

046

INDEX OF SHEETS

11-09-2018 LETTING ITEM 046

- 1 COVER SHEET
- 2-3 SUMMARY OF QUANTITIES
- 4-23 MAINTENANCE OF TRAFFIC PLANS & STANDARDS
- 24-30 APPROACH DETAILS
- 31-37 STRUCTURAL REPAIR PLANS (SN 039-0079)

HIGHWAY STANDARDS

- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5M) AWAY
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE
- 701201-04 LANE CLOSURE, 2L, 2W DAY ONLY, FOR SPEEDS  $\geq$  45 MPH
- 701306-04 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEED  $\geq$  45 MPH
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
- 701321-17 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701901-07 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 782006 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

NOTES:

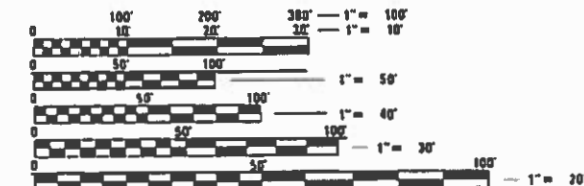
ALL BORROW WASTE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL CONTACT JULIE A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK AT 800-892-0123.

NO MATERIALS, EQUIPMENT, VEHICLES OR OTHER HAZARDS SHALL BE WITHIN 2'-0" OF THE TEMPORARY CONCRETE BARRIER. EQUIPMENT THAT IS ACTIVELY WORKING WITH 2'-0" OF THE BARRIER WALL MAY BE ALLOWED FOR A SHORT DURATION, IF APPROVED BY THE ENGINEER AND THERE IS NOT ANOTHER METHOD TO COMPLETE THE WORK.

TRAFFIC DATA:

FUNCTIONAL CLASSIFICATION  
 MINOR ARTERIAL  
 2017 ADT = 3,900  
 EST. TRUCK % = 5%



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

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

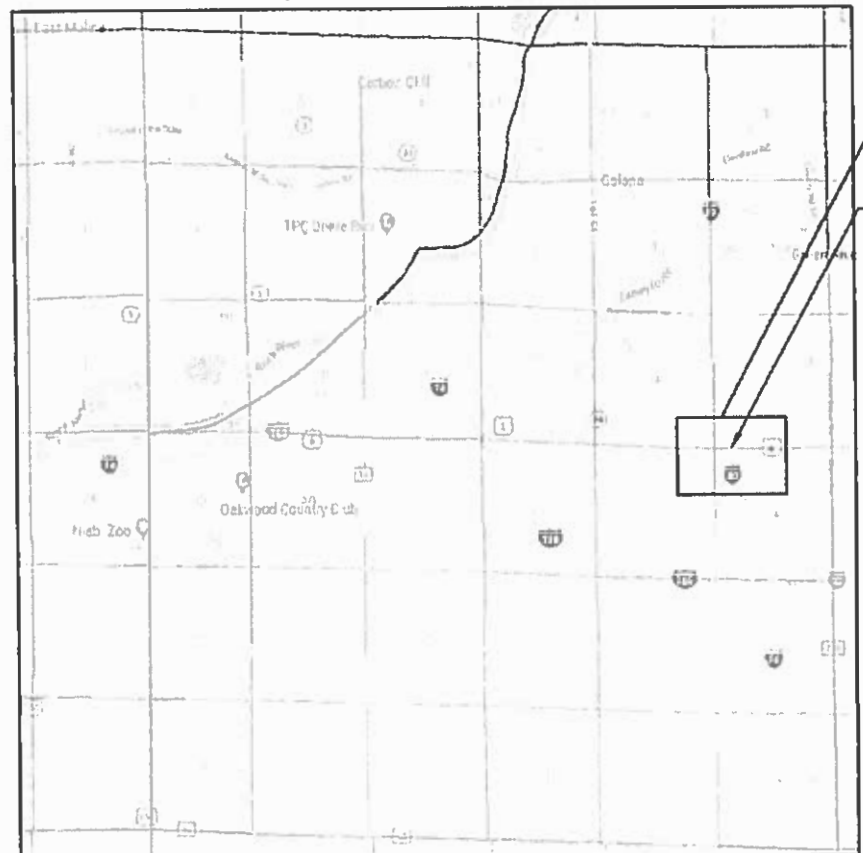
PROJECT ENGINEER: JEFFREY EHRHART, P.E. (312) 256-9090  
 PROJECT MANAGER: MAHMOUD ETEMADI, P.E. (815) 284-5359

CONTRACT NO. 64M78

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
**PROPOSED  
 HIGHWAY PLANS**

FAP 138 (US 6) OVER FAI 80  
 (I-80) SECTION D2 (37-1HB-2)BDR  
 BRIDGE REHABILITATION  
 S.N. 037-0079  
 PROJECT NHPP-9FGX(287)  
 HENRY COUNTY

C-92-030-18



LOCATION MAP R1E 4th PM N.T.S.

PROJECT LIMITS  
 S.N. 037-0079

T17N



JEFFREY C. EHRHART, P.E.



MICHAEL MILLER, P.E.  
FOR DRAWINGS 4-23



GROSS LENGTH = 2000 FT. = 0.38 MILE  
 NET LENGTH = 2000 FT. = 0.38 MILE

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BD	02 (37-1HB-2)BDR	HENRY	37	1

(ILLINOIS) CONTRACT NO. 64M78

D-92-023-18



STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED 7-30-2018  
Markel  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 5 2018  
EA/ETK  
 ENGINEER OF DESIGN AND ENVIRONMENT

Oct 9 2018  
Paul L. [Signature]

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# SUMMARY OF QUANTITIES

90% FED  
10% STATE

CODE NAME	ITEM	UNIT	TOTAL QUANTITY	URBAN	
				BRIDGE	ROADWAY
				0047 037-0079	0005
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	4,324.0		4,324.0
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	578.0		578.0
40600990	TEMPORARY RAMP	SQ YD	114.0		114.0
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	32.8		32.8
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	190.9		190.9
42001300	PROTECTIVE COAT	SQ YD	861.1	861.1	
44000152	HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"	SQ YD	937.3		937.3
44000182	HOT-MIX ASPHALT SURFACE REMOVAL, 8"	SQ YD	348.9		348.9
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	348.9		348.9
50102400	CONCRETE REMOVAL	CU YD	11.1	11.1	
50157300	PROTECTIVE SHIELD	SQ YD	260	260	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	12.1	12.1	
50500405	FURNISHING & ERECTING STRUCTURAL STEEL	POUND	2730	2730	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1320	1320	
50800515	BAR SPLICERS	EACH	24	24	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	77	77	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12	12	
52100520	ANCHOR BOLTS, 1" DIA.	EACH	24	24	
60260100	INLET TO BE ADJUSTED	EACH	4		4
67100100	MOBILIZATION	L SUM	1		1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1		1

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**WYNN DALCO**  
ENTERPRISES  
19081 Old LaGrange Rd, Ste. 106  
Mokena, IL 60448  
312.256.9090

USER NAME = Michael	DESIGNED - MJL	REVISED
	CHECKED - JCE	REVISED
PLOT SCALE =	DRAWN - MJL	REVISED
PLOT DATE = 7/26/2018	CHECKED - JCE	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SHEET NO. 1 OF 2 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 (37-1HB-2)BDR	HENRY	37	2
CONTRACT NO. 64M78				
ILLINOIS FED. AID PROJECT				

# SUMMARY OF QUANTITIES

CODE NAME	ITEM	UNIT	TOTAL QUANTITY	URBAN	
				BRIDGE	ROADWAY
				0059	0005
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	E SUM	1		1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	E SUM	1		1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	4,300		4,300
70400100	TEMPORARY CONCRETE BARRIER	FOOT	537.5		537.5
70400200	RELOCATION TEMPORARY CONCRETE BARRIER	FOOT	537.5		537.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	4,317		4,317
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	4,317		4,317
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	617.7	617.7	
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	4,300		4,300
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	12	12	
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	1180	1180	
Z0001905	STRUCTURAL STEEL REPAIR	POUND	1360	1360	
Z0006014	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2"	SQ YD	830.3	830.3	
Z0012130	BRIDGE DECK SCARIFICATION, 3/4"	SQ YD	830.3	830.3	
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	25	25	
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	85	85	
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	857.9	857.9	

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**WYNDALCO**  
ENTERPRISES  
19081 Old LaGrange Rd, Ste. 106  
Mokena, IL 60448  
312.256.9090

USER NAME = Michael	DESIGNED - MJL	REVISED
	CHECKED - JCE	REVISED
PLOT SCALE =	DRAWN - MJL	REVISED
PLOT DATE = 7/26/2018	CHECKED - JCE	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SHEET NO. 2 OF 2 SHEETS

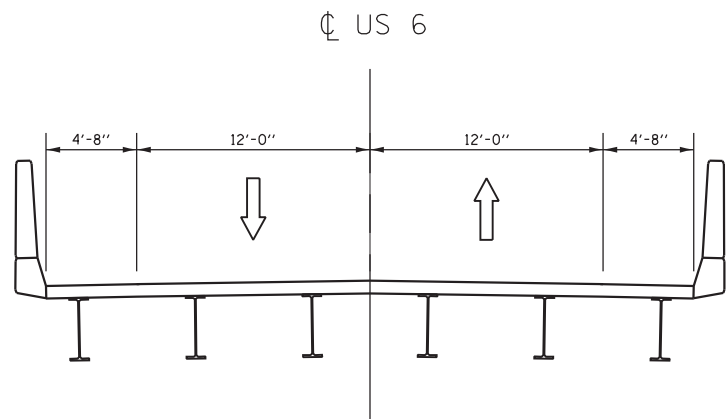
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 (37-1HB-2)BDR	HENRY	37	3
CONTRACT NO. 64M78				
ILLINOIS FED. AID PROJECT				

**CONSTRUCTION STAGING GENERAL NOTES**

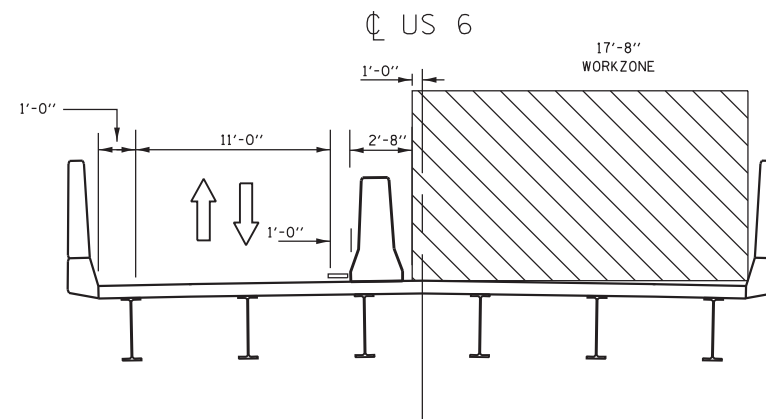
1. ALL SIGNING MUST BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016, THE DETAILS IN THESE PLANS, THE LATEST EDITION OF THE IDOT BUREAU OF DESIGN AND ENVIRONMENT HIGHWAY STANDARDS AND THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
2. LONGITUDINAL DIMENSIONS SHOWN ON THESE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR MUST BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS AND OTHER DEVICES INSTALLED ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THIS CONSTRUCTION IS IN EFFECT.
4. ALL EXISTING SIGNING THAT IS NOT APPLICABLE WHILE THE CONSTRUCTION IS IN EFFECT MUST BE COMPLETELY COVERED BY THE CONTRACTOR.
5. THE SIZES OF ALL SIGNS NOT SPECIFIED IN THESE PLANS MUST BE AS REQUIRED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
6. AS A MINIMUM, ALL AMBER FLASHING LIGHTS THAT ARE REQUIRED MUST MEET THE REQUIREMENTS FOR TYPE A - LOW INTENSITY FLASHING LIGHTS IN ARTICLE 702.04 OF THE STANDARD SPECIFICATIONS. ALL LIGHTS SHALL OPERATE DURING HOURS OF DARKNESS. ONLY LIGHTS THAT HAVE BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION MUST BE USED.
7. PROPOSED MAINTENANCE OF TRAFFIC SIGNING MUST BE COVERED OR REMOVED WHEN NOT REQUIRED DURING A SPECIFIC STAGE OF CONSTRUCTION.
8. SEE SUGGESTED MAINTENANCE OF TRAFFIC PLAN FOR ADDITIONAL SIGNING.
9. CHANGEABLE MESSAGE SIGNS TO BE PROVIDED AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR MUST CONDUCT HIS WORK IN SUCH A MANNER THAT EMERGENCY VEHICLES WILL HAVE ACCESS TO THE AREA AT ALL TIMES.
11. THE CONTRACTOR MUST NOTIFY THE IDOT BUREAU OF TRAFFIC AS REQUIRED 72 HOURS IN ADVANCE OF BEGINNING WORK (815) 284-5474.
12. SIGN SPACING SHALL BE PER IDOT STANDARD 701321.
13. CONTRACTOR TO BE IN ACCORDANCE WITH IDOT STANDARD 701321.

**TOTAL MAINTENANCE OF TRAFFIC - SUMMARY OF QUANTITIES**

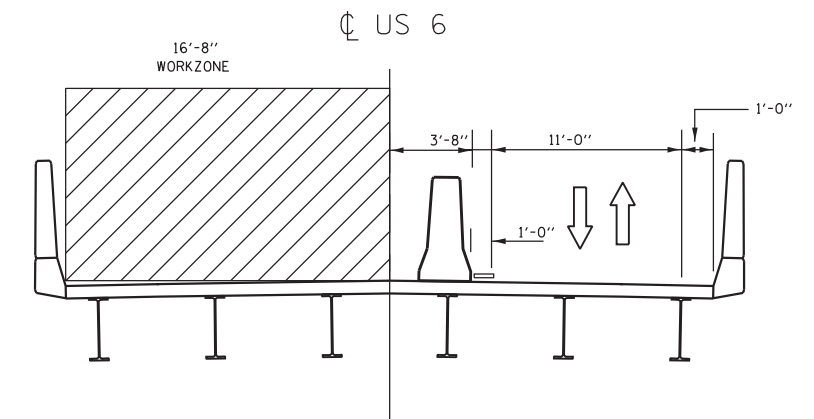
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70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	EACH	1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	EACH	1
70106500	TEMPORARY BRIDGE SIGNALS	EACH	1
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	4300
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	FOOT	4300
70400100	TEMPORARY CONCRETE BARRIER	FOOT	537.5
70400200	RELOCATION TEMPORARY CONCRETE BARRIER	FOOT	537.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	4317
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	FOOT	4317



STRUCTURE NO. 037-0079 OVER ROUTE 80 (LOOKING EAST)  
EXISTING TYPICAL  
 STA. 46+75 TO STA. 53+25



STRUCTURE NO. 037-0079 OVER ROUTE 80 (LOOKING EAST)  
STAGE 1 CONSTRUCTION TYPICAL  
 STA. 46+75 TO STA. 53+25



STRUCTURE NO. 037-0079 OVER ROUTE 80 (LOOKING EAST)  
STAGE 2 CONSTRUCTION TYPICAL  
 STA. 46+75 TO STA. 53+25

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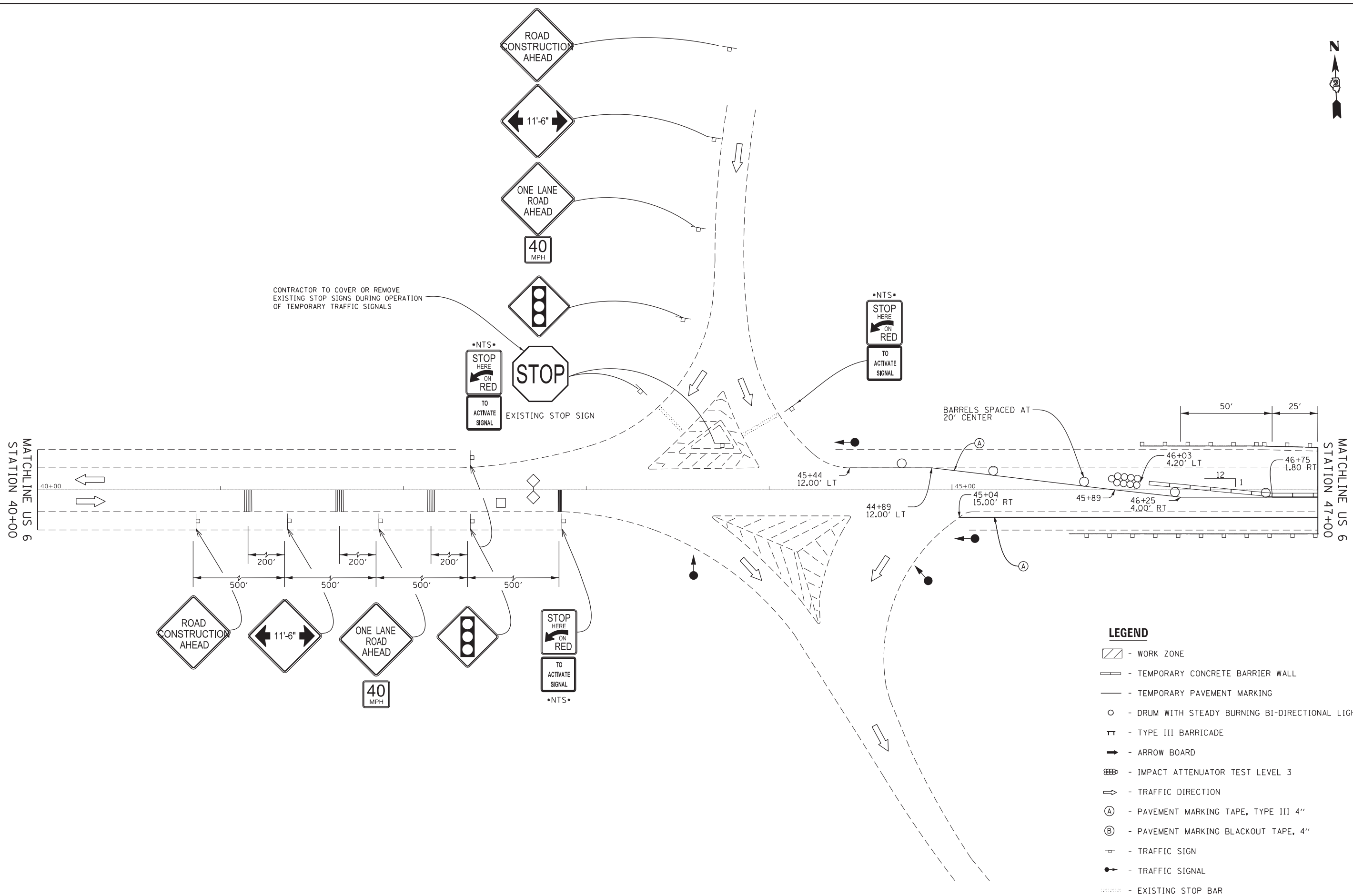
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES**  
 SHEET 1 OF 1 SHEETS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	4
CONTRACT NO. 64M78				
ILLINOIS FED. AID PROJECT				





CONTRACTOR TO COVER OR REMOVE EXISTING STOP SIGNS DURING OPERATION OF TEMPORARY TRAFFIC SIGNALS

**LEGEND**

- WORK ZONE
- TEMPORARY CONCRETE BARRIER WALL
- TEMPORARY PAVEMENT MARKING
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- ARROW BOARD
- IMPACT ATTENUATOR TEST LEVEL 3
- TRAFFIC DIRECTION
- PAVEMENT MARKING TAPE, TYPE III 4"
- PAVEMENT MARKING BLACKOUT TAPE, 4"
- TRAFFIC SIGN
- TRAFFIC SIGNAL
- EXISTING STOP BAR

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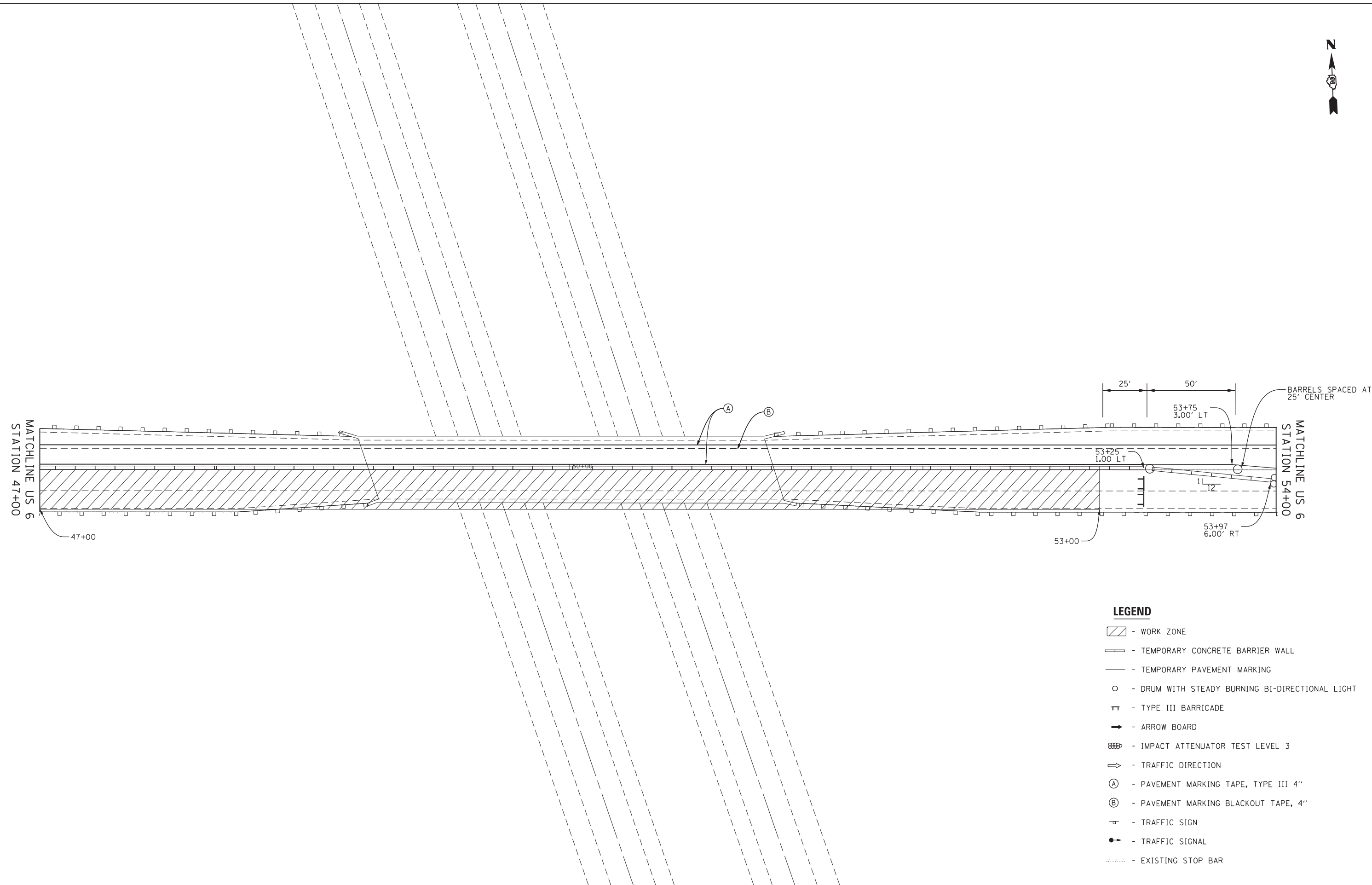
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PLAN  
STAGE 2**

SHEET 1 OF 3 SHEETS      STA. 40+00 TO STA. 47+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	5
CONTRACT NO. 64M78			ILLINOIS FED. AID PROJECT	



**LEGEND**

- WORK ZONE
- TEMPORARY CONCRETE BARRIER WALL
- TEMPORARY PAVEMENT MARKING
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- ARROW BOARD
- IMPACT ATTENUATOR TEST LEVEL 3
- TRAFFIC DIRECTION
- PAVEMENT MARKING TAPE, TYPE III 4"
- PAVEMENT MARKING BLACKOUT TAPE, 4"
- TRAFFIC SIGN
- TRAFFIC SIGNAL
- EXISTING STOP BAR

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**DB STERLIN CONSULTANTS, INC.**  
 100 N. WILCOX DRIVE SUITE 2000  
 CHICAGO, ILLINOIS 60606  
 TEL: (312)857-1000 FAX: (312)857-1056

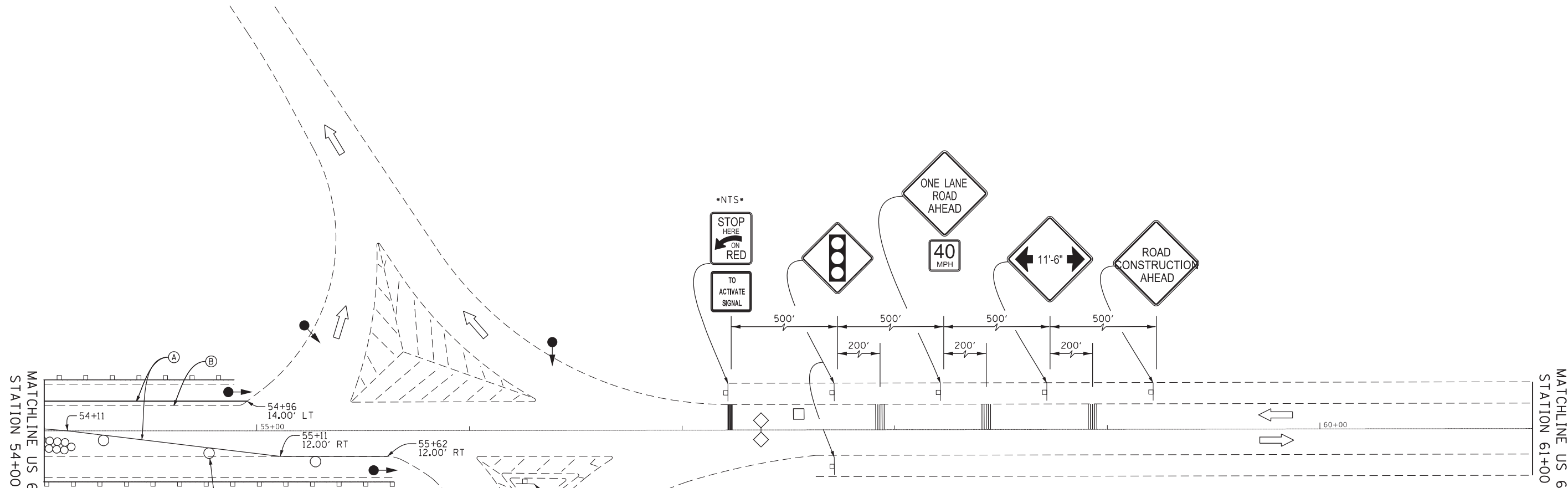
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PLAN**  
**STAGE 1**

