

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A.I. RTE. 290	SECTION 2015-0111	COUNTY COOK/DUPAGE	TOTAL SHEETS 22	SHEET NO. 1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 62A68		

**PROPOSED  
HIGHWAY PLANS**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**TRAFFIC DATA**

SPEED LIMIT: 55 M.P.H.

ADT: 147,000 (2014)

FAI ROUTE 290: I-290 / US 20  
I-355 TO I-294

GUARDRAIL AND MISCELLANEOUS SAFETY IMPROVEMENTS

SECTION: 2015-0111

PROJECT: ACHSIP-0290(203)

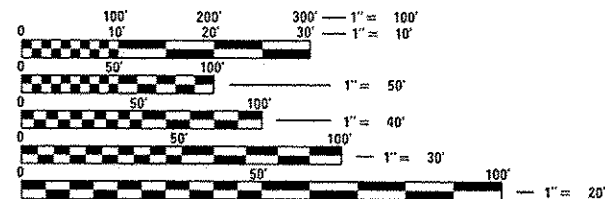
DUPAGE COUNTY, COOK COUNTY

C-91-292-15

PROJECT LOCATED IN THE  
CITY OF ELMHURST AND  
THE VILLAGES OF ADDISON,  
ITASCA, AND HILLSIDE



**HRGreen**  
420 NORTH FRONT STREET, SUITE 100 | MCHENRY, ILLINOIS 60050  
Phone: 815.385.1778 | Toll Free: 800.726.7800 | Fax: 815.385.1781 | HRGreen.com  
ILLINOIS PROFESSIONAL DESIGN FIRM #194-001322



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.

DIGGER  
CHICAGO UTILITY ALERT NETWORK  
1-312-744-7000

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

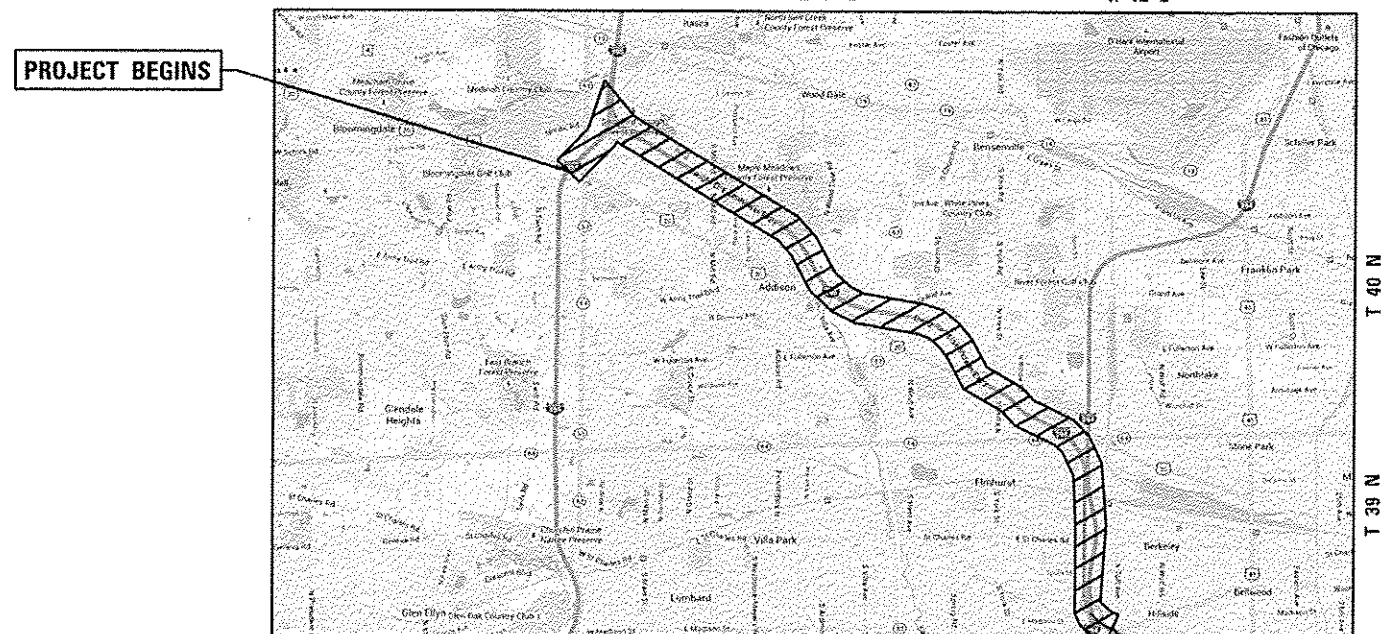
PROJECT ENGINEER: BENJAMIN HARTMAN (815) 385-1778

PROJECT MANAGER: DANIEL WILGREEN (847) 705-4240

CONTRACT NO. 62A68

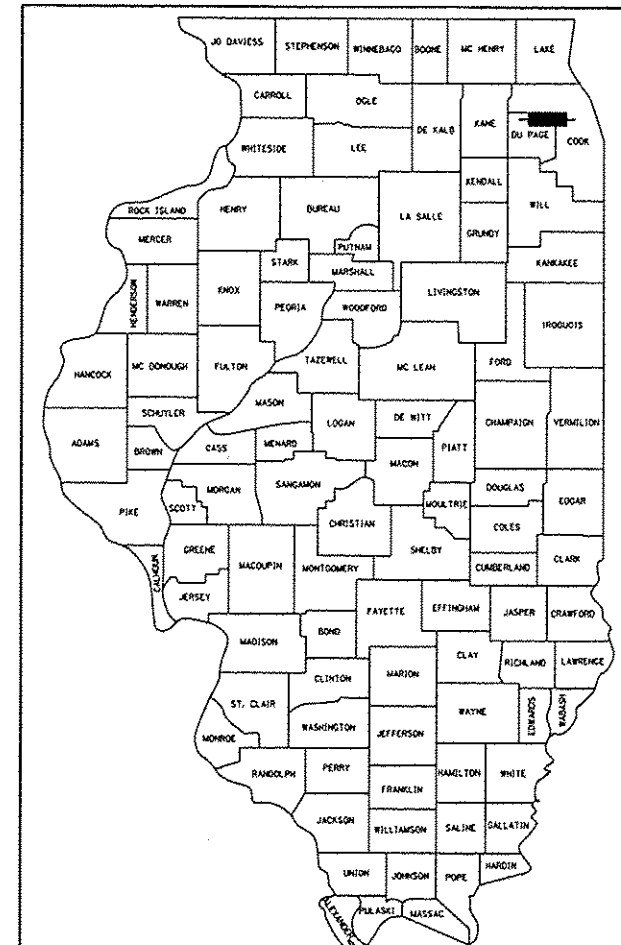
LOCATION MAP

N.T.S.



PROJECT BEGINS

PROJECT ENDS



LOCATION OF SECTION INDICATED THIS: - THIS SECTION IS LOCATED ALONG VARIOUS ROUTES WITHIN COOK AND DUPAGE COUNTIES.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED: *October 21, 2015*

*Shawn F. ...*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

*Doc 4 20 15*  
*Dan D. ...*  
ENGINEER OF DESIGN AND ENVIRONMENT

*Dec 4 20 15*  
*Omer Osman ...*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROFESSIONAL ENGINEER'S SIGN & SEAL

*Benjamin D. Hartman*  
BENJAMIN D. HARTMAN, P.E.  
EXPIRES: 11-30-15

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

**INDEX OF SHEETS**

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**LIST OF STATE STANDARDS**

STANDARD NO.	DESCRIPTION
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701101-04	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701400-08	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-09	LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-09	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH
701421-07	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS >= 45 MPH TO 55 MPH
701426-07	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS >= 45 MPH
701428	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701901-04	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS

**GENERAL NOTES**

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION) AT 8-1-1 OR DIGGER AT 812 744-700 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
- REMOVAL OF DAMAGED MATERIALS WILL INCLUDE DISMANTLING, LOADING, HAULING AND DISPOSAL. THE WORK SITE WILL BE LEFT IN A SAFE AND ORDERLY CONDITION.
- NO MATERIAL SHOULD BE LEFT ON OR NEAR THE ROADWAY DURING NON-WORKING HOURS.
- ANY NECESSARY TRAFFIC CONTROL WILL BE PROVIDED BY THE CONTRACTOR.
- REMOVED GUARDRAIL THAT IS NOT REPLACED ON THE SAME DAY MUST BE DELINEATED WITH LIGHTED BARRICADES. NO LOCATIONS WILL BE LEFT WITHOUT EITHER LIGHTED BARRICADES OR RESTORED GUARDRAIL AT ANY TIME.
- GUARDRAIL MARKERS SHALL NOT BE ATTACHED TO TERMINAL SECTIONS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF ELMHURST, VILLAGES OF ADDISON, ITASCA AND HILLSIDE, AND THE TOWNSHIPS OF ADDISON, ELMHURST AND PROVISO.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- THE REMOVAL OF GUARDRAIL TERMINAL SECTIONS SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR "GUARDRAIL REMOVAL."
- ANY EARTHWORK REQUIRED FOR THE INSTALLATION OF THE GUARDRAIL, TRAFFIC BARRIER TERMINALS, OR IMPACT ATTENUATORS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND DETAILS IN THE PLANS AND WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE ITEM BEING INSTALLED.
- ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- THE RESIDENT ENGINEER SHALL CONTACT THE EXPRESSWAY FIELD ENGINEER AT (847) 705-4153 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4155 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THE CONTRACTOR SHALL VERIFY THE EXISTING TYPE/HEIGHT OF EXISTING GUARDRAIL BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION SHALL MATCH THE HEIGHT OF THE EXISTING GUARDRAIL.
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) ACCORDING TO THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- THE WORK ASSOCIATED WITH THE PREPARATION OF BASE AND SUBGRADE FOR THE PROPOSED IMPACT ATTENUATORS SHALL BE COMPLETED PER MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS AND SHALL BE INCLUDED IN THE COST FOR "IMPACT ATTENUATORS", OF THE TYPE SPECIFIED.

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 CLIENT: #CLIENT  
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, STATE STANDARDS,  
DISTRICT ONE DETAILS AND GENERAL NOTES**

SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	F.A.I. RTE. 290	SECTION 2015-0111	COUNTY COOK/DUPAGE	TOTAL SHEETS 22	SHEET NO. 2
			CONTRACT NO. 62A68		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	3
CONTRACT NO. 62A68				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PAYCODE	ITEM DESCRIPTION	UNIT	URBAN TOTAL QUANTITIES	DUPAGE CO. SAFETY 90% FED 10% STATE 0021	COOK CO. SAFETY 90% FED 10% STATE 0021
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	66	66	0
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SO YD	260	260	0
40603565	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70	TON	687	687	0
40800025	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2,839	2,839	0
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SO YD	1,945	1,945	0
44001980	CONCRETE BARRIER REMOVAL	FOOT	15	15	0
44004250	PAVED SHOULDER REMOVAL	SO YD	334	334	0
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	1,280	1,280	0
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	106	97	9
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SO YD	300	300	0
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1,175.0	1,025.0	150.0
63000017	STEEL PLATE BEAM GUARDRAIL, TYPE D, 6 FOOT POSTS	FOOT	25.0	0.0	25.0
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	5	4	1
63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	1	0	1
63100105	TRAFFIC BARRIER TERMINAL, TYPE 10	EACH	1	0	1
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8	7	1
63200310	GUARDRAIL REMOVAL	FOOT	112.5	112.5	0
63500105	DELINEATORS	EACH	20	20	0
64300770	IMPACT ATTENUATORS (SEVERE USE, NARROW), TEST LEVEL 3	EACH	4	3	1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	5	1
67100100	MOBILIZATION	LSUM	1	0.8	0.2

SPECIALTY ITEMS

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 PROJECT CONTACT: bhartea  
 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION  
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DESIGNED - BH  
 DRAWN - DS  
 CHECKED - TH  
 DATE - 10/20/15

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	4
CONTRACT NO. 62A68				

PAYCODE	ITEM DESCRIPTION	UNIT	TOTAL QUANTITIES	DUPAGE CO. SAFETY 90% FED 10% STATE 0021	COOK CO. SAFETY 90% FED 10% STATE 0021
70300100	SHORT TERM PAVEMENT MARKING	FOOT	351	351	0
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	117	117	0
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2,568	2,568	0
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	400	400	0
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	189	189	0
* 78004220	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 5"	FOOT	321	321	0
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	42	42	0
78200410	GUARDRAIL MARKERS, TYPE A	EACH	43	31	12
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	8	7	1
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	42	42	0
X6330200	VERTICAL ADJUSTMENT OF TRAFFIC BARRIER TERMINAL	EACH	2	2	0
X6330900	VERTICAL ADJUSTMENT OF GUARDRAIL	FOOT	350	350	0
X6430120	REMOVE IMPACT ATTENUATORS, NO SALVAGE	EACH	1	1	0
X6431120	REMOVE IMPACT ATTENUATOR SAND MODULE	EACH	16	7	9
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	LSUM	1	0.8	0.2
* X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	321	321	0
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	52	52	0
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	6	6	
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	2	2	

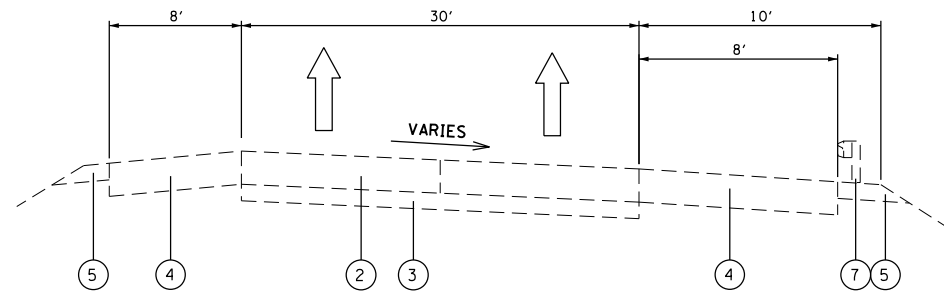
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Rev.



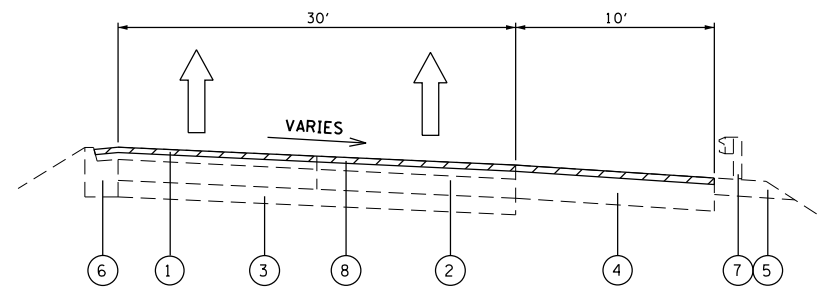
**LEGEND**

- ① EXISTING HMA OVERLAY, ± 3-1/4"
- ② EXISTING P.C.C. PAVEMENT
- ③ EXISTING AGGREGATE SUB-BASE
- ④ EXISTING HOT-MIX ASPHALT SHOULDER, 10"
- ⑤ EXISTING AGGREGATE SHOULDER
- ⑥ EXISTING COMB. CONC. CURB & GUTTER
- ⑦ EXISTING STEEL PLATE BEAM GUARDRAIL
- ⑧ HOT-MIX ASPHALT SURFACE REMOVAL, 2"
- ⑨ POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70 (IL-9.5mm); 2"
- ⑩ AGGREGATE WEDGE SHOULDER, TYPE B
- ⑪ STRIP REFLECTIVE CRACK CONTROL TREATMENT



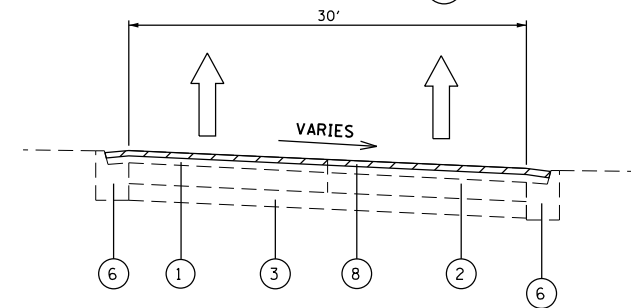
**EXISTING TYPICAL SECTION**

EB I-290 EXIT RAMP TO IL-64/US-20  
STA 102+80 TO STA 110+98



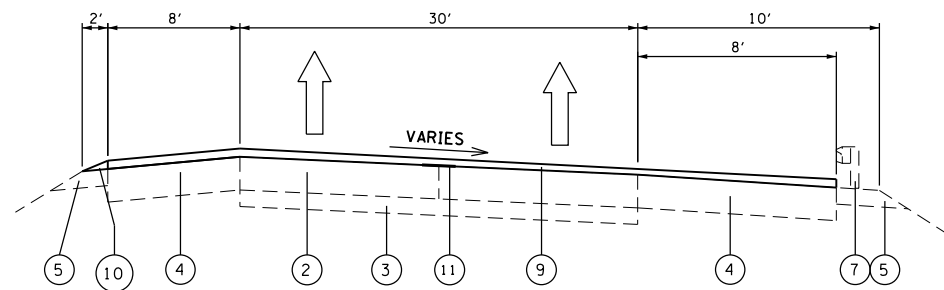
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STA 113+70 TO STA 115+22



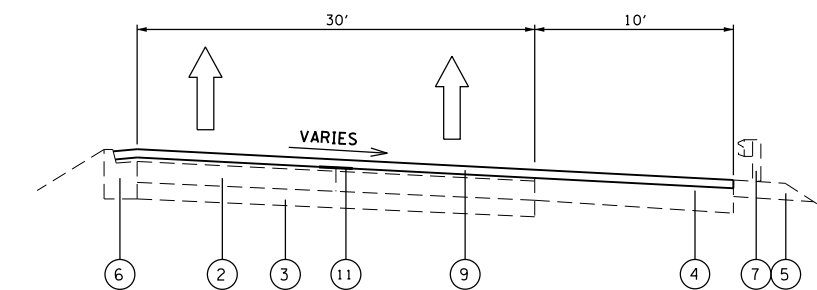
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EB I-290 EXIT RAMP TO IL-64/US-20  
STA 115+22 TO STA 118+36



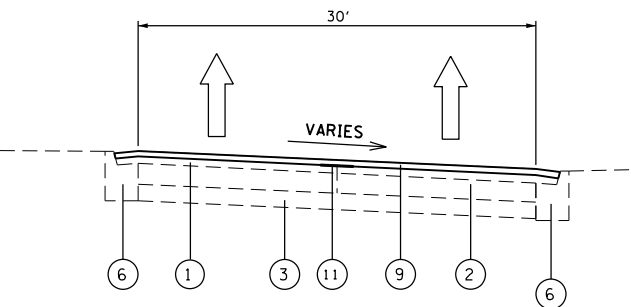
**PROPOSED TYPICAL SECTION**

EB I-290 EXIT RAMP TO IL-64/US-20  
STA 102+80 TO STA 110+98



**PROPOSED TYPICAL SECTION**

EB I-290 EXIT RAMP TO IL-64/US-20  
STA 113+70 TO STA 115+22



**PROPOSED TYPICAL SECTION**

EB I-290 EXIT RAMP TO IL-64/US-20  
STA 115+22 TO STA 118+36

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AIR VOIDS & Ndes	QUALITY MANAGEMENT PROGRAM (OMP)
<b>PAVEMENT RESURFACING</b>		
POLYMERIZED HMA SURFACE COURSE, MIX "E", N70 (IL-9.5mm); 2"	4.0% @ 70 GYR.	QC/OA
<b>HMA SHOULDER</b>		
HOT-MIX ASPHALT SHOULDER, 10"	4.0% @ 70 GYR.	QC/OA
OMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/OA); QUALITY CONTROL FOR PERFORMANCE (QCP)		

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

THE AC TYPE FOR POLYMERIZED HMA MIXTURES SHALL BE "SBS/SBR PG 76 -22", FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.

