PROJECT ENGINEER: JEFF REDDY (WISDOT) START DATE: 9/18/99 FINISH: 11/24/99
PROJECT STAFF: JOHN LEONHARDS, TODD MUELLER (KAPUR) ELECTRONIC DIARY

INDEX OF SHEETS

TOTAL SHEETS = 36

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2320-02-60		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY REHABILITATION - MAINTENANCE PROJECT

STRUCTURE MAINTENANCE REPAIRS

(STH 100 BRIDGE OVER MILWAUKEE RIVER & BRIDGE ON 107th STREET OVER STH 145)

AS BUILT

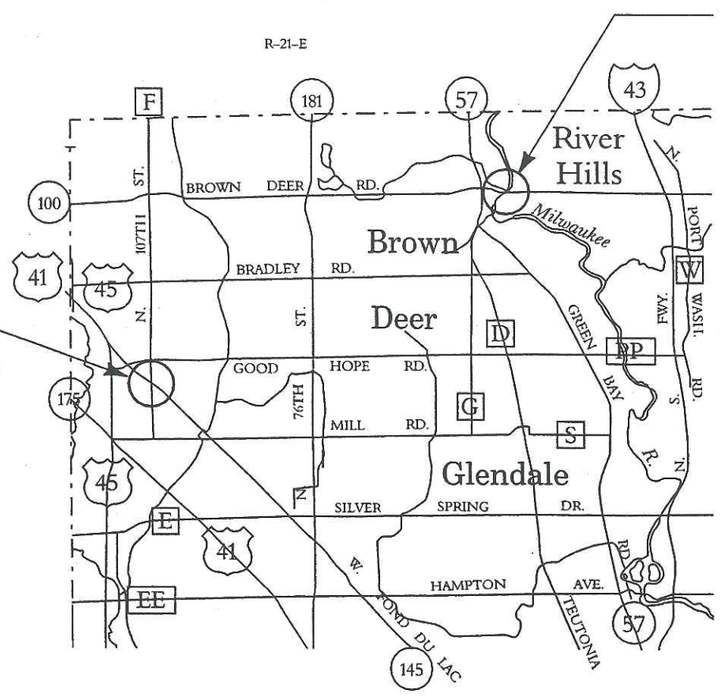
STH 100 & 145
MILWAUKEE COUNTY

(B-40-504/505, 252)

STATE PROJECT NUMBER
2320-02-60

CONTRACTOR: ZENITH TECH, INC.
- REMOVALS
- CONCRETE MASONRY, OVERLAY
- JOINT REPAIR
- DECK CLEANING
- DECK PREPARATION
- CONCRETE CURB
- CONCRETE SIDEWALK

SUBCONTRACTORS
- PAYNE & DOLAN — ASPHALT
- D.A. DROST CONSTRUCTION — PORTABLE CRASH CUSHIONS
- CON-COR COMPANY INC. — SAWING PAVEMENT
- CONTURY FENCE — PAVEMENT MARKING
- BARRICADE FLASHER — TRAFFIC CONTROL



LAYOUT
SCALE 0 MI.

NET LENGTH OF CENTERLINE = 0.000 MI.

N

DESIGN DESIGNATION

A.D.T.	=
A.D.T.	=
D.H.V.	=
D.	=
T.	=
DESIGN SPEED	=
ESALS	=
K	=

CONVENTIONAL SIGNS

COUNTY LINE		COMBUSTIBLE FLUIDS	CAUTION
CORPORATE LIMITS		UNDERGROUND UTILITIES	
PROPERTY LINE	P.L. + 58.1	GAS	G
LOT LINE		ELECTRIC	E
LIMITED EASEMENT		TELEPHONE OR TELEGRAPH	T
EXISTING RIGHT OF WAY		SERVICE PEDESTAL	
PROPOSED OR NEW R/W LINE		CABLE MARKER	P
SURVEY LINE		POWER POLE	
SLOPE INTERCEPT		TELEPHONE POLE	
ORIGINAL GROUND		RAILROAD	
MARSH OR ROCK PROFILE		MARSH AREA	
EXISTING CULVERT		WOODED OR SHRUB AREA	
PROPOSED CULVERT (Box or Pipe)			
CULVERT (Profile View)			

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
- Surveyor
- Designer: JEFF LOWTHER
- District Examiner: TODD BECKER
- District Supervisor: JOHN OIMOEN
- Proj. Dev. Engineer
- C.O. Examiner: M.A. MOHLMAN

APPROVED FOR DISTRICT OFFICE
DATE: 3/29/99 Todd Becker (Signature)

AUTHORIZED FOR CENTRAL OFFICE DESIGN
DATE: 6/14/99 Bruce Larson (Signature)

PLOT DATE: 2/2/99 PLOT SCALE: 201.359517:1.000000 ORIGINATOR: D2 JCT FILE NAME: 405405TS.DGN REV. DATE: 0.-1999 10:10

Aug. 99 (02-20-0222) 45W 1 Sht 1320-02-60 Milwaukee

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.1

GENERAL NOTES
STH100 & 107TH STREET
MILWAUKEE COUNTY

GENERAL NOTES - ROADWAY

THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

ALL PRIVATE UTILITIES ARE TO BE ADJUSTED BY THE UTILITY CONCERNED.

WHEN THE QUANTITY OF CONCRETE MASONRY, OVERLAY APPROACHES ARE MEASURED FOR PAYMENT BY THE CUBIC YARD, THE DEPTH OR THICKNESS OF THE PAVEMENT SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIALS AS DIRECTED BY THE ENGINEER.

DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.

STANDARD DETAIL DRAWINGS

SSD NUMBER	TITLE
8D 1-12	CONCRETE CURB, CONCRETE CURB AND GUTTER, AND PAVEMENT TIES
8M 2-4	INLETS, CATCH BASINS, AND INLETS COVERS
8M 4-4	INLETS AND INLET COVERS
14B 7-9a	TEMPORARY PRECAST CONCRETE BARRIER
15C 2-3	BARRICADES AND SIGNS FOR ROAD CLOSURES
15C 7-5a	PAVEMENT MARKING SYMBOLS
15C 8-8a	PAVEMENT MARKING (MAINLINE)
15C 8-8d	PAVEMENT MARKING (LEFT TURN LANE)
15D 3-1	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.. WITH BARRIER
15C 6-4	SIGNING AND MARKING FOR TWO LANE BRIDGES

UTILITY CONTACT LIST

WISCONSIN ELECTRIC POWER COMPANY
ATTN: MR. ~~MICHAEL JAMES~~ LEO SCHUELLER
231 W. MICHIGAN AVENUE A440
MILWAUKEE, WI 53201
PHONE: 414-~~221-2713~~ 256-5511

WISCONSIN GAS COMPANY
ATTN: MR. GREG NEVINSKI
5400 GREEN BAY AVENUE
MILWAUKEE, WI 53209
PHONE: 414-540-5141
FAX: 414-228-1877

AMERITECH
ATTN: MR. JAMES HADDEN
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
PHONE: 414-896-7440
FAX: 414-896-7435

TIME WARNER CABLE
ATTN: MR. DON DIETSCH
1610 N. 2ND STREET
MILWAUKEE, WI 53212
PHONE: 414-227-4045

VILLAGE OF BROWN DEER
ATTN: MR. RICHARD HALFMAN
4800 W. GREEN BROOK DRIVE
BROWN DEER, WI 53223
PHONE: 414-357-0141

VILLAGE OF RIVER HILLS
ATTN: MR. KURT FREDRICKSON
7650 N. PHEASANT LANE
RIVER HILLS, WI 53217
PHONE: 414-352-0080

CITY OF MILWAUKEE
ATTN: MR. MARIANO SCHIFALACQUA
841 N. BROADWAY RM 612
MILWAUKEE, WI 53202
PHONE: 414-286-2400

MILWAUKEE COUNTY HIGHWAY DEPT.
ATTN: MR. CHET ZURAWIK
10190 WATERTOWN PLANK ROAD
MILWAUKEE, WI 53226
PHONE: 414-257-6568

WisDOT TRAFFIC-LIGHTING
ATTN: MR. CHARLES LANDEY
2000 PEWAUKEE ROAD
P.O. BOX 798
WAUKESHA, WI 53187-0798
PHONE: 414-521-5346

WDNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: MR. VICTOR C. PAPPAS
2300 MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
PHONE: 414-225-2219

MEMBER ONE CALL SYSTEMS INTERNATIONAL

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE

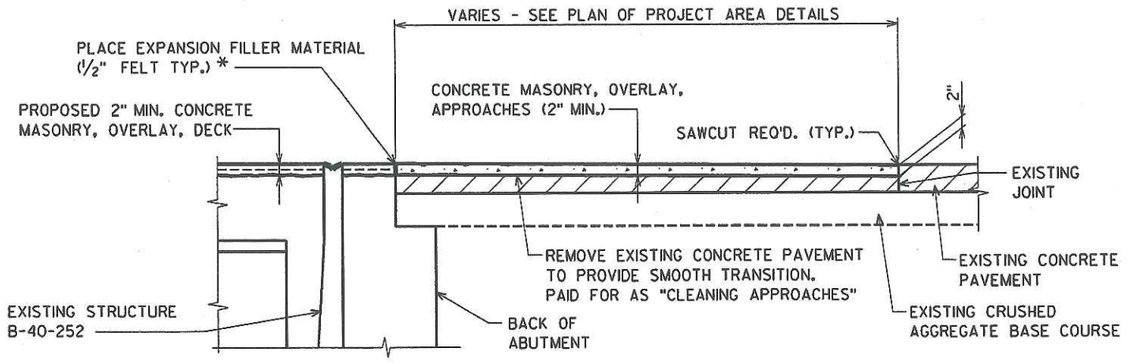
TOLL FREE 1-800-242-8511
MILWAUKEE AREA (414) 259-1181
TELEFAX 1-800-338-3860
TDD (For hearing impaired) 1-800-542-2289

WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.

$PRFNAME$
PEN TABLE = ±plot72±LASER±S.
DATE OF PLOT: 2/23/99
DESIGN FILE = U:±TRROADS±46187pl.dgn
DGN LEVELS ON = 1-63

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	22

DETAILS
FOR
NORTH 107th ST. MILWAUKEE COUNTY

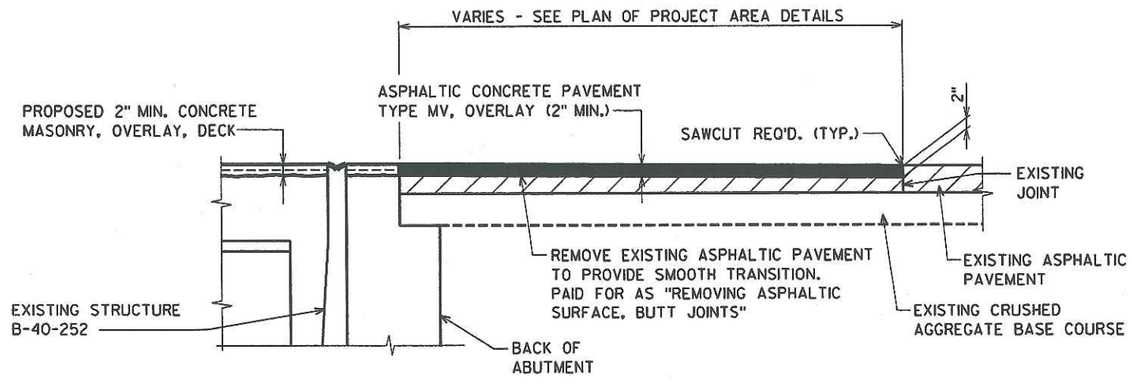


* INCIDENTAL TO "CONCRETE MASONRY, OVERLAY, APPROACHES"

CONCRETE MASONRY OVERLAY DETAIL

(LOOKING EAST AT SOUTH APPROACH)

NOTE:
SAWCUT REQUIRED BETWEEN STAGE CONSTRUCTION LIMITS ALSO.



ASPHALTIC OVERLAY DETAIL

(LOOKING WEST AT NORTH APPROACH)

NOTE:
SAWCUT REQUIRED BETWEEN STAGE CONSTRUCTION LIMITS ALSO.

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

WHEN THE QUANTITY OF CONCRETE MASONRY, OVERLAY, APPROACHES, IS MEASURED FOR PAYMENT BY THE CUBIC YARD, THE DEPTH OR THICKNESS OF THE PAVEMENT SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIALS AS DIRECTED THE THE ENGINEER.

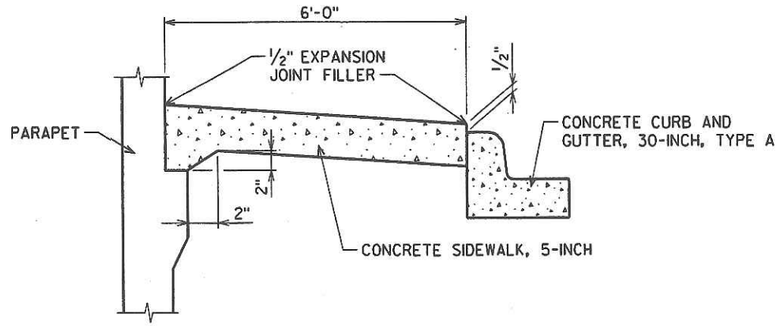
DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.

ALL PRIVATE UTILITIES ARE TO BE ADJUSTED BY THE UTILITY CONCERNED.

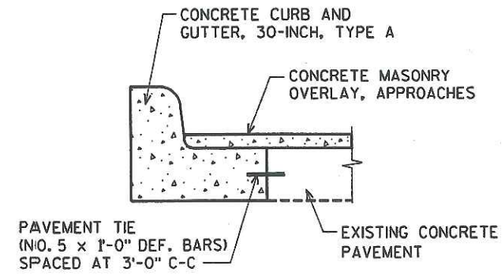
TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION RATE OF 0.025 GALLONS PER SQUARE YARD AND SHALL BE PLACED BETWEEN THE EXISTING ASPHALTIC PAVEMENT AND THE ASPHALTIC CONCRETE PAVEMENT, TYPE MV.

THE 2" ASPHALTIC CONCRETE PAVEMENT, TYPE MV, OVERLAY SHALL BE PLACED IN ONE LAYER.

TRANSVERSE JOINTS IN CONCRETE WALK SHALL BE CONSTRUCTED AT 5'-0" INTERVALS UNLESS OTHERWISE NOTED BY THE ENGINEER.

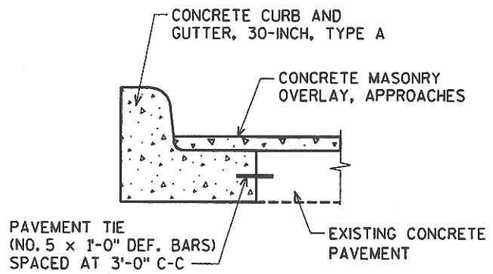


SIDEWALK DETAIL AT WINGWALL

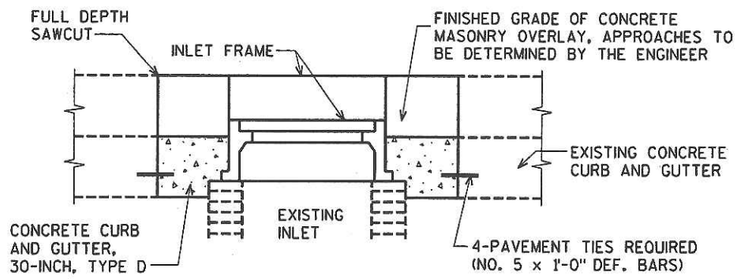


CONCRETE CURB AND GUTTER REPLACEMENT

STA. 111+45 TO STA. 111+50 RT.



CONCRETE CURB AND GUTTER REPLACEMENT



ADJUSTING INLET COVERS

GENERAL NOTES

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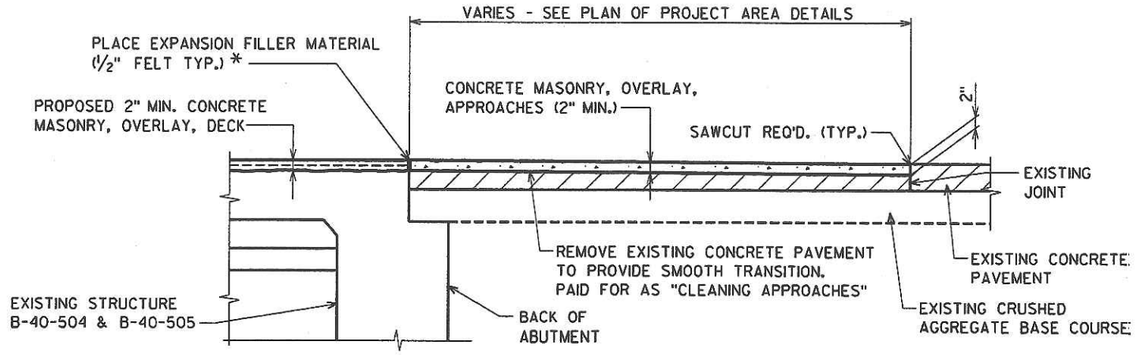


* INCIDENTAL TO "CONCRETE MASONRY, OVERLAY, APPROACHES"

CONCRETE MASONRY OVERLAY DETAIL

(LOOKING NORTH AT EAST APPROACH; WEST APPROACH SIMILAR)

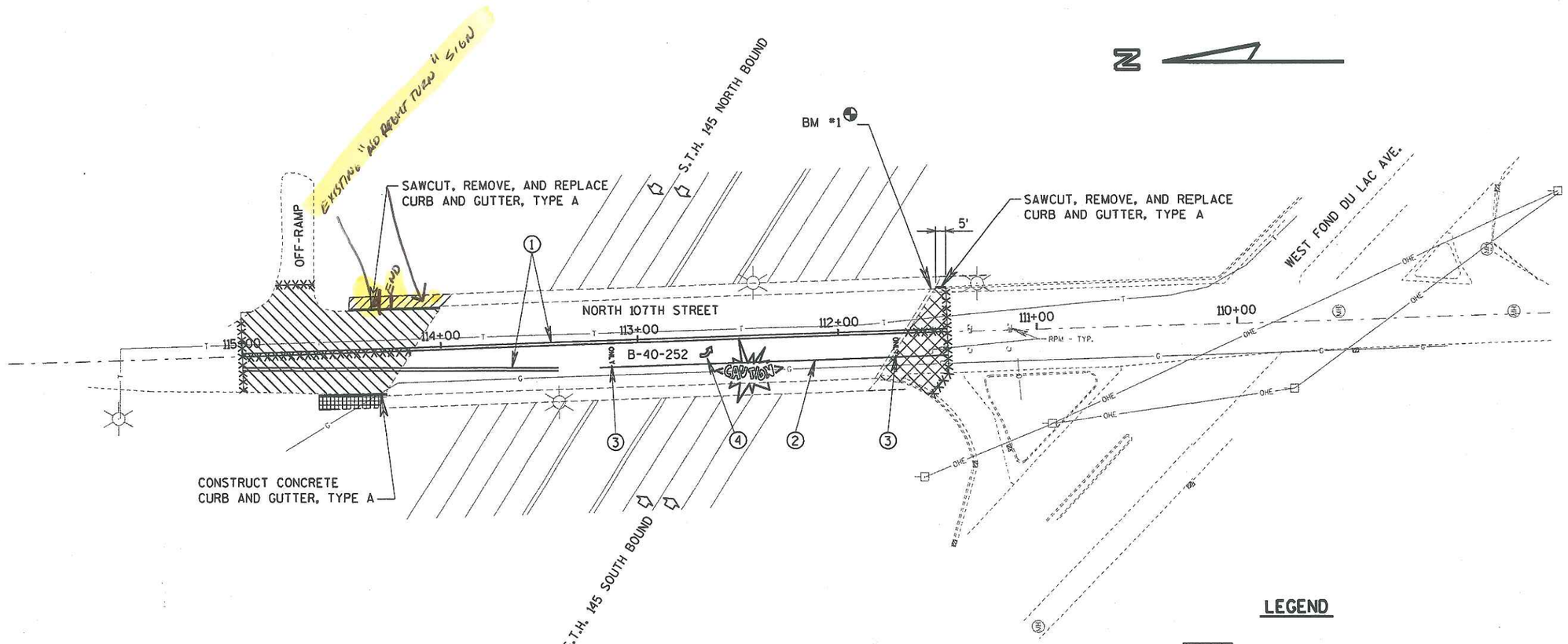
NOTE:
SAWCUT REQUIRED BETWEEN STAGE CONSTRUCTION LIMITS ALSO.

$PRFNAME$
PEN TABLE = ±plot72±LASER±S
DATE OF PLOT: 2/23/99
DESIGN FILE = U:±TRROADS±46187pl.dgn
DGN LEVELS ON = 1-63

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.4

PLAN VIEW/PAVEMENT MARKINGS
FOR
NORTH 107TH ST. MILWAUKEE COUNTY

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	111+50	CHISELED SQUARE AT FACE OF CURB. 22 FT. RT.	100.00



CONVENTIONAL SIGNS

UNDERGROUND GAS	—G—
UNDERGROUND TELEPHONE	—T—
OVERHEAD ELECTRIC	—OHE—
MANHOLE	MH
RAISED PAVEMENT MARKER (RPM)	
INLET	
LIGHT POLE	
POWER POLE	

LEGEND

- REMOVING ASPHALTIC PAVEMENT, BUTT JOINTS
- CONSTRUCT CONCRETE SIDEWALK
- REMOVE AND REPLACE CONCRETE SIDEWALK
- CLEANING APPROACHES
- XXXXXX SAWING EXISTING PAVEMENT
- (1) PAVEMENT MARKING, EPOXY, 4 INCHES (DOUBLE YELLOW CENTERLINE)
- (2) PAVEMENT MARKING, CHANNELIZING, EPOXY, 8 INCHES (SOLID WHITE)
- (3) PAVEMENT MARKING, WORDS, EPOXY (ONLY)
- (4) PAVEMENT MARKING, ARROWS, TYPE 2, EPOXY

$PRFNAME$
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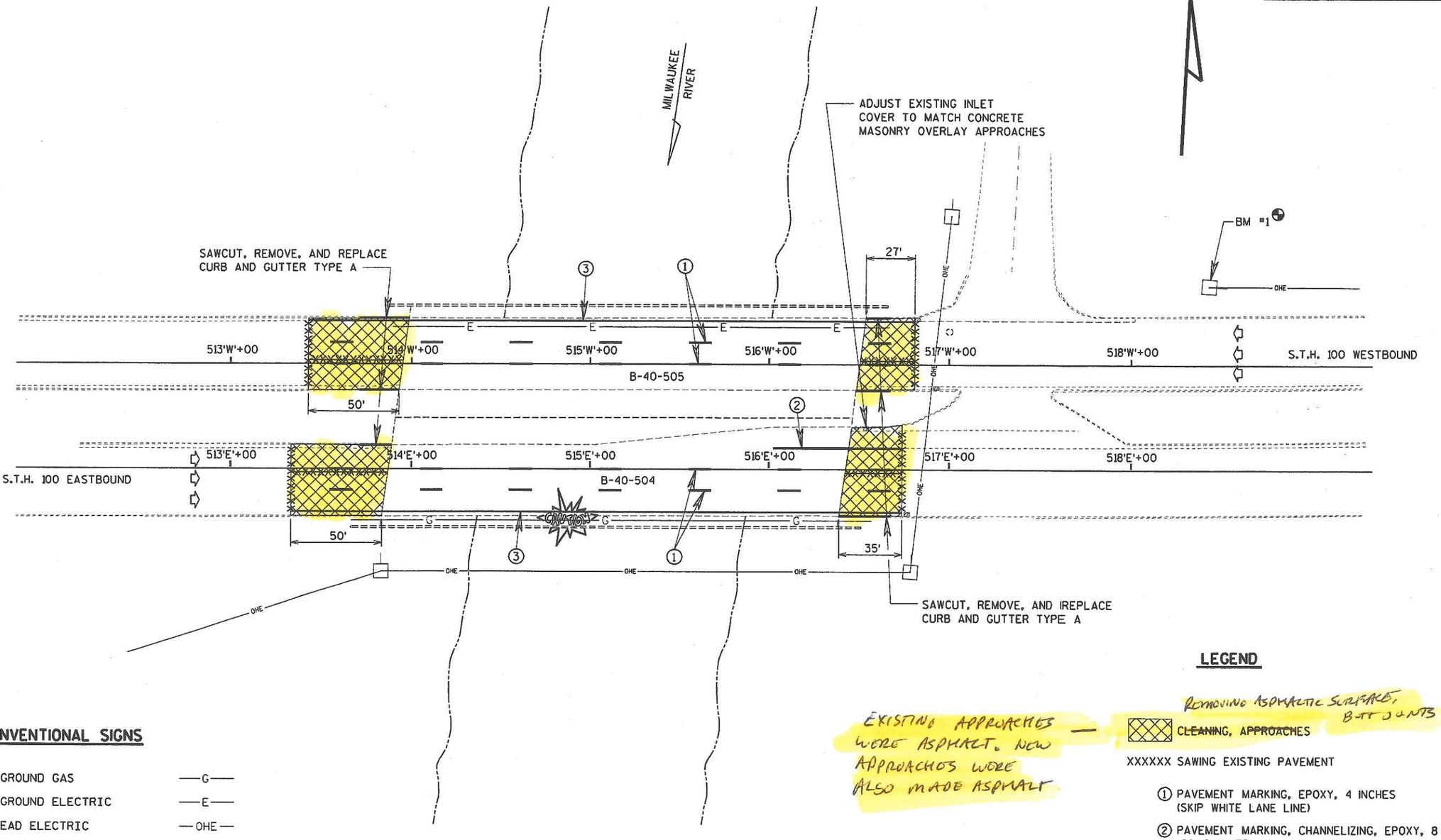
DATE OF PLOT: 2/23/99
DESIGN FILE = U:±trroads±46187bpl.dgn
DGN LEVELS ON = 1-63

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	25

PLAN VIEW/PAVEMENT MARKINGS
FOR
S.T.H. 100 MILWAUKEE CO

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	518'W'+50	RAILROAD SPIKE IN POWER POLE, 45 FT. LT.	100.00