SHEET 2 OF 3 SHEETS      STA. 47+00 TO STA. 54+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	6
CONTRACT NO. 64M78				
ILLINOIS FED. AID PROJECT				



BARRELS SPACED AT 20' CENTER

**STAGE 1 MAINTENANCE OF TRAFFIC – SUMMARY OF QUANTITIES**

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70106500	TEMPORARY BRIDGE SIGNALS	EACH	1
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2150
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	FOOT	2150
70400100	TEMPORARY CONCRETE BARRIER	FOOT	537.5
70400200	RELOCATION TEMPORARY CONCRETE BARRIER	FOOT	-
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	-
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	-
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	FOOT	4317

**LEGEND**

- WORK ZONE
- TEMPORARY CONCRETE BARRIER WALL
- TEMPORARY PAVEMENT MARKING
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- ARROW BOARD
- IMPACT ATTENUATOR TEST LEVEL 3
- TRAFFIC DIRECTION
- PAVEMENT MARKING TAPE, TYPE III 4"
- PAVEMENT MARKING BLACKOUT TAPE, 4"
- TRAFFIC SIGN
- TRAFFIC SIGNAL
- EXISTING STOP BAR

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PLAN  
STAGE 1

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	7
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				

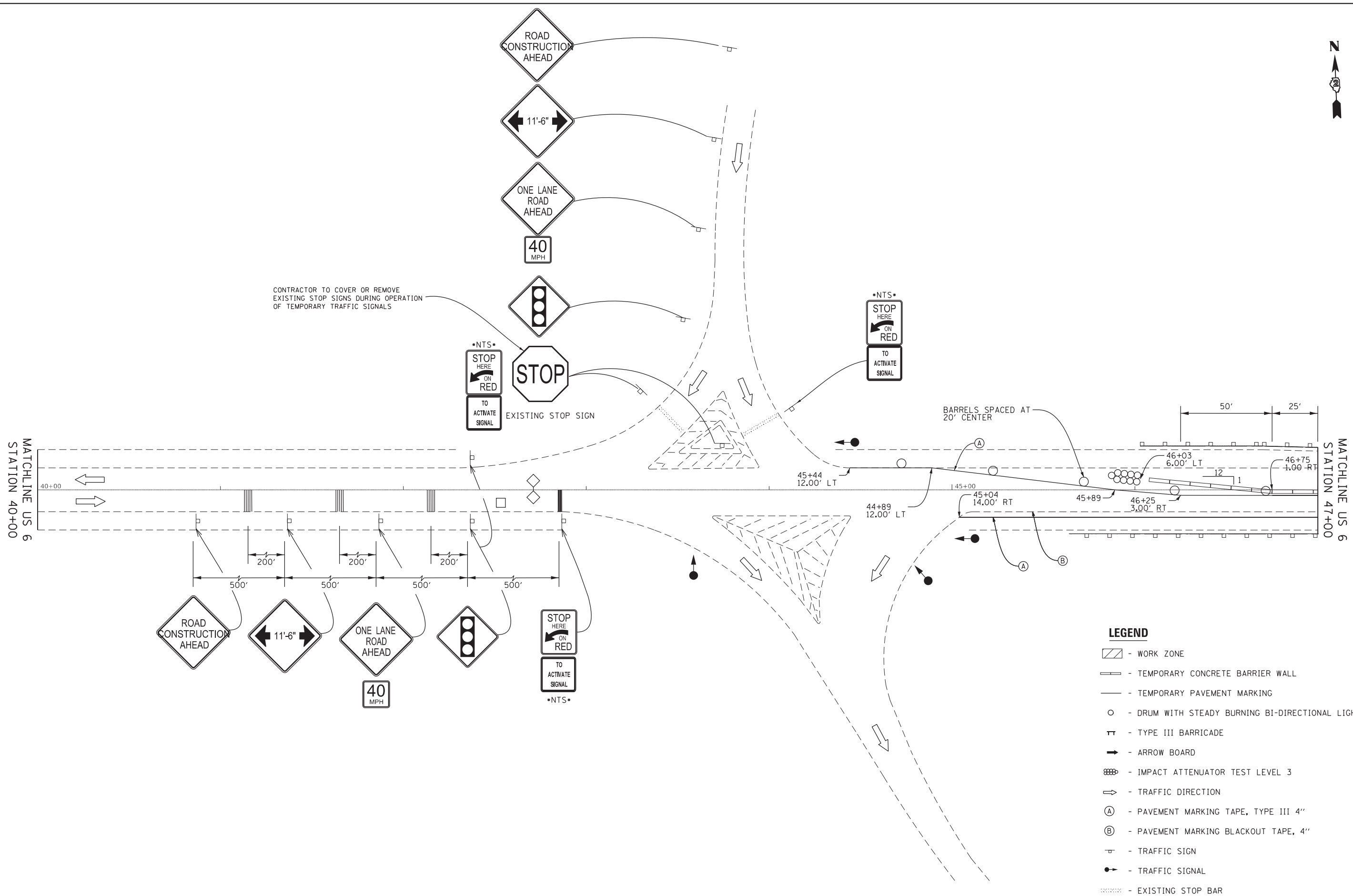
SHEET 3 OF 3 SHEETS STA. 54+00 TO STA. 61+00

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= dwilcox	- JS	-
	DRAWN - JS	REVISIONS -
	CHECKED - MM	REVISIONS -
	DATE -	REVISIONS -

PLOT SCALE = 50.0000' / in.  
PLOT DATE = 5/24/2018

DBS DB STERLIN CONSULTANTS, INC.  
100 N. WILCOX DRIVE SUITE 2000  
CHICAGO, ILLINOIS 60606  
TEL. (312)857-1000 FAX. (312)857-1056

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CONTRACTOR TO COVER OR REMOVE EXISTING STOP SIGNS DURING OPERATION OF TEMPORARY TRAFFIC SIGNALS

**LEGEND**

- WORK ZONE
- TEMPORARY CONCRETE BARRIER WALL
- TEMPORARY PAVEMENT MARKING
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- ARROW BOARD
- IMPACT ATTENUATOR TEST LEVEL 3
- TRAFFIC DIRECTION
- PAVEMENT MARKING TAPE, TYPE III 4"
- PAVEMENT MARKING BLACKOUT TAPE, 4"
- TRAFFIC SIGN
- TRAFFIC SIGNAL
- EXISTING STOP BAR

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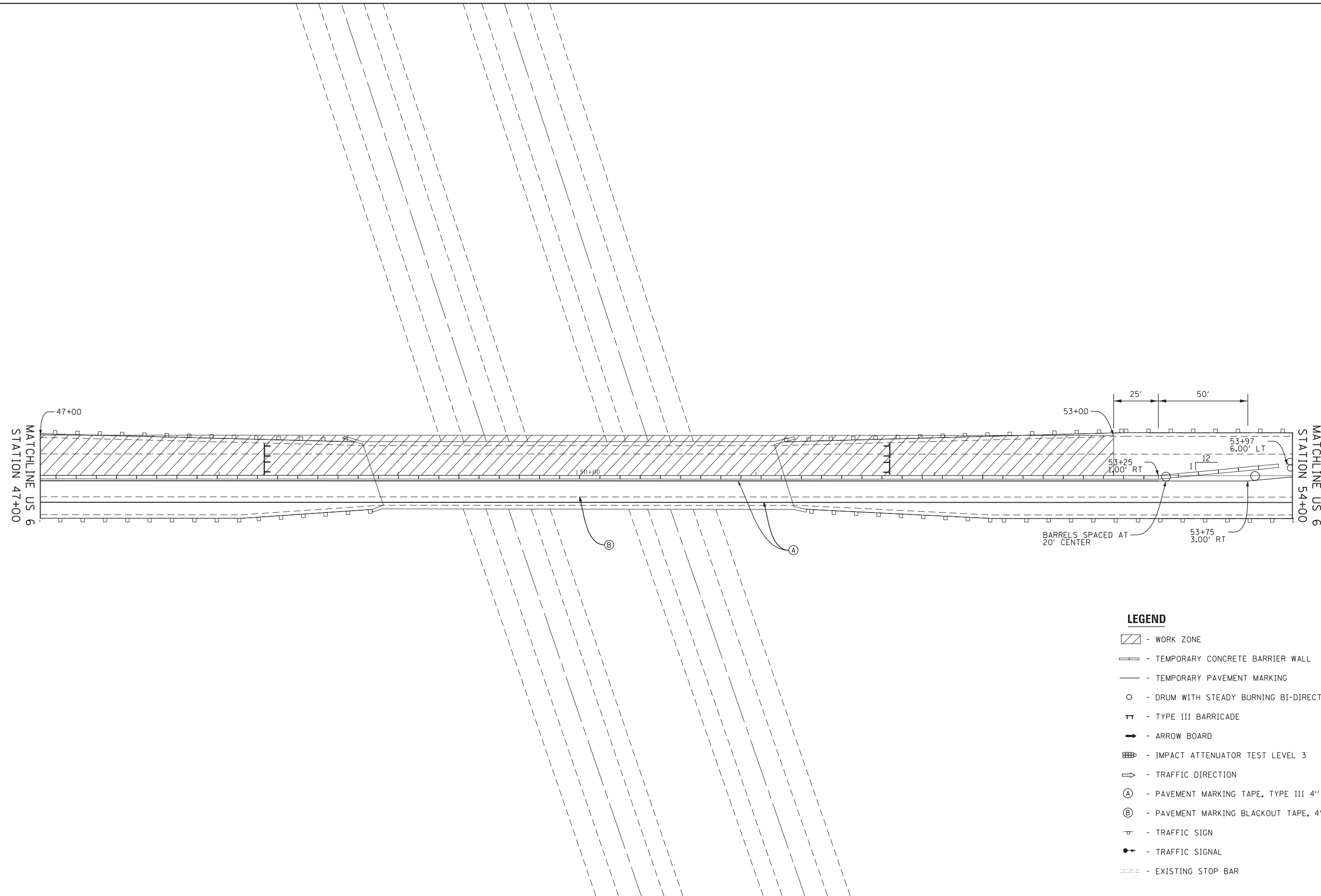


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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MAINTENANCE OF TRAFFIC PLAN STAGE 2</b>	
SHEET 1 OF 3 SHEETS	STA. 40+00 TO STA. 47+00

F.A.J. RTE. 80	SECTION (37-1HB-2)BDR	COUNTY HENRY	TOTAL SHEETS 37	SHEET NO. 8
CONTRACT NO. 64M78			ILLINOIS FED. AID PROJECT	



**LEGEND**

- WORK ZONE
- TEMPORARY CONCRETE BARRIER WALL
- TEMPORARY PAVEMENT MARKING
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
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- PAVEMENT MARKING TAPE, TYPE III 4"
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- EXISTING STOP BAR

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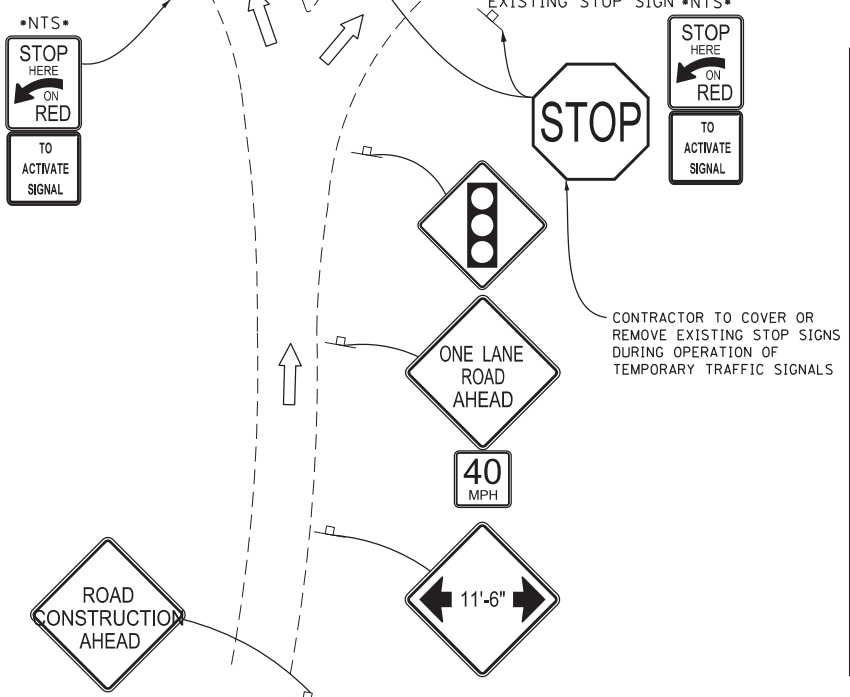
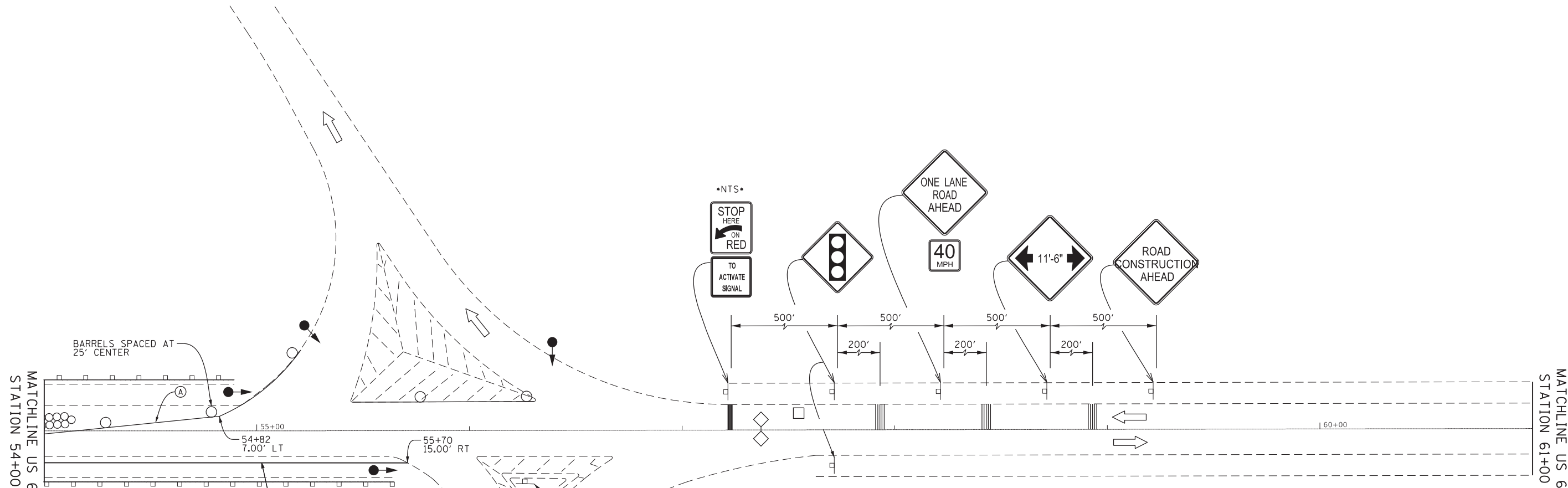
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PLAN  
STAGE 2**

SHEET 2 OF 3 SHEETS      STA. 47+00 TO STA. 54+00

F.A.I. RTE. 80	SECTION (37-1HB-2)BDR	COUNTY HENRY	TOTAL SHEETS 37	SHEET NO. 9
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				





**STAGE 2 MAINTENANCE OF TRAFFIC – SUMMARY OF QUANTITIES**

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	-
70106500	TEMPORARY BRIDGE SIGNALS	EACH	-
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2150
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	FOOT	2150
70400100	TEMPORARY CONCRETE BARRIER	FOOT	-
70400200	RELOCATION TEMPORARY CONCRETE BARRIER	FOOT	537.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	-
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	4317
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	FOOT	-

**LEGEND**

- WORK ZONE
- TEMPORARY CONCRETE BARRIER WALL
- TEMPORARY PAVEMENT MARKING
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- ARROW BOARD
- IMPACT ATTENUATOR TEST LEVEL 3
- TRAFFIC DIRECTION
- PAVEMENT MARKING TAPE, TYPE III 4"
- PAVEMENT MARKING BLACKOUT TAPE, 4"
- TRAFFIC SIGN
- TRAFFIC SIGNAL
- EXISTING STOP BAR

MODEL: D:\64M78\11  
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**DBS**  
 DB STERLIN CONSULTANTS, INC.  
 100 N. WILCOX DRIVE SUITE 2000  
 CHICAGO, ILLINOIS 60606  
 TEL: (312)857-1000 FAX: (312)857-1056

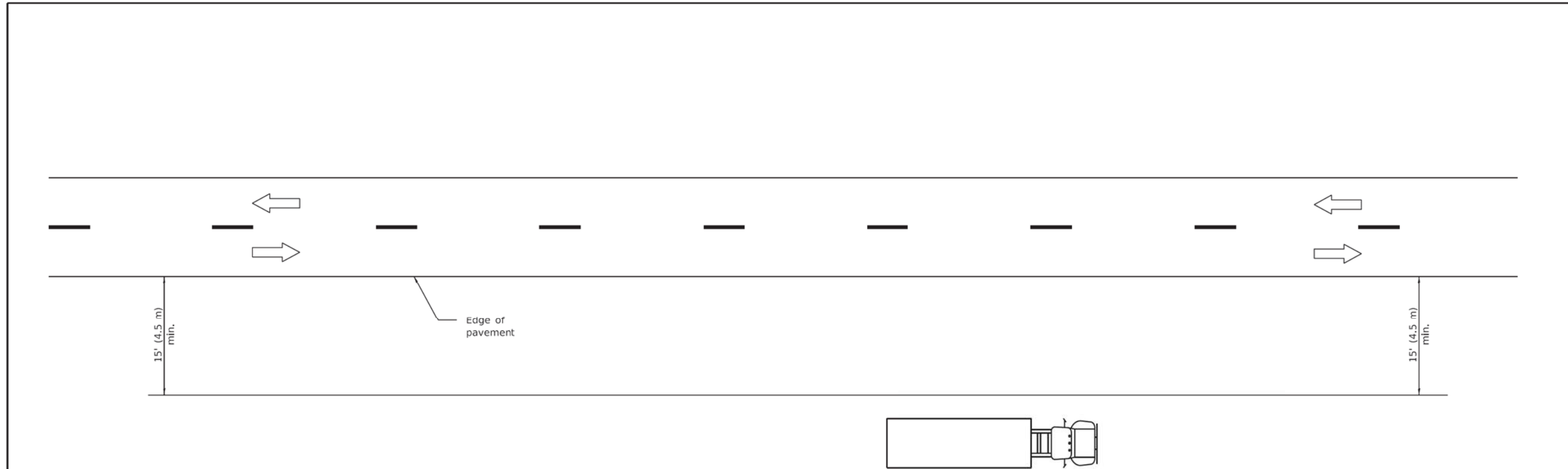
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	DRAWN - JS	REVISED -
PLOT SCALE =	CHECKED - MM	REVISED -
PLOT DATE = 6/7/2018	DATE -	REVISED -

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

**MAINTENANCE OF TRAFFIC PLAN**  
**STAGE 2**

SHEET 3 OF 3 SHEETS      STA. 54+00 TO STA. 61+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	10
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				



**TYPICAL APPLICATIONS**

- Landscaping work
- Utility work
- Fencing contracts and maintenance
- Cleaning culverts

**GENERAL NOTES**

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701006.

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

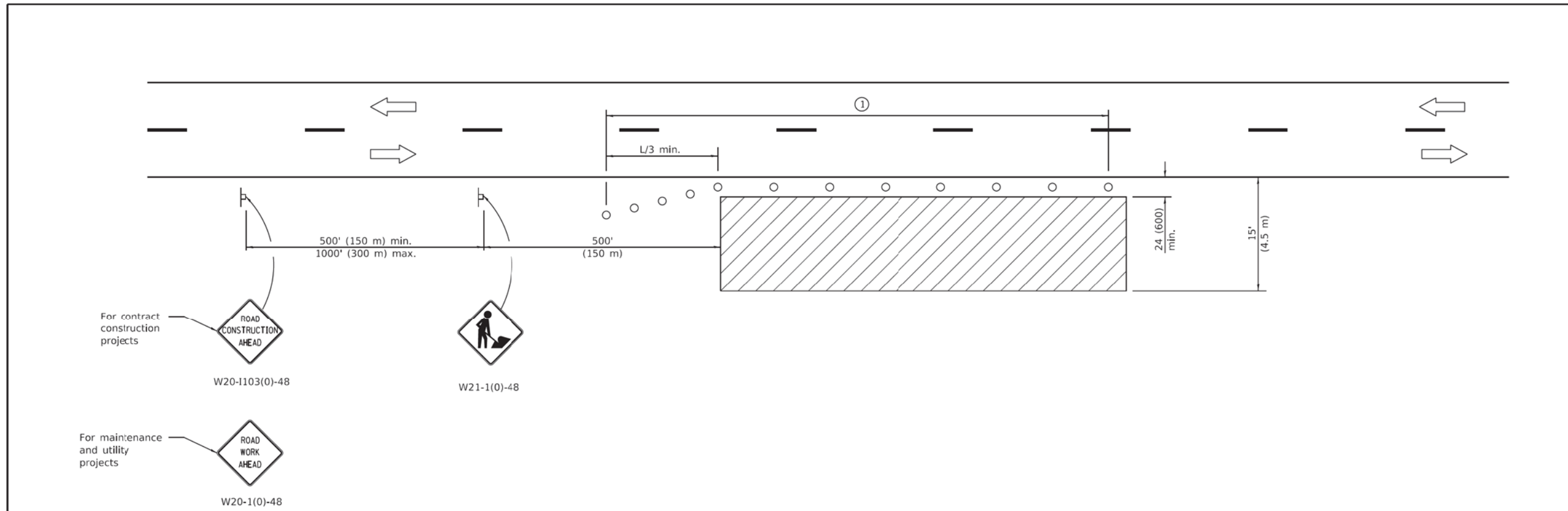
DATE	REVISIONS	<b>OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY</b>
1-1-09	Switched units to English (metric).	
1-1-05	Revised title and notes.	<b>STANDARD 701001-02</b>

PASSED <u>January 1, 2009</u>  ENGINEER OF OPERATIONS	ISSUED 1-1-07
APPROVED <u>January 1, 2009</u>  ENGINEER OF DESIGN AND ENVIRONMENT	

FILE NAME = Z:\SHARED\Projects\2016-0002\1.0 Work Order\9\0264M7B-SHT-701001.dgn

USER NAME = Mike Livernois	DESIGNED - MJL	REVISED
	CHECKED - JCE	REVISED
PLOT SCALE =	DRAWN - MJL	REVISED
PLOT DATE = 5/15/2018	CHECKED - JCE	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 (37-1HB-2)BDR	HENRY	37	11
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				



For contract construction projects  
**ROAD CONSTRUCTION AHEAD**  
 W20-1103(0)-48

For maintenance and utility projects  
**ROAD WORK AHEAD**  
 W20-1(0)-48



**TYPICAL APPLICATIONS**

- Utility operations
- Culvert extensions
- Side slope changes
- Guardrail installation and maintenance
- Delineator installation
- Landscaping operations
- Shoulder repair
- Sign installation and maintenance

**SYMBOLS**

- Work area
- Sign
- Cone, drum or barricade

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

**GENERAL NOTES**

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24' (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L=(W)(S)$	$L=0.65(W)(S)$

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Illinois Department of Transportation

PASSED January 1, 2014  
 ISSUED 1-1-97

APPROVED January 1, 2014  
 ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-14	Revised workers sign number to agree with current MUTCD.
1-1-13	Omitted text 'WORKERS' sign.

**OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE**

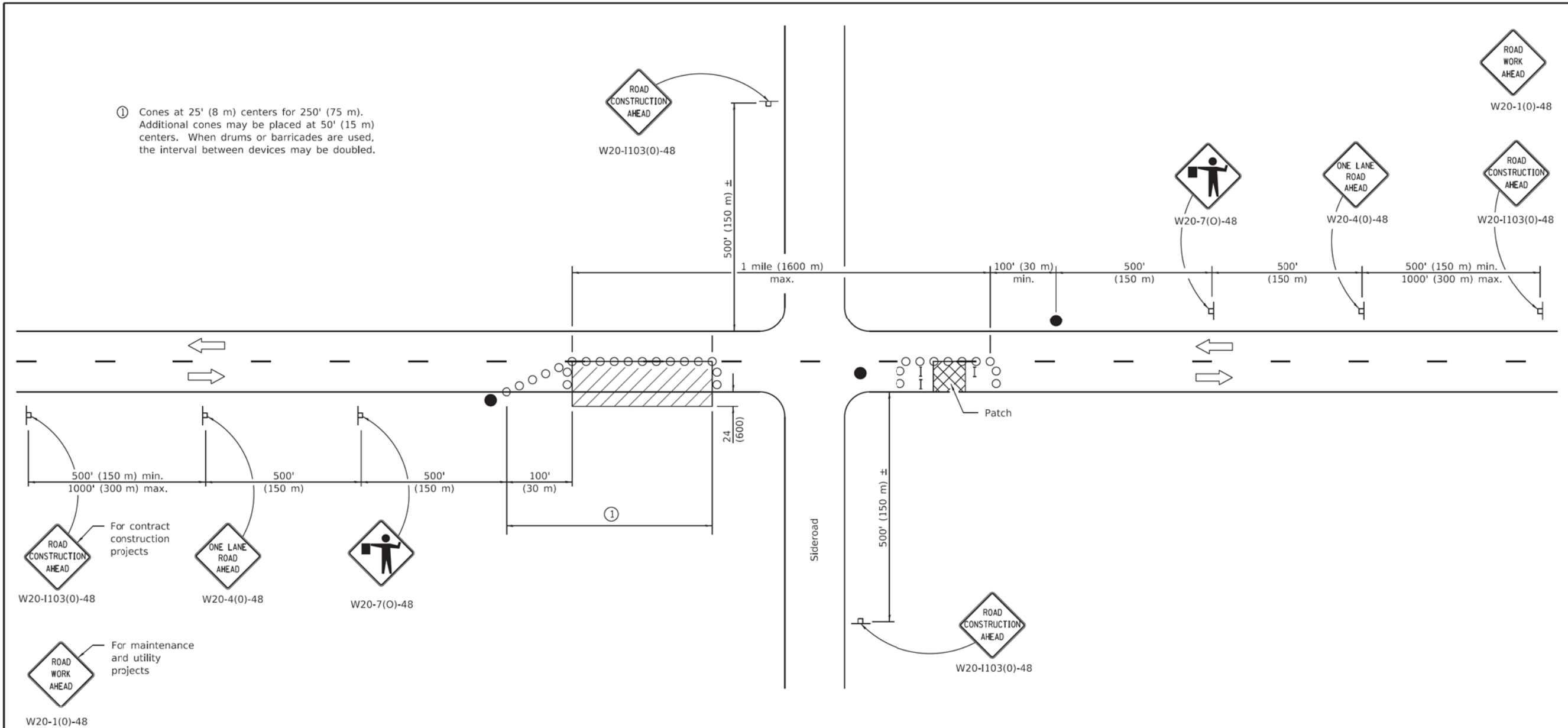
**STANDARD 701006-05**

FILE NAME = Z:\SHARED\Projects\2016-0002\1.0 Work Order\910264M7B-SHT-701006.dgn

USER NAME = Mike Livernois	DESIGNED - MJL	REVISED
	CHECKED - JCE	REVISED
PLOT SCALE =	DRAWN - MJL	REVISED
PLOT DATE = 5/15/2018	CHECKED - JCE	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 (37-1HB-2)BDR	HENRY	37	12
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64M78	

① Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or barricades are used, the interval between devices may be doubled.