QUALITY MANAGEMENT PROGRAM (OMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

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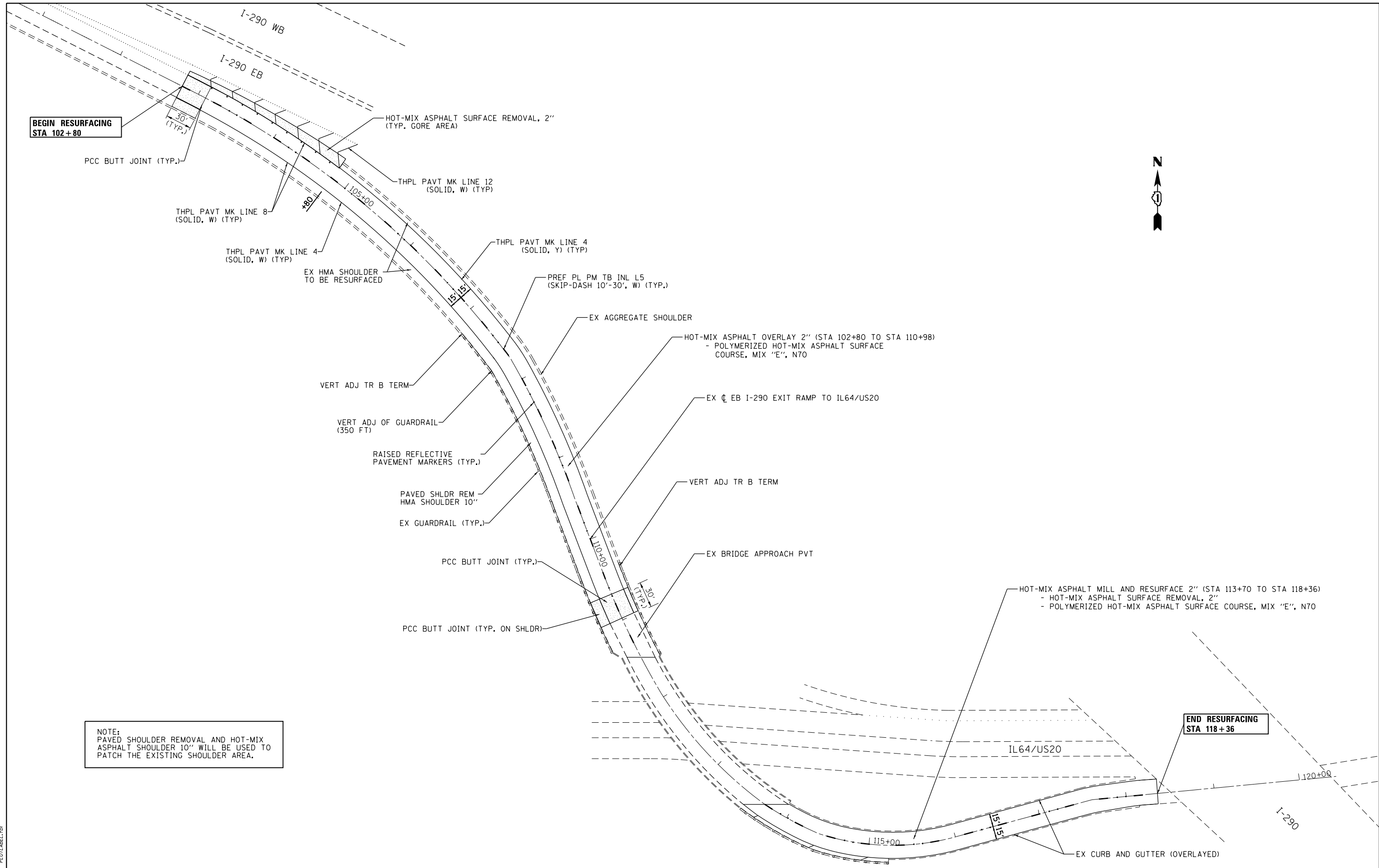
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	5
CONTRACT NO.			62A68	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



**BEGIN RESURFACING  
STA 102+80**

**END RESURFACING  
STA 118+36**

**NOTE:**  
PAVED SHOULDER REMOVAL AND HOT-MIX ASPHALT SHOULDER 10" WILL BE USED TO PATCH THE EXISTING SHOULDER AREA.

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 PROJECT CONTACT: bhartma  
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**RESURFACING AND PAVEMENT MARKING PLAN  
EB I-290 EXIT RAMP TO IL64/US20**

SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	6
CONTRACT NO. 62A68			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



DUPAGE COUNTY — COOK COUNTY

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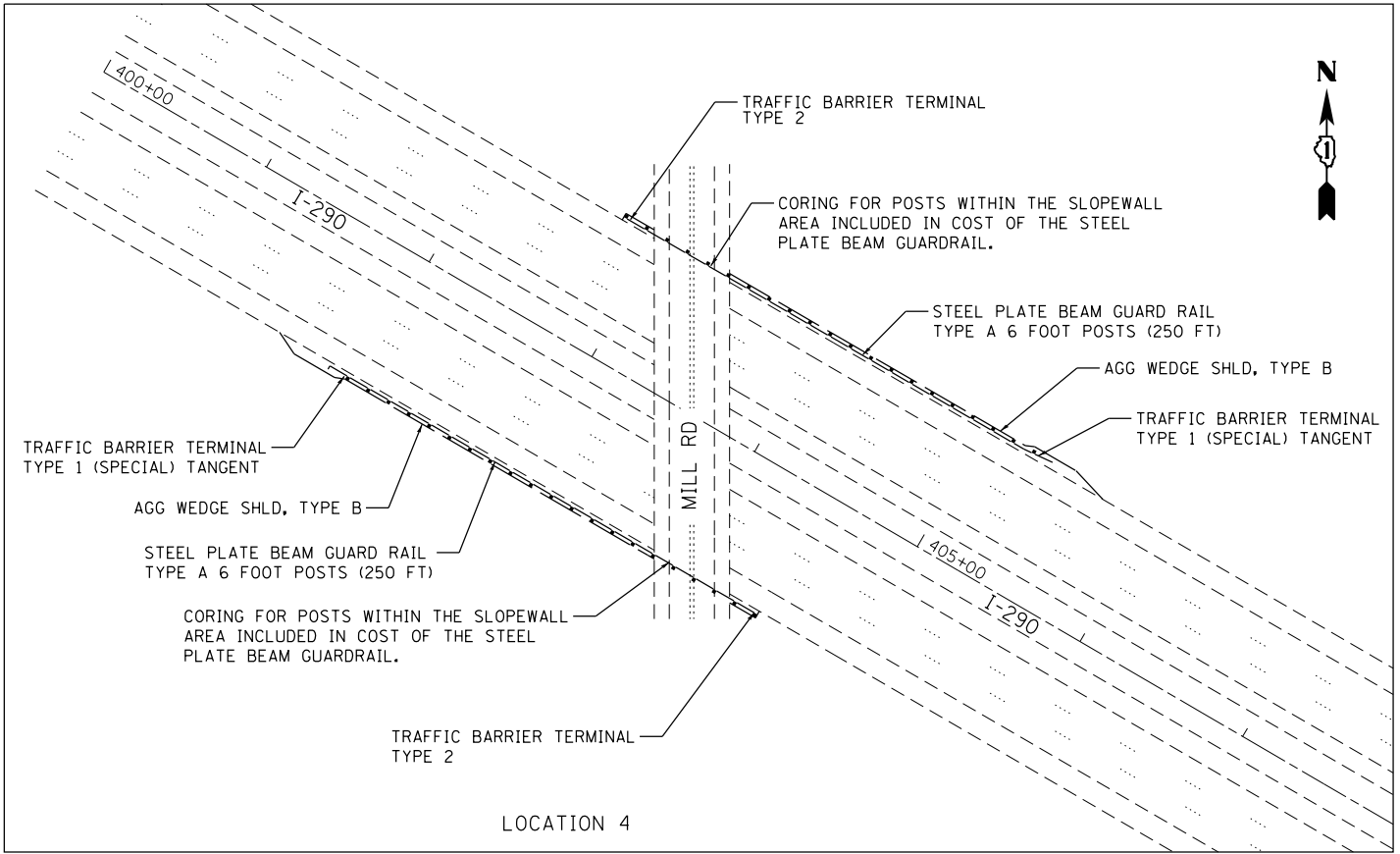
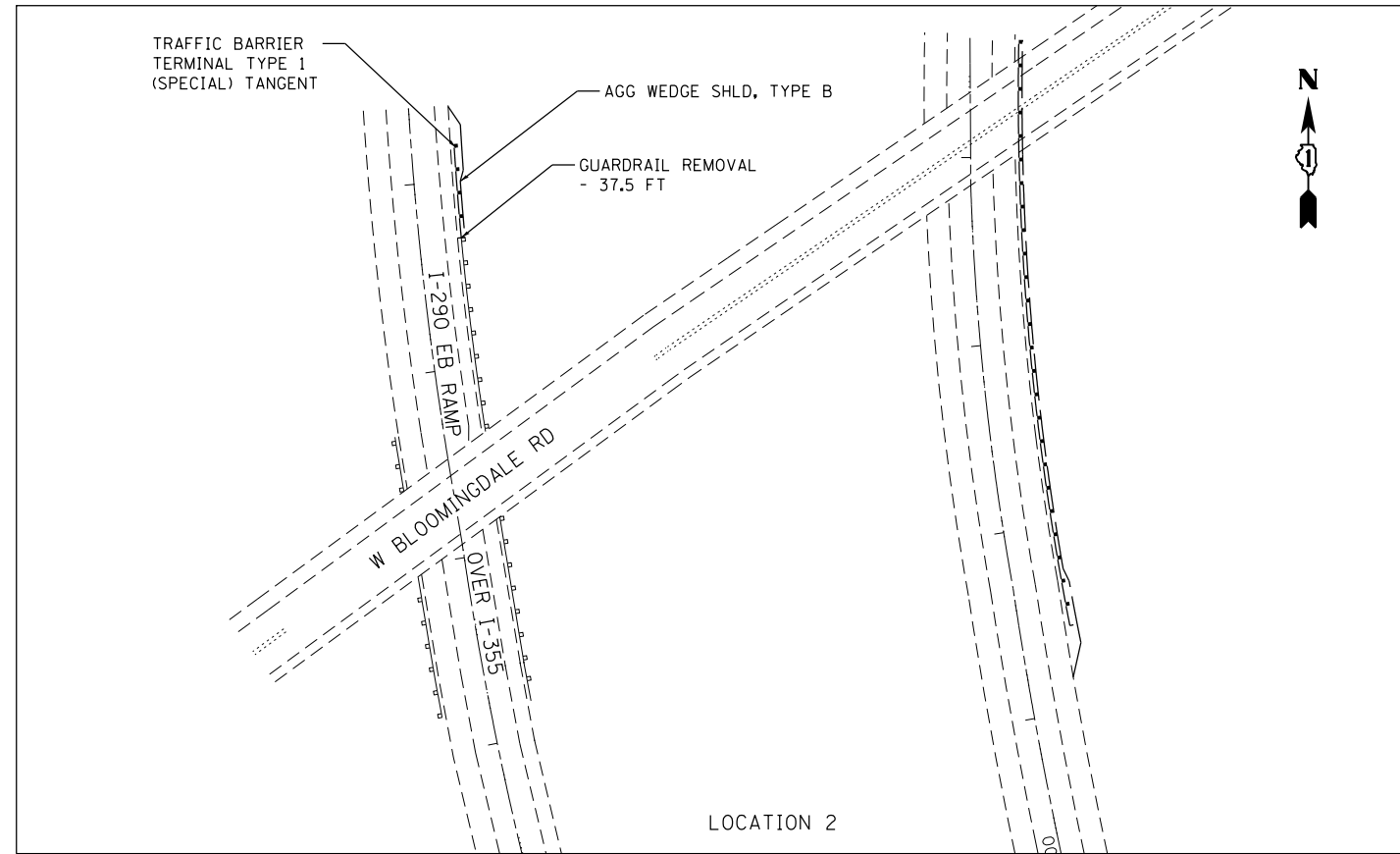
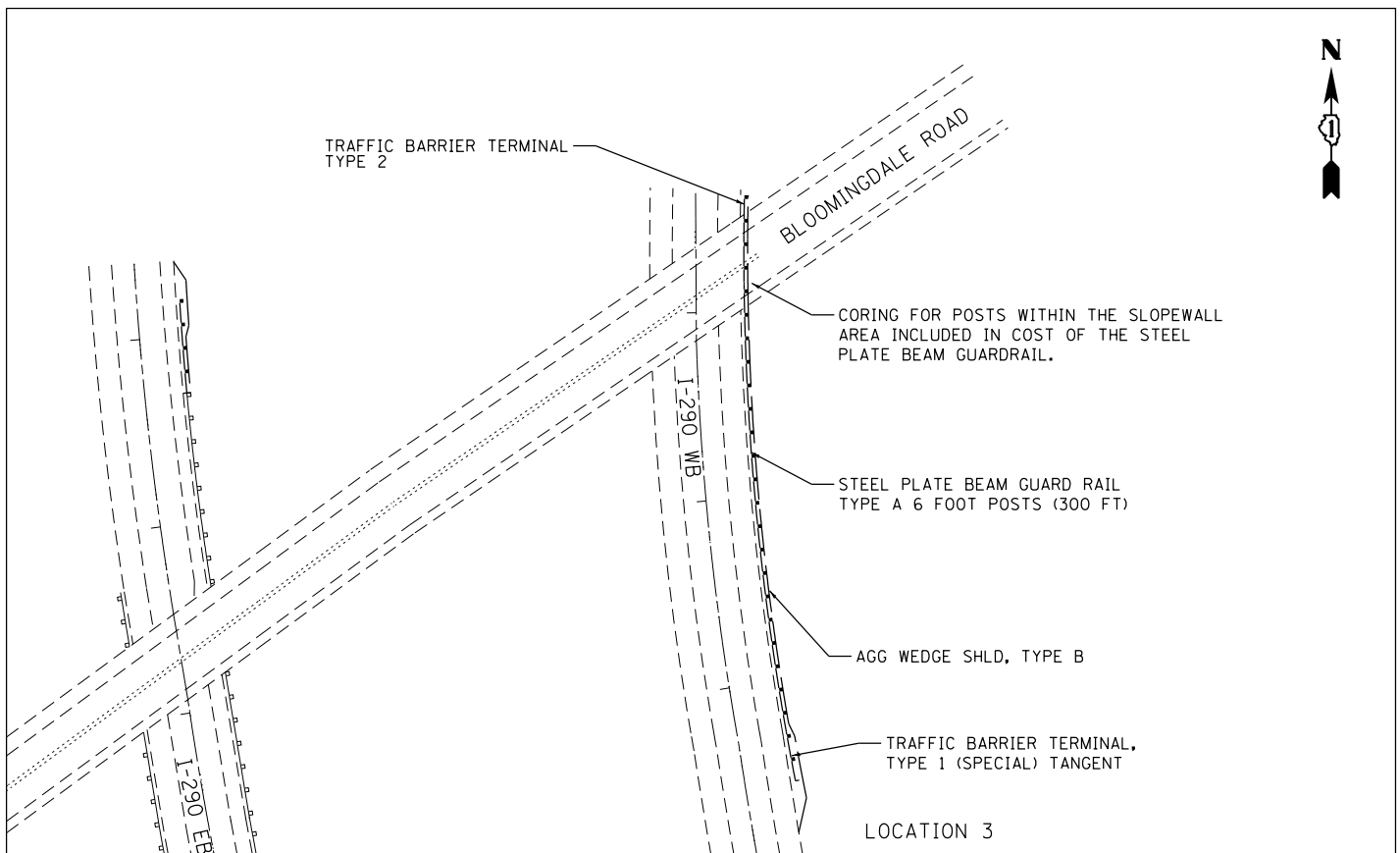
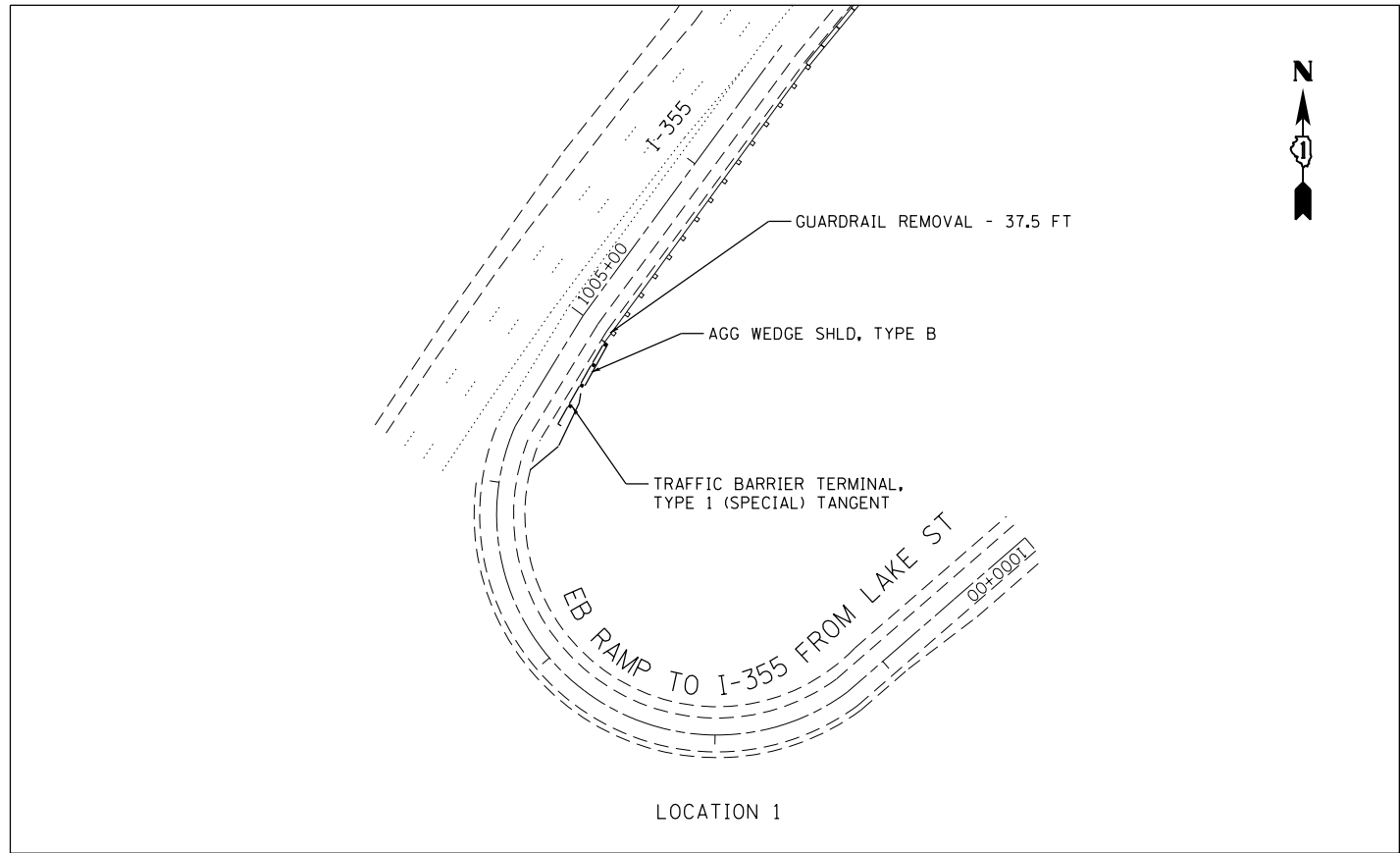
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PLOT DATE = 10/20/2015	DATE - 10/20/15	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**GUARDRAIL IMPROVEMENTS - COOK AND DUPAGE COUNTY  
 LOCATION MAP**

