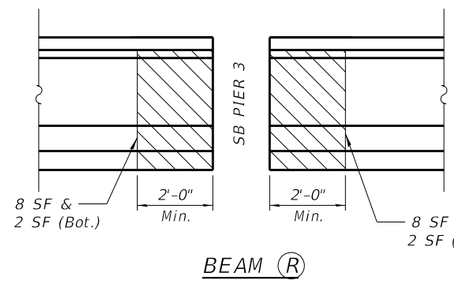
BEAM (Q)
Looking West



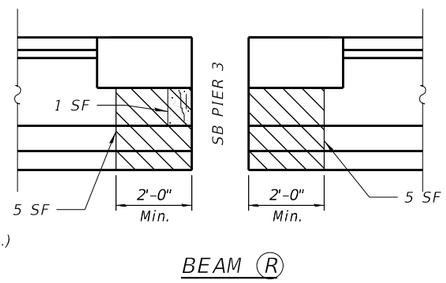
BEAM (M)
Looking East



BEAM (M)
Looking West



BEAM (R)
Looking East



BEAM (R)
Looking West

SB BEAM REPAIR ELEVATIONS AT PIER 3

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Fiber Wrap	Sq. Ft.	252
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	28
Epoxy Crack Injection	Foot	4
Acrylic Coating	Sq. Yd.	28

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GARZA KARHOFF ENGINEERING, LLC		DRAWN - ZC	REVISED -
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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
SB BEAM REPAIRS AT PIER 3

SCALE: | SHEET S-23 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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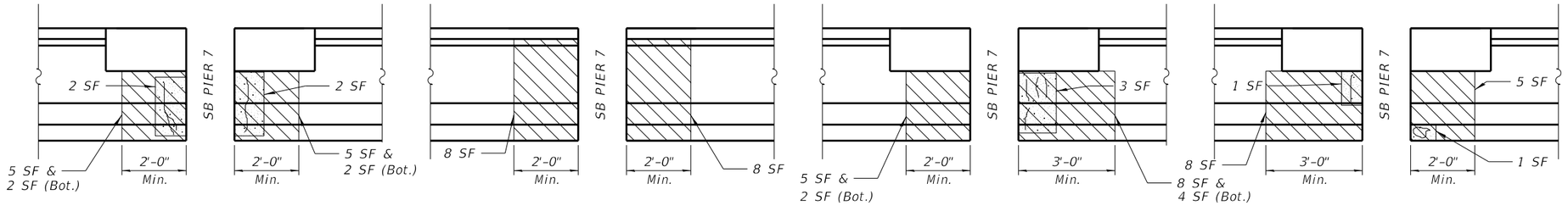
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

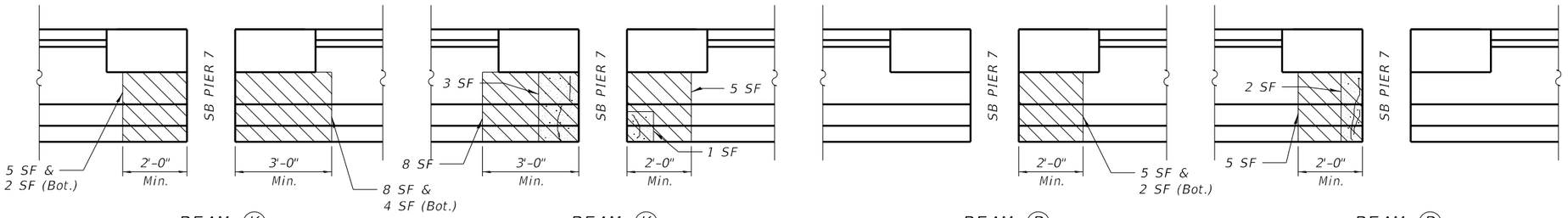


BEAM (J) Looking East

BEAM (J) Looking West

BEAM (N) Looking East

BEAM (N) Looking West

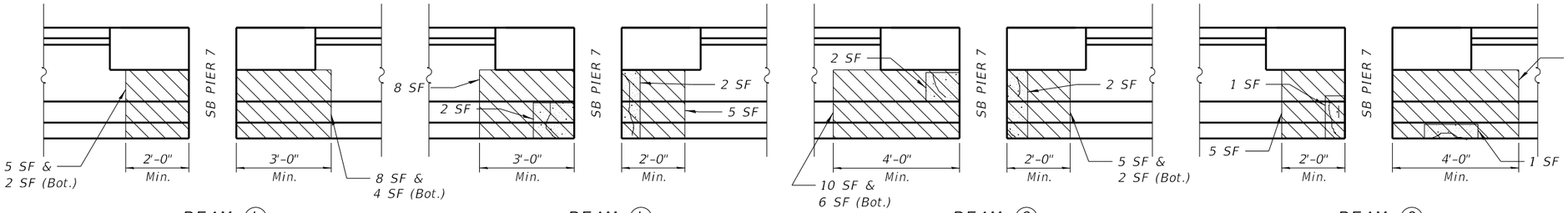


BEAM (K) Looking East

BEAM (K) Looking West

BEAM (P) Looking East

BEAM (P) Looking West

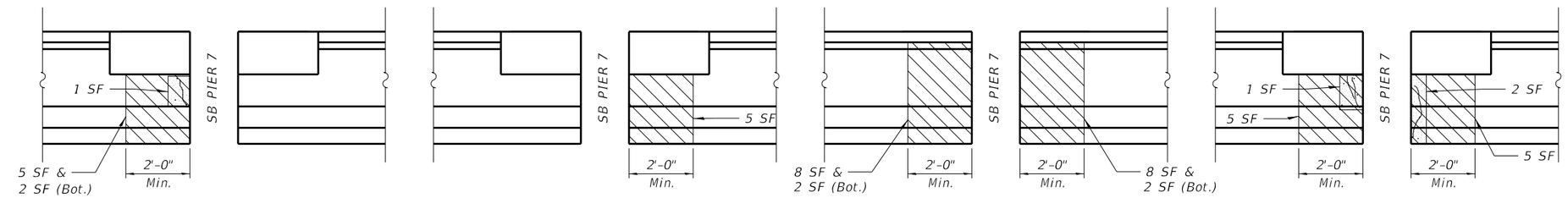


BEAM (L) Looking East

BEAM (L) Looking West

BEAM (Q) Looking East

BEAM (Q) Looking West



BEAM (M) Looking East

BEAM (M) Looking West

BEAM (R) Looking East

BEAM (R) Looking West

SB BEAM REPAIR ELEVATIONS AT PIER 7

Notes:

1. Beams to be repaired with Precast Prestressed Concrete I-Beam Repair and Fiber Wrap Repair. See PPC beam repair details on "BEAM REPAIR DETAILS" Sheet.

LEGEND:

- Precast Prestressed Concrete I-Beam Repair
- 1 FT — Crack - Epoxy Crack Injection
- Exposed Rebar
- ES — Exposed Strand
- Fiber Wrap Repair and Acrylic Coating

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Fiber Wrap	Sq. Ft.	218
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	29
Epoxy Crack Injection	Foot	0
Acrylic Coating	Sq. Yd.	25

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
SB BEAM REPAIRS AT PIER 7

SCALE: | SHEET S-24 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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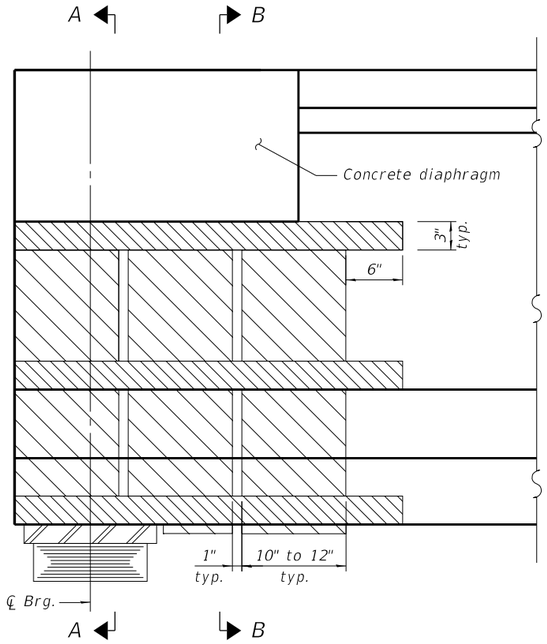
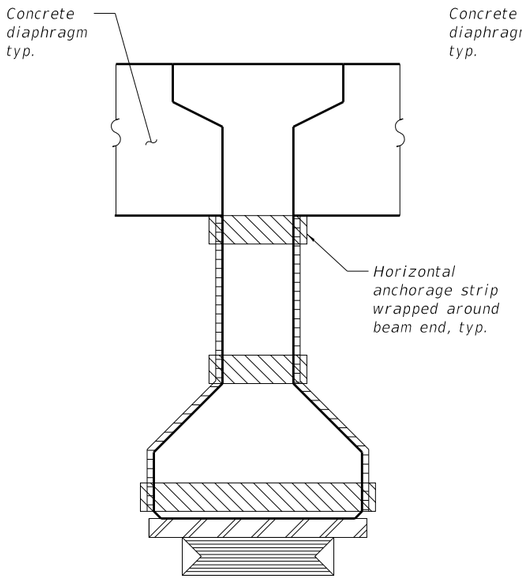
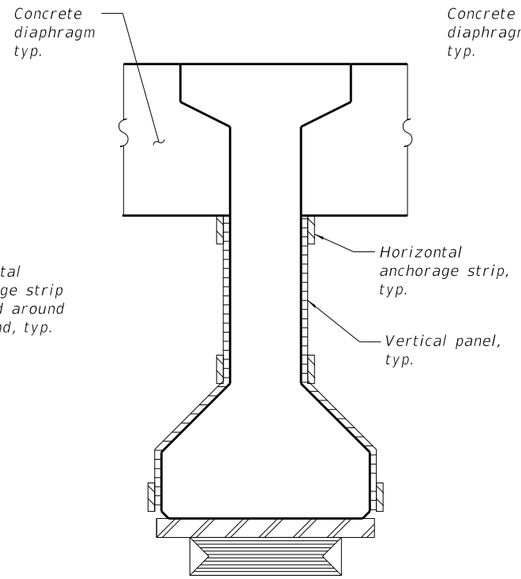
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



BEAM END ELEVATION



BEAM END VIEW



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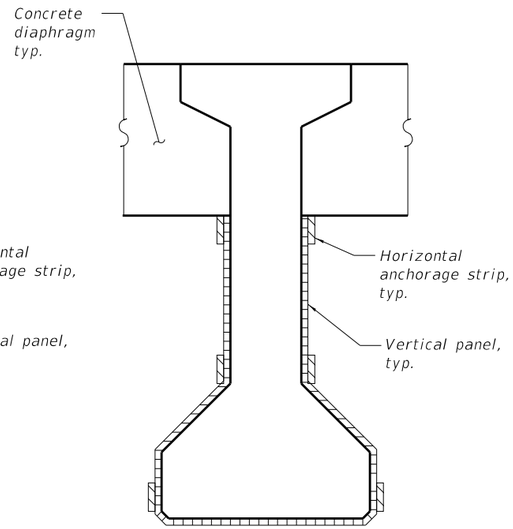

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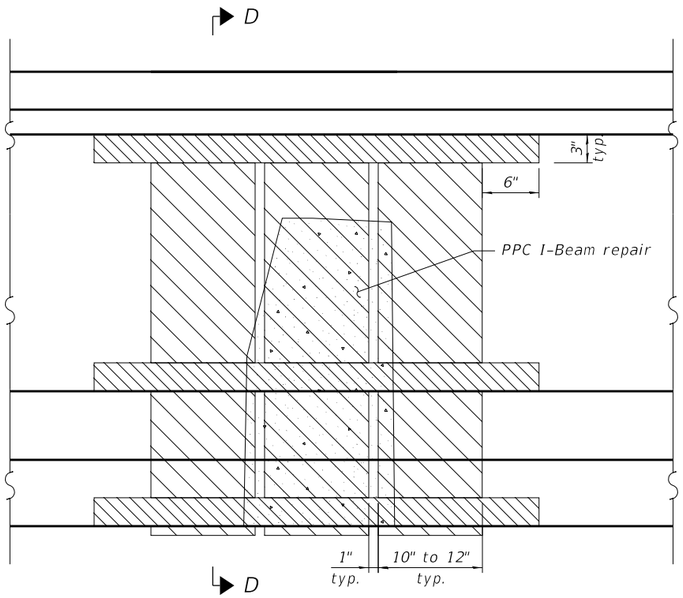
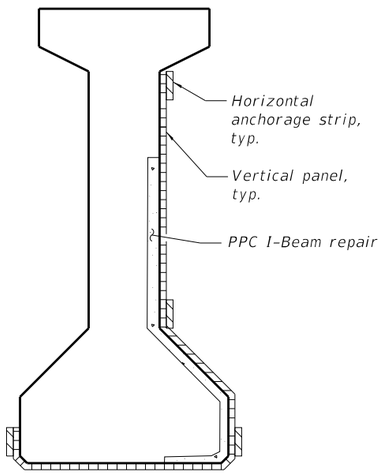
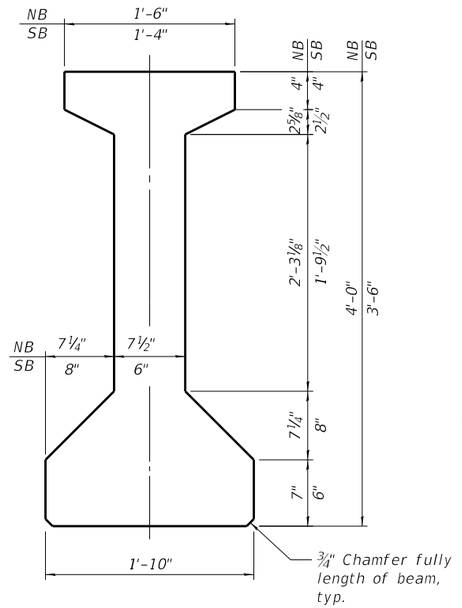


MIDSPAN BEAM ELEVATION



SECTION D – D



CROSS SECTION
(Showing dimensions)

Notes:

1. Vertical panels must be between 10" and 12". The space between each vertical panel shall be 1". Vertical panels shall be extend beyond the repair zone by a minimum of 3". Vertical panels located above the bearing location shall be placed in two pieces as shown in Section A–A. At locations in front of the bearing, the vertical panels shall be one continuous strip wrapping beneath the bottom flanges as shown in Section B–B.
2. Horizontal anchorage strips shall be 3" wide and extend a minimum of 6" beyond the vertical panels. The horizontal anchorage strips shall be placed on top of the vertical panels.
3. Spalled concrete and exposed reinforcement shall be repaired according to the special provision "PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR".
4. All cracks greater than 0.007 in. shall be injected with epoxy according to Section 590 of the Standard Specifications for Road and Bridge Construction.
5. Acrylic coating shall be placed over fiber wrap repairs. Two coats shall be applied
6. See special provision for "FRP STRENGTHENING FOR PPC I-BEAM REPAIRS."

LEGEND

- Horizontal anchorage strip
- Vertical panel
- PPC I-Beam repair

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		DRAWN - ZC	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 1:4.0000 '' / in.	CHECKED - BGK	REVISED -
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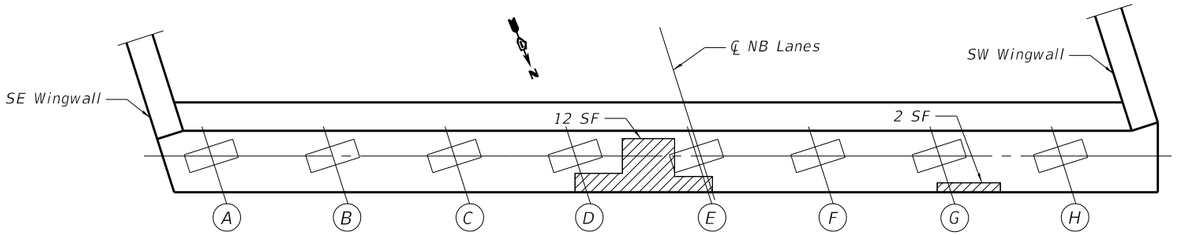
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

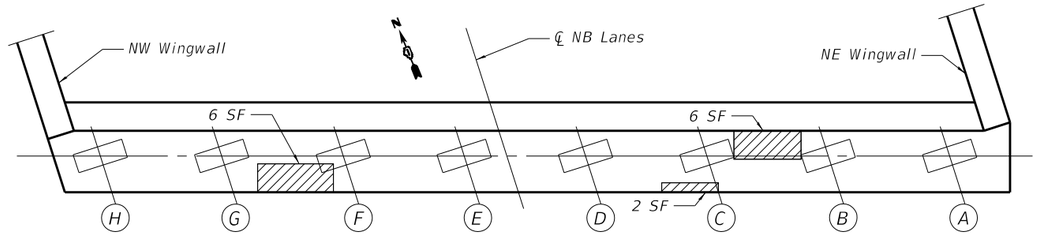
SN 016–2512 (SB), SN 016–2513 (NB)
BEAM REPAIR DETAILS

SCALE: | SHEET S-25 OF S-42 SHEETS | STA. | TO STA.

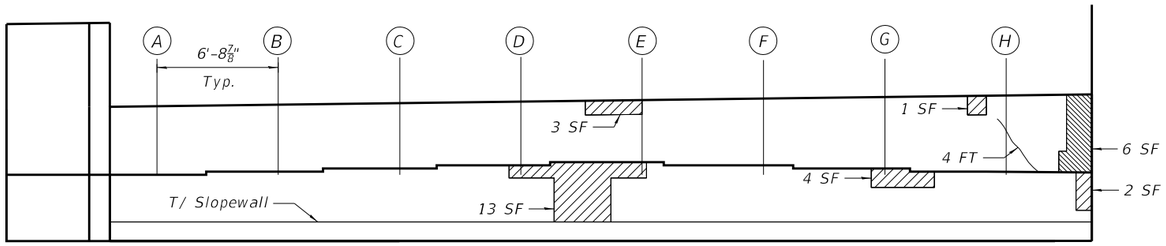
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	62
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



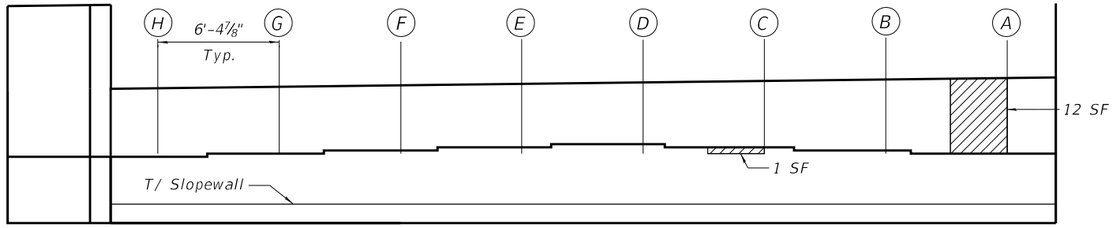
NB SOUTH ABUTMENT
Plan



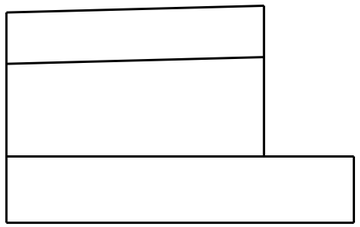
NB NORTH ABUTMENT
Plan



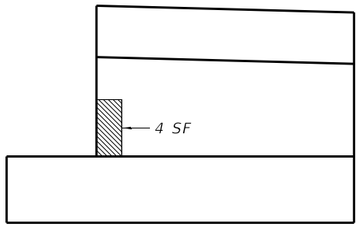
NB SOUTH ABUTMENT
Looking South



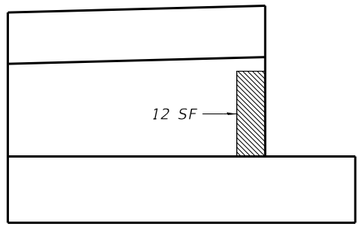
NB NORTH ABUTMENT
Looking North



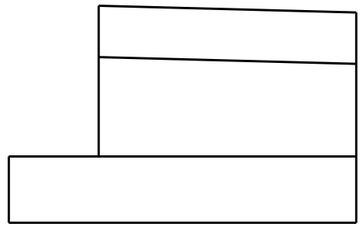
NB SOUTHEAST WINGWALL
(Looking West)



NB SOUTHWEST WINGWALL
(Looking East)



NB NORTHWEST WINGWALL
(Looking East)



NB NORTHEAST WINGWALL
(Looking West)

LEGEND

Structural Repair of Concrete (Depth Equal to or Less Than 5")

Structural Repair of Concrete (Depth Greater Than 5")

1 FT — Epoxy Crack Injection

GIRDER REACTION TABLE			
NB		North Abutment	South Abutment
R_{DL}	(k)	51.3	30.6
R_{SDL}	(k)	6.3	3.3
R_{LL}	(k)	35.0	31.9
R_{I}	(k)	8.2	9.0
R_{Total}	(k)	100.8	74.8

Note:

Reactions provided are for infomation only and are maximum for the girder.

