

31

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Sheet No	-	Cross Sections

TOTAL SHEETS 10

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

## PLAN OF PROPOSED IMPROVEMENT LA CROSSE - WEST SALEM

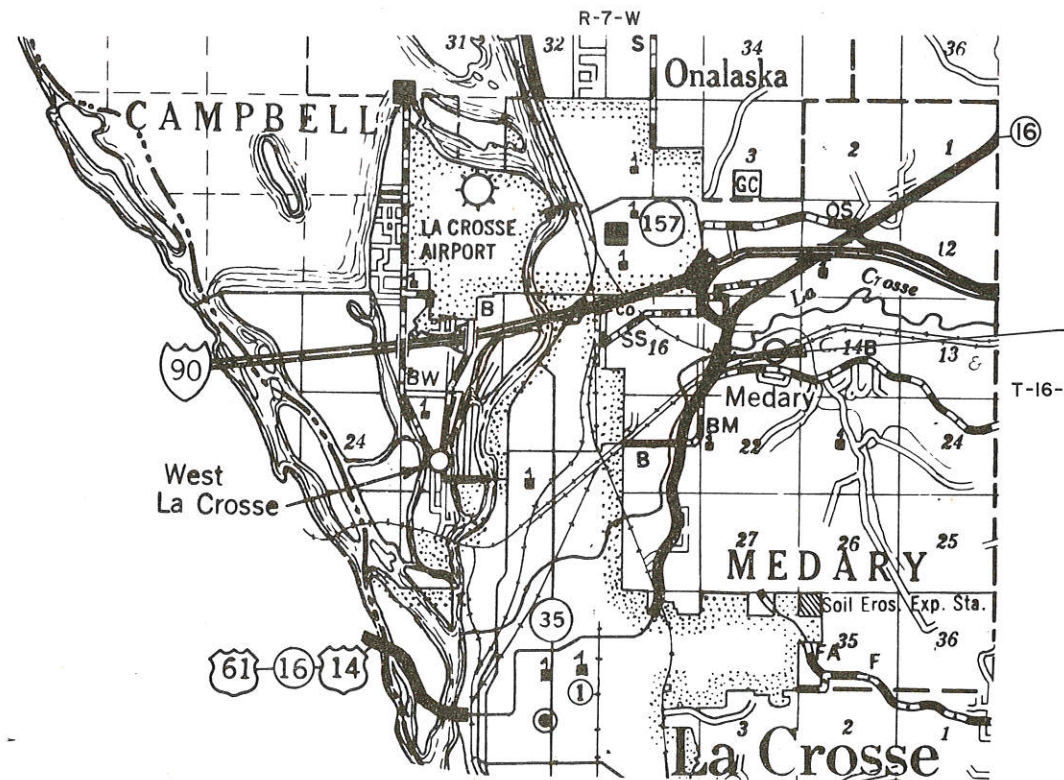
MEDARY OVERHEAD STRUCTURE MAINTENANCE REPAIR

S.T.H. 16

LA CROSSE CO.

STATE PROJECT NUMBER  
**0032-04-13**

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
0032-04-13	-	I



STRUCTURE B-32-115

Design Designation

A.D.T. 1978	= 13,600
A.D.T. 1998	= 26,000
D.H.V. (ONE WAY)	= 2,600
D.	= 60-40
T.	= 8.4%
V.	= 50 m.p.h.

Conventional Signs

County Line	-----	Caution Symbol (Combustible fluids under pressure)	
Township or Range Line	-----	Railroads	
Section Line	-----	Fence	
Corporate or City Limits	-----	Culverts in Place	
Property line	-----	Culverts Required	
Lot Line	-----	Power Pole	
Existing Right of Way Line	-----	Telephone or Telegraph Pole	
New Right of Way Line	-----	Right of Way Markers	
Base or Survey Line	-----	Marsh	
Slope Intercept	-----	Wooded Area	
Existing Roadway or Private Entrance	-----	Grade Elevation	

Layout  
Scale 0 1 mi.

Total Net Length of Centerline 0.0 Mi.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Drawn by: JKS	Checked by: R.G.P.
Design by: O.R.S.	Reviewed by:
Approved:	RT.C.
Date: 1-31-80	<i>T.R. Hanson</i>
Approved:	R.G.P.
Date: 2/25/80	<i>B.J. Landwehr</i>
	CHIEF MAINTENANCE ENGINEER
Approved:	
Date: 2/25/80	<i>C.E. Allen</i>
	DIRECTOR OF OPERATIONS
FEDERAL HIGHWAY ADMINISTRATION	
Approved:	
Date:	

ESTIMATE OF QUANTITIES

STATION TO STATION	NET LENGTH OF CENTER LINE	BITUMINOUS MATERIAL FOR PRIME COAT	BITUMINOUS CONCRETE PAVEMENT	BITUMINOUS MATERIAL FOR SURFACE COURSE	STRUCTURE CARBON STEEL	TRAFFIC CONTROL DECK PREPARATION	FULL DEPTH FLOOR REPAIR	CONCRETE DECK PATCHING	TEMPORARY PAVEMENT MARKING	REMOVING PAINT LINE	RAISED PAVEMENT MARKERS	1/2 INCH DIA. EXPANSION BOLTS
ITEM NO.	LIN FT.	TON	TON	TON	LBS.	L.S.	S.Y.	S.Y.	L.F.	L.F.	EACH	EACH
40202	340	300	18	3550	1	30	50	8200	10300	60	144	
40701												
40702												
50601												
64302												
90001												
90002												
90003												
90004												
90005												
90006												
90007												
B-32-115												
TOTAL												

STANDARD SIGN PLATES

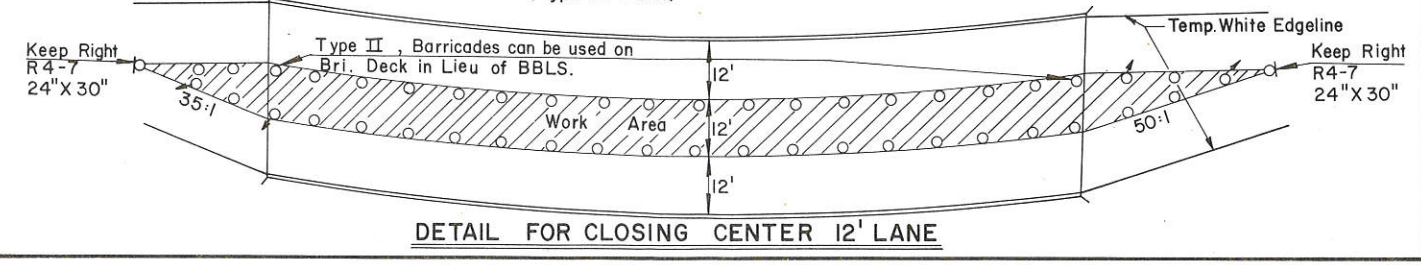
- RA-7.3 KEEP RIGHT (OR LEFT)
- W12-1.4 DOWN ARROW (RT. OR LT.)
- W20-1.3 ROAD CONST. (AHEAD, 1500, 1000, 500, 1 MILE, 1/2 MILE ADVISORY SPEED)
- W13-1.6 AND OTHERS AS INSERTED