SCALE: N.T.S. SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.I. RTE. 290	SECTION 2015-0111	COUNTY COOK/DUPAGE	TOTAL SHEETS 22	SHEET NO. 7
CONTRACT NO. 62A68			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



COMPANY NAME: HRGreen.com  
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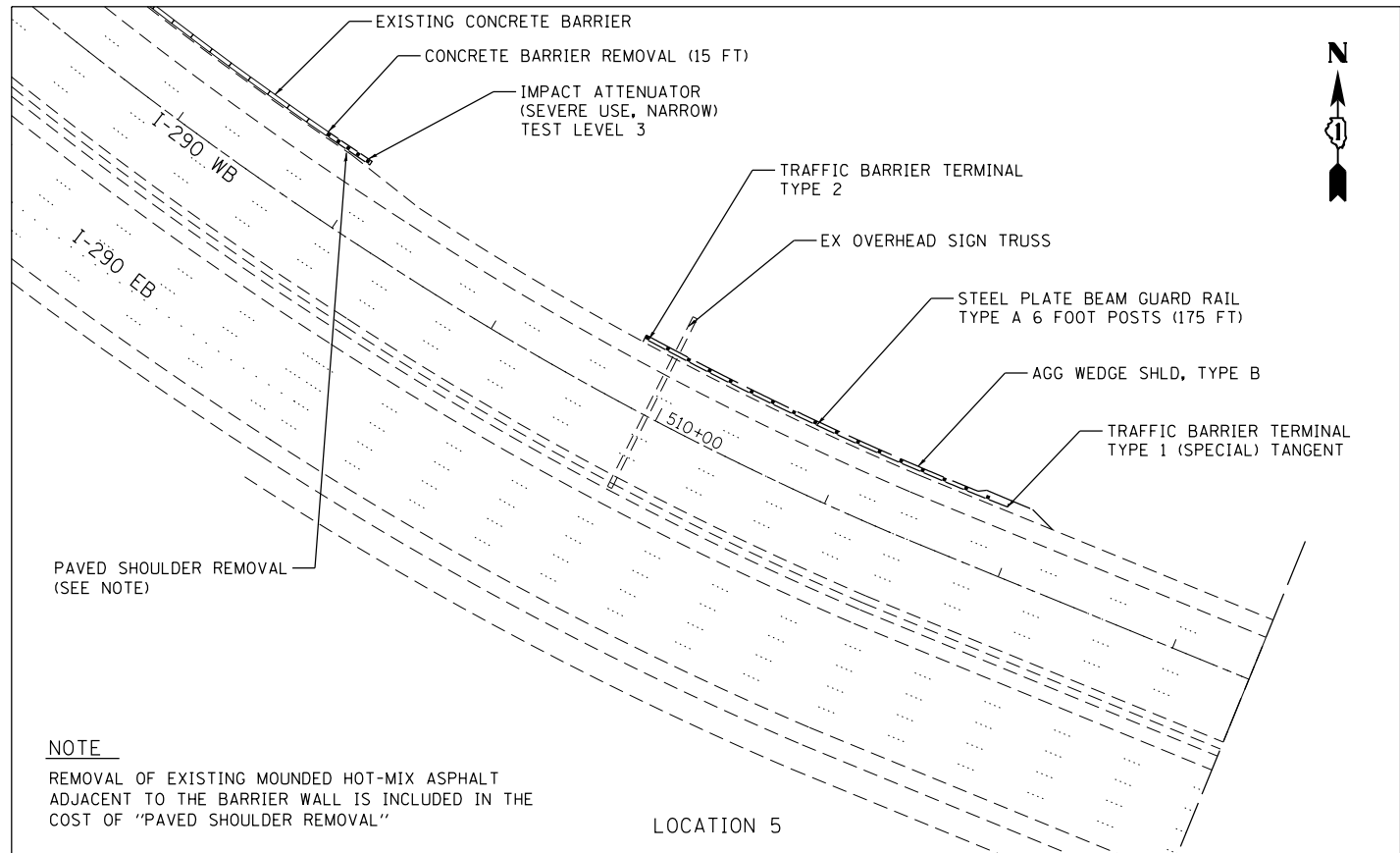
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GUARDRAIL IMPROVEMENTS - COOK AND DUPAGE COUNTY  
 ROADWAY PLANS

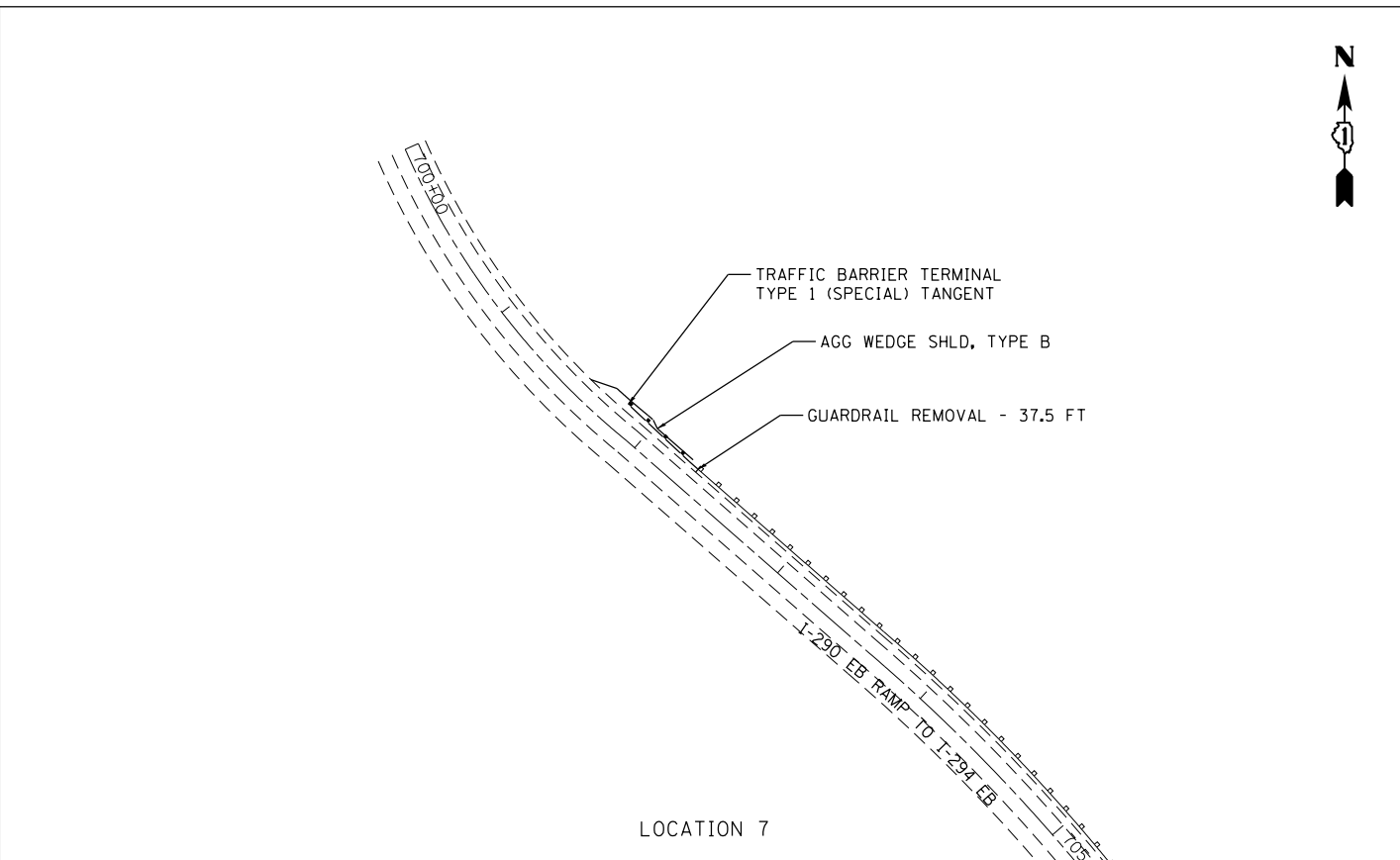
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	8
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 62A68	

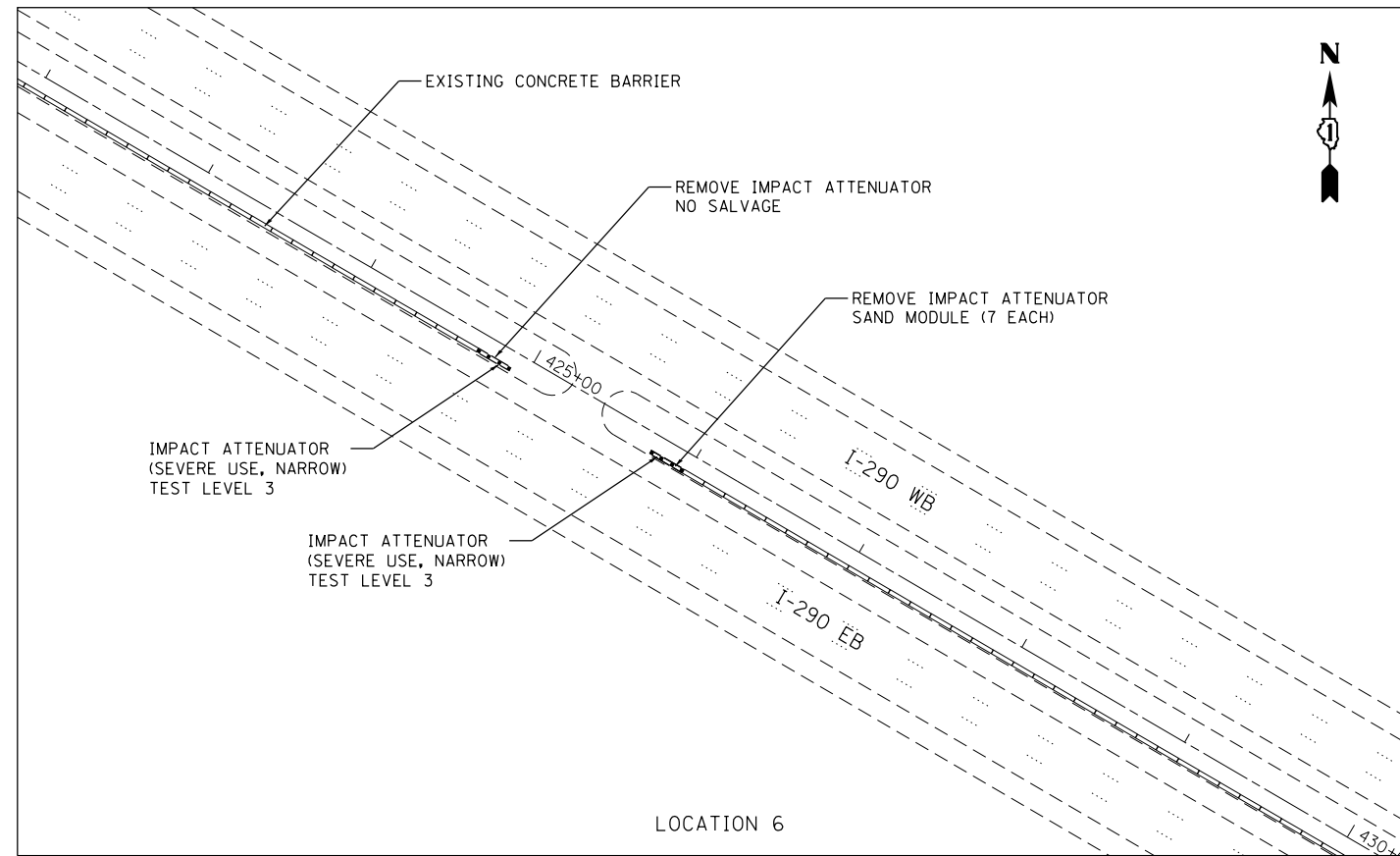


**NOTE**  
REMOVAL OF EXISTING MOUNDED HOT-MIX ASPHALT ADJACENT TO THE BARRIER WALL IS INCLUDED IN THE COST OF "PAVED SHOULDER REMOVAL"

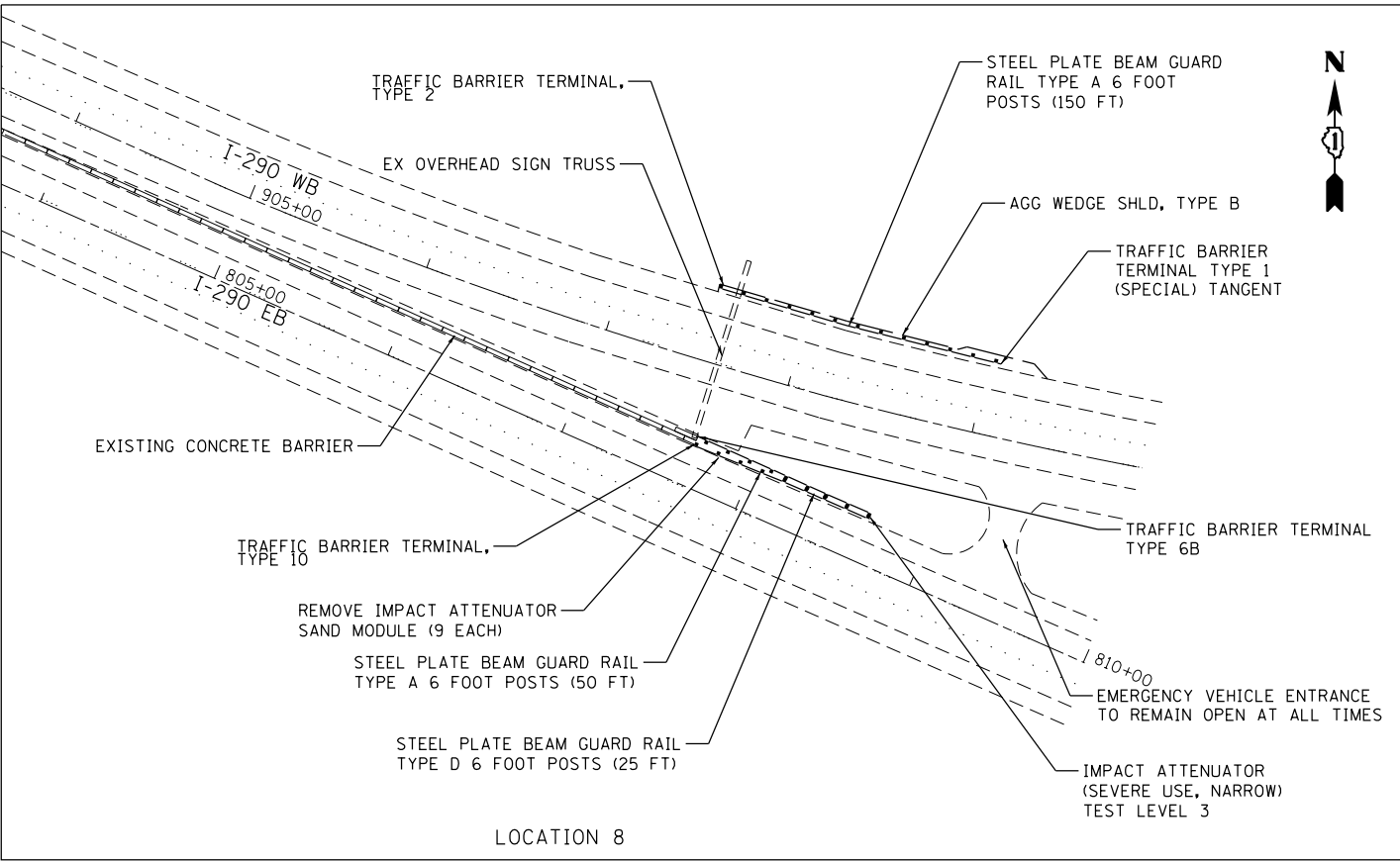
LOCATION 5



LOCATION 7



LOCATION 6



LOCATION 8

COMPANY NAME: HRGreen  
PROJECT CONTACT: bhartha  
DATE PLOTTED: 10/20/2015 4:46:59 PM  
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PLOT DRIVER: ILpdf.dwt  
PEN TABLE: PLOT LABEL.tbl



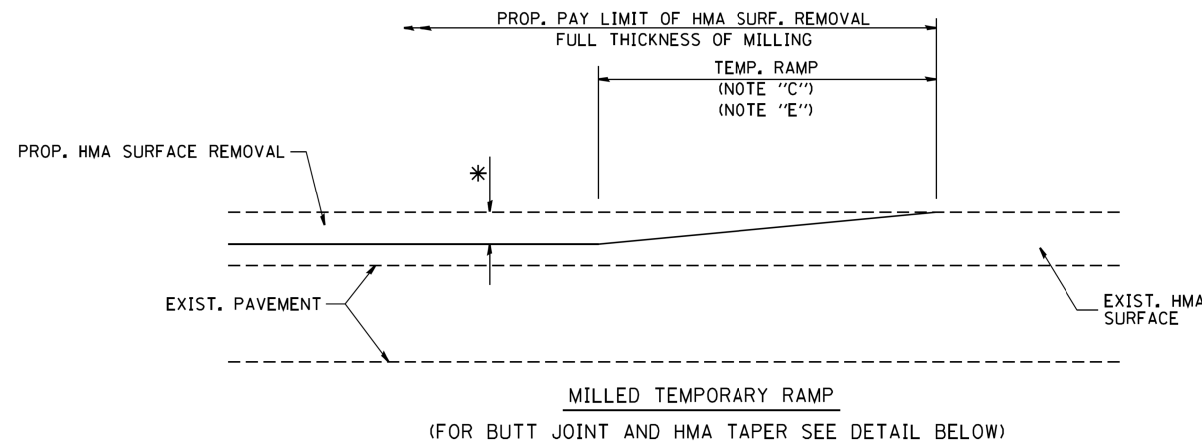
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

