

018

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS

04-24-2020 LETTING ITEM 018

FAJ A/E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	15	1
		ILLINOIS	CONTRACT NO. 62K23	

JAMES F. MC NALLY
 LICENSED PROFESSIONAL ENGINEER
 STATE OF ILLINOIS
 03-061255
 DATE: 03/16/2020
 SIGNATURE AND SEAL APPLIES TO DRAWING(S):
 EXPIRES: 11-30-2021

SE3, LLC
PHILIP J. MINGA, P.E.
 LICENSED PROFESSIONAL ENGINEER
 STATE OF ILLINOIS
 062-045292
 DATE: 03/16/2020
 SIGNATURE AND SEAL APPLIES TO DRAWING(S):
 EXPIRES: 11-30-2021

BRANDON L. BUZZELL
 LICENSED STRUCTURAL ENGINEER
 STATE OF ILLINOIS
 081-006358
 DATE: 03/15/2020
 SIGNATURE AND SEAL APPLIES TO DRAWING(S):
 EXPIRES: 11-30-2020

ROBERT J. DEMING
 LICENSED PROFESSIONAL ENGINEER
 OF ILLINOIS
 062-057483
 DATE: 03/16/2020
 SIGNATURE AND SEAL APPLIES TO DRAWING(S):
 EXPIRES: 11-30-2021

ZAIDA MORILLO
 LICENSED STRUCTURAL ENGINEER
 STATE OF ILLINOIS
 081-008252
 DATE: 03/16/2020
 SIGNATURE AND SEAL APPLIES TO DRAWING(S):
 EXPIRES: 11-30-2020

DEPARTMENT OF TRANSPORTATION

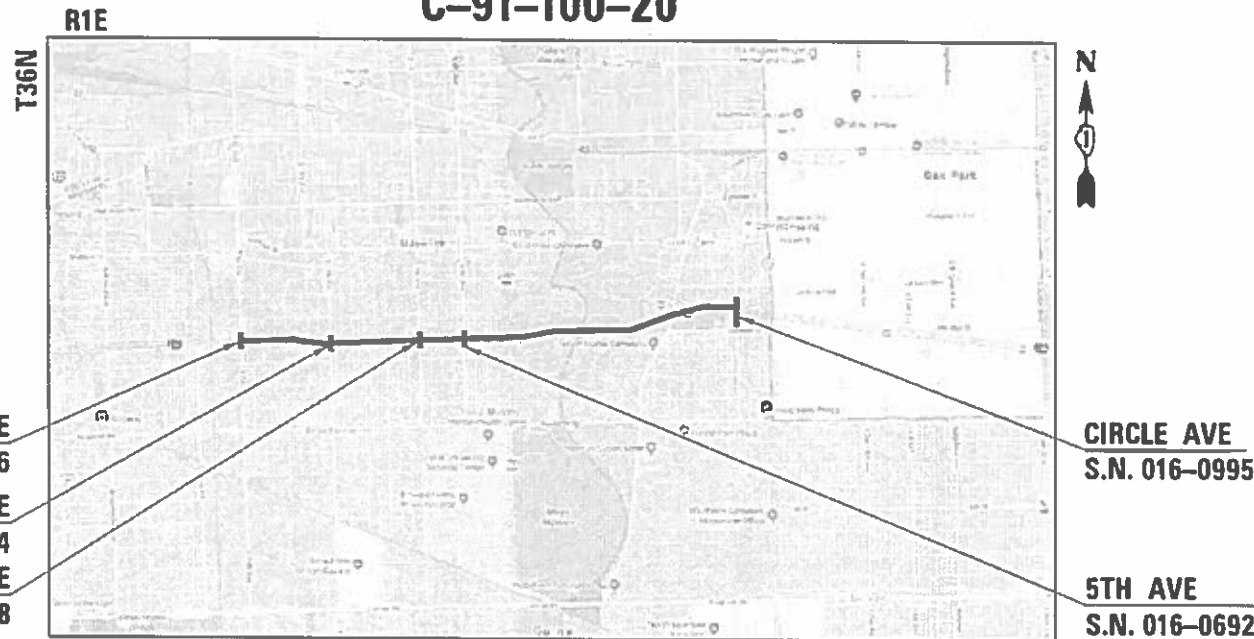
PROPOSED HIGHWAY PLANS

FAI ROUTE I-290 / IL 110 EISENHOWER EXPRESSWAY
 FROM 25TH AVE TO CIRCLE AVE
 SECTION: 2019-151-BR
 BRIDGE REPAIR
 COOK COUNTY

D-91-307-20



C-91-100-20



LOCATION MAP

(NOT TO SCALE)

GROSS LENGTH = 15,154 FT. = 2.87 MILES

NET LENGTH = 15,154 FT. = 2.87 MILES

THIS IMPROVEMENT IS LOCATED WITHIN THE VILLAGES OF BELLWOOD, MAYWOOD, FOREST PARK, AND BROADVIEW.

DESIGN DESIGNATION (TRAFFIC DATA) - POSTED SPEED

- FAI-290 - INTERSTATE (193,300) - 55 MPH
- 25TH AVE - MINOR ARTERIAL (23,900) - 30 MPH
- 17TH AVE - MAJOR COLLECTOR (8,400) - 30 MPH
- 9TH AVE - MAJOR COLLECTOR (8,250) - 30 MPH
- 5TH AVE - MAJOR COLLECTOR (9,600) - 30 MPH
- CIRCLE AVE - MAJOR COLLECTOR (4,550) - 30 MPH



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, PE (847) 705-4237
 PROJECT MANAGER: FAWAD AQUEEL, PE, PTOE (847) 705-4247

CONTRACT NO. 62K23

BAXTER & WOODMAN

Primera

SE3

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED March 17, 2020
Anthony J. Quigley REGIONAL ENGINEER
March 20, 2020
Mark [Signature] ENGINEER OF DESIGN AND ENVIRONMENT
March 20, 2020
James M. [Signature] DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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- 19-23 PAVEMENT MARKING PLANS
- 24-31 S.N. 016-0686 25TH AVE BRIDGE
- 32-38 S.N. 016-0694 17TH AVE BRIDGE
- 39-46 S.N. 016-2058 9TH AVE BRIDGE
- 47-53 S.N. 016-0692 5TH AVE BRIDGE
- 54-61 S.N. 016-0995 CIRCLE AVE BRIDGE
- 62-75 DISTRICT ONE DETAILS

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTING AND MAINTAINING AN ELECTRONIC LOG OF ALL STAKEOUT SURVEY THAT IS PERFORMED ON THE JOB, EITHER BY HIM/HER OR ANY SUB-CONTRACTOR PERFORMING THE STAKEOUT. UPON REQUEST, ALL LOGS SHALL BE SUBMITTED TO THE DEPARTMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK, BUT SHALL BE CONSIDERED INCLUDED IN THE COST FOR CONSTRUCTION LAYOUT.
2. ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE LATEST EDITION.
4. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.
5. THE CONTRACTOR SHALL REQUEST AND GAIN APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT WWW.IDOTLCS.COM TWENTY-FOUR (24) HOURS IN ADVANCE OF ALL DAILY LANE, RAMP, AND SHOULDER CLOSURES AND 7 DAYS IN ADVANCE OF ALL PERMANENT AND WEEKEND CLOSURES ON ALL FREEWAYS AND/OR EXPRESSWAYS IN DISTRICT ONE. THIS ADVANCE NOTIFICATION IS CALCULATED BASED ON WORKWEEK OF MONDAY THROUGH FRIDAY AND SHALL NOT INCLUDE WEEKENDS NOR HOLIDAYS.
6. TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS, THE ENGINEER SHALL CONTACT KYLIE VOGRIN, AREA TRAFFIC FIELD ENGINEER AT KYLIE.VOGRIN@ILLINOIS.GOV.
7. 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.

HIGHWAY STANDARDS

STD NO.	TITLE
000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701316-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS ≥ 45MPH
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-12	LANE CLOSURE, FREEWAY/EXPRESSEWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701446-10	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE 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
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

COMMITMENTS:

NONE

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, HIGHWAY STANDARDS,
GENERAL NOTES, AND COMMITMENTS**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	2
CONTRACT NO. 62K23				
ILLINOIS		FED. AID PROJECT		

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 DATE - 03/16/2020

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62K23	

SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE				
					BRIDGE	BRIDGE	BRIDGE	BRIDGE	BRIDGE
					0047	0047	0047	0047	0047
					100% STATE	100% STATE	100% STATE	100% STATE	100% STATE
					25TH AVE SN 016-0686	17TH AVE SN 016-0694	9TH AVE SN 016-2058	5TH AVE SN 016-0692	CIRCLE AVE SN 016-0995
*	50102400	CONCRETE REMOVAL	CU YD	2		0.7		1.6	
	50157300	PROTECTIVE SHIELD	SQ YD	392	152		103		137
*	52000035	PREFORMED JOINT SEAL 2 3/4"	FOOT	140	140				
*	52000037	PREFORMED JOINT SEAL 3"	FOOT	124			124		
*	52000039	PREFORMED JOINT SEAL 3 1/4"	FOOT	200				124	76
*	52000045	PREFORMED JOINT SEAL 3 3/4"	FOOT	124		124			
	50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	18040	5910	2790	2350	3410	3580
	52100510	ANCHOR BOLTS, 3/4"	EACH	32					32
*	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	1	1	1	1	2
*	67100100	MOBILIZATION	L SUM	1	0.2	0.2	0.2	0.2	0.2
*	70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	197	197				
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	1538	262.5	425	437.5	412.5	
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1525.0	250.0	425	437.5	412.5	
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	7.0	1.0	2	2	2	
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	7	1	2	2	2	
	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	5047	2137	800	1040	1070	
	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	729		234		495	
	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1995		752	1243		
	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	139		49	46	44	
	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	2485	455	410	410	410	800
	78009024	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	FOOT	150		50	48	52	
	78100300	REPLACEMENT REFLECTOR	EACH	110	22	22	22	22	22
*	X0326766	CLEAN & RESEAL RELIEF JOINT	FOOT	52					52
*	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	5925	914	1505	1949	967	590
*	X0900031	JACK, REMOVE, AND REINSTALL EXISTING BEARINGS	EACH	8					8
*	X0900085	REMOVE EXISTING JOINT	FOOT	76					76
*	X2700003	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	366	57	103	103	103	
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.2	0.2	0.2	0.2	0.2
*	X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	0.2	0.2	0.2	0.2	0.2
*	X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	66	66				
*	X7800956	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - CONTRAST - LINE 7"	FOOT	366	57	103	103	103	
*	Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	86	8	27	23	28	
*	Z0001903	STRUCTURAL STEEL REMOVAL	POUND	18960	6030	2850	2410	3490	4180

MAINTENANCE OF TRAFFIC GENERAL NOTES

1. TRAFFIC CONDITIONS, CRASHES, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. COMPLIANCE WITH THIS REQUIREMENT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE OF THE MAINTENANCE OF TRAFFIC ITEM. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
2. THE CONTRACTOR IS DIRECTED TO THE FACT THAT OTHER SEPARATE CONTRACTS ARE, OR MAY BE, IN FORCE THAT INTERSECT THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH THE OTHER CONTRACTORS IN THE PHASING AND PERFORMANCE OF THIS WORK SO AS NOT TO DELAY, INTERRUPT, OR HINDER THE PROGRESS OR COMPLETION OF THE WORK BEING PERFORMED BY OTHER CONTRACTORS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR COMPLIANCE WITH THE ABOVE REQUIREMENTS, NOR FOR ANY DELAYS OR INCONVENIENCES RESULTING FROM THE ACTIVITIES OF OTHER CONTRACTORS. SHOULD A CONFLICT ARISE BETWEEN THE CONTRACTORS WITH RESPECT TO SEQUENCE OF CONSTRUCTION OR MAINTENANCE OF TRAFFIC REQUIREMENTS, SAID CONFLICTS SHALL BE RESOLVED BY, OR AT THE DIRECTION OF THE ENGINEER.
3. THE MAINTENANCE OF TRAFFIC PLANS SHALL SERVE AS A GUIDE FOR THE SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. THE CONTRACTOR MAY MODIFY THE MAINTENANCE OF TRAFFIC PLANS TO MEET CONSTRUCTION NEEDS, BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. THE ENGINEER SHALL BE INFORMED IN WRITING A MINIMUM OF 48 HOURS IN ADVANCE OF ANY CHANGE TO THE MAINTENANCE OF TRAFFIC PLANS. CONTACT THE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT 847-705-4151. REFER TO THE "KEEPING THE EXPRESSWAY OPEN TO TRAFFIC" SPECIAL PROVISION FOR LANE CLOSURE AND STAGE REQUIREMENTS.
4. CONFLICTING EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PER STAGE AS NEEDED. THIS WILL BE PAID FOR AS PAVEMENT MARKING REMOVAL - WATER BLASTING (X0327980).
5. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY PAVEMENT MARKINGS THAT CONFLICT WITH THE STAGING. REMOVAL OF PAVEMENT MARKING TAPE WILL BE PAID FOR AS TEMPORARY PAVEMENT MARKING REMOVAL (X7030005).
6. ALL TRAFFIC CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO DRUMS, VERTICAL PANELS, AND BARRICADES IMMEDIATELY ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS.
7. ALL SIGN ASSEMBLIES SHALL BE CERTIFIED BY THE CONTRACTOR AS MEETING THE APPLICABLE REQUIREMENTS OF NCHRP REPORT 350, TEST LEVEL 3 AND SHALL BE APPROVED BY THE ENGINEER.
8. THE CONTRACTOR SHALL REMOVE OR COVER ALL EXISTING SIGNS THAT CONFLICT WITH OR DO NOT APPLY TO THE REVISED TRAFFIC PATTERNS AND SHALL RESTORE THE SIGNS AT THE END OF CONSTRUCTION AS DIRECTED BY THE ENGINEER. COMPLIANCE WITH THIS REQUIREMENT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE OF THE MAINTENANCE OF TRAFFIC ITEM. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
9. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCE NOTICE TO THE ENGINEER OF ANY CONSTRUCTION WORK THAT MAY IMPACT ANY ROADWAY LIGHTING.
10. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ANY EXISTING SIGNS REMOVED, BUT NOT RELOCATED, FROM THE PROJECT. THE CONTRACTOR SHALL PROPERLY STORE RELOCATED SIGNS AS APPROVED BY THE ENGINEER UNTIL THEY ARE PROPERLY RE-ERECTED.
11. CONFLICTING PAVEMENT MARKER REFLECTORS SHALL BE REMOVED PER STAGE AS NEEDED. EXISTING REFLECTORS THAT ARE DAMAGED SHALL ALSO BE REPLACED. THE REPLACEMENT OF THE REFLECTORS WILL BE PAID FOR AS REPLACEMENT REFLECTOR (70100300).
12. PLEASE ENSURE OUR FACILITY LOCATIONS ARE IDENTIFIED PRIOR TO PROCEEDING WITH ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING OUR FACILITIES FROM ALL CONSTRUCTION OPERATIONS, VIBRATIONS AND HEAVY EQUIPMENT. IT IS REQUESTED THAT DURING CONSTRUCTION, EXTRA CAUTION BE TAKEN TO PROTECT THE SAFETY AND INTEGRITY OF OUR FACILITIES. IN ORDER TO MAINTAIN SERVICE, NO ACCESS HATCHES AND MANHOLE COVERS ON MWRD STRUCTURES AND MANHOLES WITHIN IN THE PROJECT AREA SHALL BE BURIED OR COVERED; NO DEBRIS SHALL ENTER MWRD STRUCTURES, SEWERS, OR FACILITIES. MWRD PERSONNEL SHALL HAVE 24 HOUR-A-DAY UNRESTRICTED ACCESS ALL MWRD FACILITIES. FOR ANY QUESTIONS REGARDING ACCESS TO OUR FACILITY OR FIELD LOCATION, PLEASE CONTACT MR. STEVE WHITEHEAD, SENIOR CIVIL ENGINEER, AT (708) 588-4080. WE FURTHER REQUEST THAT MWRD MANHOLES BE LOCATED, PROTECTED AND/OR ADJUSTED TO GRADE. IF NECESSARY. AUTHORIZATION MAY BE OBTAINED BY CONTACTING MR. CEDRIC ROBERTSON, MANAGING ENGINEER, AT (708) 751-3234.
13. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR FOR ARTERIALS AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV AT LEAST 72 HOURS BEFORE BEGINNING WORK.

BRIDGE WORK NOTES

1. THE NOTES BELOW ARE TYPICAL FOR THE REPAIR WORK TAKING PLACE ON EACH OF THE BRIDGES.
2. LONG TERM CLOSURES SHALL NOT OCCUR SIMULTANEOUSLY ON ADJACENT BRIDGES. FOR EXAMPLE, LONG TERM CLOSURES SHALL NOT TAKE PLACE ON THE 9TH AVENUE AND 17TH AVENUE BRIDGES AT THE SAME TIME. DURING THE LANE CLOSURES DECK REPAIRS AND STEEL REPAIRS CAN BE DONE CONCURRENTLY. DECK OR APPROACH SLAB REPAIRS ADJACENT TO POLYMER CONCRETE MUST BE DONE ON SEPARATE DAYS.
3. EXPANSION JOINT REMOVAL AND REPLACEMENT WILL BE DONE ALL IN ONE DAY (BOTH ENDS), BUT WILL REQUIRE CLOSURES IN BOTH DIRECTIONS AT DIFFERENT TIMES.
4. DAYTIME LANE CLOSURES ON I-290 RAMPS & MAINLINE ARE NOT PERMITTED.

PEDESTRIAN ACCESS

1. A MINIMUM OF ONE SIDEWALK SHALL REMAIN OPEN AT ALL TIMES ACROSS BRIDGES.
2. SIDEWALKS SHALL BE CLOSED ANY TIME CONSTRUCTION IS TAKING PLACE ON THE SIDEWALK, ADJACENT PARAPET, PARAPET FENCE, OR ADJACENT ROADWAY/BRIDGE LANE.
3. SIGNAGE FOUND ON IDOT HIGHWAY STANDARD 701801 SHALL BE UTILIZED TO CLOSE A SIDEWALK.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC: STAGING NOTES		F.A.J RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		290	2019-151-BR	COOK	75	5
SCALE:		SHEET 1 OF 14 SHEETS		STA.		TO STA.
		ILLINOIS		FED. AID PROJECT		BRIDGE REPAIR

CONTRACT NO. 62K23

MAINTENANCE OF TRAFFIC SEQUENCING NOTES (25TH AVENUE)

STAGE 1

CLOSE OUTSIDE LANE AND SIDEWALK ON EAST SIDE OF BRIDGE TO PERFORM BRIDGE REPAIRS. UTILIZE IDOT STANDARDS 701401 & 701446 FOR SINGLE AND MULTILANE CLOSURES ALONG I-290 WHILE INSTALLING PROTECTIVE SHIELDING.

STAGE 2

CLOSE INSIDE LANE TO PERFORM BRIDGE REPAIRS. UTILIZE IDOT STANDARDS 701401 & 701446 FOR SINGLE AND MULTILANE CLOSURES ALONG I-290 WHILE INSTALLING PROTECTIVE SHIELDING.

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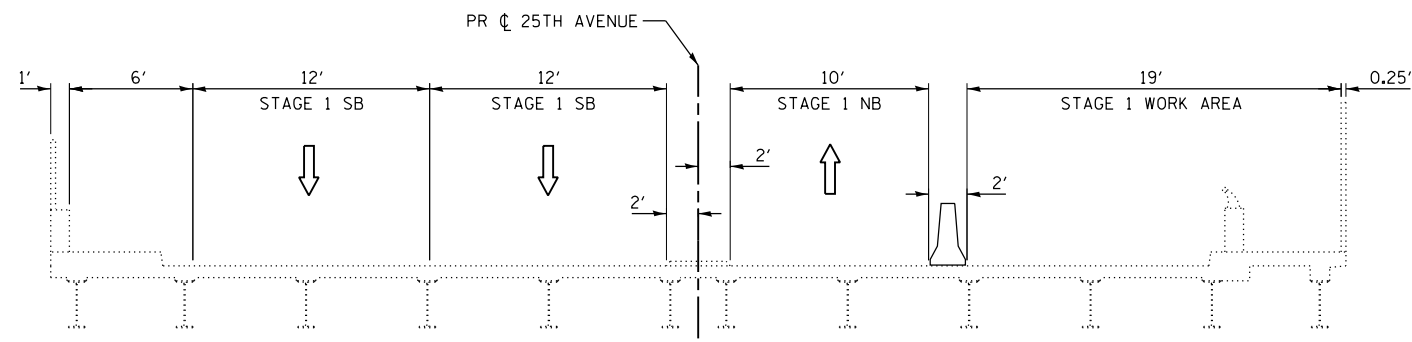
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

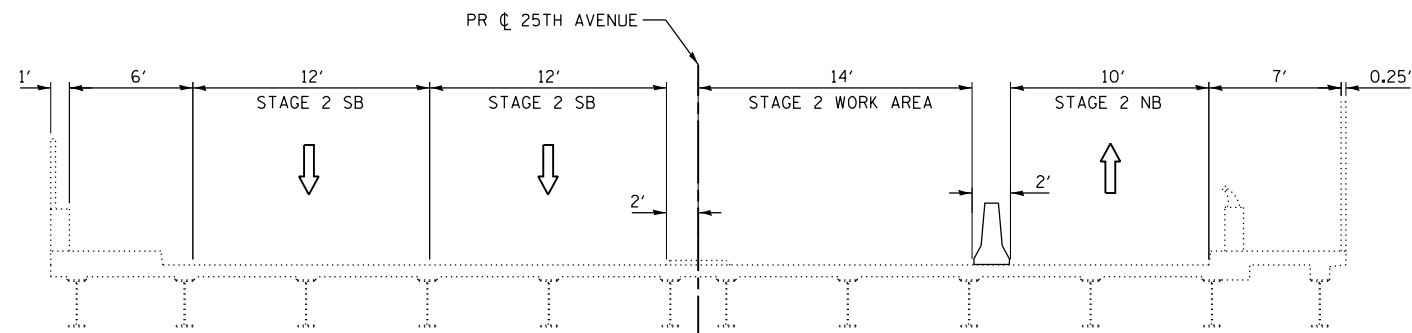
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STAGING DESCRIPTION**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	6
CONTRACT NO. 62K23				
		ILLINOIS	FED. AID PROJECT	





25TH AVENUE BRIDGE
(SN 016-0686)
STAGE 1



25TH AVENUE BRIDGE
(SN 016-0686)
STAGE 2

MOT TYPICAL LEGEND

-  DIRECTION OF TRAFFIC
-  TEMPORARY CONCRETE BARRIER

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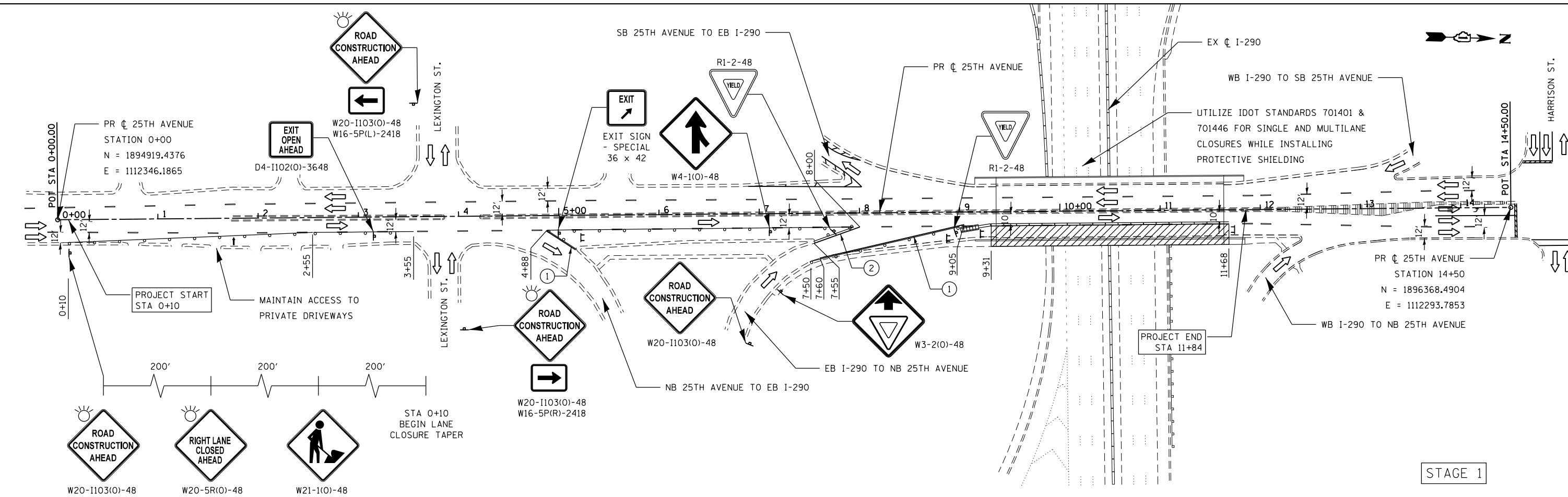
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PLAN
TYPICAL SECTIONS

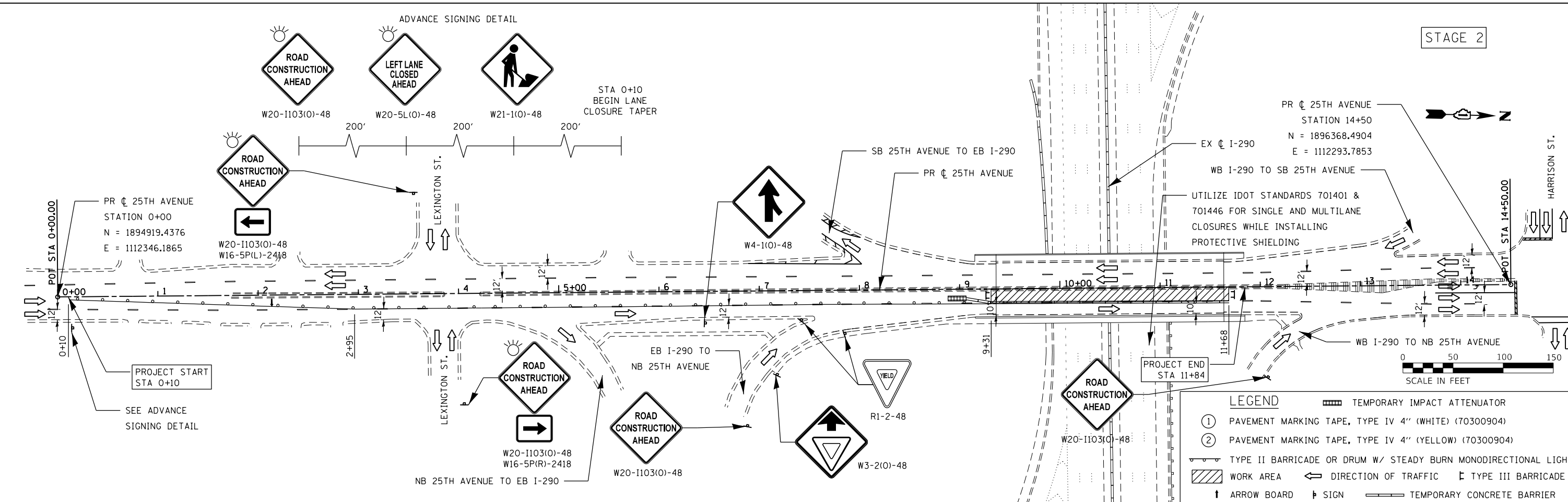
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	7
CONTRACT NO. 62K23				
ILLINOIS		FED. AID PROJECT		

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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-0910 F:312-406-4945



STAGE 1



STAGE 2

LEGEND

- ① PAVEMENT MARKING TAPE, TYPE IV 4" (WHITE) (70300904)
- ② PAVEMENT MARKING TAPE, TYPE IV 4" (YELLOW) (70300904)
- TYPE II BARRICADE OR DRUM W/ STEADY BURN MONODIRECTIONAL LIGHT
- WORK AREA
- ← DIRECTION OF TRAFFIC
- ↑ ARROW BOARD
- ↑ SIGN
- TEMPORARY IMPACT ATTENUATOR
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER



USER NAME = jrice	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/13/2020	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PLAN
25TH AVENUE**

SCALE: 50:1 SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	8
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC SEQUENCING NOTES (17TH AVENUE)

STAGE 1

CLOSE OUTSIDE LANES AND SIDEWALK ON WEST SIDE OF BRIDGE TO PERFORM BRIDGE REPAIRS. UTILIZE IDOT STANDARDS 701401 & 701446 FOR SINGLE AND MULTILANE CLOSURES ALONG I-290 WHILE INSTALLING PROTECTIVE SHIELDING. UTILIZE IDOT STANDARD 701606 FOR SINGLE LANE CLOSURE ALONG BATAAN DR AND HARRISON ST.

STAGE 2

CLOSE INSIDE LANES AND SIDEWALK ON EAST SIDE OF BRIDGE TO PERFORM BRIDGE REPAIRS. UTILIZE IDOT STANDARDS 701401 & 701446 FOR SINGLE AND MULTILANE CLOSURES ALONG I-290 WHILE INSTALLING PROTECTIVE SHIELDING. UTILIZE IDOT STANDARD 701606 FOR SINGLE LANE CLOSURE ALONG BATAAN DR AND HARRISON ST.

MODEL: Default
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 100 N. WACKER DRIVE SUITE 700, CHICAGO IL 60606 - P:312-405-8900 F:312-406-4945



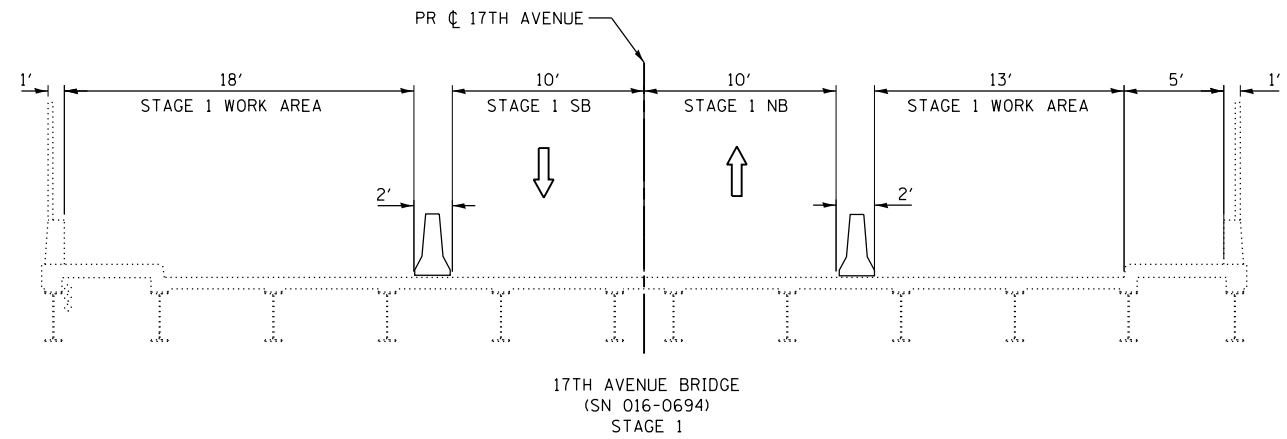
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PLOT DATE = 3/13/2020	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

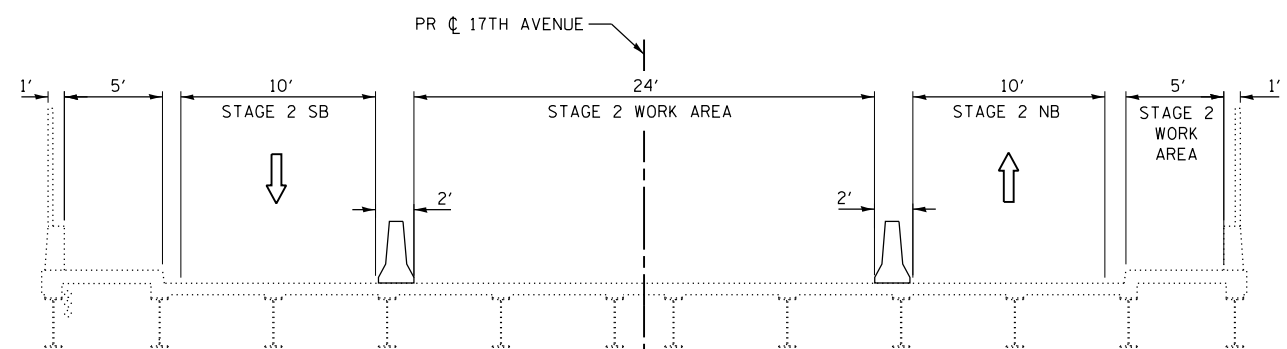
**MAINTENANCE OF TRAFFIC PLAN
STAGING DESCRIPTION**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	9
CONTRACT NO. 62K23				
		ILLINOIS	FED. AID PROJECT	





17TH AVENUE BRIDGE
(SN 016-0694)
STAGE 1



17TH AVENUE BRIDGE
(SN 016-0694)
STAGE 2

MOT TYPICAL LEGEND

-  DIRECTION OF TRAFFIC
-  TEMPORARY CONCRETE BARRIER

MODEL: Default
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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-0910 F:312-406-4945



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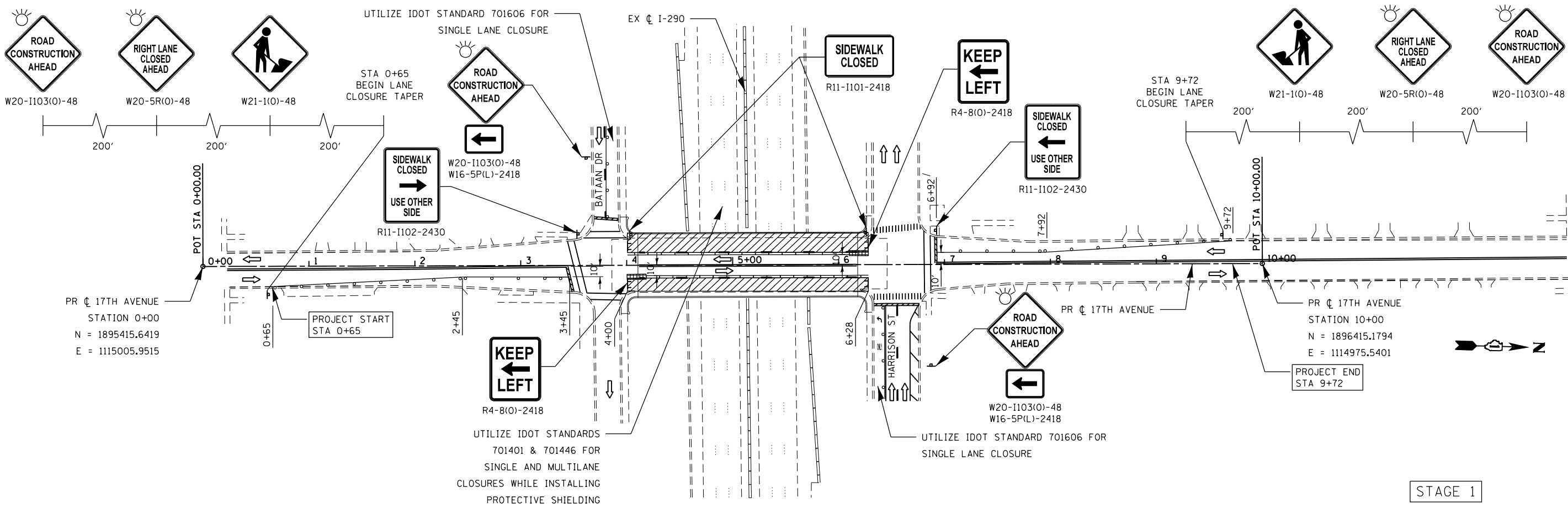
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PLAN
TYPICAL SECTIONS

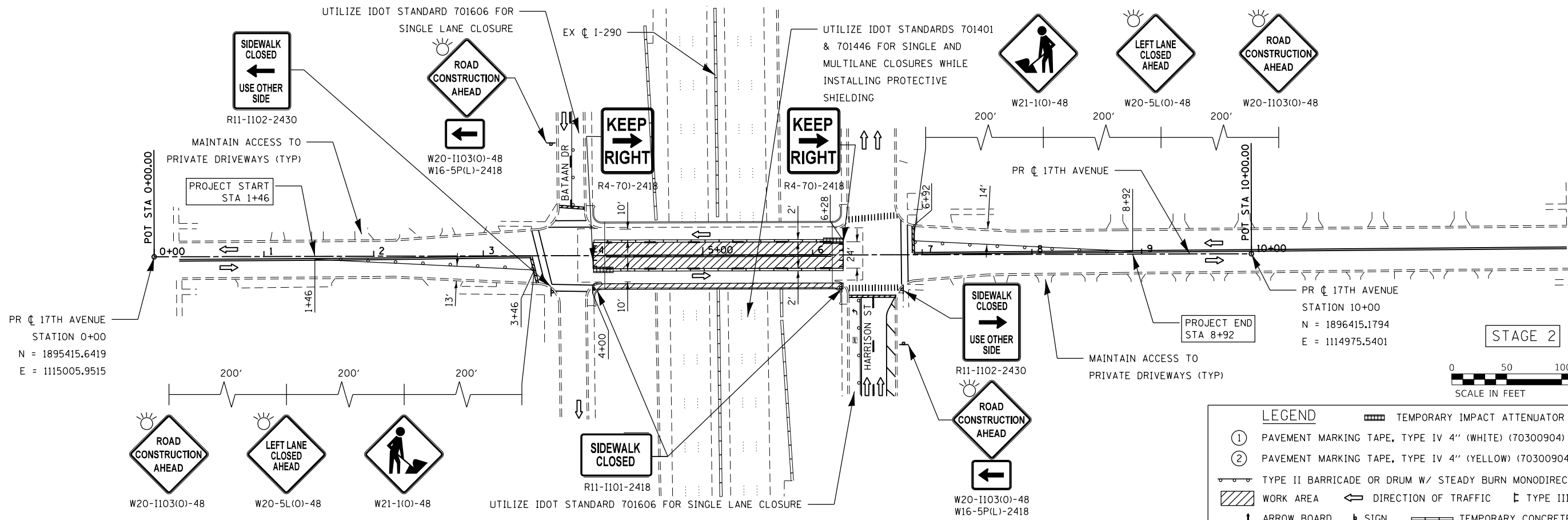
SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	10
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P.312-455-8910 F.312-486-2415



STAGE 1



STAGE 2

LEGEND

①	PAVEMENT MARKING TAPE, TYPE IV 4" (WHITE) (70300904)	▬▬▬	TEMPORARY IMPACT ATTENUATOR
②	PAVEMENT MARKING TAPE, TYPE IV 4" (YELLOW) (70300904)	▬▬▬	TEMPORARY CONCRETE BARRIER
▬▬▬	TYPE II BARRICADE OR DRUM W/ STEADY BURN MONODIRECTIONAL LIGHT	←	DIRECTION OF TRAFFIC
▬▬▬	WORK AREA	⊥	TYPE III BARRICADE
↑	ARROW BOARD	⊥	SIGN



USER NAME = jrice	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/13/2020	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PLAN
17TH AVENUE

SCALE: 50:1	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	11
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC SEQUENCING NOTES (9TH AVENUE)

STAGE 1

CLOSE OUTSIDE LANES AND SIDEWALK ON WEST SIDE OF BRIDGE TO PERFORM BRIDGE REPAIRS. UTILIZE IDOT STANDARDS 701401 & 701446 FOR SINGLE AND MULTILANE CLOSURES ALONG I-290 WHILE INSTALLING PROTECTIVE SHIELDING. UTILIZE IDOT STANDARD 701606 FOR SINGLE LANE CLOSURE ALONG HARRISON ST.

STAGE 2

CLOSE INSIDE LANES AND SIDEWALK ON EAST SIDE OF BRIDGE TO PERFORM BRIDGE REPAIRS. UTILIZE IDOT STANDARDS 701401 & 701446 FOR SINGLE AND MULTILANE CLOSURES ALONG I-290 WHILE INSTALLING PROTECTIVE SHIELDING. UTILIZE IDOT STANDARD 701606 FOR SINGLE LANE CLOSURE ALONG HARRISON ST.

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 100 N. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-8900 F:312-406-4945



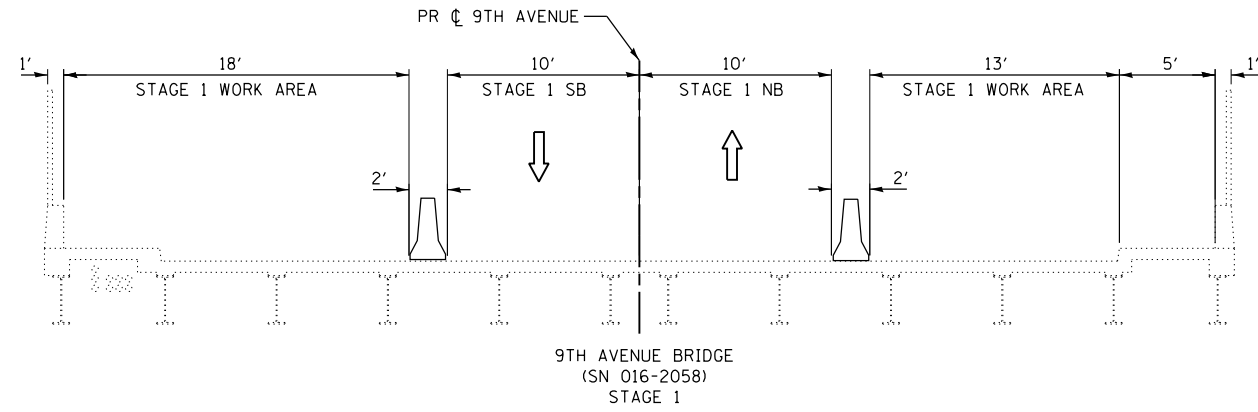
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PLOT DATE = 3/13/2020	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

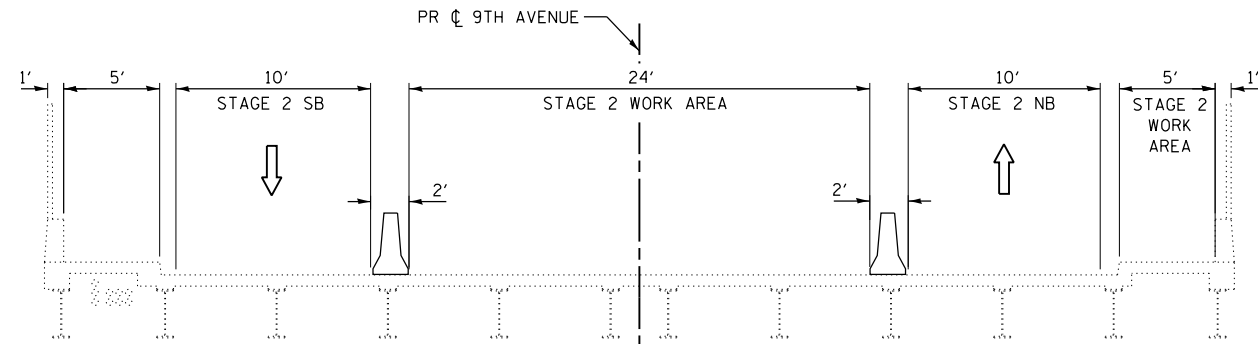
**MAINTENANCE OF TRAFFIC PLAN
STAGING DESCRIPTION**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	12
CONTRACT NO. 62K23				
		ILLINOIS	FED. AID PROJECT	





9TH AVENUE BRIDGE
(SN 016-2058)
STAGE 1



9TH AVENUE BRIDGE
(SN 016-2058)
STAGE 2

MOT TYPICAL LEGEND

-  DIRECTION OF TRAFFIC
-  TEMPORARY CONCRETE BARRIER

MODEL: Default
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 100 N. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-0910 F:312-406-2415



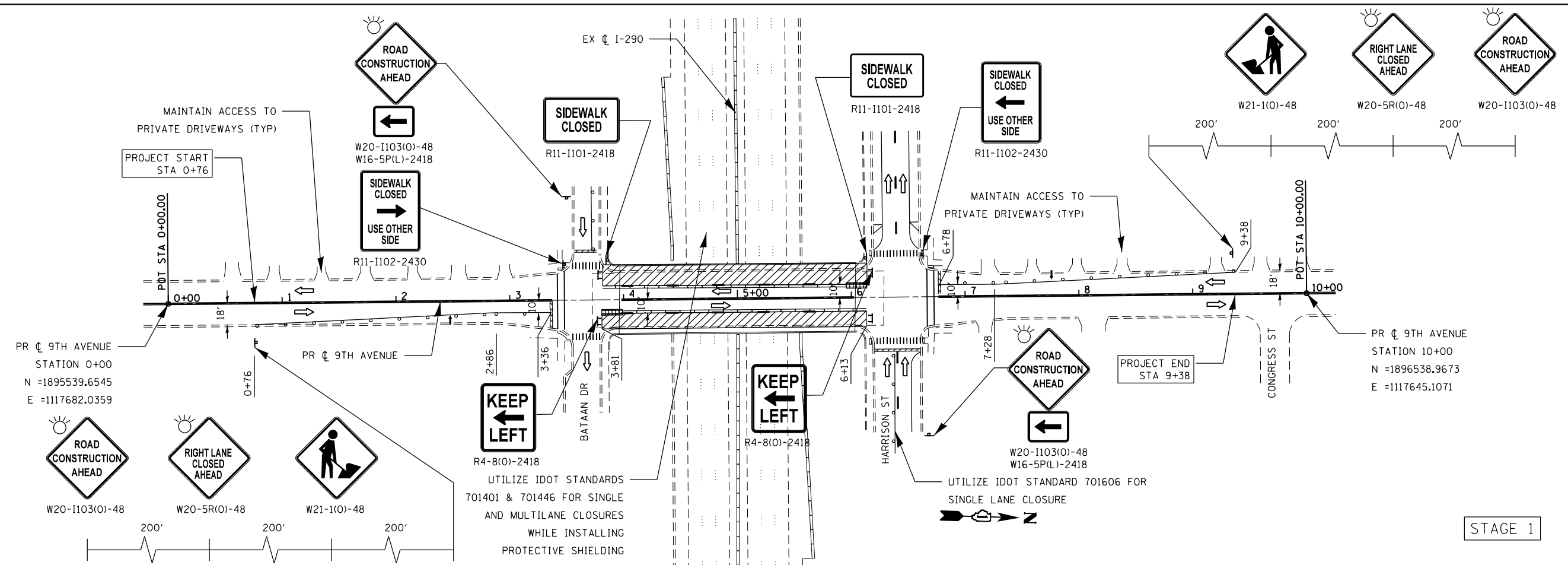
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

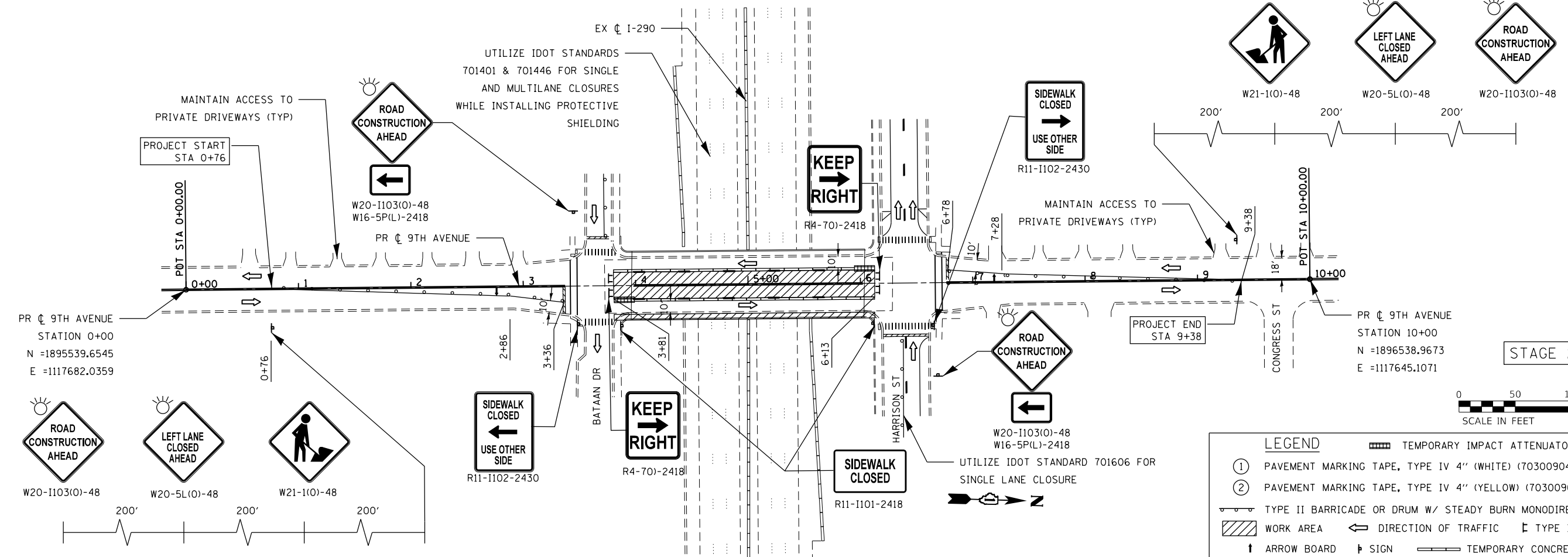
MAINTENANCE OF TRAFFIC PLAN
TYPICAL SECTIONS

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	13
CONTRACT NO. 62K23				
ILLINOIS		FED. AID PROJECT		



STAGE 1



STAGE 2

LEGEND

- ① PAVEMENT MARKING TAPE, TYPE IV 4" (WHITE) (70300904)
- ② PAVEMENT MARKING TAPE, TYPE IV 4" (YELLOW) (70300904)
- TYPE II BARRICADE OR DRUM W/ STEADY BURN MONODIRECTIONAL LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE
- ARROW BOARD
- SIGN
- TEMPORARY CONCRETE BARRIER
- TEMPORARY IMPACT ATTENUATOR



USER NAME = jrice	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/13/2020	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PLAN
9TH AVENUE

SCALE: 50:1 SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	14
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-465-8900 F:312-466-4945

MAINTENANCE OF TRAFFIC SEQUENCING NOTES (5TH AVENUE)

STAGE 1

CLOSE OUTSIDE LANES AND SIDEWALK ON WEST SIDE OF BRIDGE TO PERFORM BRIDGE REPAIRS. UTILIZE IDOT STANDARDS 701401 & 701446 FOR SINGLE AND MULTILANE CLOSURES ALONG I-290 WHILE INSTALLING PROTECTIVE SHIELDING. UTILIZE IDOT STANDARD 701606 FOR SINGLE LANE CLOSURE ALONG BATAAN DR AND HARRISON ST.