STANDARD DETAIL DRAWINGS

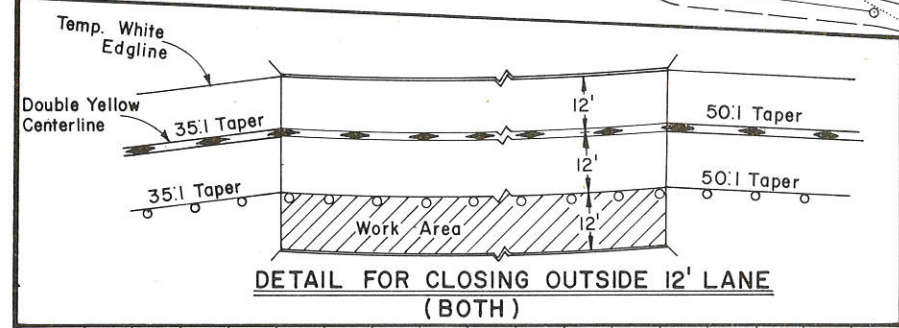
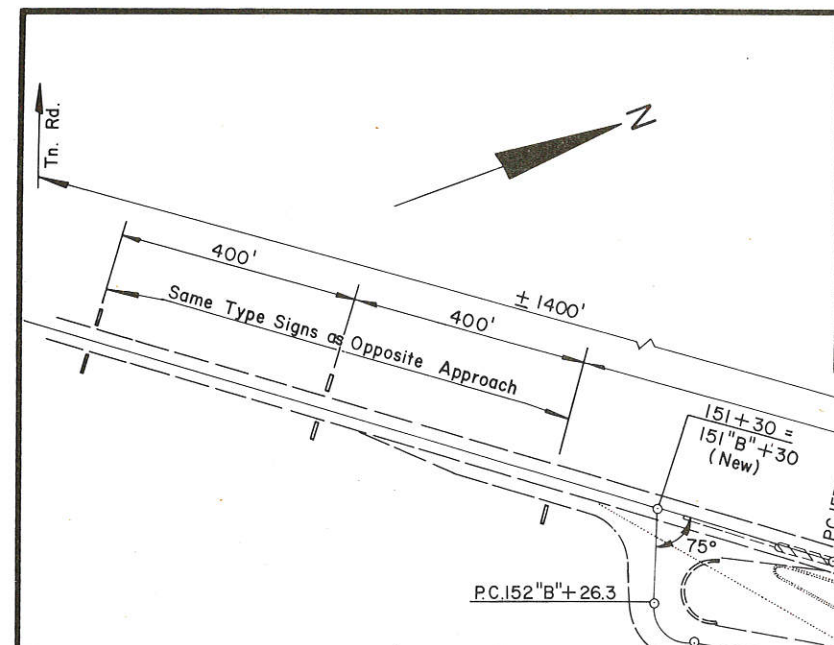
- 15C1-5 CONSTRUCTION BARRICADE AND STANDARD SIGNS

STATE PROJECT NUMBER	SHEET NO.
0032-04-13	5

NOTE: All drums spaced 50' C-C  
(Type II Barr.)



- LEGEND**
- = Reflectorized drum with type 'C' steady burning light.
  - ◐ = Reflectorized drum with W02-1 R sign & type 'C' S.B.L.
  - ◑ = Reflectorized sign with R4-7 sign & type 'A' flasher.
  - = White edgeline
  - == = Double yellow centerline
  - ◄ = Bi-Directional yellow raised pavement markers 50' spacing.
  - ⌈ = Type III barricades / warning signs attached.
  - ⌊ = Type II barricades



NOTE: DRAWING NOT TO SCALE

- NOTES**
- 1) All signs and barricades to be furnished by the contractor.
  - 2) All signs, barricades and steel drums shall be reflectorized. All signs furnished "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
  - 3) Advance signs shall be mounted on type III barricades with type 'A' amber flashers ( Two each barricade ).
  - 4) Temporary edgeline next to work area on deck will not be required.
  - 5) Temporary edgeline on tapers will be required.

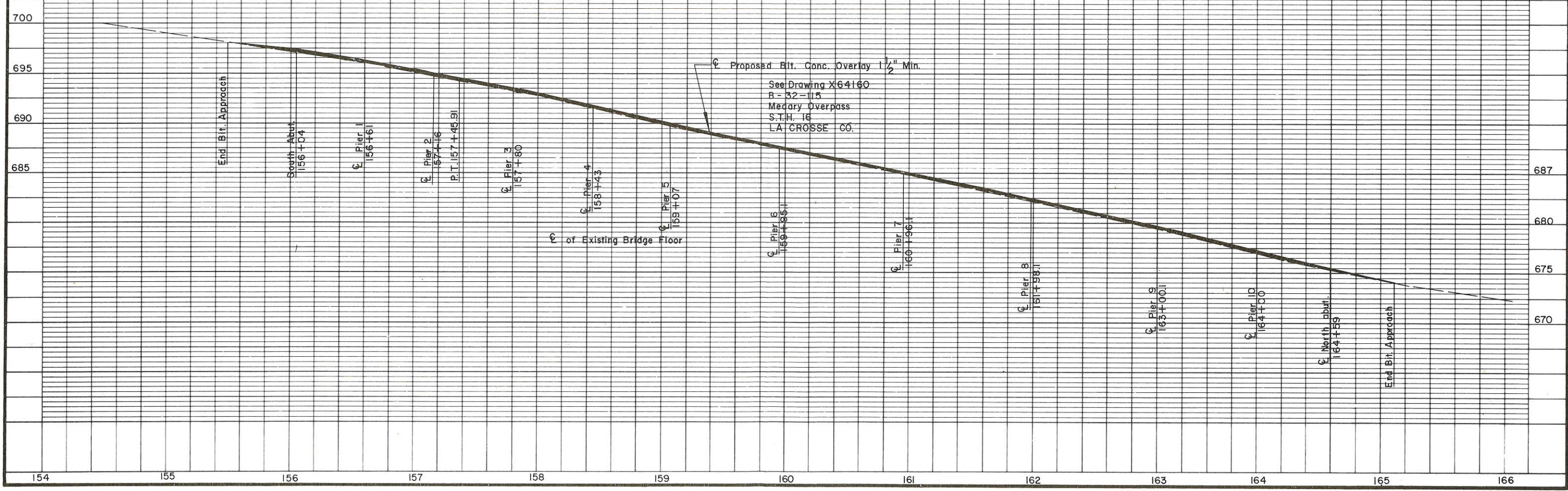
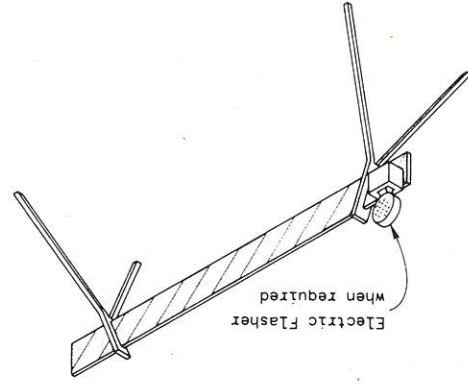