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	64
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	22
Epoxy Crack Injection	Foot	4
Concrete Sealer	Sq. Ft.	86

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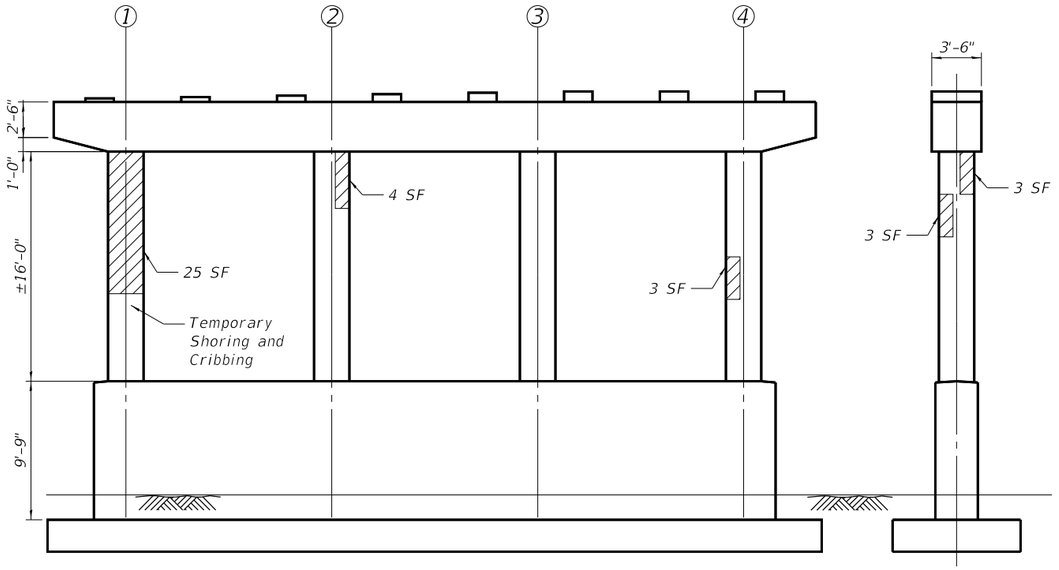
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 8.0000 ' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
NB NORTH & SOUTH ABUTMENT REPAIRS

SCALE: | SHEET S-26 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	63
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

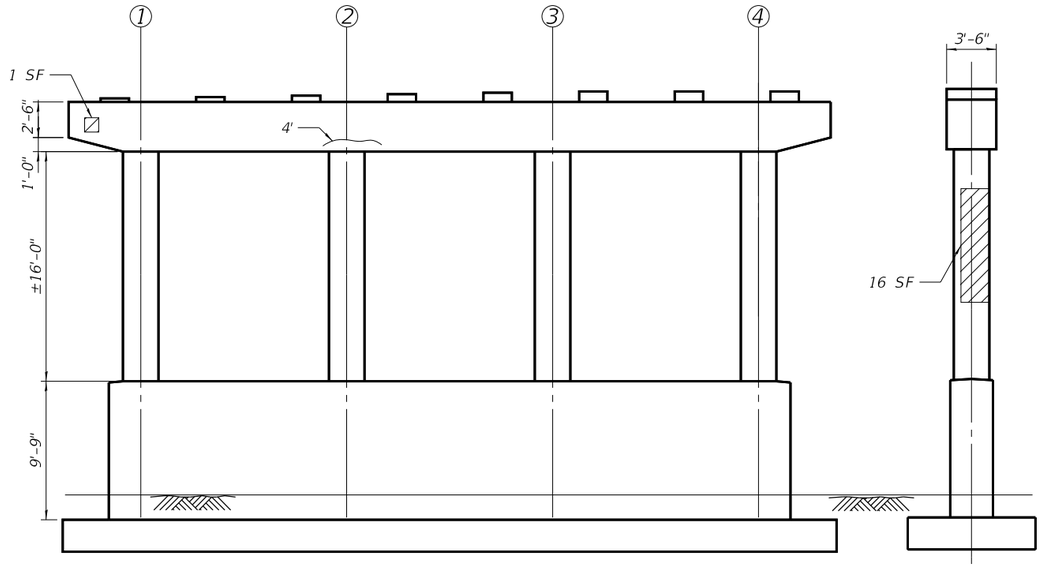


NB PIER 2 ELEVATION

(Looking South)

PIER 2 COLUMN 1

(Looking East)

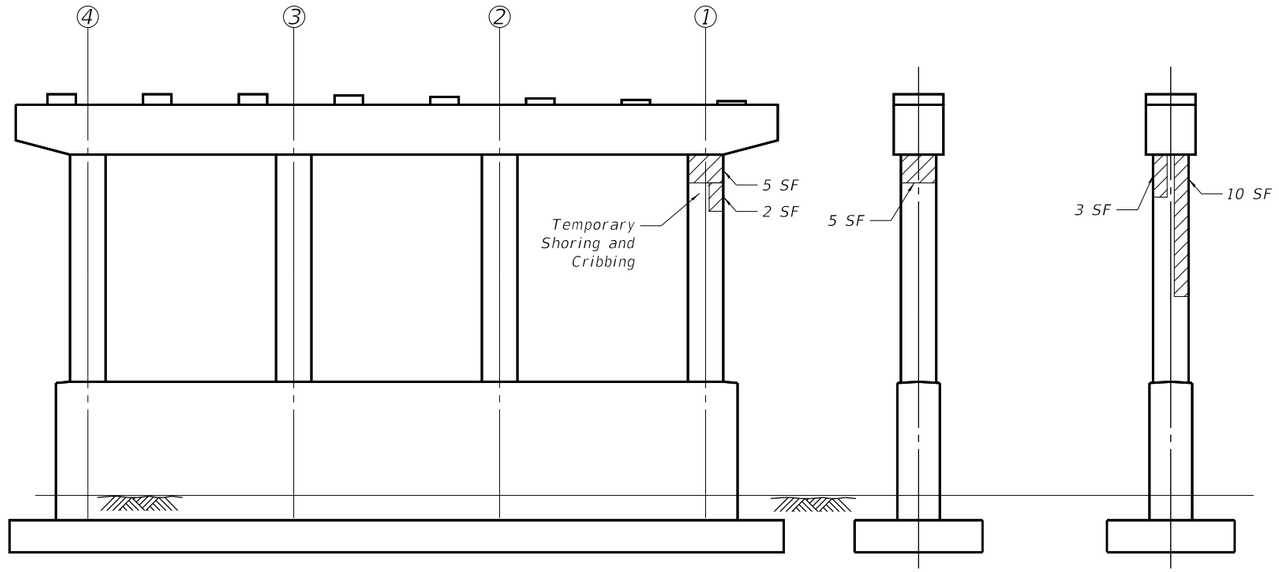


NB PIER 3 ELEVATION

(Looking South)

PIER 3 COLUMN 4

(Looking East)



NB PIER 2 ELEVATION

(Looking North)

PIER 2 COLUMN 2

(Looking West)

PIER 2 COLUMN 1

(Looking West)

LEGEND:

Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

4' Epoxy Crack Injection

PIER 2 GIRDER REACTION TABLE			
		Span 2	Span 3
R_{DL}	(k)	83.5	
R_{SDL}	(k)	11.6	
R_{LL}	(k)	44.1	
R_{I}	(k)	11.2	
R_{Total}	(k)	150.4	

PIER 3* GIRDER REACTION TABLE			
		Span 3	Span 4
R_{DL}	(k)	74.9	
R_{SDL}	(k)	13.0	
R_{LL}	(k)	43.4	
R_{I}	(k)	11.5	
R_{Total}	(k)	142.8	

*For Information Only.

Note:

Reactions provided are maximum for the girder under the spans indicated. Contractor shall verify loading at each shoring location. Cost included in the pay item 'Temporary Shoring and Cribbing'.

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	80
Temporary Shoring and Cribbing	Each	2

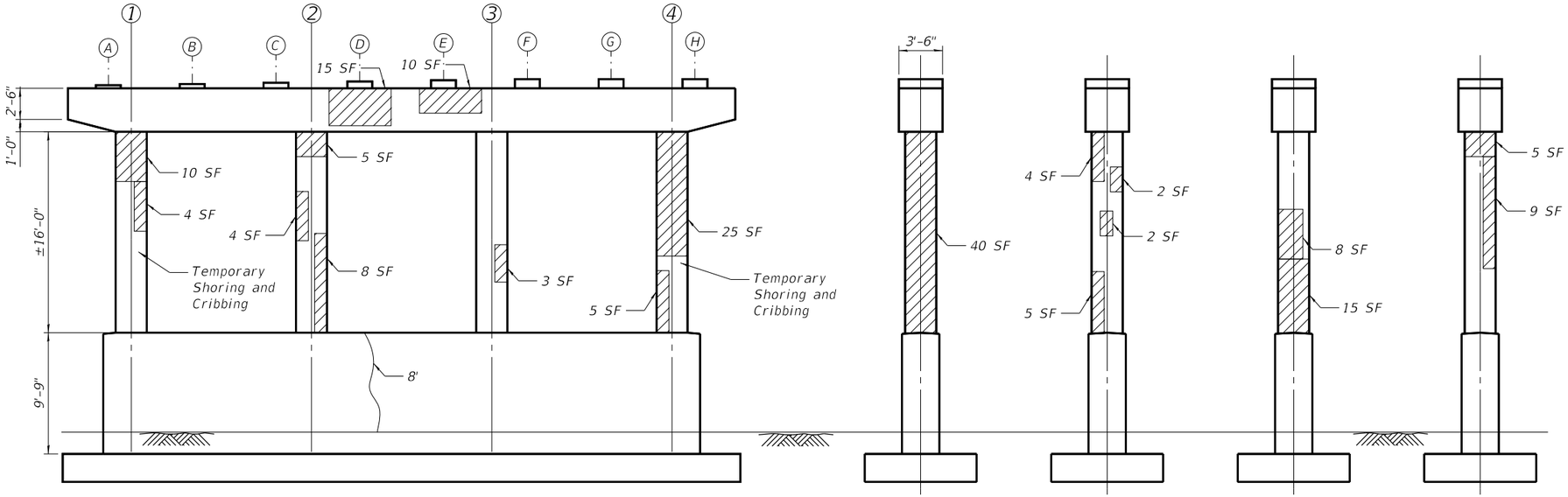
FILE NAME = D9105519-sht-NB Pier 2 & Pier 3 Repairs.dgn	USER NAME = anthony.friedman	DESIGNED - ZC	REVISED -
		DRAWN - ZC	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 10.6667 ' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
NB PIER 2 & PIER 3 REPAIRS

SCALE: | SHEET S-27 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	64
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



NB PIER 4 ELEVATION

(Looking South)

COLUMN 1

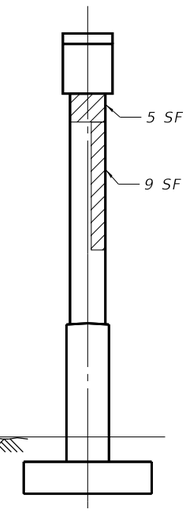
(Looking East)

COLUMN 2

(Looking East)

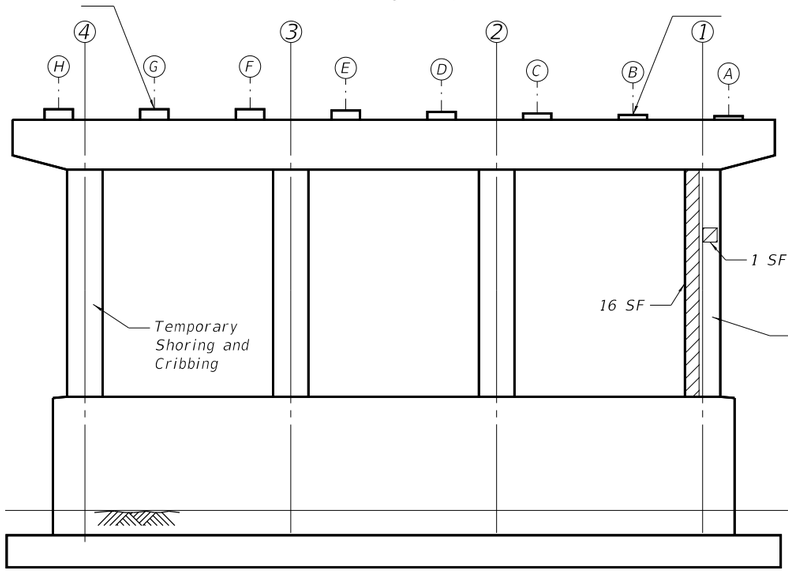
COLUMN 3

(Looking East)



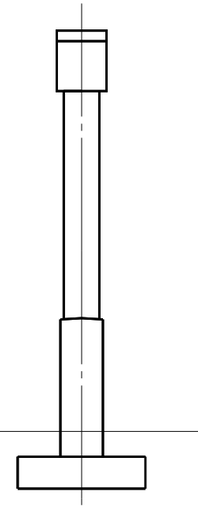
COLUMN 4

(Looking East)



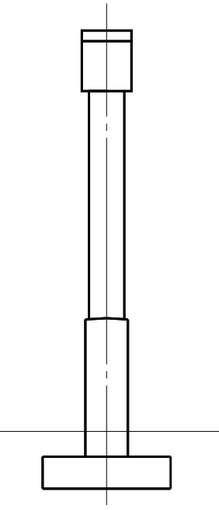
NB PIER 4 ELEVATION

(Looking North)



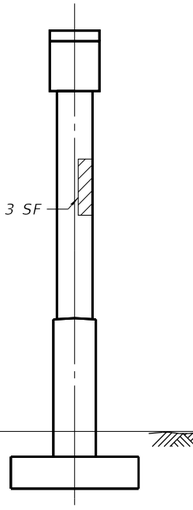
COLUMN 4

(Looking West)



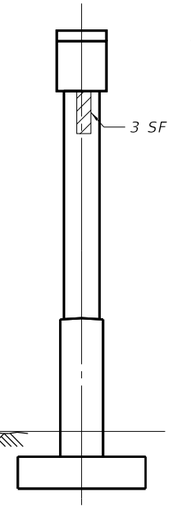
COLUMN 3

(Looking West)



COLUMN 2

(Looking West)



COLUMN 1

(Looking West)

LEGEND:

- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
- 4' Epoxy Crack Injection

PIER 4 GIRDER REACTION TABLE			
		Span 4	Span 5
R_{DL}	(k)	36.2	39.3
R_{SDL}	(k)	4.3	4.4
R_{LL}	(k)	32.9	33.6
R_{I}	(k)	8.8	8.8
R_{Total}	(k)	82.2	86.1

Note:

Reactions provided are maximum for the girder in the span indicated. Contractor shall verify loading at each shoring location. Cost included in the pay item 'Temporary Shoring and Cribbing'.

BILL OF MATERIAL
SN 016-2513 (NB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	202
Epoxy Crack Injection	Foot	8
Concrete Sealer	Sq. Ft.	202
Temporary Shoring and Cribbing	Each	4

MODEL: Default
FILE NAME: pw:\\dxp-pw.bentley.com:exo-pw-041Documents\Projects\D91105S-19800 CADD Design\801 Contract\801.10 StructuralSheet\D9105519-sht-NB Pier 4 Repairs.dgn

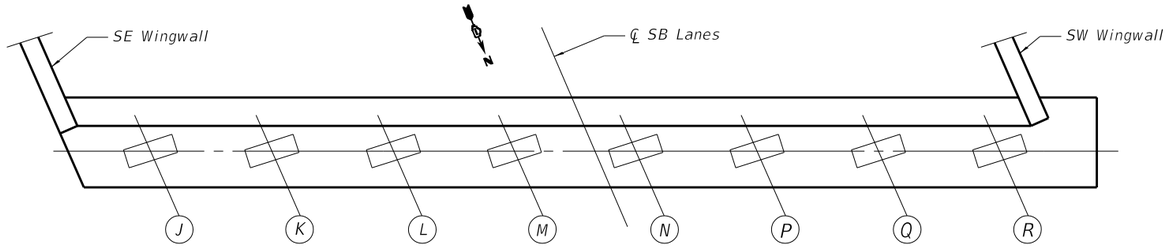
FILE NAME = D9105519-sht-NB Pier 4 Repairs.dgn	USER NAME = anthony.friedman	DESIGNED - JM	REVISED -
		DRAWN - JM	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 10.6667 ' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

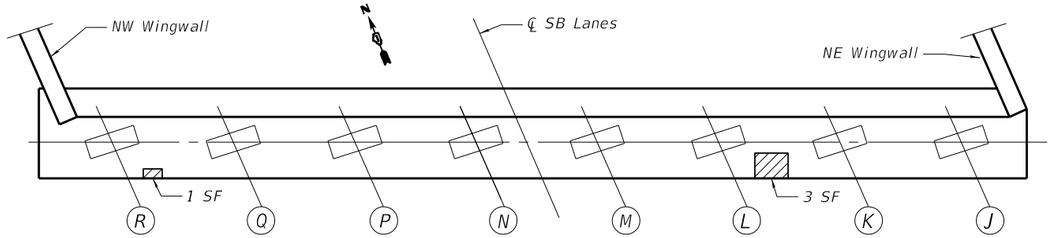
SN 016-2512 (SB), SN 016-2513 (NB)
NB PIER 4 REPAIRS

SCALE: | SHEET S-28 OF S-42 SHEETS | STA. | TO STA.

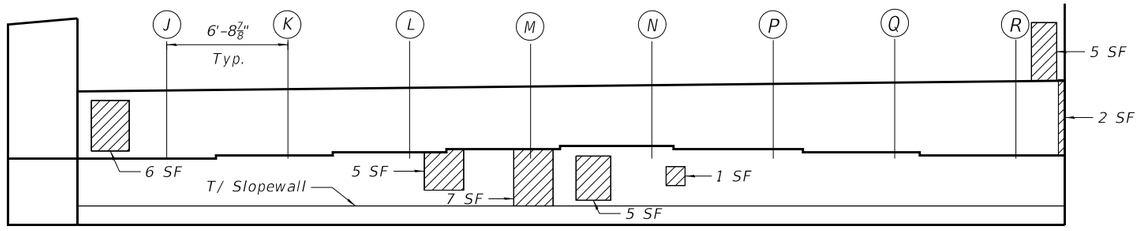
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	65
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



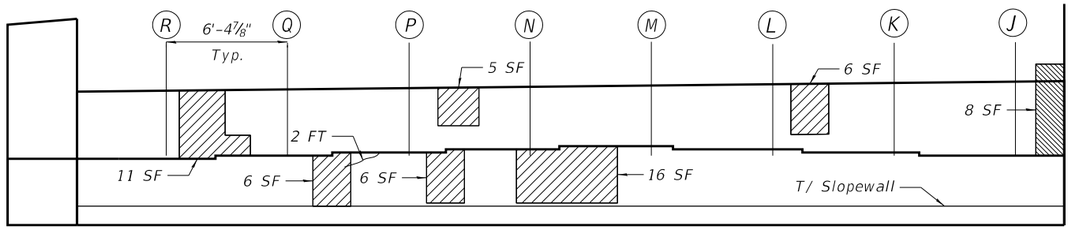
SB SOUTH ABUTMENT
Plan



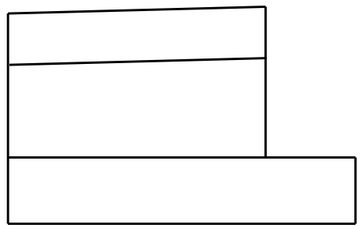
SB NORTH ABUTMENT
Plan



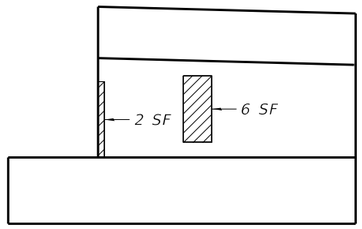
SB SOUTH ABUTMENT
Looking South



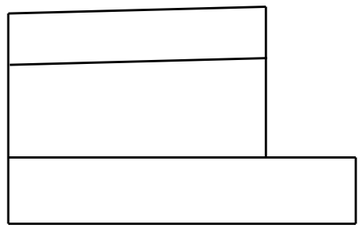
SB NORTH ABUTMENT
Looking North



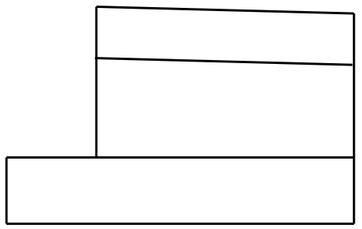
SB SOUTHEAST WINGWALL
(Looking West)



SB SOUTHWEST WINGWALL
(Looking East)



SB NORTHWEST WINGWALL
(Looking East)



SB NORTHEAST WINGWALL
(Looking West)

LEGEND

Structural Repair of Concrete (Depth Equal to or Less Than 5")

Structural Repair of Concrete (Depth Greater Than 5")

1 FT — Epoxy Crack Injection

GIRDER REACTION TABLE			
SB		North Abutment	South Abutment
R_{DL}	(k)	32.7	35.8
R_{SDL}	(k)	4.5	4.9
R_{LL}	(k)	32.9	33.3
R_{I}	(k)	8.8	8.7
R_{Total}	(k)	78.9	82.7

Note:

Reactions provided are for infomation only and are maximum for the girder.

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	93
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	8
Epoxy Crack Injection	Foot	2
Concrete Sealer	Sq. Ft.	101

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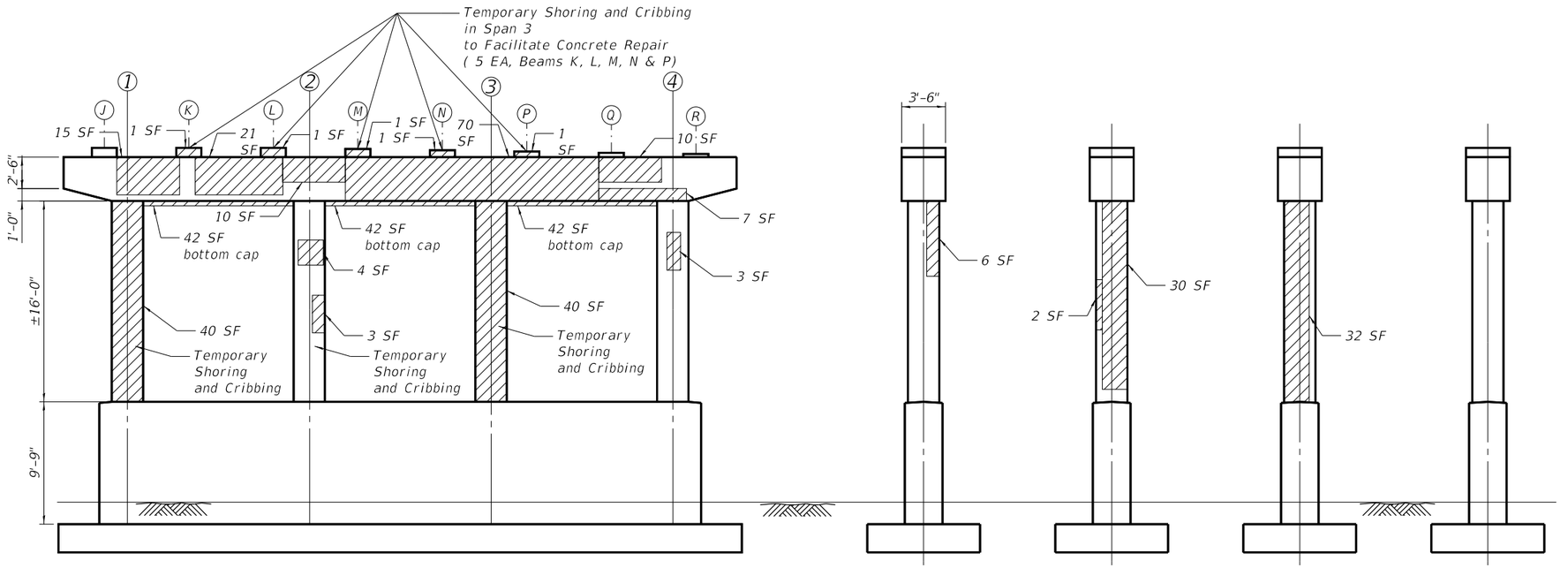
FILE NAME = D91055 19-sht-SB Abutment Repairs	USER NAME = anthony.friedman	DESIGNED - AMF	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 8.0000 ' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016–2512 (SB), SN 016–2513 (NB)
SB NORTH & SOUTH ABUTMENT REPAIRS

SCALE: | SHEET S-29 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	66
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



SB PIER 3 ELEVATION

(Looking South)

COLUMN 1

(Looking East)

COLUMN 2

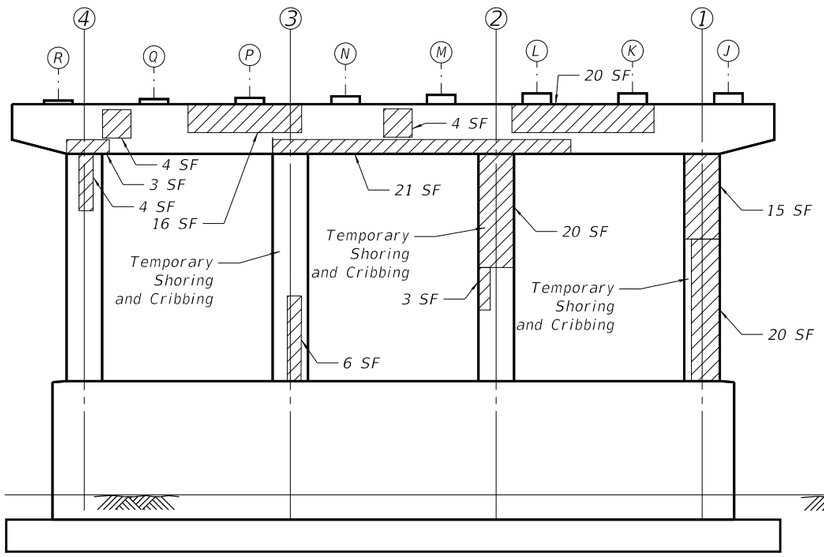
(Looking East)

COLUMN 3

(Looking East)

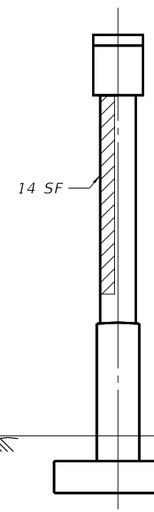
COLUMN 4

(Looking East)



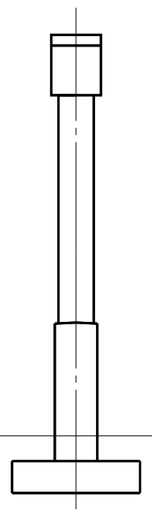
SB PIER 3 ELEVATION

(Looking North)



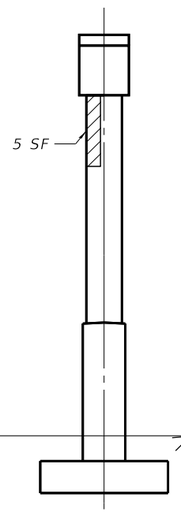
COLUMN 4

(Looking West)



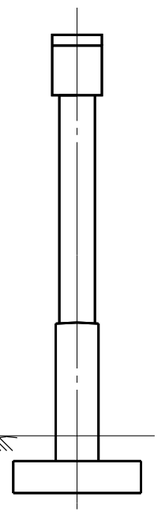
COLUMN 3

(Looking West)



COLUMN 2

(Looking West)



COLUMN 1

(Looking West)

LEGEND:

▨ Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

PIER 3
GIRDER REACTION TABLE

		Span 3	Span 4
R_{DL}	(k)	36.5	36.5
R_{SDL}	(k)	5.0	5.0
R_{LL}	(k)	33.6	34.6
R_{I}	(k)	8.7	8.9
R_{Total}	(k)	83.8	85.0

Note:

Reactions provided are maximum for the girder in the span indicated. Contractor shall verify loading at each shoring location. Cost included in the pay item 'Temporary Shoring and Cribbing'.