CONVENTIONAL SIGNS

UNDERGROUND GAS	—G—
UNDERGROUND ELECTRIC	—E—
OVERHEAD ELECTRIC	—OHE—
INLET	▫
POWER POLE	-□

EXISTING APPROACHES WERE ASPHALT. NEW APPROACHES WERE ALSO MADE ASPHALT

LEGEND

REMOVING ASPHALTIC SURFACE, BUTT JOINTS
CLEANING, ~~APPROACHES~~

XXXXXX SAWING EXISTING PAVEMENT

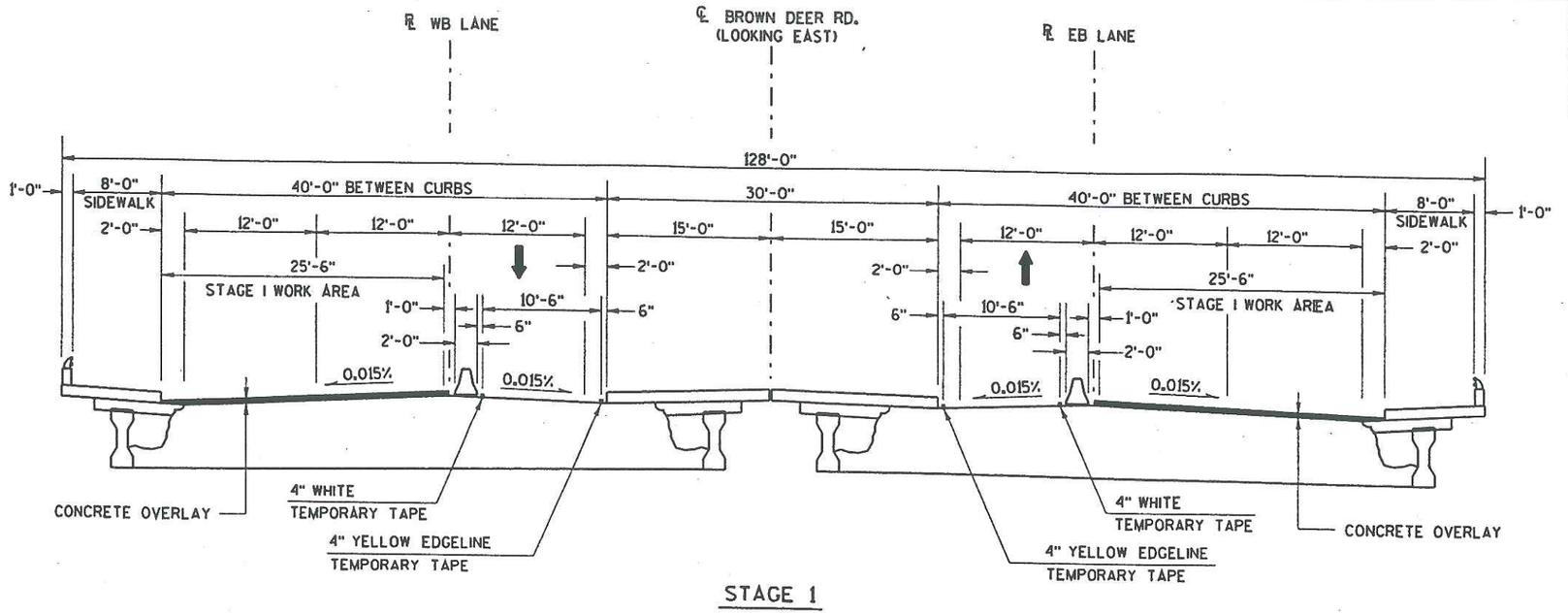
① PAVEMENT MARKING, EPOXY, 4 INCHES (SKIP WHITE LANE LINE)

② PAVEMENT MARKING, CHANNELIZING, EPOXY, 8 INCHES (SOLID WHITE)

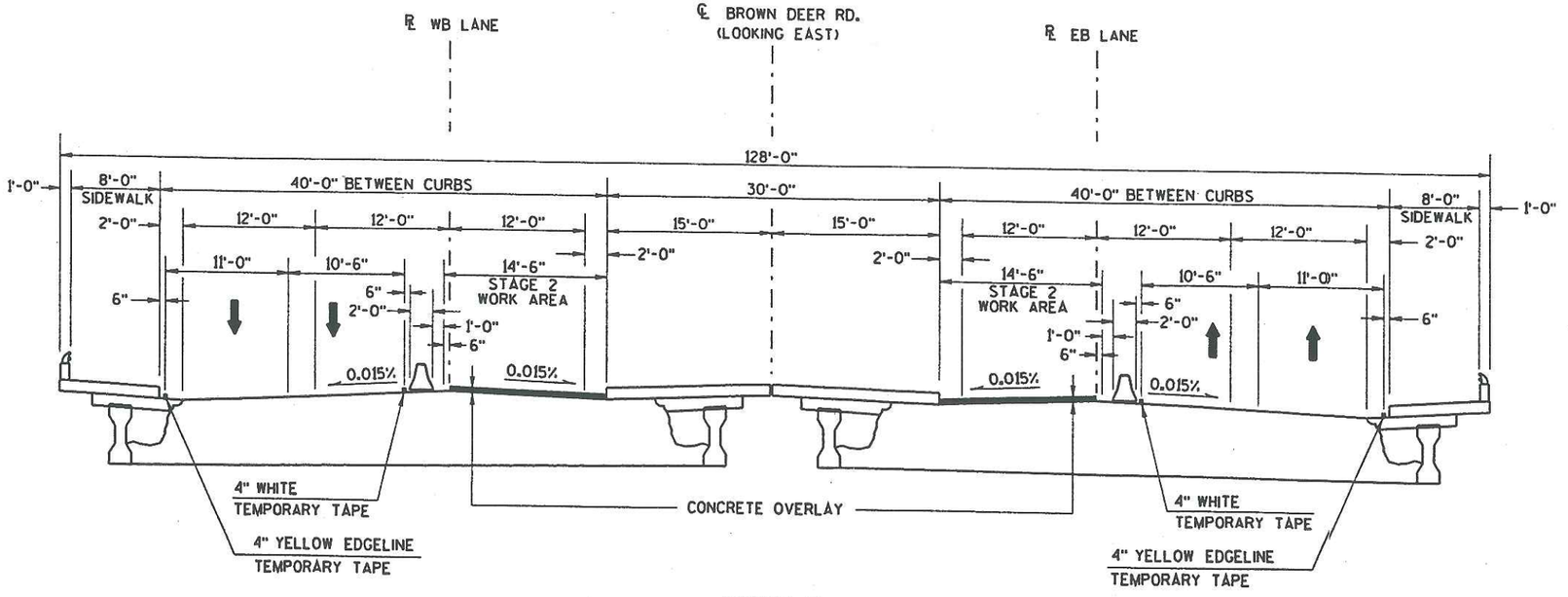
③ PAVEMENT MARKING, EPOXY, 4 INCHES (SOLID WHITE EDGE LINE) (OFFSET 2' FROM FACE OF CURB OR MATCH EXISTING)

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.6

TYPICAL SECTION FOR TRAFFIC CONTROL
STRUCTURES 504 & 505
STH 100 MILWAUKEE COUNTY



STAGE 1



STAGE 2

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.7

TRAFFIC CONTROL
STAGE 1
STH 100 MILWAUKEE COUN

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS

FOR NIGHTTIME OPERATION ALL ADVANCE SIGNS PLACED ON PAVEMENT SHALL HAVE A TYPE "A" FLASHING LIGHT.

DURING HOURS OF DARKNESS, TYPE "C" (STEADY BURN) LIGHTS SHALL BE PROVIDED ON ALL CHANNELIZING DEVICES IN TAPERS. BARRICADES SHIELDING AN ISOLATED HAZARD, SHALL BE EQUIPPED WITH TYPE "A" (LOW-INTENSITY FLASHING) LIGHTS.

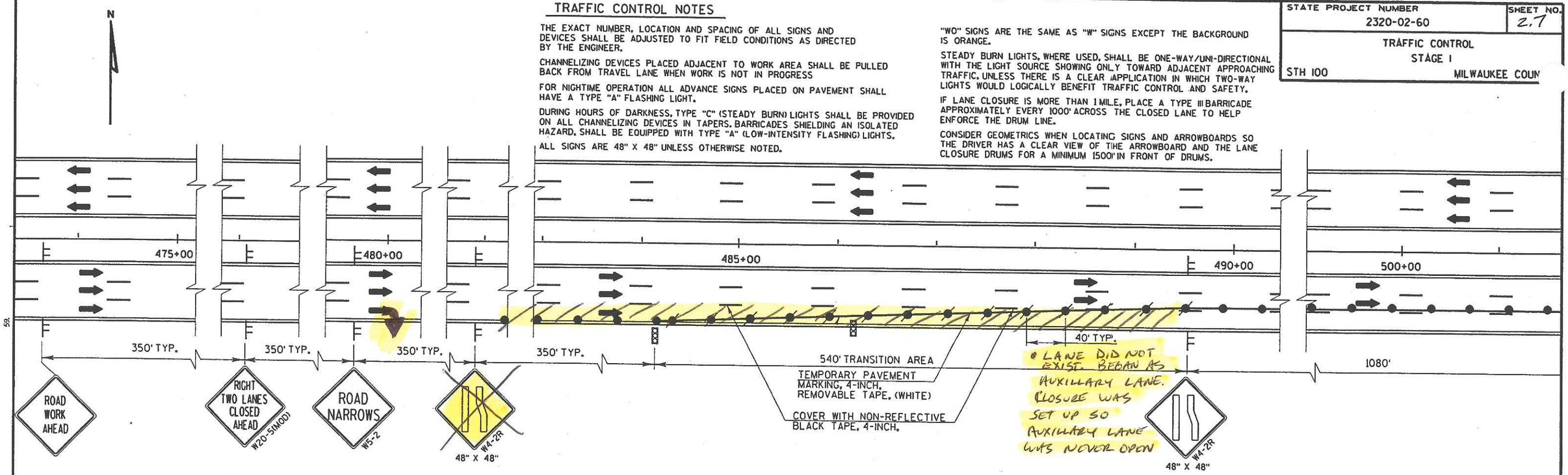
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

STEADY BURN LIGHTS, WHERE USED, SHALL BE ONE-WAY/UNI-DIRECTIONAL WITH THE LIGHT SOURCE SHOWING ONLY TOWARD ADJACENT APPROACHING TRAFFIC. UNLESS THERE IS A CLEAR APPLICATION IN WHICH TWO-WAY LIGHTS WOULD LOGICALLY BENEFIT TRAFFIC CONTROL AND SAFETY.

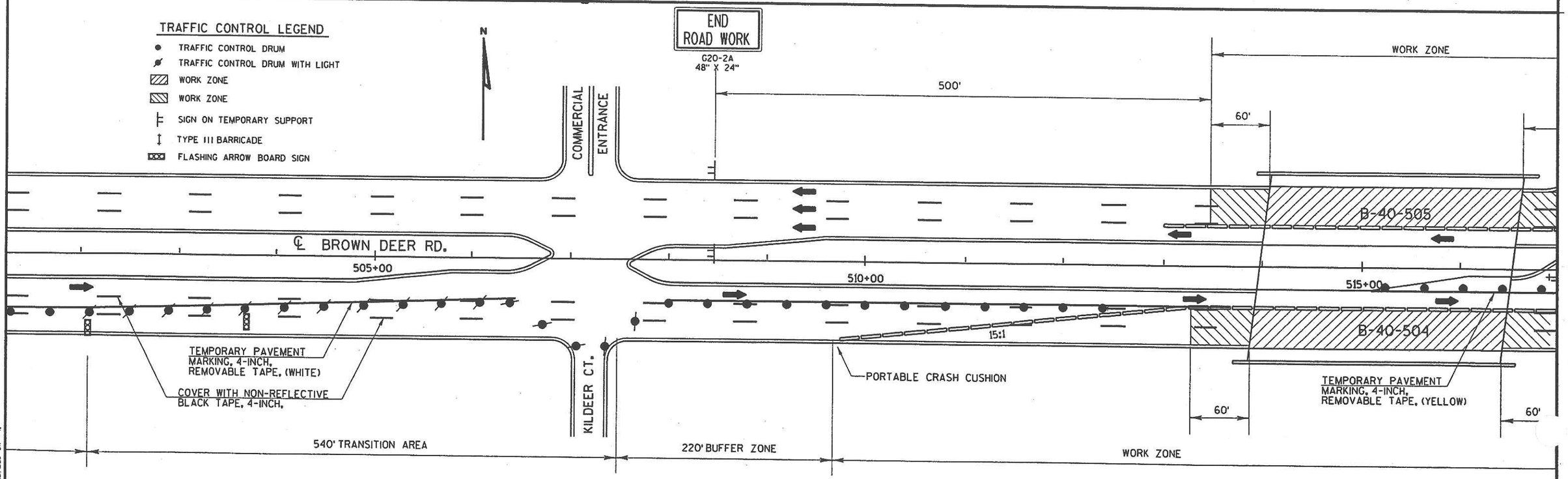
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND THE LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.



TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT
- WORK ZONE
- WORK ZONE
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- FLASHING ARROW BOARD SIGN



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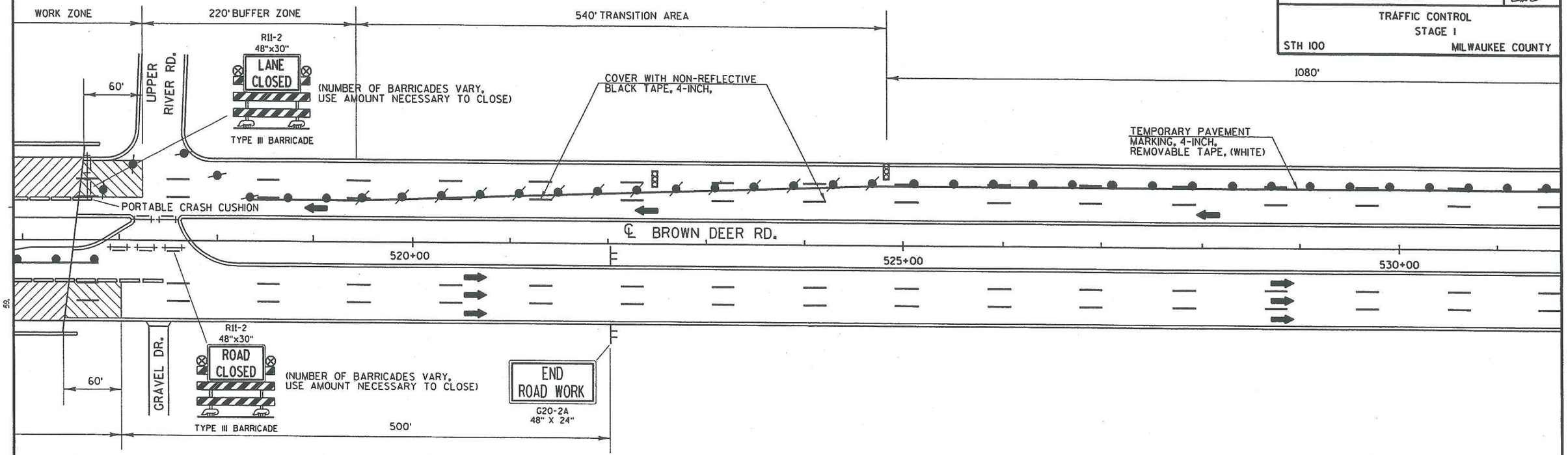
FILE NAME: D2 BR 405040S:TC5041.DGN
LEVELS ON • 1.

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	28

TRAFFIC CONTROL
STAGE 1
STH 100 MILWAUKEE COUNTY



TRAFFIC CONTROL NOTES

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CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS

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IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND THE LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT
- WORK ZONE
- WORK ZONE
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- FLASHING ARROW BOARD SIGN

REV. DATE: 2/2/99 PLOT SCALE : 100.679758:1.000000 PLOT DATE: 0 -1999 10:18
ORIGINATOR: D2 JCT
FILE NAME : 40S040SITCS04.DGN
LEVELS ON : 1,

REV. DATE: 2/2/99 PLOT SCALE: 100.679758:1.000000 PLOT DATE: 03-FEB-1999 10:19
ORIGINATOR: D2 JCT
FILE NAME: D2 BR 405040S:TC504.DGN LEVELS ON - 1,

TRAFFIC CONTROL NOTES

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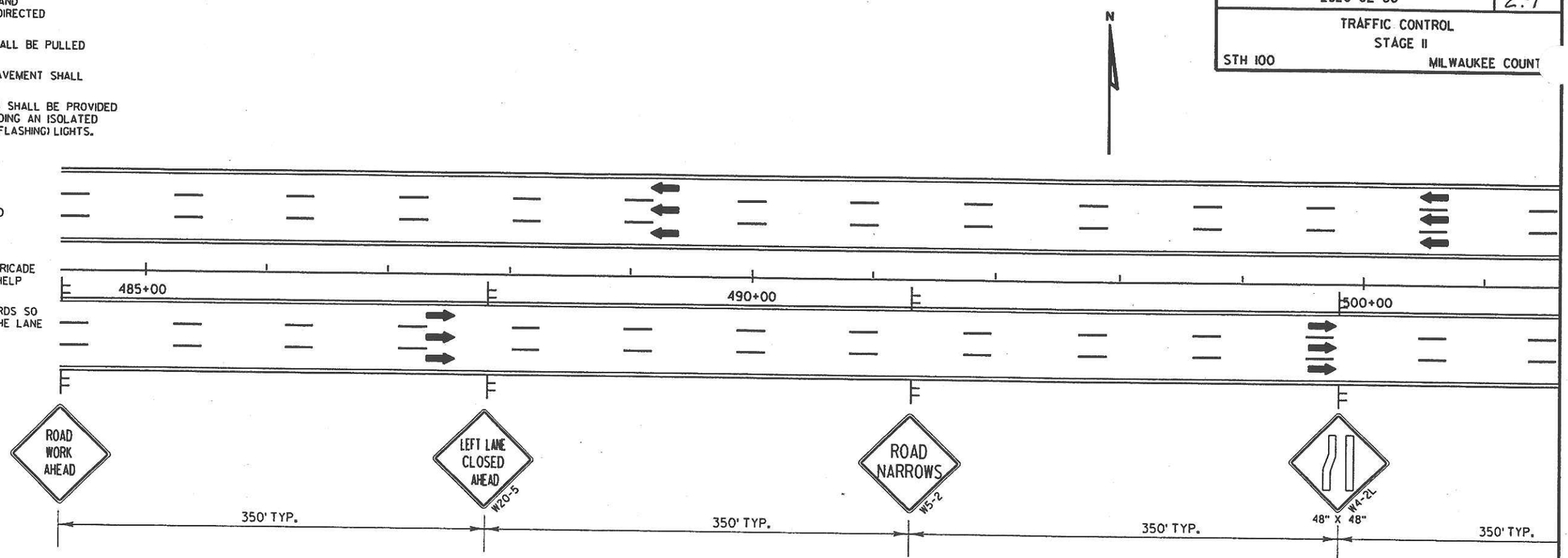
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

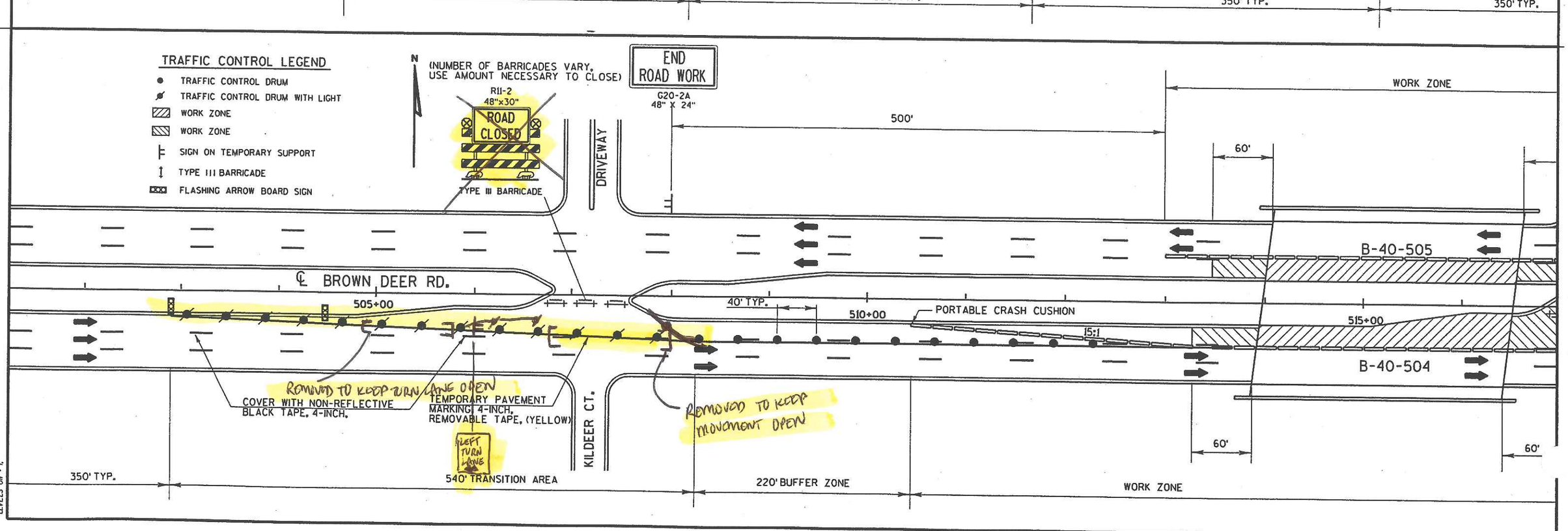
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND THE LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.9

TRAFFIC CONTROL
STAGE II

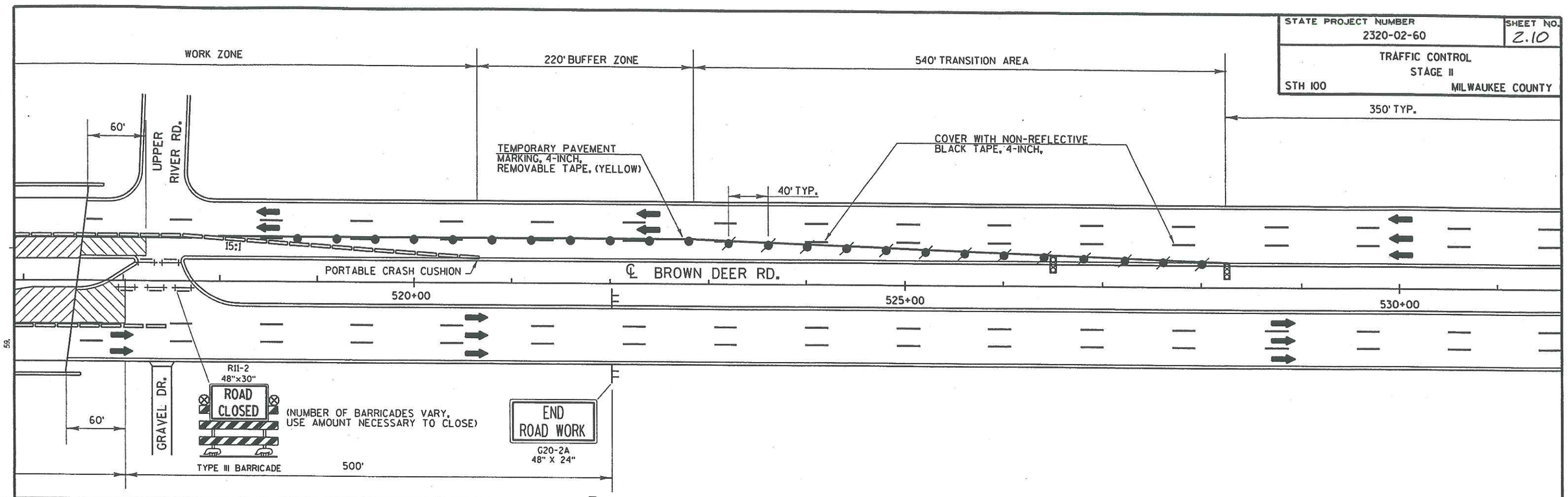
STH 100 MILWAUKEE COUNT

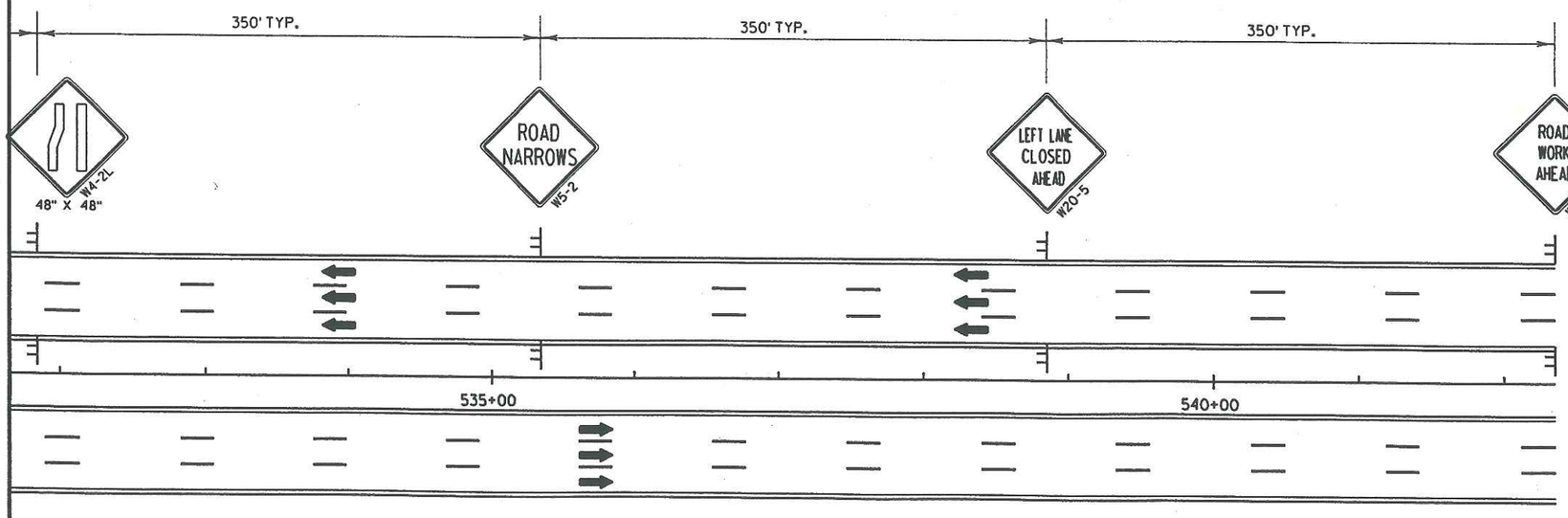




STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.10

TRAFFIC CONTROL
STAGE II
STH 100 MILWAUKEE COUNTY





TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT
- WORK ZONE
- WORK ZONE
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- FLASHING ARROW BOARD SIGN

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS

FOR NIGHTTIME OPERATION ALL ADVANCE SIGNS PLACED ON PAVEMENT SHALL HAVE A TYPE "A" FLASHING LIGHT.