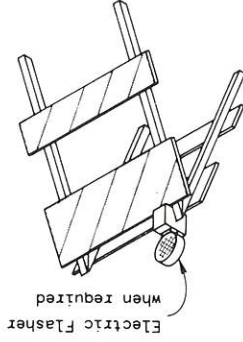
TABLE OF BARRICADE CHARACTERISTICS

BARRICADE TYPE	Height		* Rail Width	* Rail Length	* Stripe Width	Stripe Colors
	3' Minimum	5' Minimum				
I	3' Minimum	5' Minimum	8" Minimum to 12" Maximum	2' Minimum to variable Maximum	6" at 45° Angle	Reflectorized Orange & White
II						
III						

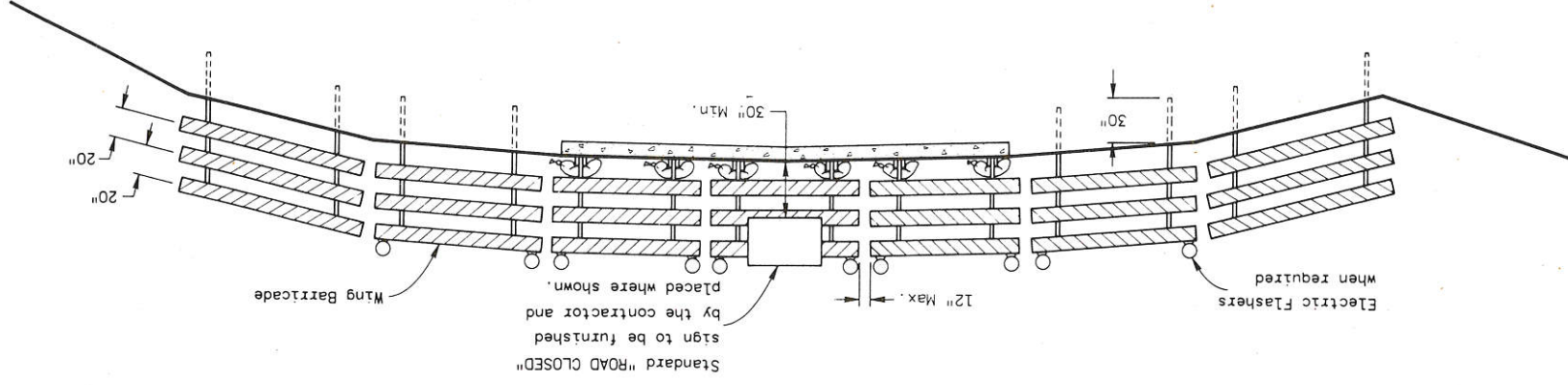
\* Nominal dimensions when barricade is constructed of lumber.  
 \*\* May be 4" for rail lengths less than 3'.



TYPICAL TYPE I BARRICADE

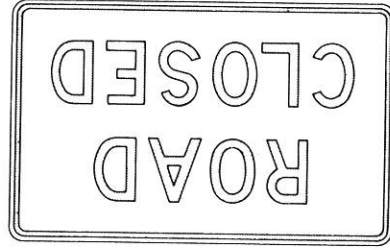


TYPICAL TYPE II BARRICADE



TYPICAL INSTALLATION SHOWING TYPE III BARRICADE

CONSTRUCTION BARRICADES



STANDARD SIGNS-TYPE II

GENERAL NOTES

The contractor shall furnish, erect and maintain Barricades and Signs Details regarding location, spacing, dimensions, fabrication, material, sign lettering, lighting devices and color of Barricades and Signs shall conform to this drawing, the Wisconsin Manual on Uniform Traffic Control Devices, Standard Specifications, Special Provisions and/or plans. Type III Barricades and Signs shall be erected at the terminus of projects and at other road or street locations where it is necessary to control or eliminate public access to the construction area. Type I and II Barricades shall be used on projects when traffic is to be maintained through the construction area. The actual field location of barricade installations and advance signs shall be as directed by the Engineer. Each barricade shall have the name and telephone number of a person responsible for 24 hour emergency service printed in letters at least 3/4 inch in height.

CONSTRUCTION BARRICADES & STANDARD SIGNS

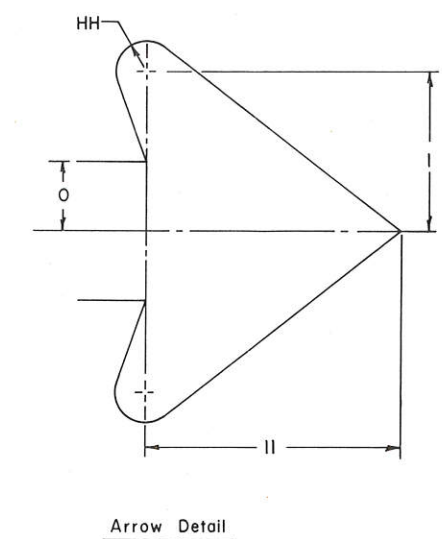
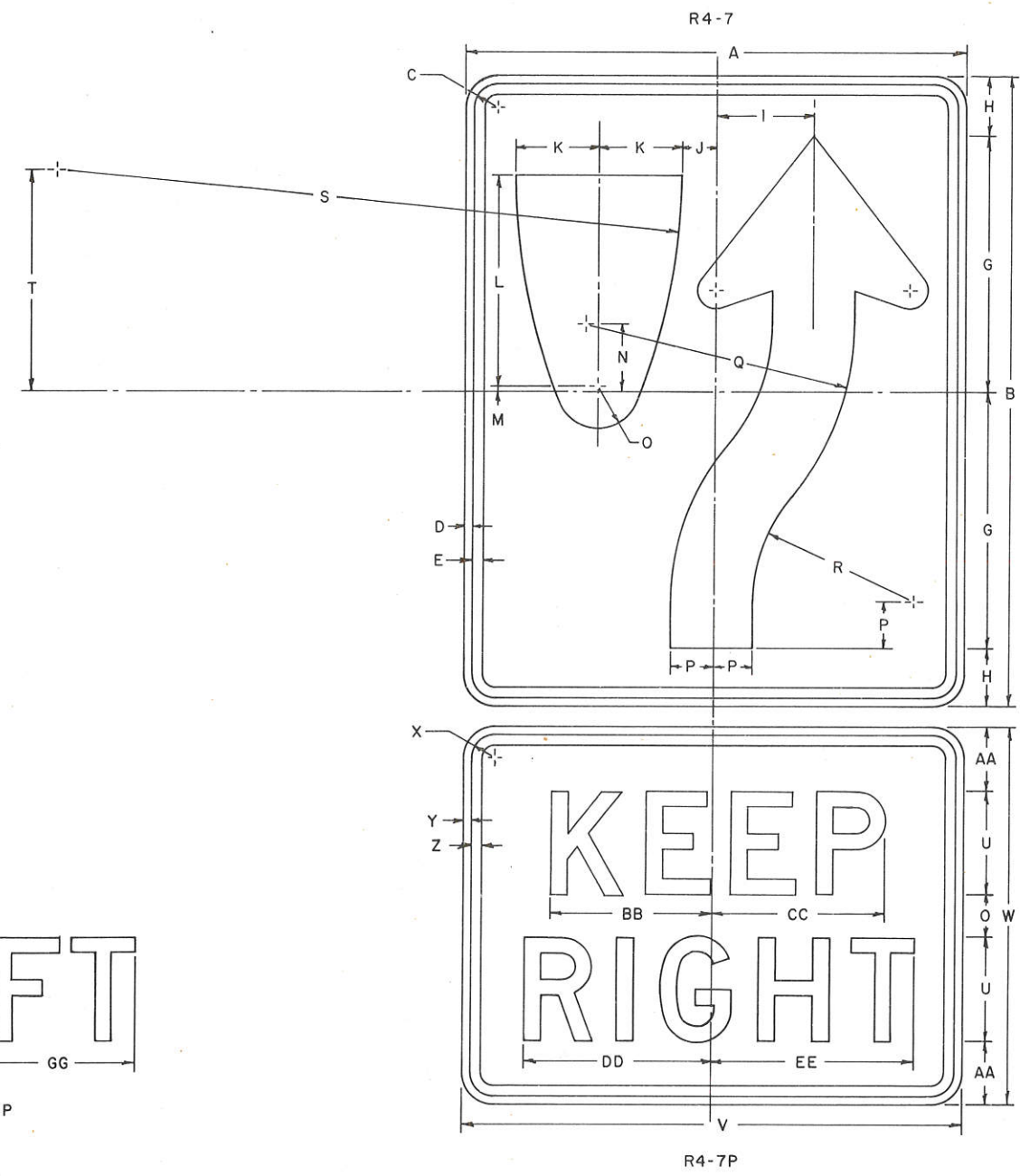
State of Wisconsin  
 Department of Transportation  
 Division of Highways