For contract construction projects  
 W20-1103(0)-48

ONE LANE ROAD AHEAD  
 W20-4(0)-48

W20-7(0)-48

For maintenance and utility projects  
 W20-1(0)-48

**SYMBOLS**

- Work area
- Sign
- Barricade or drum
- Cone, drum or barricade
- Flagger with traffic control sign

**TYPICAL APPLICATIONS**

- Isolated patching
- Utility operations
- Storm sewer
- Culverts
- Cable placement

**GENERAL NOTES**

This Standard is used where at any time, any vehicles, equipment, workers or their activities will encroach in the area between the center line and a line 24 (600) outside the edge of pavement for daylight operation.

When the distance between successive work areas exceeds 2000' (600 m), additional warning signs, flaggers, and taper shall be placed as shown.

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

Illinois Department of Transportation

PASSED January 1, 2011  
 ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2011  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).
	Corrected sign No.'s.

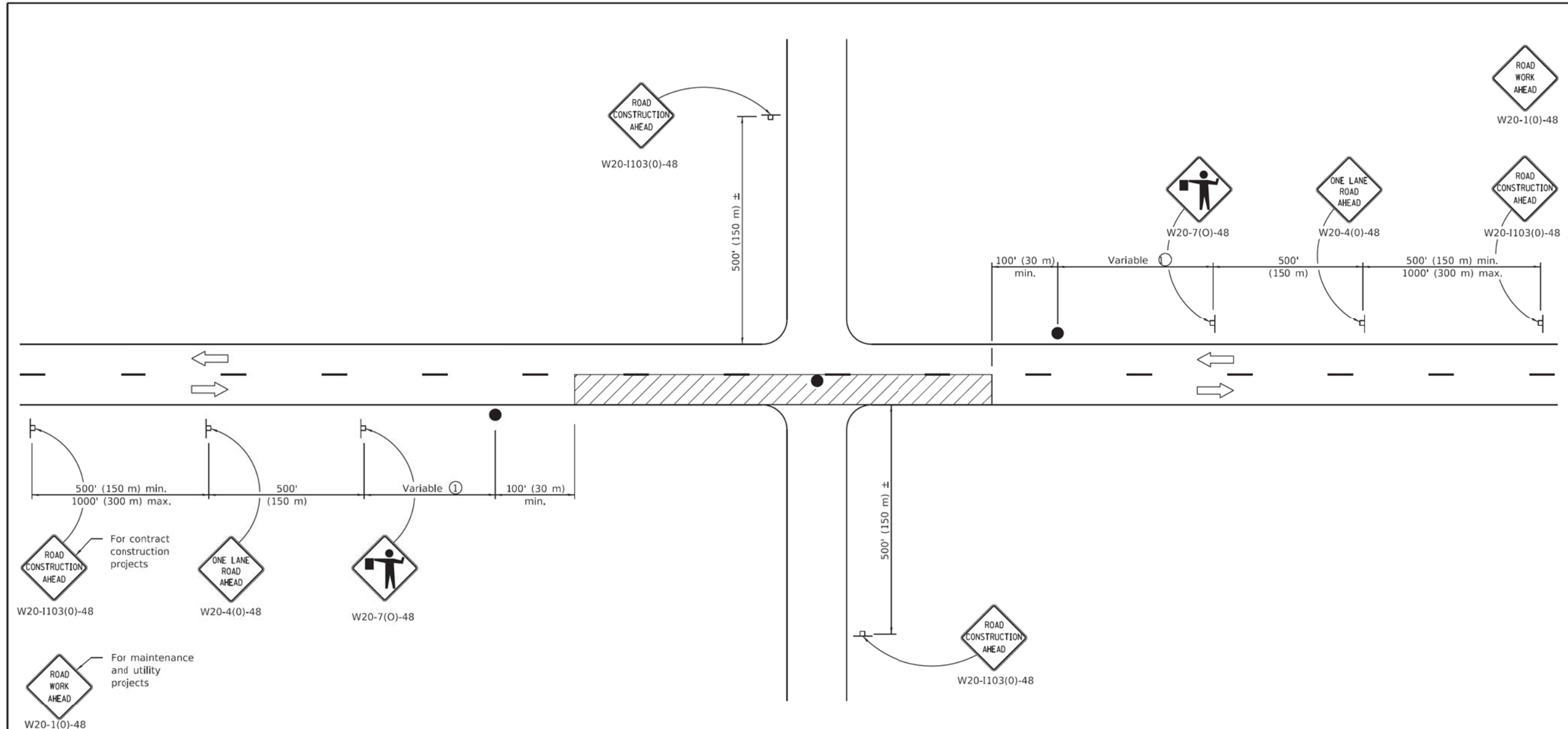
**LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH**

**STANDARD 701201-04**

FILE NAME = Z:\SHARED\Projects\2016-0002\1.0 Work Order\9\0264M7B-SHT-701201.dgn

USER NAME = Mike Livernois	DESIGNED - MJL	REVISED
	CHECKED - JCE	REVISED
PLOT SCALE =	DRAWN - MJL	REVISED
PLOT DATE = 5/15/2018	CHECKED - JCE	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 (37-1HB-2)BDR	HENRY	37	13
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				



For contract construction projects

For maintenance and utility projects

**TYPICAL APPLICATIONS**

- Bituminous resurfacing
- Milling operations
- Utility operations
- Shoulder operations

**SYMBOLS**

- Work area
- Sign on portable or permanent support
- Flagger with traffic control sign

① Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed 1/2 the length required for one normal working day's operation or 2 miles (3200 m), whichever is less.

**GENERAL NOTES**

This Standard is used where at any time, any vehicle, equipment, workers or their activities require an intermittent or continuous moving operation on the pavement where the average speed of movement is greater than 1/2 mph (1 km/h) and less than 4 mph (6 km/h).

When the operation does not exceed 60 minutes, traffic control may be according to Standard 701301.

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

DATE	REVISIONS
1-1-18	Revised lower speed limit for operation to 1/2 mph.
1-1-11	Revised flagger sign.

**LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH**

**STANDARD 701306-04**

Illinois Department of Transportation

PASSED January 1, 2018  
 ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2018  
 ENGINEER OF DESIGN AND ENVIRONMENT

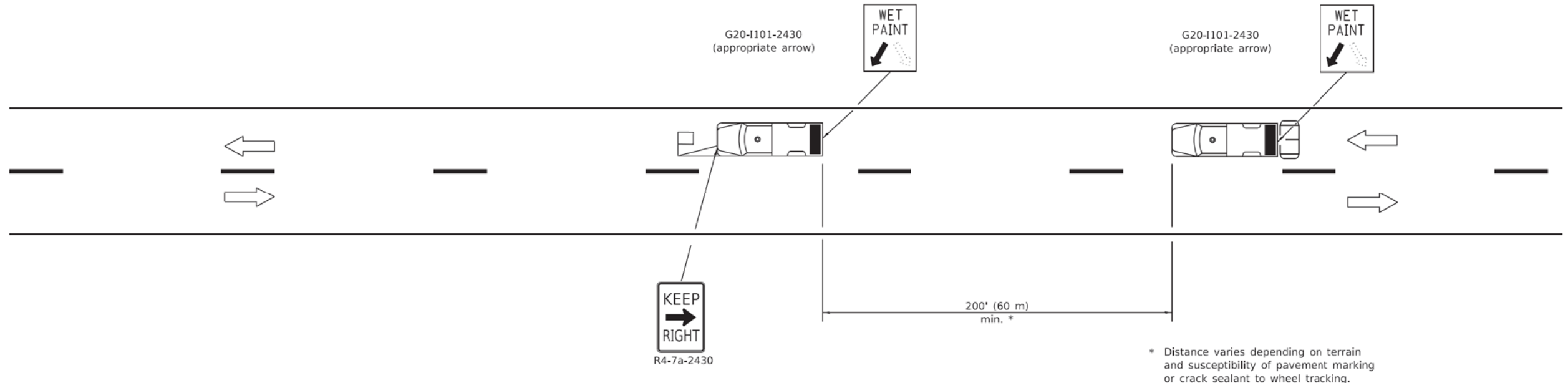
ISSUED 1-1-197

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USER NAME = Mike Livernois	DESIGNED - MJL	REVISED
	CHECKED - JCE	REVISED
PLOT SCALE =	DRAWN - MJL	REVISED
PLOT DATE = 5/15/2018	CHECKED - JCE	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 (37-1HB-2)BDR	HENRY	37	14
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				









**TYPICAL APPLICATIONS**

- Landscaping work
- Utility work
- Pavement marking
- Weed spraying
- Roadometer measurements
- Debris cleanup
- Crack pouring

**SYMBOLS**

-  Arrow board (Hazard Mode only)
-  Truck with headlights, emergency flashers and flashing amber light. (visible from all directions)
-  18x18 (450x450) min. orange flag (use when guide wheel is used)
-  Truck mounted attenuator

**GENERAL NOTES**

This Standard is used where any vehicle, equipment, workers or their activities will require a continuous moving operation where the average speed is greater than 3 mph (5 km/h).

For shoulder operations not encroaching on the pavement, use DETAIL A, Standard 701426.

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

Illinois Department of Transportation

PASSED January 1, 2009  
ENGINEER OF OPERATIONS

APPROVED January 1, 2009  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-09	Switched units to English (metric). Omitted Pass With Care sign.
1-1-00	Elim. speed restrictions in Standard title.

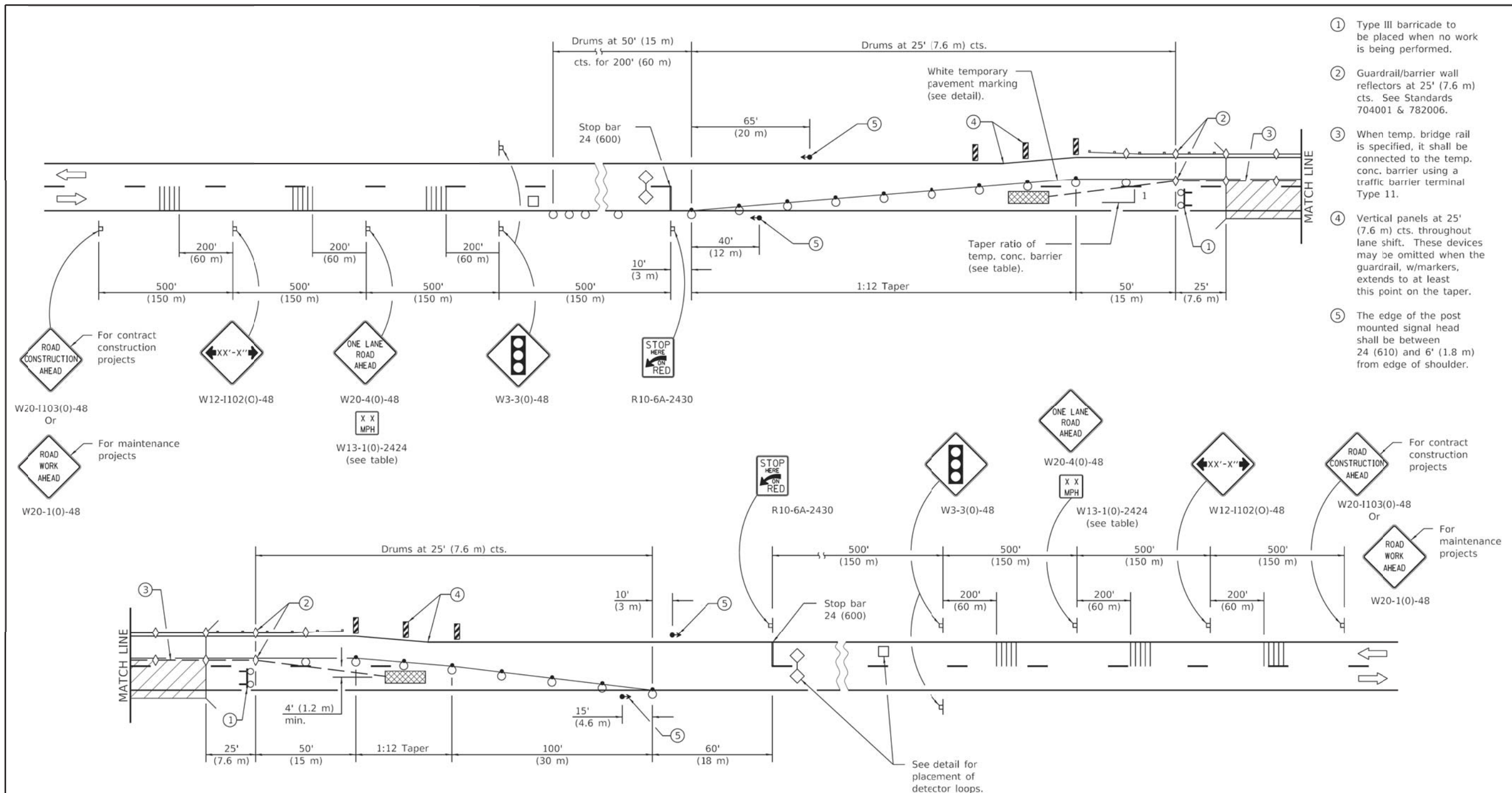
**LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY**

**STANDARD 701311-03**

FILE NAME = Z:\SHARED\Projects\2016-0002\1.0 Work Order\9\0264M7B-SHT-701311.dgn

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	CHECKED - JCE	REVISED
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PLOT DATE = 5/15/2018	CHECKED - JCE	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 (37-1HB-2)BDR	HENRY	37	15
				CONTRACT NO. 64M78
ILLINOIS FED. AID PROJECT				



- ① Type III barricade to be placed when no work is being performed.
- ② Guardrail/barrier wall reflectors at 25' (7.6 m) cts. See Standards 704001 & 782006.
- ③ When temp. bridge rail is specified, it shall be connected to the temp. conc. barrier using a traffic barrier terminal Type 11.
- ④ Vertical panels at 25' (7.6 m) cts. throughout lane shift. These devices may be omitted when the guardrail, w/markers, extends to at least this point on the taper.
- ⑤ The edge of the post mounted signal head shall be between 24 (610) and 6' (1.8 m) from edge of shoulder.

For contract construction projects  
**ROAD CONSTRUCTION AHEAD**  
 W20-1103(0)-48  
 Or  
**ROAD WORK AHEAD**  
 W20-1(0)-48

**XX'-X''**  
 W12-1102(0)-48

**ONE LANE ROAD AHEAD**  
 W20-4(0)-48  
 X X MPH  
 W13-1(0)-2424 (see table)

**STOP HERE ON RED**  
 R10-6A-2430

**STOP HERE ON RED**  
 R10-6A-2430

**STOP HERE ON RED**  
 R10-6A-2430

**ONE LANE ROAD AHEAD**  
 W20-4(0)-48  
 X X MPH  
 W13-1(0)-2424 (see table)

**ROAD CONSTRUCTION AHEAD**  
 W12-1102(0)-48

**ROAD CONSTRUCTION AHEAD**  
 W20-1103(0)-48  
 Or  
**ROAD WORK AHEAD**  
 W20-1(0)-48

For contract construction projects  
**ROAD CONSTRUCTION AHEAD**  
 W20-1103(0)-48  
 Or  
**ROAD WORK AHEAD**  
 W20-1(0)-48

**SYMBOLS**

- Work area
- Sign
- Type III barricade with flashing lights
- Traffic signal
- Detector loops
- Impact attenuator
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Temporary rumble strip (when specified)
- Double vertical panel (see detail)
- Crystal, bidirectional guardrail/barrier wall reflector
- Drum

Illinois Department of Transportation  
 PASSED January 1, 2018  
 ENGINEER OF SAFETY PROG. AND ENGINEERING  
 APPROVED January 1, 2018  
 ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-18	Omitted lights in tangents.
1-1-17	Added flashing lights to Type III barricades. Revised note (4).

See Sheet 2 for GENERAL NOTES

**LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER**  
 (Sheet 1 of 2)  
**STANDARD 701321-17**

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DBS  
 DB STERLIN CONSULTANTS, INC.  
 100 N. WILSON DRIVE SUITE 2000  
 CHICAGO, ILLINOIS 60606  
 TEL. (312)851-1000 FAX. (312)851-1056

USER NAME = mmiller  
 DESIGNED - JS  
 DRAWN - JS  
 CHECKED - MM  
 DATE - 5/15/2018

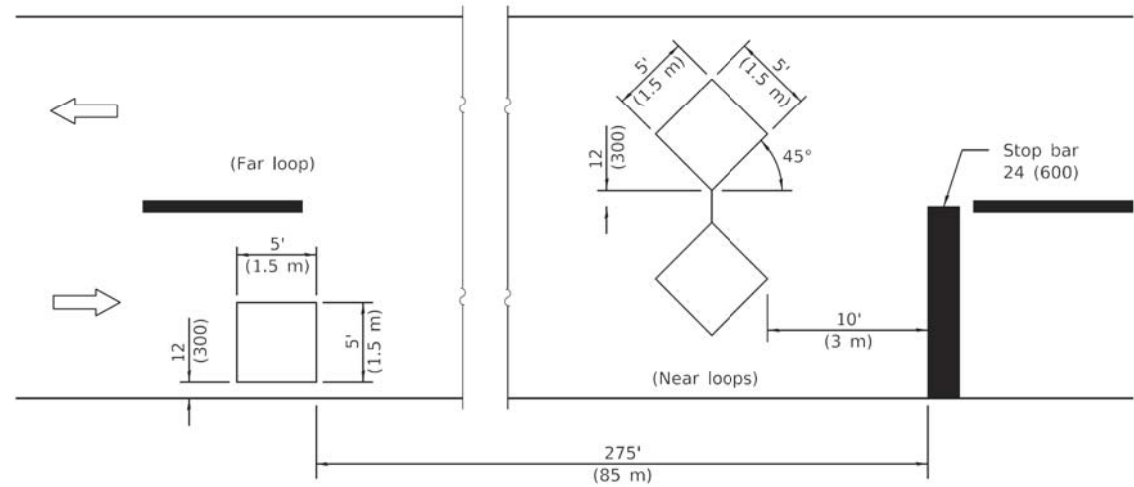
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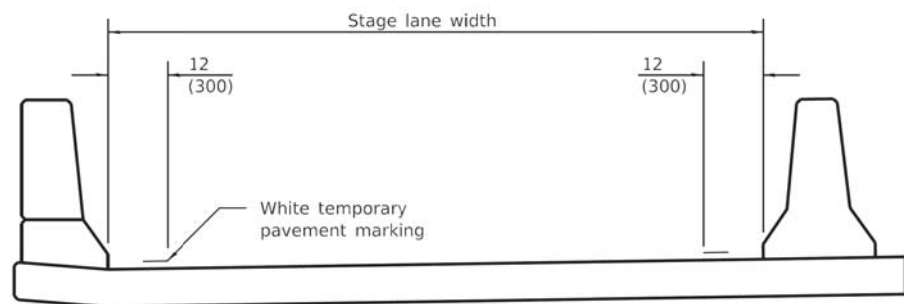
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

STANDARDS  
 SHEET 1 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	16
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64M78	



**DETECTOR LOOPS**

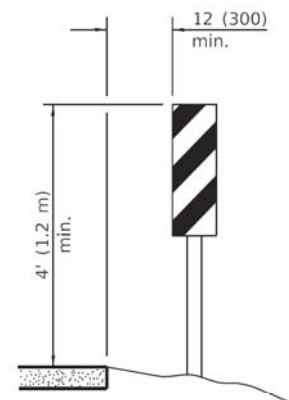


**TEMPORARY PAVEMENT MARKING**

TRAFFIC SIGNAL SEQUENCE						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
NORTHBOUND OR EASTBOUND	G	Y	R	R	R	R
SOUTHBOUND OR WESTBOUND	R	R	R	G	Y	R

TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 mph AND ABOVE	12:1
BELOW 40 mph	8:1

ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph
40 mph	35 mph
35 - 30 mph	30 mph



**VERTICAL PANELS**

(Post mounted, one each side)

**GENERAL NOTES**

This Standard is used where, at any time, any vehicle, equipment, workers, or their activities will encroach on one lane of a bridge. Traffic signals and a positive barrier are required.

Traffic signals shall be operational only when all traffic controls are in place. When traffic signals are not in operation, flaggers shall be used and traffic control shall conform to Standard 701201 or 701206.

Temporary concrete barrier shall be according to Standard 704001.

Existing or temporary pavement markings shall be on both sides of open lane from stop bar to stop bar.

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

**LANE CLOSURE, 2L, 2W,  
BRIDGE REPAIR WITH BARRIER**

(Sheet 2 of 2)

**STANDARD 701321-17**

Illinois Department of Transportation

PASSED January 1, 2018  
*Paul Lore*  
 ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2018  
*Walter M. Adams*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

MODEL: D:\dft\... FILE NAME: P:\00355... 6\CADD\_Sheets\02525072-2ht-5Standards.rvt.dgn

**DBS** DB STERLIN CONSULTANTS, INC.  
 100 N. WICKER DRIVE SUITE 2000  
 CHICAGO, ILLINOIS 60606  
 TEL. (312)851-1000 FAX. (312)851-1056

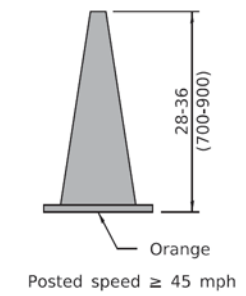
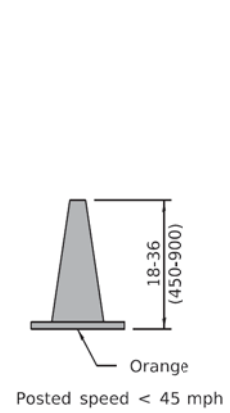
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PLOT SCALE =	DRAWN - JS	REVISED -
PLOT DATE = 5/15/2018	CHECKED - MM	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

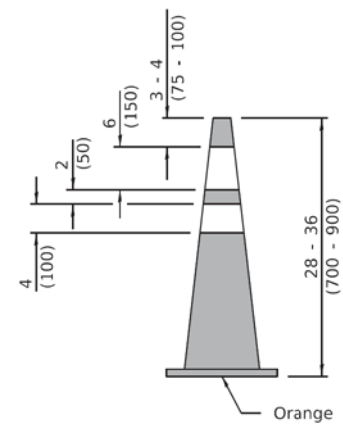
STANDARDS

SHEET 2 OF 7 SHEETS

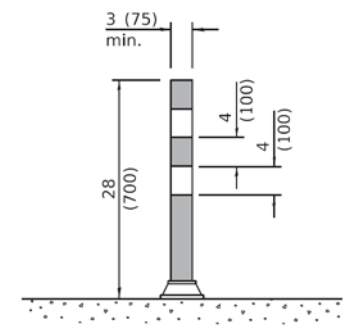
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	17
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				



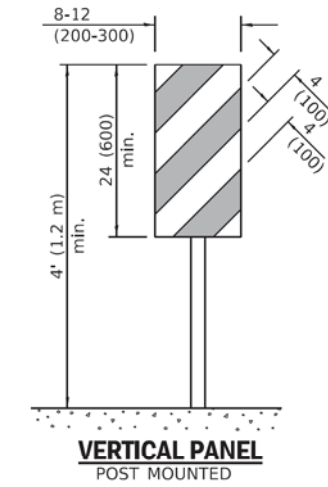
**CONE FOR DAYTIME**



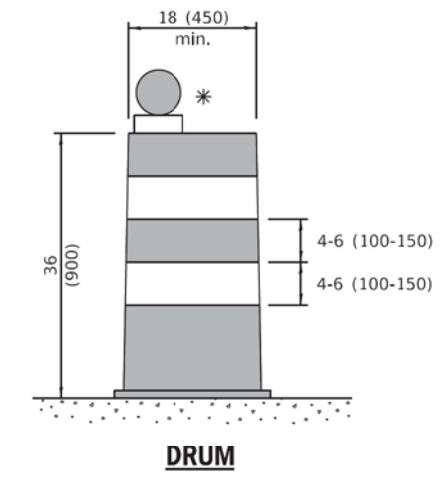
**REFLECTORIZED CONE FOR NIGHTTIME**



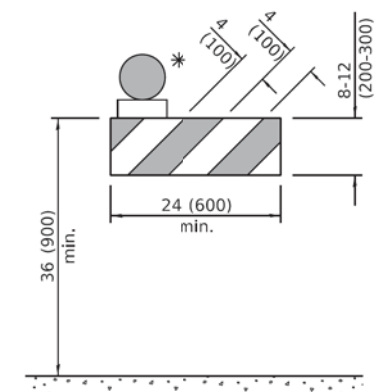
**TUBULAR MARKER**



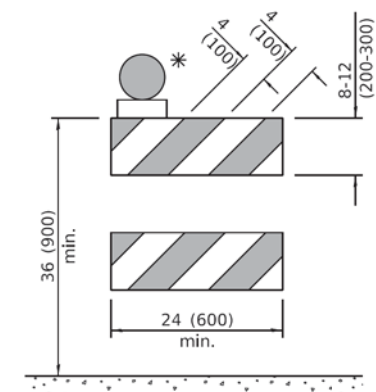
**VERTICAL PANEL POST MOUNTED**



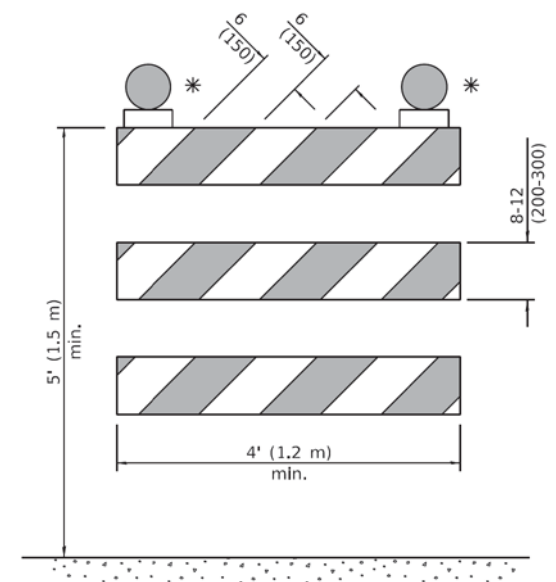
**DRUM**



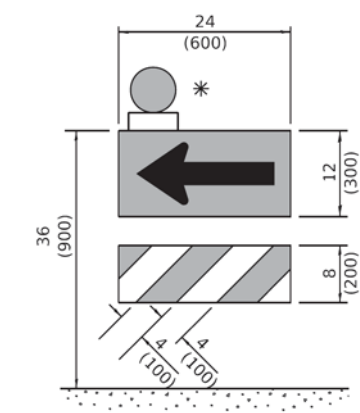
**TYPE I BARRICADE**



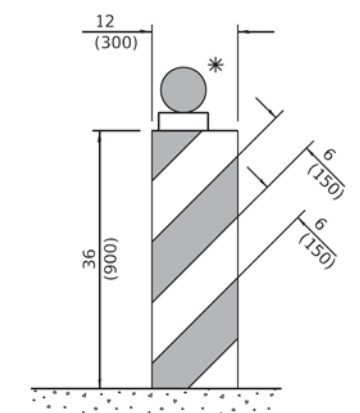
**TYPE II BARRICADE**



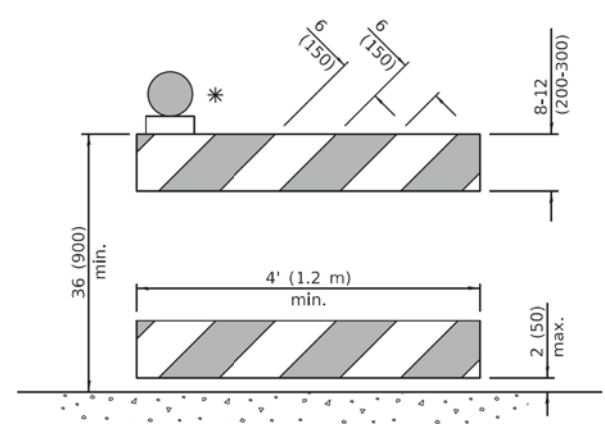
**TYPE III BARRICADE**



**DIRECTION INDICATOR BARRICADE**



**VERTICAL BARRICADE**



**DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE**

\* Warning lights (if required)

Illinois Department of Transportation

PASSED January 1, 2018  
 ENGINEER OF OPERATIONS  
 APPROVED January 1, 2018  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-17

**GENERAL NOTES**

All heights shown shall be measured above the pavement surface.