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	579
Concrete Sealer	Sq. Ft.	579
Temporary Shoring and Cribbing	Each	11

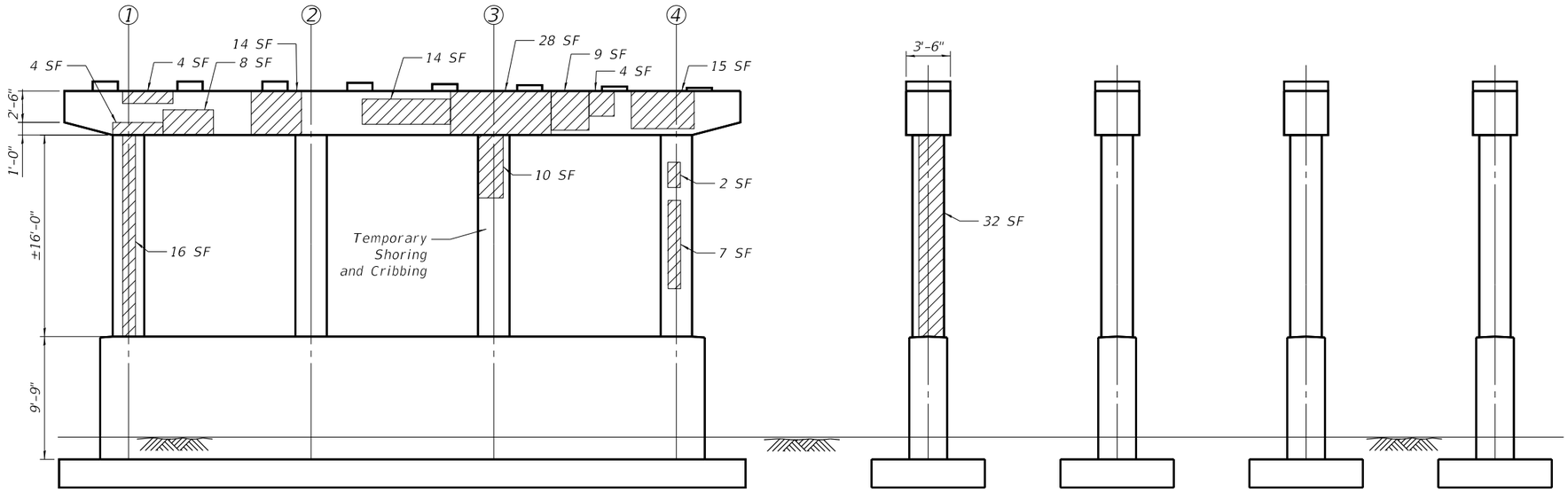
FILE NAME = D9105519-sht-SB Pier 3 Repairs.dgn	USER NAME = anthony.friedman	DESIGNED - JM	REVISED -
		DRAWN - JM	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 10.6667 ' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
SB PIER 3 REPAIRS

SCALE: | SHEET S-30 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	67
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



SB PIER 7 ELEVATION
(Looking South)

COLUMN 1
(Looking East)

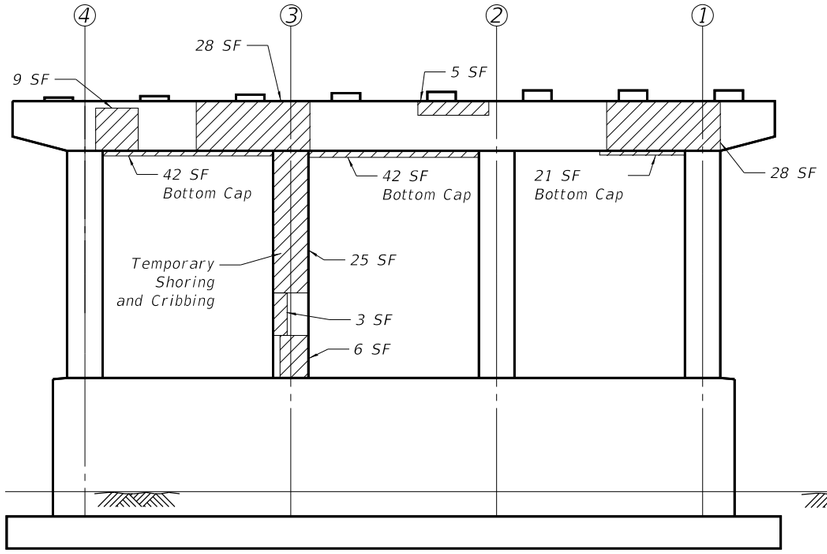
COLUMN 2
(Looking East)

COLUMN 3
(Looking East)

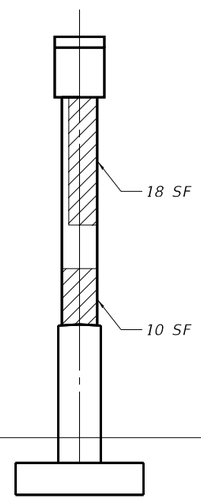
COLUMN 4
(Looking East)

LEGEND:

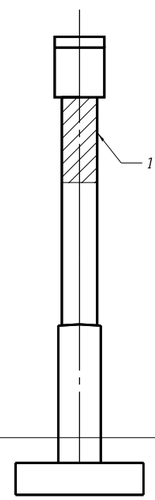
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)



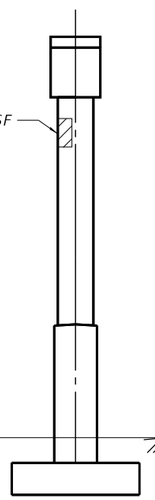
SB PIER 7 ELEVATION
(Looking North)



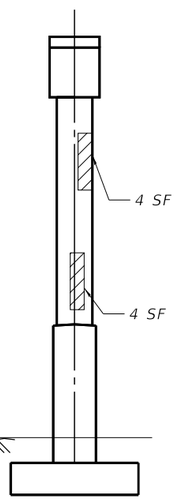
COLUMN 4
(Looking West)



COLUMN 3
(Looking West)



COLUMN 2
(Looking West)



COLUMN 1
(Looking West)

PIER 7 GIRDER REACTION TABLE			
		Span 7	Span 8
R_{DL}	(k)	38.6	18.9
R_{SDL}	(k)	5.2	2.4
R_{LL}	(k)	33.9	28.3
R_{I}	(k)	8.6	8.8
R_{Total}	(k)	86.3	58.4

Note:

Reactions provided are maximum for the girder in the span indicated. Contractor shall verify loading at each shoring location. Cost included in the pay item 'Temporary Shoring and Cribbing'.

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	429
Concrete Sealer	Sq. Ft.	429
Temporary Shoring and Cribbing	Each	2

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FILE NAME: pw:\\dcp-pw.bentley.com:dcp-ow-041Documents\Projects\D-91-035-19.800 CADD Design\801 Contract\801.10 Structural\Sheet\D9105519-sht-SB Pier 7 Repairs.dgn

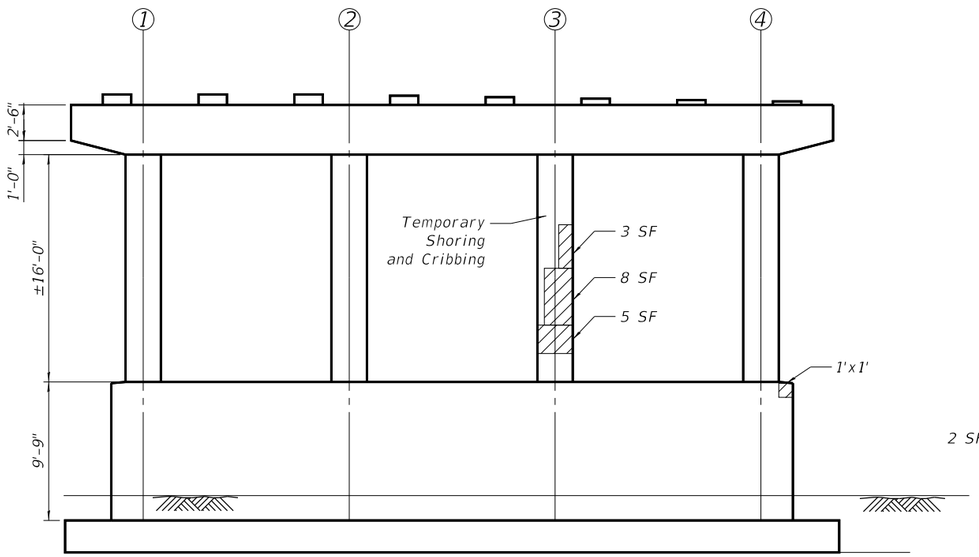
FILE NAME = D9105519-sht-SB Pier 7 Repairs.dgn	USER NAME = anthony.friedman	DESIGNED - JM	REVISED -
		DRAWN - JM	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 10.6667 ' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
SB PIER 7 REPAIRS

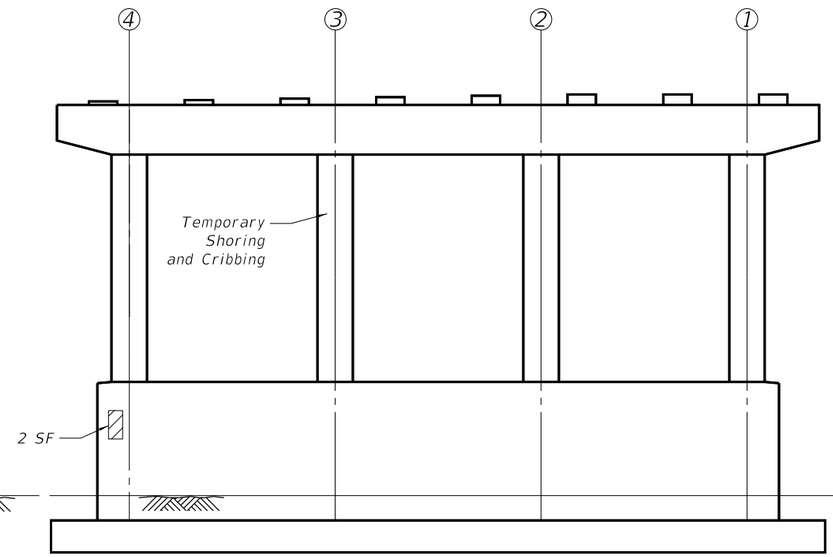
SCALE: | SHEET S-31 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	68
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



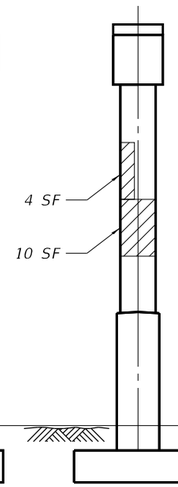
SB PIER 9 ELEVATION

(Looking South)



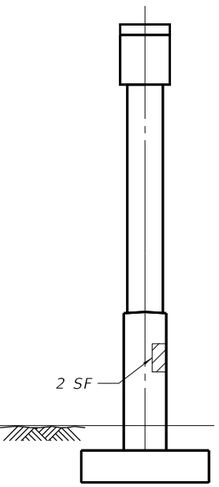
SB PIER 9 ELEVATION

(Looking North)



PIER 9 COLUMN 3

(Looking East)



PIER 9 COLUMN 4

(Looking East)

LEGEND:

▨ Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

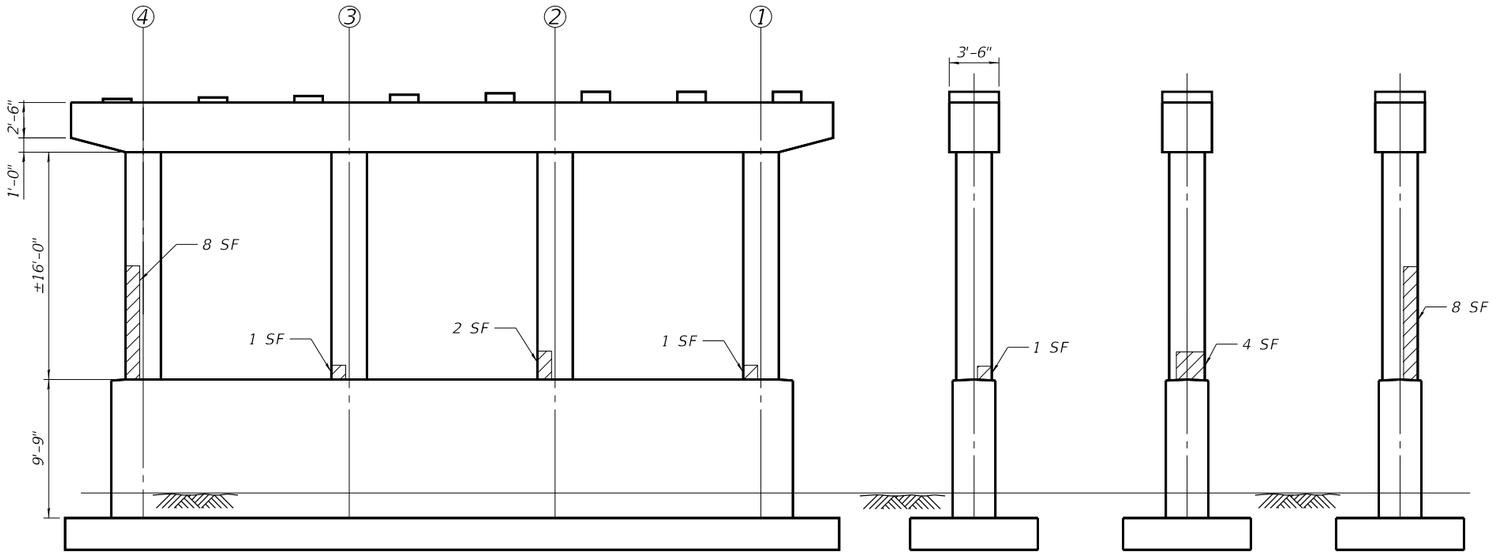
PIER 8 * GIRDER REACTION TABLE		
	Span 8	Span 9
R_{DL} (k)	48.1	
R_{SDL} (k)	8.0	
R_{LL} (k)	38.4	
R_{I} (k)	11.3	
R_{Total} (k)	105.8	

PIER 9 GIRDER REACTION TABLE		
	Span 9	Span 10
R_{DL} (k)	65.0	
R_{SDL} (k)	13.2	
R_{LL} (k)	42.0	
R_{I} (k)	11.3	
R_{Total} (k)	131.5	

* For Information Only.

Note:

Reactions provided are maximum for the girder under the spans indicated. Contractor shall verify loading at each shoring location. Cost included in the pay item 'Temporary Shoring and Cribbing'.



SB PIER 8 ELEVATION

(Looking North)

PIER 8 COLUMN 1

(Looking East)

PIER 8 COLUMN 2

(Looking East)

PIER 8 COLUMN 4

(Looking East)

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	60
Temporary Shoring and Cribbing	Each	2

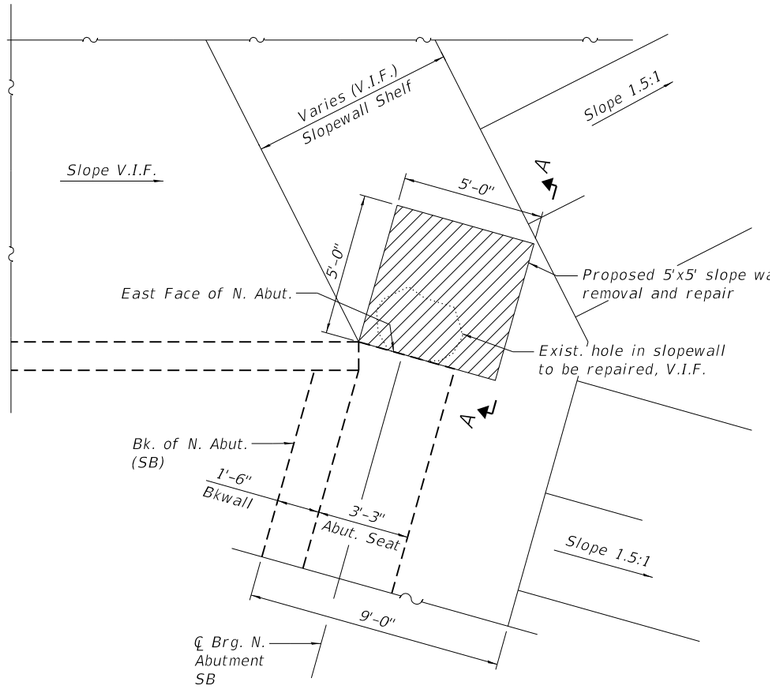
FILE NAME = D91055519-sht-SB Pier 8 & Pier 9 Repairs.dgn	USER NAME = anthony.friedman	DESIGNED - ZC	REVISED -
		DRAWN - ZC	REVISED -
	PLOT SCALE = 10.6667 ' / in.	CHECKED - BGK	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

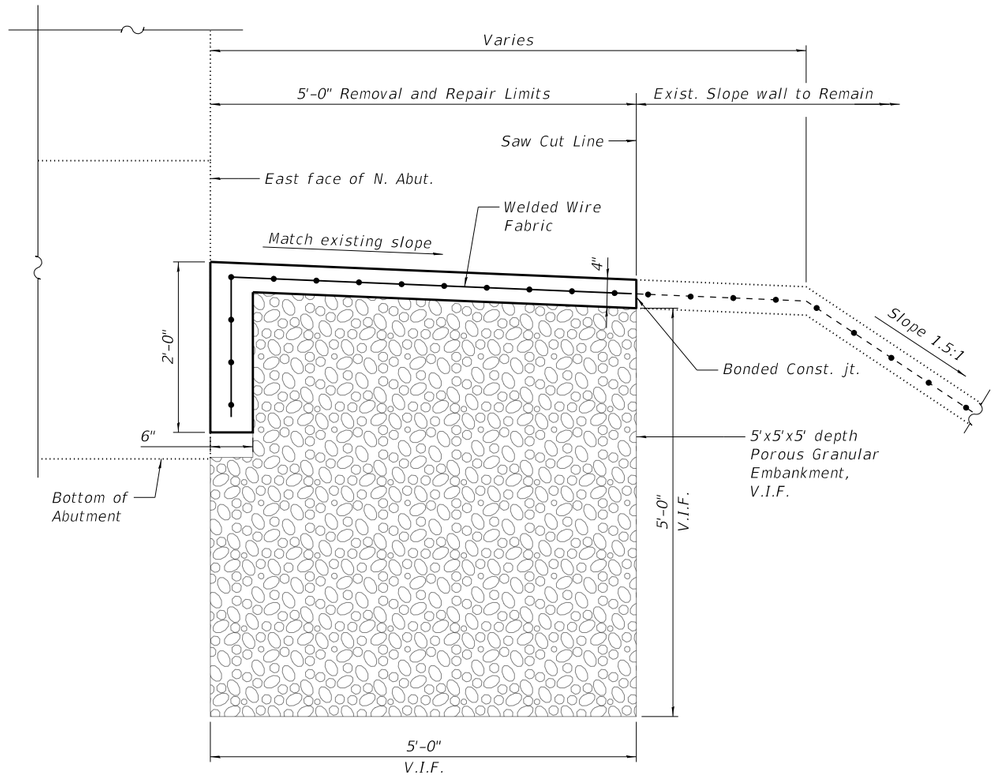
SN 016-2512 (SB), SN 016-2513 (NB)
SB PIER 8 & PIER 9 REPAIRS

SCALE: | SHEET S-32 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	69
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



SLOPE WALL REPAIR PLAN
SN 016-2512



SECTION A - A

East Face of N. Abut. (SB)

Location of hole in Slopewall

Proposed 5'x5' slope wall removal and repair

SLOPE WALL REPAIR AREA
Looking South West

LEGEND

Slope Wall Removal

BILL OF MATERIAL
SN 016-2512 (SB)

Item	Unit	Quantity
Porous Granular Embankment	Cu. Yd.	5
Protective Coat	Sq. Yd.	3
Slope Wall Removal	Sq. Yd.	3
Slope Wall 4 Inch	Sq. Yd.	3

Notes:

1. Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0xW4.0 weighing 58 lbs per 100 Sq. Ft.
2. Apply Protective Coat to new concrete only.

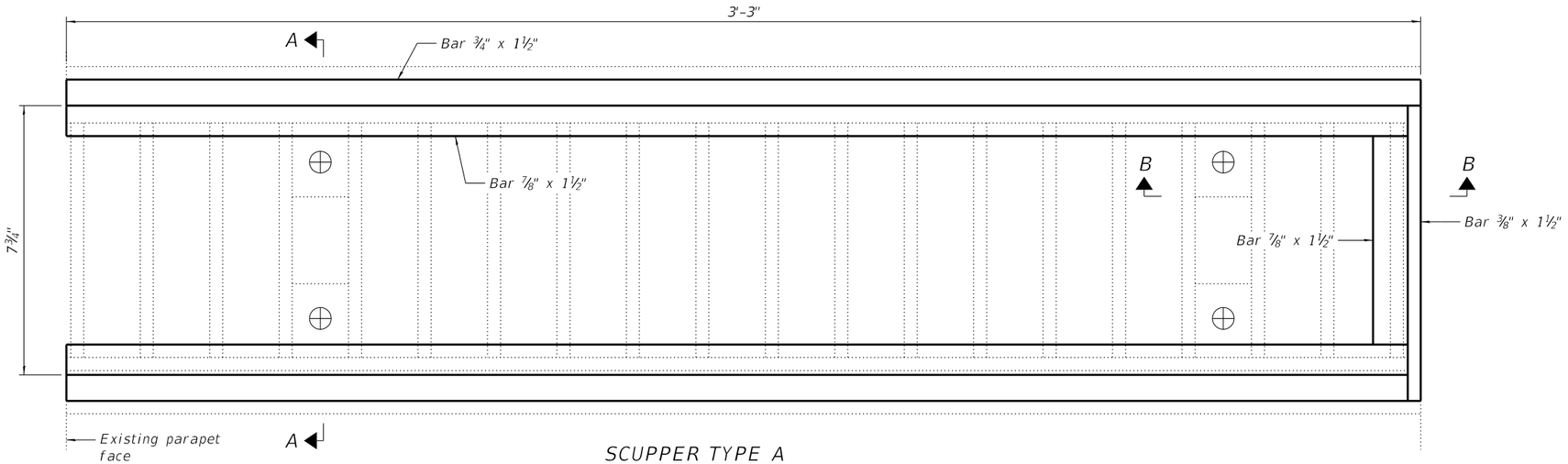
FILE NAME = D9105515-SHT-Slopewall Repair Plan	USER NAME = anthony.friedman	DESIGNED - ZC	REVISED -
		DRAWN - ZC	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 5:4.0000 ':' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
SLOPEWALL REPAIR PLAN

SCALE: · | SHEET S-33 OF S-42 SHEETS | STA. · | TO STA. ·

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	70
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36. The adjusting scupper ring shall be galvanized.

Bolts shall be ½"Ø, AASHTO M164 Type I, mechanically galvanized.

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

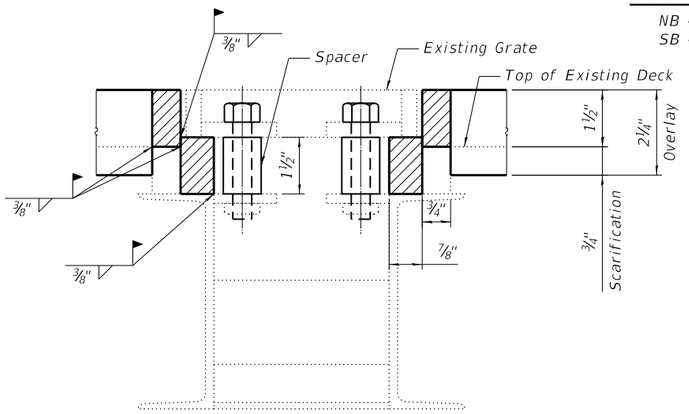
The contractor shall ensure that no damage is done to existing grates to be reused.