DURING HOURS OF DARKNESS, TYPE "C" (STEADY BURN) LIGHTS SHALL BE PROVIDED ON ALL CHANNELIZING DEVICES IN TAPERS. BARRICADES SHIELDING AN ISOLATED HAZARD, SHALL BE EQUIPPED WITH TYPE "A" (LOW-INTENSITY FLASHING) LIGHTS.

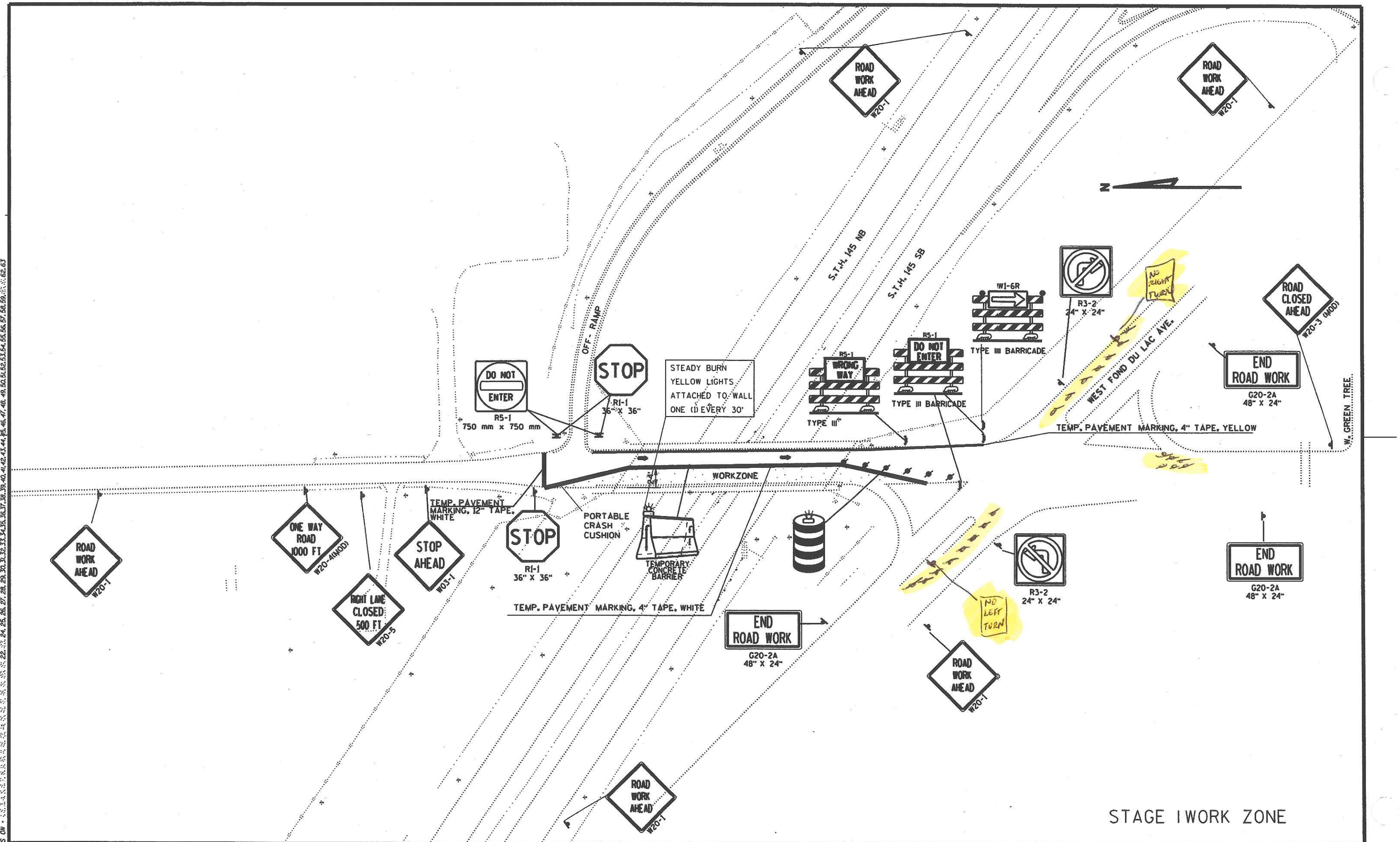
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

STEADY BURN LIGHTS, WHERE USED, SHALL BE ONE-WAY/UNI-DIRECTIONAL WITH THE LIGHT SOURCE SHOWING ONLY TOWARD ADJACENT APPROACHING TRAFFIC, UNLESS THERE IS A CLEAR APPLICATION IN WHICH TWO-WAY LIGHTS WOULD LOGICALLY BENEFIT TRAFFIC CONTROL AND SAFETY.

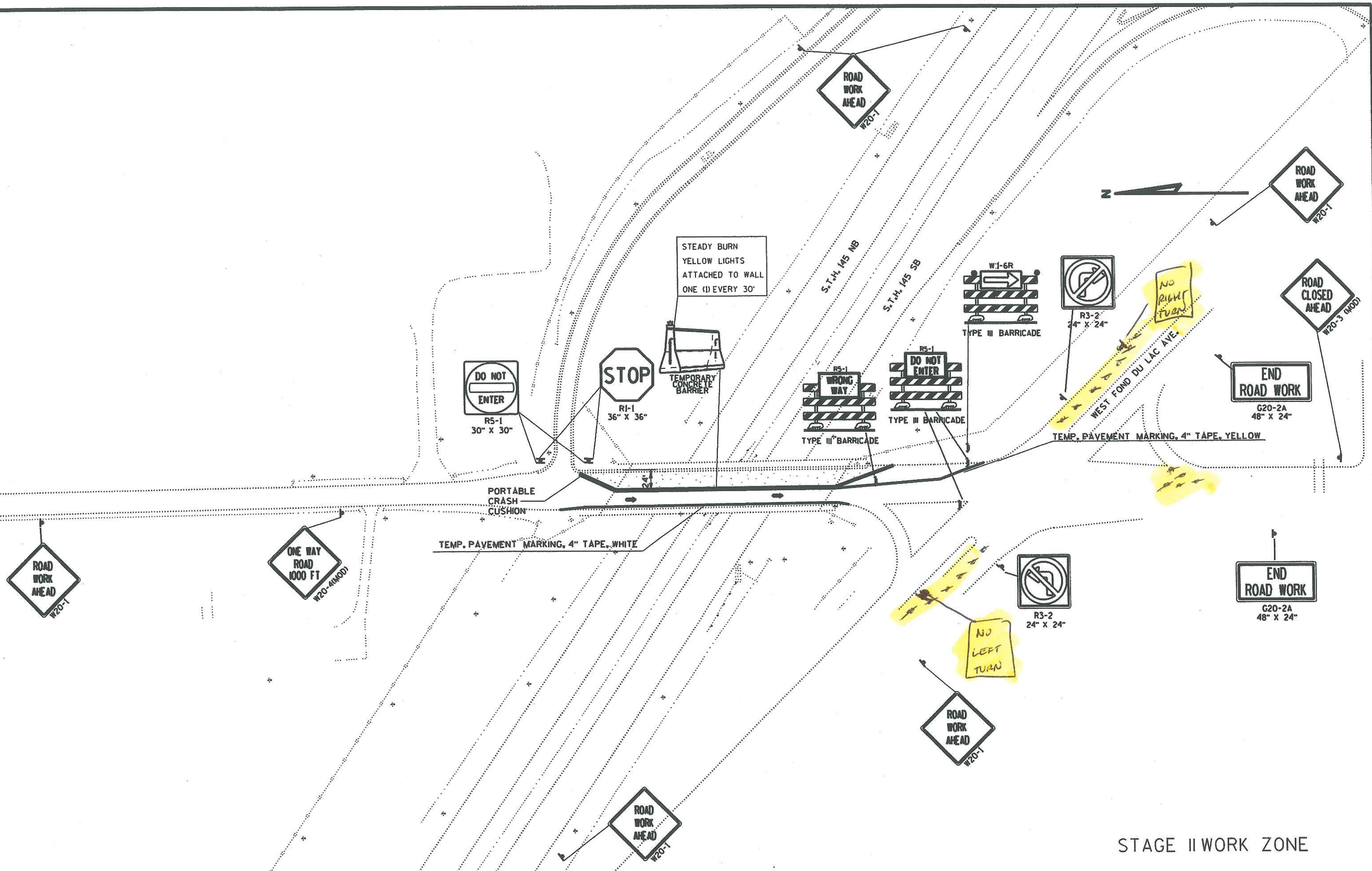
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND THE LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.



STAGE I WORK ZONE

STATE PROJECT NUMBER: 2320-02-60	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE, FEET	SHEET NO: 2.11	E



STATE PROJECT NUMBER: 2320-02-60	HWY: STH 145	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE: FEET 0	SHEET NO: 2.12	E

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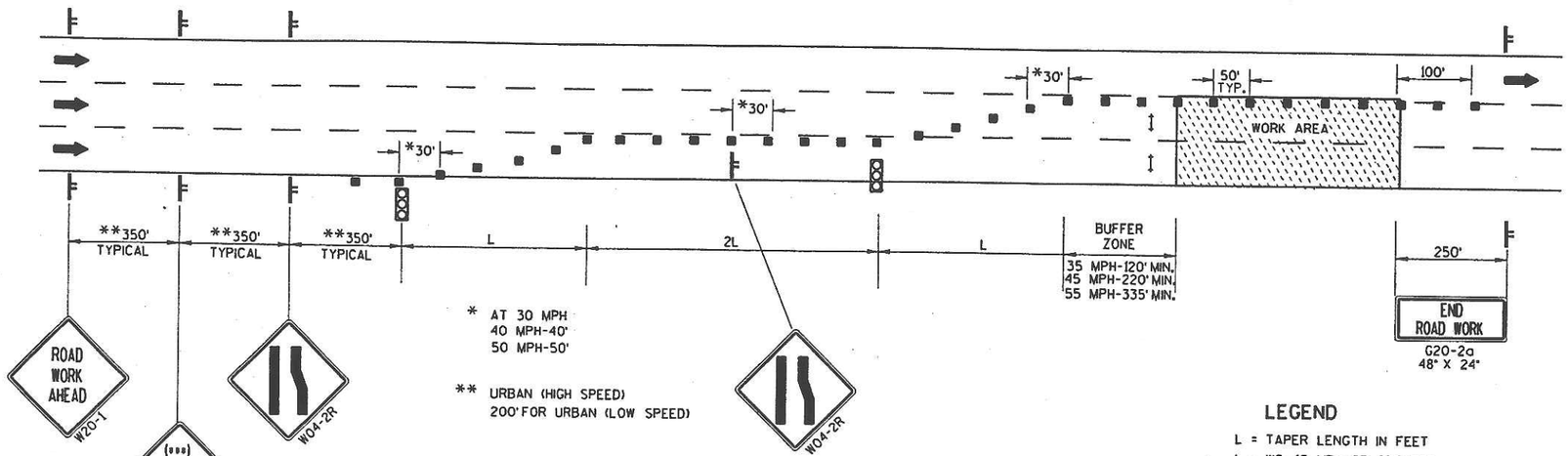
STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.13
TRAFFIC CONTROL FOR LANE CLOSURE NON - FREEWAY	
STH 100 & 145	MILWAUKEE COUNT

TYPICAL TWO-LANE CLOSURE (SHORT TERM-3 DAYS OR LESS)



* AT 30 MPH
40 MPH-40'
50 MPH-50'

** URBAN (HIGH SPEED)
200' FOR URBAN (LOW SPEED)

LEGEND

L = TAPER LENGTH IN FEET
L = WS 45 MPH OR GREATER
$\frac{WS^2}{60}$ 40 MPH OR LESS
W = WITH OF LANE CLOSURE
S = SPEED
(***) SPECIFY RIGHT OR LEFT AS APPROPRIATE
■ DRUM
SIGN ON TEMPORARY SUPPORT
ARROW BOARD
BARRICADE TYPE III WITH 'A' WARNING LIGHTS

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

CHANELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

DURING HOURS OF DARKNESS, TYPE "C" (STEADY BURN) LIGHTS SHALL BE PROVIDED ON ALL CHANNELIZING DEVICES IN TAPERS. BARRICADES SHIELDING AN ISOLATED HAZARD, SHALL BE EQUIPPED WITH TYPE "A" (LOW-INTENSITY FLASHIG) LIGHTS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

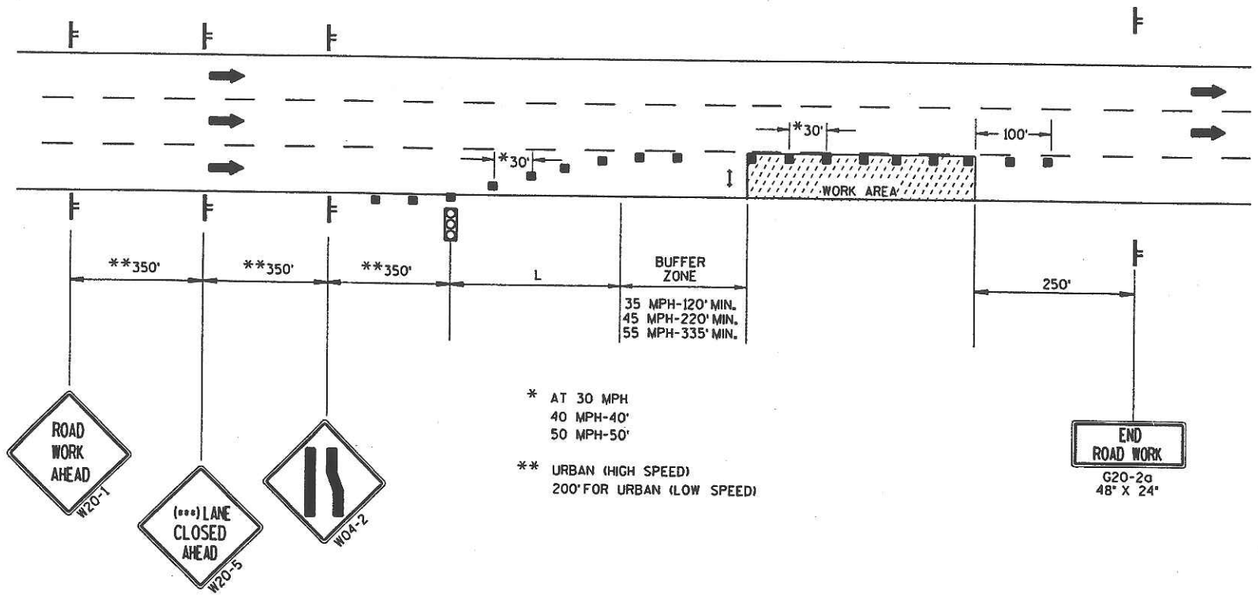
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

STEADY BURN LIGHTS, WHERE USED, SHALL BE ONE-WAY / UNI-DIRECTIONAL WITH THE LIGHT SOURCE SHOWING ONLY TOWARD ADJACENT APPROACHING TRAFFIC, UNLESS THERE IS A CLEAR APPLICATION IN WHICH TWO-WAY LIGHTS WOULD LOGICALLY BENEFIT TRAFFIC CONTROL AND SAFETY.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

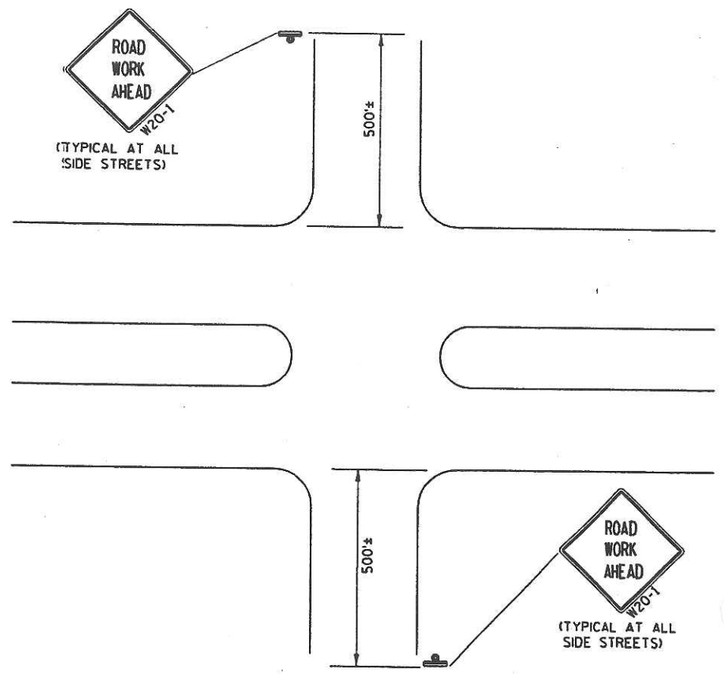
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

TYPICAL ONE-LANE CLOSURE (SHORT TERM-3 DAYS OR LESS)



* AT 30 MPH
40 MPH-40'
50 MPH-50'

** URBAN (HIGH SPEED)
200' FOR URBAN (LOW SPEED)



FILE NAME: D2 BR 405040SITCTYP.DGN ORIGINATOR: D2 JCT PLOT SCALE : 201.359517:1.000000 PLOT DATE: 03-FEB-1999 09:06
REV. DATE: 1/22/99
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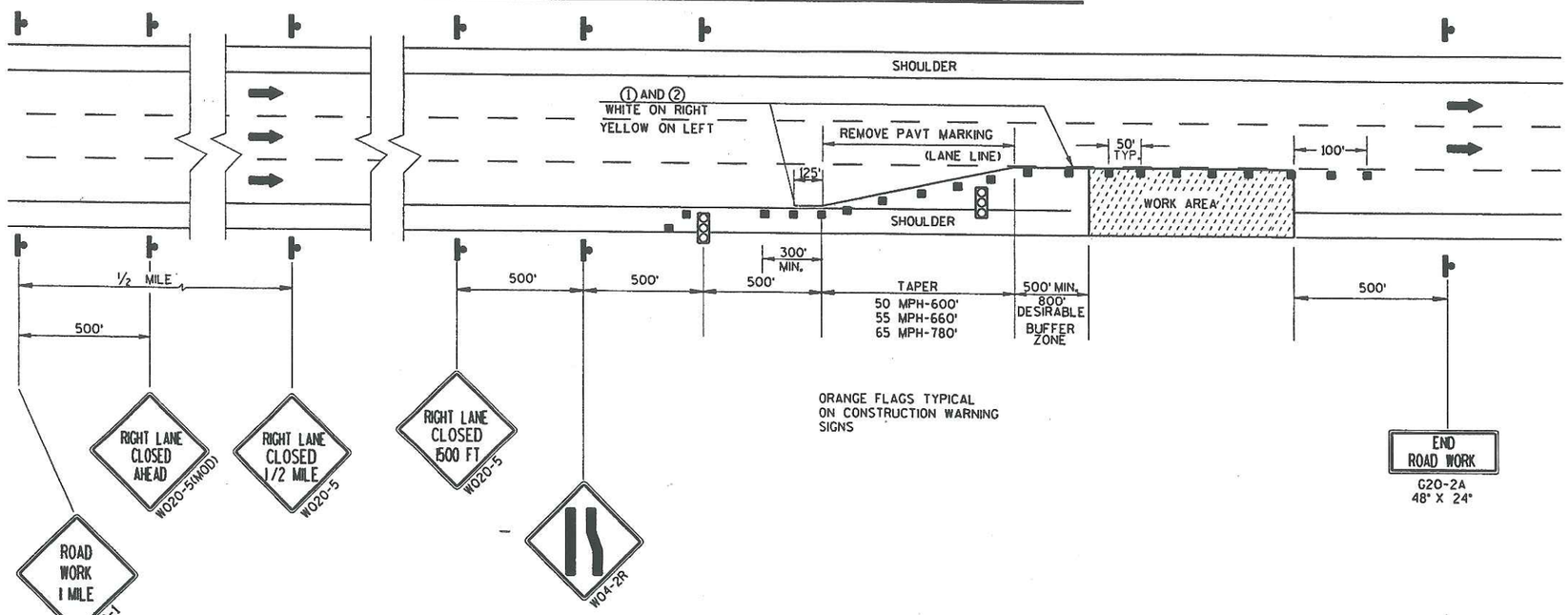
STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.14

TRAFFIC CONTROL FOR CLOSING ONE LANE OF FREEWAY (LONG TERM ONLY)

STH 100 & 145 MILWAUKEE COUNTY

TYPICAL ONE-LANE CLOSURE (LONG TERM-4 DAYS OR MORE)



ORANGE FLAGS TYPICAL ON CONSTRUCTION WARNING SIGNS

LEGEND

- DRUM
- SIGN ON FIXED SUPPORT
- SIGN ON TEMPORARY SUPPORT
- ARROW BOARD

① TEMPORARY PAVEMENT MARKING, RAISED MARKERS, AT 25' SPACING, WHEN SPECIFIED IN MISCELLANEOUS QUANTITIES.

② TEMPORARY PAVEMENT MARKING, REMOVEABLE TAPE.

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN, LEFT LANE CLOSURE SIMILAR.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

ALL WARNING SIGNS FOR LONG TERM OPERATIONS SHALL BE NON-FLUORESCENT DIAMOND GRADE SHEETING. TYPE A LIGHTS AND FLAGS ARE NOT REQUIRED WHEN USING DIAMOND GRADE SHEETING.