STAGE 2

CLOSE INSIDE LANES TO PERFORM BRIDGE REPAIRS. UTILIZE IDOT STANDARDS 701401 & 701446 FOR SINGLE AND MULTILANE CLOSURES ALONG I-290 WHILE INSTALLING PROTECTIVE SHIELDING. UTILIZE IDOT STANDARD 701606 FOR SINGLE LANE CLOSURE ALONG BATAAN DR AND HARRISON ST.

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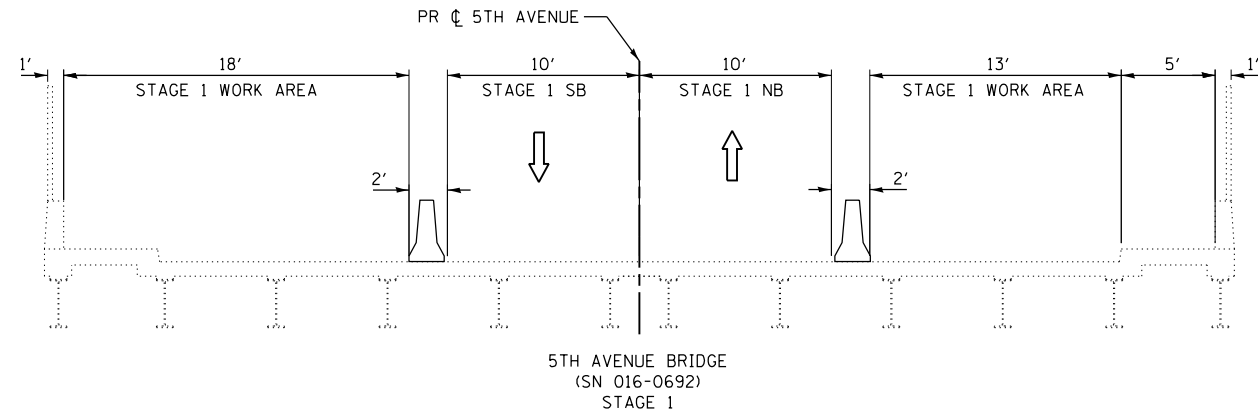
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

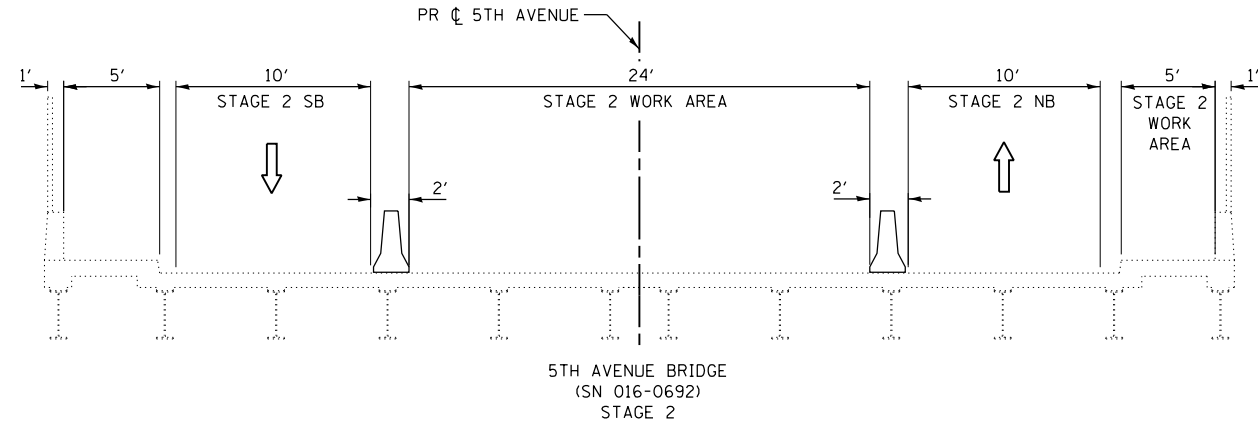
**MAINTENANCE OF TRAFFIC PLAN
 STAGING DESCRIPTION**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	15
CONTRACT NO. 62K23				
		ILLINOIS	FED. AID PROJECT	





5TH AVENUE BRIDGE
(SN 016-0692)
STAGE 1



5TH AVENUE BRIDGE
(SN 016-0692)
STAGE 2

MOT TYPICAL LEGEND

-  DIRECTION OF TRAFFIC
-  TEMPORARY CONCRETE BARRIER

MODEL: Default
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 100 N. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-0910 F:312-405-0915



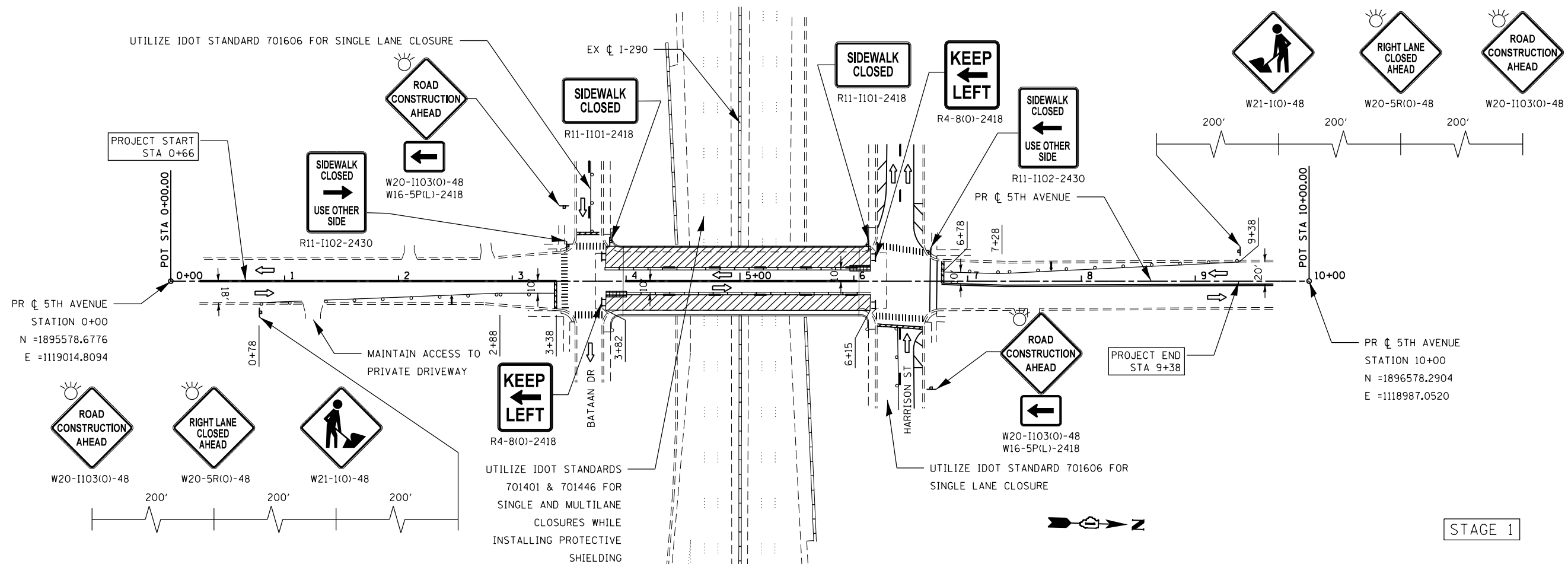
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

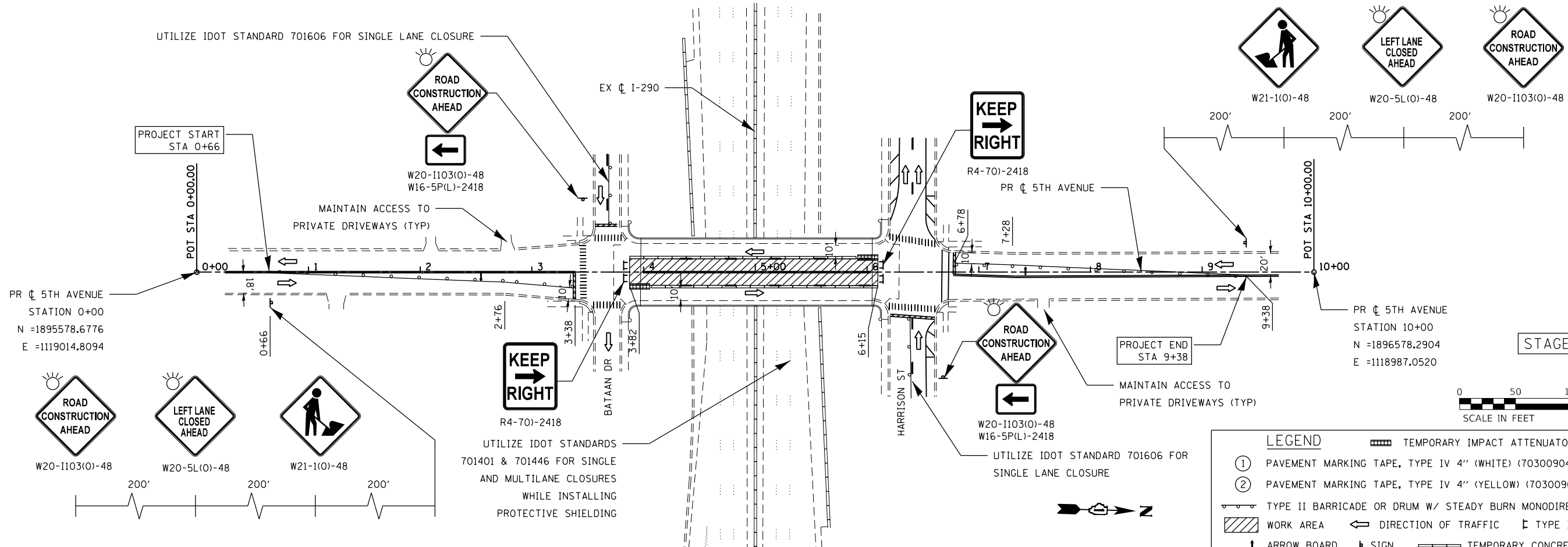
MAINTENANCE OF TRAFFIC PLAN
TYPICAL SECTIONS

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	16
CONTRACT NO. 62K23			ILLINOIS FED. AID PROJECT	



STAGE 1



STAGE 2

LEGEND

- ① PAVEMENT MARKING TAPE, TYPE IV 4" (WHITE) (70300904)
- ② PAVEMENT MARKING TAPE, TYPE IV 4" (YELLOW) (70300904)
- TYPE II BARRICADE OR DRUM W/ STEADY BURN MONODIRECTIONAL LIGHT
- ▨ WORK AREA
- ← DIRECTION OF TRAFFIC
- ⊥ TYPE III BARRICADE
- ↑ ARROW BOARD
- ⊥ SIGN
- ▬ TEMPORARY CONCRETE BARRIER
- ▨ TEMPORARY IMPACT ATTENUATOR

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

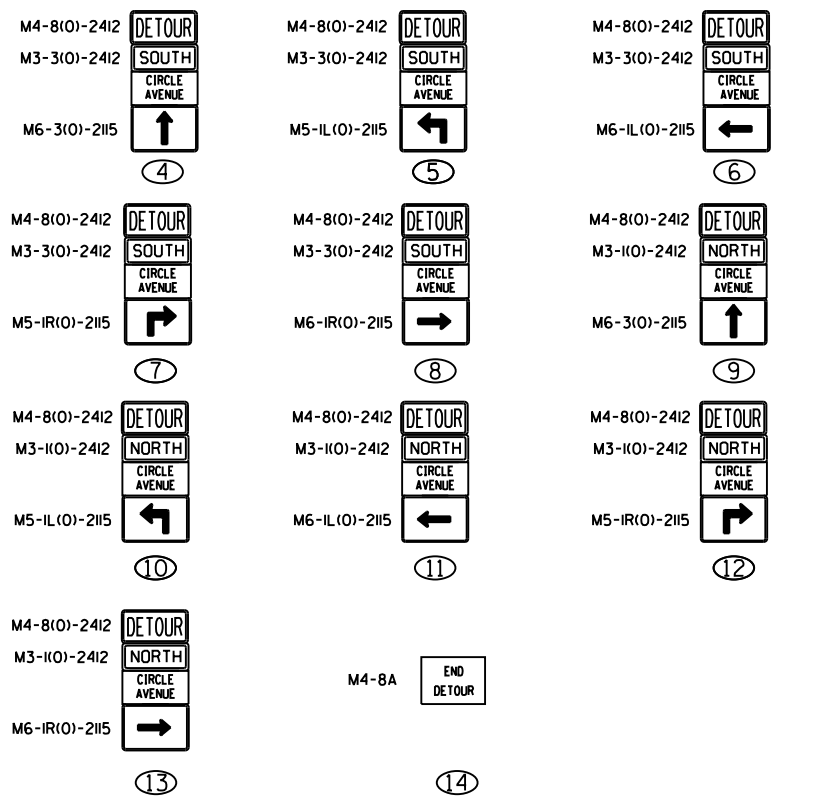
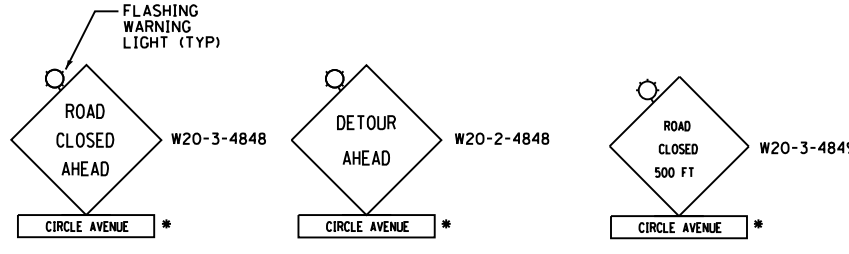
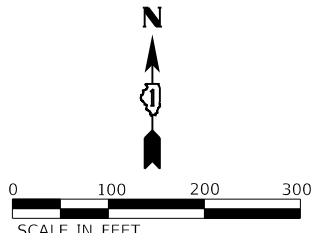
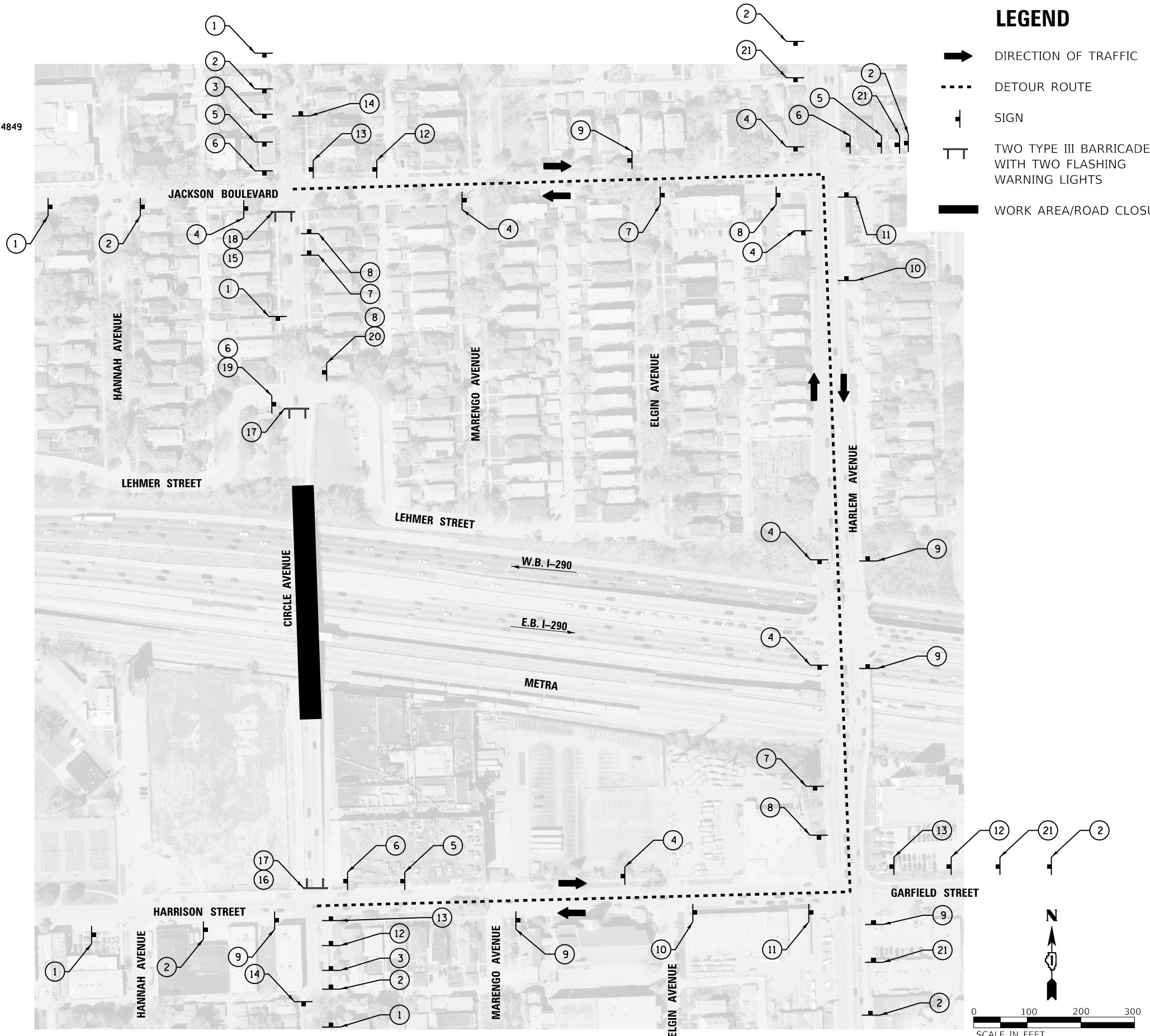
MAINTENANCE OF TRAFFIC PLAN
5TH AVENUE

SCALE: 50:1 SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	17
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

LEGEND

- DIRECTION OF TRAFFIC
- DETOUR ROUTE
- SIGN
- TWO TYPE III BARRICADES WITH TWO FLASHING WARNING LIGHTS
- WORK AREA/ROAD CLOSURE



* STREET NAME SIGN SHALL NOT BE USED WHEN SIGN IS LOCATED ON CIRCLE AVENUE

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
 LICENSE NO. - 184-001121 - EXPIRES 4/30/2020
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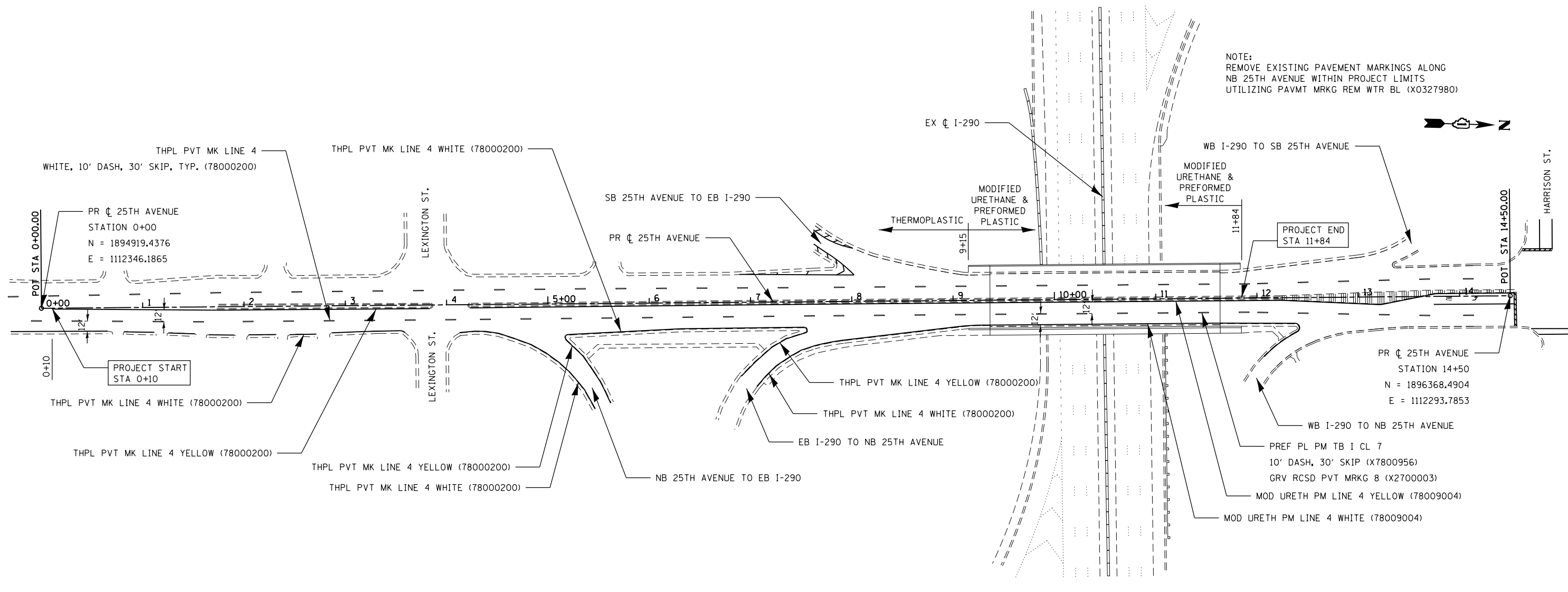
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC - DETOUR			
CIRCLE AVENUE			
SCALE: 1" = 100'	SHEET 14	OF 14 SHEETS	STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	18
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT BRIDGE REPAIR				

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 100 S. WACKER DRIVE SUITE 700, CHICAGO IL 60606 - P:312-405-4000 F:312-406-4045



NOTE:
 REMOVE EXISTING PAVEMENT MARKINGS ALONG
 NB 25TH AVENUE WITHIN PROJECT LIMITS
 UTILIZING PAVMT MRKG REM WTR BL (X0327980)



USER NAME = jrice	DESIGNED -	REVISED -
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PLOT DATE = 3/13/2020	CHECKED -	REVISED -
	DATE -	REVISED -

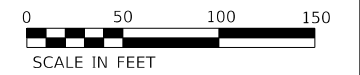
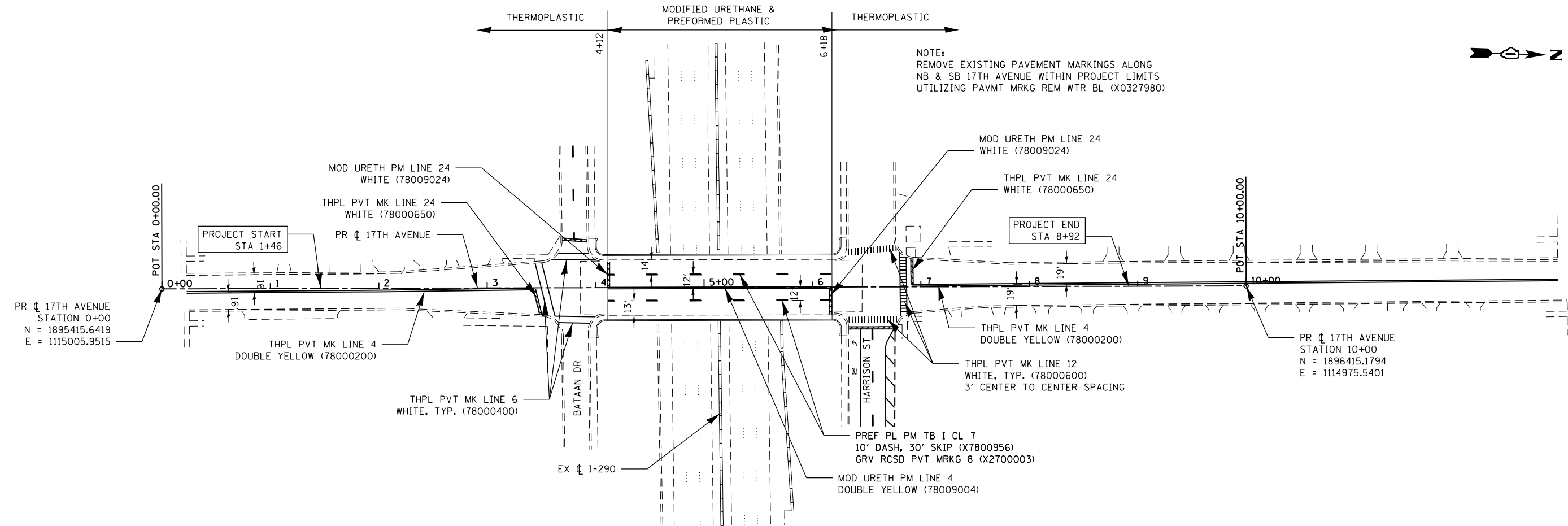
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
 25TH AVENUE**

SCALE: 50:1 SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	19
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-0900 F:312-406-4945



USER NAME = jrice	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/13/2020	CHECKED -	REVISED -
	DATE -	REVISED -

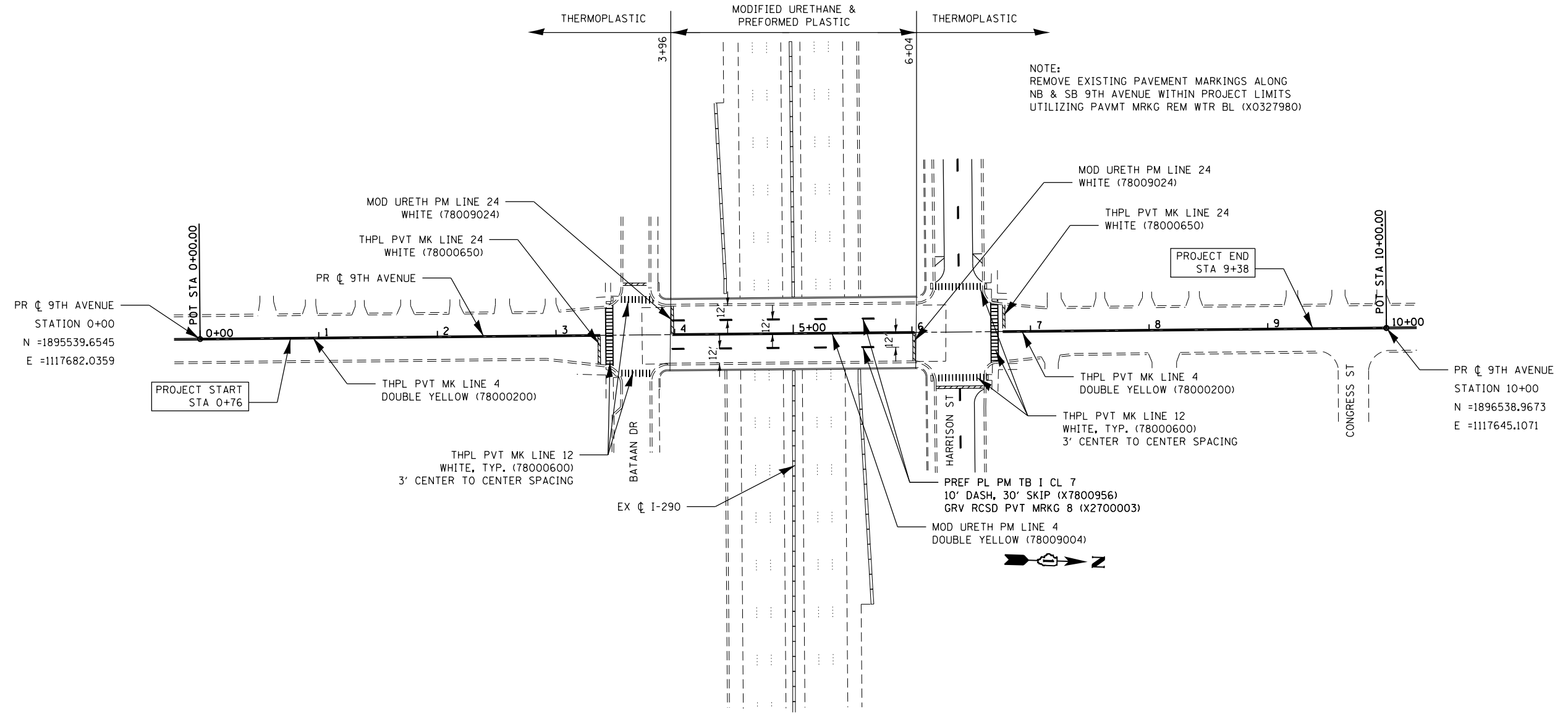
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
17TH AVENUE**

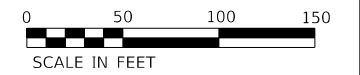
SCALE: 50:1 SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	20
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

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NOTE:
 REMOVE EXISTING PAVEMENT MARKINGS ALONG
 NB & SB 9TH AVENUE WITHIN PROJECT LIMITS
 UTILIZING PAVMT MRKG REM WTR BL (X0327980)



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	DATE -	REVISED -

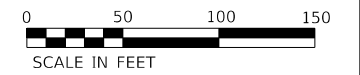
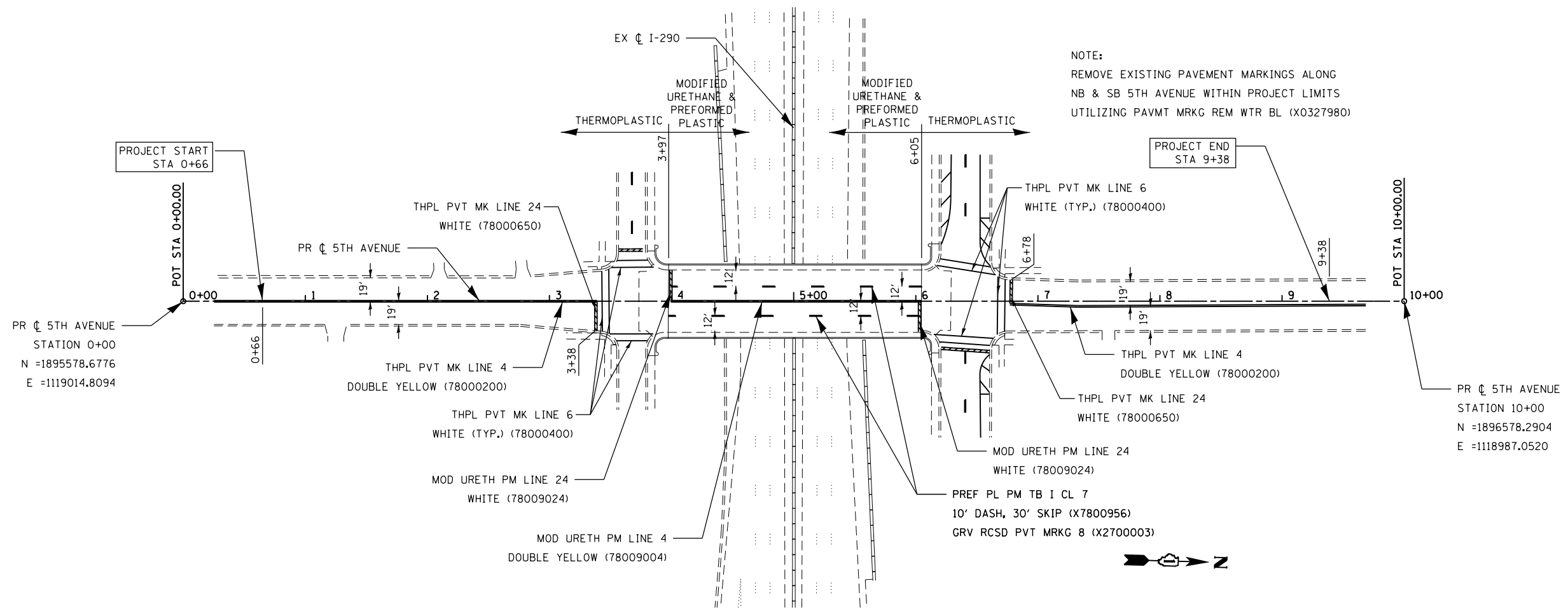
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
 9TH AVENUE

SCALE: 50:1 SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	21
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-8900 F:312-406-4945



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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
5TH AVENUE

SCALE: 50:1 SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	22
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT				

NOTE:

ALL 10' LINE, 30' GAP LINES ON PCC SHALL BE PERFORMED PLASTIC PAVEMENT MARKING TYPE B, INLAID, CONTRAST, WITH GROOVING FOR RECESSED PAVEMENT MARKINGS. ALL OTHER PAVEMENT MARKING MATERIAL PLACED ON HMA PAVEMENT SHALL BE THERMOPLASTIC. ALL OTHER PAVEMENT MARKING MATERIAL PLACED ON PCC PAVEMENT SHALL BE MODIFIED URETHANE.



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 STATE OF ILLINOIS, PROFESSIONAL DESIGN FIRM
 LICENSE NO. - 184-001121 - EXPIRES 4/30/2020
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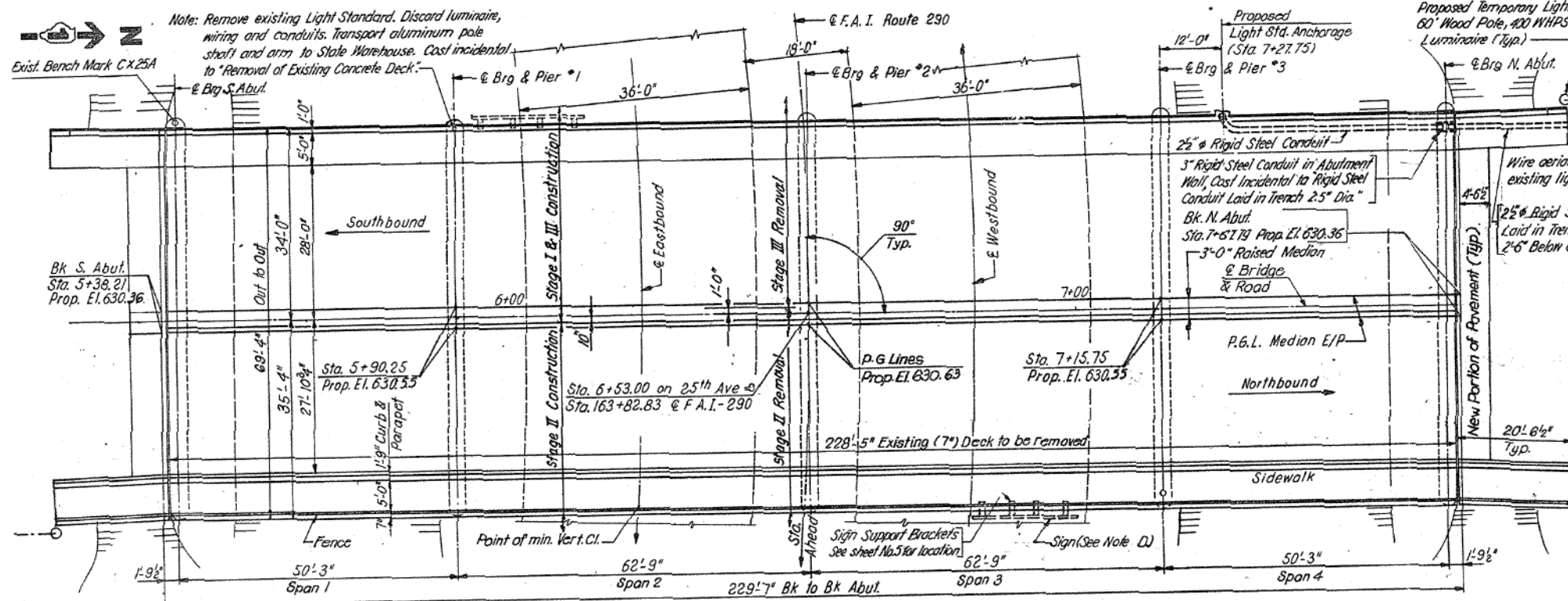


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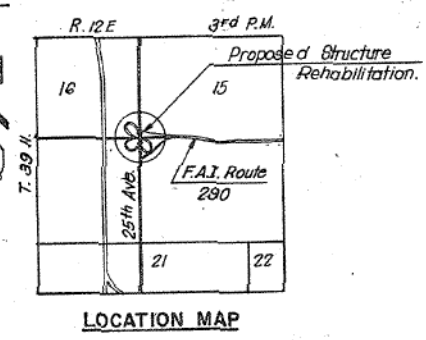
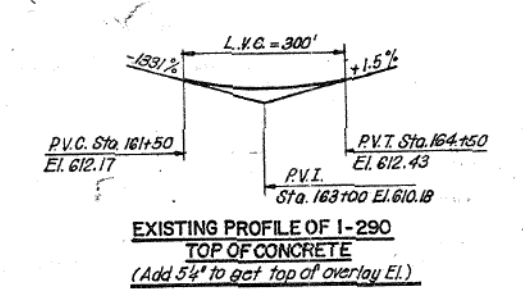
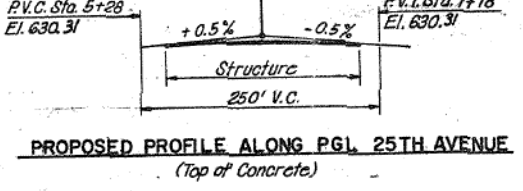
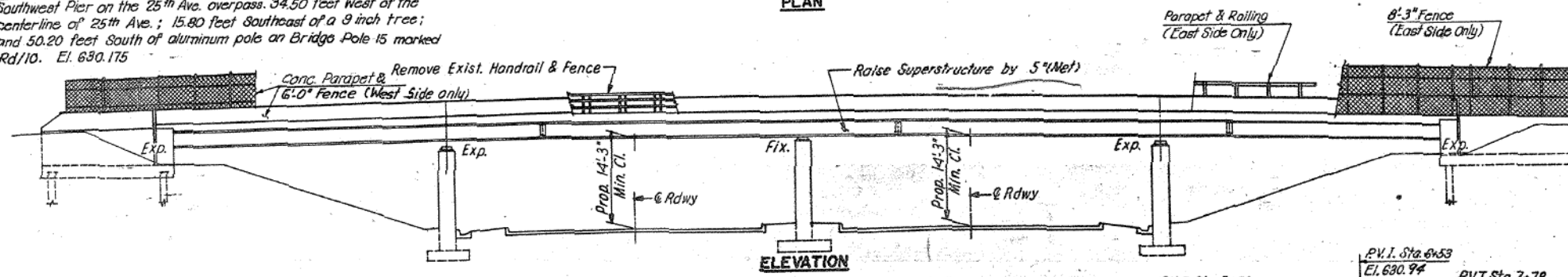
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN CIRCLE AVENUE			
SCALE: 1" = 40'	SHEET 5	OF 5 SHEETS	STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	23
CONTRACT NO. 62K23				
ILLINOIS FED. AID PROJECT BRIDGE REPAIR				



BENCH MARK A Standard Cook County bronze disk set on the Southwest Pier on the 25th Ave. overpass, 34.50 feet West of the centerline of 25th Ave.; 15.80 feet Southeast of a 9 inch tree; and 50.20 feet South of aluminum pole on Bridge Pole 15 marked Rd/10. El. 630.175



EXISTING STRUCTURE:
Existing Bridge No. 016-0686 Sta. 163+82.83 (F.A.I. 290) was built in 1952 as F.A. Route 131-Project U.I. 261 (5) Section 082-3536.1-M.F.T. It is 4-Span Continuous W Beam Bridge with 7" Concrete Deck, 68'-0" out. to out. Structure 229'-7" Bk. to Bk. Abutments.

STATION 163 + 82.83
REBUILT 1984 BY
STATE OF ILLINOIS
F.A.I. RT. 290 SEC. 3536.1 BR (80)
F.A. PROJ. EACL-IR-290-4(40)
LOADING HS20 & ALT.
STR. NO. 016-0686

NAME PLATE
SEE STANDARD 2113

- NOTES:**
- DESIGN LOADING:** HS 20-44 ALLOW 25 P.S.F. FOR FUTURE WEARING SURFACE
 - DESIGN STRESSES**
f_s = 20,000 P.S.I. M163 (BEAM REPLACEMENT)
f_s = 18,000 P.S.I. A7 EXISTING STRUCTURAL STEEL.
 - DECK SLAB**
f_c = 60,000 P.S.I. (REINFORCEMENT BARS)
f_c = 3,500 P.S.I.
 - DESIGN SPECIFICATIONS (NEW CONSTRUCTION)**
AASHTO 1977 AND 1978-1982 INTERIMS AS APPLICABLE.
 - SCOPE OF WORK AND SEQUENCE OF CONSTRUCTION**
 - STAGE I**
JACK UP WEST HALF OF BRIDGE. REMOVE AND REPLACE ABUTMENT BEARINGS AND INSTALL PEDESTALS UNDER PIER BEARINGS.
 - STAGE II**
JACK UP EAST HALF OF BRIDGE. REMOVE AND REPLACE ABUTMENT BEARINGS AND INSTALL PEDESTALS UNDER PIER BEARINGS. RECONSTRUCT EAST SIDE DECK.
 - STAGE III**
RECONSTRUCT WEST SIDE DECK. REPAIR PIERS AND ABUTMENT. PAINT STRUCTURAL STEEL.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE	EISENHOWER EXPRESSWAY F.A.I. ROUTE 290 REHABILITATION PROJECT
GENERAL PLAN & ELEVATION 25TH AVENUE GRADE SEPARATION	
COOK COUNTY	SEC. 3536.1 BR (80)
MS DONOUGH ENGINEERING INC. ENGINEERING CONSULTANTS	DESIGNED BY: M.H. SCALE: CHECKED BY: M.H. Not to Scale DRAWN BY: M.H.

FOR INFORMATION ONLY

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	CHECKED ZM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 016-0686 (25TH AVE.)

SHEET 1 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	24
			CONTRACT NO. 62K23	
ILLINOIS				

GENERAL NOTES

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 the cause for additional compensation for a change in scope of work. However, the contractor will be paid for the quantity actually furnished at the unit price bid for the work.

All fasteners shall be ASTM A325 Type 1, Mechanically galvanized bolts. Bolts $\frac{3}{4}$ " \emptyset , holes $\frac{13}{16}$ " \emptyset , unless otherwise noted.

Calculated weight of Structural Steel = 12,670 lbs.

All structural steel shall be AASHTO M270 Grade 50, galvanized according to AASHTO M111

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

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

The Structural Steel Removal quantity is shown for bidding purposes only and will not be measured for payment.

INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Deck & Joint Repair Details
4. Protective Shield Details
5. Expansion Joint Repair Details
6. Structural Steel Repair Location Plan
7. Structural Steel Repairs I
8. Structural Steel Repairs II

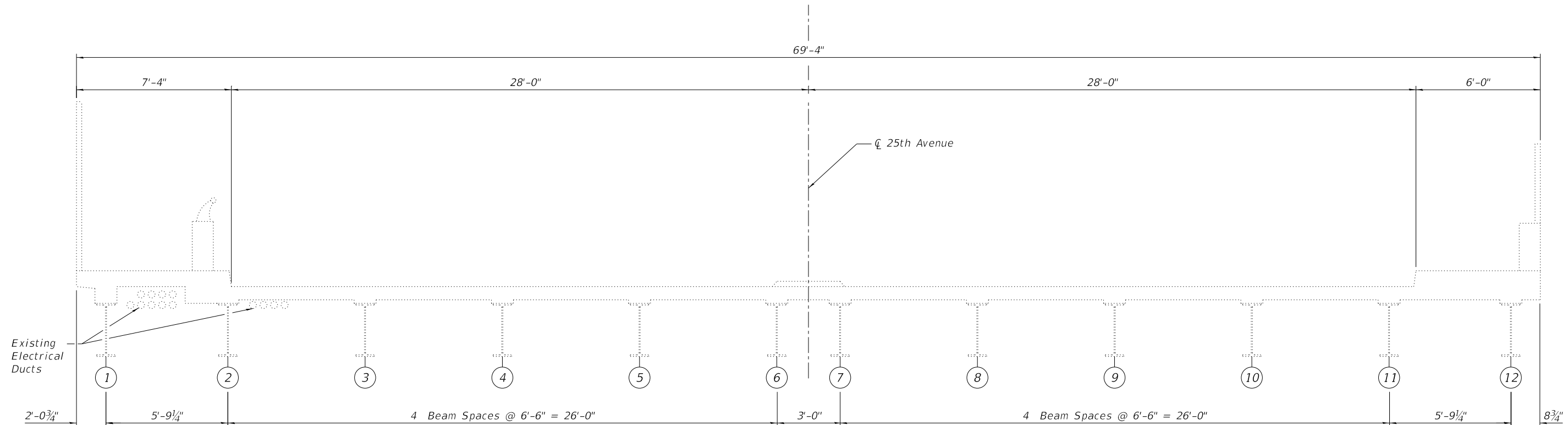
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Protective Shield	Sq. Yd.	152
Furnishing and Erecting Structural Steel	Pound	5,910
Preformed Joint Seal $2\frac{3}{4}$ "	Foot	140
Approach Slab Repair (Partial Depth)	Sq. Yd.	8
Structural Steel Removal	Pound	6,030
Structural Steel Repair	Pound	6760
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	4
Cleaning Bridge Seats	Sq. Ft.	60
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Deck Slab Repair (Partial)	Sq. Yd.	8
*Temporary Shoring and Cribbing	L. Sum	0.2

*Contract-wide item. See Special Provisions

SCOPE OF WORK

1. Repair approach slab, deck and sidewalk at partial depth.
2. Remove and replace existing diaphragms at abutments.
3. Repair beam ends.
4. Repair expansion joint at both ends.