Shop plans for proposed adjusting scupper ring shall be submitted for approval prior to fabrication.

Cost of all labor and materials necessary to remove existing grates, clean existing scuppers, install adjusting scupper rings and reinstalling grates is included in the cost per unit each for "Drainage Scuppers to Be Adjusted".

SCUPPER TYPE A

NB - West Curb
SB - East Curb

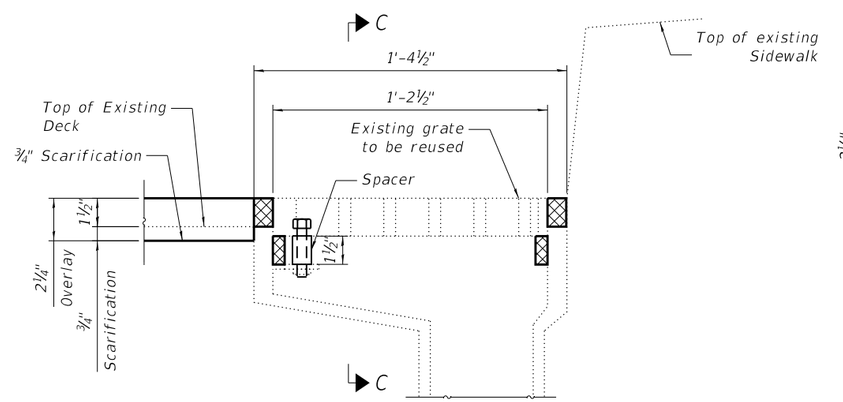


SECTION A-A

TYPE A

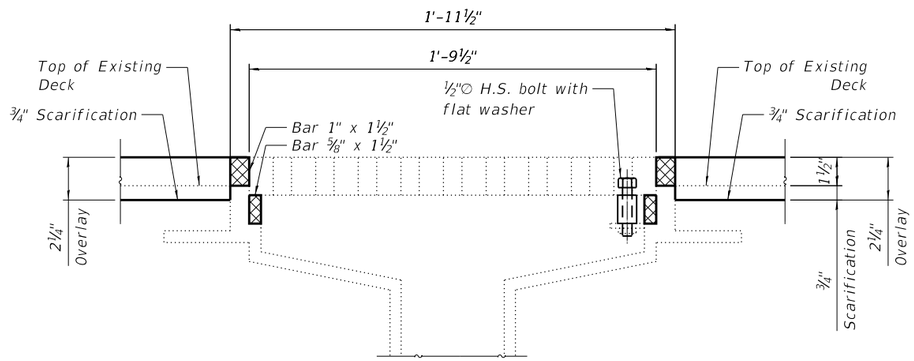
SECTION B-B

TYPE A



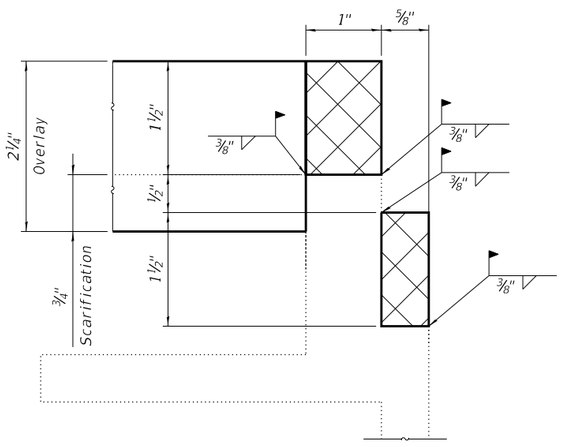
SCUPPER TYPE B

NB - East Curb/Sidewalk
SB - West Curb/Sidewalk



SECTION C-C

TYPE B



SCUPPER TYPE B ADJUSTING SCUPPER RING

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GARZA KARHOFF ENGINEERING, LLC		DRAWN - LS	REVISED -
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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2153 (NB)
DRAINAGE SCUPPER ADJUSTMENT DETAILS

SCALE: | SHEET S-34 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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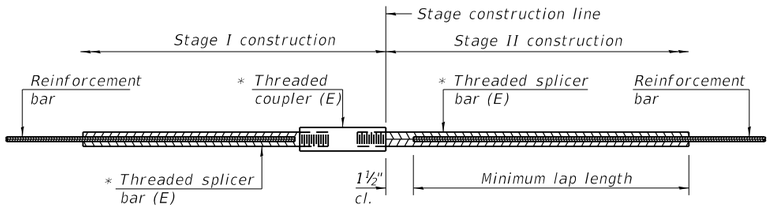
		CONTRACT NO. 62H50		
		ILLINOIS FED. AID PROJECT		

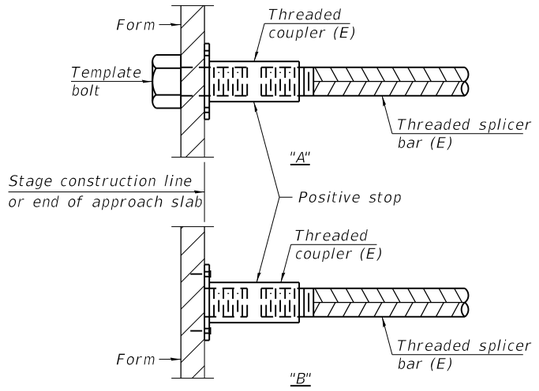


STANDARD BAR SPLICER ASSEMBLY

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

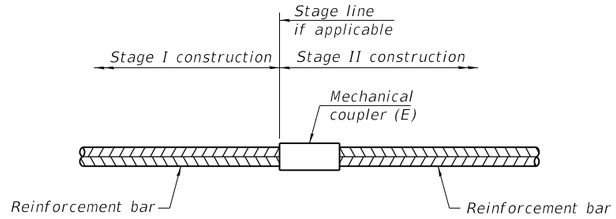
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
SB N. Abut.	#5	8	3'-3"
SB Pier 3	#5	8	3'-3"
SB Pier 7.	#5	8	3'-3"
SB S. Abut.	#5	8	3'-3"
NB N. Abut.	#5	8	3'-3"
NB Pier 4	#5	8	3'-3"
NB S. Abut.	#5	8	3'-3"



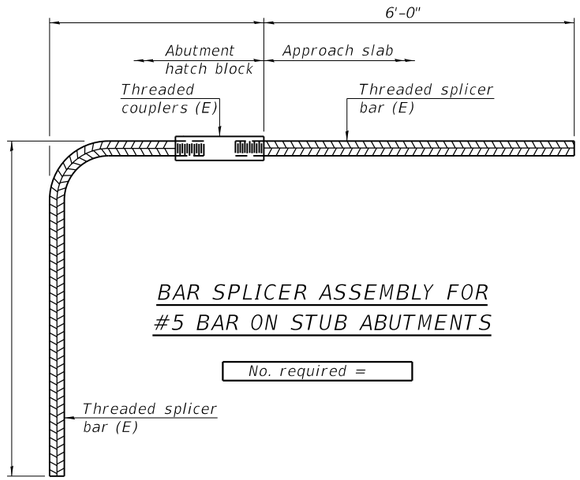
INSTALLATION AND SETTING METHODS

"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.

BSD-1

2-17-2017

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		DRAWN - JM	REVISED -	
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 0.1667 ' / in.	CHECKED - BGK	REVISED -	SN 016-2512 (SB), SN 016-2513 (NB) BAR SPLICERS (BASE SHEET)
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -	SCALE: | SHEET S-35 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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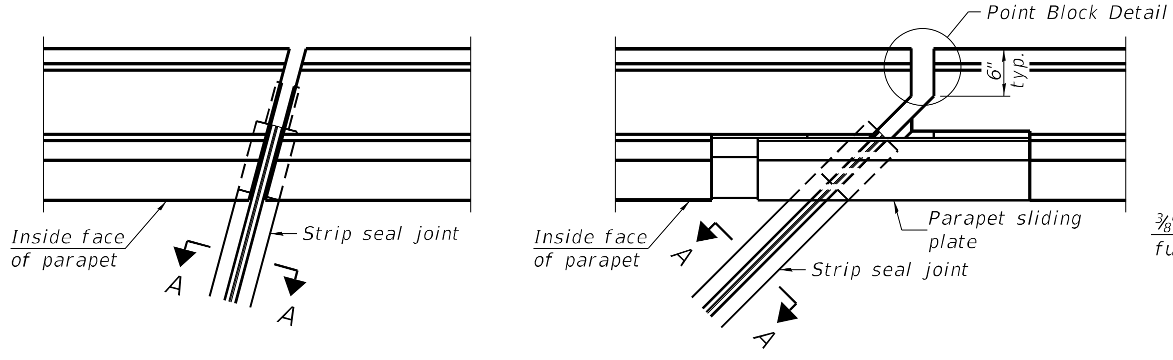
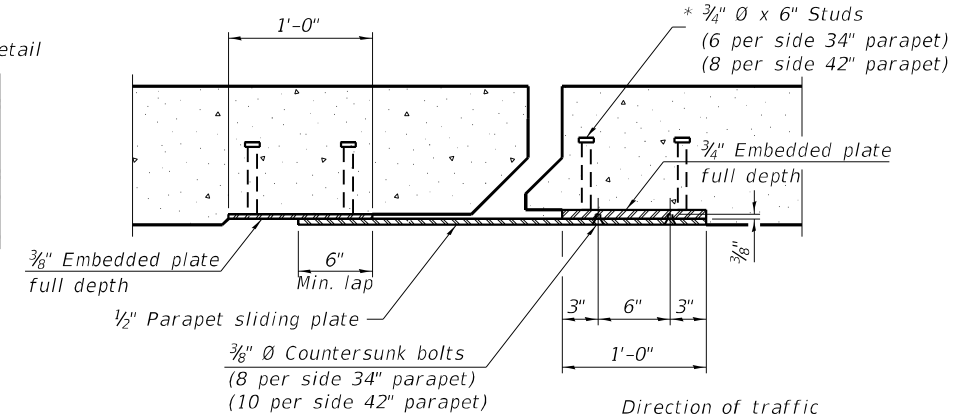
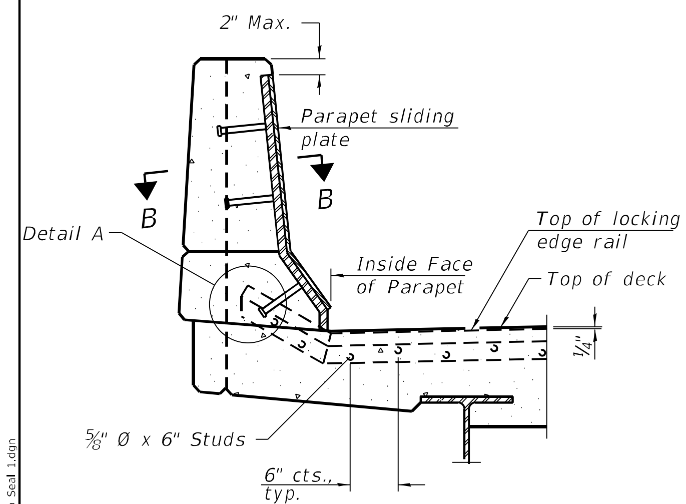
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



PLAN AT PARAPET

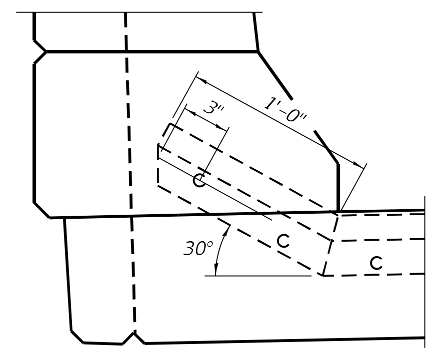


SECTION B-B

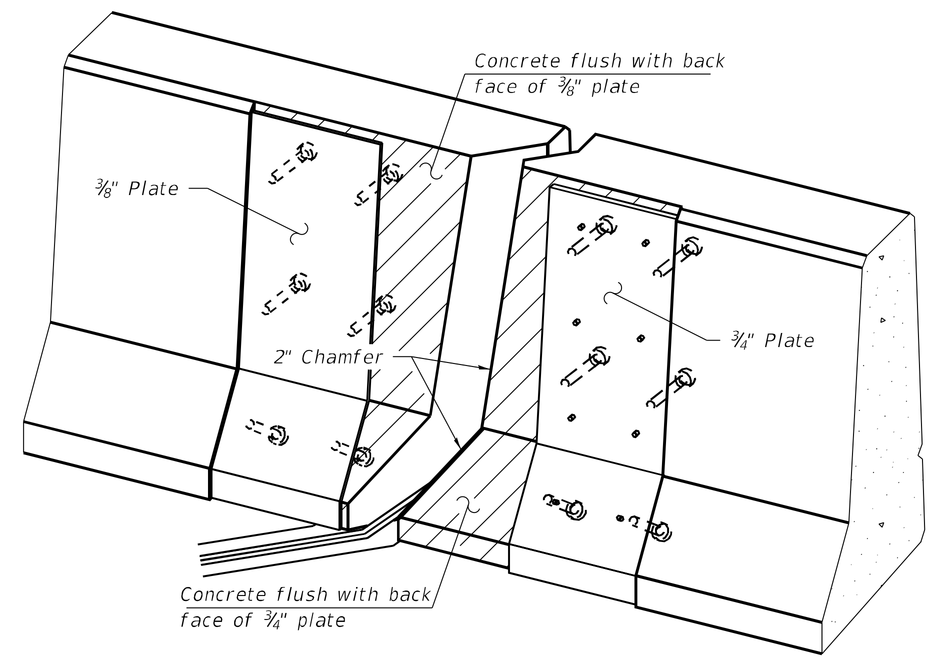


ELEVATION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL A



TRIMETRIC VIEW

(Showing embedded plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

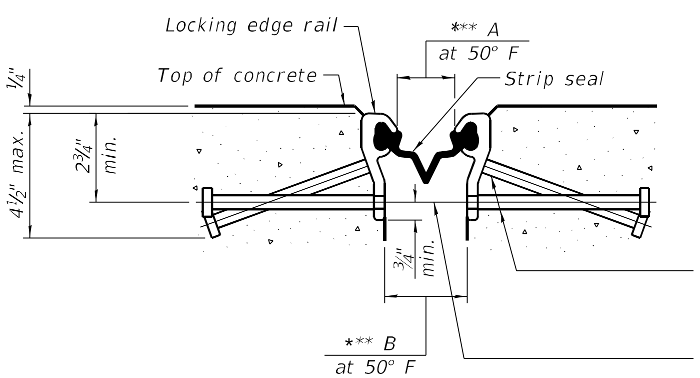
The Maximum space between locking edge rail segments shall be $\frac{3}{16}$" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.

Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.

34" F-shape barrier shown, 42" F-shape similar as noted.

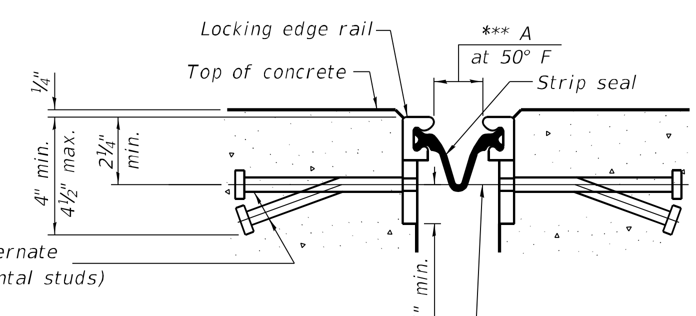
The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in $\frac{7}{16}$" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

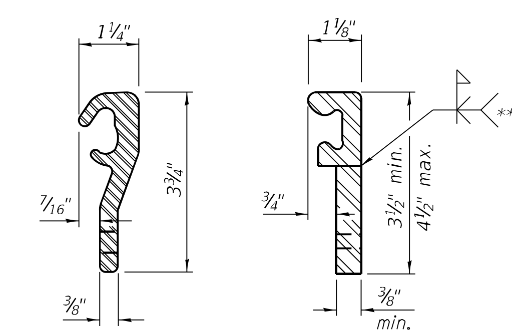


SHOWING WELDED RAIL JOINT

SECTION A-A

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

*** For A and B see individual Expansion Joint Sheet.

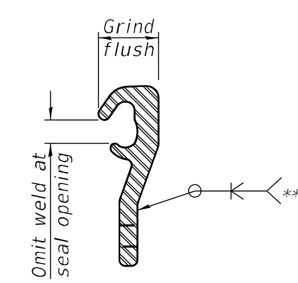


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	364

EJ-SS-S 8-11-17

(Sheet 1 of 3)

FILE NAME = D9105519-sht-Preformed Joint Strip Seal 1.dgn	USER NAME = c-friedmana	DESIGNED - JM	REVISED -
GARZA KARHOFF ENGINEERING, LLC		DRAWN - JM	REVISED -
	PLOT SCALE = 0.1667 ' / in.	CHECKED - BGK	REVISED -
	PLOT DATE = 11/18/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
PREFORMED JOINT STRIP SEAL 1

SCALE: | SHEET S-36 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	73

CONTRACT NO. 62H50

ILLINOIS | FED. AID PROJECT

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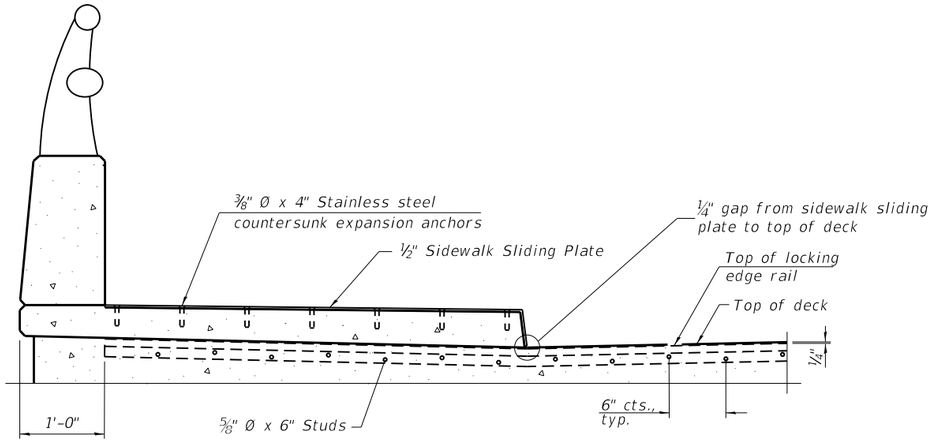
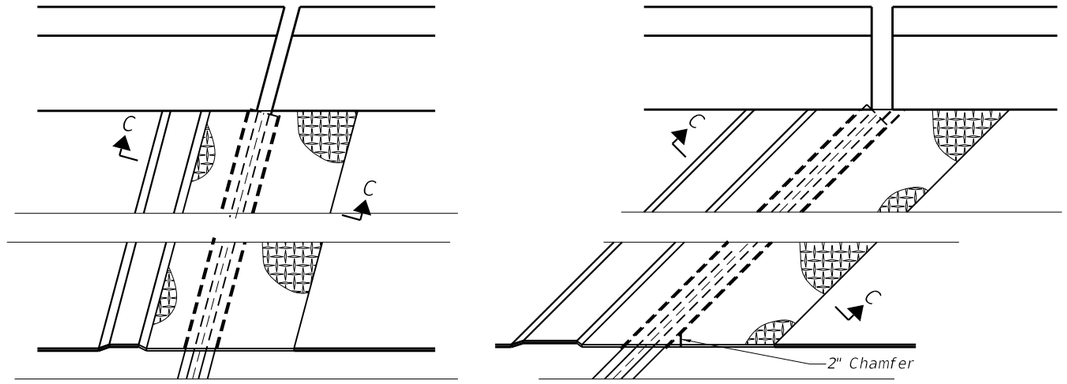


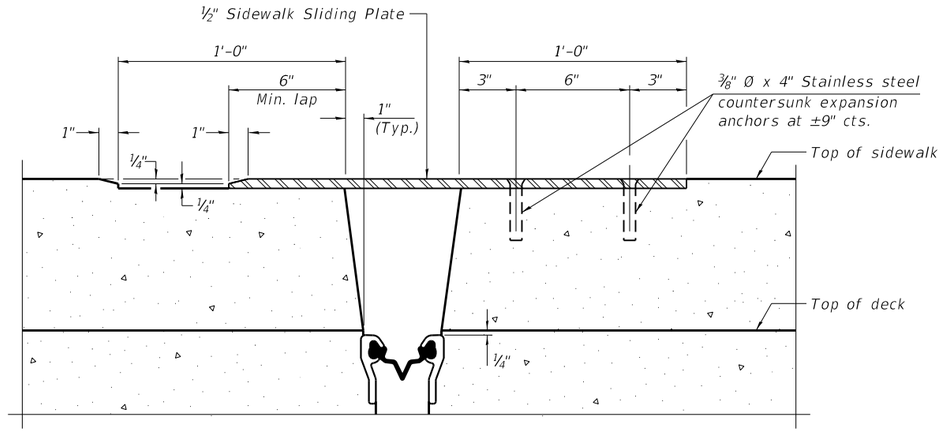
ELEVATION AT RAISED SIDEWALK



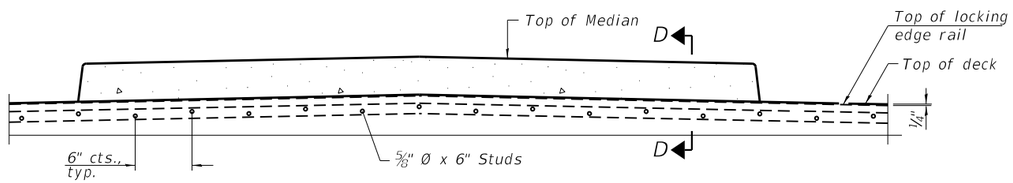
(FOR SKEWS ≤ 30°)

(FOR SKEWS > 30°)

PLAN AT RAISED SIDEWALK

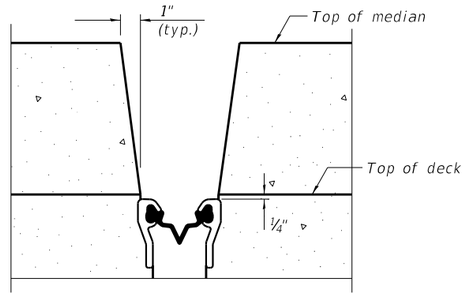


SECTION C-C



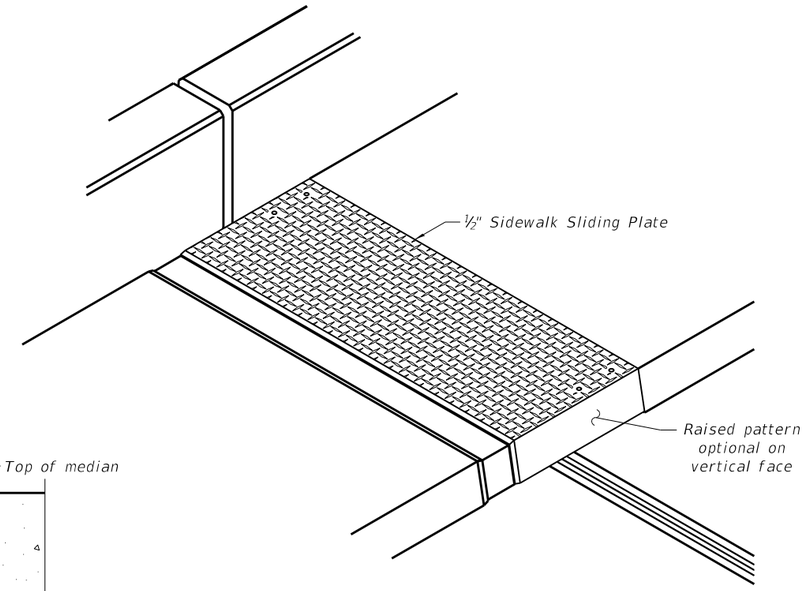
ELEVATION AT MEDIAN

For skews > 30°, chamfer acute corners 2" similar to sidewalk.