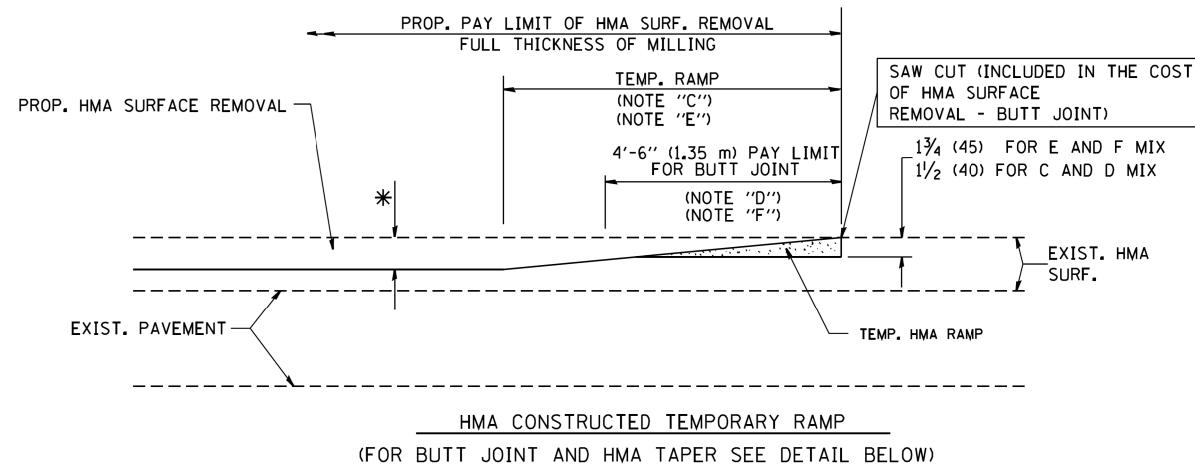
**GUARDRAIL IMPROVEMENTS - COOK AND DUPAGE COUNTY  
ROADWAY PLANS**

SCALE: 1"=50' SHEET NO. 3 OF 3 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	9
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 62A68	

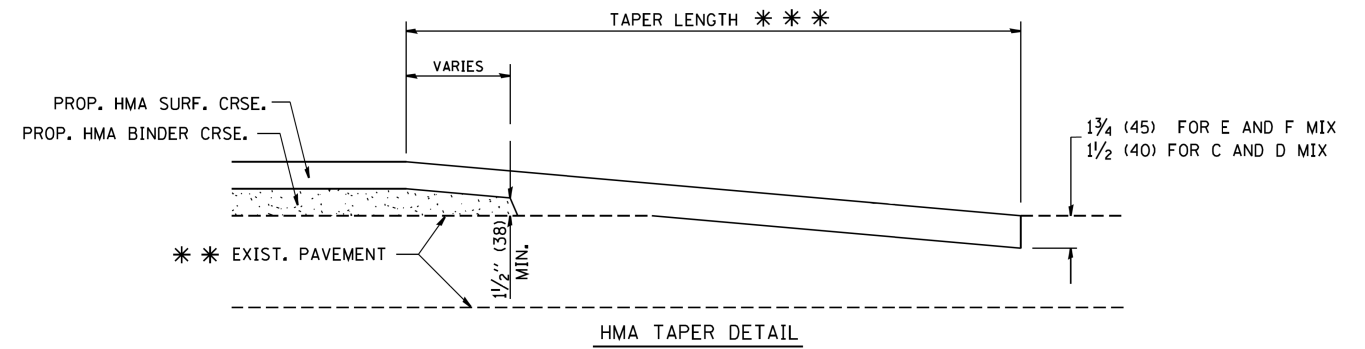
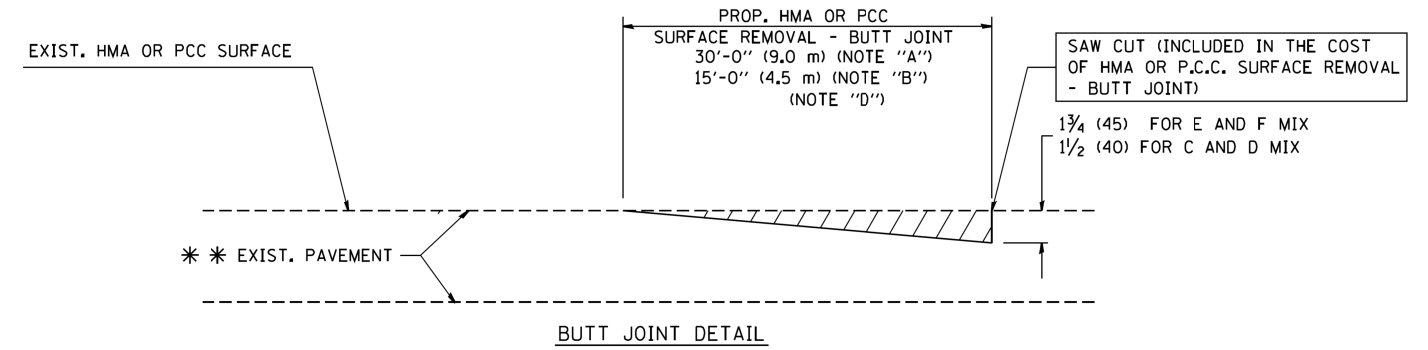


**OPTION 1**



**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\* \* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

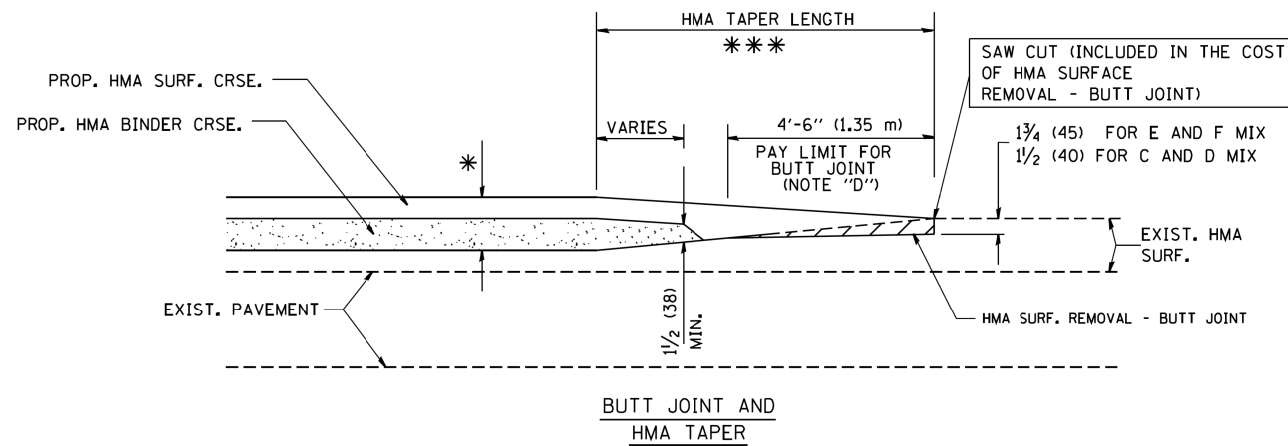
**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \* \* \* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

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

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



**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**

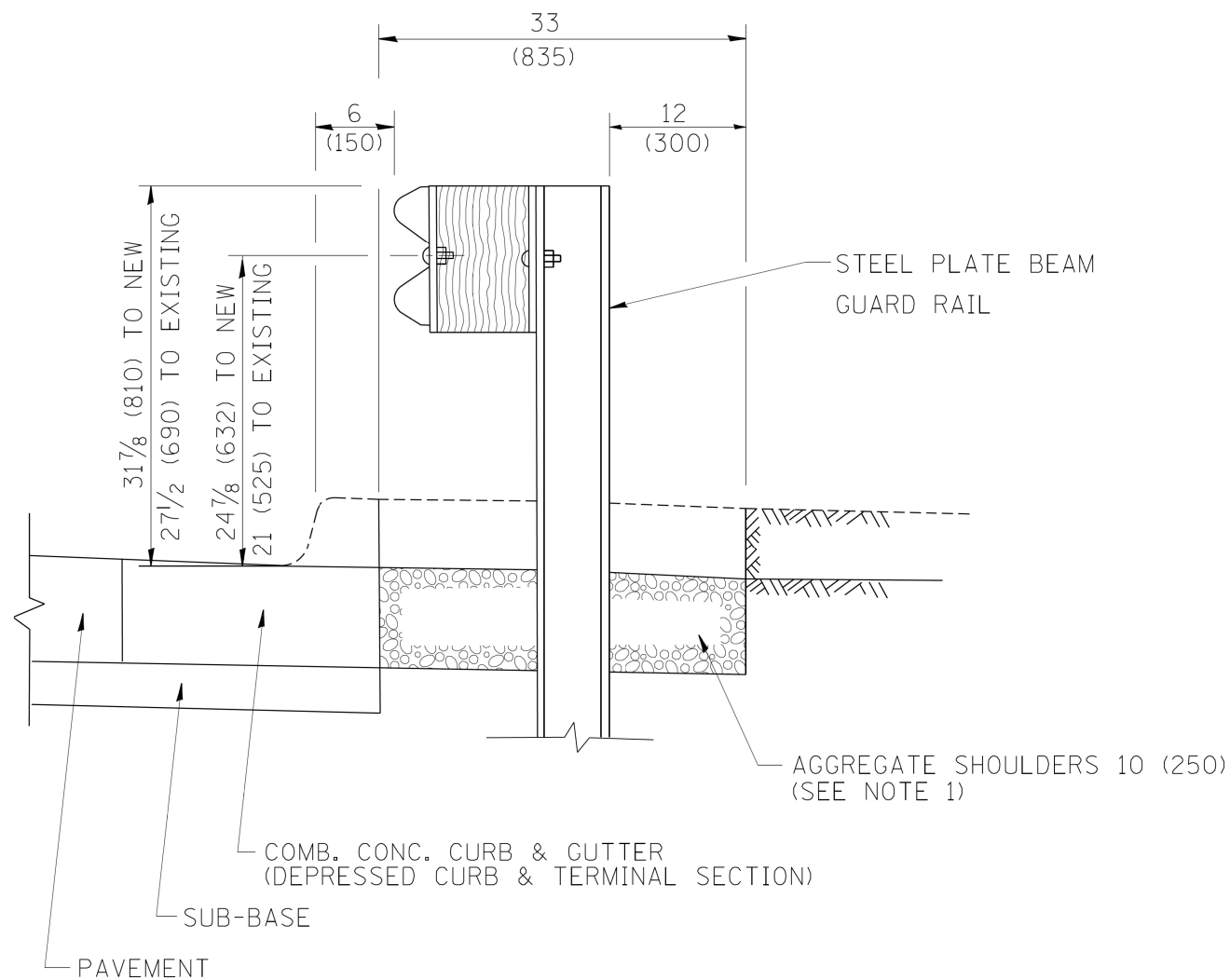
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		CHECKED -	REVISED - M. GOMEZ 04-06-01
		DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>BUTT JOINT AND HMA TAPER DETAILS</b>	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

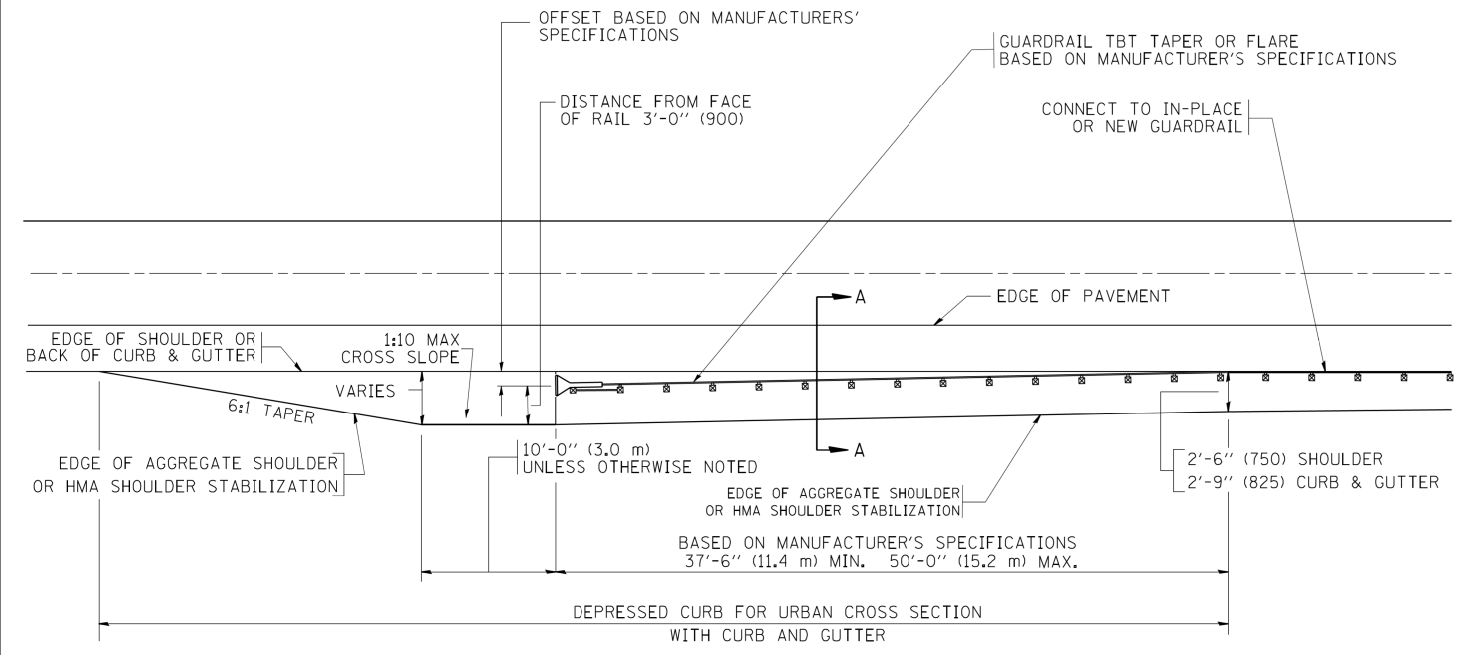
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	10
<b>BD400-05 BD32</b>		CONTRACT NO.	62A68	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SECTION A-A

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

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



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

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

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

TBT = TRAFFIC BARRIER TERMINAL  
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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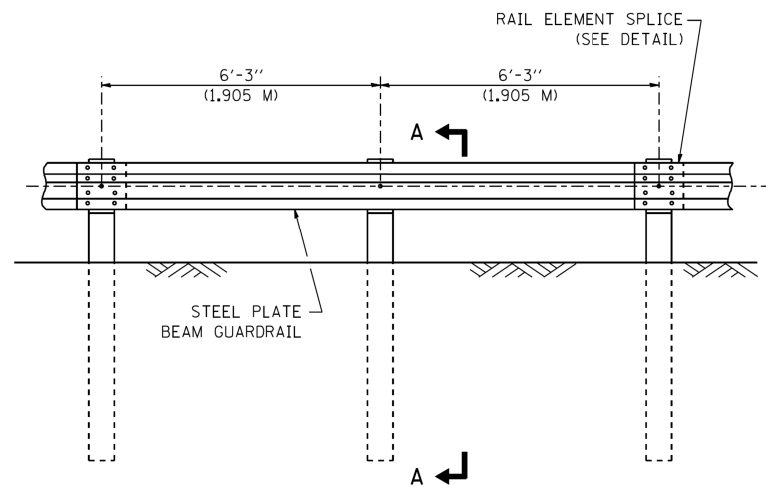
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	11
<b>BD600-10 (BD 34)</b>				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	62A68