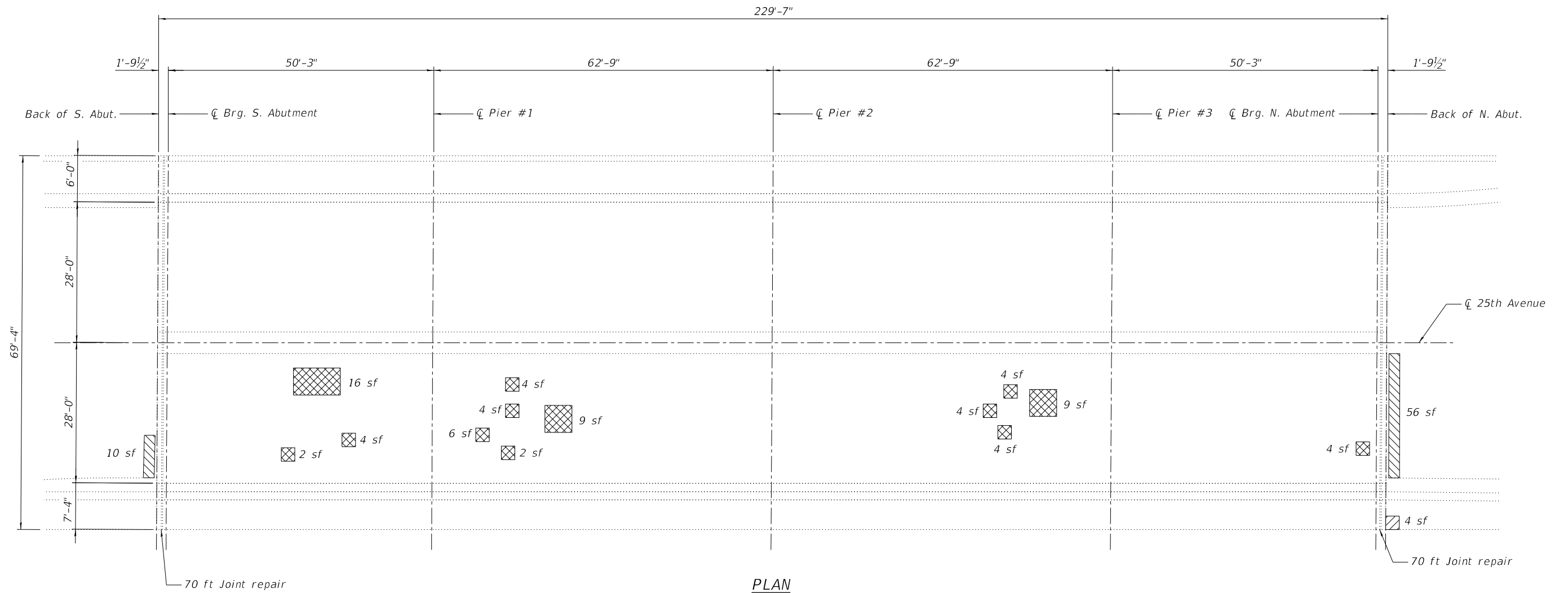


EXISTING BRIDGE CROSS SECTION
Looking South

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS			CONTRACT NO. 62K23	

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 100 N. WACKER DRIVE SUITE 700, CHICAGO IL 60606 P:312-405-0910 F:312-405-0915



PLAN

LEGEND

- Approach Slab Repair (Partial Depth)
- Bridge Sidewalk Repair (Partial Depth)
- Deck Slab Repair (Partial)

Notes:

Areas of deck repairs shown are estimated. Actual repair areas shall be determined in the field by the Engineer.
 A nominal full depth deck repair quantity has been provided as a guide for bidding purposes. Actual full depth repair areas shall be determined in the field by the Engineer.
 See Sheet 5 for joint repair details.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Approach Slab Repair (Partial Depth)	Sq. Yd.	8
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	4
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Deck Slab Repair (Partial)	Sq. Yd.	8



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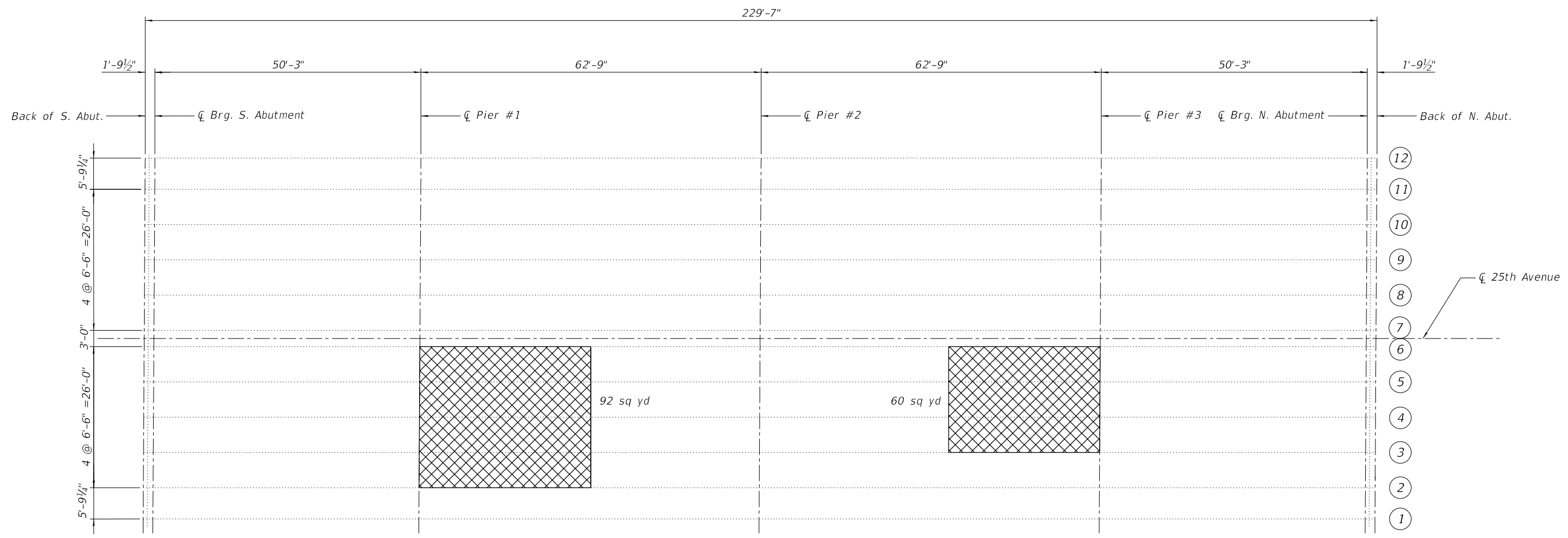
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DECK & JOINT REPAIR DETAILS
 STRUCTURE NO. 016-0686 (25TH AVE.)

SHEET 3 OF 8 SHEETS


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	26
ILLINOIS			CONTRACT NO. 62K23	


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EXISTING FRAMING PLAN


LEGEND

 Protective Shield

 Beam Number

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Protective Shield	Sq. Yd.	152

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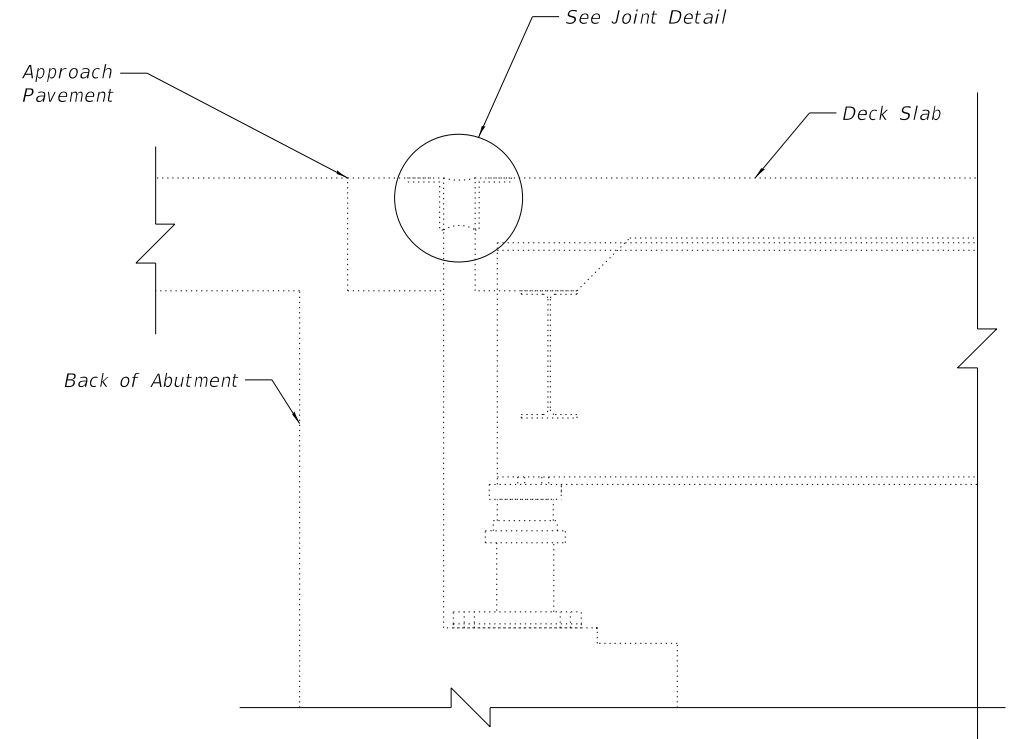
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROTECTIVE SHIELD DETAILS
 STRUCTURE NO. 016-0686 (25TH AVE.)

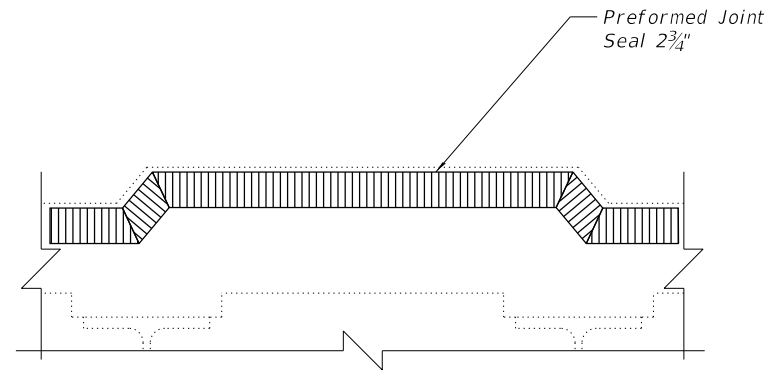
SHEET 4 OF 8 SHEETS

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ILLINOIS			CONTRACT NO. 62K23	

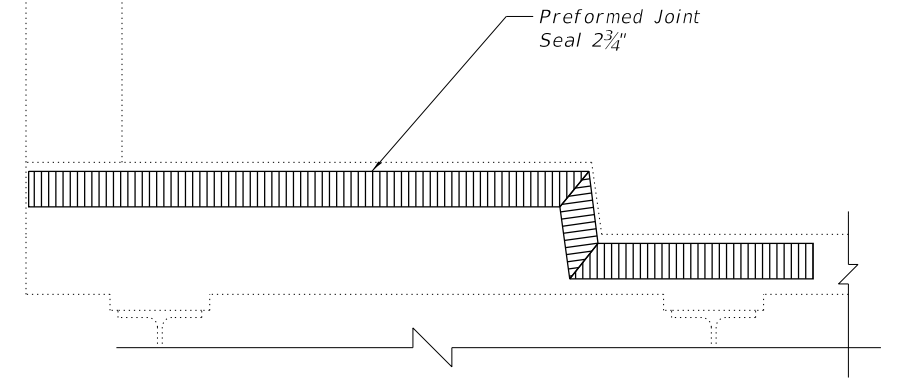
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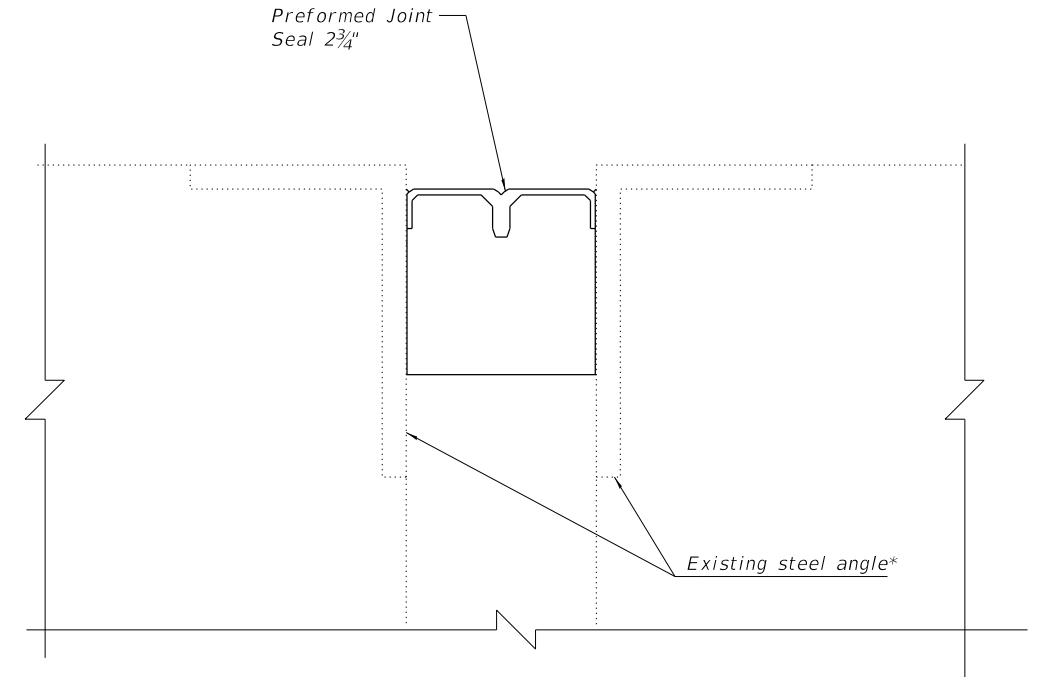
TYPICAL SECTION AT ABUTMENTS



TYPICAL SECTION THRU MEDIAN



TYPICAL SECTION THRU SIDEWALK



JOINT DETAIL

* Install Preformed Joint Seal against existing concrete at sidewalks

Notes:
 Removal of existing seal is included in the cost of Preformed Joint Seal.
 See sheet 3 of 8 for locations of joint repair.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Preformed Joint Seal 2 3/4"	Foot	140



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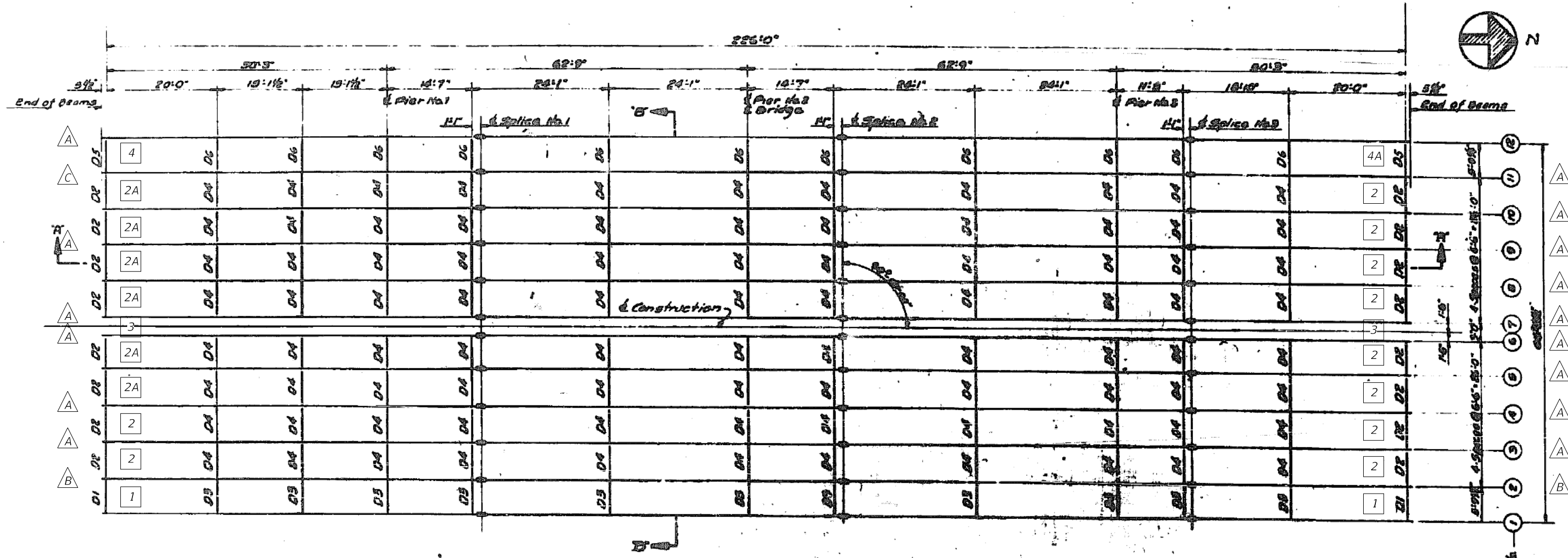
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT REPAIR DETAILS
 STRUCTURE NO. 016-0686 (25TH AVE.)

SHEET 5 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 62K23	
ILLINOIS				

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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-8900 F:312-405-8905



STRUCTURAL STEEL REPAIR LOCATION PLAN

LEGEND

- 2 Beam Number
- A Beam End Repair Type
- 1 Diaphragm Type

Notes:
 All existing girders are WF30x124.
 See sheet 7 and 8 for steel repair details.

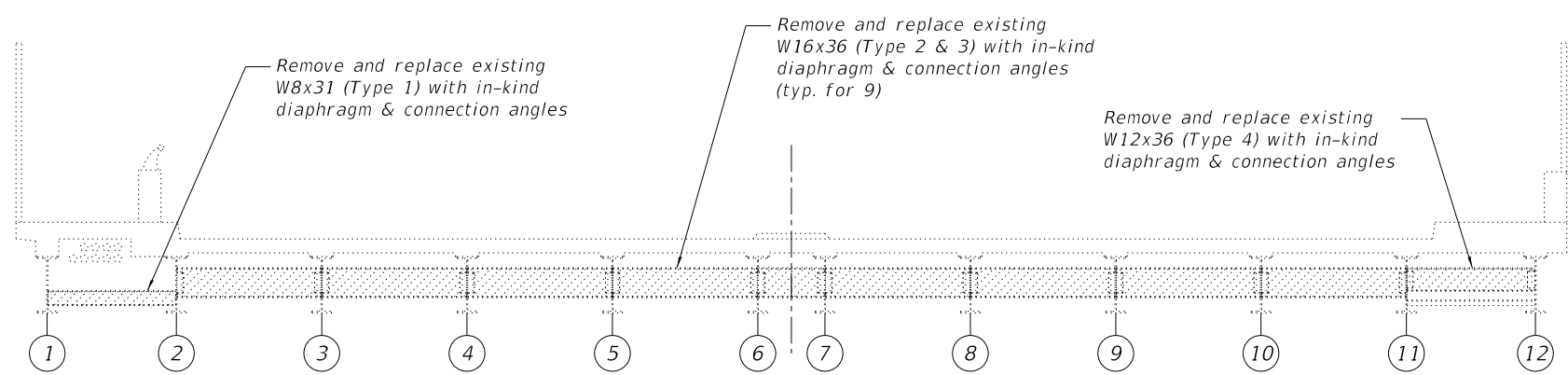
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR LOCATION PLAN
 STRUCTURE NO. 016-0686 (25TH AVE.)

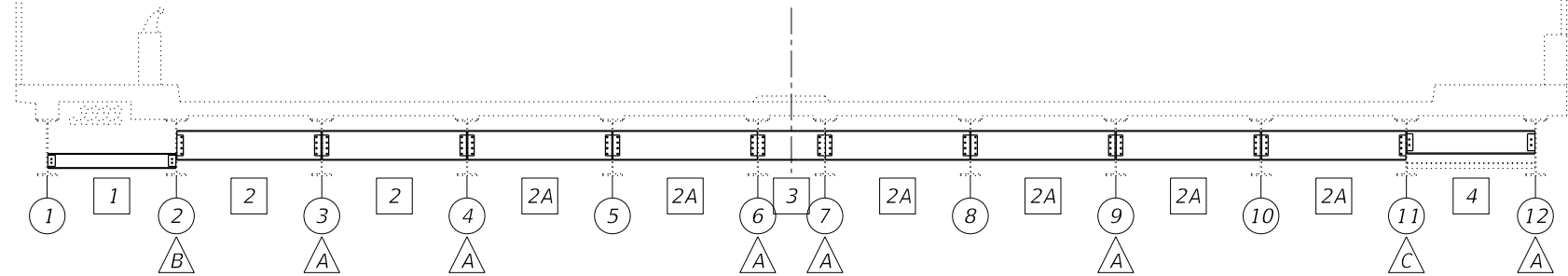
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			CONTRACT NO. 62K23	

SHEET 6 OF 8 SHEETS

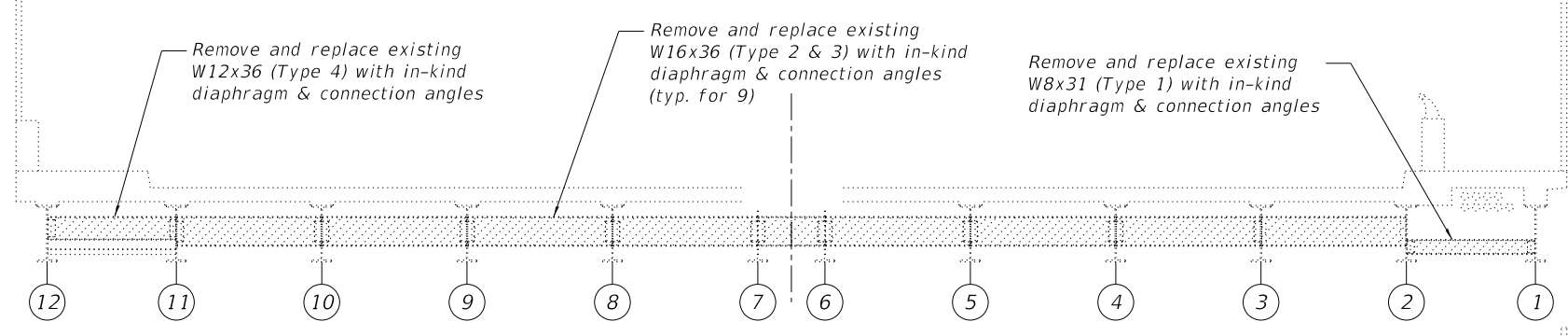
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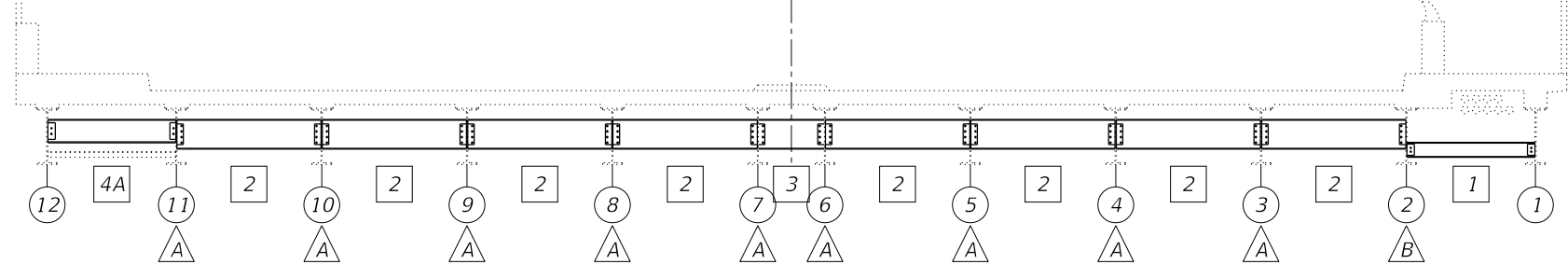
END DIAPHRAGM ELEVATION AT SOUTH ABUTMENT - EXISTING
 Looking South



END DIAPHRAGM ELEVATION AT SOUTH ABUTMENT - PROPOSED
 Looking South



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - EXISTING
 Looking North



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - PROPOSED
 Looking North

LEGEND

- Steel Removal
- Beam Number
- Beam End Repair Type
- Diaphragm Type

Notes:
 See Sheet 8 for beam end repair details.



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

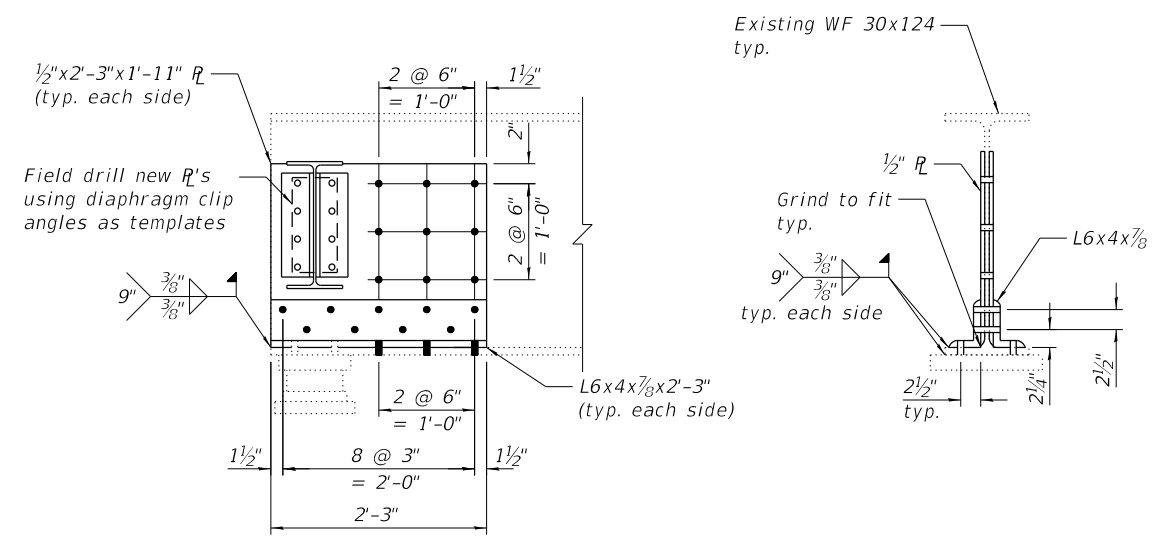
**STRUCTURAL STEEL REPAIRS I
 STRUCTURE NO. 016-0686 (25TH AVE.)**

SHEET 7 OF 8 SHEETS

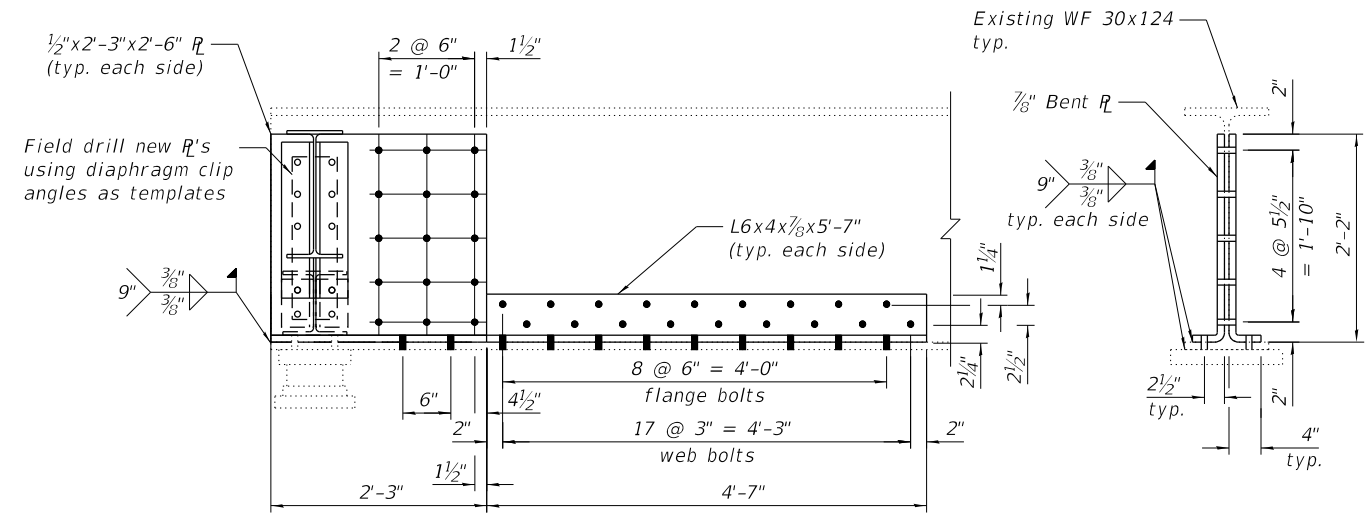
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ILLINOIS

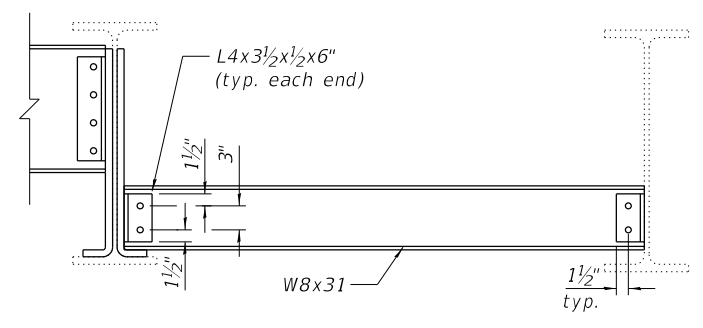
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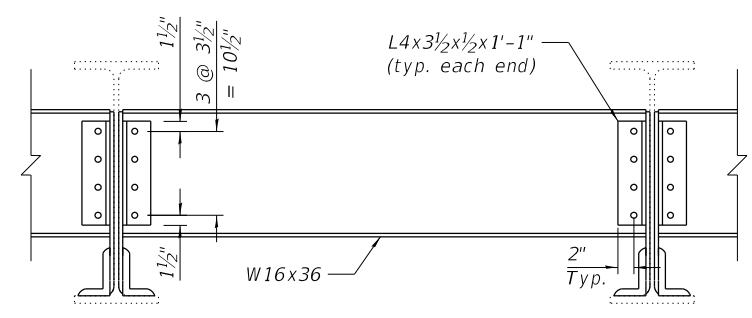
TYPE A BEAM END REPAIR



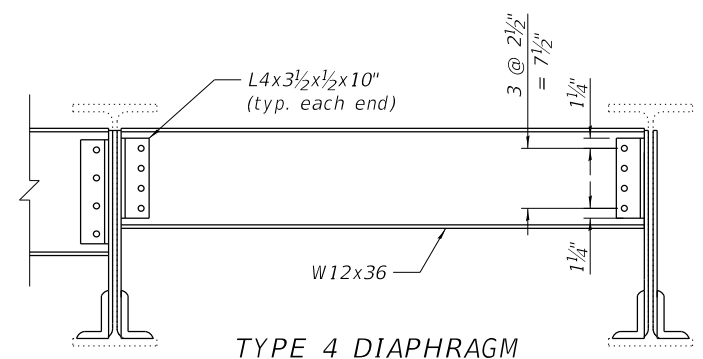
TYPE B BEAM END REPAIR
 Type C similar



TYPE 1 DIAPHRAGM



TYPE 2 DIAPHRAGM
 Type 3 Similar



TYPE 4 DIAPHRAGM

TABLE 1- DIAPHRAGMS

Diaphragm Type	Size	Length	Quantity
1	W8x31	5'-6 3/4"	2
2	W16x36	6'-3 3/8"	10
2A	W16x36	6'-3 3/8"	6
3	W16x36	2'-9 3/8"	2
4	W12x36	5'-6 1/4"	1
4A	W12x36	5'-7 1/8"	1

TABLE 2- BOLTS

Beam	South Abutment		North Abutment	
	Diaphragm	Plate Repair	Diaphragm	Plate Repair
1	6	-	6	-
2	18	55	18	55
3	16	24	16	24
4	16	24	16	24
5	16	-	16	24
6	16	24	16	24
7	16	24	16	24
8	16	-	16	24
9	16	24	16	24
10	16	-	16	24
11	16	55	16	55
12	12	24	12	-

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	5,910
Structural Steel Removal	Pound	6,030
Structural Steel Repair	Pound	6,760

Notes:
 All holes 13/16" Ø for 3/4" Ø bolts unless noted otherwise.
 All plates shall be 1/2" thick unless noted otherwise.
 See sheet 6 of 8 for repair locations.
 Installation of new diaphragms shall not commence until all bolts for new web plates and clip angles are fully tightened.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
 Existing bearing studs to be cut flush with bottom of beam bottom flange.



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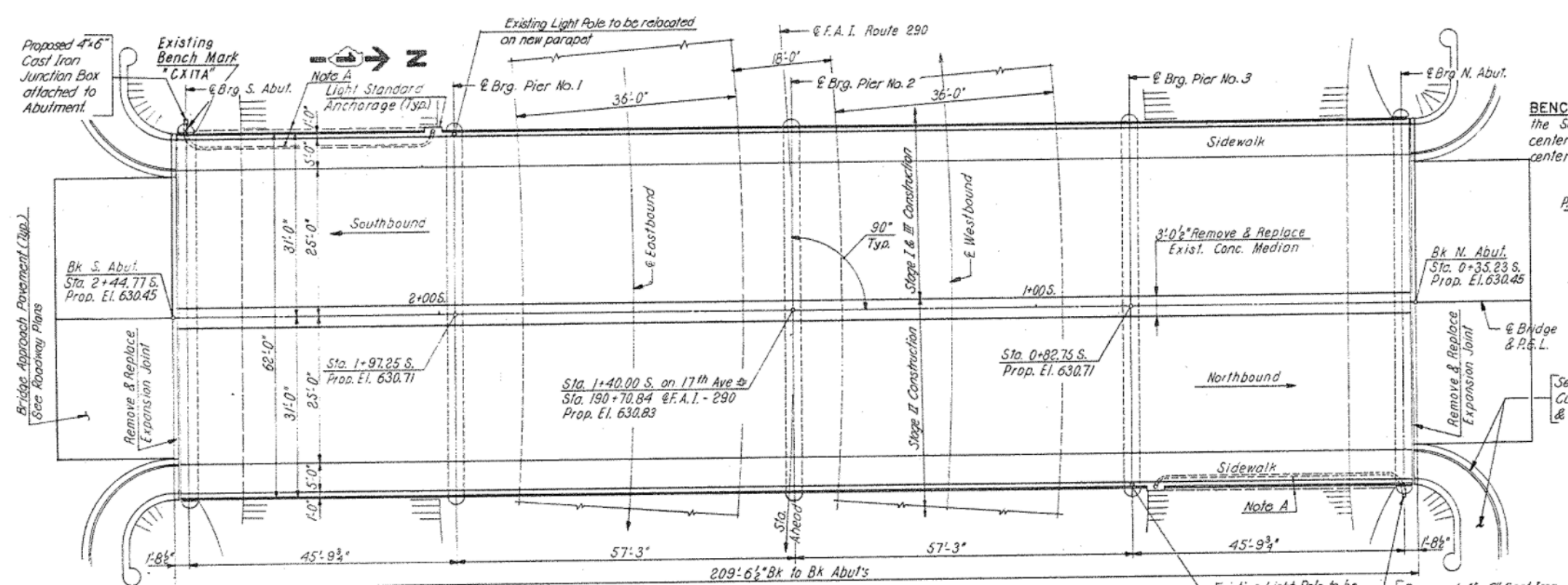
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS II
 STRUCTURE NO. 016-0686 (25TH AVE.)

SHEET 8 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	31
			CONTRACT NO. 62K23	
ILLINOIS				

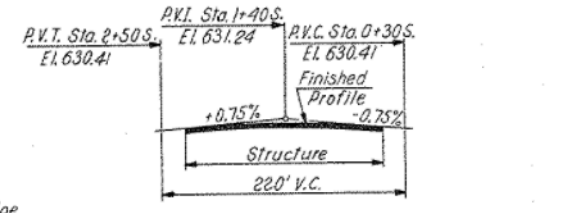
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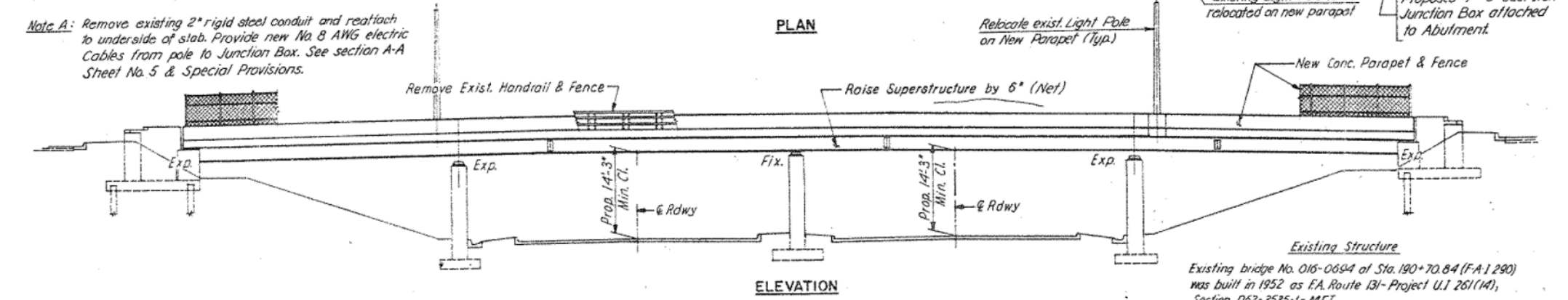
ROUTE NO.	SECTION	SHEET	TOTAL SHEETS	SHEET NO.
F.A.I. 290		COOK	36	12

3535.1 BR (80)

BENCH MARK A standard Cook County bronze disk set on the Southwest Pier of the overpass. 31.70 feet West of the centerline of the 17th Ave.; and 30.50 feet North of the centerline of Balaan Drive. El. 630.305



See Rdwg Plans for Curb & Sidewalk Removal & Replacement. (Typ.)



NOTES

DESIGN LOADING
 HS 20-44

DESIGN STRESSES (*New Construction)
 * $f_s = 20,000$ p.s.i. M183 Structural Steel
 * $f_s = 18,000$ p.s.i. A-7 Exist. Structural Steel
 * $f'_c = 3,500$ p.s.i. Class X Concrete
 * $f_y = 60,000$ p.s.i. Reinforcement Bars

DESIGN SPECIFICATIONS (New Construction)
 AASHTO 1977 and Interim 1978, 1979, 1980, 1981 and 1982 as applicable.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE	EISENHOWER EXPRESSWAY F.A.I. ROUTE 290 REHABILITATION PROJECT
GENERAL PLAN & ELEVATION 17TH AVENUE GRADE SEPARATION	
COOK COUNTY	SEC. 3535.1 BR (80)
MS DONOUGH ENGINEERING INC. ENGINEERING CONSULTANTS	DESIGNED BY: B.S. CHECKED BY: L.B. DRAWN BY: B.S.
	SCALE: No Scale

FOR INFORMATION ONLY

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PLOT DATE = 3/16/2020	CHECKED ZM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 016-0694 (17TH AVE.)

SHEET 1 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	32
				CONTRACT NO. 62K23
ILLINOIS				

GENERAL NOTES

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 the cause for additional compensation for a change in scope of work. However, the contractor will be paid for the quantity actually furnished at the unit price bid for the work.

All fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/4"Ø, Holes 13/16" Ø, unless otherwise noted.

Calculated weight of Structural Steel = 6,470 lbs.

All structural steel shall be AASHTO M270 Grade 50, galvanized according to AASHTO M111.

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

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

The Structural Steel Removal quantity is shown for bidding purposes only and will not be measured for payment.

INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Deck & Joint Repair Details
4. Expansion Joint Repair Details
5. Structural Steel Repair Location Plan
6. Structural Steel Repairs I
7. Structural Steel Repairs II

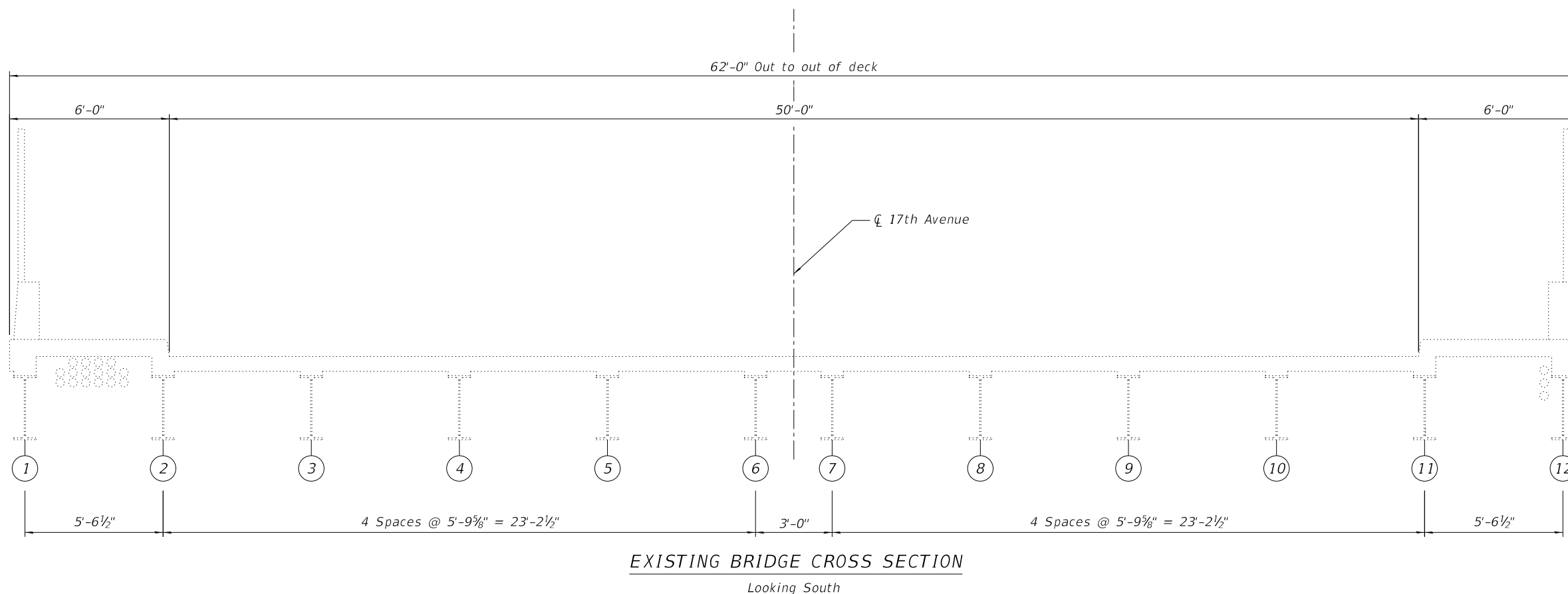
SCOPE OF WORK

1. Repair approach slab deck and sidewalk at partial depth.
2. Remove and replace existing diaphragms at abutments.
3. Repair beam ends.
4. Repair expansion joint at both ends.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	0.7
Furnishing and Erecting Structural Steel	Pound	2790
Prefomed Joint Seal 3/4"	Foot	124
Approach Slab Repair (Partial Depth)	Sq. Yd.	26.7
Structural Steel Removal	Pound	2850
Structural Steel Repair	Pound	3680
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	91
Cleaning Bridge Seats	Sq. Ft.	60
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Deck Slab Repair (Partial)	Sq. Yd.	15.2
Polymer Concrete	Cu. Ft.	16.7
*Temporary Shoring and Cribbing	L. Sum	0.2

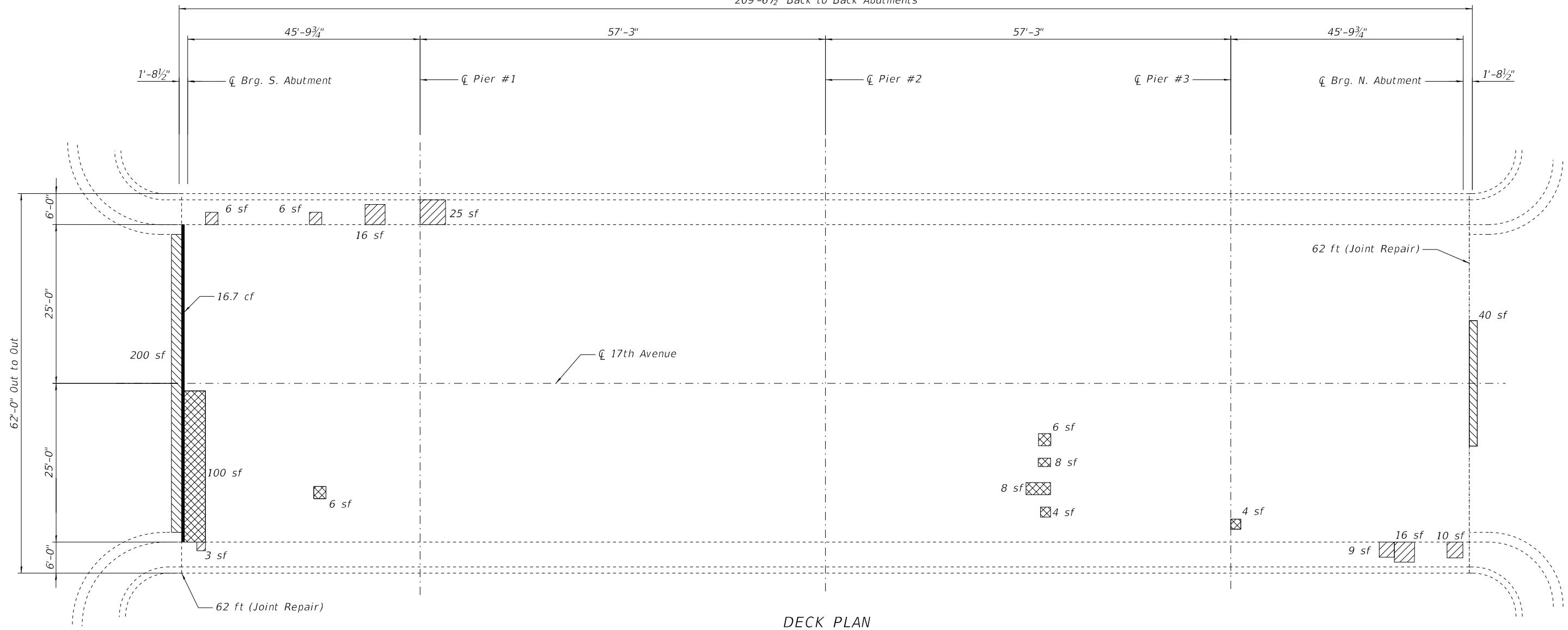
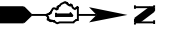
*Contract-wide item. See Special Provisions.



EXISTING BRIDGE CROSS SECTION
Looking South

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	33
			CONTRACT NO. 62K23	
		ILLINOIS		

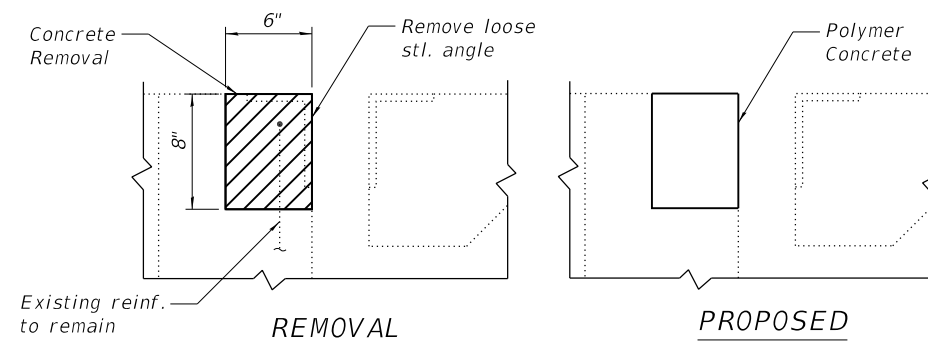


LEGEND

- Deck Slab Repair (Partial)
- Bridge Sidewalk Repair (Partial Depth)
- Approach Slab Repair (Partial Depth)
- Polymer Concrete

NOTES:

Existing reinforcement shall be cleared and incorporated into the new construction. Cost included with Concrete Removal.
 Cost for angle removal included with Concrete Removal.
 Areas of deck repairs are estimated. Actual repair areas shall be determined in the field by the Engineer.
 A nominal full depth deck repair quantity has been provided as a guide for bidding purposes. Actual full depth repair areas shall be determined in the field by the Engineer.
 See Sheet 4 for joint repair details.



ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	0.7
Approach Slab Repair (Partial Depth)	Sq. Yd.	26.7
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	91
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Deck Slab Repair (Partial)	Sq. Yd.	15.2
Polymer Concrete	Cu. Ft.	16.7

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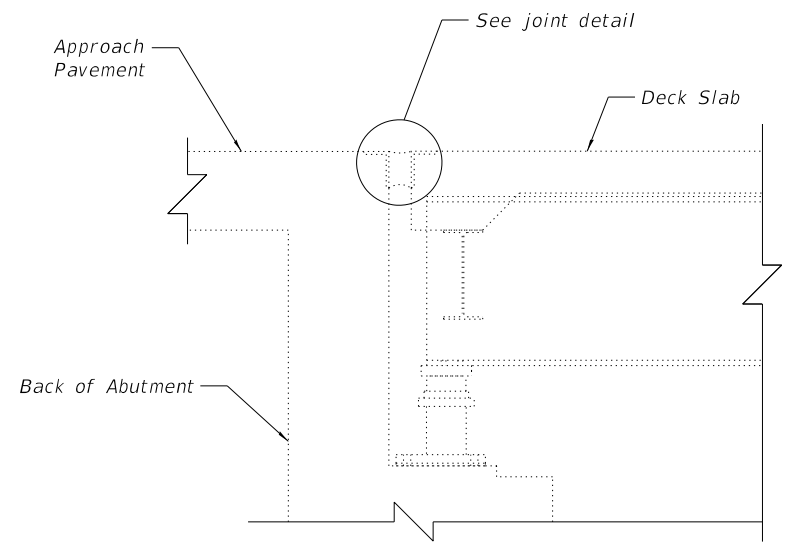
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK & JOINT REPAIR DETAILS
STRUCTURE NO. 016-0694 (17TH AVE.)

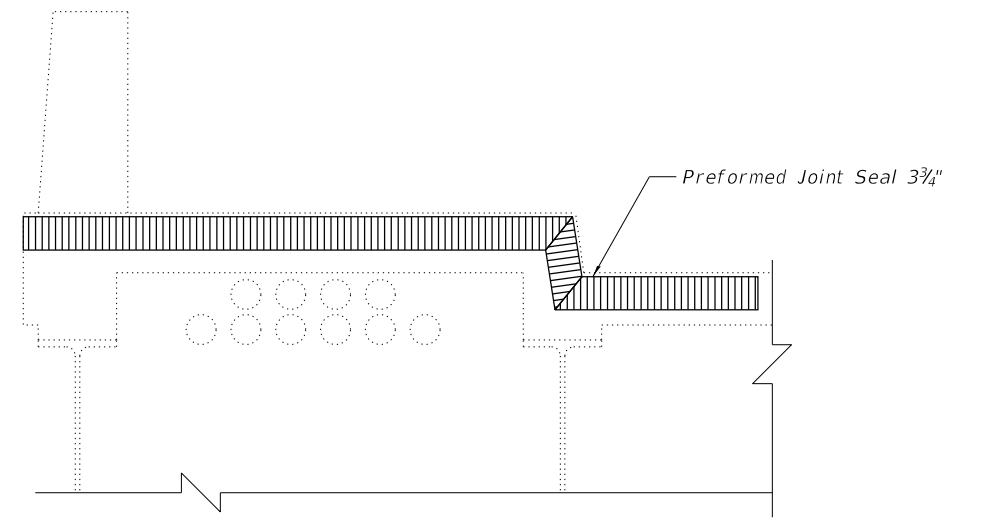
SHEET 3 OF 7 SHEETS

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ILLINOIS			CONTRACT NO. 62K23	

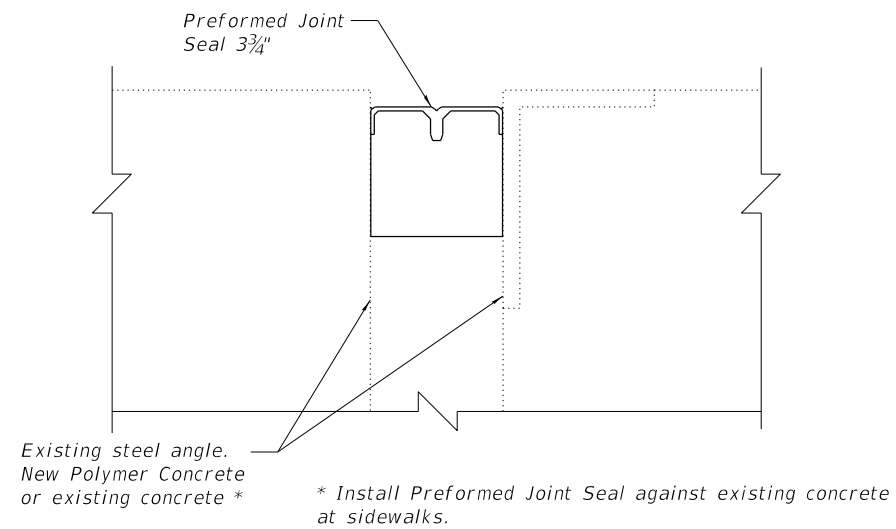
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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 P:312-405-8900 F:312-406-4945



TYPICAL SECTION AT ABUTMENTS



TYPICAL SECTION THRU SIDEWALK



JOINT DETAIL

Notes:
 Removal of existing seal is included in the cost of Preformed Joint Seal.
 See sheet 3 of 7 for locations of joint repair and Polymer Concrete repair locations.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Preformed Joint Seal 3 3/4"	Foot	124

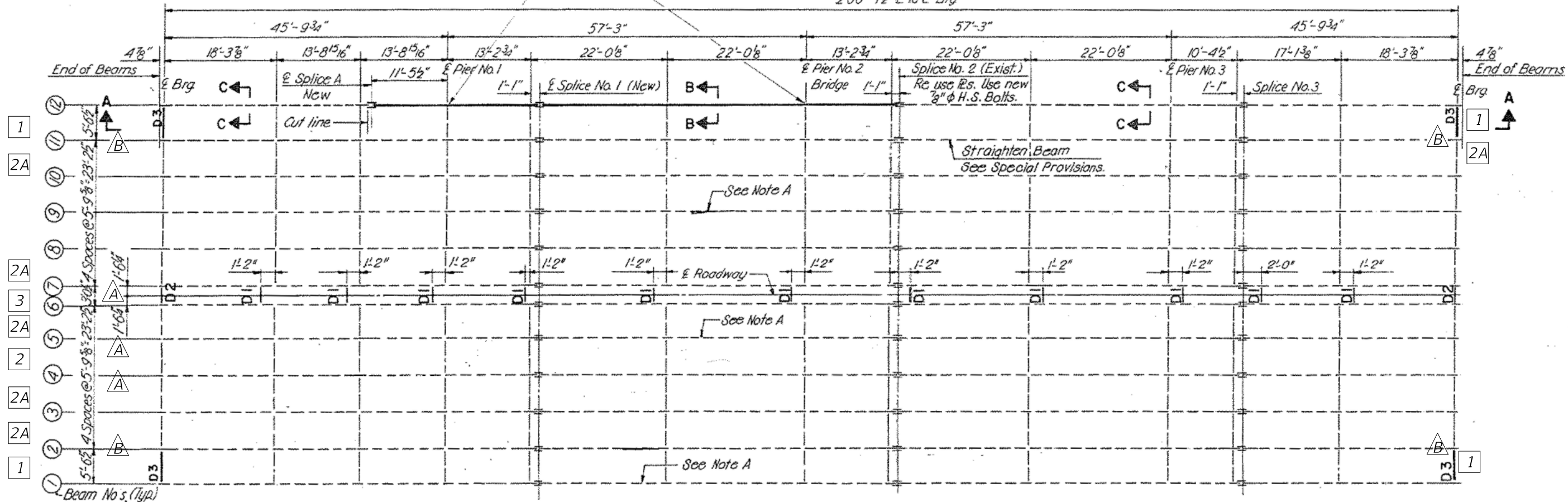
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	35
			CONTRACT NO. 62K23	
			ILLINOIS	

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 100 S. WACKER DRIVE SUITE 700, CHICAGO IL 60606 - P.312-405-6910 F.312-406-4145



Note A: Straighten Beam Flange Dent (See Special Provisions)
 Note B: Remove top bearing plate from damaged beam in accordance with Note-C on sheet No. 7 of I3 and shop weld it to new beam with 1/2" c.f.w. all around. Verify all dimensions in field prior to fabrication. Reset existing bearings per details on sheet 7 of I3. Cost of removing and rewelding bearing plate included in item "Removing and Replacing Damaged Beam."
 206'-1/2" c to c Brg



STRUCTURAL STEEL REPAIR LOCATION PLAN

LEGEND

- 2 Beam Number
- A Beam End Repair Type
- 1 Diaphragm Type

Notes:
 All existing girders are WF30x116.
 See sheet 6 and 7 for steel repair details.



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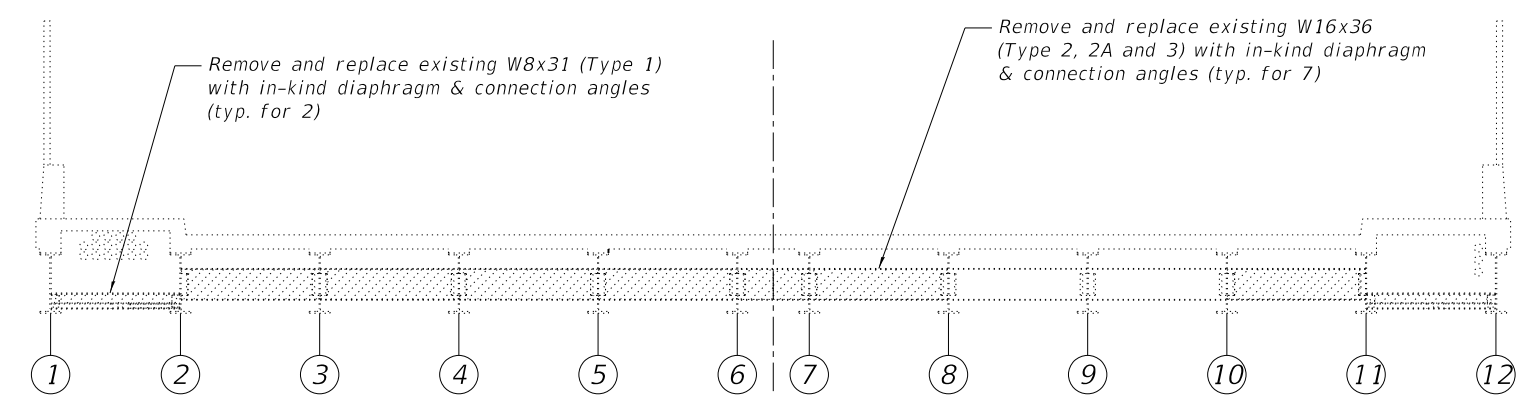
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR LOCATION PLAN
 STRUCTURE NO. 016-0694 (17TH AVE.)

SHEET 5 OF 7 SHEETS

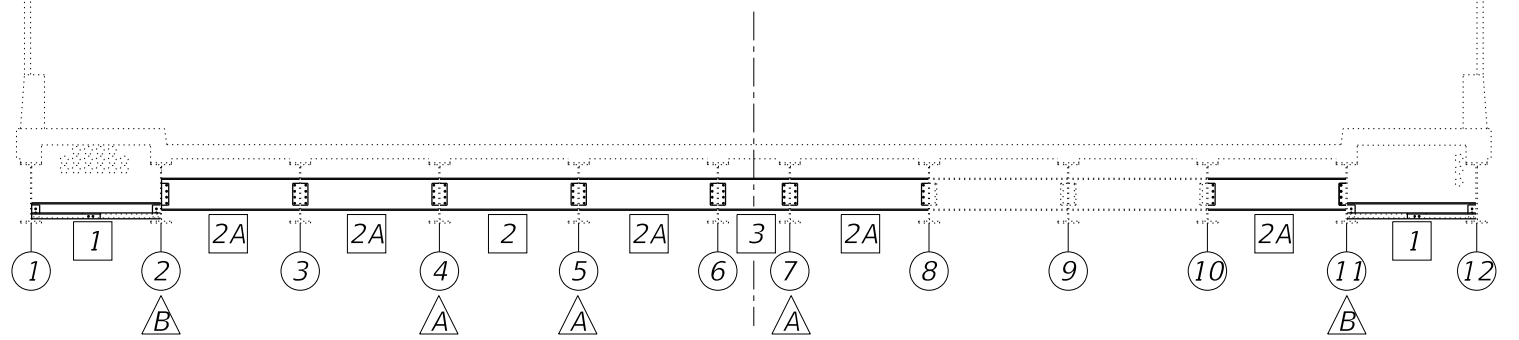
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 62K23	
ILLINOIS				

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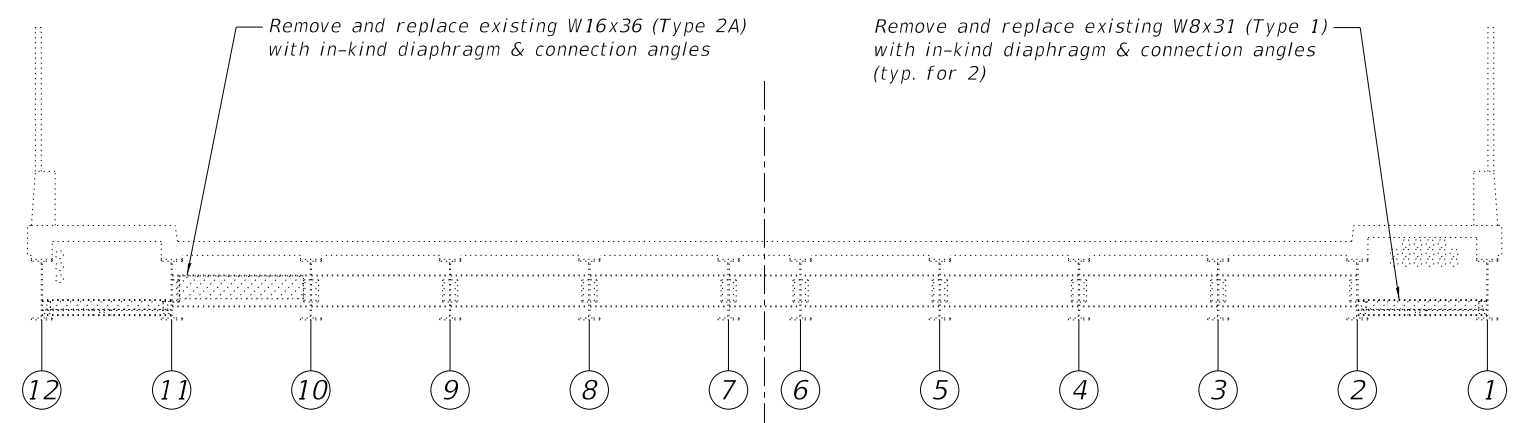
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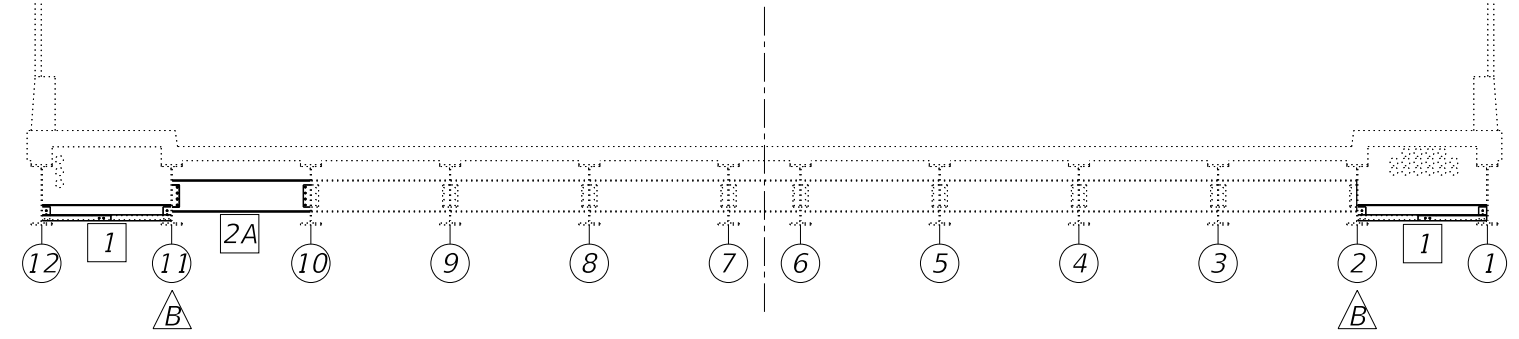
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Looking South



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - EXISTING





Looking North



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - PROPOSED

Looking North

LEGEND

-  Steel Removal
-  Beam Number
-  Beam End Repair Type
-  Diaphragm Type

Notes:
 See Sheet 7 for beam end repair details.



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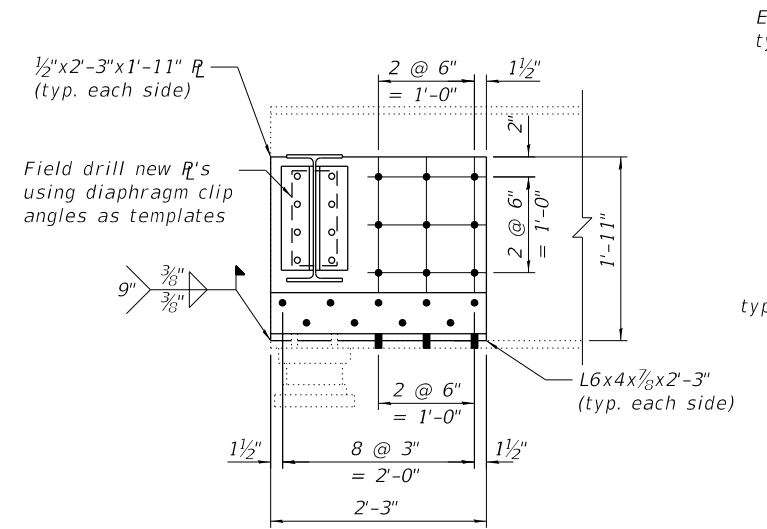
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 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS I
 STRUCTURE NO. 016-0694 (17TH AVE.)

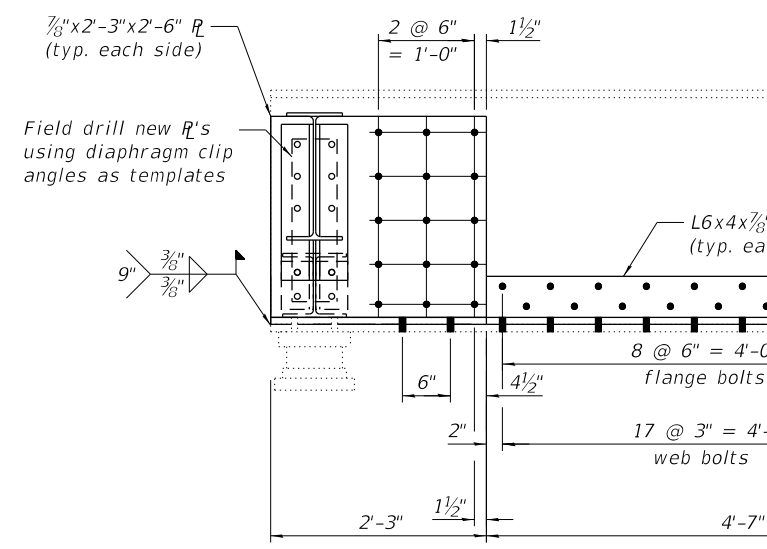
SHEET 6 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 62K23	
ILLINOIS				

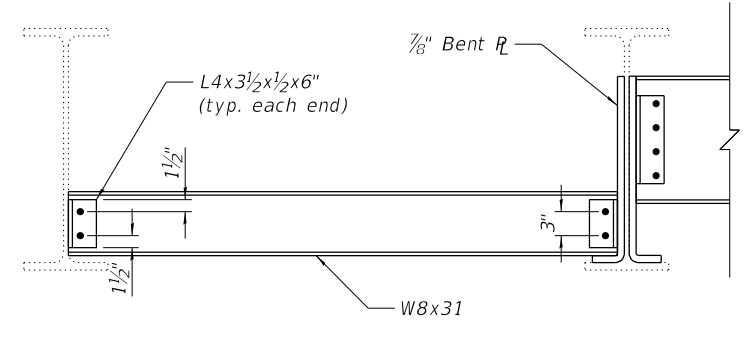
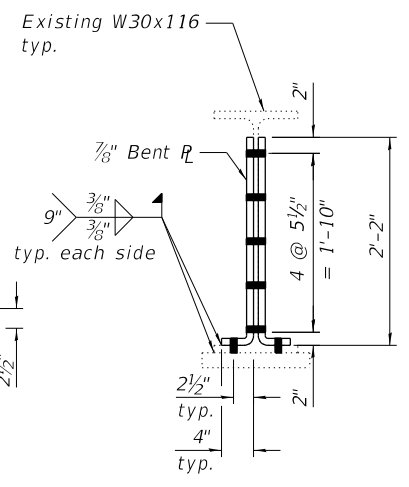
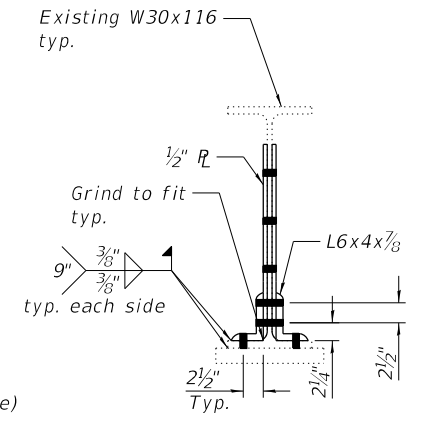
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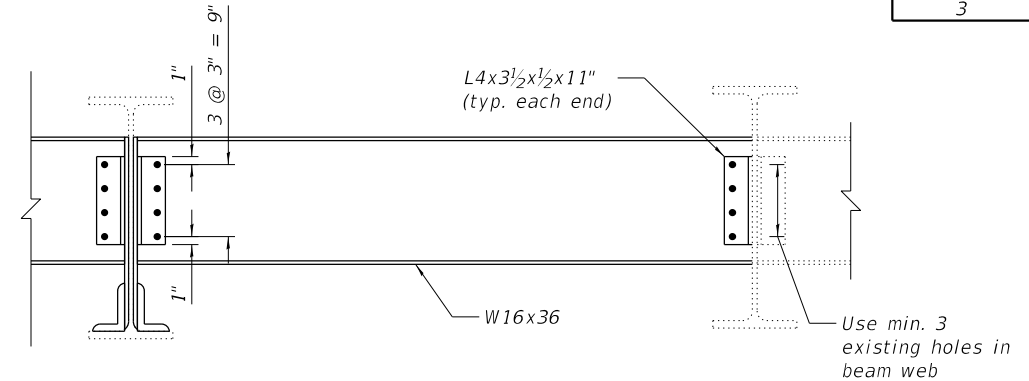
TYPE A BEAM END REPAIR



TYPE B BEAM END REPAIR



TYPE 1 DIAPHRAGM



TYPE 2 DIAPHRAGM
 Type 2A and 3 similar

TABLE 1- DIAPHRAGMS

Diaphragm Type	Size	Length	Quantity
1	8x31	5'-4"	4
2	W16x36	5'-7"	1
2A	W16x36	5'-7 1/2"	6
3	W16x36	2'-9 3/8"	1

TABLE 2- BOLTS

Beam	South Abutment		North Abutment	
	Diaphragm	Plate Repair	Diaphragm	Plate Repair
1	6	-	6	-
2	18	55	6	55
3	16	-	-	-
4	16	24	-	-
5	16	24	-	-
6	16	-	-	-
7	16	24	-	-
8	12	-	-	-
9	-	-	-	-
10	12	-	12	-
11	18	55	18	55
12	6	-	6	-

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	3,680
Furnishing & Erecting Structural Steel	Pound	2,790
Structural Steel Removal	Pound	2,850

Notes:
 Existing bearing studs to be cut flush with bottom of beam bottom flange.
 Cost of drilling holes in existing steel members is included with Structural Steel Repairs
 All holes 1 3/16" Ø for 3/4" Ø bolts unless noted otherwise. Cost of drilling holes in existing steel members is included with Furnishing and Erecting Structural Steel.
 All plates shall be 1/2" thick unless noted otherwise.
 See sheet 5 of 7 for repair locations.
 Installation of new diaphragms shall not commence until all bolts for new web plates and clip angles are fully tightened.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."



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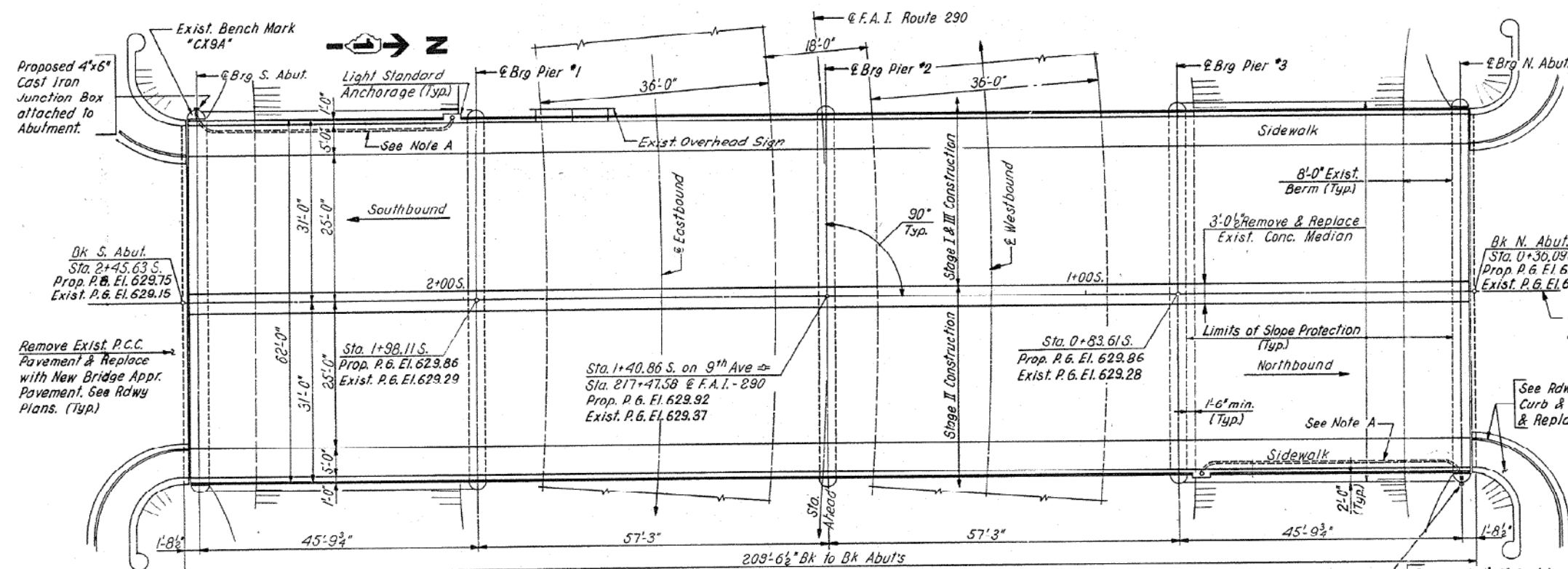
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS II
 STRUCTURE NO. 016-0694 (17TH AVE.)

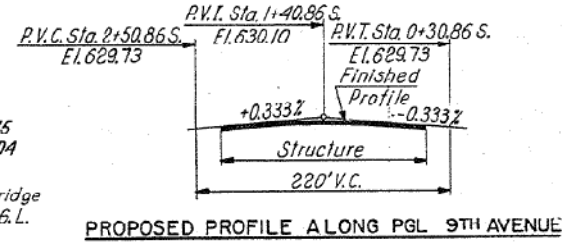
SHEET 7 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 62K23	
ILLINOIS				

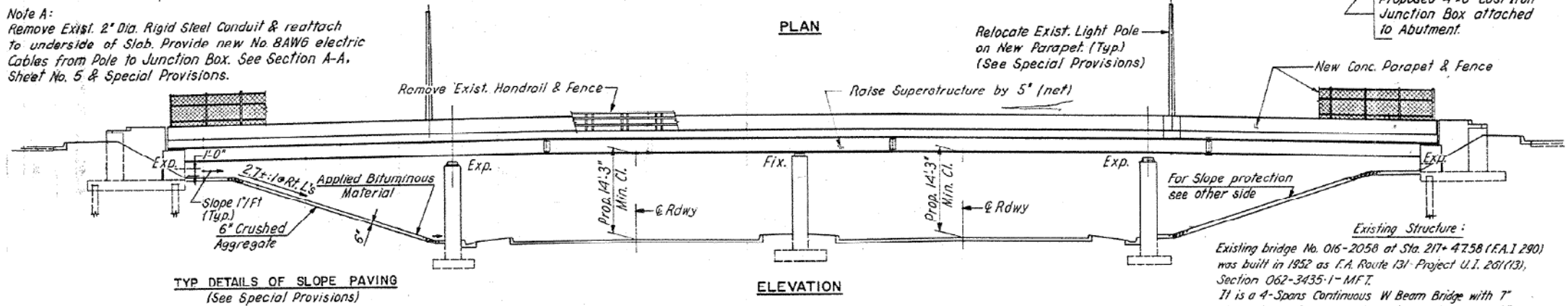
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BENCH MARK A standard Cook County bronze disk set on the Southwest Pier of the overpass. 32 feet West of the centerline of 9th Ave., and 29.50 feet North of the centerline of Balaan Drive. El. 629.630



Note A:
 Remove Exist. 2" Dia. Rigid Steel Conduit & reattach to underside of Slab. Provide new No. 8AWG electric Cables from Pole to Junction Box. See Section A-A, Sheet No. 5 & Special Provisions.



Existing Structure:
 Existing bridge No. 016-2058 at Sta. 217+47.58 (F.A.I. 290) was built in 1952 as F.A. Route 131-Project U.I. 261(13), Section 062-3435-1-M.F.T. It is a 4-Spans Continuous W Beam Bridge with 7" Concrete Deck, 62'-0" out to out Structure, 209'-6 1/2" Bk. to Bk. Abutments.

NOTES

- DESIGN LOADING
HS 20-44
- DESIGN STRESSES (** New Construction)
 ** $f_s = 20,000$ p.s.i. M183 Structural Steel
 $f_s = 18,000$ p.s.i. A-7 Exist. Structural Steel
 ** $f_c = 3,500$ p.s.i. Class X Concrete
 ** $f_{sv} = 60,000$ p.s.i. Reinforcement Bars
- DESIGN SPECIFICATIONS (New Construction)
 AASHTO 1977 and Interim 1978, 1973, 1980, 1981 and 1982

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE	EISENHOWER EXPRESSWAY F.A.I. ROUTE 290 REHABILITATION PROJECT
GENERAL PLAN & ELEVATION NINTH AVENUE GRADE SEPARATION	
COOK COUNTY	3435.1 BR(80)
MEDONOUGH ENGINEERING INC. ENGINEERING CONSULTANTS	DESIGNED BY: B.S. CHECKED BY: DRAWN BY: B.S.
	SCALE: Not to Scale

FOR INFORMATION ONLY

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CHECKED ZM	REVISIONS -	
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION
STRUCTURE NO. 016-2058 (9TH AVE.)**

SHEET 1 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	39
ILLINOIS			CONTRACT NO. 62K23	



GENERAL NOTES

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 the cause for additional compensation for a change in scope of work. However, the contractor will be paid for the quantity actually furnished at the unit price bid for the work.

All fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/4" Ø, holes 13/16" Ø, unless otherwise noted.

Calculated weight of Structural Steel = 5,750 lbs.

All structural steel shall be AASHTO M270 Grade 50, galvanized according to AASHTO M111.

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

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

The Structural Steel Removal quantity is shown for bidding purposes only and will not be measured for payment.

INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Deck & Joint Repair Details
4. Protective Shield Details
5. Expansion Joint Repair Details
6. Structural Steel Repair Location Plan
7. Structural Steel Repairs I
8. Structural Steel Repairs II

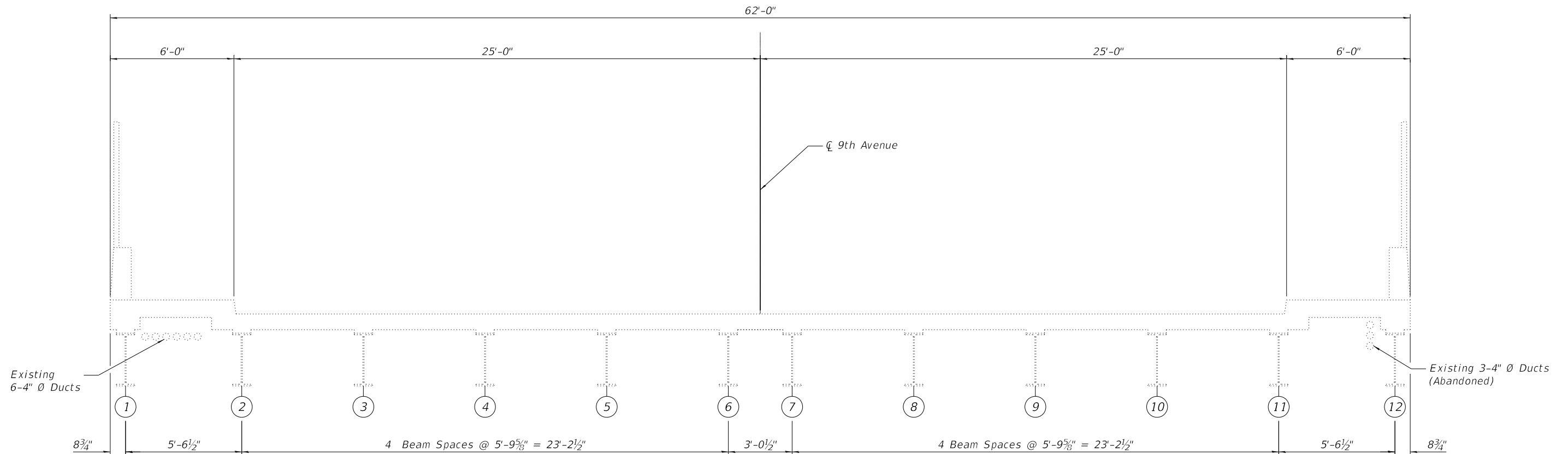
SCOPE OF WORK

1. Repair approach slab and sidewalk at partial depth.
2. Remove and replace existing diaphragms at abutments.
3. Repair beam ends.
4. Repair expansion joint at both ends.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Protective Shield	Sq. Yd.	103
Furnishing and Erecting Structural Steel	Pound	2350
Preformed Joint Seal 3"	Foot	124
Approach Slab Repair (Partial Depth)	Sq. Yd.	23
Structural Steel Removal	Pound	2410
Structural Steel Repair	Pound	3400
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	294
Cleaning Bridge Seats	Sq. Ft.	50
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
*Temporary Shoring and Cribbing	L. Sum	0.2

*Contract-wide item. See Special Provisions.



EXISTING BRIDGE CROSS SECTION
Looking South

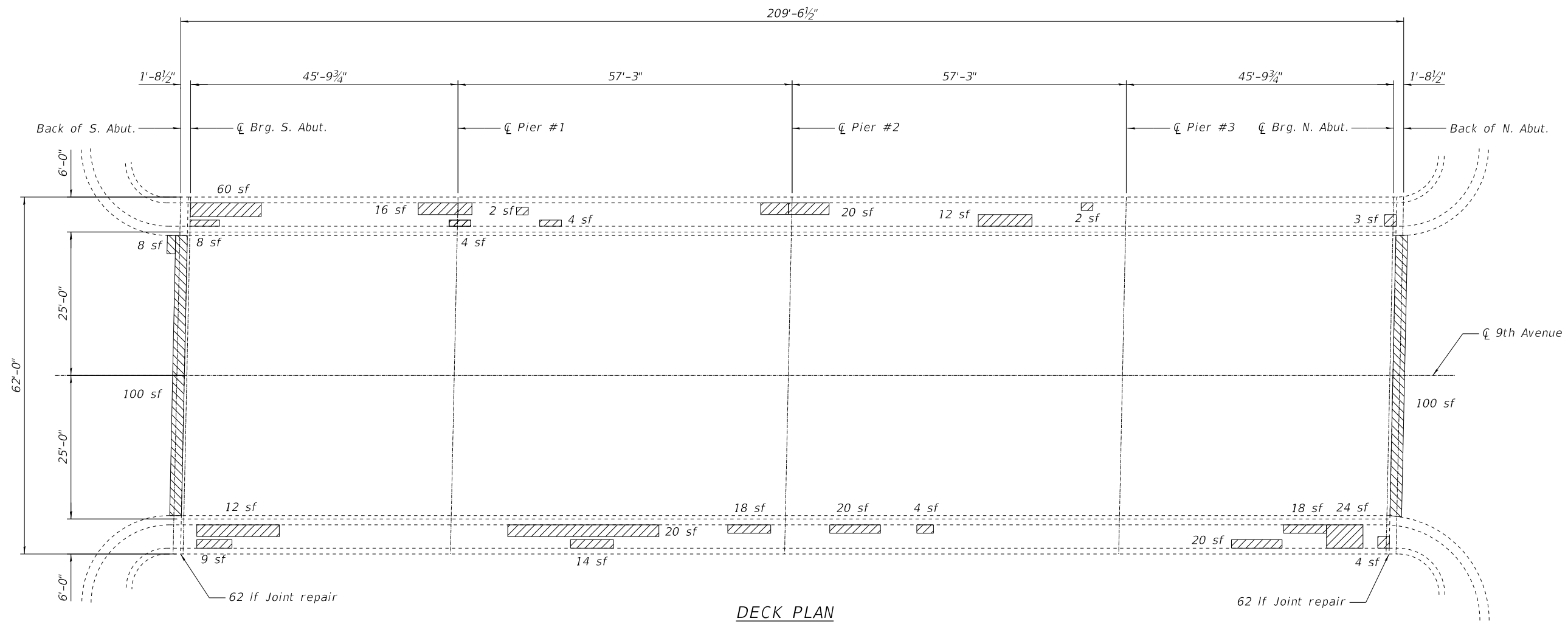
LEGEND

② Beam Number

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PLOT DATE = 3/16/2020	DRAWN NA	REVISED -
	CHECKED ZM	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 62K23	
ILLINOIS				

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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 P:312-405-8900 F:312-406-4945



LEGEND

- Approach Slab Repair (Partial)
- Bridge Sidewalk Repair (Partial Depth)

Notes:
 Areas of deck repairs shown are estimated. Actual repair areas shall be determined in the field by the Engineer.
 A nominal full depth deck repair quantity has been provided as a guide for bidding purposes. Actual full depth repair areas shall be determined in the field by the Engineer.
 See Sheet 5 for joint repair details.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Approach Slab Repair (Partial Depth)	Sq. Yd.	23
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	294
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1



USER NAME =	jrice	DESIGNED	NA	REVISED	-
		CHECKED	ZM	REVISED	-
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PLOT DATE =	3/16/2020	CHECKED	ZM	REVISED	-

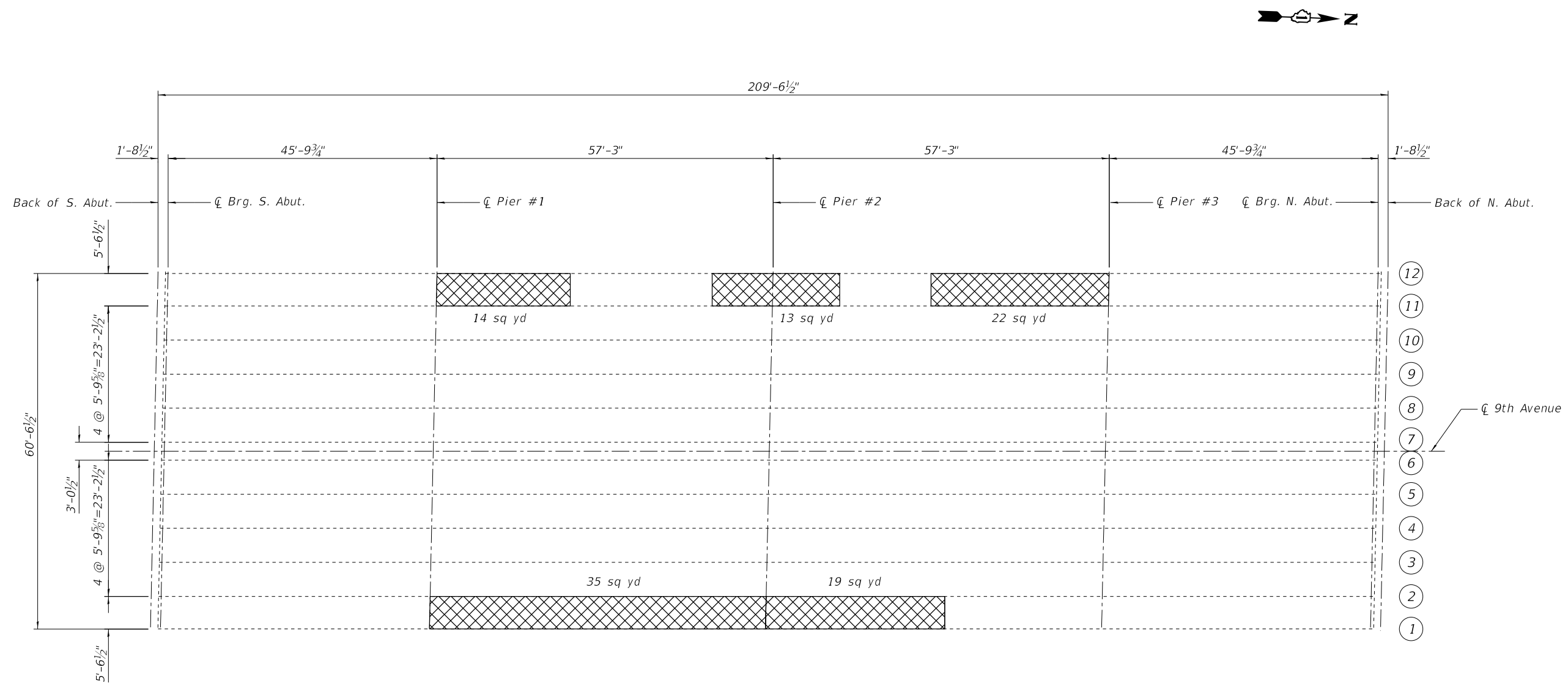
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DECK & JOINT REPAIR DETAILS
 STRUCTURE NO. 016-2058 (9TH AVE.)**

SHEET 3 OF 8 SHEETS


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	41
ILLINOIS			CONTRACT NO. 62K23	


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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-8900 F:312-405-4145



EXISTING FRAMING PLAN

LEGEND

 Protective Shield

 Beam Number

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Protective Shield	Sq. Yd.	103



USER NAME = nanaya	DESIGNED NA	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED ZM	REVISED -
PLOT DATE = 3/16/2020	DRAWN NA	REVISED -
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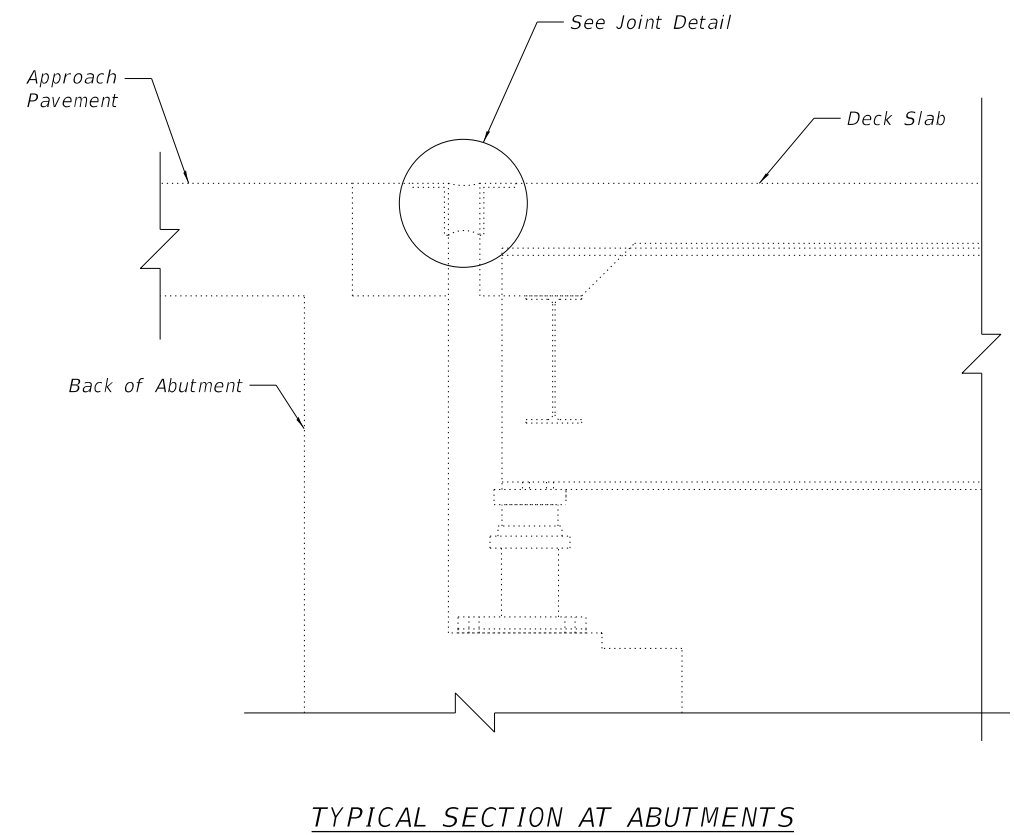
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROTECTIVE SHIELD DETAILS
 STRUCTURE NO. 016-2058 (9TH AVE.)