SECTION D-D

(at Rt. ∠'s)



TRIMETRIC VIEW

EJ-SS-S 8-11-17

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		DRAWN - JM	REVISED -
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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
PREFORMED JOINT STRIP SEAL 2

SCALE: | SHEET S-37 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	74
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

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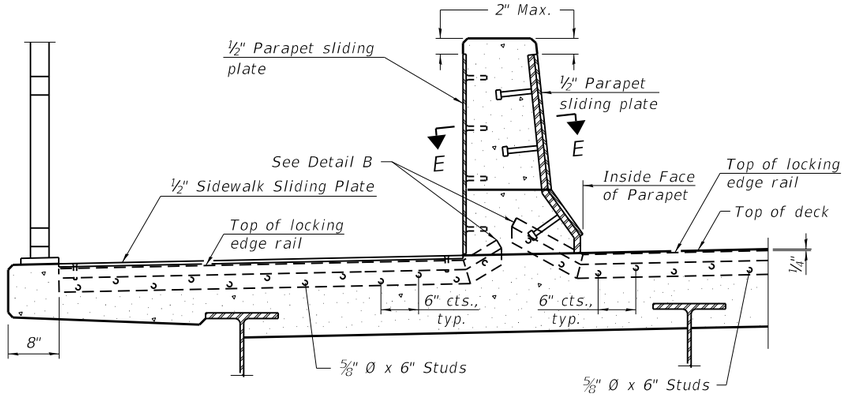
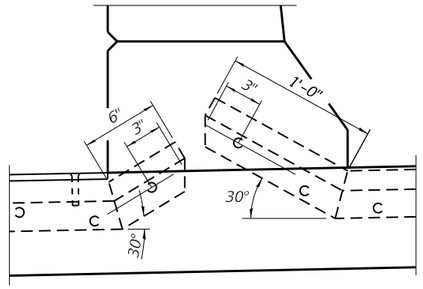
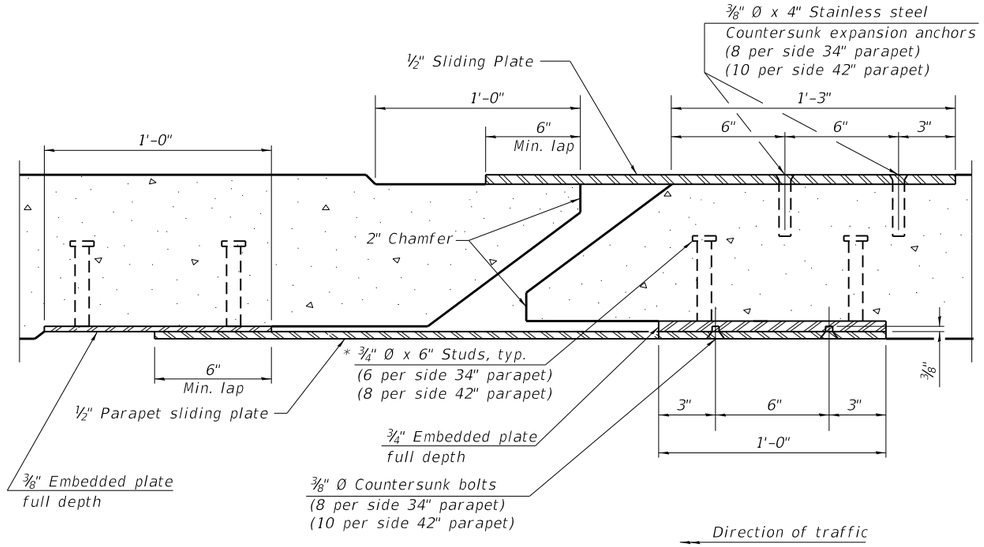


ELEVATION AT DECK LEVEL SIDEWALK

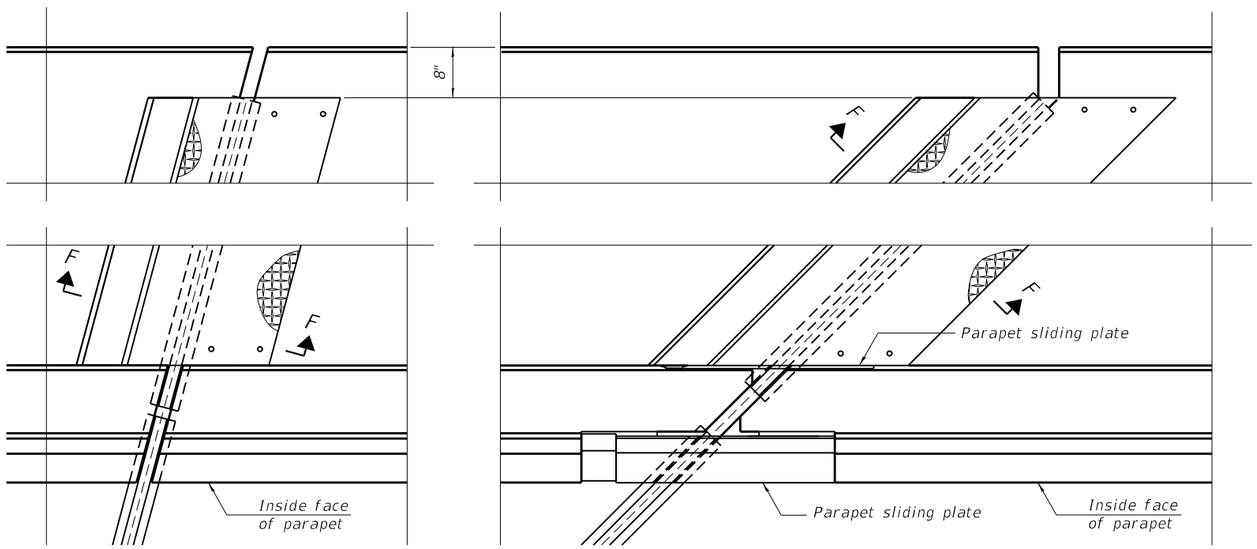
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL B



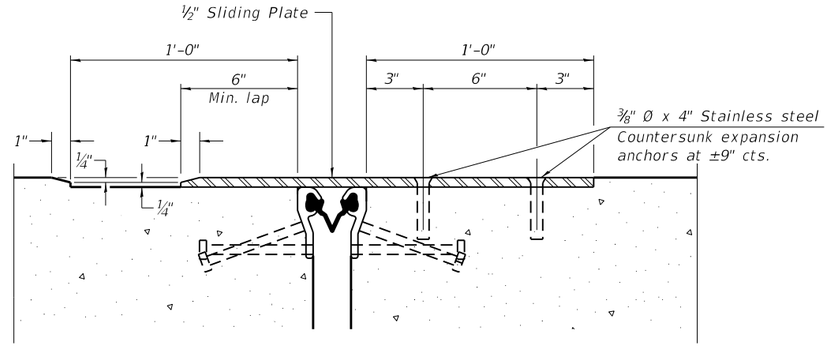
SECTION E-E



(FOR SKEWS ≤ 30°)

(FOR SKEWS > 30°)

PLAN AT DECK LEVEL SIDEWALK



SECTION F-F

EJ-SS-S

8-11-17

(Sheet 3 of 3)

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GARZA KARHOFF ENGINEERING, LLC		DRAWN - JM	REVISED -		
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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	75
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

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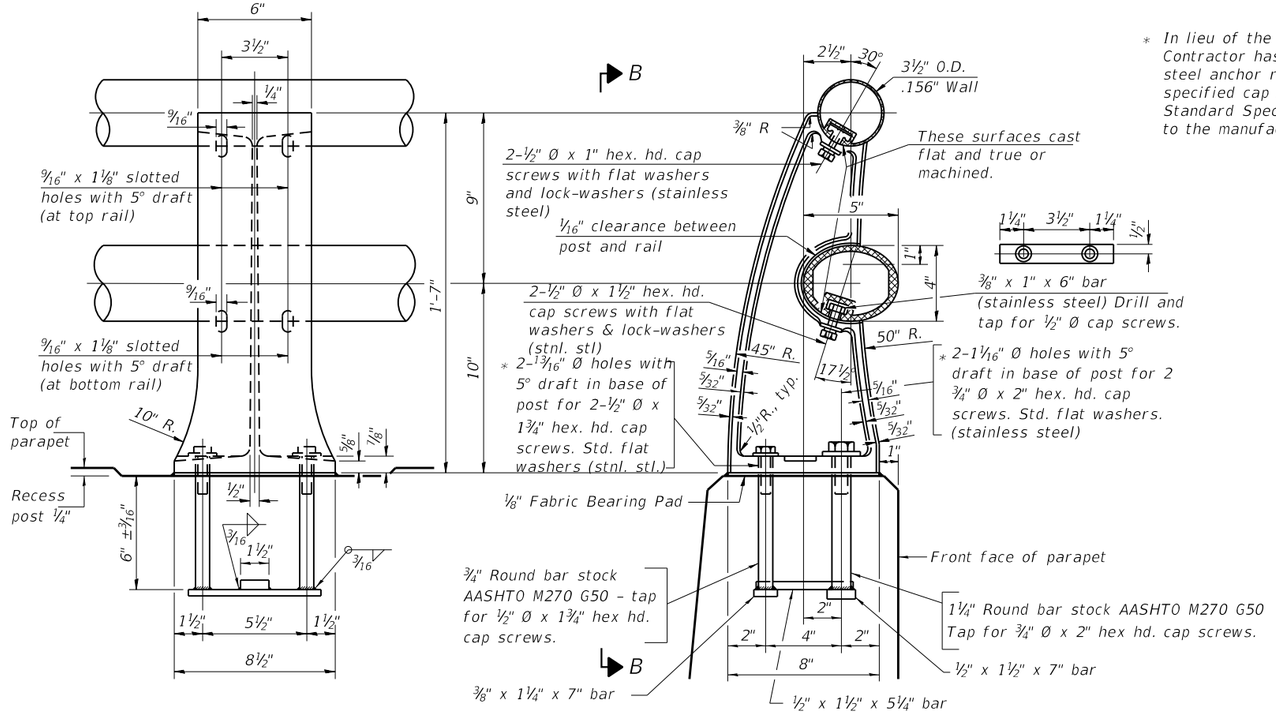
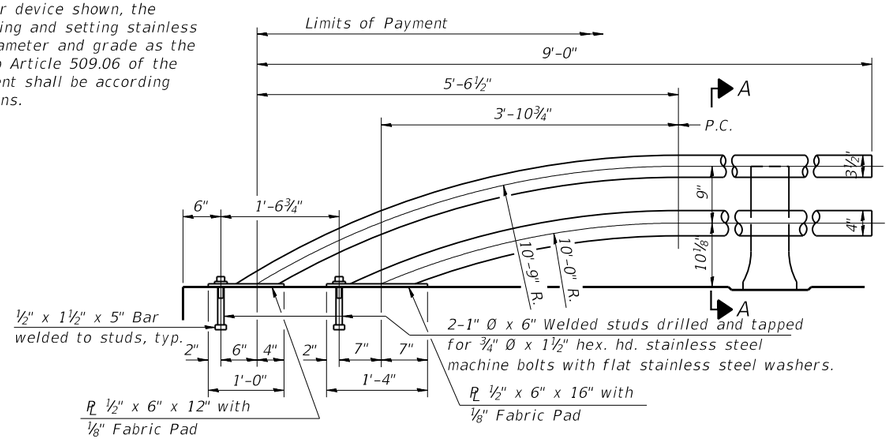
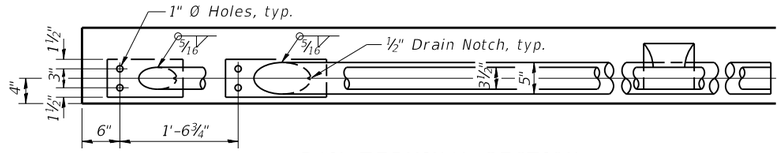


* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's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





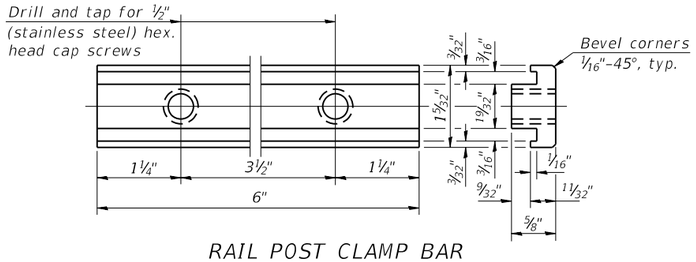
RAIL TERMINAL SECTION

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

VIEW B-B

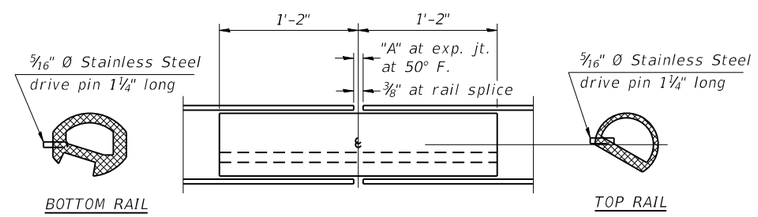
SECTION A-A

RAIL POST DETAILS



RAIL POST CLAMP BAR

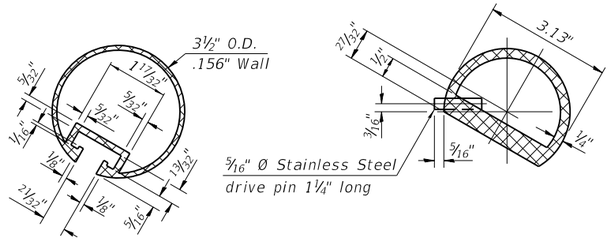
For Top Rail



RAIL SPLICE

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

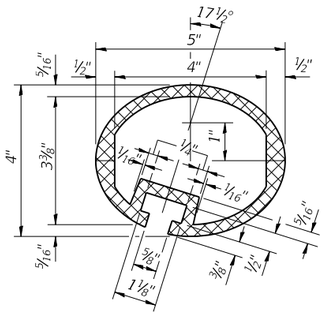
T = Total movement at expansion joint as shown on the design plans.



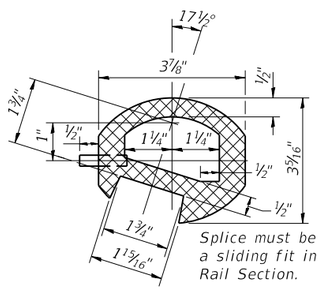
SECTION THRU TOP RAIL

SECTION THRU SPLICE

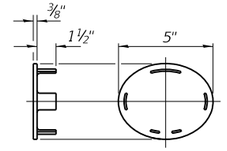
For Top Rail



SEC. THRU ELLIPTICAL RAIL SECTION

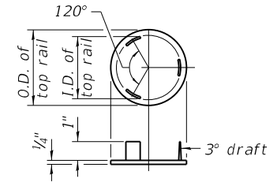


SEC. THRU SPLICE



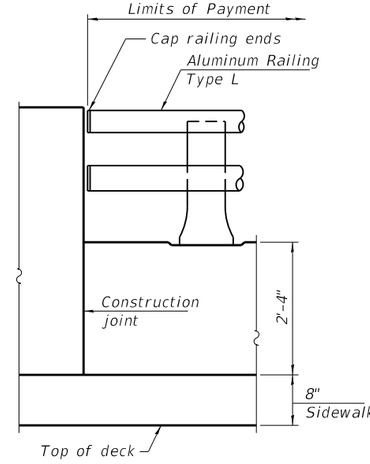
CAST END CAP

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 of for rail post spacing.

THIS SHEET IS FOR INFORMATION ONLY

R-20 2-17-2017 (7'-0" to 10'-0" Post spacing)

MODEL: Default
FILE NAME: pw:\\exp-pw.bentley.com:exp-pw-04\Documents\Projects\D-91-055-19800 CADD Design\801 Contract\801.10 Structural\Sheet\D9105519-sht-Railing.dgn

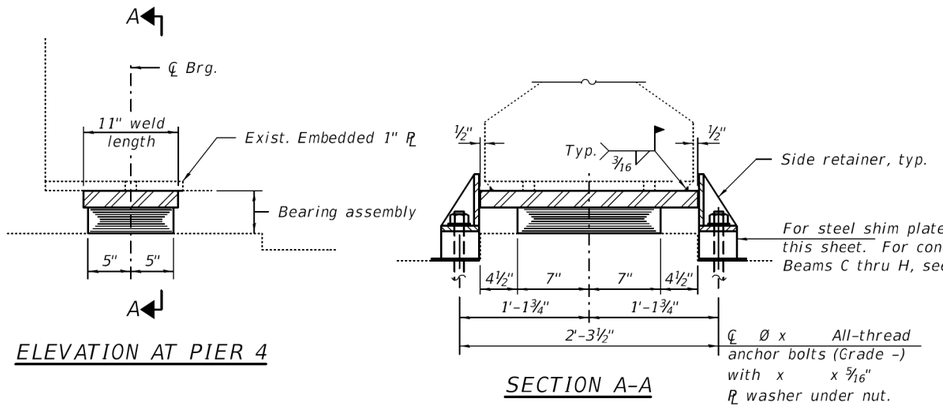
FILE NAME = D9105519-sht-Railing.dgn	USER NAME = c-friedmana	DESIGNED - JM	REVISED -	
		DRAWN - JM	REVISED -	
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 0.1667 ' / in.	CHECKED - BGK	REVISED -	
	PLOT DATE = 11/20/2020	DATE - 10/15/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SN 016-2512 (SB), SN 016-2513 (NB)
RAILING (BASE SHEET)

SCALE: | SHEET S-39 OF S-42 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	76
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



ELEVATION AT PIER 4

SECTION A–A

TYPE I ELASTOMERIC EXP. BRG.

(Beam B – N. Side)

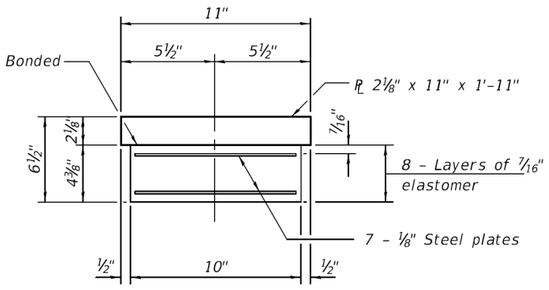
Notes:

Stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

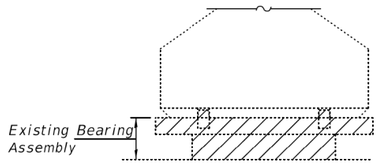
Side retainers and steel shim plates shall be included in the cost of Furnishing & Erecting Structural Steel.

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

All exposed bearing plates and side retainers shall be hot dip galvanized according to AASHTO M111.

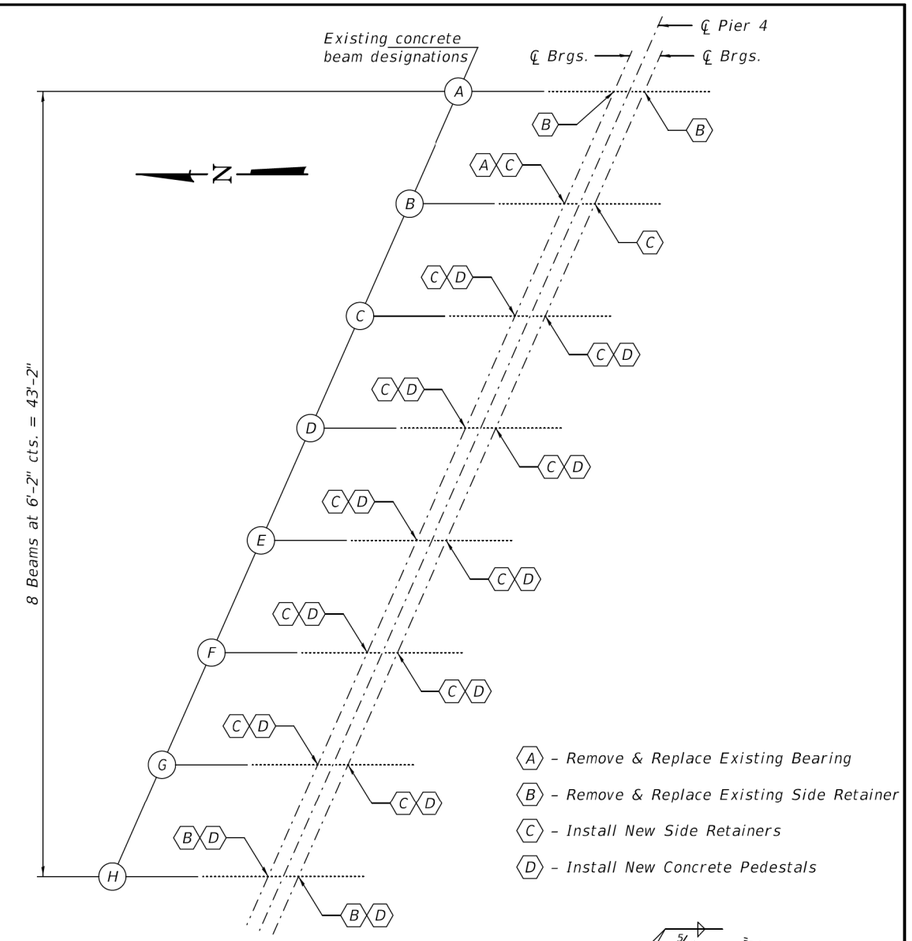


BEARING ASSEMBLY

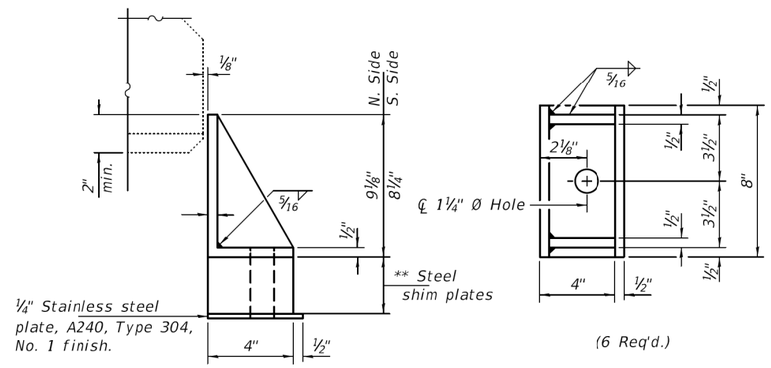


EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



PARTIAL FRAMING PLAN

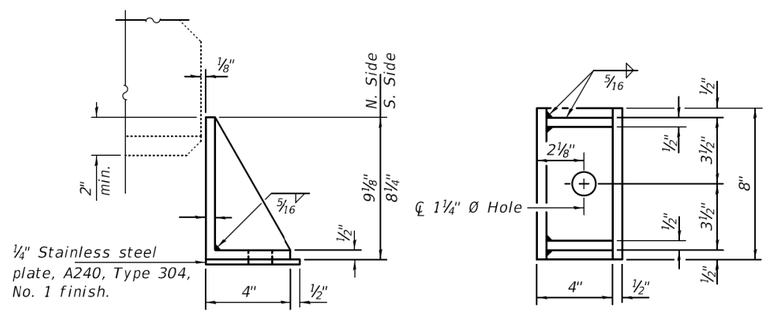


** 1⅛" – Beam A – S. Side
1¾" – Beam A – N. Side
2⅜" – Beam B – S. Side
3¼" – Beam B – N. Side

Note:
Miniumum thickness for steel shim plates is 1".

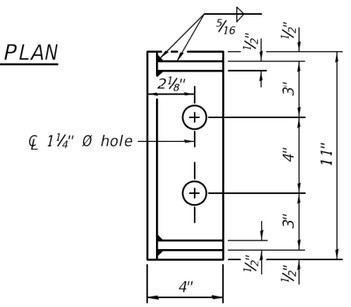
SIDE RETAINER – BEAMS A & B

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



SIDE RETAINER – BEAMS C THRU H

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



BEAMS A & H

Outside faces only.
(4 Req'd.)