APPROVED 10-1-76  
 CHIEF OF FACILITIES DEVELOPMENT  
 APPROVED 10-1-76  
 STATE HIGHWAY ENGINEER

PROJECT I. D.	SHEET NUMBER	TOTAL SHEETS
PROJECT DESIGNATION		

NOTES:

- Sign is Type II
- Color:  
Background - ReflectORIZED White  
Message - Black
- Face Material - Reflective Sheeting
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- R4-8 is the same as R4-7 except legend is reversed, educational sign R4-8P is used instead of R4-7P.
- All letters Series "D".
- This drawing may be scaled for Standard Size only.



SIZE	CODE SIZE	R4-7,8 R4-7P,8P																				Bid Area Sq. Ft.	Bid Area Sq. Ft.							
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T			U	V	W	X	Y	Z	
Minimum	1	18	24	1 1/8	3 3/8	3 3/8		9 3/16	2 13/16	3 1/2	1 1/4	3	7 5/8	3 1/8	2 7/16	2	1 9/16	9 11/16	5 7/8	27	9	4	18	15	1 1/8	3 3/8	3 3/8	3.00	1.88	
Standard	2	24	30	1 1/8	3 3/8	1 1/2		12 1/4	2 3/4	4 5/8	1 5/8	4	10 1/8	1 1/4	3 1/4	2	2 1/8	12 7/8	7 7/8	36	12	5	24	18	1 1/8	3 3/8	1 1/2	5.00	3.00	
Oversize	3																													
Exp-way	4	36	48	1 3/4	1 1/2	5 8		18 3/8	5 5/8	6 15/16	2 7/16	6	15 3/16	3 3/8	4 7/8	4	3 3/8	19 5/16	11 3/16	54	18	8	36	30	1 3/8	1 1/2	5 8	12.00	7.50	
Freeway	5	48	60	2 1/4	3 3/4	1		24 1/2	5 1/2	9 1/4	3 1/4	8	20 1/4	1 1/2	6 1/2	4	4 1/4	25 3/4	15 3/4	72	24	10	48	36	1 3/4	1 1/2	5 8	20.00	12.00	
		AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ			
Minimum	1	2 1/2	6 3/16	6 5/8	7 3/16	7 13/16	5 5/8	6	5 5/8	5 1/2																				
Standard	2	3	7 3/4	8 1/4	9	9 3/4	7	7 1/2	7 7/8	7 3/8																				
Oversize	3																													
Exp-way	4	5	12 3/8	13 1/4	14 3/8	15 5/8	11 1/4	12	11 5/16	11 1/16																				
Freeway	5	6	15 1/2	16 1/2	18	19 1/2	14	15	14 3/4	14 3/4																				

Date Drawn - 11-19-71    Date Redrawn - 9-9-72 <sup>CR</sup>

Date Revised - 11-16-71  
7-18-72  
4-20-78 <sup>CR</sup>

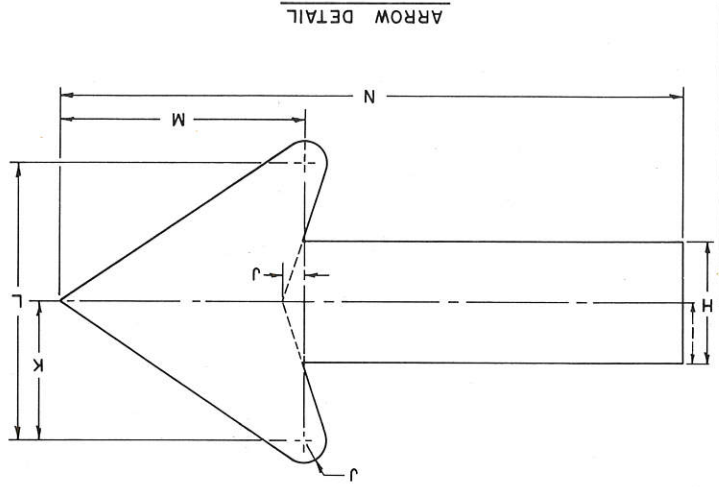
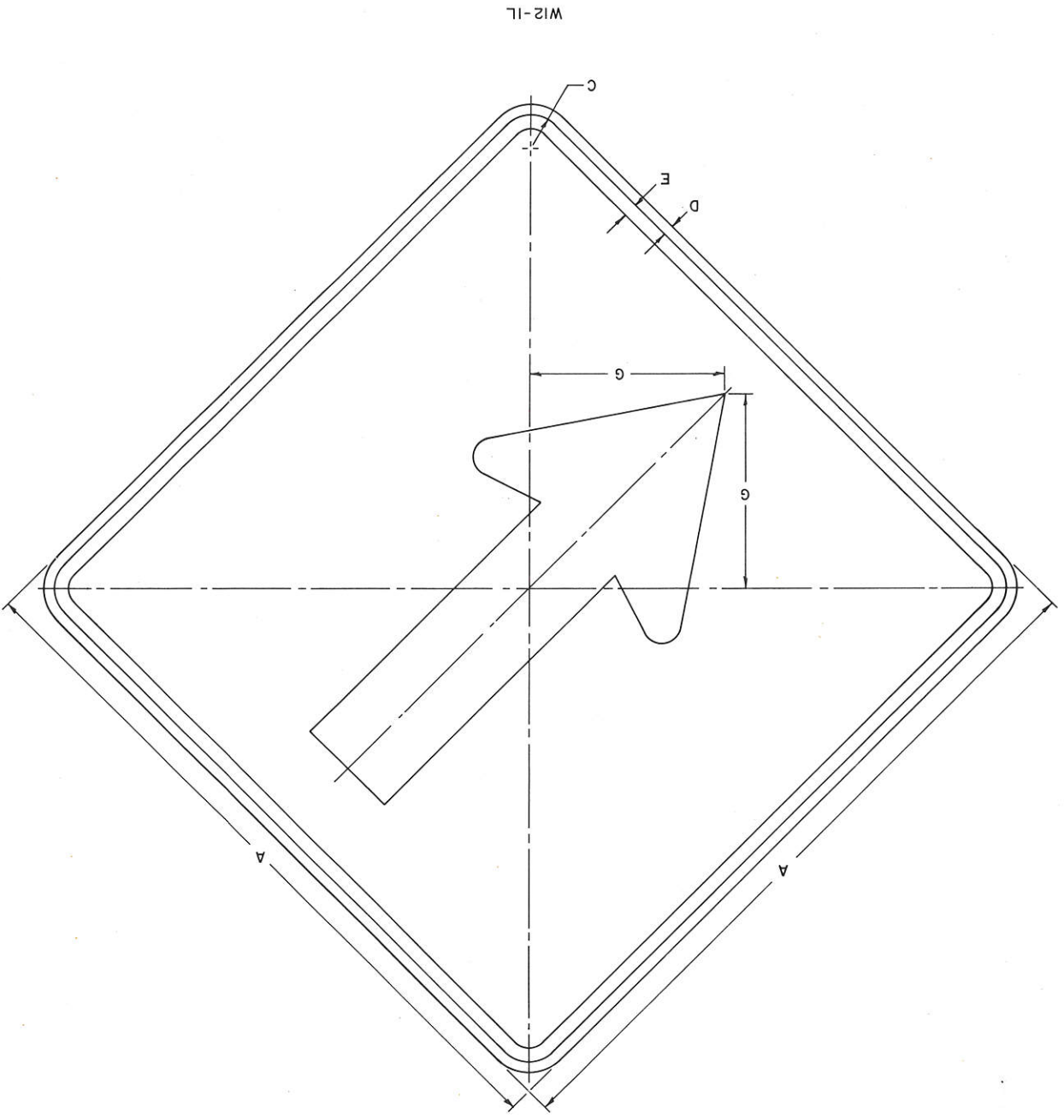
**STANDARD SIGN**  
**R4-7 & R4-8 — R4-7P & R4-8P**