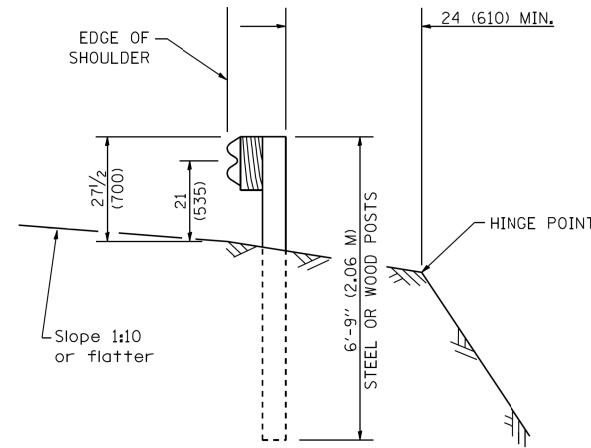




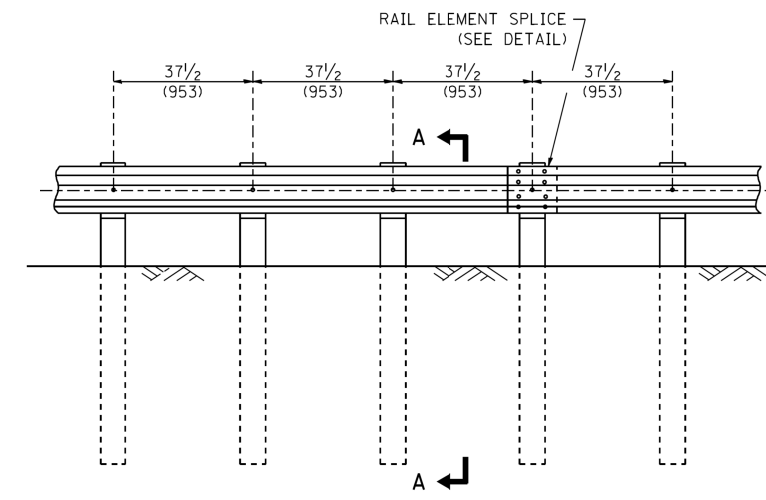
ELEVATION

TYPE A

6'-3" (1.905 M) TYPICAL POST SPACING



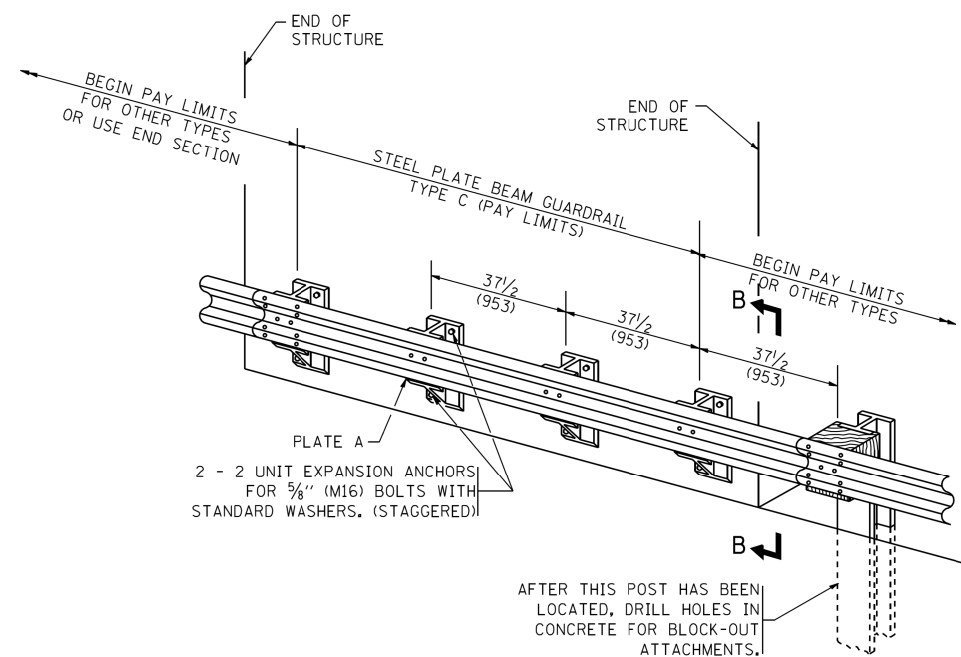
SECTION A-A



ELEVATION

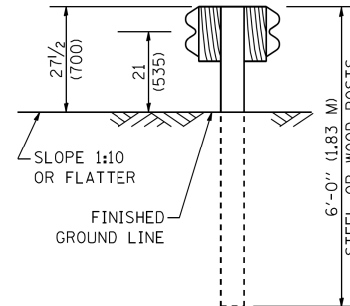
TYPE A

37 1/2 (953) CLOSED POST SPACING

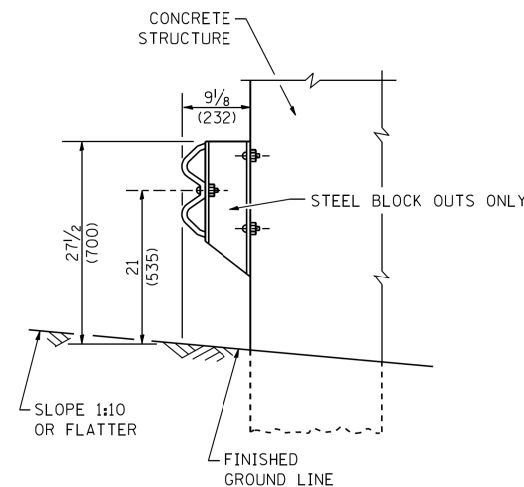


TYPE C

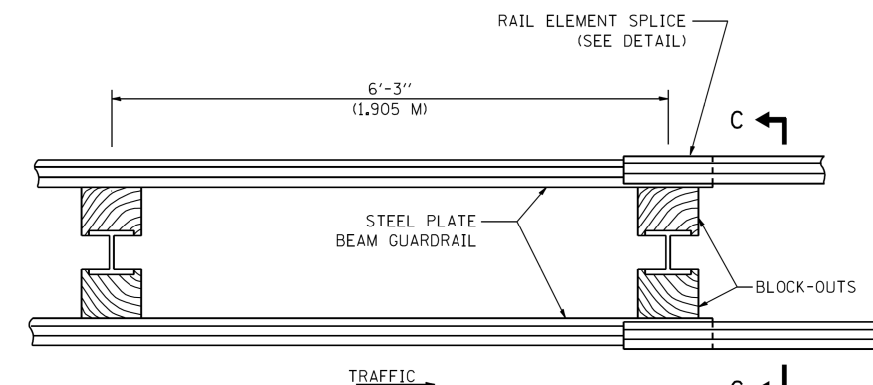
37 1/2 (953) BLOCK-OUT SPACING



SECTION C-C



SECTION B-B



TRAFFIC

PLAN

TYPE D

DOUBLE STEEL PLATE BEAM GUARDRAIL  
6'-3" (1.905 M) TYPICAL POST SPACING

**GENERAL NOTES**

ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).

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

THE EXISTING STEEL POSTS MAY BE DRILLED TO MATCH THE BOLT PATTERN SHOWN HEREIN FOR THE WOOD BLOCK-OUT, OR A NEW STEEL POST SHALL BE PROVIDED.

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL SYSTEM USED PRIOR TO JANUARY 1, 2007. FOR DETAILS ON THE MIDWEST GUARDRAIL SYSTEM, SEE STANDARD 630001.

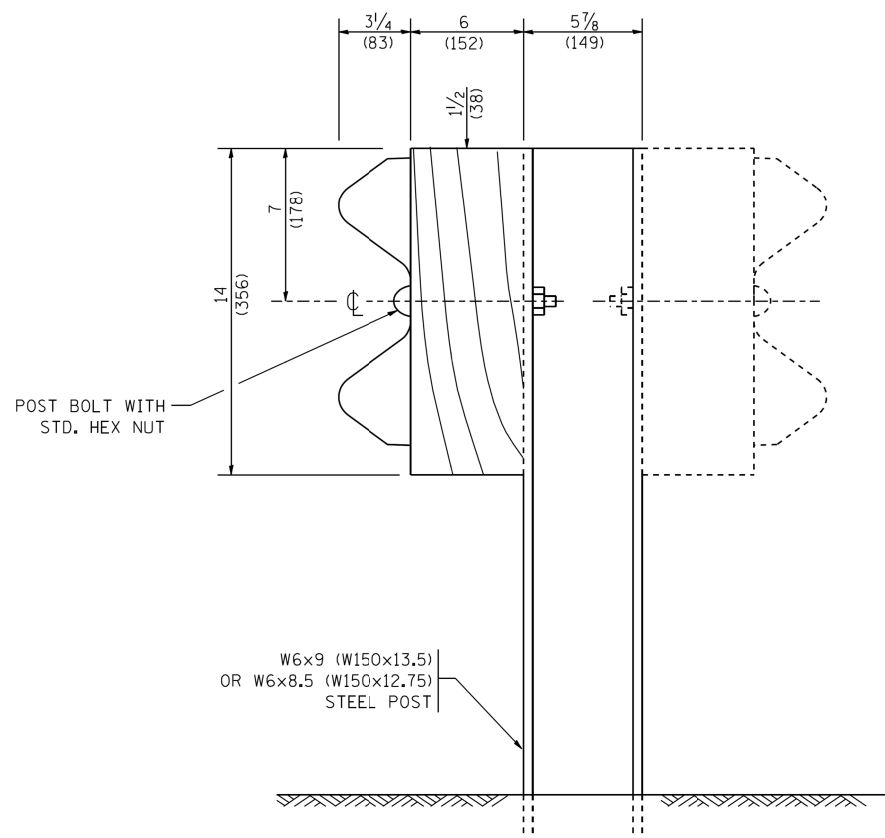
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		DATE -	REVISED -

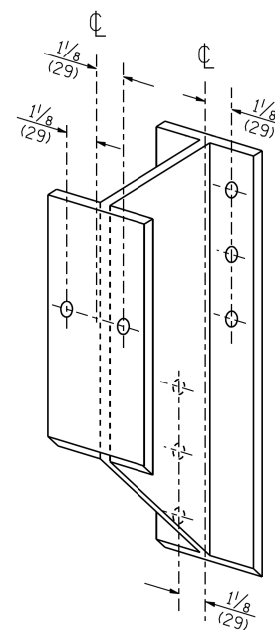
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL</b>			
SCALE: NONE	SHEET NO. 1 OF 4 SHEETS	STA.	TO STA.

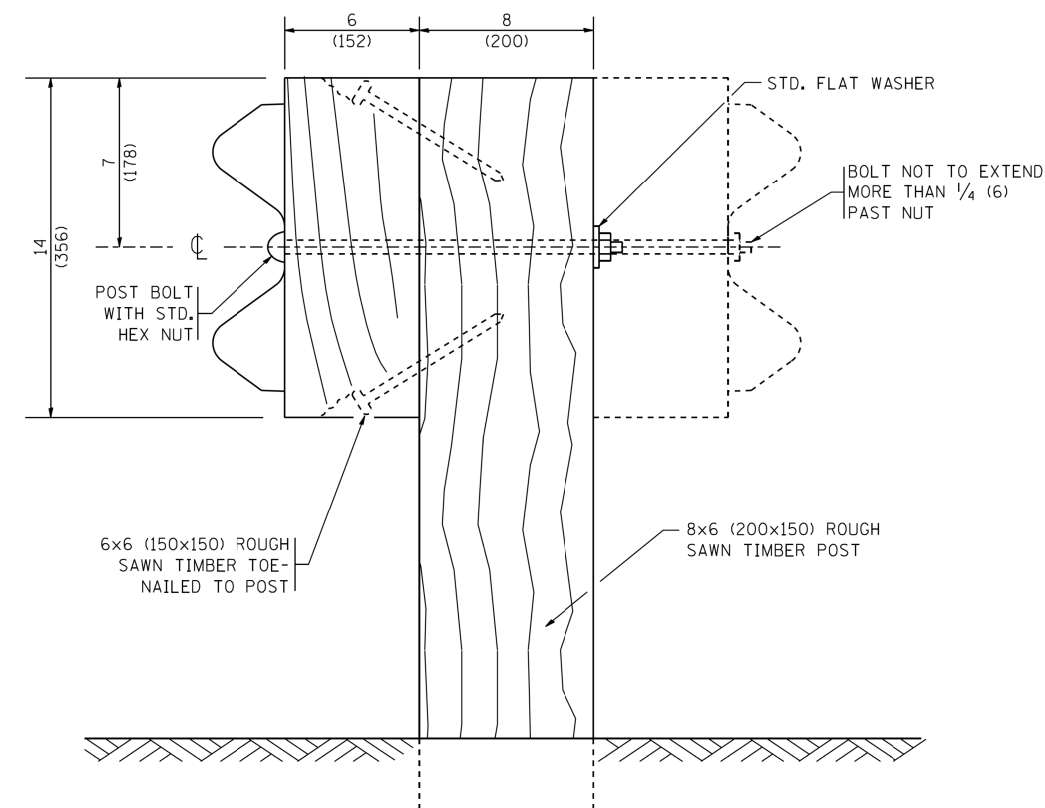
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290	2015-0111	COOK/DUPAGE	22	12
<b>BM-21</b>			CONTRACT NO.	62A68
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				



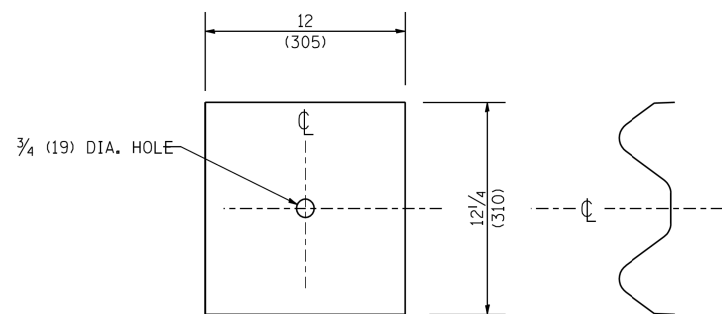
STEEL POST CONSTRUCTION



STEEL BLOCK-OUT DETAIL



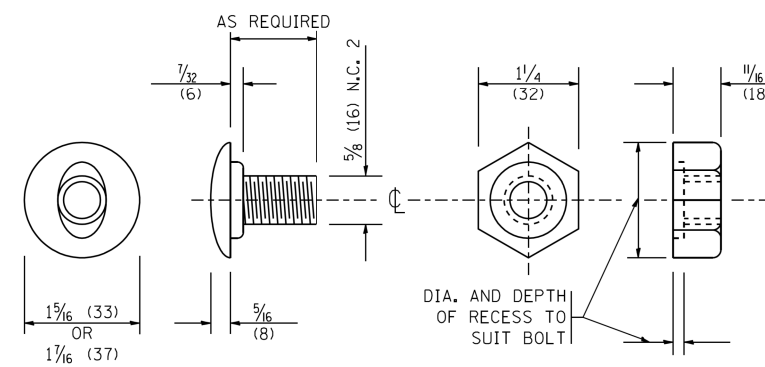
WOOD POST CONSTRUCTION



NOTE:

PLATE A SHALL BE PLACED BETWEEN RAIL ELEMENT AND BLOCK-OUT AT NON-SPLICE MOUNTING POINTS ONLY WHEN STEEL BLOCK-OUTS ARE USED.

PLATE A



POST OR SPLICE BOLT & NUT

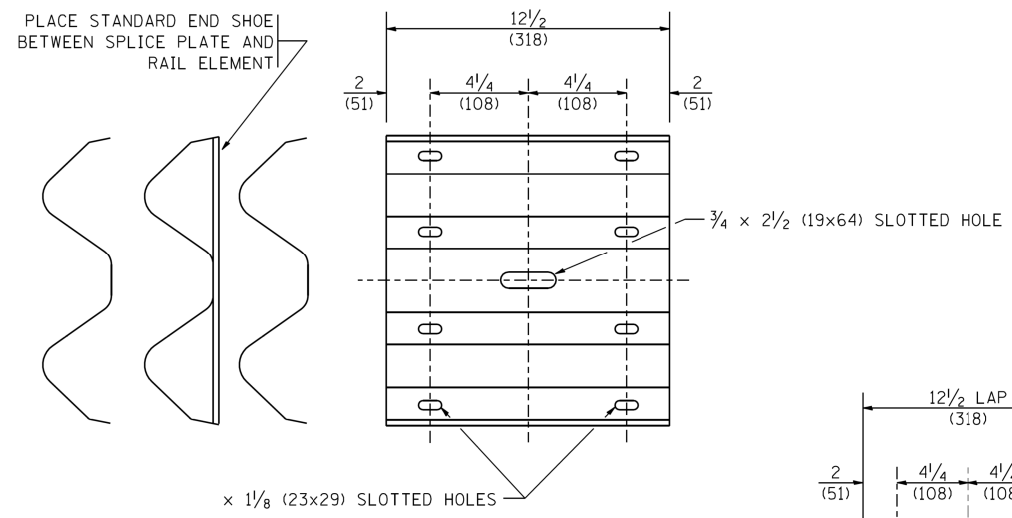
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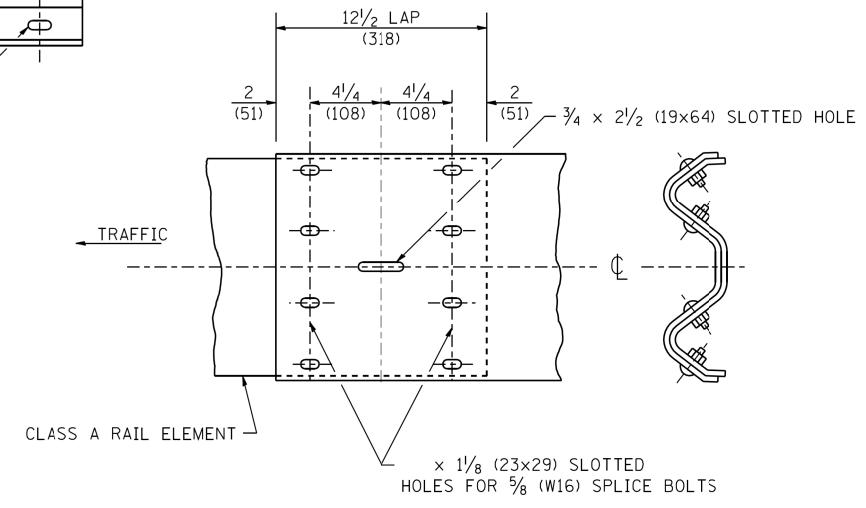
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL			
SCALE: NONE	SHEET NO. 2 OF 4 SHEETS	STA.	TO STA.

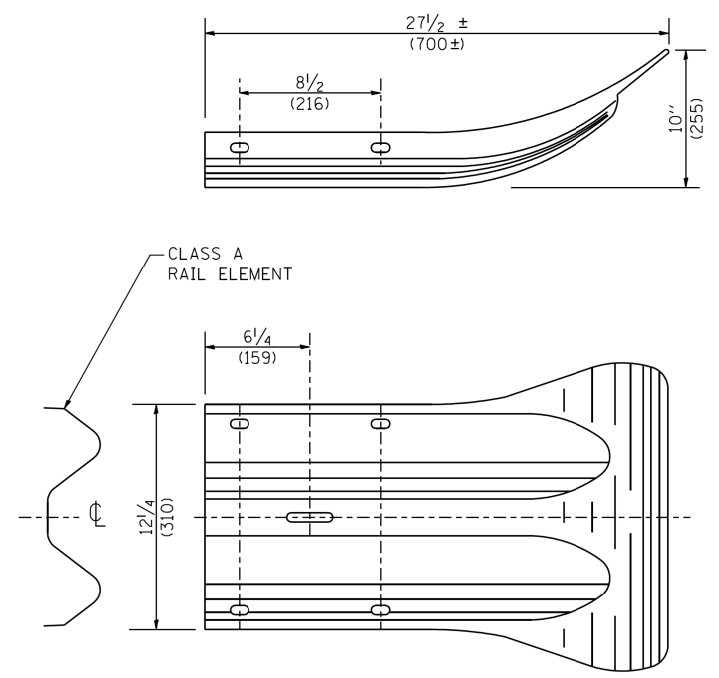
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BM-21		CONTRACT NO.	62A68	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



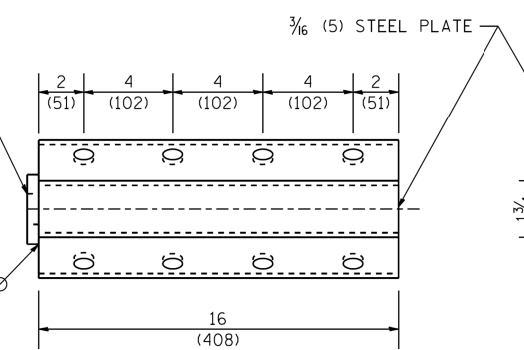
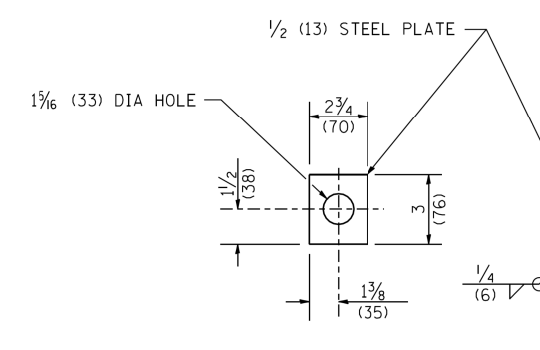
**SPLICE PLATE**



**RAIL ELEMENT SPLICE**



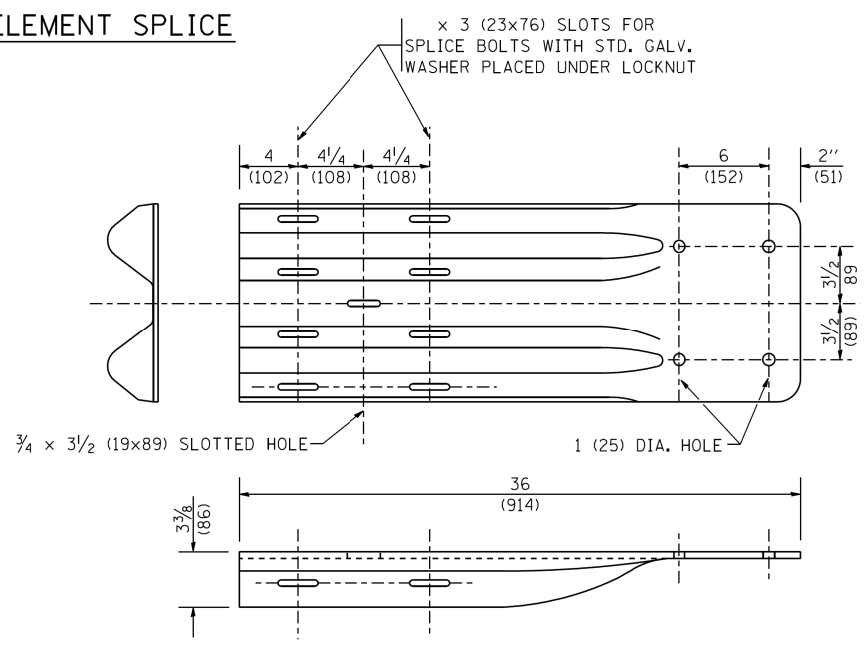
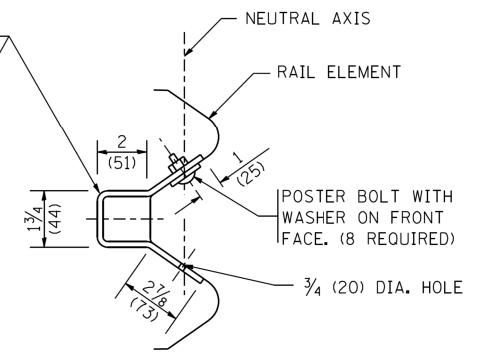
**END SECTION**



**NOTE:**

ANCHOR PLATE T SHALL BE USED TO ATTACH CABLE ASSEMBLY TO GUARDRAIL WHEN REQUIRED ON TRAFFIC BARRIER TERMINALS.