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

DATE	REVISIONS
1-1-18	Revised END WORK ZONE
	SPEED LIMIT sign from orange to white background.
1-1-17	Changed FLEXIBLE DELINEATOR to TUBULAR MARKER.

**TRAFFIC CONTROL DEVICES**

(Sheet 1 of 3)

**STANDARD 701901-07**

FILE NAME = Z:\SHARED\Projects\2016-0002\1.0 Work Order\910264M7B-SHT-701901.dgn

**WYNDALCO ENTERPRISES**

19081 Old LaGrange Rd, Ste. 106  
 Mokena, IL 60448  
 312.256.9090

USER NAME = Mike Livernois	DESIGNED - MJL	REVISED
PLOT SCALE =	CHECKED - JCE	REVISED
PLOT DATE = 5/15/2018	DRAWN - MJL	REVISED
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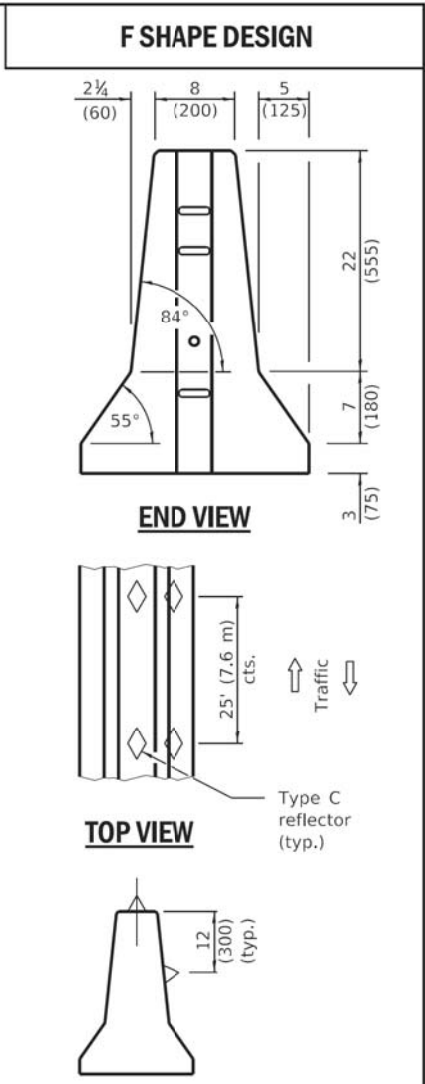
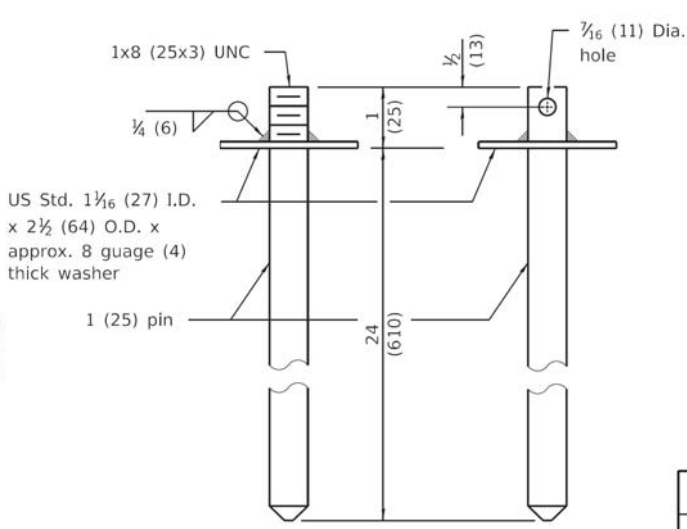
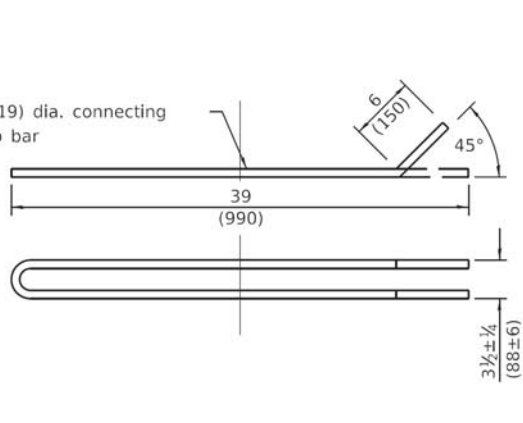
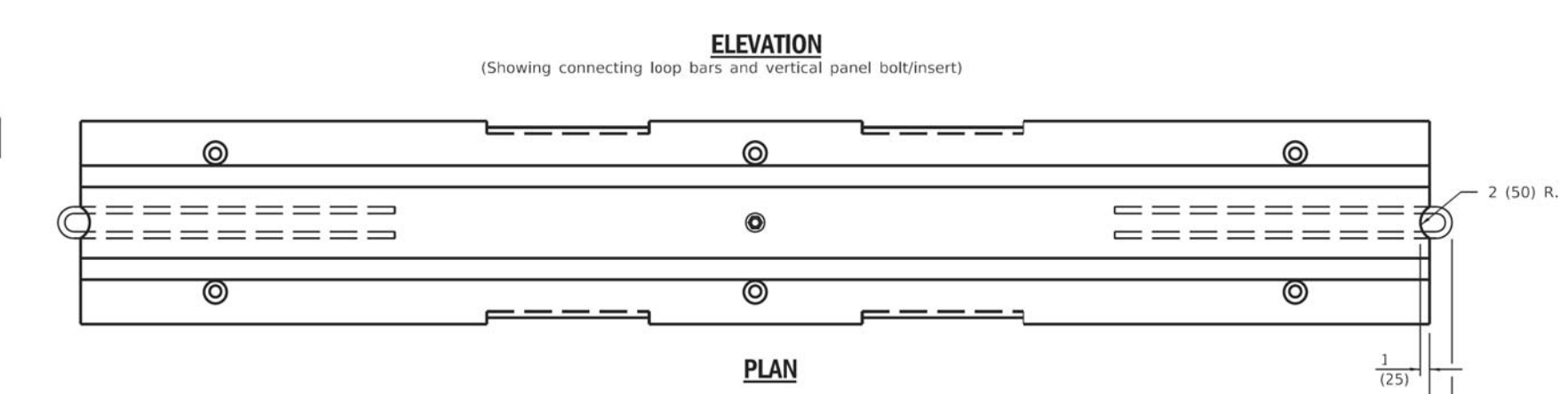
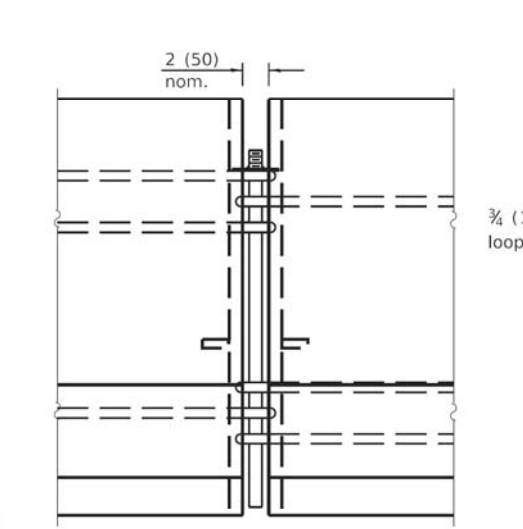
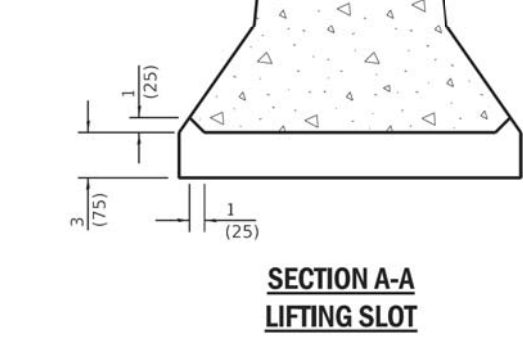
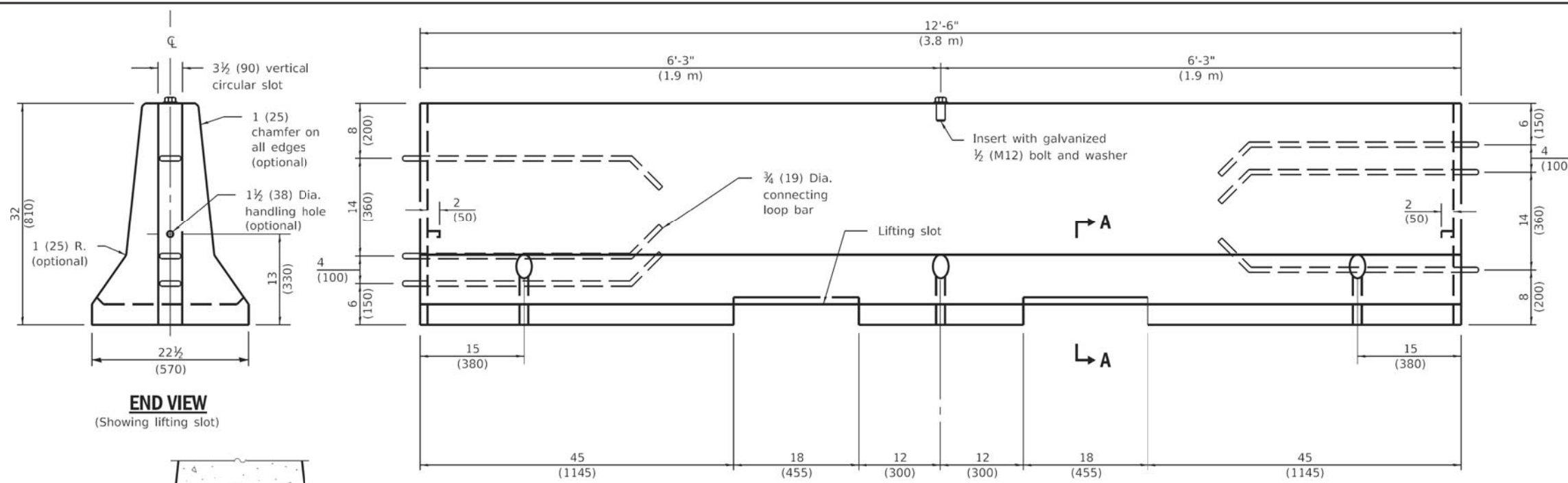
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**STANDARDS**

SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 (37-1HB-2)BDR	HENRY	37	18
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				





2 1/2 (63) measured from face of barrier to end of loop bar

**GENERAL NOTES**

Each F shape barrier shall be clearly marked with "ILLINOIS F SHAPE", the Producer's mark and the date of manufacture. The markings shall be indented on the barrier or painted thereon with waterproof paint/ink.

The insert for the 1/2 (M12) bolt shall be capable of 3,000 lb (13 kN) pull-out strength.

When barrier separates opposing flows of traffic markers shall be on both sides of barrier.

See Standard 782006 for dimensions of Type C reflector.

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

DATE	REVISIONS
4-1-16	Rev. opt. chamfer on all edges to 1 (25). Reference to Std. 635011 now 782006.
1-1-12	Omitted 'ALTERNATE' from connecting and anchoring pins detail.

**TEMPORARY CONCRETE BARRIER**  
(Sheet 1 of 2)

**STANDARD 704001-08**

Illinois Department of Transportation

PASSED April 1, 2016  
*Michael Beard*  
ENGINEER OF POLICY AND PROCEDURES

APPROVED April 1, 2016  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 10-1-02

MODEL: D:\dft\11... FILE NAME: P:\0035\00015\07\_180\_US\_6\CADD\_Sheets\0252507-sh-Standard.rvt

**DBS** DB STERLIN CONSULTANTS, INC.  
100 N. WICKER DRIVE SUITE 2000  
CHICAGO, ILLINOIS 60606  
TEL. (312)857-1000 FAX. (312)857-1056

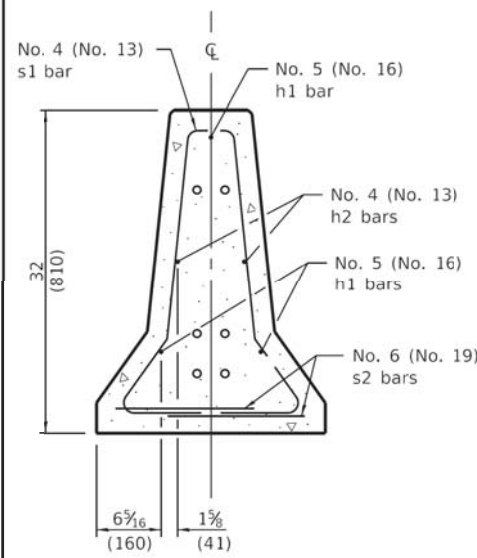
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PLOT SCALE =	DRAWN - JS	REVISED -
PLOT DATE = 5/15/2018	CHECKED - MM	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

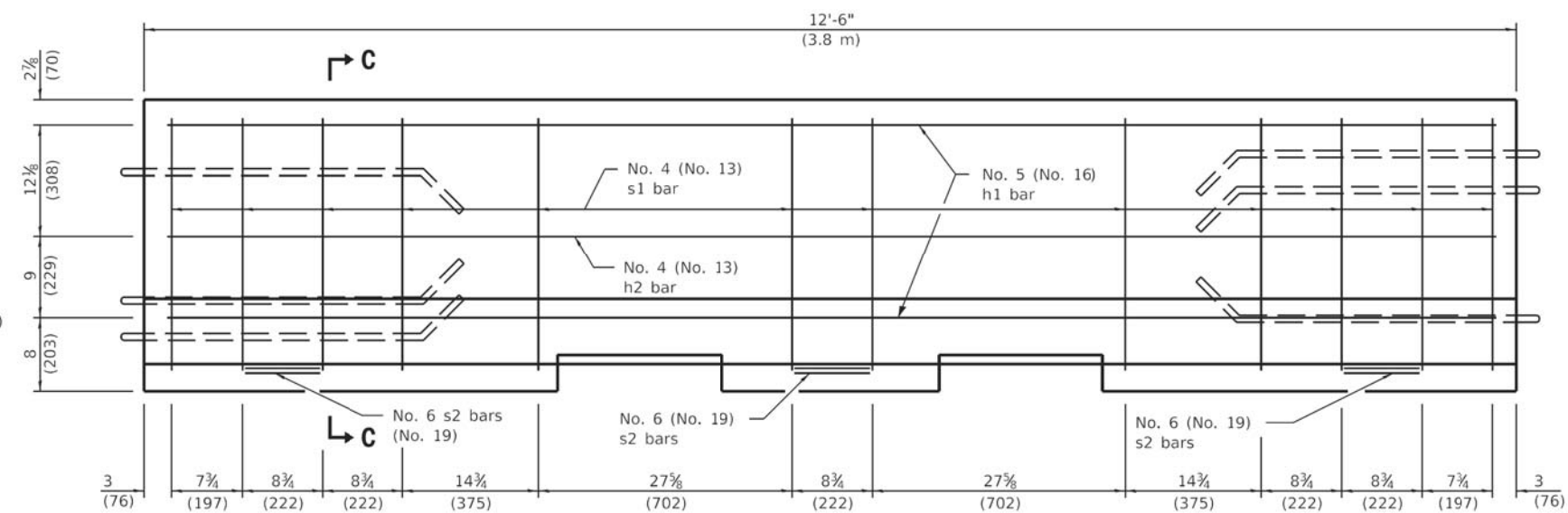
STANDARDS  
SHEET 3 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	19
				CONTRACT NO. 64M78
ILLINOIS FED. AID PROJECT				

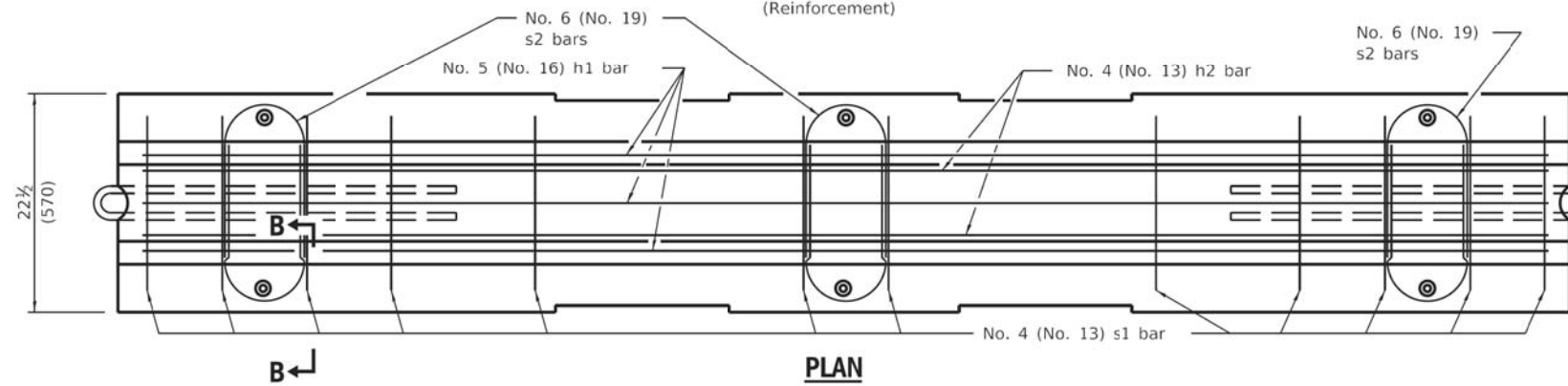




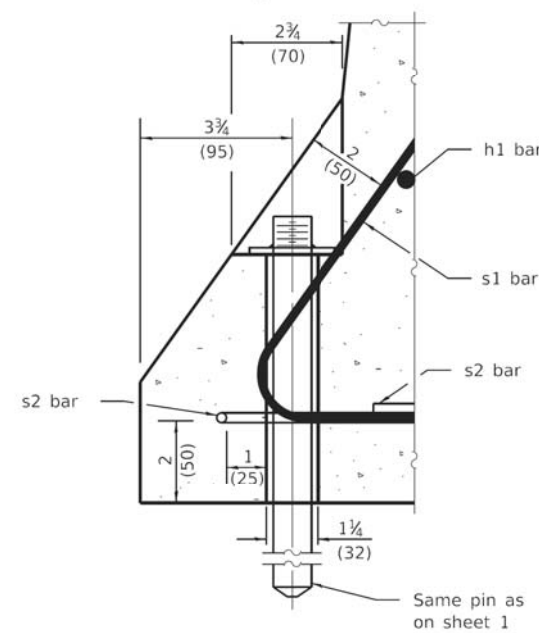
**SECTION C-C**



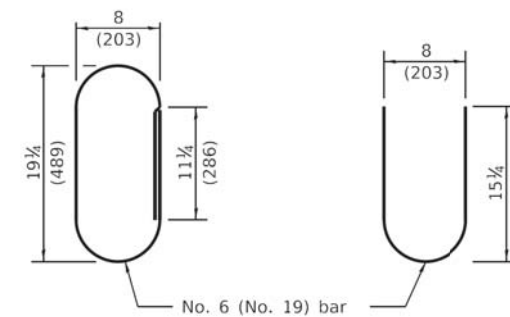
**ELEVATION**  
(Reinforcement)



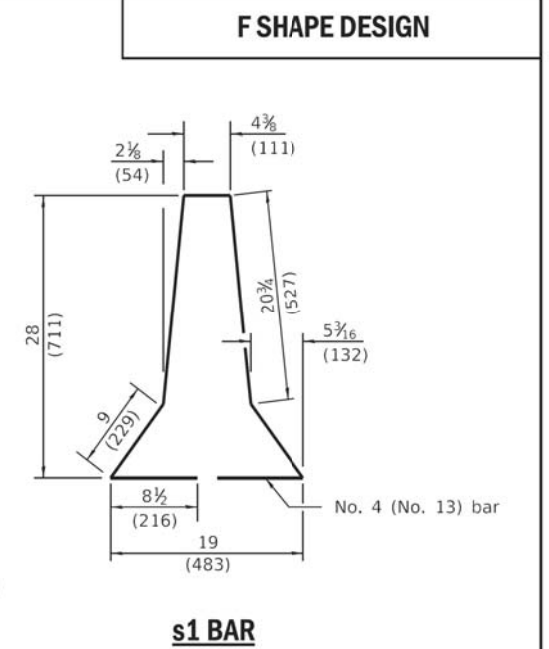
**PLAN**



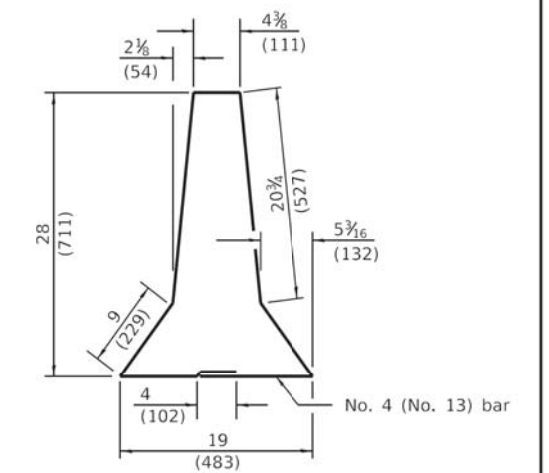
**SECTION B-B**  
**ANCHORING DETAIL**



**ALTERNATE s2 BARS**



**s1 BAR**



**ALTERNATE s1 BAR**

**TEMPORARY CONCRETE BARRIER**

(Sheet 2 of 2)

**STANDARD 704001-08**

Illinois Department of Transportation

PASSED April 1, 2016  
Michael Beard  
ENGINEER OF POLICY AND PROCEDURES

APPROVED April 1, 2016  
[Signature]  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 10-1-02

USER NAME = mmiller	DESIGNED - JS	REVISED -
PLOT SCALE =	DRAWN - JS	REVISED -
DATE = 5/15/2018	CHECKED - MM	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