WISCONSIN DIVISION OF HIGHWAYS

APPROVED *[Signature]*  
STATE HIGHWAY ENGINEER

DATE 6-9-78    PLATE NO. R4-7.3

SIZE	CODE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Bid Area Sq. Ft.
Minimum	1																											
Standard	2	24	18	18	3	1	6	17	3	1	1	3	4	8	7	17	8										4	
Over-size	3																											
Exp-way	4																											
Freeway	5																											
Minimum	1	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ	
Standard	2																											
Over-size	3																											
Exp-way	4																											
Freeway	5																											

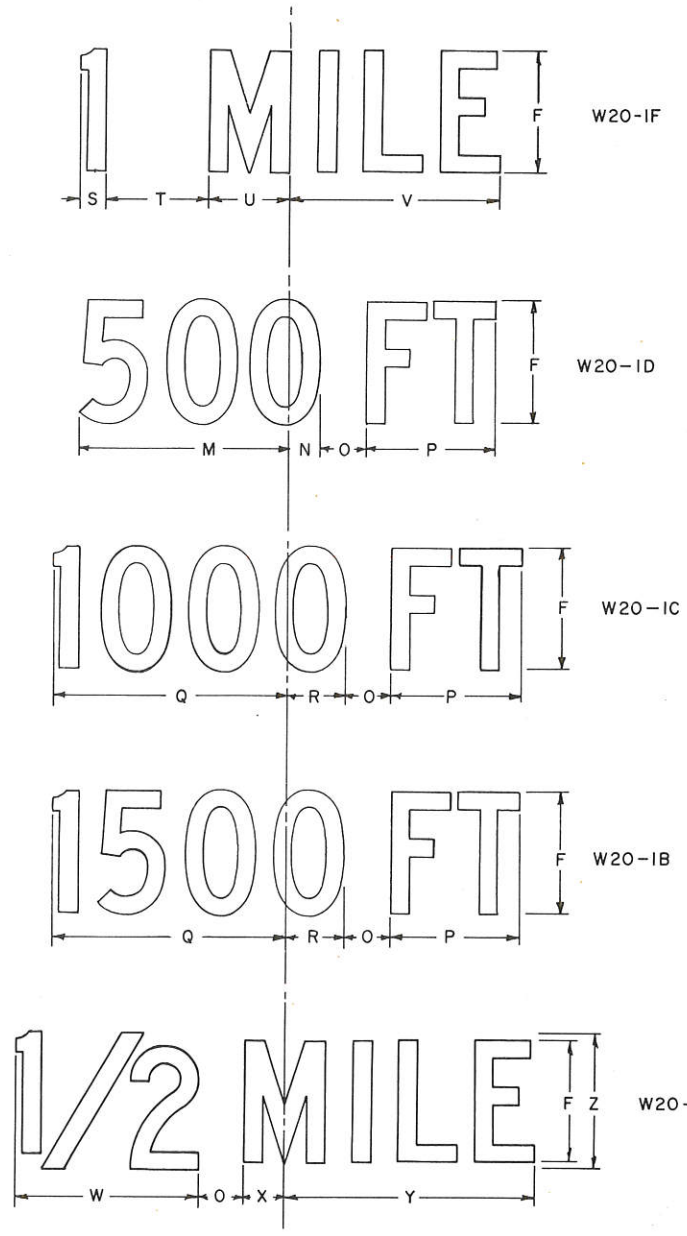
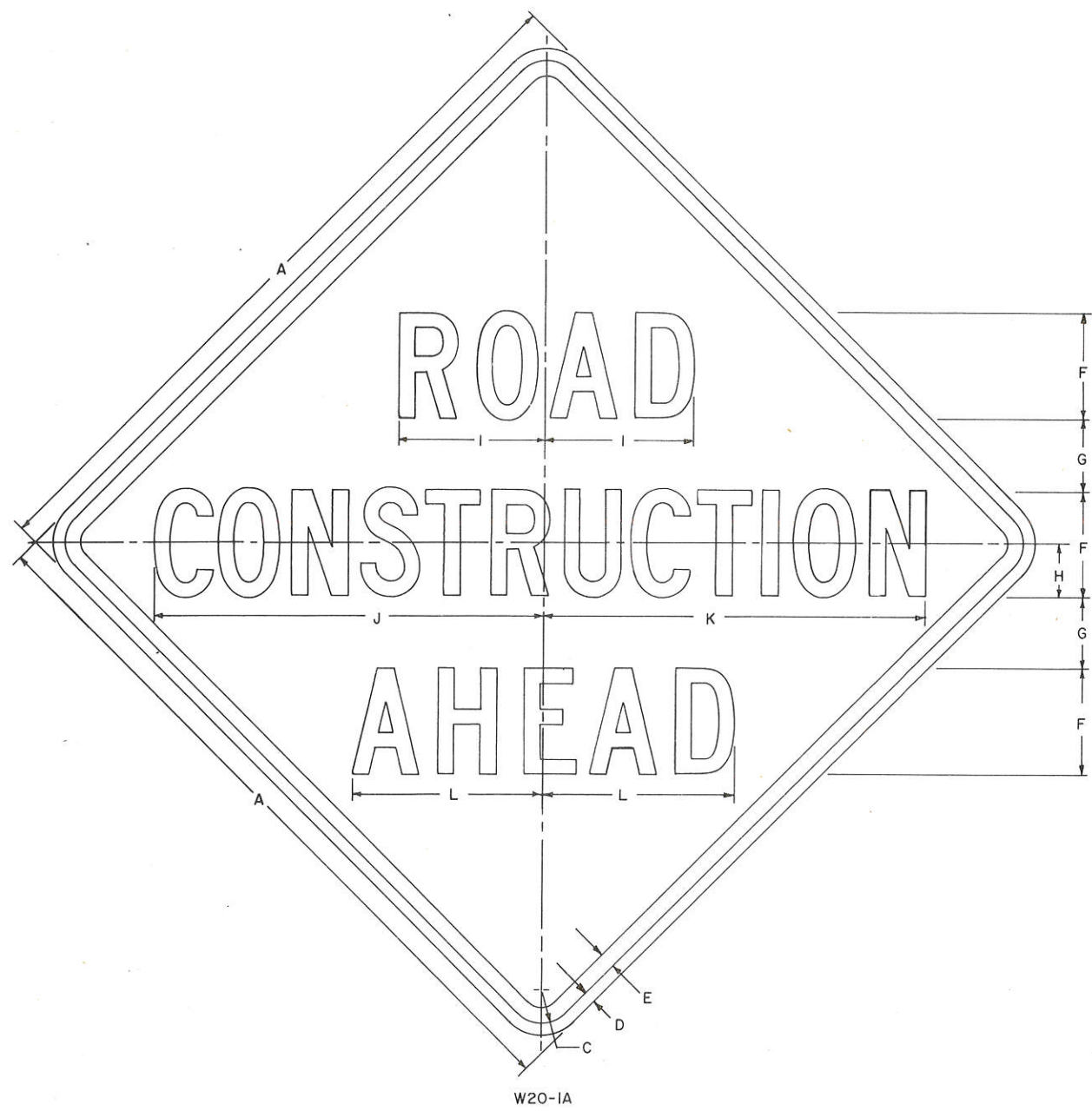