**ANCHORE PLATE T DETAILS**



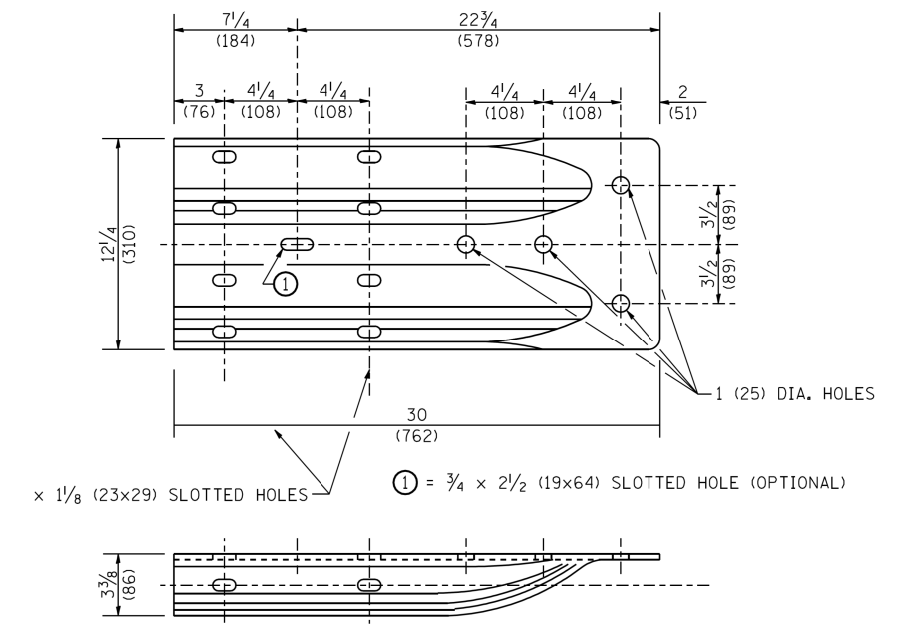
**END SHOE**

**NOTE:**

WHEN END SHOE IS ATTACHED TO A BRIDGE PARAPET WHICH HAS AN EXPANSION JOINT, THE BOLTS SHALL BE PROVIDED WITH A LOCKNUT OR DOUBLE NUT AND SHALL BE TIGHTENED ONLY TO A POINT THAT WILL ALLOW GUARDRAIL MOVEMENT.

THE STANDARD END SHOE SHALL BE ATTACHED TO THE CONCRETE WITH PRE-DRILLED OR SELF-DRILLING ANCHOR BOLTS. THE ANCHOR CONE SHALL BE SET FLUSH WITH THE SURFACE OF THE CONCRETE.

EXTERNALLY THREADED STUDS PROTRUDING FROM THE SURFACE OF THE CONCRETE WILL NOT BE PERMITTED.



**ALTERNATE END SHOE**

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 PROJECT CONTACT: #PROJECT CONTACT#  
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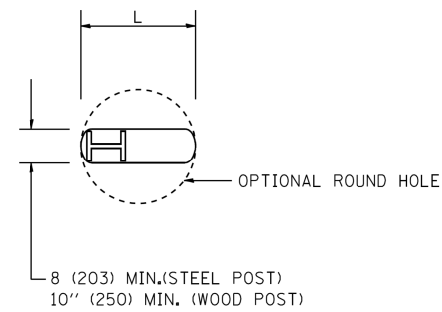
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

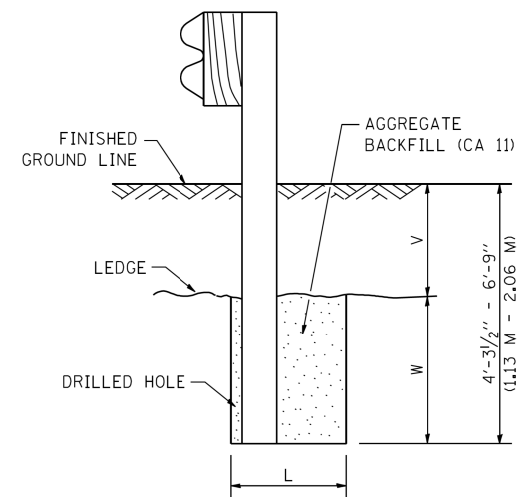
**REMOVE AND REERECT  
 STEEL PLATE BEAM GUARDRAIL**

SCALE: NONE SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE. 290	SECTION 2015-0111	COUNTY COOK/DUPAGE	TOTAL SHEETS 22	SHEET NO. 14
BM-21		CONTRACT NO. 62A68		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



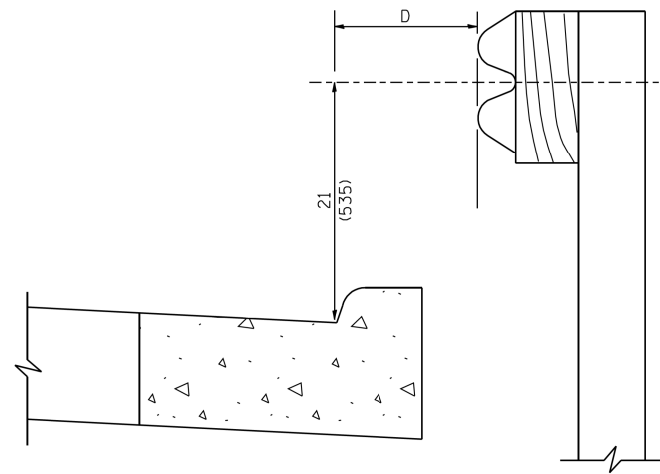
PLAN



**NOTE:**  
LEDGE LINE IS TOP OF ROCK LEDGE OR HARD SLAG FILL.

ELEVATION

**FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED**



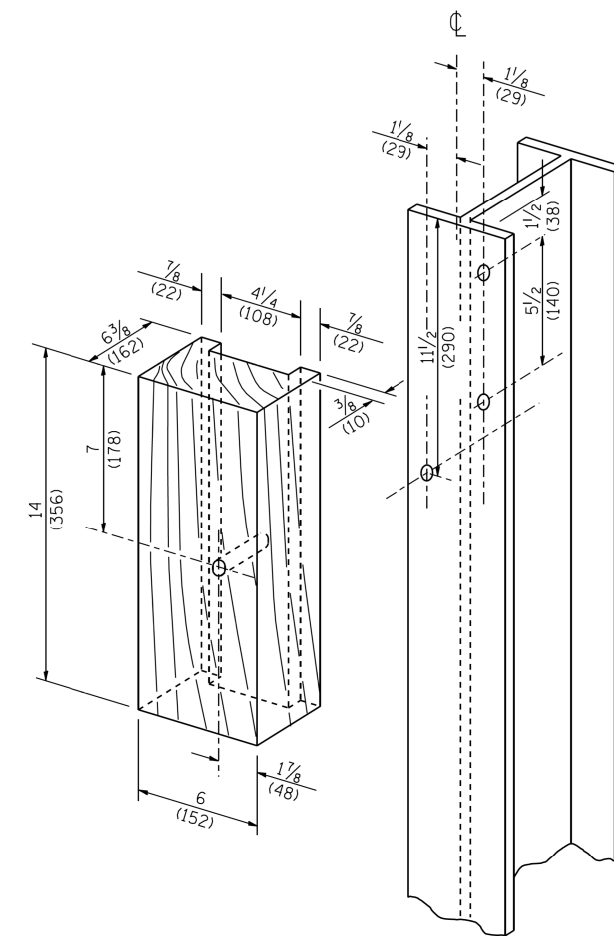
**NOTE:**

IF IT IS NECESSARY FOR D TO BE MORE THAN 12 (300) AND LESS THAN 10'-0'' (3.0 M) TYPE M-2 (M-5) CURB AND GUTTER (STD. 606001) SHALL BE USED IN FRONT OF AND IN ADVANCE OF THE GUARDRAIL.

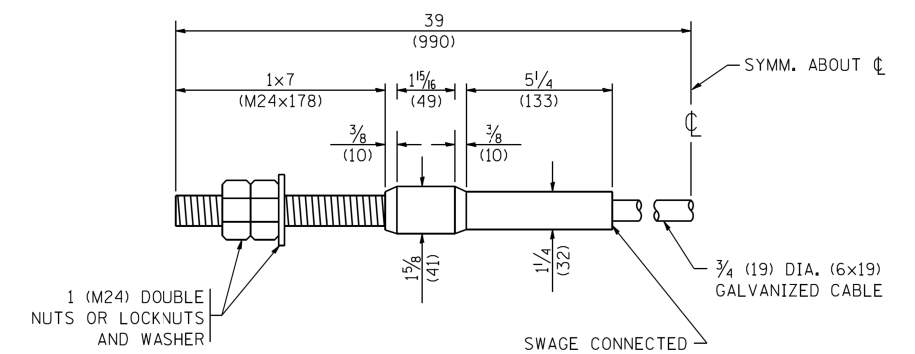
**GUARDRAIL PLACED BEHIND CURB**

(D = 0 DESIRABLE TO 12 (300) MAXIMUM)

V	W	L	
		STEEL POST	WOOD POST
0 - 18 (0 - 460)	24 (610)	21 (530)	23 (580)
>18 - 41.5 (> 460 - 825)	12 (305)	8 (203)	10 (250)
>41.5 - 53.5 (> 825 - 1.13 M)	12 - 0 (350 - 0)	8 (203)	10 (250)



**WOOD BLOCK-OUT AND STEEL POST DETAILS**



**CABLE ASSEMBLY**

(40,000 LBS (18,100 KG) MIN. BREAKING STRENGTH)  
TIGHTEN TO TAUT TENSION

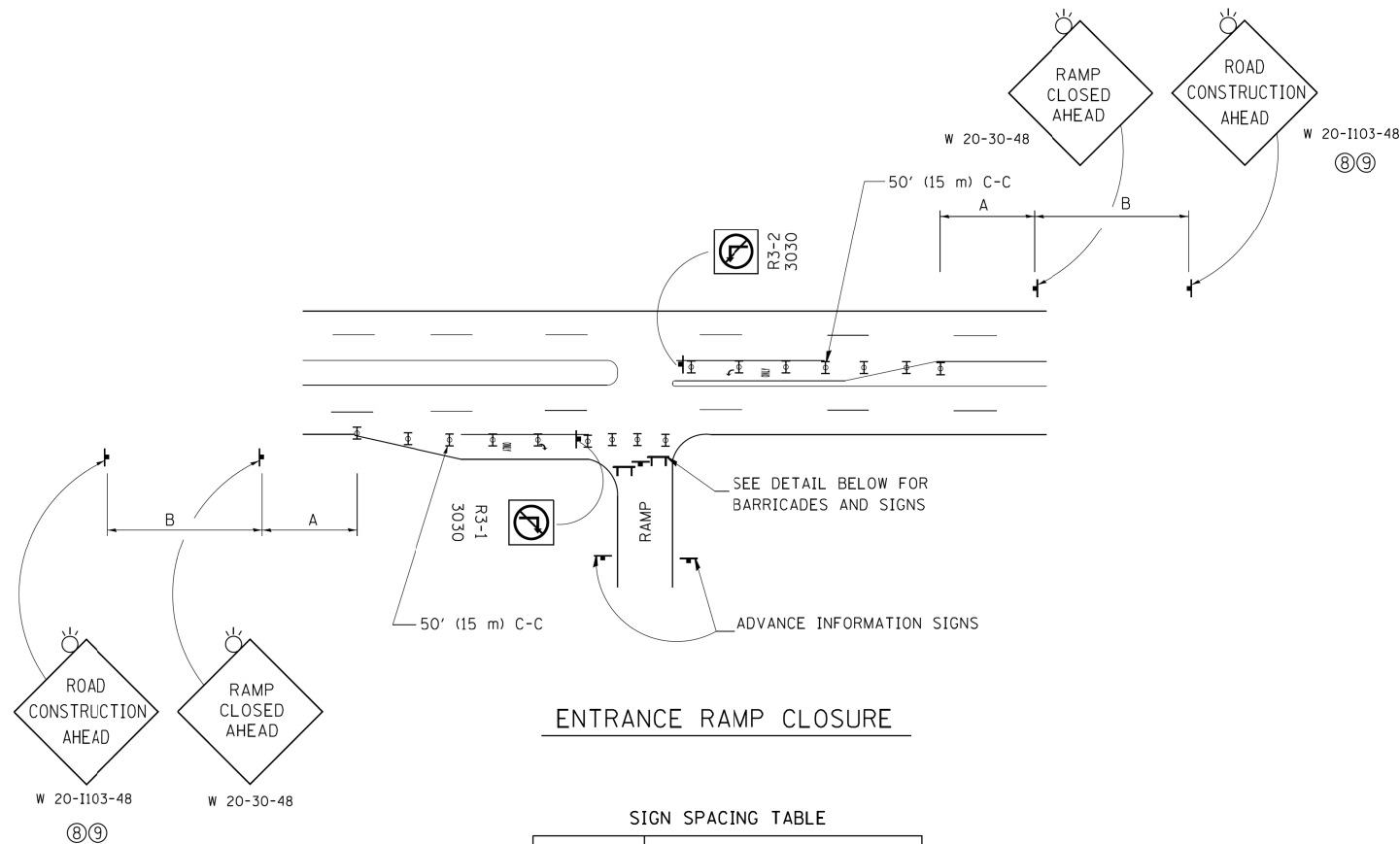
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL</b>			
SCALE: NONE	SHEET NO. 4 OF 4 SHEETS	STA.	TO STA.

F.A.I. RTE. 290	SECTION 2015-0111	COUNTY COOK/DUPAGE	TOTAL SHEETS 22	SHEET NO. 15
<b>BM-21</b>		CONTRACT NO.	62A68	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

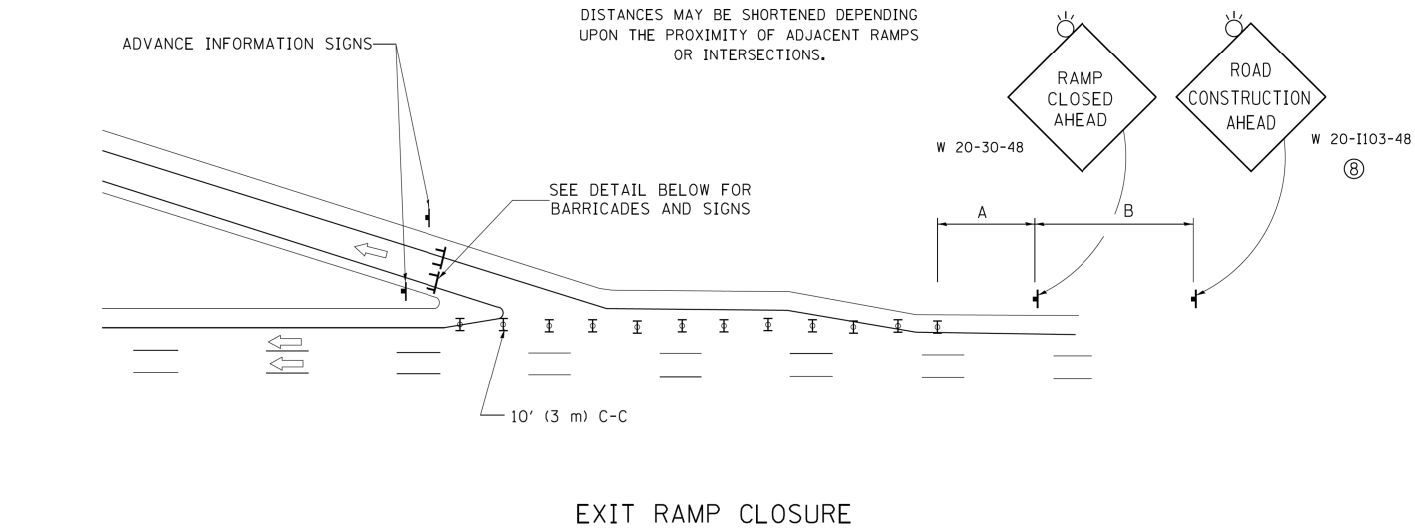


**ENTRANCE RAMP CLOSURE**

**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)

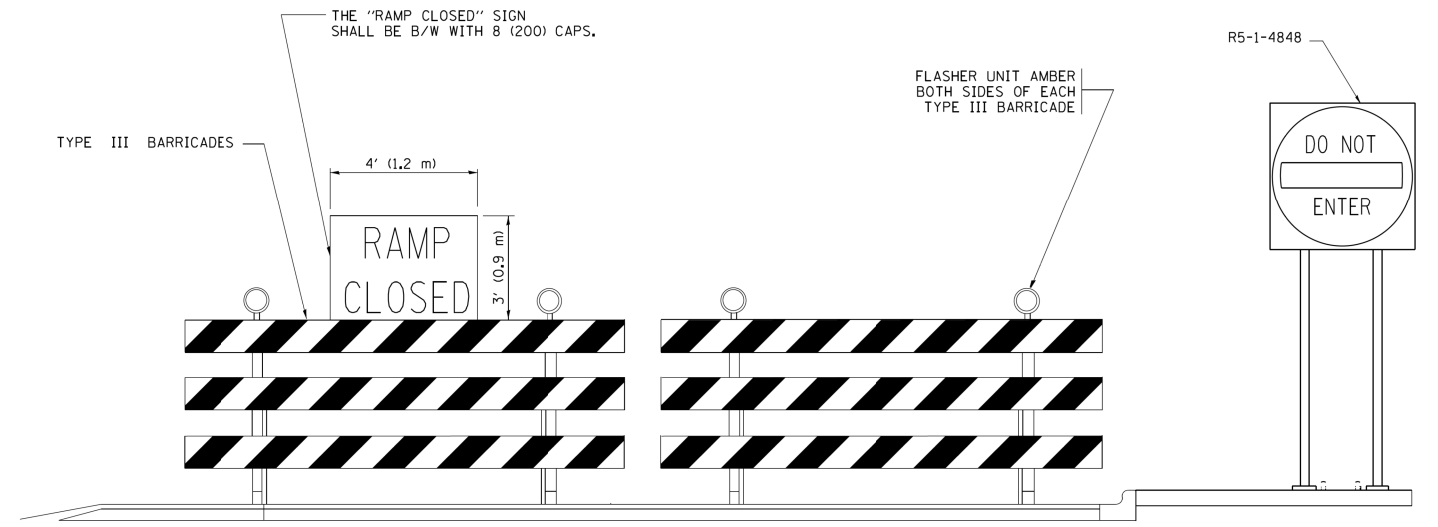
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



**EXIT RAMP CLOSURE**

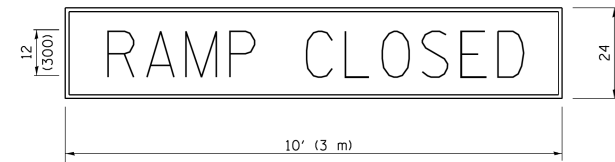
**SYMBOLS**

- ⊥ TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- ⊥ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



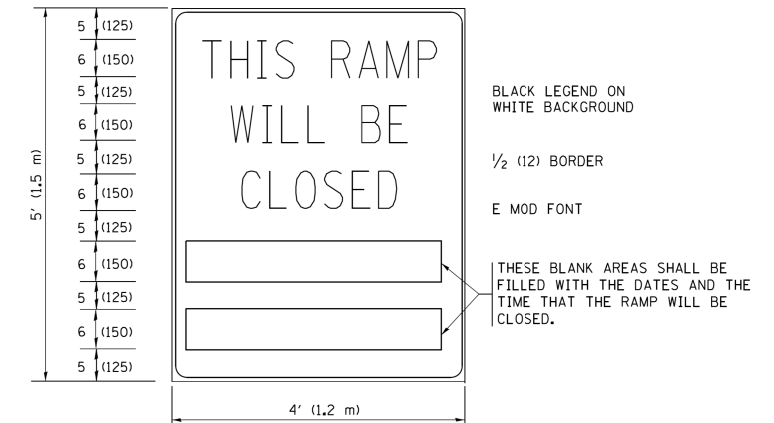
**DETAIL FOR REQUIRED BARRICADES & SIGNS**

**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 STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- 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.