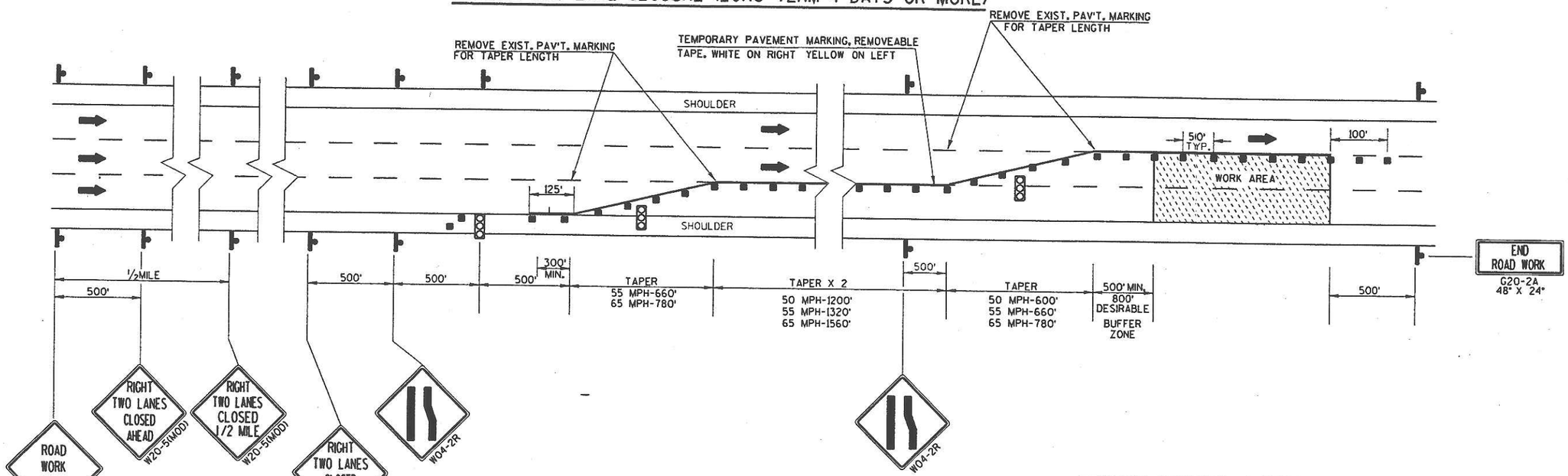
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	2.15

TRAFFIC CONTROL FOR CLOSING
TWO LANES OF FREEWAY
STH 100 & 145 MILWAUKEE COUN

TYPICAL TWO-LANE CLOSURE (LONG TERM-4 DAYS OR MORE)



LEGEND

- DRUM
- SIGN ON FIXED SUPPORT
- SIGN ON TEMPORARY SUPPORT
- ARROW BOARD

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN, LEFT LANE CLOSURE SIMILAR.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

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IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2320-02-60 QUANTITY
0010	20401	REMOVING PAVEMENT	S.Y.	325.00	325.00
0020	20405	REMOVING CURB AND GUTTER	L.F.	141.00	141.00
0030	20406	REMOVING CONCRETE SIDEWALK	S.Y.	30.00	30.00
0040	20419	REMOVING ASPHALTIC SURFACE, BUTT JOINTS	S.Y.	420.00	420.00
0050	21301	FINISHING ROADWAY	LS	1.00	1.00
0060	40204	ASPHALTIC MATERIAL FOR TACK COAT	GAL.	21.00	21.00
0070	40501	ASPHALTIC MATERIAL FOR PLANT MIXES	TON	7.00	7.00
0080	40713	ASPHALTIC CONCRETE PAVEMENT, TYPE MV	TON	103.00	103.00
0090	41653	PAVEMENT TIES	EACH	39.00	39.00
0100	50201	CONCRETE MASONRY, BRIDGES	C.Y.	18.00	18.00
0110	50232	EXPANSION DEVICE, STRUCTURE B-40-252	LS	1.00	1.00
0120	50265	PROTECTIVE SURFACE TREATMENT	S.Y.	3,567.00	3,567.00
0130	50511	COATED HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	1,820.00	1,820.00
0140	50902	PREPARATION, APPROACHES	S.Y.	215.00	215.00
0150	50903	PREPARATION, DECKS, TYPE 1	S.Y.	730.00	730.00
0160	50904	PREPARATION, DECKS, TYPE 2	S.Y.	730.00	730.00
0170	50905	CLEANING, DECKS	S.Y.	3,567.00	3,567.00
0180	50906	CLEANING, APPROACHES	S.Y.	885.00	885.00
0190	50910	JOINT REPAIR	S.Y.	42.00	42.00
0200	50912	CURB REPAIR	L.F.	35.00	35.00
0210	50915	CONCRETE SURFACE REPAIR	S.F.	80.00	80.00
0220	50920	FULL DEPTH DECK REPAIR	S.Y.	70.00	70.00
0230	50925	CONCRETE MASONRY, OVERLAY, DECKS	C.Y.	268.00	268.00
0240	50926	CONCRETE MASONRY, OVERLAY, APPROACHES	C.Y.	53.00	53.00
0250	60123	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	L.F.	171.00	171.00
0260	60133	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	L.F.	171.00	171.00
0270	60205	CONCRETE SIDEWALK, 5-INCH	S.F.	456.00	456.00
0280	60305	TEMPORARY PRECAST CONCRETE BARRIER, CONTRACTOR FURNISHED AND DELIVERED	L.F.	1,820.00	1,820.00
0290	60308	TEMPORARY PRECAST CONCRETE BARRIER, CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	L.F.	1,820.00	1,820.00
0300	61183	ADJUSTING INLET COVERS	EACH	1.00	1.00
0310	61425	PORTABLE CRASH CUSHIONS, DELIVERED	EACH	3.00	3.00
0320	61426	PORTABLE CRASH CUSHIONS, INSTALLED	EACH	6.00	6.00

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2320-02-60 QUANTITY
0330	61910	MOBILIZATION	LS	1.00	1.00
0340	64201	FIELD OFFICE, TYPE A	LS	1.00	1.00
0350	64301	TRAFFIC CONTROL	LS	1.00	1.00
0360	64310	TRAFFIC CONTROL, ARROW BOARDS	DAYS	172.00	172.00
0370	64313	TRAFFIC CONTROL, DRUMS	DAYS	6,628.00	6,628.00
0380	64318	TRAFFIC CONTROL, BARRICADES, TYPE III	DAYS	635.00	635.00
0390	64321	TRAFFIC CONTROL, WARNING LIGHTS, TYPE A	DAYS	892.00	892.00
0400	64323	TRAFFIC CONTROL, WARNING LIGHTS, TYPE C	DAYS	2,648.00	2,648.00
0410	64326	TRAFFIC CONTROL, SIGNS	DAYS	978.00	978.00
0420	64327	TRAFFIC CONTROL, SIGNS, FIXED MESSAGE	S.F.	488.00	488.00
0430	64334	TRAFFIC CONTROL, DETOUR	LS	1.00	1.00
0440	64602	PAVEMENT MARKING, 4-INCH, EPOXY	L.F.	2,050.00	2,050.00
0450	64618	PAVEMENT MARKING, CHANNELIZING, 8-INCH, EPOXY	L.F.	260.00	260.00
0460	64635	PAVEMENT MARKING, RAISED MARKERS	EACH	3.00	3.00
0470	64642	REMOVING PAVEMENT MARKINGS	L.F.	450.00	450.00
0480	64734	PAVEMENT MARKING, ARROWS, TYPE 2, EPOXY	EACH	1.00	1.00
0490	64758	PAVEMENT MARKING, WORDS, EPOXY	EACH	2.00	2.00
0500	64904	TEMPORARY PAVEMENT MARKING, 4-INCH, REMOVABLE TAPE	L.F.	12,074.00	12,074.00
0510	64910	TEMPORARY PAVEMENT MARKING, STOP LINE, 12-INCH, REMOVABLE TAPE	L.F.	44.00	44.00
0520	66501	SAWING EXISTING PAVEMENT	L.F.	569.00	569.00

ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0010

MISCELLANEOUS QUANTITIES

ITEM NO. 50906
CLEANING, APPROACHES*

STAGE	LOCATION	S.Y.
1	EAST BOUND LANES - WEST APPROACH	150
1	EAST BOUND LANES - EAST APPROACH	100
1	WEST BOUND LANES - WEST APPROACH	155
1	WEST BOUND LANES - EAST APPROACH	85
2	EAST BOUND LANES - WEST APPROACH	85
2	EAST BOUND LANES - EAST APPROACH	80
2	WEST BOUND LANES - WEST APPROACH	80
2	WEST BOUND LANES - EAST APPROACH	50
	TOTAL	785

ITEM NO. 61183
ADJUSTING INLET COVERS

STAGE	LOCATION	EACH
2	EAST BOUND LANES - EAST APPROACH	1

ITEM NO. 50926
CONCRETE MASONRY, OVERLAY, APPROACHES*

STAGE	LOCATION	C.Y.
1	EAST BOUND LANES - WEST APPROACH	9
1	EAST BOUND LANES - EAST APPROACH	6
1	WEST BOUND LANES - WEST APPROACH	9
1	WEST BOUND LANES - EAST APPROACH	5
2	EAST BOUND LANES - WEST APPROACH	5
2	EAST BOUND LANES - EAST APPROACH	5
2	WEST BOUND LANES - WEST APPROACH	5
2	WEST BOUND LANES - EAST APPROACH	3
	TOTAL	47

ITEM NO. 66501
SAWING EXISTING PAVEMENT*

STAGE	LOCATION	L.F.	REMARKS
1	EAST BOUND LANES - WEST APPROACH	80	CONCRETE
1	EAST BOUND LANES - EAST APPROACH	58	CONCRETE
1	WEST BOUND LANES - WEST APPROACH	78	CONCRETE
1	WEST BOUND LANES - EAST APPROACH	57	CONCRETE
2	EAST BOUND LANES - WEST APPROACH	14	CONCRETE
2	EAST BOUND LANES - EAST APPROACH	24	CONCRETE
2	WEST BOUND LANES - WEST APPROACH	14	CONCRETE
2	WEST BOUND LANES - EAST APPROACH	14	CONCRETE
	TOTAL	339	

ITEM NO. 50902
PREPARATION, APPROACHES*

STAGE	LOCATION	S.Y.
1	EAST BOUND LANES - WEST APPROACH	30
1	EAST BOUND LANES - EAST APPROACH	30
1	WEST BOUND LANES - WEST APPROACH	30
1	WEST BOUND LANES - EAST APPROACH	30
2	EAST BOUND LANES - WEST APPROACH	15
2	EAST BOUND LANES - EAST APPROACH	25
2	WEST BOUND LANES - WEST APPROACH	15
2	WEST BOUND LANES - EAST APPROACH	15
	TOTAL	190

ITEM NO. 20405
REMOVING CURB AND GUTTER*

STAGE	LOCATION	L.F.
1	EAST BOUND LANES - WEST APPROACH	20
1	WEST BOUND LANES - WEST APPROACH	20
1	WEST BOUND LANES - EAST APPROACH	10
2	EAST BOUND LANES - WEST APPROACH	10
2	WEST BOUND LANES - WEST APPROACH	20
2	WEST BOUND LANES - EAST APPROACH	10
	TOTAL	90

ITEM NO. 64602
PAVEMENT MARKING, 4-INCH, EPOXY*

STA. - STA.	LOCATION	LANE LINES WHITE L.F.	EDGE LINES WHITE L.F.
513'E'+39 TO 516'E'+80	EAST BOUND LANES - 24 FT. RT.	---	341
513'E'+39 TO 516'E'+80	EAST BOUND LANES - 12 FT. RT.	90	---
513'E'+39 TO 516'E'+80	EAST BOUND LANES - CENTERLINE	90	---
513'W'+49 TO 516'W'+88	WEST BOUND LANES - CENTERLINE	90	---
513'W'+49 TO 516'W'+88	WEST BOUND LANES - 12 FT. LT.	90	---
513'W'+49 TO 516'W'+88	WEST BOUND LANES - 24 FT. LT.	---	339
	SUB TOTAL	360	680
	TOTAL	1040	

ITEM NO. 64618
PAVEMENT MARKING, CHANNELIZING, 8-INCH, EPOXY*

STA. - STA.	LOCATION	L.F.
516'E'+00 TO 516'E'+80	EAST BOUND LANES - 12 FT. LT.	80

ITEM NO. 60123
CONCRETE CURB AND GUTTER, 30-INCH, TYPE A*

STAGE	LOCATION	L.F.
1	EAST BOUND LANES - WEST APPROACH	20
1	WEST BOUND LANES - WEST APPROACH	20
1	WEST BOUND LANES - EAST APPROACH	10
2	EAST BOUND LANES - WEST APPROACH	10
2	WEST BOUND LANES - WEST APPROACH	20
2	WEST BOUND LANES - EAST APPROACH	10
	TOTAL	90

ITEM NO. 20401
REMOVING PAVEMENT*

LOCATION	S.Y.
UNDISTRIBUTED	195

ITEM NO. 41653
PAVEMENT TIES*

STAGE	LOCATION	EACH
1	EAST BOUND LANES - WEST APPROACH	7
1	WEST BOUND LANES - WEST APPROACH	7
1	WEST BOUND LANES - EAST APPROACH	4
2	EAST BOUND LANES - WEST APPROACH	4
2	WEST BOUND LANES - WEST APPROACH	7
2	WEST BOUND LANES - EAST APPROACH	4
2	EAST BOUND LANES - EAST APPROACH	4
	TOTAL	37

MISCQUAN

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0010

MISCELLANEOUS QUANTITIES

ITEM NO. 20419
REMOVING ASPHALTIC SURFACE, BUTT JOINTS

STAGE	LOCATION	S.Y.
1	STA. 114+14 TO STA. 115+00	195
2	STA. 114+14 TO STA. 115+00	225
	TOTAL	420

ITEM NO. 50906
CLEANING, APPROACHES*

STAGE	LOCATION	S.Y.
1	STA. 111+45 TO STA. 111+65	69
2	STA. 111+45 TO STA. 111+65	31
	TOTAL	100

ITEM NO. 50902
PREPARATION, APPROACHES*

STAGE	LOCATION	S.Y.
1	STA. 111+45 TO STA. 111+65	17
2	STA. 111+45 TO STA. 111+65	8
	TOTAL	25

ITEM NO. 20401
REMOVING PAVEMENT*

LOCATION	S.Y.
UNDISTRIBUTED	130

ITEM NO. 50926
CONCRETE MASONRY, OVERLAY, APPROACHES*

STAGE	LOCATION	C.Y.
1	STA. 111+45 TO STA. 111+65	4
2	STA. 111+45 TO STA. 111+65	2
	TOTAL	6

ITEM NO. 64602
PAVEMENT MARKING, 4-INCH, EPOXY*

LOCATION	LANE LINES DOUBLE YELLOW L.F.
STA. 111+45 TO STA. 115+00, CENTERLINE	710
STA. 113+50 TO STA. 115+00, 11 FT. LT.	300
TOTAL	1010

ITEM NO. 64618
PAVEMENT MARKING, CHANNELIZING, 8-INCH, EPOXY*

LOCATION	L.F.
STA. 111+45 TO STA. 113+25, 11 FT. LT.	180

ITEM NO. 64734
PAVEMENT MARKING, ARROWS, TYPE 2, EPOXY

LOCATION	EACH
STA. 112+75, 5.5 FT. LT.	1

ITEM NO. 64758
PAVEMENT MARKING, WORDS, EPOXY

LOCATION	EACH
STA. 111+65, 5.5 FT. LT.	1
STA. 113+25, 5.5 FT. LT.	1
TOTAL	2

ITEM NO. 66501
SAWING EXISTING PAVEMENT*

STAGE	LOCATION	L.F.	REMARKS
1	STA. 111+45	38	CONCRETE
2	STA. 114+75, 30 FT. RT.	20	ASPHALT
1	STA. 115+00	22	ASPHALT
2	STA. 111+45	22	CONCRETE
2	STA. 115+00	22	ASPHALT
1	STA. 114+14 TO STA. 115+00 ℄	86	ASPHALT
1	STA. 111+45 TO STA. 111+65 ℄	20	CONCRETE
	TOTAL	230	

ITEM NO. 20405
REMOVING CURB AND GUTTER*

STAGE	LOCATION	L.F.
2	STA. 111+45 TO STA. 111+50 RT.	5
2	STA. 113+99 TO STA. 114+45 RT.	46
	TOTAL	51

ITEM NO. 41653
PAVEMENT TIES*

STAGE	LOCATION	EACH
2	STA. 111+45 TO STA. 111+50 RT.	2

ITEM NO. 40204
ASPHALTIC MATERIAL FOR TACK COAT

STAGE	LOCATION	GAL.
1	STA. 114+14 TO STA. 115+00	10
2	STA. 114+14 TO STA. 115+00	11
	TOTAL	21

ITEM NO. 40501
ASPHALTIC MATERIAL FOR PLANT MIXES

STAGE	LOCATION	TON
1	STA. 114+14 TO STA. 115+00	3
2	STA. 114+14 TO STA. 115+00	4
	TOTAL	7

ITEM NO. 40713
ASPHALTIC CONCRETE PAVEMENT, TYPE MV

STAGE	LOCATION	TON
1	STA. 114+14 TO STA. 115+00	48
2	STA. 114+14 TO STA. 115+00	55
	TOTAL	103

ITEM NO. 64635
PAVEMENT MARKING, RAISED MARKERS

LOCATION	EACH	REMARKS
STA. 111+50, 0.5 FT. RT.	1	YELLOW
STA. 111+50, 0.5 FT. LT.	1	YELLOW
STA. 111+50, 11 FT. LT.	1	WHITE
TOTAL	3	

ITEM NO. 60123
CONCRETE CURB AND GUTTER, 30-INCH, TYPE A*

STAGE	LOCATION	L.F.
2	STA. 111+45 TO STA. 111+50 RT.	5
2	STA. 113+99 TO STA. 114+45 RT.	46
1	STA. 114+29 TO STA. 114+59 LT.	30
	TOTAL	81

ITEM NO. 60205
CONCRETE SIDEWALK, 5-INCH

STAGE	LOCATION	S.F.
2	STA. 113+99 TO STA. 114+45	276
1	STA. 114+29 TO STA. 114+59	180
	TOTAL	456

ITEM NO. 20406
REMOVING CONCRETE SIDEWALK

STAGE	LOCATION	S.Y.
2	STA. 113+99 TO STA. 114+45	30

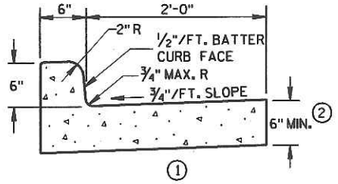
* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL

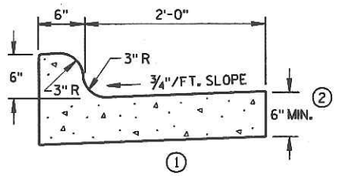
ALL QUANTITIES ON THIS SHEET ARE CATEGORY 0010.

LOCATION	TRAFFIC CONTROL, ARROW BOARDS *64310 DAYS	TRAFFIC CONTROL, DRUMS *64313 DAYS	TRAFFIC CONTROL, BARRICADES, TYPE III *64318 DAYS	TRAFFIC CONTROL, WARNING LIGHTS, TYPE A *64321 DAYS	TRAFFIC CONTROL, WARNING LIGHTS, TYPE C *64323 DAYS	TRAFFIC CONTROL, SIGNS *64326 DAYS	TRAFFIC CONTROL, SIGNS, FIXED MESSAGE *64327 FT2
STAGE 1							
EB BROWN DEER RD.	42	2464	84	168	784	280	0
WB BROWN DEER RD.	42	2464	140	280	784	308	0
STAGE 1 SUBTOTAL	84	4928	224	448	1568	588	0
STAGE 2							
EB BROWN DEER RD.	42	350	112	224	196	126	0
WB BROWN DEER RD.	42	350	147	196	196	23	0
STAGE 2 SUBTOTAL	84	700	259	420	392	149	0
STAGE 1 & 2							
N. 107TH STREET	4	280	140	0	560	193	488
NB & SB STH 145	0	720	12	24	128	48	0
SUBTOTAL	4	1000	152	24	688	241	488
PROJECT TOTALS	172	6628	635	892	2648	978	488

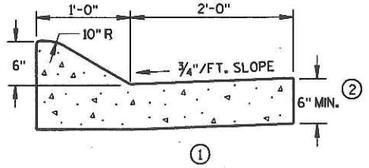
LOCATION	TEMPORARY PRECAST CONCRETE BARRIER CONTRACTOR FURNISHED & DELIVERED *60305 LF	TEMPORARY PRECAST CONCRETE BARRIER CONTRACTOR FURNISHED, CONTRACTOR INSTALLED *60308 LF	TEMPORARY PAVEMENT MARKING, 4-INCH, REMOVABLE TAPE (WHITE) *64904 L.F.	TEMPORARY PAVEMENT MARKING, 4-INCH, REMOVABLE TAPE (YELLOW) *64904 L.F.	REMOVING PAVEMENT MARKINGS *64642 L.F.	TEMPORARY PAVEMENT MARKING STOP LINE 12-INCH REMOVABLE TAPE *64910 L.F	PORTABLE CRASH CUSHION, DELIVERED *61425 EACH	PORTABLE CRASH CUSHION, INSTALLED *61426 EACH
STAGE 1								
NORTH 107TH STREET	510	510	250	450	0	44	1	1
EB BROWN DEER RD.	422	430	3487	0	150	0	1	1
WB BROWN DEER RD.	878	880	3578	0	150	0	1	1
STAGE 1 SUBTOTAL	1810	1820	7315	450	300	44	3	3
STAGE 2								
NORTH 107TH STREET	0	0	400	450	0	0	0	1
EB BROWN DEER RD.	0	0	0	1707	75	0	0	1
WB BROWN DEER RD.	0	0	0	1752	75	0	0	1
STAGE 2 SUBTOTAL	0	0	400	3909	150	0	0	3
PROJECT TOTAL	1810	1820	7715	4359	450	44	3	6



① TYPES A & D

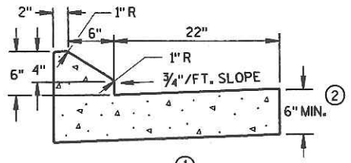


① TYPES K & L

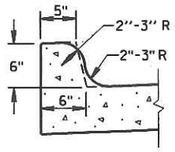


① TYPES A & D

CONCRETE CURB & GUTTER 36"

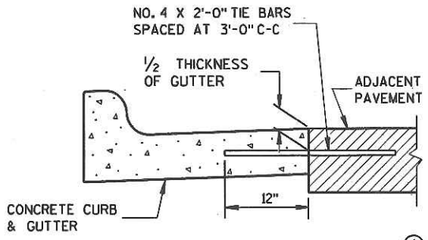


① TYPES G & J



OPTIONAL CURB SHAPE
①
FOR TYPES K & L

CONCRETE CURB & GUTTER 30"



① TYPICAL TIE BAR LOCATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

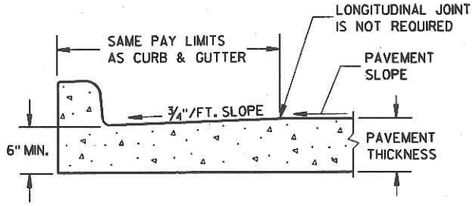
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G AND K.

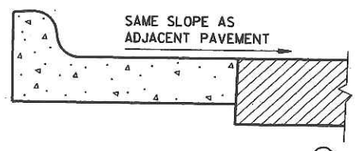
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

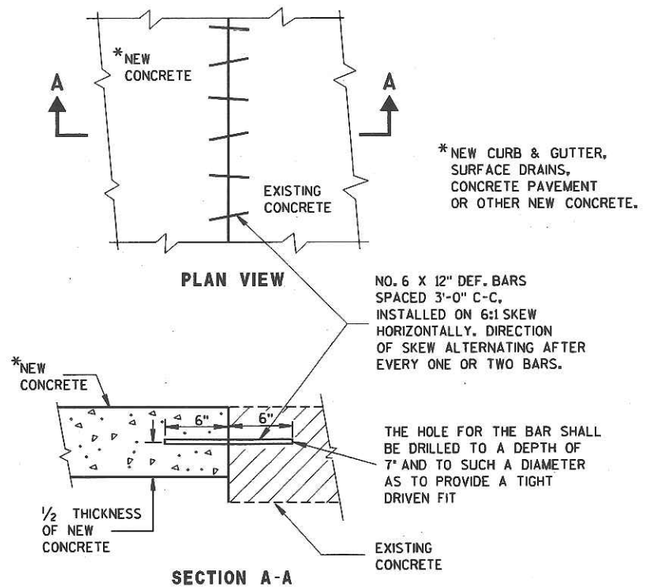
STDDETAIL



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



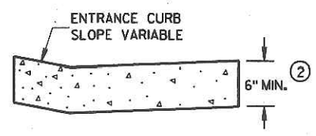
③
REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES)



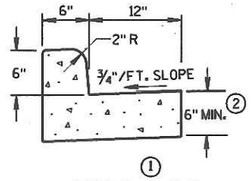
PLAN VIEW

SECTION A-A

PAVEMENT TIES

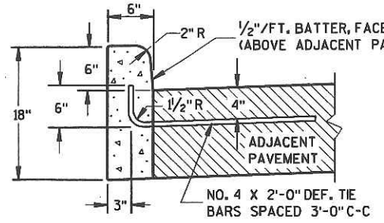


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

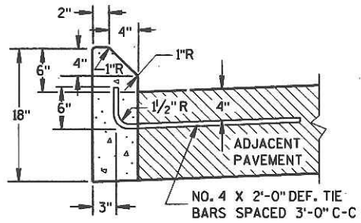


① TYPES A & D

CONCRETE CURB & GUTTER 18"



① TYPES A & D



① TYPES G & J

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND PAVEMENT TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

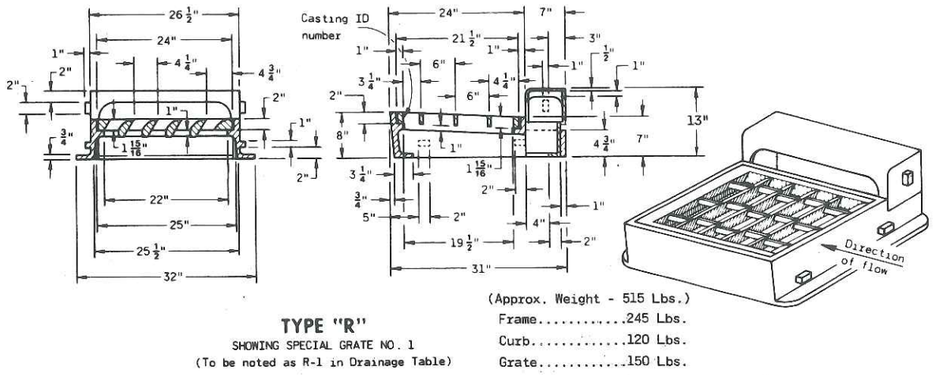
APPROVED 10/22/96 DATE
Roy L. Thomas
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

S.D.D. 8 D 1-12

S.D.D. 8 D 1-12

INLET COVERS

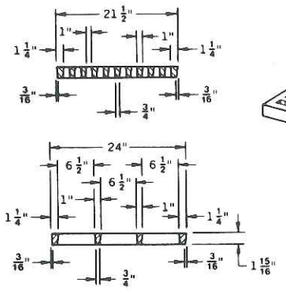


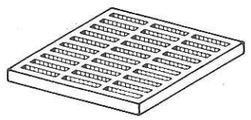
TYPE "R"

SHOWING SPECIAL GRATE NO. 1

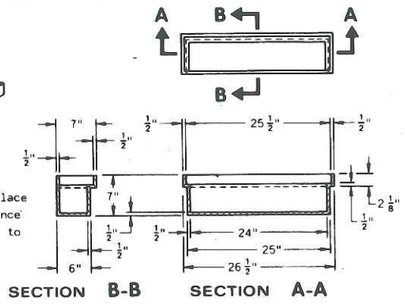
(To be noted as R-1 in Drainage Table)

(Approx. Weight - 515 Lbs.)
Frame.....245 Lbs.
Curb.....120 Lbs.
Grate.....150 Lbs.





NOTE: Curb plug used in place of curb box in absence of conc. curb. Fill to top with concrete



GRATE FOR TYPE "R" INLET COVER

(Grate ..... 150 Lbs)

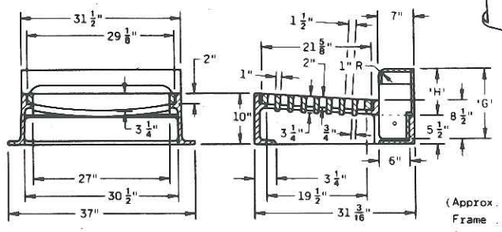
(To be used unless otherwise noted in Drainage Table)

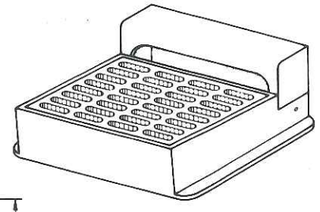
SPECIAL CURB PLUG "P"

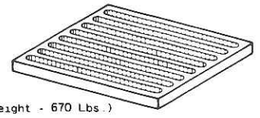
(Curb Plug ..... 85 Lbs.)