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	1
Furnishing & Erecting Structural Steel	Pound	200
Jack & Remove Existing Bearings	Each	1
Anchor Bolts	Each	32

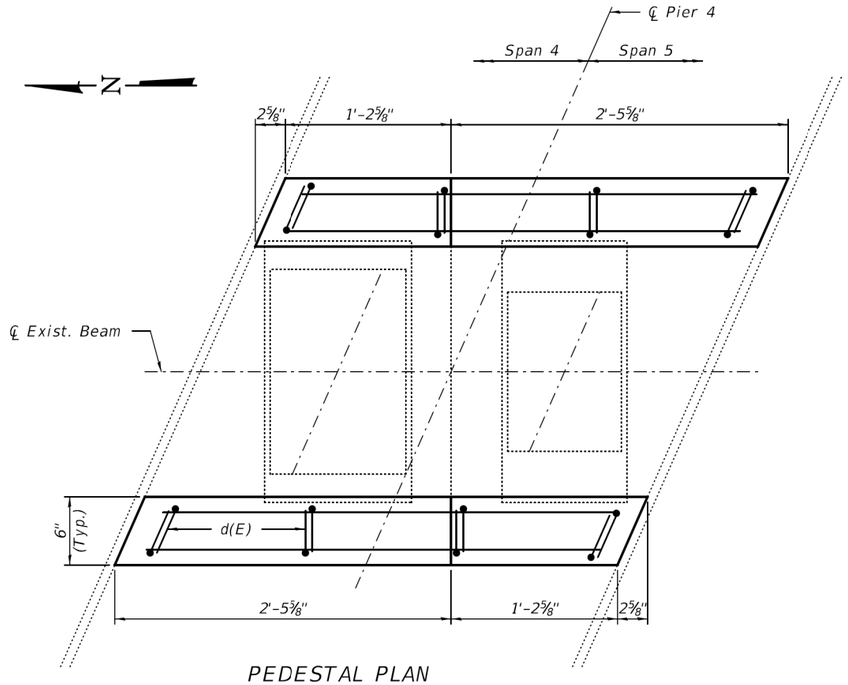
DRAFT

DATE: 9/3/2020

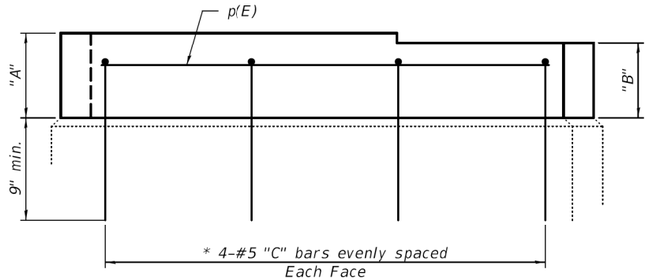
EXPIRES 11-30-2020

DESIGNED -	EXAMINED	DATE - SEPTEMBER 3, 2020	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - daburdell	PASSED	REVISED -	BEARING DETAILS - PIER 4 SN 016-2513 (NB)
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	SHEET NO. 1 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	77
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

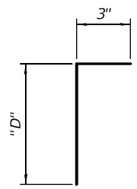


PEDESTAL PLAN
(Beams C thru H)



PEDESTAL ELEVATION
(Beams C thru H)

* Epoxy grout bars in accordance with Article 584 of the Standard Specifications. Cost is included in cost of Reinforcement Bars, Epoxy Coated.



BAR "C"

BEAM	"A"	"B"	"C"	"D"
C	5 9/16"	5"	d3(E)	11"
D	6⅝"	6⅜"	d2(E)	1'-0"
E	7 1/16"	7½"	d(E)	1'-2"
F	5⅞"	7 15/16"	d(E)	1'-2"
G	4⅜"	6 1/16"	d1(E)	1'-1"
H	5 1/16"	4⅝"	d2(E)	1'-0"

BILL OF MATERIAL

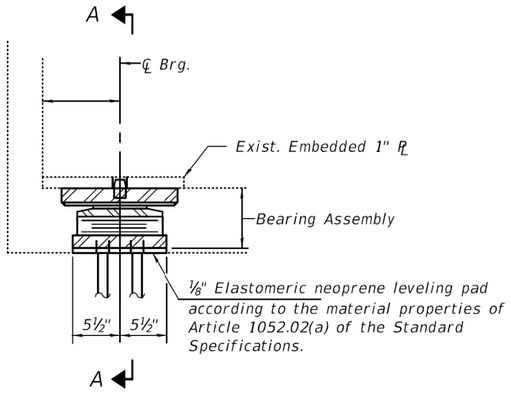
Bar	No.	Size	Length	Shape
d(E)	16	#5	1'-5"	⌜
d1(E)	8	#5	1'-4"	⌜
d2(E)	16	#5	1'-3"	⌜
d3(E)	8	#5	1'-2"	⌜
p(E)	12	#5	3'-4"	——
Concrete Structures			Cu. Yd.	0.5
Reinforcement Bars, Epoxy Coated			Pound	110

DRAFT
DATE: 9/3/2020

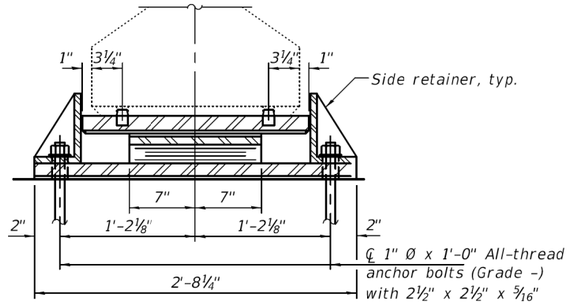
DESIGNED - XXX	EXAMINED	DATE - SEPTEMBER 3, 2020	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - XXX	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - daburdell	PASSED	REVISED -	
CHECKED - XXX	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	

PEDESTAL DETAILS - PIER 4 (BEAMS C THRU H)
SN 016-2513 (NB)
SHEET NO. 2 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	78
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

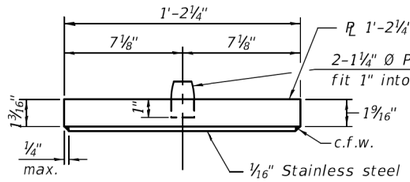


ELEVATION AT ABUT.

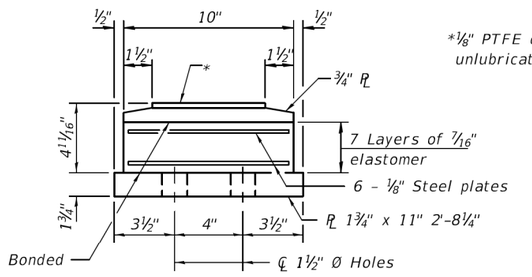


SECTION A-A

TYPE II ELASTOMERIC EXP. BRG.

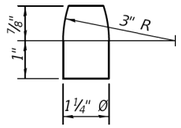


TOP BEARING ASSEMBLY

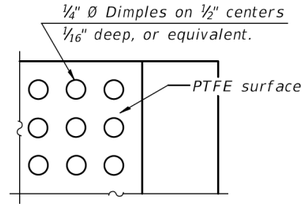


BOTTOM BEARING ASSEMBLY

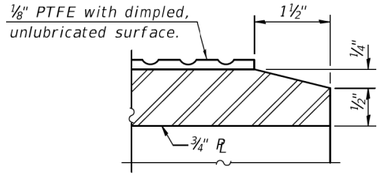
*⅛" PTFE dimpled, unlubricated.



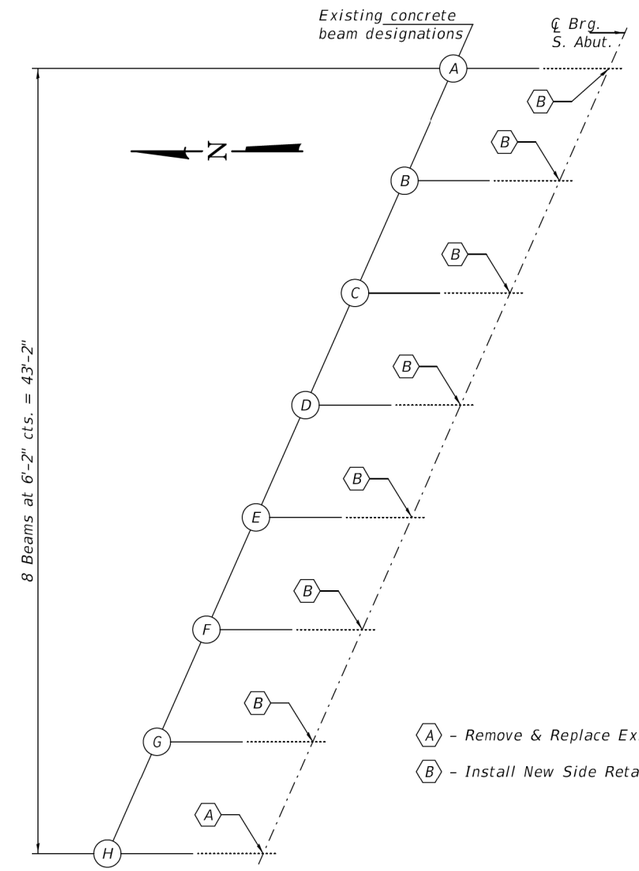
PINTLE



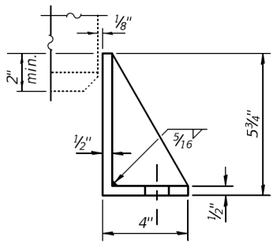
PLAN-PTFE SURFACE

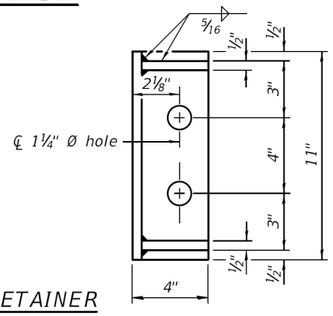


SECTION THRU PTFE



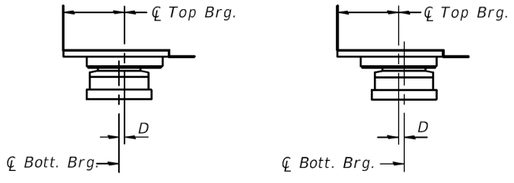
PARTIAL FRAMING PLAN





SIDE RETAINER

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

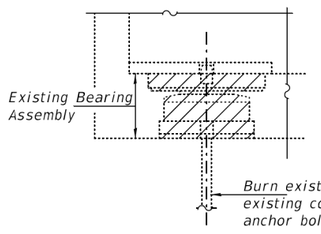


BELOW 50°F. ABOVE 50°F.

D=⅛" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

EXPANSION BEARING ORIENTATION

The above diagrams are for informational purposes only to show the amount of expected offset "D" for the current temperature in the field.



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

Notes:

Side retainers and leveling pads shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The ⅛" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

See sheet of for additional details of embedded plate.

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

All exposed bearing plates and side retainers shall be hot dipped galvanized according to AASHTO M111.

BILL OF MATERIAL

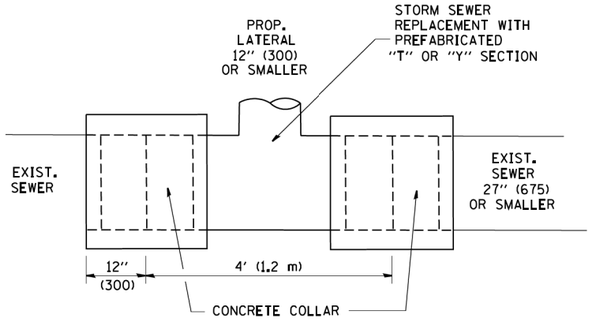
Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	8
Jack & Remove Existing Bearings	Each	8
Anchor Bolts	Each	32

DRAFT

DATE: 9/3/2020

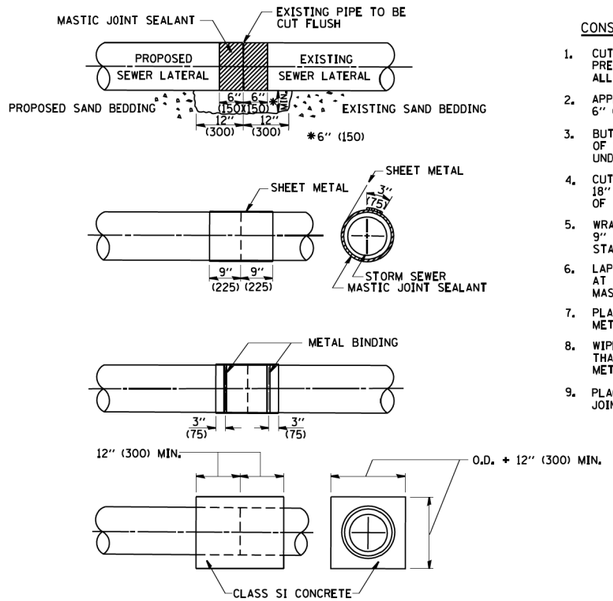
DESIGNED - XXX	EXAMINED	DATE - SEPTEMBER 3, 2020	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - XXX	PASSED	REVISED -	BEARING DETAILS - SOUTH ABUTMENT SN 016-2513 (NB)
DRAWN - daburdell	ENGINEER OF STRUCTURAL SERVICES	REVISED -	SHEET NO. 3 OF 3 SHEETS
CHECKED - XXX	ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	79
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



DETAIL "A"

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

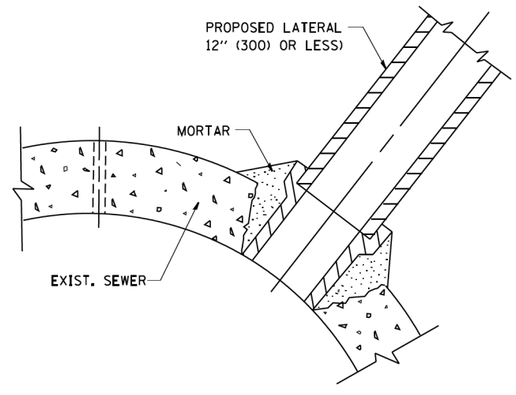


DETAIL "B"

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.

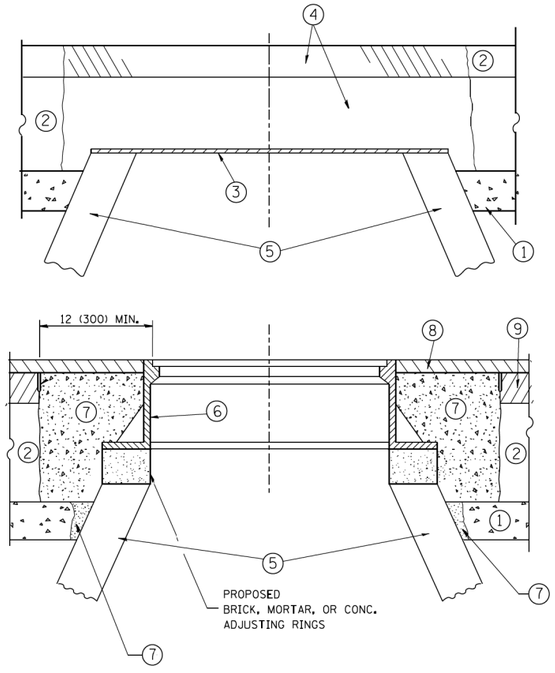
FILE NAME = D91055519-sht-DistrictOneDetail-BD07.dgn	USER NAME = anthony.friedman	DESIGNED -	REVISED -
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	80
	BD-07	CONTRACT NO. 62H50		
	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

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		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

DETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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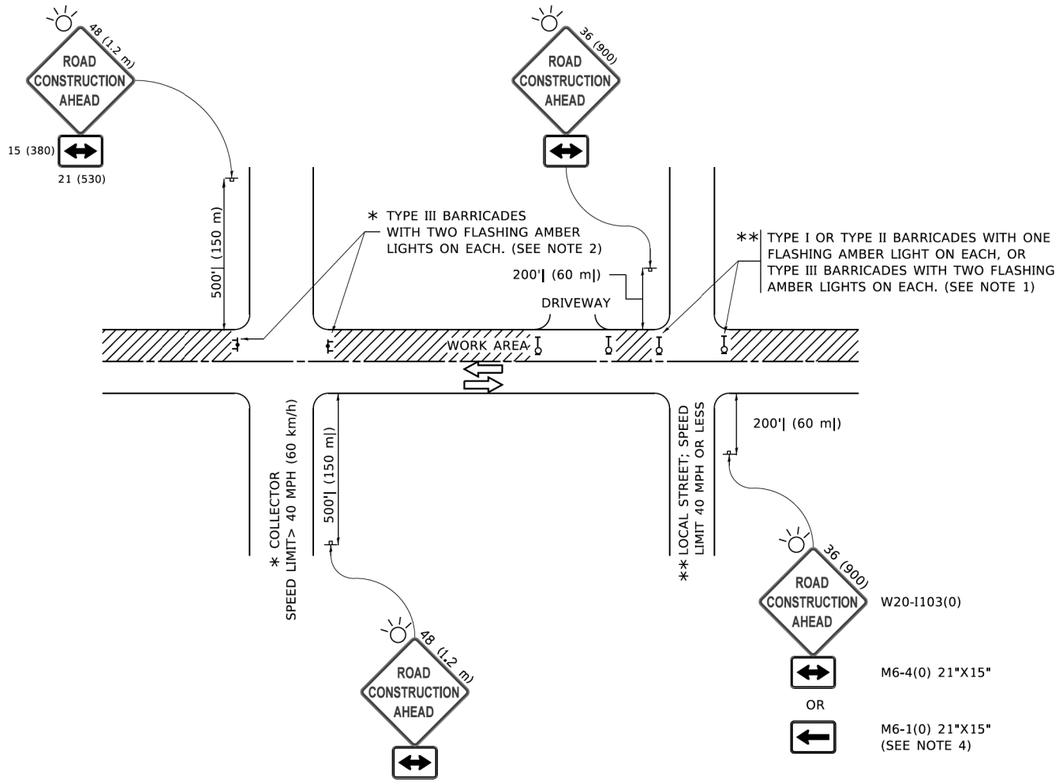
	BD-08	CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



NOTES:

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

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

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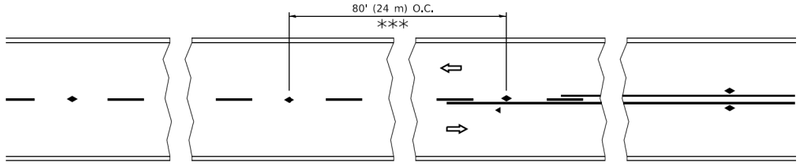
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

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

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

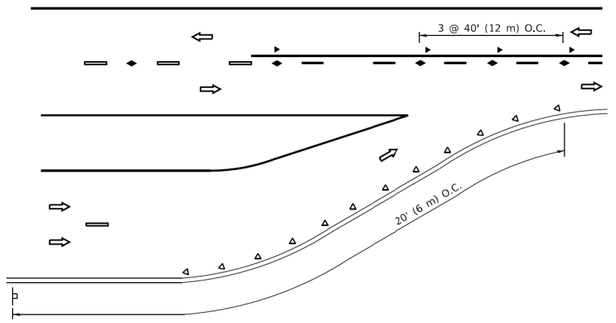
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	82
	TC-10	CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



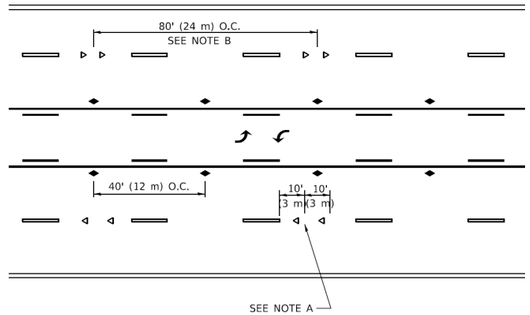
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO–LANE/TWO–WAY

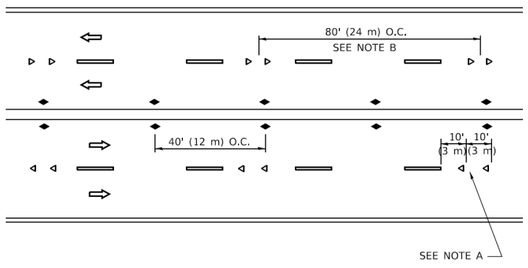
SEE FIGURE 3B-14 MUTCD



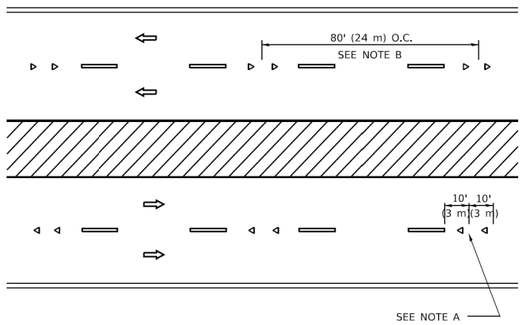
LANE REDUCTION TRANSITION



TWO–WAY LEFT TURN



MULTI–LANE/UNDIVIDED



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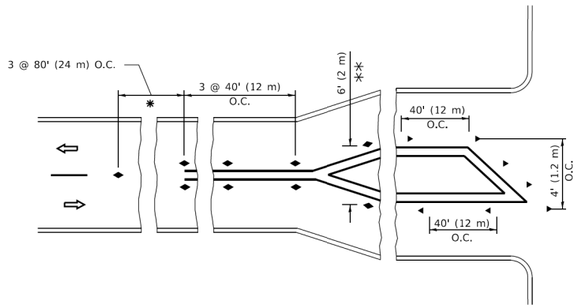

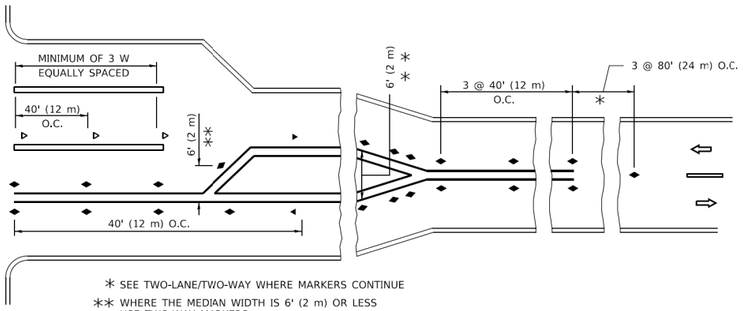

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** 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.