COMPANY NAME: #COMPANY NAME#  
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 PLOT TABLE: PLOT LABEL.tbl

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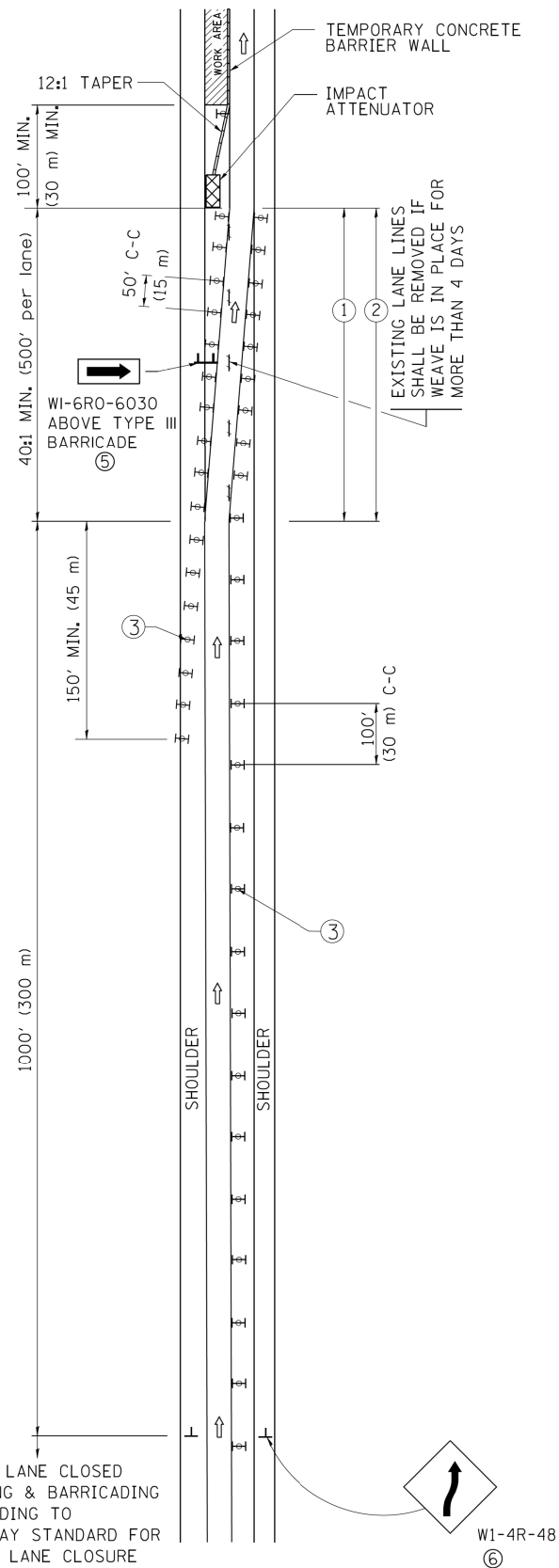
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ENTRANCE AND EXIT RAMP  
 CLOSURE DETAILS**

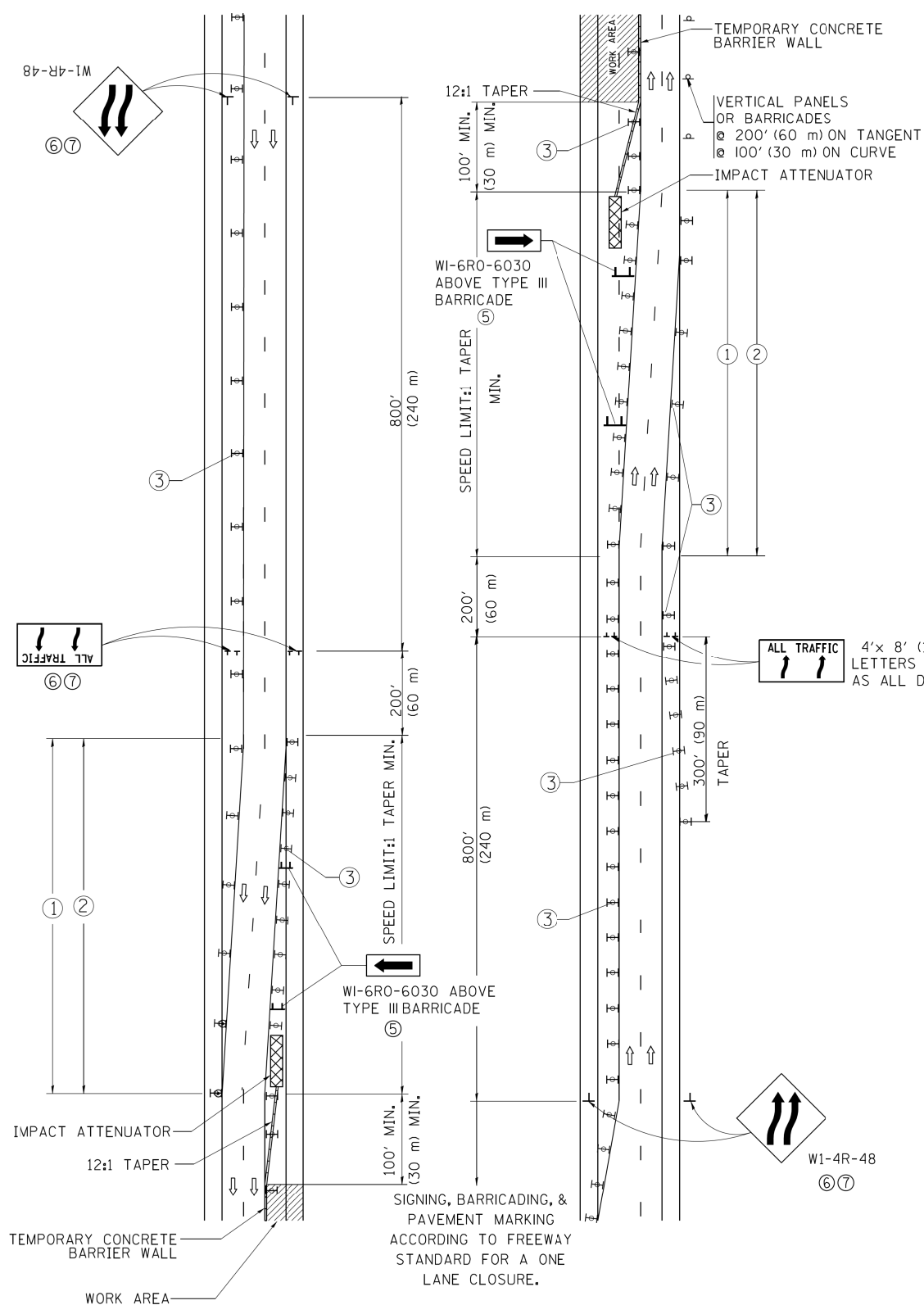
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	16
<b>TC-08</b>			CONTRACT NO.	62A68
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

# SINGLE LANE WEAVE



# MULTI-LANE WEAVE



### GENERAL NOTES

- EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.
- 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.
- PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- 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.
- 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.
- THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

**ALL TRAFFIC** 4'x 8' (1.2 m x 2.4 m); 1 (25) BORDER; 10 (250) CAPITAL LETTERS BACKGROUND SHEETING SHALL BE THE SAME AS ALL DIAMOND SHAPED CONSTRUCTION SIGNS.

### 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 (6)
- W24-1-48 (7)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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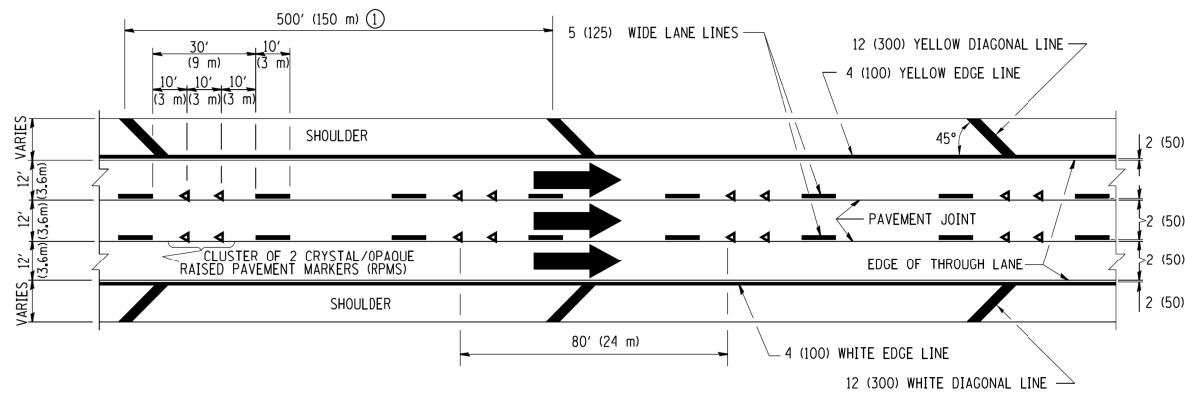
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		CHECKED -	REVISED - SPB 12-09
		DATE - 02-87	REVISED - MD 06-13

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL DETAILS FOR**  
**FREWAY SINGLE & MULTI-LANE WEAVE**

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

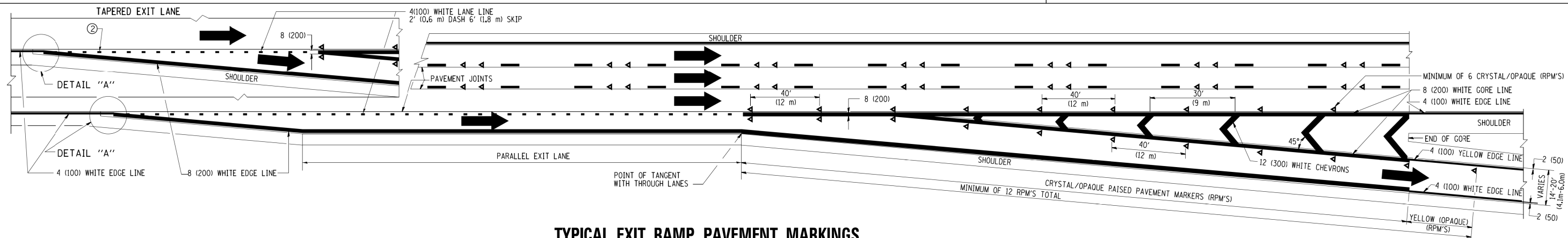
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<b>TC-09</b>			CONTRACT NO.	62A68
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



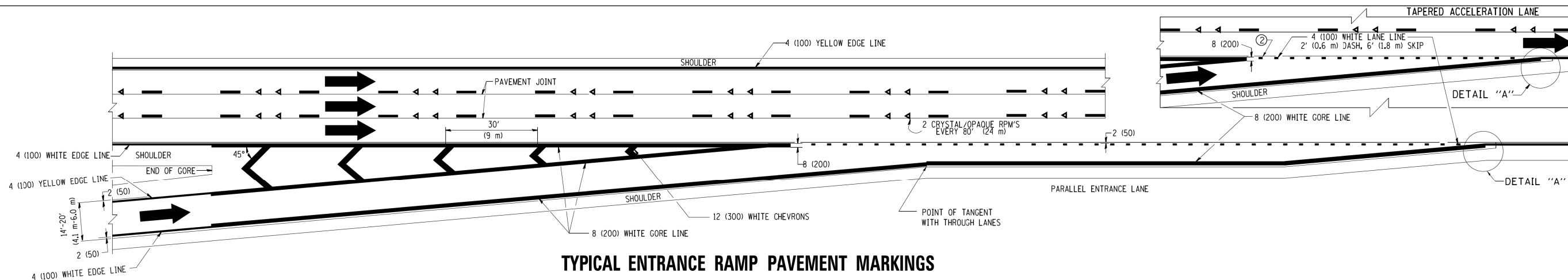
**TYPICAL EDGE LINES & LANE LINES**

**PAVEMENT MARKING MATERIALS**

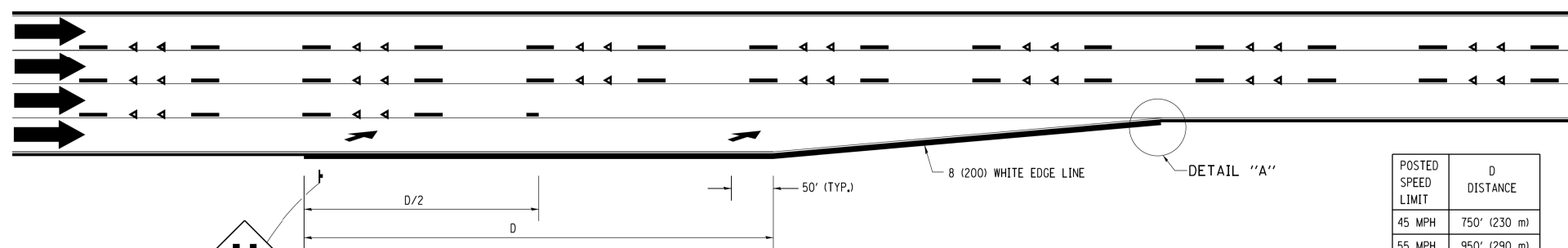
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE; INLAID OR GROOVED IN SHALL BE USED FOR ALL LANE LINES ON HMA PAVEMENT PROJECTS.
3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC PROJECTS.



**TYPICAL EXIT RAMP PAVEMENT MARKINGS**

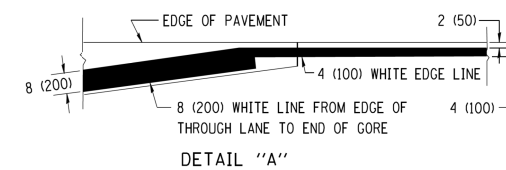


**TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS**



**LANE REDUCTION PAVEMENT MARKINGS**

POSTED SPEED LIMIT	D DISTANCE
45 MPH	750' (230 m)
55 MPH	950' (290 m)
65 MPH	1200' (365 m)



- 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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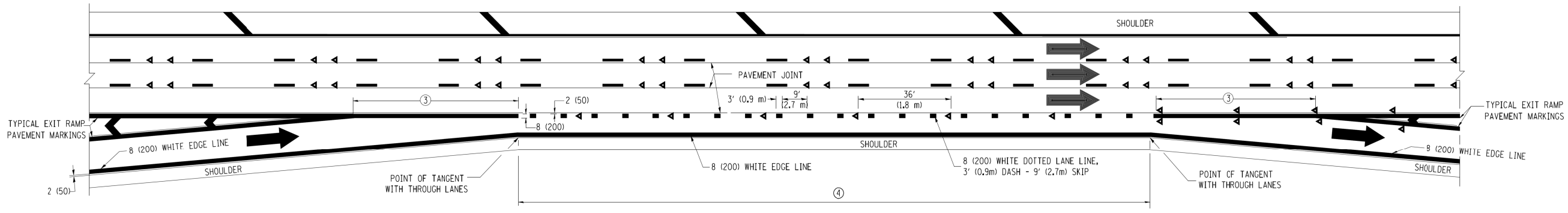
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

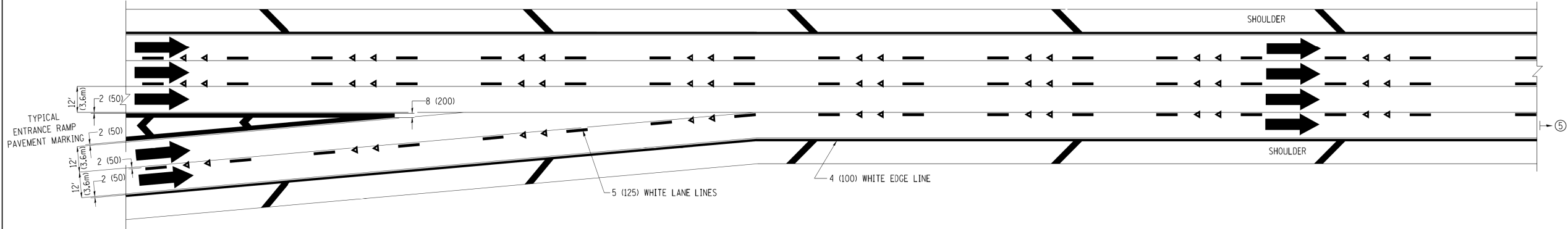
**MULTI-LANE FREEWAY  
 PAVEMENT MARKING DETAILS**  
 SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-12			CONTRACT NO. 62A68	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