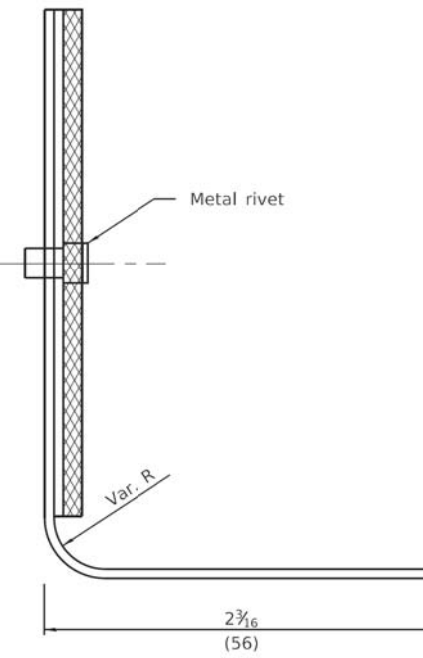
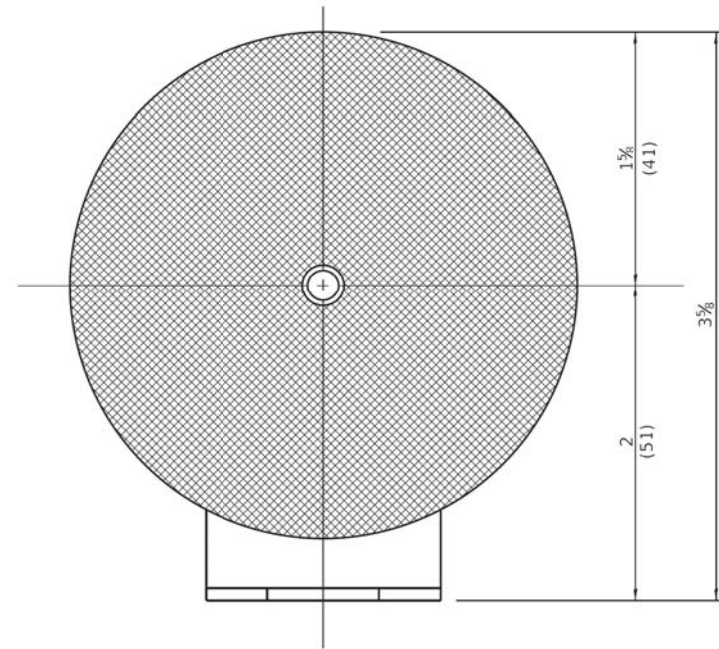
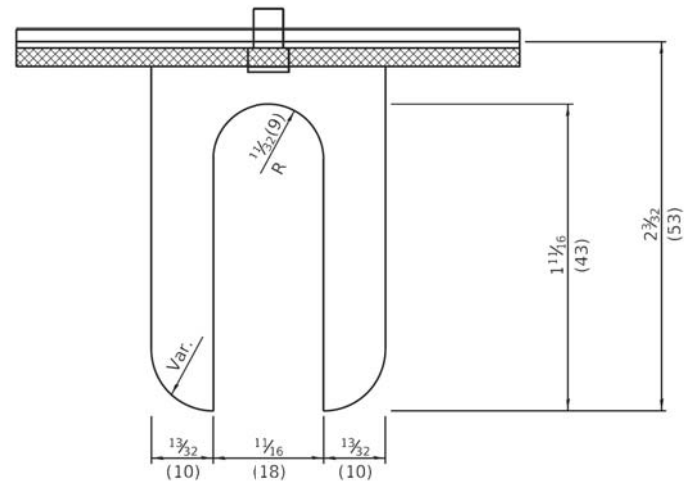
STANDARDS

SHEET 4 OF 7 SHEETS

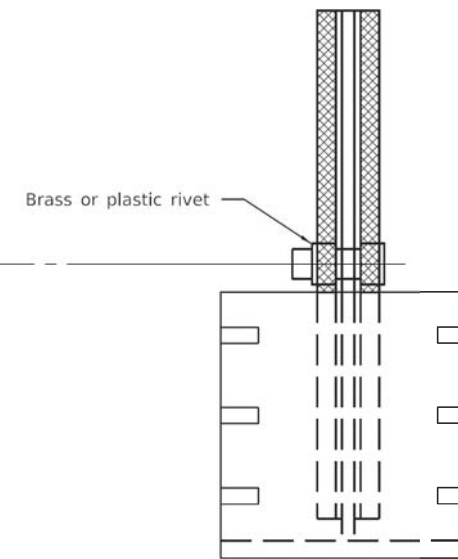
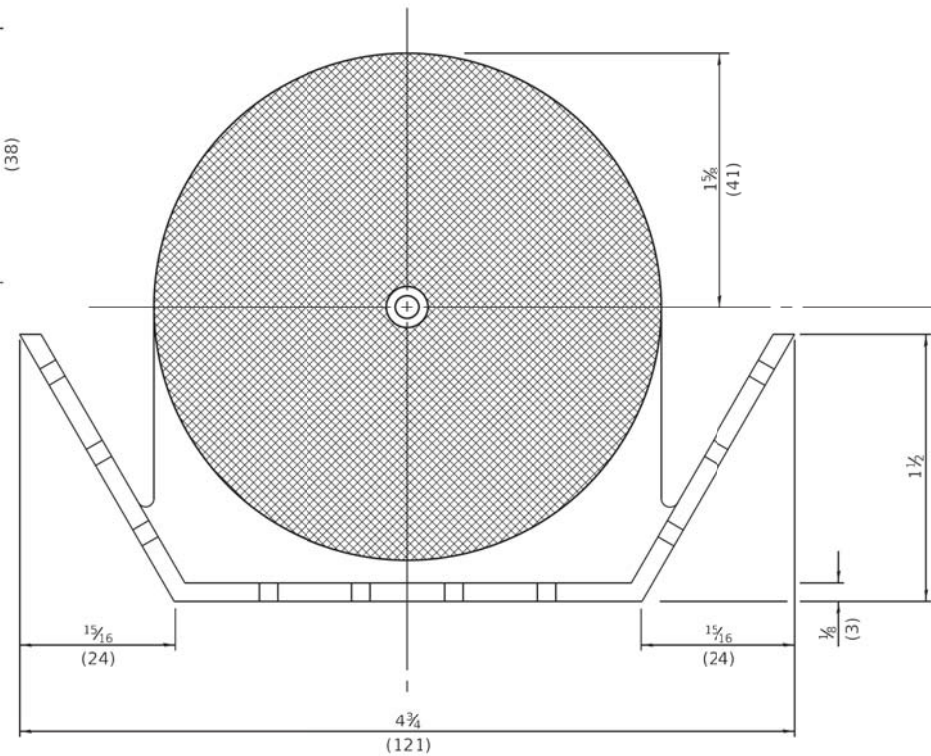
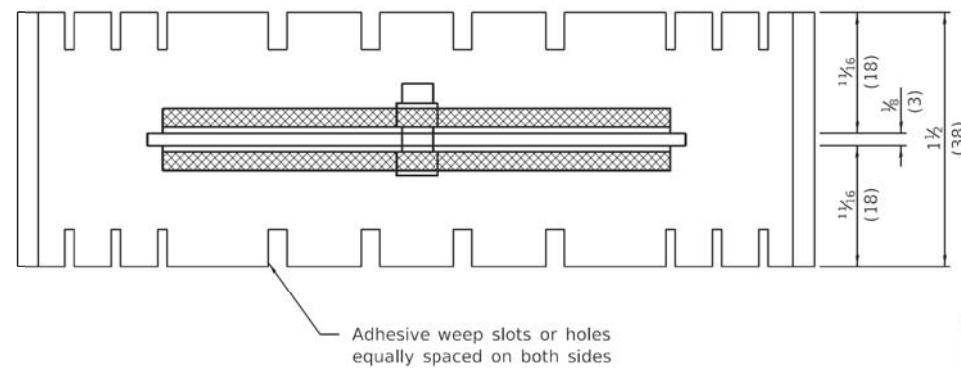
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	20
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				

MODEL: D:\dft\11... FILE NAME: P:\0355\0001516\_07\_180\_US\_6\CADD\_Sheets\0355072-sh-5Standards.dgn

**DBS** DB STERLIN CONSULTANTS, INC.  
100 N. WICKER DRIVE SUITE 2000  
CHICAGO, ILLINOIS 60606  
TEL. (312)857-1000 FAX. (312)857-1056



**REFLECTOR TYPE A**  
(monodirectional shown)



**REFLECTOR TYPE B**  
(bidirectional shown)

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

Illinois Department of Transportation

PASSED April 1, 2016  
ENGINEER OF OPERATIONS

APPROVED April 1, 2016  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-2000

DATE	REVISIONS
4-1-16	Added reflector spacing detail. Moved TERMINAL MARKER to std. 725001.
1-1-09	Switched units to English (metric).

**GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS**  
(Sheet 1 of 3)

**STANDARD 782006**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STANDARDS

SHEET 5 OF 7 SHEETS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	21
				CONTRACT NO. 64M78

ILLINOIS FED. AID PROJECT

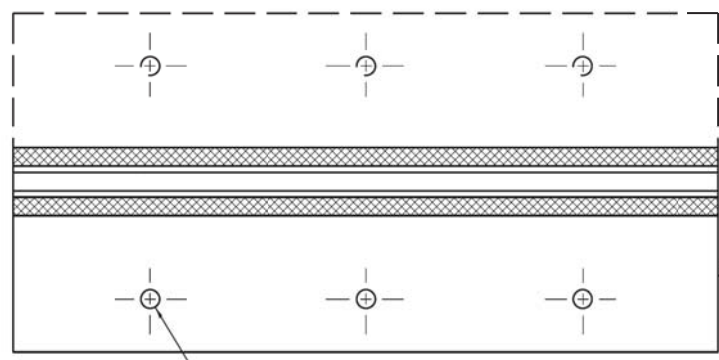
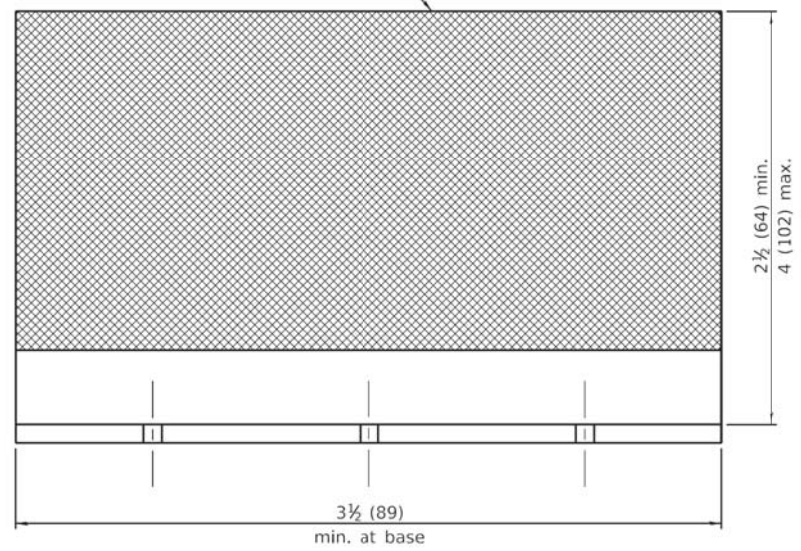
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DBS DB STERLIN CONSULTANTS, INC.  
100 N. WICKER DRIVE SUITE 2000  
CHICAGO, ILLINOIS 60606  
TEL. (312)857-1000 FAX. (312)857-1056

USER NAME = mmiller	DESIGNED - JS	REVISED -
PLOT SCALE =	DRAWN - JS	REVISED -
PLOT DATE = 5/15/2018	CHECKED - MM	REVISED -
	DATE -	REVISED -

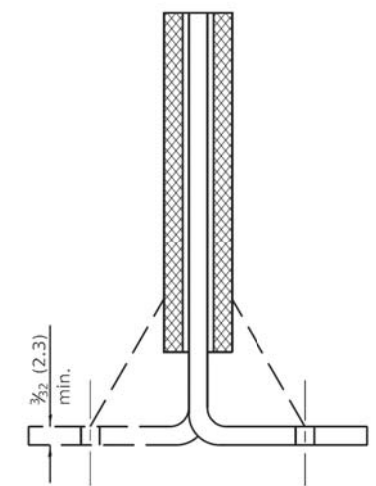


Reflective area. May be rectangular or slight trapezoid.



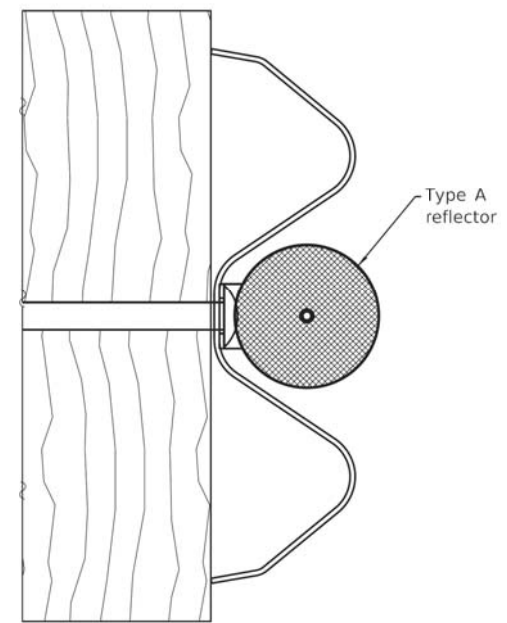
3 min. adhesive weep holes or slots each side, variable spacing.

Minimum total area of base 7.0 sq. in. (4,516 mm<sup>2</sup>)

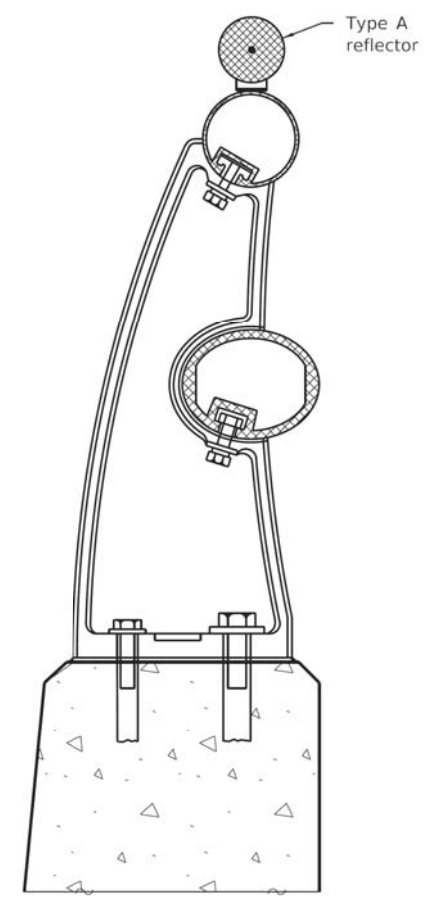
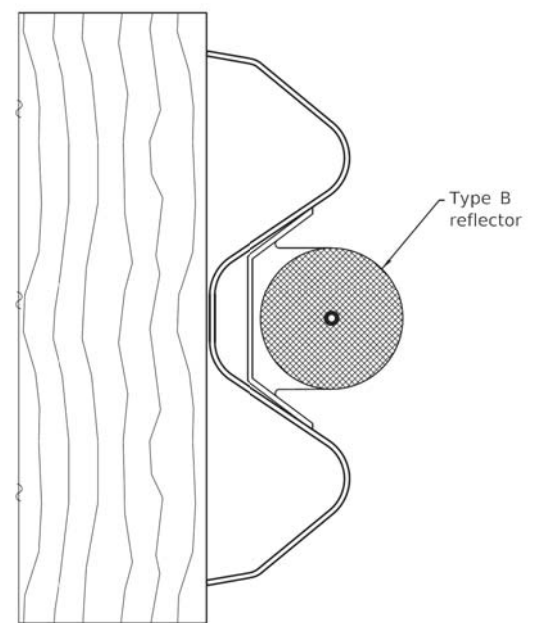


Cross section may be "T" or "L" shaped and may have side supports at ends.

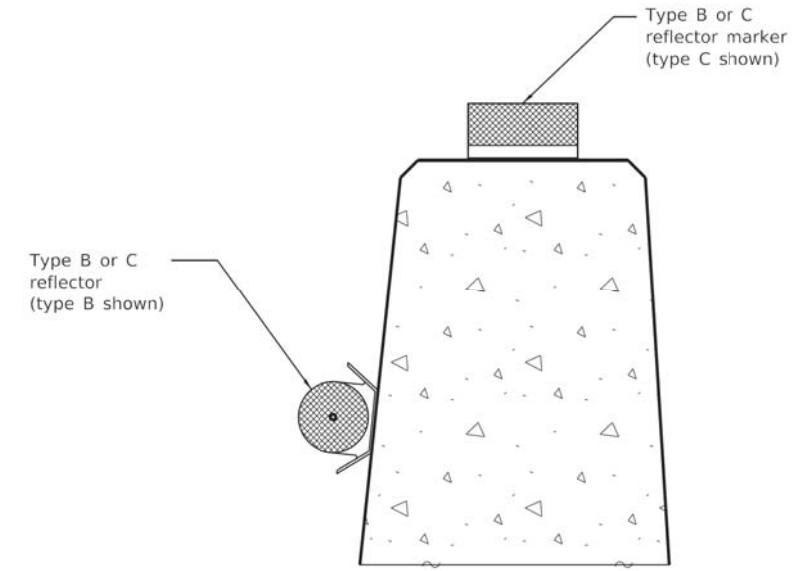
**REFLECTOR TYPE C**



**TYPICAL MOUNTING DETAIL FOR GUARDRAIL REFLECTOR**



**TYPICAL MOUNTING DETAIL FOR BRIDGE RAIL REFLECTOR**



**TYPICAL MOUNTING DETAIL FOR BARRIER WALL REFLECTOR**

**GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS**  
(Sheet 2 of 3)  
**STANDARD 782006**

Illinois Department of Transportation

PASSED April 1, 2016  
ENGINEER OF OPERATIONS

APPROVED April 1, 2016  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-2006

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**DBS** DB STERLIN CONSULTANTS, INC.  
100 N. WICKER DRIVE SUITE 2000  
CHICAGO, ILLINOIS 60606  
TEL: (312)857-1000 FAX: (312)857-1055

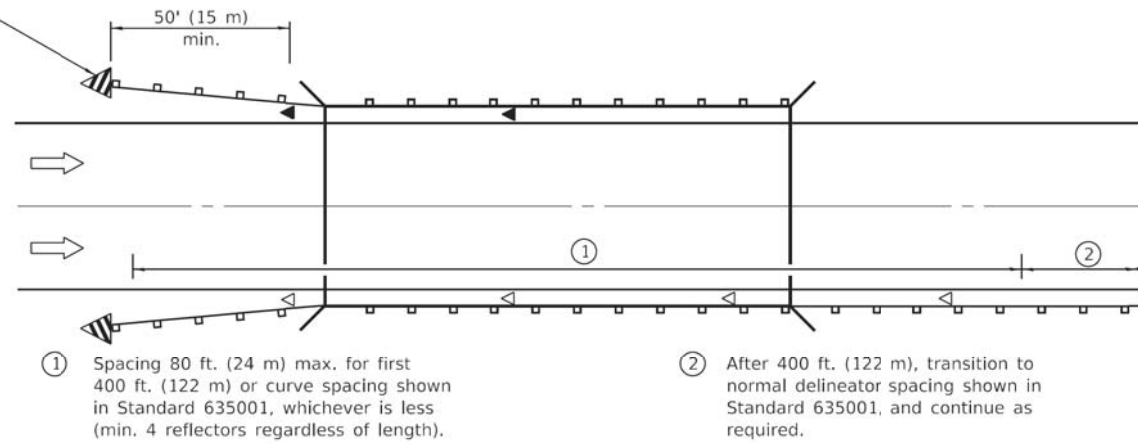
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DRAWN - JS	REVISIONS -	
CHECKED - MM	REVISIONS -	
DATE - 5/15/2018	REVISIONS -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

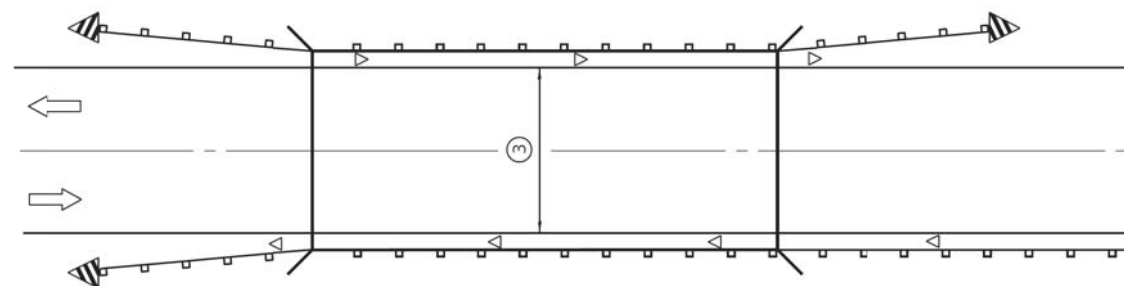
STANDARDS  
SHEET 6 OF 7 SHEETS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	22
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				

Terminal marker.  
See standard  
725001.



ONE-WAY TRAFFIC



TWO-WAY TRAFFIC

**GUARDRAIL / BARRIER WALL  
REFLECTOR PLACEMENT DETAIL**

- ◁ Monodirectional crystal
- ◄ Monodirectional amber

Illinois Department of Transportation

PASSED April 1, 2016  
ENGINEER OF OPERATIONS

APPROVED April 1, 2016  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-2006

**GUARDRAIL AND  
BARRIER WALL REFLECTOR  
MOUNTING DETAILS**  
(Sheet 3 of 3)

**STANDARD 782006**

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**DBS** DB STERLIN CONSULTANTS, INC.  
100 N. WICKER DRIVE SUITE 2000  
CHICAGO, ILLINOIS 60606  
TEL. (312)857-1000 FAX. (312)857-1056

USER NAME = mmiller	DESIGNED - JS	REVISED -
PLOT SCALE =	DRAWN - JS	REVISED -
PLOT DATE = 5/15/2018	CHECKED - MM	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STANDARDS

SHEET 7 OF 7 SHEETS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	23
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64M78	



Pay Item Number	Pay Item	Unit	Total Quantity
44000182	HOT-MIX ASPHALT SURFACE REMOVAL, 8"	SQ YD	348.9
44000152	HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"	SQ YD	937.3
40600982	HOT-MIX ASPHALT SURFACE REMOVAL- BUTT JOINT	SQ YD	578.0
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	190.9
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	348.9
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	32.8
40600990	TEMPORARY RAMP	SQ YD	114.0
60260100	INLETS TO BE ADJUSTED	EA	4.0
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	4,432

East Bound									
BEGIN	END	LENGTH (FT)	WIDTH (FT)	HMA SURF REM 3/4" (SQ YD)	HMA SURF REM BUTT JT (SQ YD)	HMA SC "D" N70	HMA SURF REM 8" (SQ YD)	HMA SHOULDERS 8	HMA SC "C" N50
46+30.50	47+07.00	76.50	17.00		144.5	18.2			
47+07.00	48+84.00	177.00	12.00	236.0		29.7			
51+16.00	52+90.50	174.50	12.00	232.7		29.3			
52+90.50	53+67.00	76.50	17.00		144.5	18.2			
47+07.00	48+65.50	158.50	5.00				88.1	88.1	
49+78.50	51+34.00	155.50	5.00				86.4	86.4	
47+07.00	48+84.00	177.0	5.00						8.3
51+16.00	52+90.50	174.5	5.00						8.1
TOTALS				468.7	289.0	95.5	174.4	174.4	16.4

West Bound									
BEGIN	END	LENGTH (FT)	WIDTH (FT)	HMA SURF REM 3/4" (SQ YD)	HMA SURF REM BUTT JT (SQ YD)	HMA SC "D" N70	HMA SURF REM 8" (SQ YD)	HMA SHOULDERS 8	HMA SC "C" N50
53+67.00	52+90.50	76.50	17.00		144.5	18.2			
52+90.50	51+16.00	174.50	12.00	232.7		29.3			
48+84.00	47+07.00	177.00	12.00	236.0		29.7			
47+07.00	46+30.50	76.50	17.00		144.5	18.2			
51+34.00	49+78.50	155.50	5.00				86.4	86.4	
48+65.50	47+07.00	158.50	5.00				88.1	88.1	
52+90.50	51+16.00	174.50	5.00						96.9
48+84.00	47+07.00	177.00	5.00						8.1
TOTALS				468.7	289.0	95.5	174.4	174.4	16.4

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USER NAME = rollins	DESIGNED - _____	REVISED - _____	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	HOT-MIX ASPHALT APPROACH DETAILS			F.A. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =
PLOT SCALE = 93.4670' / in.	DRAWN - _____	REVISED - _____		SN 037-0079			80	(17-1)B-2(B)R	HENRY	37	24
PLOT DATE = May-14-2018 10:48:02 AM	CHECKED - _____	REVISED - _____		SCALE: _____	SHEET _____	OF _____ SHEETS	STA. _____	TO STA. _____	CONTRACT NO. 64H78		
	DATE - _____	REVISED - _____		ILLINOIS   FED AID PROJECT							



Location and Mixture Uses(s):	Resurfacing	Shoulders	
	Surface	Top Lift	All Lower Lifts
PG:	PG 64-22	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N70	4.0 @ N50	3.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5	IL 9.5, or 9.5FG	IL 19.0
Friction Aggregate	D	C	N/A
20 Year ESAL	0.3	N/A	N/A
Mix Unit Weight	112 lbs/sy/in	112 lbs/sy/in	
Quality Management Program to be Used	<b>QC/QA</b>	<b>QC/QA</b>	<b>QC/QA</b>
Sublot Tonnage			

\* On projects with less than 2000 tons Level Binder, Growth Curve can be used for Density.