DATE 1-20-78  
 CHIEF TRAFFIC ENGINEER  
 APPROVED  
 WISCONSIN DIVISION OF HIGHWAYS  
 STANDARD SIGN  
 W12-1L & R  
 Date Drawn — 8-7-62  
 Date Revised — 1-10-78  
 Date Redrawn — 5-4-73

- NOTES:
1. Sign is Type II
  2. Color:  
 Background — ReflectORIZED Yellow  
 Message — Black
  3. Face Material — Reflective Sheeting
  4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
  5. W12-1R same as W12-1L except arrow points down right.

PROJECT L. D.	PROJECT DESIGNATION
SHEET NUMBER	
TOTAL SHEETS	

PROJECT I. D.	SHEET NUMBER	TOTAL SHEETS
PROJECT DESIGNATION		



NOTES:

1. Sign is Type II
2. Color:  
Background - ReflectORIZED Orange  
Message - Black
3. Face Material - Reflective Sheeting
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. All letters & numbers are Series "C".
6. Substitute distances shown for "AHEAD" as Code requires.
7. Drawing may be scaled for standard size only.

SIZE	CODE SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Bid Area Sq. Ft.
Minimum	1	36		15/8	5/8	3/4	5	35/8	2 1/2	6 15/16	18 1/2	18 13/16	9 1/16	8 9/16	15 1/16	17 7/8	5 3/8	9 5/8	2 3/8	1	4 1/4	3 5/16	8 11/16	7 3/8	1 11/16	10 1/4	6	9.00
Standard	2	48		2 1/4	3/4	1	7	4 13/16	3 1/2	9 3/4	26	25 9/16	12 5/8	12	17 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 7/16	6	4 5/8	12 1/8	10 5/8	2 3/8	14 3/8	8	16.00
Oversize	3	48		2 1/4	3/4	1	7	4 13/16	3 1/2	9 3/4	26	25 9/16	12 5/8	12	17 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 7/16	6	4 5/8	12 1/8	10 5/8	2 3/8	14 3/8	8	16.00
Exp-way	4	48		2 1/4	3/4	1	7	4 13/16	3 1/2	9 3/4	26	25 9/16	12 5/8	12	17 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 7/16	6	4 5/8	12 1/8	10 5/8	2 3/8	14 3/8	8	16.00
Freeway	5	48		2 1/4	3/4	1	7	4 13/16	3 1/2	9 3/4	26	25 9/16	12 5/8	12	17 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 7/16	6	4 5/8	12 1/8	10 5/8	2 3/8	14 3/8	8	16.00
		AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ	
Minimum	1																											
Standard	2																											
Oversize	3																											
Exp-way	4																											
Freeway	5																											

Date Drawn - 9-17-62 Date Redrawn - 9-8-72 *WJR*

Date Revised - 9-7-72  
4-28-78 *WJR*

**STANDARD SIGN**  
W20-1 A,B,C,D,F & G

WISCONSIN DIVISION OF HIGHWAYS

APPROVED *[Signature]*  
CHIEF TRAFFIC ENGINEER

DATE 6-9-78 PLATE NO. W20-1.3

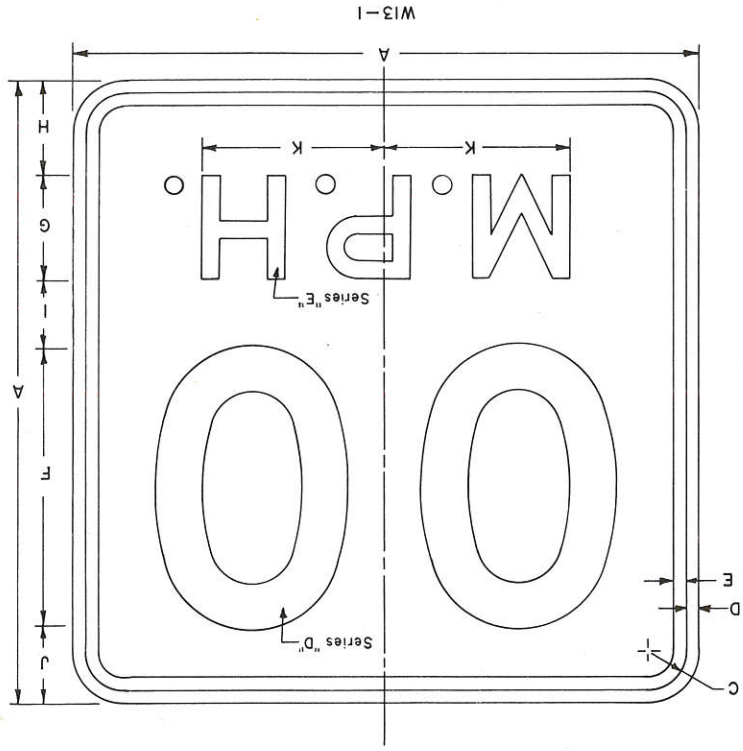
PROJECT I. D.	SHEET NUMBER	TOTAL SHEETS
PROJECT DESIGNATION		

NOTES:

- Sign is Type II
- Color:  
Background - Reflectorized Yellow  
Message - Black
- Face Material - Reflective Sheeting
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- This drawing may be scaled for Standard Size only.
- Substitute appropriate numerals & adjust spacing to achieve proper balance.
- This sign shall not be used alone. It shall be subordinate to another Warning Sign. Use combination of sign sizes as follows:

Primary Sign	Corresponding W13-1
24 x 24	24 x 18
24 x 30	30 x 30
36 x 36	24 x 24
48 x 48	36 x 48
48 x 60	36 x 36

- When required the W13-1 may be ordered with a white reflective background by using the code W13-1W and using the above table for determining the proper size.