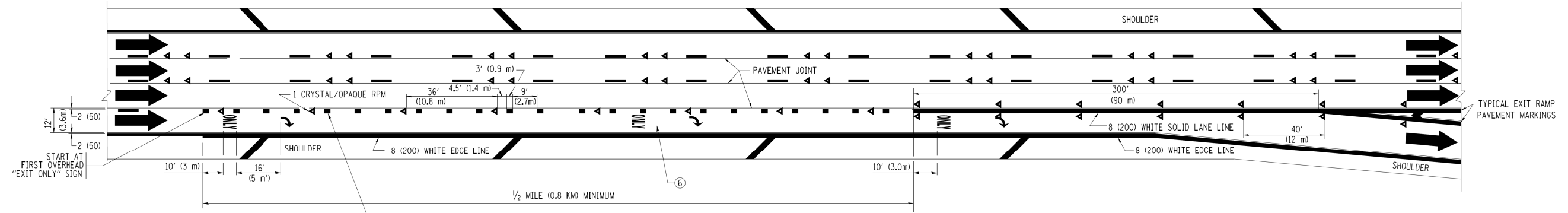




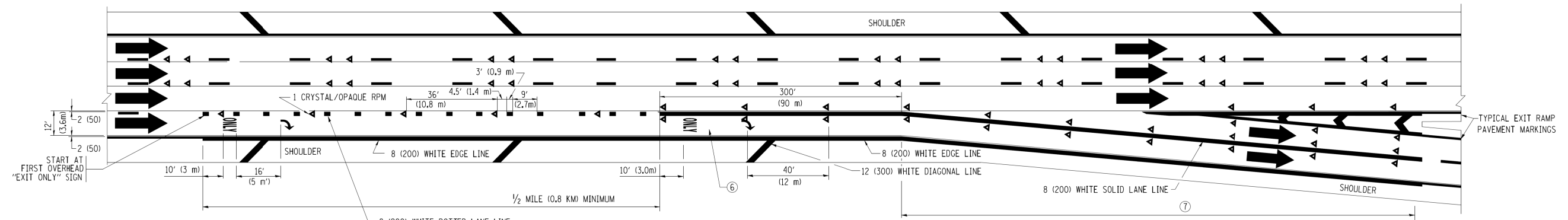
**AUXILIARY LANE MARKINGS**



**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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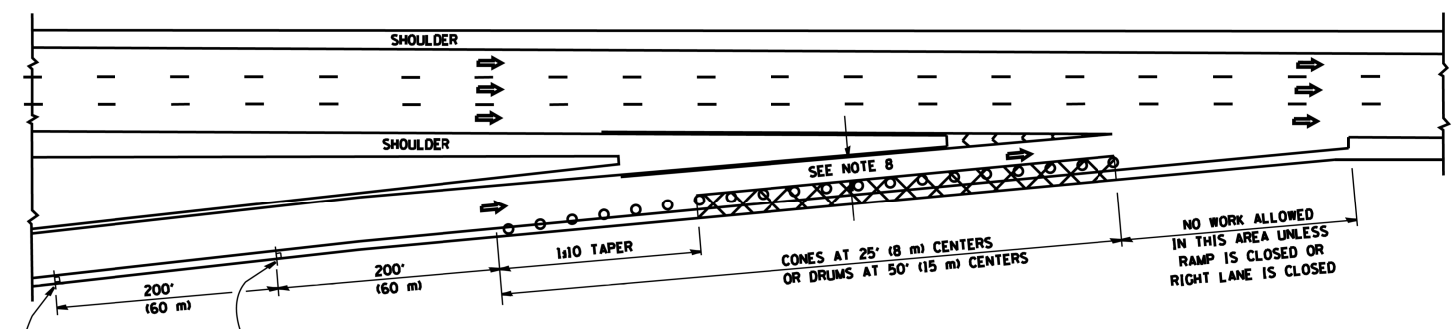
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS</b>			
SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

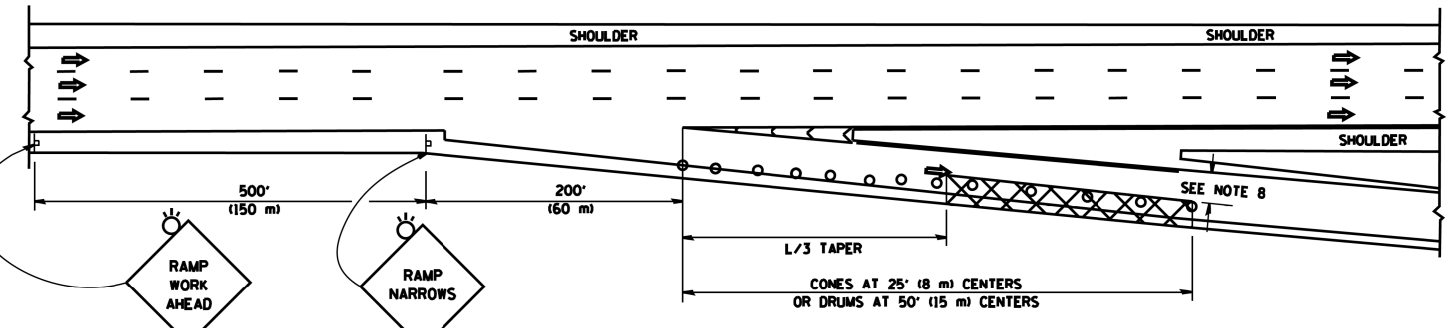
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<b>TC-12</b>		CONTRACT NO. 62A68		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**PARTIAL RAMP CLOSURE DETAILS**

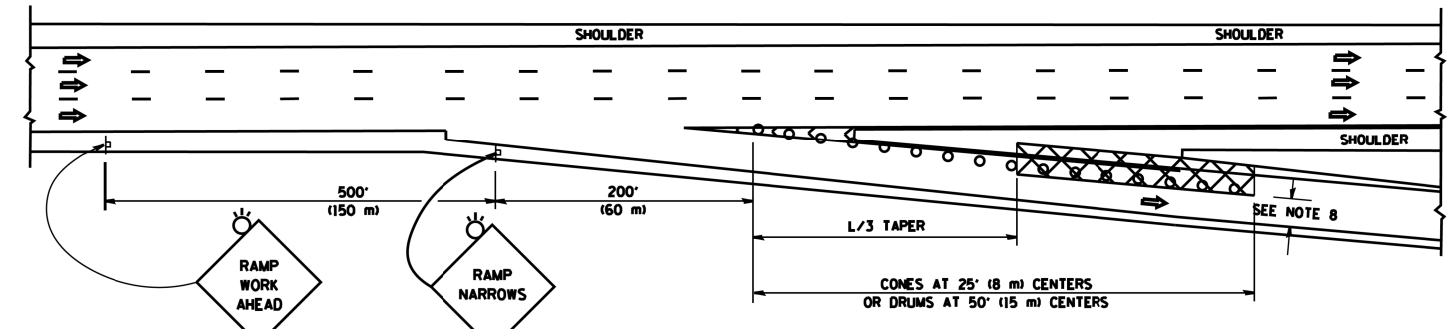
**SHOULDER CLOSURE DETAILS**



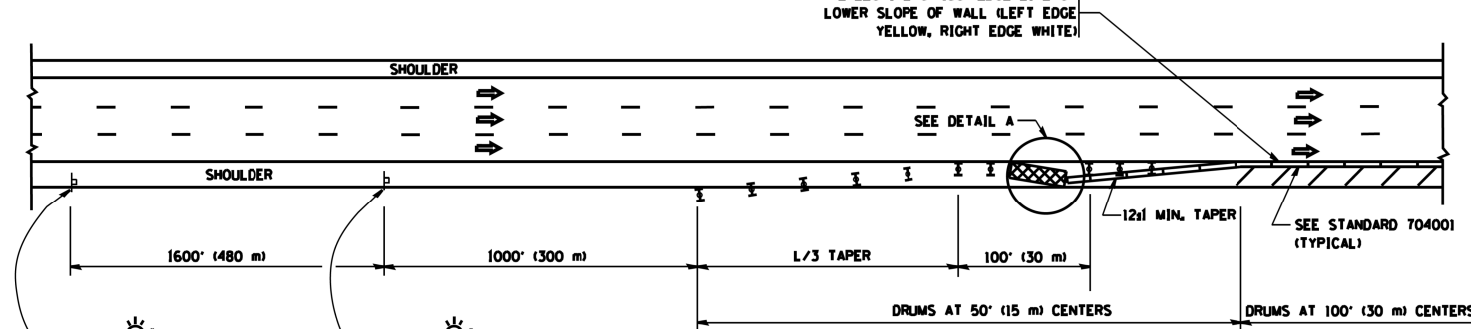
**TYPICAL ENTRANCE RAMP**



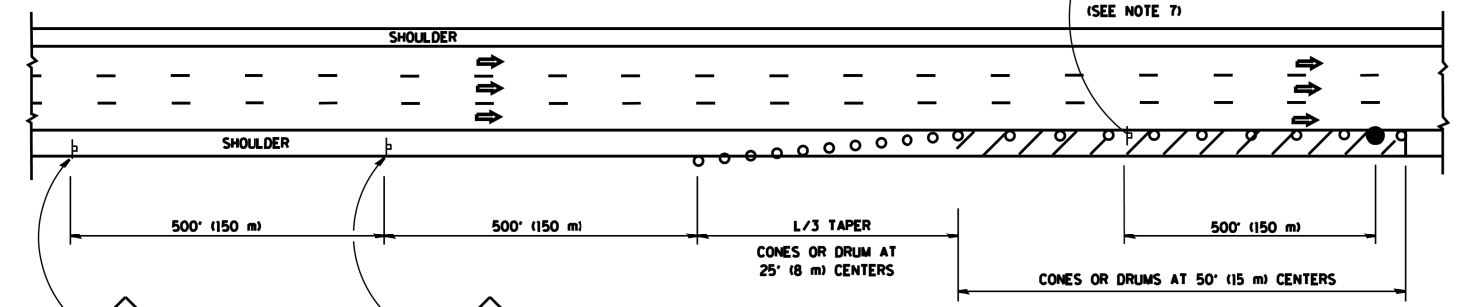
**TYPICAL EXIT RAMP**



**TYPICAL EXIT RAMP**



**PERMANENT SHOULDER CLOSURE**



**DAYTIME SHOULDER CLOSURE**

**SYMBOLS**

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

**GENERAL NOTES**

1. THE "L" DISTANCE EQUALS:
 

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH L=0.65(WNS) L=(WNS)
W = WIDTH OF OFFSET IN FEET (METERS)	
S = NORMAL POSTED SPEED MPH (KM/H)	
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. 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.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
  - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
  - b. THE WORK ACTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12' MIN. WIDTH TANGENT SECTION  
16' MIN. WIDTH CURVE SECTION.

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350/MASH COMPLIANT.

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

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

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DATE PLOTTED =	DRAWN - D.W.S.
FILE NAME =	CHECKED -
PLOT DRIVER =	DATE - 11-96
PLOT TABLE =	

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DRAWN - D.W.S.	REVISED - S.P.B. 01-07
CHECKED -	REVISED - S.P.B. 12-09
DATE - 11-96	REVISED - M.D. 06-13

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

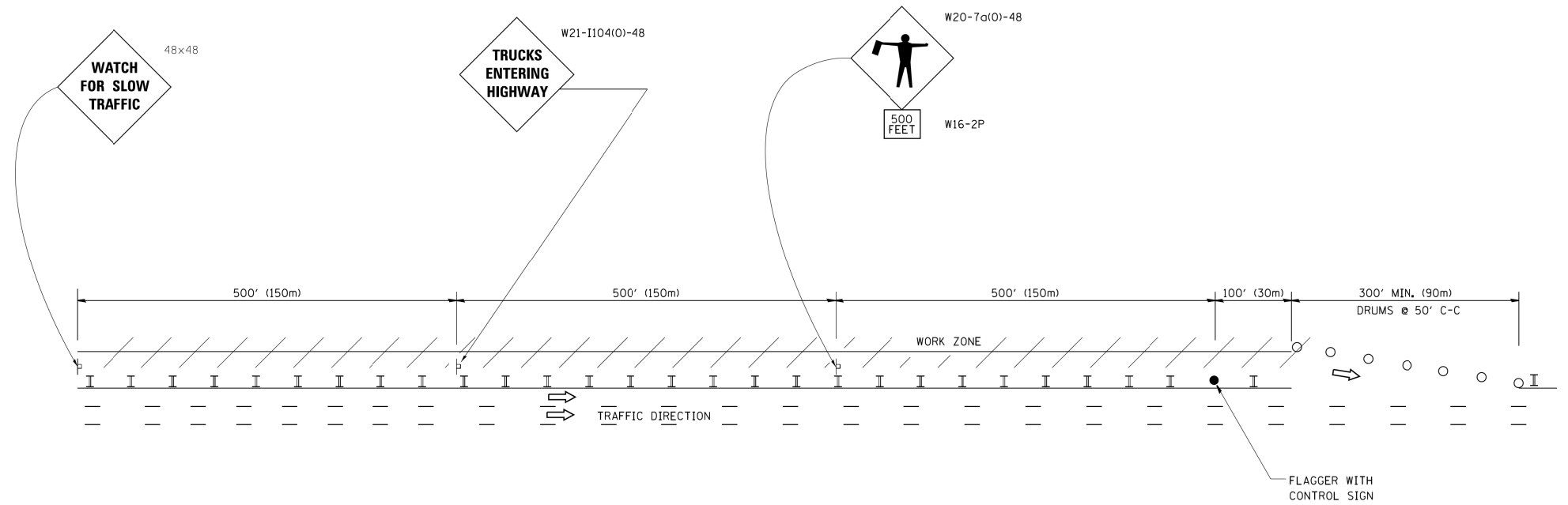
TRAFFIC CONTROL DETAILS FOR FREEWAY	
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	20
TC-17		CONTRACT NO.	62A68	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

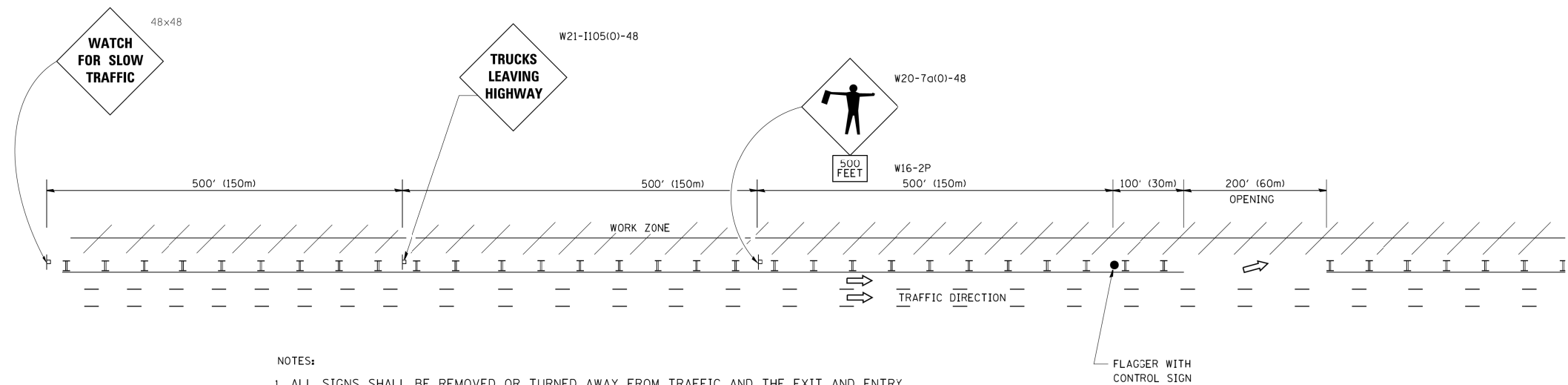
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SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

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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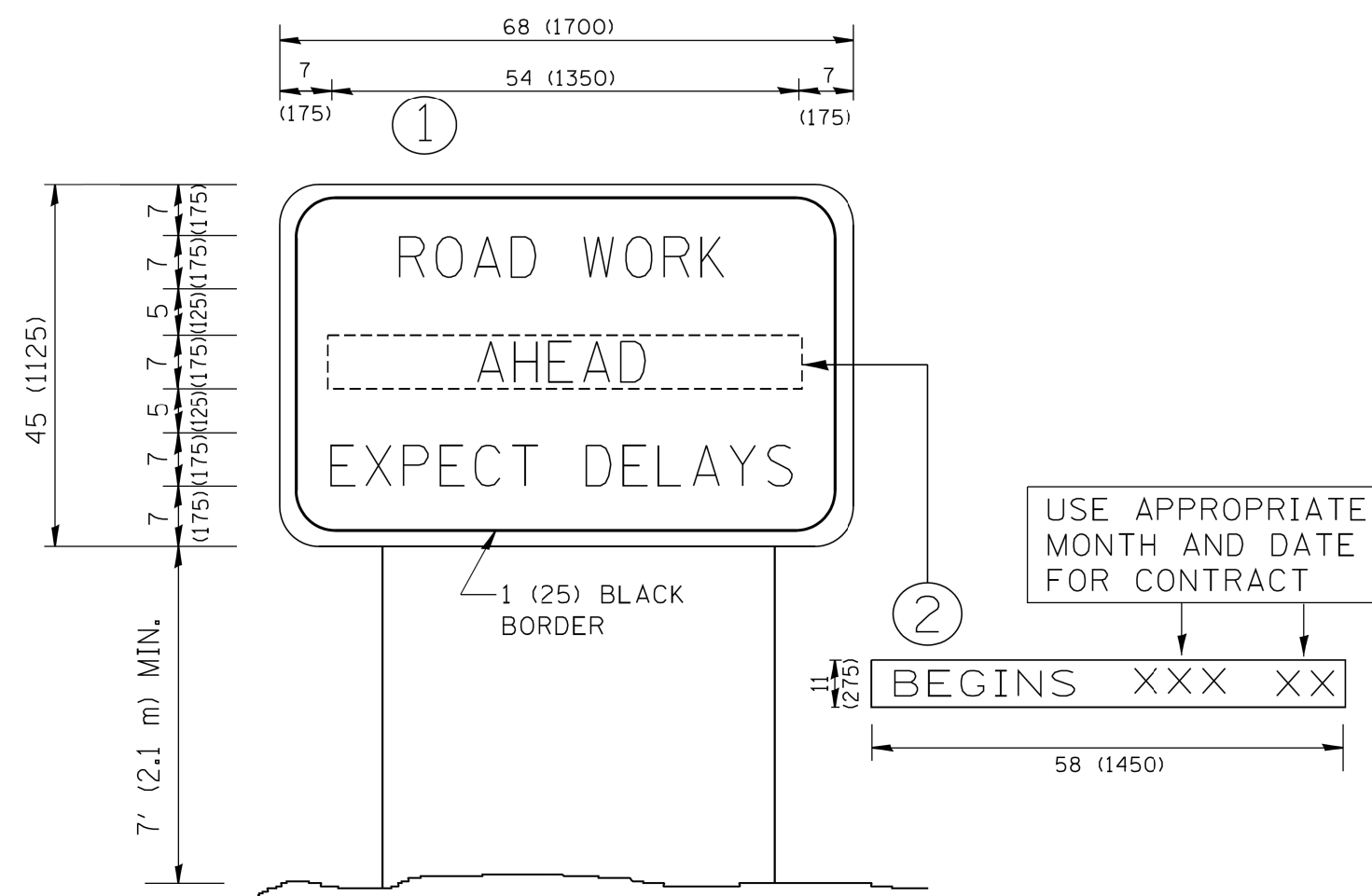
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

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

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	21
TC-18			CONTRACT NO. 62A68	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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**NOTES:**

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

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

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		CHECKED -	REVISED - T. RAMMACHER 02-02-99
		DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>ARTERIAL ROAD    INFORMATION SIGN</b>	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2015-0111	COOK/DUPAGE	22	22
<b>TC-22</b>		<b>CONTRACT NO.</b>	62A68	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				