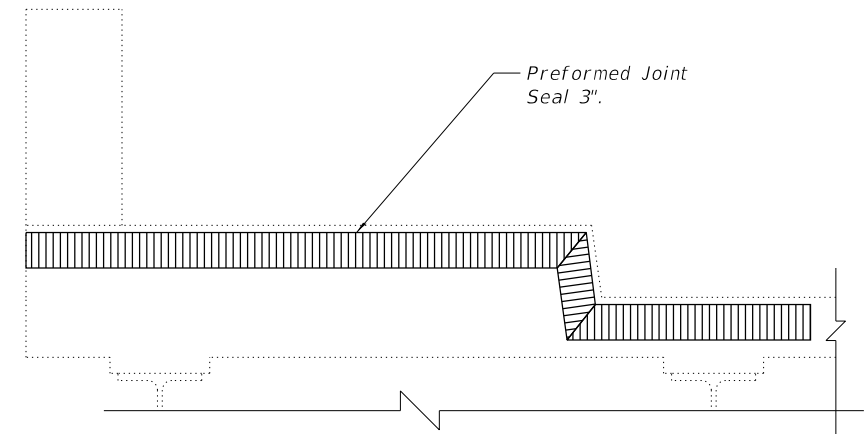
SHEET 4 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS			CONTRACT NO. 62K23	

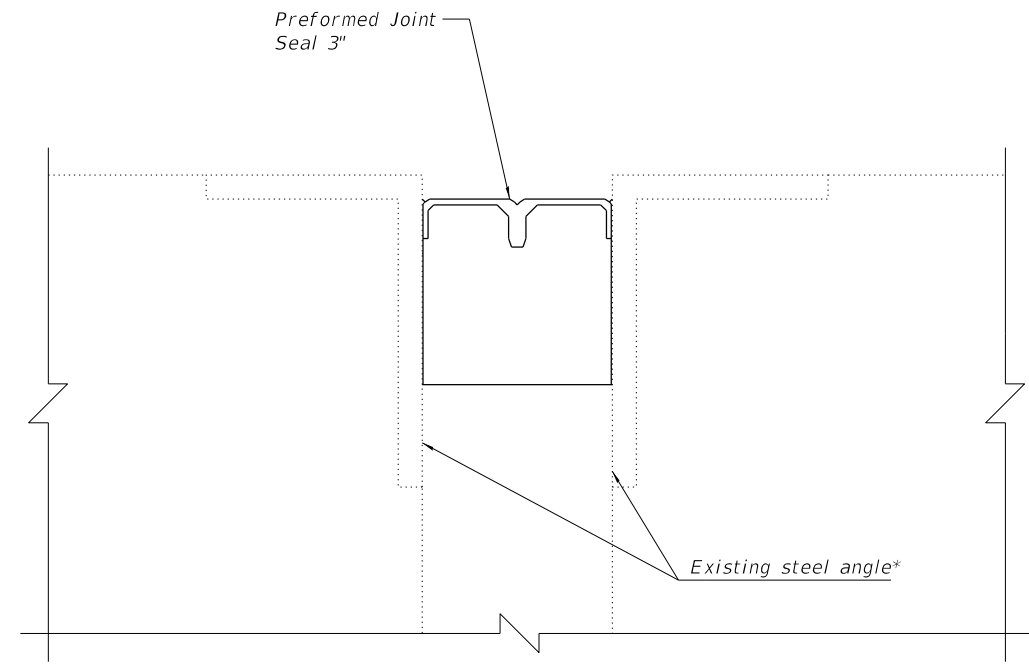
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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-8900 F:312-405-4945



TYPICAL SECTION AT ABUTMENTS



TYPICAL SECTION THRU SIDEWALK



JOINT DETAIL

* Install Preformed Joint Seal against existing concrete at sidewalks

Notes:
 Removal of existing seal is included in the cost of Preformed Joint Seal.
 See sheet 3 of 8 for locations of joint repair.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Preformed Joint Seal 3"	Foot	124



USER NAME =	jrice	DESIGNED	NA	REVISED	-
		CHECKED	ZM	REVISED	-
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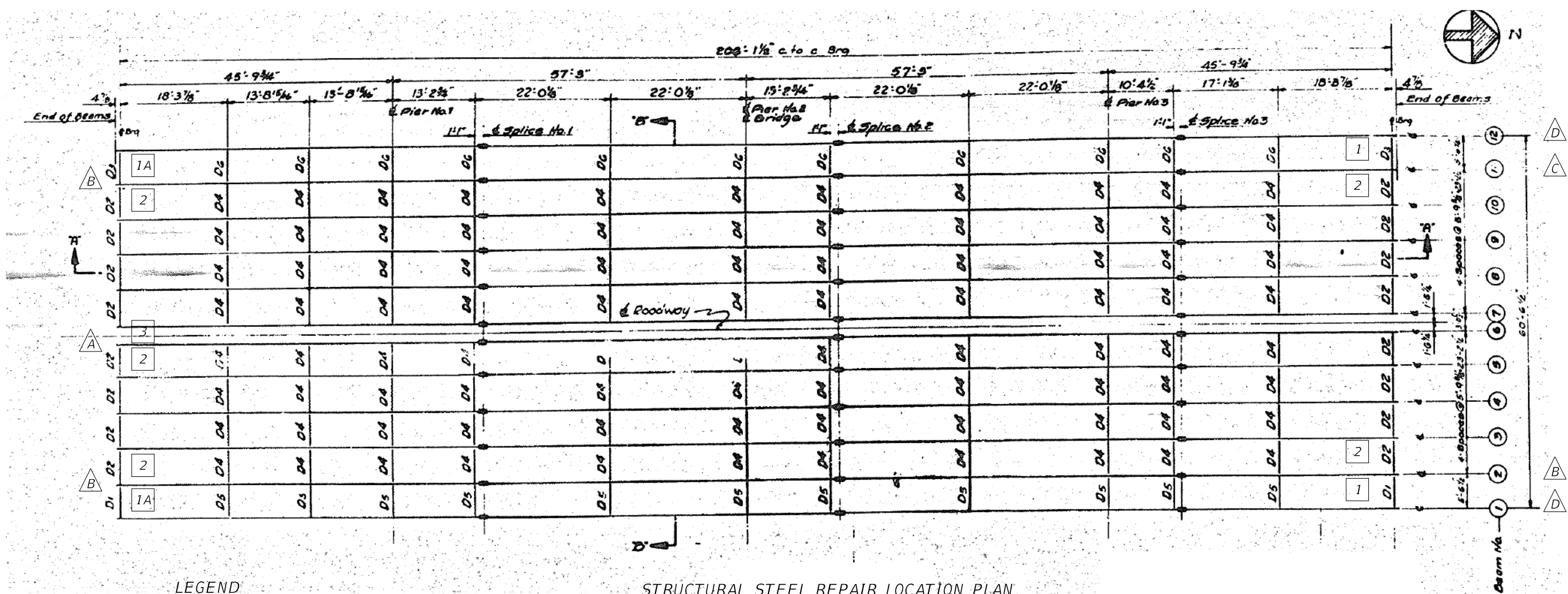
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT REPAIR DETAILS
 STRUCTURE NO. 016-2058 (9TH AVE.)

SHEET 5 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	43
			CONTRACT NO. 62K23	
ILLINOIS				

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LEGEND

- 2 Beam Number
- A Beam End Repair Type
- 1 Diaphragm Type

STRUCTURAL STEEL REPAIR LOCATION PLAN

Notes:
 All existing girders are WF30x116.
 See sheet 7 and 8 for steel repair details.



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PLOT DATE = 3/16/2020	DRAWN NA	REVISED -
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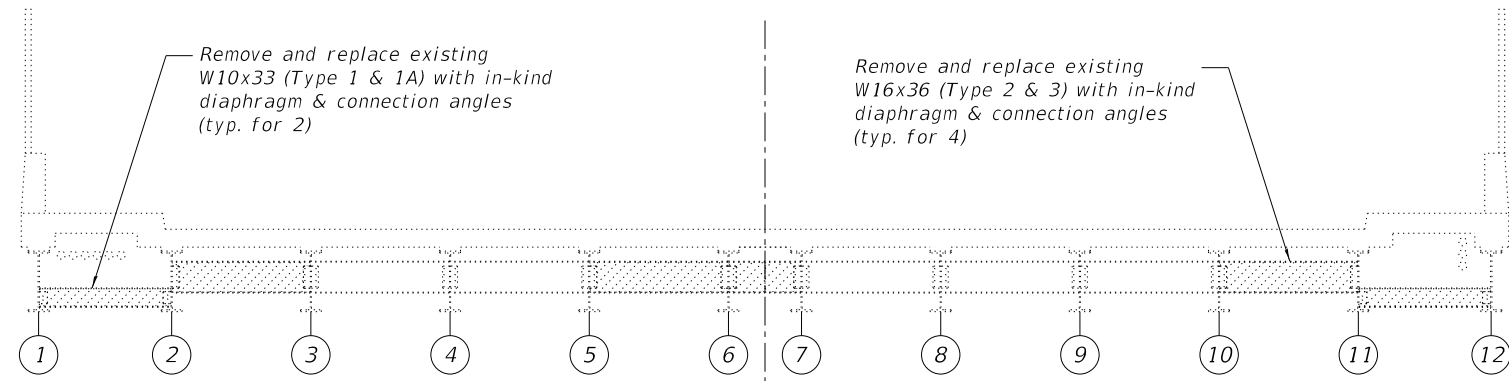
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR LOCATION PLAN
 STRUCTURE NO. 016-2058 (9TH AVE.)

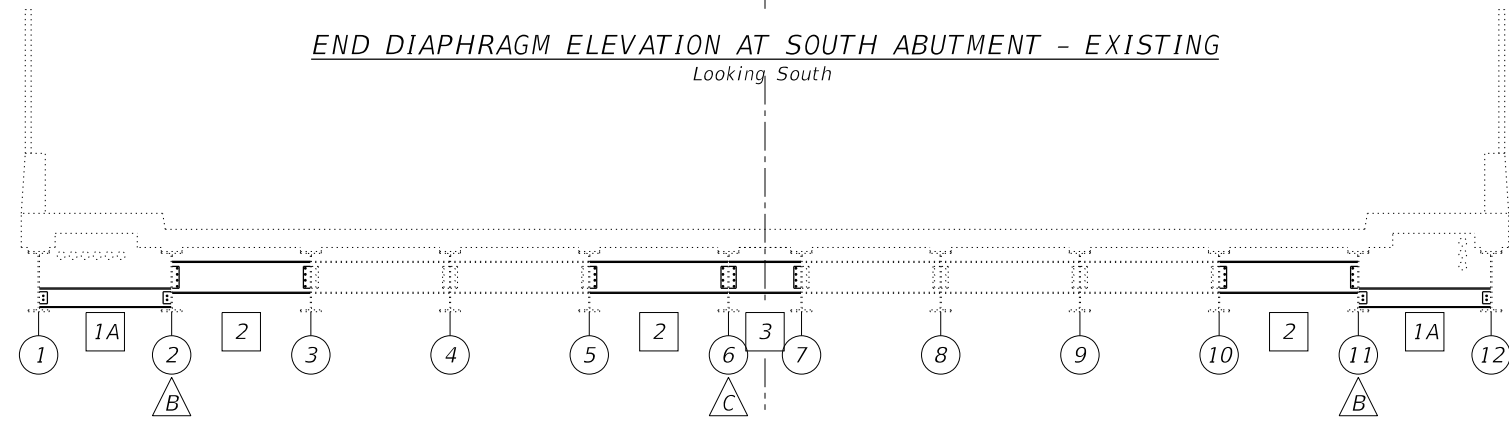
SHEET 6 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS				

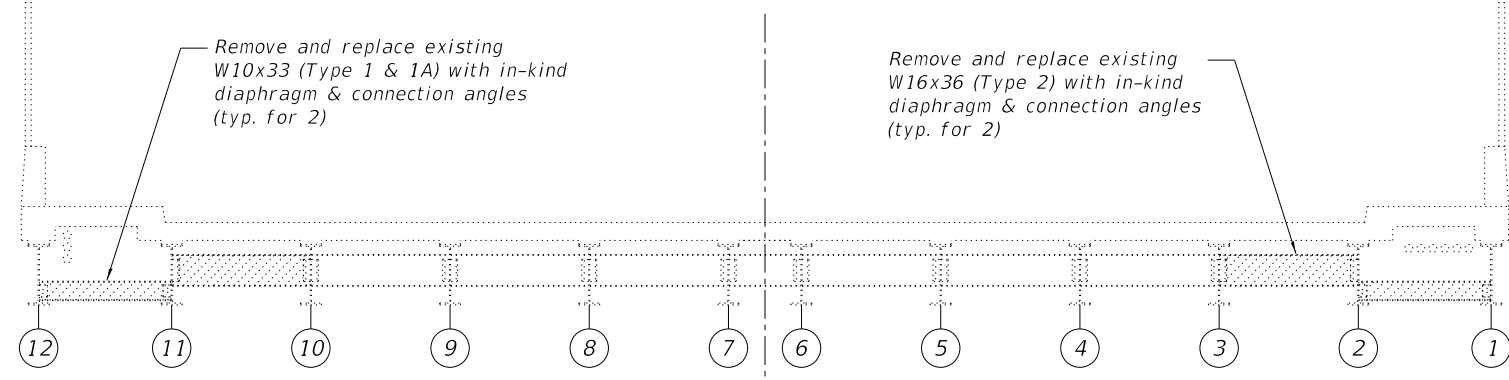
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 100 N. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-8900 F:312-406-4145



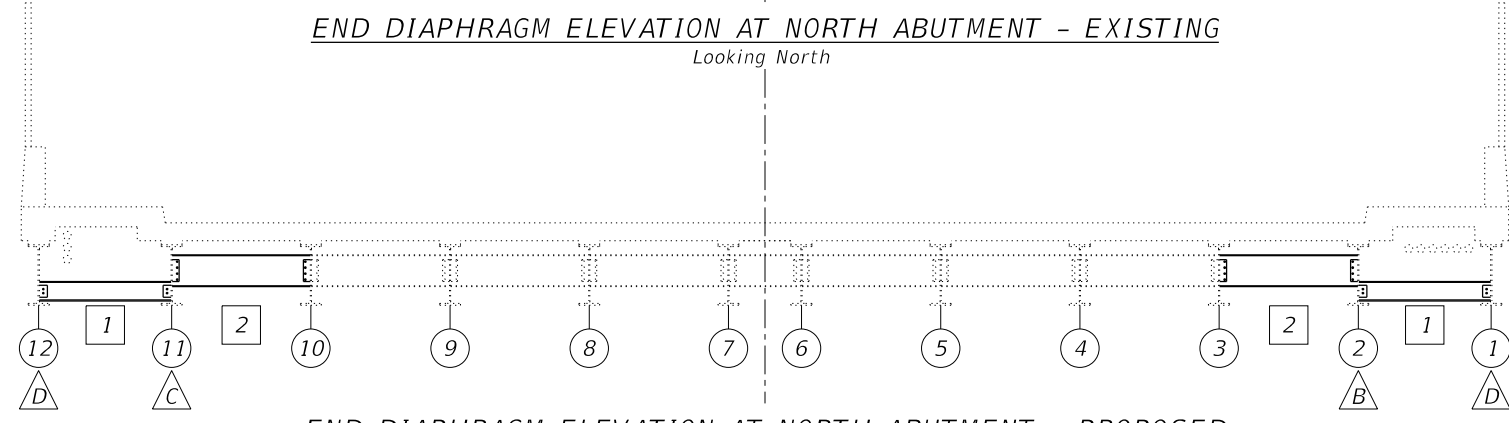
END DIAPHRAGM ELEVATION AT SOUTH ABUTMENT - EXISTING
 Looking South



END DIAPHRAGM ELEVATION AT SOUTH ABUTMENT - PROPOSED
 Looking South



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - EXISTING
 Looking North



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - PROPOSED
 Looking North

- LEGEND**
- Steel Removal
 - Beam Number
 - Beam End Repair Type
 - Diaphragm Type

Notes:
 See Sheet 8 for beam end repair details.

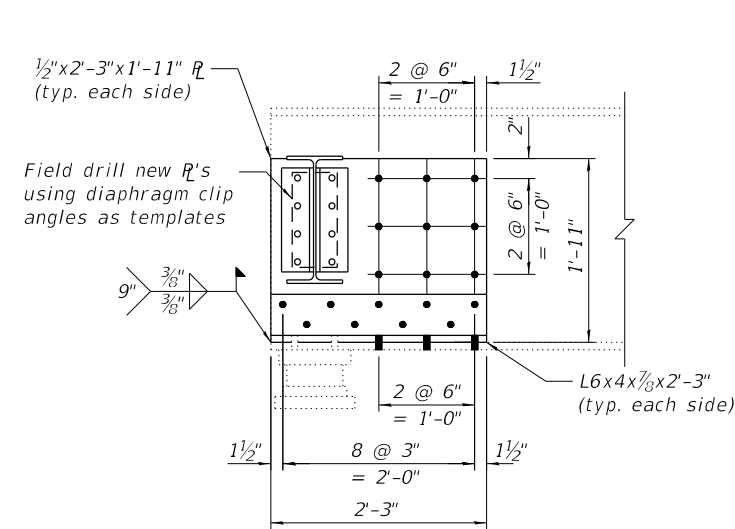
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS I
STRUCTURE NO. 016-2058 (9TH AVE.)

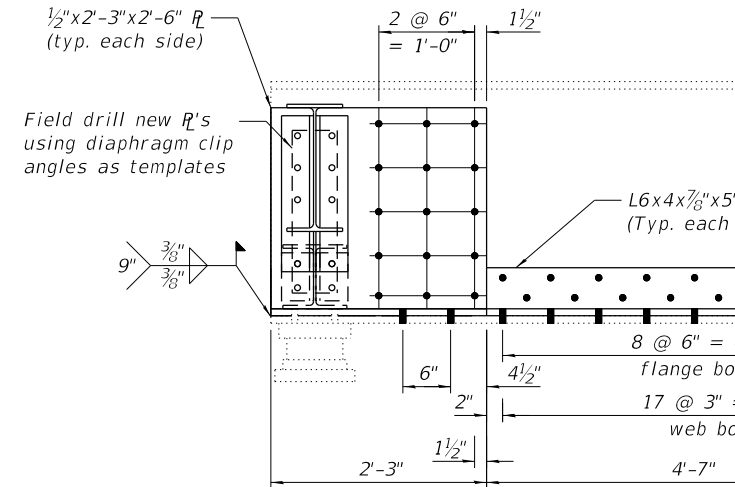
SHEET 7 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS			CONTRACT NO. 62K23	

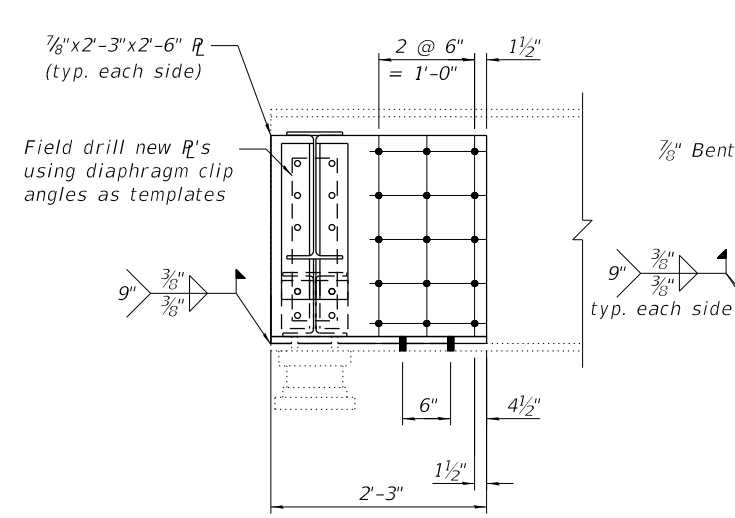
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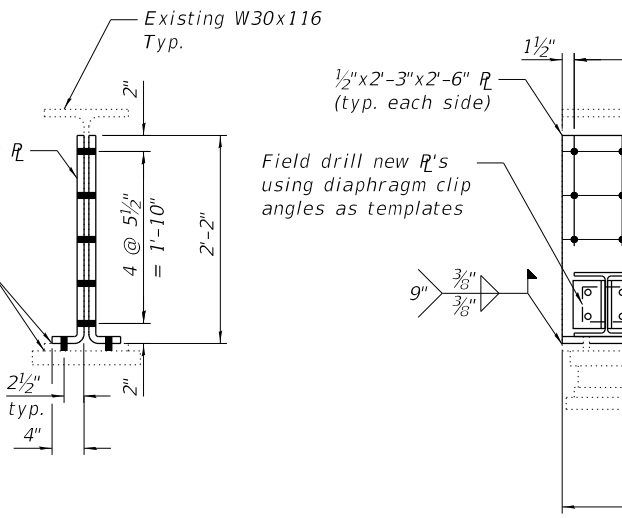
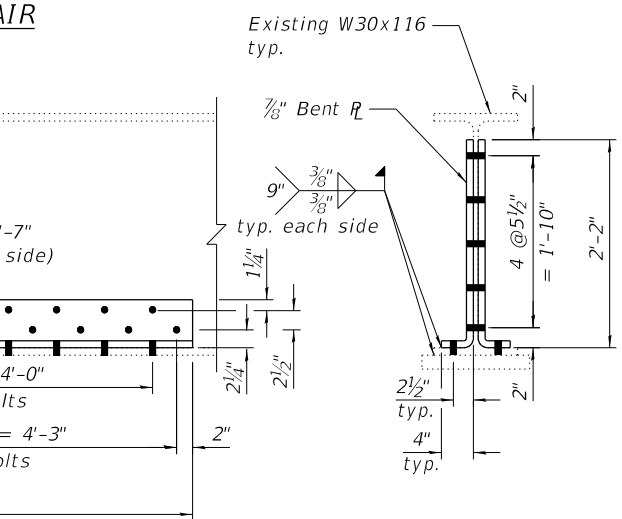
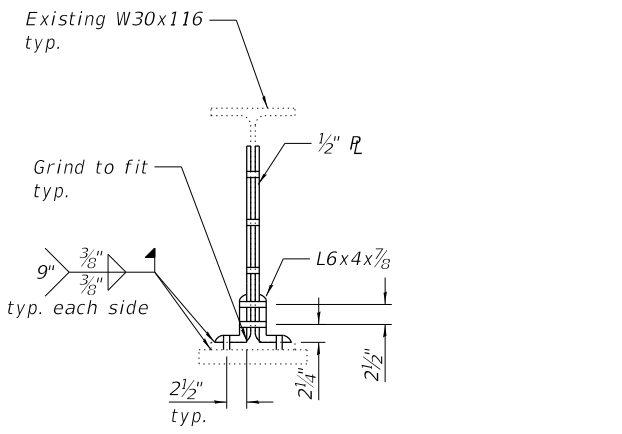
TYPE A BEAM END REPAIR



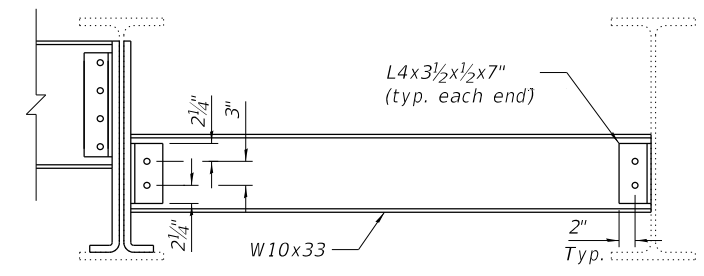
TYPE B BEAM END REPAIR



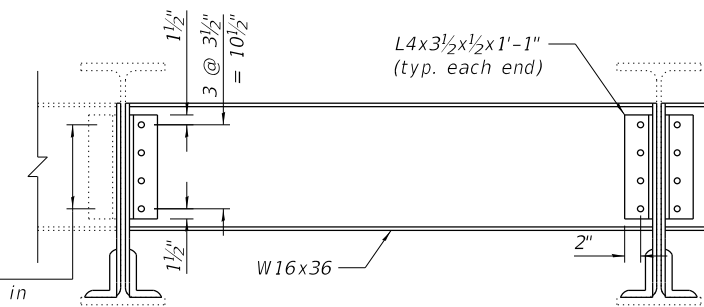
TYPE C BEAM END REPAIR



TYPE D BEAM END REPAIR



TYPE 1 DIAPHRAGM



TYPE 2 DIAPHRAGM
Type 3 similar

TABLE 1- DIAPHRAGMS

Diaphragm Type	Size	Length	Quantity
1	W10x33	5'-3 1/8"	2
1A	W10x33	5'-4"	2
2	W16x36	5'-7 1/2"	5
3	W16x36	2'-9 3/8"	1

TABLE 2- BOLTS

Beam	South Abutment		North Abutment	
	Diaphragm	Plate Repair	Diaphragm	Plate Repair
1	6	-	6	25
2	18	55	18	55
3	12	-	12	-
4	-	-	-	-
5	12	-	-	-
6	16	24	-	-
7	12	-	-	-
8	-	-	-	-
9	-	-	-	-
10	12	-	12	-
11	18	55	18	19
12	6	-	6	24

Notes:
 Existing bearing studs to be cut flush with bottom of beam bottom flange.
 Cost of drilling holes in existing steel members is included with Structural Steel Repairs
 All holes 3/16" Ø for 3/4" Ø bolts unless noted otherwise. Cost of drilling holes in existing steel members is included with Furnishing and Erecting Structural Steel.
 All plates shall be 1/2" thick unless noted otherwise.
 See sheet 5 of 7 for repair locations.
 Installation of new diaphragms shall not commence until all bolts for new web plates and clip angles are fully tightened.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing & Erecting Structural Steel	Pound	2,350
Structural Steel Removal	Pound	2,410
Structural Steel Repair	Pound	3,400



USER NAME =	jrice	DESIGNED	NA	REVISED	-
PLOT SCALE =	40,0000' / in.	CHECKED	ZM	REVISED	-
PLOT DATE =	3/16/2020	DRAWN	NA	REVISED	-
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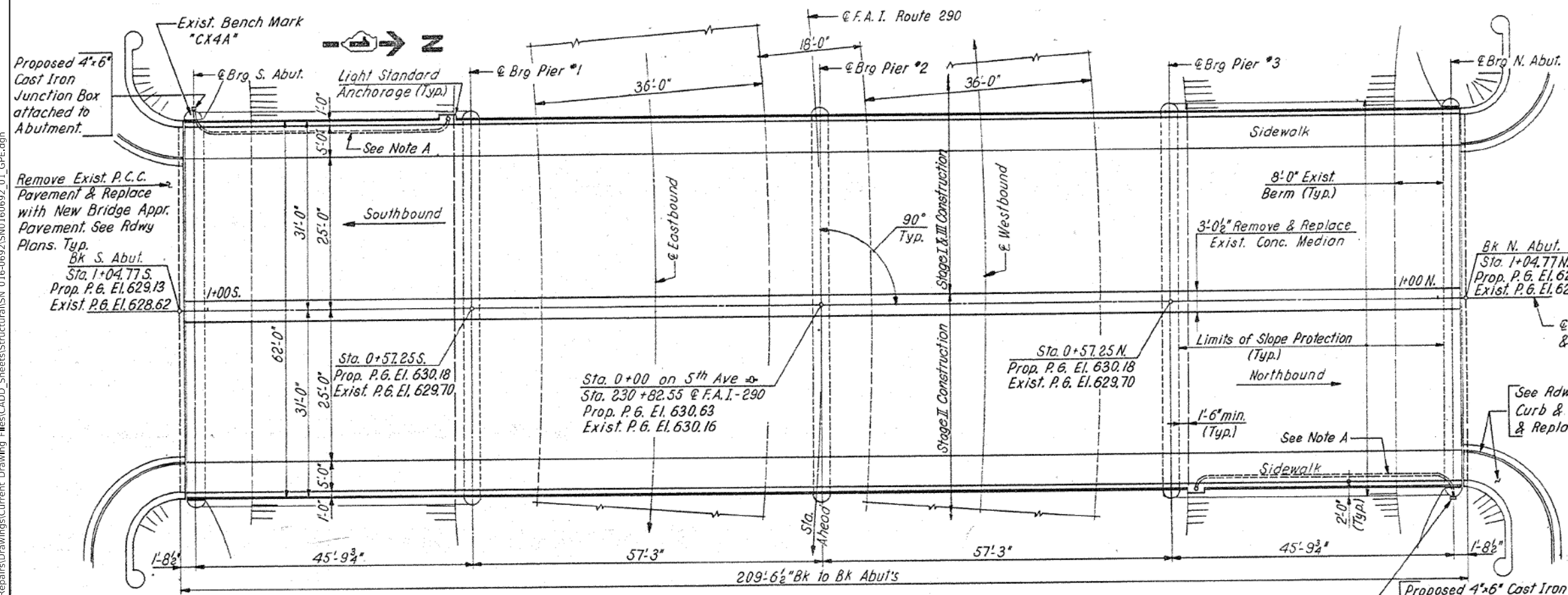
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS II
 STRUCTURE NO. 016-2058 (9TH AVE.)

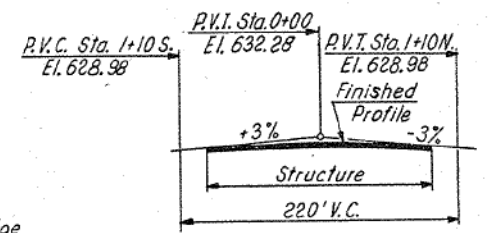
SHEET 8 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	46
				CONTRACT NO. 62K23
ILLINOIS				

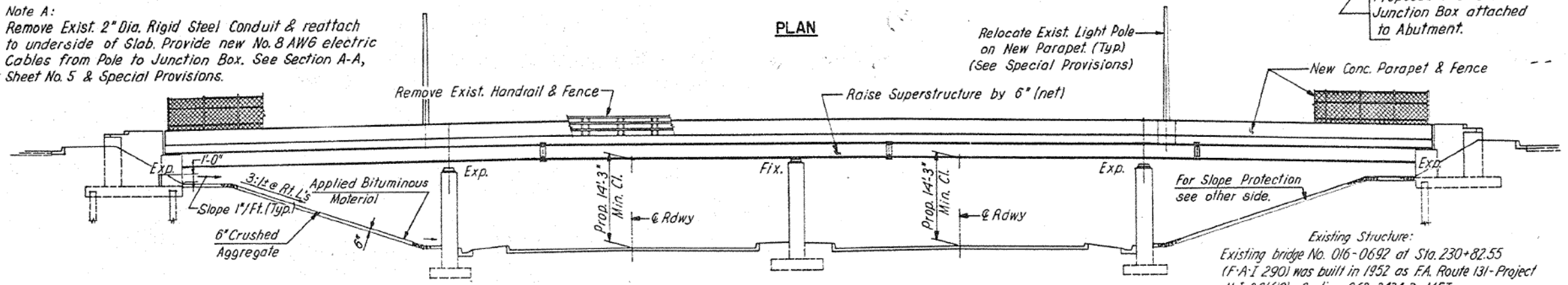
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BENCH MARK A standard County bronze disk set on the Southwest Pier of the Fifth Ave. overpass. 32 feet West of the centerline of Fifth Ave.; and 31 feet North of the centerline of Bataan Drive. El. 629.00!



Note A:
 Remove Exist. 2" Dia. Rigid Steel Conduit & reattach to underside of Slab. Provide new No. 8 AWG electric Cables from Pole to Junction Box. See Section A-A, Sheet No. 5 & Special Provisions.



TYP DETAILS OF SLOPE PAVING
 (See Special Provisions)

ELEVATION

NOTES

DESIGN LOADING
 HS 20-44

DESIGN STRESSES (New Construction)**
 ** f_c = 20,000 p.s.i. M183 Structural Steel
 f_s = 18,000 p.s.i. A-7 Exist. Structural Steel
 ** f_c = 3,500 p.s.i. Class X Concrete
 ** f_{sy} = 60,000 p.s.i. Reinforcement Bars

DESIGN SPECIFICATIONS (New Construction)
 AASHTO 1977 and Interim 1978, 1979, 1980, 1981 and 1962

FOR INFORMATION ONLY

USER NAME = jrice	DESIGNED CAO	REVISD -
PLOT SCALE = 40,0000' / in.	CHECKED ZM	REVISD -
PLOT DATE = 3/16/2020	DRAWN CAO	REVISD -
	CHECKED ZM	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 016-0692 (5TH AVE.)

SHEET 1 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	47
			CONTRACT NO. 62K23	
ILLINOIS				

GENERAL NOTES

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 the cause for additional compensation for a change in scope of work. However, the contractor will be paid for the quantity actually furnished at the unit price bid for the work.

All fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/4"Ø, holes 13/16" Ø, unless otherwise noted.

Calculated weight of Structural Steel = 8730 lbs.

All structural steel shall be AASHTO M270 Grade 50, galvanized according to AASHTO M111.

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

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

The Structural Steel Removal quantity is shown for bidding purposes only and will not be measured for payment.

INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Deck & Joint Repair Details
4. Expansion Joint Repair Details
5. Structural Steel Repair Location Plan
6. Structural Steel Repairs I
7. Structural Steel Repairs II

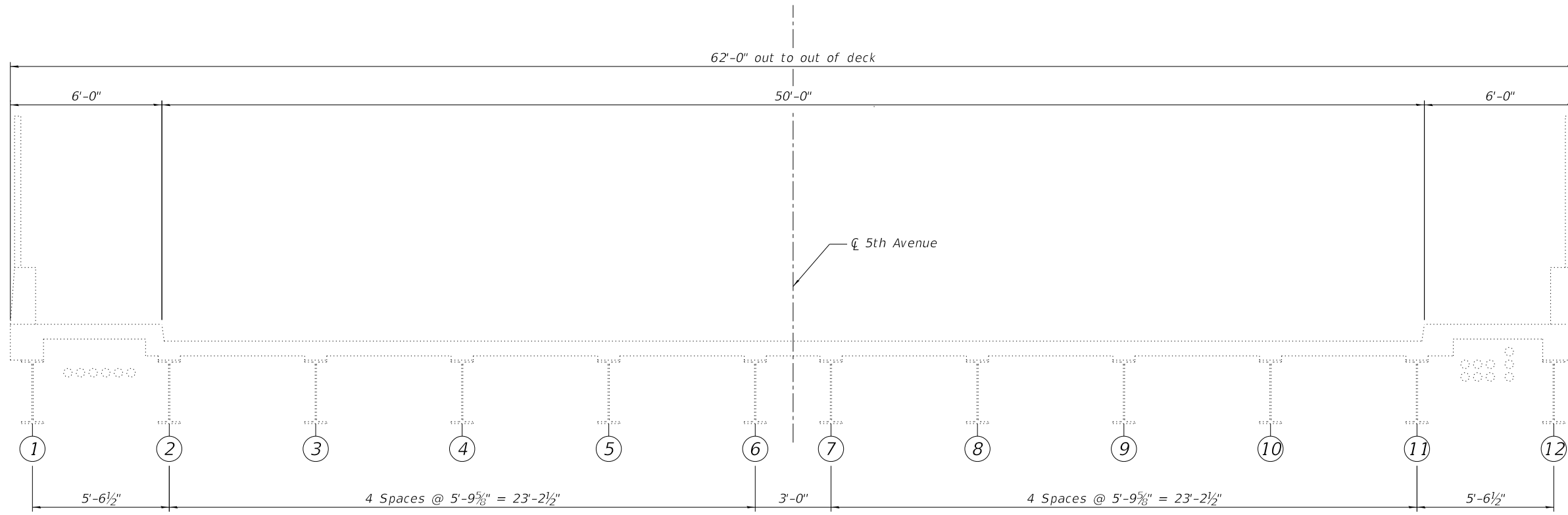
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	1.6
Furnishing and Erecting Structural Steel	Pound	3410
Prefomed Joint Seal 3/4"	Foot	124
Approach Slab Repair (Partial Depth)	Sq. Yd.	28
Structural Steel Removal	Pound	3490
Structural Steel Repair	Pound	5320
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	326
Cleaning Bridge Seats	Sq. Ft.	50
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Deck Slab Repair (Partial Depth)	Sq. Yd.	1
Polymer Concrete	Cu. Ft.	34.6
*Temporary Shoring and Cribbing	L. Sum	0.2

*Contract-wide item. See Special Provisions.

SCOPE OF WORK

1. Repair approach slab, deck and sidewalk at partial depth.
2. Remove and replace existing diaphragms at abutments.
3. Repair beam ends.
4. Repair expansion joint at both ends.



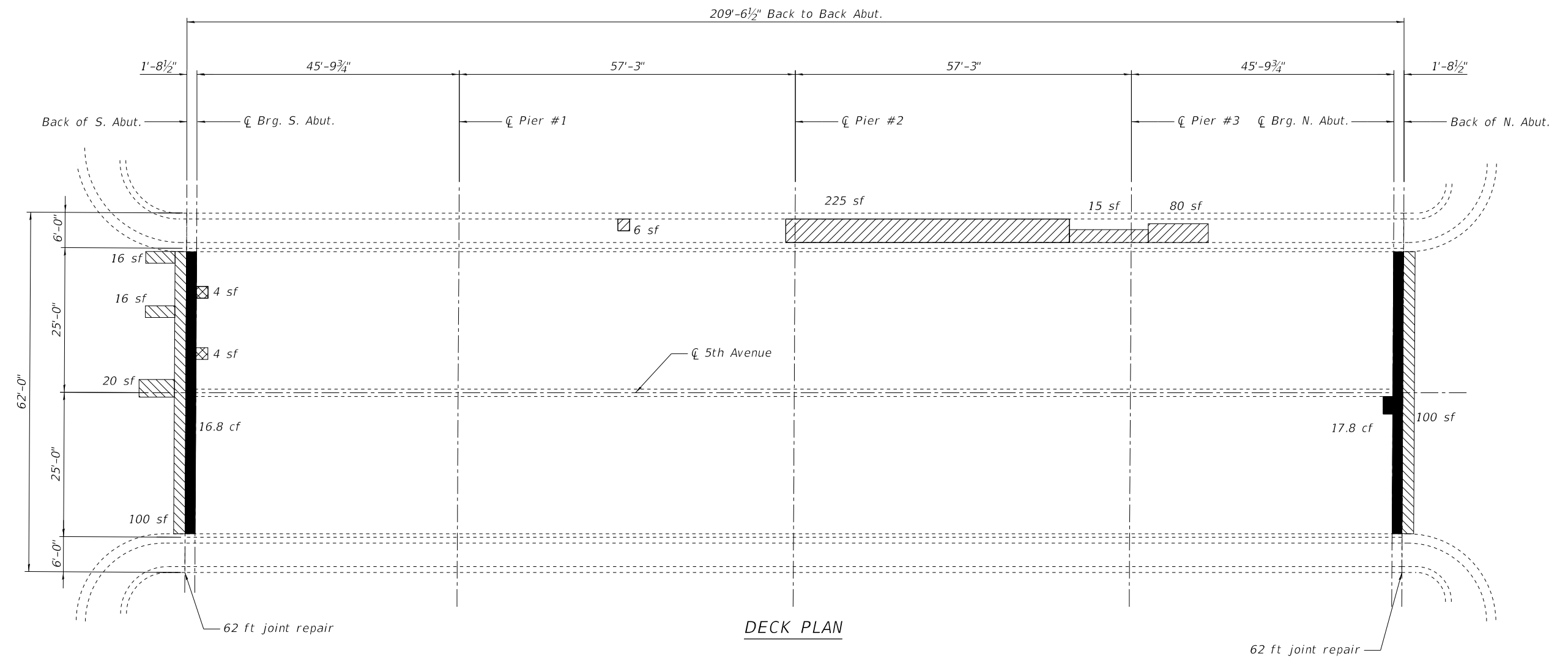
EXISTING BRIDGE CROSS SECTION
Looking South

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PLOT SCALE = 40,0000' / in.	CHECKED ZM	REVISED -
PLOT DATE = 3/16/2020	DRAWN CAO	REVISED -
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	48
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ILLINOIS				

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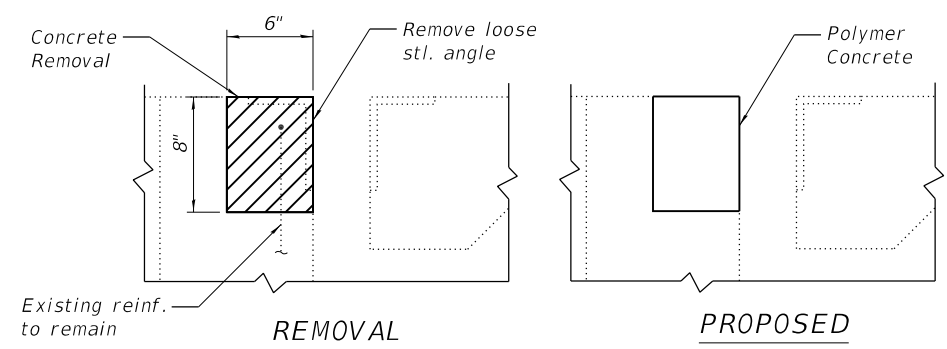
DECK PLAN

LEGEND

- Approach Slab Repair (Partial Depth)
- Bridge Sidewalk Repair (Partial Depth)
- Deck Slab Repair (Partial)
- Polymer Concrete

NOTES:

Existing reinforcement shall be cleared and incorporated into the new construction. Cost included with Concrete Removal.
 Cost for steel angle removal included with Concrete Removal.
 Areas of deck repairs are estimated. Actual repair areas shall be determined in the field by the Engineer.
 A nominal full depth deck repair quantity has been provided as a guide for bidding purposes. Actual full depth repair areas shall be determined in the field by the Engineer.
 See Sheet 4 for joint repair details.



TYPICAL JOINT SECTION AT POLYMER CONCRETE REPAIR

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Approach Slab Repair (Partial Depth)	Sq. Yd.	28
Deck Slab Repair (Partial)	Sq. Yd.	1
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	326
Polymer Concrete	Cu. Ft.	34.6
Concrete Removal	Cu. Yd.	1.6

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

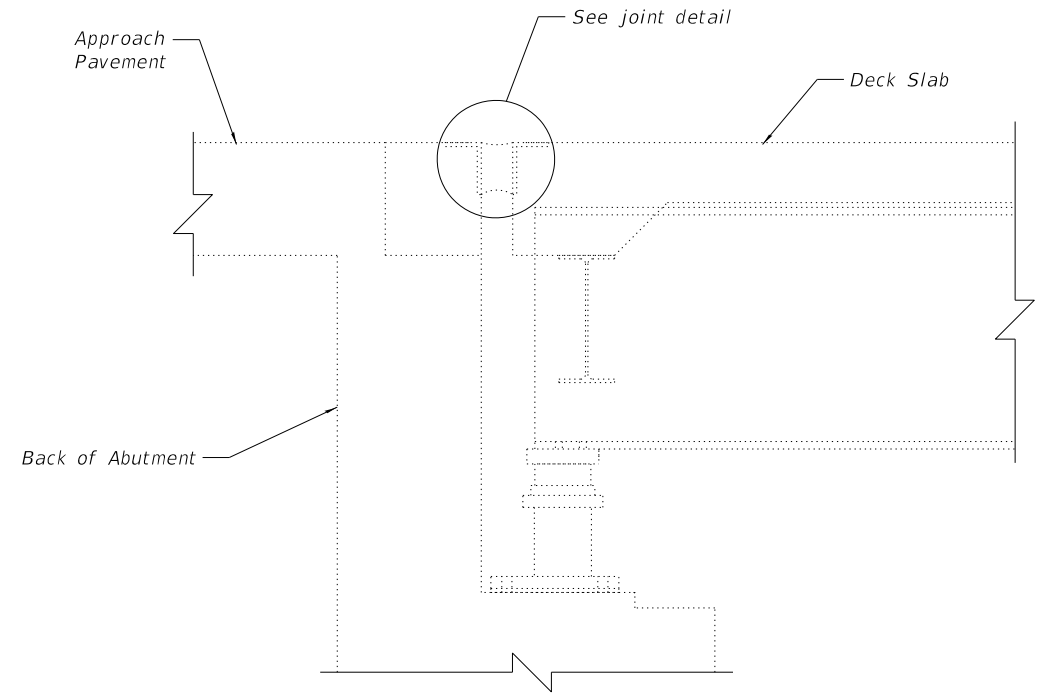
DECK & JOINT REPAIR DETAILS
 STRUCTURE NO. 016-0692 (5TH AVE.)

SHEET 3 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	49
			CONTRACT NO. 62K23	



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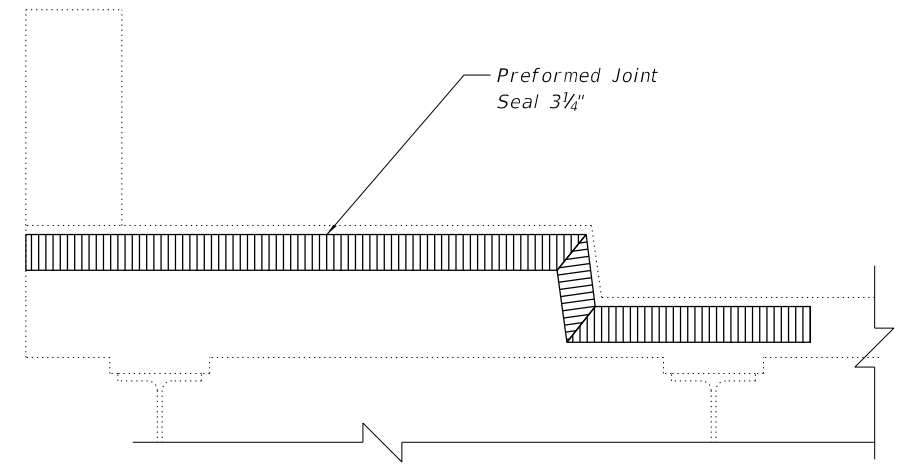


TYPICAL SECTION AT ABUTMENTS

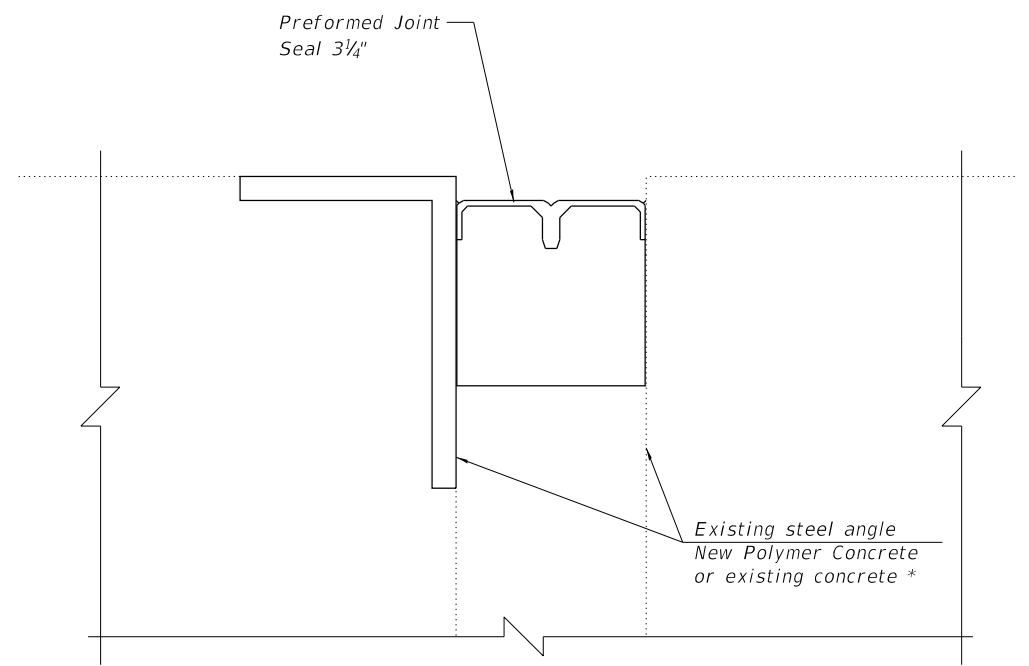
Notes:
 Removal of existing seal is included in the cost of Preformed Joint Seal.
 See sheet 3 of 7 for locations of joint repair and Polymer Concrete repair locations.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Preformed Joint Seal 3 1/4"	Foot	124



TYPICAL SECTION THRU SIDEWALK



* Install Preformed Joint Seal against existing concrete at sidewalks.

JOINT DETAIL



USER NAME =	jrice	DESIGNED	CAO	REVISED	-
		CHECKED	ZM	REVISED	-
PLOT SCALE =	40,0000' / in.	DRAWN	CAO	REVISED	-
PLOT DATE =	3/16/2020	CHECKED	ZM	REVISED	-

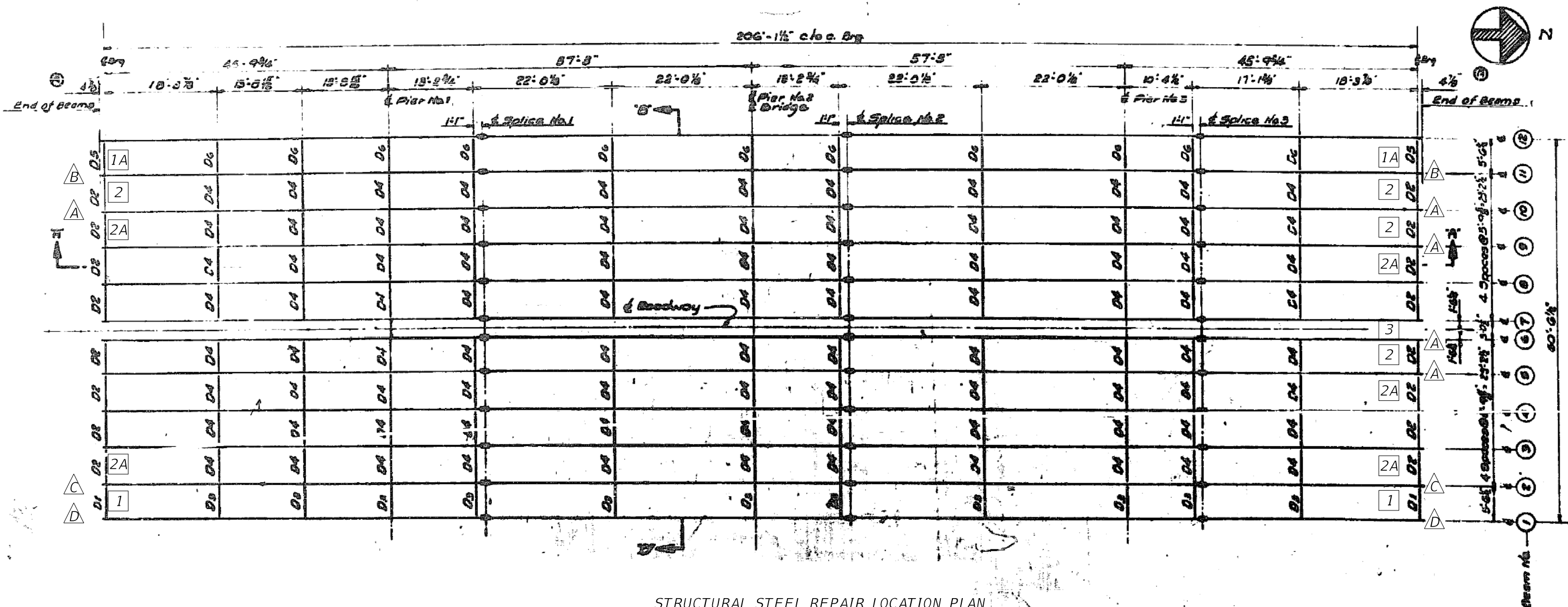
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REPAIR DETAILS
 STRUCTURE NO. 016-0692 (5TH AVE.)**

SHEET 4 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	50
			CONTRACT NO. 62K23	
ILLINOIS				

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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-0910 F:312-405-0915



STRUCTURAL STEEL REPAIR LOCATION PLAN

LEGEND

- 2 Beam Number
- A Beam End Repair Type
- 1 Diaphragm Type

Notes:
 All existing girders are WF30x116.
 See sheet 6 and 7 for steel repair details.