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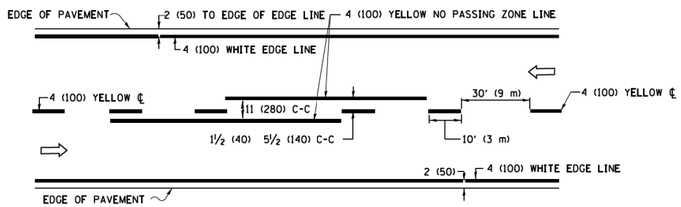
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

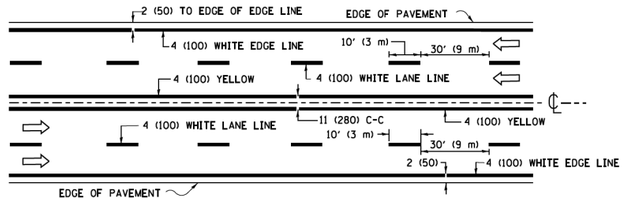
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW–PLOW RESISTANT)

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

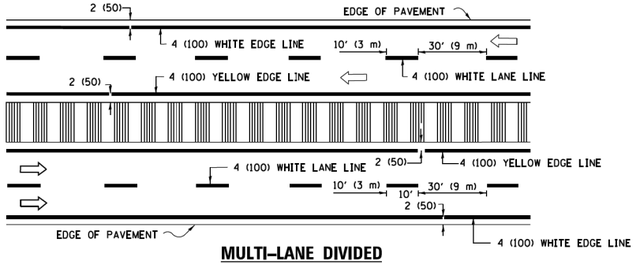
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	83
	TC–11	CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



2–LANE ROADWAY

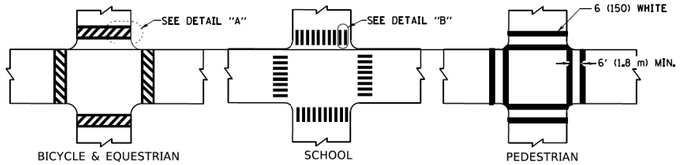


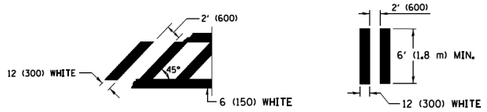
MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

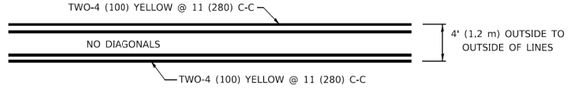




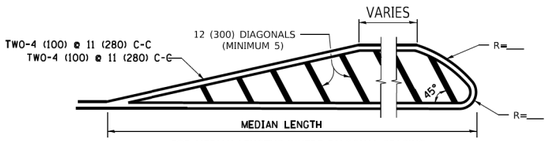
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

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



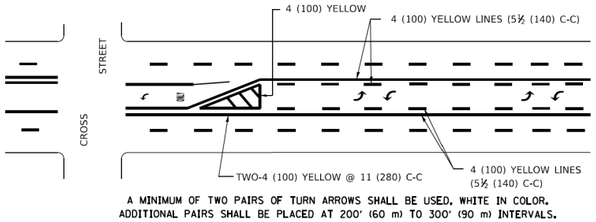
4' (1.2 m) WIDE MEDIANS ONLY



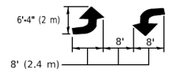
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 4' (1.2 m) WIDE

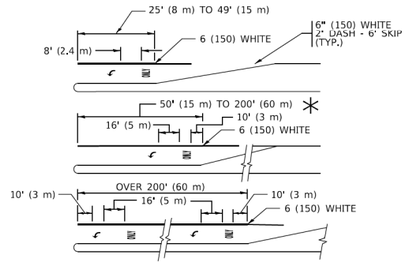


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

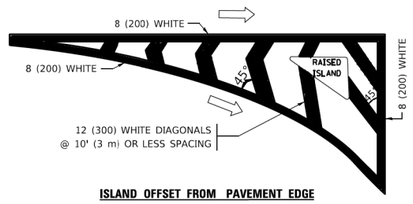


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) **ONLY** AREA = 20.8 SQ. FT. (1.9 m²)

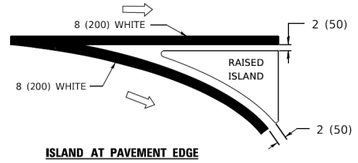
✱ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

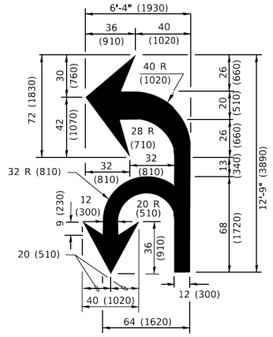


ISLAND OFFSET FROM PAVEMENT EDGE

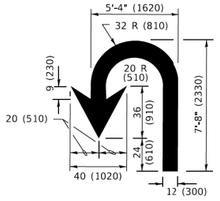


ISLAND AT PAVEMENT EDGE

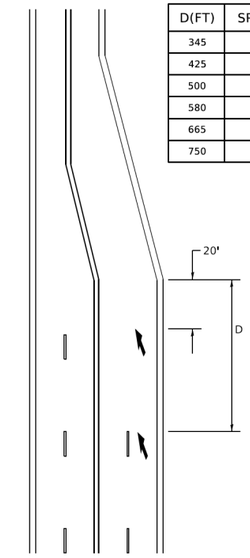
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN



U–TURN



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

LANE REDUCTION TRANSITION

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

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.

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GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	84
	TC–13	CONTRACT NO. 62H50		
		ILLINOIS FED. AID PROJECT		

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

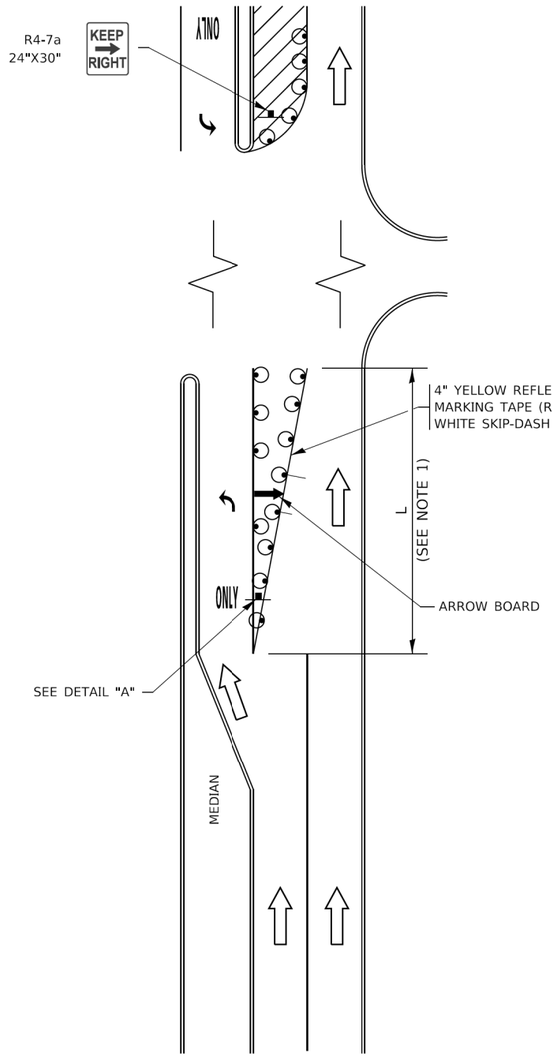


FIGURE 1

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

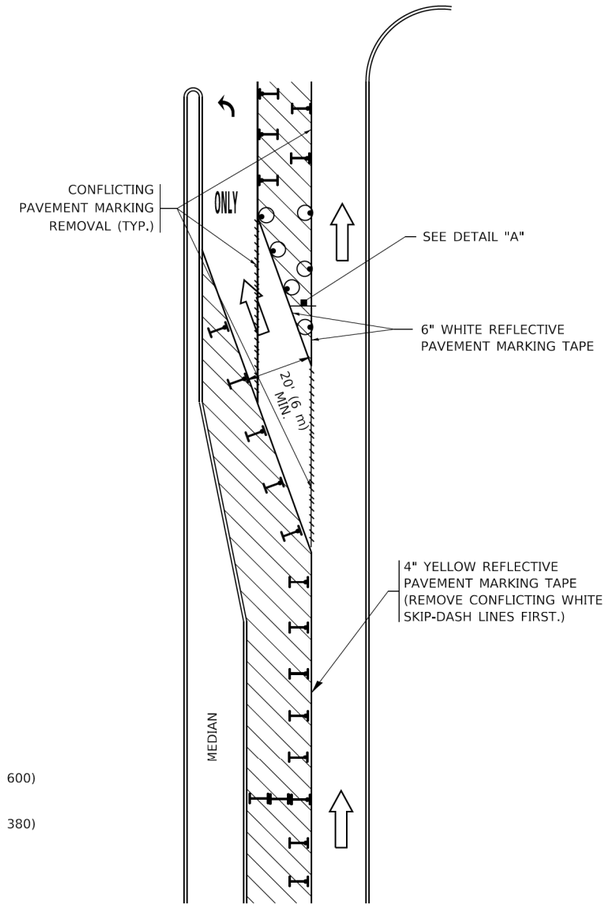
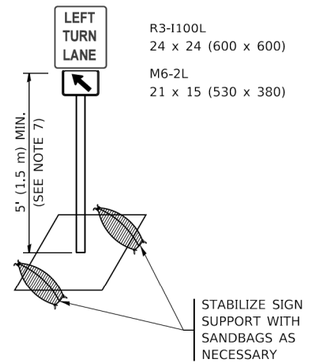


FIGURE 2



DETAIL A

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

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	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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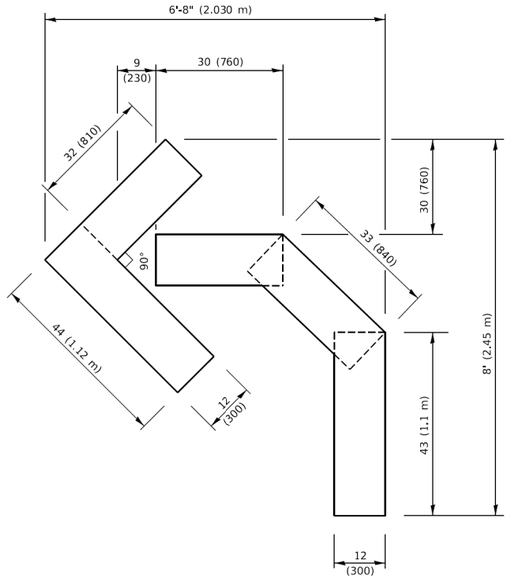
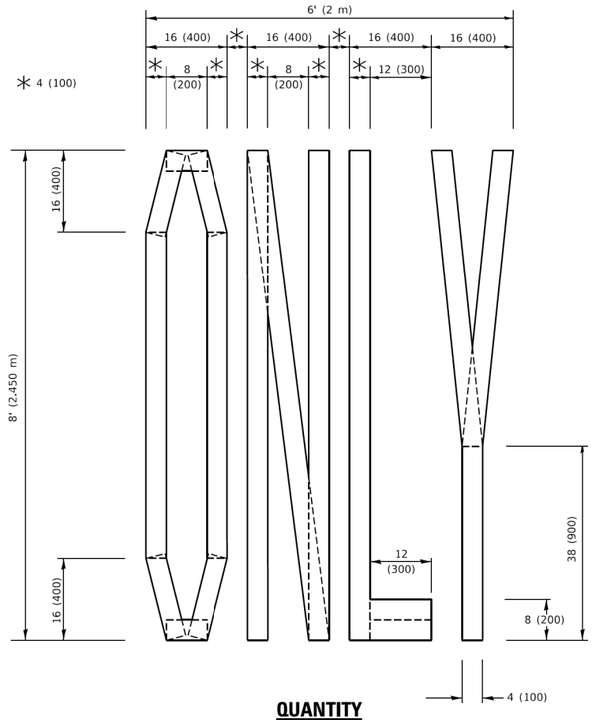
	TC-14	CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



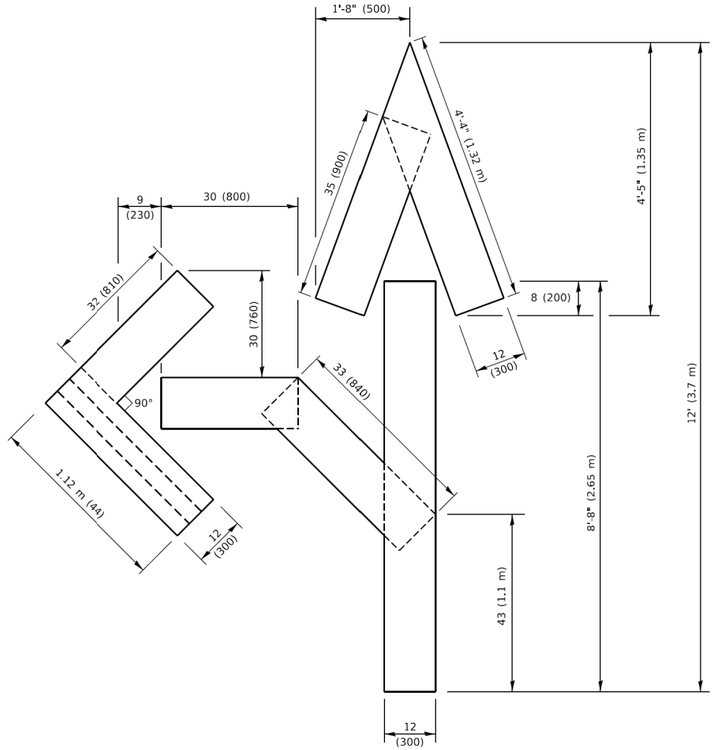
QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.41 sq. m)



QUANTITY

4 (100) LINE = 64.1 ft. (19.5 m)
21.4 sq. ft. (1.99 sq. m)

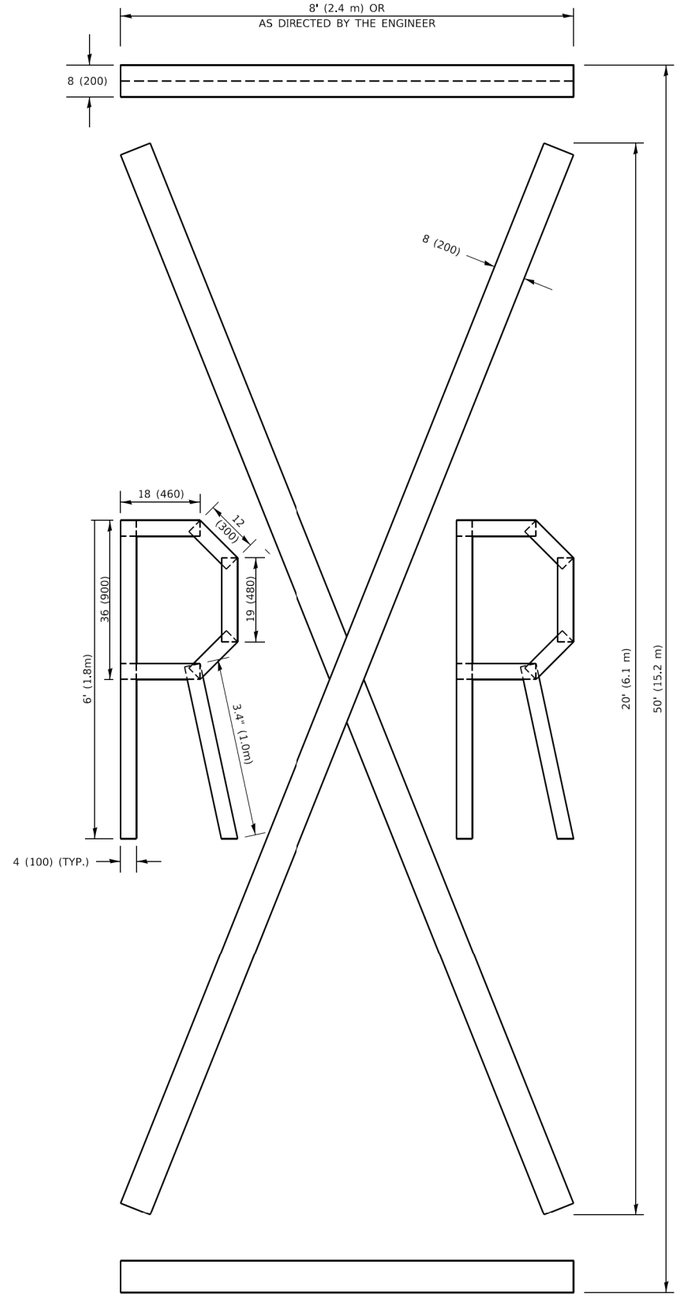


QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m)
27.5 sq. ft. (2.53 sq. m)

NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



QUANTITY

4 (100) LINE = 225.9 ft. (68.9 m)
75.3 sq. ft. (6.99 sq. m)

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

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	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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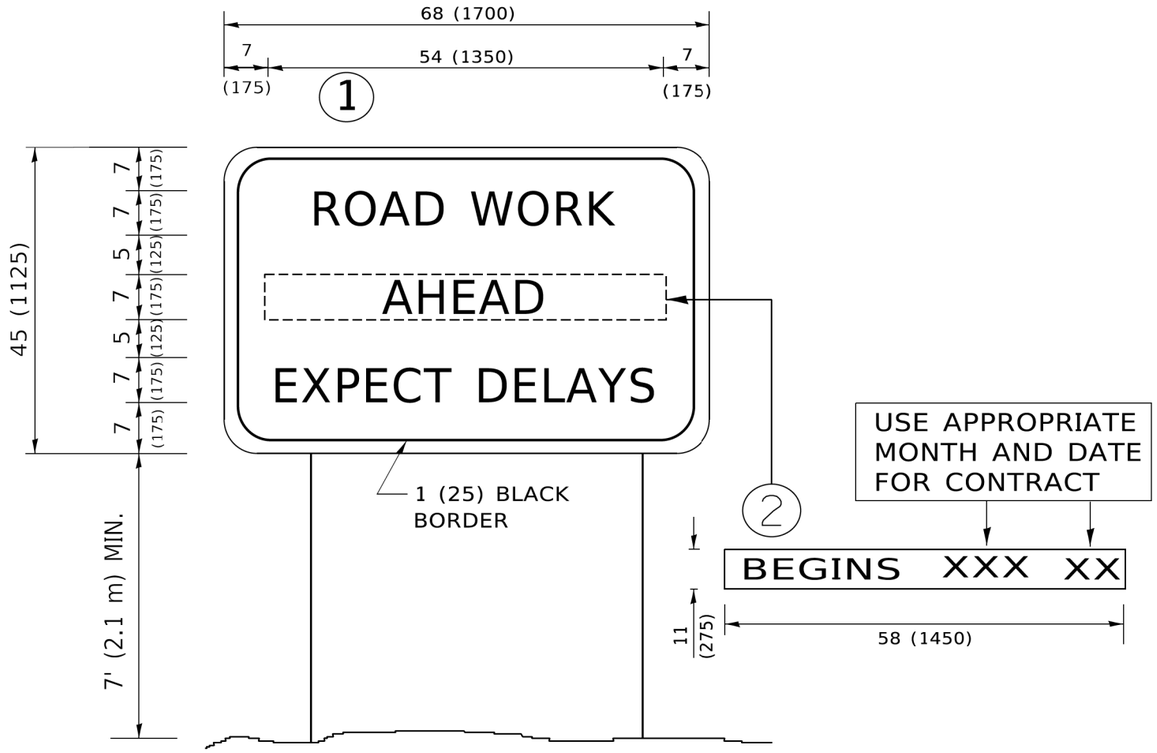
	TC–16	CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		



NOTES:

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

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

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	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

ARTERIAL ROAD INFORMATION SIGN

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	87
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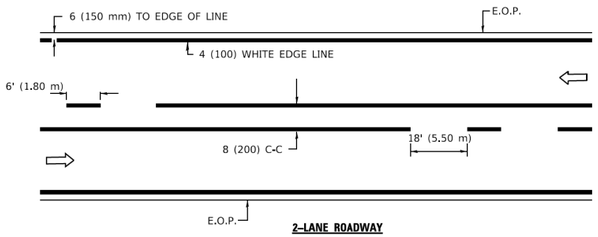
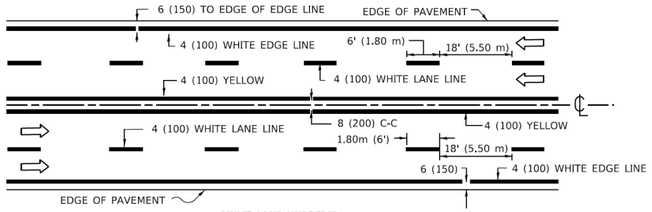
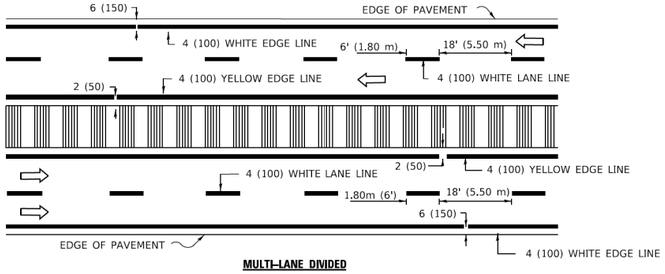
	ILLINOIS FED. AID PROJECT			



2–LANE ROADWAY



MULTI–LANE UNDIVIDED

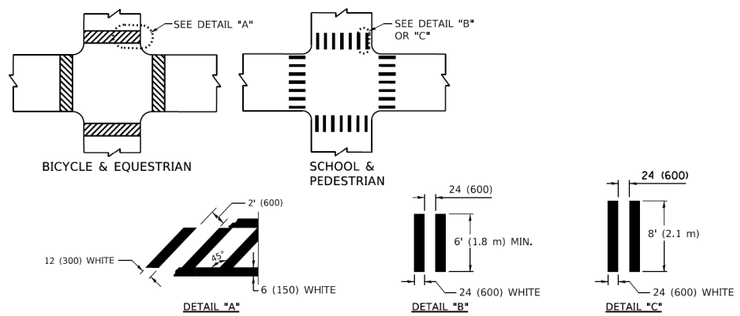


MULTI–LANE DIVIDED

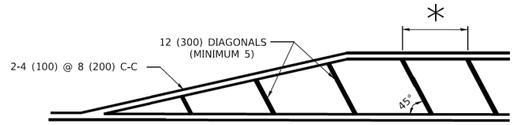
WITH MOUNTABLE MEDIAN

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

TYPICAL LANE AND EDGE LINE MARKING



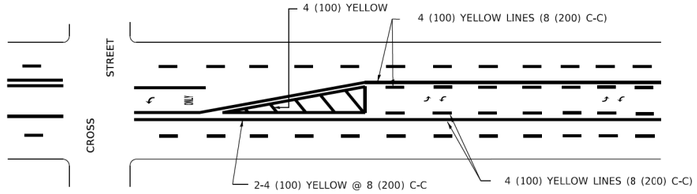
TYPICAL CROSSWALK MARKING



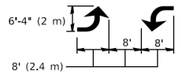
∗ FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

∗ DIAGONAL LINE SPACING: 20' (6.1 m) C-C

PAINTED MEDIANS

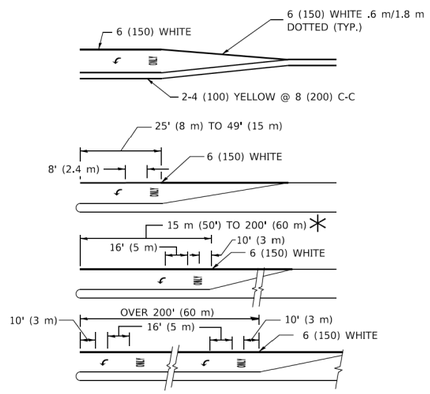


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

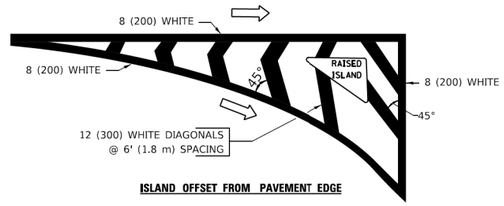


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.8 SQ. FT. (1.47 m²) ONLY AREA = 22.9 SQ. FT. (2.13 m²)

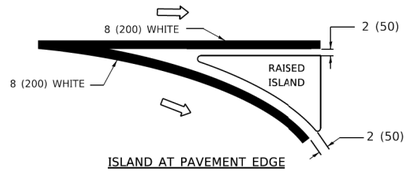
∗ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	8 (200) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	8 (200) C-C
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	6' (1.80 m) LINE WITH 18' (5.50 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) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	6' (1.8 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH; 8 (200) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL & PEDESTRIAN)	12 (300) @ 45° 24 (600) @ 90°	SOLID SOLID	WHITE WHITE	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°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	8 (200) 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: 20' (6.1 m) (LESS THAN 30 MPH (50 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. (0.33m²) EACH "X"=54.0 SQ. FT. (5.0 m²)

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STREET MARKING STANDARDS, PRINTED BY CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC.

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

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	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS
SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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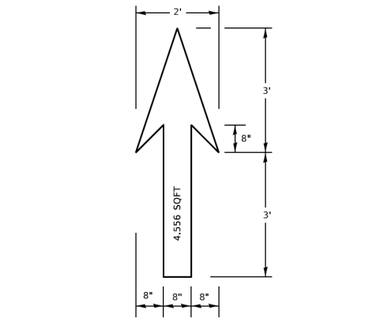
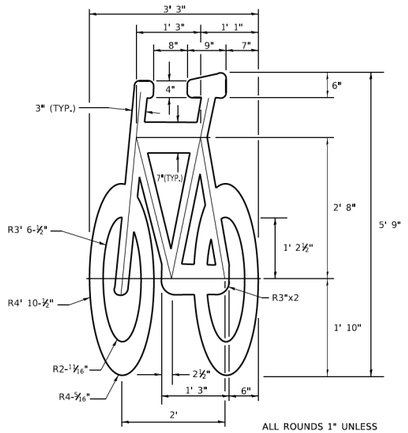
	TC–24	CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	





ALL ROUNDS 1" UNLESS OTHERWISE NOTED.