(To be noted as R-P in Drainage Table)

'H' = 9" for 6" curb 'G' = 13 3/4" for 6" curb
'H' = 11" for 8" curb 'G' = 15 3/4" for 8" curb

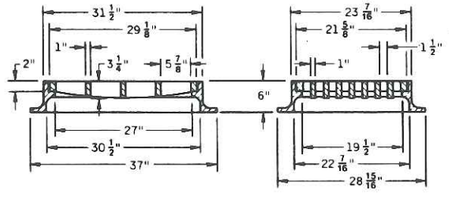


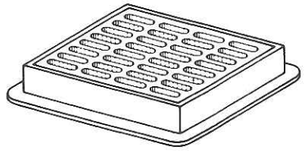




(Approx. Weight - 670 Lbs.)
Frame ..... 350 Lbs.
Curb box ..... 135 Lbs.
Grate ..... 185 Lbs.

TYPE "W"





ALTERNATE GRATE

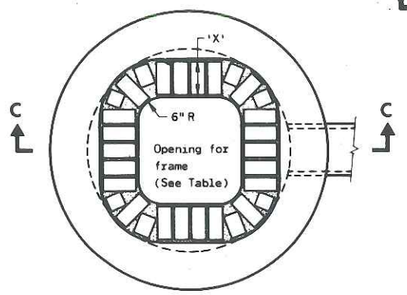
(For Expressway Ramps)

TYPES "W" & "X"

TYPE "X"

(Approx. Weight - 470 Lbs.)

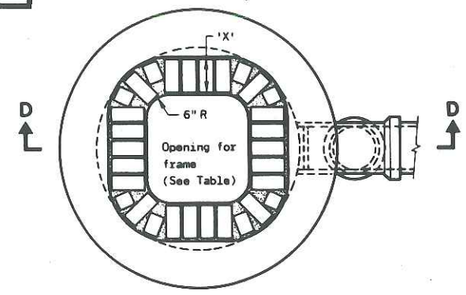
INLETS & CATCH BASINS



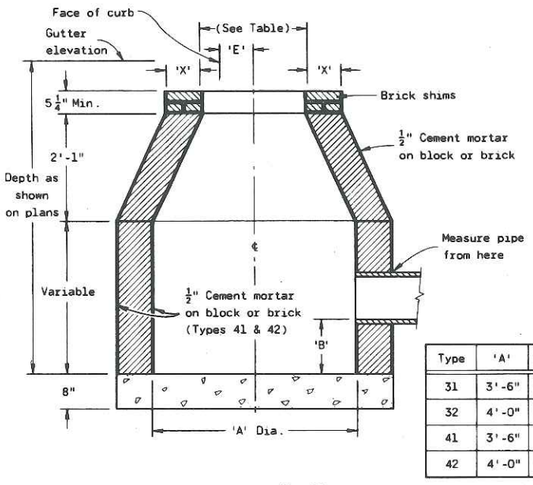
PLAN VIEW

TABLE OF OPENING DIMENSIONS

INLET COVER			
Type	Description	Opening	'E'
"W"	Curb Box	1'-8" x 2'-6"	10"
"X"	Inlet	1'-10" x 2'-6"	–
"R"	Curb Box	2'-0" x 2'-1"	8"



PLAN VIEW

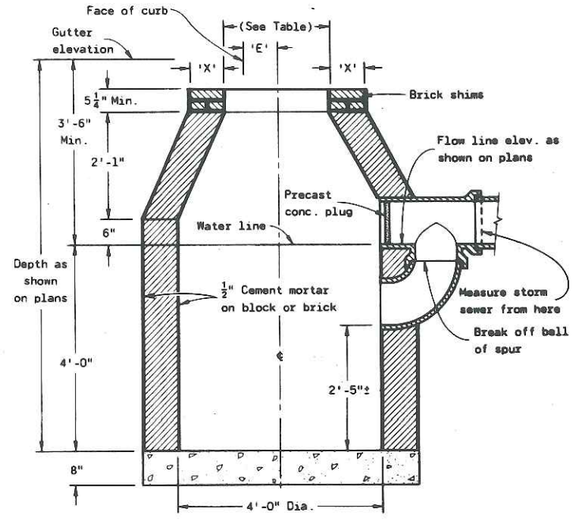


Type	'A'	'B'
31	3'-6"	0"
32	4'-0"	0"
41	3'-6"	1'-6"
42	4'-0"	1'-0"

SECTION C - C

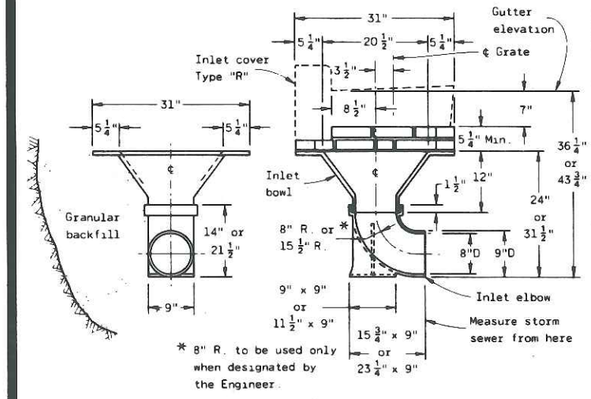
INLETS TYPE 31 & 32

CATCH BASINS TYPE 41 & 42



SECTION D - D

CATCH BASIN TYPE 43



INLET TYPE 30

Approximate Weight
With 15 1/2" elbow - 426 Lbs.
With 8" elbow ---- 360 Lbs.

GENERAL NOTES

Structure wall thickness 'X' to be 8" brick, 6" concrete block, 6" Grade A concrete or 5" precast reinforced concrete.

Structure footings are to be Grade A concrete to the thickness shown on the detail or 5" precast reinforced concrete.

Reinforcement for 5" precast reinforced concrete shall be 6" x 6" W16 x W16 welded steel wire fabric and shall be embedded 2" clear.

Precast inlet units and bases shall conform to the pertinent requirements of AASHTO Designation M 199.

Precast concrete flat slab tops may be used on the structures. The tops shall be installed on a bed of mortar.

Precast reinforced bases shall be placed on a bed of material at least 6" in depth, which meets the requirements for granular backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Set frame elevation 0.03 ft. lower than elevation indicated on the plans.

NOTES FOR CATCH BASIN TYPE "43"

1. Special tee branches having a spigot end spur shall be used for the overflow to the storm drain. Standard short radius elbows shall be used with the tee branch as shown.
2. A cement mortar disc shall be cemented into the opening at the inner face of the tee branch.

INLETS, CATCH BASINS & INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

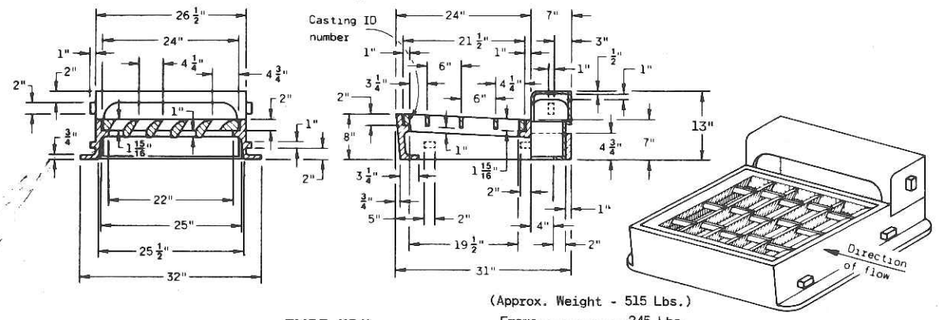
APPROVED 11-8-85 (DATE)
D J Ahrens
STATE DESIGN ENGINEER FOR HWYS

FHWA

8 M 2-4

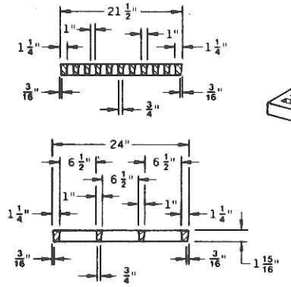
8 M 2-4

INLET COVERS

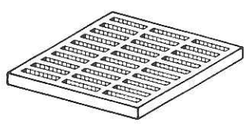


TYPE "R"
SHOWING SPECIAL GRATE NO. 1
(To be noted as R-1 in Drainage Table)

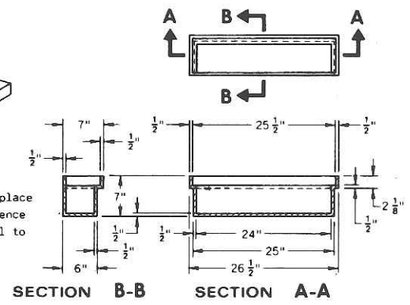
(Approx. Weight - 515 Lbs.)
Frame.....245 Lbs.
Curb.....120 Lbs.
Grate.....150 Lbs.



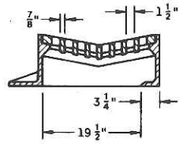
GRATE FOR TYPE "R" INLET COVER
(Grate ..... 150 Lbs.)
(To be used unless otherwise noted in Drainage Table)



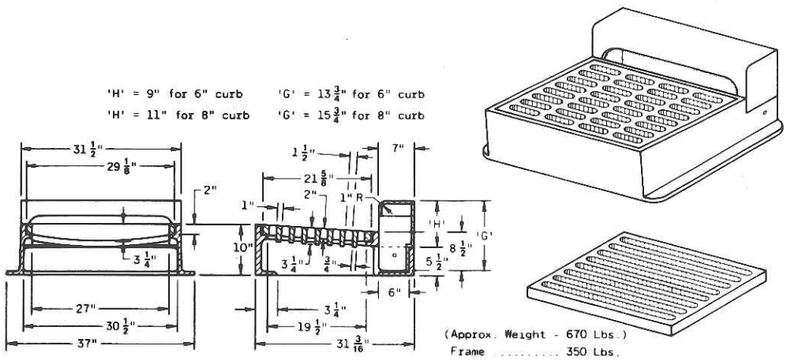
NOTE: Curb plug used in place of curb box in absence of conc. curb. Fill to top with concrete.



SPECIAL CURB PLUG "P"
(Curb Plug ..... 85 Lbs.)
(To be noted as R-P in Drainage Table)

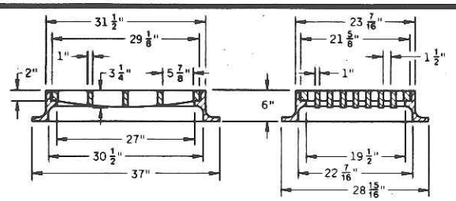


TYPE "GM-A"
(Approx. Weight - 450 Lbs.)
Frame ..... 280 Lbs.
Grate ..... 170 Lbs.



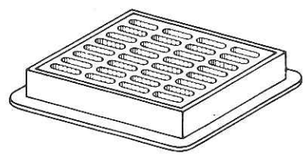
TYPE "W"

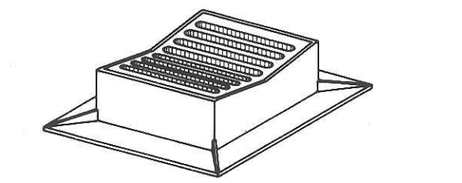
(Approx. Weight - 670 Lbs.)
Frame ..... 350 Lbs.
Curb box ..... 135 Lbs.
Grate ..... 185 Lbs.

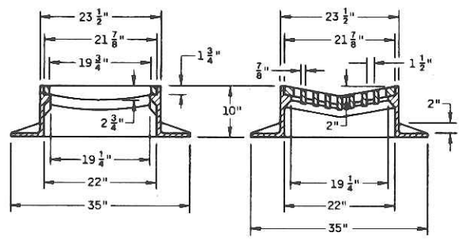


TYPE "X"
(Approx. Weight - 470 Lbs.)

ALTERNATE GRATE
(For Expressway Ramps)
TYPES "W" & "X"

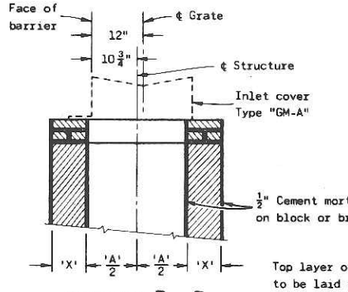






TYPE "GM"
(Approx. Weight - 460 Lbs.)
Frame ..... 290 Lbs.
Grate ..... 170 Lbs.

INLETS



SECTION D - D
INLETS TYPE 38-A & 39-A

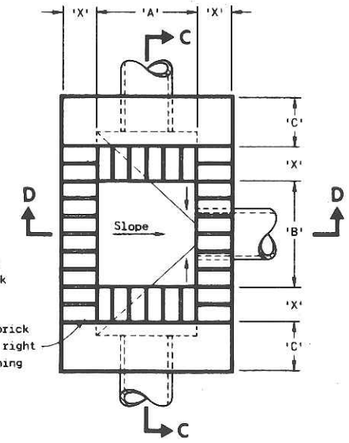
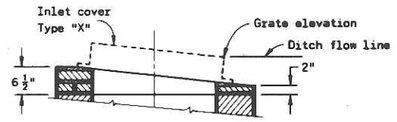
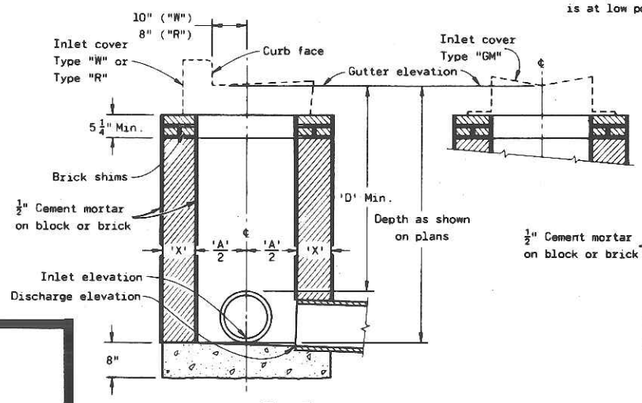


TABLE OF DIMENSIONS

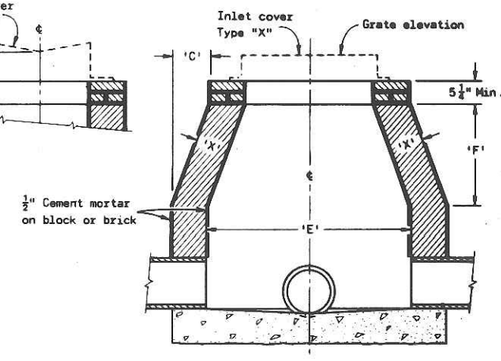
Inlet Type	'A'	'B'	'C'	'D' Min.	'E'	'F'	Cover Type
34	1'-8"	2'-6"	9"	3'-6"	4'-0"	2'-0"	"W","X"
35	1'-8"	2'-6"	0"	2'-0"	2'-6"		"W","X"
37	2'-0"	2'-1"	0"	2'-0"	2'-1"		"R"
38	1'-10"	1'-10"	1'-1"	3'-11"	4'-0"	2'-8"	"GM"
38-A	1'-6"	1'-10"	1'-1"	3'-11"	4'-0"	2'-8"	"GM-A"
39	1'-10"	1'-10"	0"	2'-0"	1'-10"		"GM"
39-A	1'-6"	1'-10"	0"	2'-0"	1'-10"		"GM-A"
40	2'-0"	2'-1"	11½"	3'-6"	4'-0"	2'-0"	"R"



Alternate shimming for ditch inlets - flow in one direction. (Place cover level when inlet is at low point.)



SECTION D - D



SECTION C - C

INLETS TYPE 34, 35, 37, 38, 39 & 40

GENERAL NOTES

Structure wall thickness 'X' to be 8" brick, 6" concrete block, 6" Grade A concrete or 5" precast reinforced concrete.

Structure footings are to be Grade A concrete of the thickness shown in the detail or 5" precast reinforced concrete.

Reinforcement for 5" precast reinforced concrete shall be 6" x 6" W16 x W16 welded steel wire fabric and shall be embedded 2" clear.

Precast inlet units and bases shall conform to the pertinent requirements of AASHTO Designation M 199.

Precast concrete flat slab tops may be used on the structures. The tops shall be installed on a bed of mortar.

Precast reinforced bases shall be placed on a bed of material at least 6" in depth, which meets the requirements for granular backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Set frame elevation 0.03 ft. lower than elevation indicated on the plans.

INLETS & INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 11-8-85 (DATE)
D. L. Stand
STATE DESIGN ENGINEER FOR HWYS

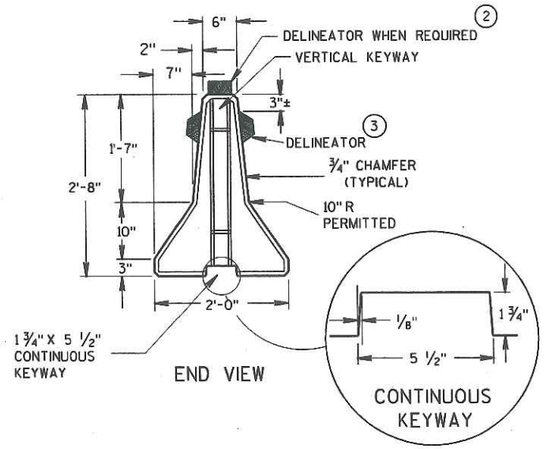
FHWA

8 M 4-4

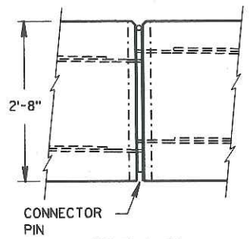
8 M 4-4

DESCRIPTION	SIZE	NO. REQ'D	LENGTH
TOP CONNECTOR WIRE ROPE (1)	½"	2	6'-0"
BOTTOM CONN. WIRE ROPE (1)	½"	2	6'-0"
TOP CONNECTOR STEEL BAR	NO. 4	1	9'-0"
BOTTOM CONN. STEEL BAR	NO. 4	1	9'-0"
STEEL CONNECTING PIN	1¼" DIA.	1	2'-6"
BOTTOM TIE BARS	NO. 4	5	1'-8"
VERTICAL STEEL BAR	NO. 4	10	2'-1"
HORIZONTAL STEEL BAR	NO. 5	4	9'-4"

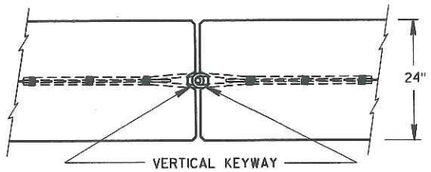
BILL OF MATERIALS



END VIEW

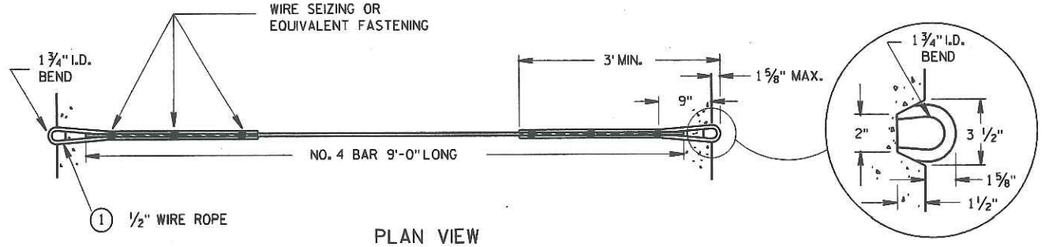


SIDE VIEW



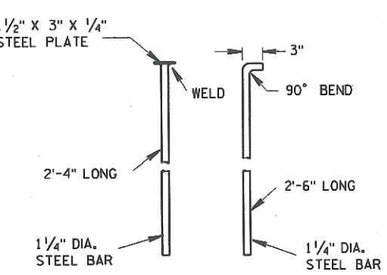
PLAN VIEW

PIN & LOOP CONNECTION DETAILS

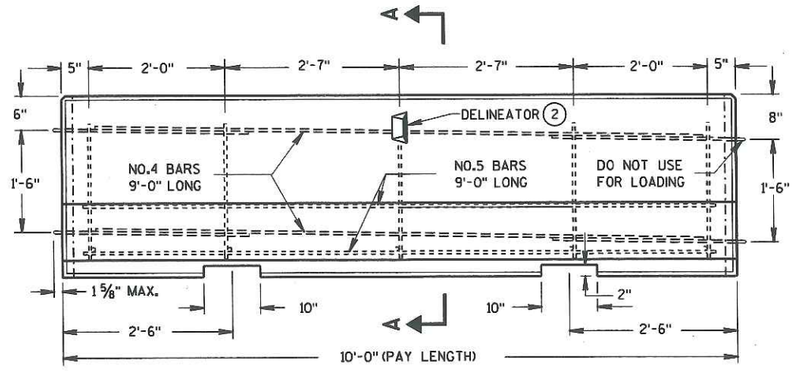


PLAN VIEW

TOP & BOTTOM CONNECTOR ASSEMBLY (1)

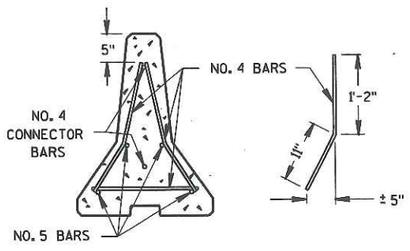


ALTERNATE CONNECTING PINS



SIDE VIEW

LOCATION OF REINFORCEMENT STEEL



SECTION A-A

BAR STEEL REINFORCEMENT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BARRIERS SHALL BE REINFORCED WITH EITHER BAR STEEL REINFORCEMENT AS DETAILED ON THIS DRAWING OR WELDED STEEL WIRE FABRIC ADEQUATE TO ASSURE SAFE HANDLING STRENGTH.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN.

WIRE ROPE SHALL BE ZINC-COATED 6 X 19 CLASS 2 IWRC WITH A MINIMUM BREAKING STRENGTH OF 20,000 LBS., AND SHALL CONFORM TO FEDERAL SPECIFICATION RR-W-410. THE ZINC-COATING SHALL CONFORM TO TABLE II OF THE FEDERAL SPECIFICATIONS.

DELINEATORS SHALL CONFORM TO SECTION 633 OF THE STANDARD SPECIFICATIONS EXCEPT THE SHAPE SHALL BE AS SHOWN ON THIS DRAWING. ALTERNATIVE SHAPES MAY BE USED WHEN APPROVED BY THE ENGINEER. CONCRETE SURFACE PREPARATION, ADHESIVE AND METHOD OF APPLICATION SHALL BE AS RECOMMENDED BY THE DELINEATOR MANUFACTURER. THE COLOR OF REFLECTORS SHALL BE YELLOW WHEN LOCATED TO THE LEFT OF TRAFFIC AND WHITE WHEN LOCATED TO THE RIGHT OF TRAFFIC. MAXIMUM SPACING SHALL BE 20 FEET.

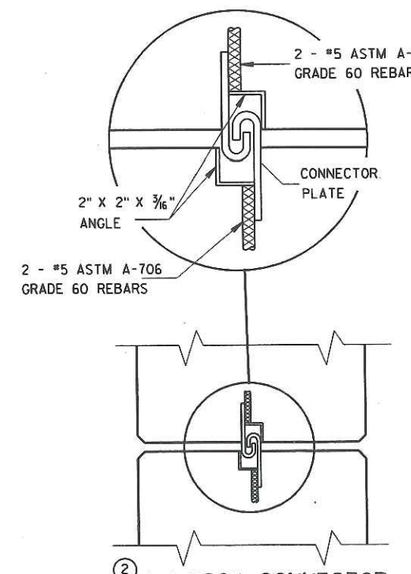
(1) CONNECTOR ASSEMBLIES MAY, AT THE CONTRACTORS OPTION, BE FORMED FROM A CONTINUOUS SECTION OF ½ INCH WIRE ROPE (16'-6" MIN. LENGTH). THE NO. 4 CONNECTOR STEEL BARS MAY THEN BE OMITTED.

(2) TOP MOUNTED DELINEATORS SHALL BE PROVIDED IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON CURVED ALIGNMENT LONGER THAN 200 FEET.

(3) BARRIERS USED TO SEPARATE OPPOSING TRAFFIC SHALL HAVE DELINEATORS ON BOTH SIDES. TOP MOUNTED DELINEATORS SHALL BE DOUBLE FACED FOR THIS CONDITION.

ALTERNATE DESIGN

J-J HOOKS PORTABLE CONCRETE BARRIER BY EASI-SET INDUSTRIES MAY BE FURNISHED INSTEAD OF THE BARRIER DETAILED ON THIS DRAWING. CONTACT INFORMATION : EASI SET INDUSTRIES, P.O. BOX 300, MIDLAND, VIRGINIA 22728, TELEPHONE (703) 439-8911.



(2) J-J HOOK CONNECTOR

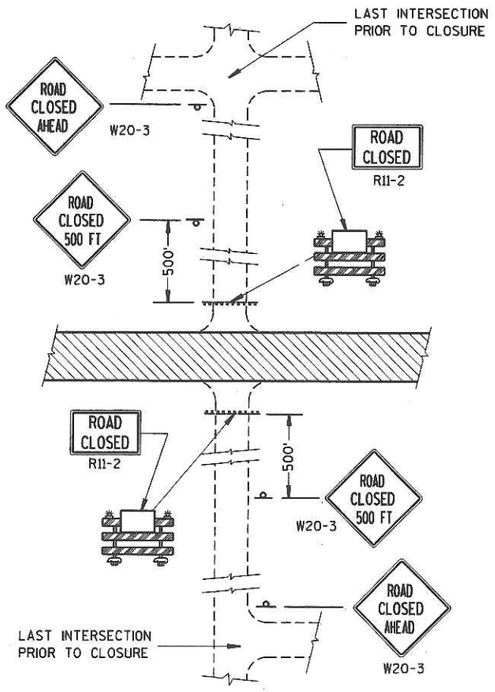
(ALTERNATIVE TO PIN & LOOP CONNECTOR)

TEMPORARY PRECAST CONCRETE BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

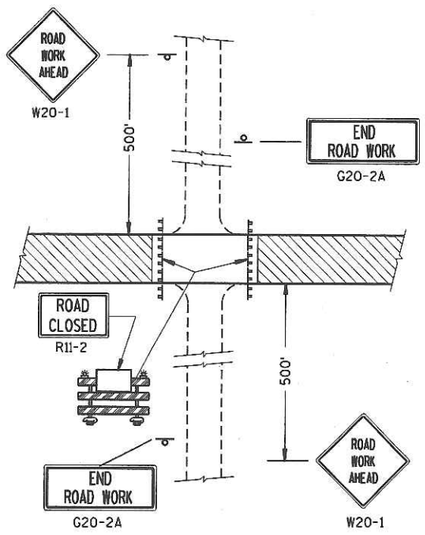
S.D.D. 14 B 7-9a

S.D.D. 14 B 7-9a



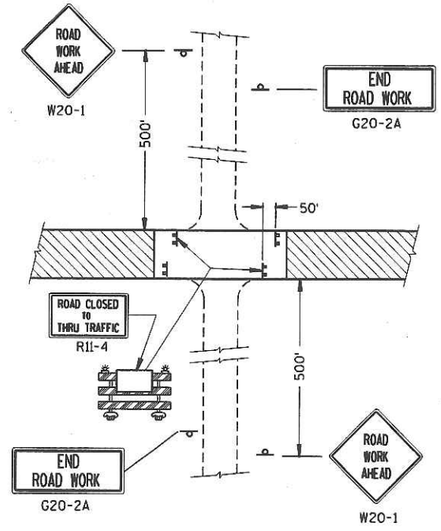
DETAIL 1

(NO ACCESS TO PROJECT)



DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND THEIR LOCATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN MANUAL OF TRAFFIC CONTROL DEVICES, THE PLANS, SPECIFICATIONS AND CONTRACT.