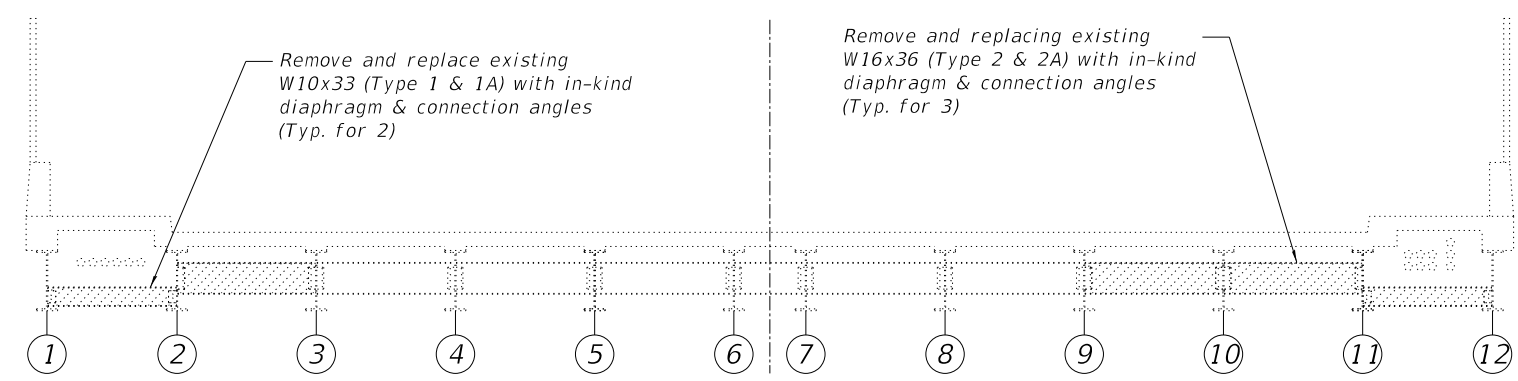
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR LOCATION PLAN
 STRUCTURE NO. 016-0692 (5TH AVE.)

SHEET 5 OF 7 SHEETS

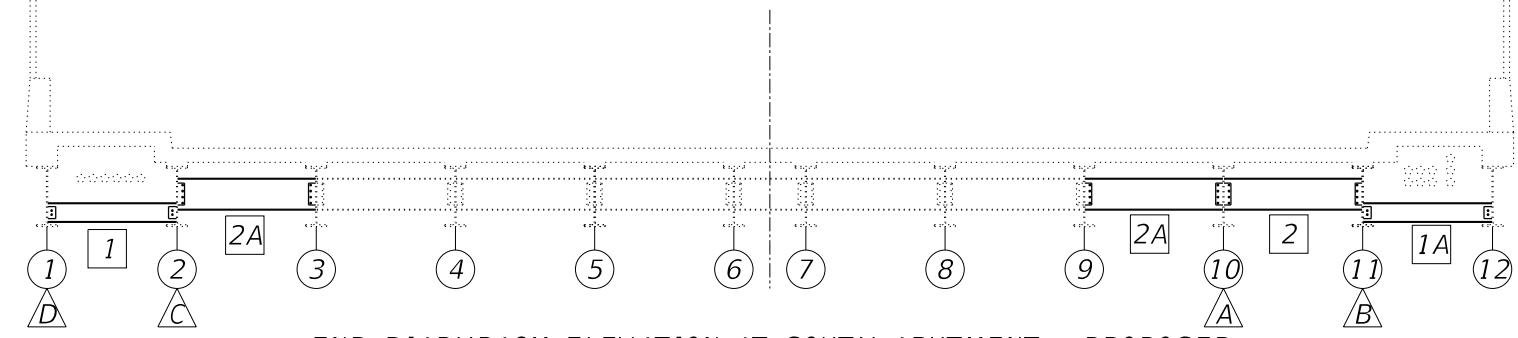
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	51
			CONTRACT NO. 62K23	

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 100 S. WACKER DRIVE SUITE 700, CHICAGO, IL 60606 - P:312-405-8900 F:312-406-4145



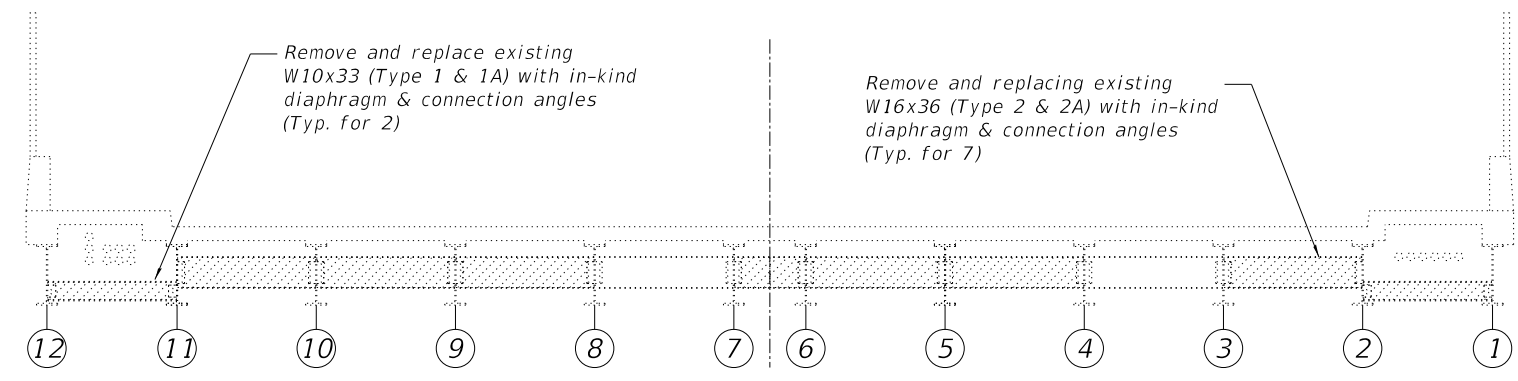
END DIAPHRAGM ELEVATION AT SOUTH ABUTMENT - EXISTING

Looking South



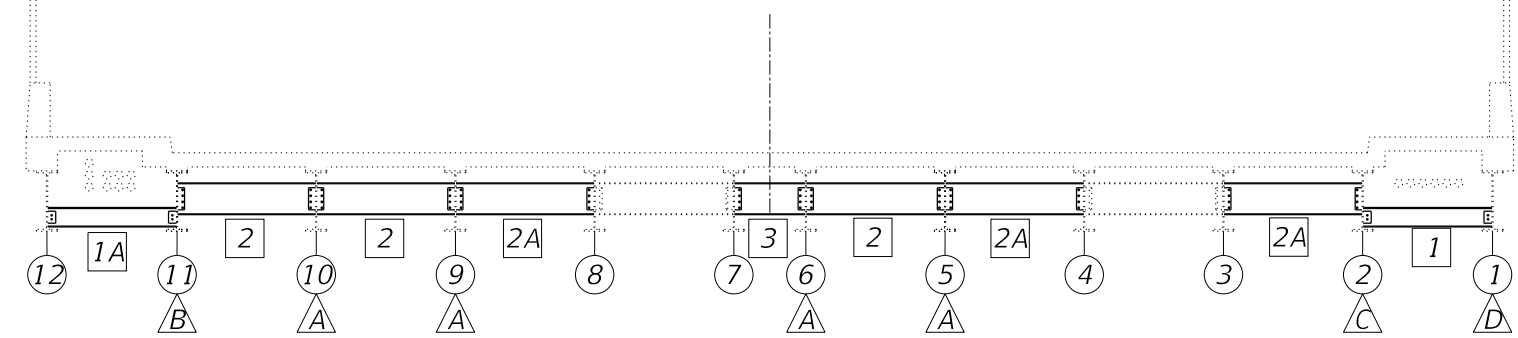
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Looking South



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - EXISTING





Looking North



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - PROPOSED

Looking North

LEGEND

-  Steel Removal
-  Beam Number
-  Beam End Repair Type
-  Diaphragm Type

Note: See sheet 7 for beam end repair details.



USER NAME =	jrice	DESIGNED	CAO	REVISED	-
		CHECKED	ZM	REVISED	-
PLOT SCALE =	40,0000' / in.	DRAWN	CAO	REVISED	-
PLOT DATE =	3/16/2020	CHECKED	ZM	REVISED	-

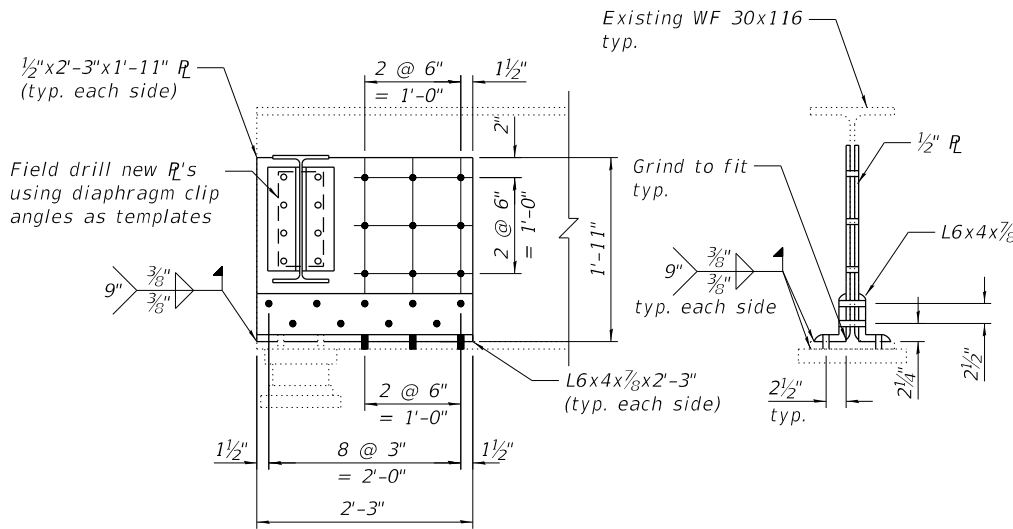
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL REPAIRS I
 STRUCTURE NO. 016-0692 (5TH AVE.)**

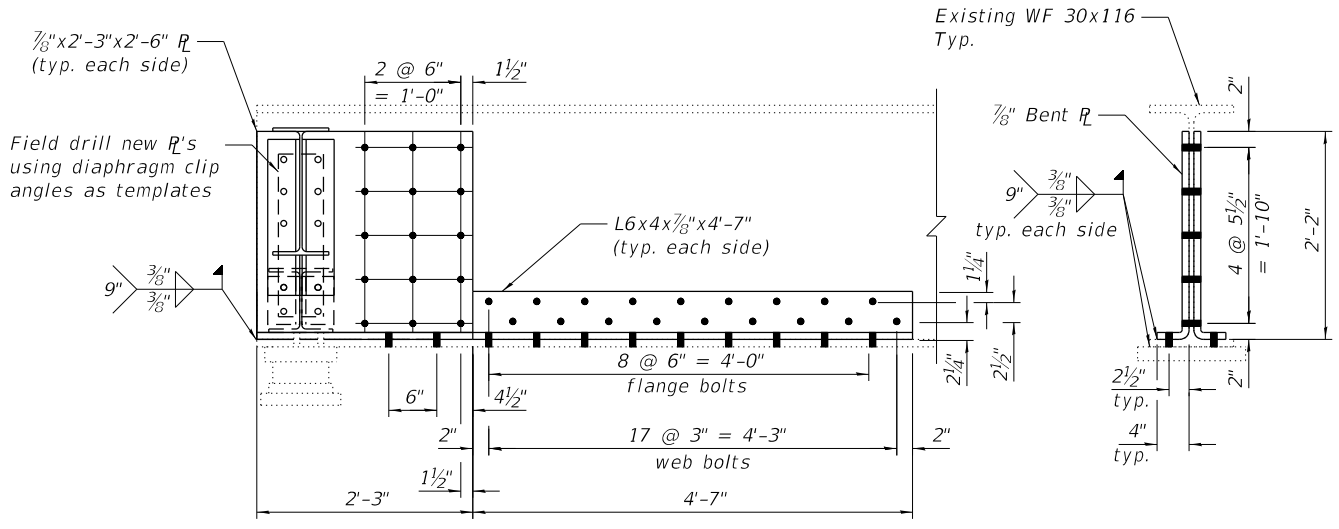
SHEET 6 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	52
ILLINOIS			CONTRACT NO. 62K23	

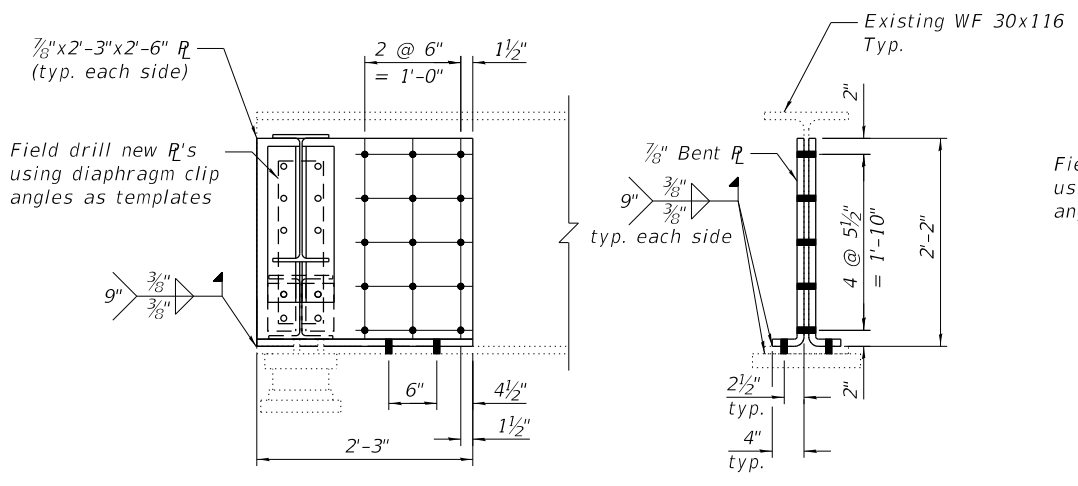
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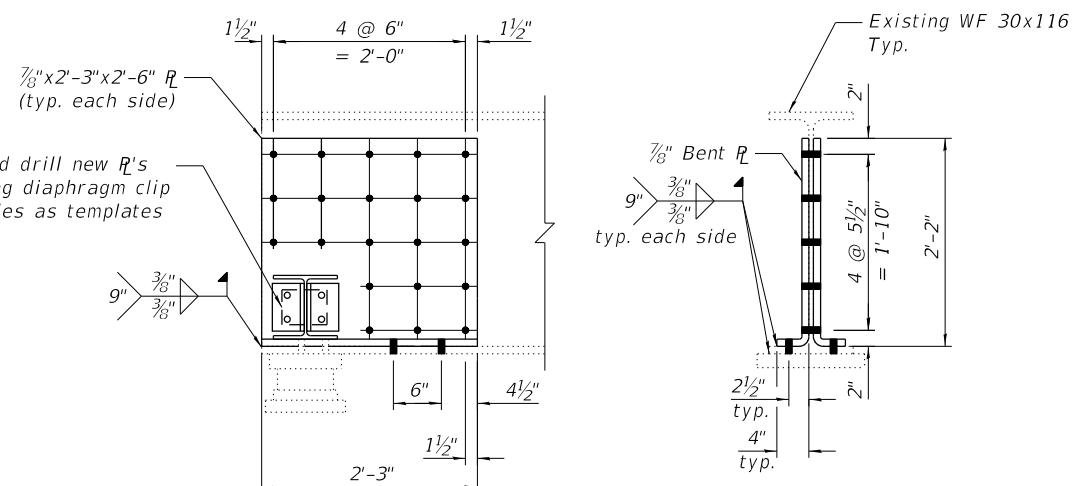
TYPE A BEAM END REPAIR



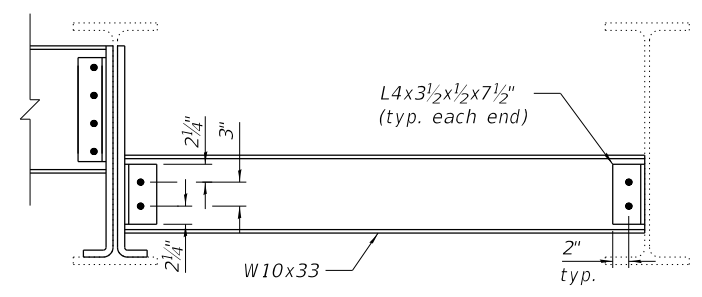
TYPE B BEAM END REPAIR



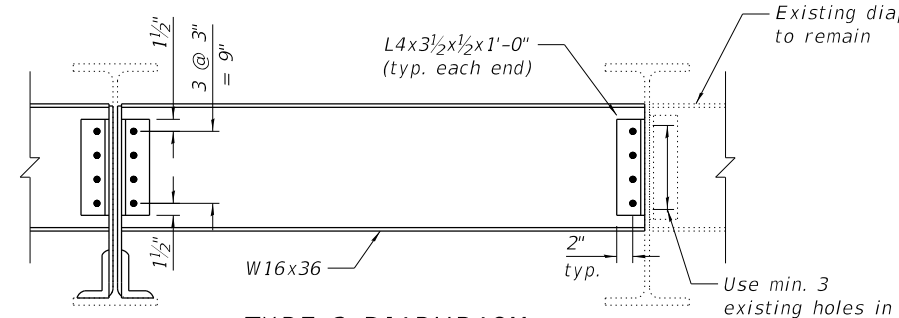
TYPE C BEAM END REPAIR



TYPE D BEAM END REPAIR



TYPE 1 DIAPHRAGM
Type 1A similar



TYPE 2 DIAPHRAGM
Type 2A & 3 similar

TABLE 1- DIAPHRAGMS

Diaphragm Type	Size	Length	Quantity
1	W10x33	5'-3 1/8"	2
1A	W10x33	5'-4"	2
2	W16x36	5'-7"	4
2A	W16x36	5'-7 1/2"	5
3	W16x36	2'-9 7/8"	1

TABLE 2- BOLTS

Beam	South Abutment		North Abutment	
	Diaphragm	Plate Repair	Diaphragm	Plate Repair
1	6	25	6	25
2	18	19	18	19
3	12	-	12	-
4	-	-	-	-
5	-	-	16	24
6	-	-	16	24
7	-	-	12	-
8	-	-	12	-
9	12	-	16	24
10	16	24	16	24
11	18	55	18	55
12	6	-	6	-

Notes:
 Existing bearing studs to be cut flush with bottom of beam bottom flange.
 Cost of drilling holes in existing steel members is included with Structural Steel Repair.
 All holes 13/16" Ø for 3/4" Ø bolts unless noted otherwise. Cost of drilling holes in existing steel members is included with Furnishing and Erecting Structural Steel.
 All plates shall be 1/2" thick unless noted otherwise.
 See sheet 5 of 7 for repair locations.
 Installation of new diaphragms shall not commence until all bolts for new web plates and clip angles are fully tightened.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	3410
Structural Steel Removal	Pound	3490
Structural Steel Repair	Pound	5320

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS II
 STRUCTURE NO. 016-0692 (5TH AVE.)

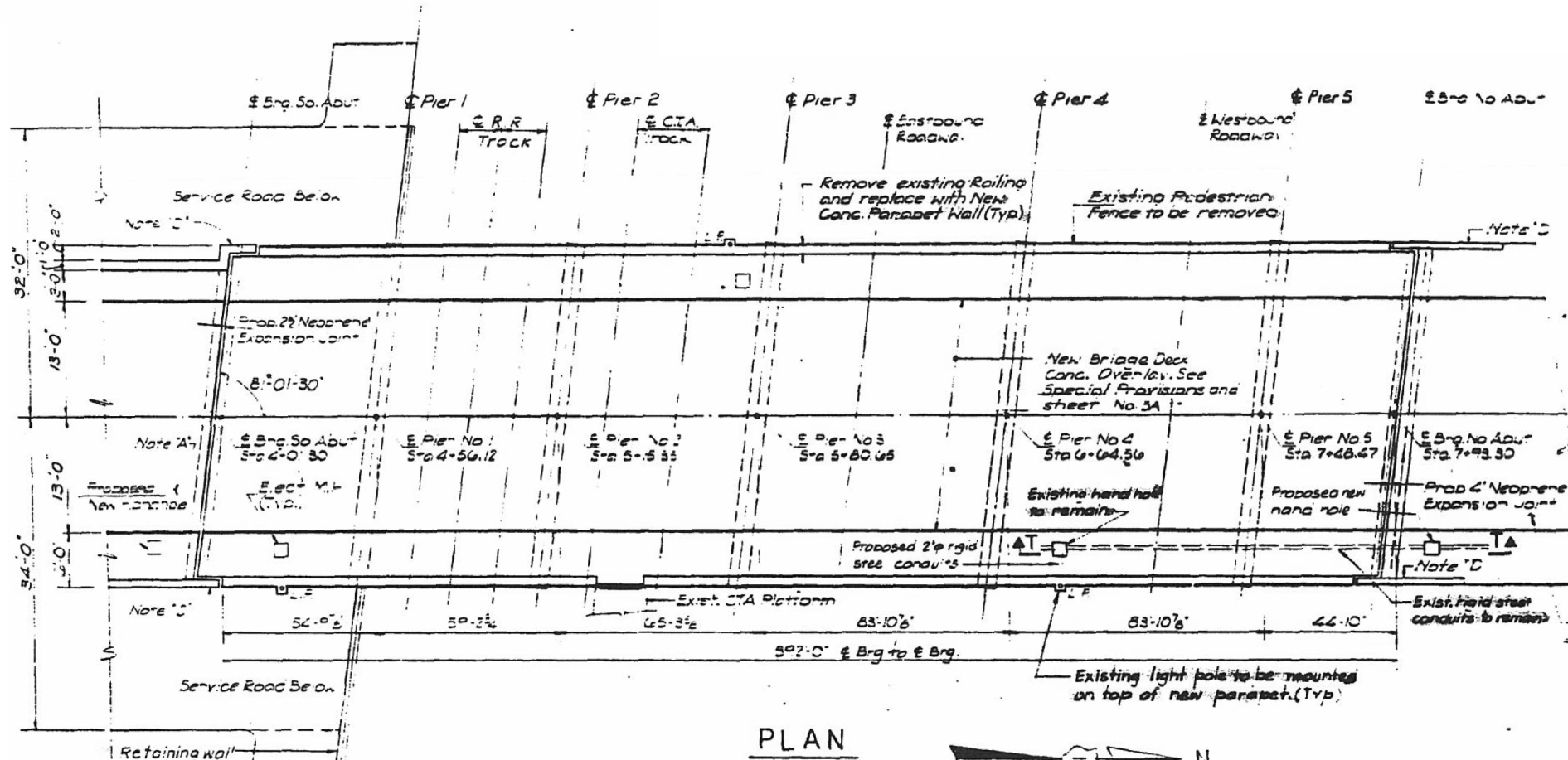
SHEET 7 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	53
			CONTRACT NO. 62K23	
ILLINOIS				



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PLOT DATE =	3/16/2020	DRAWN	CAO	REVISED	-
		CHECKED	ZM	REVISED	-

BENCH MARK
 ELEVATION 622.94
 CUT CROSS IN TOP OF FIRE HYDRANT
 SOUTH FLANGE BOLT AT NORTHWEST
 CORNER LEMNER STREET AND CIRCLE AVENUE

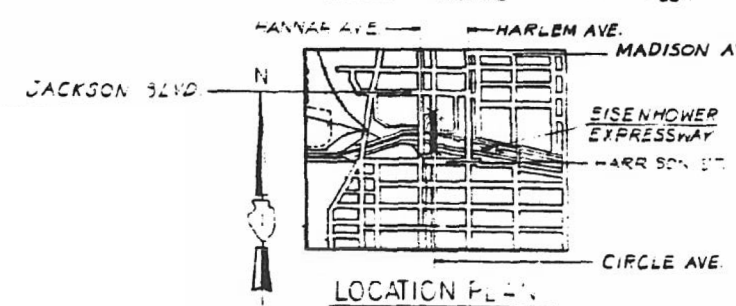
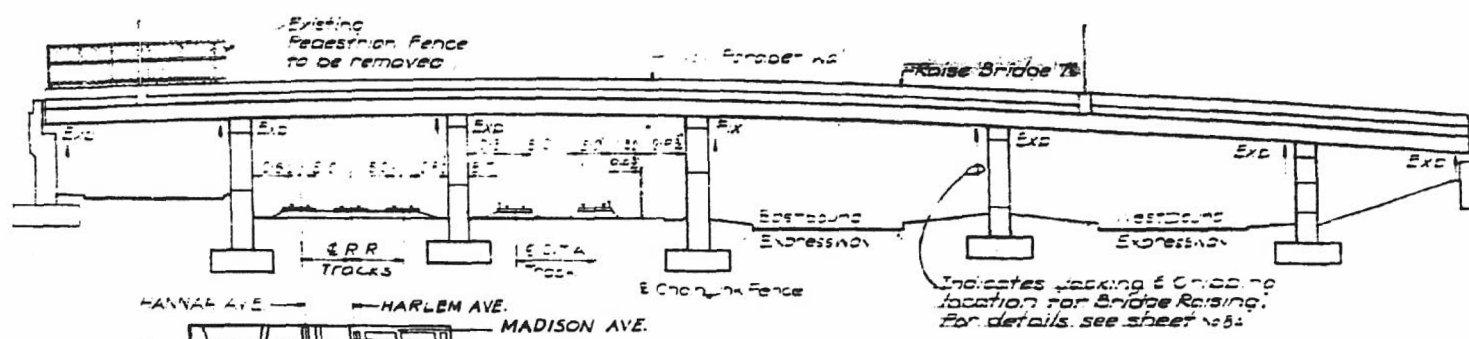


DESIGN STRESSES (EXIST. PORTION)
 fc = 1200 PSI (CONCRETE)
 fa = 20000 PSI (REINFORCEMENT)
 fs = 18000 PSI EXISTING STRUCTURAL STEEL

DESIGN STRESSES (NEW PORTION)
 fc = 3500 PSI
 fy = 60000 PSI (REINF.)
 fs = 36000 PSI (STR. STEEL) (AASHTO M183)

LOADING HS 20-44

DESIGN SPECIFICATIONS (NEW CONSTRUCTION)
 1977 AASHTO AND 1978, 1979, 1980, 1981
 AND 1982 INTERIM SPECIFICATION



BRANDON L. BUZZELL
 081-006358
 LICENSED
 STRUCTURAL
 ENGINEER
 OF
 STATE OF ILLINOIS
 2/7/2020
 Brandon Buzzell
 "LICENSE EXPIRES 11-30-2020"

FOR INFORMATION ONLY

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BAXTER & WOODMAN Consulting Engineers	USER NAME = mornjy	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION STRUCTURE NO. 016-0995 (CIRCLE AVE.)	F.A.I. RTE. = 290	SECTION = 2019-151-BR	COUNTY = COOK	TOTAL SHEETS = 75	SHEET NO. = 54
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	PLOT DATE = 3/16/2020	DRAWN -	REVISED -	SHEET 1 OF 8 SHEETS						
		DATE = 03/16/2020	REVISED -							

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts.
Bolts 3/4-in. Ø, holes 1 1/16-in. Ø, unless otherwise noted.

All structural steel shall be AASHTO M 270 Grade 50, galvanized according to AASHTO M111.

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

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

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

The Structural Steel Removal quantity is shown for bidding purposes only and will not be measured for payment.

Concrete repairs shall receive final surface finish according to Article 420.09(e)(1). Cost included with the appropriate repair item.

INDEX OF SHEETS

1. General Plan and Elevation
2. General Data
3. Deck & Joint Repair Details
4. Protective Shield Details
5. Expansion Joint Details
6. Structural Steel Repair Location Plan
7. Structural Steel Repair I
8. Structural Steel Repair II

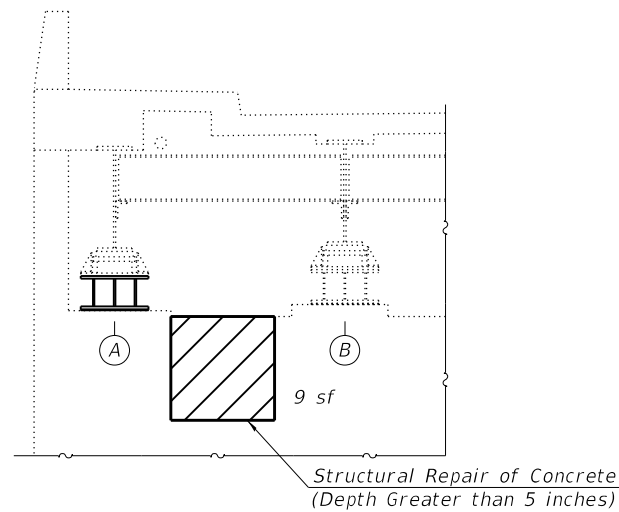
SCOPE OF WORK

1. Expansion joints replacement.
2. Deck slab repairs.
3. Protective shield installation and removal.
4. Bridge sidewalk repairs.
5. Diaphragm removal and replacement at abutments.
6. Beam end repairs.
7. Bolster removal and replacement at abutments.

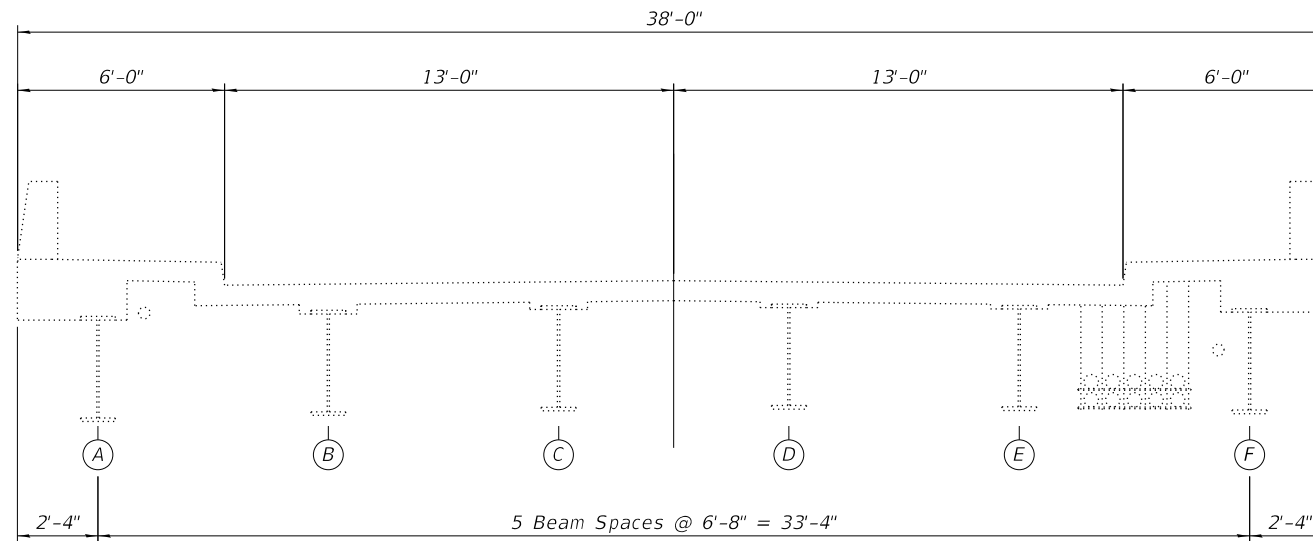
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Protective Shield	Sq. Yd.	137
Furnishing and Erecting Structural Steel	Pound	3,580
Anchor Bolts, 3/4"	Each	32
Clean & Reseal Relief Joint	Foot	52
Jack, Remove, and Reinstall Existing Bearings	Each	8
Preformed Joint Seal 3 1/4"	Foot	76
Remove Existing Joint	Foot	76
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	56
Cleaning Bridge Seats	Sq. Ft.	173
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	9
Structural Steel Removal	Pound	4,180
Structural Steel Repair	Pound	2,410
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Deck Slab Repair (Partial)	Sq. Yd.	14
Jacking and Cribbing	Each	8
Polymer Concrete	Cu. Ft.	8.5
Temporary Shoring and Cribbing	L. Sum	0.2

* Contract-wide item.
See Special Provisions



SOUTH ABUTMENT PARTIAL ELEVATION
Looking south



EXISTING BRIDGE CROSS SECTION
Looking south

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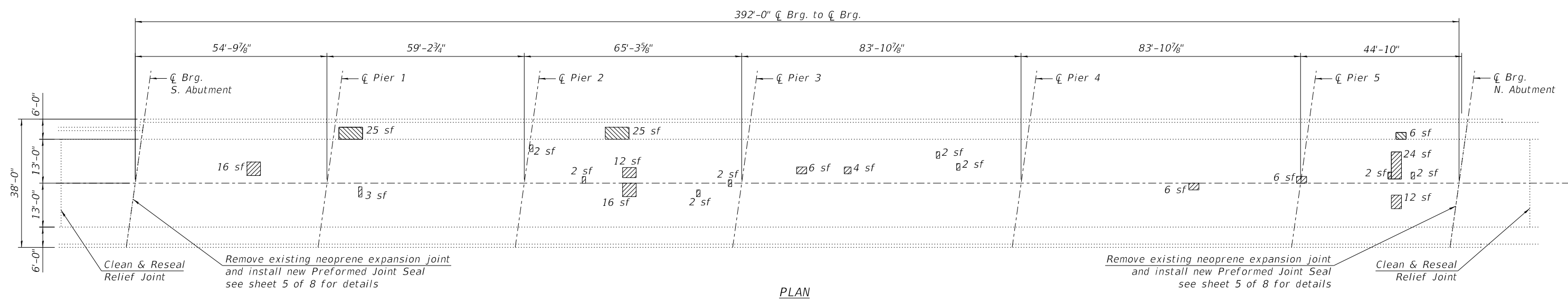
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA
STRUCTURE NO. 016-0995 (CIRCLE AVE.)**

SHEET 2 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	55
			CONTRACT NO. 62K23	
ILLINOIS				



PLAN

LEGEND

- Deck Slab Repair (Partial)
- Bridge Sidewalk Repair (Partial Depth)

Notes:

Areas of deck repairs shown are estimated. Actual repair areas shall be determined in the field by the Engineer.
 A nominal full depth deck repair quantity has been provided as a guide for bidding purposes. Actual full depth repair areas shall be determined in the field by the Engineer if needed.

BILL OF MATERIAL

Item	Unit	Total
Clean & Reseal Relief Joint	Foot	52
Remove Existing Joint	Foot	76
Bridge Sidewalk Repair (Partial Depth)	Sq. Ft.	56
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Deck Slab Repair (Partial)	Sq. Yd.	14

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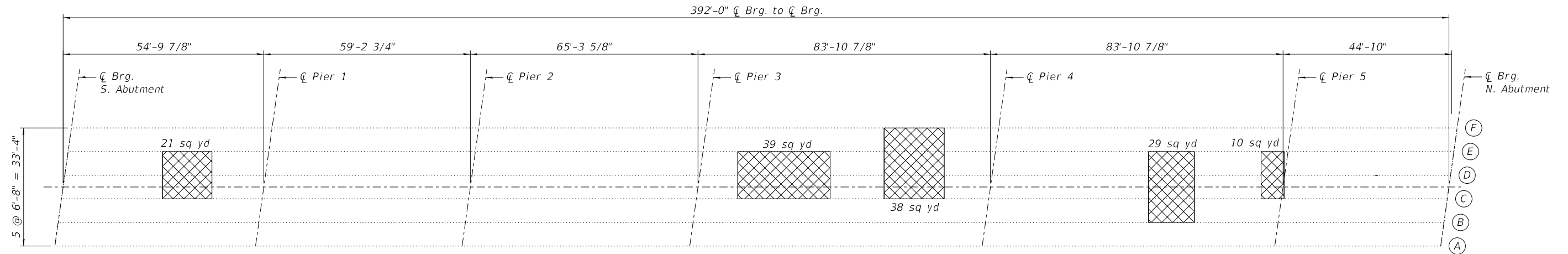
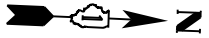
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK & JOINT REPAIR DETAILS
STRUCTURE NO. 016-0995 (CIRCLE AVE.)**

SHEET 3 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	56
ILLINOIS			CONTRACT NO. 62K23	



EXISTING FRAMING PLAN

LEGEND

- Protective Shield
- Beam Line

BILL OF MATERIAL

Item	Unit	Total
Protective Shield	Sq. Yd.	137

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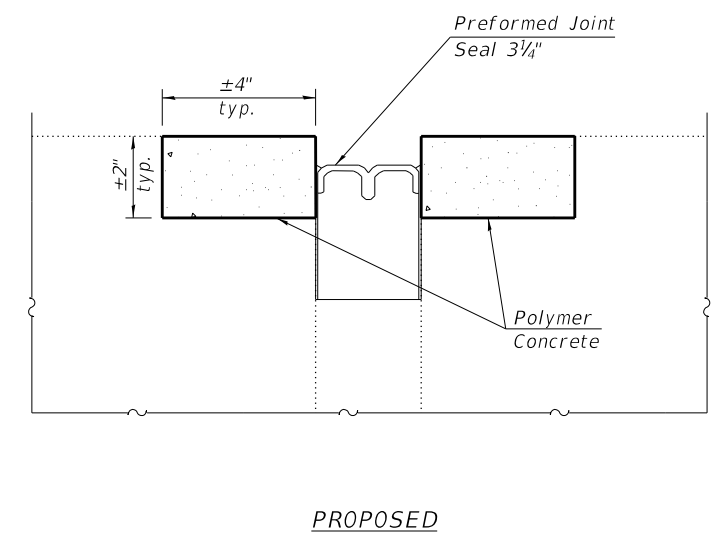
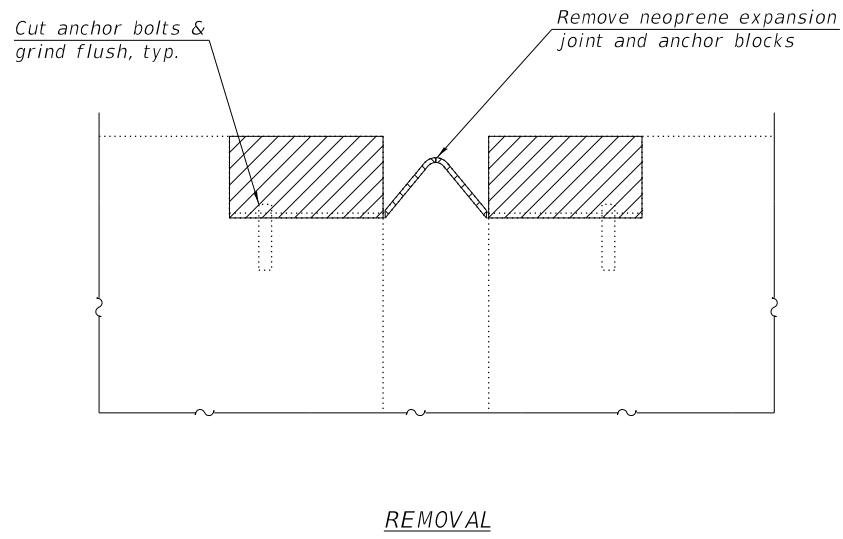
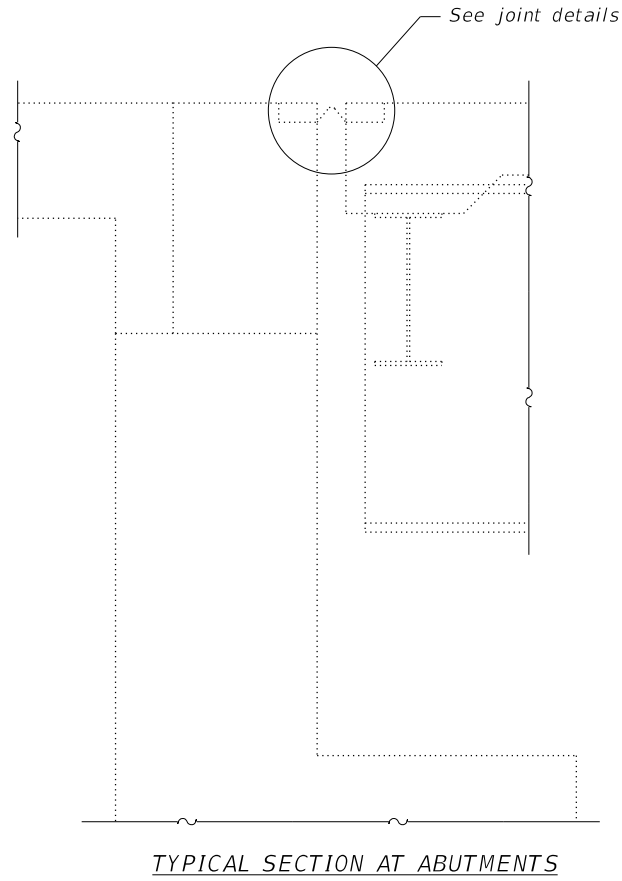
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PROTECTIVE SHIELD DETAILS
STRUCTURE NO. 016-0995 (CIRCLE AVE.)

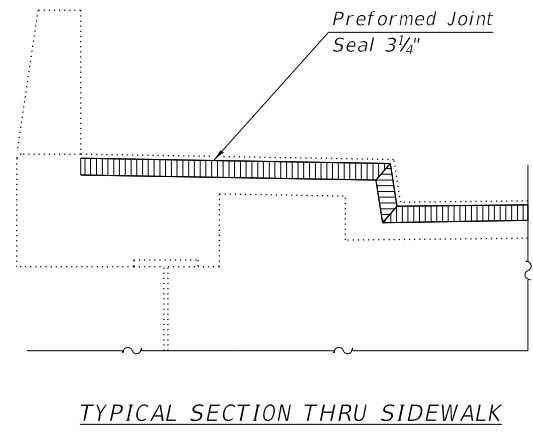
SHEET 4 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS			CONTRACT NO. 62K23	

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JOINT DETAIL
 (Dimensions are at right angles to abutment)



BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Seal 3 1/4"	Foot	76
Polymer Concrete	Cu. Ft.	8.5



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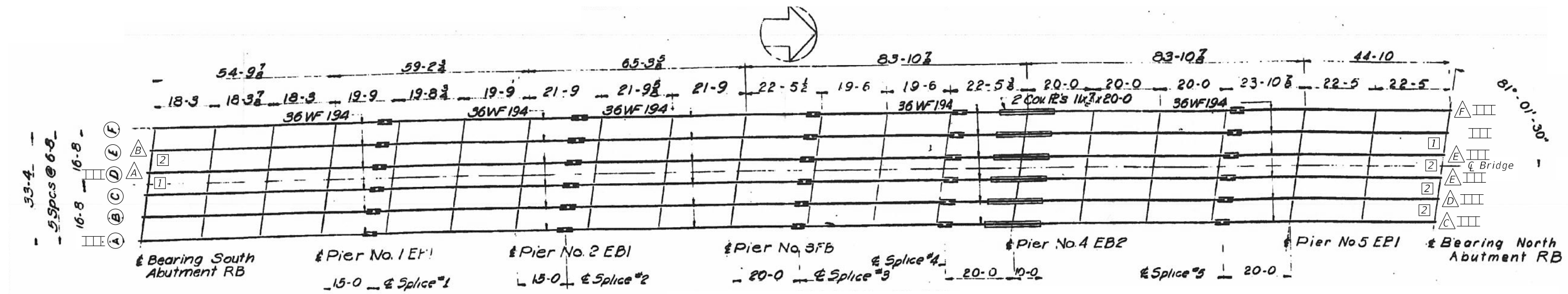
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**EXPANSION JOINT DETAILS
 STRUCTURE NO. 016-0995 (CIRCLE AVE.)**

SHEET 5 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	58
			CONTRACT NO. 62K23	
		ILLINOIS		

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STRUCTURAL STEEL REPAIR LOCATION PLAN

LEGEND

- (A) Beam Line
- △ Beam End Repair Type
- [] Diaphragm Type
- ||| Bolster Replacement



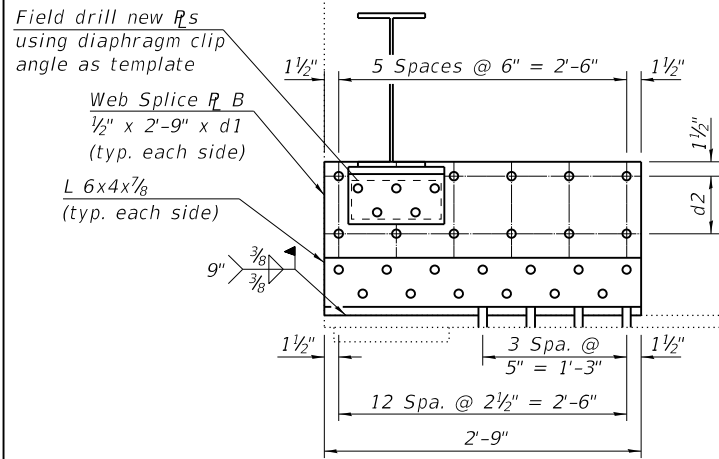
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DEPARTMENT OF TRANSPORTATION

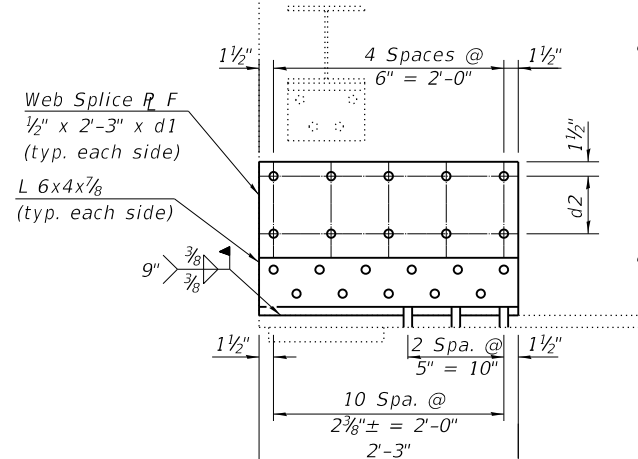
STRUCTURAL STEEL REPAIR LOCATION PLAN
STRUCTURE NO. 016-0995 (CIRCLE AVE.)