MODEL: D:\air\...  
 FILE NAME: \\IL04E810NTEC\illinois.gov\PW\DOT\Documents\DOT\_Offices\District 2\Projects\Operations\Budge\_Section\Henry\037-0079\16\_overlay\Working\_1

USER NAME = rollinsks	DESIGNED - _____	REVISED - _____
DRAWN - _____	CHECKED - _____	REVISED - _____
PLOT SCALE = 62.4284' / in	DATE - _____	REVISED - _____
PLOT DATE = May-14-2018 10:49:46 AM		

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

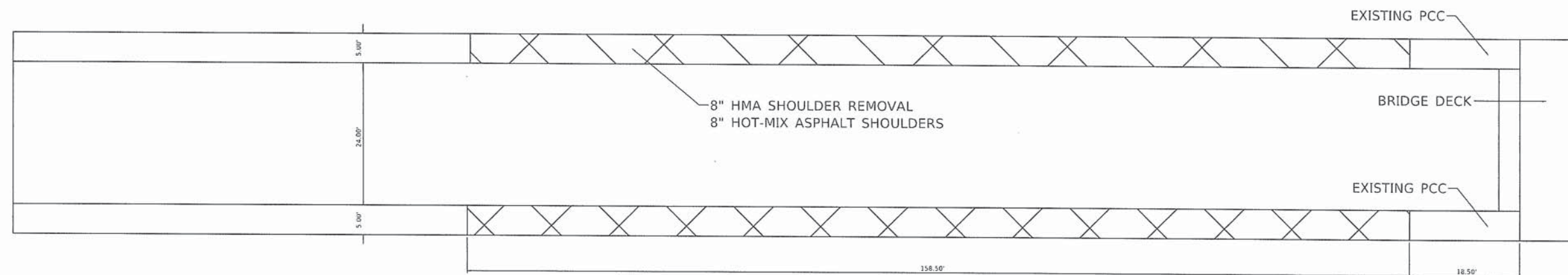
HOT-MIX ASPHALT APPROACH DETAILS  
 SN 037-0079

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

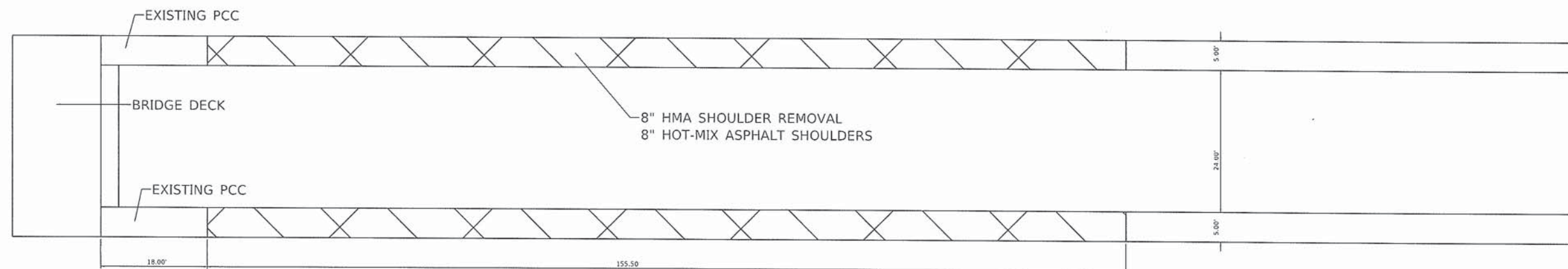
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	25
			CONTRACT NO. 64M78	

ILLINOIS FED. AID PROJECT

# WEST SIDE PROPOSED PRE STAGE



# EAST SIDE PROPOSED PRE STAGE



MODEL: D:\evr\...  
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USER NAME = rollinsks	DESIGNED - _____	REVISED - _____
DRAWN - _____	REVISED - _____	REVISED - _____
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PLOT DATE = May-14-2018 10:53:08 AM	DATE - _____	REVISED - _____

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

HOT-MIX ASPHALT APPROACH DETAILS  
 SN 037-0079  
 SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

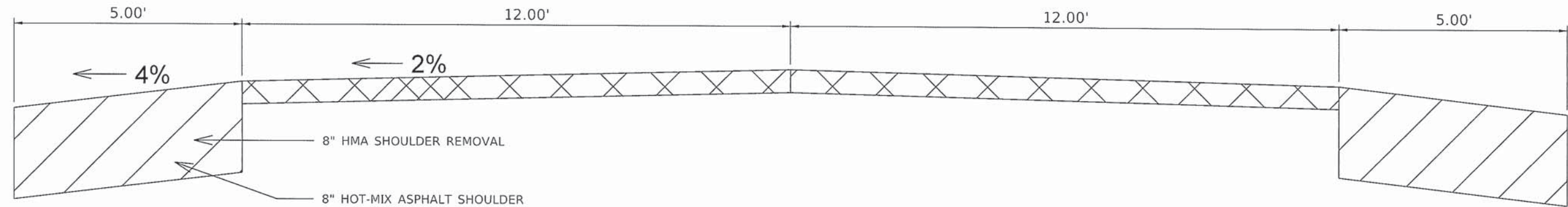
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80	(37-1HB-2)BDR	HENRY	37	26
CONTRACT NO. 64M78				
ILLINOIS FED. AID PROJECT				





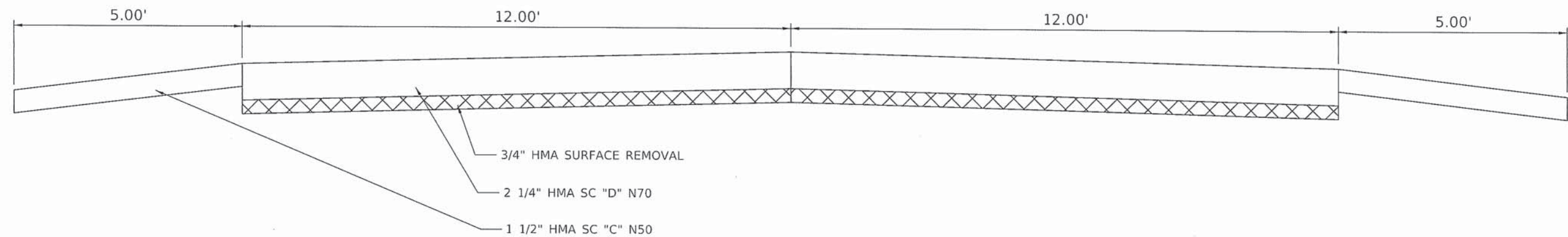
**TYPICAL SECTION  
PRE STAGE  
SHOULDER STRENGTHENING**

**STA.  
47 + 07.00 TO 48 + 65.50  
49 + 78.50 TO 51 + 34.00**



**TYPICAL SECTION  
STAGE 3  
PROPOSED MAINLINE / SHOULDER**

**STA.  
47 + 07.00 TO 48 + 84.00  
51 + 16.00 TO 52 + 90.50**



MODEL: I:\pwork\...  
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USER NAME = rllmsks	DESIGNED - _____	REVISED - _____
DRAWN - _____	CHECKED - _____	DATE - _____
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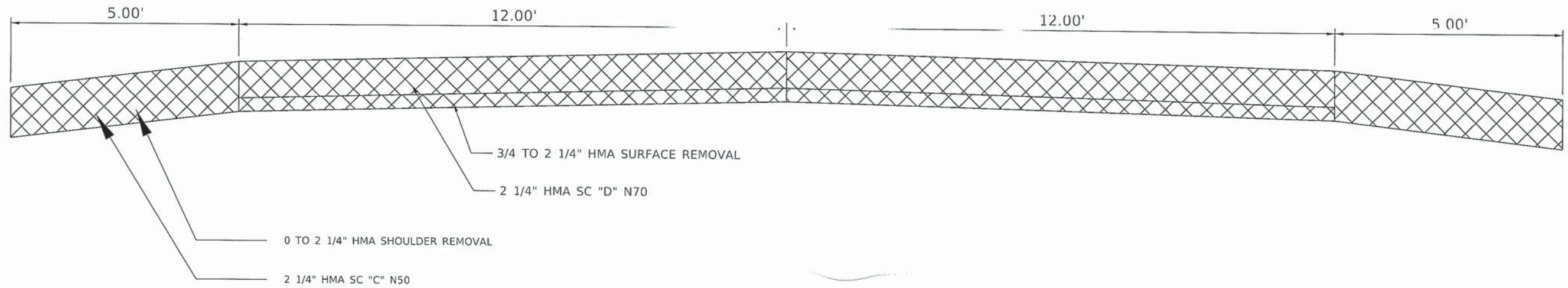
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

HOT-MIX ASPHALT APPROACH DETAILS  
 SN 037-0079  
 SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A. RTE. = 80	SECTION = (37-1HB-2)BDR	COUNTY = HENRY	TOTAL SHEETS = 37	SHEET NO. = 28
CONTRACT NO. 64M78				
ILLINOIS FED. AID PROJECT				

**TYPICAL SECTION  
PROPOSED MAINLINE / SHOULDER**

**STA.  
46 + 30.50 TO 47 + 07.00  
52 + 90.50 TO 53 + 67.00**



MODEL: D:\four  
FILE NAME: I:\work\0448\BDR\TEG\Illinois.gov\pwin\001\Documents\1101 - Office\1101\Drawn - 2\Projects\Operations\Bridg - Section\Henry037-007\Title - every\Working 1

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DRAWN - _____	REVISIONS - _____	REVISIONS - _____
PLOT SCALE = 2.4808' / in.	CHECKED - _____	REVISIONS - _____
PLOT DATE = Mar 28 2018 07:14:21 AM	DATE - _____	REVISIONS - _____

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

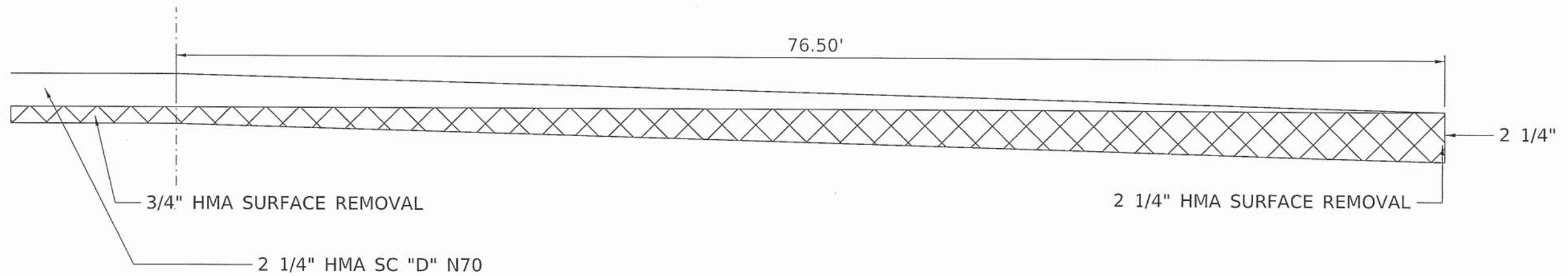
HOT-MIX ASPHALT APPROACH DETAILS  
SN 037-0079  
SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	29
CONTRACT NO. 64M78				
ILLINOIS FED. AID PROJECT				

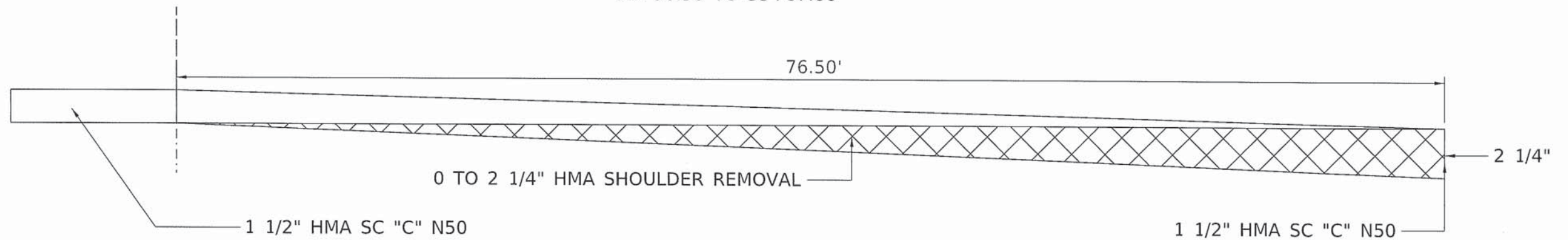


# TYPICAL SECTIONS

MAINLINE TAPER  
 STA.  
 46+30.50 TO 47+07.00  
 52+90.50 TO 53+67.00



SHOULDER TAPER  
 STA.  
 46+30.50 TO 47+07.00  
 52+90.50 TO 53+67.00



MODEL: Default  
 FILE NAME: p:\V\0848B\BDR\TEG\Illinois\pwr\DOT\Documents\BDR\Office\BDR\2\Projects\Operations\BDR\Section\Kerry\037-0079\016\overday\Working\_1

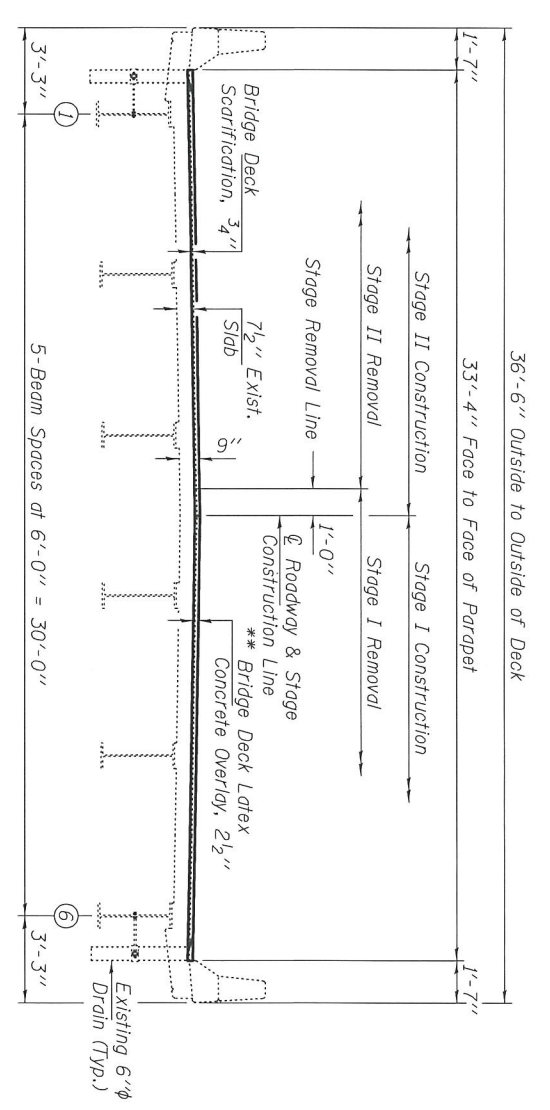
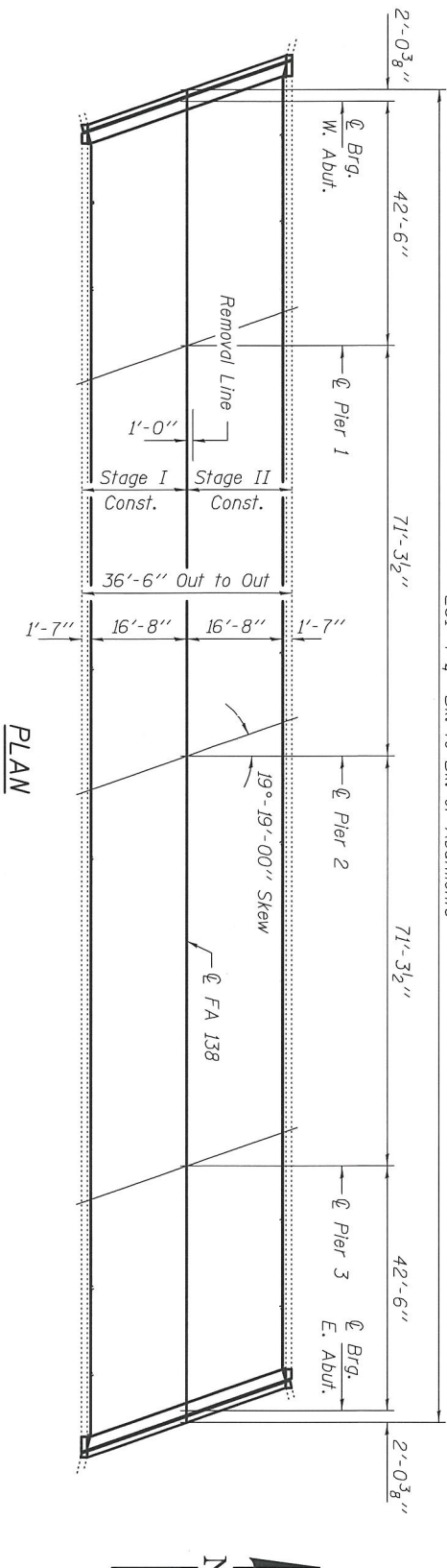
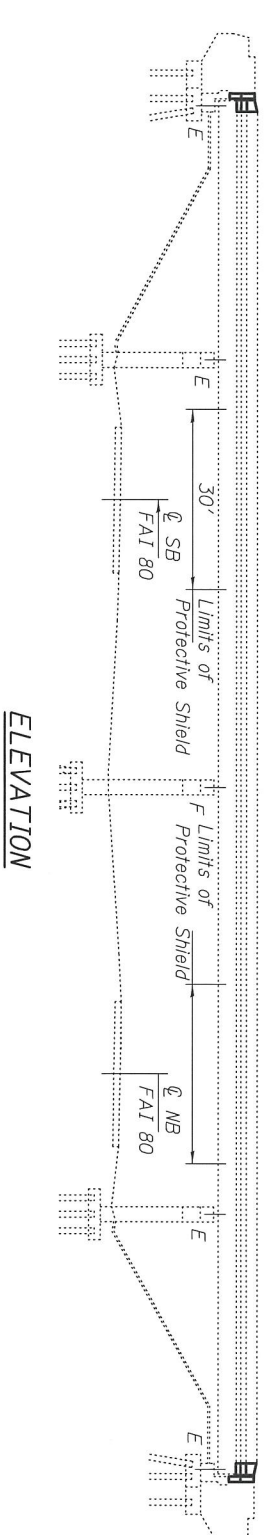
USER NAME = rollinsks	DESIGNED - _____	REVISED - _____
PLOT SCALE = 7.2682' / in.	DRAWN - _____	REVISED - _____
PLOT DATE = May 14-2018 10:51:12 AM	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

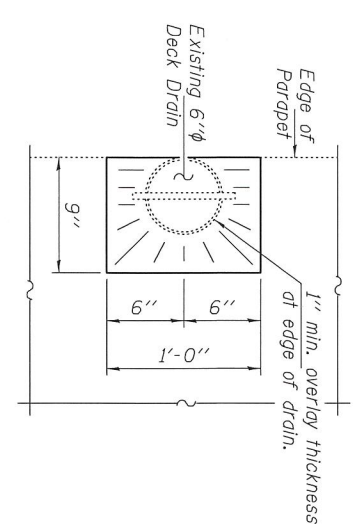
HOT-MIX ASPHALT APPROACH DETAILS  
 SN 037-0079

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(37-1HB-2)BDR	HENRY	37	30
CONTRACT NO. 64M78				
ILLINOIS FED. AID PROJECT				



**CROSS SECTION**  
(Looking East)  
\*\* Prior to 1/4" Diamond Grinding.



**OVERLAY TREATMENT AT DRAINS**

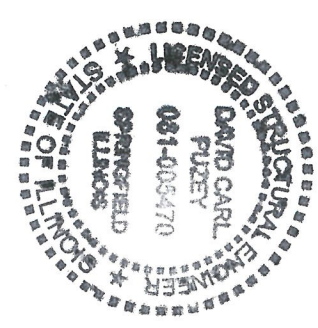
**GENERAL NOTES**

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.  
 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.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.  
 Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.  
 Synthetic Fibers shall be added to the Bridge Deck Latex Concrete Overlay. Fasteners shall be high strength bolts. Bolts 3/4"φ, open holes 1/2"φ, unless otherwise noted.  
 Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.  
 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".

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	11.1
Concrete Superstructure	Cu. Yd.	12.1
Reinforcement Bars, Epoxy Coated	Pound	1320
Structural Steel Removal	Pound	1180
Structural Steel Repair	Pound	1360
Bar Splicers	Each	24
Performed Joint Strip Seal	Foot	77
Bridge Deck Latex Concrete Overlay, 2 1/2"	Sq. Yd.	830.3
Bridge Deck Scarification, 3"	Sq. Yd.	830.3
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	617.7
Diamond Grinding (Bridge Section)	Sq. Yd.	857.9
Protective Coat	Sq. Yd.	861.1
Furnishing & Erecting Structural Steel	Pound	2730
Elastomeric Bearing Assembly, Type II	Each	12
Anchor Bolts, 1"φ	Each	24
Jack and Remove Existing Bearings	Each	12
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	25
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	85
Protective Shield	Sq. Yd.	260

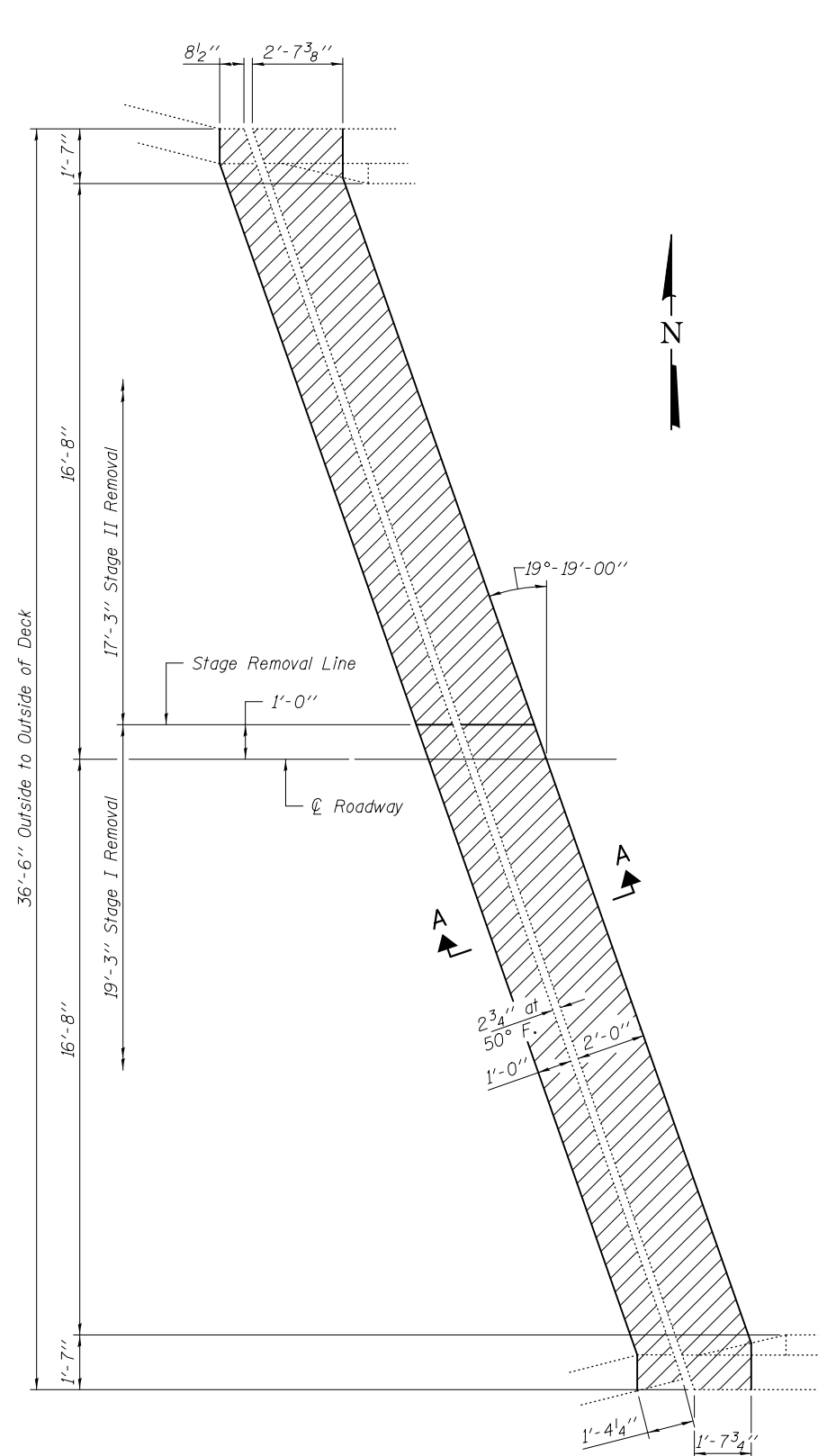
\* New concrete & overlay areas only.  
 \*\* The quantity is estimated. Actual location and dimensions of patches to be determined by the Engineer in the field.



DESIGNED BY: *W. Brooks Bellas* EXAMINED BY: *Timothy A. Strimbeck* DATE: OCTOBER 3, 2018  
 CHECKED: *6/17/18* DRAWN: *MS* PASSED: *MS* REVISIONS: NONE  
 ENGINEER OF BRIDGES AND STRUCTURES  
 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION  
 PLAN AND ELEVATION FA 138 (US 6) OVER FAI 80  
 SHEET NO. 1 OF 7 SHEETS  
 CONTRACT NO. 64M78

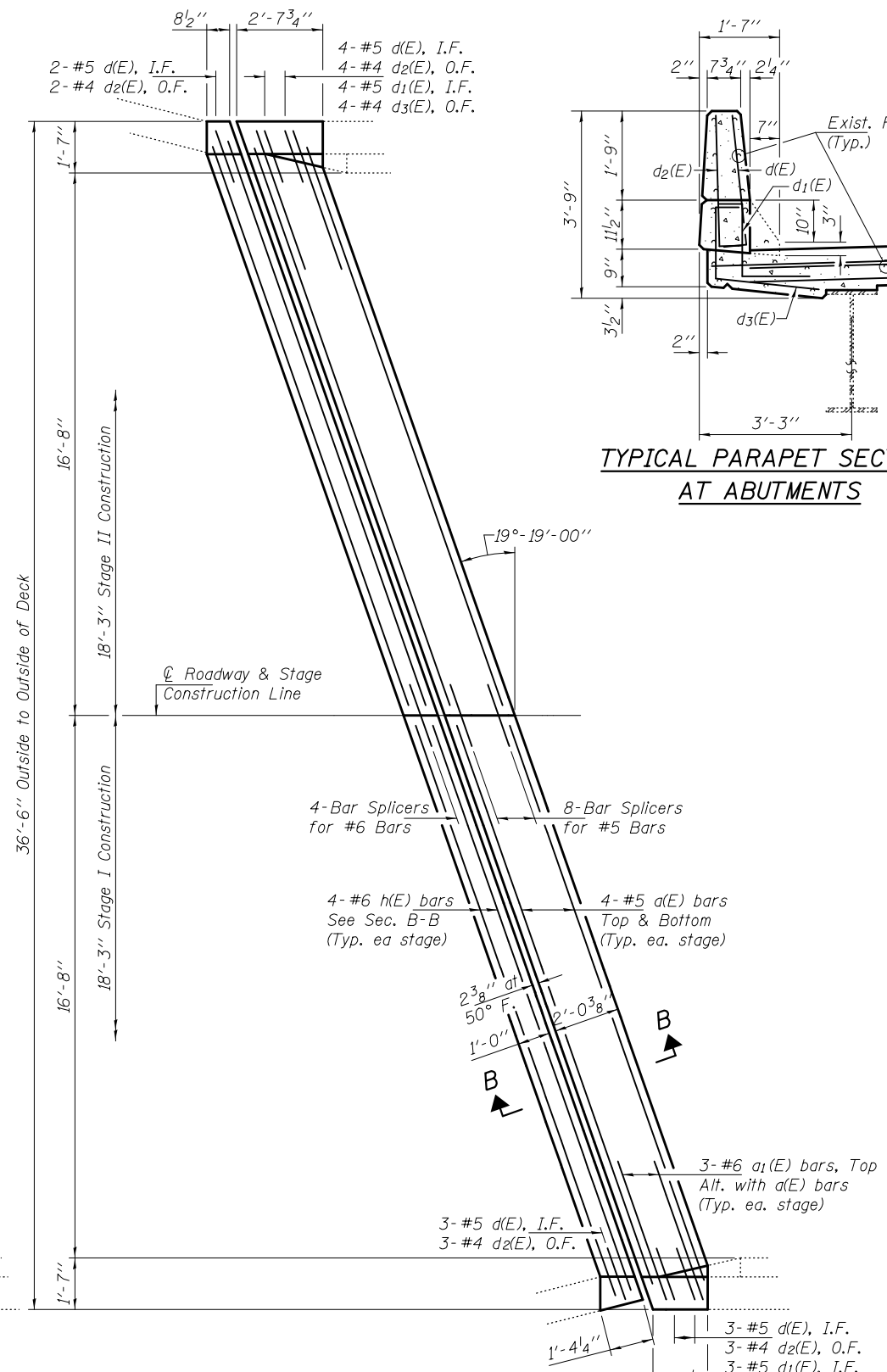
EXPIRES 11-30-2018





**REMOVAL PLAN**

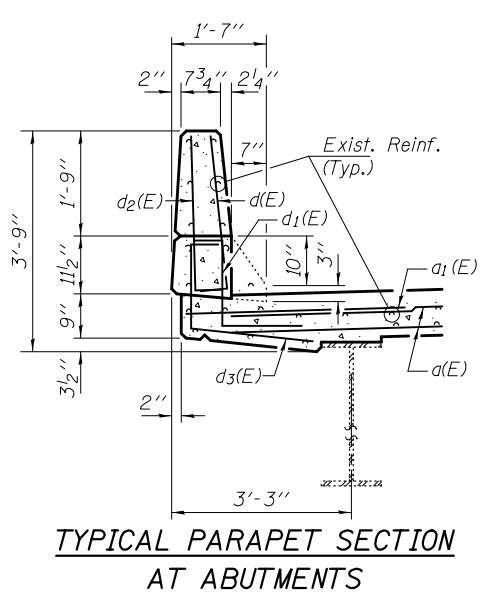
(West Abutment shown; East Abutment similar by rotation.)