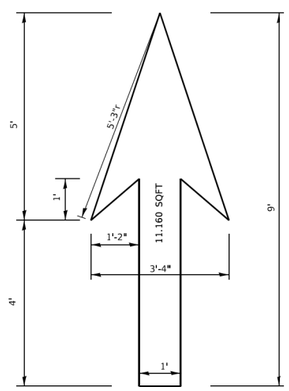
BICYCLE LANE SYMBOL

NOTE:

1. FOR BIKE LANE SYMBOLS ONLY, USE PRE-FORMED THERMOPLASTIC WITH A MINIMUM THICKNESS OF 90 MILS, MINIMUM SKID RESISTANCE VALUE OF 60 BPN, & A MINIMUM INDEX OF REFRACTION OF 1.50.
2. THE RESIDENT ENGINEER SHALL CONTACT MR. BEN GOMBERG AT 312-744-8093 AT LEAST ONE CALENDAR WEEK PRIOR TO INSTALLING BIKE LANE SYMBOLS.

TYPICAL BIKE LANE SYMBOLS
DRAWING #28

DRAWING #29



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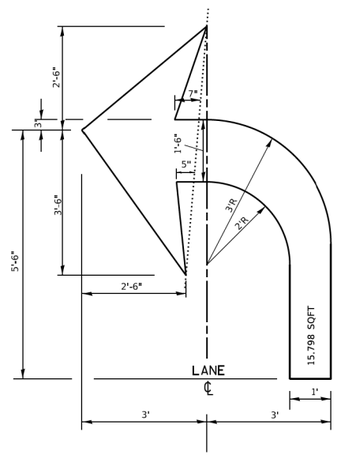

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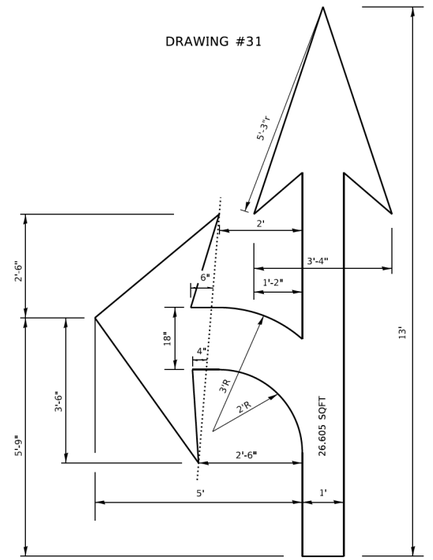

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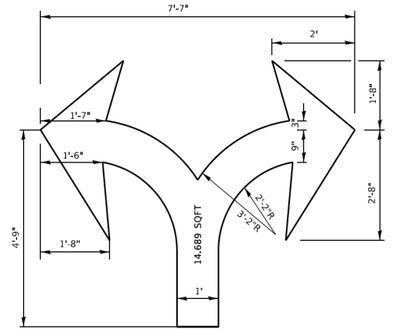

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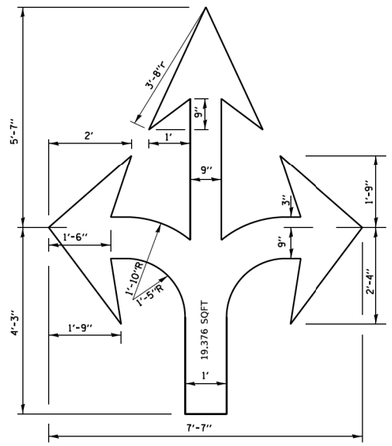

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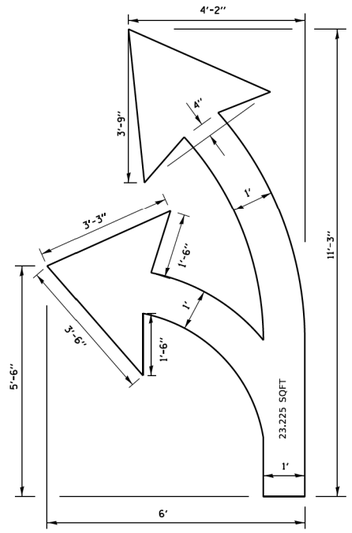

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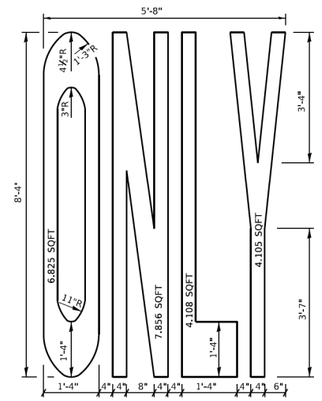

NOTE:

ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE PLANS

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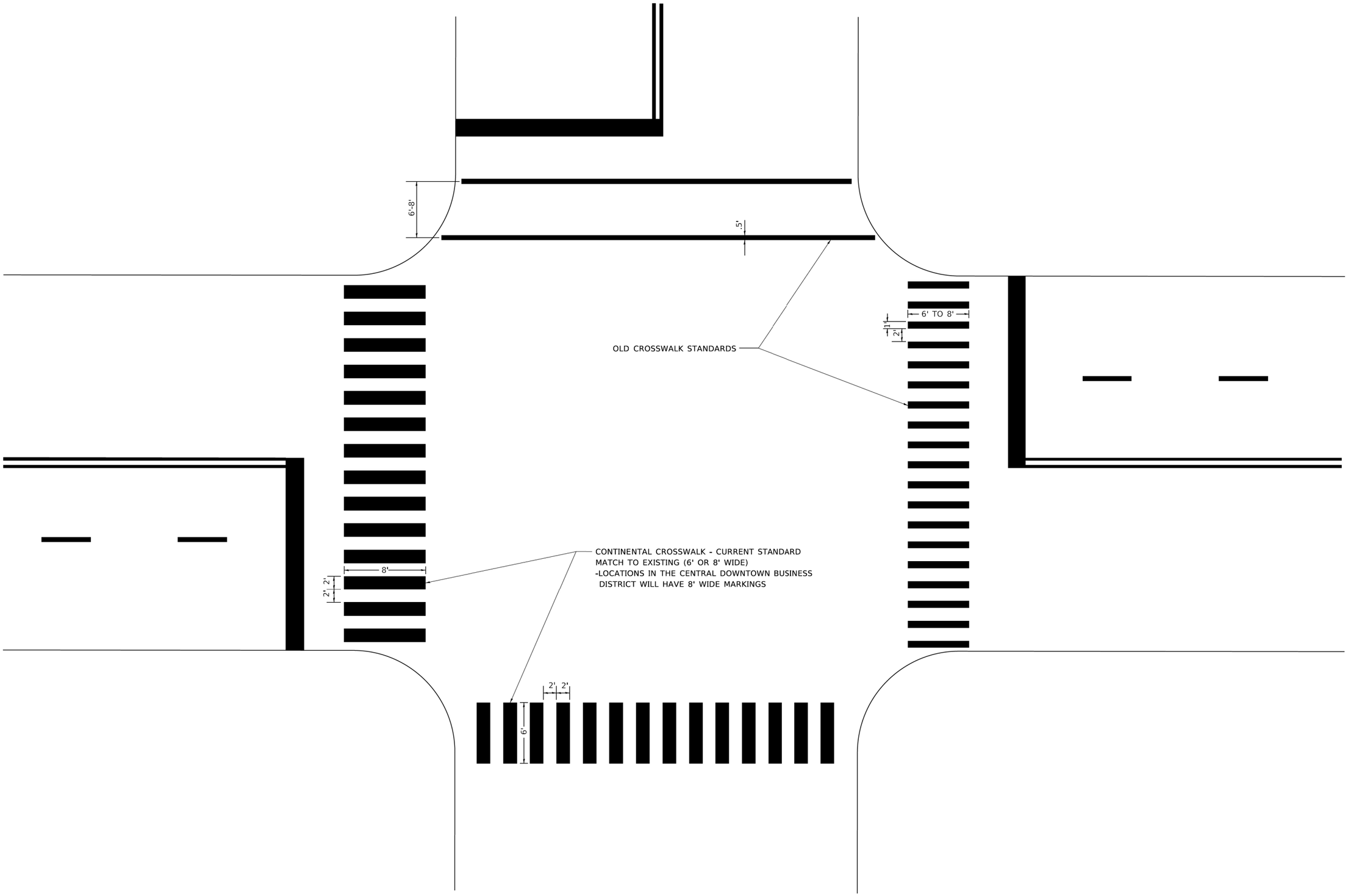
		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	89
	TC-24	CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	



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GARZA KARHOFF ENGINEERING, LLC		DRAWN - AMF	REVISED -
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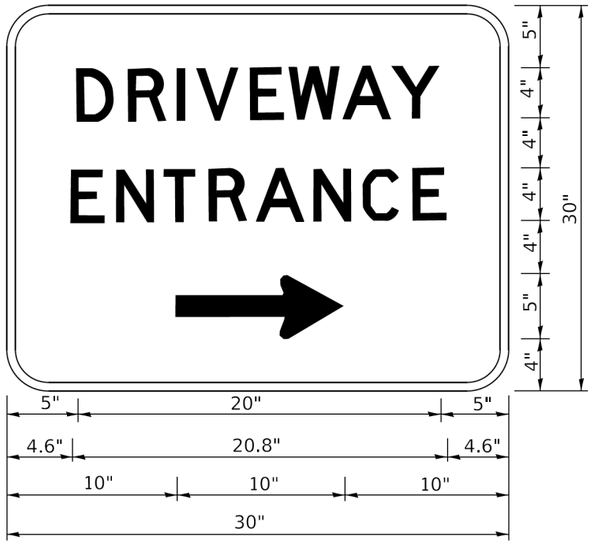
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS

SCALE: | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	90
	TC–24	CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
"DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

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		DRAWN - AMF	REVISED -
GARZA KARHOFF ENGINEERING, LLC	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/14/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL ROUTE 50 (CICERO AVENUE)
OVER BRC RAILROAD

DRIVEWAY ENTRANCE SIGNING

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	91
	TC–26	CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	

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

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

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295+00.00

EARTH EXCAVATION = 34.1 SQ FT

℄ IL 50

-3.78 %

-1.50 %

294+50.00

EARTH EXCAVATION = 29.5 SQ FT

℄ IL 50

636.27
7.95

-2.77 %

636.86
-6.46

-1.50 %

636.11
20.87

294+00.00

EARTH EXCAVATION = 22.1 SQ FT

℄ IL 50

634.38
5.91

-0.88 %

634.74
-4.38

-1.50 %

634.44
-14.67

293+50.00

EARTH EXCAVATION = 12.5 SQ FT

℄ IL 50

632.37
3.50

-1.42 %

632.88
-2.76

632.50
-8.02

293+29.10

EARTH EXCAVATION = 8.0 SQ FT

℄ IL 50

631.57
5.49

631.69
-8.17

FILE NAME	USER NAME = anthony.friedman	DESIGNED - BKW	REVISED -	
D9105519-sht-Cross-Sections-001.dgn		DRAWN - BKW	REVISED -	
exp U.S. Services Inc. Chicago, IL BUILDINGS • EARTH & ENVIRONMENT • ENERGY INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY	PLOT SCALE = 20.0000 ' / in.	CHECKED - DDH	REVISED -	
	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

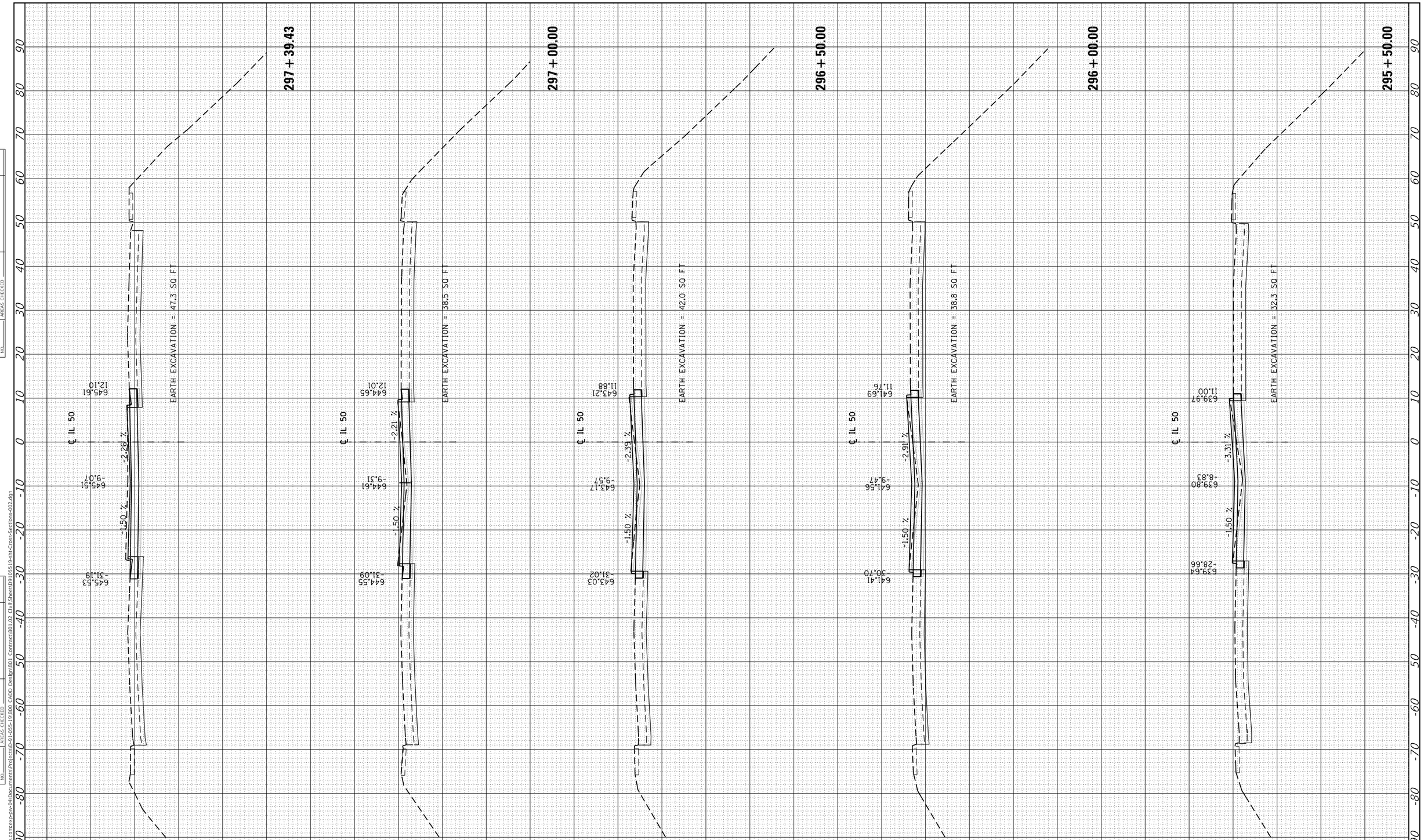
CROSS SECTIONS
IL 50 (CICERO AVENUE)

SCALE: | SHEET OF SHEETS | STA. 293+00 | TO STA. 294+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	92
		CONTRACT NO. 62H50		
	ILLINOIS FED. AID PROJECT			

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

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



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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

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Chicago, IL
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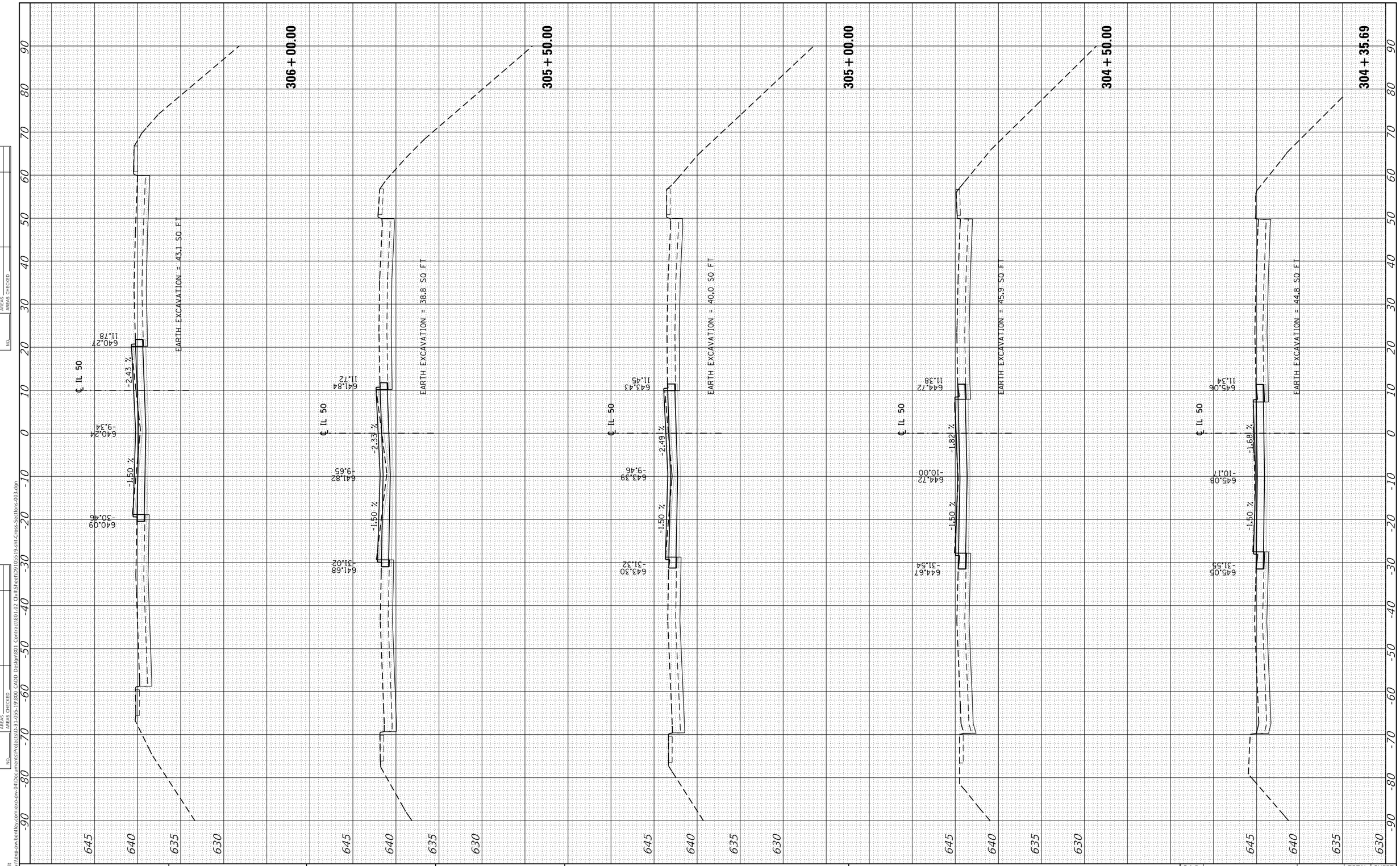
INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 50 (CICERO AVENUE)

SCALE: | SHEET OF SHEETS | STA. 295+50 | TO STA. 297+39.41

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	93
		CONTRACT NO. 62H50		
		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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PLOT SCALE = 20.0000 ' / in.		CHECKED - DDH	REVISED -
PLOT DATE = 10/14/2020		DATE - 10/15/2020	REVISED -

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INDUSTRIAL+INFRASTRUCTURE+SUSTAINABILITY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

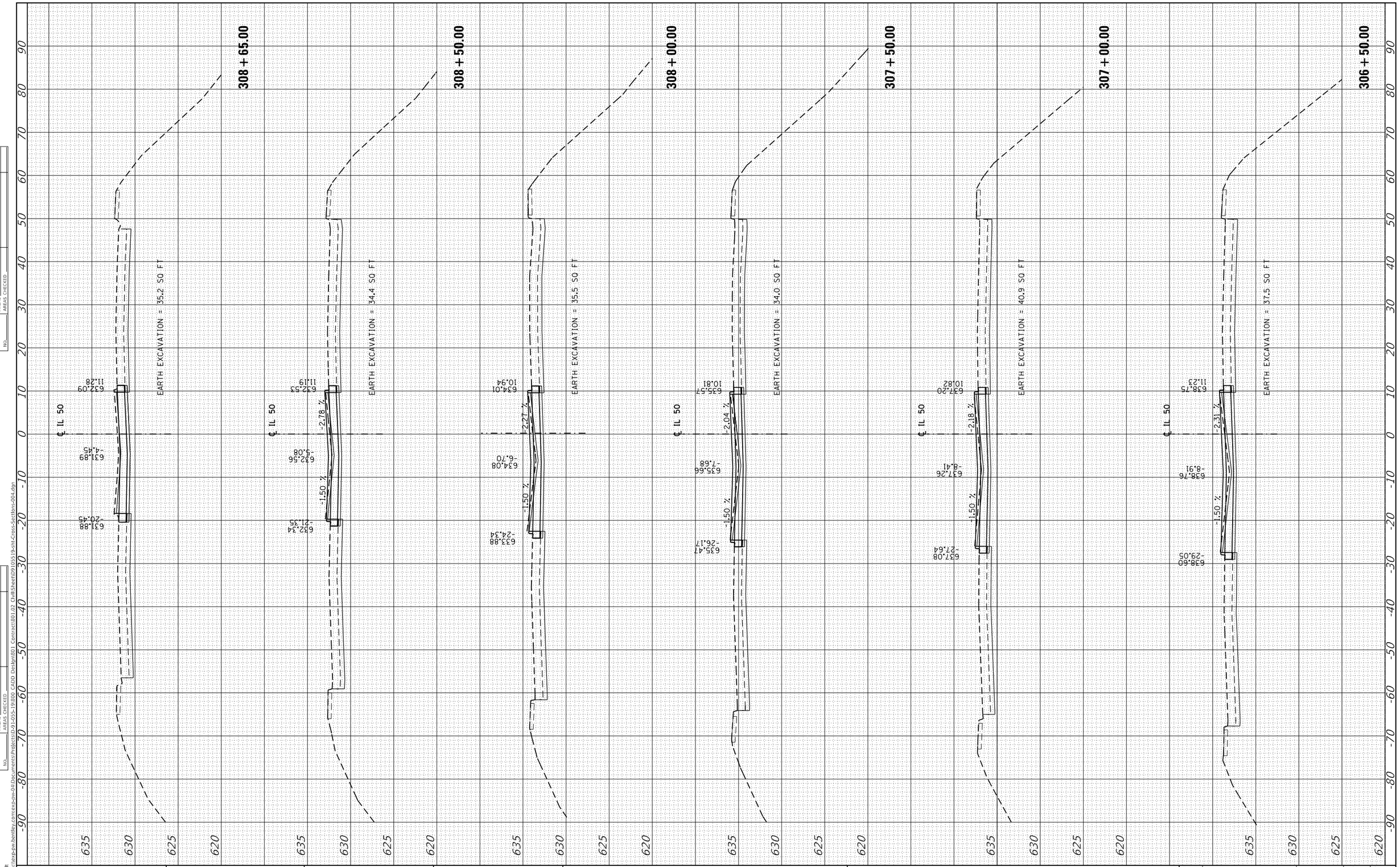
CROSS SECTIONS
IL 50 (CICERO AVENUE)

SCALE: | SHEET OF SHEETS | STA. 304+35.69 TO STA. 306+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	94
		CONTRACT NO. 62H50		
	ILLINOIS	FED. AID PROJECT		

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

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



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	PLOT DATE = 10/14/2020	DATE - 10/15/2020	REVISED -

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS–SECTIONS
IL 50 (CICERO AVENUE)

SCALE: | SHEET OF SHEETS | STA. 306+50 | TO STA. 308+65

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2018-124-BR	COOK	95	95
		CONTRACT NO. 62H50		
		ILLINOIS	FED. AID PROJECT	