SHEET 6 OF 8 SHEETS

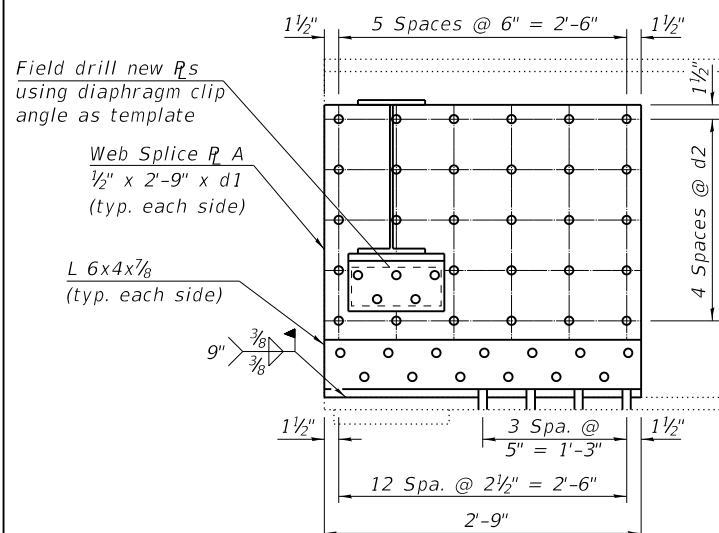
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ILLINOIS			CONTRACT NO. 62K23	



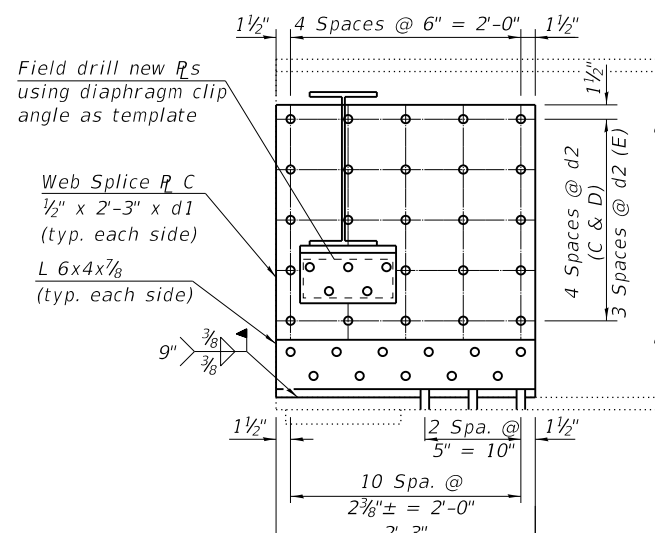
TYPE B BEAM END REPAIR



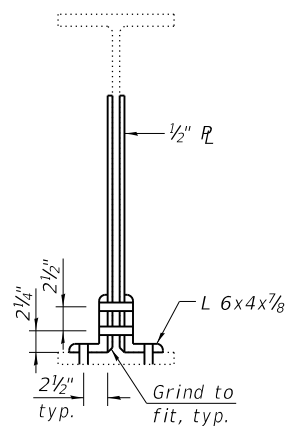
TYPE F BEAM END REPAIR



TYPE A BEAM END REPAIR



TYPE C BEAM END REPAIR
Types D & E Similar



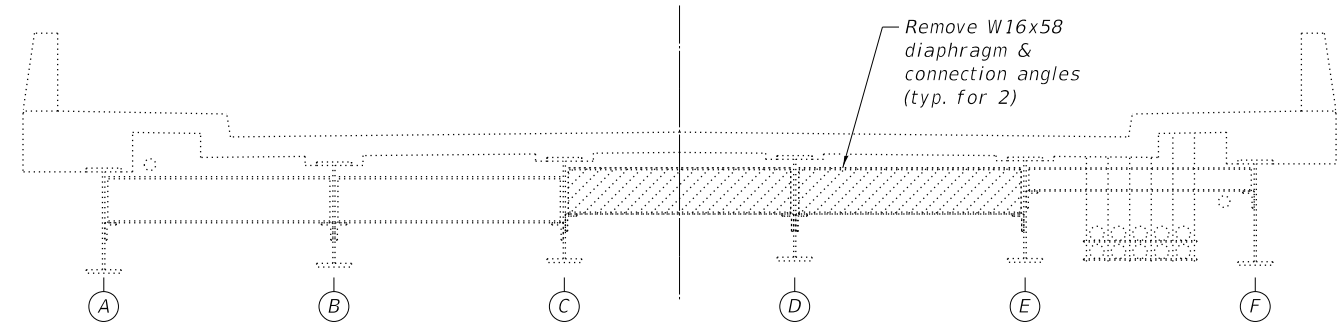
TYPICAL SECTION

TABLE 1 - BEAM END REPAIRS

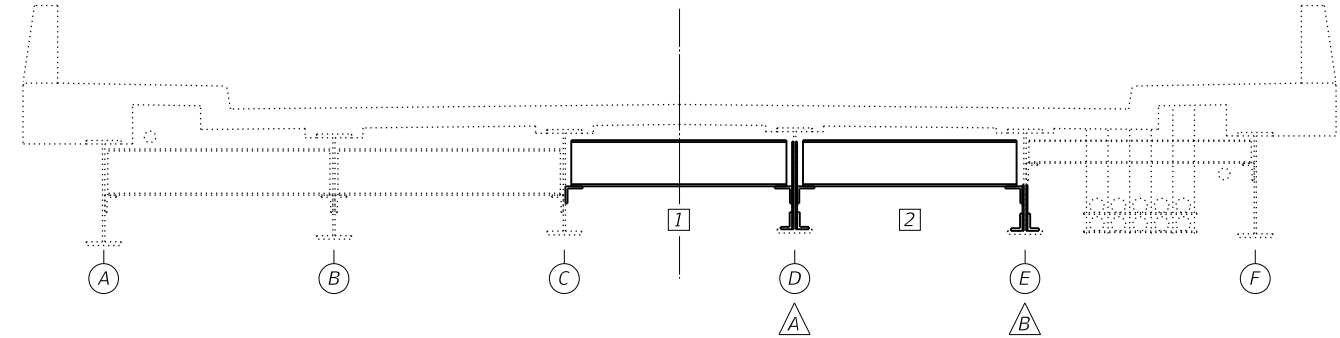
Beam End Repair Type	d1	d2	Quantity
A	2'-6 1/2"	5 1/4"	1
B	1'-4"	6"	1
C	2'-6 1/2"	5 1/4"	1
D	2'-5 1/4"	5"	1
E	2'-2 3/4"	5 3/4"	2
F	1'-4"	6"	1

LEGEND

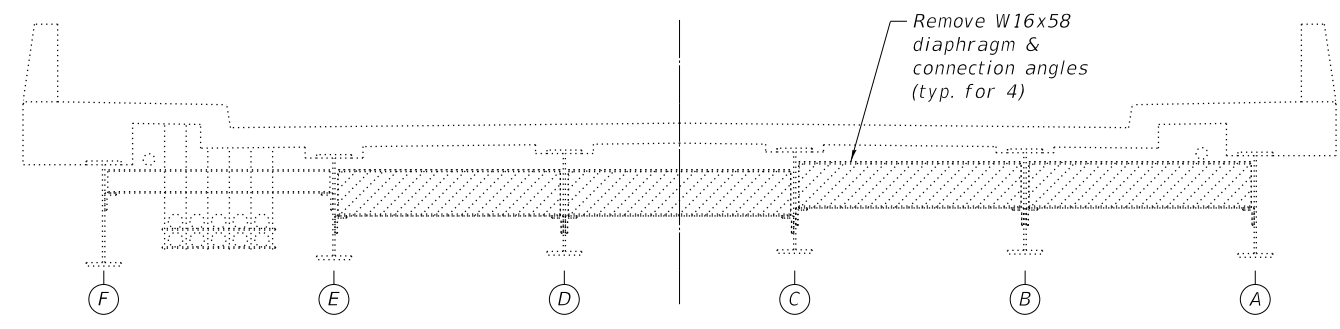
- (A) Beam Line
- (A) Beam End Repair Type
- (I) Diaphragm Type



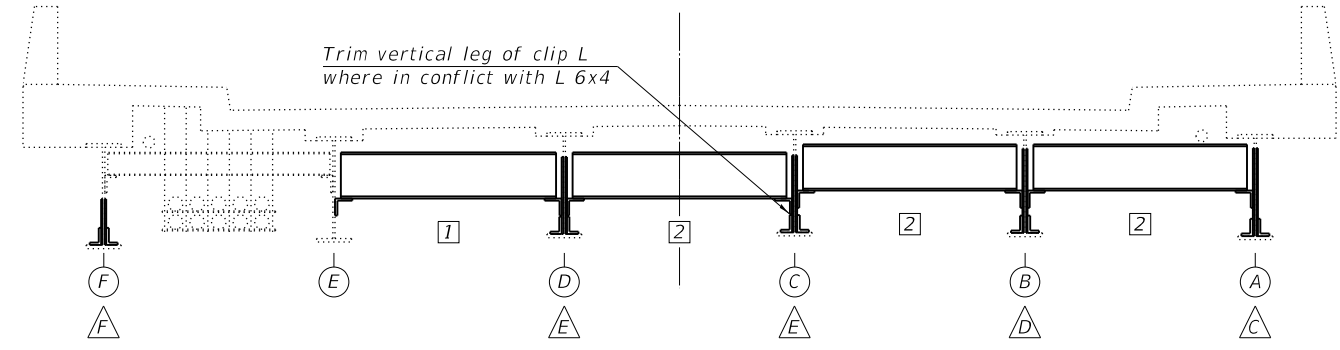
END DIAPHRAGM ELEVATION AT SOUTH ABUTMENT - EXISTING



END DIAPHRAGM ELEVATION AT SOUTH ABUTMENT - PROPOSED



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - EXISTING



END DIAPHRAGM ELEVATION AT NORTH ABUTMENT - PROPOSED

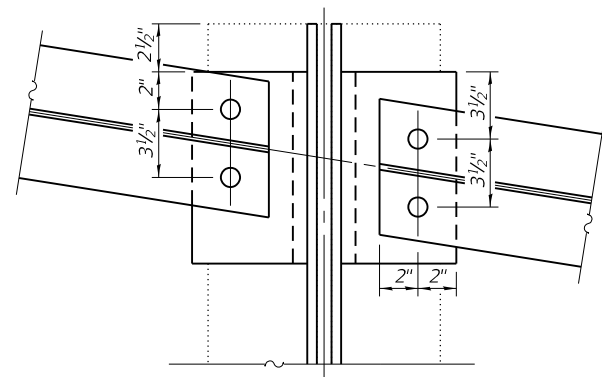
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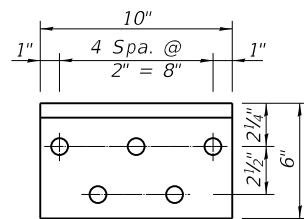
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STRUCTURAL STEEL REPAIRS I
STRUCTURE NO. 016-0995 (CIRCLE AVE.)
 SHEET 7 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	80
			CONTRACT NO. 62K23	
ILLINOIS				

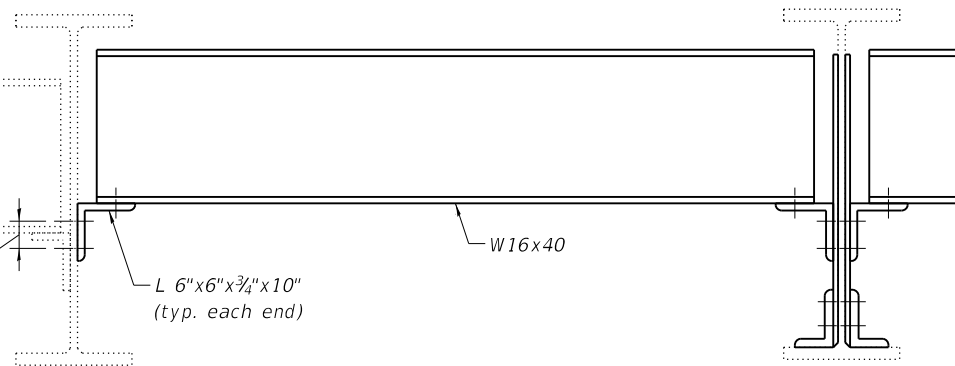


TYPICAL DIAPHRAGM PLAN



CLIP ANGLE DETAILS
Typ. except field drill holes in offset clip angles at Beam C

Field drill holes in clip L to match exist. holes in beam web



TYPE 1 DIAPHRAGM
Type 2 Similar

Field drill 1 5/16" O holes in new R's and L's to match exist.

TABLE 2 - DIAPHRAGMS

Diaphragm Type	Size	Length	Quantity
1	W16x40	6'-3 5/8"	2
2	W16x40	6'-3 1/8"	4

TABLE 3 - BOLTS

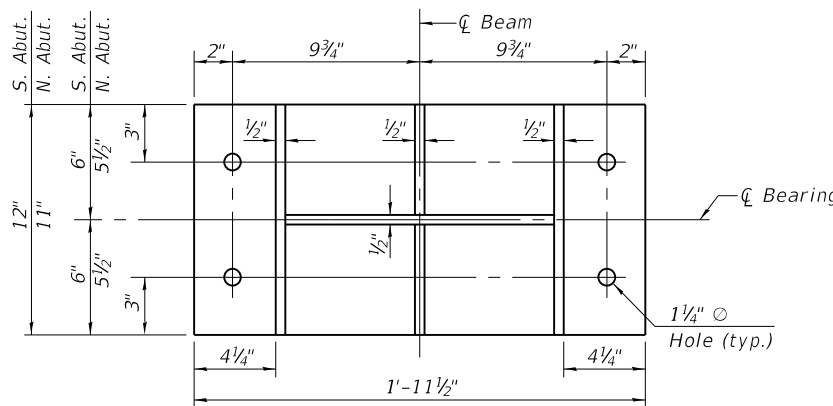
Beam	South Abutment		North Abutment	
	Diaphragm	Plate Repair	Diaphragm	Plate Repair
A	-	-	7	41
B	-	-	9	41
C	8	-	12	35
D	9	50	9	36
E	7	32	7	-
F	-	-	-	27

TABLE 4 - BEAM REACTIONS

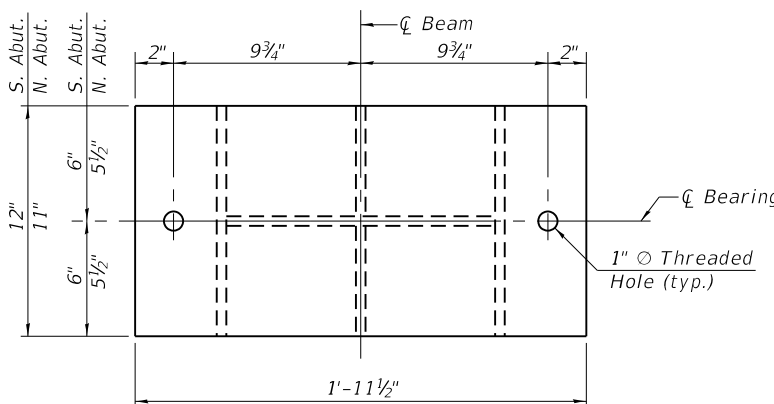
	South Abutment	North Abutment
R @ (k)	26.4	16.7
R L (k)	34.5	33.2
Imp. (k)	9.6	9.8
R total (k)	70.5	59.7

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	3,580
Anchor Bolts, 3/4"	Each	32
Jack, Remove, and Reinstall Existing Bearings	Each	8
Structural Steel Removal	Pound	4,180
Structural Steel Repair	Pound	2,410
Jacking and Cribbing	Each	8



SECTION A-A



STEEL BOLSTER TOP PLAN

Notes:

Cost of drilling holes in existing steel members is included with Structural Steel Repair.

See sheet 6 of 8 for repair locations.

Field drill holes in diaphragms to allow for adjustment.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."

Existing bearings at bolster replacement locations shall be cleaned per Commercial Grade Power Tool Cleaning - SSPC-SP15. Cost of cleaning is included with Jack, Remove, and Reinstall Existing Bearings.

Installation of new diaphragms shall not commence until all bolts for new web plates and clip angles are fully tightened.

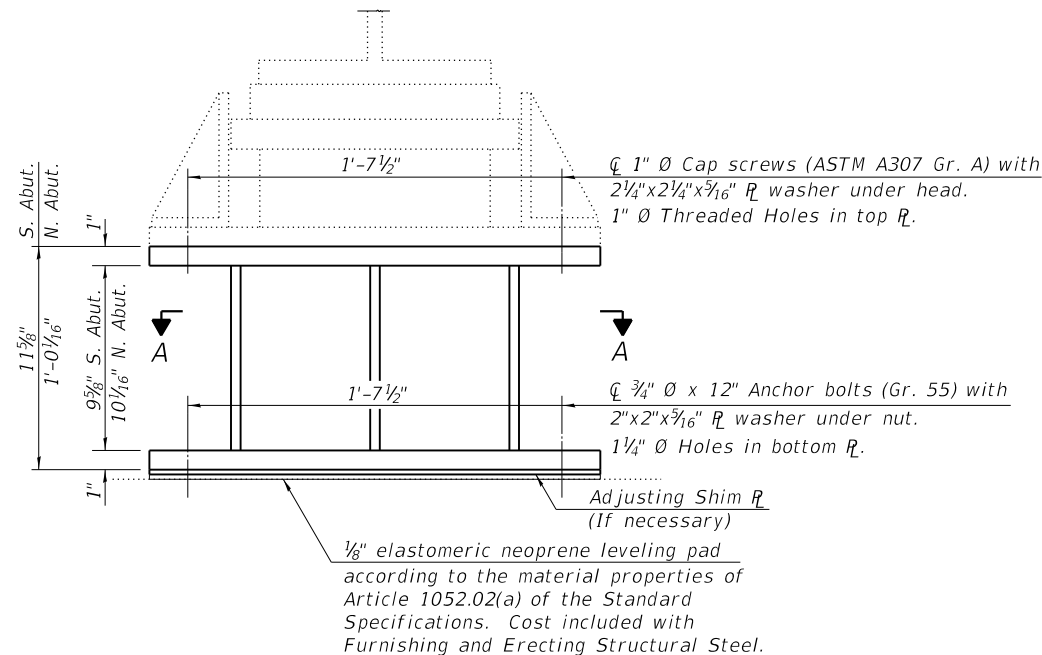
New steel bolsters, shim plates and cap screws are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bolster heights. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 53 tons.

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

Two 1/8 in. adjusting shims shall be provided for each bolster for field adjustment if necessary.



STEEL BOLSTER ELEVATION

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
 LICENSE NO. - 184-001121 - EXPIRES 4/30/2020
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 FILE NAME: I:\Crystal Lake\LDOT\190508-Various SE3\CAD\WO70160995-62K23-008-STLREPAIR2.dgn



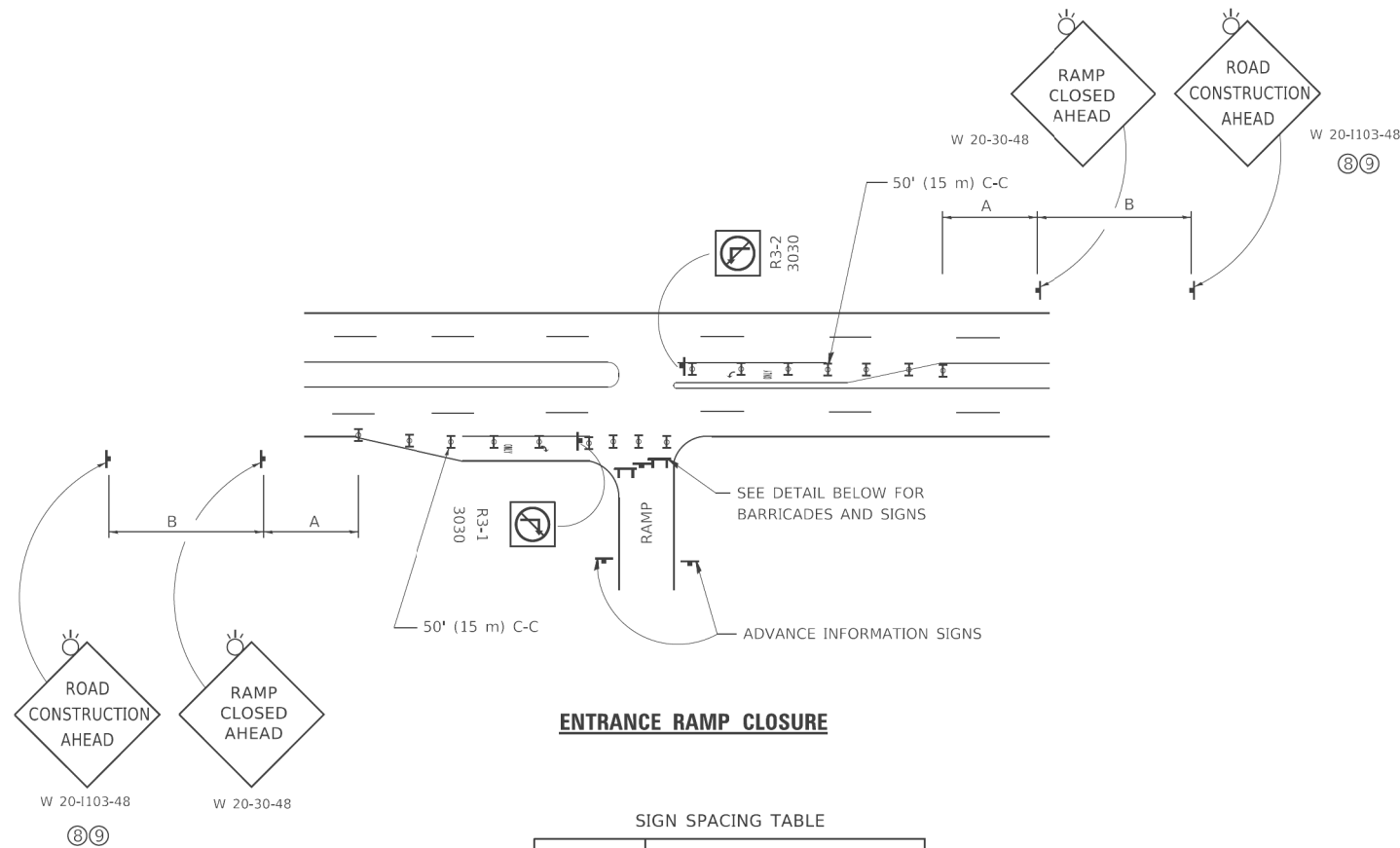
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	DATE - 03/16/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS II
STRUCTURE NO. 016-0995 (CIRCLE AVE.)

SHEET 8 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	61
CONTRACT NO. 62K23			ILLINOIS	

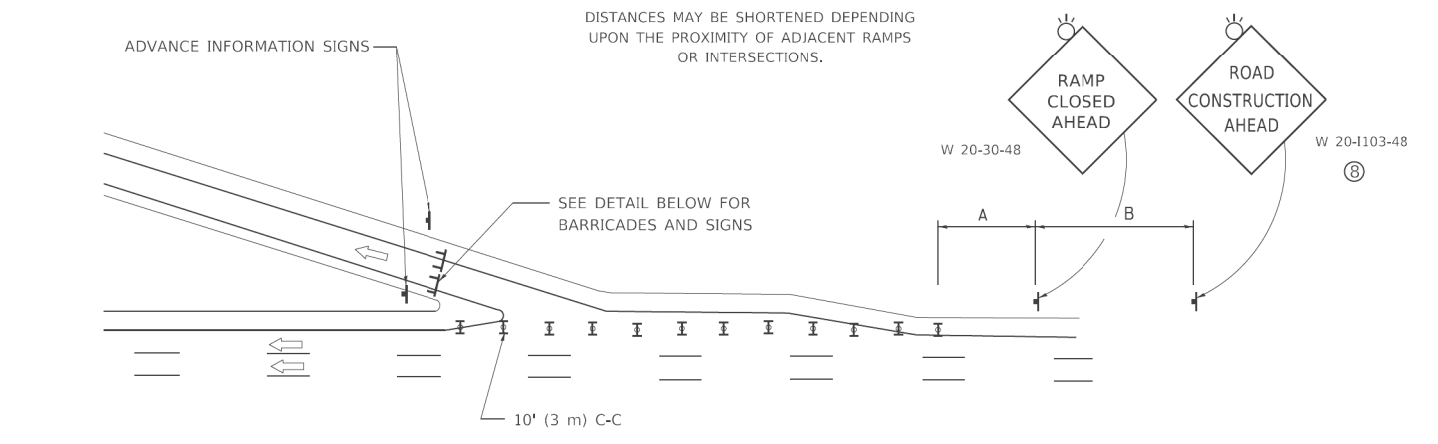


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

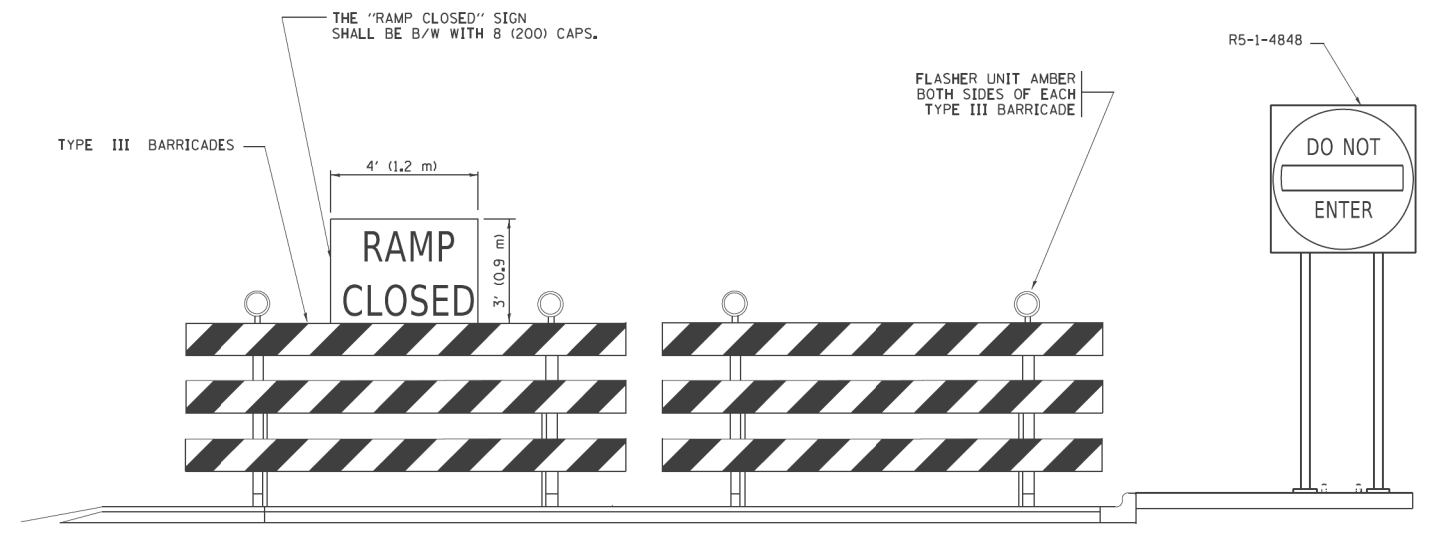
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



EXIT RAMP CLOSURE

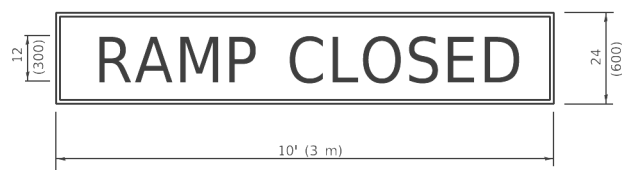
SYMBOLS

- ▬ TYPE II BARRICADE OR DRUM
- ▬ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



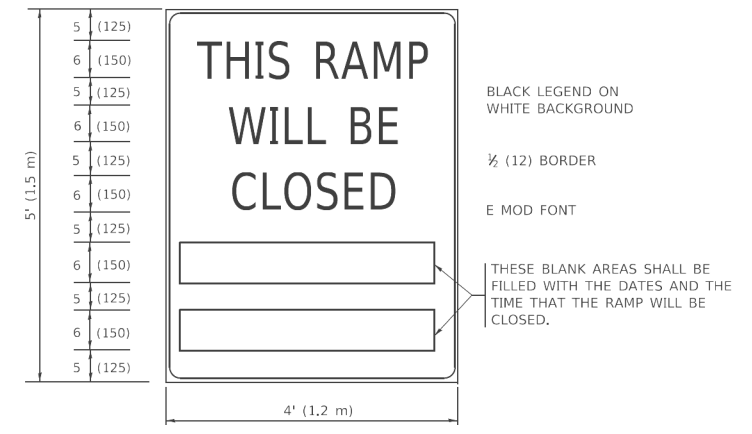
DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY
E MOD FONT
1 (25) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE BACKGROUND
1/2 (12) BORDER
E MOD FONT
THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.
THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

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

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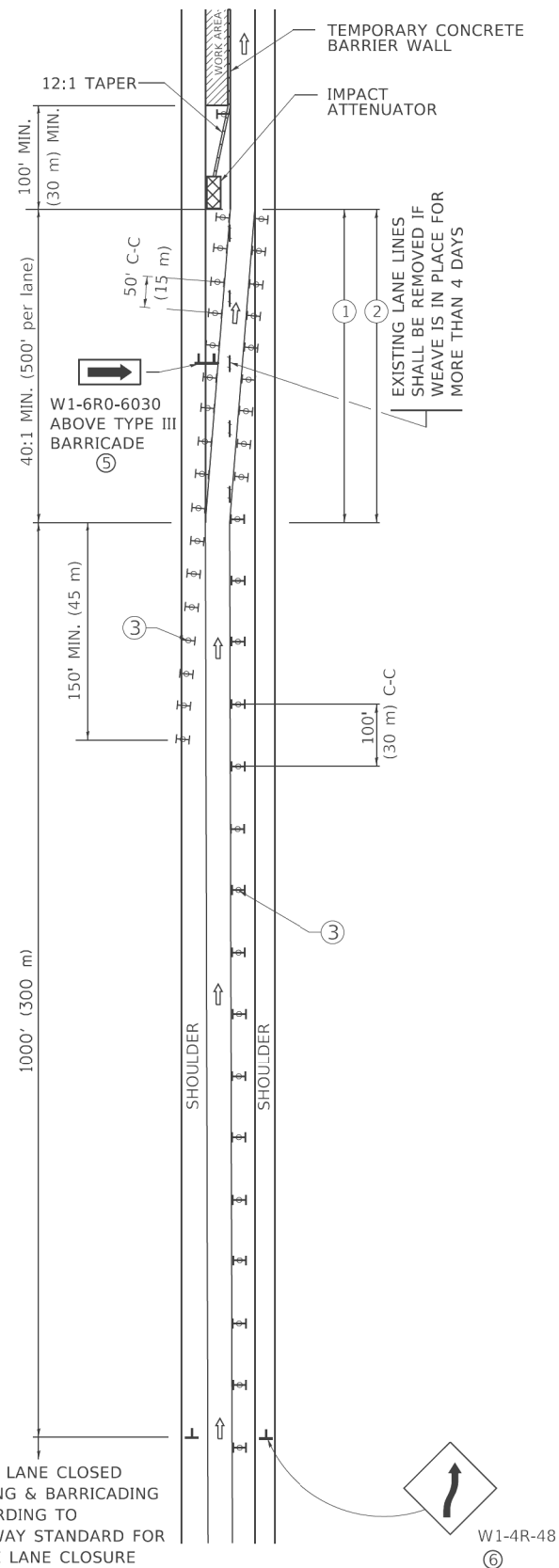
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ENTRANCE AND EXIT RAMP
CLOSURE DETAILS**

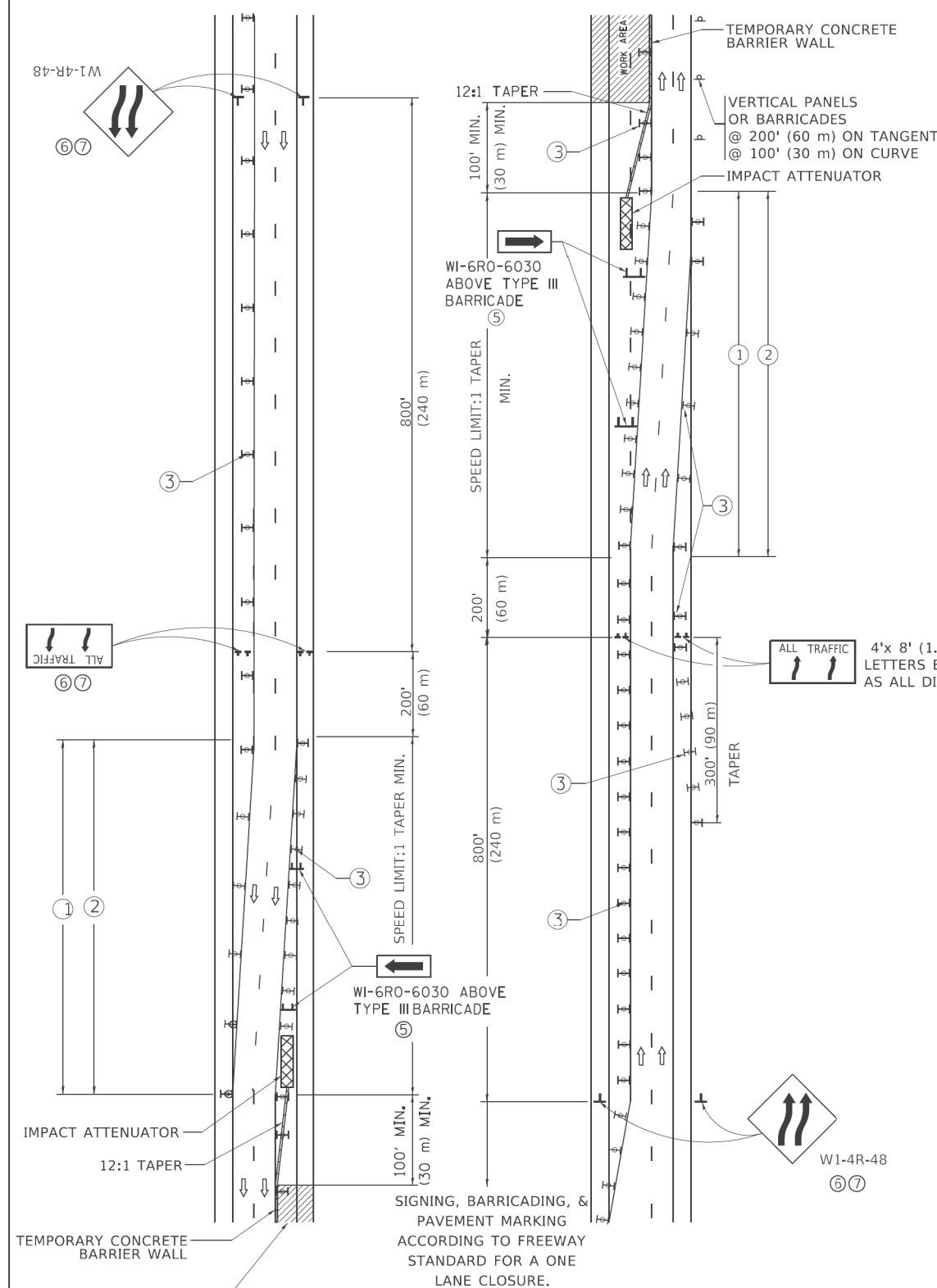
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	62
TC-08			CONTRACT NO. 62K23	
ILLINOIS		FED. AID PROJECT		

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES:

- ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- ⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- ⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER WALL
- IMPACT ATTENUATOR
- W1-4R-48
- W24-1-48

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

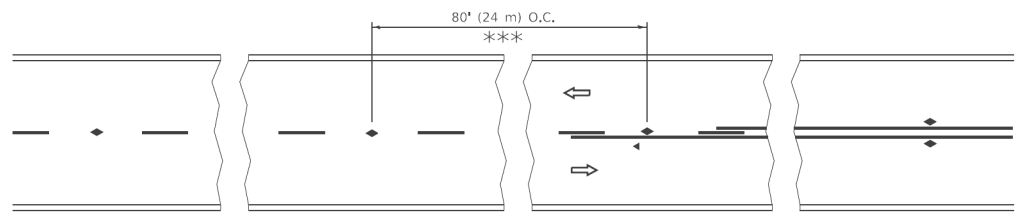
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

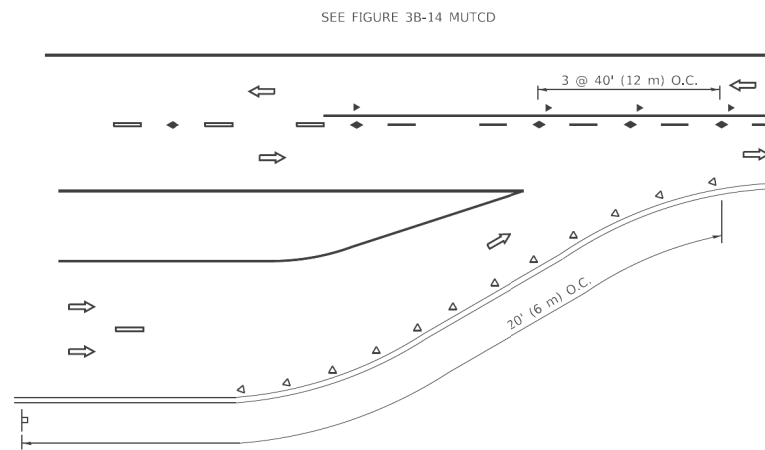
TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE			
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT				

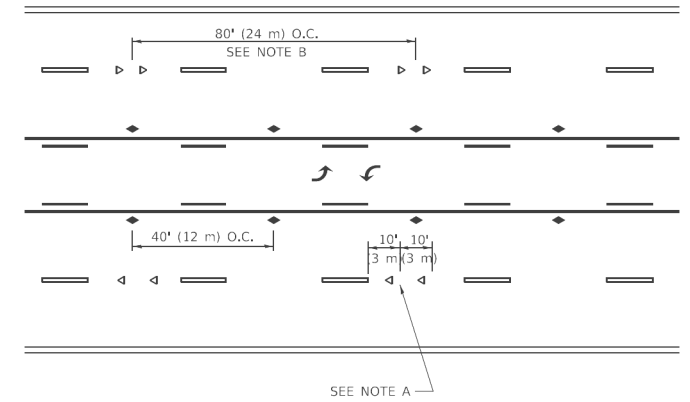


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

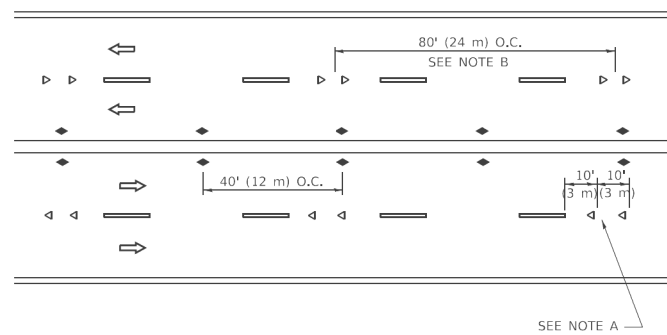
TWO-LANE/TWO-WAY



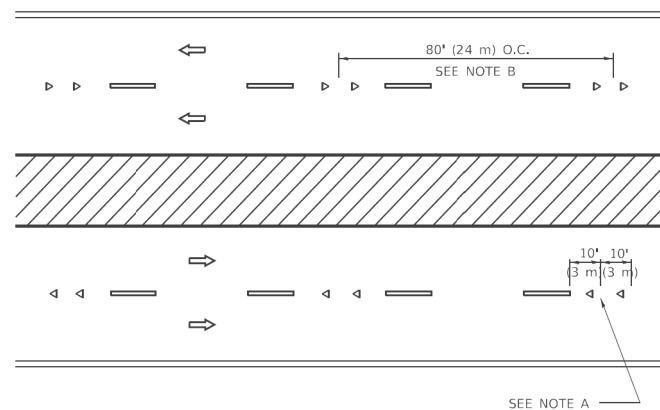
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

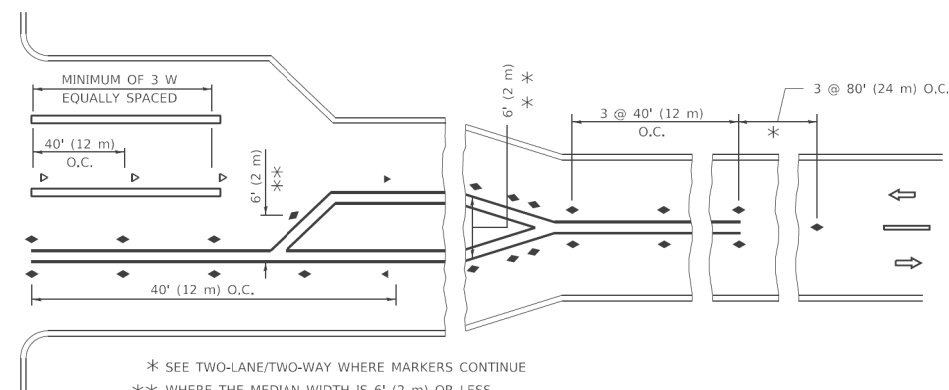
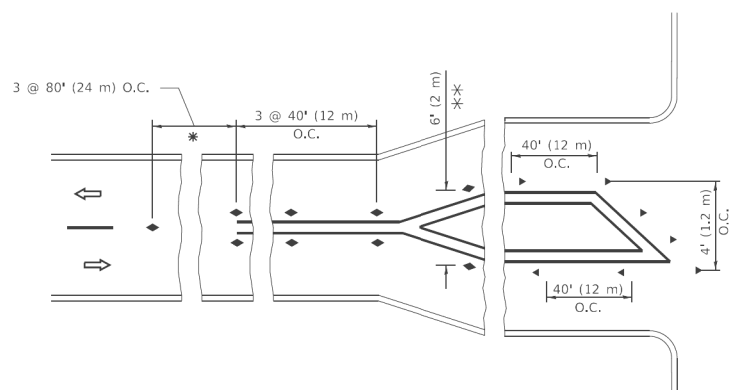
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.



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

TURN LANES

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

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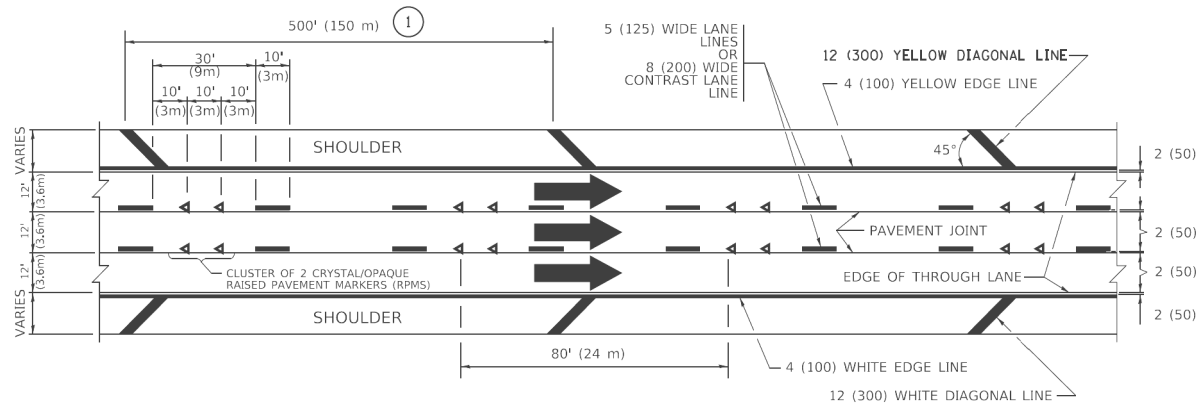
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)**

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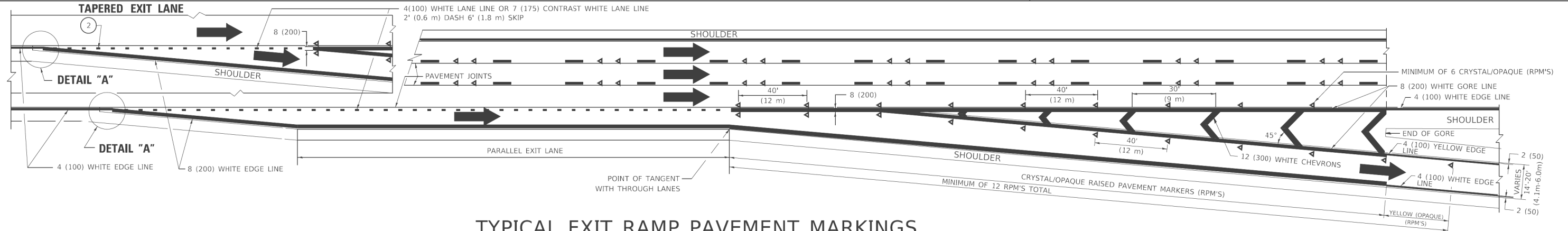
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290	2019-151-BR	COOK	75	65
TC-11			CONTRACT NO. 62K23	
ILLINOIS		FED. AID PROJECT		



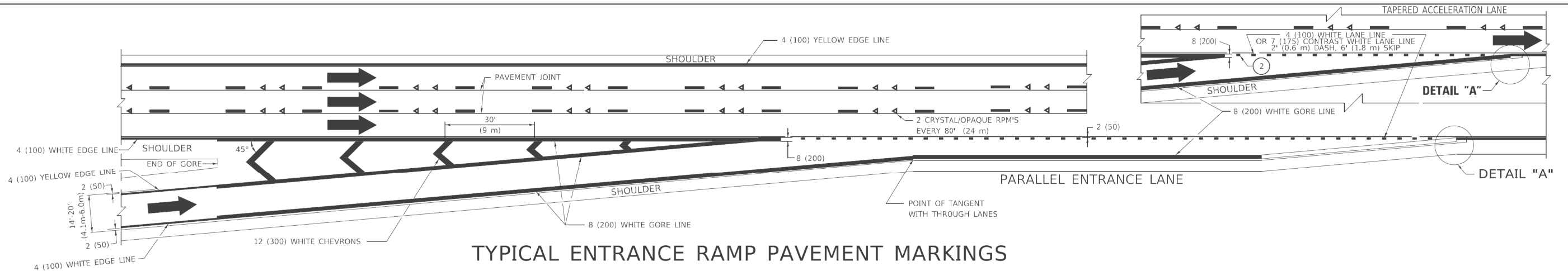
TYPICAL EDGE LINES & LANE LINES

PAVEMENT MARKING MATERIALS

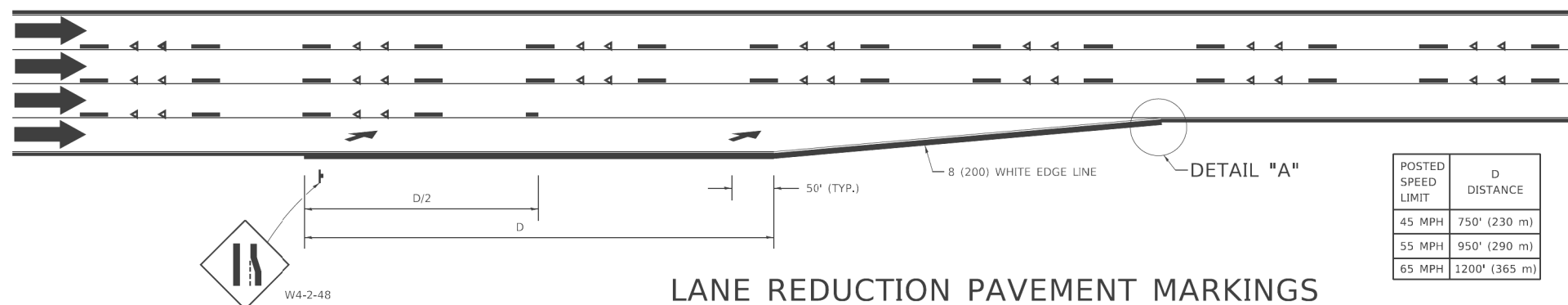
1. THERMOPLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON HMA PAVEMENTS.
2. POLYUREA OR MODIFIED URETHANE PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON PCC PAVEMENTS.
3. PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE B, INLAID OR GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON HMA PAVEMENTS.
4. CONTRAST PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE B, GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON PCC PAVEMENT.