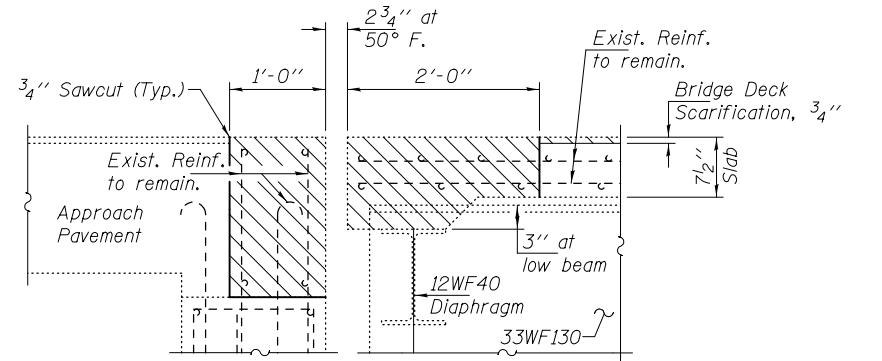
**REPLACEMENT PLAN**

(West Abutment shown; East Abutment similar by rotation.)

Note: Hatched areas indicate removal.

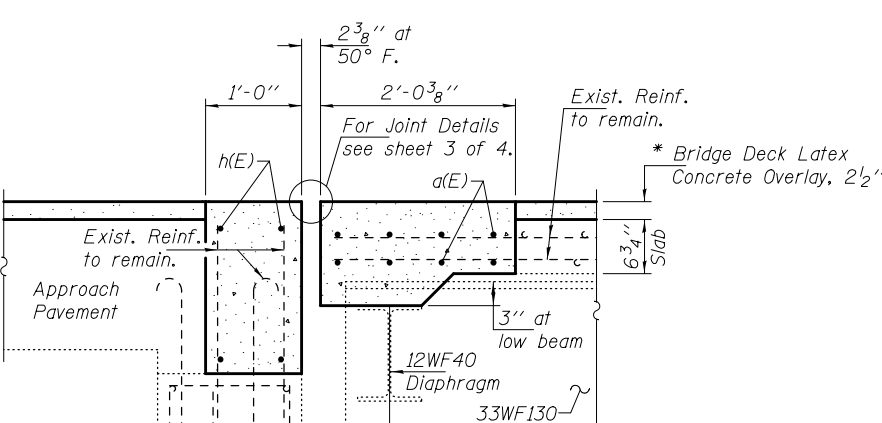


**TYPICAL PARAPET SECTION AT ABUTMENTS**



**SECTION A-A**

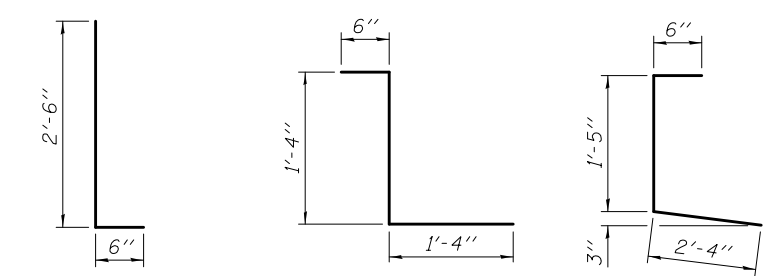
Dims. at Rt. L's



**SECTION B-B**

Dims. at Rt. L's

\* Prior to 1/4" Diamond Grinding.



**BARS d(E) & d2(E) BAR d1(E) BARS d3(E)**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	32	#5	17'-10"	—
a1(E)	12	#6	4'-6"	—
d(E)	24	#5	3'-0"	L
d1(E)	14	#5	3'-2"	L
d2(E)	24	#4	3'-0"	L
d3(E)	14	#4	4'-3"	L
h(E)	16	#6	17'-10"	—
Concrete Removal		Cu. Yd.	11.1	
Concrete Superstructure		Cu. Yd.	12.1	
Reinforcement Bars, Epoxy Coated		Lbs.	1320	

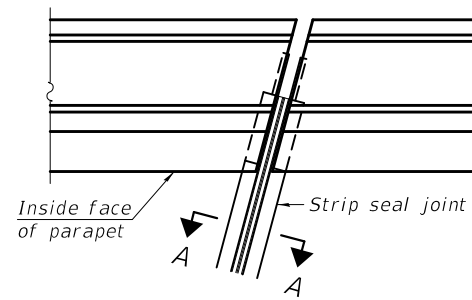
DESIGNED <i>MLD</i>	EXAMINED <i>Timothy A. ...</i>	DATE <i>OCTOBER 3, 2018</i>
CHECKED <i>JSB</i>	PASSED <i>Carl ...</i>	REVISIONS
DRAWN <i>Steffen</i>		
CHECKED <i>MLD JSB</i>		

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REMOVAL AND REPLACEMENT DETAILS SN 037-0079**

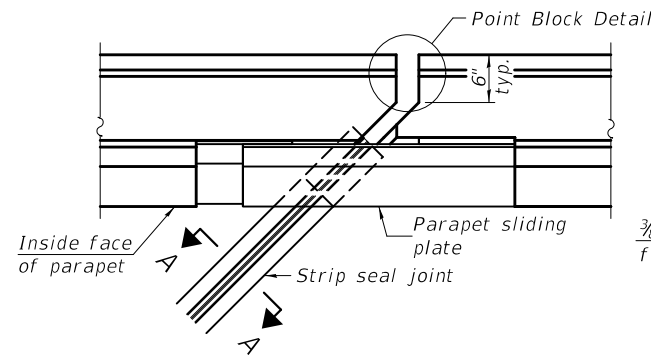
SHEET NO. 2 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2137-1HB-2)BDR	HENRY	37	32
CONTRACT NO. 64M78			ILLINOIS FED. AID PROJECT	

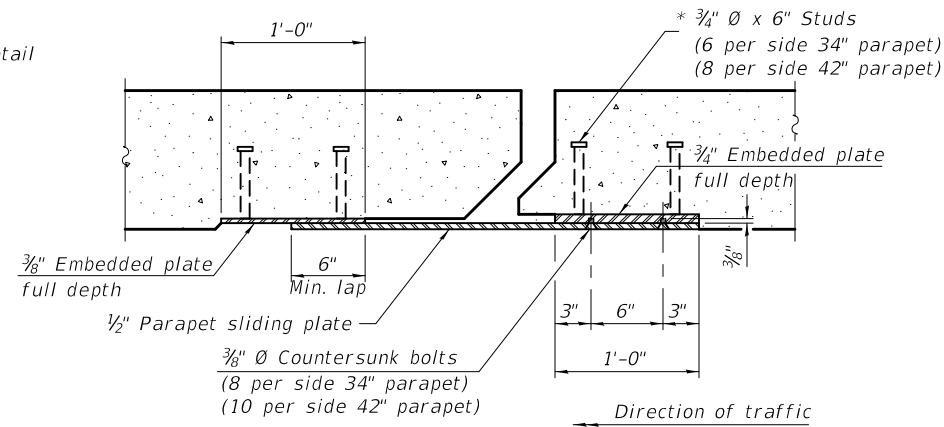


FOR SKEWS  $\leq 30^\circ$

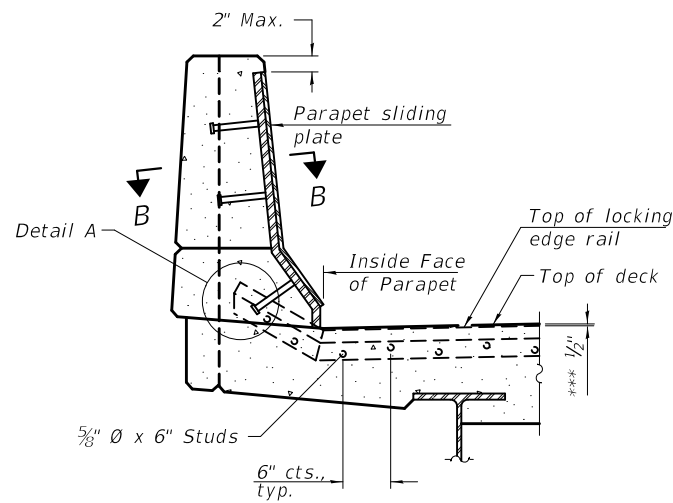
PLAN AT PARAPET



FOR SKEWS  $> 30^\circ$

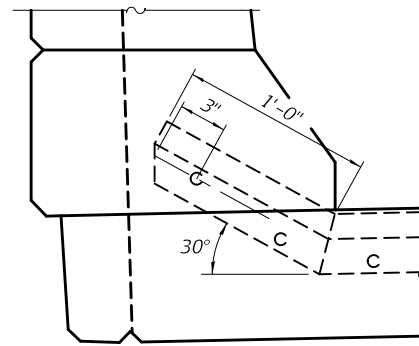


SECTION B-B

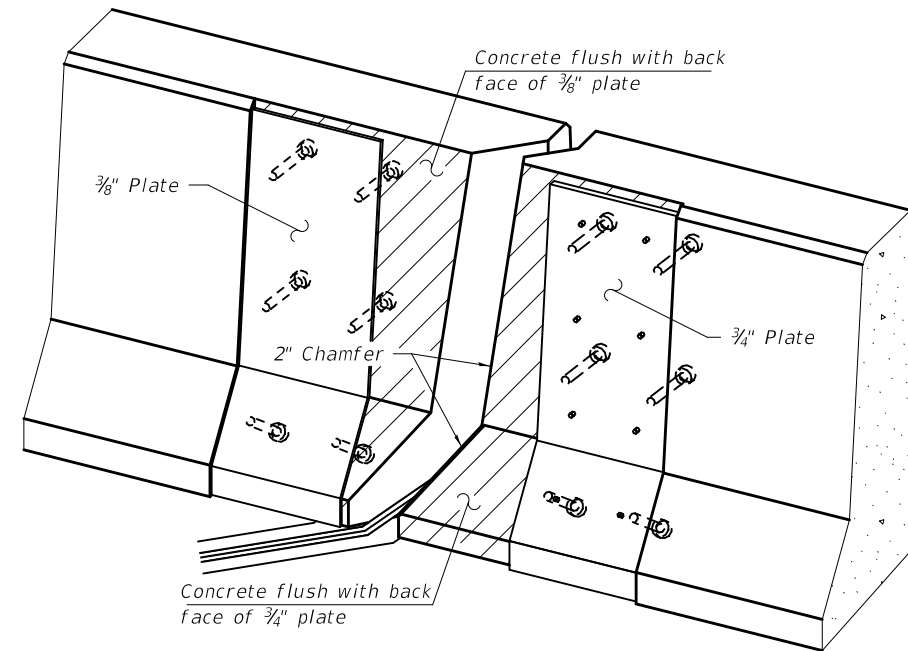


ELEVATION AT PARAPET

(Skews  $> 30^\circ$  shown. Skews  $\leq 30^\circ$  similar except as shown in plan view.)



DETAIL A



TRIMETRIC VIEW  
(Showing embedded plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of  $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the  $4\frac{1}{2}$ " maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

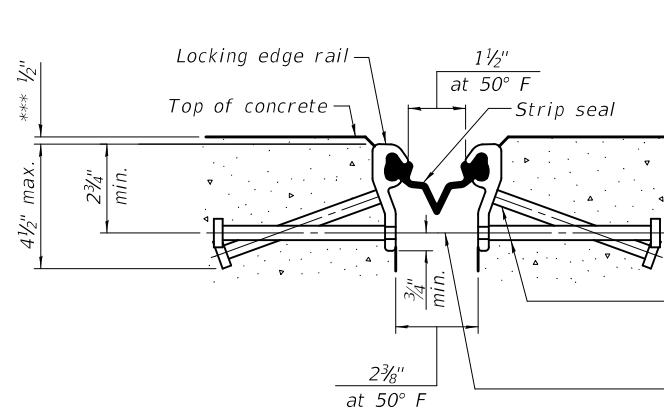
The manufacturer's recommended installation methods shall be followed.

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

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

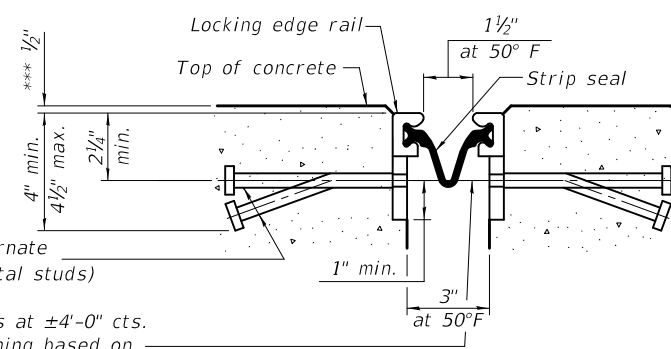
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

34" F-shape barrier shown, 42" F-shape similar as noted. The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT

\*\*\* Prior to  $\frac{1}{4}$ " Diamond Grinding.



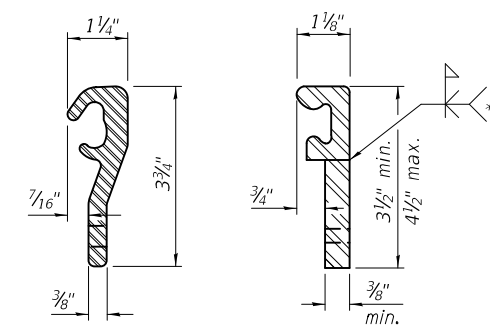
SHOWING WELDED RAIL JOINT

\*  $\frac{5}{8}$ "  $\phi$  x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

$\frac{3}{8}$ "  $\phi$  threaded rods in  $\frac{7}{16}$ "  $\phi$  holes at  $\pm 4'-0"$  cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

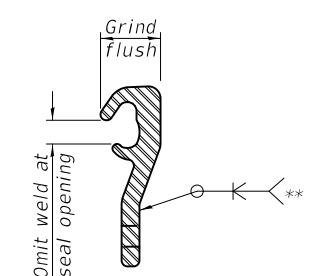
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED (EXTRUDED) RAIL      WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	77

EJ-SS

8-11-17

DESIGNED	MLD
CHECKED	JSB
DRAWN	Steffen
CHECKED	MLD JSB

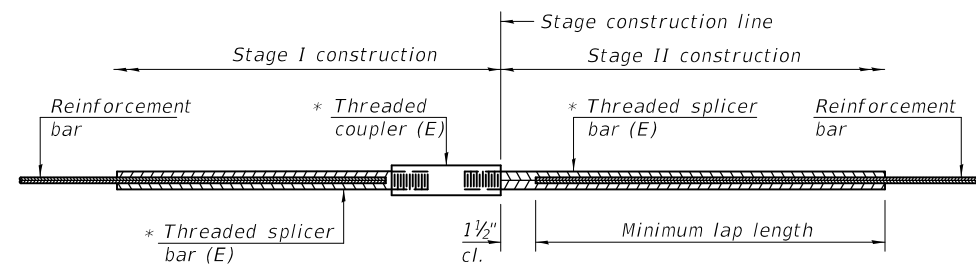
EXAMINED	<i>Timothy A. Daulton</i>	DATE	OCTOBER 3, 2018
PASSED	<i>Carl Kroyer</i>	REVISOR	
	ENGINEER OF STRUCTURAL SERVICES	REVISOR	
	ENGINEER OF BRIDGES AND STRUCTURES		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS  
SN 037-0079

SHEET NO. 3 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2137-1HB-2IBDR	HENRY	37	33
			CONTRACT NO. 64M78	
ILLINOIS FED. AID PROJECT				

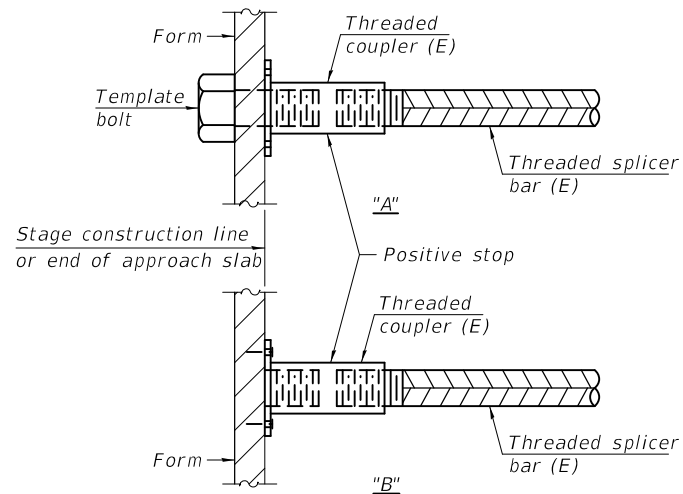


**STANDARD BAR SPLICER ASSEMBLY**

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

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

Location	Bar size	No. assemblies required	Minimum lap length
W. Abut. (Hatch)	#6	4	4'-0"
W. Abut. (Deck)	#5	8	3'-6"
E. Abut. (Hatch)	#6	4	4'-0"
E. Abut. (Deck)	#5	8	3'-6"

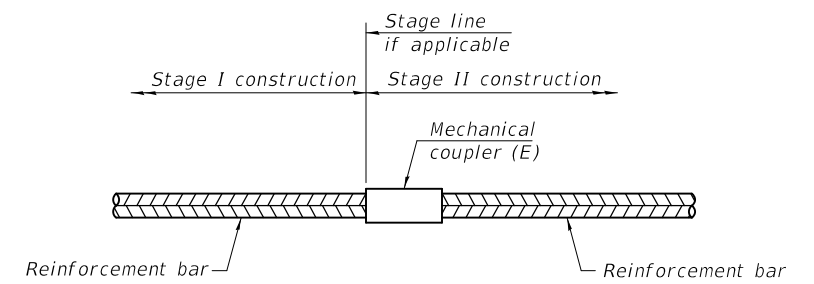


**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.

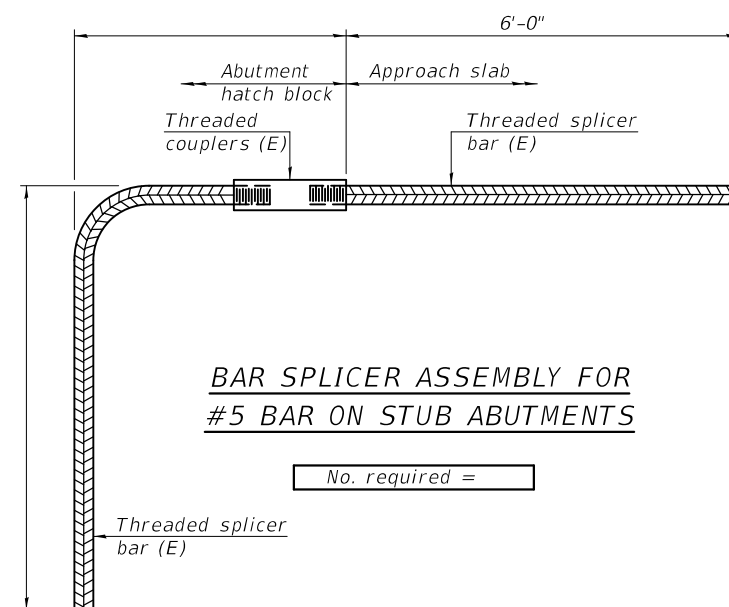
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

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

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

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

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

BSD-1

2-17-2017

DESIGNED <i>MLD</i>	EXAMINED <i>Timothy A. D... ENGINEER OF STRUCTURAL SERVICES</i>	DATE <i>OCTOBER 3, 2018</i>
CHECKED <i>JSB</i>	PASSED <i>Carl... ENGINEER OF BRIDGES AND STRUCTURES</i>	REVISED
DRAWN <i>Steffen</i>		REVISED
CHECKED <i>MLD JSB</i>		

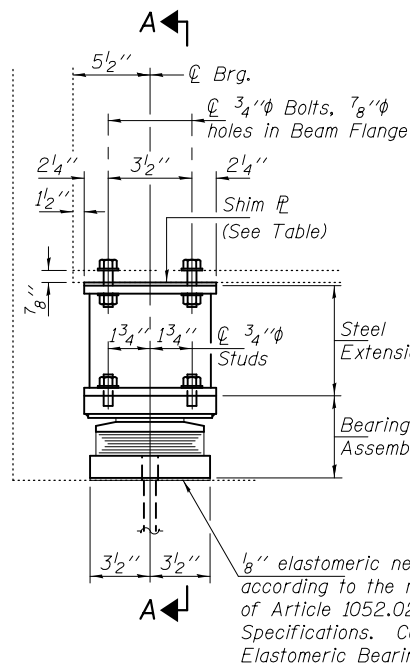
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
SN 037-0079**

SHEET NO. 4 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2137-1HB-2)BDR	HENRY	37	34
CONTRACT NO. 64M78			ILLINOIS FED. AID PROJECT	

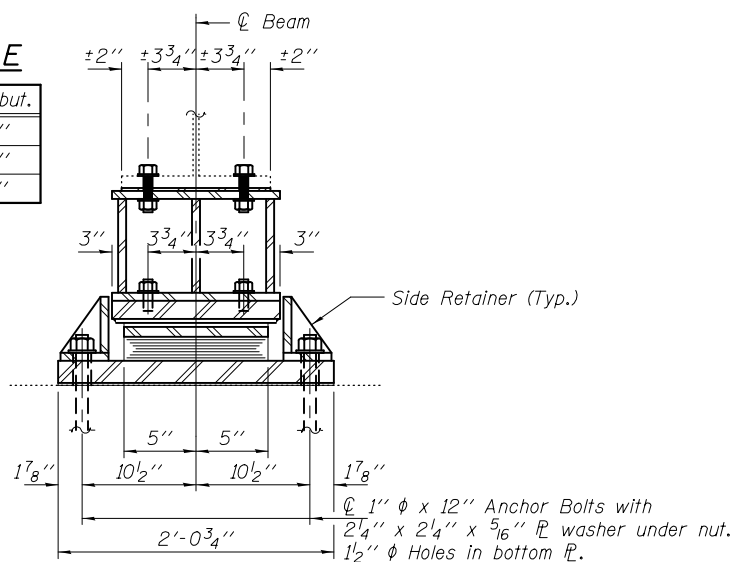




**ELEVATION AT ABUTMENT**

**SHIM PLATE TABLE**

Beam	W. Abut.	E. Abut.
2	3/8"	7/16"
3	9/16"	9/16"
4	5/8"	11/16"



**SECTION A-A**

**TYPE II TFE ELASTOMERIC EXP. BRG.**

**BEAM REACTIONS**

R <sub>L</sub>	(K)	14.2
R <sub>T</sub>	(K)	29.5
Imp.	(K)	8.8
R (Total)	(K)	52.5

**Notes:**

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 30 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

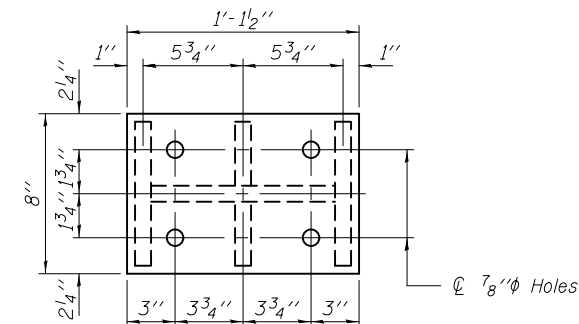
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

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

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

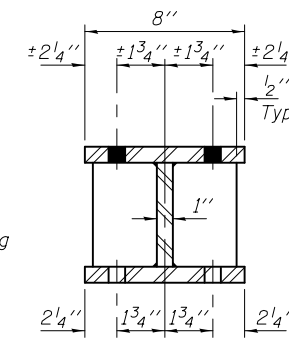
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

New bearing plates, steel extensions, shim plates, side retainers, anchor bolts, connection bolts, nuts, and washers shall be galvanized according to AASHTO M111 or M232 as applicable.