SIGN AND BARRICADE LOCATIONS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER. ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER. ALL "STOP" OR OTHER REGULATORY SIGNS ON THE SIDE ROADS SHALL NOT BE DISTURBED, EXCEPT WHEN NECESSARY TO COMPLETE THE WORK. THE SIGNS MUST THEN BE IMMEDIATELY REESTABLISHED.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL FOR FULL ROAD CLOSURES. TYPE "A" LOW INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE ROAD CLOSED SIGN (R11-2), ROAD CLOSED ____ MILES AHEAD SIGN (R11-3) AND THE ROAD CLOSED TO THRU TRAFFIC SIGN (R11-4) SHALL BE ATTACHED ONLY TO THE TOP RAIL OF THE TYPE III BARRICADE. THE SIGNS SHALL NOT COVER MIDDLE RAIL.

TYPE "H" REFLECTIVE SHEETING SHALL BE USED ON ALL BARRICADES, TYPE I, II AND III, AND ON ALL R11-2, R11-3 AND R11-4 SIGNS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2, "ROAD CLOSED" SIGNS SHALL BE 48" X 30".
- R11-3, AND R11-4 SIGNS SHALL BE 60" X 30".
- G20-2A SIGNS SHALL BE 48" X 24".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND AT LEAST ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN.

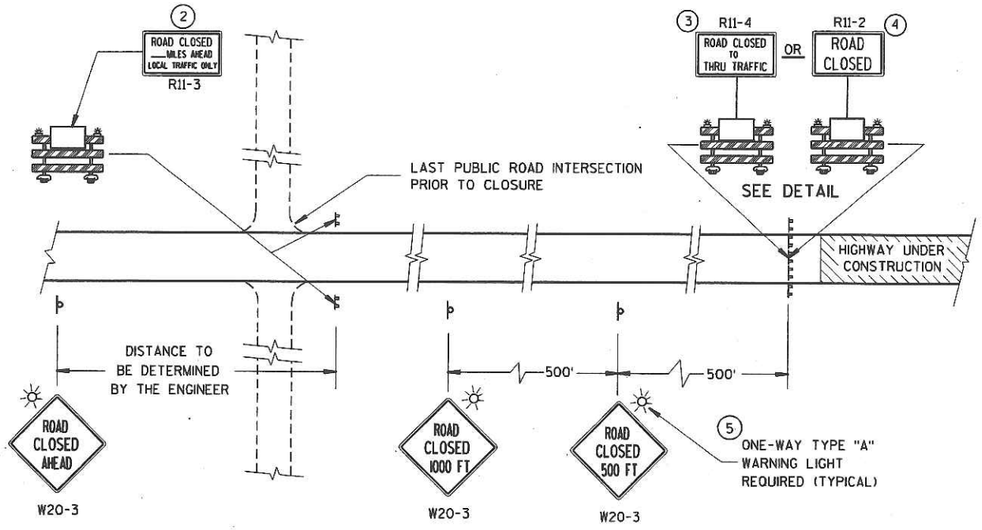
(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT. SEE LANE CLOSURE BARRICADE DETAIL

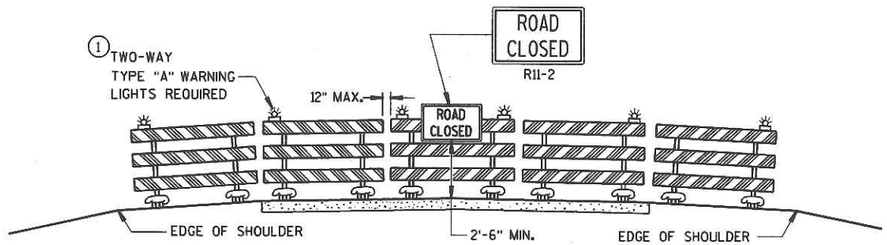
(4) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT. SEE ROAD CLOSURE BARRICADE DETAIL.

(5) ONE-WAY LIGHTS SHALL BE PROVIDED ON ALL ADVANCE WARNING SIGNS. THE UNIT SHALL BE POSITIONED SUCH THAT THE LIGHT SOURCE IS OUTSIDE THE SIGN FACE AND AT THE TOP OF THE SIGN.

SIDEROAD CLOSURES

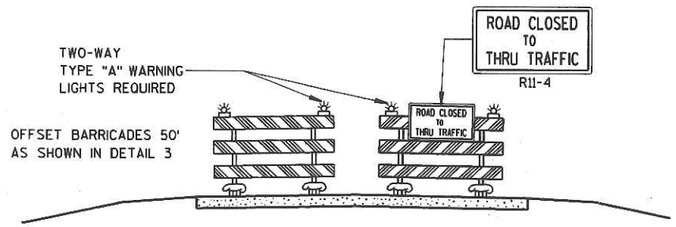


MAINLINE CLOSURE



APPROACH VIEW

ROAD CLOSURE BARRICADE DETAIL



APPROACH VIEW

LANE CLOSURE BARRICADE DETAIL

LEGEND

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES WITH TYPE "H" REFLECTIVE SHEETING
- TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

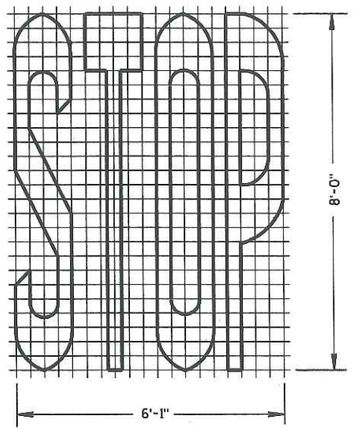
BARRICADES AND SIGNS FOR ROAD CLOSURES

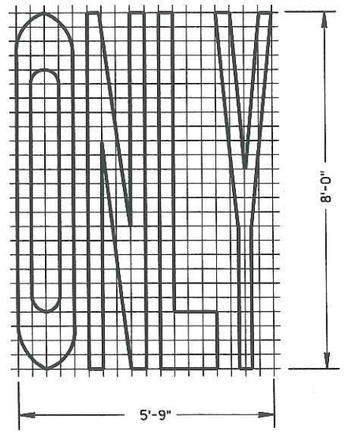
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

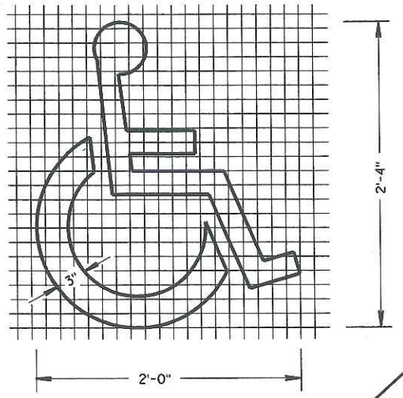
APPROVED
8-10-95
DATE
Charles J. Spang
for DIRECTOR, OFFICE OF TRAFFIC
FHWA

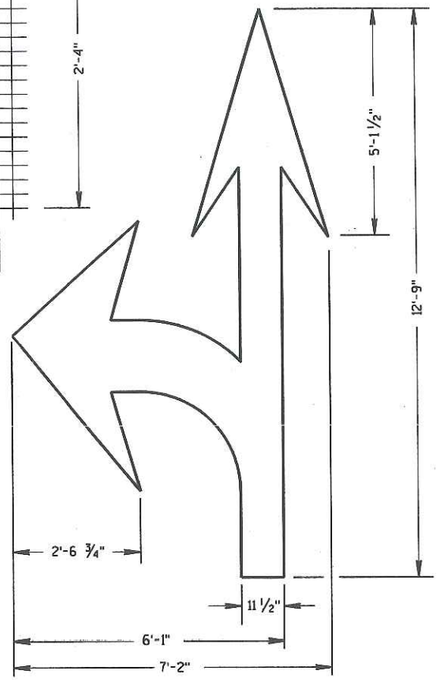
S.D.D. 15 C 2-3

S.D.D. 15 C 2-3

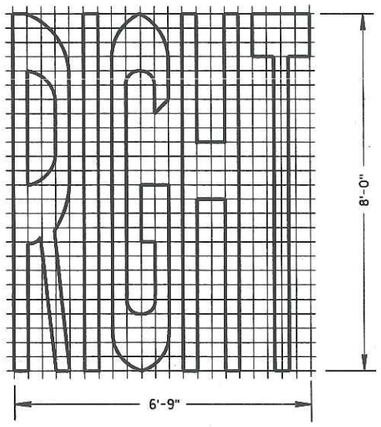


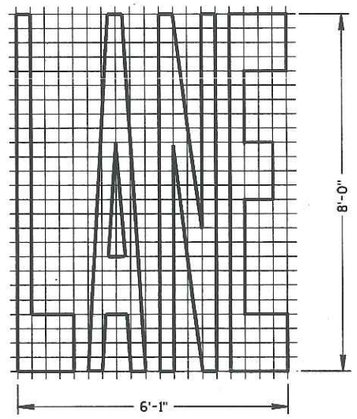


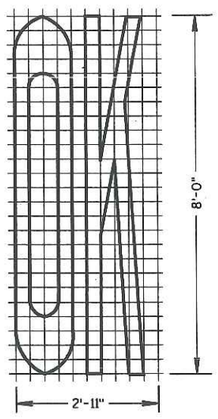


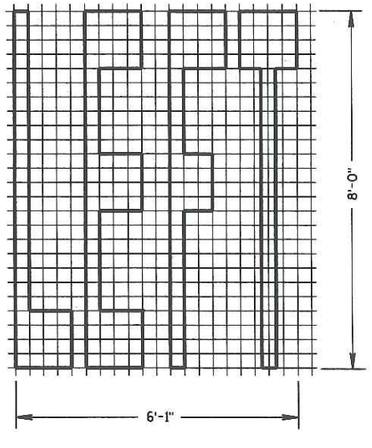


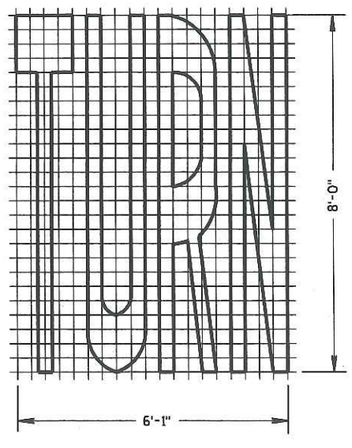
TYPE 3

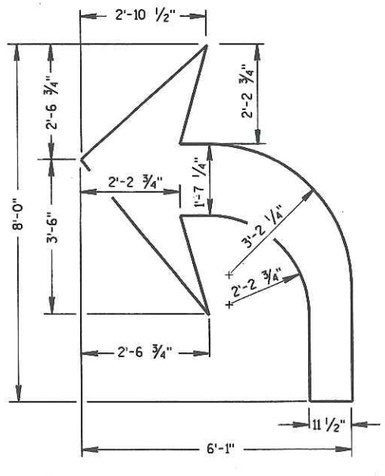




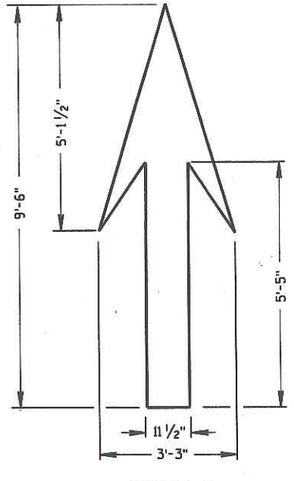








TYPE 2



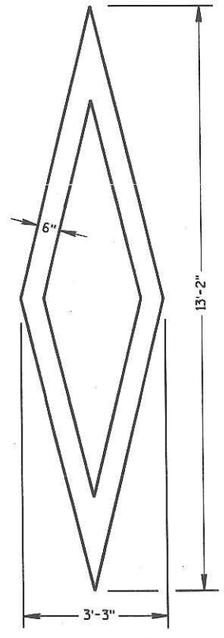
TYPE 1

GENERAL NOTES

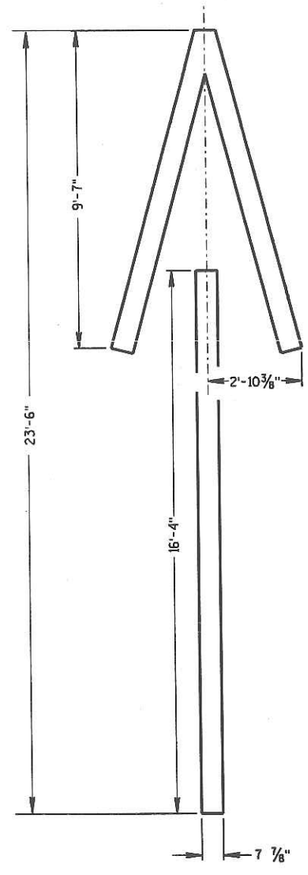
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.



PREFERENTIAL LANE SYMBOL



TYPE 4

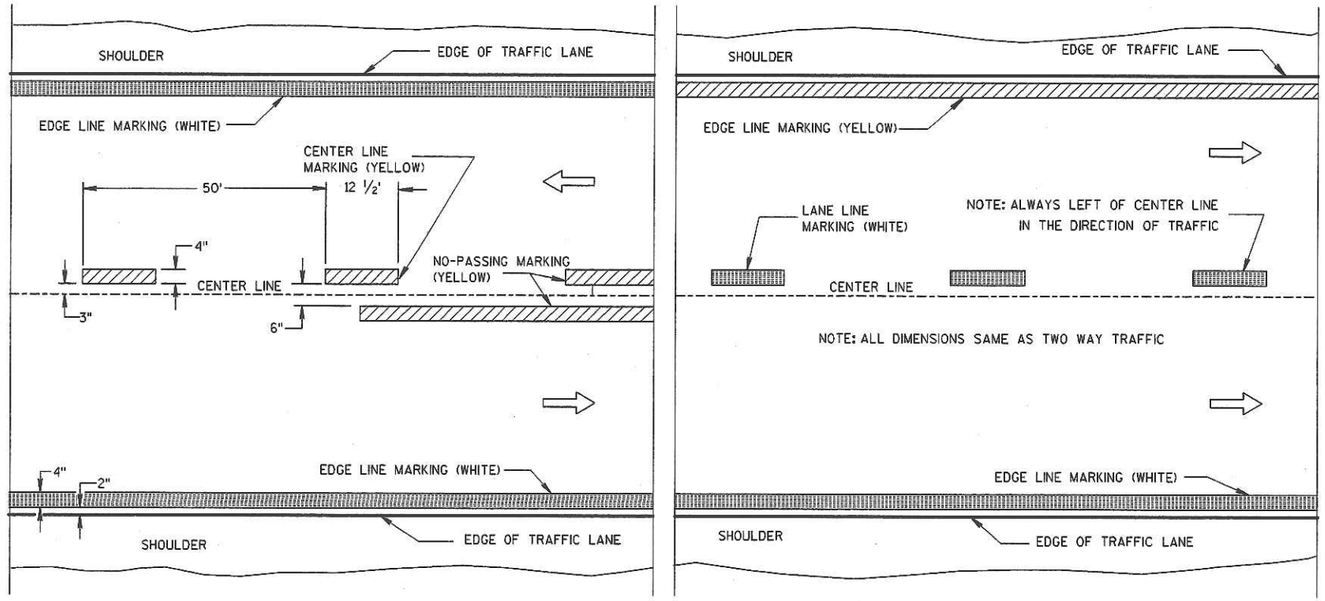
PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-28-95
DATE
Charles J. Spano
for DIRECTOR, OFFICE OF TRAFFIC
FHWA

S.D.D. 15 C 7-5a

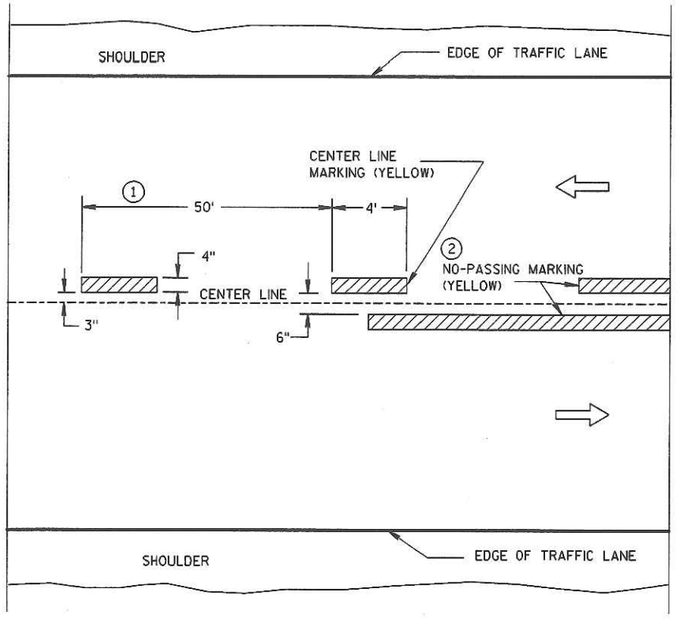
S.D.D. 15 C 7-5a



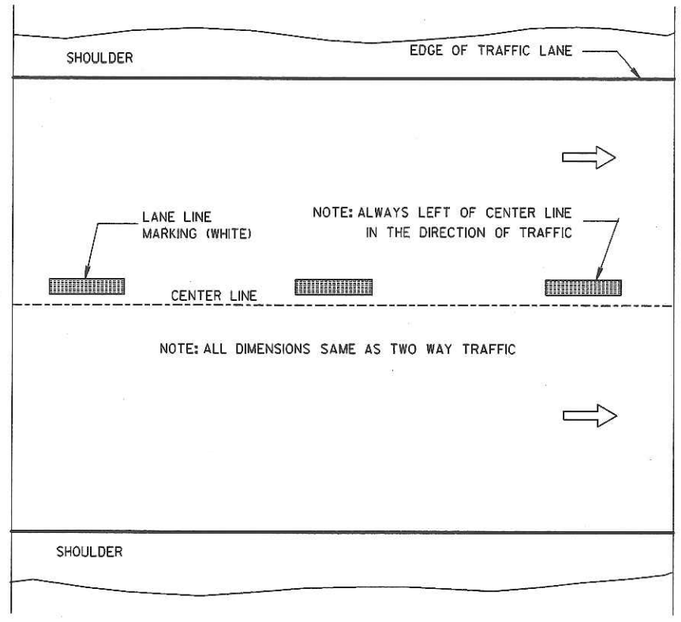
TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.

(2) NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(MAINLINE)

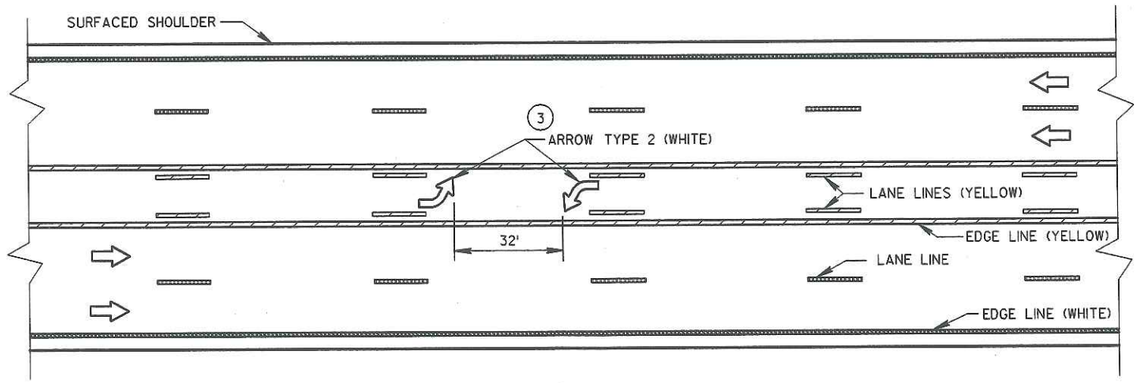
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-10-98
DATE
Chester J. Sparg
CHIEF SIGNS AND MARKING ENGINEER
FHWA

S.D.D. 15 C 8-8a

S.D.D. 15 C 8-8a

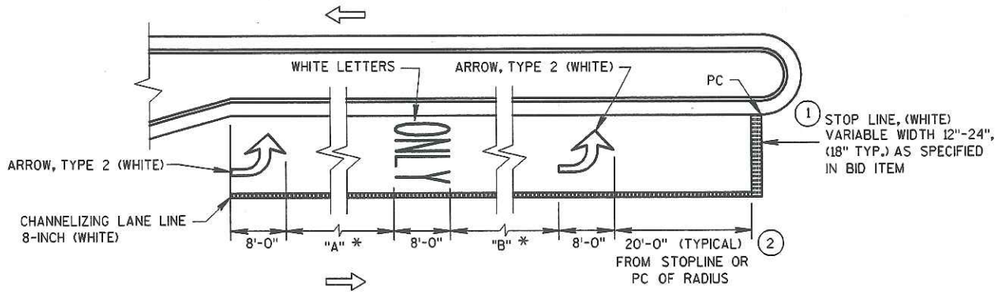
NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

NOTES:

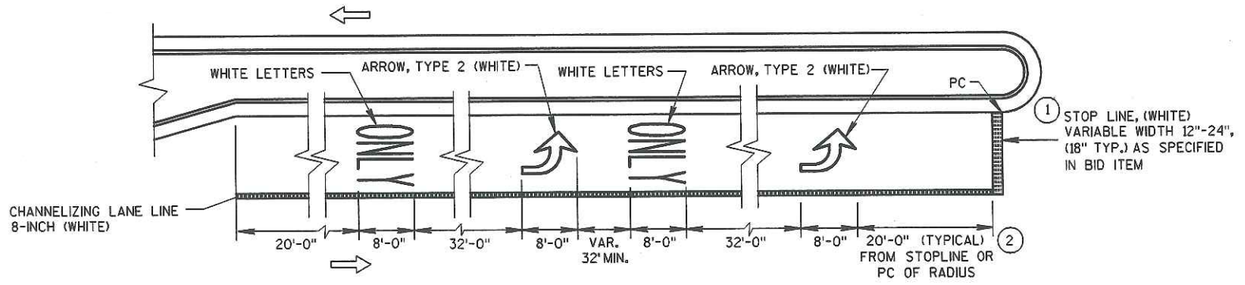
1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.



*VARIABLE, 32' MIN.
"A" = "B" (TYPICAL)

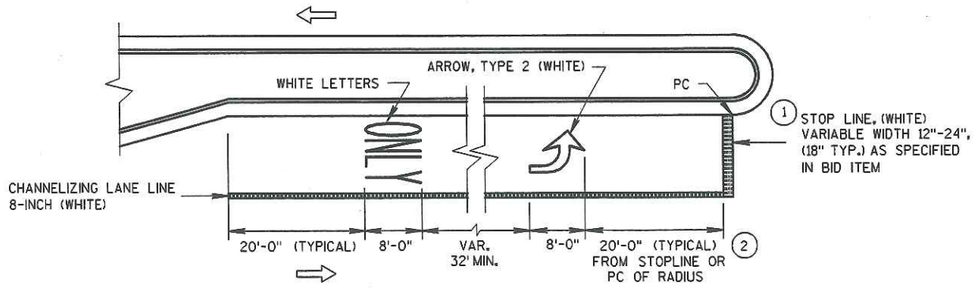
LEFT TURN LANE

(LENGTH 108' TO 167')



LEFT TURN LANE

(LENGTH OVER 167')



LEFT TURN LANE

(LENGTH UNDER 108')

S.D.D. 15 C 8-8d

PAVEMENT MARKING
(LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 15 C 8-8d

LEGEND

- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES :

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

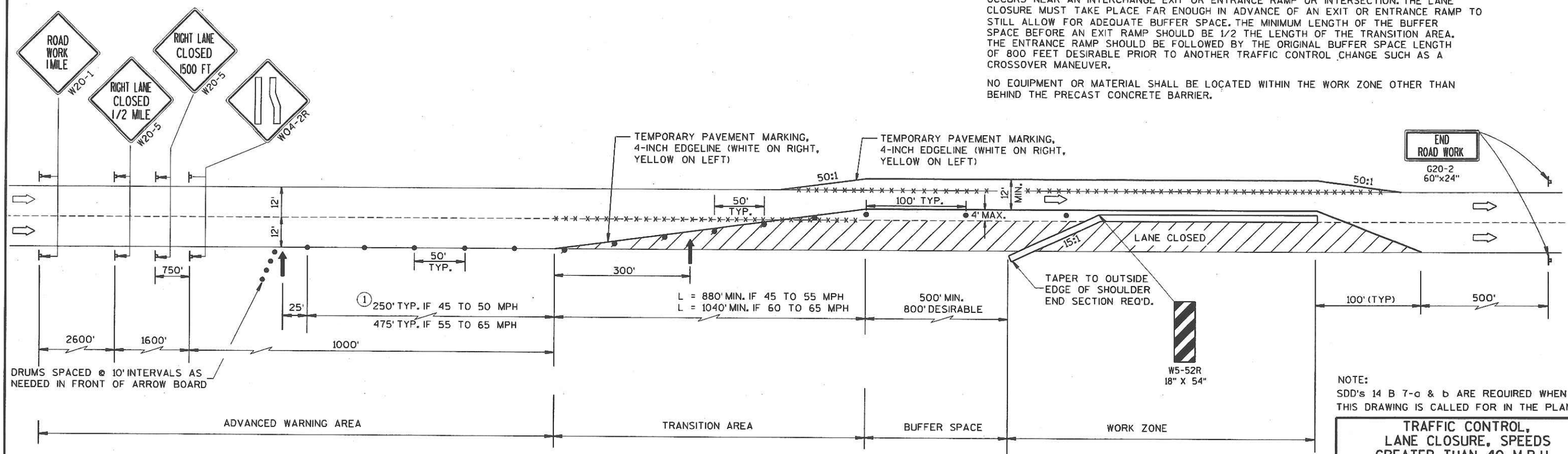
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED WITHIN THE WORK ZONE OTHER THAN BEHIND THE PRECAST CONCRETE BARRIER.