SIZE	CODE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Minimum	1	18		1 1/8	1 1/8	3/8	8	3	2 3/4	2	2 1/4	5 5/8																
Standard	2	18		1 1/8	1 1/8	3/8	8	3	2 3/4	2	2 1/4	5 5/8																
Standard	3	24		1 1/8	1 1/8	3/8	10	4	4	2 1/2	3 1/4	6 1/8																
Standard	4	36		1 1/8	1 1/8	3/8	16	6	5 1/2	4	4 1/2	10 1/8																
Standard	5	36		1 1/8	1 1/8	3/8	16	6	5 1/2	4	4 1/2	10 1/8																
Standard	1		AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ

Date Drawn - 2-19-73 *WJA*  
 Date Revised - 7-12-63  
 12-7-77 *WJA*  
 2-19-73 *WJA*  
 2-7-75 *WJA*

STANDARD SIGN  
 W13-1

WISCONSIN DIVISION OF HIGHWAYS

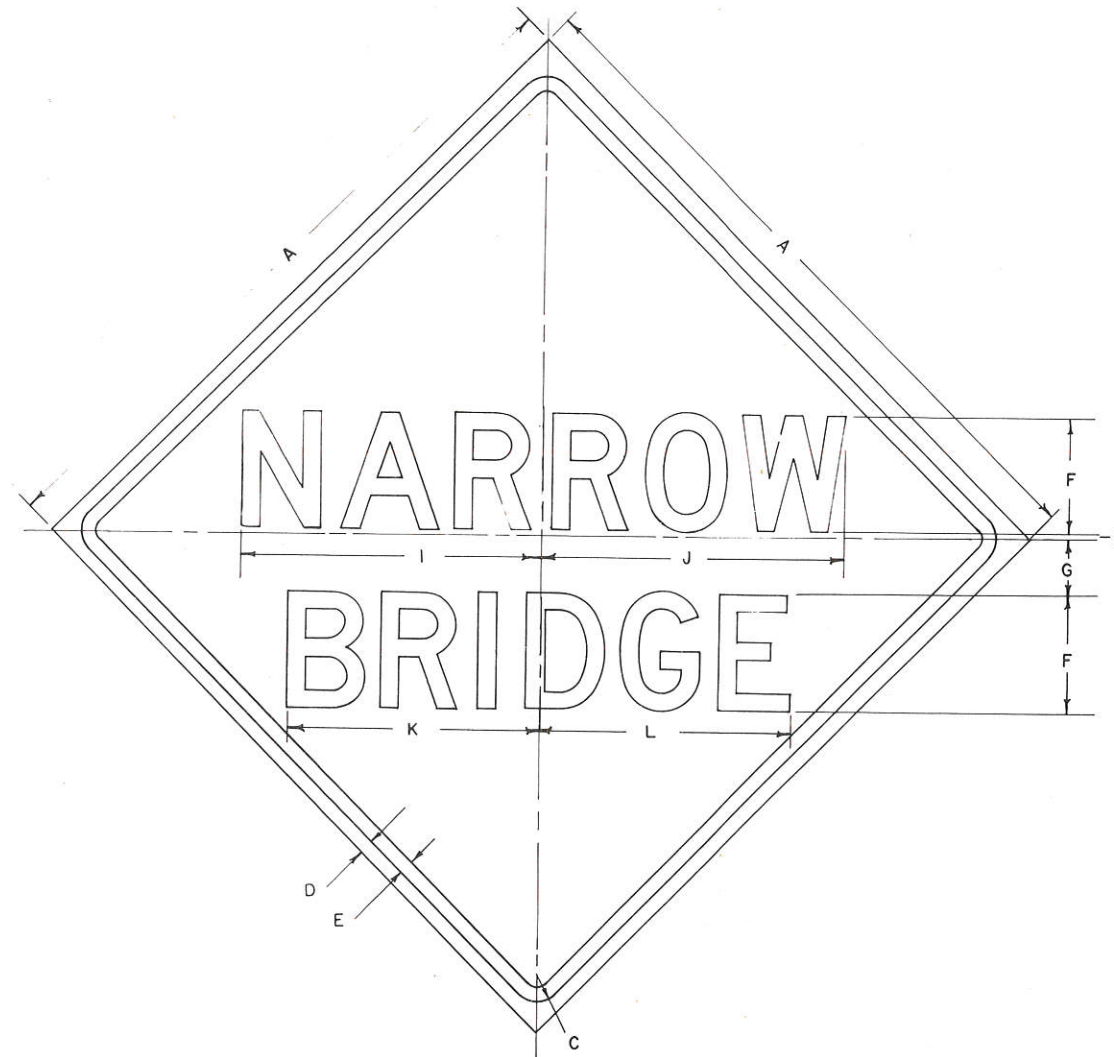
APPROVED *[Signature]*  
 CHIEF TRAFFIC ENGINEER

DATE 12/19/77  
 PLATE NO. W13-16



NOTES:

1. Sign is Type II
2. Color:
  - Background — Reflectorized Yellow
  - Message — Black
3. Face Material — Reflective Sheeting
4. Letters Series D



W5-2

[W14]

SIZE	CODE SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Minimum	1	24		$1\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	4	$1\frac{3}{4}$	$\frac{1}{8}$	$10\frac{3}{8}$	$10\frac{9}{16}$	$8\frac{11}{16}$	$8\frac{13}{16}$															
Standard	2	30		$1\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	5	$2\frac{3}{16}$	$\frac{3}{16}$	13	$13\frac{3}{16}$	$10\frac{7}{8}$	11															
Oversize	3	36		$1\frac{5}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	6	$2\frac{5}{8}$	$\frac{1}{4}$	$15\frac{5}{8}$	$15\frac{13}{16}$	$13\frac{1}{16}$	$13\frac{3}{16}$															
Exp-way	4	48		$2\frac{1}{4}$	$\frac{3}{4}$	1	8	$3\frac{1}{2}$	$\frac{5}{16}$	20	$21\frac{1}{8}$	$17\frac{3}{8}$	$17\frac{5}{8}$															
Interstate	5																											

STANDARD SIGN  
W5-2

[OLD CODE W14]

STATE HIGHWAY COMMISSION OF WISCONSIN

APPROVED *E. L. Postigo*

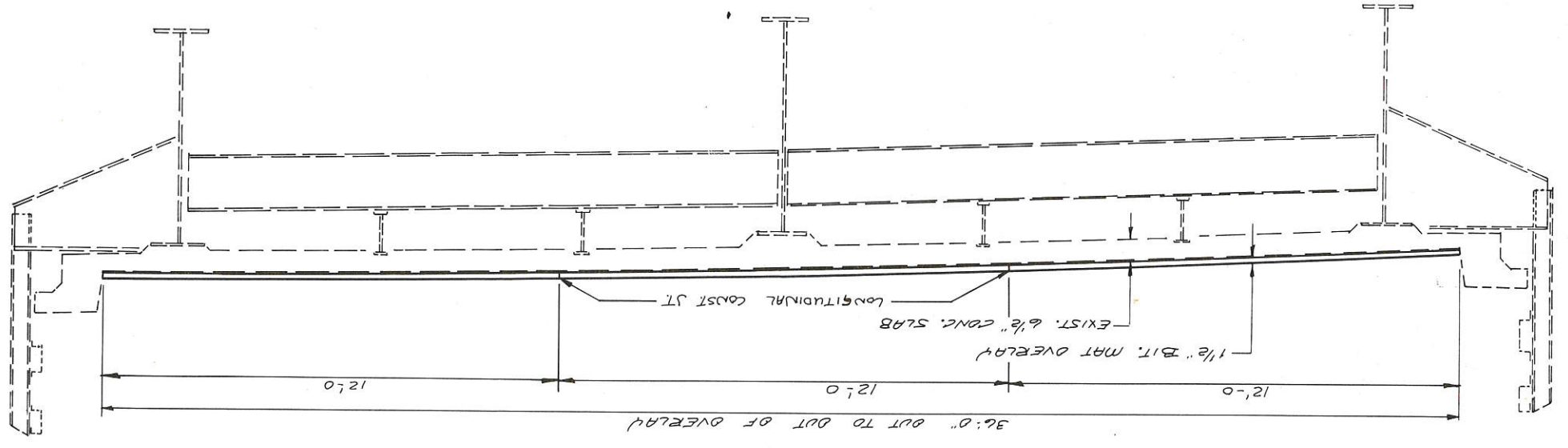
DATE 7-12-62 PLATE NO. W5-2.1

**DESIGN RATINGS**  
 DESIGN H-15  
 INVENTORY H-17  
 OPERATIONAL HS-26

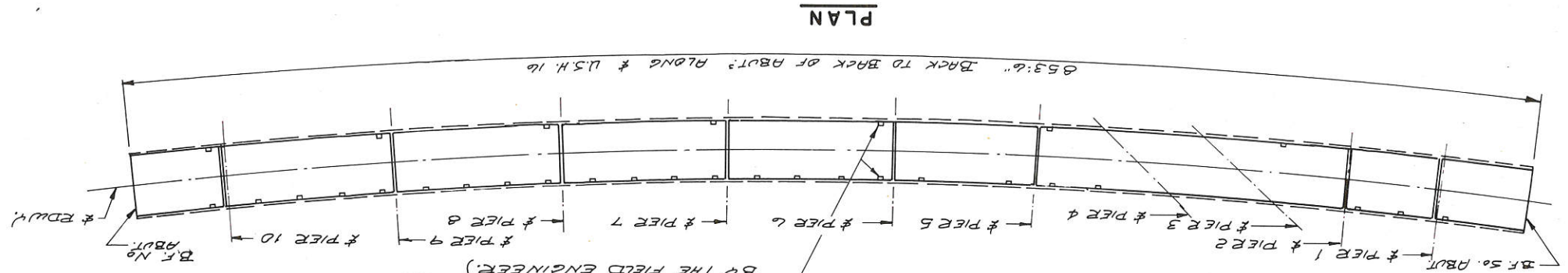
**GENERAL NOTES**  
 DRAWINGS SHALL NOT BE SCALED.  
 ALL DIM: ARE (+) PLUS OR (-) MINUS  
 & SHALL BE FIELD VERIFIED.

**TOTAL ESTIMATED QUANTITIES**

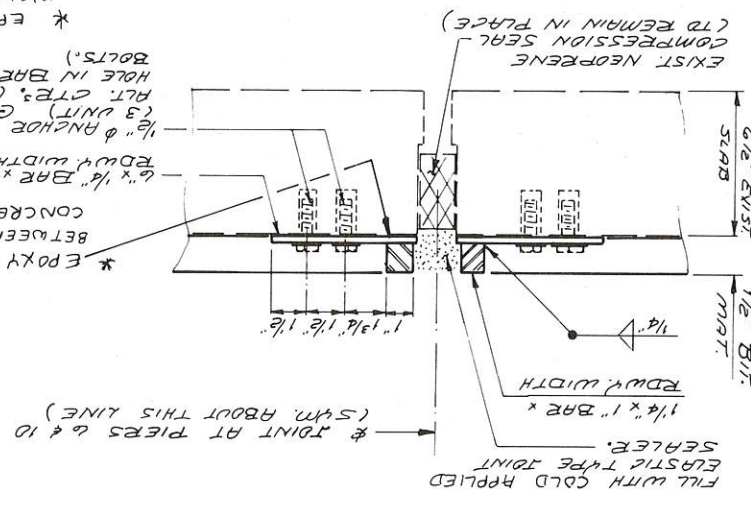
- ADD ITEMS**
- BITUMINOUS CONCRETE PAVEMENT 300 TON
  - STEEL EXPANSION BOLTS 144 EACH
  - CONCRETE DECK PATCHING 30 S.Y.
  - FULL DEPTH FLOOR REPAIR 50 S.Y.
  - BITUMINOUS MATERIAL FOR PRIME COAT 340 GAL.
  - BITUMINOUS MATERIAL FOR SURFACE COURSE 18 TON
  - DECK REPAIRATION 30 S.Y.



**CROSS SECTION THRU RDWY, LOOKING NORTH**

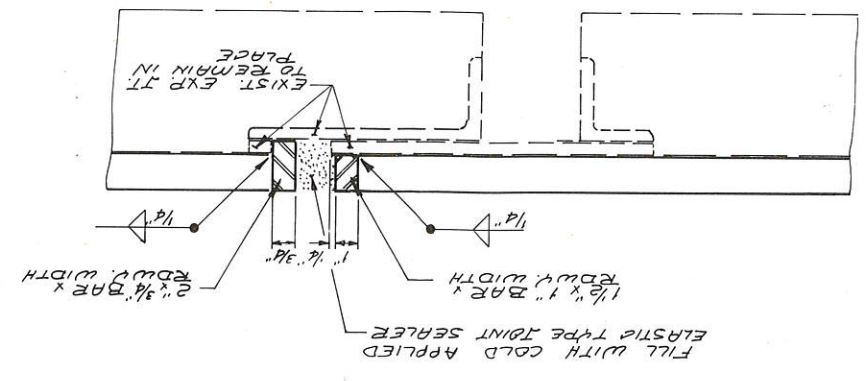


**PLAN**



**JOINT DETAILS AT PIERS 6 & 10**

\* EPOXY ADHESIVE TO BE INCLUDED IN BID ITEM "STRUCTURAL CARBON STEEL".  
 FIELD SPLICING PERMITTED.



**JOINT DETAILS AT PIERS 1, 2, 5, 7, 8 & 9**

FIELD SPLICING PERMITTED

STATE OF WISCONSIN		DEPARTMENT OF TRANSPORTATION	
<b>STRUCTURE B-32-115</b>			
U.S.H. 16 OVER LA CROSSE R. & R.R.			
County LA CROSSE		Town CAMPBELL	
Design Spec: _____	Load: _____	Spec: _____	Cont: _____
By: _____	Checked: _____	Drawn: BUDD	Checked: SJK
Approved: W.A. Williams, Chief Bridge Engineer, 1-9-80			
No. _____		Date _____	Revision _____
By _____		Revision _____	
X 64160		BITUMINOUS OVERLAY	
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