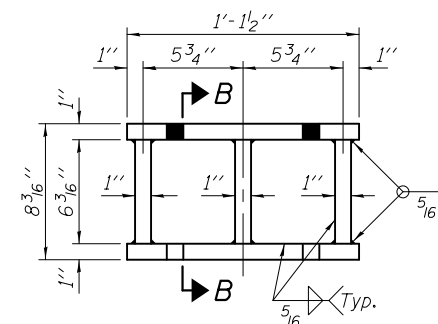


**PLAN TOP AND BOTTOM PLATE**

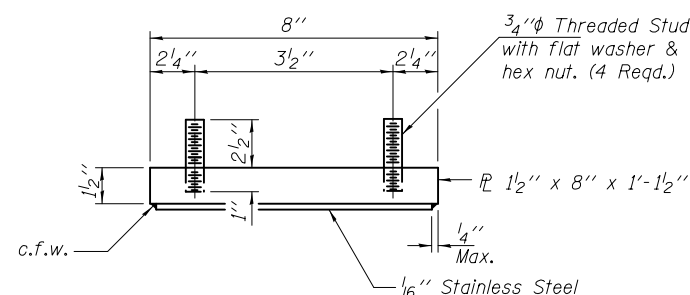
Top plate shall be field drilled using bottom flange as template. Bottom plate shall be shop drilled.



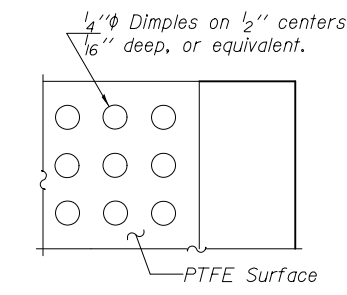
**SECTION B-B**



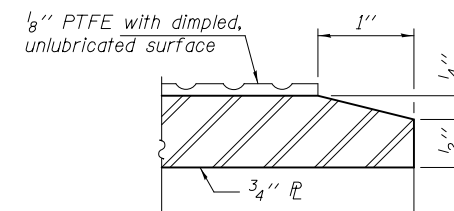
**STEEL EXTENSION DETAIL**



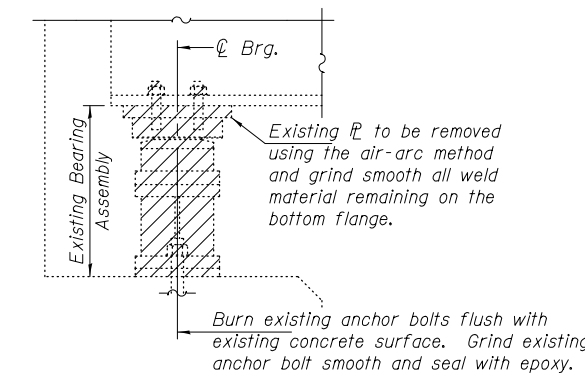
**TOP BEARING ASSEMBLY**



**PLAN-PTFE SURFACE**

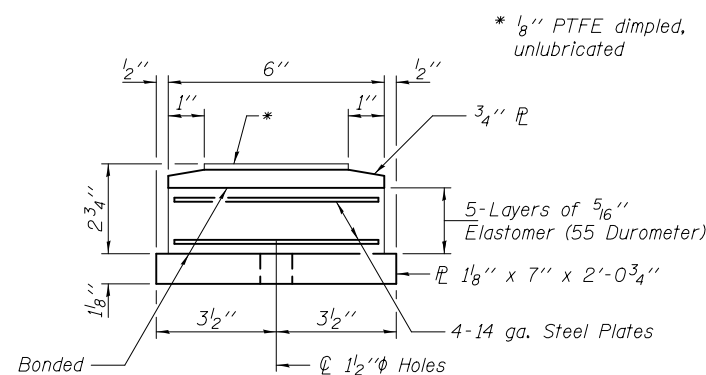


**SECTION THRU PTFE**

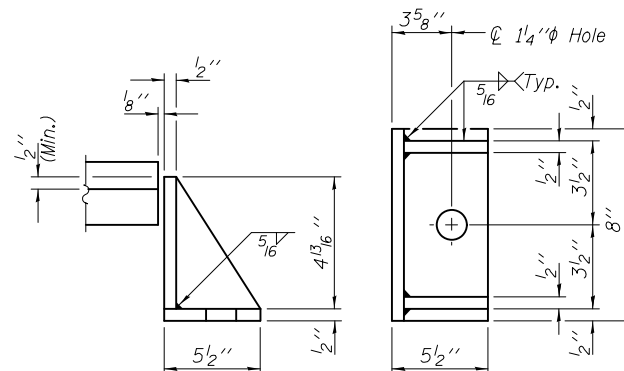


**EXISTING BEARING REMOVAL DETAIL**

Cost included with Jack and Remove Existing Bearings.

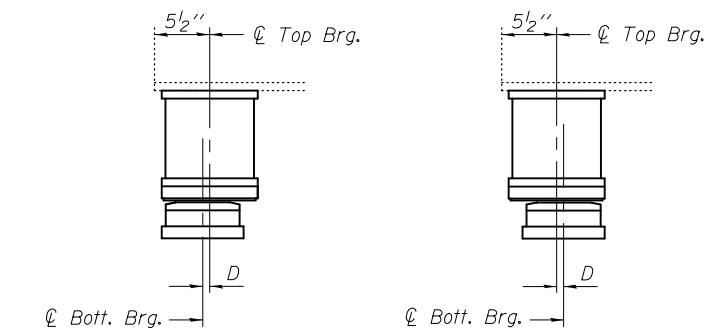


**BOTTOM BEARING ASSEMBLY**



**SIDE RETAINER**

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



BELOW 50° F.

ABOVE 50° F.

(Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

**SETTING ANCHOR BOLTS AT EXP. BRG.**

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	12
Jack and Remove Existing Bearings	Each	12
Furnishing and Erecting Structural Steel	Pound	1510
Anchor Bolts 1"φ	Each	24

TYII/REPS 12-03-2008

DESIGNED MLD  
CHECKED JSB  
DRAWN Steffen  
CHECKED MLD JSB

EXAMINED  
PASSED  
ENGINEER OF STRUCTURAL SERVICES  
ENGINEER OF BRIDGES AND STRUCTURES

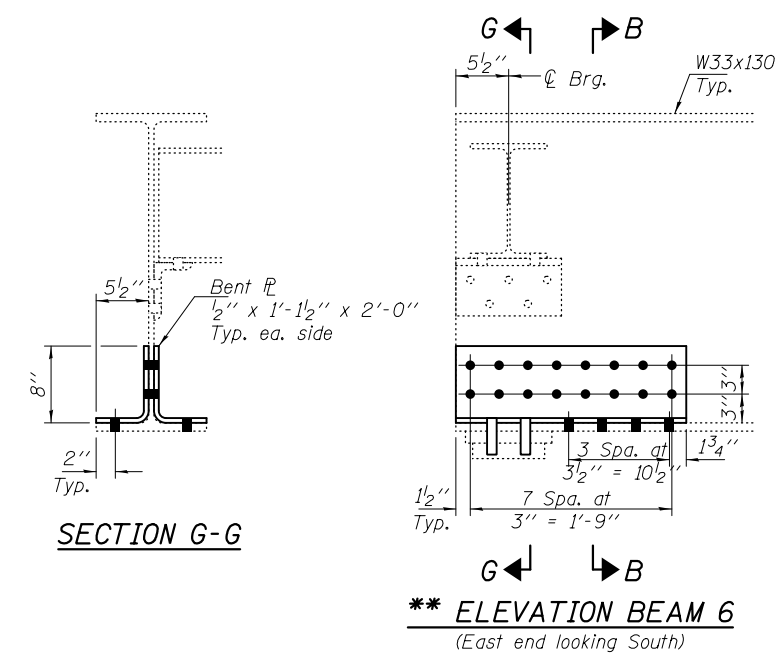
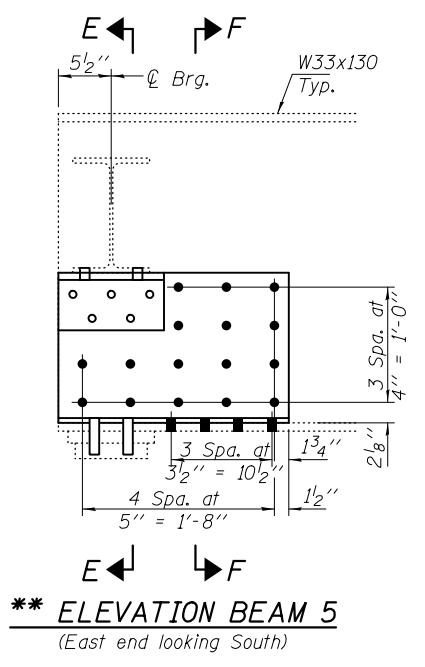
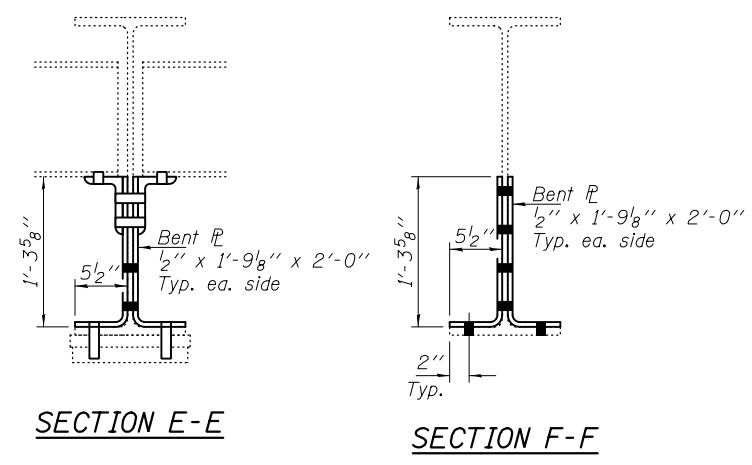
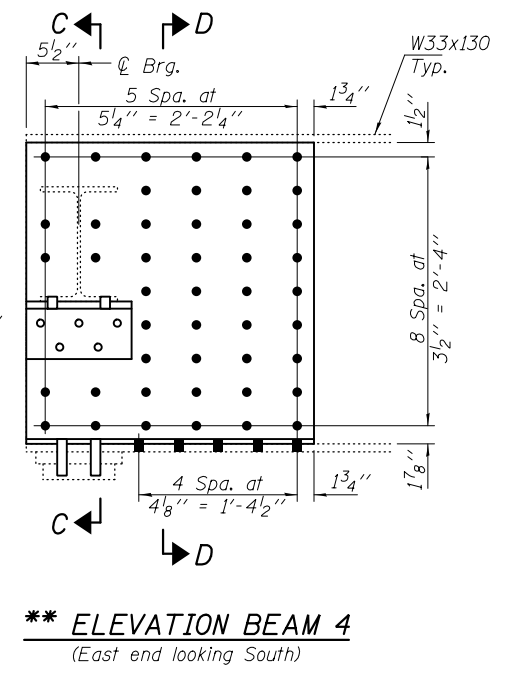
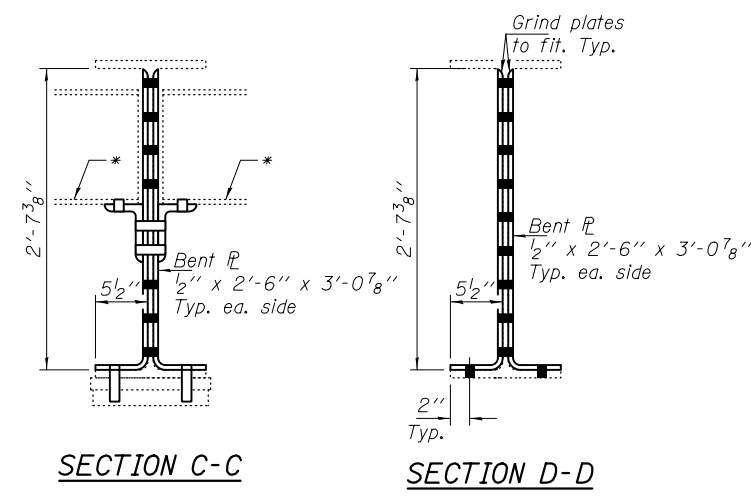
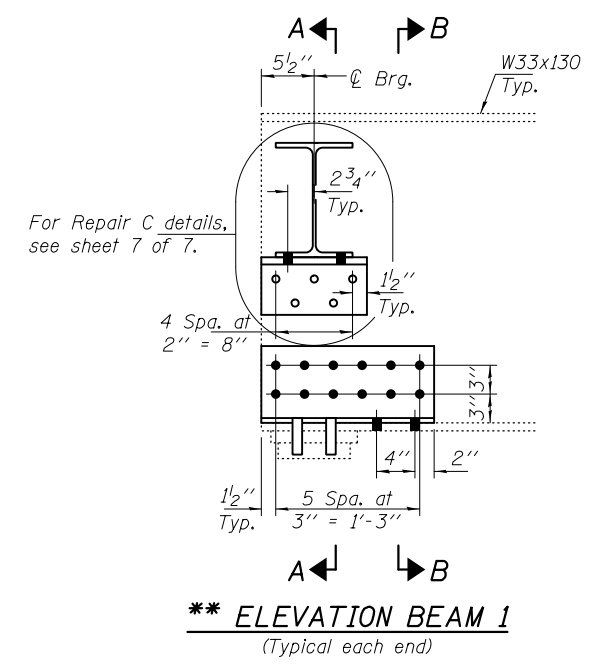
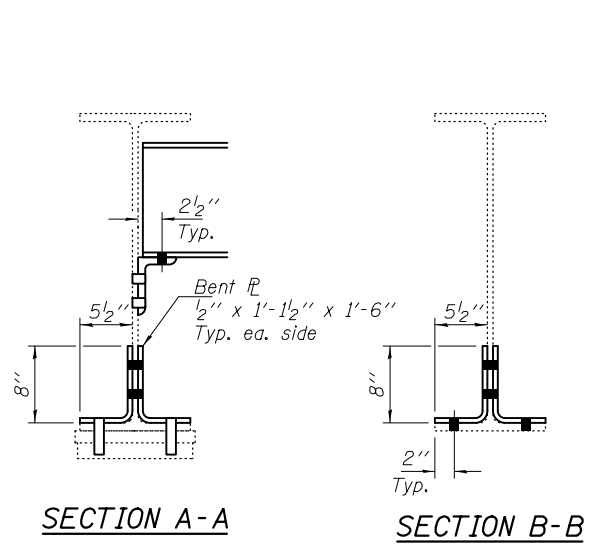
DATE OCTOBER 3, 2018  
REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS  
SN 037-0079

SHEET NO. 5 OF 7 SHEETS

F.A.I. R.T.E. SECTION COUNTY TOTAL SHEETS SHEET NO.  
80 D2137-1HB-28DR HENRY 37 35  
CONTRACT NO. 64M78  
ILLINOIS FED. AID PROJECT



\*\* Cleaning and painting of this connection shall meet the requirements for Primary Connections as specified in the special provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

For location sketch see sheet 7 of 7.

- Holes to be field drilled in existing  $\mathbb{R}$  using new  $\mathbb{R}$  as template.
- Holes to be field drilled in new  $\mathbb{R}$  & L using existing holes as template.

Fasteners shall be high strength bolts. Bolts  $7/8''\phi$ , open holes  $15/16''\phi$ , unless otherwise noted.  
Diaphragm connection holes shall be  $15/16''\phi$  for  $3/4''\phi$  bolts. Two hardened washers shall be required at diaphragm connections.

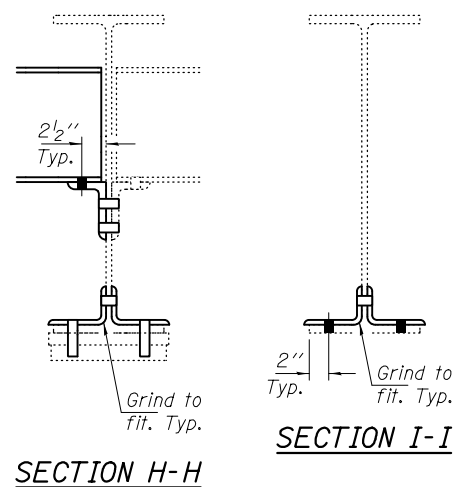
DESIGNED HSS	EXAMINED <i>Timothy A. Daulton</i>	DATE OCTOBER 3, 2018
CHECKED JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED <i>Carl Kruger</i>	REVISOR
CHECKED HSS JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REPAIR A DETAILS  
SN 037-0079

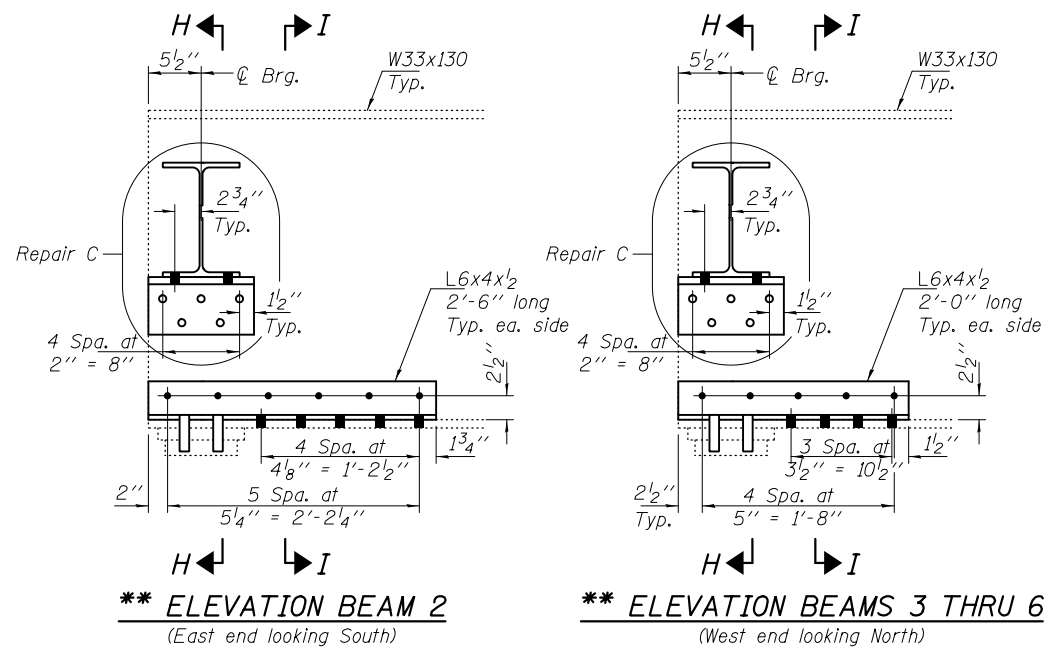
SHEET NO. 6 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2137-1HB-29BDR	HENRY	37	36
CONTRACT NO. 64M78			ILLINOIS FED. AID PROJECT	



SECTION H-H

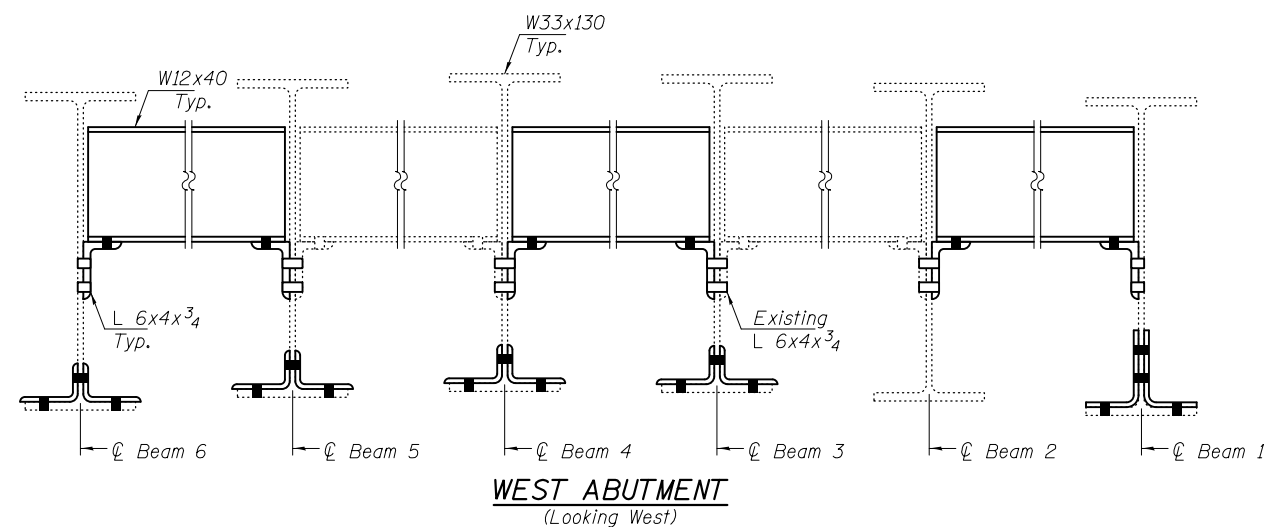
SECTION I-I



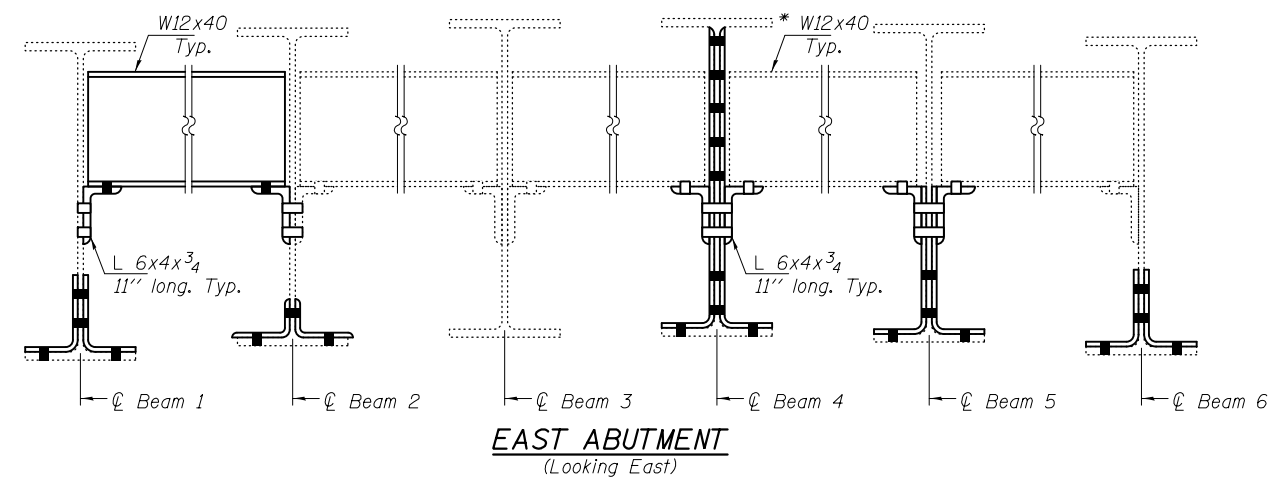
\*\* ELEVATION BEAM 2  
(East end looking South)

\*\* ELEVATION BEAMS 3 THRU 6  
(West end looking North)

REPAIR B



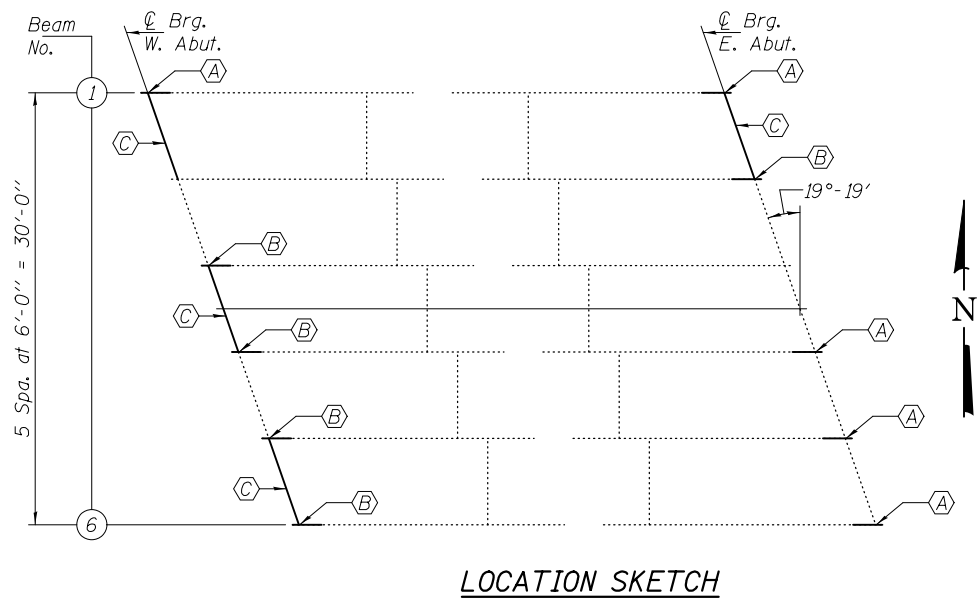
WEST ABUTMENT  
(Looking West)



EAST ABUTMENT  
(Looking East)

REPAIR C

\* Existing diaphragm to be removed, shortened as required and reinstalled. Cost included with Structural Steel Repair.



LOCATION SKETCH

- Holes to be field drilled in existing  $\bar{r}$  using new  $\bar{r}$  as template.
- Holes to be field drilled in new  $\bar{r}$  & L using existing holes as template.

Fasteners shall be high strength bolts. Bolts  $7/8"$   $\phi$ , open holes  $15/16"$   $\phi$ , unless otherwise noted.

Diaphragm connection holes shall be  $15/16"$   $\phi$  for  $3/4"$   $\phi$  bolts. Two hardened washers shall be required at diaphragm connections.

Cost of removal and replacement of diaphragms, and related connection angles to be included with Structural Steel Removal and Furnishing and Erecting Structural Steel respectively. All other steel noted on sheets 6 & 7 of 7 shall be included with Structural Steel Repair.

\*\* Cleaning and painting of this connection shall meet the requirements for Primary Connections as specified in the special provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Removal	Pound	1180
Structural Steel Repair	Pound	1360
Furnishing & Erecting Structural Steel	Pound	1220

DESIGNED HSS	EXAMINED <i>Timothy A. Daulton</i>	DATE OCTOBER 3, 2018
CHECKED JSB	ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED <i>Carl Kruger</i>	REVISOR
CHECKED HSS JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISION

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REPAIR B AND C DETAILS  
SN 037-0079

SHEET NO. 7 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2137-1HB-2)BDR	HENRY	37	37
CONTRACT NO. 64M78			ILLINOIS FED. AID PROJECT	