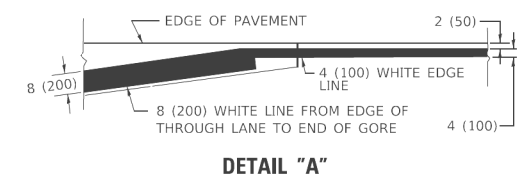
TYPICAL EXIT RAMP PAVEMENT MARKINGS



TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



LANE REDUCTION PAVEMENT MARKINGS



NOTES:

1. THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.
2. 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.

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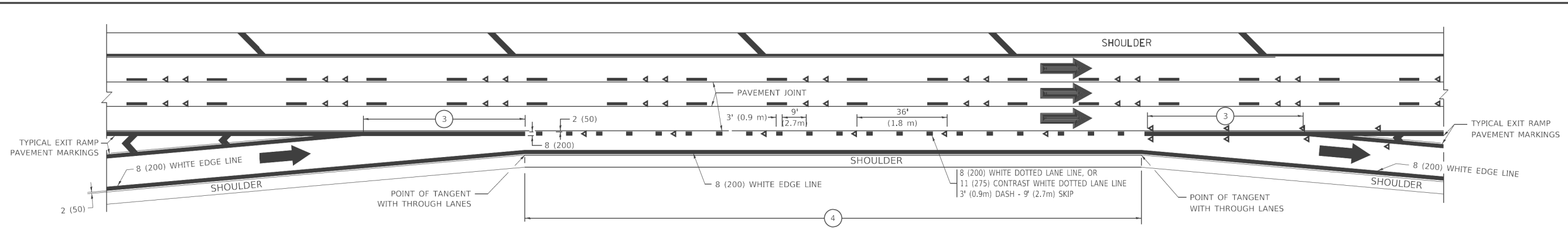
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

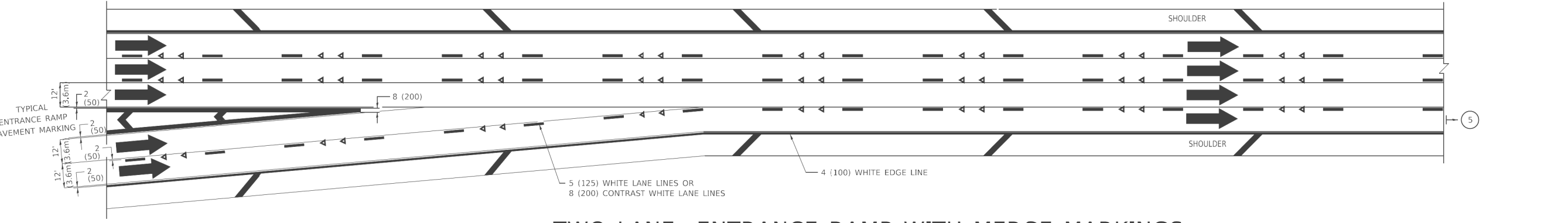
MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS

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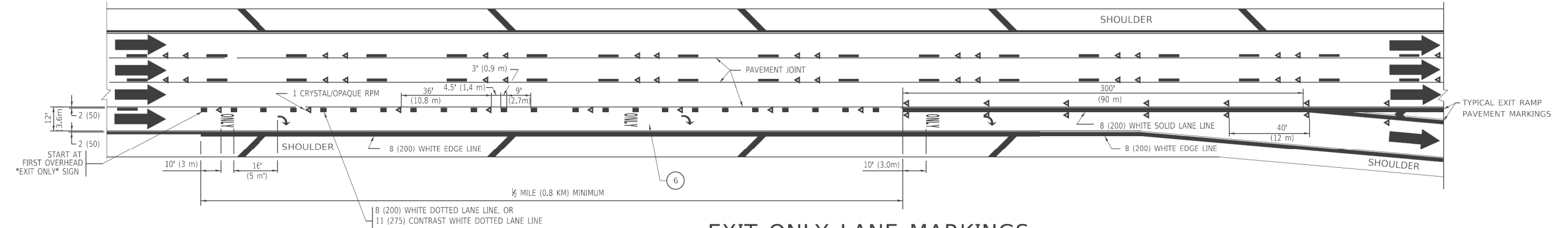
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TC-12		CONTRACT NO. 62K23		
ILLINOIS		FED. AID PROJECT		



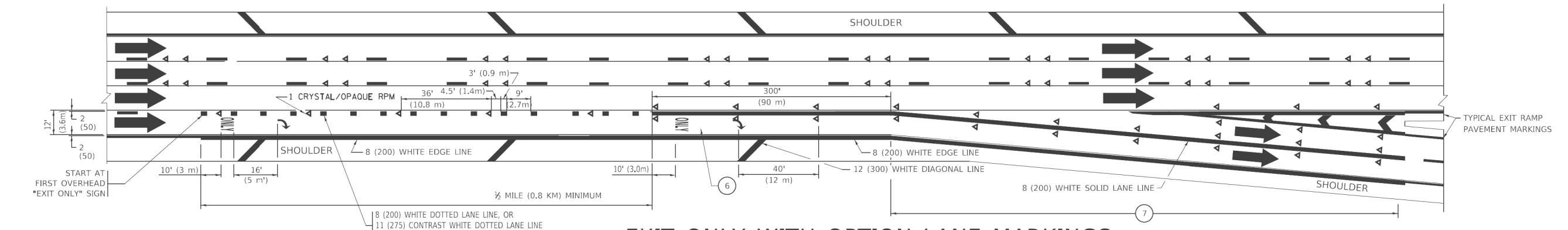
AUXILIARY LANE MARKINGS



TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



EXIT ONLY LANE MARKINGS



EXIT ONLY WITH OPTION LANE MARKINGS

- NOTES:**
- 3 OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
 - 4 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
 - 5 FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
 - 6 ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
 - 7 CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

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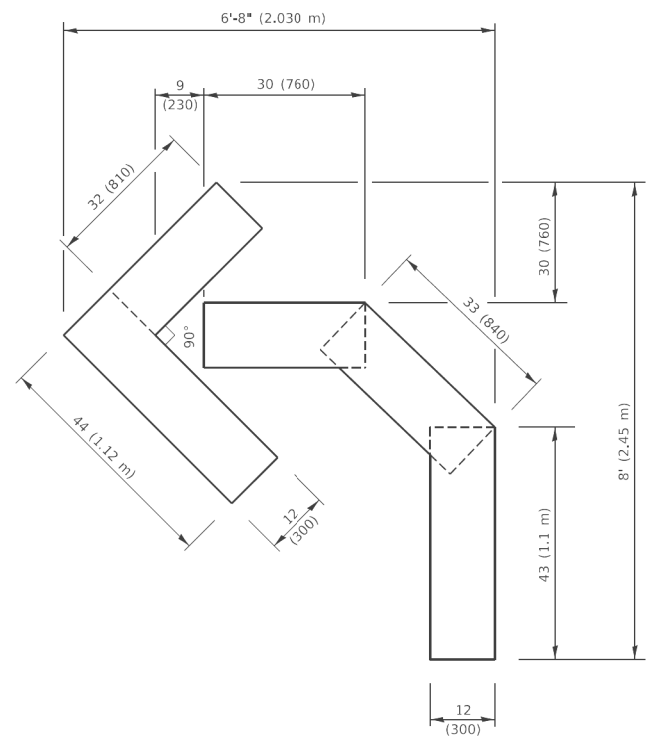
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS

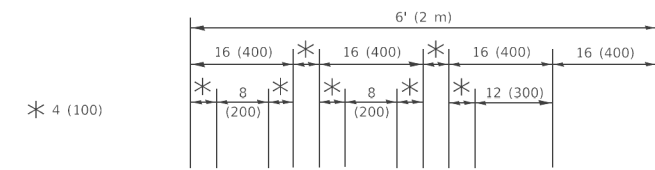
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	67
TC-12		CONTRACT NO. 62K23		
ILLINOIS FED. AID PROJECT				



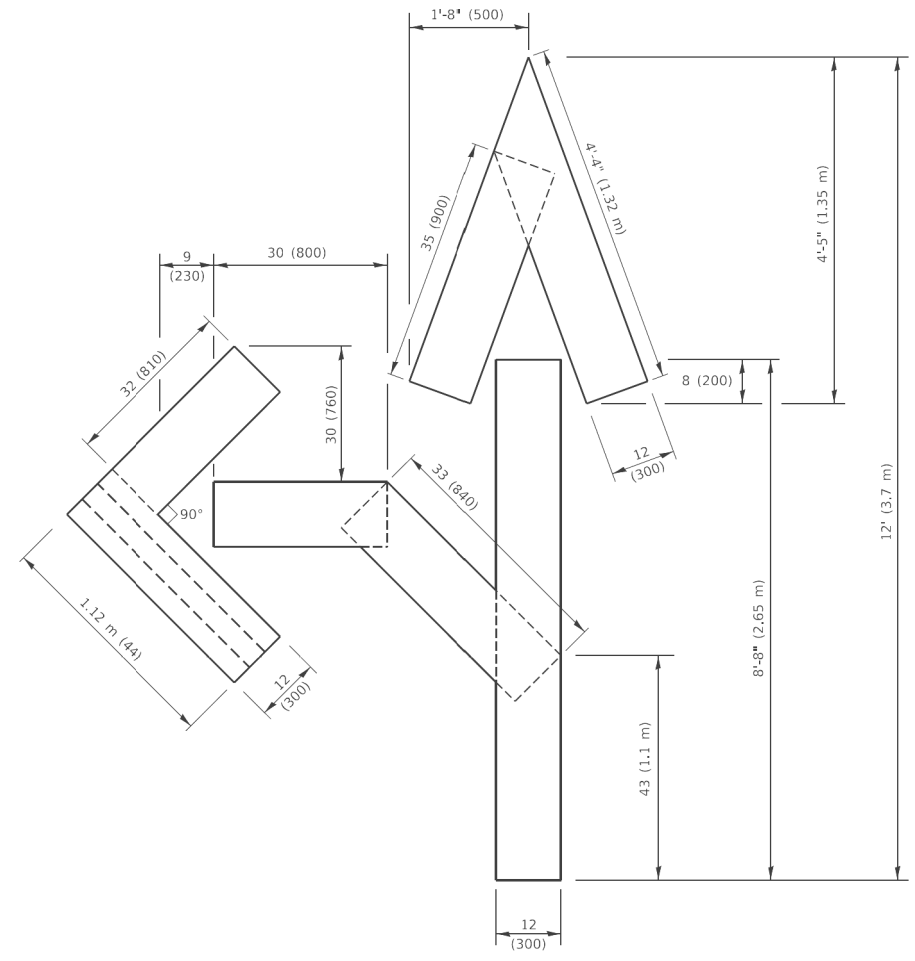
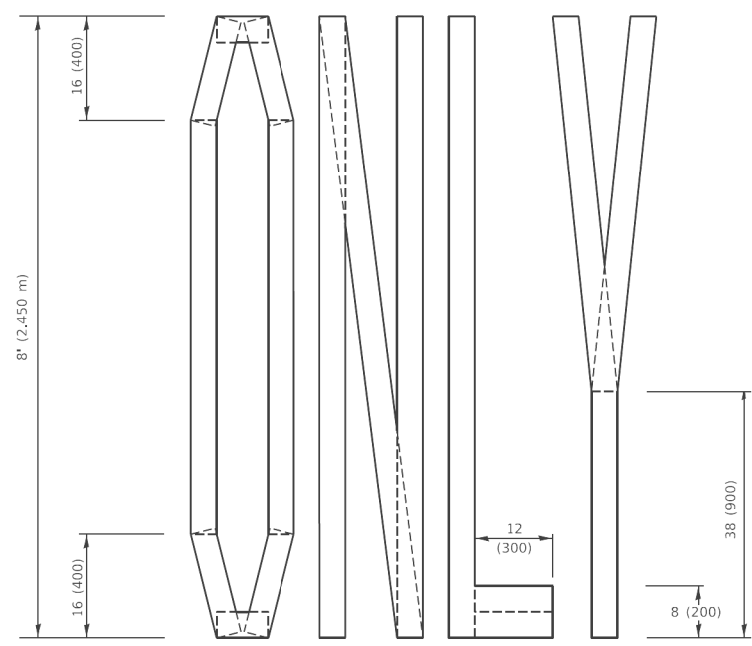
QUANTITY

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)

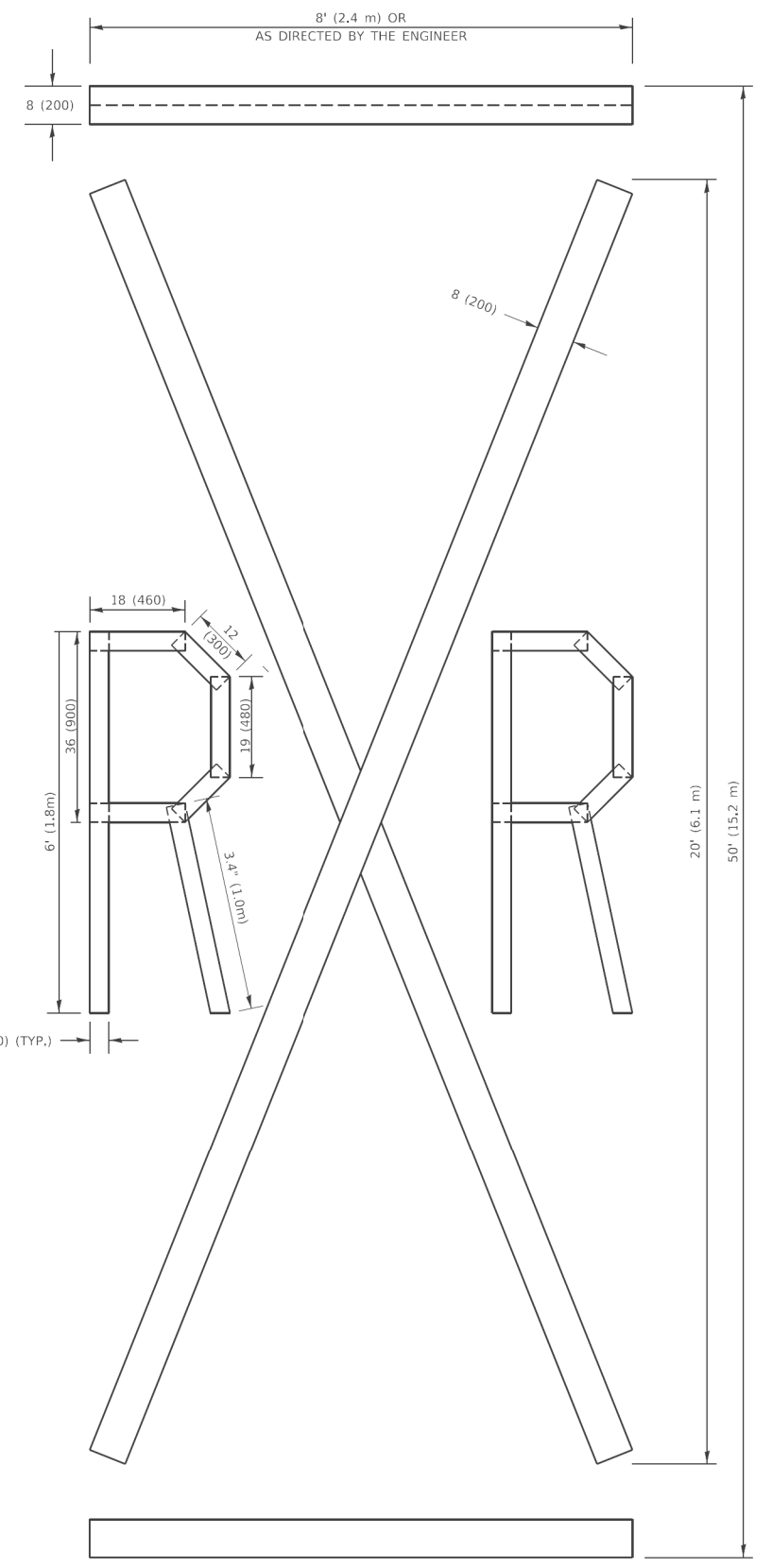


QUANTITY

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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	DRAWN -	REVISED - E. GOMEZ 08-28-00
PLOT SCALE = 50.0068 * / in.	CHECKED -	REVISED - E. GOMEZ 08-28-00
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

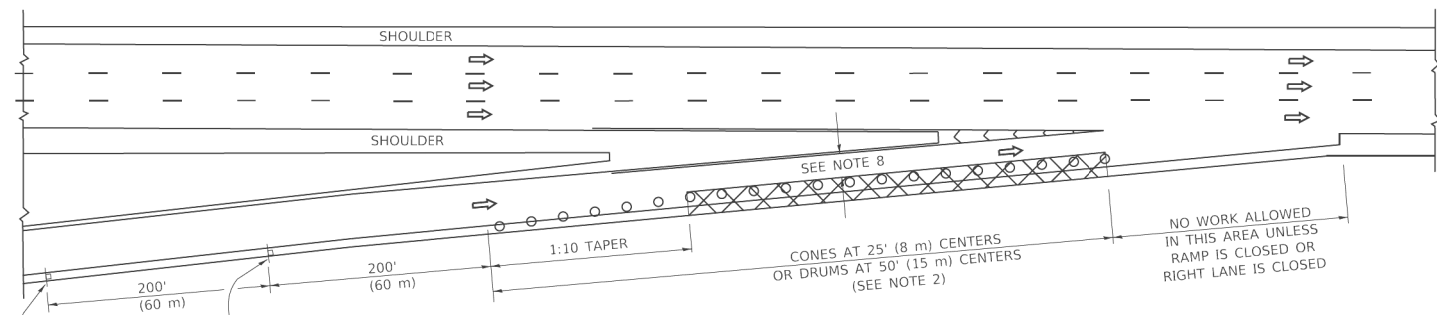
SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

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

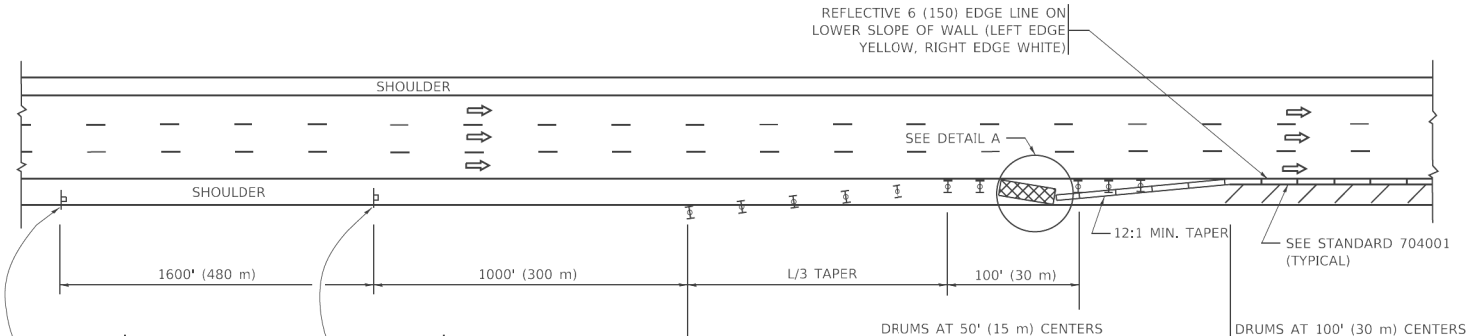
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-16			CONTRACT NO. 62K23	
ILLINOIS		FED. AID PROJECT		

PARTIAL RAMP CLOSURE DETAILS

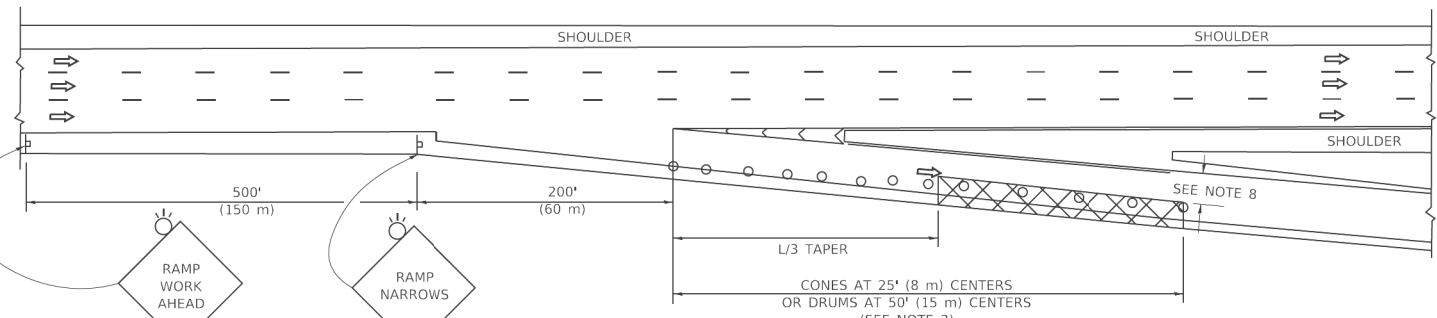
SHOULDER CLOSURE DETAILS



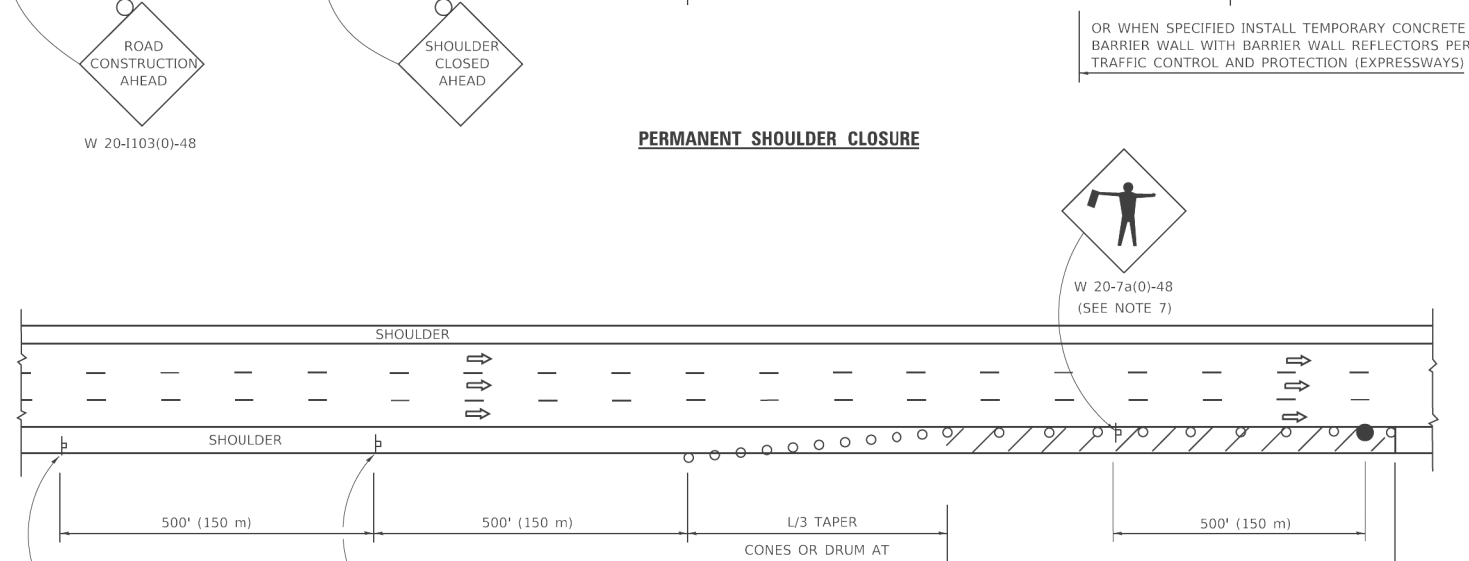
TYPICAL ENTRANCE RAMP



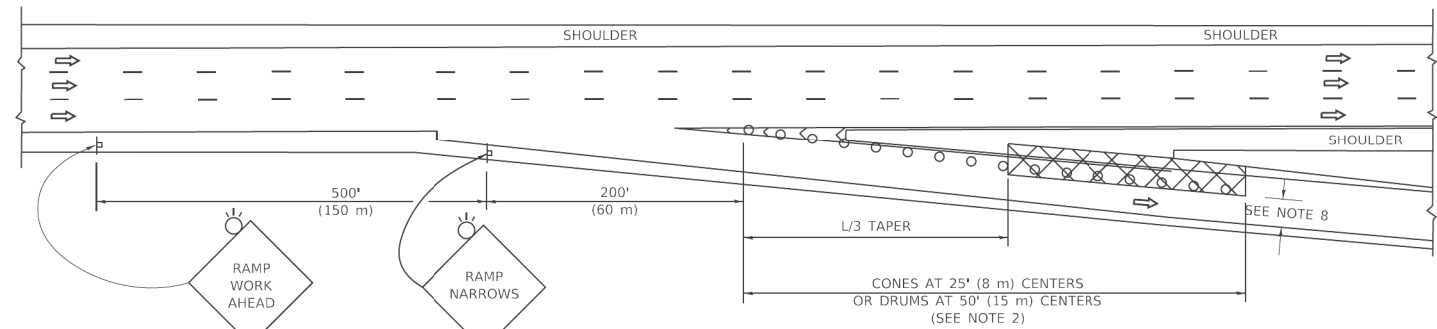
PERMANENT SHOULDER CLOSURE



TYPICAL EXIT RAMP



DAYTIME SHOULDER CLOSURE



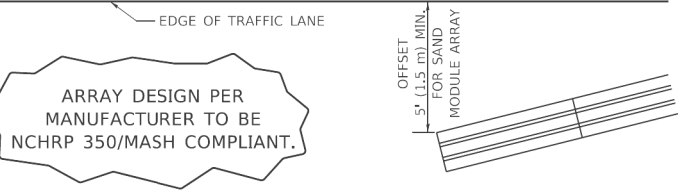
TYPICAL EXIT RAMP

- SYMBOLS**
- ACTIVE WORK AREA
 - SIGN ON PORTABLE OR PERMANENT SUPPORT
 - FLAGGER WITH CONTROL SIGN
 - TYPE II BARRICADE OR DRUM
 - CONE, DRUM OR BARRICADE
 - IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

- GENERAL NOTES:**
- THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER	METRIC: $L = 0.65(W)(S)$ ENGLISH: $L = (W)(S)$
	W = WIDTH OF OFFSET IN FEET (METERS) S = NORMAL POSTED SPEED MPH (KM/H)
 - TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
 - ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
 - FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

- THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
- THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
- 12' MIN. WIDTH TANGENT SECTION
16' MIN. WIDTH CURVE SECTION.



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

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

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	DRAWN - D.W.S.	REVISED - S.P.B. 12-09
PLOT SCALE = 50,0000' / 1"	CHECKED -	REVISED - M.D. 06-13
PLOT DATE = 3/4/2019	DATE - 11-96	REVISED - M.D. 01-18

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

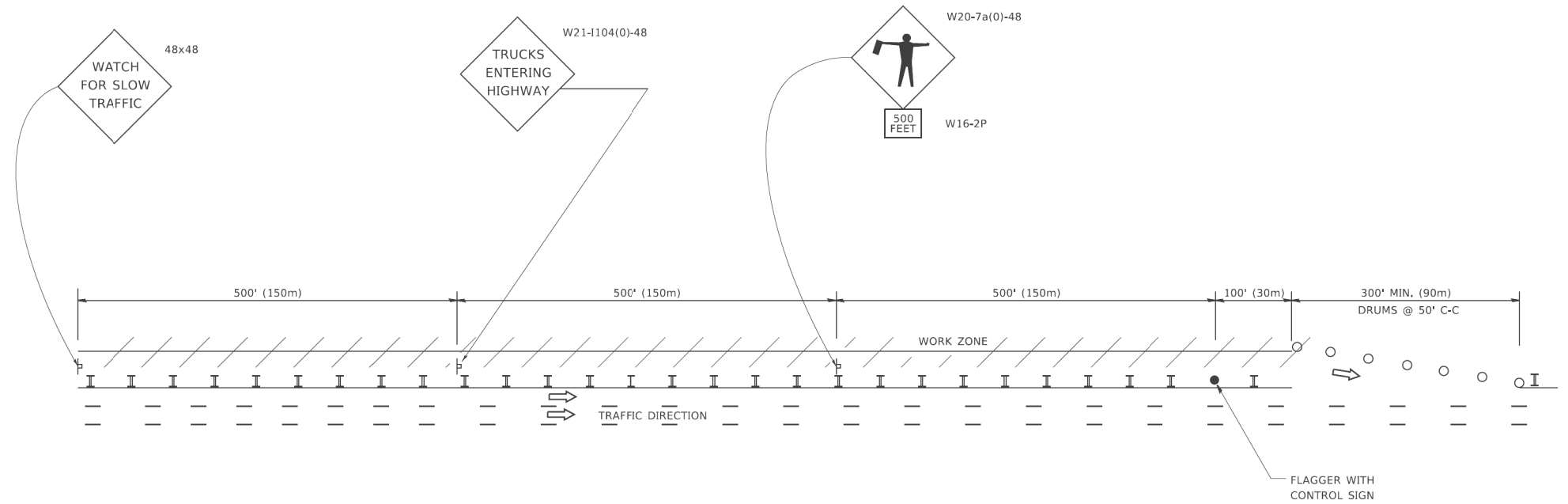
**TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES**

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

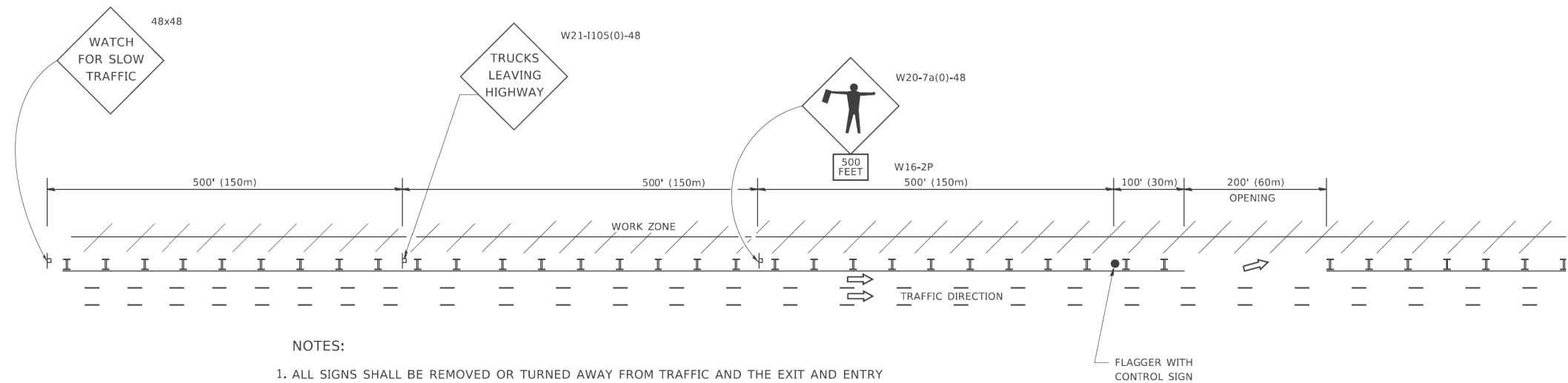
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	71
TC-17		CONTRACT NO. 62K23		
		ILLINOIS FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. ALL SIGNS SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMPS.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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PLOT DATE = 3/4/2019	DATE -	REVISED - M.D.06-13

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FREEWAY /EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS ON FREEWAYS /EXPRESSWAYS**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	72
TC-18			CONTRACT NO. 62K23	
ILLINOIS FED. AID PROJECT				

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ROUTE MARKERS

FOR U.S. ROUTES
M1-40-2424

FOR ILLINOIS ROUTES
M1-50-2424

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

ARROWS SIGNS

M5-1L-2115

M5-1R-2115

M6-1-2115

M6-1-2115

M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

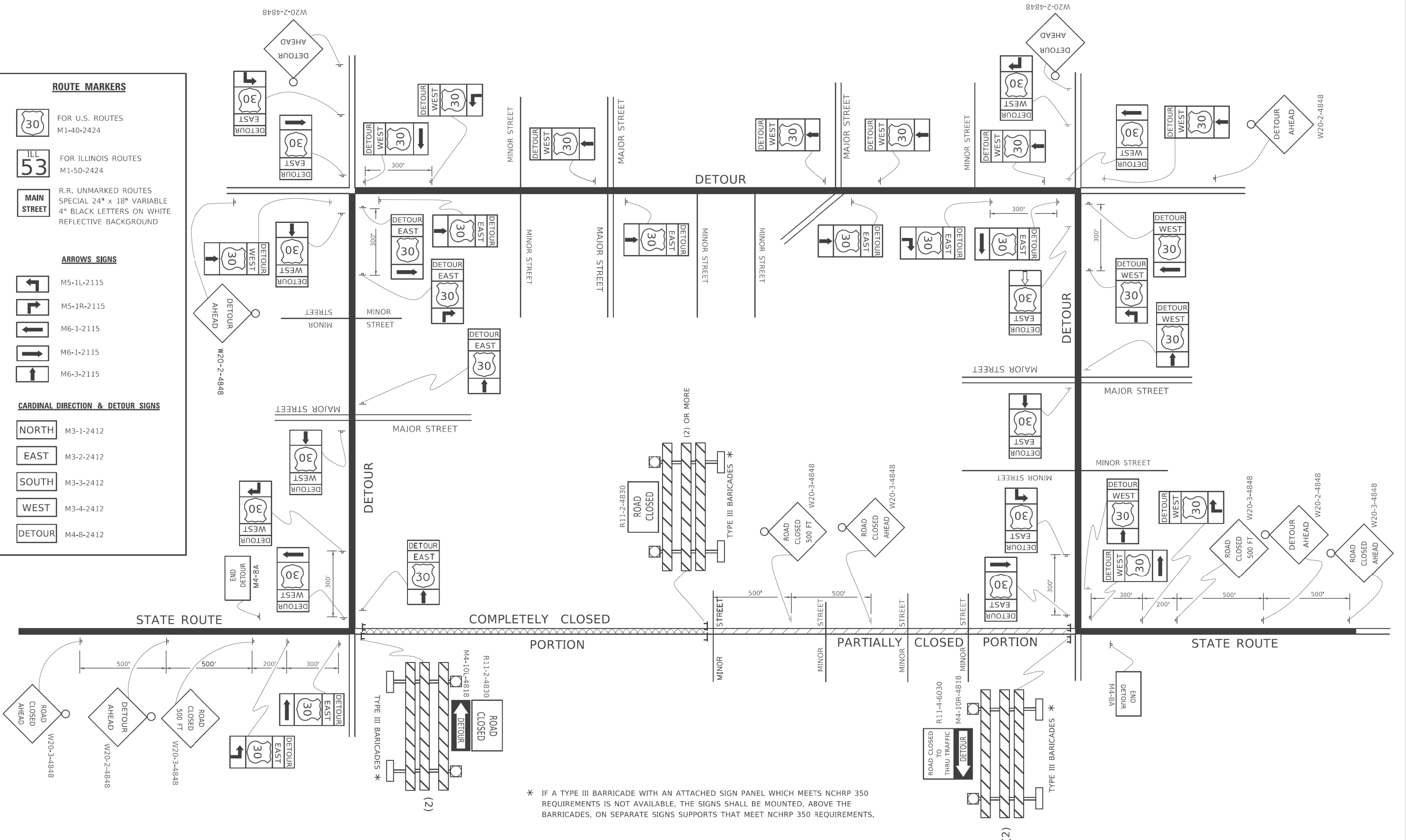
NORTH M3-1-2412

EAST M3-2-2412

SOUTH M3-3-2412

WEST M3-4-2412

DETOUR M4-8-2412



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

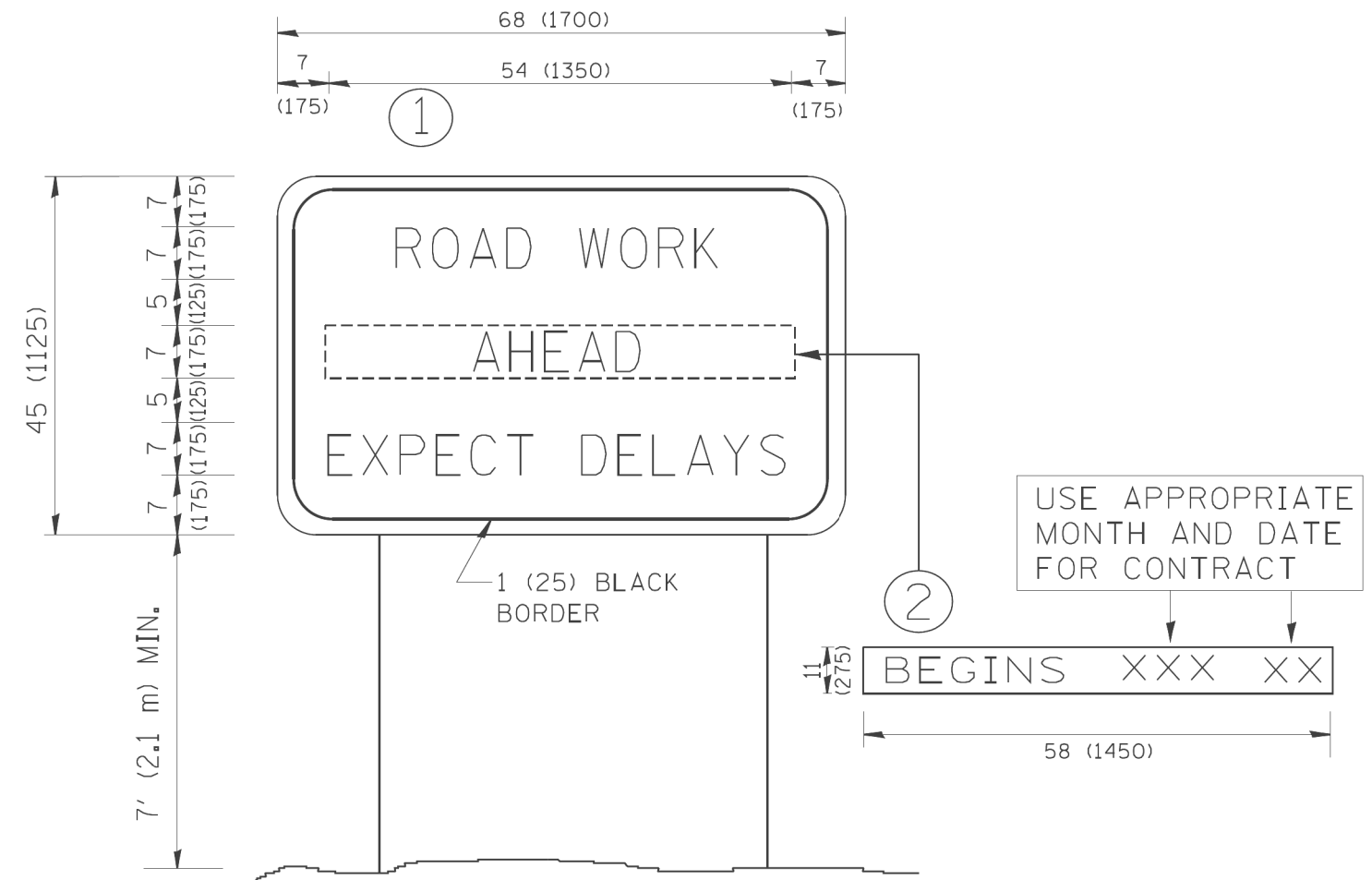
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PLOT DATE = 3/4/2019	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DETOUR SIGNING
 FOR CLOSING STATE HIGHWAYS**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	73
TC-21		CONTRACT NO. 62K23		
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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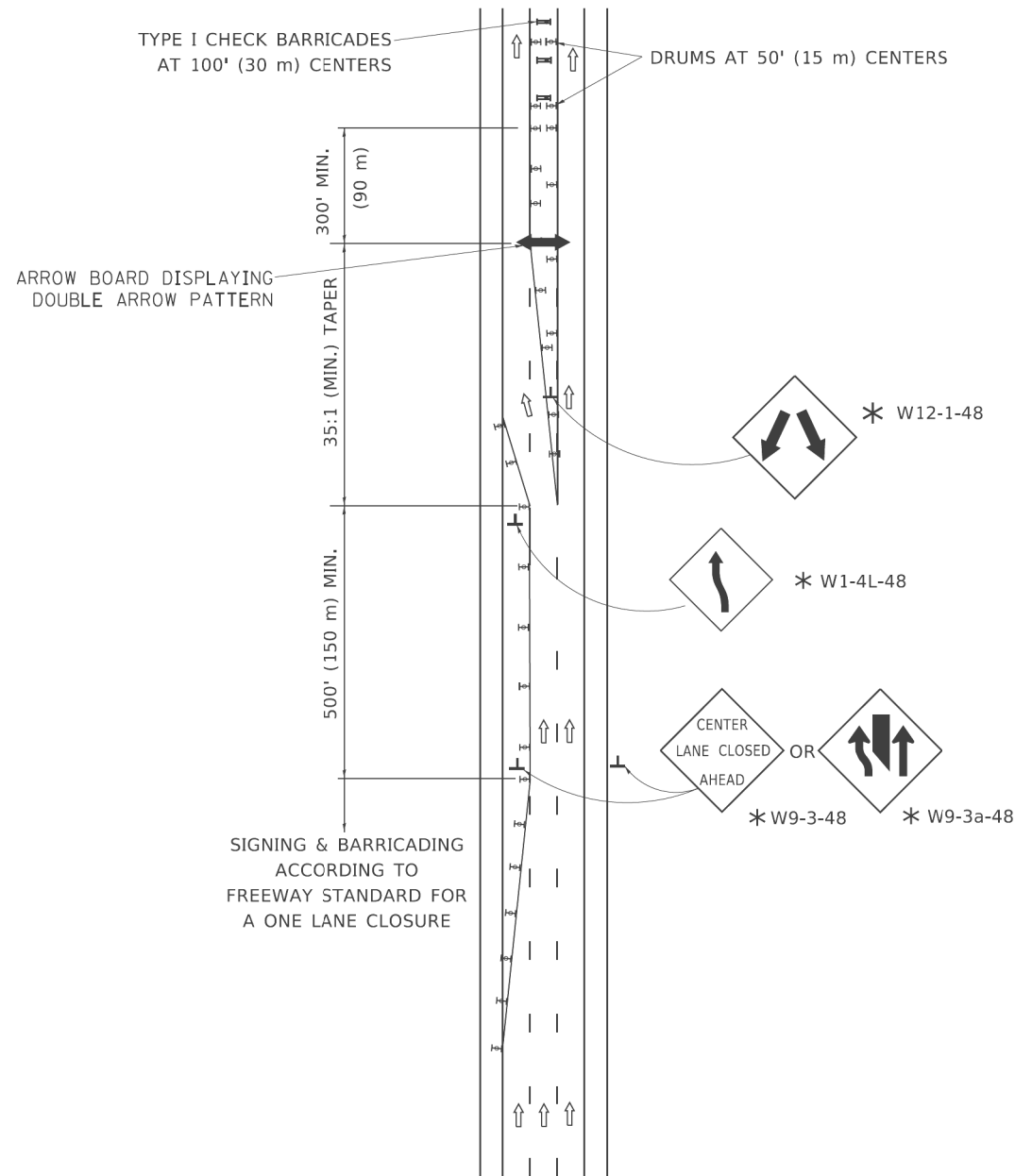
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

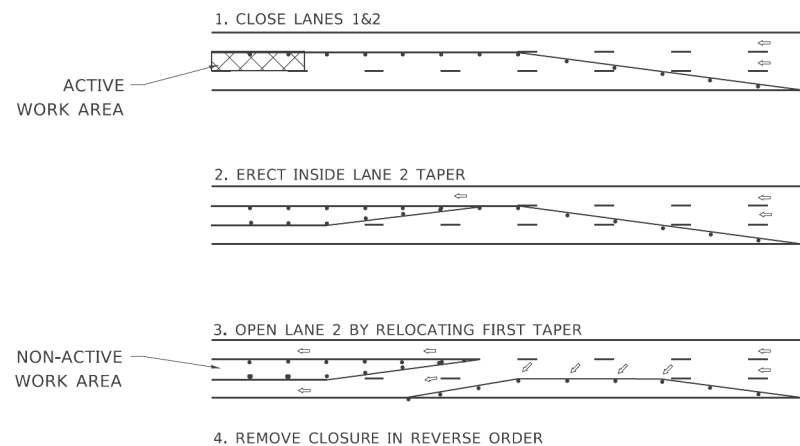
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	74
CONTRACT NO. 62K23			ILLINOIS FED. AID PROJECT	

CENTER LANE CLOSURE



INSTALLATION SEQUENCE

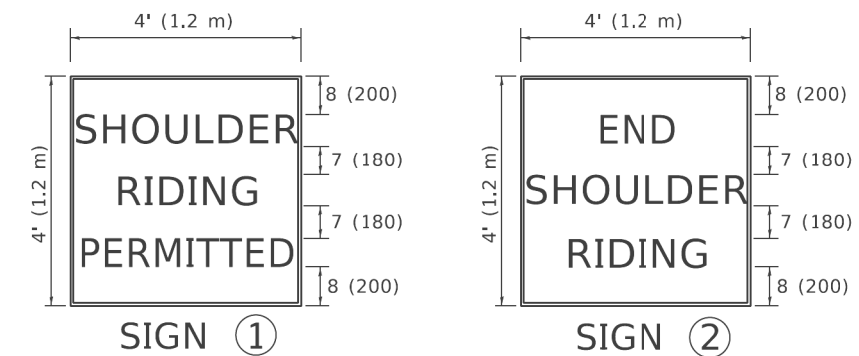
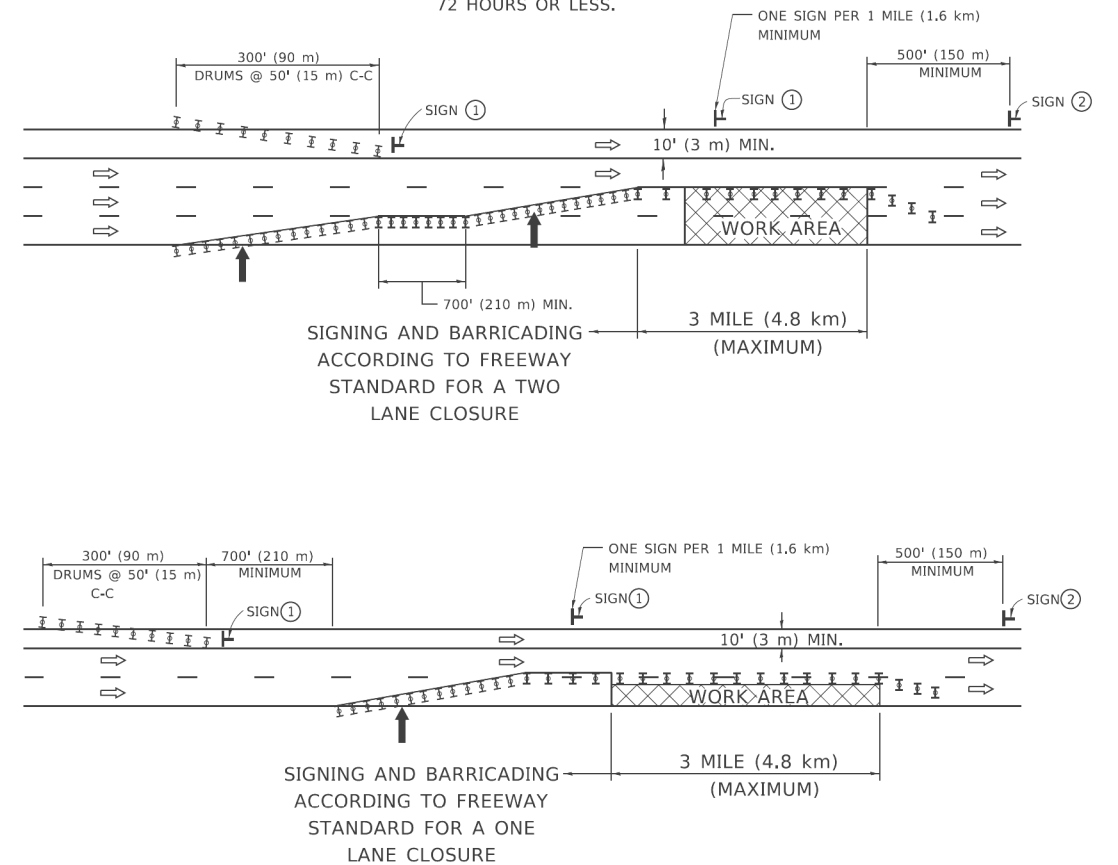


NOTES:

1. DRUMS WITH STEADY BURN LIGHTS SHALL BE USED AT 50' (15 m) CENTERS ON ALL TAPERS AND TANGENTS IN ADVANCE OF WORK AREA.
2. CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.
3. CENTER LANE CLOSURE CONFIGURATION IS NOT TO BE USED WITH WORKERS PRESENT.

SHOULDER LANE

NOTE:
CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.



6 (150) SERIES "C" LEGEND
BLACK LEGEND
WHITE REFLECT. BACKGROUND
1 (25) BORDER

SYMBOLS

- ↑ DIRECTION OF TRAFFIC
- ➔ ARROWBOARD
- ▣ ACTIVE WORK AREA
- ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT *
- ⊥ TYPE II BARRICADE, OR DRUM WITH MONO-DIRECTIONAL STEADY BURN LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

* ALL SIGNS SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY
CENTER LANE CLOSURE SHOULDER LANE

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2019-151-BR	COOK	75	75
TC-25		CONTRACT NO. 62K23		
ILLINOIS		FED. AID PROJECT		