NOTE:
SDD's 14 B 7-a & b ARE REQUIRED WHEN THIS DRAWING IS CALLED FOR IN THE PLANS.

TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

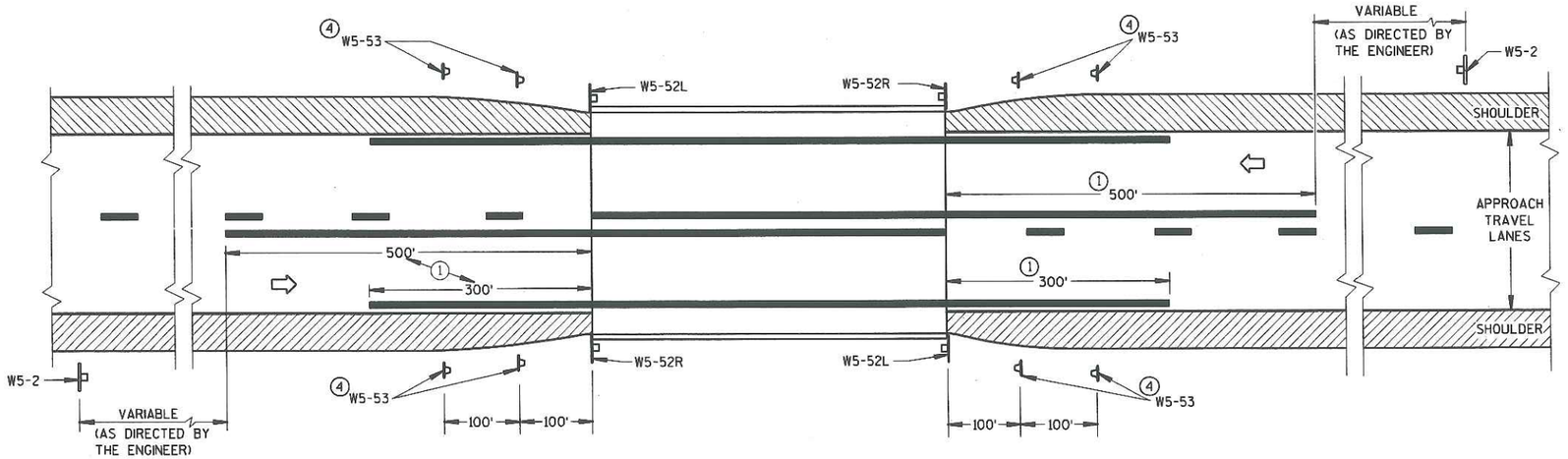
APPROVED
7-14-94
DATE

Chester I. Spang
FOR DIRECTOR, OFFICE OF TRAFFIC

FHWA

S.D.D. 15 D 3-1

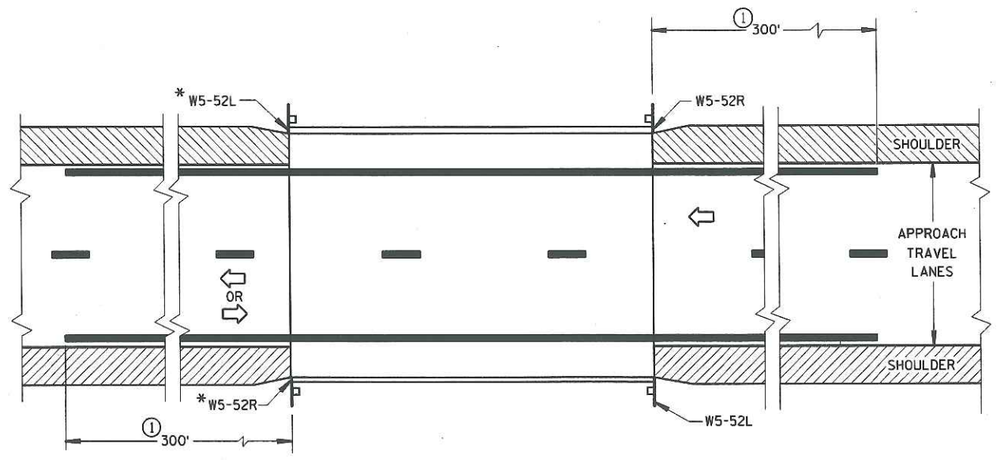
S.D.D. 15 D 3-1



SITUATION 1

WARRANTING CRITERION:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET

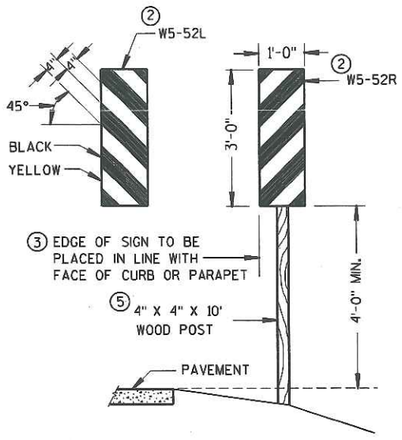


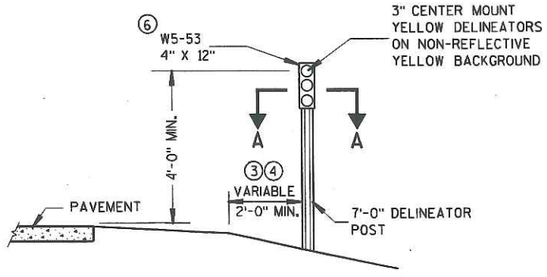
*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.





OBJECT MARKER PLACEMENT

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

① MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

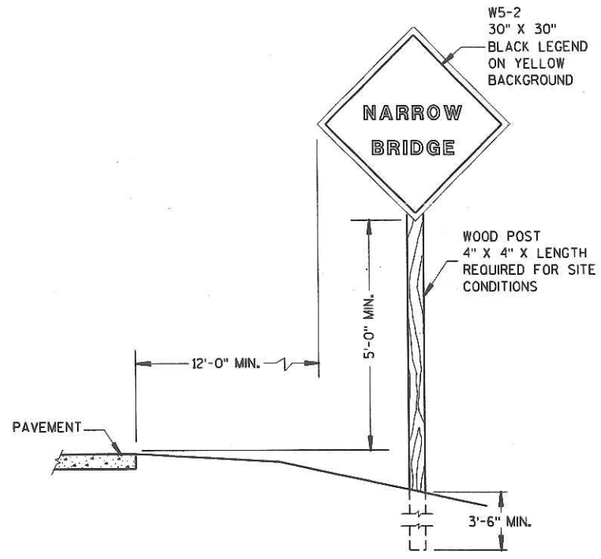
② FACE OF OBJECT MARKERS W5-52R AND W5-52L SHALL BE COVERED WITH TYPE H REFLECTIVE SHEETING.

③ LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

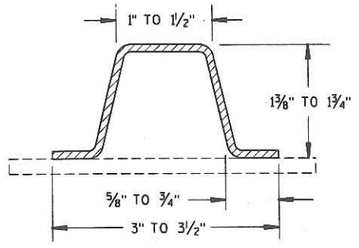
④ OBJECT MARKERS (W5-53) SHALL BE LOCATED ALONG A LINE FLARED AWAY FROM THE BRIDGE CORNER TO DELINEATE THE NARROWING OF THE SHOULDER OR BERM.

⑤ A 10 FOOT DELINEATOR POST MAY BE USED INSTEAD OF A WOOD POST.

⑥ NON-BID ITEM. INCIDENTAL TO OTHER ITEMS.



SIGN PLACEMENT



SECTION A-A

(MINIMUM WEIGHT 1.9 LBS. PER FT. AFTER GALVANIZING)

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-7-95
DATE

Chester J. Spong
for DIRECTOR, OFFICE OF TRAFFIC

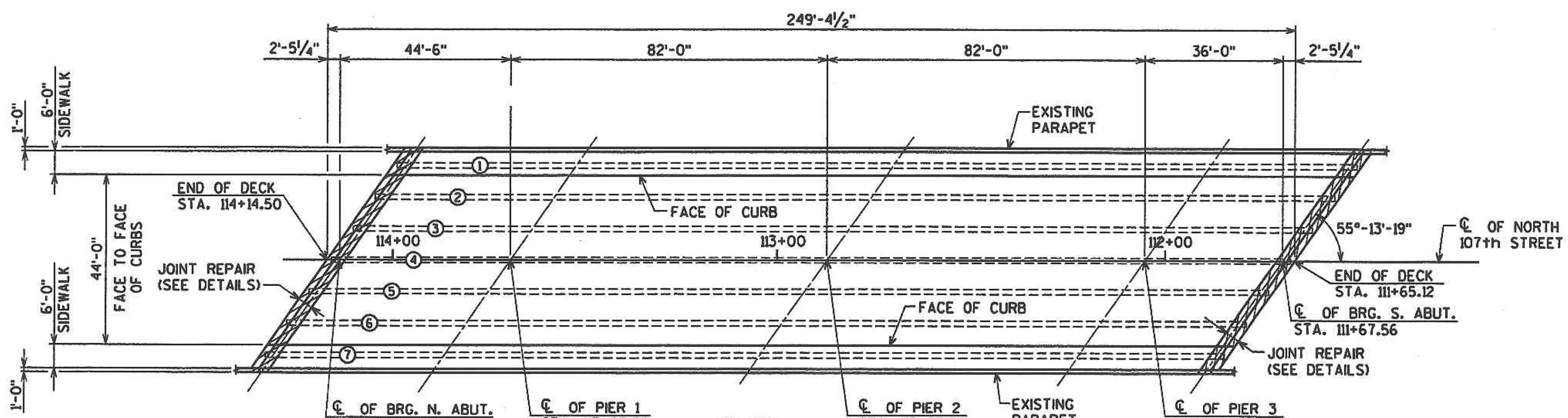
FHWA

S.D.D. 15 C 6-4

S.D.D. 15 C 6-4

PEN TABLE = ±plot72±LASER±smbr.tbl
DATE OF PLOT = 2/23/99
DESIGN FILE IS u:±rbridge±460187g2.dgn
DGN LEVELS ON = 1-63

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	8.1



PLAN
(4 SPAN - CONTINUOUS STEEL I-BEAM)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS ARE BASED ON ORIGINAL PLANS THEREFORE THE CONTRACTOR SHALL VERIFY THEM IN THE FIELD BEFORE ACCEPTANCE.

A MINIMUM OF 1 INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM, "CLEANING DECK", BUT LESS THAN 1½" MAXIMUM.

ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEM "PREPARATION DECK".

PROTECTIVE SURFACE TREATMENT SHALL BE 150 S.F. PER GALLON OR PER MANUFACTURER'S RECOMMENDATIONS.

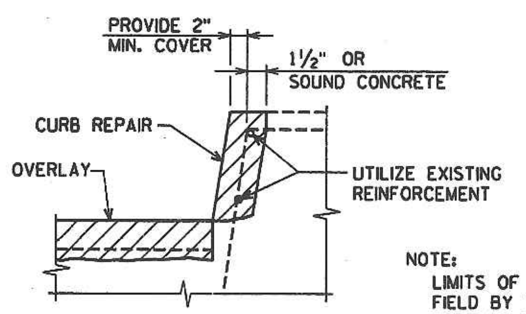
PREPARATION, DECKS, CONCRETE SURFACE REPAIR AND CURB REPAIR SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.

BAR STEEL SHALL BE IMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

TOTAL ESTIMATED QUANTITIES

BID ITEM	AMOUNT
CONCRETE MASONRY, OVERLAY, DECKS	102 C.Y.
CLEANING DECK	1190 S.Y.
PROTECTIVE SURFACE TREATMENT	1190 S.Y.
PREPARATION DECK, TYPE 1	250 S.Y.
PREPARATION DECK, TYPE 2	110 S.Y.
CURB REPAIR	25 L.F.
JOINT REPAIR	42 S.Y.
EXPANSION DEVICE, STRUCTURE B-40-252	1 L.S.
COATED HIGH STRENGTH BAR STEEL REINFORCEMENT BRIDGES	1820 LB.
CONCRETE MASONRY, BRIDGES	18 C.Y.
*CONCRETE SURFACE REPAIR	70 S.F.
FULL DEPTH DECK REPAIR	40 S.Y.

*CONCRETE SURFACE REPAIR QUANTITY IS BASED ON 50 S.F. AT SOUTH ABUTMENT AND 20 S.F. UNDISTRIBUTED.



NOTE:
LIMITS OF REPAIR FOR CURB SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. VERTICAL AND HORIZONTAL LIMITS OF CURB REPAIR SHALL BE DEFINED BY A ½" DEEP SAW CUT.

CURB REPAIR DETAIL

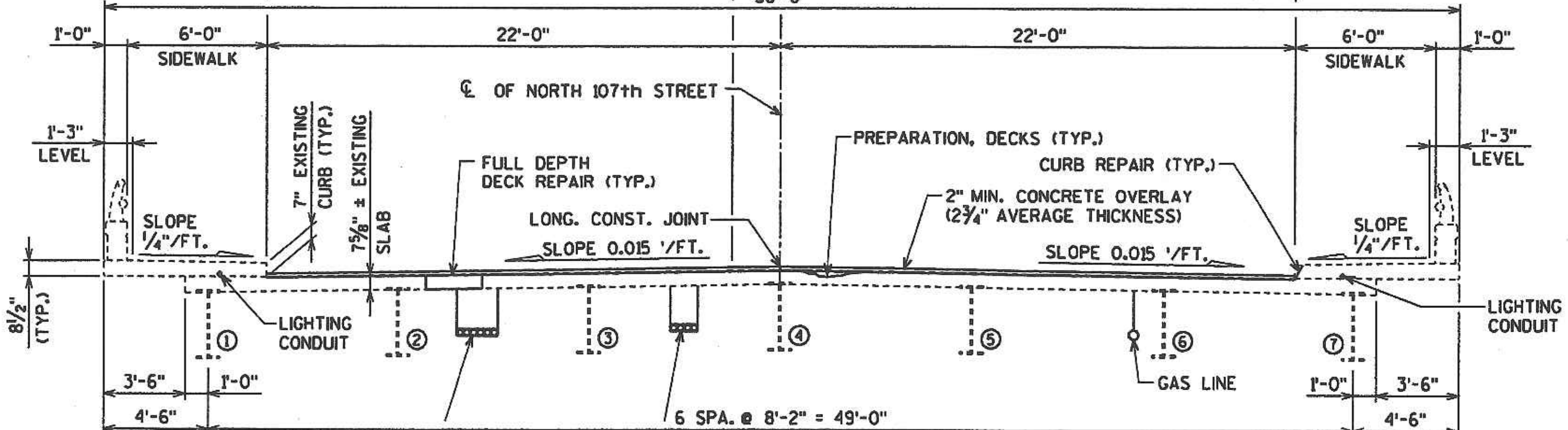
LIST OF DRAWINGS

1. GENERAL PLAN
2. EXPANSION JOINT DETAIL
3. EXPANSION JOINT DETAIL

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-22
OPERATING RATING: HS-37
MAX. STANDARD PERMIT VEHICLE LOAD: 210 KIPS

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY { SLAB — f'_c = 4,000 p.s.i.; ALL OTHER — f'_c = 3,500 p.s.i. }
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) — f_y = 60,000 p.s.i.



REMOVE SIDEWALK AND PARAPET AS REQUIRED TO INSTALL THE NEW EXPANSION DEVICE

CROSS SECTION THRU EXISTING ROADWAY
(LOOKING SOUTH)

DISTRICT 2 BIRIDGE MAINTENANCE OFFICE CONTACT:
CHRIS WILLIAMS
(414) 548-6711

CONSULTANT CONTACT:
CHRIS McMAHON
(715) 834-3161

WISCONSIN PROFESSIONAL ENGINEER — EAU CLAIRE WI — 2/23/99

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-252
107 STREET OVER S.T.H. 145

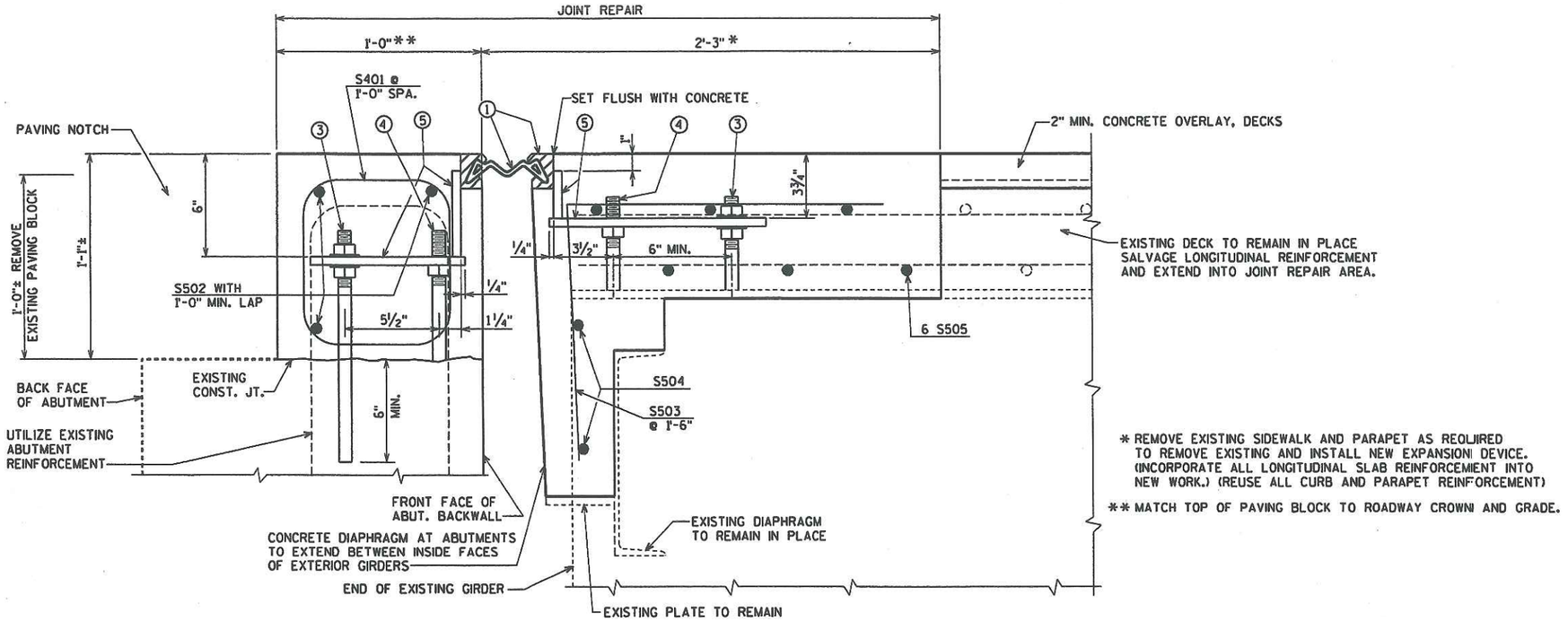
County: MILWAUKEE — Town/City/Village: MILWAUKEE
Design Spec. A.A.S.H.T.O. '96 — Load HS-20 — Const. Spec. 1996
Designed By CBM — Design Checked PWD — Drawn By GLD — Plans Checked CBM
Approved [signature] Chief Bridge Design Engineer — Date 05-27-[illegible]

GENERAL PLAN

SHEET 1 OF 3
DATE: FEB. 1999

REFERENCE FILES
DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	8.2



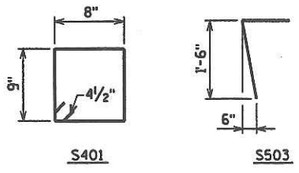
TYPICAL SECTION THRU JOINT @ ABUTMENTS

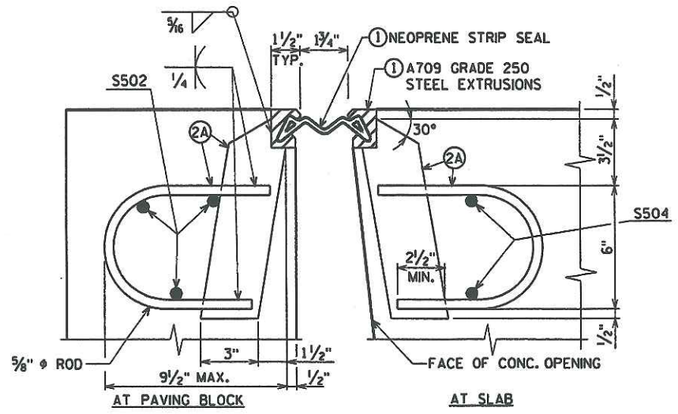
NORMAL TO ℄ SUBSTRUCTURE

BILL OF BARS

BAR. NO.	NO. REQ'D. S. ABUT.	NO. REQ'D. N. ABUT.	LENGTH	BENT BAR	COATED BAR	CUT. DIAGR.	910ᵐ COATED S. ABUT. 910ᵐ COATED N. ABUT. LOCATION
S401	51	51	3-4	X	X		PAVING BLOCK @ ABUT.
S502	124	124	8-0		X		PAVING BLOCK @ ABUT.
S503	30	30	3-6	X	X		DIAPH. BETW. GDRS. @ ABUT.
S504	12	12	9-4		X		DIAPH. BETW. GDRS. @ ABUT.
S505	12	12	32-0		X		SLAB @ DIAPH. ABUT.

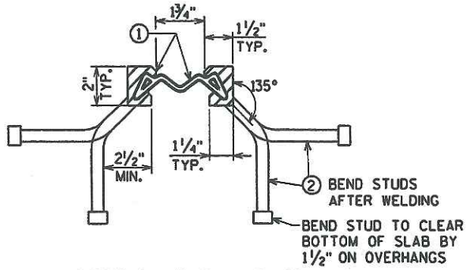
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB & AT SIDEWALKS

LEGEND

1. NEOPRENE STRIP SEAL & STEEL EXTRUSIONS BY D. S. BROWN SSA2-400A2, R. J. WATSON RJA-RJ400, WATSON-BOWMAN-ACME A-SE400 OR A-AS400. EXTRUSIONS TO BE A709 GRADE 250.
2. STUDS 5/8" ø x 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO STEEL EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
2A. 3" x 1/2" THICK ANCHOR PLATE WITH 5/8" ø ROD. WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 @ 1'-6" CENTERS BETWEEN GIRDERS.
3. 3/4" ø THREADED ROD WITH 2 NUTS AND WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4" ø THREADED ROD WITH NUT. TACK WELD NUT TO No. 5.
5. FABRICATE SUPPORT FROM 3" x 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER, PER SIDE. WELD TO No. 1. PROVIDE 1 1/2" ø HOLE FOR No. 3 & 1" ø HOLE FOR No. 4.
6. GALVANIZED PLATE 3/8" x 1'-2" x 2'-0" LONG WITH HOLES FOR NO. 7 & NO. 11. BEND AS SHOWN.
7. 3/4" ø x 1 1/2" STAINLESS STEEL FLAT HEAD MACHINE SCREWS. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" ø x 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4" ø x 2 1/4" GALVANIZED THREADED COUPLING.
10. GALVANIZED SIDEWALK PLATE 3/8" x 2'-0" WIDE x LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7.
11. 1" x 5" SLOTTED CSK. HOLE FOR NO. 7 PARALLEL TO DIRECTION OF MOVEMENT.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE".

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

SANDBLAST PLATES & EXTRUSION AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. NO. 6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALV. IN ACCORDANCE WITH ASTM A153 CLASS C & D. 1.24 MILS. MIN.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects Scientists/Surveyors
3433 Oakwood Hills Parkway Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-252

Const. Spec.	Drawn By	Plans Checked
1996	G.L.O.	CBM

EXPANSION JOINT DETAILS

SHEET 2 OF 3

PEN TABLE = ±plot72±LASER±smbr.t
DATE OF PLOT = 2/11/99
DESIGN FILE IS u±±trbridge±460187x2.dgn
DGN LEVELS ON = 1-63

REFERENCE FILES

CHECKED BY: DATE:
BACK CH BY: DATE:
CORREC DATE:

STATE PROJECT NUMBER	SHEET NO.
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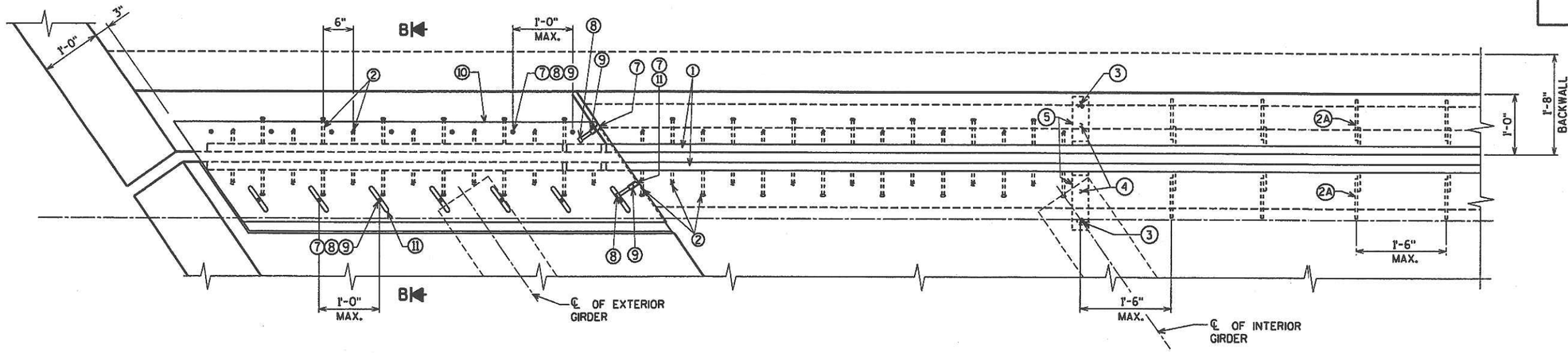
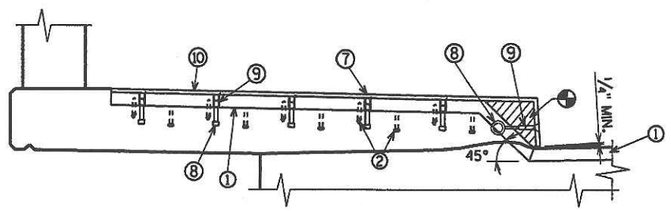
DATE OF PLOT = 2/11/99
DESIGN FILE IS u:*trbridge*460187x2.dgn
DGN LEVELS ON = 1-63

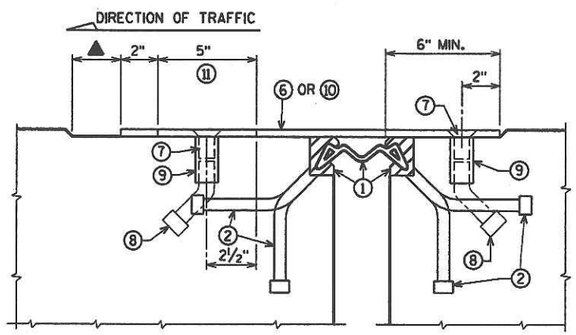


PART PLAN

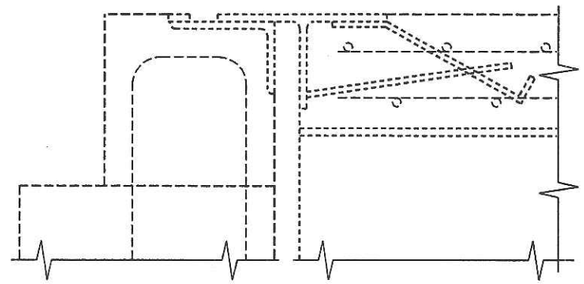


SECTION AT SIDEWALK

NOTE: COVER PLATE REQ'D. FOR ALL SIDEWALKS



SECTION B-B

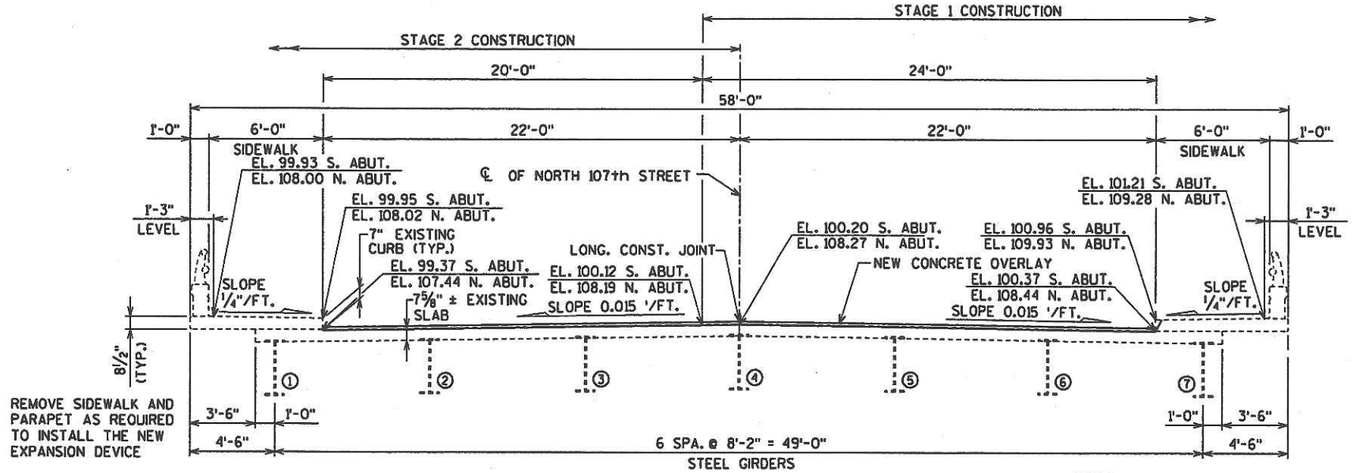


TYP. SECTION THRU EXISTING JOINT

▲ JOIINT OPENING DIM. ALONG SKEW PLUS ½".

⊕ BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING.

WORK THIS SHEET WITH SHEET 2.



CROSS SECTION THRU EXISTING ROADWAY

(LOOKING SOUTH)

NOTE:
ALL ELEVATIONS TAKEN TO ORIGINAL CONCRETE SURFACES.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-252

Const. Spec.	Drawn By	Plans Checked
1996	G.L.O.	C

EXPANSION JOINT DETAILS

SHEET 3 OF 3

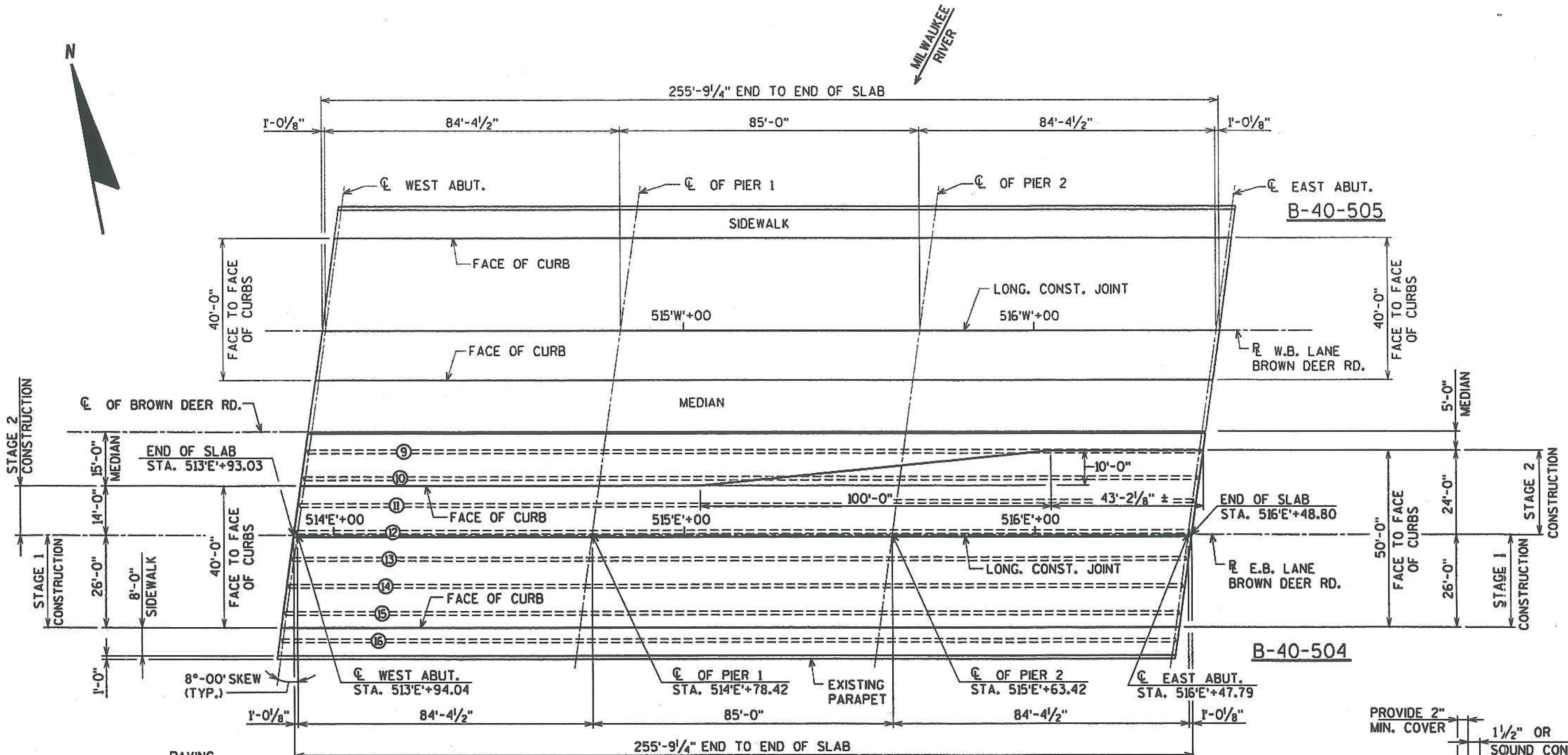
REFERENCE FILES

DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

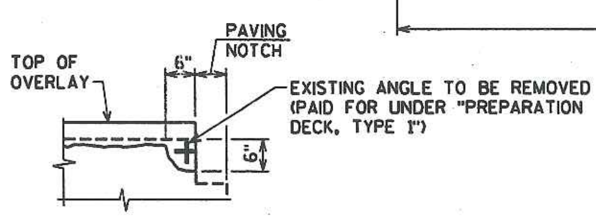
PEN TABLE = ±plot72±LASER±smbr.i
DATE OF PLOT = 2/11/99
DESIGN FILE IS u:±rbridge±46018 7g4.dgn
DGN LEVELS ON = 1-63

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	8.4



PLAN

(3 SPAN - 45" PRESTRESSED GIRDER)



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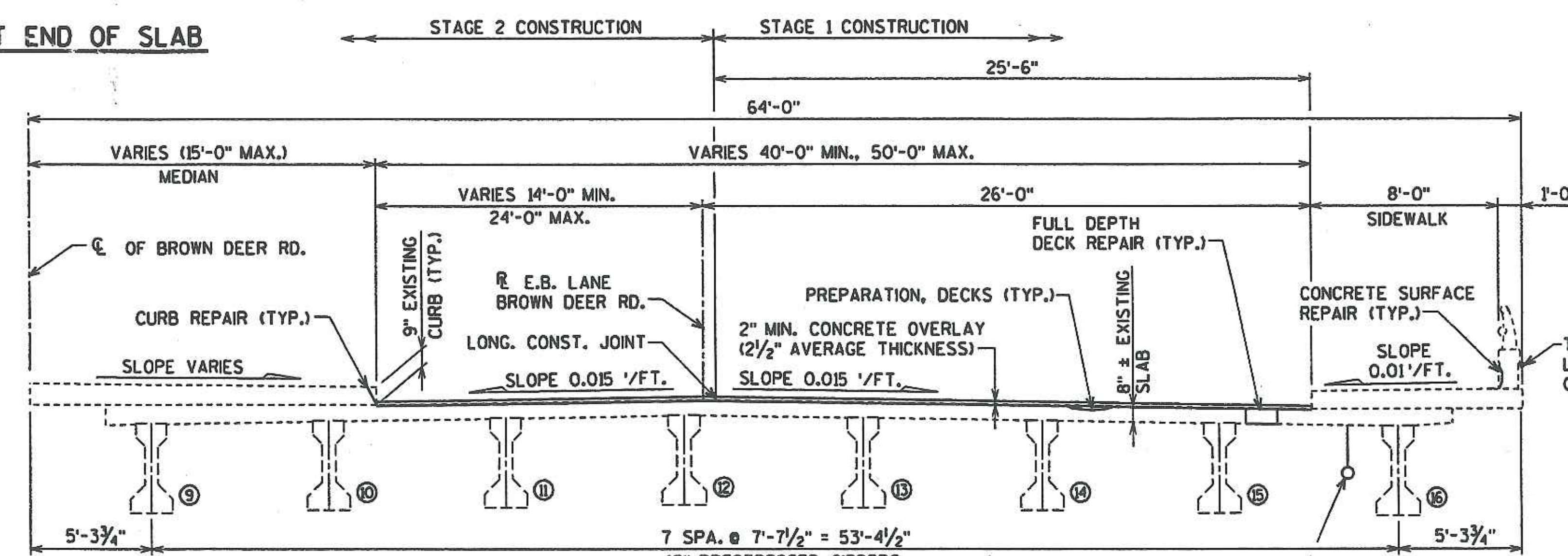


CROSS SECTION THRU EXISTING ROADWAY

(LOOKING EAST)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS ARE BASED ON ORIGINAL PLANS THEREFORE THE CONTRACTOR SHALL VERIFY THEM IN THE FIELD BEFORE ACCEPTANCE.

A MINIMUM OF 1 INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM, "CLEANING DECK", BUT LESS THAN 1½" MAXIMUM.

ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEM "PREPARATION DECK".

PROTECTIVE SURFACE TREATMENT SHALL BE 150 S.F. PER GALLON OR PER MANUFACTURER'S RECOMMENDATIONS.

PREPARATION, DECKS, CONCRETE SURFACE REPAIR AND CURB REPAIR SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.

TOTAL ESTIMATED QUANTITIES

BID ITEM	AMOUNT
CONCRETE MASONRY, OVERLAY, DECKS	87 C.Y.
CLEANING DECK	1,240 S.Y.
PROTECTIVE SURFACE TREATMENT	1,240 S.Y.
PREPARATION DECK, TYPE 1	250 S.Y.
PREPARATION DECK, TYPE 2	250 S.Y.
FULL DEPTH DECK REPAIR	15 S.Y.
CURB REPAIR	5 L.F.
CONCRETE SURFACE REPAIR	5 S.F.

DESIGN DATA

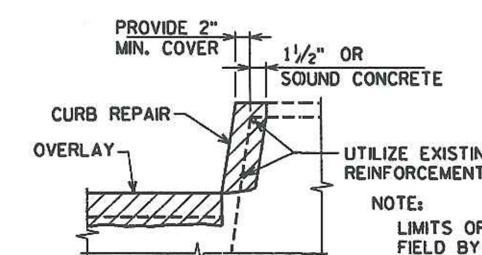
LIVE LOAD:

INVENTORY RATING: HS-25
OPERATING RATING: HS-43
MAX. STANDARD PERMIT VEHICLE LOAD: 210 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY { SLAB — f'_c = 4,000 p.s.i.; ALL OTHER — f'_c = 3,500 p.s.i.

HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) — f'_y = 60,000 p.s.i.



NOTE:
LIMITS OF REPAIR FOR CURB SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. VERTICAL AND HORIZONTAL LIMITS OF CURB REPAIR SHALL BE DEFINED BY A ½" DEEP SAW CUT.

CURB REPAIR DETAIL

WISCONSIN
CHRISTOPHER B. McMAHON
E-28454
EAU CLAIRE
WI
PROFESSIONAL ENGINEER
2/11/99

DISTRICT 2 BRIDGE MAINTENANCE OFFICE CONTACT:
CHRIS WILLIAMS
(414) 548-6711

CONSULTANT CONTACT:
CHRIS McMAHON
(715) 834-3161

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-504

BROWN DEER RD. (S.T.H. 100) OVER MILWAUKEE

County	MILWAUKEE	Village	RIVER HILLS
Design Spec.	A.A.S.H.T.O. '96	Load HS-20	Const. Spec. 1996
Designed By CBM	Design Checked PWD	Drawn By GLD/CLS	Plans Checked CBM

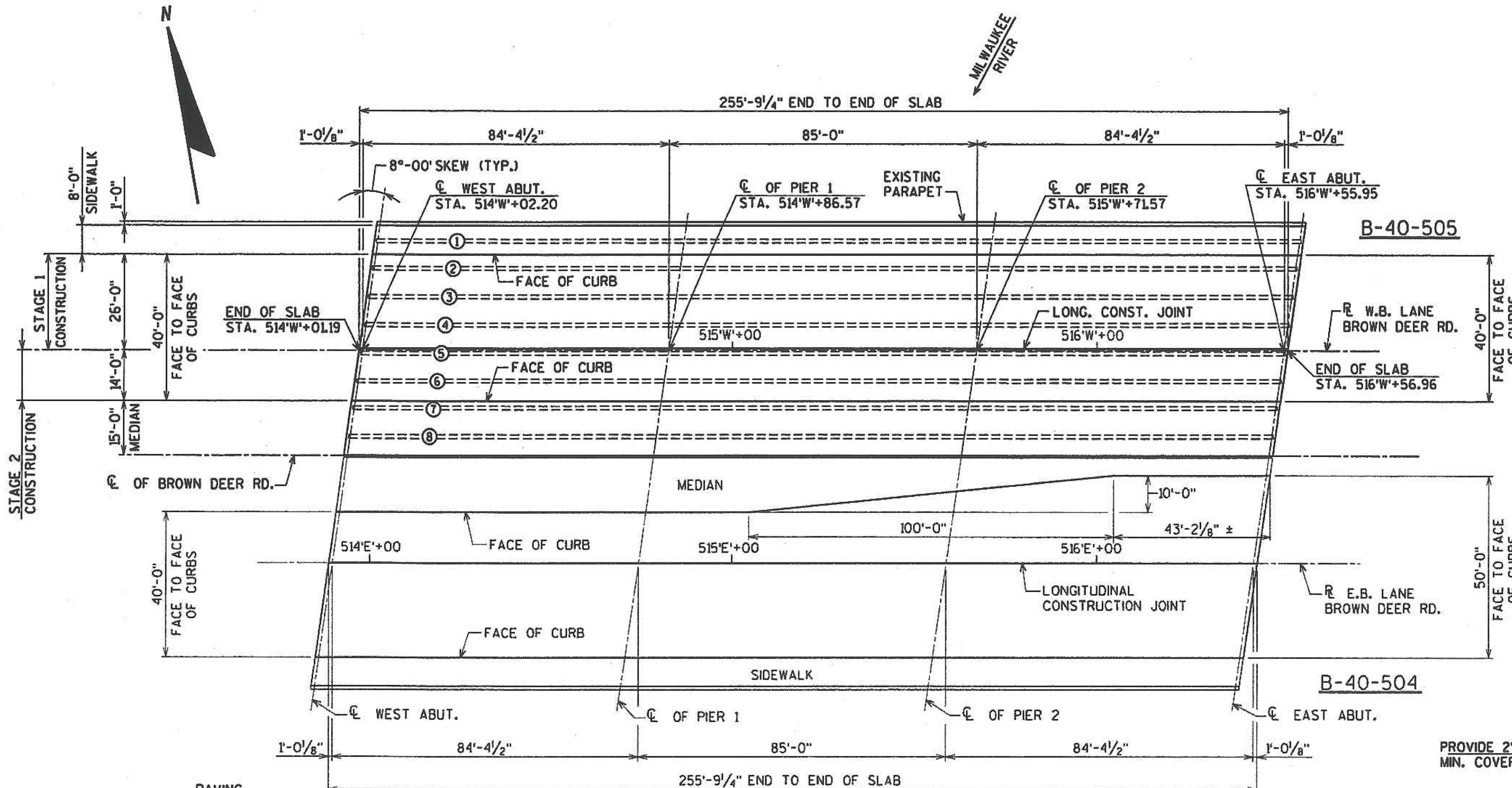
Approved M H Anderson — Chief Bridge Design Engineer — 05-27-99 Date

GENERAL PLAN

SHEET 1 OF 1

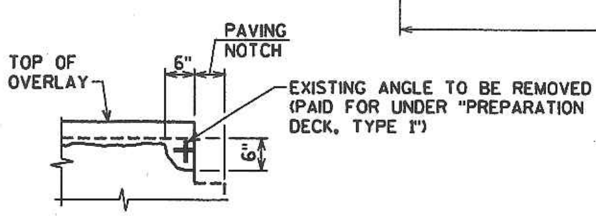
DATE: FEB. 1999

STATE PROJECT NUMBER	SHEET NO.
2320-02-60	8.5

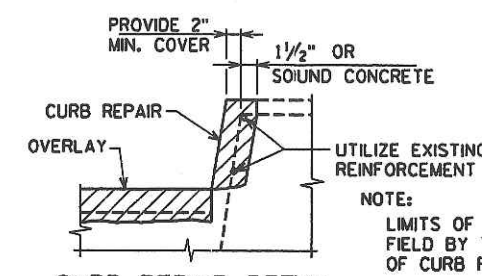


PLAN

(3 SPAN - 45" PRESTRESSED GIRDER)

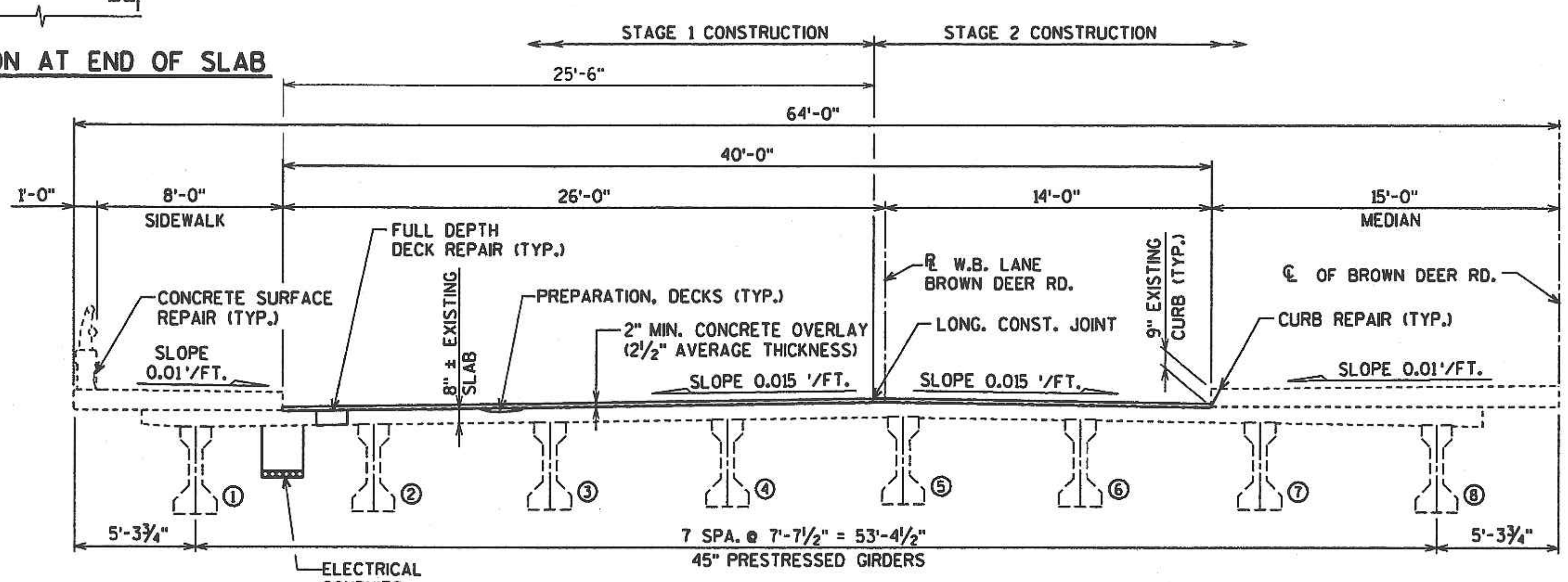


SECTION AT END OF SLAB



NOTE:
LIMITS OF REPAIR FOR CURB SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. VERTICAL AND HORIZONTAL LIMITS OF CURB REPAIR SHALL BE DEFINED BY A 1/2" DEEP SAW CUT.

CURB REPAIR DETAIL



CROSS SECTION THRU EXISTING ROADWAY

(LOOKING EAST)

GENERAL NOTES

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DIMENSIONS ARE BASED ON ORIGINAL PLANS THEREFORE THE CONTRACTOR SHALL VERIFY THEM IN THE FIELD BEFORE ACCEPTANCE.

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PREPARATION, DECKS, CONCRETE SURFACE REPAIR AND CURB REPAIR SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.

TOTAL ESTIMATED QUANTITIES

BID ITEM	AMOUNT
CONCRETE MASONRY, OVERLAY, DECKS	79 C.Y.
CLEANING DECK	1137 S.Y.
PROTECTIVE SURFACE TREATMENT	1137 S.Y.
PREPARATION DECK, TYPE 1	230 S.Y.
PREPARATION DECK, TYPE 2	230 S.Y.
FULL DEPTH DECK REPAIR	15 S.Y.
CURB REPAIR	5 L.F.
CONCRETE SURFACE REPAIR	5 S.F.

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-25
OPERATING RATING: HS-43
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DISTRICT 2 BIRIDGE MAINTENANCE OFFICE CONTACT:
CHRIS WILLIAMS
(414) 548-6711

CIONSULTANT CONTACT:
CHRIS McMAHON
(715) 834-3161

WISCONSIN CHRISTOPHER McMAHON E-29454 EAU CLAIRE WI PROFESSIONAL ENGINEER
2/11/99

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-505

BROWN DEER RD. W.B. (S.T.H. 100) OVER MILWAUKEE

County: MILWAUKEE	Village: RIVER HILLS		
Design Spec. A.A.S.H.T.O. '96	Load HS-20	Const. Spec. 1996	
Designed By CBM	Design Checked PWD	Drawn By GLD	Plans Checked CBM
Approved: [signature] Chief Bridge Design Engineer	Date 05-27-9?		

GENERAL PLAN

SHEET 1 OF 1

DATE: FEB. 1999

PEN TABLE = ±plot72±LASER±smbr.tbl
DATE OF PLOT = 2/11/99
DESIGN FILE IS u:±rbridge±460187g5.dgn
DGN LEVELS ON = 1-63
REFERENCE FILES
DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY: