# AUKE SHA

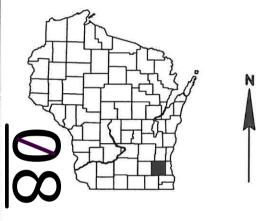
#### **JUNE 2016** ORDER OF SHEETS

Section	No.	1	Title
Section	No.	2	Typical Sections and Detail:
Section	No.	3	Estimate of Quantities
Section	No.	3	Miscellaneous Quantities
Section	No.	4	Right of Way Plat
C+:	Maria	-	Dies and Darfile

Plan and Profile Standard Detail Drawings

Sign Plates Structure Plans Section No. 9 Computer Earthwork Data Section No. 9 Cross Sections

TOTAL SHEETS = 196



DESIGN	DESIGNA	TION	IH 94	CTH F
A.A.D.T.	2013	=	55,500 - 126,700	31,800
A.A.D.T.	2035	=	71,900 - 159,000	35,500
D.H.V.		=	5,500 - 11,500	72
D.D.		=	56% / 44%	-
T.		=	9.1% - 12.1%	-
DESIGN	SPEED	=	70 MPH	50 MPH
ESALS		=		-

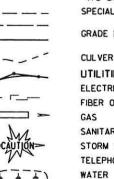
#### CONVENTIONAL SYMBOLS

CORPORATE LIMITS	11111111
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	L
EXISTING RIGHT OF WAY	<del></del>
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	_
EXISTING CULVERT	— <u>г_</u> _

PROPOSED CULVERT (Box or Pipe) COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA



PROFILE

GRADE LINE ORIGINAL GROUND MARSH OR ROCK PROFILE (To be noted as such) SPECIAL DITCH GRADE ELEVATION CULVERT (Profile View) UTILITIES ELECTRIC FIBER OPTIC SANITARY SEWER STORM SEWER TELEPHONE UTILITY PEDESTAL POWER POLE Ò TELEPHONE POLE

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

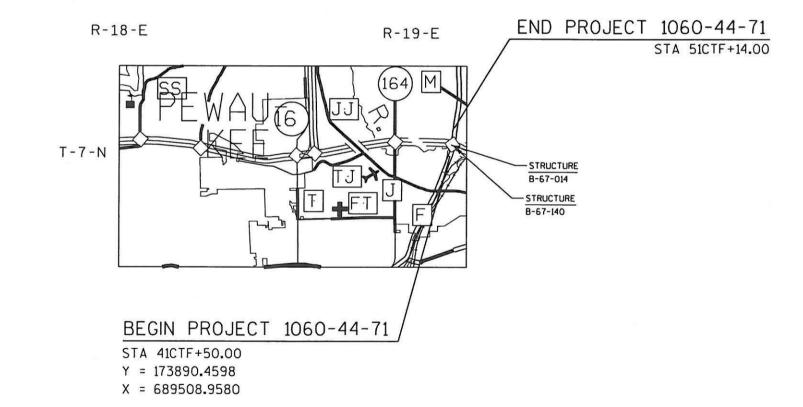
# EAST WEST FREEWAY

CTH F BETWEEN RAMP TERMINALS

IH 94

WAUKESHA COUNTY

STATE PROJECT NUMBER 1060-44-71

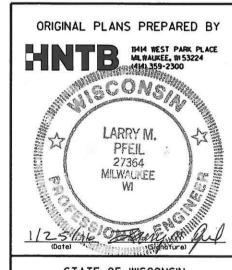


LAYOUT 1.0 ML

TOTAL NET LENGTH OF CENTERLINE 1060-44-71 = 0.183 MI

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012)

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WAUKESHA COUNTY, NAD83 (2011)



FEDERAL PROJECT

CONTRACT

PROJECT

WISC 2016118

STATE PROJECT

1060-44-71

## STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PREPARED BY Surveyor EMCS HNTB DAVID PITTMAN Regional Examiner \_\_\_\_\_ Regional Supervisor \_\_ JOE\_GALLAMORE

#### **UTILITY CONTACTS**

**WISDOT STOC** 

MR. JEFF MADSON 433 W ST. PAUL AVE, STE 300 MILWAUKEE, WI 53203-3007 414-225-3723 jeffrey.madson@dot.wi.gov

WE ENERGIES (ELECTRIC): CONSTRUCTION FIELD CONTACT

**BRYAN STOEHR** 500 S. 116TH ST. WEST ALLIS, WI PHONE: 414-944-5516 MOBILE: 414-416-6059 bryan.stoehr@we-energies.com **AT&T WISCONSIN** 

MR. ALPER KOLCU 2005 PEWAUKEE RD WAUKESHA, WI 53188 262-352-3791 ak308x@att.net

AT&T CORP.

MR. CARL DONAHUE 866 ROCK CREEK ROAD PLANO, IL 60545 847-420-9115; FAX 847-244-9597 cd8729@att.com

WE ENERGIES (ELECTRIC & GAS)

MR. LATROY BRUMFIELD 333 W. EVERETT ST - A299 MILWAUKEE. WI 53203 414-221-4578; FAX 414-221-2336 latroy.brumfield@w e-energies.com ATC MANAGEMENT INC

MR. MIKE OLSEN 801 O'KEEFE ROAD PO BOX 6113 DEPERE, WI 54115-6113 920-338-6582 molsen@atcllc.com

**WISDOT SIGNALS** 

MR. DERRIN WOLFORD 141 NW BARSTOW STREET WAUKESHA, WI 53187-0798 derrin.w olf ord@dot.w i.gov

**WISDOT LIGHTING** 

MR. ERIC PEREA 141 NW BARSTOW STREET PO BOX 798 WAUKESHA, WI 53187-0798 eric.perea@dot.wi.gov

#### **ORDER OF SECTION 2 DETAIL SHEETS**

GENERAL NOTES PROJECT OVERVIEW TYPICAL SECTIONS CONSTRUCTION DETAILS REMOVAL PLAN PLAN DETAILS PAVING GRADES CROSS SECTION MATCHLINES **EROSION CONTROL** TRAFFIC SIGNAL OVERVIEW PAVEMENT MARKING TRAFFIC CONTROL DETOUR ROUTE ALIGNMENT PLAN **BENCHMARKS** 



Ε PROJECT NO: 1060-44-71 **HWY: IH 94 COUNTY: WAUKESHA GENERAL NOTES AND UTILITY CONTACTS** SHEET:

FILE NAME: \milw00\ingrproj\59899\t1\020201\_gn.pptx PLOT DATE: 8/7/2014 9:04:06 AM PLOT BY : dfelber PLOT NAME : PLOT SCALE: 1:1

## 2

#### **GENERAL NOTES**

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL, MUNICIPAL OR OTHER UTILITY THAT IS NOT A MEMBER OF DIGGERS HOTLINE SHALL BE CONTACTED SEPERATELY.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WATERWAY.

A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING HMA PAVEMENT.

EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTOR'S EXPENSE.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ROADWAY AND BRIDGE ALIGNMENTS ARE NOT THE SAME. BRIDGE ALIGNMENTS ARE FROM ASBUILT PLANS. THE ROADWAY ALIGNMENT IS FOR REFERENCE ONLY.

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM "TRAFFIC CONTROL COVERING SIGNS".

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO (2) WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER AND MUST BE INSTALLED PRIOR TO ANY REMOVALS.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

THE EROSION CONTROL DEVICES ARE SHOWN ON THE PLAN SHEETS AND ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AT CONTRACTOR'S EXPENSE.

EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

CONTRACTOR TO PROTECT 2X15 GPS AND KEEP CONSTRUCTION EQUIPMENT AT LEAST 10 FT AWAY FROM 2X15 GPS. ENSURE THAT 2X15 GPS IS/ARE NOT DISTURBED, BUMPED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF 2X15 GPS IS/ARE DISTURBED. BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS.

#### OTHER DESIGNERS INCLUDE:

DESIGN, PLANS, SPECIFICATIONS, AND ESTIMATE FOR TRAFFIC SIGNALS PROVIDED BY WISCONSIN DEPARTMENT OF TRANSPORTATION

#### CONSTRUCT HMA PAVEMENT WITH THE FOLLOWING LAYERS AND GRADATIONS:

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	DESIGNATION
HMA	5"	2" UPPER LAYER	HMA PAVEMENT 4LT 58-28 S
	ດ	3" LOWER LAYER	HMA PAVEMENT 3LT 58-28 S

#### **OTHER AGENCIES**

#### **DNR AREA LIAISON**

MR. CRAIG WEBSTER
141 NW BARSTOW ROOM 180
WAUKESHA, WI 53187
262-574-2141

craig.w ebster@w isconsin.gov

#### WAUKESHA COUNTY

MR. GARY EVANS, HWY. ENG. MGR. 515 W. MORELAND BLVD., RM. 220 WAUKESHA, WI 53188 262-548-7740

gevans@waukeshacounty.gov

#### US ARMY CORP OF ENGINEERS

MS. MARIE KOPKA 20711 WATERTOWN RD., SUITE F WAUKESHA, WI 53186 262-717-9539

marie.h.kopka@usace.army.mil

#### WISCONSIN DEPARTMENT OF TRANSPORTATION

PROJECT MANAGER MR. DAVID PITTMAN, P.E 141 NW BARSTOW STREET WAUKESHA, WI 53187-0798 262-548-6439

david.pittman@dot.wi.gov

#### SEWRPC

MR. ROB MERRY
W239 N1812 ROCKWOOD DR, P.O BOX 1607
WAUKESHA, WI 53187-1607
(262) 953-4289
rmerry@sew.rpc.org

#### WISCONSIN DEPARTMENT OF TRANSPORTATION

GPS PROGRAM MANAGER
MR. JACOB ROCKWEILER, P.E
WISCONSIN HEIGHT MODERNIZATION
608-516-6362
jacob.rockw eiler @dot.w i.gov

#### ABBREVIATIONS

BAD BASE AGGREGATE DENSE
BMP BEST MANAGEMENT PRACTICES

C&G CURB AND GUTTER

C/L OR € CENTER OR CONSTUCTION LINE

CONC CONCRETE

CTH COUNTY TRUNK HIGHWAY

CWT HUNDRED WEIGHT
CY CUBIC-YARD
D DEGREE OF CURVE

Δ DELTA
EB EASTBOUND

HMA HOT MIX ASPHALT INL INLET

L LENGTH OF CURVE
LF LINEAR FOOT
LS LUMP SUM
LT LEFT

MH MANHOLE
MIN MINIMUM
M/L MATCHLINE
NB NORTHBOUND
PAVT PAVEMENT

PC POINT OF CURVE
PCC POINT OF COMPOUND CURVE

PI POINT OF INTERSECTION
PT POINT OF TANGENT
R RADIUS OF CURVE

REQUIRED REFERENCE LINE

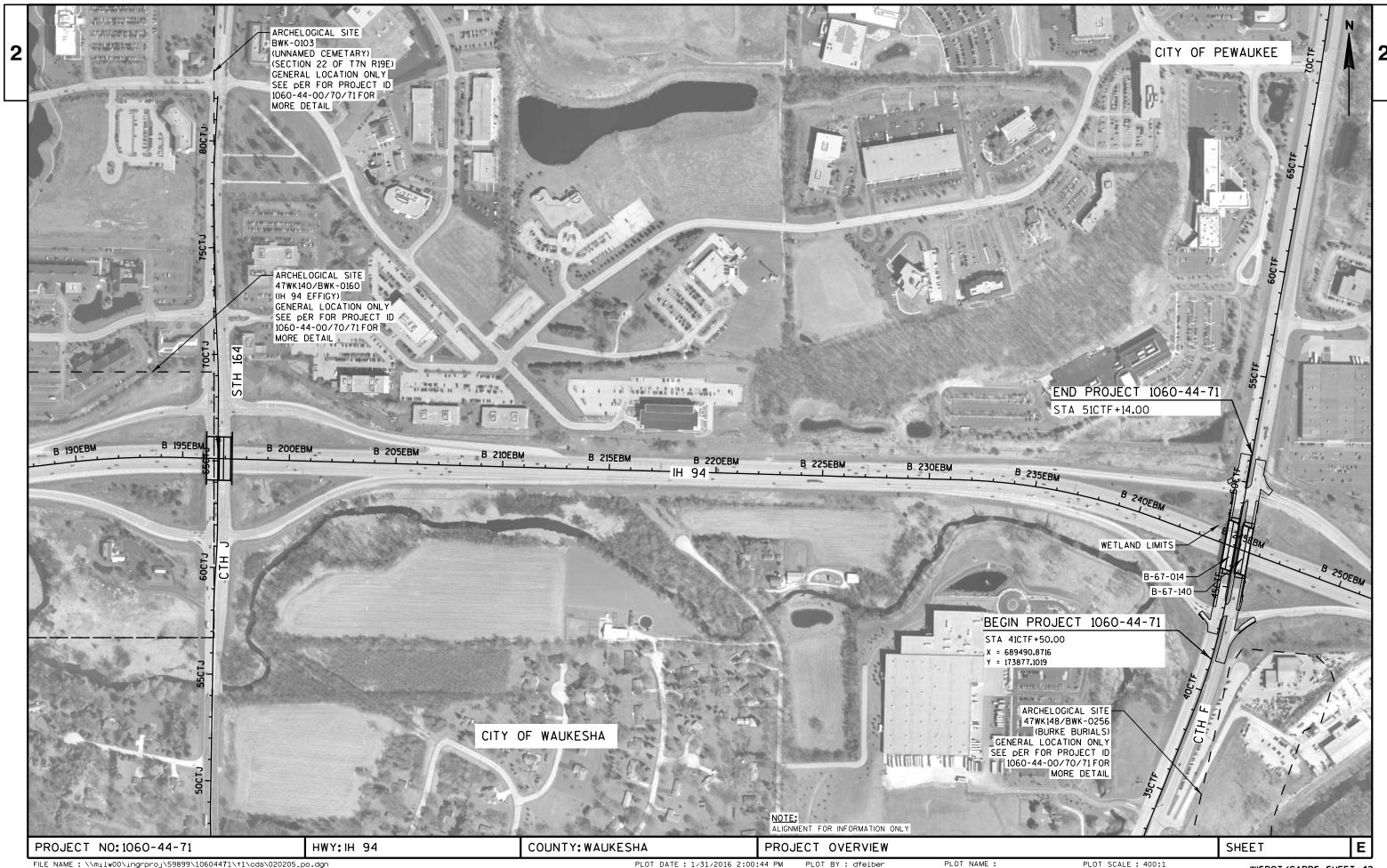
RT RIGHT
R/W RIGHT OF WAY
SB SOUTHBOUND

SDD STANDARD DETAIL DRAWING

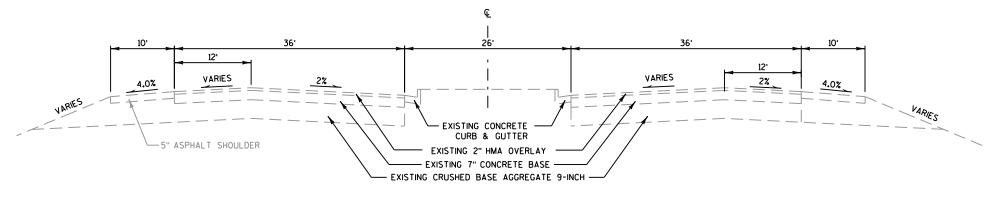
SF SQUARE FOOT
STA STATION
SY SQUARE YARD
T TANGENT LENGTH
TYP TYPICAL

WB WESTBOUND

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA GENERAL NOTES AND UTILITY CONTACTS SHEET: E



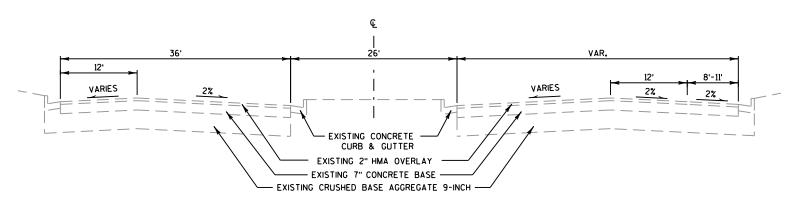
|2



### EXISTING TYPICAL SECTION

CTH F

FROM STA 43CTF+50 TO STA 50CTF+00

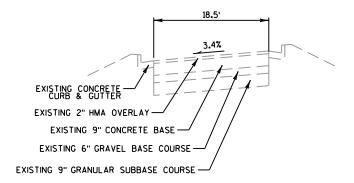


#### EXISTING TYPICAL SECTION

CTH F

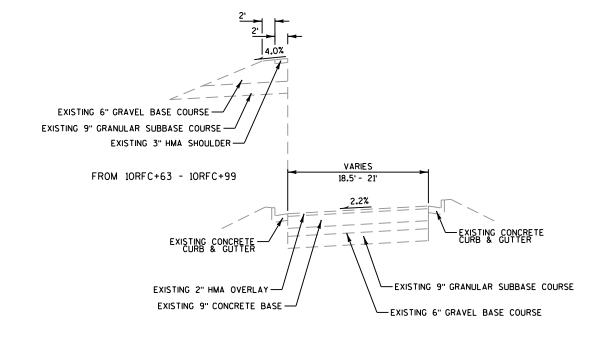
FROM STA 41CTF+50 TO STA 43CTF+50 FROM STA 50CTF+00 TO STA 51CTF+28

PROJECT NO:1060-44-71 HWY: H 94 COUNTY: WAUKESHA EXISTING TYPICAL SECTIONS SHEET E



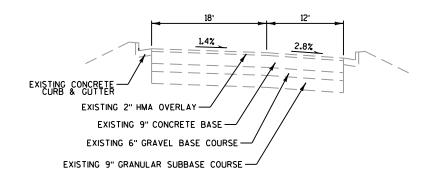
#### EXISTING TYPICAL SECTION

CTH F, RAMP RFD
FROM STA 10RFD+00 TO STA 10RFD+31



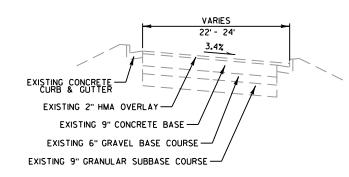
#### EXISTING TYPICAL SECTION

CTH F, RAMP RFC
FROM STA 10RFC+49 TO STA 10RFC+99



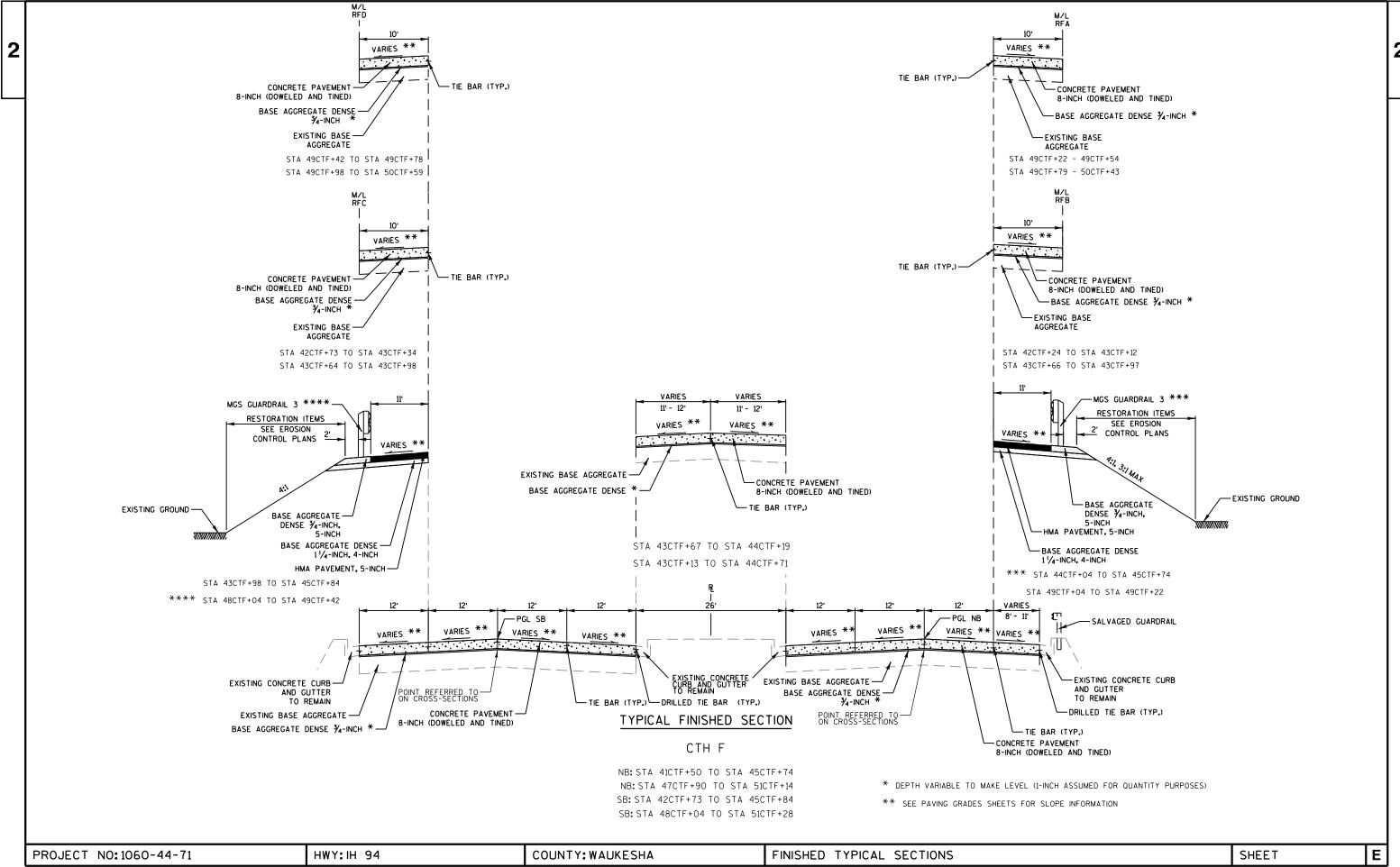
#### EXISTING TYPICAL SECTION

CTH F, RAMP RFA
FROM STA 10RFA+00 - 10RFA+35



#### EXISTING TYPICAL SECTION

CTH F, RAMP RFB FROM STA 10RFB+82 TO STA 11RFB+83



FILE NAME: I:\59899\10604471\t1\cds\020401\_ts.dgn

PLOT DATE: 4/1/2016 9:51:54 AM PLOT BY: dfelber PLOT NAME: PLOT SCALE: 15:1

WISDOT/CADDS SHEET 42

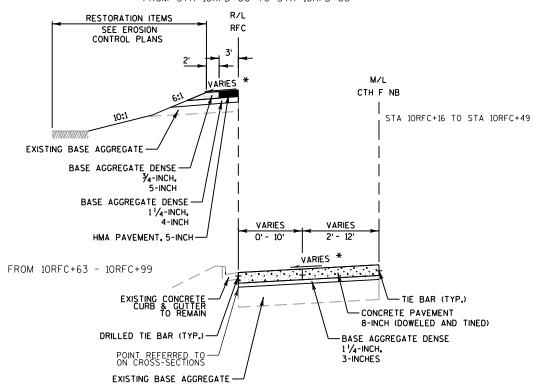
WISDOT/CADDS SHEET 42

M/L

#### EXISTING TYPICAL SECTION

CTH F, RAMP RFD

FROM STA 10RFD+00 TO STA 10RFD+68



\* SEE PAVING GRADES SHEETS FOR SLOPE INFORMATION

#### TYPICAL FINISHED SECTION

CTH F, RAMP RFC

FROM STA 10RFC+16 TO STA 10RFC+99

RFA VARIES VARIES VARIES 0' - 15' 0' - 12' 2' - 12' VARIES \* VARIES \* VARIES \* DRILLED TIE BAR (TYP.) -POINT REFERRED TO ON CROSS-SECTIONS EXISTING BASE AGGREGATE TIE BAR (TYP.) CONCRETE PAVEMENT -BASE AGGREGATE DENSE 8-INCH (DOWELED AND TINED) 1 1/4-INCH. 3-INCHES \* SEE PAVING GRADES SHEETS FOR SLOPE INFORMATION

R/L

STA 10RFA+35 TO STA 10RFA+80

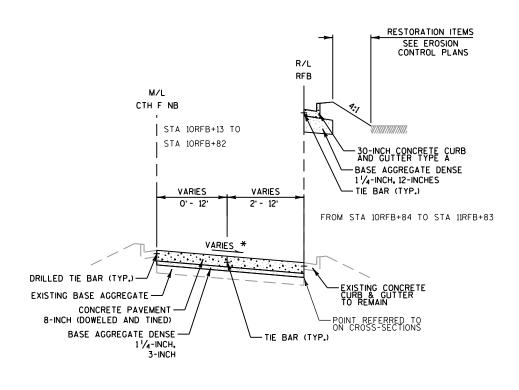
M/L

CTH F NB

#### TYPICAL FINISHED SECTION

CTH F. RAMP RFA

FROM STA 10RFA+00 - 10RFA+80



\* SEE PAVING GRADES SHEETS FOR SLOPE INFORMATION

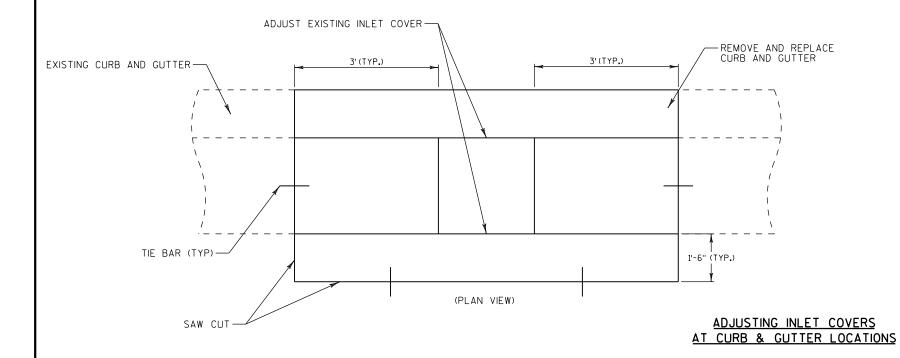
#### TYPICAL FINISHED SECTION

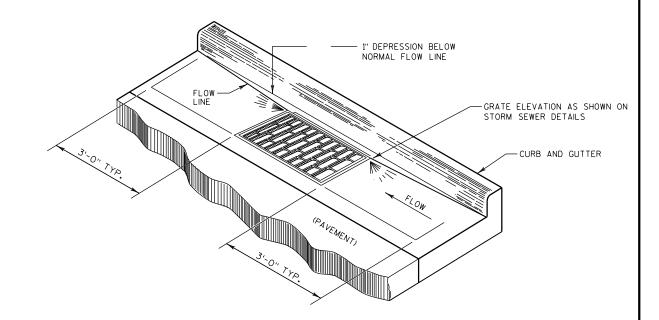
CTH F. RAMP RFB

FROM STA 10RFB+13 - 11RFB+83

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA SHEET Ε FINISHED TYPICAL SECTIONS FILE NAME : I:\59899\10604471\+1\cds\020401\_+s.dgn PLOT DATE: 4/1/2016 9:52:13 AM PLOT BY : dfelber PLOT SCALE : 15:1

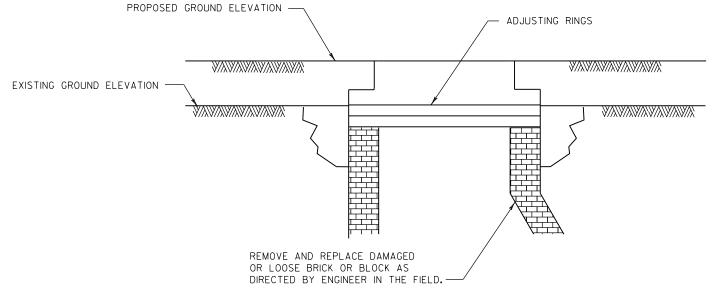
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PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA CONSTRUCTION DETAILS SHEET E

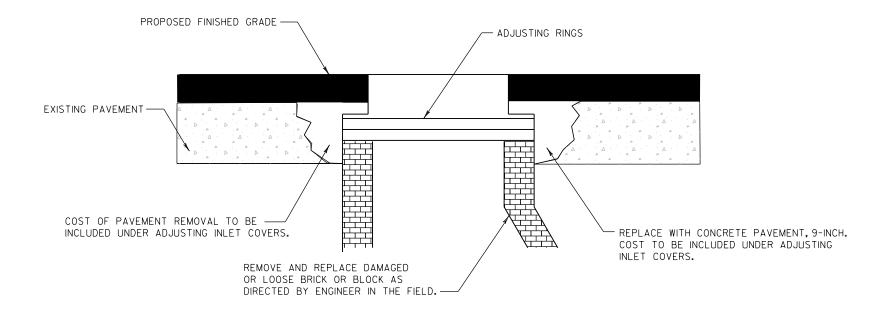




#### NON-PAVED AREA

#### NOTE

ADJUST CHIMNEY WITH PROPER SIZE CONCRETE ADJUSTING RINGS (SIZE OF OPENING OF CONCRETE ADJUSTING RING TO BE DETERMINED BY SIZE OF OPENING IN FRAME) AND REINSTALL EXISTING FRAME AND LID TO FINISHED GRADE.
(BACKFILL AND OTHER WORK TO BE DONE IN ACCORDANCE WITH ITEM ADJUSTING INLET COVER.)



#### PAVED AREA

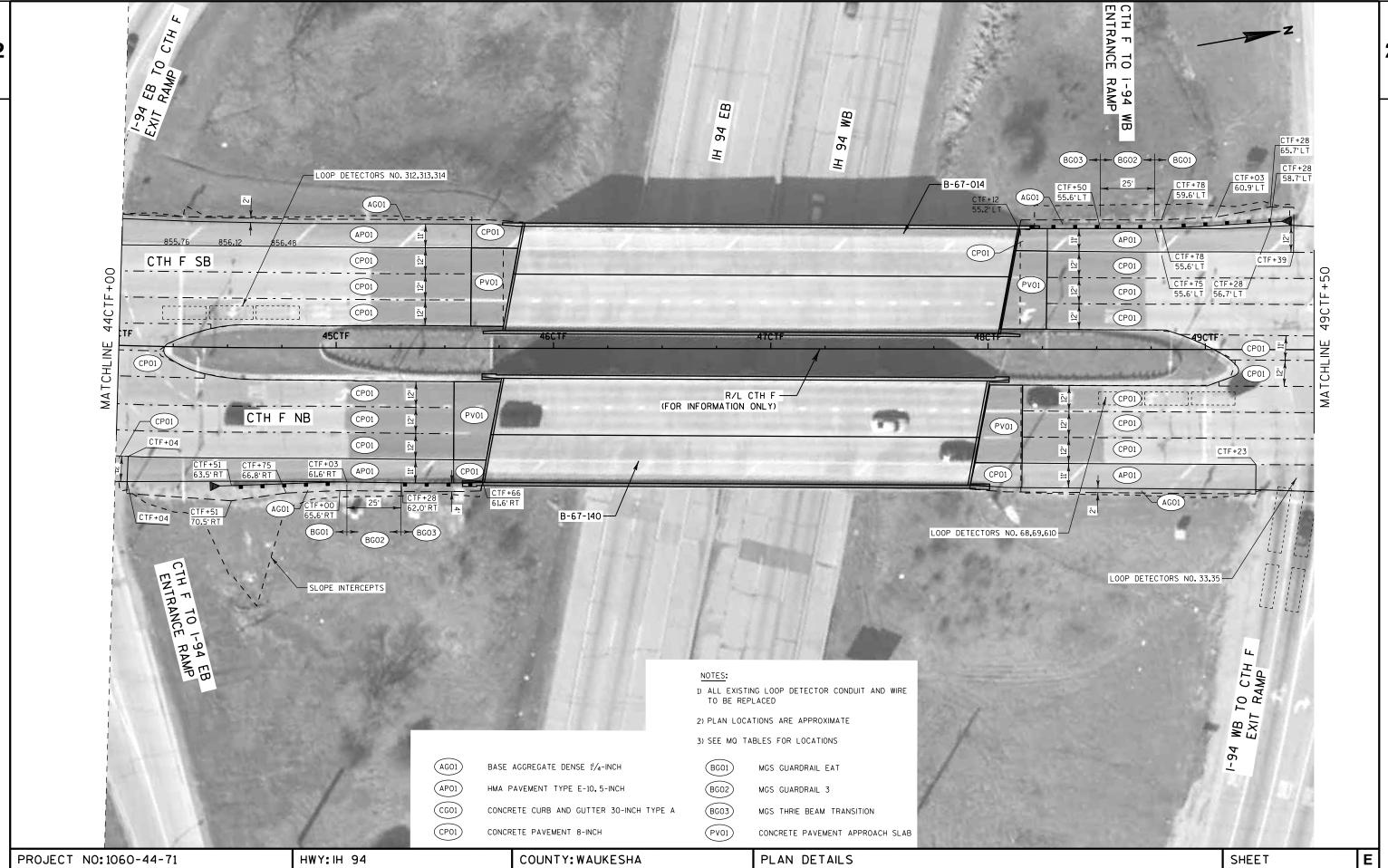
### ADJUSTING INLET COVERS

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA CONSTRUCTION DETAILS SHEET E

 100813

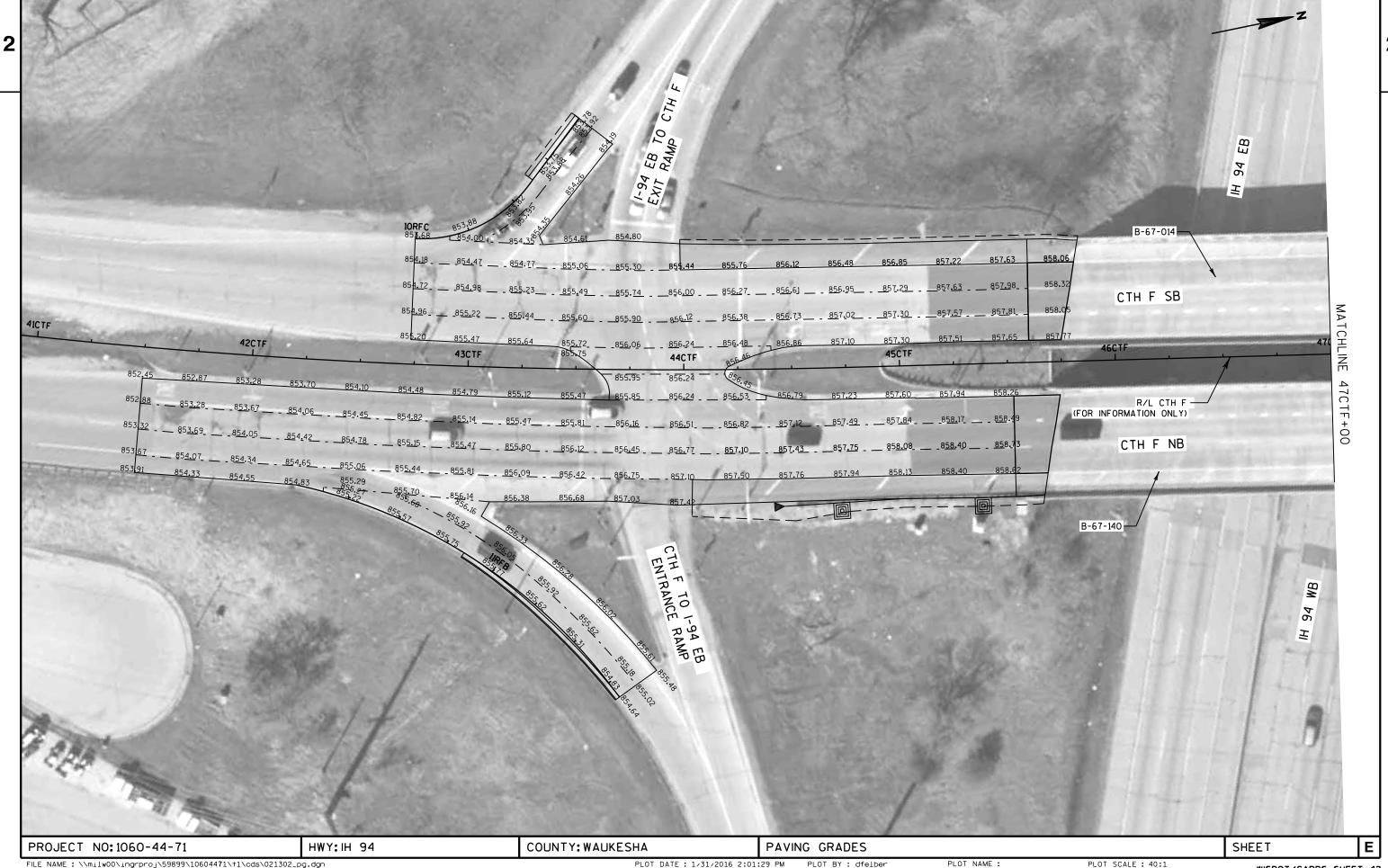






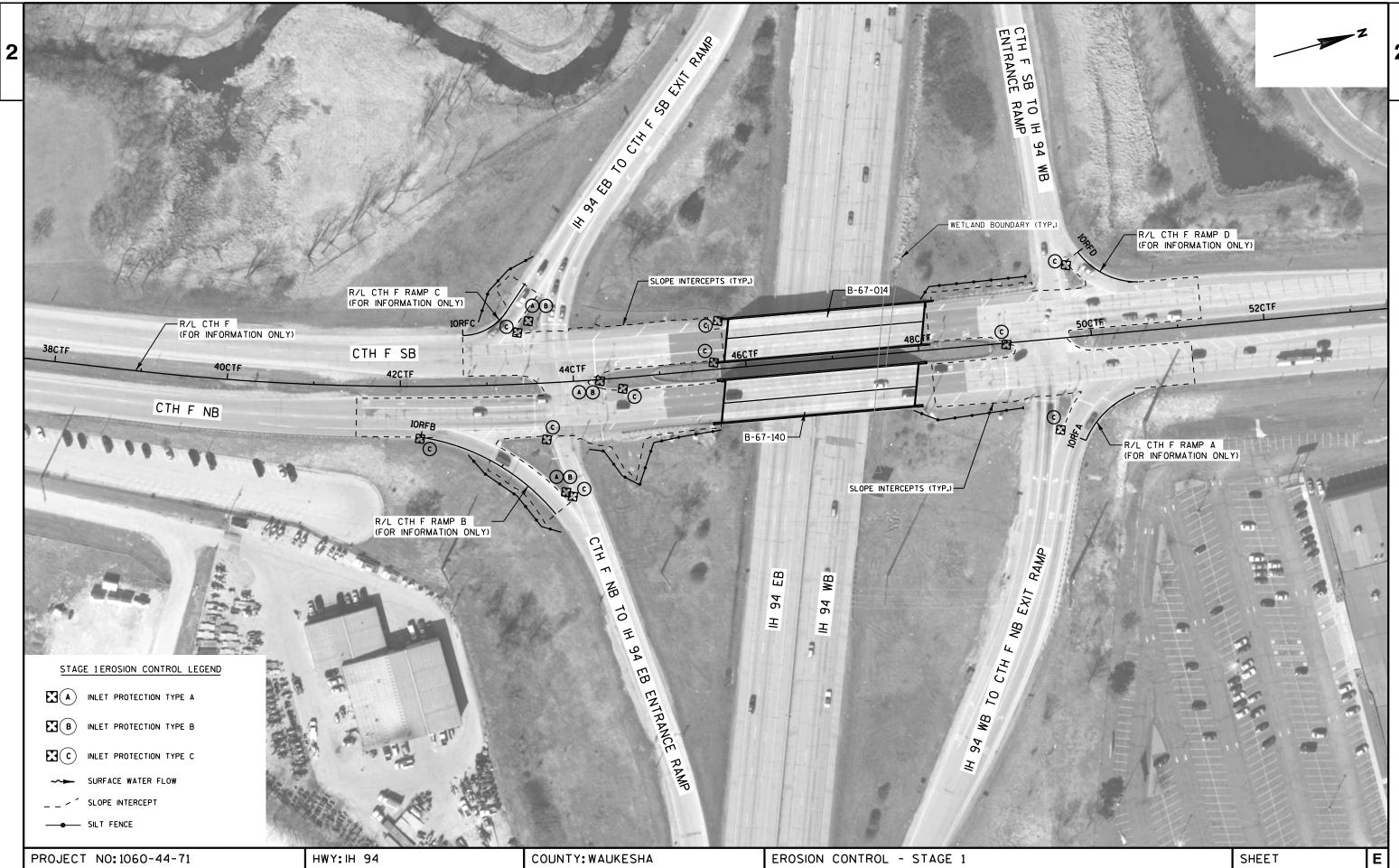


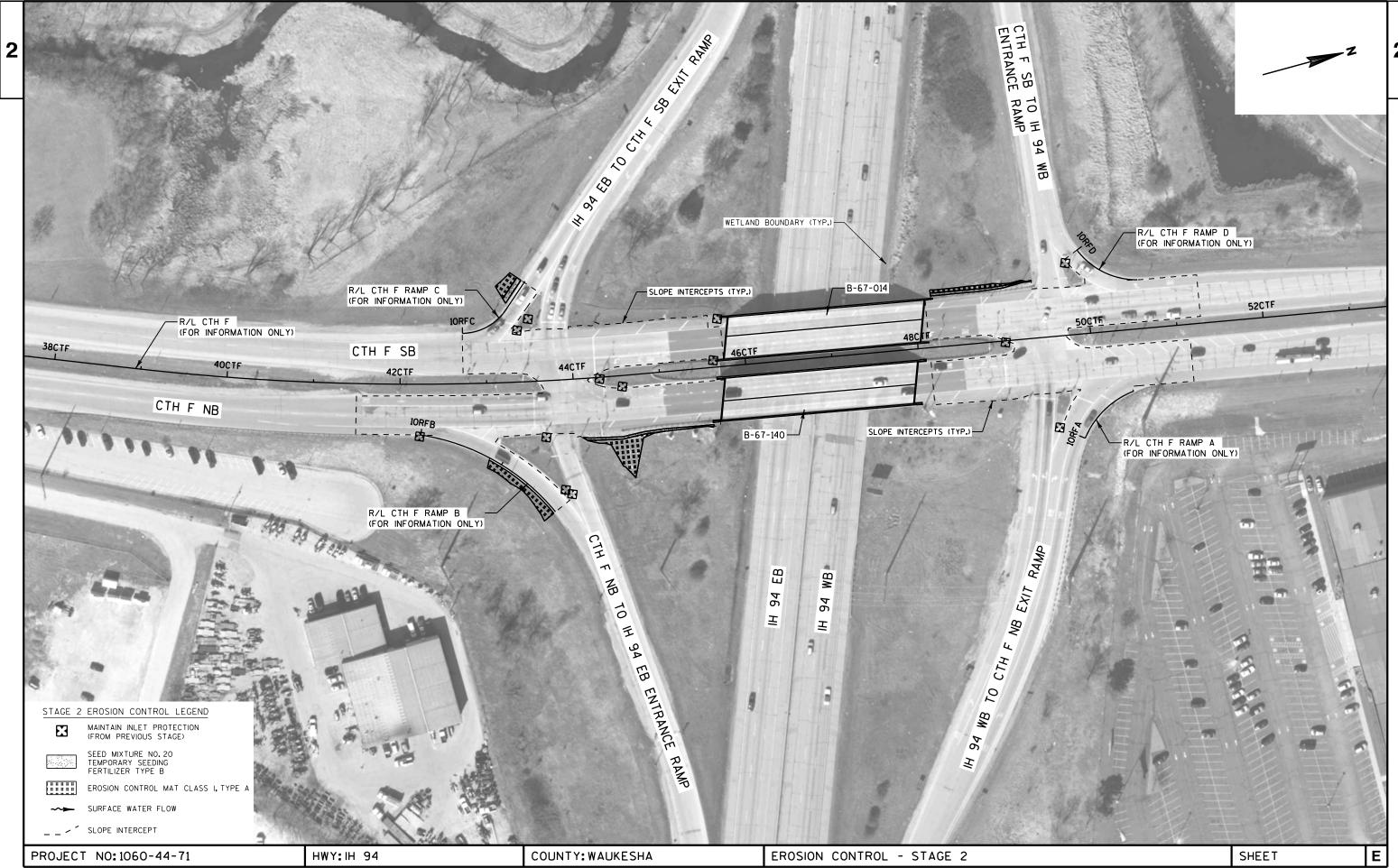
PLOT SCALE: 40:1

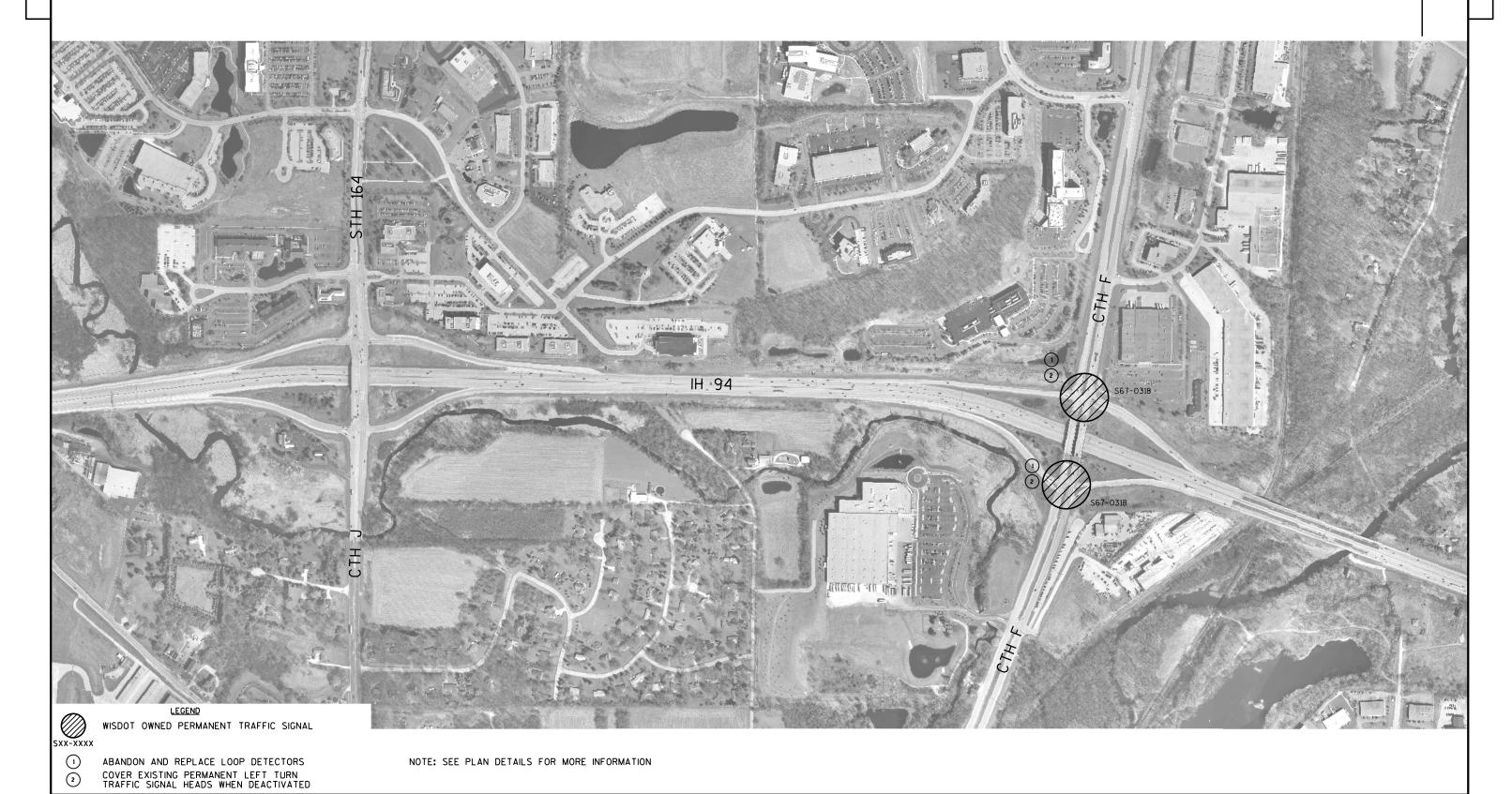












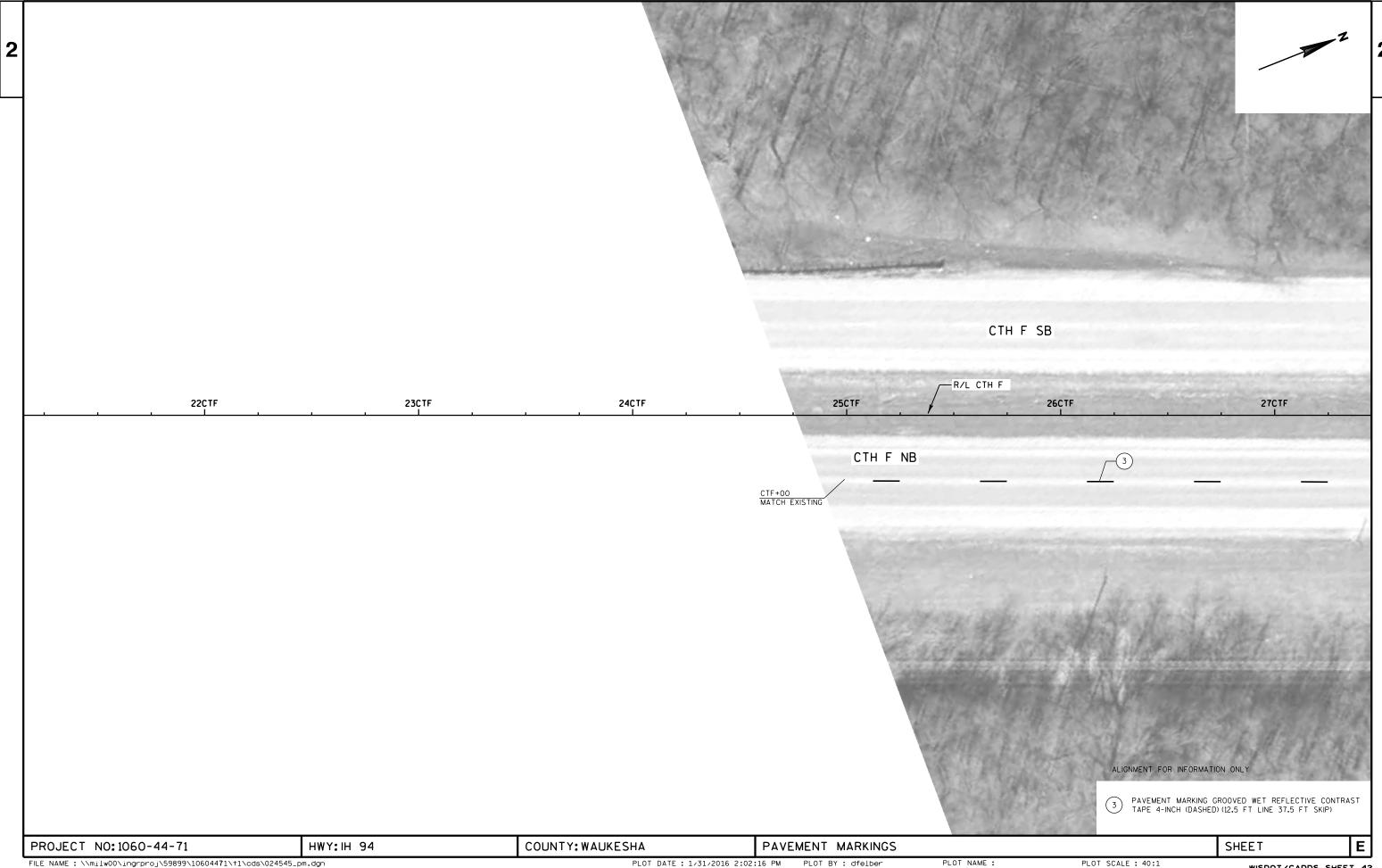
HWY: IH-94

PROJECT NO: 1060-44-71

COUNTY: WAUKESHA

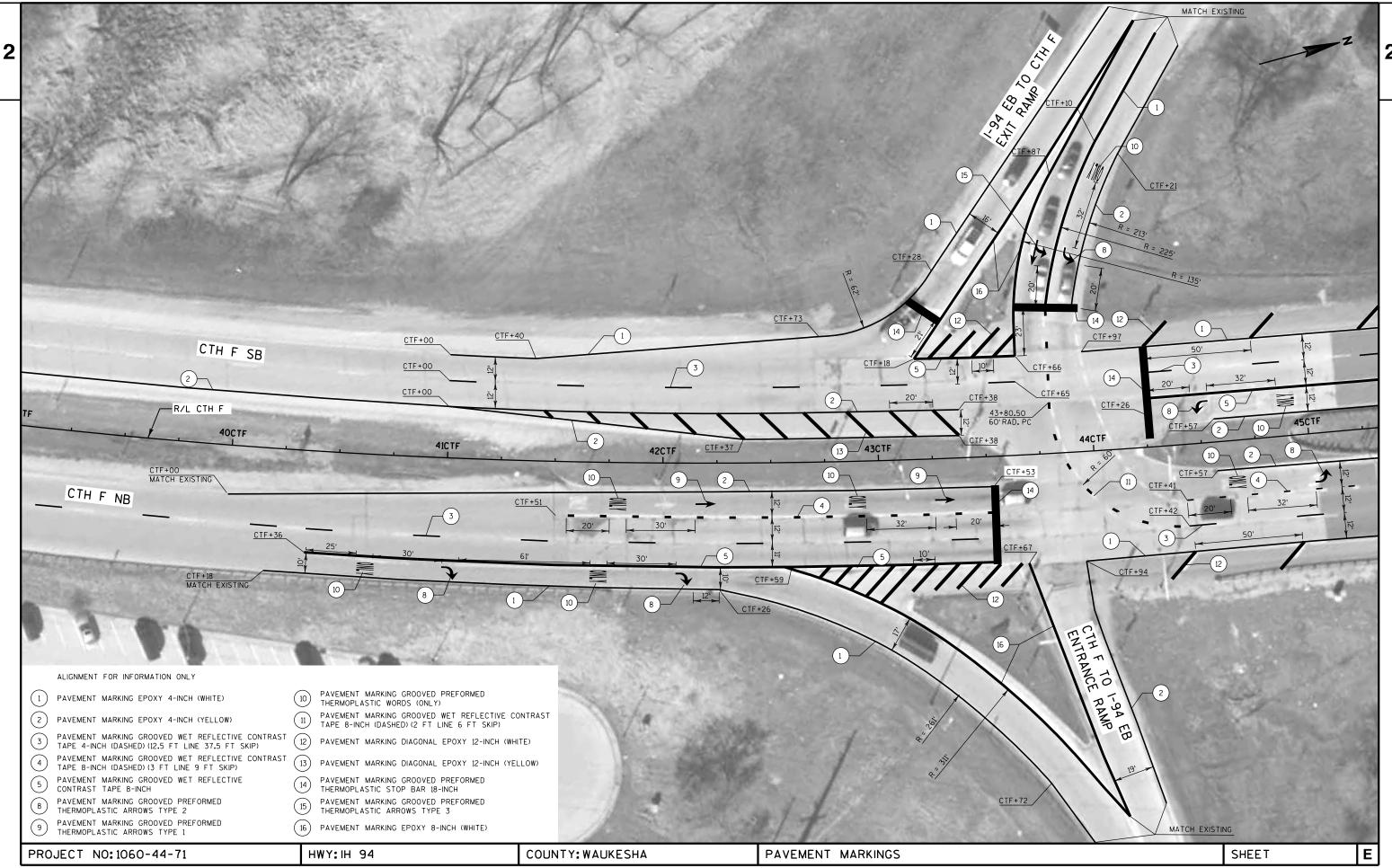
TRAFFIC SIGNAL PROJECT OVERVIEW

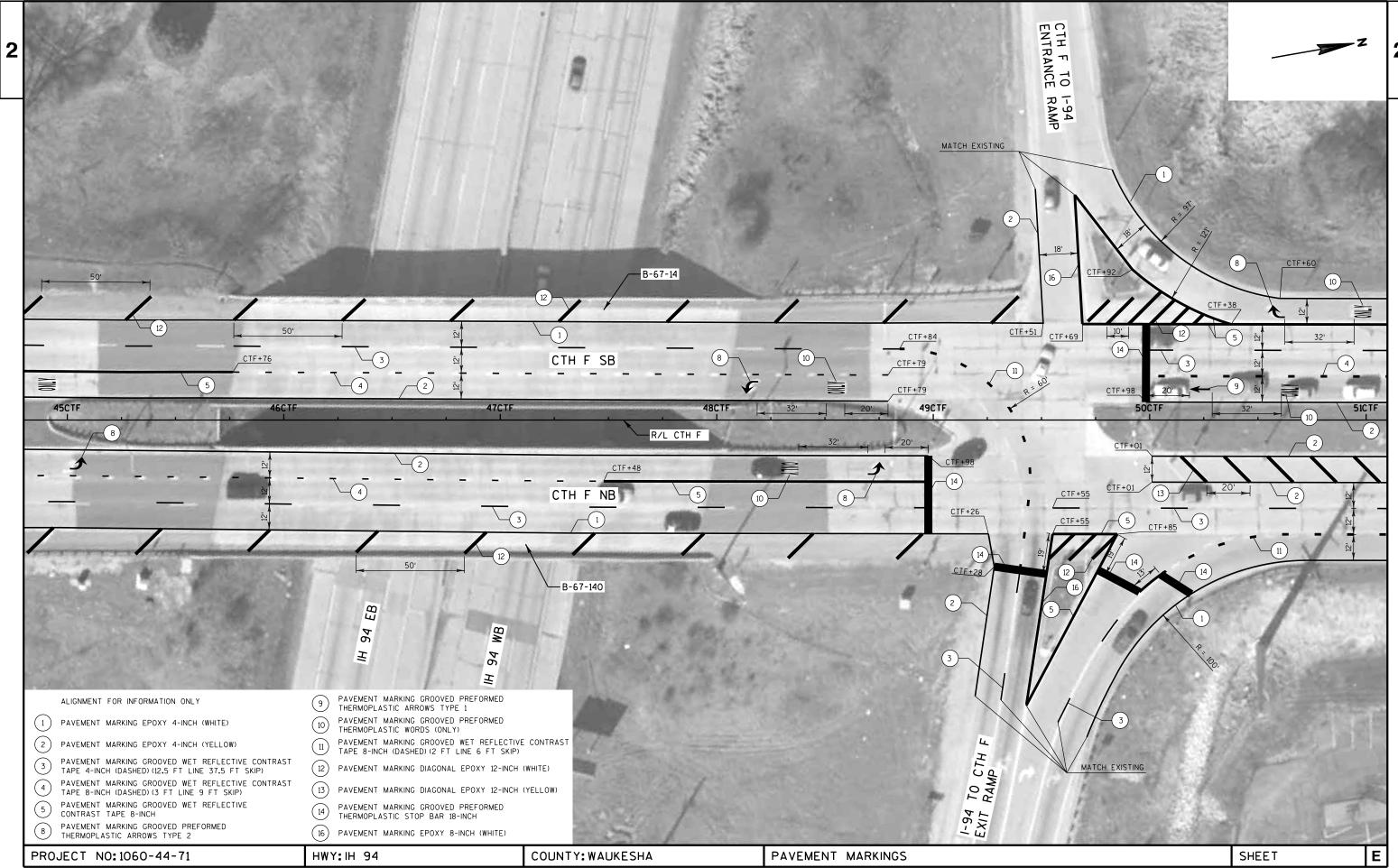
SHEET





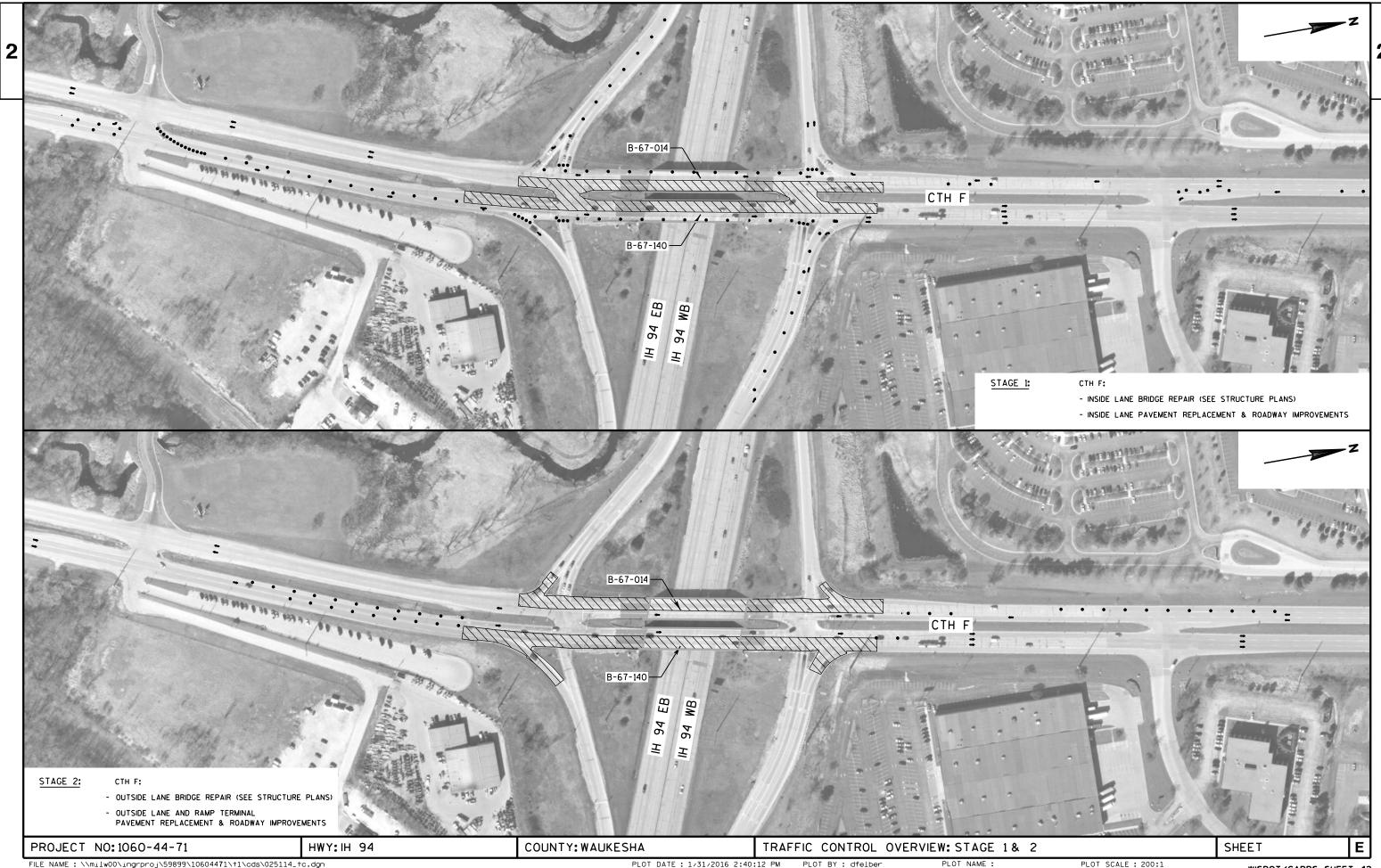


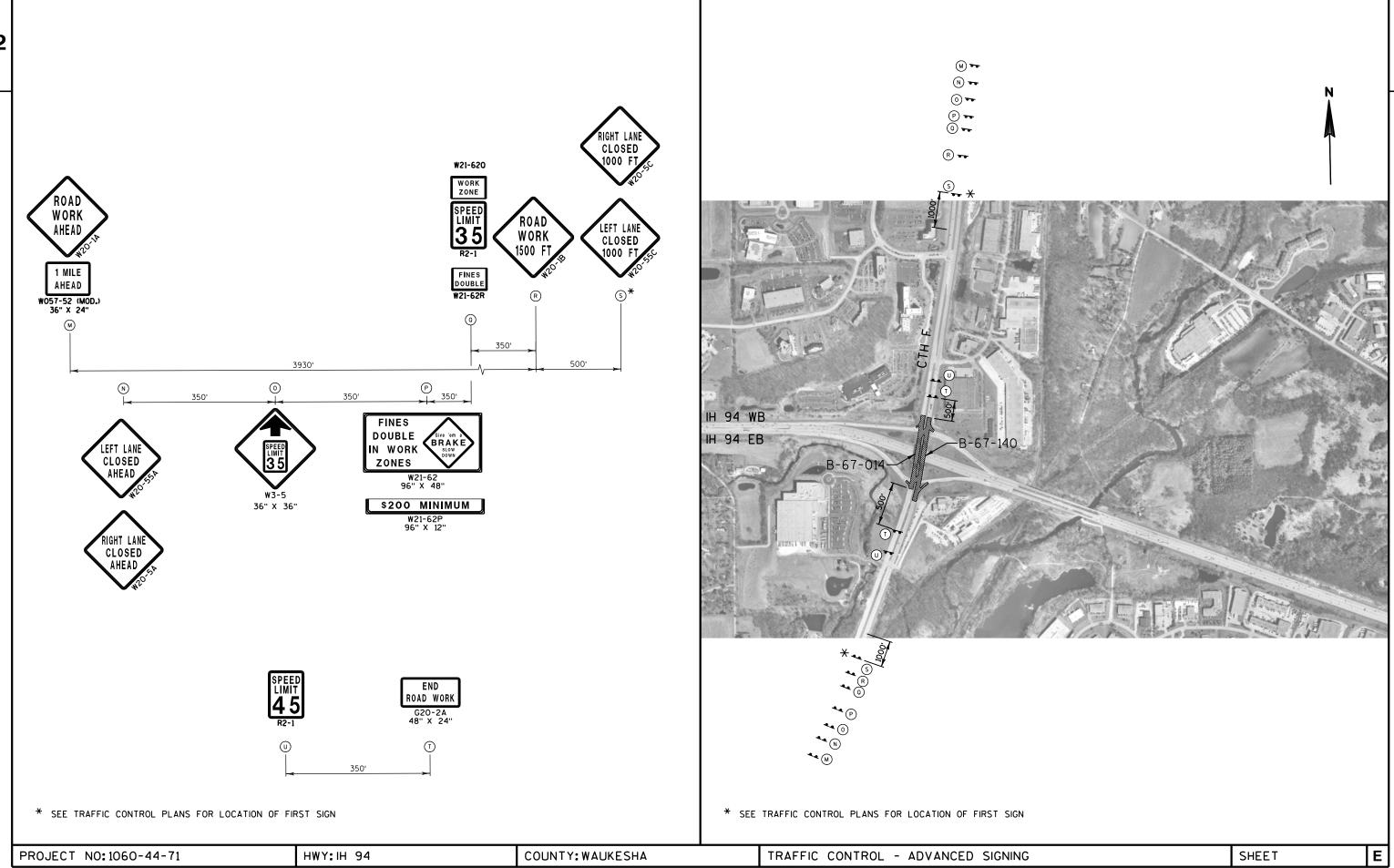


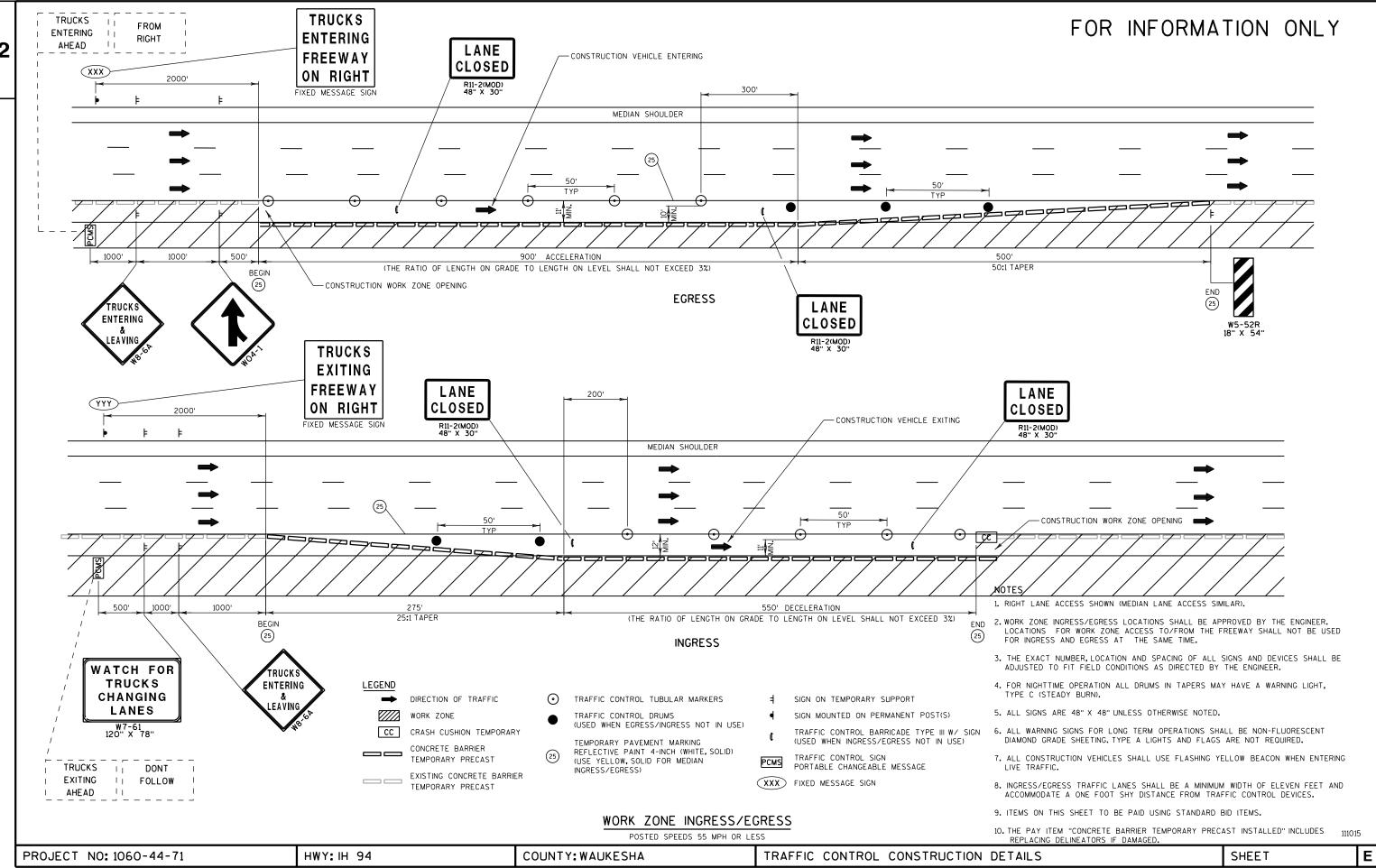


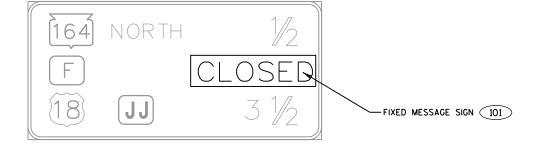




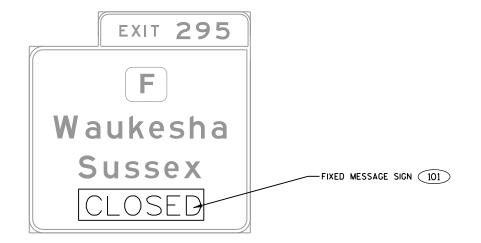




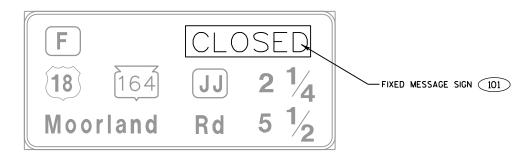




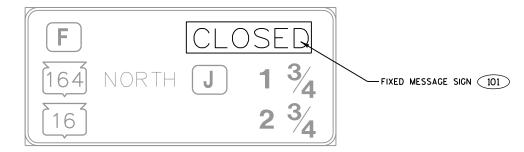
APPROX.1 1/2 MILES WEST OF CTH F INTERCHANGE ON IH 94 EB



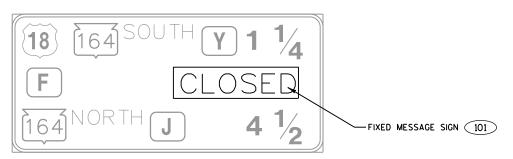
APPROX. 3/4 MILES WEST OF CTH F INTERCHANGE ON IH 94 EB



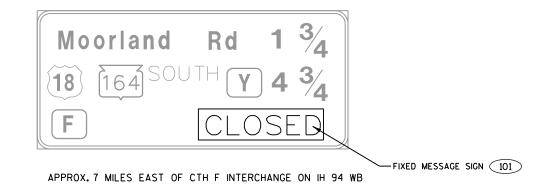
APPROX. 1/4 MILES WEST OF CTH F INTERCHANGE ON IH 94 EB



APPROX. 3/4 MILES EAST OF CTH F INTERCHANGE ON IH 94 WB

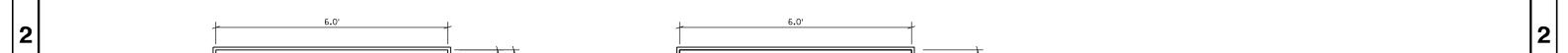


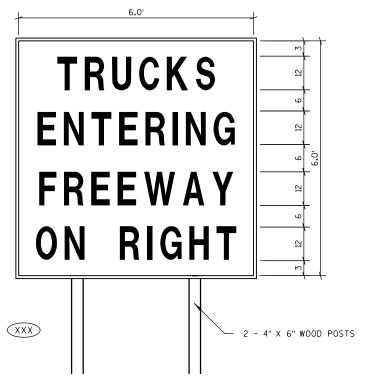
APPROX. 3 1/2 MILES EAST OF CTH F INTERCHANGE ON IH 94 WB

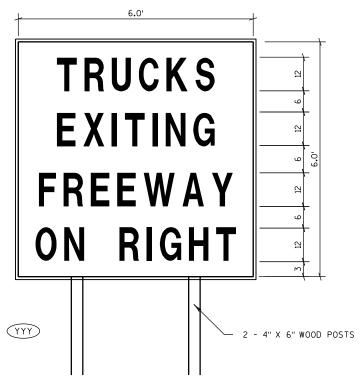


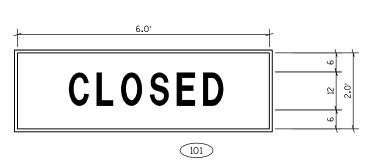
COVERING SIGNS - STAGE 2

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA TRAFFIC CONTROL CONSTRUCTION DETAILS SHEET

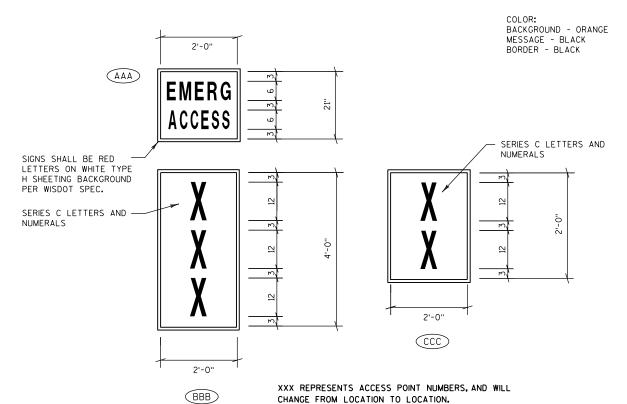








#### FIXED MESSAGE SIGNS



**EMERGENCY ACCESS SIGNS** 

WORK ZONE INGRESS/EGRESS

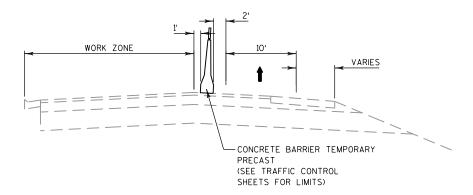
#### NOTES

- 1. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
- 2. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN, STEEL POSTS (2"X2") MAY BE USED FOR SIGNS ON SURFACE STREETS, SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS. FOR SIGNS MOUNTED ON POSTS, USE POSTS FROM FHWA LIST OF ACCEPTED BREAKAWAY SIGN
- 3. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".
- 4. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE TYPE F REFLECTIVE BACKGROUND UNLESS OTHERWISE NOTED.
- 5. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS: 12" AND 8" CAPS SHALL BE SERIES "D", 6" CAPS SHALL BE SERIES
- 6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
- 7. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.
- 8. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

XXX = FIXED MESSAGE SIGN NUMBER

111015

PROJECT NO: 1060-44-71 COUNTY: WAUKESHA TRAFFIC CONTROL CONSTRUCTION DETAILS SHEET HWY: IH 94 PLOT BY : dfelber PLOT NAME : \$FILE\$ PLOT SCALE : 100:1

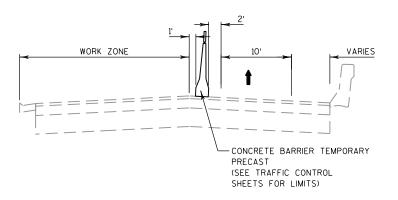


#### TYPICAL SECTION - TRAFFIC CONTROL

CTH F NB

STAGE 1

BEFORE AND AFTER B-67-140

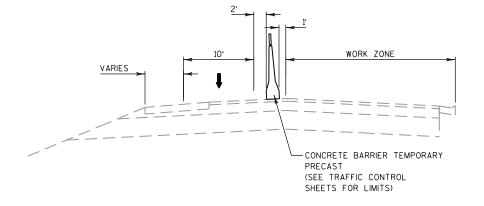


#### TYPICAL SECTION - TRAFFIC CONTROL

CTH F NB

STAGE 1

AT STRUCTURE B-67-140

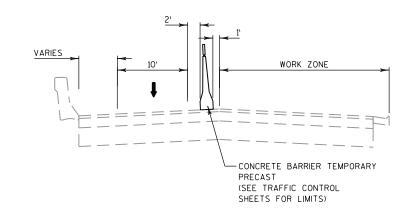


#### TYPICAL SECTION - TRAFFIC CONTROL

CTH F SB

STAGE 1

BEFORE AND AFTER B-67-014



#### TYPICAL SECTION - TRAFFIC CONTROL

CTH F SB

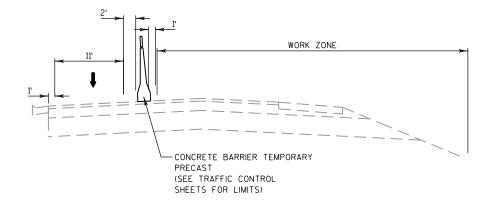
STAGE 1

AT STRUCTURE B-67-014

#### NOTE:

- 1) FOR PAVEMENT MARKING INFORMATION, SEE PLAN SHEETS
- 2) THE PAY ITEM "CONCRETE BARRIER TEMPORARY PRECAST INSTALLED" INCLUDES REPLACING DELINEATORS IN DAMAGED.

PROJECT NO:1060-44-71 HWY: H 94 COUNTY: WAUKESHA CONSTRUCTION STAGE 1 TYPICAL SECTIONS SHEET **E** 

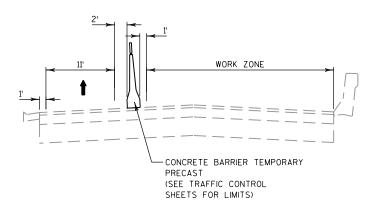


#### TYPICAL SECTION - TRAFFIC CONTROL

CTH F NB

STAGE 2

BEFORE AND AFTER B-67-140



#### TYPICAL SECTION - TRAFFIC CONTROL

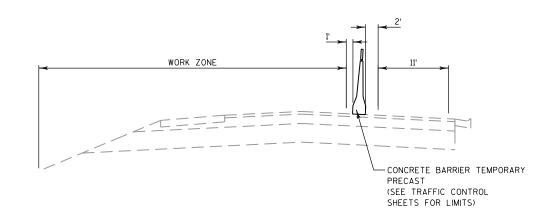
CTH F NB

STAGE 2

AT STRUCTURE B-67-140

#### NOTE:

- 1) FOR PAVEMENT MARKING INFORMATION, SEE PLAN SHEETS
- 2) THE PAY ITEM "CONCRETE BARRIER TEMPORARY PRECAST INSTALLED" INCLUDES REPLACING DELINEATORS IN DAMAGED.

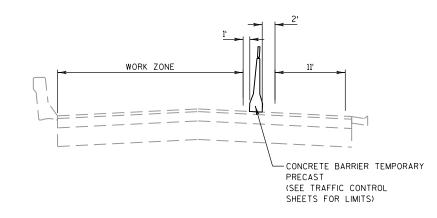


#### TYPICAL SECTION - TRAFFIC CONTROL

CTH F

STAGE 2

BEFORE AND AFTER B-67-014



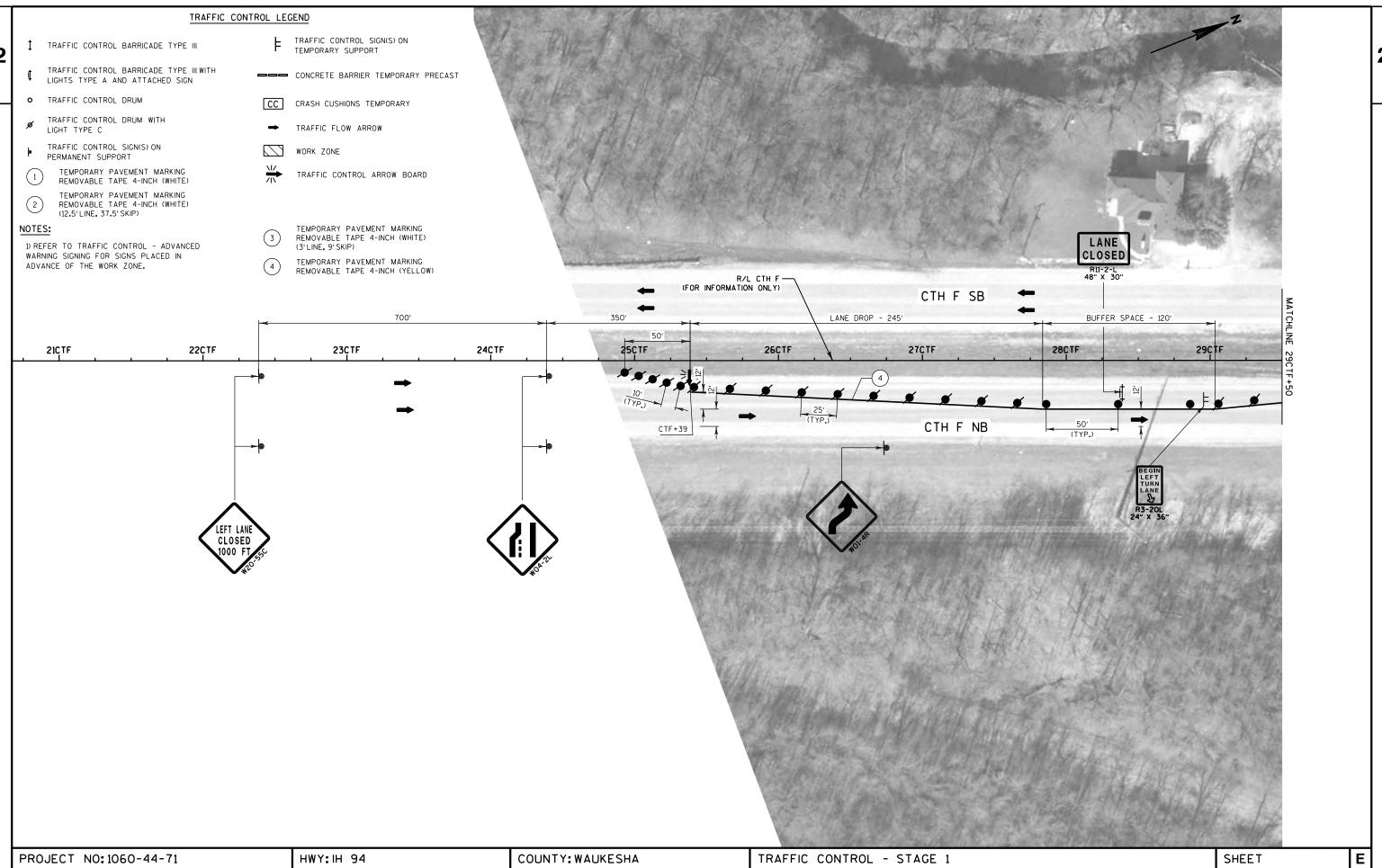
#### TYPICAL SECTION - TRAFFIC CONTROL

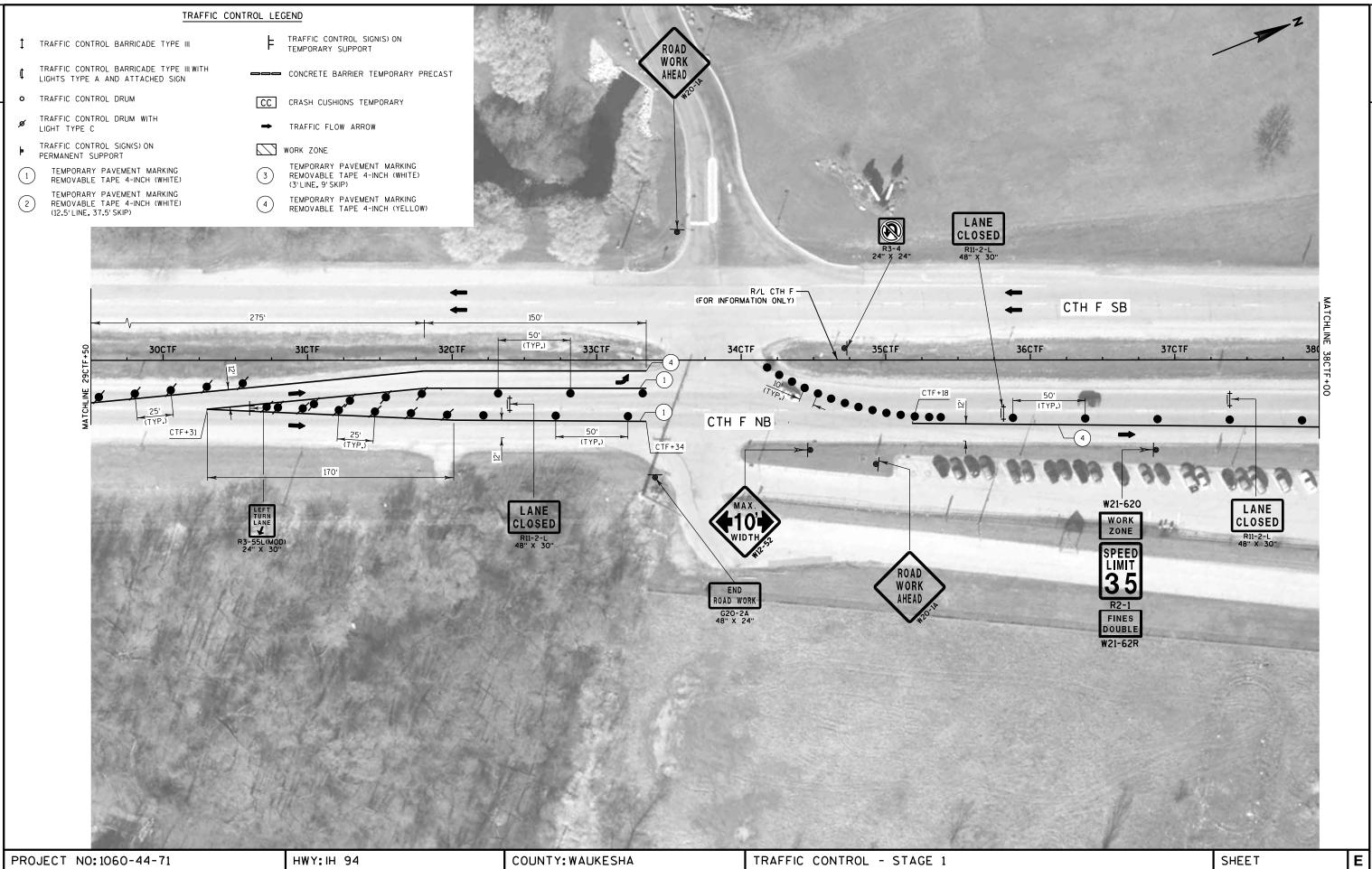
CTH F

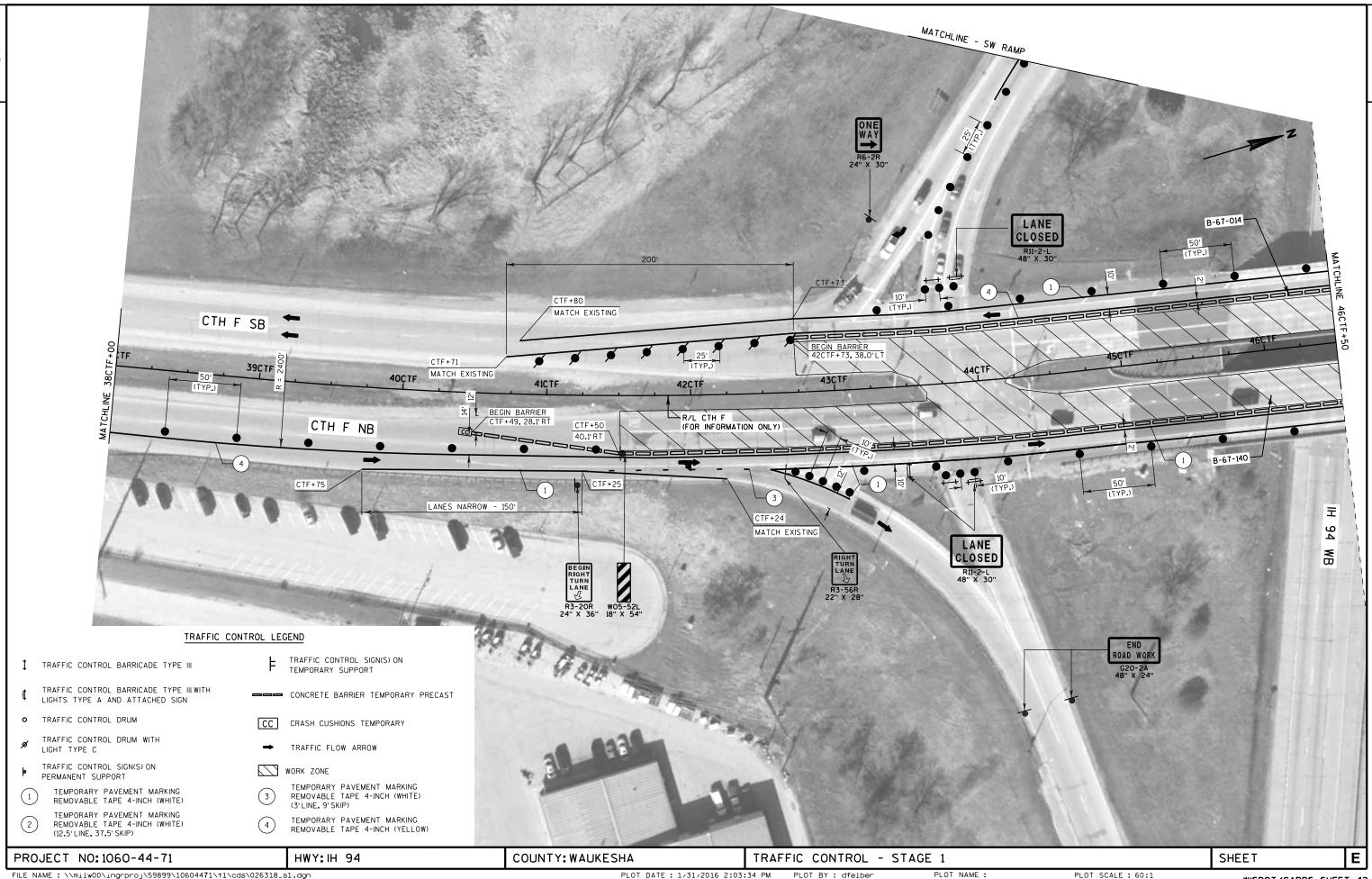
STAGE 2

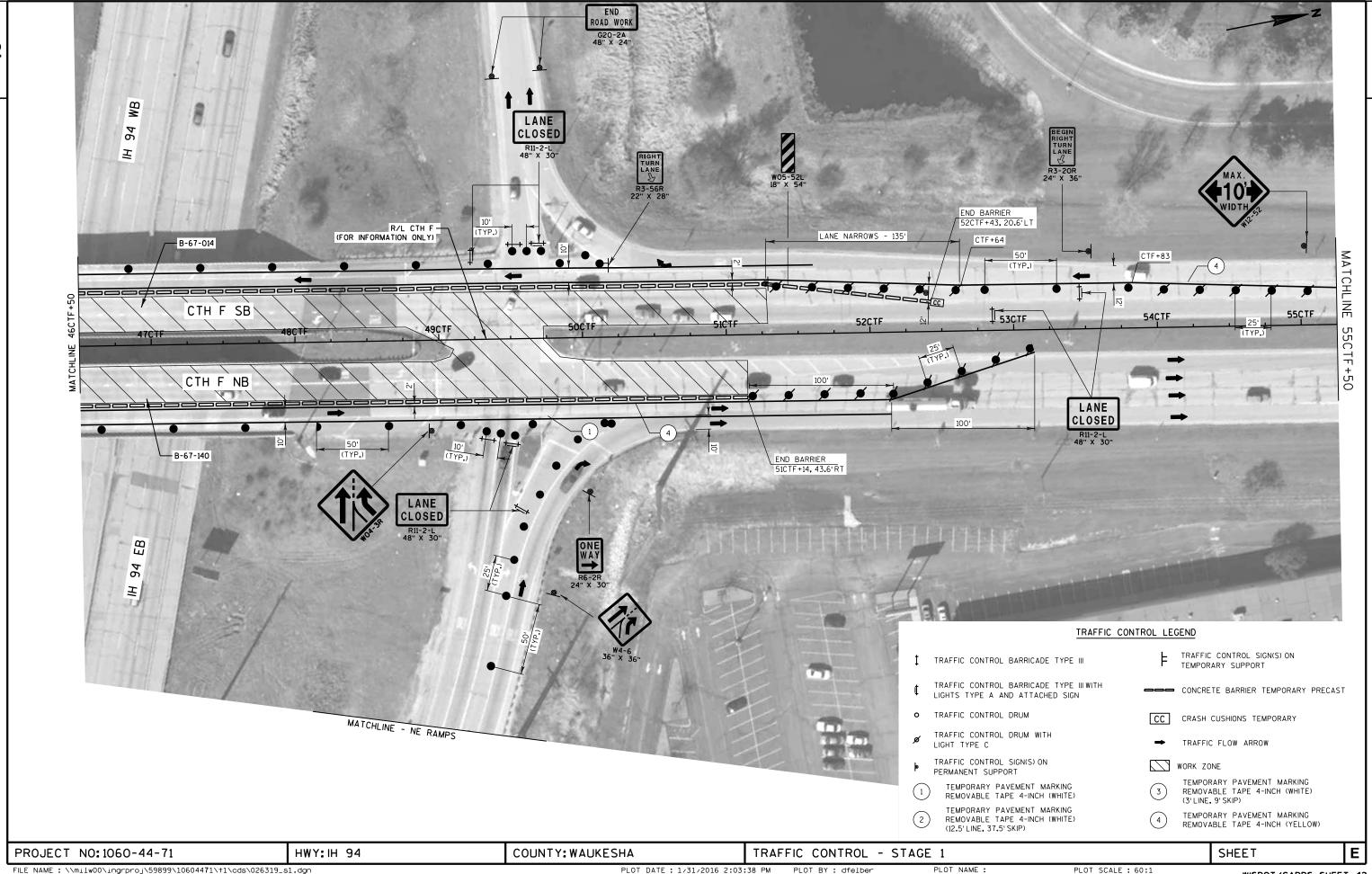
AT STRUCTURE B-67-014

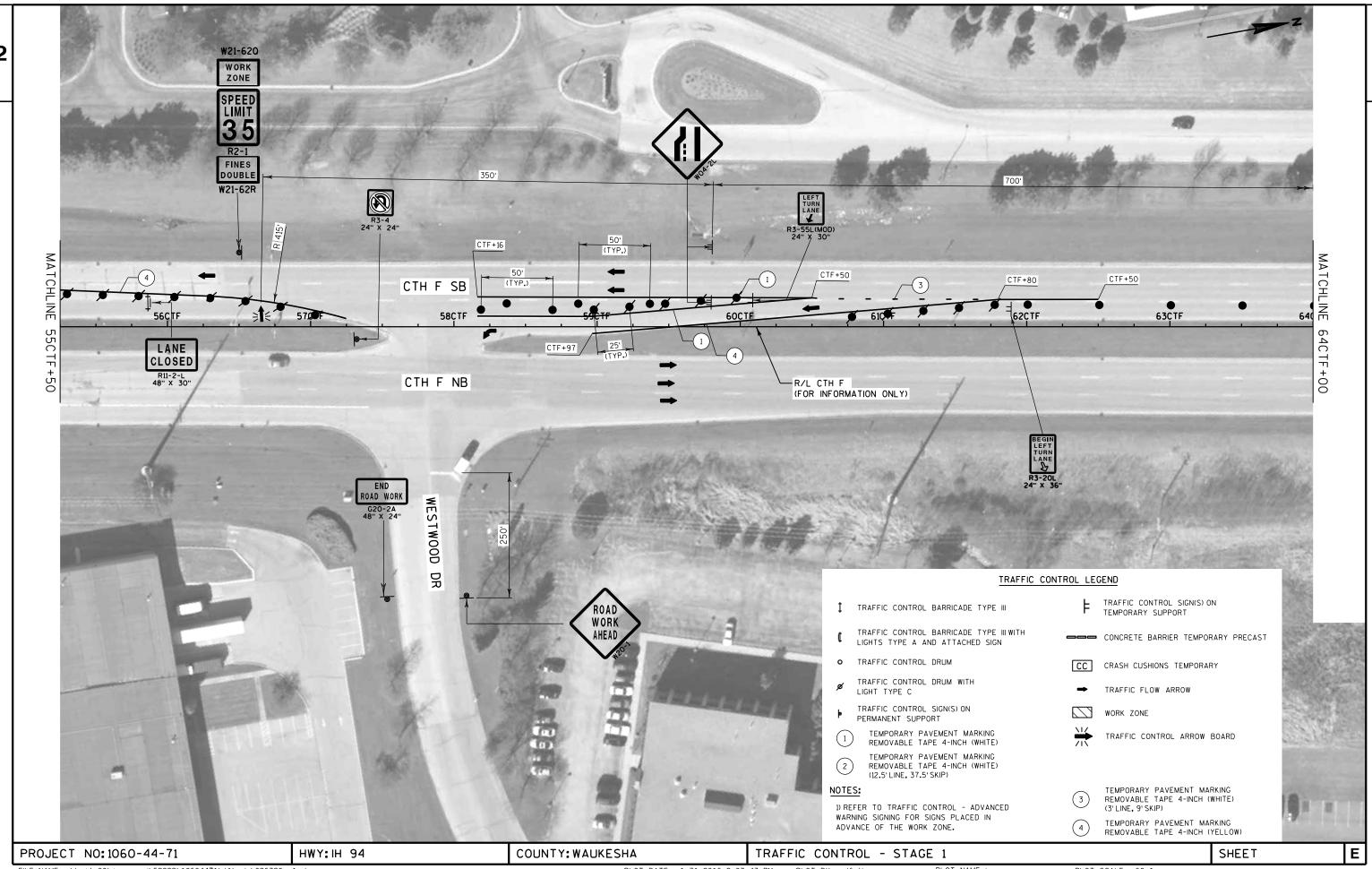
PROJECT NO:1060-44-71 HWY: H 94 COUNTY: WAUKESHA CONSTRUCTION STAGE 2 TYPICAL SECTIONS SHEET **E** 

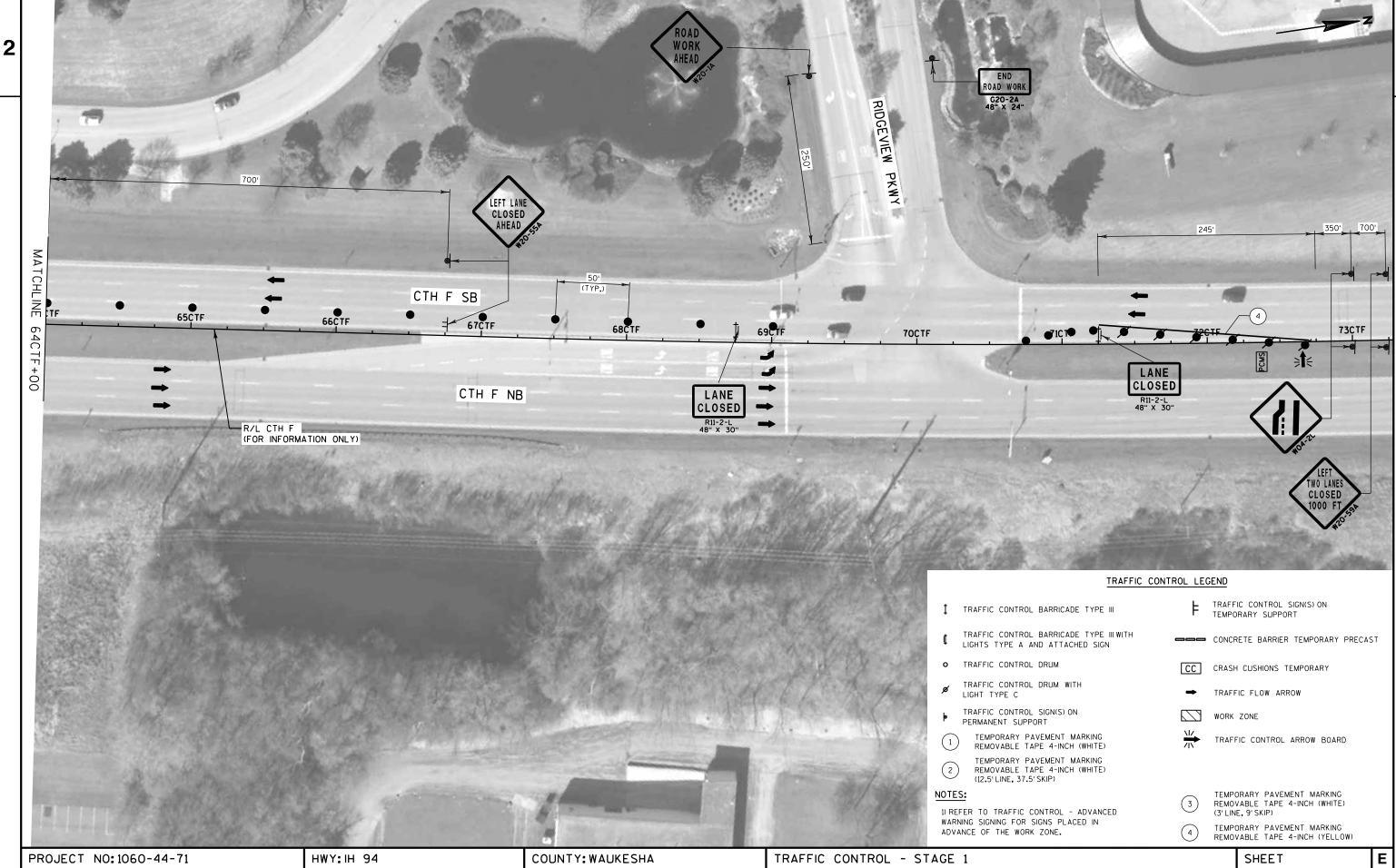


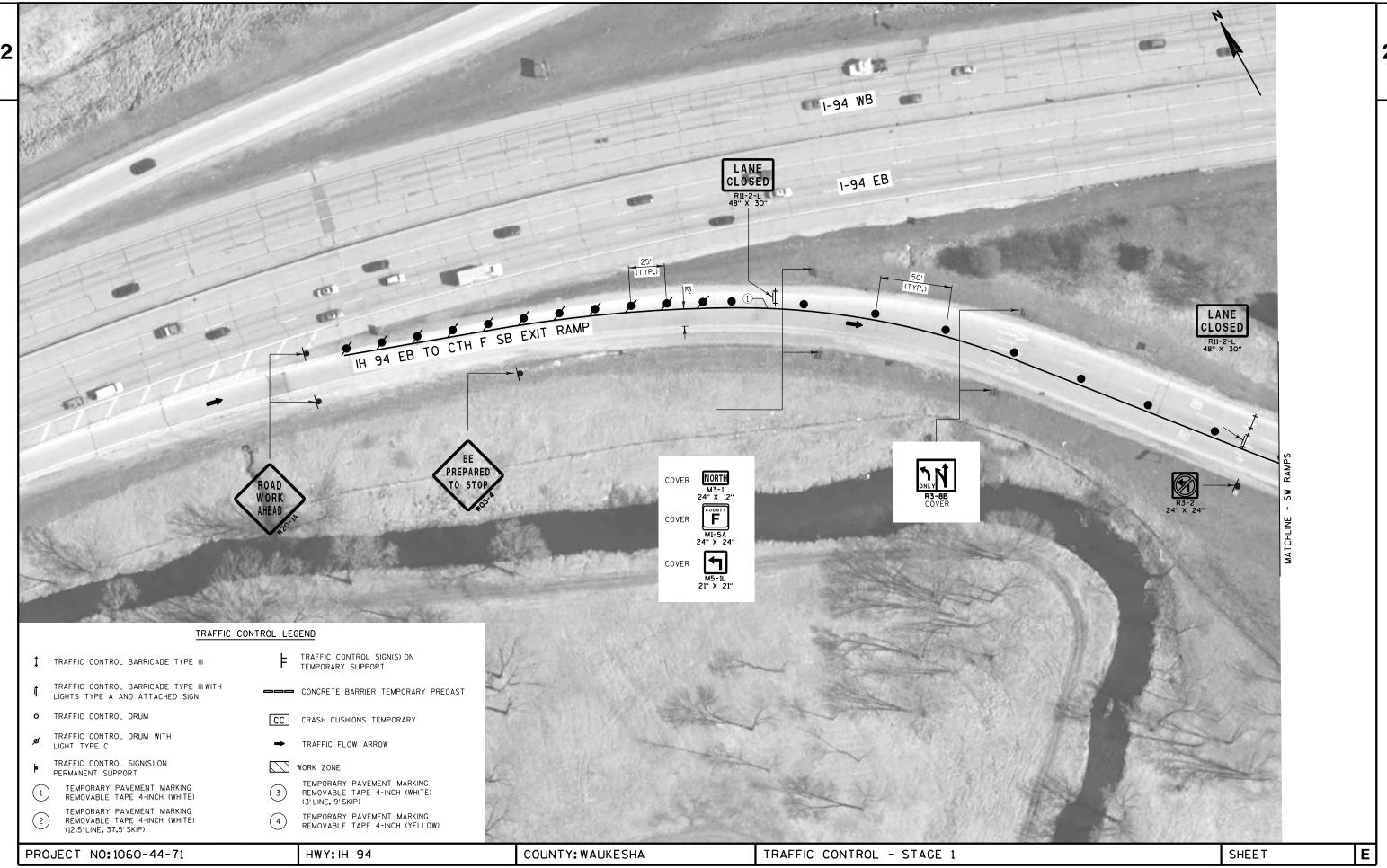




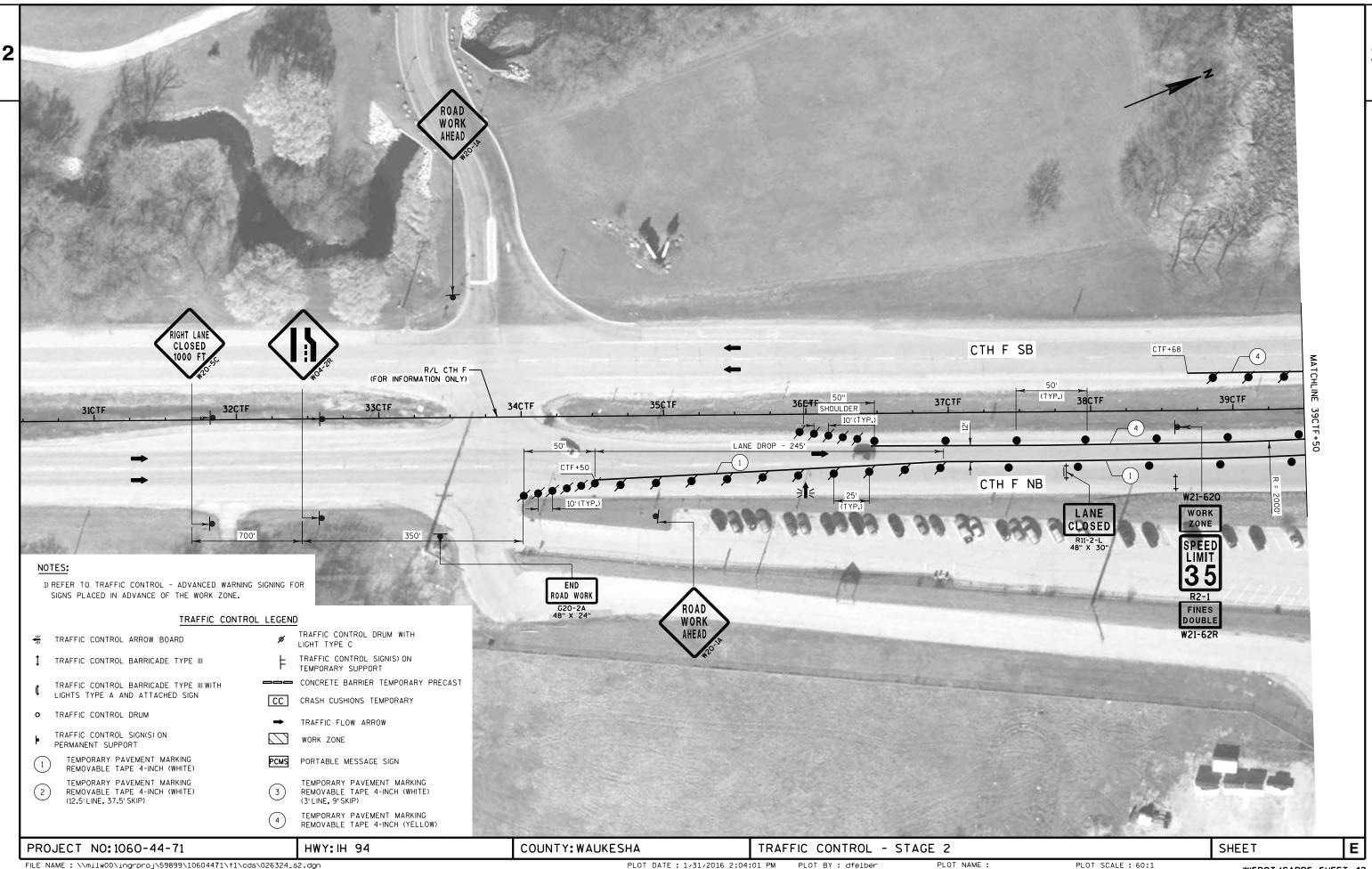


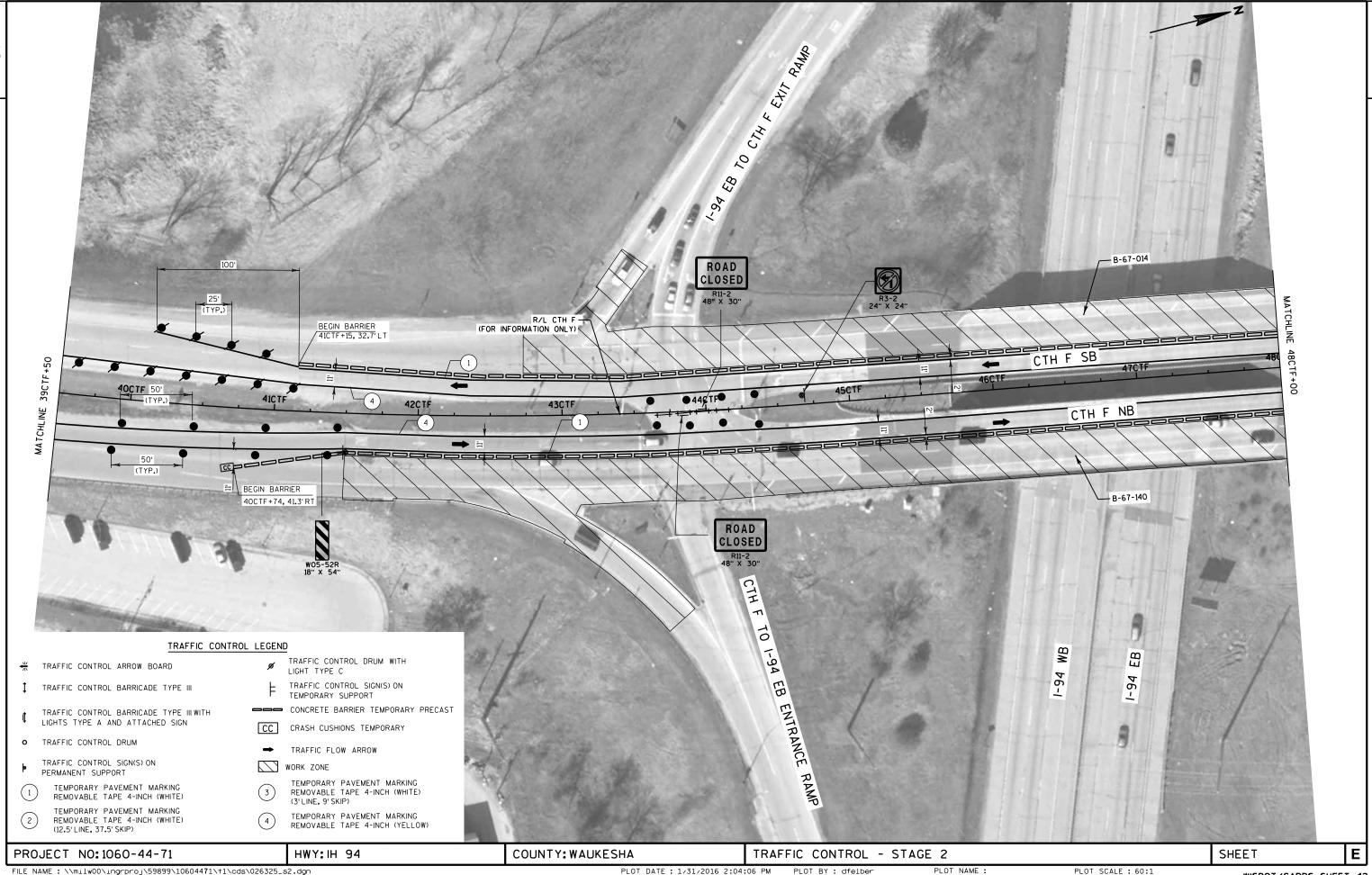


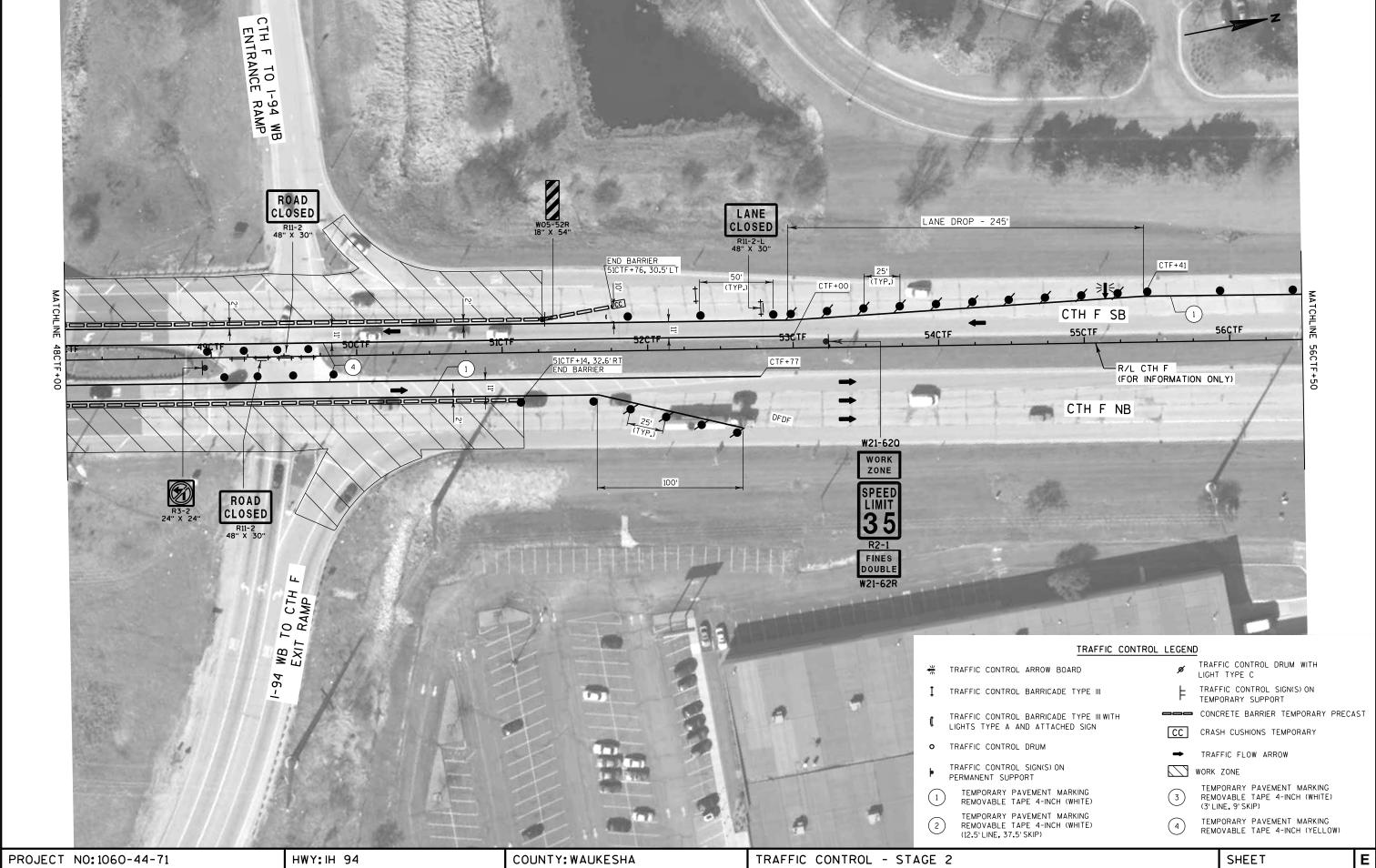


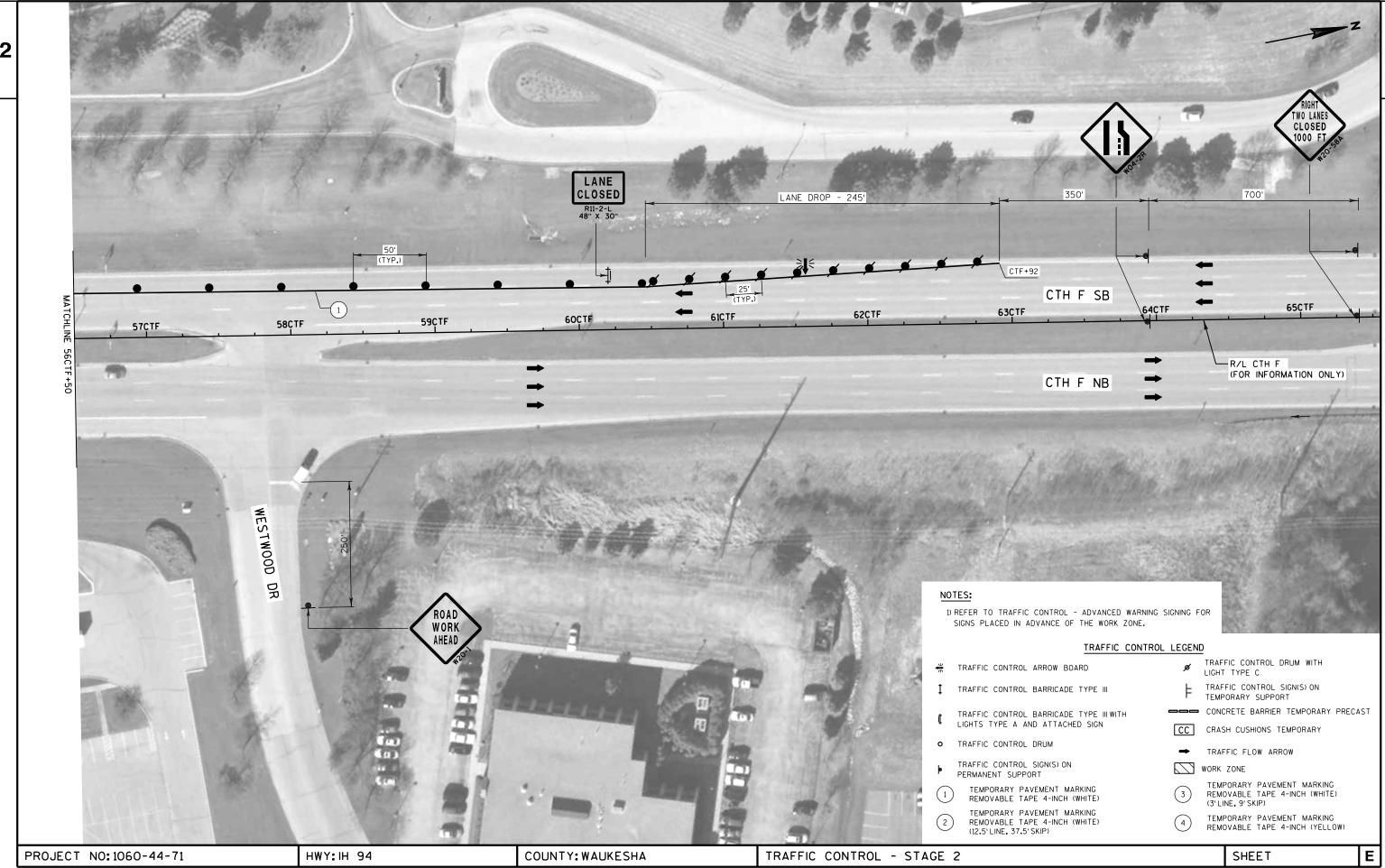


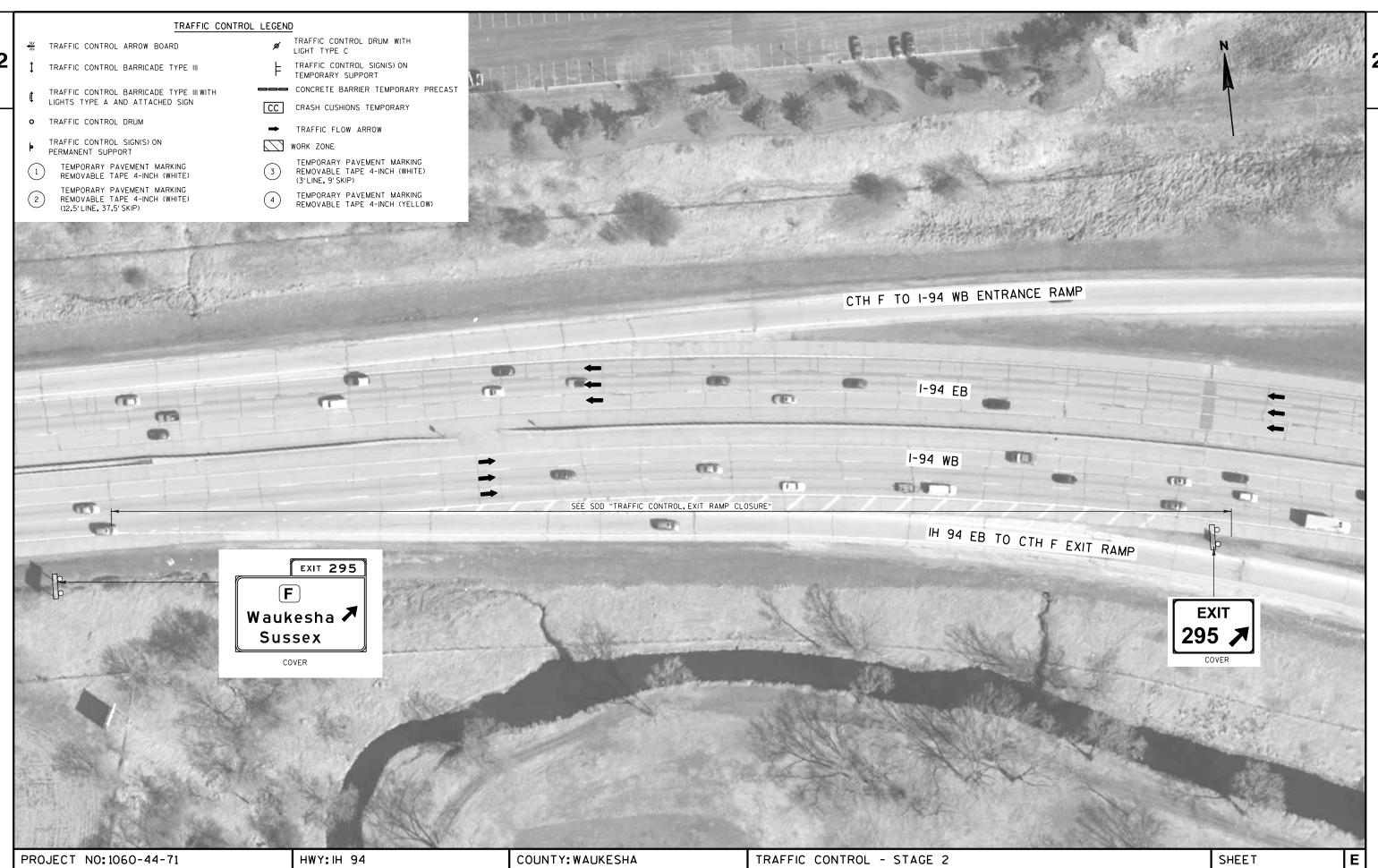




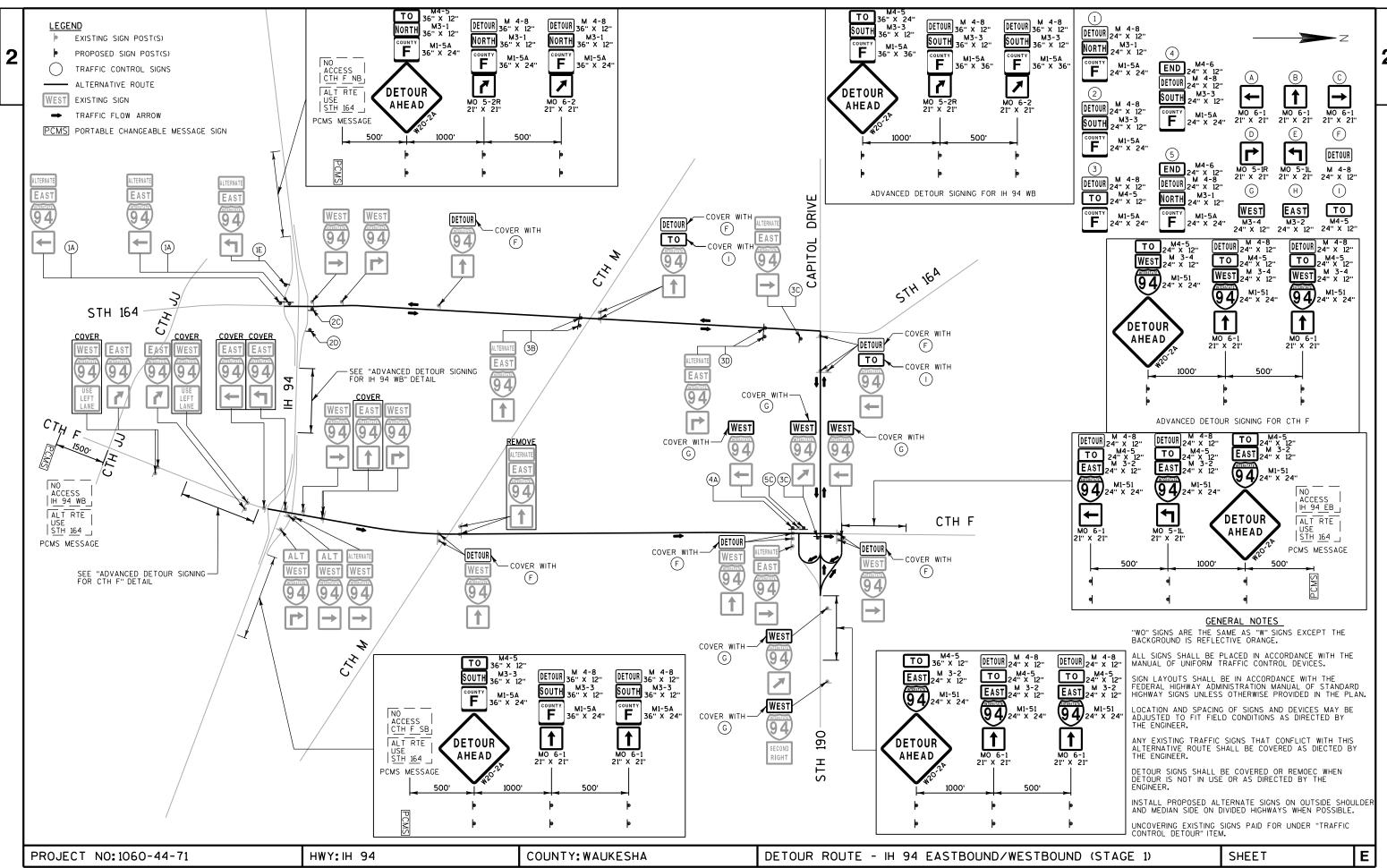


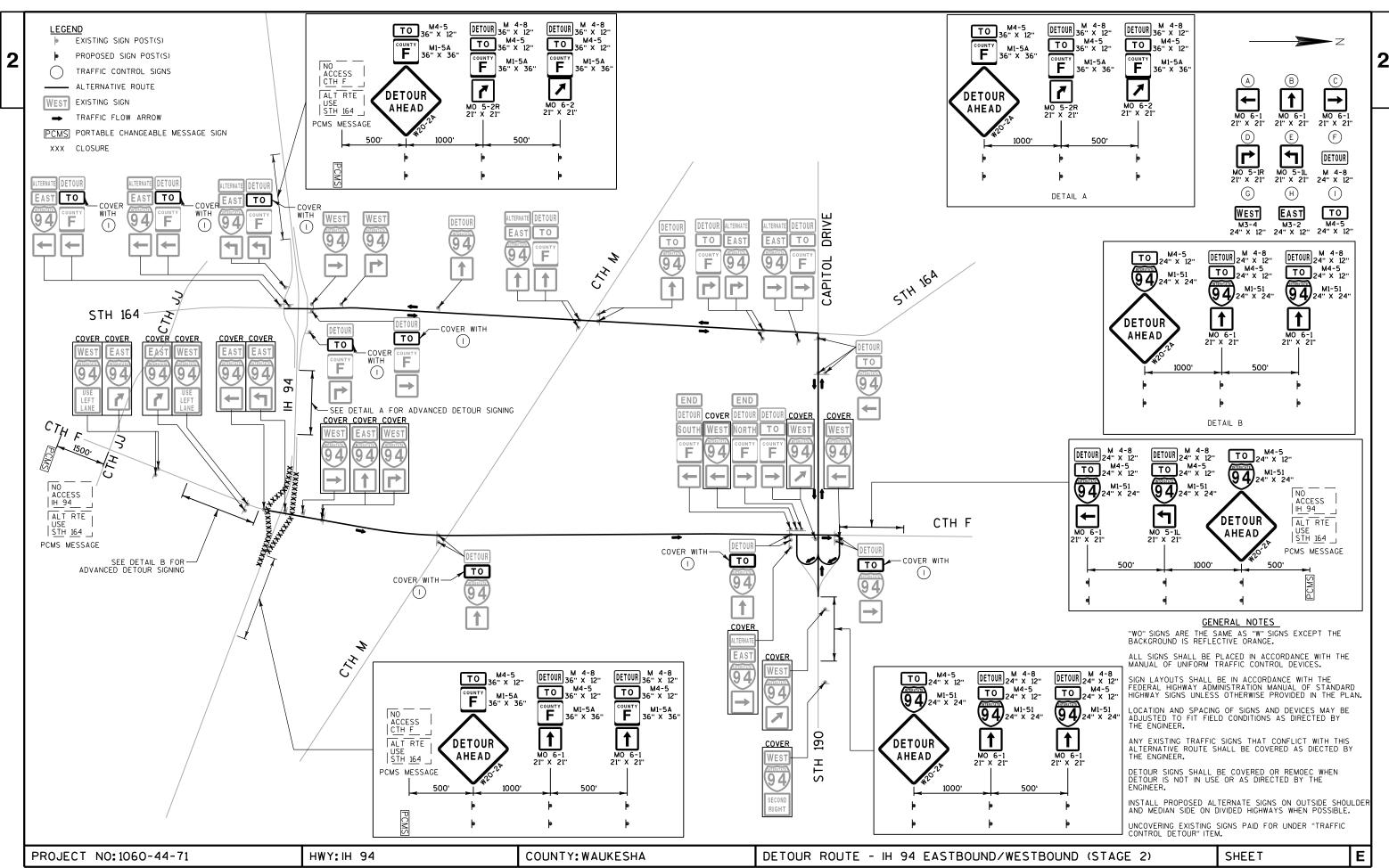


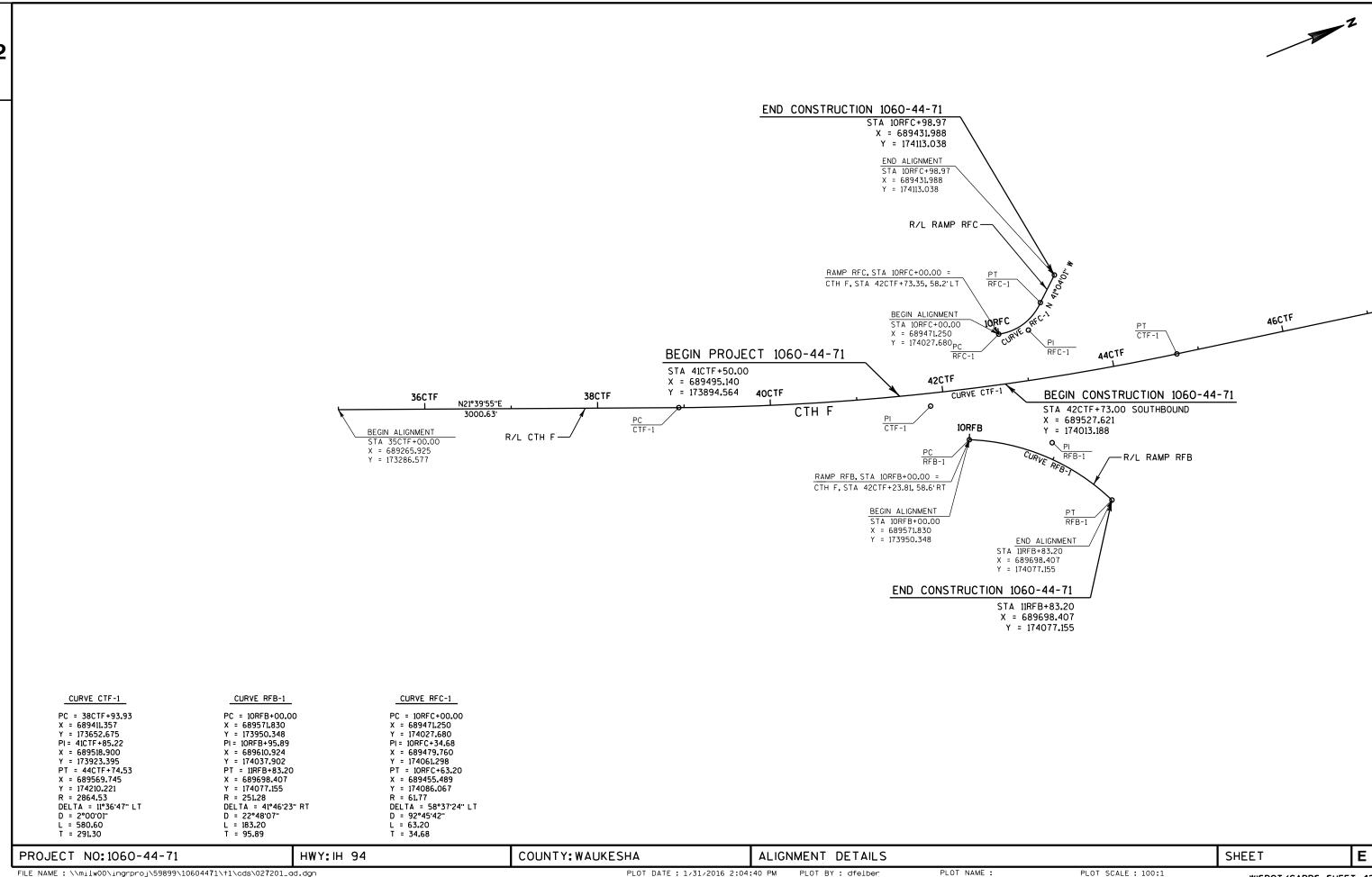




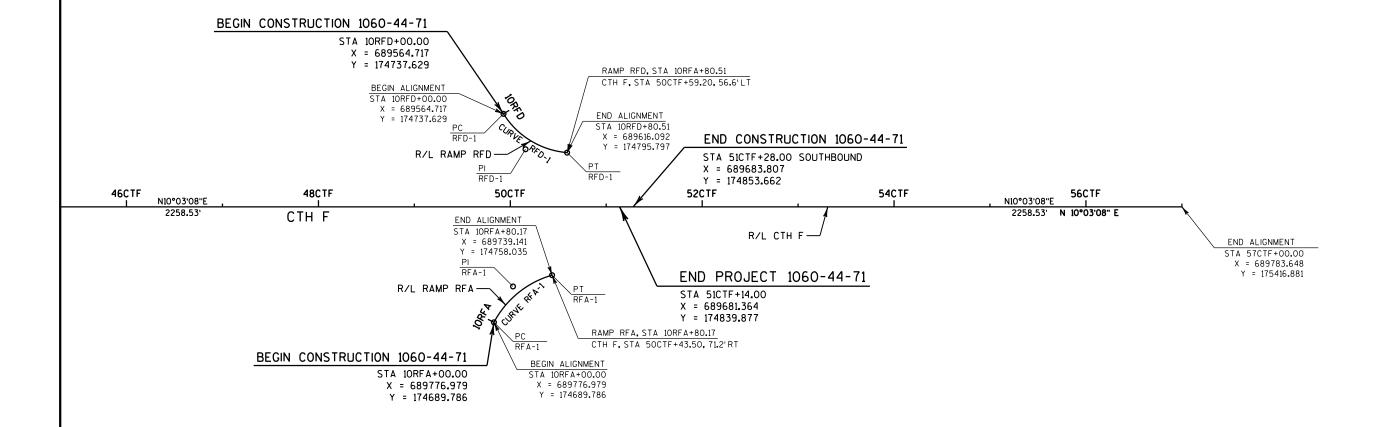












CURVE RFA-1	CURVE RFD-1
PC = 10RFA+00.00 X = 689776.979 Y = 174689.786 PI= 10RFA+42.38 X = 689743.597 Y = 174715.892 PT = 10RFA+80.17 X = 689739.141 Y = 174758.035 R = 99.99 DELTA = 45°56'11" RT D = 57°18'08" L = 80.17 T = 42.38	PC = 10RFD+00.00  X = 689564.717  Y = 174737.629  PI = 10RFD+43.46  X = 68965.080  Y = 174753.752  PT = 10RFD+80.51  X = 689616.092  Y = 174795.797  R = 86.14  DELTA = 53°32'59" LT  D = 66°31'01"  L = 80.51  T = 43.46

HWY: IH 94

COUNTY: WAUKESHA

ALIGNMENT DETAILS

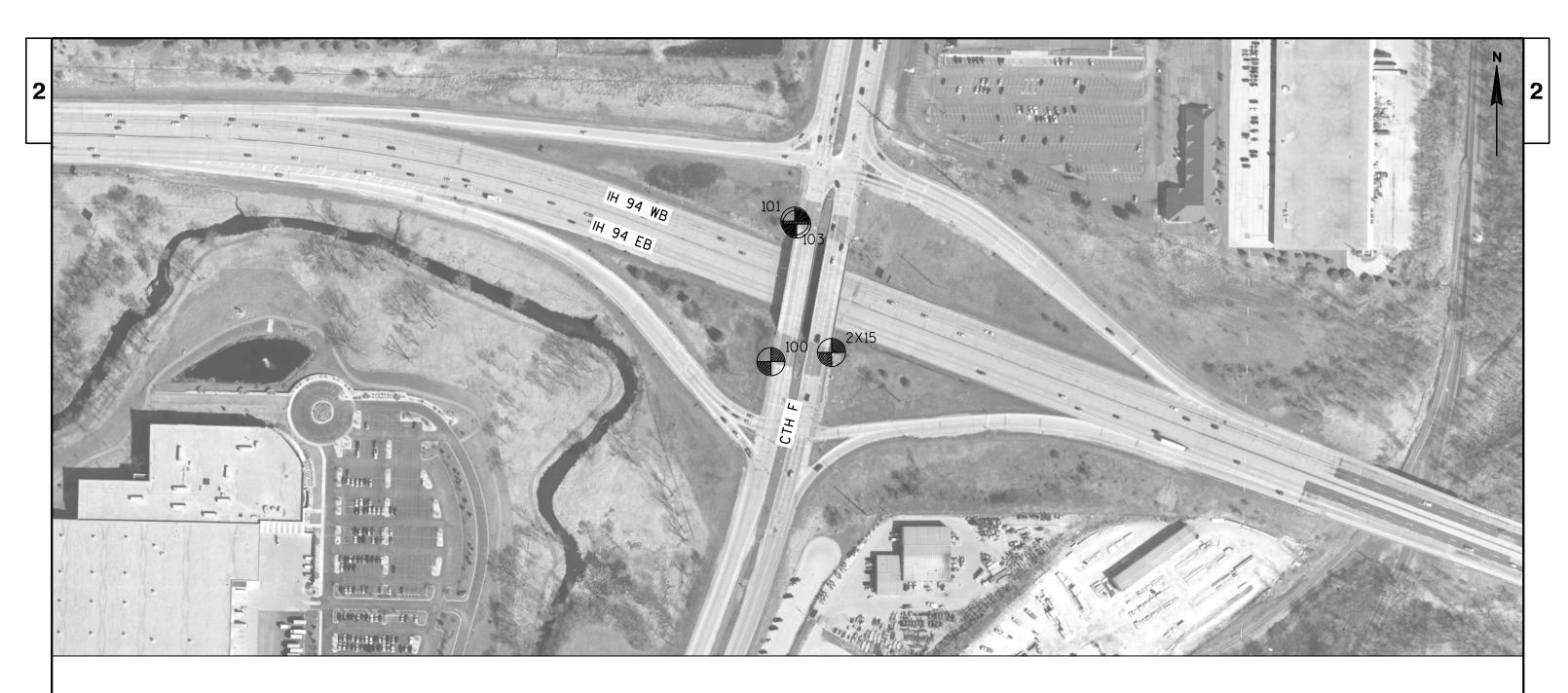
PLOT NAME :

SHEET

WISDOT/CADDS SHEET 42

Ε

PROJECT NO: 1060-44-71



	BENCHMARKS								
BM #	NORTHING	EASTING	DESCRIPTION	ELEVATION					
100	174261.621	689518.599	CP - SET .75 IR	856 <b>.</b> 792					
101	174562.634	689569.704	CP - SET .75 IR	858.508					
103	174556.242	689573.805	BM WisDOT brass disk. NW wallof B-67-14-78	862.387					
2X15	174281.311	689648.483	HMOD - Vertical Check	861.094					

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA BENCHMARKS BENCHMARKS

PLOT NAME :

DATE 26	APR16	E	STIMATE	OF QUAN		
LI NE NUMBER	ITEM	ITEM DESCRIPTION	UNI T	TOTAL	1060-44-71 QUANTI TY	
0010	108. 4400	CPM Progress Schedule	EACH	1. 000	1. 000	
0020	204.0100	Removing Pavement	SY	7, 837. 000	7, 837. 000	
0030	204. 0165	Removing Guardrail	LF	226. 000	226. 000	
0040	205. 0100	Excavation Common	CY	2, 102. 000	2, 102. 000	
0050	208. 0100	Borrow	CY	58. 000	58. 000	
0060	213. 0100	Finishing Roadway (project) 0001.	EACH	1. 000	1. 000	
		1060-44-71				
0800	305. 0110	Base Aggregate Dense 3/4-Inch	TON	443. 000 389. 000	443. 000	
0090 0100	305. 0120 415. 0080	Base Aggregate Dense 1 1/4-Inch Concrete Pavement 8-Inch	TON SY	7, 509. 000	389. 000 7, 509. 000	
0110	415. 0410	Concrete Pavement Approach Slab	SY	292. 000	292. 000	
		··				
0120	416. 0610	Drilled Tie Bars	EACH	820.000	820. 000	
0130 0140	416. 0620 455. 0605	Drilled Dowel Bars Tack Coat	EACH GAL	278. 000 34. 000	278. 000 34. 000	
0150	460. 2000	Incentive Density HMA Pavement	DOL	120. 000	120. 000	
0160	460. 5223	HMA Pavement 3 LT 58-28 S	TON	111. 000	111. 000	
0170	4/0 5004	IIIIA Davinina A LT 50 00 0	TON	72 222	70.000	
0170 0180	460. 5224	HMA Pavement 4 LT 58-28 S S Protective Surface Treatment Reseal	TON SY	73. 000 388. 000	73. 000 388. 000	
0190	502. 3213. 3	Concrete Surface Repair	SF	20. 000	20. 000	
0200		S Polymer Overlay	SY	2, 420. 000	2, 420. 000	
0220	601. 0409	Concrete Curb & Gutter 30-Inch Type A	LF	298. 000	298. 000	
	(00 0000				0.000.000	
0230	603. 8000	Concrete Barrier Temporary Precast Delivered	LF	2, 322. 000	2, 322. 000	
0240	603. 8125	Concrete Barrier Temporary Precast Installed	LF	4, 142. 000	4, 142. 000	
0260	611. 8115	Adjusting Inlet Covers	EACH	3. 000	3. 000	
0270	614. 0905	Crash Cushions Temporary	EACH	4.000	4. 000	
0280	614. 0920	Sal vaged Rai I	LF	50.000	50. 000	
0290	614. 0925	Salvaged Guardrail End Treatments	EACH	1. 000	1.000	
0300	614. 0951	Replacing Guardrail Rail and Hardware	LF	50.000	50.000	
0310	614. 2300	MGS Guardrail 3	LF	50.000	50.000	
0320	614. 2500	MGS Thrie Beam Transition	LF FACU	78. 000	78. 000	
0330	614. 2610	MGS Guardrail Terminal EAT	EACH	2. 000	2. 000	
0340	619. 1000	Mobilization	EACH	0. 670	0. 670	
0350	625.0500	Sal vaged Topsoi I	SY	334.000	334.000	
0370	628. 1504	Silt Fence	LF	855. 000	855. 000	
0380 0390	628. 1520 628. 1905	Silt Fence Maintenance Mobilizations Erosion Control	LF EACH	855. 000 2. 000	855. 000 2. 000	
0370	020. 1703	MODITIZATIONS ELOSION CONTION	LAOII	2.000	2.000	
0400	628. 1910	Mobilizations Emergency Erosion Contro	ol EACH	2. 000	2. 000	
0410	628. 2002	Erosion Mat Class I Type A	SY	334.000	334. 000	
0420	628. 7005	Inlet Protection Type A Inlet Protection Type B	EACH	4. 000	4. 000	
0430 0440	628. 7010 628. 7015	Inlet Protection Type B Inlet Protection Type C	EACH EACH	4. 000 11. 000	4. 000 11. 000	
	520. 7010					
0460	629. 0210	Fertilizer Type B	CWT	2. 000	2. 000	<del></del>
0470	630. 0120	Seeding Mixture No. 20	LB	5. 000	5. 000	
0490	630. 0200 634. 0616	Seeding Temporary Posts Wood 4x6-Inch X 16-FT	LB EACH	4. 000 4. 000	4. 000 4. 000	
0500 0510	634. 0616	Removing Signs Type II	EACH EACH	4. 000 1. 000	4. 000 1. 000	
0520	642. 5001	Field Office Type B	EACH	0.500	0. 500	
0530	643. 0100	Traffic Control (project) 0001.	EACH	1. 000	1. 000	
0550	643. 0300	1060-44-71 Traffic Control Drums	DAY	11, 250. 000	11, 250. 000	
0560	643. 0420	Traffic Control Barricades Type III	DAY	1, 350. 000	1, 350. 000	
0570	643. 0705	Traffic Control Warning Lights Type A	DAY	2, 700. 000	2, 700. 000	

LI NE NUMBEI	O ITEM				
		ITEM DESCRIPTION	UNI T	TOTAL	1060-44-71 QUANTI TY
0580	643. 0715	Traffic Control Warning Lights Type C	DAY	5, 400. 000	5, 400. 000
0590	643. 0800	Traffic Control Arrow Boards	DAY	180. 000	180. 000
0600	643.0900	Traffic Control Signs	DAY	7, 220. 000	7, 220. 000
0610	643. 0910	Traffic Control Covering Signs Type I	EACH	8. 000	8. 000
0620	643. 0920	Traffic Control Covering Signs Type II	EACH	65. 000	65. 000
0630	643. 1000	Traffic Control Signs Fixed Message	SF	144. 000	144. 000
0640	643. 1050	Traffic Control Signs PCMS	DAY	380.000	380.000
0650		S Truck or Trailer Mounted Attenuator	DAY	10.000	10.000
0660	643. 2000	Traffic Control Detour (project) 0001. 1060-44-71	EACH	1. 000	1. 000
0670	643. 3000	Traffic Control Detour Signs	DAY	14, 100. 000	14, 100. 000
0690	646. 0106	Pavement Marking Epoxy 4-Inch	LF	5, 992. 000	5, 992. 000
0700	646. 0126	Pavement Marking Epoxy 8-Inch	LF	819.000	819. 000
0710	646.0600	Removing Pavement Markings	LF	5, 680. 000	5, 680. 000
0720	646. 0841. \$	S Pavement Marking Grooved Wet Reflective	LF	1, 596. 000	1, 596. 000
0700	(4/ 0040	Contrast Tape 4-Inch		4 447 000	4 447 000
0730	646. 0843. \$	S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	1, 447. 000	1, 447. 000
0740	647. 0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	988. 000	988. 000
0750	649. 0400	Temporary Pavement Marking Removable	LF	16, 895. 000	16, 895. 000
		Tape 4-Inch		-,	-,
0760	652. 0800	Conduit Loop Detector	LF	1, 063. 000	1, 063. 000
0770	655. 0800	Loop Detector Wire	LF	2, 932. 000	2, 932. 000
0780	690. 0150	Sawi ng Asphal t	LF	654. 000	654. 000
0790	690. 0250	Sawing Concrete	LF	4, 228. 000	4, 228. 000
0800	715. 0415	Incentive Strength Concrete Pavement	DOL	14, 049. 000	14, 049. 000
0810	ASP. 1TOA	On-the-Job Training Apprentice at \$5.	HRS	250. 000	250. 000
0000	ACD 4700	00/HR	LIDC	050 000	050 000
0820	ASP. 1TOG	On-the-Job Training Graduate at \$5.00/HR	HRS	250. 000	250. 000
0830	SPV. 0060	Special 0001. Pavt Marking Contrast Grooved Pre formed Thermoplastic	EACH	3. 000	3. 000
		Arrows Type 1			
0840	SPV. 0060	Special 0002. Pavt Marking Contrast	EACH	9. 000	9. 000
		Grooved Pre formed Thermoplastic			
		Arrows Type 2			
0850	SPV. 0060	Special 0003. Pavt Marking Contrast	EACH	1. 000	1. 000
		Grooved Pre formed Thermoplastic			
00/0	CDV COVC	Arrows Type 3	EAGL	11 000	11 000
0860	SPV. 0060	Special 0004. Pavt Marking Contrast	EACH	11. 000	11. 000
0870	SPV. 0090	Grooved Preformed Thermoplastic Words	LF	262. 000	262. 000
0670	3FV. 0090	Special 0001. Pavt Marking Contrast Grooved Pre formed Thermoplastic Stop	LF	202.000	202.000
		Bar 18-IN			
0890	SPV. 0105	Special 0001. Survey Project 1060-44-71	LS	1. 000	1. 000
0910	SPV. 0105	Special 3001. Covering Traffic Signal	LS	1. 000	1. 000
	0011 - : - :	Heads IH 94 & CTH F			
0920	SPV. 0105	Special 3002. Remove Loop Detector Wire	LS	1. 000	1. 000
0040	SPV. 0180	IH 94 & CTH F Special 0001. Geogrid Reinforcement	SY	750. 000	750. 000
0940 0960	SPV. 0180 SPV. 0195	Special 0001. Geogrid Reimforcement  Special 0001. Cold Patch	TON	20. 000	20. 000
0,00	51 4. 0175	oposiai oooti. oota tatoii	1014	20.000	20.000

3	CPM PROGRESS SCHEDULE			SURVEY PROJECT	3
	108.4400   CPM   PROGRESS   SCHEDULE   EACH			SPV.0105.0001 SURV EY PROJECT 1060-44-71  LS  1000 1060-44-71 1  PROJECT 1060-44-71 TOTAL 1	
	CATEGORY	FINISHING ROA	213.0100.0001 FINISHING ROADWAY 1060-44-71 EACH		
	1000	PROJECT 1060-44-71 TO	1 1		

COUNTY: WAUKESHA

PROJECT NO: 1060-44-71

HWY: IH 94

MISCELLANEOUS QUANTITIES

SHEET:

#### **REMOVING PAVEMENT**

204.0100 **REMOVING** FROM TO PAVEMENT ROADWAY STATION STATION SY CATEGORY STAGE 1 1000 CTH F 41CTF+50 - 45CTF+80 2,149 47CTF+95 - 51CTF+28 1,919 4,068 STAGE 1 SUBTOTAL 1000 STAGE 2 CTH F NB 41CTF+50 - 45CTF+70 872 47CTF+90 - 51CTF+14 708 CTH F SB 42CTF+73 - 45CTF+84 597 48CTF+08 - 51CTF+28 693 I-94 WB OFFRAMP TO CTH F 10RFA+00 - 10RFA+80 256 I-94 EB ONRAMP FROM CTH F 10RFB+13 - 11RFB+83 362 162 I-94 EB OFFRAMP TO CTH F 10RFC+16 - 10RFC+99 I-94 ONRAMP FROM CTH F 10RFD+00 - 10RFD+68 119 STAGE 2 SUBTOTAL 3,769 PROJECT 1060-44-71 TOTAL 7,837

### **REMOVING AND SALVAGING GUARDRAIL**

						204.0165	614.0920	614.0925	614.0951	
						204.0103	014.0320	SALVAGED	REPLACING	
								GUARDRAIL	GUARDRAIL	
						REMOVING	SALVAGED	END	RAIL AND	
		FRO	М	ТО		GUARDRAIL	RAIL	TREATMENTS	HARDWARE	
CATEGORY	ROADWAY	STATION	OFFSET	STATION	OFFSET	LF	LF	EACH	LF	REMA RKS
1000	STAGE 2									
•	CTH F NB	41CTF+28	60.5' RT	41CTF+77	61.1' RT		50			
		41CTF+28	60.5' RT	41CTF+77	61.1' RT				50	
		41CTF+77	61.1' RT	-	-			1		TYPE 2 TERMINAL
		44CTF+51	64.4' RT	45CTF+57	61.9' RT	106				
	CTH F SB	48CTF+20	55.5' LT	49CTF+40	58.6' LT	120				
:	PROJECT 1060-	44-71 TOTAL				226	50	1	50	

Division	From/To Station	Location	Common Excavation (1) (Item No. 205.0100)	Salvaged/Unusable Pavement Material	Unexpanded Fill	Expanded Fill (2) Factor	Mass Ordinate +/- (3)	Waste (4)	Borrow (CY)	Comment:
			Cut (CY)			1.25	(0)		(Item No. 208.0100)	
	41CTF+50 to 51CTF+28	CTH F Mainline	1857.6	1857.6	34.2	42.7	-42.7	1857.6	42.7	
	10RFA+00 to 10RFA+80	CTH F Ramp A	59.9	59.9	1.3	1.7	-1.7	59.9	1.7	
1	10RFB+13 to 11RFB+83	CTH F Ramp B	103.6	103.6	10.9	13.6	-13.6	103.6	13.6	
1	10RFC+16 to 10RFC+99	CTH F Ramp C	54.3	54.3	0.0	0.0	0.0	54.3	0.0	
	10RFD+00 to 10RFD+68	CTH F Ramp D	26.8	26.8	0.0	0.0	0.0	26.8	0.0	
	Division 1 Subtotal		2102.3	2102.3	46.4	57.9	-57.9	2102.3	57.9	
	O / 4000 T / 1		2102	2102	46	58	-58	2102	58	
	Category 1000 Totals		Total Common Exc	2102					_	

<sup>1)</sup> Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

<sup>2)</sup> Expanded Fill. Factor = 1.25

<sup>3)</sup> The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

<sup>4)</sup> Waste Includes Concrete Pavement Removal and Existing Asphalt Shoulder Pavement.

### **BASE AGGREGATE**

		FROM	то	305.0110 BASE AGGREGATE DENSE 3/4-INCH	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH
CATEGORY	ROADWAY	STATION	STATION	TON	TON
1000	STAGE 1				
	CTH F NB	41CTF+50	45CTF+74	69	
		47CTF+95	51CTF+14	52	
	CTH F SB	42CTF+73	45CTF+80	51	
		48CTF+04	51CTF+28	54	
	STAGE 1 SUBTOTAL			226	
1000	STAGE 2				
	CTH F NB	41CTF+50	45CTF+69	48	
		44CTF+04	45CTF+52		66
				28	
		47CTF+91	51CTF+14	39	
		48CTF+14	49CTF+22		38
				8	
	CTH F SB	42CTF+73	45CTF+84	33	
		43CTF+98	45CTF+61		56
				11	
		48CTF+08	51CTF+28	39	
		48CTF+27	49CTF+39		48
				8	
	I-94 WB OFFRAMP TO CTH F	10RFA+00	10RFA+80		43
	I-94 EB ONRAMP FROM CTH F	10RFB+13	11RFB+83		55
		10RFB+84	11RFB+83		33
	I-94 EB OFFRAMP TO CTH F	10RFC+16	10RFC+99		26
		10RFC+63	10RFC+99		5
		10RFC+63	10RFC+99	2	
	I-94 WB ONRAMP FROM CTH F	10RFD+00	10RFD+68		20
	STAGE 2 SUBTOTAL			217	389
	PROJECT 1060-44-71 TOTALS			443	389

## **ASPHALT ITEMS**

		FDOM .	то.	455.0605 TACK	Upper 460.5224 HMA PAVEMENT	Lower 460.5223 HMA PAVEMENT
		FROM	TO	COAT	4LT 58-28 S	3.LT 58-28 S
CATEGORY	ROADWAY	STATION	STATION	GAL	TON	TON
	STAGE 2					
	CTH F NB	44CTF+04	45CTF+52	9	20	30
		48CTF+14	49CTF+22	7	15	23
	CTH F SB	43CTF+98	45CTF+61	10	22	33
		48CTF+25	49CTF+39	7	15	23
	I-94 EB OFFRAMP TO CTH F	10RFC+63	10RFC+99	1	1	2
	PROJECT 1060-44-71 TOTAL			34	73	111

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA MISCELLANEOUS QUANTITIES SHEET: **E** 

PLOT DATE : 4/1/2016 11:23:19 AM

PLOT BY: HNTB Corp.

PLOT NAME :

PLOT SCALE : 1:1

#### **CONCRETE PAVEMENT ITEMS**

		FROM	то	415.0080  CONCRETE PAVEMENT	415.0410 CONCRETE PAVEMENT APPROACH	
CATEGORY	ROADWAY	STATION	STATION	8-INCH SY	SLAB SY	
CATEGORY	NOADWAT	STATION	STATION	31	31	
1000 ST	TAGE 1					
	CTH F NB	41CTF+50	45CTF+52	1,296		
		48CTF+14	51CTF+14	1,008		
		45CTF+53	45CTF+74		40	
		47CTF+99	48CTF+14		34	
	CTH F SB	42CTF+73	45CTF+60	755		
		48CTF+25	51CTF+28	814		
		45CTF+60	45CTF+75		33	
		48CTF+03	- 48CTF+25		40	
	STAGE 1 SUBTOTAL			3,873	147	
1000 ST	TAGE 2					
1000	CTH F NB	41CTF+50	45CTF+52	835		
		45CTF+52	45CTF+67	16		
		47CTF+92	48CTF+14	27		
		48CTF+14	51CTF+14	653		
		45CTF+52	45CTF+71		33	
		47CTF+96	48CTF+14		39	
	CTH F SB	42CTF+73	45CTF+60	544		
		45CTF+61	45CTF+82	26		
		48CTF+10	48CTF+25	16		
		48CTF+25	51CTF+28	656		
		45CTF+60	45CTF+79		40	
		48CTF+07	48CTF+25		33	
	I-94 WB OFFRAMP TO CTH F	10RFA+00	10RFA+80	259		
	I-94 EB ONRAMP FROM CTH F	10RFB+13	11RFB+83	329		
	I-94 EB OFFRAMP TO CTH F	10RFC+16	10RFC+99	153		
	I-94 ONRAMP FROM CTH F	10RFD+00	10RFD+68	122		
	STAGE 2 SUBTOTAL			3,636	145	
<u> </u>	ROJECT 1060-44-71 TOTAL			7,509	292	

#### **DRILLED TIE BARS**

416.0610 DRILLED TIE FROM TO BARS **ROADWAY** STATION STATION EACH CATEGORY STAGE 1 1000 CTH F NB 41CTF+50 43CTF+65 87 44CTF+19 45CTF+53 56 48CTF+20 49CTF+14 39 49CTF+71 51CTF+14 61 CTH F SB 42CTF+73 43CTF+65 42 44CTF+19 45CTF+53 56 48CTF+25 49CTF+14 38 49CTF+71 51CTF+28 66 STAGE 1 SUBTOTAL 445 STAGE 2 1000 CTH F NB 41CTF+50 42CTF+24 30 43CTF+08 43CTF+66 26 49CTF+54 49CTF+79 10 50CTF+43 51CTF+14 29 43CTF+34 CTH F SB 43CTF+64 49CTF+78 50CTF+02 10 50CTF+59 51CTF+28 28 20 I-94 WB OFFRAMP TO CTH F 10RFA+00 10RFA+36 10RFA+00 10RFA+80 35 I-94 EB ONRAMP FROM CTH F 10RFB+00 34 10RFB+84 10RFB+82 11RFB+83 44 26 I-94 EB OFFRAMP TO CTH F 10RFC+00 10RFC+63 10RFC+48 10RFC+99 22 I-94 ONRAMP FROM CTH F 10RFD+00 10RFD+31 15 10RFD+00 10RFD+81 32 STAGE 2 SUBTOTAL 375 PROJECT 1060-44-71 TOTAL 820

#### **DRILLED DOWEL BARS**

			416.0620 DRILLED DOWEL BARS
CATEGORY	ROADWAY	STATION	EACH
1000	STAGE 1		
	CTH F NB	41CTF+51	24
		51CTF+28	24
	CTH F SB	42CTF+73	24
		51CTF+14	24
	STAGE 1 SUBTOTAL		96
1000	STAGE 2		
	CTH F NB	41CTF+51	22
		51CTF+28	24
	CTH F SB	42CTF+73	23
		51CTF+14	24
	I-94 WB OFFRAMP TO CTH F	10RFA+00	30
	I-94 EB ONRAMP FROM CTH F	11RFB+83	21
	I-94 EB OFFRAMP TO CTH F	10RFC+99	20
	I-94 ONRAMP FROM CTH F	10RFD+00	18
	STAGE 2 SUBTOTAL		182
	PROJECT 1060-44-71 TOTAL		278

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA MISCELLANEOUS QUANTITIES SHEET: **E** 

PLOT DATE : 2/1/2016 10:23:21 AM PLOT BY : HNTB Corp.

PLOT NAME :

PLOT SCALE: 1:1

#### **CURB & GUTTER ITEMS**

601.0409 611.8115 CONCRETE CURB & GUTTER ADJUSTING INLET 30-INCH FROM TO TYPEA COVERS ROADWAY STATION STATION OFFSET LF EACH CATEGORY 1000 STAGE 2 98 I-94 EB ONRAMP FROM CTH F 10RFB+84 11RFB+83 STAGE 2 SUBTOTAL 98 UNDISTRIBUTED 200

298

#### **MGS GUARDRAIL ITEMS**

PROJECT 1060-44-71 TOTAL

						614.2300	614.2500	614.2610
							MGS	MGS
						MGS	THRIE BEAM	GUARDRAIL
		FRO	OM	T	0	GUARDRAIL 3	TRANSITION	TERMINAL EAT
CATEGORY	ROADWAY	STATION	OFFSET	STATION	OFFSET	LF	LF	EACH
	074.05.0							
1000	STAGE 2							
		44CTF+51	63.5' RT	45CTF+03	61.6' RT			1
		45CTF+03	61.6' RT	45CTF+28	62.0' RT	25		
		45CTF+28	62.0' RT	45CTF+66	61.6' RT		39	
		48CTF+13	55.2' LT	48CTF+50	55.6' LT		39	
		48CTF+50	55.6' LT	48CTF+75	55.6' LT	25		
		48CTF+75	55.6' LT	49CTF+28	58.7' LT			1
_								
	PROJECT 1060-44-71	TOTAL				50	78	2

## **INLET PROTECTION**

				628.7005	628.7010	628.7015
				INLET	INLET	INLET
				PROTECTION	PROTECTION	PROTECTION
				TYPE A	TYPE B	TYPE C
CATEGORY	Y ROADWAY	STATION	OFFSET	EACH	EACH	EACH
1000	STAGE 1					
	CTH F NB	42CTF+22	61.0' RT			1
		43CTF+65	65.7' RT			1
		44CTF+31	1.8' RT		1	
		44CTF+31	1.8' RT	1		
		44CTF+55	11.9' RT			1
	CTH F SB	45CTF+63	8.0' LT			1
		45CTF+72	55.4' LT			1
		49CTF+01	1.8' RT			1
	I-94 WB OFFRAMP TO CTH F	10RFA+00	31.8' LT			1
	I-94 EB ONRAMP FROM CTH F	11RFB+72	25.5' LT	1		
		11RFB+72	25.5' LT		1	
		11RFB+80	28.2' LT			1
	I-94 EB OFFRAMP TO CTH F	10RFC+50	24.8' RT			1
		10RFC+65	27.1' RT		1	
		10RFC+65	27.1' RT	1		
	I-94 ONRAMP FROM CTH F	10RFD+03	20.0' RT			1
	STAGE 1 SUBTOTAL			3	3	10
	UNDISTRIBUTED 10%			1	1	1
	PROJECT 1060-44-71 TOTAL			4	4	11

**MOBILIZATION** 

619.1000

 CATEGORY
 PROJECT
 MOBILIZATION

 1000
 1060-44-71
 0.67

 PROJECT 1060-44-71 TOTAL
 0.67

#### **EROSION CONTROL MOBILIZATION**

		628.1905	628.1910
			MOBILIZATIONS
		MOBILIZATIONS	<b>EMERGENCY</b>
		EROSION	<b>EROSION</b>
		CONTROL	CONTROL
CATEGORY		EACH	EACH
1000	STAGE 1	1	1
	STAGE 2	1	1
	PROJECT 1060-44-71 TOTAL	2	2

### SILT FENCE

CATEGORY	ROADWAY -	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
1000	STAGE 1		
	CTH F NB	336	336
	CTH F SB	130	130
	I-94 EB OFFRAMP TO CTH F	104	104
	I-94 EB ONRAMP FROM CTH F	143	143
	STAGE 1 SUBTOTAL	713	713
	UNDISTRIBUTED	142	142
	PROJECT 1060-44-71 TOTAL	855	855

						625.0500	628.2002	629.0210	630.0120	630.0200
							EROSION MAT	FERTILIZER	SEED	
						SALVAGED	CLASS I	TYPE	MIXTURE	SEEDING
		FRO	OM	T	0	TOPSOIL	TYPE A	B	NO. 20	TEMPORA RY
CATEGORY	ROADWAY	STATION	OFFSET	STATION	OFFSET	SY	SY	CWT	LB	LB
1000	STAGE 2									
	CTH F NB	44CTF+07	68.1' RT	45CTF+06	68.4' RT	130	130			
		44CTF+07	68.1' RT	45CTF+06	65.9' RT			.1	2	1
	CTH F SB	48CTF+20	66.4' LT	49CTF+27	67.4' LT	39	39			
		48CTF+20	59.5' LT	49CTF+37	66.1' LT			.1	1	1
	I-94 EB ONRAMP FROM CTH F	10RFB+85	2.4' RT	11RFB+83	2.5' RT	98	98			
	I-94 EB OFFRAMP TO CTH F	10RFC+65	10.5' LT	10RFC+97	10.1' LT	36	36			
		10RFC+65	4.4' LT	10RFC+97	4.5' LT			.1	1	1
	STAGE 2 SUBTOTAL					303	303	1	4	3
	UNDISTRIBUTED 10%					31	31	1	1	1
	PROJECT 1060-44-71 TOTAL					334	334	2	5	4

**RESTORATION ITEMS** 

# 3

#### TRAFFIC CONTROL ITEMS

			634.0616	638.2602	643.0100.0001	643.	.0300	643	.0420	643	3.0705	643	.0715	643	3.0800	643	3.0900		643.0910
											AFFIC		AFFIC						TRAFFIC
									AFFIC		NTROL		TROL		AFFIC				CONTROL
				REMOVING	TRAFFIC		AFFIC		ITROL		RNING		RNING		NTROL		AFFIC		COVERING
		STAGE	POSTS WOOD	SIGNS	CONTROL		ITROL		ICA DES		SHTS	_	HTS		RROW		NTROL		SIGNS
		DURATION		TYPE II	1060-44-71	DRI	UMS	TY	PE III	TY	PE A	•	PE C	BO	ARDS		GNS		TYPEI
CATEGORY	ROADWAY	DAYS	EACH	EACH	EACH	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	NO. OF CYCLES
1000	ADV ANCED SIGNING	10														20	200		
1000	STAGE 1	30																	
	DETOUR ROUTE			1												12	360		
	CTH F NB					195	5,850	20	600	40	1,200	80	2,400	3	90	110	3,300		
	I-94 WB TO CTH F EXIT RAMP					35	1,050	5	150	10	300	25	750			10	300		
	I-94 EB TO CTH F EXIT RAMP					30	900	5	150	10	300	15	450			10	300		
	STAGE 1 SUBTOTAL			1		260	7,800	30	900	60	1,800	120	3,600	3	90	142	4,260		
1000	STAGE 2	30																	
	DETOUR ROUTE															12	360		
	CTH F					115	3,450	15	450	30	900	60	1,800	3	90	80	2,400		
	I-94 SIGNS		4															8	1
	STAGE 2 SUBTOTAL		4			115	3,450	15	450	30	900	60	1,800	3	90	92	2,760	8	1
_	UNDISTRIBUTED																		
	PROJECT 1060-44-71 TOTAL		4	1	1		11,250		1,350		2,700		5,400		180		7,220	8	

			43.0920	643.1000	643	3.1050	643.1055.S	643	3.3000	SPV.0195.0001
			TRAFFIC							
		_	ONTROL	TRAFFIC		AFFIC	TRUCK OR		AFFIC	
		C	OVERING	CONTROL	CO	NTROL	TRAILER-	CONTROL DETOUR		
			SIGNS	FIXED	S	IGNS	MOUNTED			COLD
			TYPE II ME		PCMS		ATTENUATOR	SIGNS		PATCH
CATEGORY	ROADWAY	EACH NO. OF CYCLES		SF	EACH DAYS		DAYS	EACH	DAYS	TON
1000	ADVANCED SIGNING				2	20				
1000	STAGE 1									
	DETOUR ROUTE	18	1		4	120		240	7,200	
	CTH F NB									
	I-94 WB TO CTH F EXIT RAMP	6	1							
	I-94 EB TO CTH F EXIT RAMP	16	1							
	STAGE 1 SUBTOTAL	40			4	120		240	7,200	
1000	STAGE 2									
	DETOUR ROUTE	23	1		4	120		230	6,900	
	CTH F									
	I-94 SIGNS	2		144						
	STAGE 2 SUBTOTAL	25		144	4	120		230	6,900	
	UNDISTRIBUTED				2	120	10			20
	PROJECT 1060-44-71 TOTAL	65		144		380	10		14,100	20

TRAFFIC CONTROL ITEMS (CONTINUED)

## **TEMPORARY BARRIER ITEMS**

						603.8000	603.8125
						CONCRETE BARRIER	CONCRETE BARRIER
						TEMPORARY PRECAST	TEMPORARY PRECAST
		FRC	M	TC	)	DELIVERED	INSTALLED
CATEGORY	ROADWAY	STATION	OFFSET	STATION	OFFSET	LF	LF
1000	STAGE 1						
	CTH F NB	40CTF+49	28.1' RT	51CTF+14	43.6' RT	1,072	1,072
	CTH F SB	42CTF+73	38.0' LT	52CTF+43	20.6' LT	968	968
•	STAGE 1 SUBTOTAL					2,040	2,040
1000	STAGE 2						
	CTH F NB	40CTF+74	41.4' RT	51CTF+14	32.6' RT	78	1,045
	CTH F SB	41CTF+16	33.2' LT	51CTF+76	30.6' LT	204	1,057
•	STAGE 2 SUBTOTAL					282	2,102
•	PROJECT 1060-44-71 TOTAL					2,322	4,142

#### **TEMPORARY CRASH CUSHIONS**

614.0905

COUNTY: WAUKESHA

HWY: IH 94

PROJECT NO: 1060-44-71

				CRASH		OBJECT	CRASH			CRASH
				CUSHIONS	BACK	<b>MARKING</b>	TEST	TRAFFIC	TRAFFIC	CUSHION
				TEMPORARY	WIDTH	PATTERN	LEVEL	DIRECTION	LOCATION	SHIELDS
CATEGORY	ROADWAY	STATION	OFFSET	EACH	***	***	***	***	***	***
1000	STAGE 1									
	CTH F	40CTF+49	28.1' RT	1	2	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	RIGHT	TEMPORARY BARRIER; CONSTRUCTION ACTIVITY
		52CTF+43	20.6' LT	1	2	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	RIGHT	TEMPORARY BARRIER; CONSTRUCTION ACTIVITY
	STAGE 1 SUBTOTAL			2						
1000	STAGE 2									
	CTH F	40CTF+74	41.4' RT	1	2	OM-3R (WO5-58R)	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY BARRIER; CONSTRUCTION ACTIVITY
		51CTF+76	30.5' LT	1	2	OM-3R (WO5-58R)	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY BARRIER; CONSTRUCTION ACTIVITY
	STAGE 2 SUBTOTAL			2						
	PROJECT 1060-44-71 TOTAL			4						

PLOT DATE : 2/1/2016 10:23:22 AM

PLOT BY : HNTB Corp.

MISCELLANEOUS QUANTITIES

PLOT NAME :

PLOT SCALE : 1:1

SHEET:

#### **TEMPORARY PAVEMENT MARKING**

646.0600

649.0400

**TEMPORARY** 

**REMOVING** 

PAVEMENT MARKING REMOVABLE TAPE

4,974

4,099

9,073

**PAVEMENT MARKINGS** 

LF

5,680

4-INCH

LF

4,757

3,065

7,822

YELLOW WHITE LF

PROJECT 1060-44-71

SUBTOTAL

STAGE

STAGE 1 5,680 STAGE 2

PROJECT 1060-44-71 TOTALS 5,680 16,895

#### **GEOGRID REINFORCEMENT**

SPV.0180.0001

SY

GEOGRID REINFORCEMENT

PROJECT CATEGORY

UNDISTRIBUTED 1000 750

> PROJECT 1060-44-71 TOTAL 750

#### **PAVEMENT MARKING ITEMS**

			PAVI MAF EPG	.0106 EMENT RKING OXY	646.0126  PAVEMENT  MARKING  EPOXY  8-INCH	646.0841.S  PAVMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH	G	646.0843 PAVEMEI MARKIN ROOVED REFLECTI DNTRAST 8-INCH	NT G WET VE TAPE	SPV.0060.0001 PAVT MARKING CONTRAST GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 1	SPV.0060.0002 PAVT MARKING CONTRAST GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2	SPV.0060.0003 PAVT MARKING CONTRAST GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3	SPV.0060.0004 PAVT MARKING CONTRAST GROOVED PREFORMED THERMOPLASTIC WORDS	SPV.0090.0001 PAVT MARKING CONTRAST GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-IN	PAVE MARI DIAGO EPC	0726 EMENT RKING SONAL DXY
CATEGORY	STAGE	ROADWAY	YELLOW LF	/ WHITE LF	WHITE LF	12.5 FT LINE WHITE LF	WHITE LF	3 FT LINE WHITE LF	2 FT LINE WHITE LF	EACH	EACH	EACH	EACH	LF	YELLOW LF	V WHITE
1000	STAGE 2															
•		CTH F NB	1,402	971		800	483	128		2	4		6	73	178	155
		CTH F SB	1,123	1,132		759	343	132		1	4		4	79	139	168
		I-94 EB OFFRAMP TO CTH F	133	350	356		47		35		1	1	1	47		66
		I-94 EB ONRAMP FROM CTH F	119	216	324											146
		I-94 WB OFFRAMP TO CTH F	140	76	79	37	120		63					63		50
		I-94 WB ONRAMP FROM CTH F	267	63	60		96									86
	STAGE 2 SU	BTOTAL	3,184	2,808	819	1,596	1,089	260	98	3	9	1	11	262	317	671
•	PROJECT 10	60-44-71 TOTAL	5,9	992	819	1,596		1,447		3	9	1	11	262	98	38

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA MISCELLANEOUS QUANTITIES	SHEET:	E	1
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## **SAWING PAVEMENT**

### **SAWING PAVEMENT**

							690.0150 SAWING	690.0250 SAWING
			FRC		TO		ASPHALT	CONCRETE
CATEGORY	<u>'</u>	ROADWAY	STATION	OFFSET	STATION	OFFSET	LF	LF
1000	STAGE 1							
		CTH F NB	41CTF+50	34.6' RT	45CTF+71	33.5' RT		425
			41CTF+50	9.1' RT	41CTF+50	38.1' RT		29
			41CTF+50	9.1' RT	43CTF+65	14.2' RT		218
			44CTF+19	1.8' RT	45CTF+74	15.5' RT		158
			47CTF+96	34.7' RT	51CTF+14	41.6' RT		319
			47CTF+99	16.5' RT	49CTF+14	10.2' RT		117
			49CTF+71	8.1' LT	51CTF+14	17.9' RT		157
			51CTF+14	17.9' RT	51CTF+14	41.6' RT		24
		CTH F SB	42CTF+73	11.4' LT	42CTF+73	36.0' LT		25
			42CTF+73	11.4' LT	43CTF+65	14.2' RT		105
			42CTF+73	26.9' LT	45CTF+79	28.0' LT		304
			44CTF+19	1.8' RT	45CTF+75	10.1' LT		161
			48CTF+05	9.3' LT	49CTF+14	10.2' RT		116
			48CTF+07	27.2' LT	51CTF+28	32.0' LT		321
			49CTF+81	8.1' LT	51CTF+28	8.0' LT		157
			51CTF+28	8.0' LT	51CTF+28	32.0' LT		25
	STAGE 1 S	UBTOTAL						2,661
1000	STAGE 2							
		CTH F NB	41CTF+50	29.5' RT	10RFB+84	0.0' LT		196
			43CTF+08	69.3' RT	43CTF+97	62.8' RT		95
			44CTF+04	51.2' RT	44CTF+04	62.6' RT	11	
			44CTF+04	51.2' RT	45CTF+52	51.4' RT	150	
			45CTF+52	51.4' RT	45CTF+52	62.0' RT	11	
			45CTF+52	33.4' RT	45CTF+52	51.8' RT		18
			48CTF+14	52.4' RT	48CTF+14	63.7' RT	11	
			48CTF+14	52.4' RT	49CTF+22	52.9' RT	108	
			48CTF+14	35.1' RT	48CTF+14	52.4' RT		17
			49CTF+20	64.4' RT	49CTF+79	63.7' RT		59
			49CTF+22	52.9' RT	49CTF+22	64.4' RT	12	
			51CTF+14	34.5' RT	51CTF+14	65.9' RT		31
		CTH F SB	42CTF+73	29.5' LT	10RFC+63	0.0' LT		94
			43CTF+33	57.3' LT	43CTF+98	58.4' LT		63
			43CTF+33 43CTF+98	57.3' LT 58.4' LT	43CTF+98 43CTF+98	58.4° LT 46.3' LT	 12	63

						690.0150 SAWING	690.0250 SAWING
		FRO	M	ТО		ASPHALT	CONCRETE
CATEGORY	ROADWAY	STATION	OFFSET	STATION	OFFSET	LF	LF
		45CTF+61	57.1' LT	45CTF+61	46.2' LT	11	
		45CTF+61	46.1' LT	45CTF+60	28.5' LT		18
		48CTF+25	55.5' LT	48CTF+25	45.2' LT	10	
		48CTF+25	45.2' LT	49CTF+39	44.8' LT	113	
		48CTF+25	45.2' LT	48CTF+25	27.5' LT		18
		49CTF+39	57.2' LT	49CTF+39	44.8' LT	12	
		49CTF+39	57.2' LT	50CTF+02	59.9' LT		64
		51CTF+28	56.1' LT	51CTF+28	23.3' LT		33
	I-94 WB OFFRAMP TO CTH F	10RFA+00	0.0' LT	10RFA+36	38.5' LT		80
		10RFA+00	0.0' LT	51CTF+14	65.9' RT		157
	I-94 EB ONRAMP FROM CTH F	10RFB+82	18.6' LT	11RFB+83	0.0' LT		133
	I-94 EB OFFRAMP TO CTH F	10RFC+47	23.8' RT	10RFC+99	0.0' LT		81
	I-94 ONRAMP FROM CTH F	10RFD+00	0.0' LT	50CTF+02	59.9' LT		59
		10RFD+00	0.0' LT	51CTF+28	56.1' LT		149
	STAGE 2 SUBTOTAL					622	1,365
	UNDISTRIBUTED 5%					32	202
	PROJECT 1060-44-71 TOTAL					654	4,228

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA MISCELLANEOUS QUANTITIES SHEET: **E** 

PLOT DATE : 2/1/2016 10:23:22 AM

PLOT BY : HNTB Corp.

PLOT NAME :

PLOT SCALE : 1:1

# IH-94 & CTH F WAUKESHA COUNTY CATEGORY 1500

TRAFFIC DETECTOR LOOPS								
							652.0800	655.0800
						SDD	CONDUIT	LOOP DETECTOR
LOOP	HOME		SIZE	NO. OF	PAVEMENT	INSTALLATION	LOOP DETECTOR	WIRE
NO.	RUN PB	LOCATION**	(FT)x(FT)	TURNS	TYPE	REFERENCE	L.F.	L.F.
33	PB37	49+35.0', 57.0' RT	6'X30'	3	CONCRETE	9F 15-4A	90	254
35	PB37	49+46.0', 58.0' RT	6'X30'	3	CONCRETE	9F 15-4A	102	276
37	PB36	49+77.0', 89.0' RT	6'X20'	3	CONCRETE	9F 15-4A	74	200
38	PB36	49+93.0', 67.0' RT	6'X20'	3	CONCRETE	9F 15-4A	74	200
39	PB35	49+95.0', 84.0' RT	6'X20'	3	CONCRETE	9F 15-4A	68	188
310	PB34	50+15.0', 64.0' RT	6'X20'	3	CONCRETE	9F 15-4A	72	196
311	PB36	49+79.0', 69.0' RT	6'X6'	3	CONCRETE	9F 15-4A	34	82
312	PB16	44+71.0', 18.0' LT	6'X20'	3	CONCRETE	9F 15-4A	62	176
313	PB15	44+47.0', 18.0' LT	6'X20'	3	CONCRETE	9F 15-4A	61	174
314	PB15	44+22.0', 18.0' LT	6'X20'	3	CONCRETE	9F 15-4A	67	186
315	PB36	49+70.0', 85.0' RT	6'X6'	3	CONCRETE	9F 15-4A	41	104
66	PB11	43+34.0', 88.0' LT	6'X20'	3	CONCRETE	9F 15-4A	68	186
67	PB11	43+18.0', 66.0' LT	6'X20'	3	CONCRETE	9F 15-4A	66	186
68	PB24	48+51.0', 19.0' RT	6'X20'	3	CONCRETE	9F 15-4A	61	174
69	PB44	48+80.0', 19.0' RT	6'X20'	3	CONCRETE	9F 15-4A	61	174
610	PB44	49+8.0', 19.0' RT	6'X20'	3	CONCRETE	9F 15-4A	62	176
						TOTAL	1063	2932

\*\* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

\* \* \* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

9F15-4A LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

#### COVERING TRAFFIC SIGNAL HEADS IH 94 & CTH F

SPV.0105.3001
COVERING TRAFFIC
SIGNAL HEADS
LOCATION
L.S.

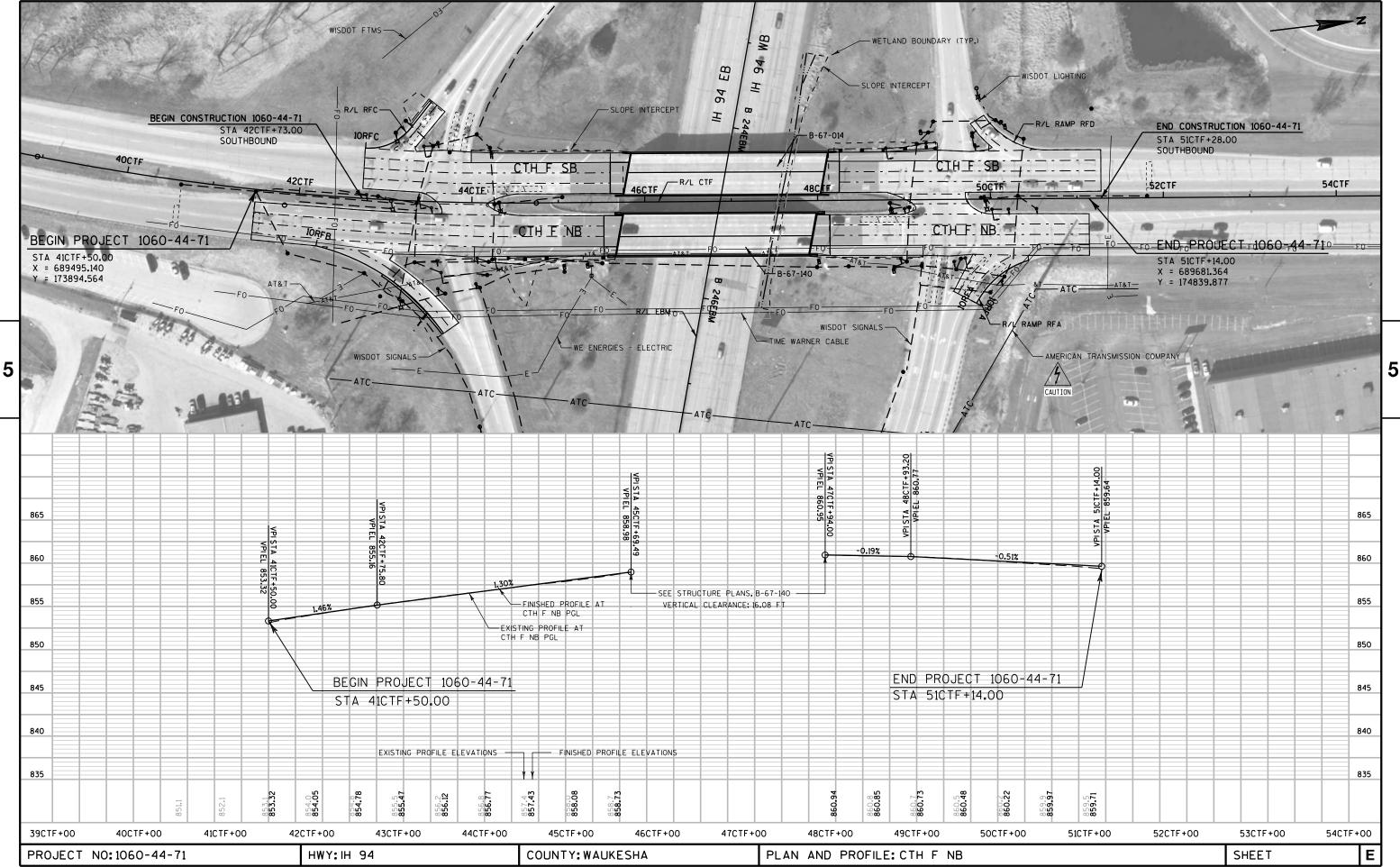
IH 94 & CTH F
1
TOTAL
1

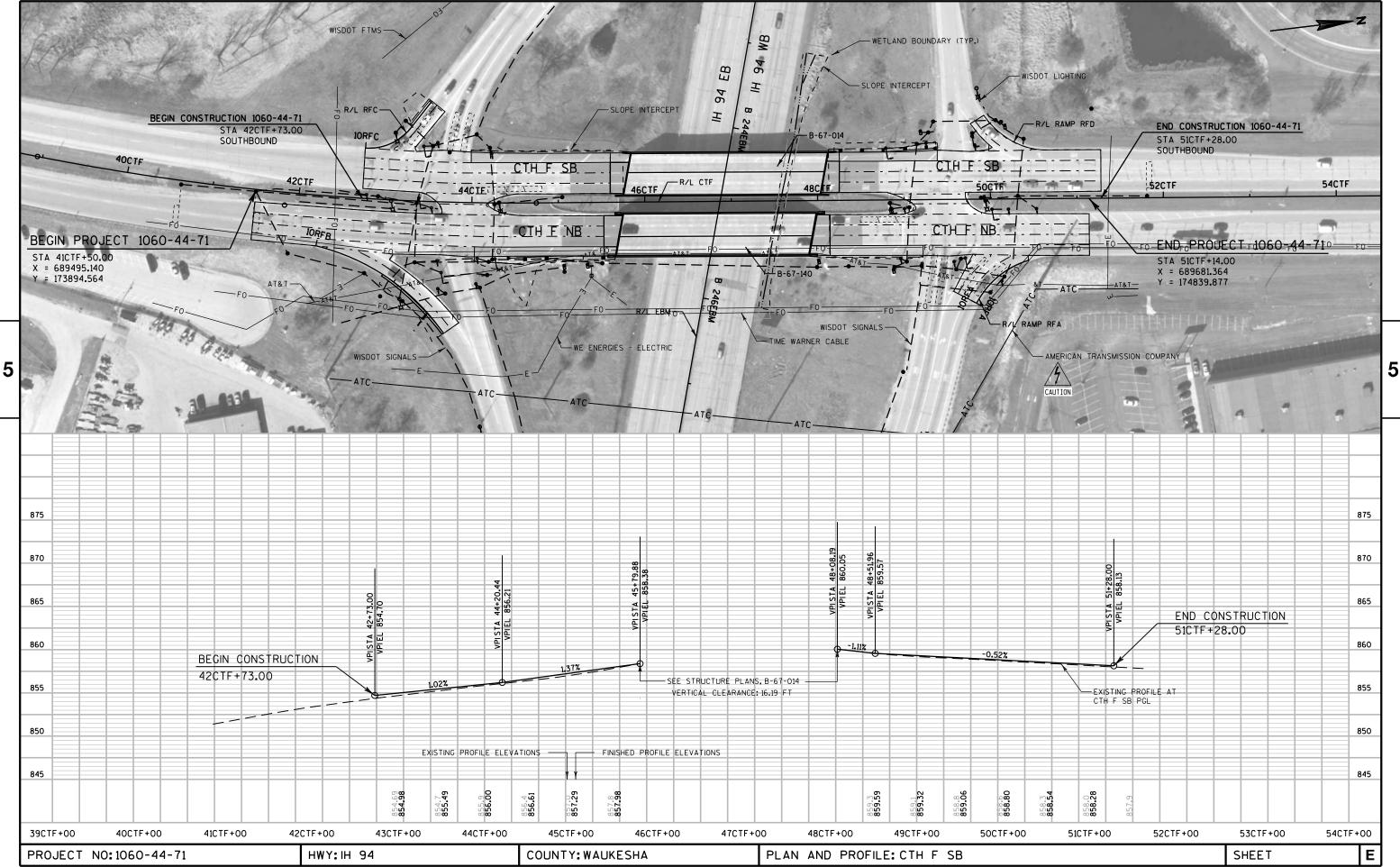
#### REMOVE LOOP DETECTOR WIRE

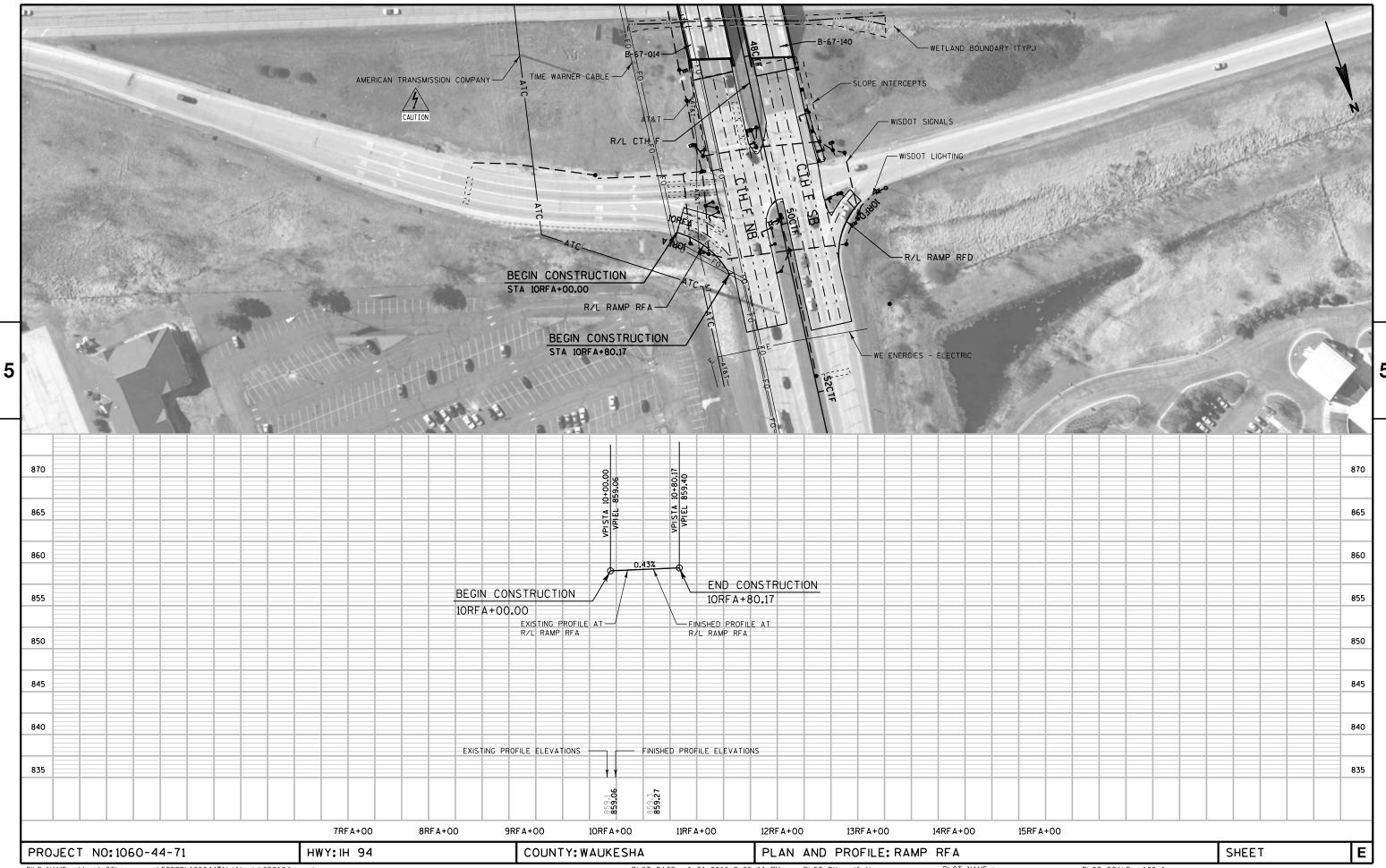
SPV.0105.3002
REMOVE LOOP
DETECTOR WIRE
LOCATION
L.S.

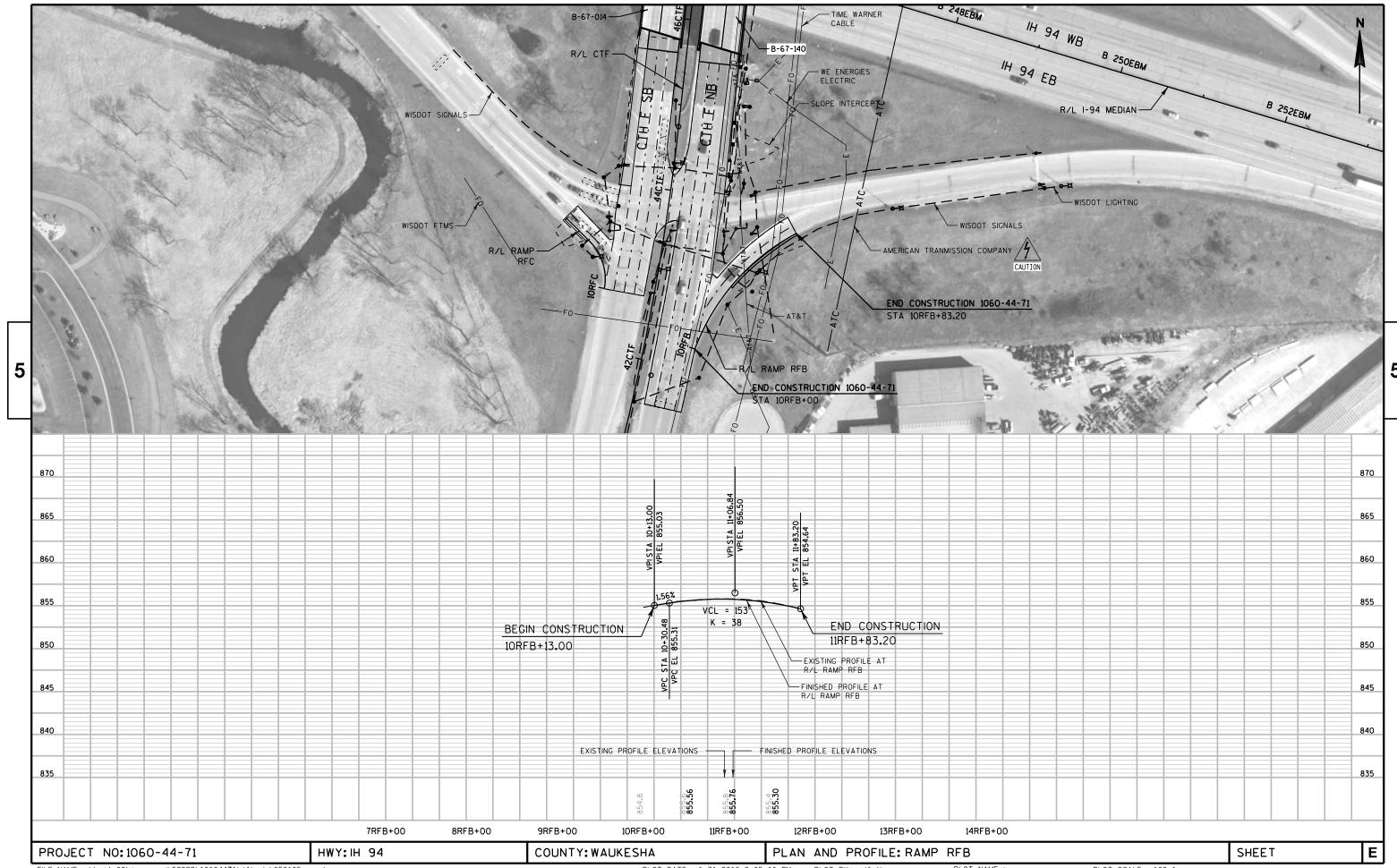
IH-94 & CTH F
1

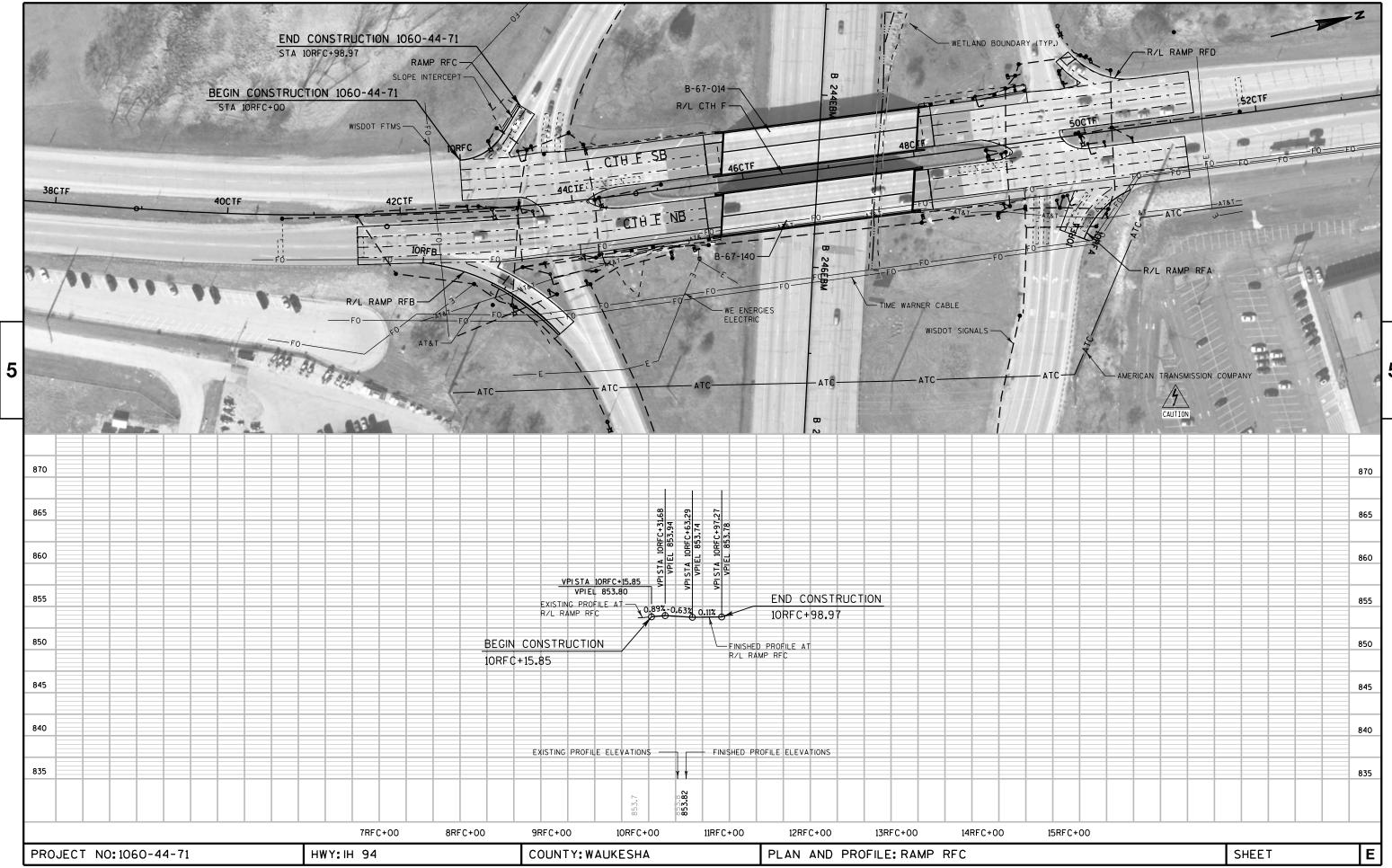
TOTAL
1

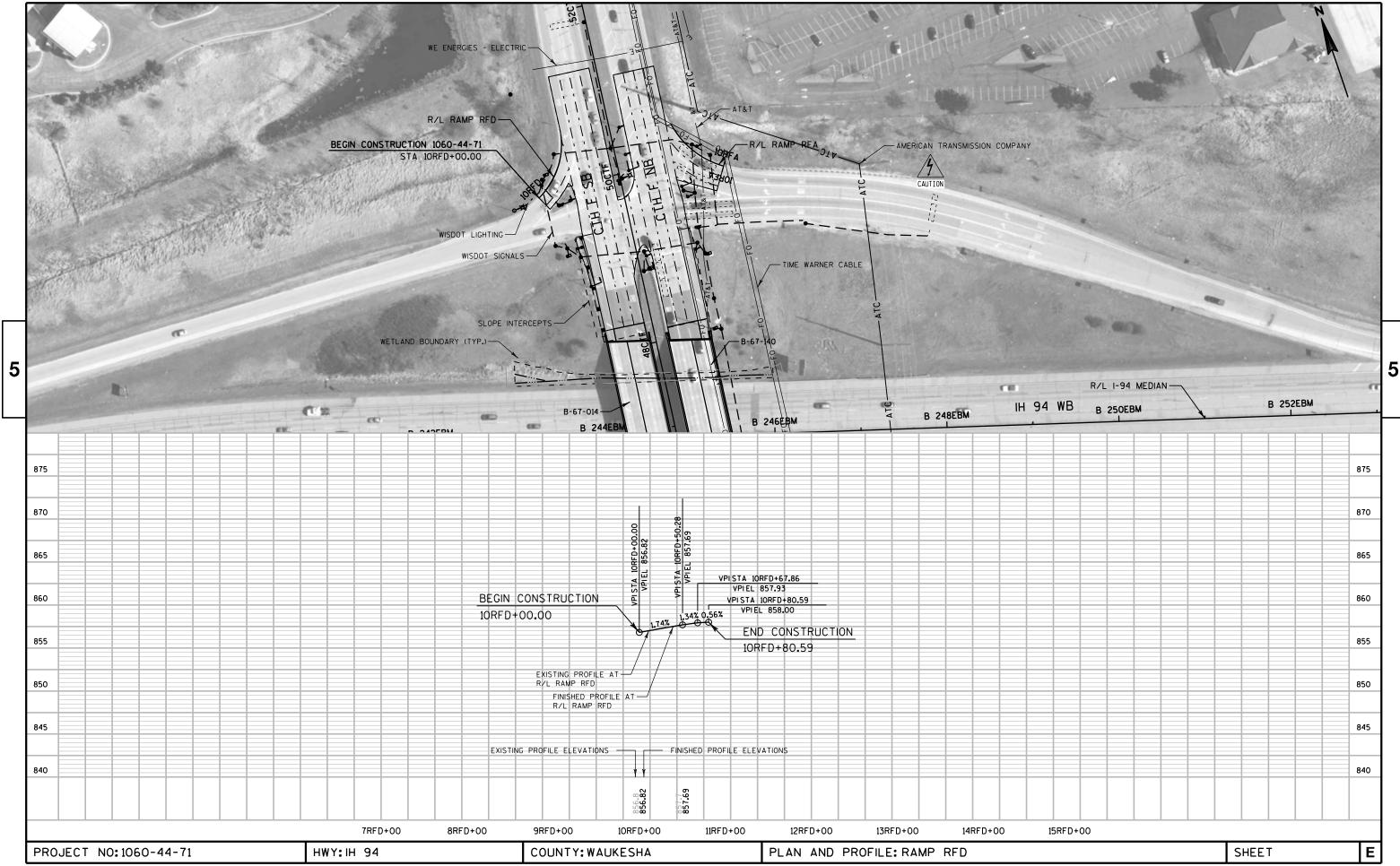








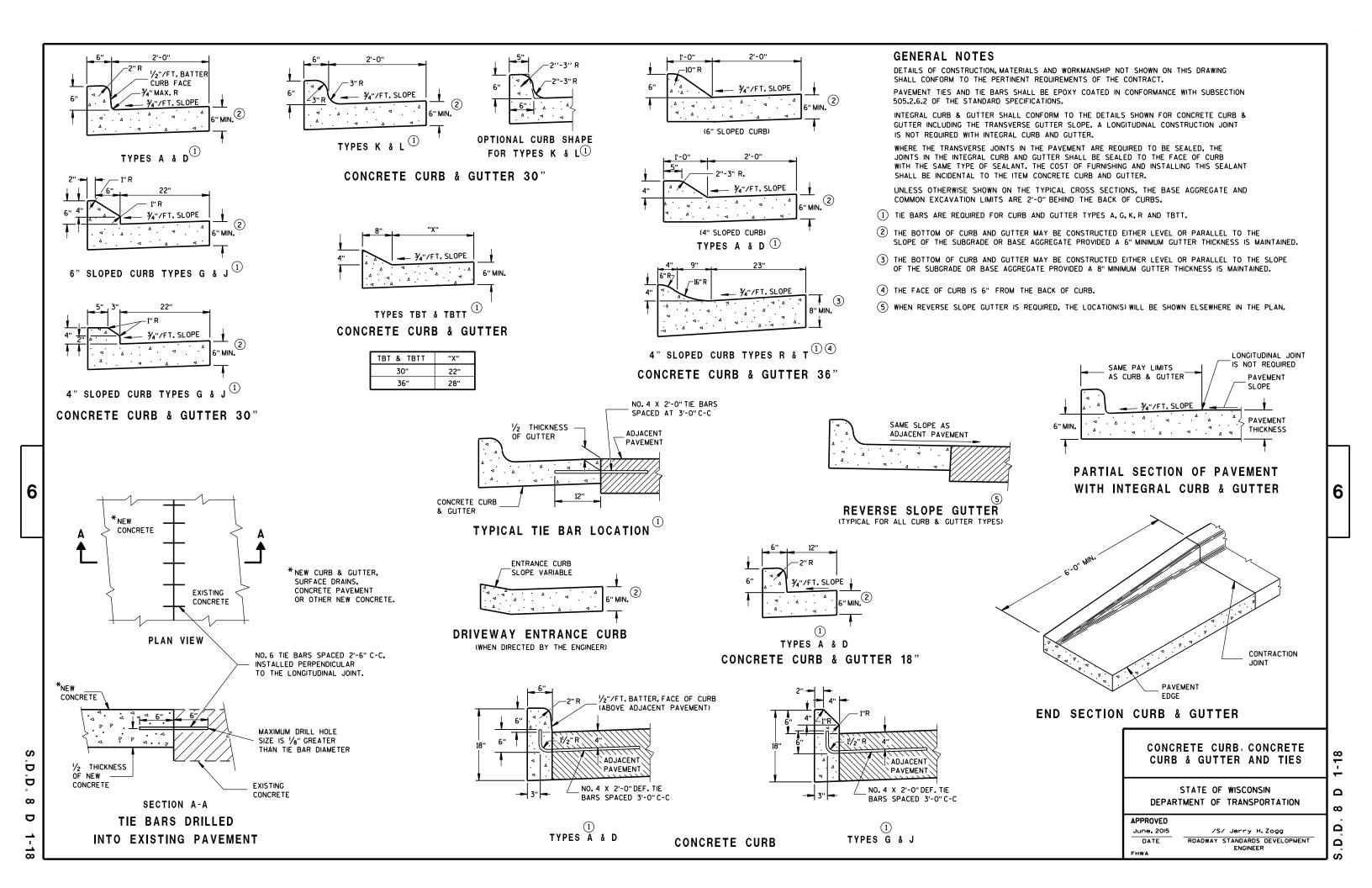




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## Standard Detail Drawing ListStandard Detail Drawing List

08D01-18 08E08-03 08E09-06 08E10-02	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS SILT FENCE INLET PROTECTION TYPE A, B, C AND D
09F15-04A 09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1) LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E 14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRALL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C 14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C07-12B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) PAVEMENT MARKING WORDS
15C07-12B	PAVEMENT MARKING WORDS  PAVEMENT MARKING ARROWS
15C07-12C 15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D04-01	TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS



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.

TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.



WHEN ALTERING THE DIRECTION OF FLOW



#### **PLAN VIEW**



#### FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

**EROSION BALES FOR SHEET FLOW** 

#### TYPICAL INSTALLATIONS OF **EROSION BALES / TEMPORARY** DITCH CHECKS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 /S/ Beth Connestro
CHIEF ROADWAY DEVELOPMENT ENGINEER

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## TYPICAL APPLICATION OF SILT FENCE

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# PLAN VIEW SILT FENCE AT MEDIAN SURFACE DRAINS



#### GENERAL NOTES

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

- $\bigcirc$  HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- 3 WOOD POSTS SHALL BE A MINIMUM SIZE OF 11/8" X 11/8" OF OAK OR HICKORY.
- 4) SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- (5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)



SILT FENCE

S.D.D. 8 E 9-6





INLET PROTECTION, TYPE A

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 1) FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- (2) FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- (3) FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



#### INLET PROTECTION, TYPE C (WITH CURB BOX)

#### **INSTALLATION NOTES**

#### TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

#### TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE, THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

#### INLET PROTECTION TYPE A, B, C, AND D

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02

/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER 6

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT \*12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

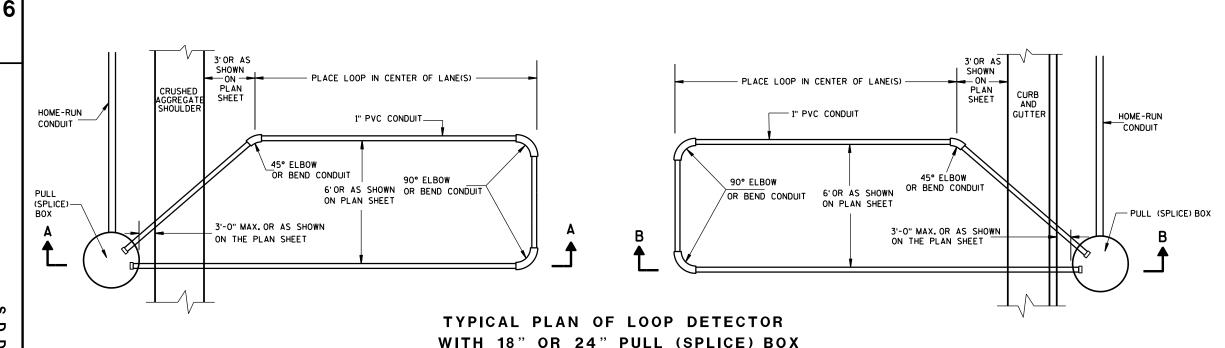
THE \*12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE \*12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH,

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1) 6

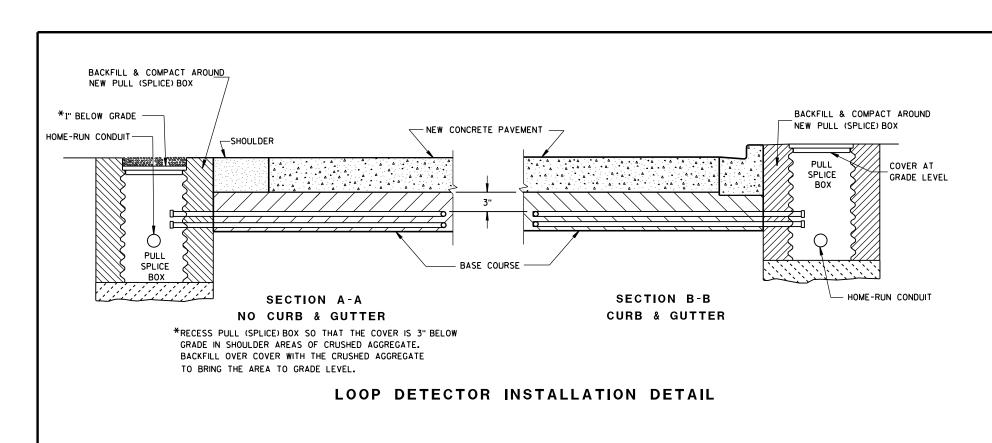
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
STATE ELECTRICAL ENGINEER
FHWA

S.D.D. 9 F 15-4a



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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT \*12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE \*12 AWG.LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE \*12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

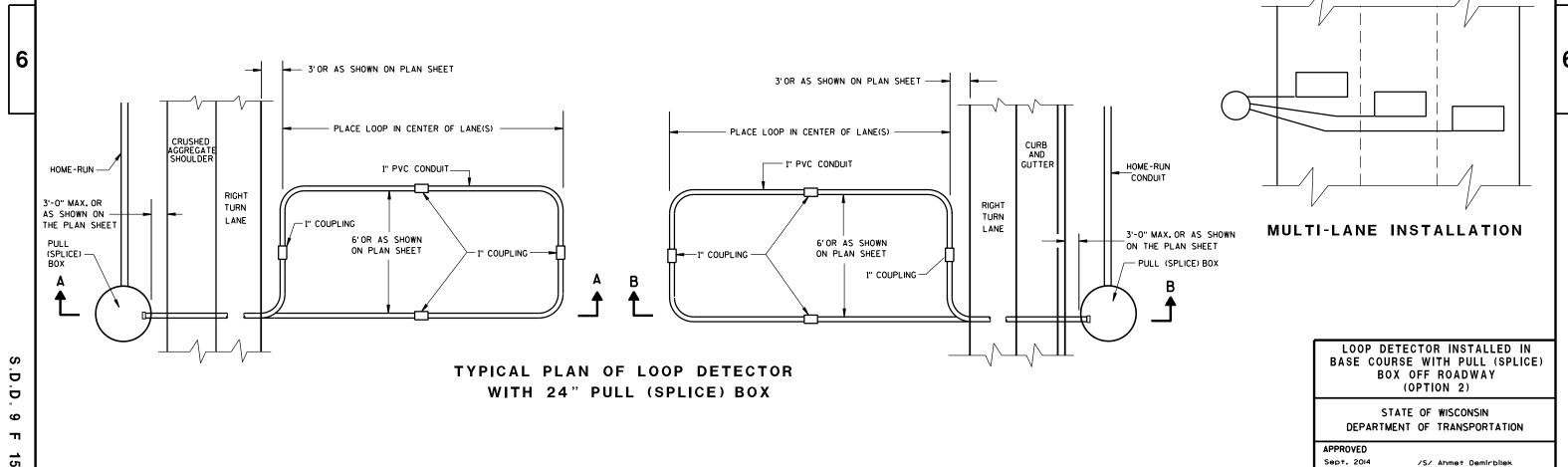
PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.

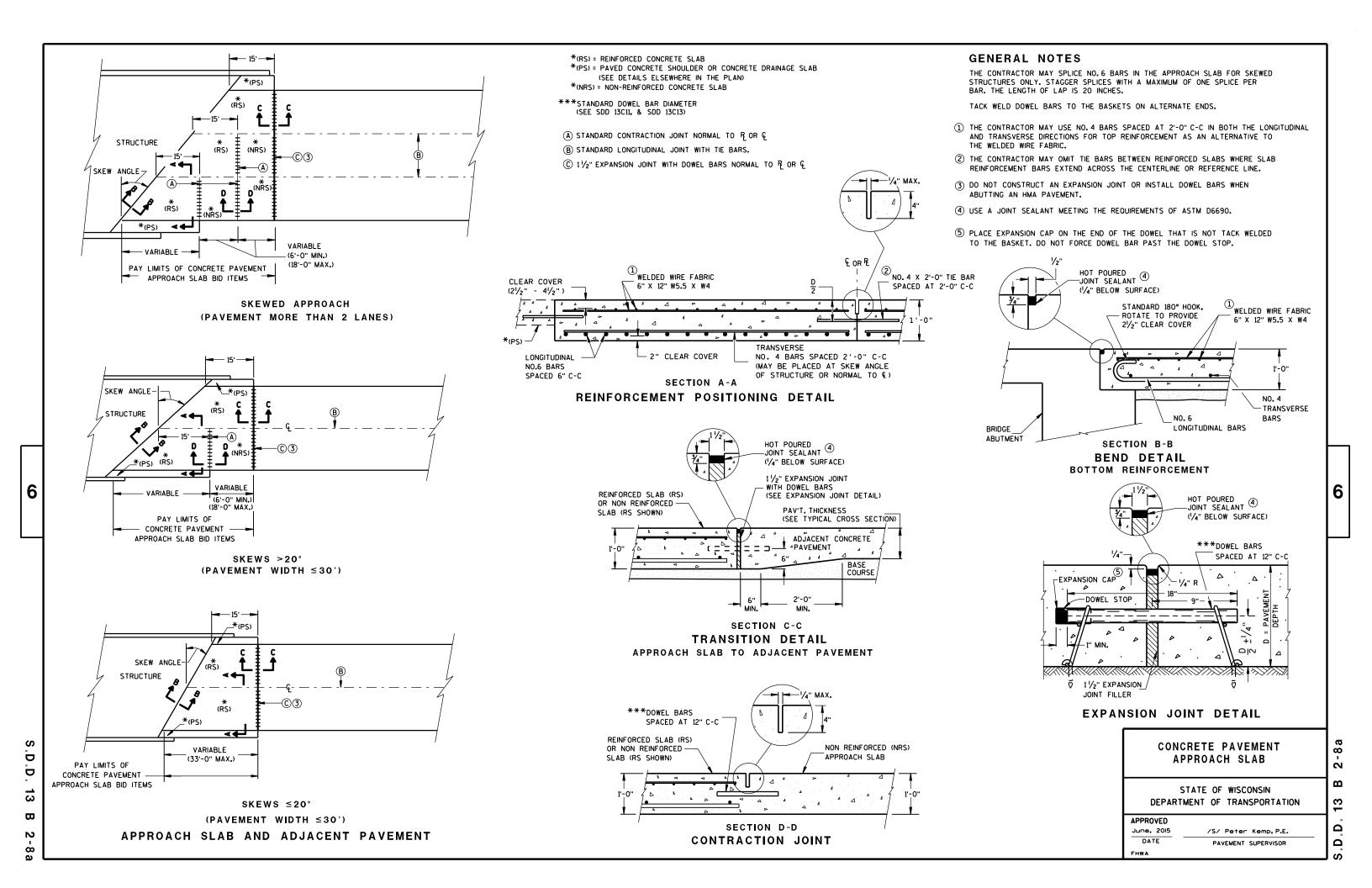
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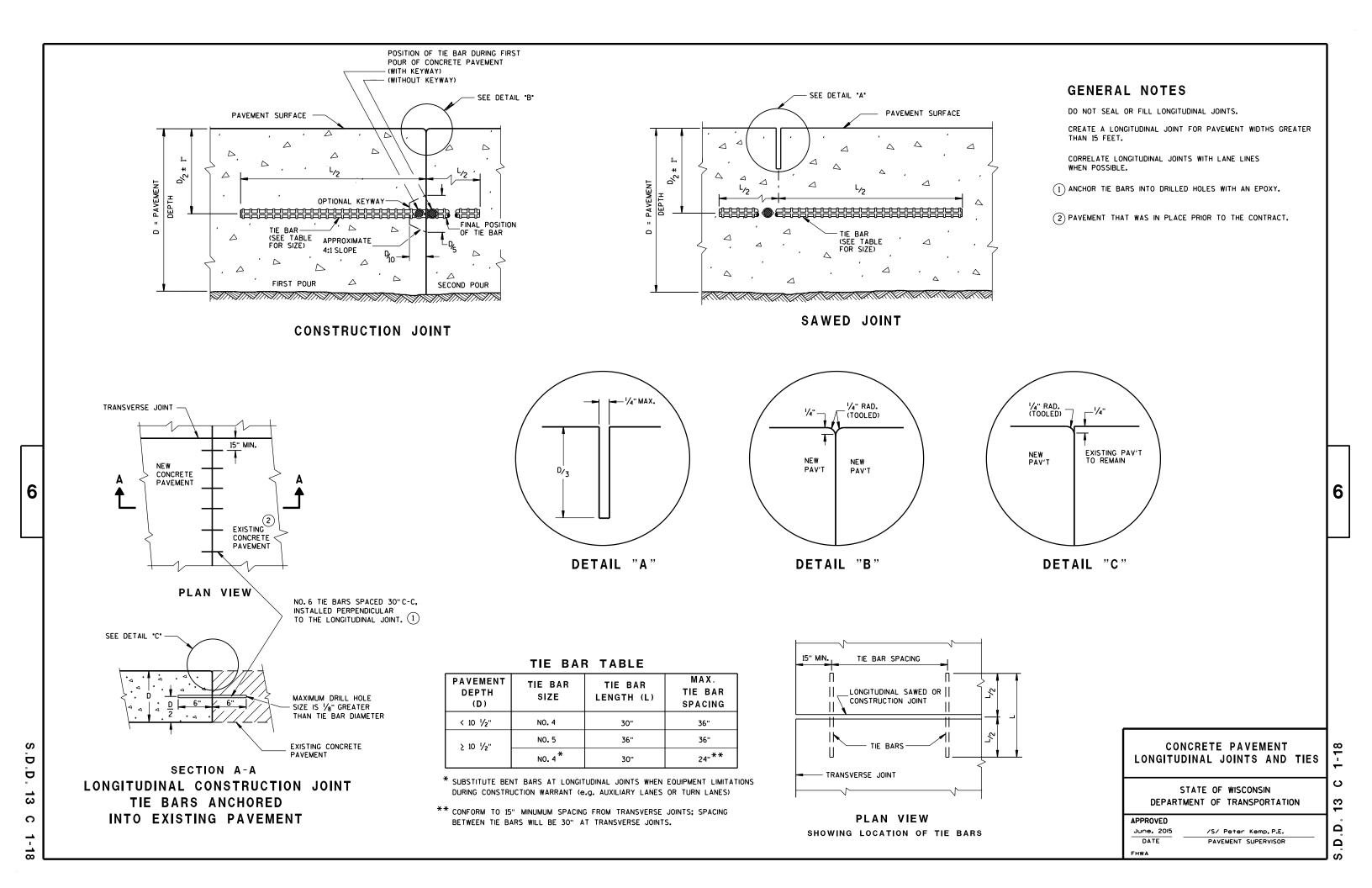
FHWA

STATE ELECTRICAL ENGINEER



S.D.D. 9 F 15-4b





#### CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

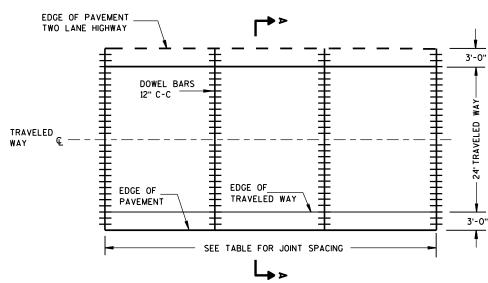
#### CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- 1 REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- 2 MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

#### PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6",6 ½"	NONE	12'
7",7 1/2"	1"	14'
8" <b>,</b> 8 <sup>1</sup> / <sub>2</sub> "	1 1/4"	15'
9",9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



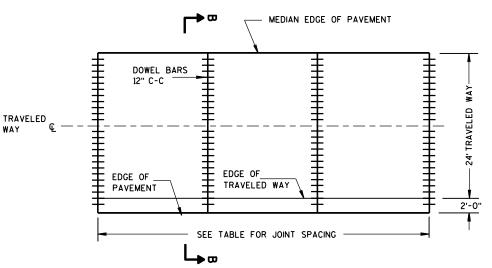
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**CONTRACTION JOINT LAYOUT** FOR TWO-LANE TWO-WAY HIGHWAY



PAVED

- 2'-0" PAVED

SHOULDER

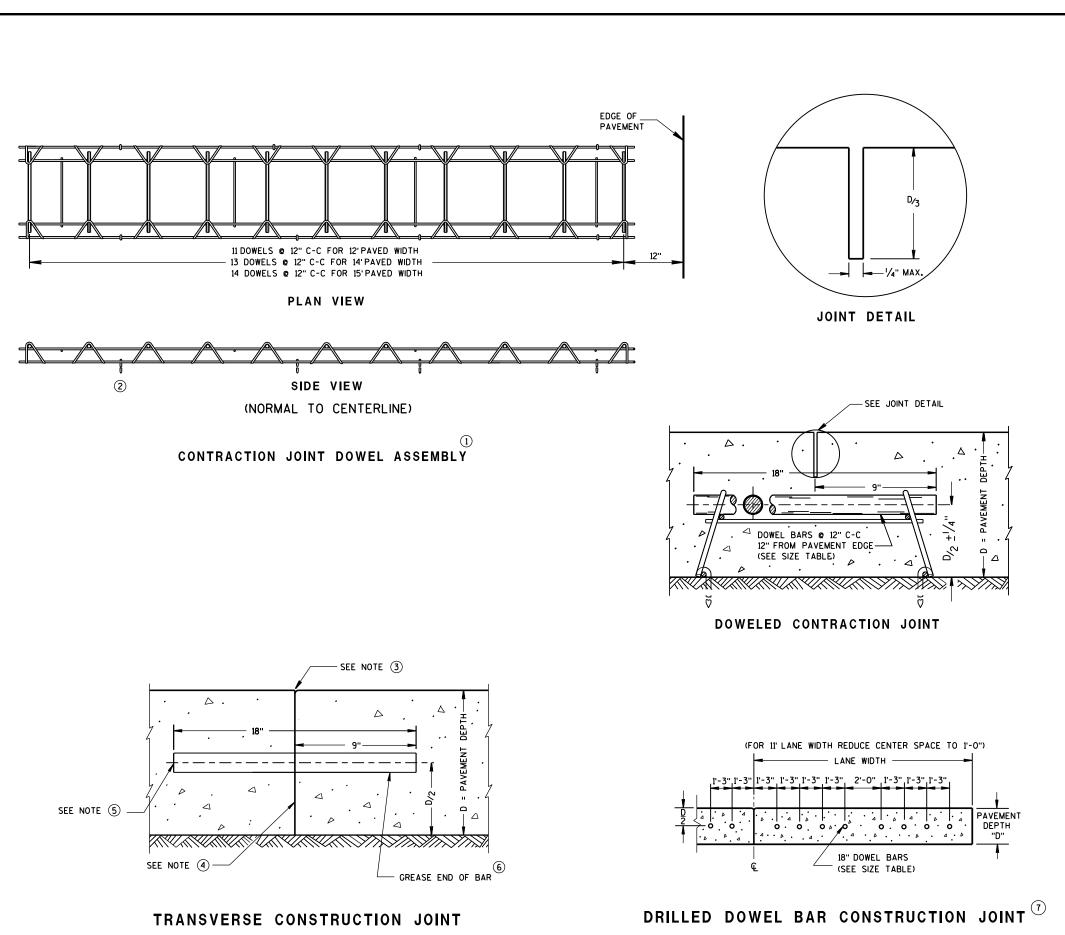
SHOULDER

CONTRACTION JOINT LAYOUT FOR DIVIDED HIGHWAY

RURAL DOWELED **CONCRETE PAVEMENT** 

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 6

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#### **GENERAL NOTES**

- (1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- 3 FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- 4 PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- (5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO DRILLED DOWEL BAR CONSTRUCTION JOINT DETAIL.
- (6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- 7 ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

RURAL DOWELED CONCRETE PAVEMENT

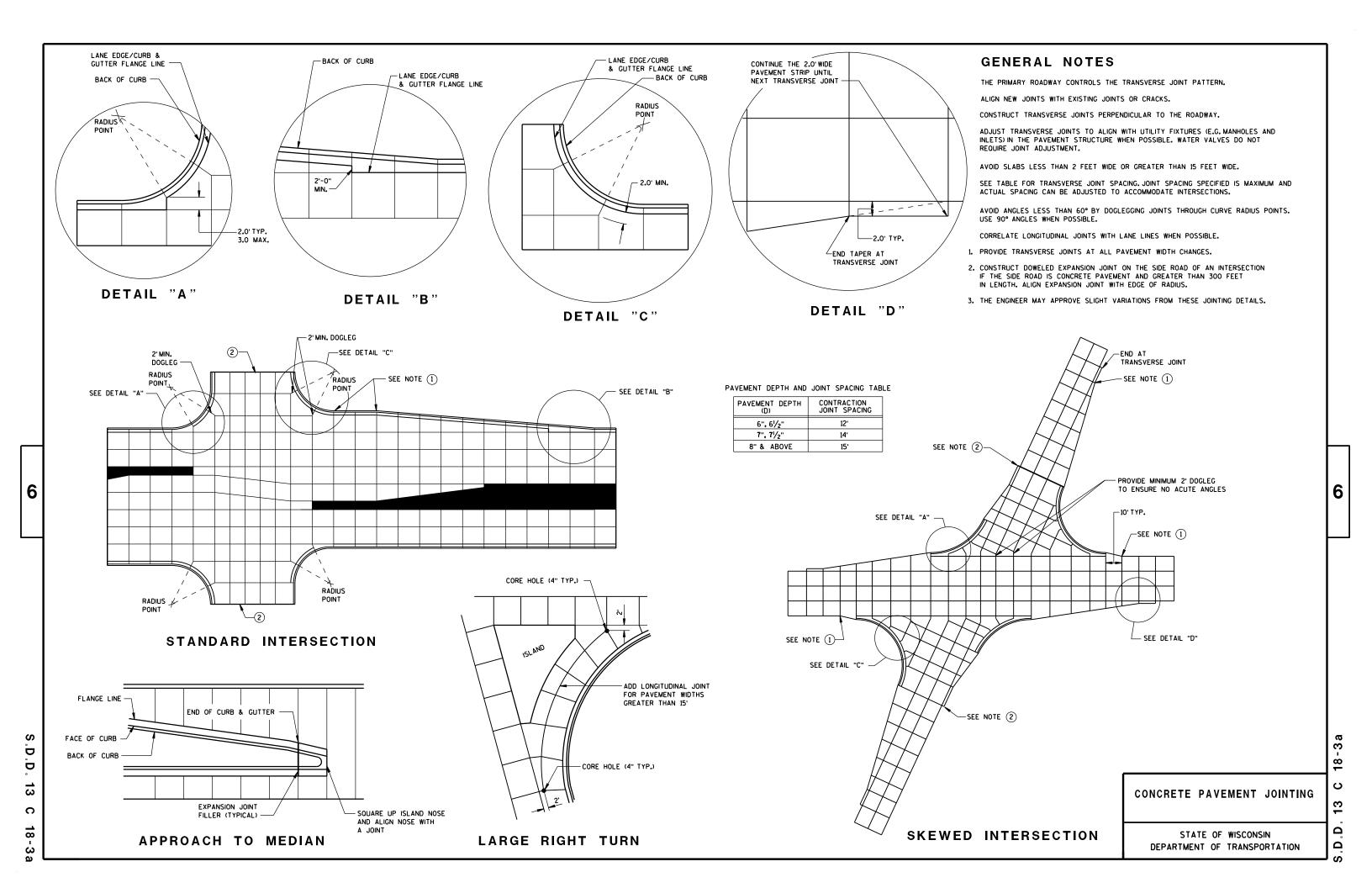
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

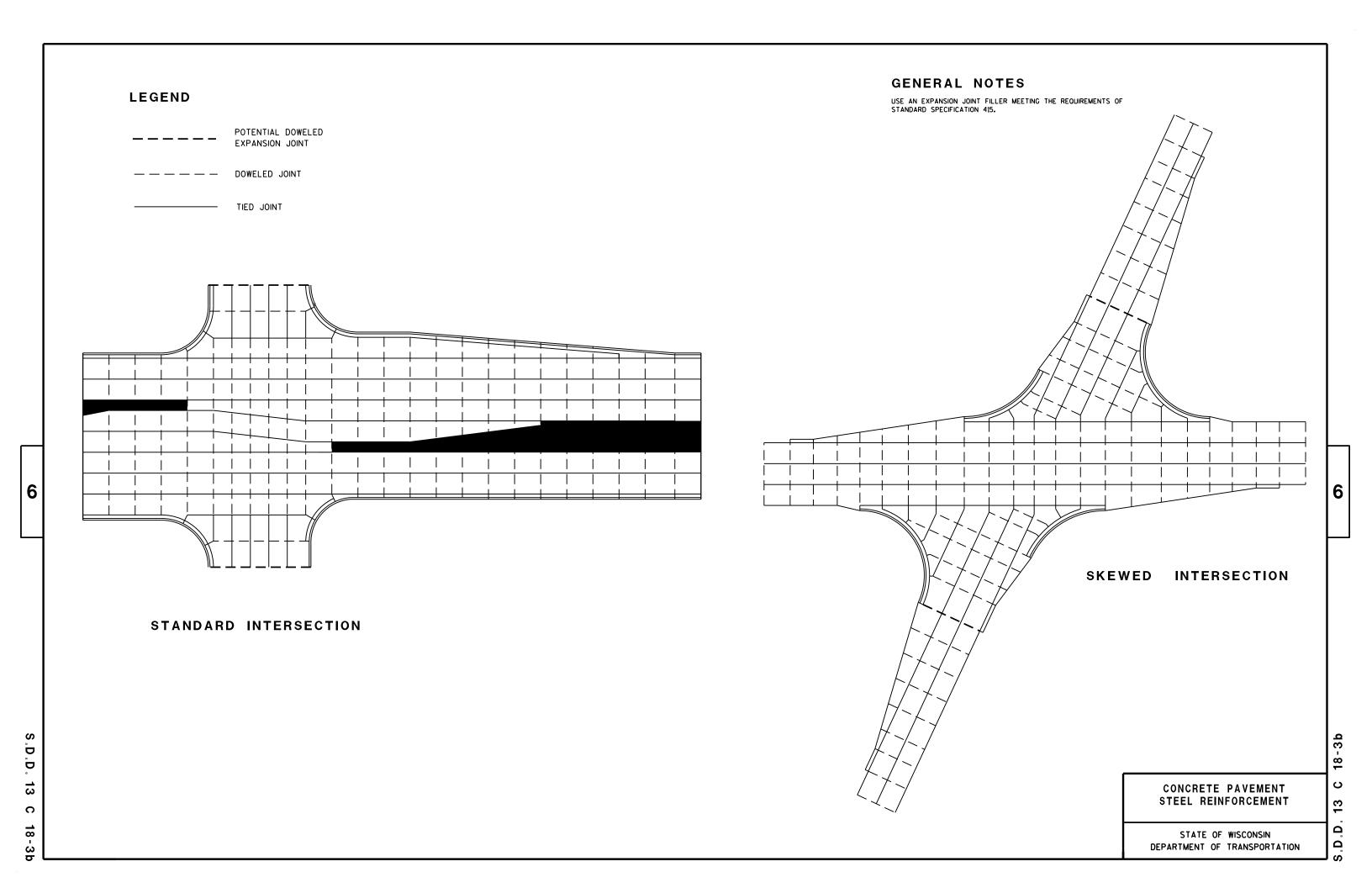
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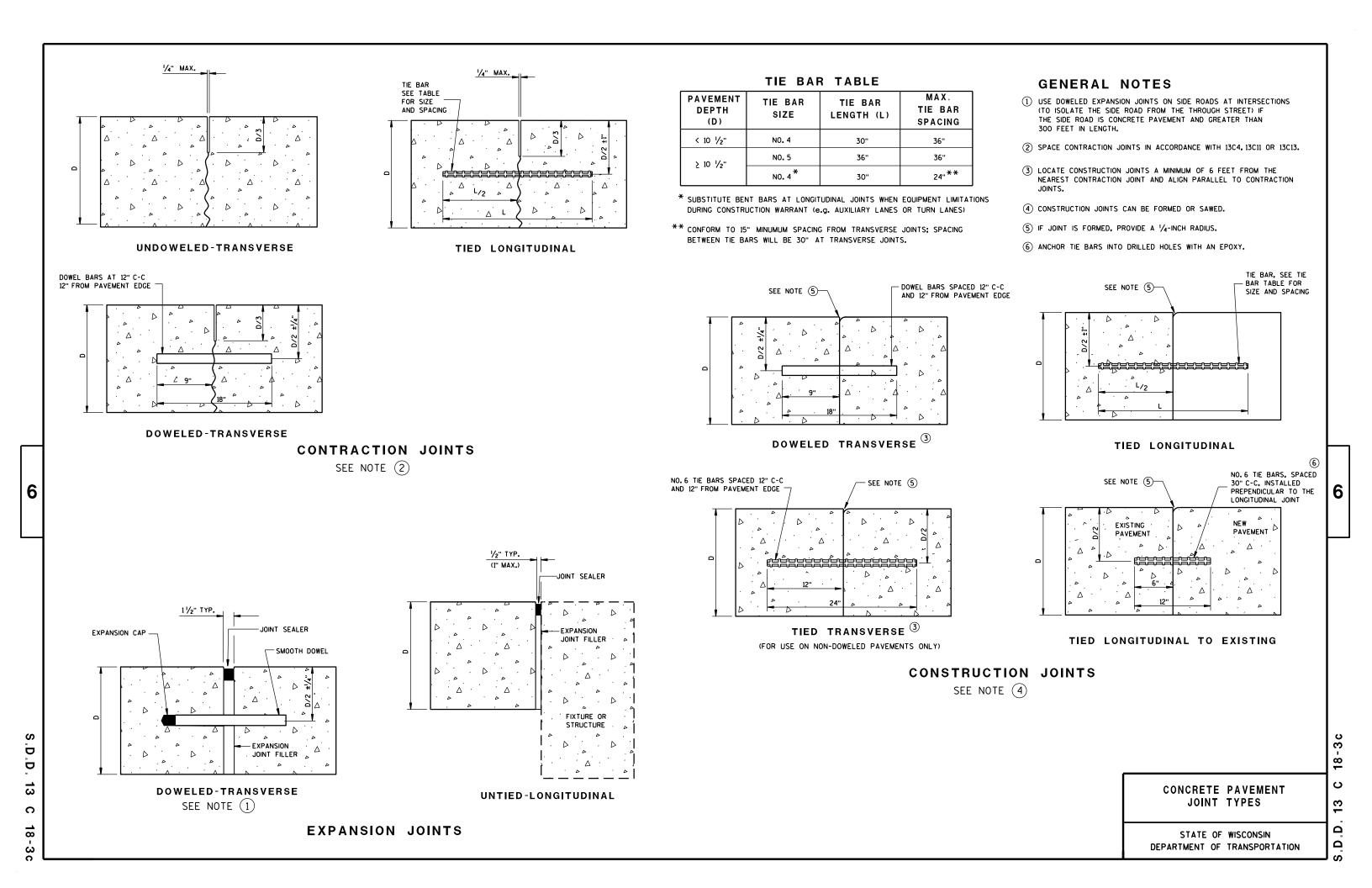
DATE PAVEMENT POLICY & DESIGN ENGINEER

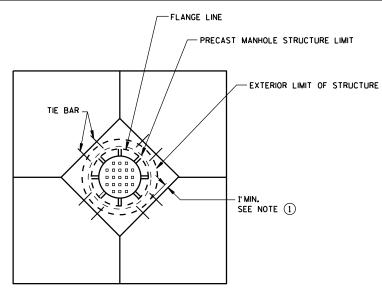
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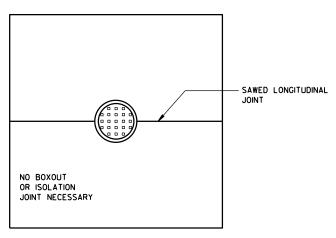




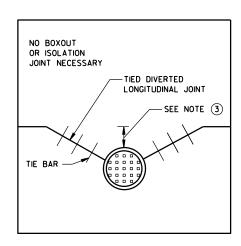




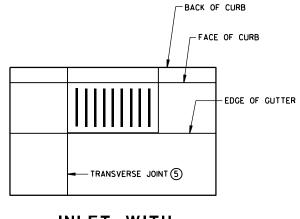
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



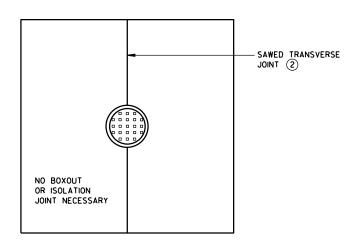
MANHOLE WITH LONGITUDINAL JOINT



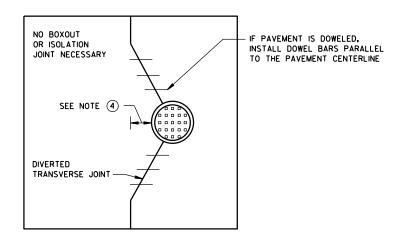
MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



INLET WITH TRANSVERSE JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

- 1 USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- 2 ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- (3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS. DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- (4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS. REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- (5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

**CONCRETE PAVEMENT** JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED DATE

/S/ Peter Kemp, P.E. PAVEMENT SUPERVISOR FHWA

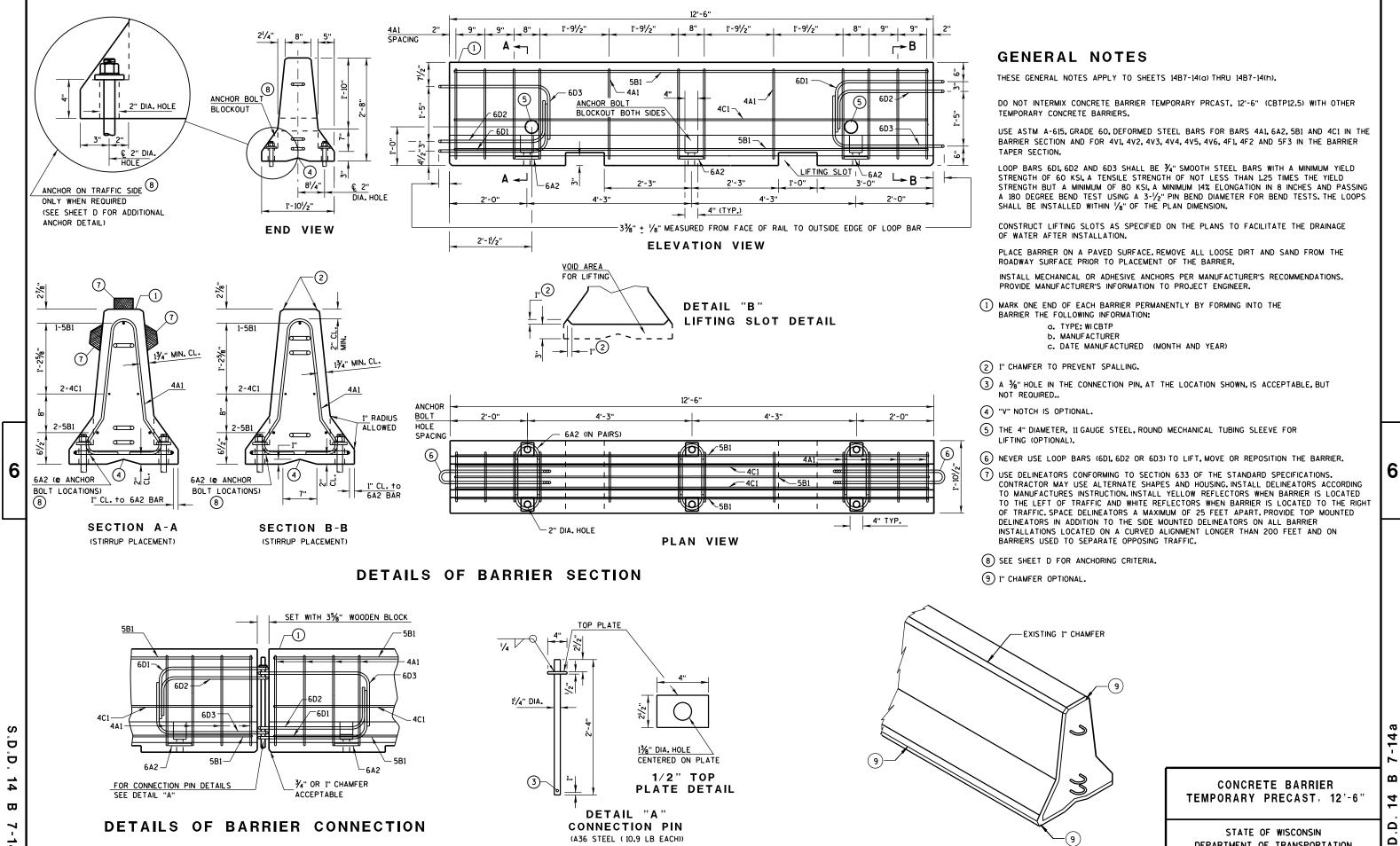
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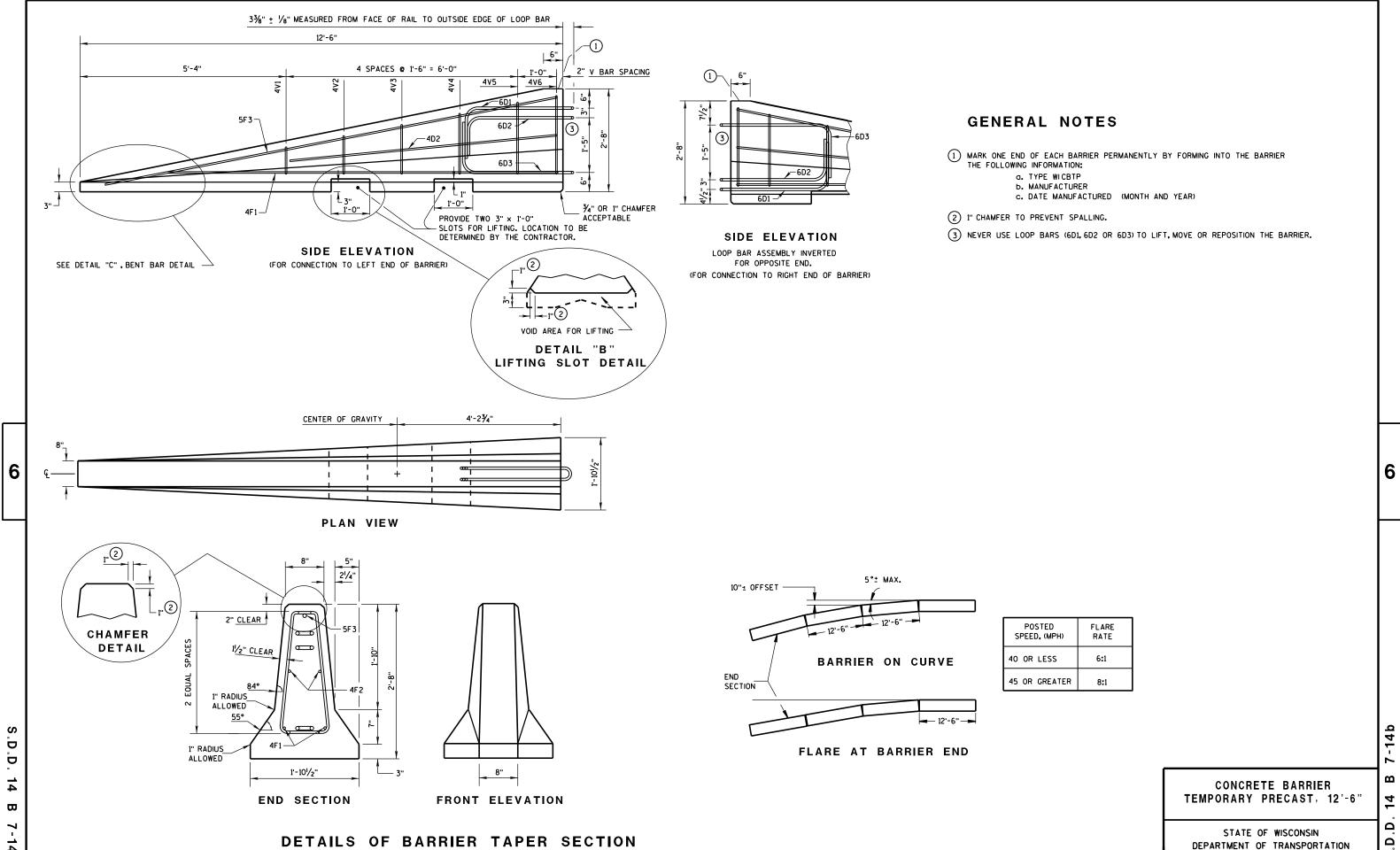
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DEPARTMENT OF TRANSPORTATION



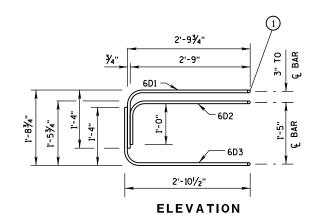
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1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

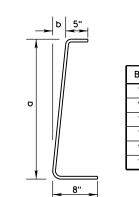
## BARRIER TAPER SECTION BILL OF MATERIALS

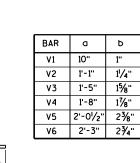
(PER 12'-6" BARRIER TAPER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.	
4V1	4	2	1'-11"	
4V2	4	2	2'-2"	
4٧3	4	2	2'-6"	
4V4	4	2	2'-9"	
4V5	4	2	3'-2"	
4V6	4	2	3'-4"	
4F1	4	2	12'-0"	
4F2	4	2	7'-6"	
5F3	5	1	11'-9"	
L	LOOP ASSEMBLY			
6D1	6	1	8'-5"	
6D2	6	1	7'-7"	
6D3	6	1	8'-6"	
		•	•	



LOOP BAR ASSEMBLY





DETAIL "C" BENT BAR DETAIL

2" MIN. CLEAR

2" MIN. CLEAR

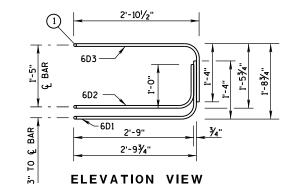
4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

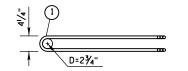
TAPER BARRIER SECTION

## BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

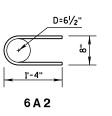
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.	
4A1	4	12	6'-0"	
6A2	6	6	2'-11"	
5B1	5	3	12'-2"	
4C1	4	2	12'-2"	
L	LOOP ASSEMBLY			
6D1	6	2	8'-5"	
6D2	6	2	7'-7"	
6D3	6	2	8'-6"	

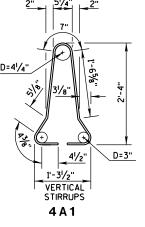




PLAN VIEW Loop bar assembly

(MARKED END SHOWN, INVERT FOR OTHER END)



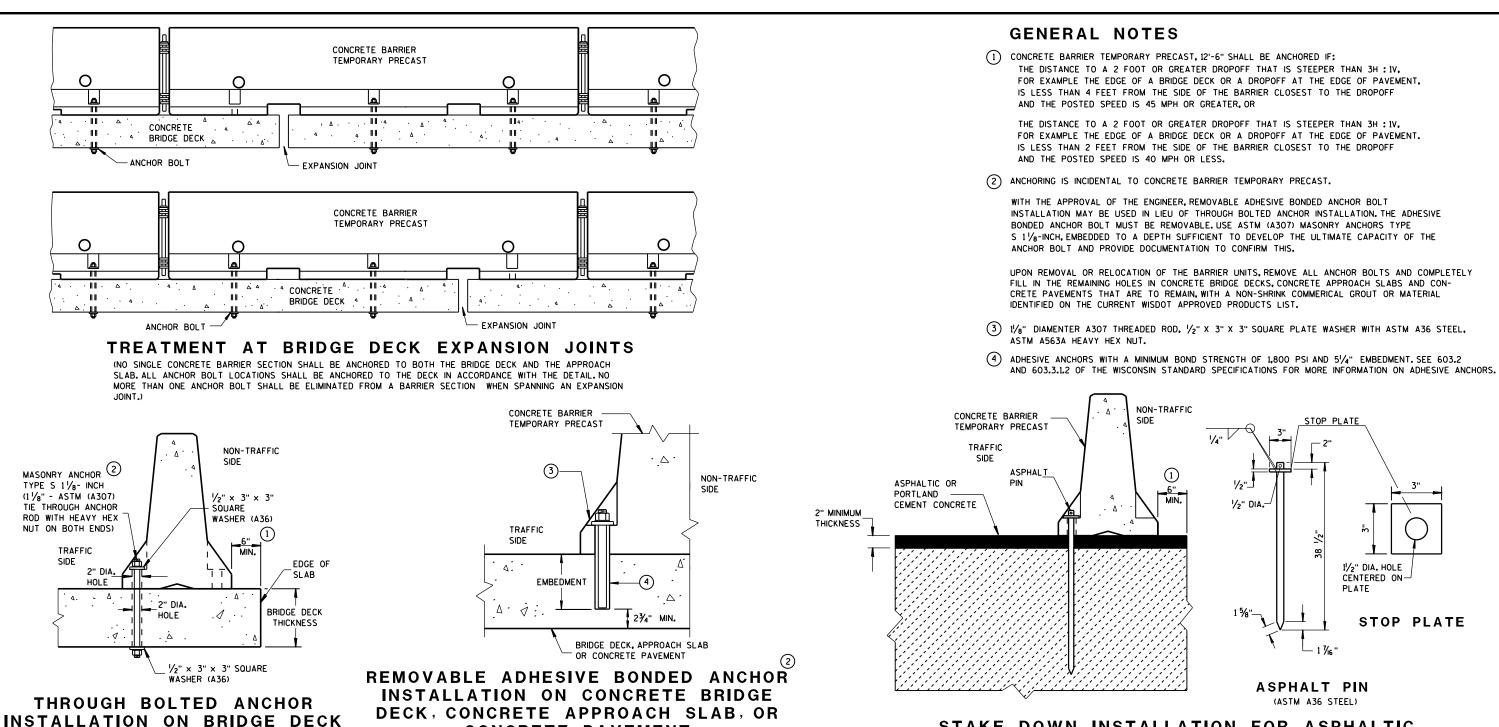


### BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

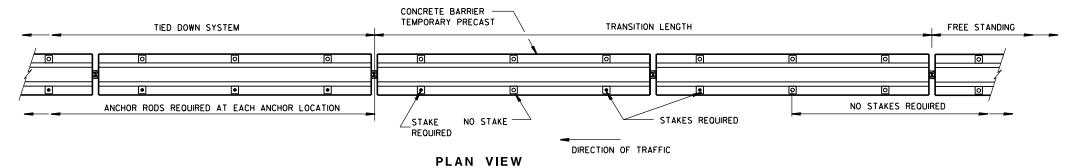
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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### STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



**CONCRETE PAVEMENT** 

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY, IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN,)

**CONCRETE BARRIER** TEMPORARY PRECAST, 12'-6"

11/2" DIA. HOLE

CENTERED ON-

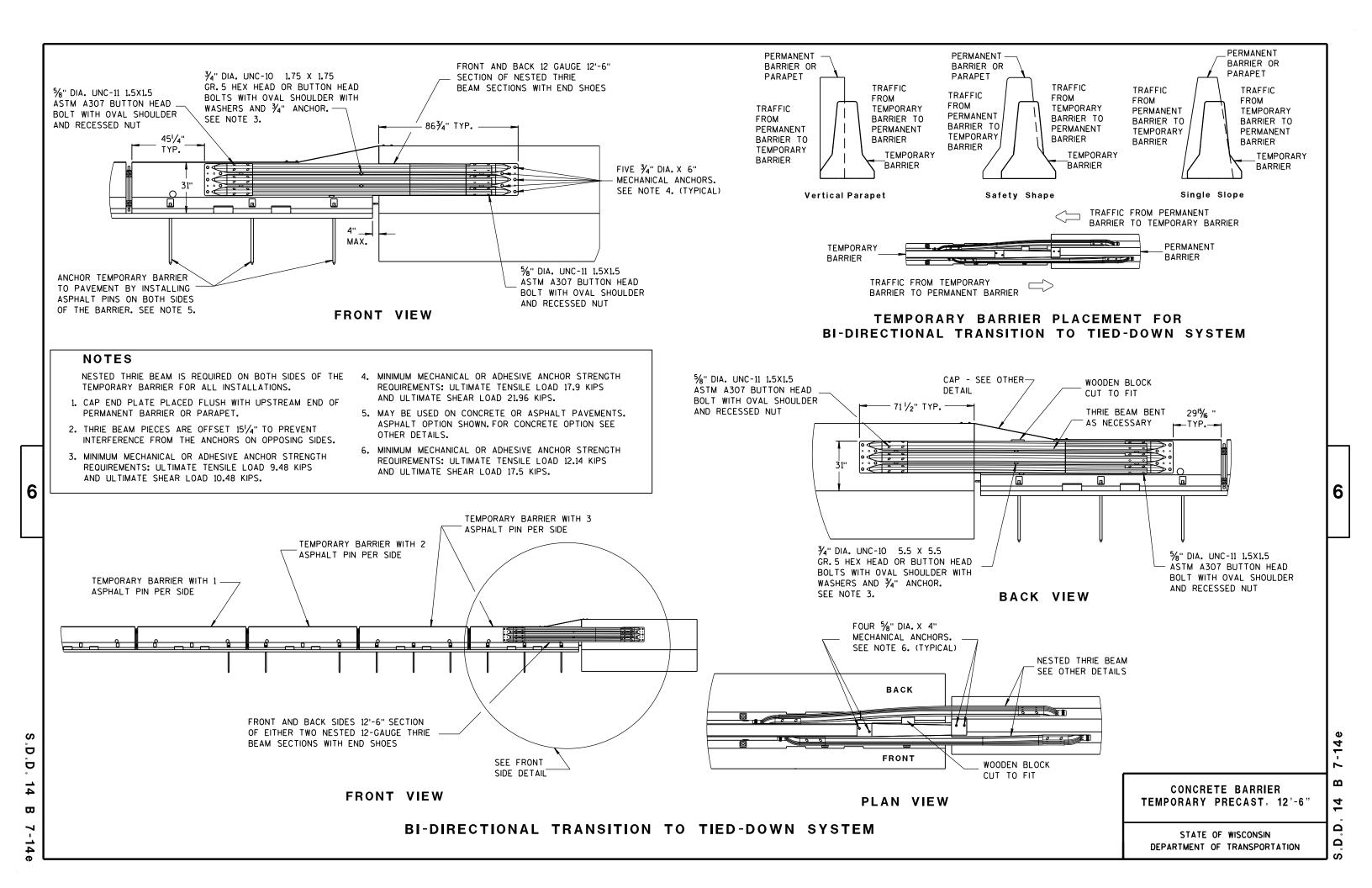
STOP PLATE

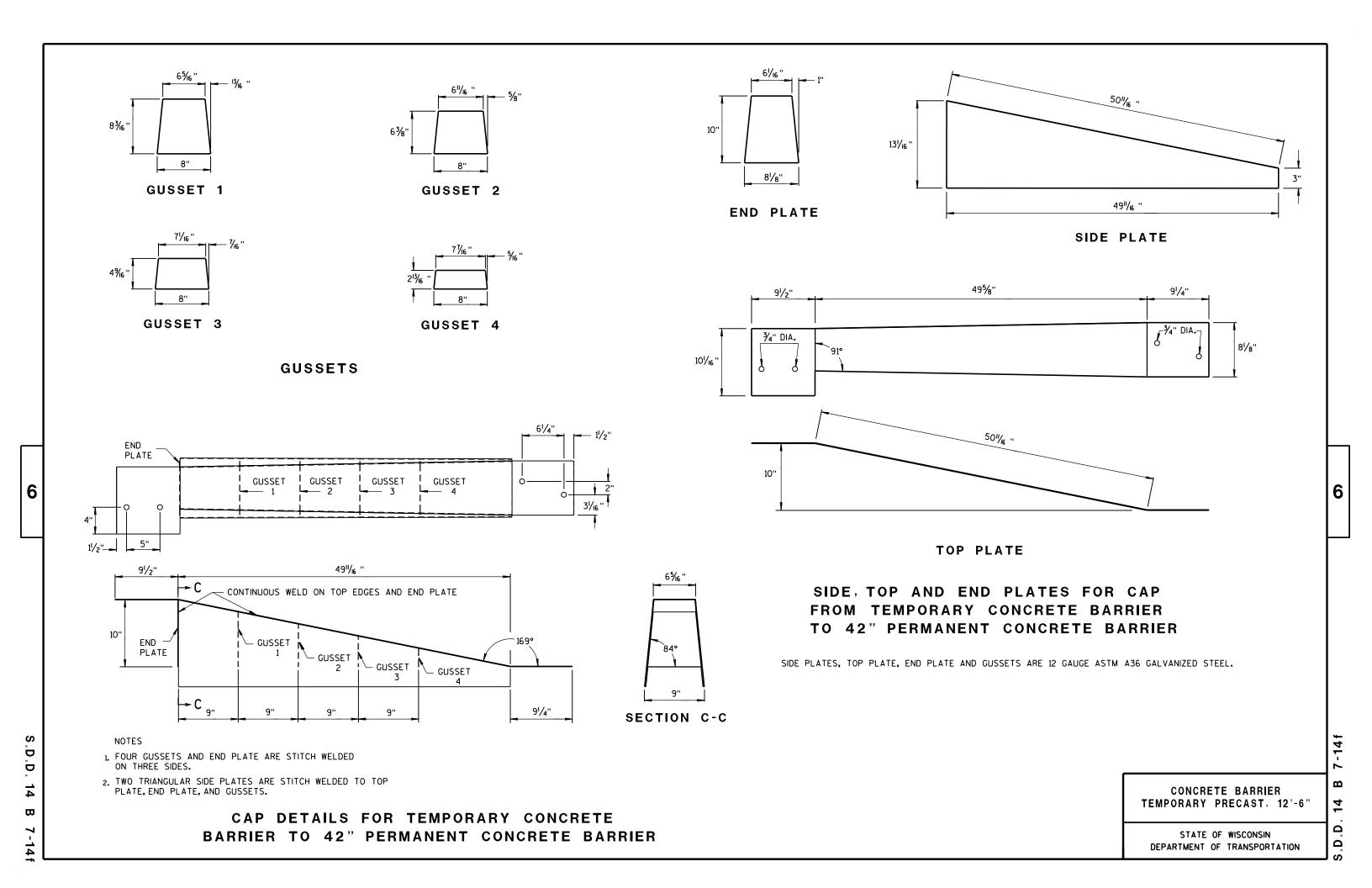
PLATE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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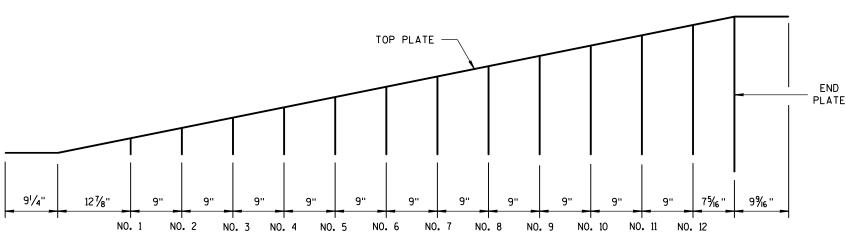
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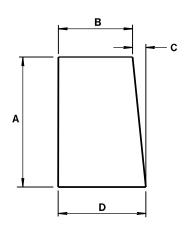
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**GUSSET LOCATION** 

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER



**GUSSETS 1 - 12** 

ALL GUSSETS 1/8" STEEL PLATE

GU	SSET	DIMEN	ISIONS	6
GUSSET No.	A	В	С	D
1	21/8"	73/4"	1/4"	8
2	4"/16 "	7% "	1/2"	8
3	61/2"	73/8"	11/16 "	8½6"
4	85%"	73/16"	<b>⅓</b> "	81/16"
5	101/8"	7"	1 1/16 "	81/16"
6	11 <sup>15</sup> / <sub>16</sub> ''	6 <sup>13</sup> // <sub>6</sub> "	1 1/4"	81/16"
7	13¾"	65/8"	1 1/6"	81/16 "
8	15% "	6 ½ "	1 % "	81/16"
9	173/8"	61/4"	1 13/16 ''	81/16"
10	193/6"	6½ <sub>6</sub> "	1 15/16 "	81/16 "
11	21"	5 1/8"	23/6"	8½ <sub>6</sub> "
12	22 <sup>13</sup> / <sub>16</sub> "	5 <sup>11</sup> / <sub>16</sub> "	25/6"	8½ <sub>6</sub> "

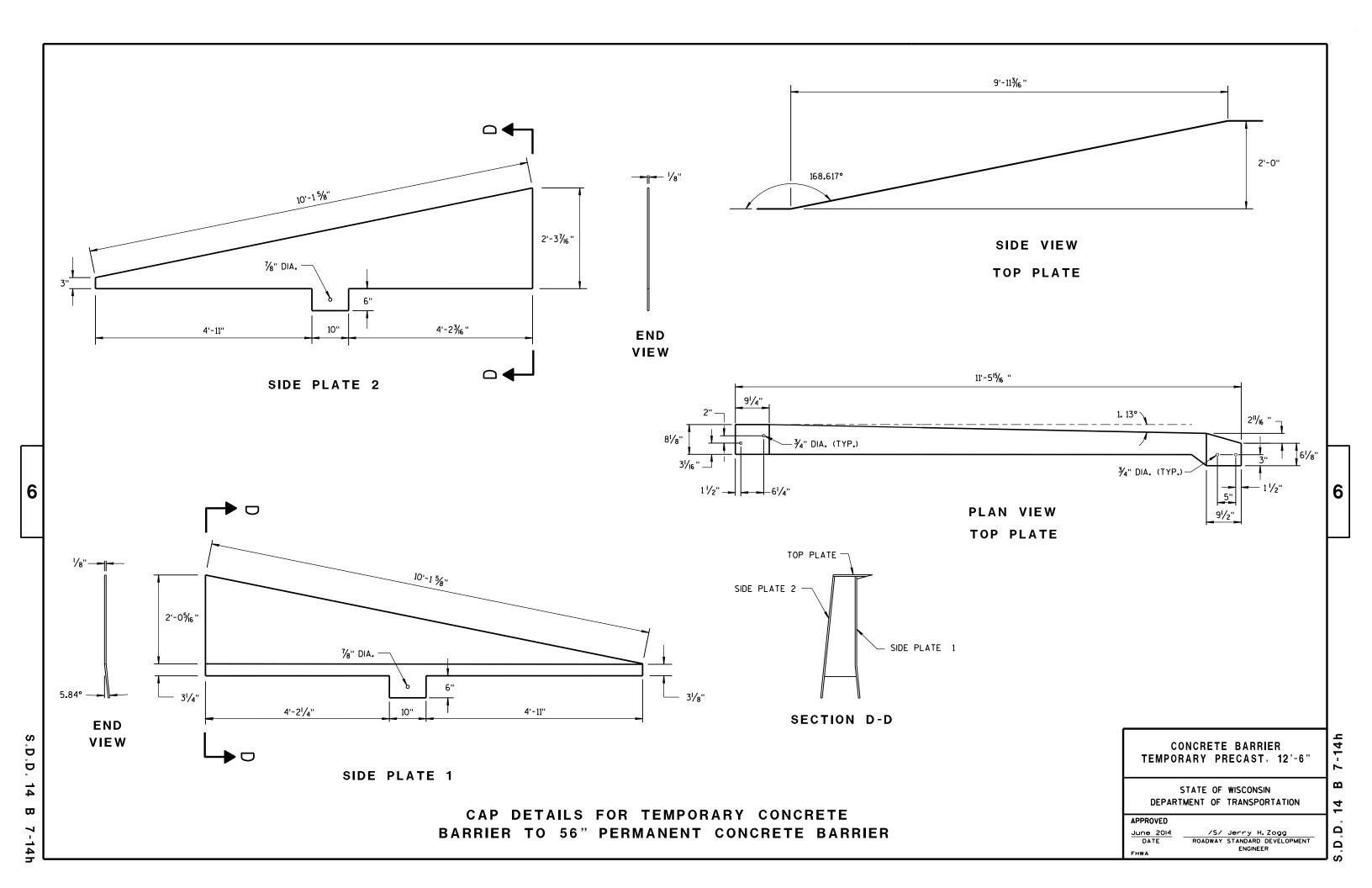
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

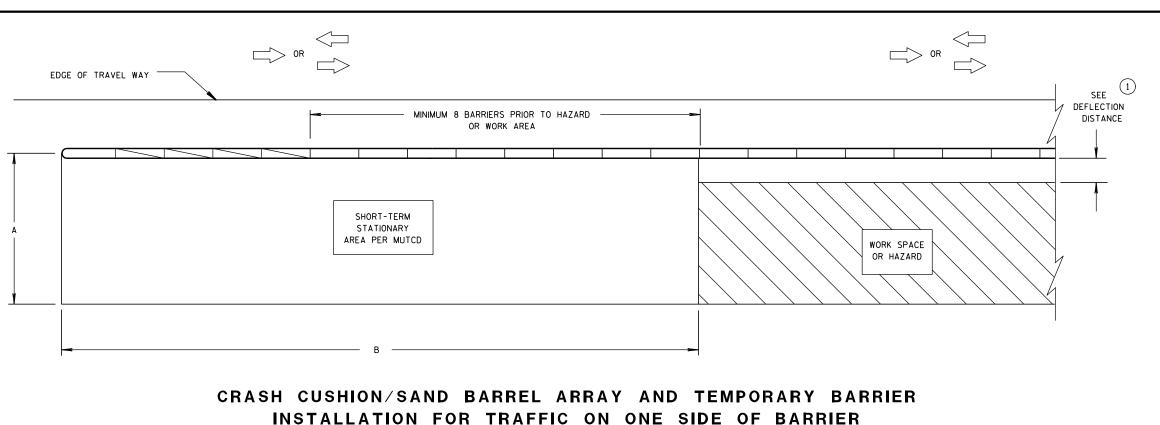
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.

> CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

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## DIMENSION A TABLE (2)

		DIMENS	SION A
FACILITY	POSTED SPEED	MIN.	МАХ.
	MPH	FT	FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

## DIMENSION B TABLE (2)

POSTED Speeds	DIMENSION B
MPH	FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
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### LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

OR CONCRETE PARAPET

PERMANENT CONCRETE BARRIER

FREE STANDING TEMPORARY BARRIER

#### CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

OR	
EDGE OF TRAVEL WAY	
EDGE OF TRAVEL WAY	

## CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

#### GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

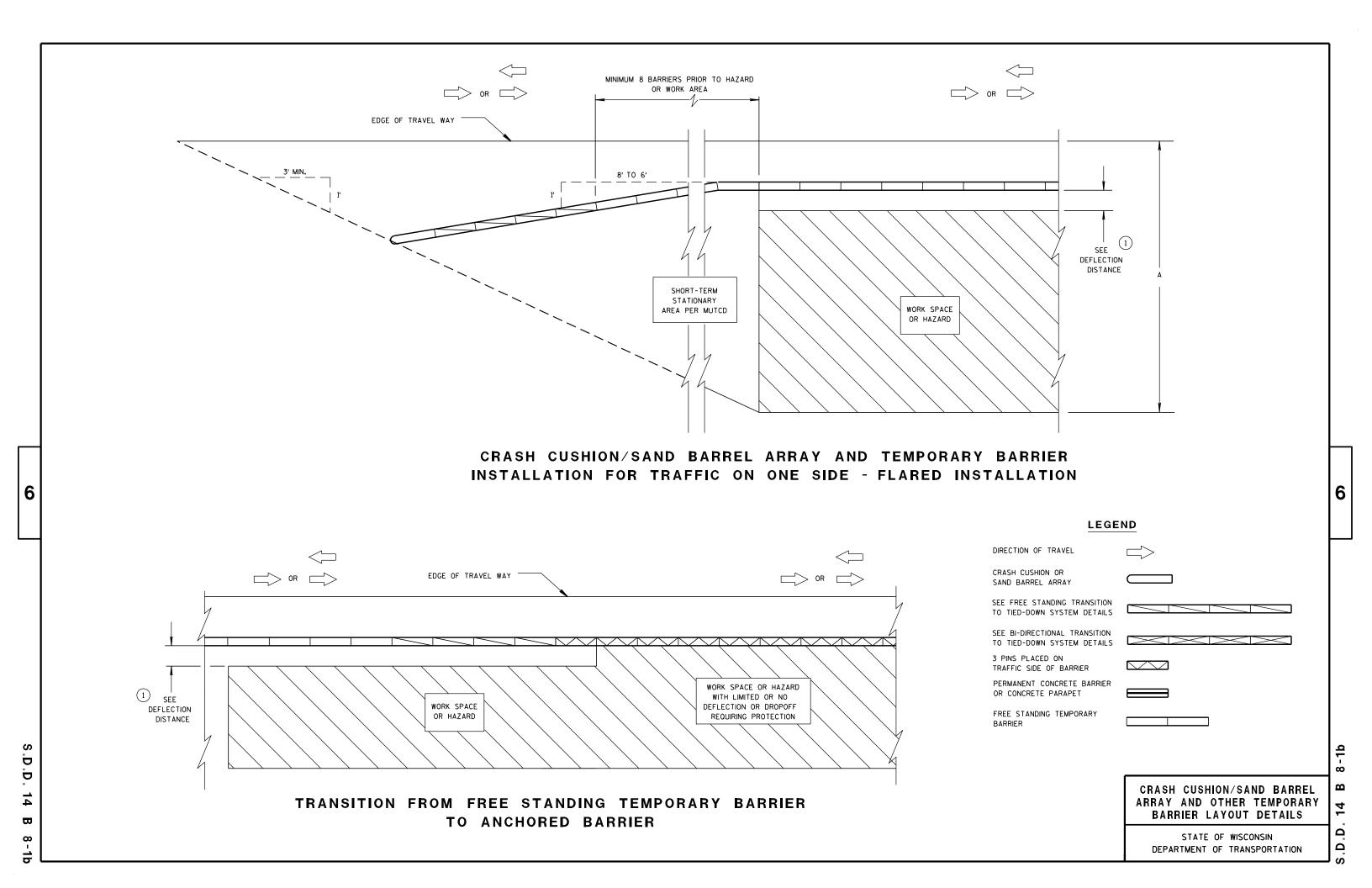
TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

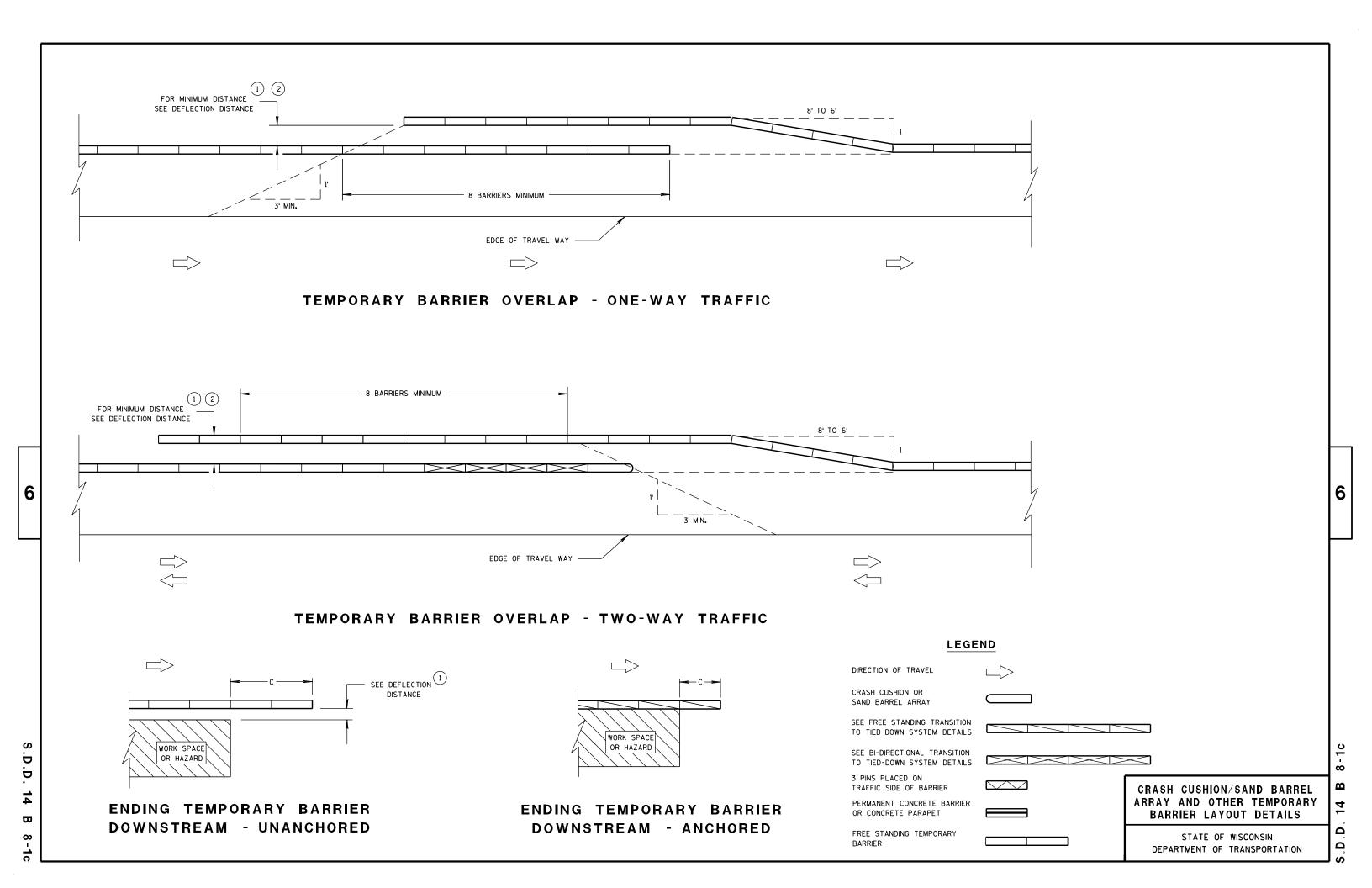
FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

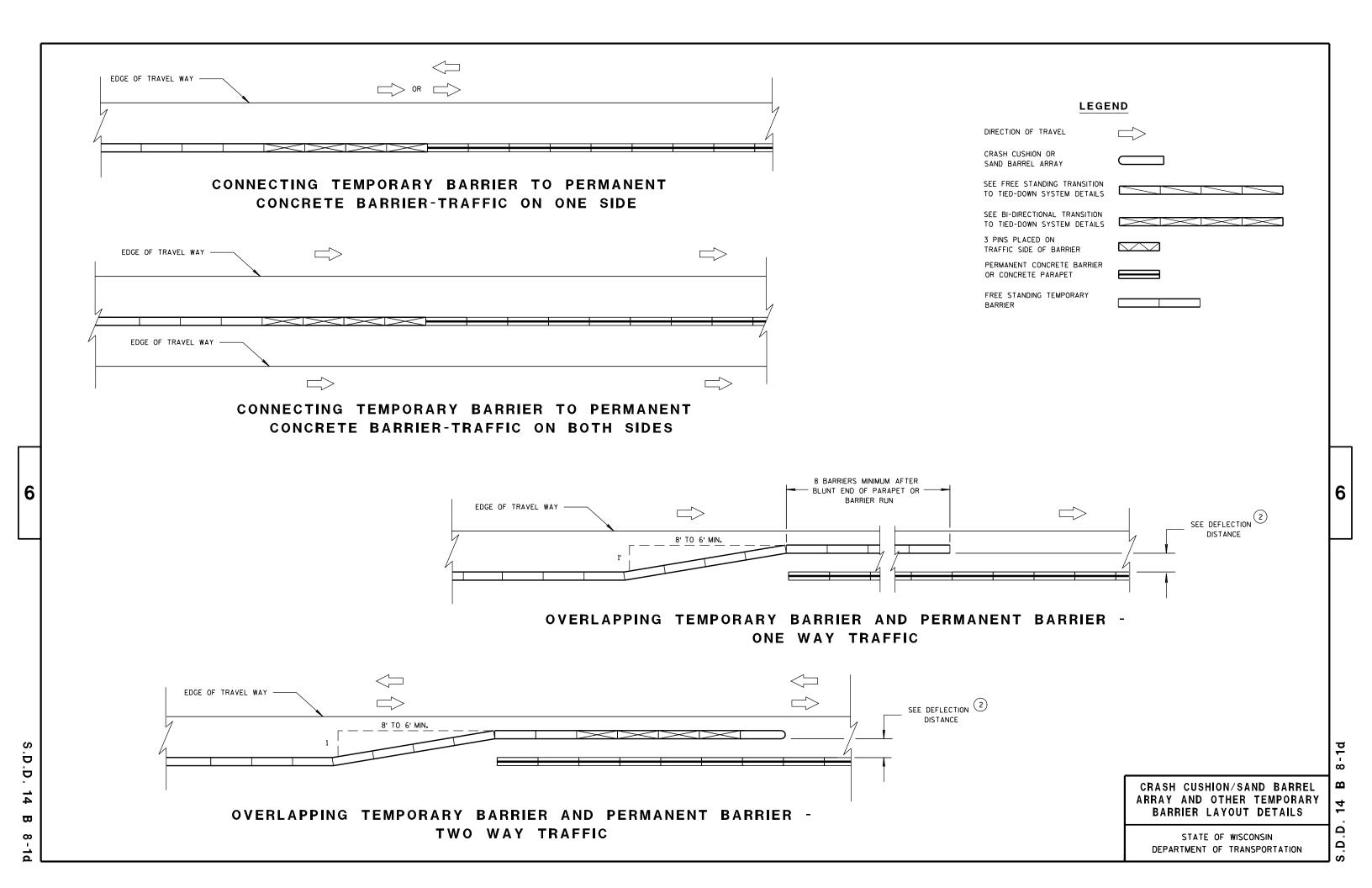
SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

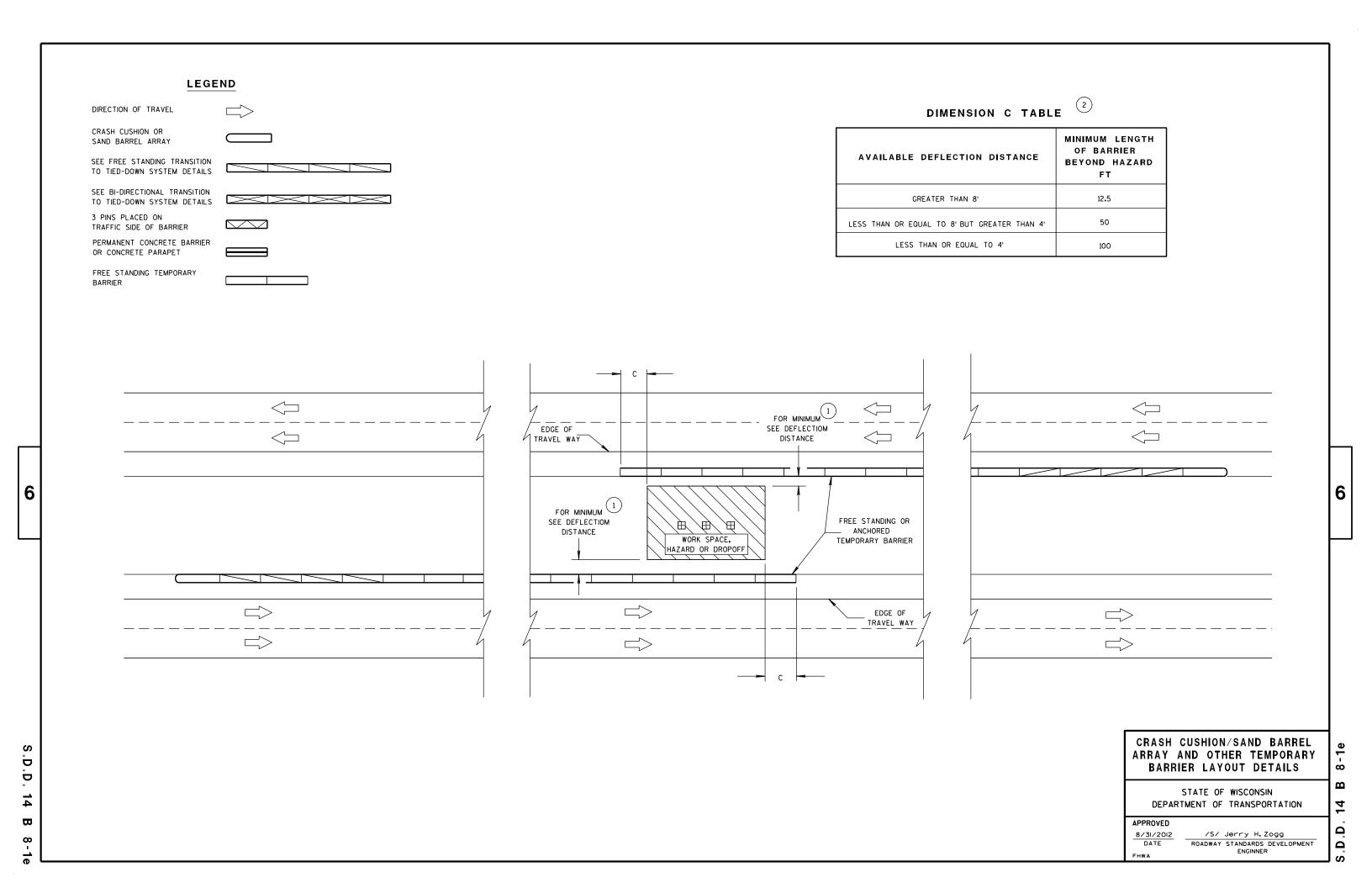
- (1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- (2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

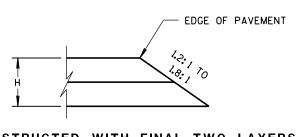
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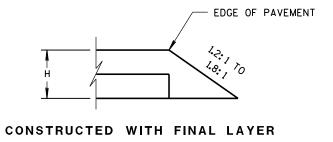








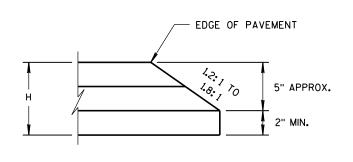


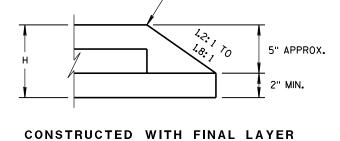


FOR H 5" OR LESS

CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS





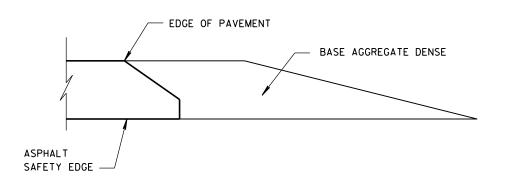
FOR H GREATER THAN 5"

EDGE OF PAVEMENT

CONSTRUCTED WITH FINAL TWO LAYERS

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE SM

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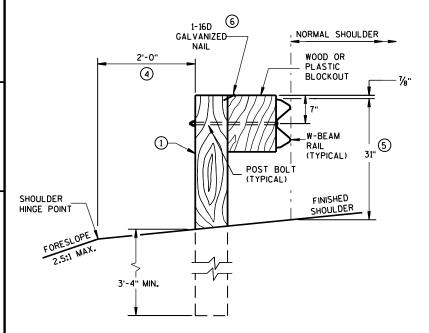
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APPROVED

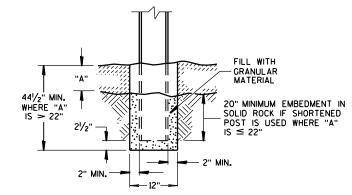
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

- (1) WOOD OR STEEL POSTS (W6X9 OR W6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- 2 USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- (3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 21/2 INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- (4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- (5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 273/4" TO 32".
- (6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



**END VIEW** 

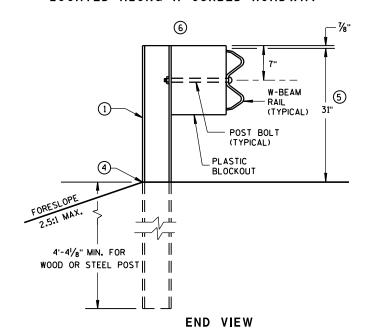
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



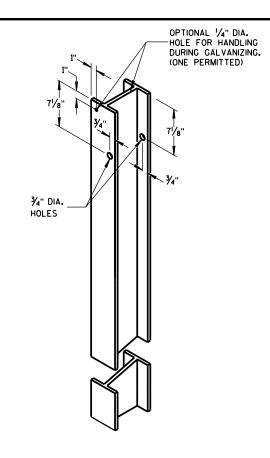
SETTING STEEL OR WOOD POST IN ROCK  $^{\scriptsize{\textcircled{3}}}$ 



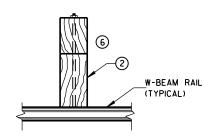
END VIEW
LOCATED ALONG A CURBED ROADWAY



MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



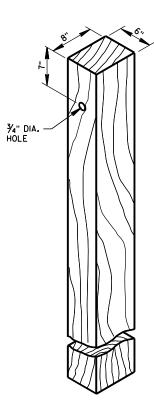
STEEL POST & HOLE PUNCHING DETAIL (w6X9)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD POST (6" X 8") NOMINAL  $^{\scriptsize \textcircled{1}}$ 



WOOD OR PLASTIC BLOCKOUT

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

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DEPARTMENT OF TRANSPORTATION

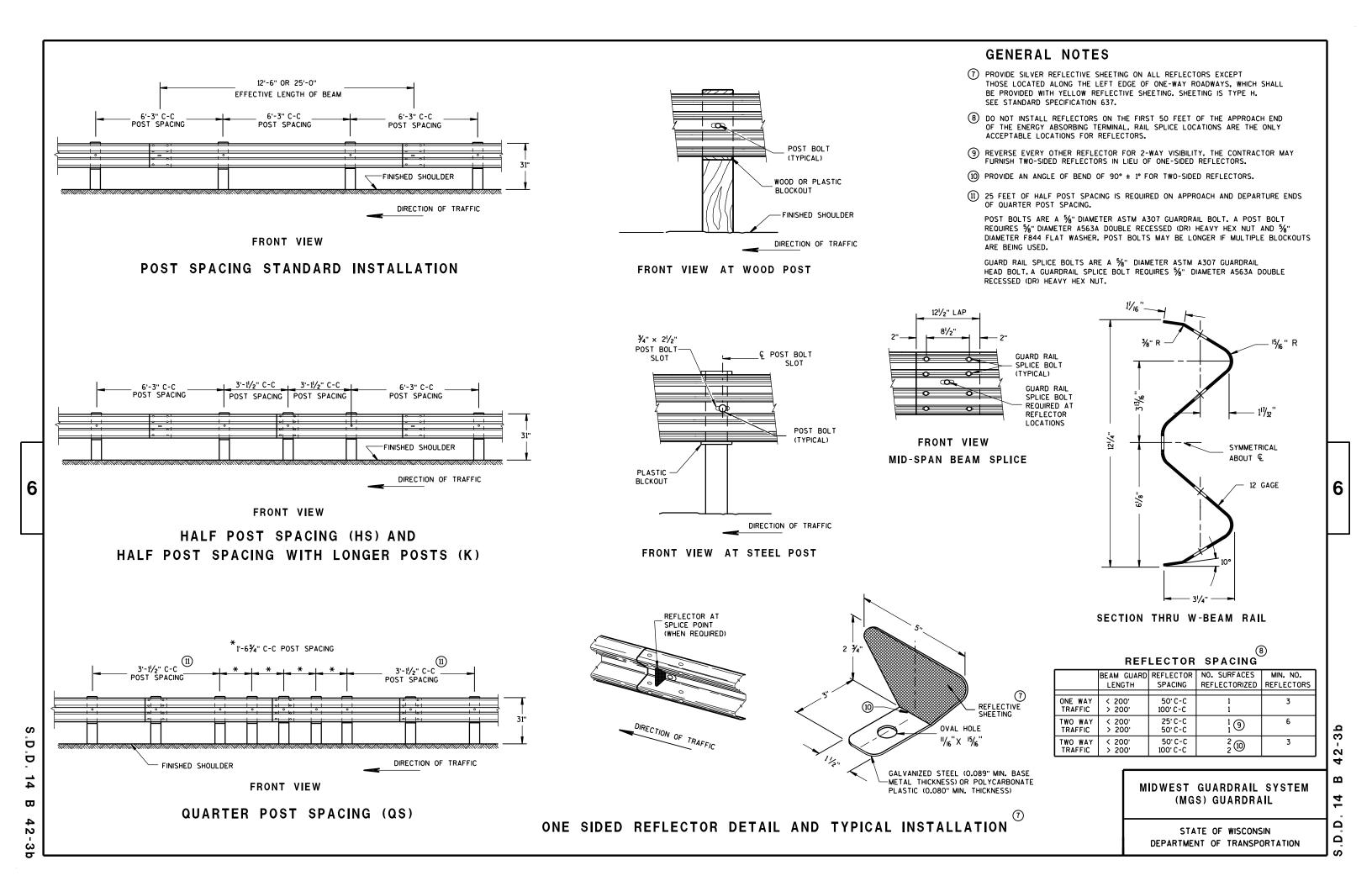
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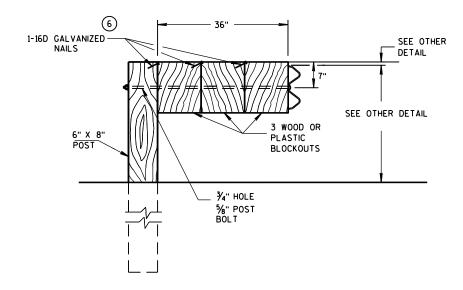
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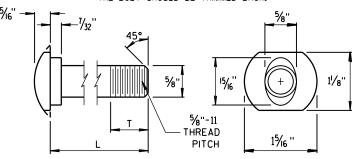


#### DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

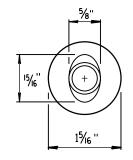
> DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF  $\frac{1}{16}$ ". 2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

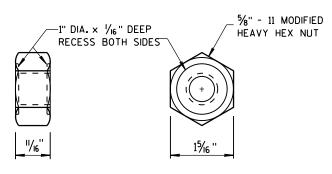


#### POST BOLT TABLE

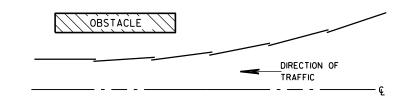
11/8"
437
13/4"
4"
41/16"
4"
41/16"
4"



ALTERNATE BOLT HEAD

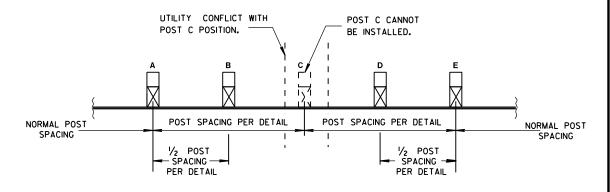


POST BOLT AND RECESS NUT



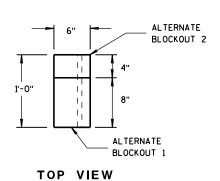
#### **PLAN VIEW**

### **BEAM LAPPING DETAIL**



### POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION





SIDE VIEW

### ALTERNATE WOOD **BLOCKOUT DETAIL**

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

June 2014 /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

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# SECTION A-A SECTION B-B

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PLAN VIEW

#### BILL OF MATERIALS

PART NO.	DESCRIPTION  MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
1	WOOD BREAKAWAY POST
2	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1AND 2
3	WOOD CRT
4	WOOD BLOCKOUT
(5)	PIPE SLEEVE
6	BEARING PLATE
7	BCT CABLE ASSEMBLY
8	ANCHOR CABLE BOX
9	GROUND STRUT
10	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL.MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
12	END SECTION EAT
(3)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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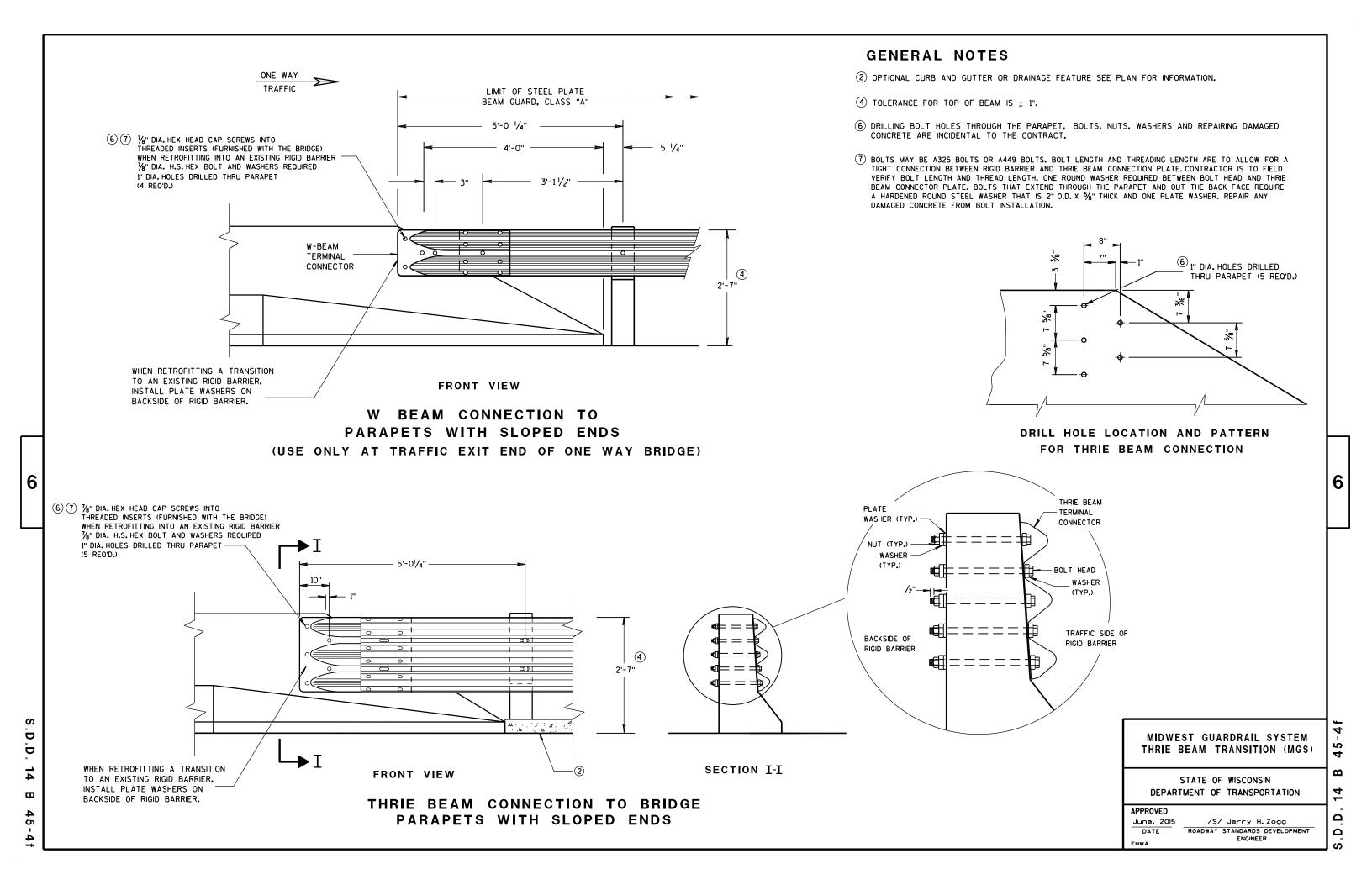
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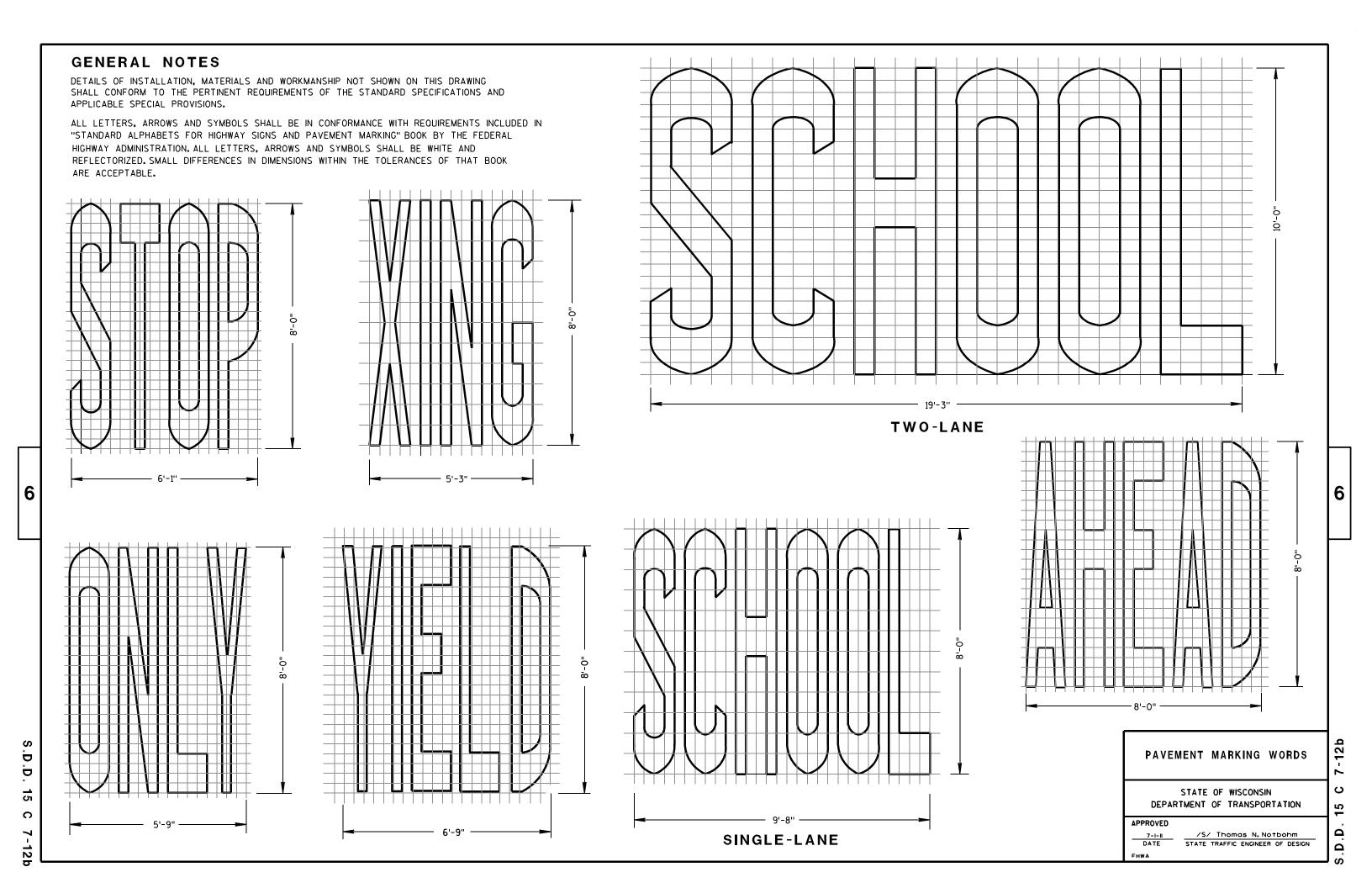


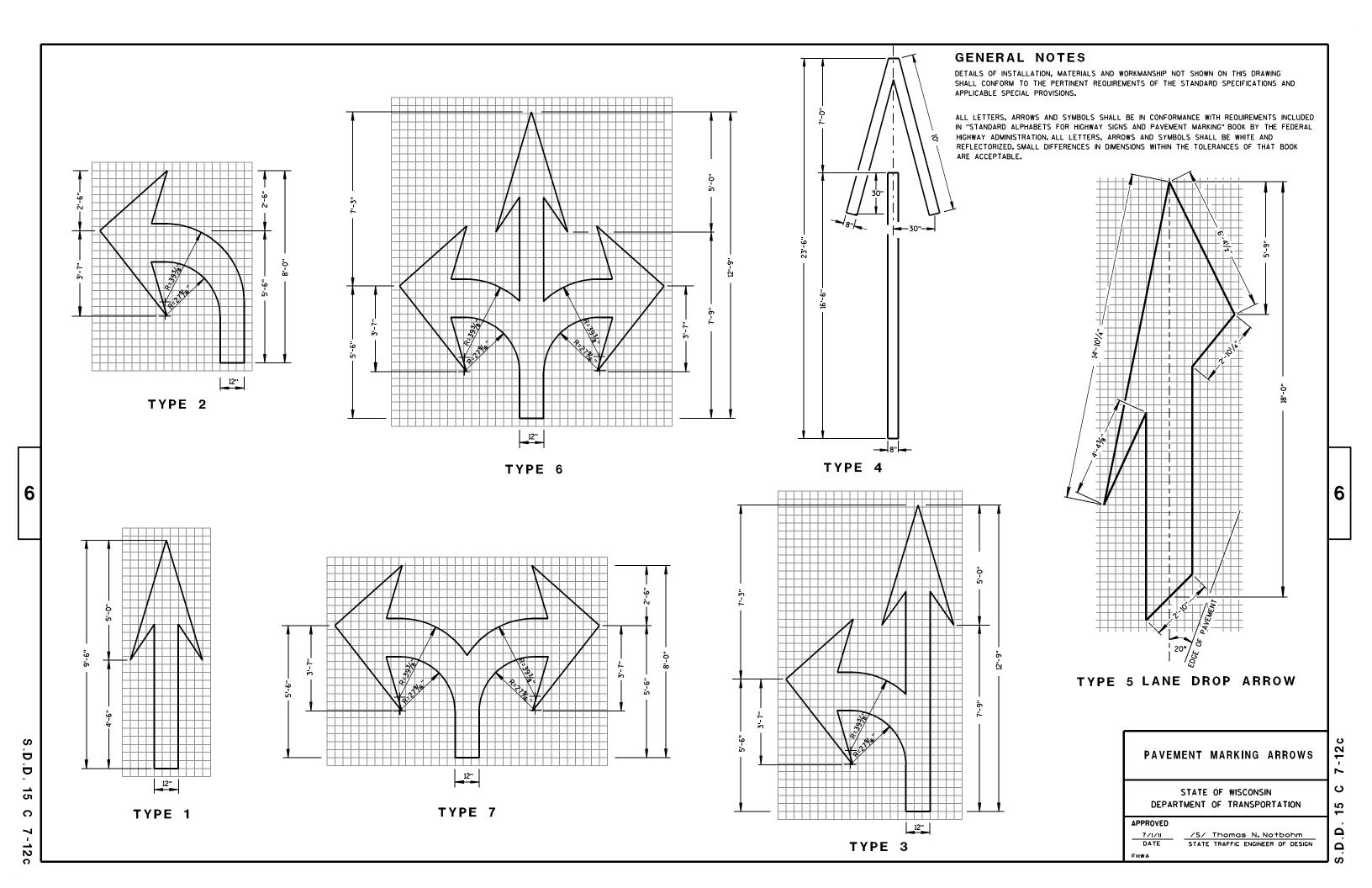






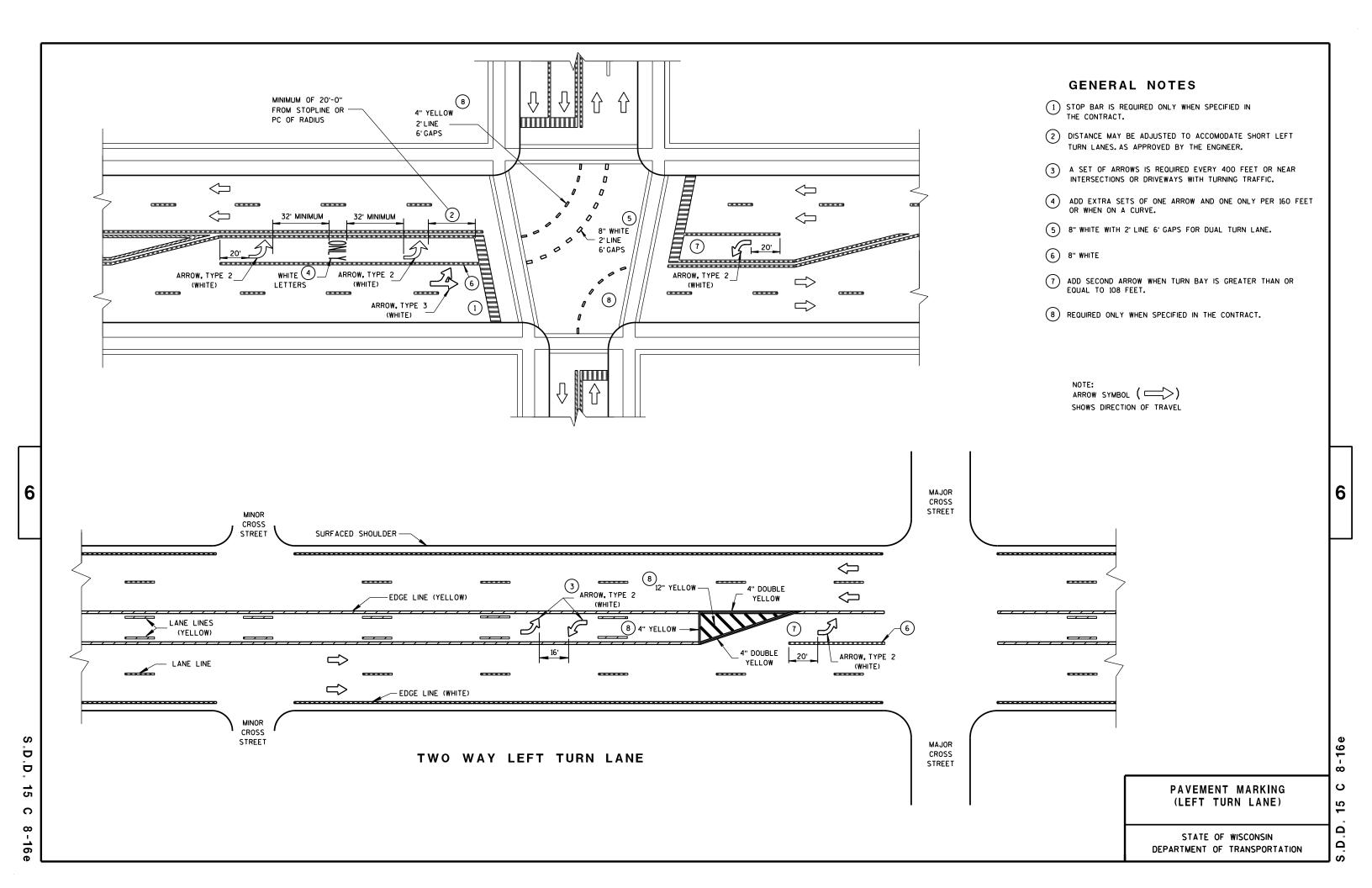


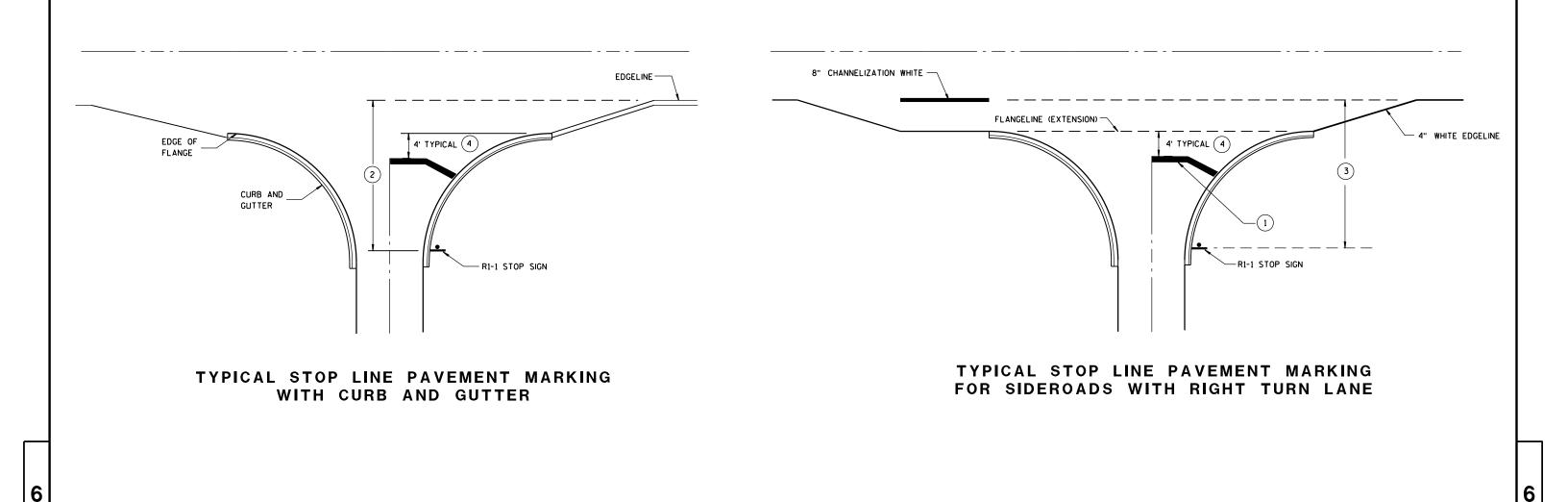


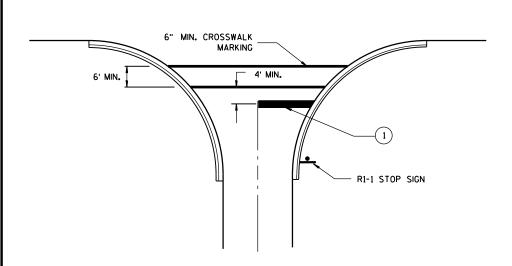




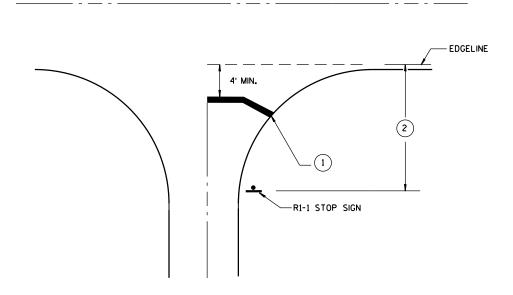








TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

### GENERAL NOTES

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
- (3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

# STOP LINE AND CROSSWALK PAVEMENT MARKING

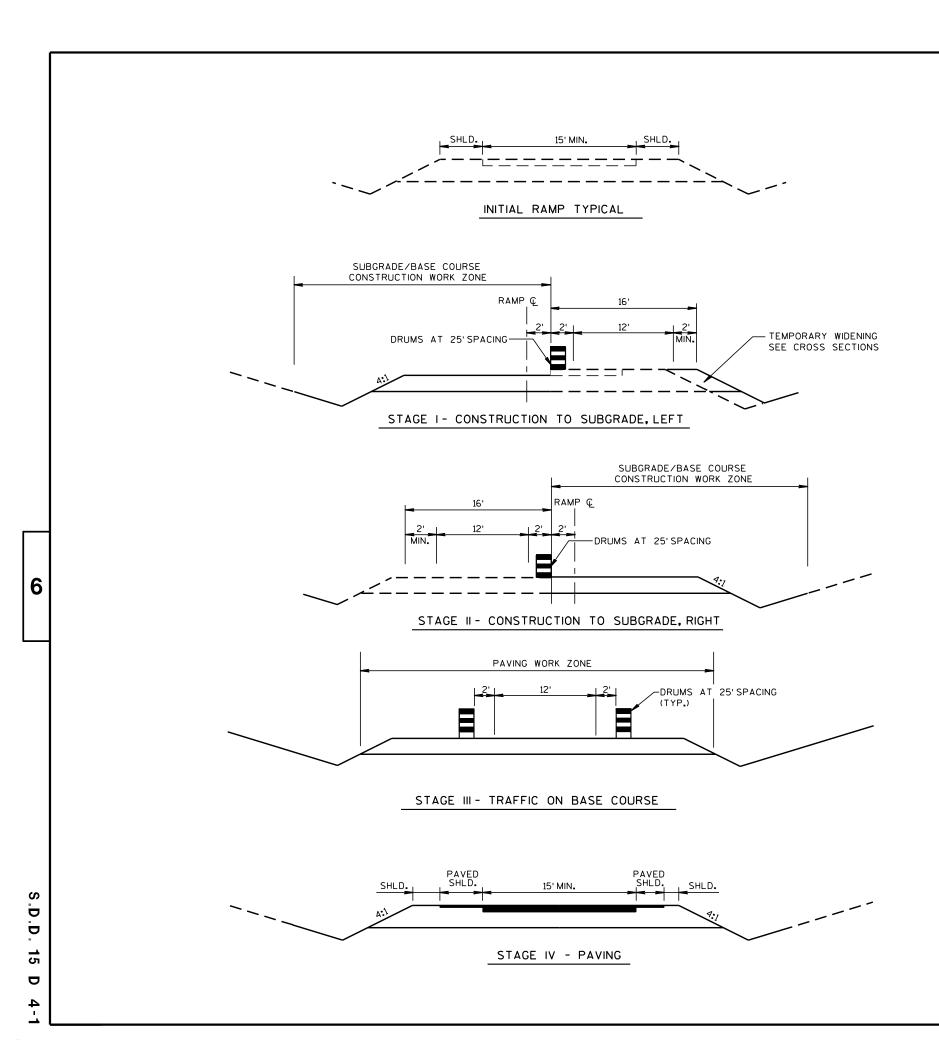
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	
4/30/2013	/S/ Travis Feltes
DATE	STATE TRAFFIC ENGINEER
FHWA	

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S.D.D.

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WORK SHALL BE SCHEDULED FOR ALL STAGES TO MINIMIZE INCONVENIENCE TO THE TRAFFIC USING THE RAMP WHILE IT IS ONLY BASE COURSE.

IN STAGE III, A MINIMUM 12' LANE WIDTH SHALL BE DELINEATED WITH DRUMS ALONG BOTH EDGES AT ALL TIMES UNTIL PAVED AND PAVEMENT MARKINGS ARE PLACED.

#### TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

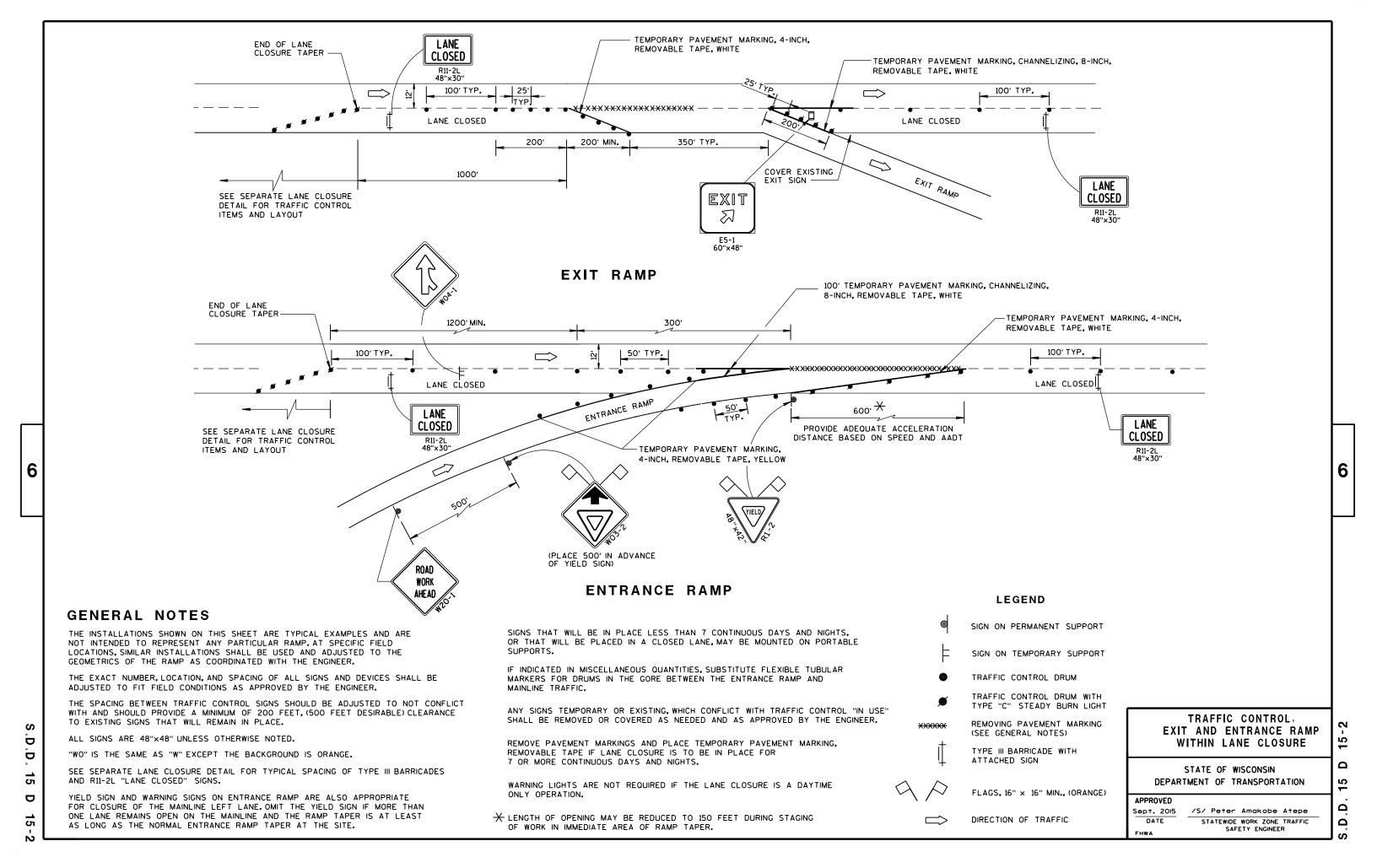
APPROVED

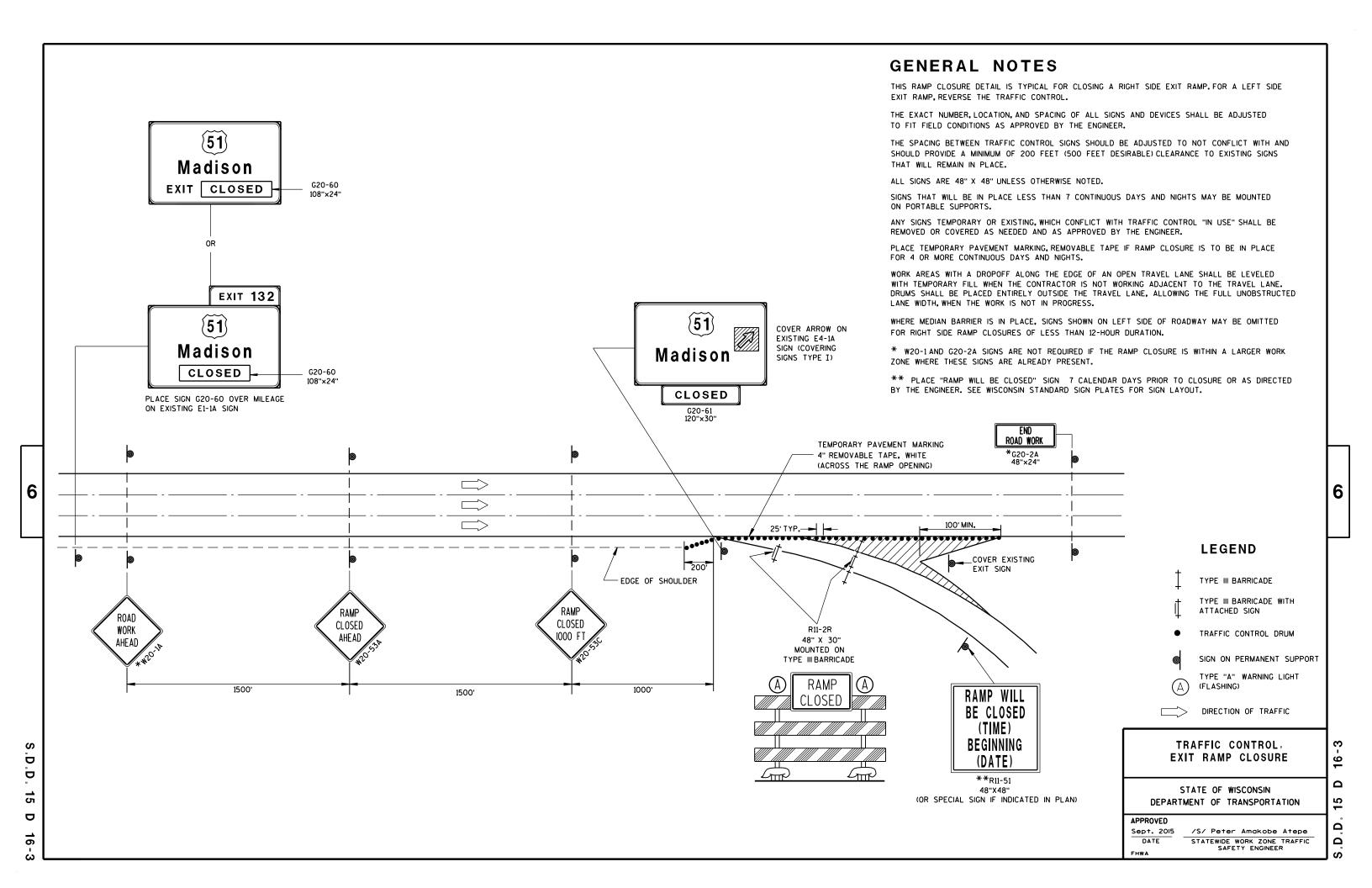
/S/ Chester J. Spang
DIRECTOR, OFFICE OF TRAFFIC DATE

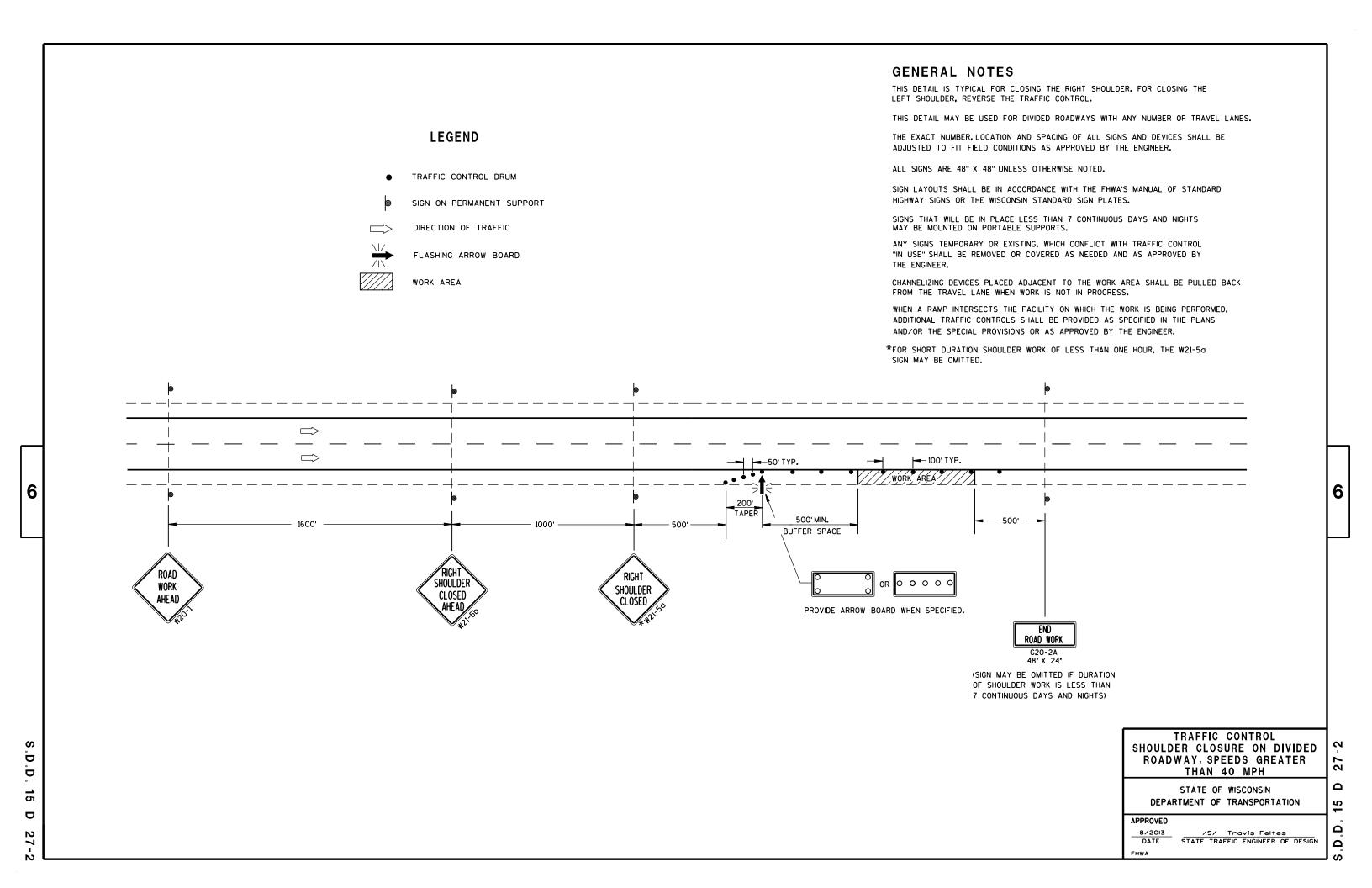
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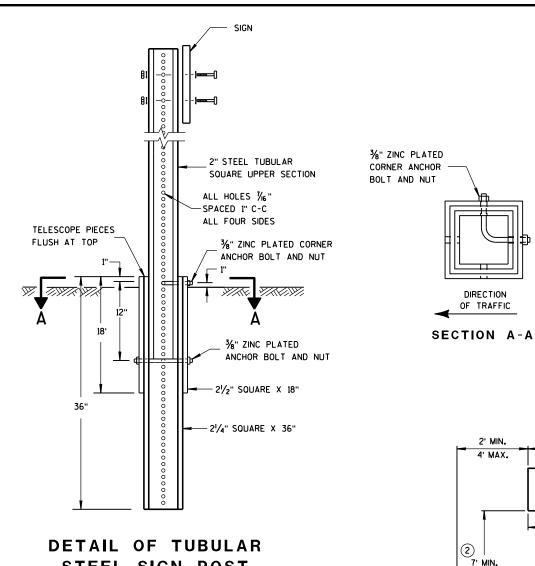
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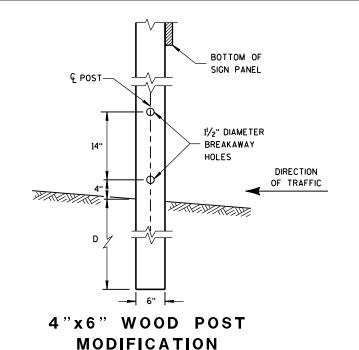
#### **GENERAL NOTES LEGEND** THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. 4 OR MORE DAYS AND NIGHTS. TYPE III BARRICADE WITH ATTACHED SIGN THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING OPERATION. SIGN ON PERMENENT SUPPORT SIGNS. IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING DELINEATION. THE DEVICE SPACING MAY BE DECREASED TO 50 FEET. LEFT LANE. TRAFFIC CONTROL DRUM ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST FLASHING ARROW BOARD "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE. 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. ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" TYPE "A" WARNING LIGHT (FLASHING) THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS. \* X -X REMOVING PAVEMENT MARKING CROSSOVER MANEUVER. CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS \* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL. DIRECTION OF TRAFFIC 1500 FEET IN FRONT OF DRUMS. \*\* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS. ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS. SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN. ĽІМІТ 55 R2-1 48"×60" (BLACK AND 6 6 RICHT LAN WHITE) WORK CLOSED CLOSED I MILE 1500 F XX M.P.H 36"×36" IF NEEDED. USE ONLY TYPE III BARRICADE IF DESIGN SPEED IS TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE SPACED EVERY 1/4 MILE. 10 MPH BELOW 4-INCH EDGELINE (WHITE ON RIGHT, YELLOW ON LEFT) POSTED SPEED. 100' $\Rightarrow$ $\Rightarrow$ WORK AREA 50' TYP. 500' 350' 500' MIN. - 800' DESIRABLE 500 575 MIN. MIN. TAPER 500 55 MPH - 660' 2600' 1600' 1000' S TRAFFIC CONTROL, LANE Ö CLOSURE, SPEED REDUCTION 2 5 DRUMS SPACED @ 10' INTERVALS AS D NEEDED IN FRONT OF ARROW BOARD STATE OF WISCONSIN S ADVANCED WARNING AREA TRANSITION AREA BUFFER SPACE DEPARTMENT OF TRANSPORTATION 2 D **APPROVED** Δ F<u>e</u>b. 2015 /S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN Δ FHWA











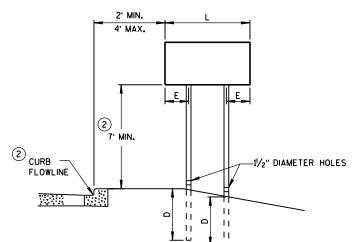
- (1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- (2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN
  THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED
  FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING,
  VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- (3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

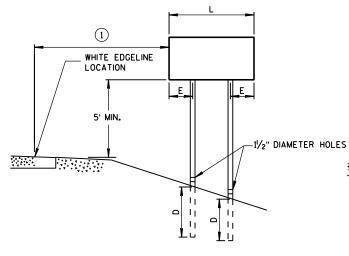
STEEL SIGN POST

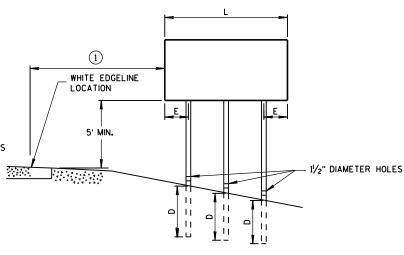
#### TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SO. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SO.FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE). SIGNS LARGER THAN 27 SO.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.







URBAN AREA

RURAL AREA

## POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST **EMBEDMENT DEPTH** 

AREA OF SIGN INSTALLATION (SO. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREM	NUMBER OF		
L	E	WOOD POSTS REQUIRED	
48" OR LESS AND LESS THAN 20 SO.FT.	-	1	
LESS THAN 60"	12"	2	] <sup>:</sup>
60" TO 120"	L/5	2	
GREATER THAN 120" LESS THAN 168"	12"	3	
168" AND GREATER	12"	4	

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

\* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

> ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

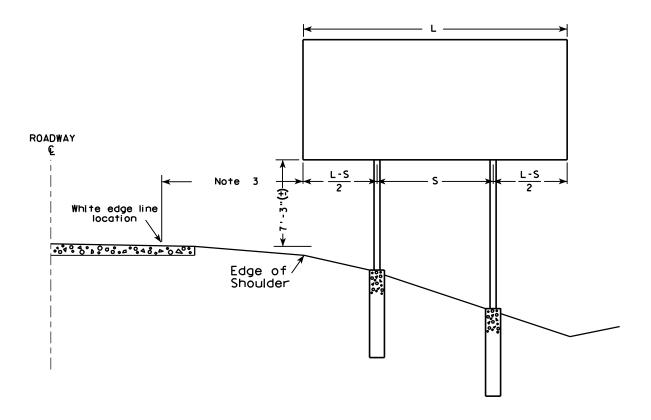
APPROVED Feb. 2015

/S/ Travis Feltes DATE STATE TRAFFIC ENGINEER OF DESIGN FHWA

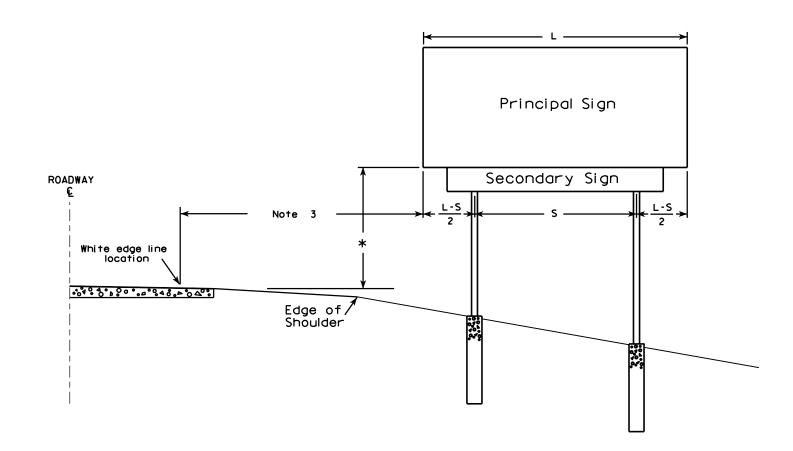
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38-1b

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- 1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
- 2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
- 3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
- 4. The (+) tolerance shown on this sheet is 3 in.
- 5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
- 6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
- 7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.



\* Clearance is  $8'-3''(\pm)$  when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be  $5'-3''(\pm)$ .

> TYPICAL INSTALLATION OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED for State Traffic Engineer PLATE NO. <u>A4-1.9</u>

DATE 4/02/08

SHEET NO:

PROJECT NO:

PLOT DATE: 02-APR-2008 15:49

PLOT BY : ditjph

# URBAN ARFA



RURAL AREA (See Note 2)



2' Min - 4' Max (See Note 6)



5'-3"(生)  $D^{-1}$ Outside Edae of Gravel

White Edgeline Location

\*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where

there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

HWY:

\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

PLOT BY : mscj9h

#### GENERAL NOTES

- 1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- 2. If signs are mounted on barrier wall, see A4-10 sign plate.
- 3. For expressways and freeways, mounting height is  $7'-3''(\pm)$  or 6'-3" (±) depending upon existence of a sub-sign.
- 4. Minimum mounting height for J assemblies (A2-1S) is  $7'-3''(\pm)$  or  $6'-3''(\pm)$ per urban or rural detail respectively.
- 5. Minimum mounting height for signs mounted on traffic signal poles is  $5' - 3'' (\pm)$ .
- 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 7. The (+) tolerance for mounting height is 3 inches.
- 8. Folding signs shall be mounted at a height of 5'-3'' ( $\pm$ ) or as directd by the Engineer.
- 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3"  $(\pm)$ . The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3'' ( $\pm$ ).

### POST EMBEDMENT DEPTH

Area of Sign	
Installation	D
( Sq. Ft.)	(Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

for State Traffic Engineer

DATE 7/23/15

PLATE NO. <u>A4-3.20</u>

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A43.DGN

PROJECT NO:

PLOT DATE: 23-JUL-2015 15:21

COUNTY:

PLOT NAME :

PLOT SCALE: 99.237937:1.000000

WISDOT/CADDS SHEET 42



NOTES: 1. ALL MATERIAL TO BE APPROVED

BY ENGINEER PRIOR TO INSTALLATION

- 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
- 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



# **ELEVATION VIEW**

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

HWY:



#### PLAN VIEW

COUNTY:

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A43B.DGN

PROJECT NO:

PLOT DATE: 27-JAN-2014 09:48

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 13.659812:1.000000

APPROVED

WISDOT/CADDS SHEET 42

- 1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- 2. See tables below for required number of posts.
- 3. For expressways and freeways, mounting height is 7'-3'' (±) or 6'-3'' (±) depending upon existence of sub-sign.
- 4. The (±) tolerance for mounting height is 3 inches.
- 5. Minimum mounting height for J assemblies (A2-1S) is 7'-3'' (±) or 6'-3'' (±) per urban or rural detail respectively.
- 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8). Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).
- \* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- \*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- \*\*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

#### URBAN AREA RURAL AREA (See Note 3) 2'Min - 4'Max (See Note 6) ₩E# FF# 6'-3"(±) 6'-3"(±) 7'-3"(±) \*\* Curb **\*\*\*\***\ Flowline D **7000** White Edgeline D 11 White Edgeline, Location Outside Edae Location

# 2'Min - 4'Max (See Note 6) 6'-3"(±) Curb Flowline. - 11

48" DIAMOND WARNING SIGN

HWY:

# \_ 26" 5 ' - 3 "(±) White Edgeline Location Outside Edge of Gravel 48" DIAMOND WARNING SIGN

COUNTY:

Outside Edge

of Gravel

	SIGN SHAPE OTHER THAN (TWO POSTS REQUIRED		
	L	E	
<del>* * *</del>	Greater than 48" Less than 60"	12"	
	60" to 120"	L/5	l

SIGN SHAPE OTHER THAN (THREE POSTS REQUIR	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN (FOUR POSTS REQUIRE	
L	E
168" and greater	12"

#### POST EMBEDMENT DEPTH

of Gravel

Area of Sign	
Installation	D
( Sq. Ft.)	(Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

Matther

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A44.DGN

PROJECT NO:

PLOT DATE: 23-JUL-2015 15:23

PLOT SCALE: 107.021305:1.000000

WISDOT/CADDS SHEET 42

PLOT NAME :

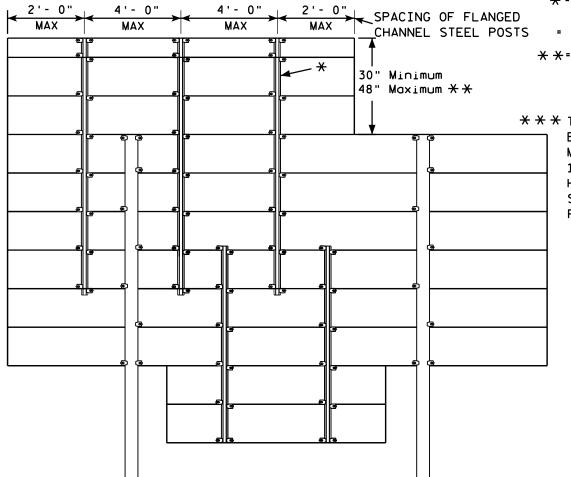
PLOT BY: mscj9h

WISCONSIN DEPT OF TRANSPORTATION APPROVED

For State Traffic Engineer

PLATE NO. 44-4.14 DATE 7/23/15





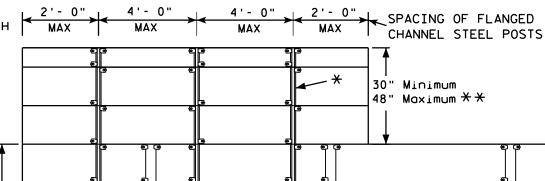
\*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH

CHANNEL STEEL POSTS = 60,000 PSI (GRADE 60) GALVANIZED

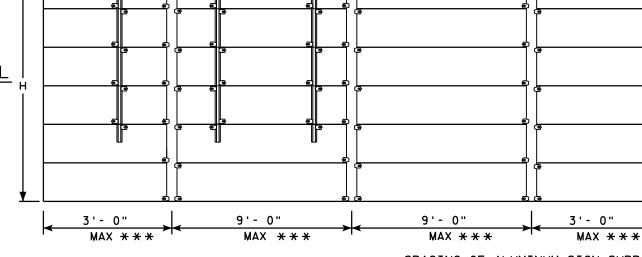
SIGN BRIDGE MOUNTED SIGN

\* \*= FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

\* \* THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.



FLANGE CHANNEL DETAIL 1/<sub>4</sub> → NOT TO SCALE



SPACING OF ALUMINUM SIGN SUPPORTS 5" X 3.5" X 3.7 LBS./ft.

#### GENERAL NOTES

- 1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
- 2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.

2'- 0"

- 4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
- 5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
- 6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

PLOT BY: mscs.ja

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

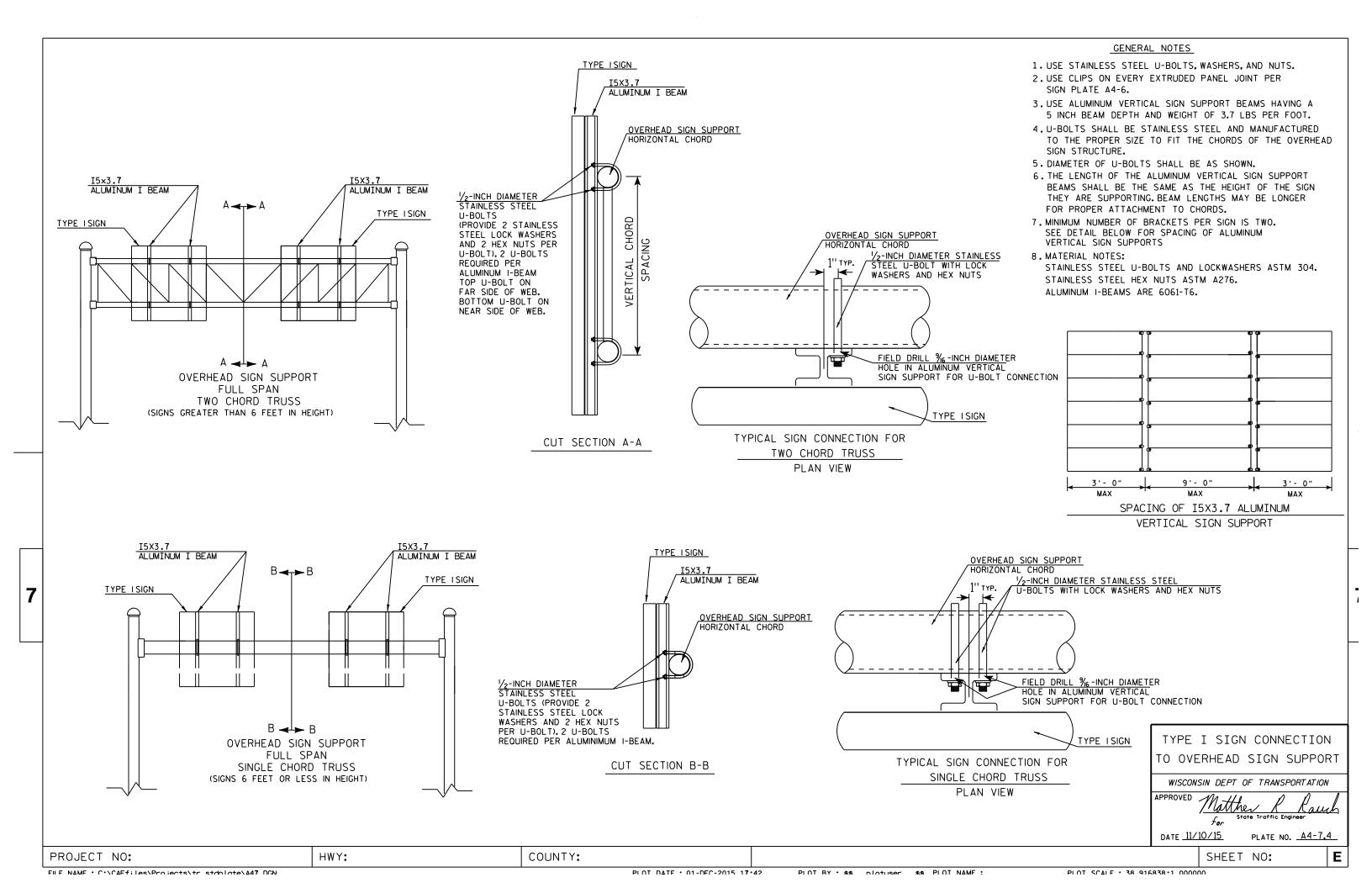
DATE 12/05/13

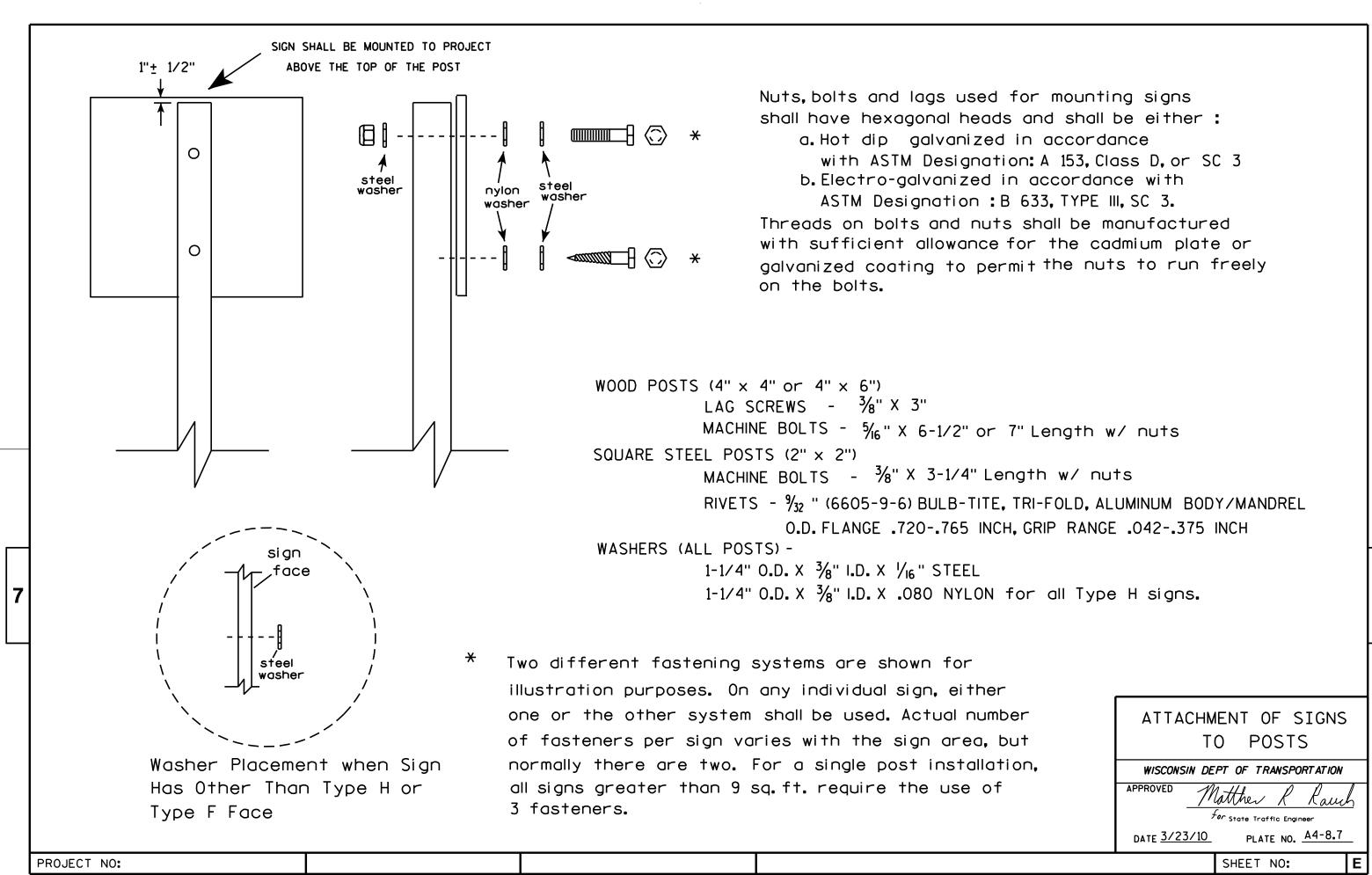
PLATE NO. A4-6.12

SHEET NO:

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A46.DGN







PROJECT NO: HWY: COUNTY: SHEET NO: FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A49.DGN PLOT DATE: 05-FEB-2015 17:09 PLOT BY: mscsja PLOT NAME : PLOT SCALE: 13.659812:1.000000

DATE 2/05/15

PLATE NO. <u>A4-9.9</u>

For State Traffic Engineer

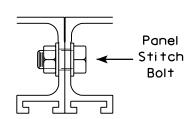


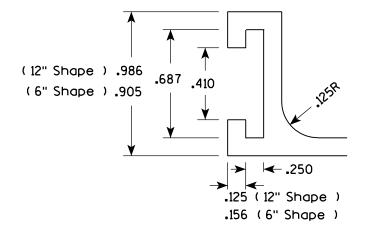
#### STITCH BOLT, WASHER & NUT

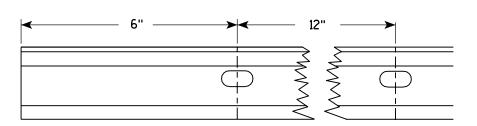
The hardware includes:

3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy 3/8 " - Stainless steel stop nut

3/8" X .064 Flat Washers, Alclad 2024-T4 alloy







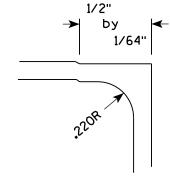
.078

**←** 2" →

6" Extrusion Minimum Weight 1.1 lb./ft.

**←.**125

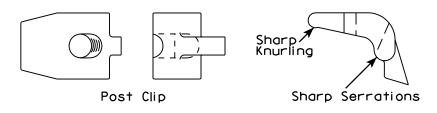
Punch  $7/16" \times 7/8"$  oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

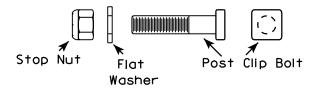


PLOT BY : DOTDZK

#### POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





#### NOTES

- 1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
- 2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
- 3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Les to J Spany

for State Traffic Engineer

DATE 11/18/99

PLATE NO. 45-2.9

\_\_\_\_

SHEET NO:

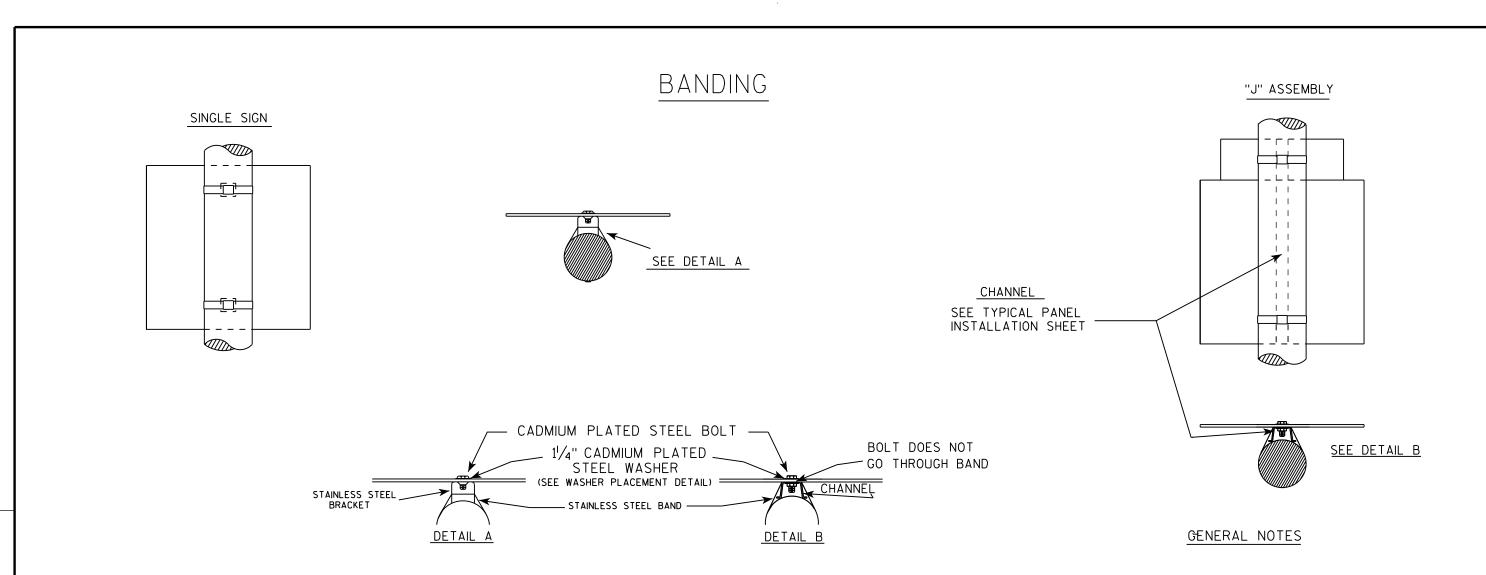
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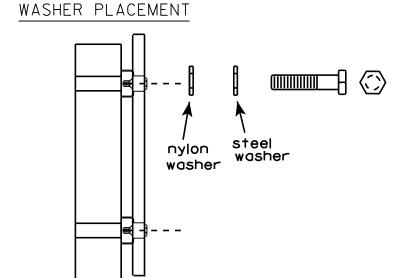
PLOT DATE: 28-SEP-2005 07:20

12" Extrusion

Minimum Weight

2.45 lb./ft.





HWY:

WASHERS (ALL POSTS) -

COUNTY:

1-1/4" O.D. X3/8" I.D. X1/16" STEEL 1-1/4" O.D. X3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

PLOT BY: mscsja

- 1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
- 2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
- 3. Banding and assembly bracket shall be stainless steel. All bands shall be  $\frac{3}{4}$ " in width and 0.025" thickness.

STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

DATE 8/16/13

SHEET NO:

State Traffic Engineer

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A59.DGN

PROJECT NO:

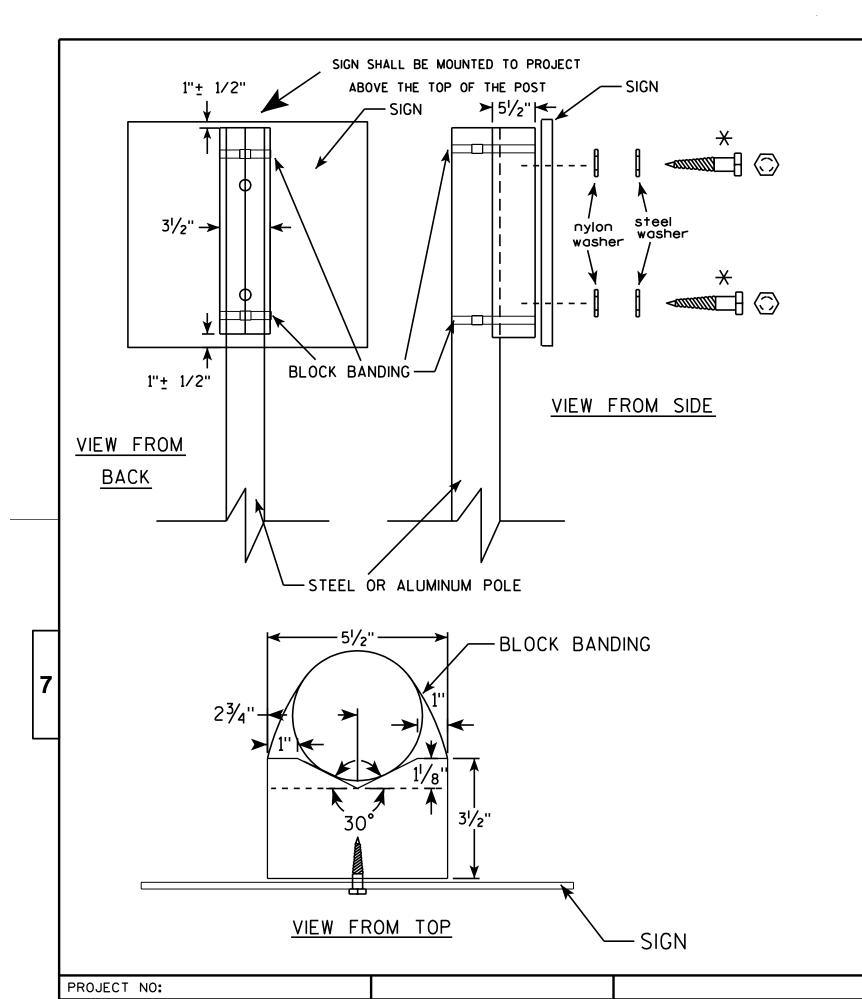
PLOT DATE: 16-AUG-2013 13:27

PLOT NAME :

PLOT SCALE: 33.740899:1.000000

WISDOT/CADDS SHEET 42

PLATE NO. A5-9.3



- 1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
- 2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
- 3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS.

  SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
- 4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
- 5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
  - b. Cadmium plated in accordance with ASTM Designation: B 766 TYPE 3, Class 12, or
  - c. Electro-galvanized in accordance with ASTM Designation: B 633, TYPE III, SC 3.
- 6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
- 7. STEEL WASHERS SHALL BE 11/4" O.D. X 3/8" I.D. X 1/16"
- 8. NYLON WASHERS SHALL BE  $1^{1}/_{4}$ " O.D. X  $3/_{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

X LAG BOLTS SHALL BE 3/8" X 21/2"

BLOCK BANDING DETAIL
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

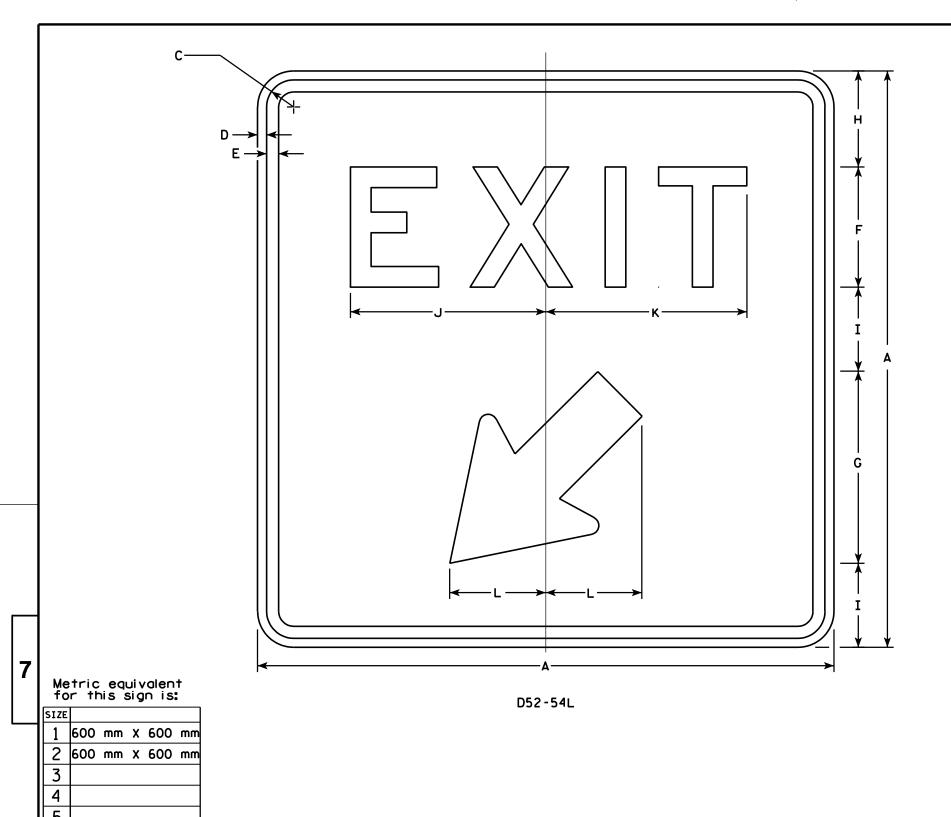
APPROVED

For State Traffic Engineer

DATE 7/12/07

PLATE NO. A5-10.1

SHEET NO:

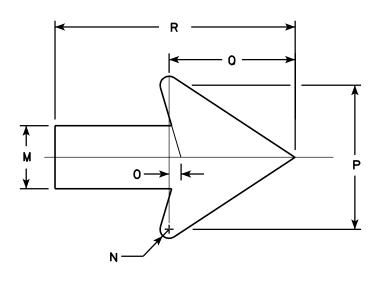


# NOTES

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series E
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. R52-54R is the same as R52-54L except that the arrow is reversed.



Arrow Detail

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	Т	U	٧	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	24		1 1/8	3/8	1/2	5	8	4	3 1/2	8 1/8	8 %	4	2 %	3/8	1/2	6	5 1/4	10									4.0	.37
2	24		1 1/8	3/8	1/2	5	8	4	3 1/2	8 1/8	8 %	4	2 %	3∕8	1/2	6	5 1/4	10									4.0	.37
3																												
4																												
5																												
PRO	JECT	NO:																										

STANDARD SIGN D52-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

DATE 1/18/02 PLATE NO. <u>D52-54.7</u>

SHEET NO:

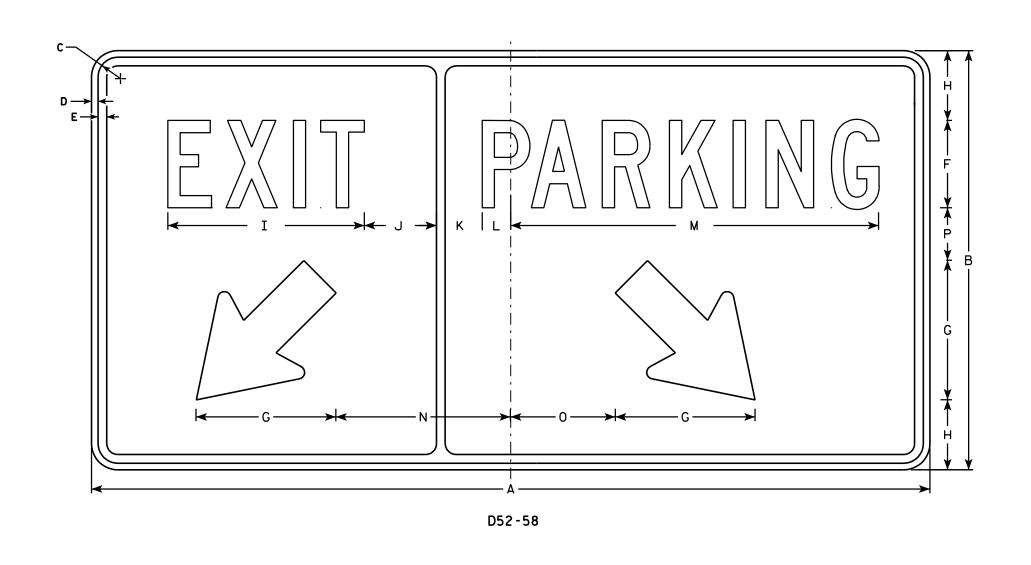
PLOT BY : DOTDZK



- 1. All Signs Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. Corners may be squared or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal the corners and borders shall be rounded.



Metric equivalent for this sign is:

SIZE					
1					
2	1200	mm	X	600	mm
3					
4					
5	·				

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	T	U	v	W	X	Y	Z	Area sq. ft.	Area
1																												
2	48	24	1 1/8	3/8	1/2	5	8	4	11 1/4	4 1/8	2 %	1 %	21 1/8	10	6	3											8	.72
3																												
4																												
5																												
PRO	IFCT	NO:					Пн	WY:					coul	NTY:														

STANDARD SIGN D52-58

WISCONSIN DEPT OF TRANSPORTATION

APPROVED for State Traffic Engineer PLATE NO. 052-58.1 DATE 3/21/06

SHEET NO:

FILE NAME : C:\Users\Projects\tr\_stdplate\d5258.dgn

PLOT DATE: 22-MAR-2006 14:19

PLOT BY : DITJPH

PLOT NAME :

PLOT SCALE: 5.496560:1.000000

WISDOT/CADDS SHEET 42

# NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.

2. Color:

Background - Orange Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Metric equivalent for this sign is:

SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	Q	R	S	T	U	٧	W	Х	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 %	6 3/4	16 ¾	2 1/2	1 3/4	18 ½													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 %	6 3/4	16 ¾	2 1/2	1 3/4	18 ½													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 %	6 3/4	16 ¾	2 1/2	1 3/4	18 ½													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 1/8	6 3/4	16 ¾	2 1/2	1 3/4	18 1/2													8.0	0.72

COUNTY:

STANDARD SIGN G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 400 110 00 00 110

for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\G202A.DGN

HWY:

PROJECT NO:

PLOT DATE: 30-SEP-2009 09:31

PLOT BY : ditjph

PLOT NAME :

PLOT SCALE : 5.561773:1.000000

5.561773:1.000000 WISDOT/CADDS SHEET 42

# NOTES

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - See note 5

3. Message Series - C

PLOT NAME :

- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. The border strip and word message are reflectorized red.

A	
c —	G
	¥ F ¥
E	       
D.	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
R1-2	

SIZE	Α	В	С	D	E	F	G	н	I	J	K	L	М	N	0	Р	0	R	S	Т	U	V	W	Х	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	<b>7</b> ⁄8	4	3 %																	2.71
25	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 %																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 %																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 %																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 1/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 1/8	5/8	2 3/8	2 1/4																	0.97

COUNTY:

STANDARD SIGN R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew & Rauch

 $f_{or}$  State Traffic Engineer

3/14 PLATE NO. R1-2.12

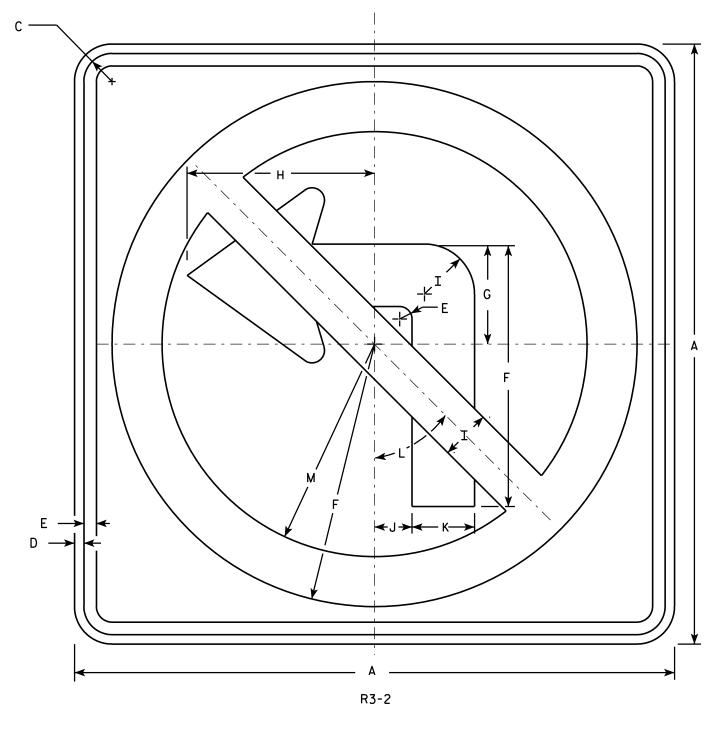
DATE 10/13/14 PLA

SHEET NO:

311221

PROJECT NO:

HWY:

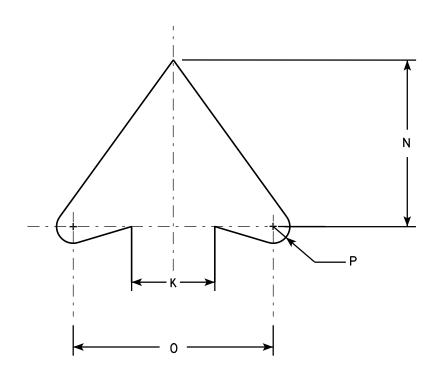


### <u>NOTES</u>

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - See note 4

- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

PLOT NAME :

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	٧	W	×	Y	Z	Arec sq. fi
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 ¾	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 ¾	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 %	5/8	3/4	15 ¾	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

COUNTY:

STANDARD SIGN R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rai

For State Traffic Engineer

DATE 12/08/10

PLATE NO. R3-2.10
SHEET NO:

PROJECT NO:

HWY:

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R3-4A

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	Т	U	v	W	Х	Y	Z	Areo sq. ft
1																											
2S																											
2M																											
3																											
4	36	12	1 3/8	1/2	3%	1 3/4	2 1/4	1 1/8	8 %	2	2 1/8	13 1/2	4 %	7 3/4	3/4	1 1/8	14 1/4	5 ½									3.0
5	36	12	1 3/8	1/2	3/8	1 3/4	2 1/4	1 1/8	8 %	2	2 1/8	13 1/2	4 5/8	7 3/4	3/4	1 1/8	14 1/4	5 1/2									3.0

COUNTY:

STANDARD SIGN R3-4A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE 3/17/2011 PLATE NO.R3-4A.10

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\R34A.DGN

HWY:

PROJECT NO:

PLOT DATE: 17-MAR-2011 14:15

PLOT BY: mscsja

PLOT NAME :

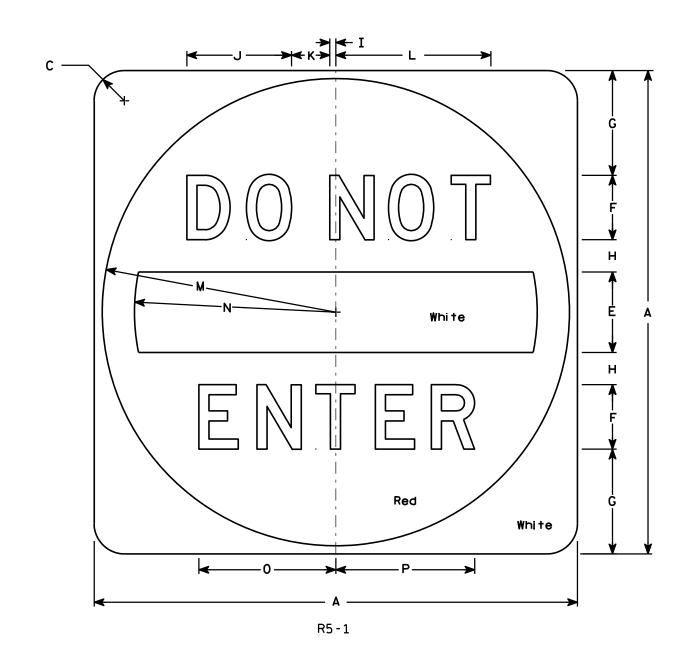
PLOT SCALE: 3.975180:1.000000

# <u>NOTES</u>

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - See detail Message - White - Type H Reflective

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.



SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	Т	U	V	W	Х	Y	Z	Area sq. ft.
1																											
25	30		1 1/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 %	14 1/2	12 1/2	8 1/2	8 %											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 %	10 ¾											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 %	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 %	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 %	14 1/2	23 ½	20	12 3/4	12 1/8											16.0

COUNTY:

STANDARD SIGN R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE 12/17/10

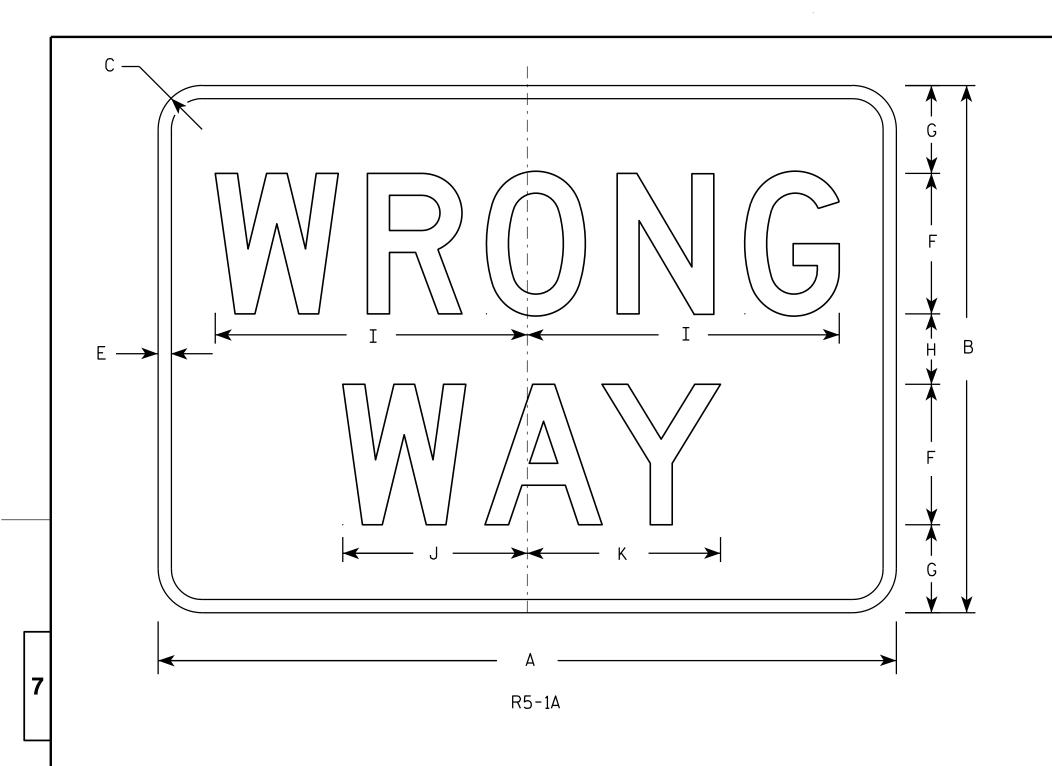
10 PLATE NO. R5-1.15

Р

PLOT NAME :

HWY:

PROJECT NO:



- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Red Message - White

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	Α	В	С	D	Ε	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 ½	6 %																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 %	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 ¾	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2	·	3/4	8	5	4	17 3/4	10 1/2	11	·		·													8.75

COUNTY:

STANDARD SIGN R5-1A

WISCONSIN DEPT OF TRANSPORTATION

Matther R Raud PLATE NO. R5-1A.2

DATE 12/17/10

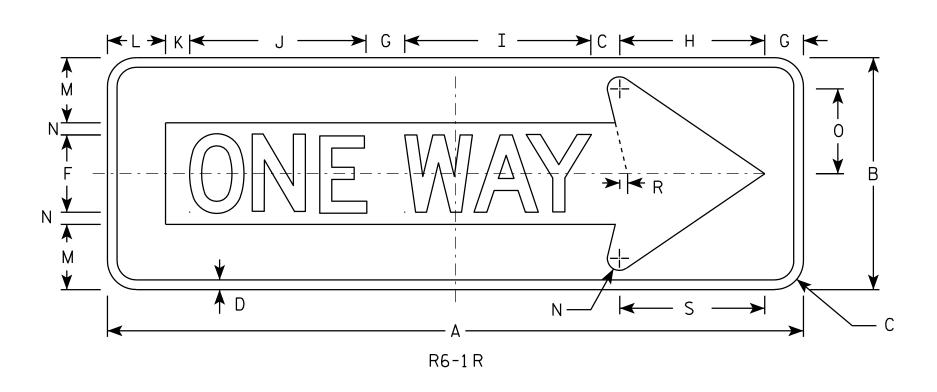
SHEET NO:

PROJECT NO:

HWY:

PLOT BY: dotsja

PLOT NAME :



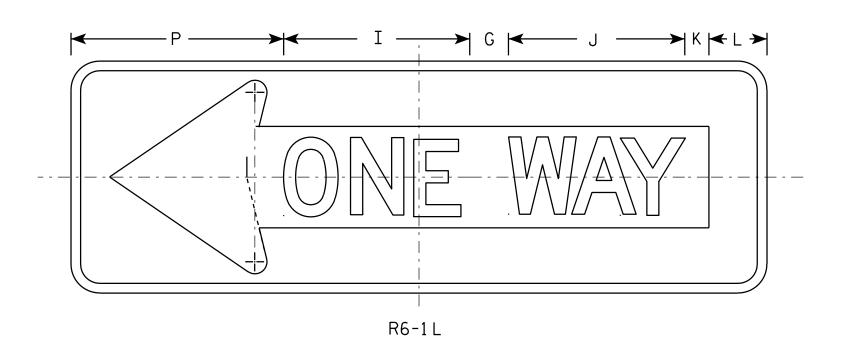
### <u>NOTES</u>

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - BLACK

Message - BLACK LEGEND & WHITE ARROW & BORDER

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Arec sq. f
1																											
25	36	12	1 1/2	1/2		4	2	7 1/2	9 %	9 1/8	1 1/4	3	3 %	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 %	1 1/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.
3	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 %	1 1/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.
4	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 %	1 1/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.
5																											

STANDARD SIGN R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

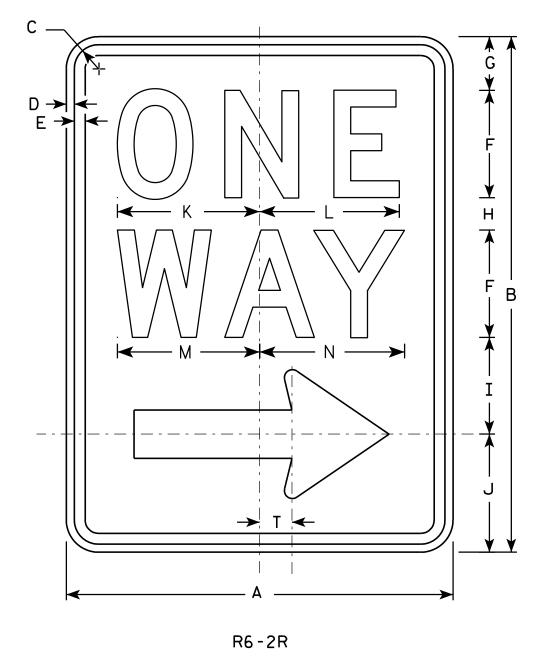
Matther & Kaure For State Traffic Engineer

DATE 12/17/10

O PLATE NO.R<u>6-1.2</u> SHEET NO:

PLOT DATE: 17-DEC-2010 14:11 PLOT BY: dotsja

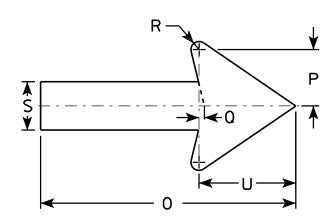
PROJECT NO:



- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 ½	6 %	6 1/2	6 %	6 3/4	11 1/8	2 %	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 %	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2	6 %	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 1/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 %	1/2	3/4	4 3/4	3	9					
4	36	48	1 1/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 %	1/2	3/4	4 3/4	3	9					
5																										

COUNTY:

STANDARD SIGN R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE 11/2/10

PLATE NO. R6-2.8 SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\R62.DGN

HWY:

PROJECT NO:

PLOT DATE: 02-NOV-2010 15:25

PLOT BY: ditjph

PLOT NAME :

PLOT SCALE: 4.469282:1.000000



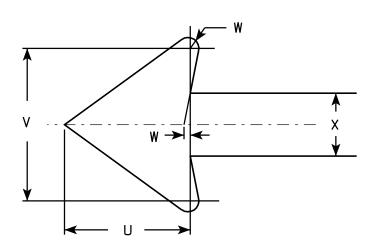
- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Red

- 3. Message Series See Note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1, 3 and 4 are series C, line 2 is series B.
- 6. R7-1D (double arrow)

R7-1L (left arrow)

R7-1R (right arrow)



R7-1

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	Т	U	٧	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 %	2	<b>%</b>	5/8	1 1/2	2 1/2	2	2	4 %	4 1/8	2 1/4	2 1/8	2 1/2	3 %	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 %	7 1/8	7	2 3/4	2 %	3 1/8	5 %	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

COUNTY:

STANDARD SIGN R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

ROVED

Matthew Rauch

For State Traffic Engineer

DATE 3/31/2011

1 PLATE NO. R7-1.9
SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\R71.DGN

HWY:

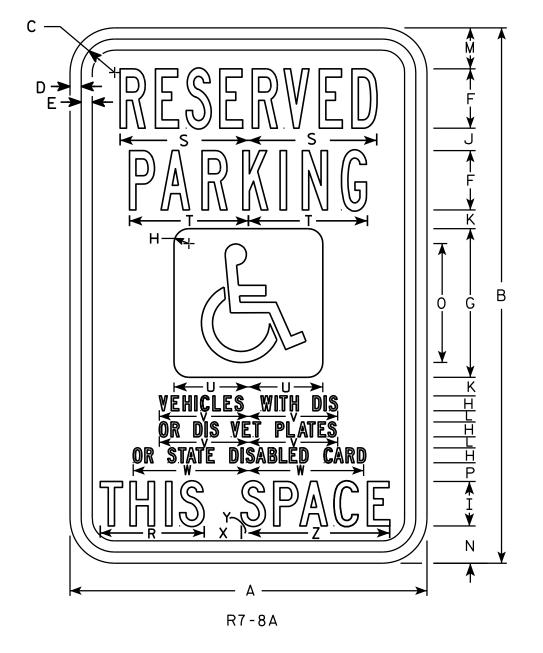
PROJECT NO:

PLOT DATE: 31-MAR-2011 09:20

PLOT BY: mscsja

PLOT NAME :

PLOT SCALE: 3.476110:1.000000



- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Sign is white Type H Reflective; paraplegic background is blue.

Message - Legend and border are green; paraplegic symbol is white

- 3. Message Series Lines 1 & 2 are Series B Lines 3, 4, 5 & 6 are Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Area sq. ft.
1																											
2S	12	18	1 1/8	3/8	3/8	2	5	1/2	1 1/2	3/4	5/8	3/8	1 3/8	1 1/4	4	5/8		3 1/2	4 3/8	4	2 1/2	3	3 %	1 1/4	1/4	4 3/4	1.5
2M	18	24	1 1/8	3⁄8	1/2	3	6	3/4	2	<i>7</i> ⁄8	5/8	1/2	1 1/8	2	5	3/4		4 %	6 ½	5	3	4 1/2	5 %	1 1/2	1/4	6 3/8	3.0
3	18	24	1 1/8	3/8	1/2	3	6	3/4	2	<i>7</i> ⁄8	5/8	1/2	1 1/8	2	5	3/4		4 %	6 ½	5	3	4 1/2	5 %	1 1/2	1/4	6 3/8	3.0
4																											
5															·												

COUNTY:

STANDARD SIGN R7-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

DATE4/25/2011

PLATE NO. R7-8A.6 SHEET NO:

For State Traffic Engineer

PLOT NAME :

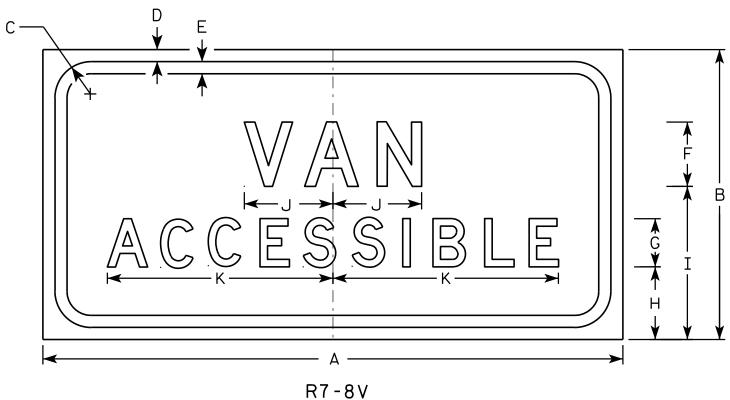
PROJECT NO:

HWY:

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Green - Type H Reflective

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Areg sq. ft.
1																											
2S	12	6	1 1/8	3/8	3/8	1 1/2	1	1 %	3 ½	2	4 1/4																0.50
2M	18	9	1 1/8	3/8	3/8	2	1 1/2	2 1/4	4 3/4	2 3/4	7																0.75
3	18	9	1 1/8	3/8	3/8	2	1 1/2	2 1/4	4 3/4	2 3/4	7																0.75
4																											
5																											

COUNTY:

STANDARD SIGN R7-8V

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

 $f_{or}$  State Traffic Engineer PLATE NO. R7-8V.5

DATE 3/31/2011

SHEET NO:

PROJECT NO:

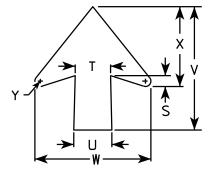
HWY:

PLOT NAME :

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate arrow configuration and/ or placement in relationship to the message and optically adjust spacing to achieve proper balance.
- 6. The word "CARS" with letter height 10" is  $5 \frac{3}{8}$ " off center to the left.



\*\* See Note 5

SIZE	Α	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	T	U	٧	W	Х	Y	Z	Area sq. ft.
1																											
25	54	42	1 3/8	1/2	5/8	5	3 1/2	12	3	7	5	3	10 1/8	16 1/2	5	13 %	16 1/2	12	3/4	2 1/2	2 5/8	8 1/2	8	5 ½	3/8	6	15.75
2M	54	42	1 3/8	1/2	5/8	5	3 1/2	12	3	7	5	3	10 1/8	16 1/2	5	13 %	16 1/2	12	3/4	2 1/2	2 %	8 1/2	8	5 ½	3%	6	15.75
3	72	54	2 1/4	3/4	1	8	3 %	16	4	9 3/8	4	3 %	16 1/2	22 1/4	6 %	21	25 3/8	15 ¾	<b>7</b> / <sub>8</sub>	3 ½	3	9 %	9	6 1/4	3/8	10	27.00
4	72	54	2 1/4	3/4	1	8	3 %	16	4	9 3/8	4	3 %	16 1/2	22 1/4	6 %	21	25 ¾	15 3/4	<b>7</b> / <sub>8</sub>	3 1/2	3	9 %	9	6 1/4	3/8	10	27.00
5	72	54	2 1/4	3/4	1	8	3 %	16	4	9 3/8	4	3 %	16 1/2	22 1/4	6 %	21	25 ¾	15 ¾	<b>7</b> / <sub>8</sub>	3 1/2	3	9 %	9	6 1/4	3/8	10	27.00

COUNTY:

STANDARD SIGN R8-74

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer DATE 4/1/2011 PLATE NO. R8-74.8

SHEET NO: PLOT NAME :

PROJECT NO:

HWY:



### <u>NOTES</u>

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Modify the message as required.





R	1	1	-	2	L

PLOT NAME :

SIZ	Έ	A	В	С	D	Ε	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																												
2	S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
21	<b>I</b>	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 ½	19	14	15	13													10.0
3		48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4		48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5		48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 ½	19	14	15	13													10.0

COUNTY:

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/1/11 PLATE NO. R11-2.10

SHEET NO:

HWY:

PROJECT NO:



- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series B
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

11/2 3∕8 3/8 11/2 2 1/8 6 7/8 18 2 2 7 1/4 2.25 4 2M 11/2 1 1/2 2 1/8 6 7/8 2.25 3 4 HWY:

COUNTY:

STANDARD SIGN R55-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer PLATE NO. R55-51.5

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\R5551.DGN

PROJECT NO:

PLOT DATE: 30-MAR-2011 14:15

PLOT BY: mscj9h

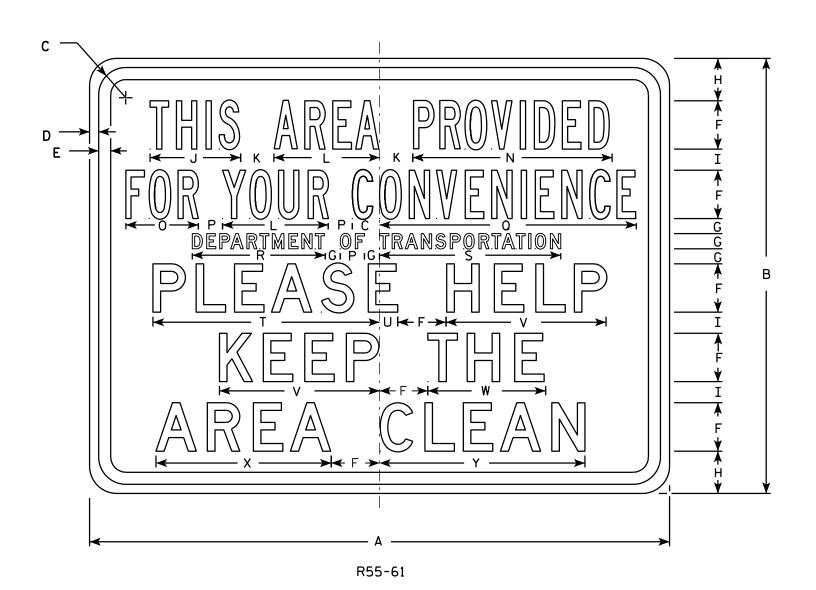
PLOT NAME :

PLOT SCALE: 3.476110:1.000000

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series See note 5.
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1 and 2 are Series B. Lines 3, 4, 5 and 6 are Series D.



SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	Т	U	V	W	Х	Y	Z	Area sq. ft.
1	24	18	1 1/8	3⁄8	1/2	2	5/8	1 3/4	%	3 3/4	1 3/8	4 3/8		8 1/4	3	1	10 %	5 ½	7 1/2	9 3/8	3/4	6 %	4 %	7 1/4	8 1/2		3.0
2S	24	18	1 1/8	3/8	1/2	2	5/8	1 3/4	<b>1</b> /8	3 3/4	1 3/8	4 3/8		8 1/4	3	1	10 %	5 1/2	7 1/2	9 3/8	3/4	6 %	4 1/8	7 1/4	8 1/2		3.0
2M	24	18	1 1/8	3/8	1/2	2	5/8	1 3/4	<b>7</b> /8	3 3/4	1 3/8	4 3/8		8 1/4	3	1	10 %	5 1/2	7 1/2	9 3/8	3/4	6 %	4 1/8	7 1/4	8 1/2		3.0
3																											
4																											
5																											

R55-61 WISCONSIN DEPT OF TRANSPORTATION

STANDARD SIGN

APPROVED

DATE 3/30/11 PLATE NO. R55-61.6

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\R5561.DGN

PROJECT NO:

HWY:

COUNTY:

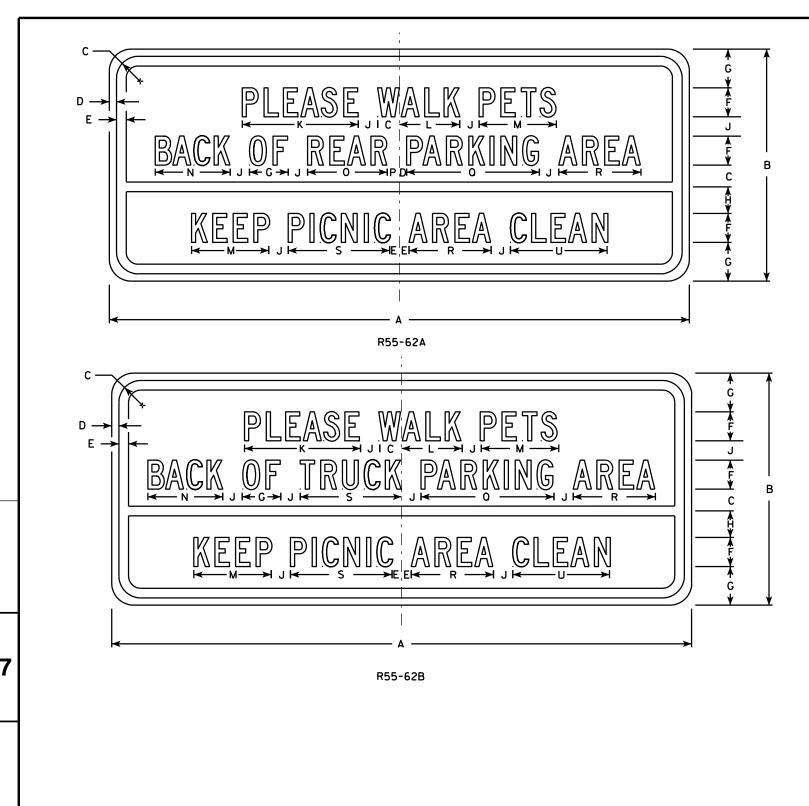
PLOT BY: mscj9h

PLOT SCALE: 3.972696:1.000000

WISDOT/CADDS SHEET 42

PLOT DATE: 30-MAR-2011 13:43

PLOT NAME :



- 1. Signs are Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R55-62C

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N O	Р	0	R	S	Т	U	٧	W	Х	Y	Z	Area sq. ft.
1	30	12	1 1/8	3/8	1/2	1 1/2	2	1 3/8		1	6	3 1/8	4	3 % 4 1/	5/8	6 %	4 1/4	5 1/4		5	6 ¾					2.50
25	30	12	1 1/8	3/8	1/2	1 1/2	2	1 3/8		1	6	3 1/8	4	3 % 4 1/	5/8	6 %	4 1/4	5 1/4		5	6 3/4					2.50
2M	30	12	1 1/8	3/8	1/2	1 1/2	2	1 3/8		1	6	3 1/8	4	3 % 4 1/	5/8	6 %	4 1/4	5 1/4		5	6 ¾					2.50
3																										
4																										
5																										

STANDARD SIGN R55-62A, B & C

WISCONSIN DEPT OF TRANSPORTATION

DATE 3/30/11 PLATE NO. R55-62.5

APPROVED

SHEET NO:

HWY:

COUNTY:

PLOT DATE: 30-MAR-2011 13:32

PLOT NAME :

PLOT BY: mscj9h

PLOT SCALE: 4.965871:1.000000

PROJECT NO:



- 1. Sign is TYPE II Type H Reflective
- 2. Color:

Background - White Message - Black

- 3. Message Series See Note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1, 2 & 3 are Series D Bottom line is Series C
- 6. Substitute appropriate message.
- 7. R55-64R same as R55-64L except arrow is reversed.

SIZE	Α	В	С	D	E	F	G	н	I	J	К	L	М	N	0	Р	0	R	S	Т	U	v	w	X	Y	Z	Area sq. ft.
1 2S 2M 3 4																											
25	24		1 1/8	3/8	1/2	3	1	2 3/4	1 3/4	1 1/2	3 %	7∕8	3 1/2	8 3/4	5 ½	3 %		9 1/4	6 3/4	1 1/4	2 3/8	7 3/4	3 1/4	1/4			4.0
2M	24		1 1/8	3/8	1/2	3	1	2 3/4	1 3/4	1 1/2	3 %	<b>½</b>	3 1/2	8 3/4	5 ½	3 %		9 1/4	6 3/4	1 1/4	2 3/8	7 3/4	3 1/4	1/4			4.0
3																											
4																											
5																											

COUNTY:

R55-64L

STANDARD SIGN R55-64

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matther R Raud

State Traffic Engineer

14 PLATE NO. R55-64.5

DATE 11/13/14 PLATE NO.

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\R5564.DGN

PROJECT NO:

 $E \rightarrow$ 

 $D \rightarrow$ 

HWY:

PLOT DATE: 13-NOV-2014 09:52

PLOT NAME :

PLOT BY: mscsja

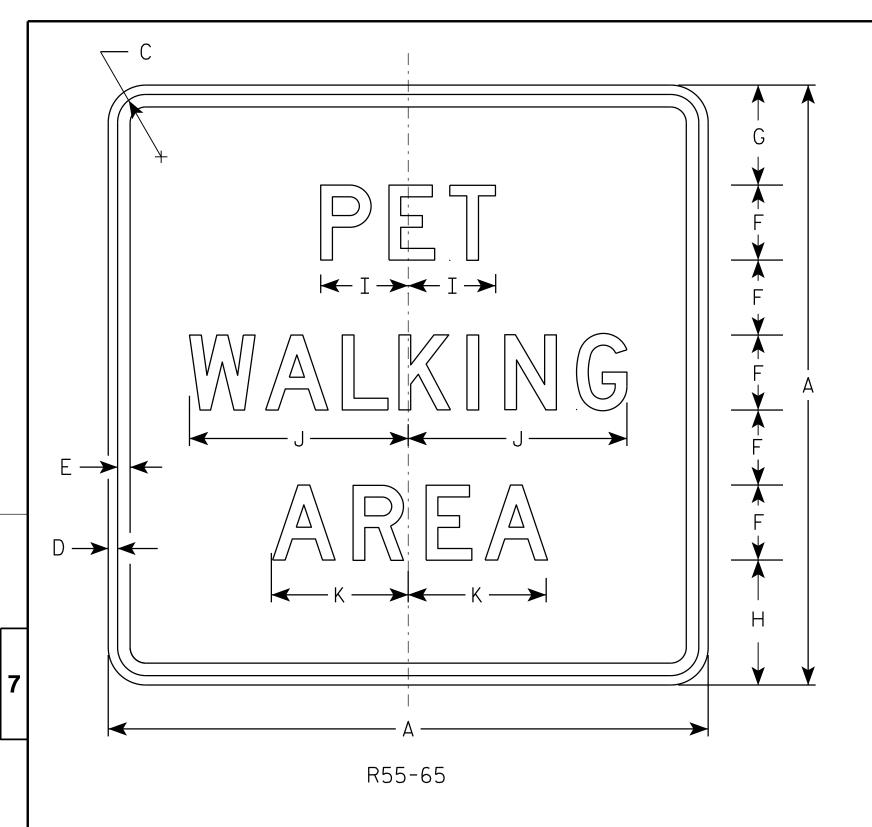
PLOT SCALE: 4.086271:1.000000



- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message - Black

- 3. Message Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



HWY:

COUNTY:

STANDARD SIGN R55-65

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

DATE 10/27/14 PLATE NO. R55-65.5

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\R5565.DGN

PROJECT NO:

PLOT DATE: 27-0CT-2014 09:13

PLOT NAME :

PLOT SCALE: 3.839926:1.000000

- 1. Sign is Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Orange Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	Α	В	С	D	E	F	G	Η	I	C	K	L	M	Z	0	Р	0	R	S	Т	U	٧	W	Х	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	4 1/2	3	1 1/2	1 1/8	9 3%	12	9 3/4															9
2S	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16
2M	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16
3	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16
4	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16
5	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16

COUNTY:

STANDARD SIGN W8-6A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew & Rame

State Traffic Engineer

DATE 3/23/11 PLATE NO. W8-6A.2

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\W86A.DGN

PROJECT NO:

HWY:

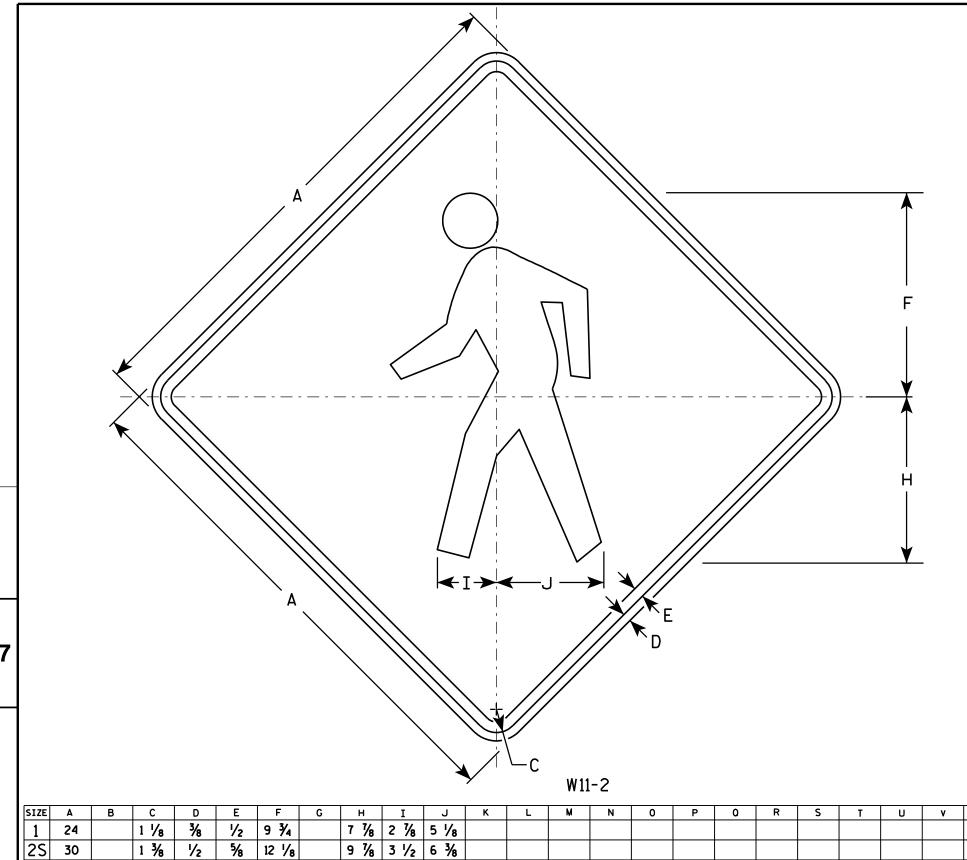
PLOT DATE: 23-MAR-2011 10:02

PLOT BY: mscj9h

PLOT NAME :

PLOT SCALE: 10.136330:1.000000

: 10.136330:1.000000 WISDOT (CADDS SHE



## <u>NOTES</u>

- 1. Sign is Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Yellow Message - Black

3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

STANDARD SIGN W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE <u>6/7/10</u>

PLATE NO. W11-2.7

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\W112.DGN

1 1/8

1 %

2 1/4 3/4

2M

3

4 48

5

PROJECT NO:

5/8

5/8

3/4

14 1/2

3/4 14 1/2

1 19 3/8

11 1/8 4 1/4 7 5/8

11 1/8 4 1/4 7 5/8

15 3/4 5 5/8 10 1/4

HWY:

PLOT DATE: 07-JUN-2010 13:29

COUNTY:

PLOT NAME :

PLOT BY: ditjph

4.0

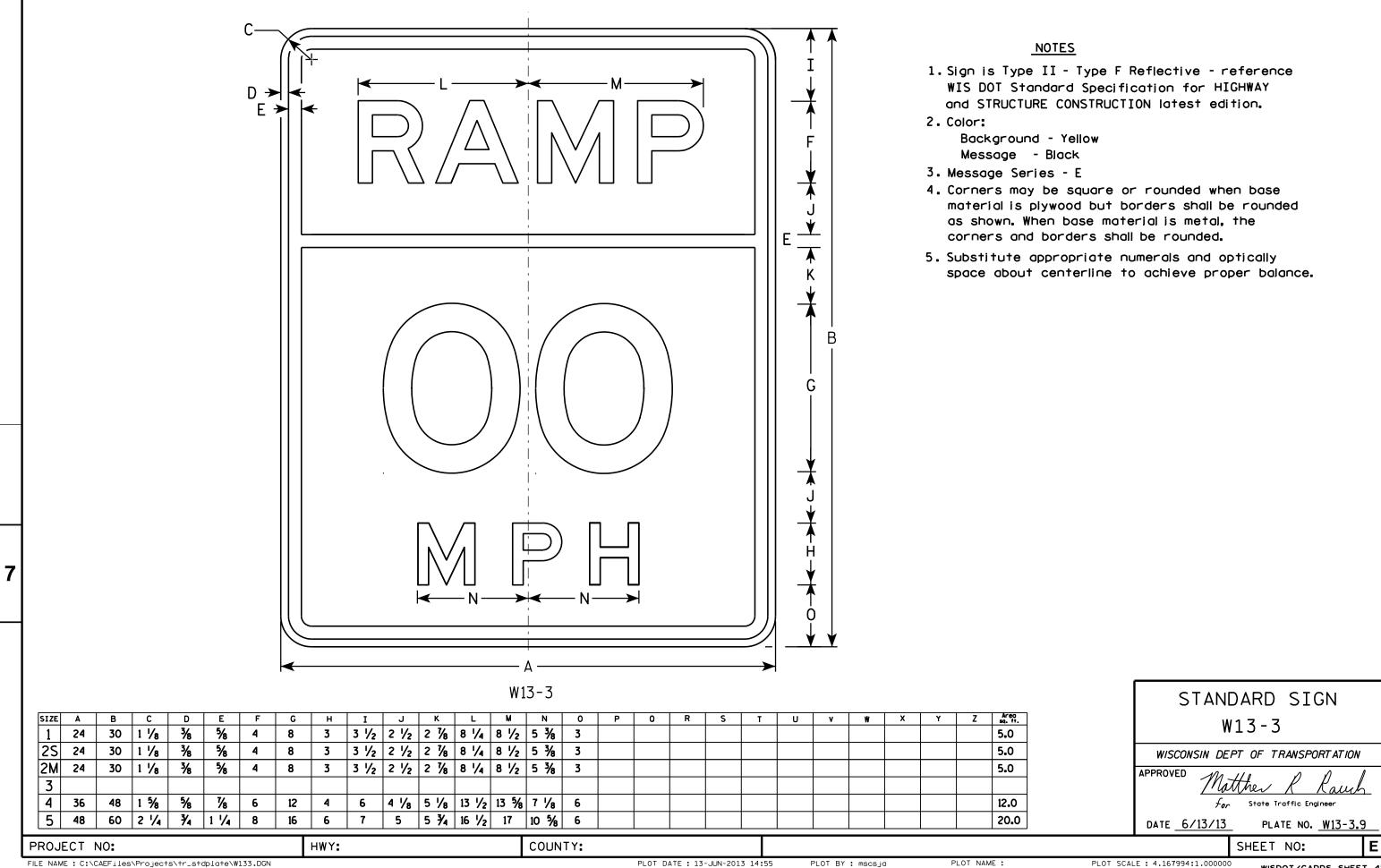
6.25

9.0

9.0

16.0

PLOT SCALE: 5.700818:1.000000



FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\W133.DGN

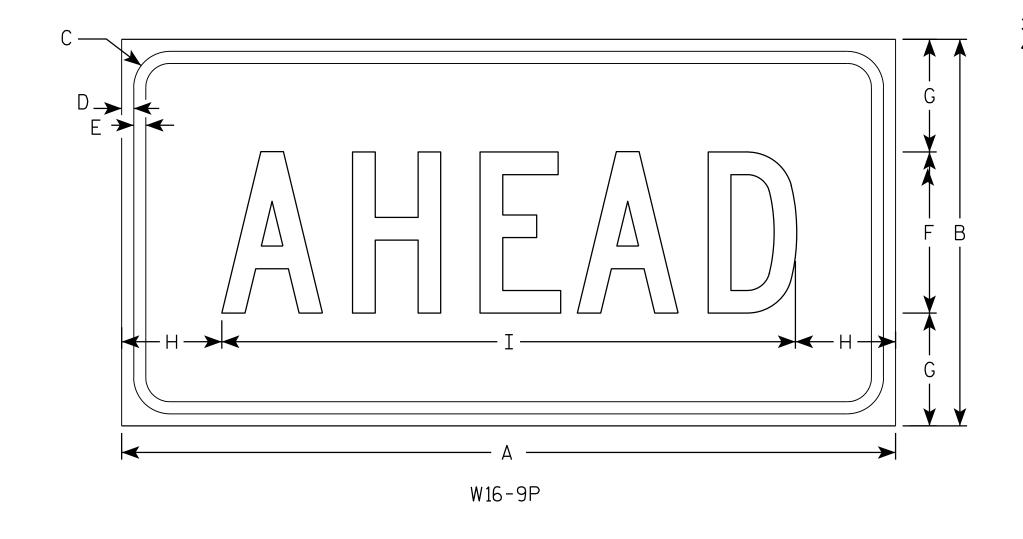
PLOT DATE: 13-JUN-2013 14:55

PLOT SCALE: 4.167994:1.000000

- 1. Sign is Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Yellow Message - Black

- 3. Message Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	T	U	٧	₩	X	Y	Z	Areg sq. ft.
1																											
25	24	12	1 1/8	3/8	3⁄8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 ¾																		8.0
5																											

COUNTY:

STANDARD SIGN W16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rauch
For State Traffic Engineer

DATE 12/28/10

O PLATE NO. W16-9P.6

SHEET NO:

HWY:

PROJECT NO:

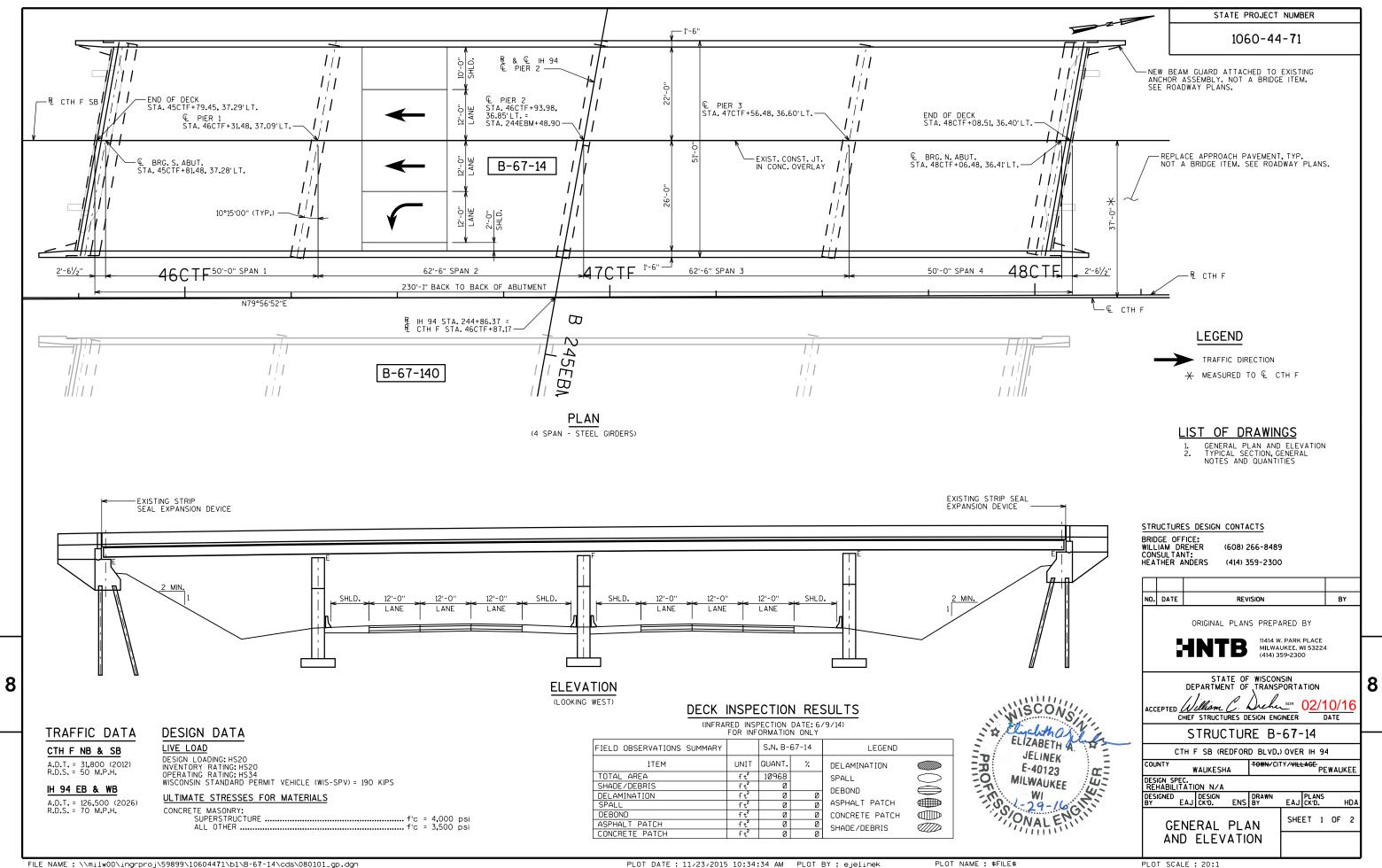
PLOT NAME :



FILE NAME . C.\CAFfiles\Projects\tr stdolote\W201 DCN

PLOT DATE . 01-DEC-2015 18.24

PIOT RY \* \$\$ plotuser \$\$



51'-0" OUT TO OUT 48'-0" CLEAR BETWEEN PARAPETS 22'-0" 26'-0" 18'-0" 28'-0" STAGE 1 TRAFFIC STAGE 1 WORK ZONE 30'-0" 16'-0" STAGE 2 WORK ZONE STAGE 2 TRAFFIC -R CTH F SB - 1/4" POLYMER OVERLAY -EXIST. CONST. JT. IN EXIST. CONCRETE OVERLAY -11/2" MIN. EXISTING CONCRETE OVERLAY EXISTING PARAPET TYPE 'B', TYP. - 7" MIN. SLAB THICKNESS (EXIST.) <u>\_\_\_\_2.0</u>% 2.0% TEMPORARY CONCRETE BARRIER STAGE 2 -EXIST. STEEL TEMPORARY CONCRETE
BARRIER STAGE 1=,-PLATE GIRDERS 1, 8 & 9 -EXISTING W27×102 GIRDERS 2 THRU 7 (4) (5) 2 6 7 (1) (8) 2'-93/4" 7 SPA.@ 5'-91/2" = 40'-61/2"

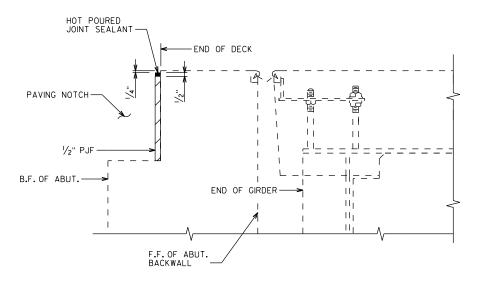
#### TYPICAL SECTION (LOOKING NORTH)

### TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
502 <b>.</b> 3215 <b>.</b> S	PROTECTIVE SURFACE TREATMENT RESEAL	SY	195
509.1500	CONCRETE SURFACE REPAIR	SF	10
509.5100.S	POLYMER OVERLAY	SY	1,222
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1/2"

ALL ITEMS ARE CATEGORY 2005

8



#### PROPOSED FILLER DETAIL AT ABUTMENTS

(EXISTING SECTION AT ABUTMENTS)

#### GENERAL NOTES

1060-44-71

STATE PROJECT NUMBER

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

LOCATIONS OF THE FOLLOWING BID ITEMS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER:

- CONCRETE SURFACE REPAIR

QUANTITIES SHOWN FOR THE ABOVE BID ITEMS ARE APPROXIMATE.

CONCRETE SURFACE REPAIR ANTICIPATED ONLY ON INSIDE AND TOP FACES OF PARAPETS. NO LANE CLOSURES UNDER BRIDGE ARE PART OF THIS CONTRACT I.D.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

PROTECTIVE SURFACE TREATMENT PAID FOR UNDER "PROTECTIVE SURFACE TREATMENT RESEAL" SHALL BE APPLIED TO THE FOLLOWING SURFACES: TOP AND INSIDE FACES OF EXISTING PARAPETS

INSTALL AT PAVING NOTCH A NEW  $^{\prime}\!\!/_2$ " PREFORMED JOINT FILLER WHICH SHALL BE CONSIDERED INCIDENTAL TO "POLYMER OVERLAY". HOT POURED JOINT SEALANT AT FILLER INCIDENTAL TO "POLYMER OVERLAY".

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M153 TYPE 1, 2, OR 3, OR AASHTO M213.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF  $\frac{1}{2}$ " JOINT FILLER WITH HOT POURED JOINT SEALANT (1/2" DEEP AND HOLD 1/4" BELOW SURFACE OF CONCRETE).

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED

BEVEL EDGES OF EXPOSED CONCRETE TO MATCH EXISTING BEVELS UNLESS NOTED

NO. DATE REVISION BY STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION STRUCTURE B-67-14 DRAWN EAJ PLANS TYPICAL SECTION. SHEET 2 OF 2 GENERAL NOTES AND QUANTITIES

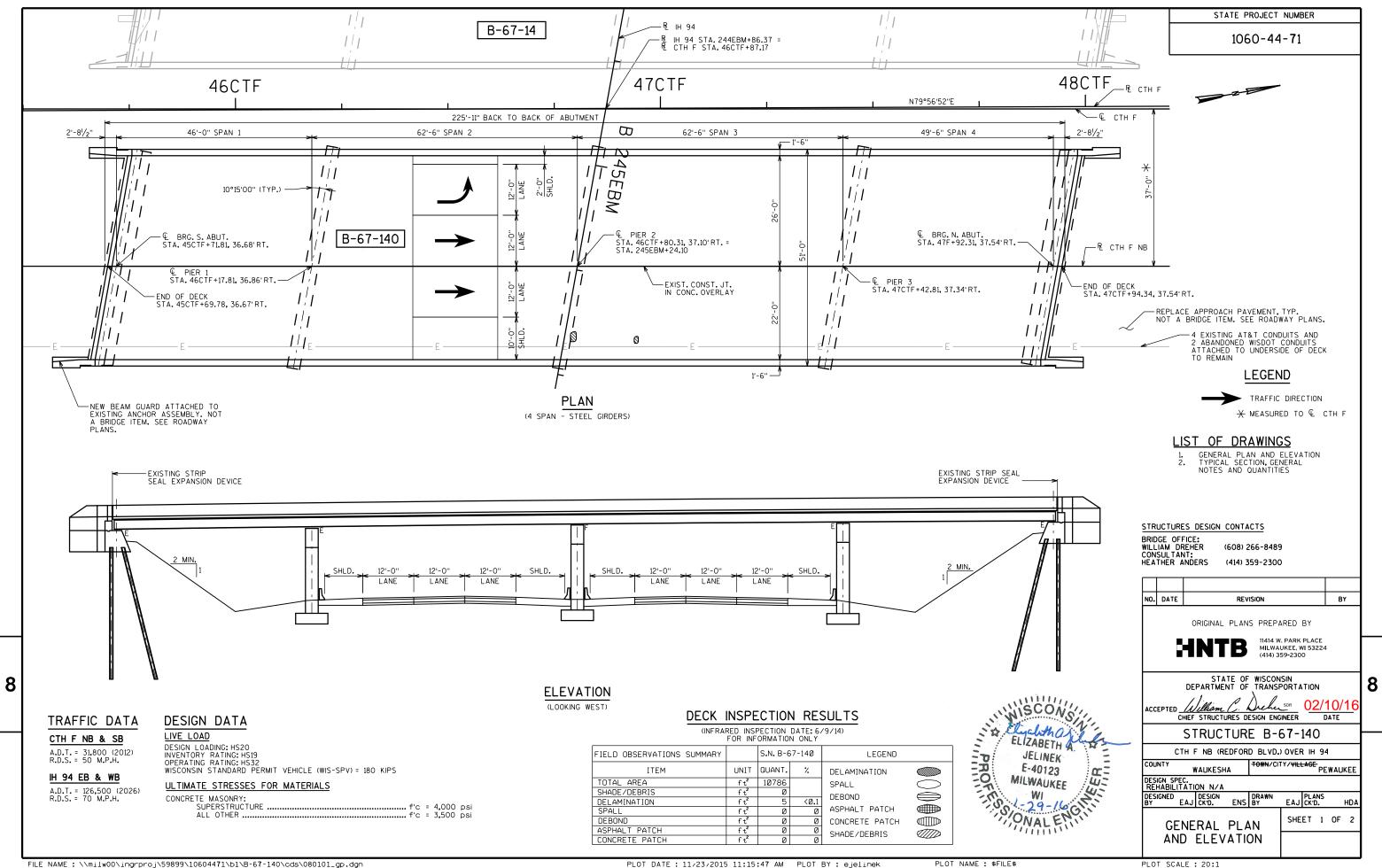
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PLOT DATE: 1/29/2016 2:16:25 PM PLOT BY: ejelinek

PLOT NAME : \$FILE\$

PLOT SCALE : 5.33333:1

8



GENERAL NOTES

1060-44-71

STATE PROJECT NUMBER

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

LOCATIONS OF THE FOLLOWING BID ITEMS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER:

- CONCRETE SURFACE REPAIR

QUANTITIES SHOWN FOR THE ABOVE BID ITEMS ARE APPROXIMATE.

CONCRETE SURFACE REPAIR ANTICIPATED ONLY ON INSIDE AND TOP FACES OF PARAPETS. NO LANE CLOSURES UNDER BRIDGE ARE PART OF THIS CONTRACT I.D.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

PROTECTIVE SURFACE TREATMENT PAID FOR UNDER "PROTECTIVE SURFACE TREATMENT RESEAL" SHALL BE APPLIED TO THE FOLLOWING SURFACES:

TOP AND INSIDE FACES OF EXISTING PARAPETS

INSTALL AT PAVING NOTCH A NEW  $^\prime\!\!\!/_2$ " PREFORMED JOINT FILLER WHICH SHALL BE CONSIDERED INCIDENTAL TO "POLYMER OVERLAY". HOT POURED JOINT SEALANT AT FILLER INCIDENTAL TO "POLYMER OVERLAY".

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M153 TYPE 1, 2, OR 3, OR AASHTO M213.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF  $\frac{1}{2}$ " JOINT FILLER WITH HOT POURED JOINT SEALANT (1/2" DEEP AND HOLD 1/4" BELOW SURFACE OF CONCRETE).

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

BEVEL EDGES OF EXPOSED CONCRETE TO MATCH EXISTING BEVELS UNLESS NOTED

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

51'-0" OUT TO OUT 48'-0" CLEAR BETWEEN PARAPETS 26'-0" 22'-0" STAGE 1 WORK ZONE STAGE 1 TRAFFIC 30'-0" STAGE 2 TRAFFIC STAGE 2 WORK ZONE R CTH F NB-EXIST. CONST. JT. EXISTING PARAPET  $1\frac{1}{2}$ " MIN. EXIST. - 1/4" POLYMER IN EXIST. CONCRETE OVERLAY TYPE 'B', TYP. CONCRETE OVERLAY OVERLAY 71/2" MIN. SLAB THICKNESS (EXIST.) 2.0% -TEMPORARY CONCRETE BARRIER STAGE 1<sub>J</sub> - EXIST. W27×84 STEEL GIRDERS (TYP.) TEMPORARY CONCRETE BARRIER STAGE 2 (5) (4) 6 (3) 2 (7) (8) 1 7 SPA.@ 6'-10" = 47'-10" 4 - EXISTING 4" DIA. AT&T CONDUITS 2 - EXISTING 4" DIA. CONDUITS ABANDONED-

TYPICAL SECTION

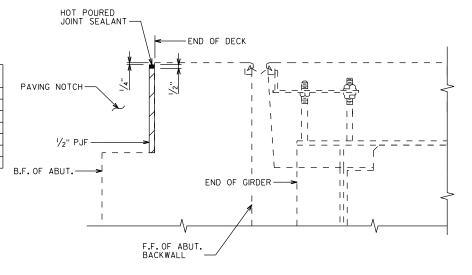
(LOOKING NORTH)

#### TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
502.3215.S	PROTECTIVE SURFACE TREATMENT RESEAL	SY	193
509.1500	CONCRETE SURFACE REPAIR	SF	10
509.5100.S	POLYMER OVERLAY	SY	1,198
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1/2"

ALL ITEMS ARE CATEGORY 2010

8



## PROPOSED FILLER DETAIL AT ABUTMENTS

(EXISTING SECTION AT ABUTMENTS)

NO. DATE REVISION BY STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION STRUCTURE B-67-140 DRAWN EAJ PLANS TYPICAL SECTION. SHEET 2 OF 2 GENERAL NOTES AND QUANTITIES

8

41CTI	F+50 - 51CTF+28	-		AREA (SF)		I	ncremental Vol (CY) (U	nadjusted)	Cumul	ative Vol (CY)	
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate
41CTF+50	4150		28.2	28.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42CTF+00	4200	50	34.0	34.0	0.0	57.5	57.5	0.0	57.5	0.0	0.0
42CTF+50	4250	50	37.7	37.7	0.0	66.3	66.3	0.0	123.9	0.0	0.0
42CTF+73	4273	23	64.7	64.7	0.0	43.6	43.6	0.0	167.5	0.0	0.0
43CTF+00	4300	27	66.6	66.6	0.0	65.6	65.6	0.0	233.1	0.0	0.0
43CTF+50	4350	50	73.1	73.1	0.0	129.3	129.3	0.0	362.4	0.0	0.0
44CTF+00	4400	50	85.2	85.2	0.0	146.6	146.6	0.0	509.0	0.0	0.0
44CTF+50	4450	50	76.6	76.6	19.4	149.8	149.8	17.9	658.8	22.4	-22.4
44CTF+52	4452	2	75.9	75.9	21.3	5.6	5.6	1.5	664.5	24.3	-24.3
44CTF+77	4477	25	71.6	71.6	1.3	68.3	68.3	10.5	732.7	37.4	-37.4
45CTF+00	4500	23	71.5	71.5	0.0	60.9	60.9	0.5	793.6	38.1	-38.1
45CTF+02	4502	2	71.7	71.7	0.0	5.3	5.3	0.0	798.9	38.1	- 38.1
45CTF+50	4550	48	77.3	77.3	0.0	132.4	132.4	0.0	931.3	38.1	- 38.1
45CTF+64	4564	14	70.1	70.1	0.0	38.2	38.2	0.0	969.5	38.1	- 38.1
45CTF+67	4567	3	71.9	71.9	0.0	7.9	7.9	0.0	977.4	38.1	-38.1
48CTF+14	4814		71.6	71.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48CTF+25	4825	11	74.1	74.1	1.2	29.7	29.7	0.2	29.7	0.3	-0.3
48CTF+50	4850	25	75.6	75.6	0.9	69.3	69.3	1.0	98.9	1.5	-1.5
48CTF+87	4887	37	77.4	77.4	1.4	104.8	104.8	1.6	203.7	3.6	-3.6
49CTF+00	4900	13	84.3	84.3	0.8	38.9	38.9	0.5	242.7	4.2	-4.2
49CTF+12	4912	12	81.1	81.1	0.3	36.8	36.8	0.2	279.4	4.5	-4.5
49CTF+37	4937	25	97.3	97.3	0.0	82.6	82.6	0.1	362.0	4.6	-4.6
49CTF+50	4950	13	90.1	90.1	0.0	45.1	45.1	0.0	407.1	4.6	-4.6
50CTF+00	5000	50	75.4	75.4	0.0	153.2	153.2	0.0	560.3	4.6	-4.6
50CTF+50	5050	50	70.3	70.3	0.0	134.9	134.9	0.0	695.2	4.6	-4.6
51CTF+00	5100	50	65.9	65.9	0.0	126.1	126.1	0.0	821.3	4.6	-4.6
51CTF+14	5114	14	63.7	63.7	0.0	33.6	33.6	0.0	854.9	4.6	-4.6
51CTF+28	5128	14	33.9	33.9	0.0	25.3	25.3	0.0	880.2	4.6	-4.6
					Column Totals	1857.6	1857.6	34.2			

9

9

PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA EARTHWORK - CATEGORY 1000 SHEET: **E** 

FILE NAME: PLOT DATE : 1/31/2016 2:18:35 PM PLOT BY : jduchow PLOT NAME : 090101\_ew1 PLOT SCALE : 1:1

10RF A	A+00 - 10RFA+80			AREA (SF)		I	ncremental Vol (CY) (U	nadjusted)	Cumul	ative Vol (CY)	
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		Note 8
10RFA+00	1000		27.4	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10RFA+50	1050	50	21.3	21.3	0.0	45.1	45.1	0.0	45.1	0.0	0.0
10RFA+80	1080	30	5.4	5.4	2.4	14.8	14.8	1.3	59.9	1.7	-1.7
					Column Totals	59.9	59.9	1.3			

10RFE	B+13 - 11RFB+83	-		AREA (SF)			Incremental Vol (CY) (U	nadjusted)	Cumul	ative Vol (CY)	
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate  Note 8
10RFB+13	1013		1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10RFB+50	1050	37	11.0	11.0	0.0	8.8	8.8	0.0	8.8	0.0	0.0
11RFB+00	1100	50	20.2	20.2	2.4	28.9	28.9	2.3	37.7	2.8	-2.8
11RFB+50	1150	50	21.7	21.7	2.4	38.8	38.8	4.5	76.5	8.4	-8.4
11RFB+83	1183	33	22.6	22.6	4.4	27.1	27.1	4.1	103.6	13.6	-13.6
					Column Totals	103.6	103.6	10.9			

9

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PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA EARTHWORK - CATEGORY 1000 SHEET: E

FILE NAME: PLOT DATE : 1/31/2016 2:18:35 PM PLOT BY : jduchow PLOT NAME : 090101\_ew2 PLOT SCALE : 1:1

10PF(	C+16 - 10RFC+99			AREA (SF)		ı	Incremental Vol (CY) (Ui	nadjusted)	Cumu	lative Vol (CY)	
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		Note 8
10RFC+16	1016		2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10RFC+50	1050	34	17.6	17.6	0.0	12.3	12.3	0.0	12.3	0.0	0.0
10RFC+99	1099	49	28.8	28.8	0.0	42.0	42.0	0.0	54.3	0.0	0.0
					Column Totals	54.3	54.3	0.0			

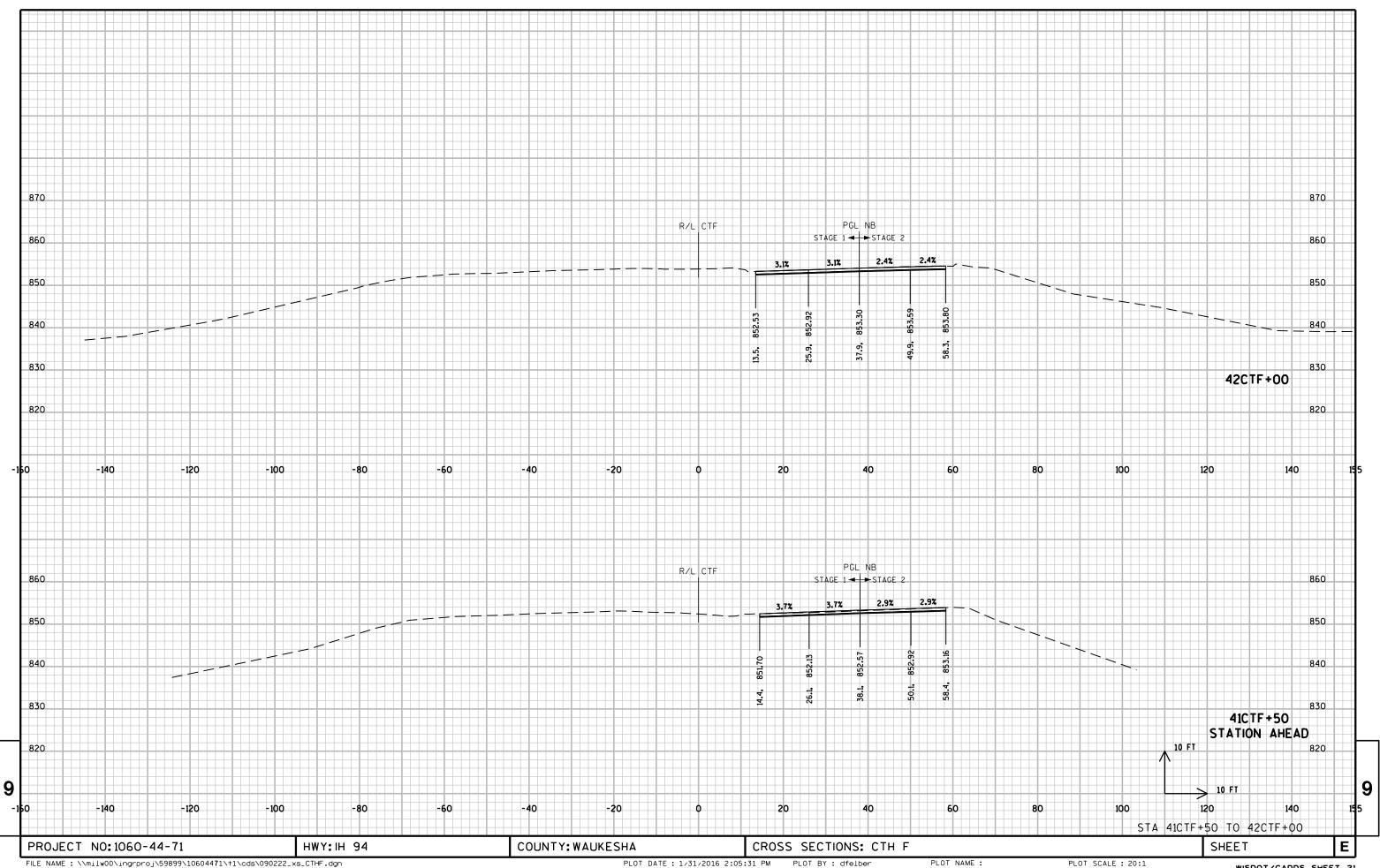
10RFD	0+00 - 10RFD+68			AREA (SF)			Incremental Vol (CY) (U	nadjusted)	Cumul	lative Vol (CY)	
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		Note 8
10RFD+00	1000		16.9	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10RFD+50	1050	50	8.4	8.4	0.0	23.4	23.4	0.0	23.4	0.0	0.0
10RFD+68	1068	18	1.9	1.9	0.0	3.4	3.4	0.0	26.8	0.0	0.0
					Column Totals	26.8	26.8	0.0			

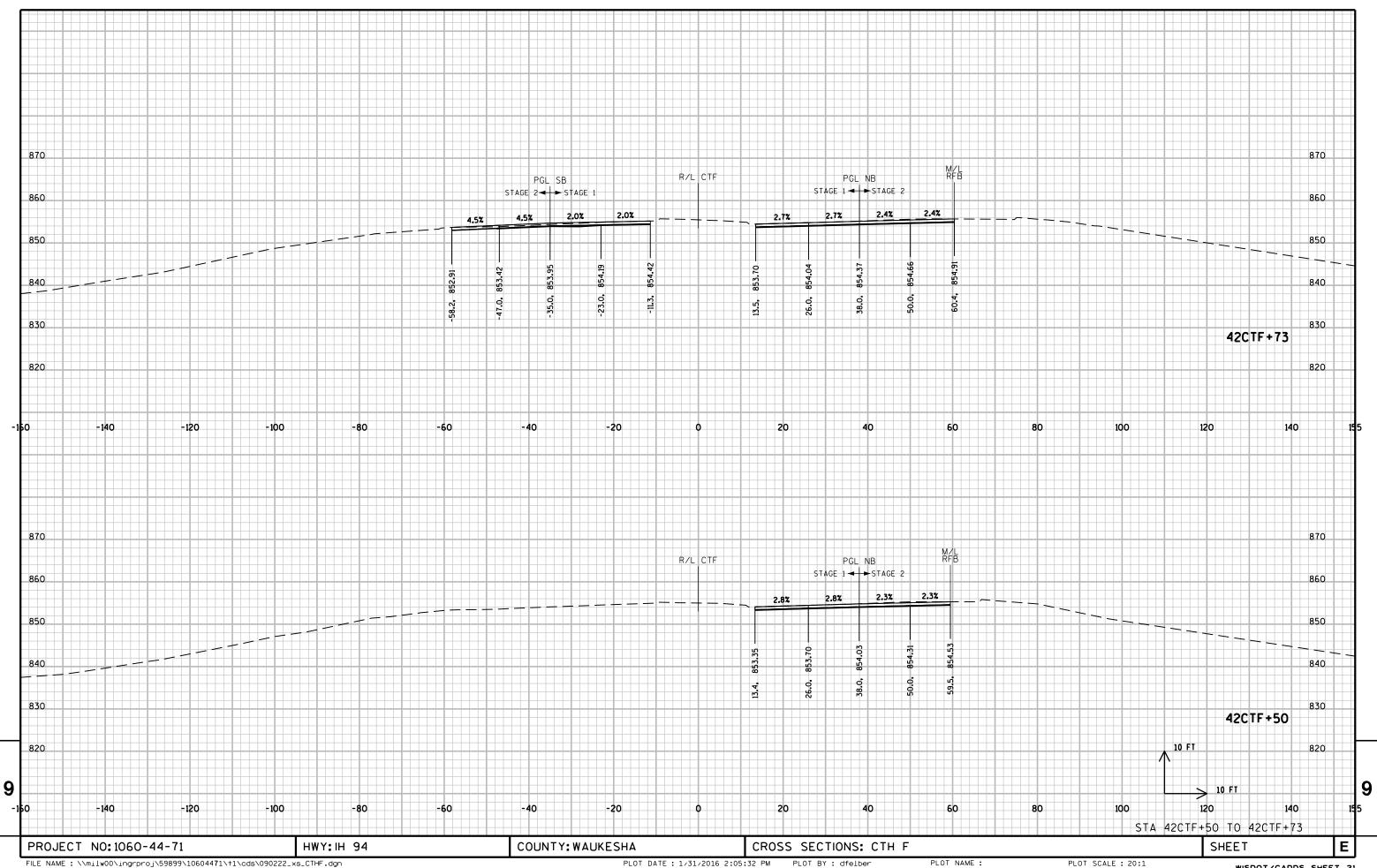
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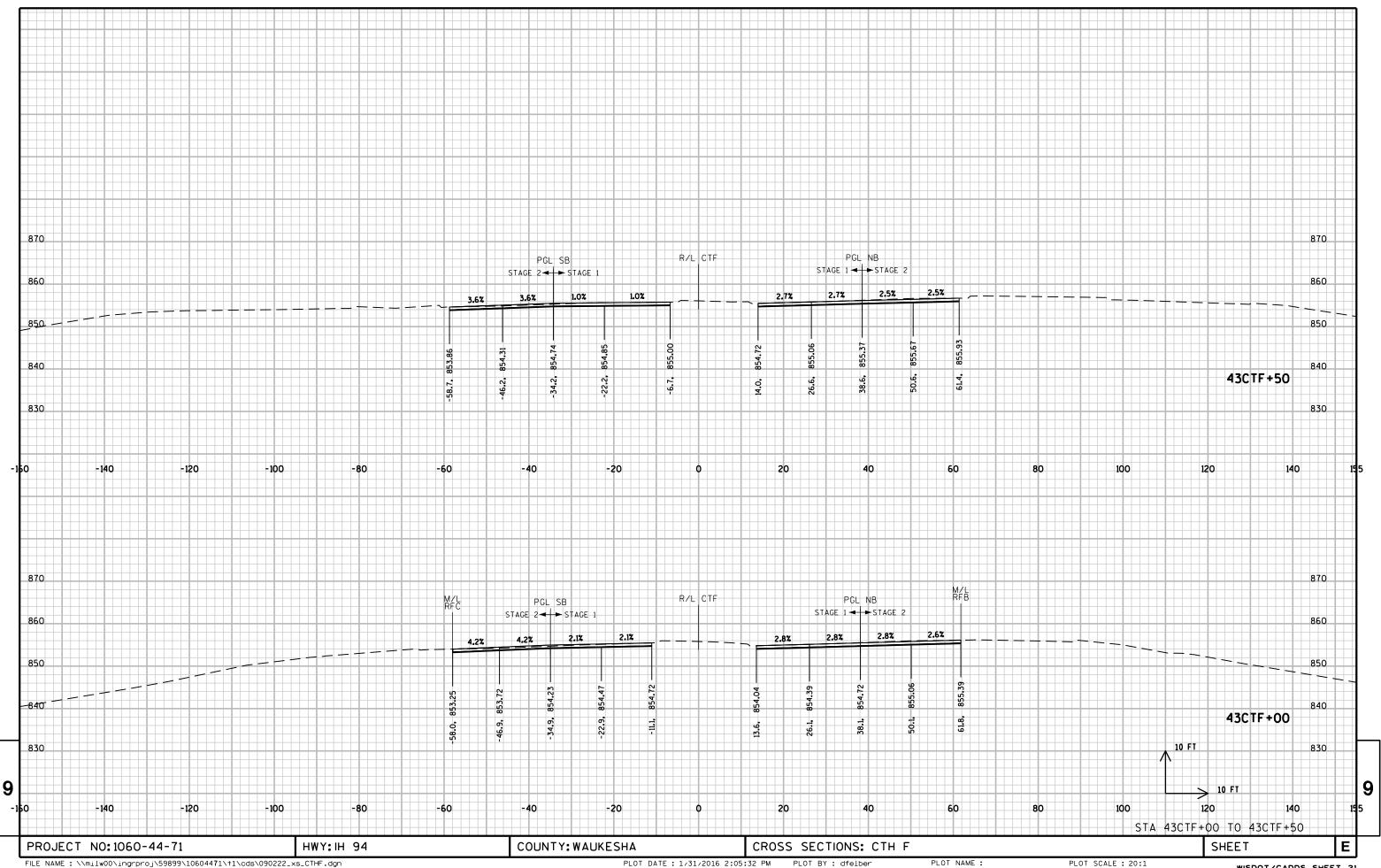
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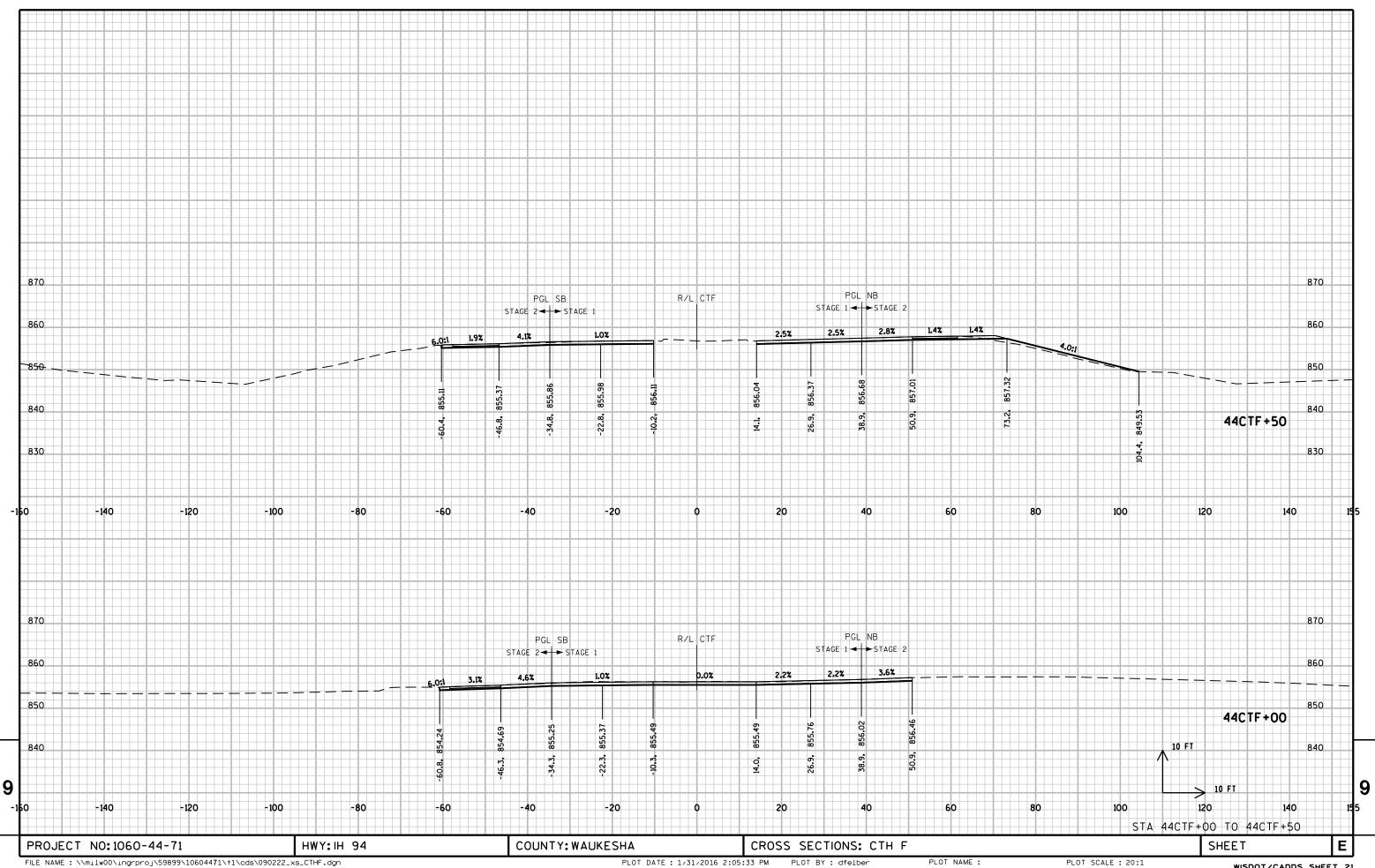
PROJECT NO: 1060-44-71 HWY: IH 94 COUNTY: WAUKESHA EARTHWORK - CATEGORY 1000 SHEET: **E** 

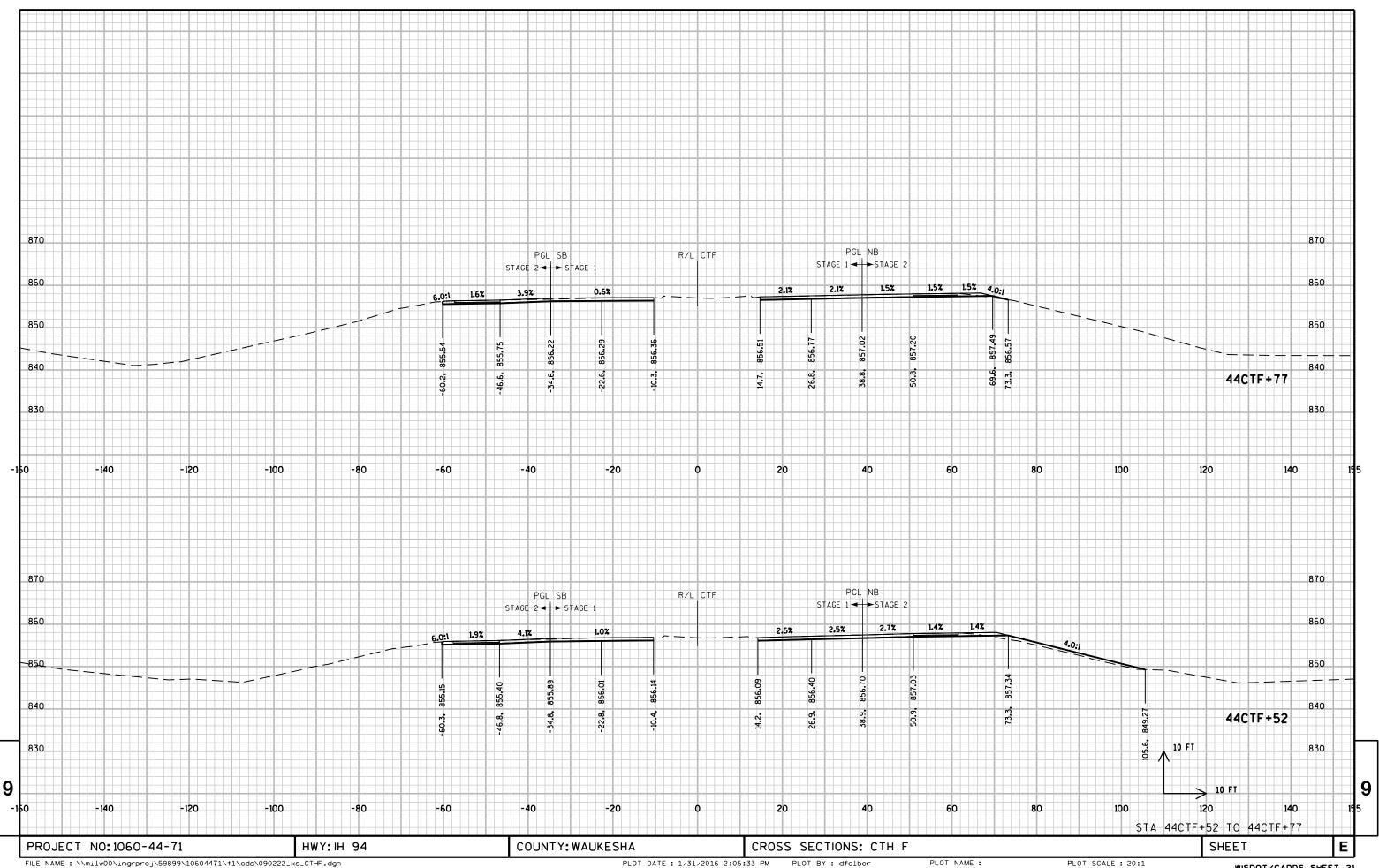
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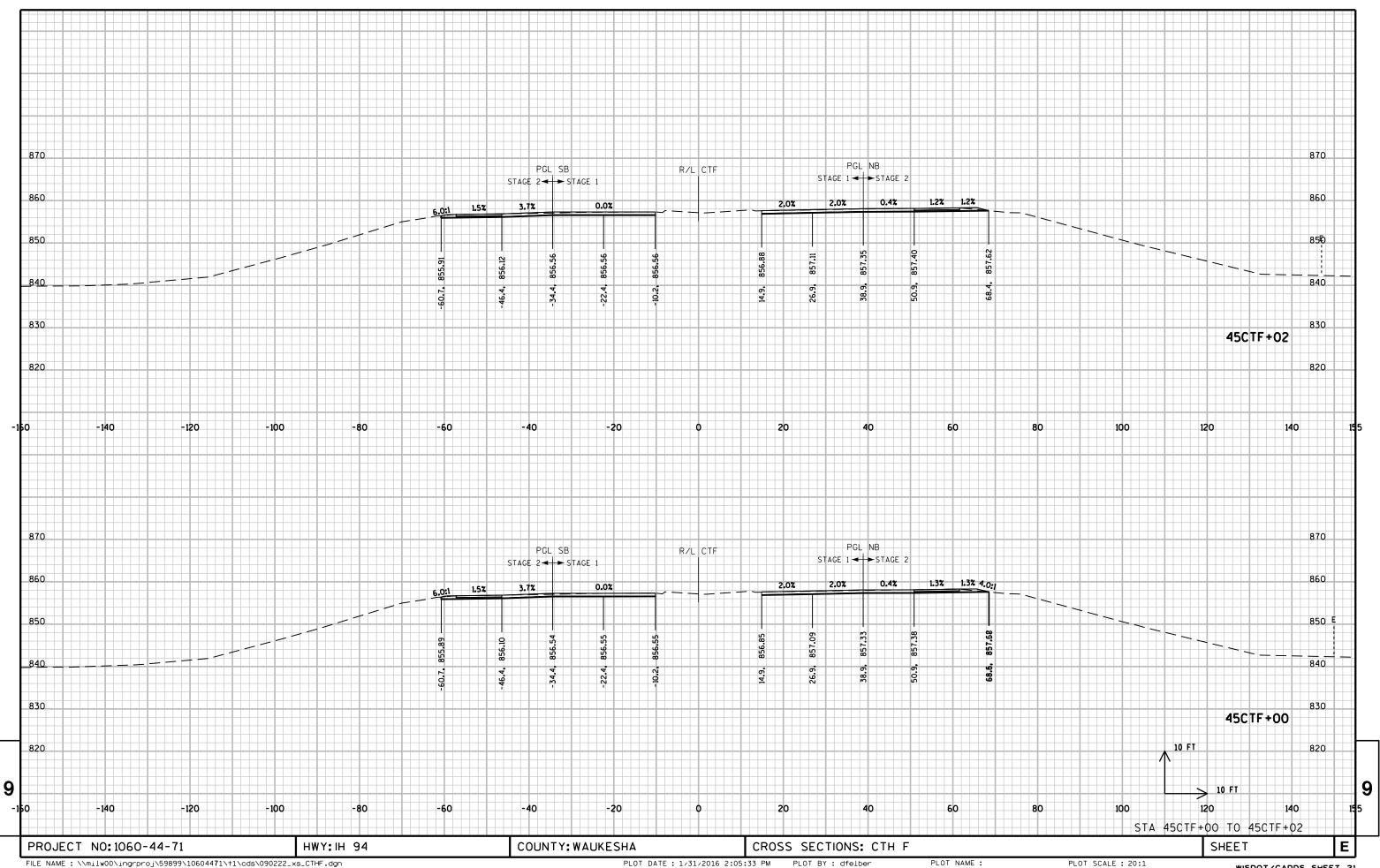


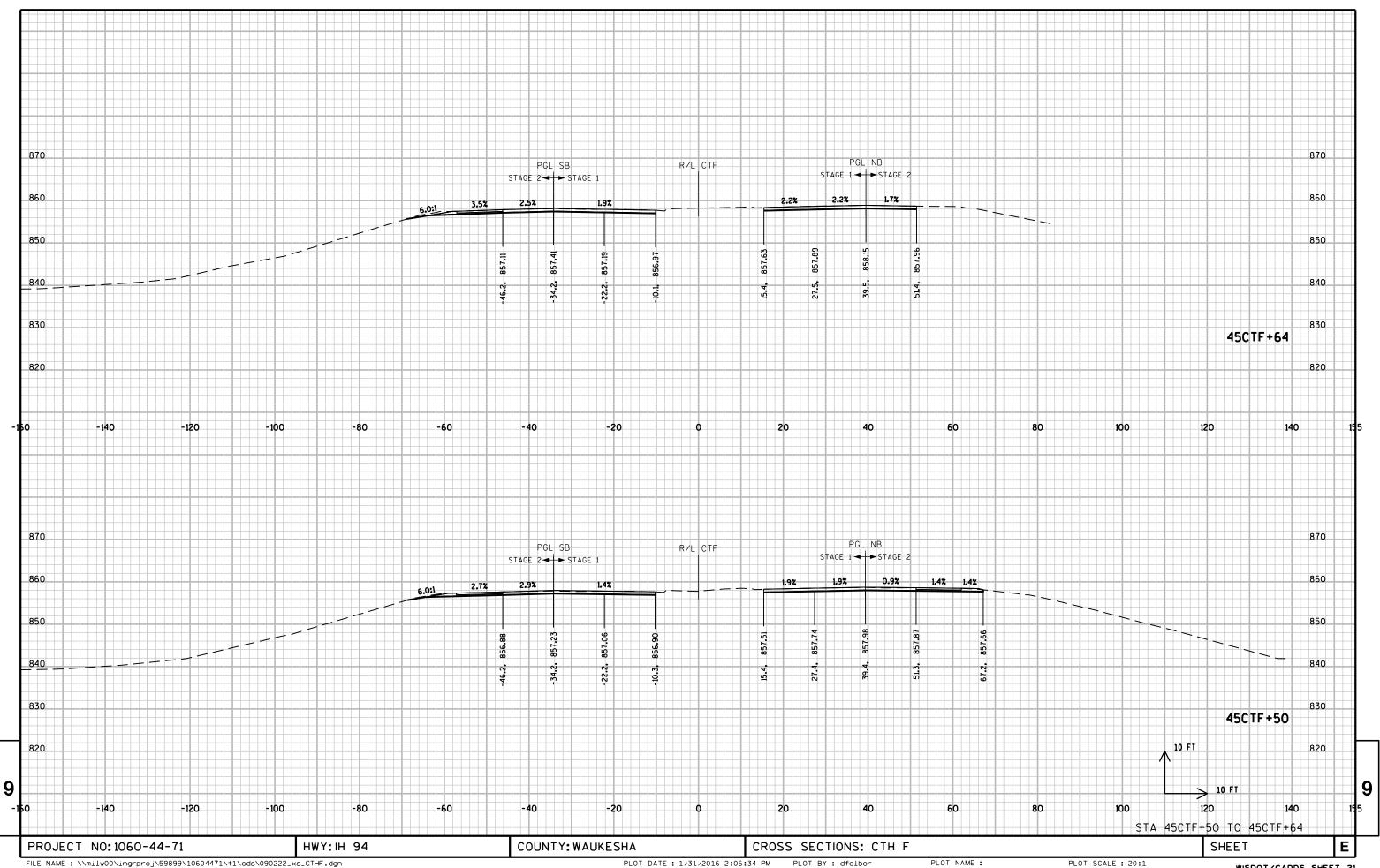


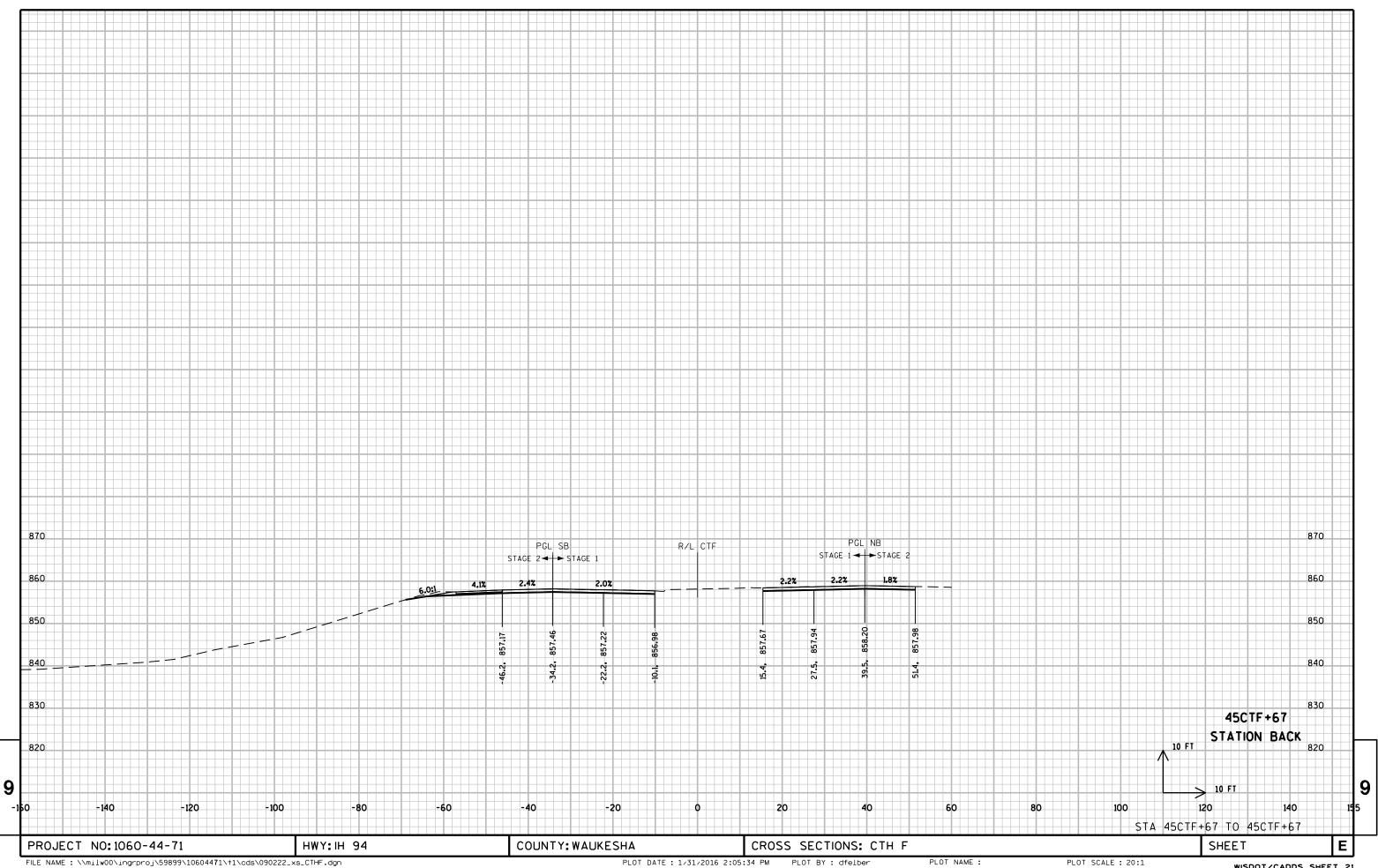


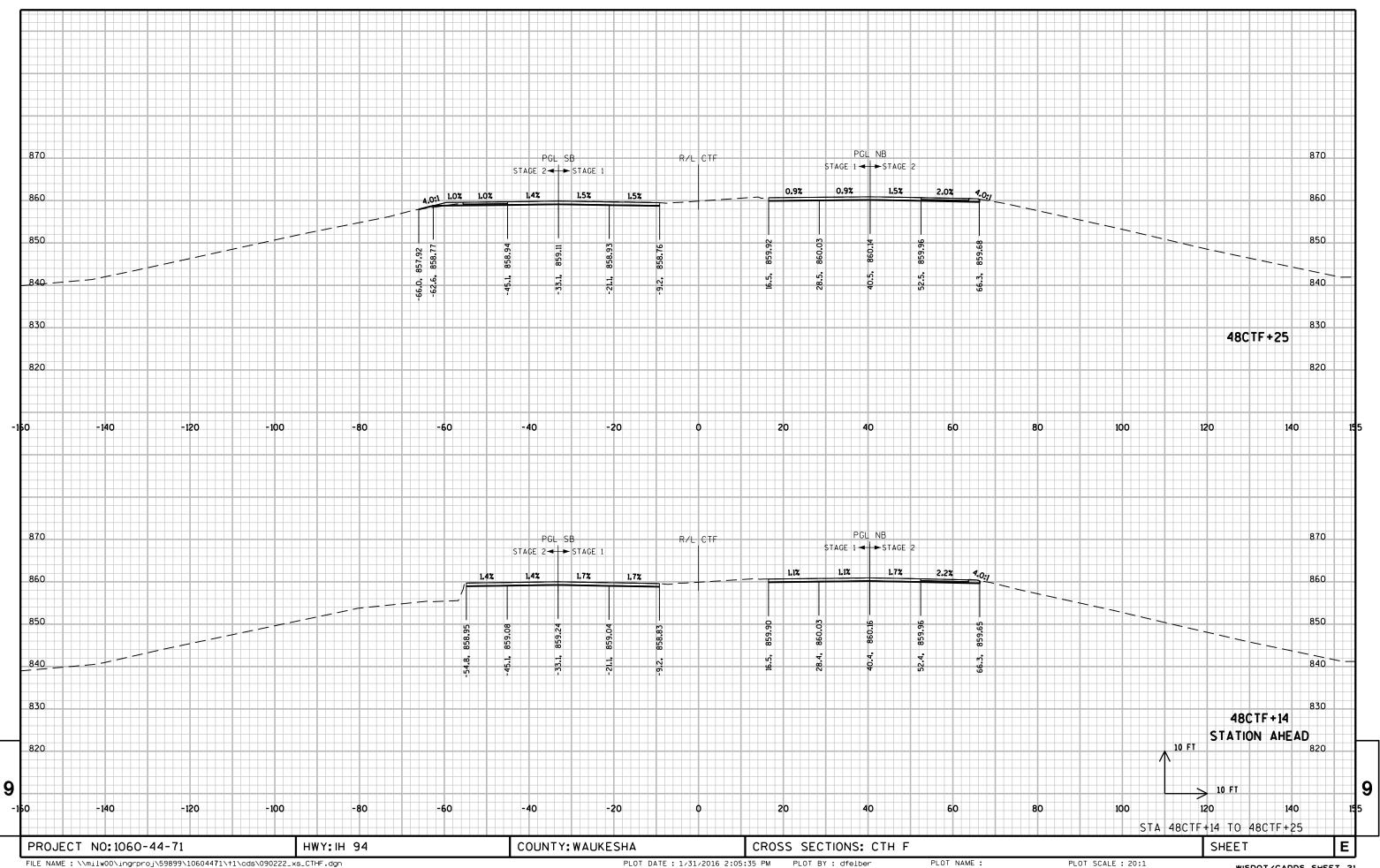


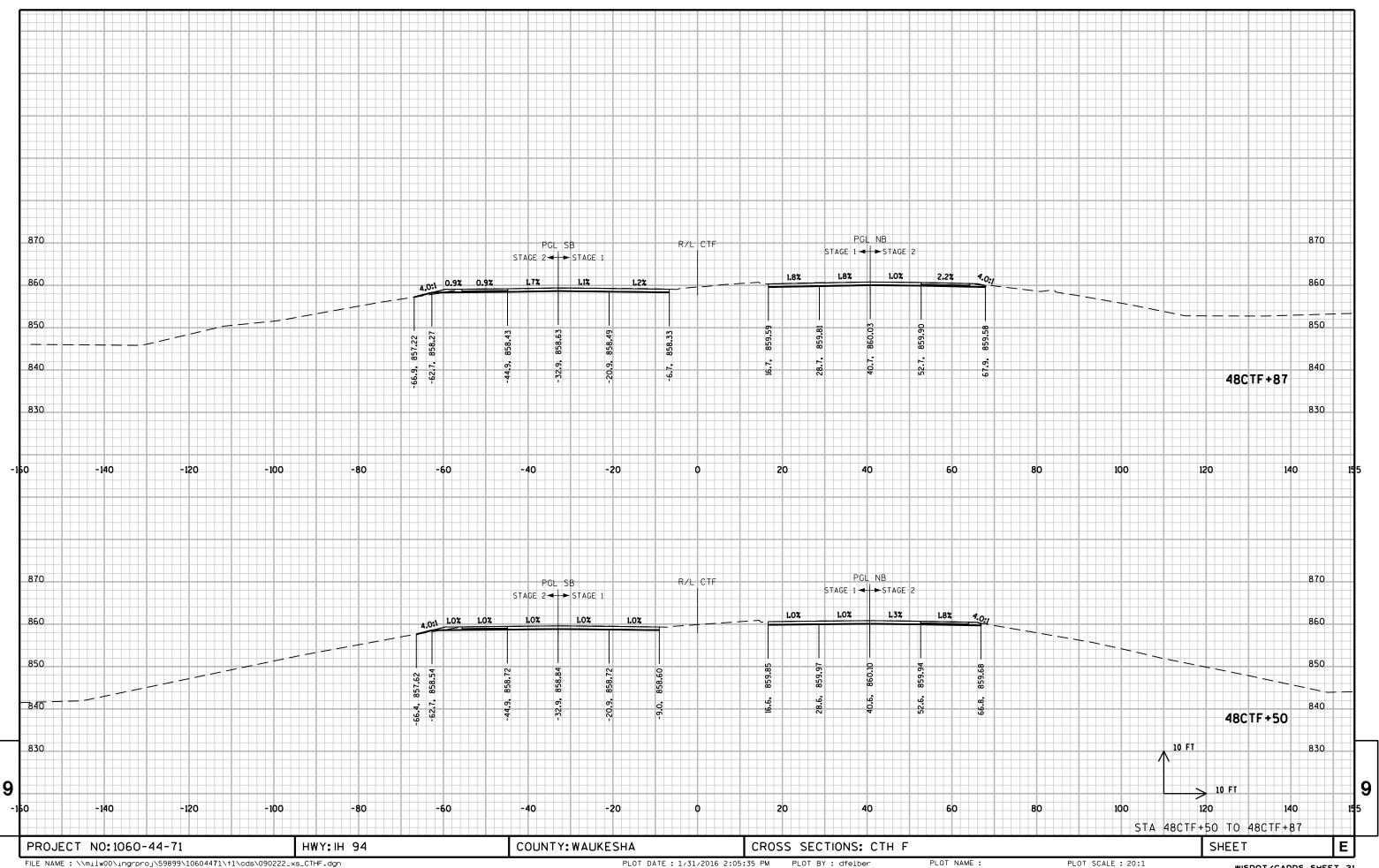


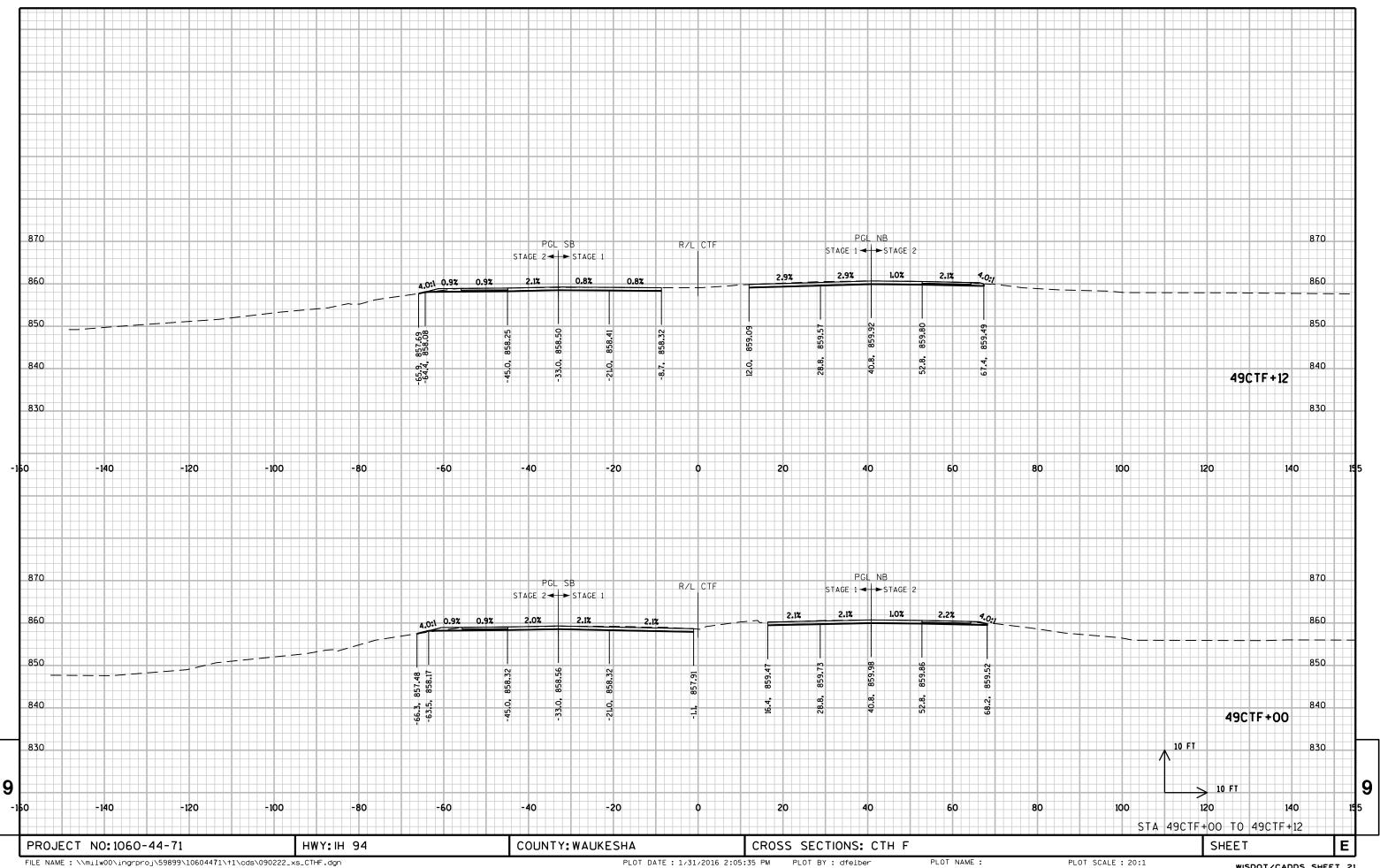


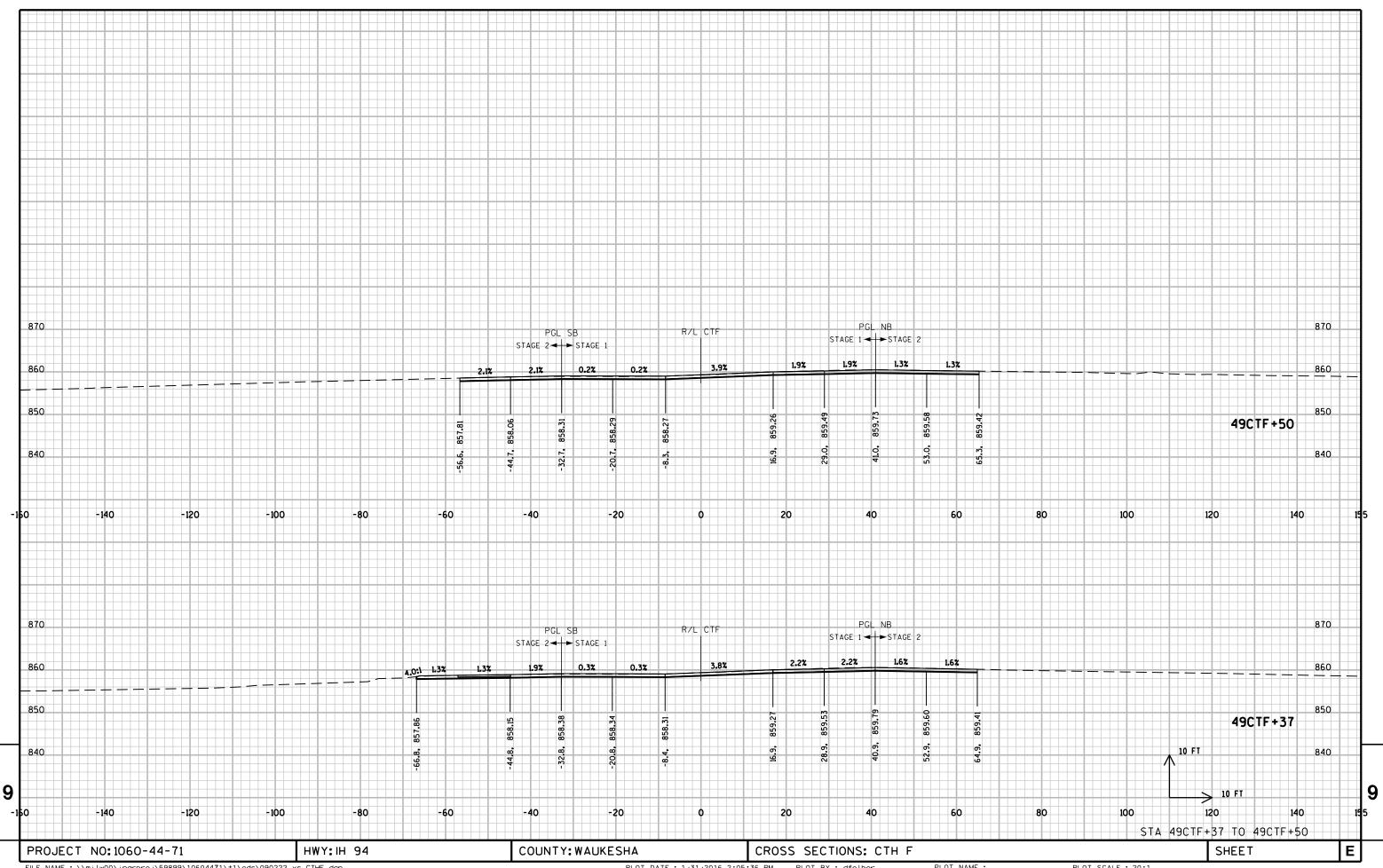


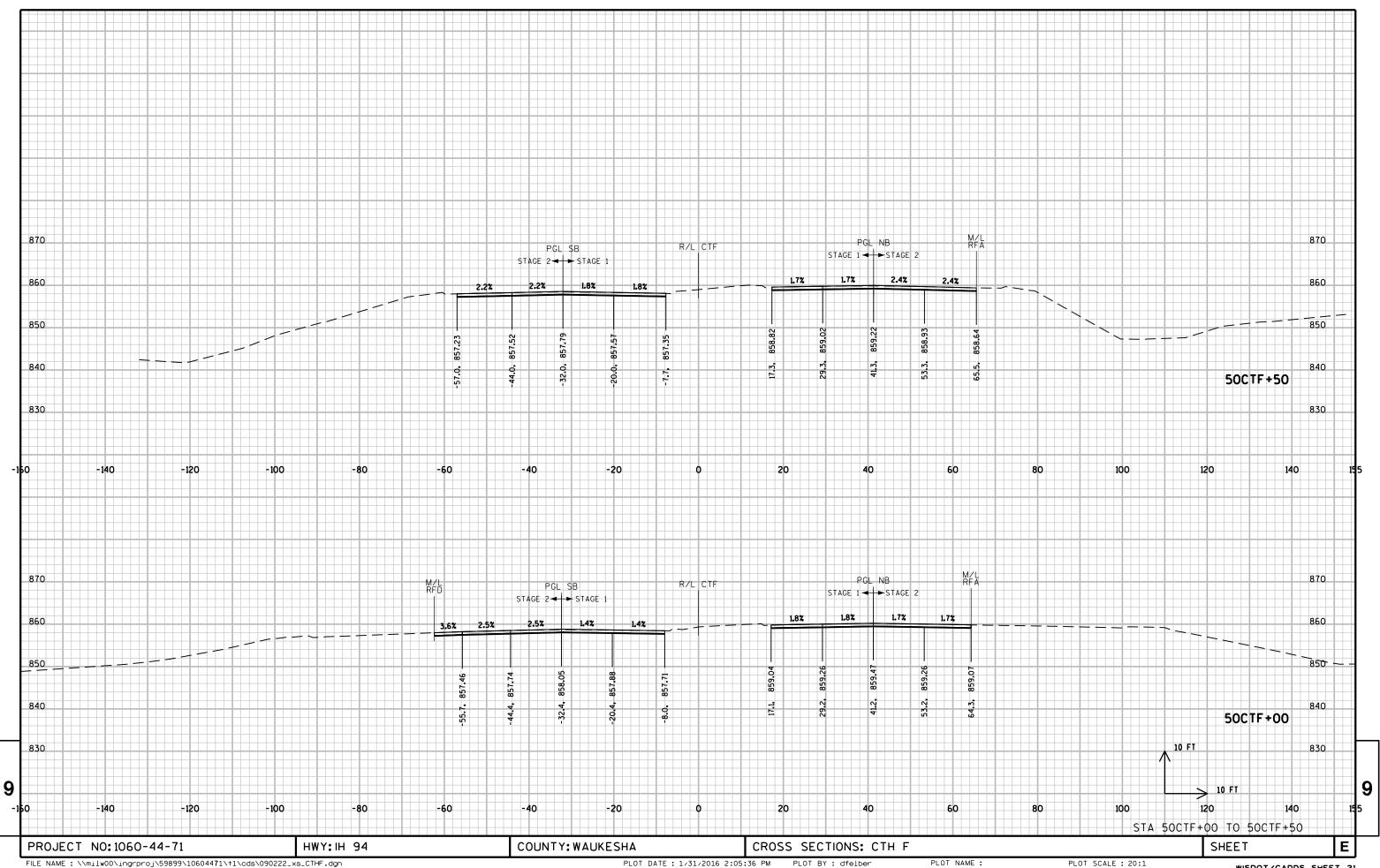


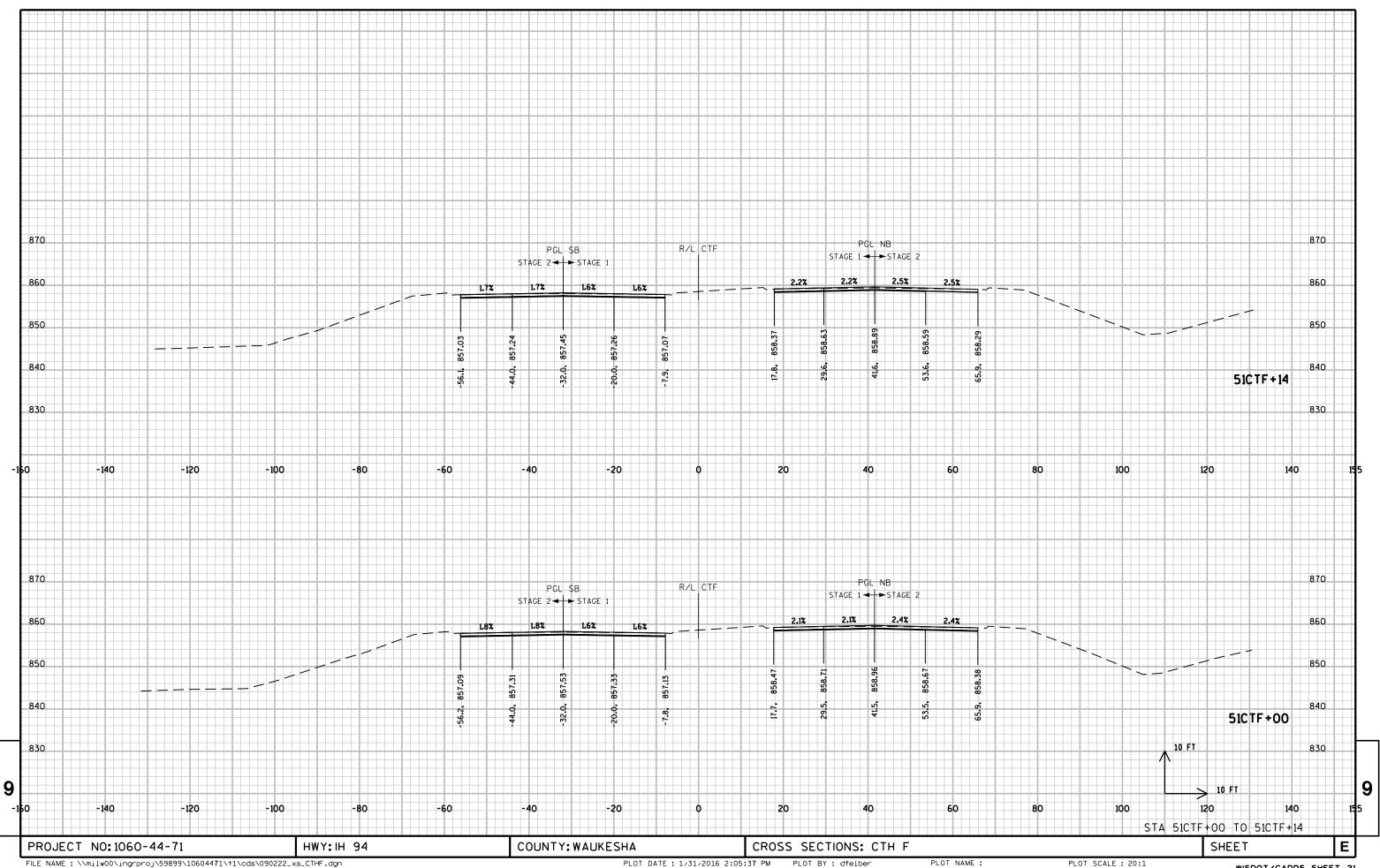


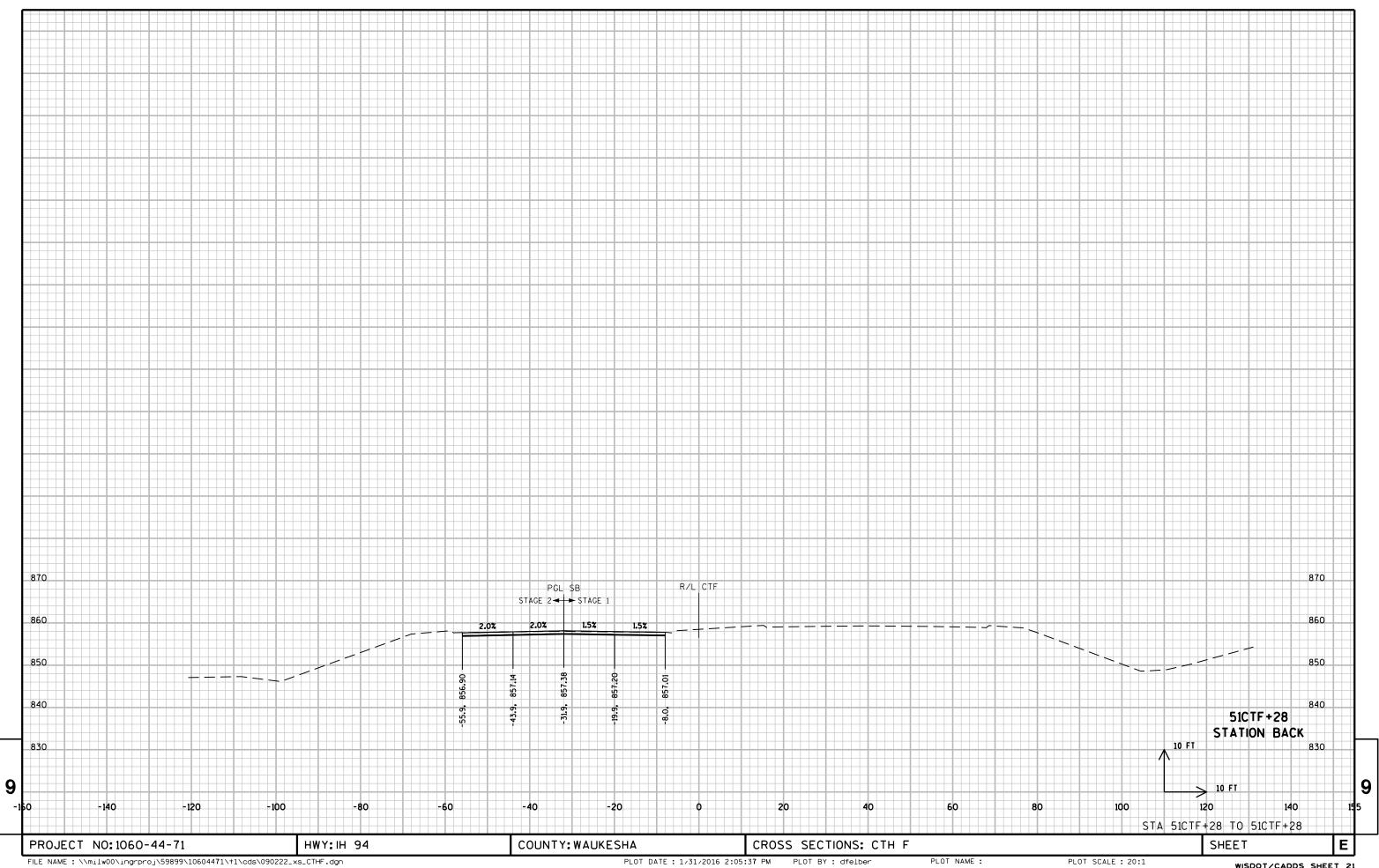


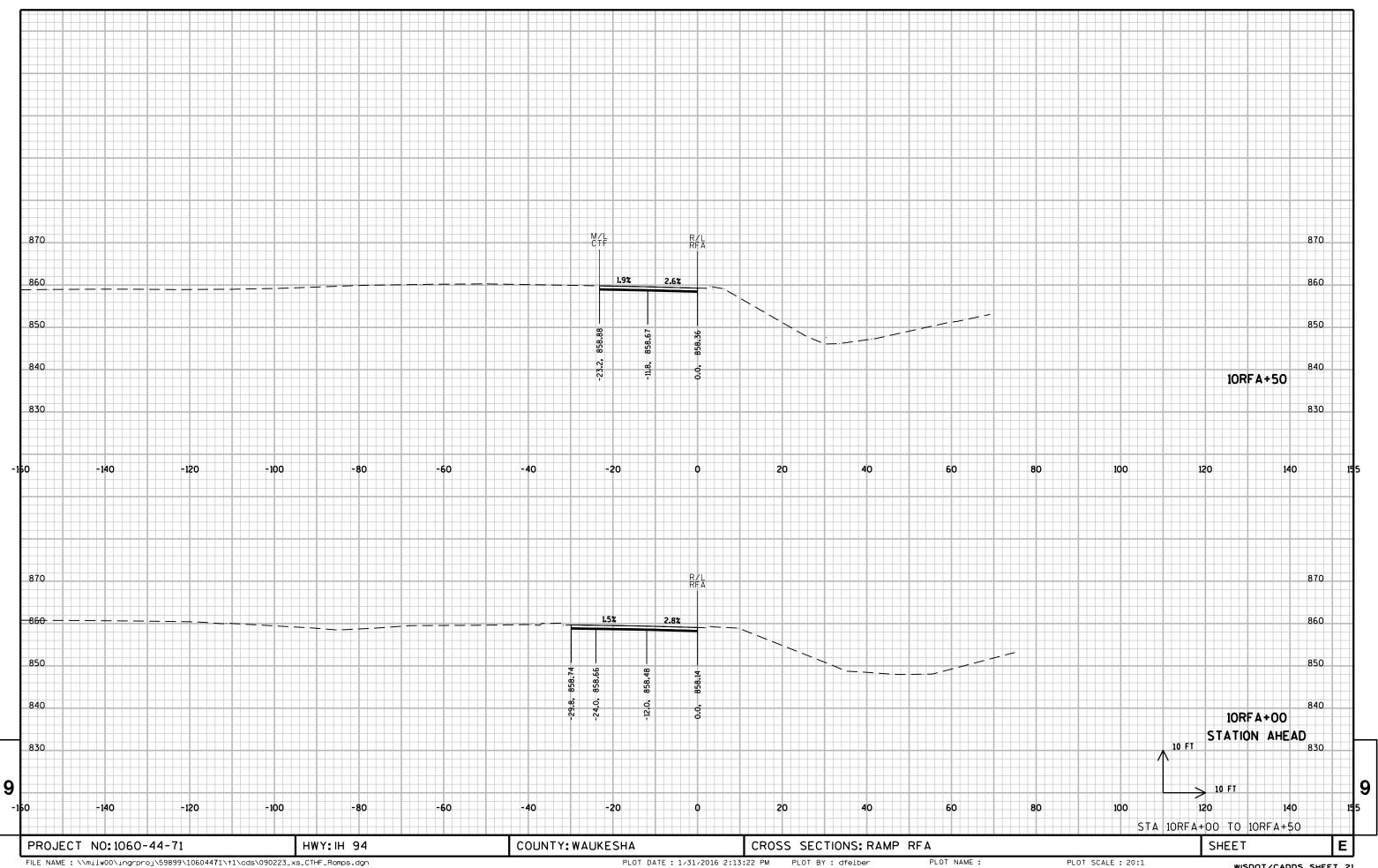


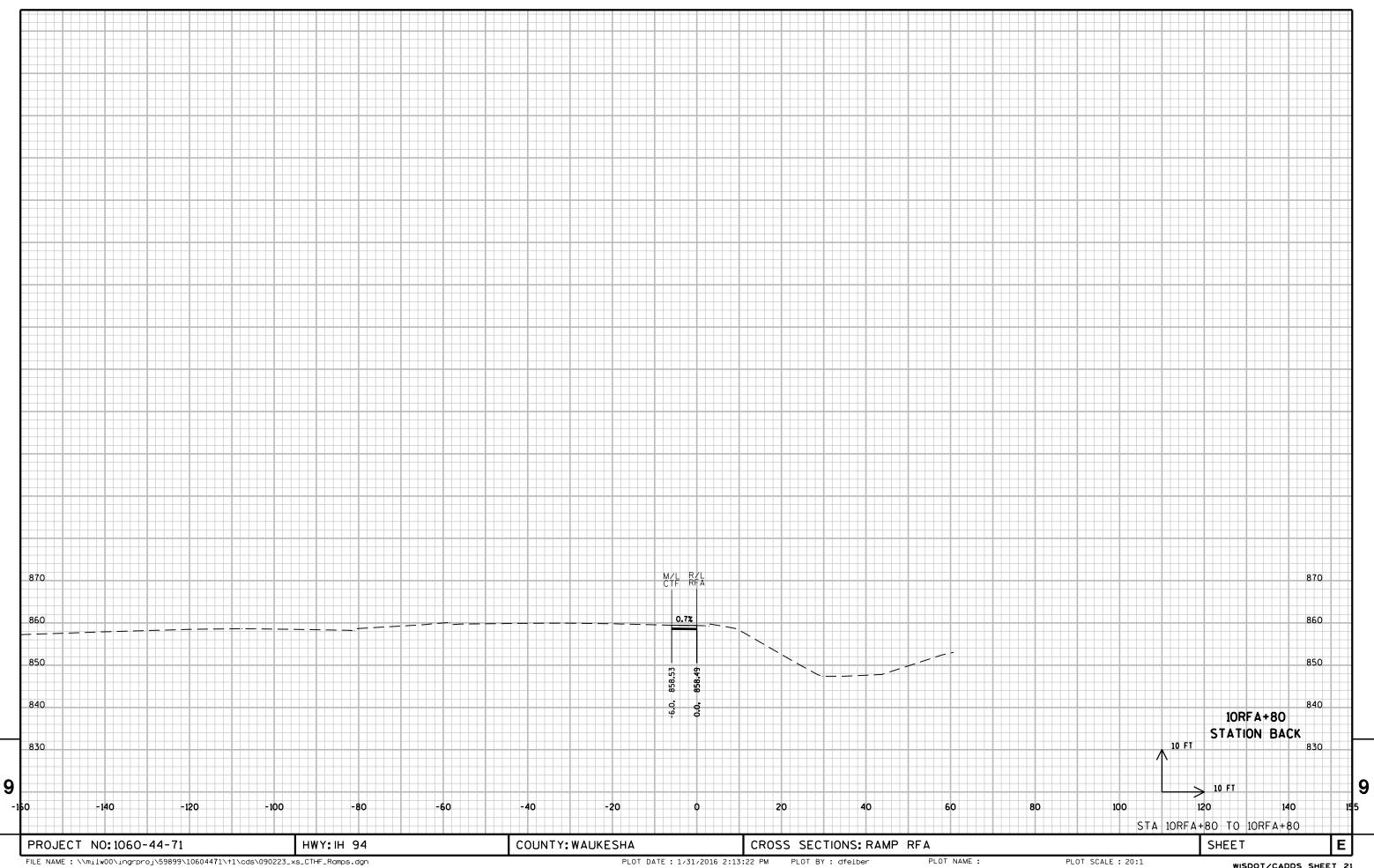


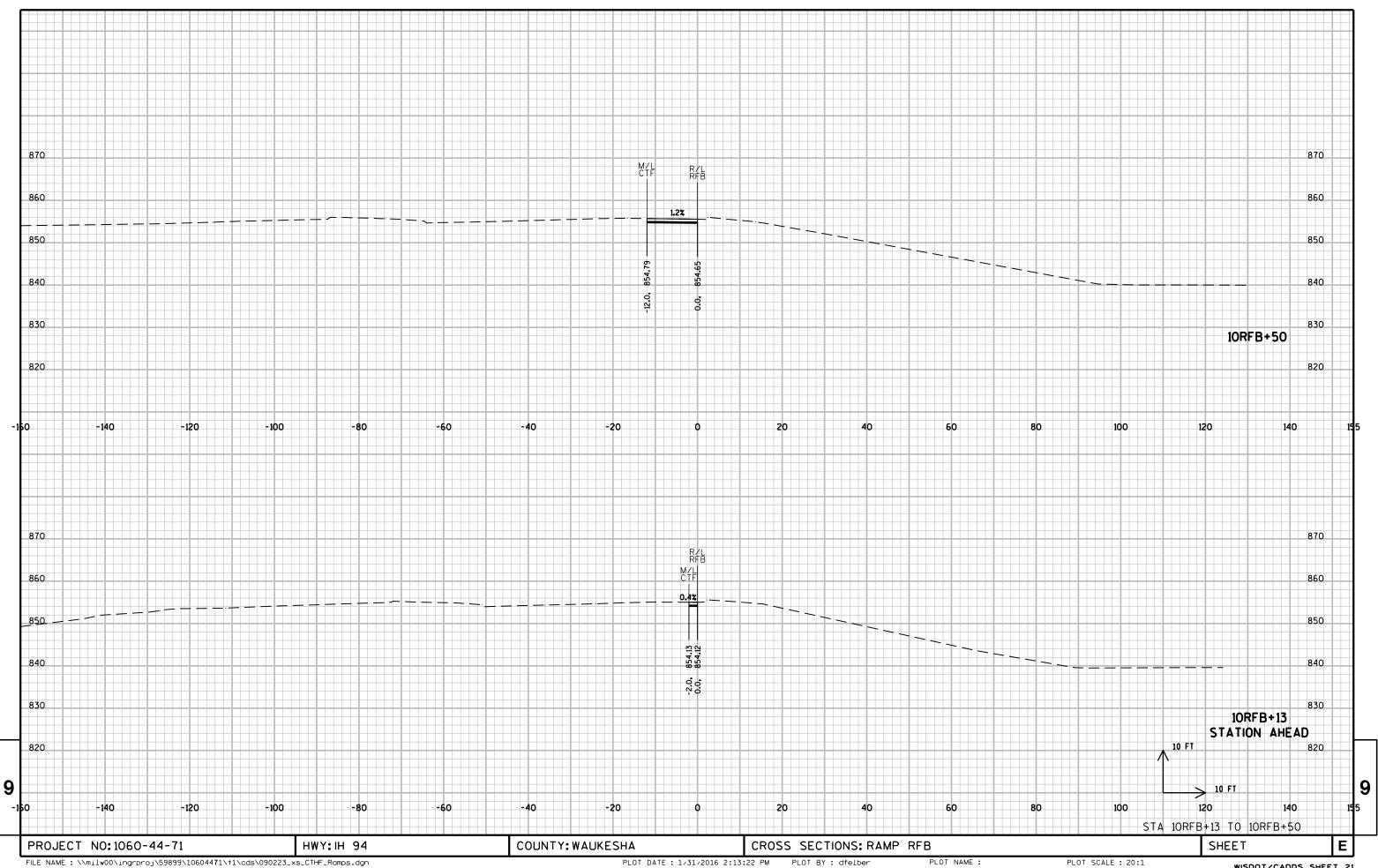


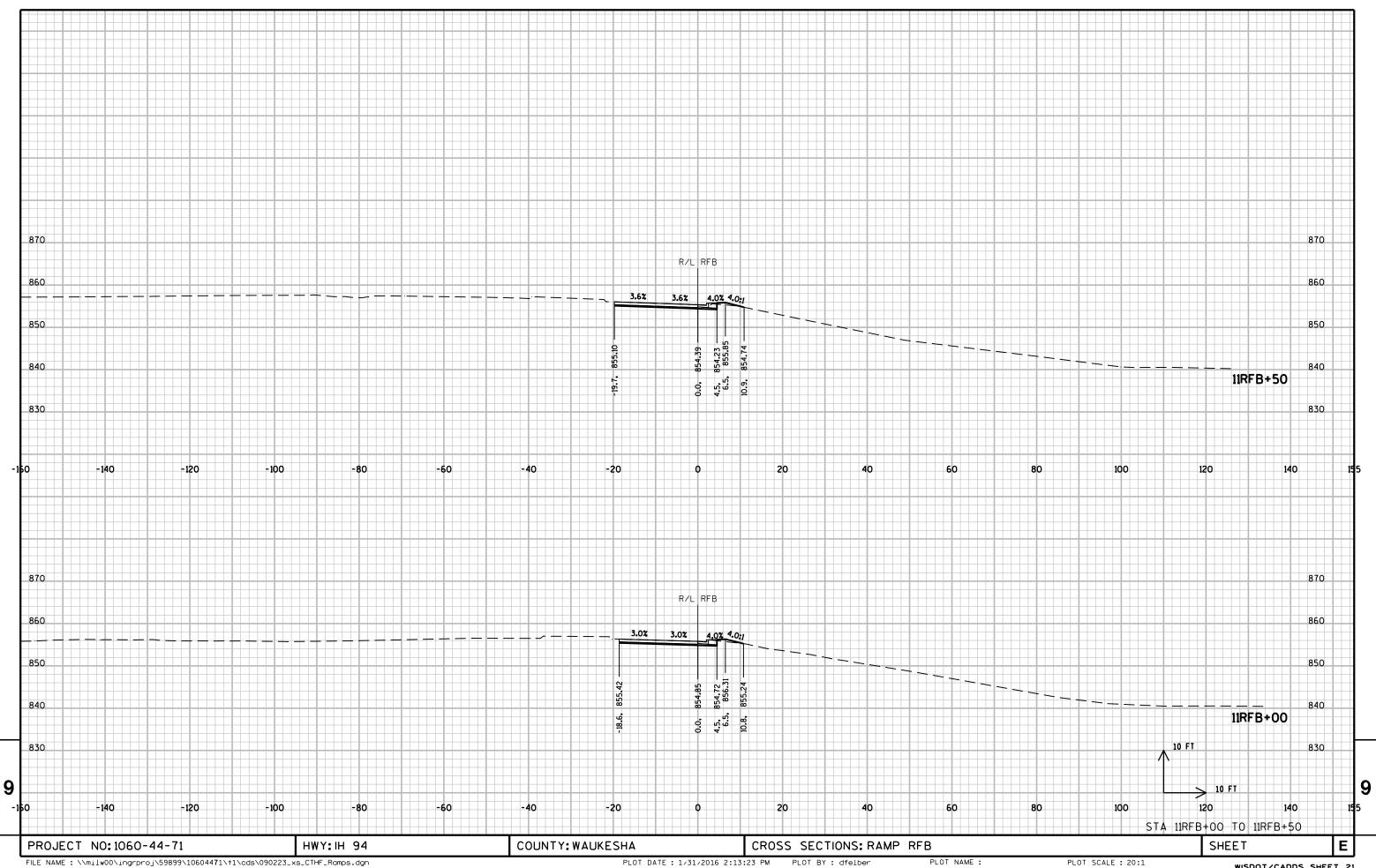


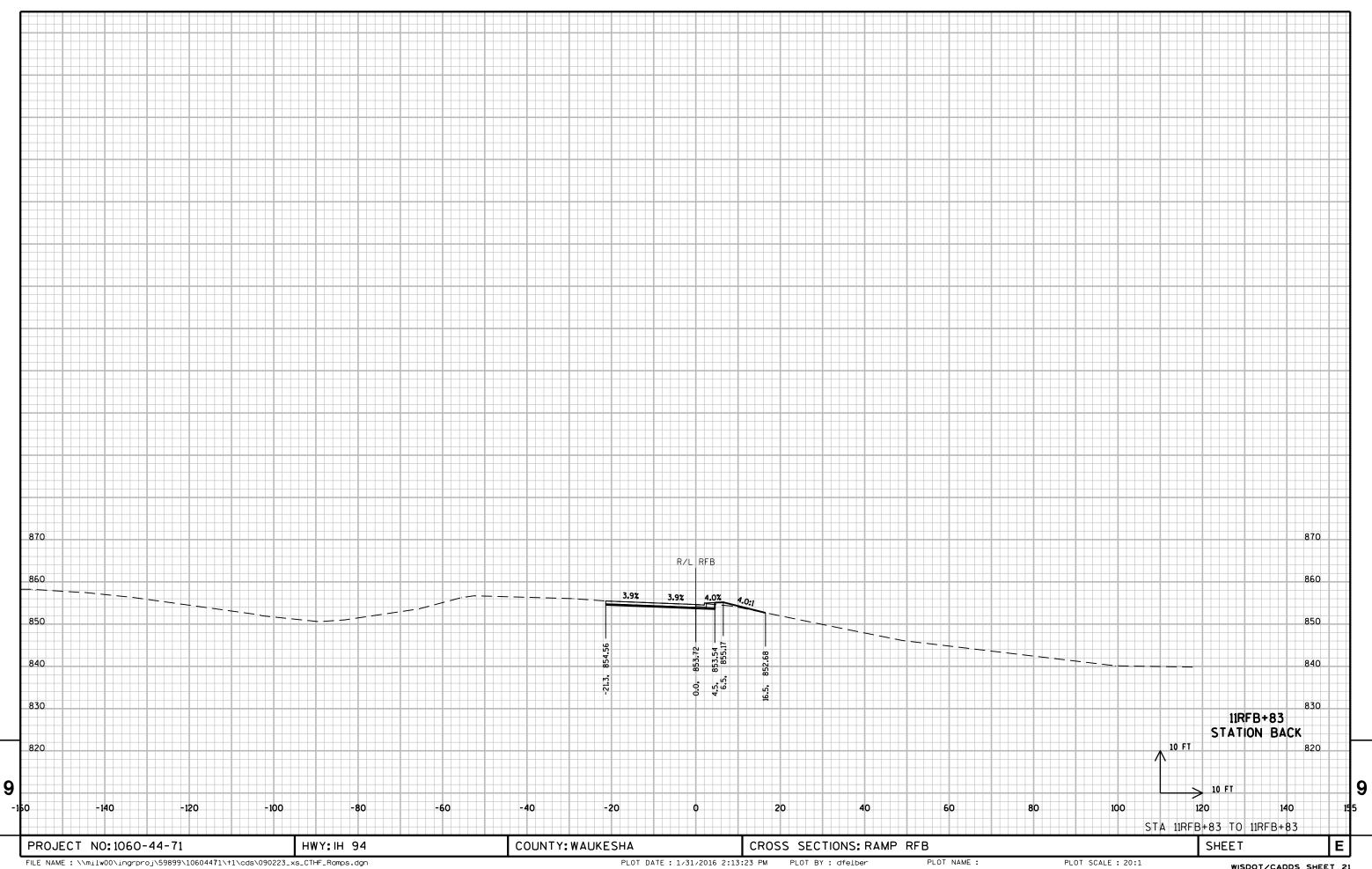


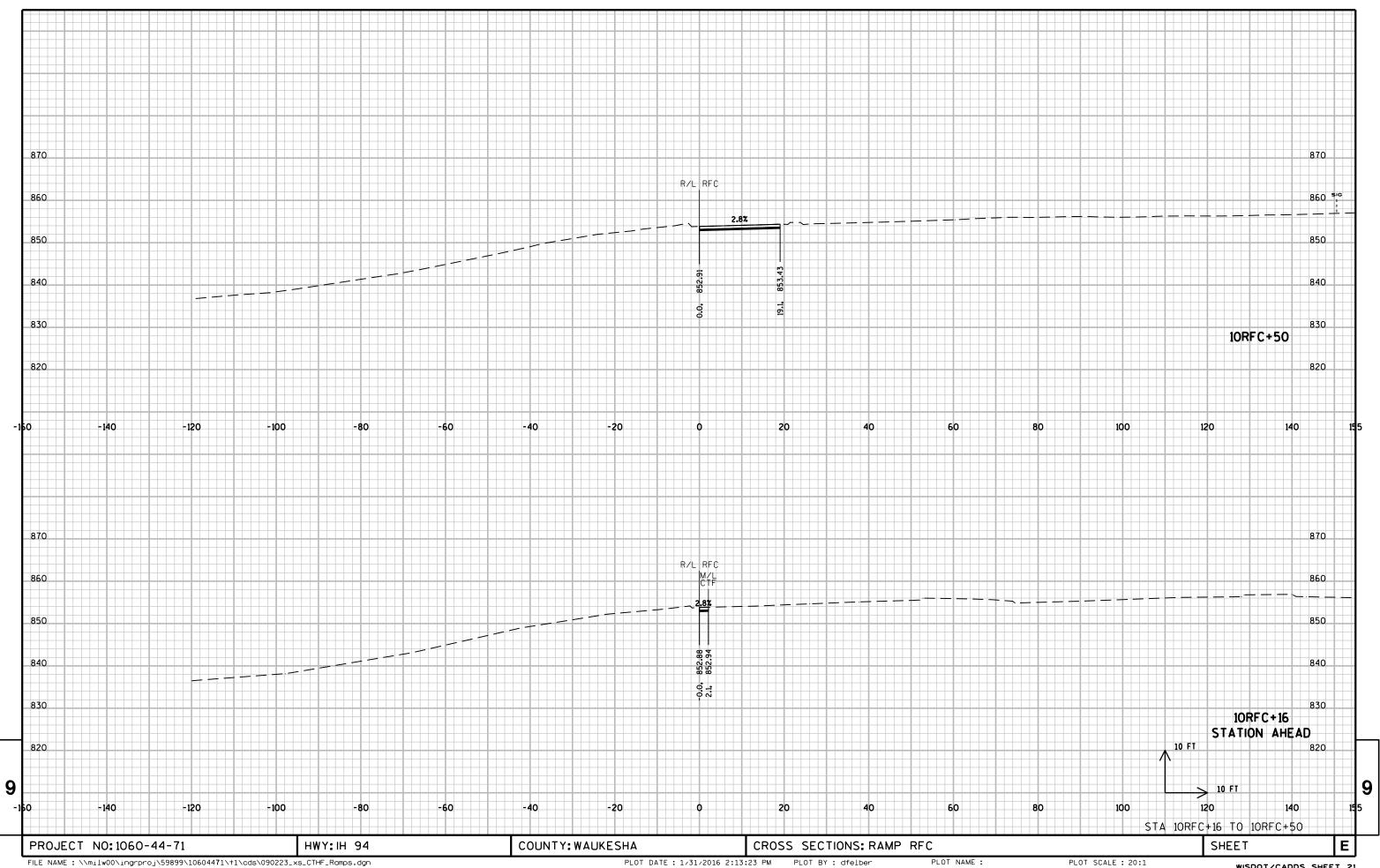


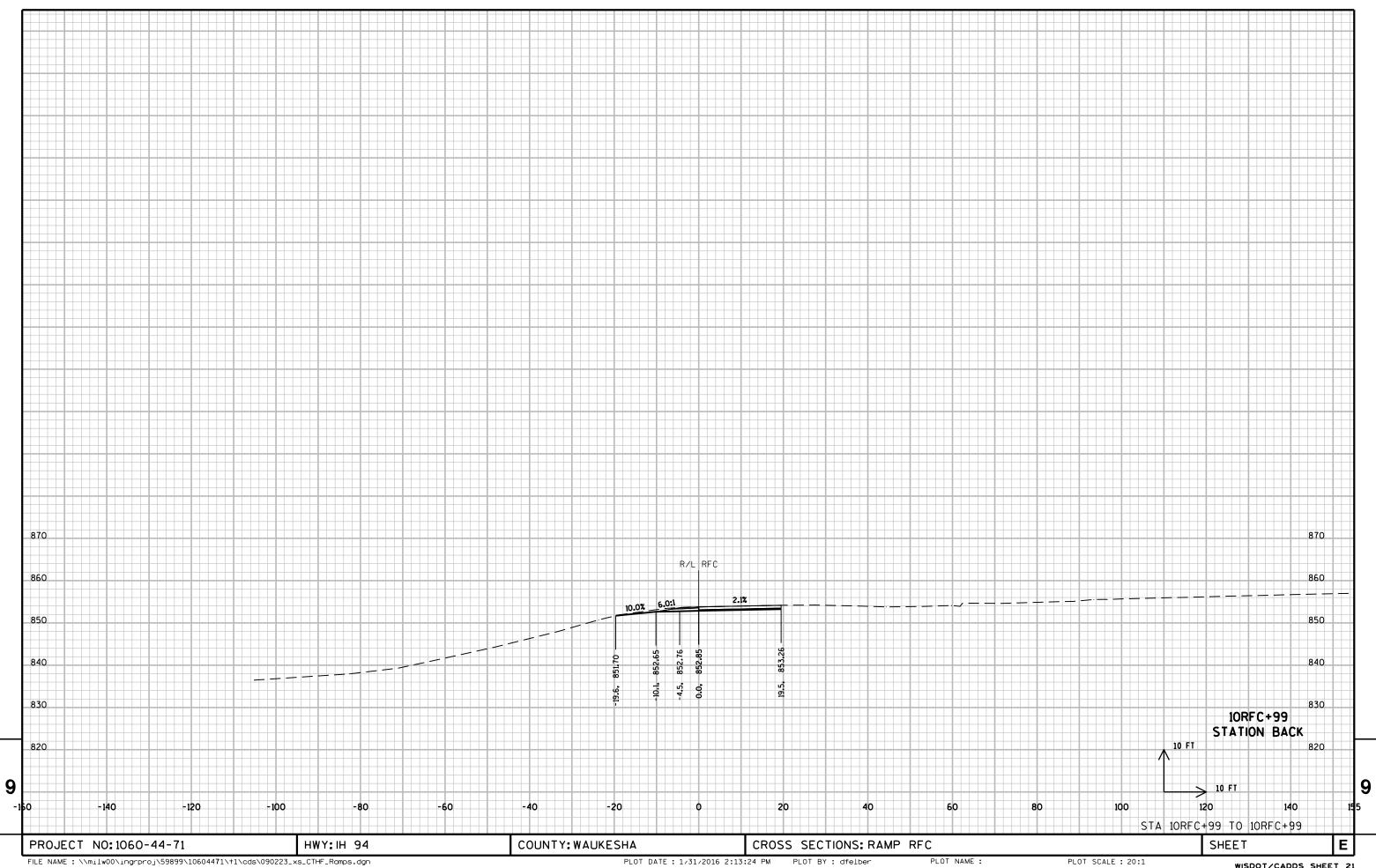


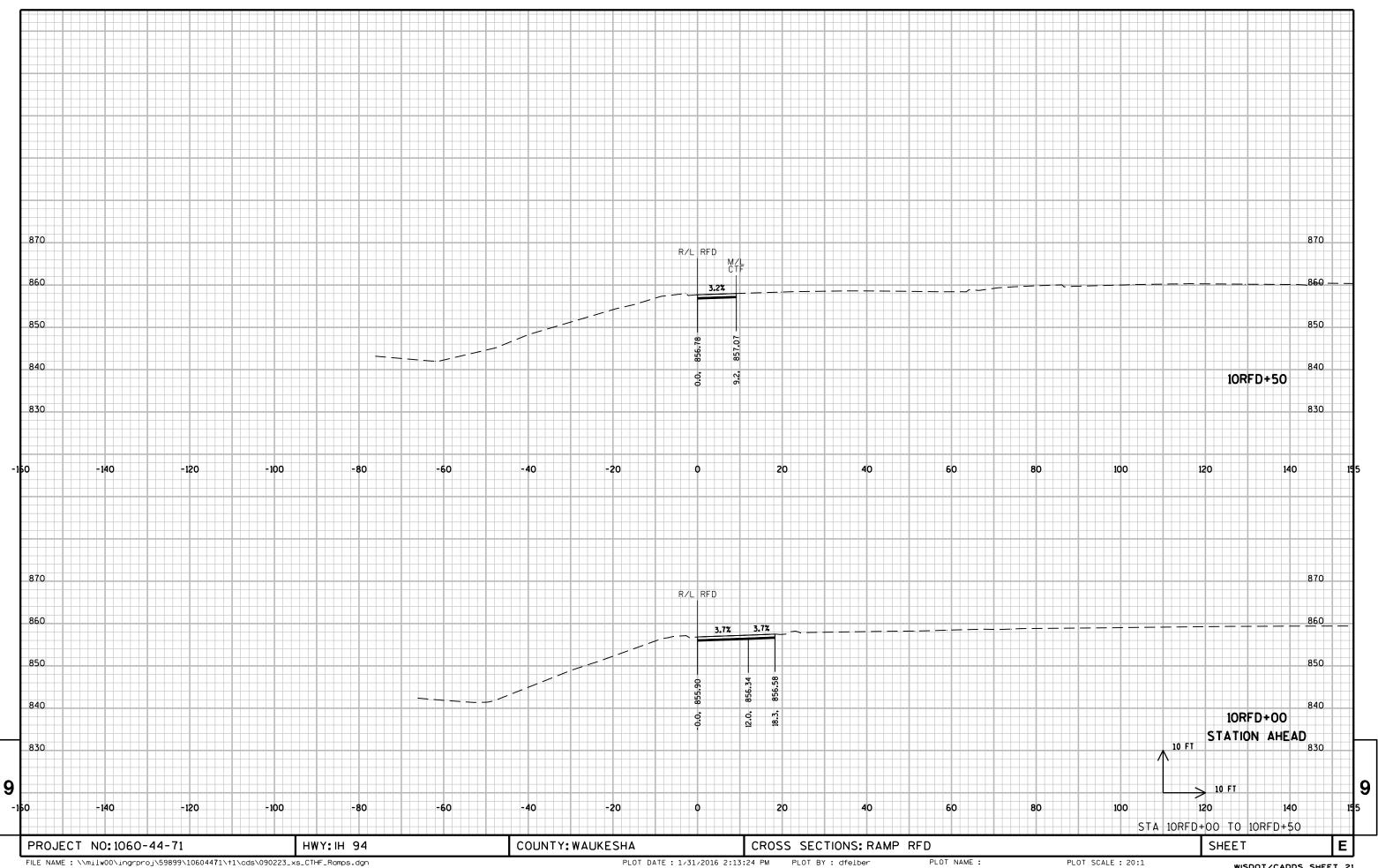


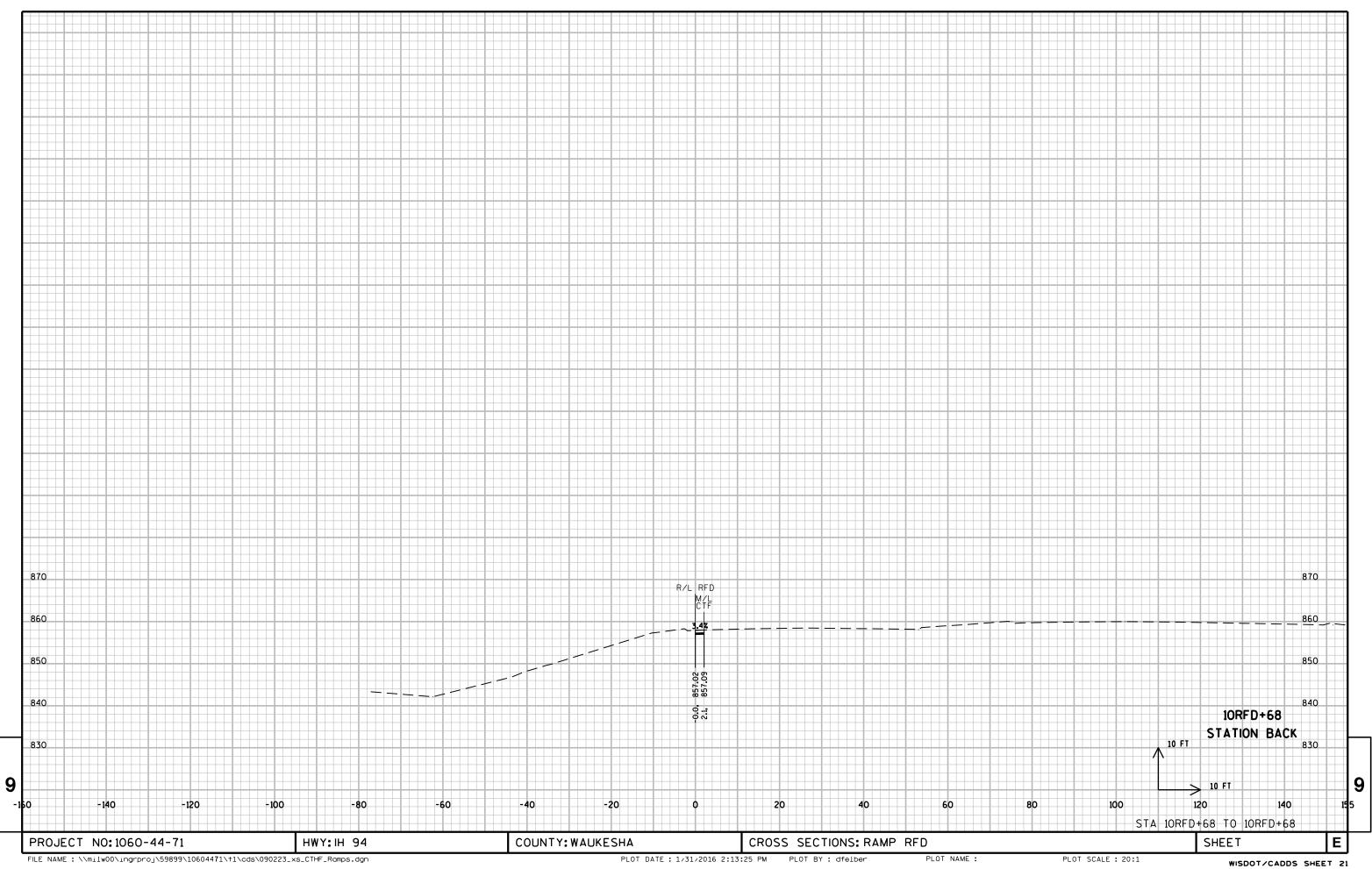














# Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

http://www.dot.wisconsin.gov

#### JUNE 2016

#### ORDER OF SHEETS

Title Section No. 1 Section No. 2 Section No. 3 Estimate of Quantities Section No. 3 Miscellaneous Quantities Section No. 4 Right of Way Plat Section No. 5 Plan and Profile Section No. 6 Standard Detail Drawings Section No. 7 Sign Plates Section No. 8 Structure Plans

Section No. 9 Computer Earthwork Data

Section No. 9 Cross Sections

TOTAL SHEETS = 38

Typical Sections and Details

DEPARTMENT OF TRANSPORTATION

STATE OF WISCONSIN

PLAN OF PROPOSED IMPROVEMENT

### EAST WEST FREEWAY

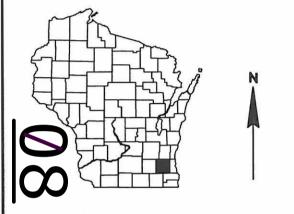
NEMAHBIN LAKE BRIDGE (EB) B-67-0069 IH 94 WAUKESHA COUNTY

> STATE PROJECT NUMBER 1060-44-72

> > R-17-E

STRUCTURE

B-67-069



DESIGN DESIGNATION IH 94 A.A.D.T. 2013 56,500 71,900 A.A.D.T. 2035 5,500 D.H.V. D.D. 12.12

56% / 44% DESIGN SPEED 70 MPH **ESALS** 

#### CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS 1////// PROPERTY LINE LOT LINE LIMITED HIGHWAY EASEMENT EXISTING RIGHT OF WAY PROPOSED OR NEW R/W LINE SLOPE INTERCEPT REFERENCE LINE

EXISTING CULVERT PROPOSED CULVERT (Box or Pipe) COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

PROFILE GRADE LINE ORIGINAL GROUND MARSH OR ROCK PROFILE (To be noted as such) SPECIAL DITCH GRADE ELEVATION CULVERT (Profile View) UTILITIES ELECTRIC FIBER OPTIC SANITARY SEWER STORM SEWER TELEPHONE WATER UTILITY PEDESTAL POWER POLE

TELEPHONE POLE

LABEL \_ \_

BEGIN PROJECT 1060-44-72

T-7-N

Genesee

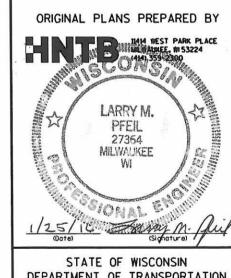
LAYOUT

TOTAL NET LENGTH OF CENTERLINE 1060-44-72 = 0.000 MI

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012)

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WAUKESHA COUNTY, NAD83 (2011)

FEDERAL PROJECT STATE PROJECT PROJECT CONTRACT 1060-44-72 WISC 2016221 1



## DEPARTMENT OF TRANSPORTATION

EMCS

PREPARED BY Surveyor

HNTB DAVID PITTMAN Project Manager Regional Examiner \_\_\_\_

Regional Supervisor \_\_\_JOE\_GALLAMORE

PPROVED FOR THE DEPARTMENT

END PROJECT 1060-44-72

STA 307EB+58.56 X = 674040.7088 Y = 160974.7263

E

#### **UTILITY CONTACTS**

**AT&T WISCONSIN** 

MR. ALPER KOLCU 2005 PEWAUKEE RD WAUKESHA, WI 53188 262-352-3791 ak308x@att.net

TIME WARNER CABLE

TW CABLE ENGINEERING 1320 N MARTIN LUTHER KING DR MILWAUKEE, WI 53212 414-277-4045 w is.engineering@tw cable.com

**SUMMIT UTILITY DISTRICT 2** 

MR. HENRY ELLING 2911 N. DOUSMAN ROAD OCONOMOWOC, WI 53066 262-567-2757; FAX 262-567-4115 ellingh@summittow n.org

AT&T CORP.

MR. CARL DONAHUE 866 ROCK CREEK ROAD PLANO, IL 60545 847-420-9115; FAX 847-244-9597 414-221-4578; FAX 414-221-2336 cd8729@att.com

ATC MANAGEMENT INC

PO BOX 6113

920-338-6582

WE ENERGIES (ELECTRIC): CONSTRUCTION FIELD CONTACT

MR. MIKE OLSEN BRYAN STOEHR 801 O'KEEFE ROAD 500 S. 116TH ST. WEST ALLIS, WI 53214 DEPERE, WI 54115-6113 PHONE: 414-944-5516 MOBILE: 414-416-6059 Bryan.Stoehr@we-energies.com molsen@atcllc.com

WE ENERGIES (GAS): CONSTRUCTION FIELD CONTACT

TROY NEALEY 500 S. 116TH ST. WEST ALLIS, WI 53214 PHONE: 414-944-5547 MOBILE: 414-322-4661 troy.nealey@we-energies.com

WE ENERGIES (ELECTRIC & GAS)

latroy.brumfield@w e-energies.com

MR. LATROY BRUMFIELD

MILWAUKEE, WI 53203

333 W. EVERETT ST - A299



**HWY: IH 94** Ε **COUNTY: WAUKESHA GENERAL NOTES AND UTILITY CONTACTS** PROJECT NO: 1060-44-72 SHEET:

PLOT DATE : FILE NAME : \\milw00\ingrproj\59899\t1\020201\_gn.pptx PLOT BY : PLOT NAME PLOT SCALE: 1:1

#### **GENERAL NOTES**

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL, MUNICIPAL OR OTHER UTILITY THAT IS NOT A MEMBER OF DIGGERS HOTLINE SHALL BE CONTRACTED SEPERATELY.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WATERWAY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTOR'S EXPENSE.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ROADWAY AND BRIDGE ALIGNMENTS ARE NOT THE SAME. BRIDGE ALIGNMENTS ARE FROM AS-BUILT PLANS. THE ROADWAY ALIGNMENT IS FOR REFERENCE ONLY.

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO (2) WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

#### **OTHER AGENCIES**

#### DNR AREA LIAISON

MR. CRAIG WEBSTER
141 NW BARSTOW ROOM 180
WAUKESHA, WI 53187
262-574-2141
craig.w ebster@w isconsin.gov

#### WAUKESHA COUNTY

MR. GARY EVANS, HWY. ENG. MGR. 515 W. MORELAND BLVD., RM. 220 WAUKESHA, WI 53188 262-548-7740

gevans@waukeshacounty.gov

#### US ARMY CORP OF ENGINEERS

MS. MARIE KOPKA 20711 WATERTOWN RD., SUITE F WAUKESHA, WI 53186 262-717-9539 Marie.H.Kopka@usace.army.mil

#### WISCONSIN DEPARTMENT OF TRANSPORTATION

MR. DAVID PITTMAN, P.E 141 NW BARSTOW STREET WAUKESHA, WI 53187-0798 262-548-6439

david.pittman@dot.wi.gov

#### <u>HNTB</u>

MR. PAT CASHIN, P.E 11414 WEST PARK PLACE MILWAUKEE, WI 53224 414-359-2300 pcashin@hntb.com

#### <u>SEWRPC</u>

MR. DON SIMON AND MR. JOHN WASHBURN W239 N1812 ROCKWOOD DR, P.O BOX 1607 WAUKESHA, WI 53187-1607 262-547-6721 sew rpc@sew rpc.org

#### **ABBREVIATIONS**

COUNTY TRUNK HIGHWAY

BAD BASE AGGREGATE DENSE
BMP BEST MANAGEMENT PRACTICES
C&G CURB AND GUTTER

C/L OR CENTER OR CONSTUCTION LINE

CONC CONCRETE

CTH

Δ DELTA
EB EASTBOUND
HMA HOT MIX ASPHALT

INL INLET

LENGTH OF CURVE LF LINEAR FOOT LS LUMP SUM LT LEFT MH **MANHOLE** MIN MINIMUM M/L MATCHLINE NB NORTHBOUND PAVT **PAVEMENT** 

PC POINT OF CURVE PCC POINT OF COMPOUND CURVE Ы POINT OF INTERSECTION PΤ POINT OF TANGENT R RADIUS OF CURVE REQD REQUIRED R/L OR REFERENCE LINE RT RIGHT R/W RIGHT OF WAY

SB SOUTHBOUND
SDD STANDARD DETAIL DRAWING

SF R SQUARE FOOT
STA STATION
SY SQUARE YARD
T TANGENT LENGTH
TYP TYPICAL
WB WESTBOUND

#### **ORDER OF SECTION 2 DETAIL SHEETS**

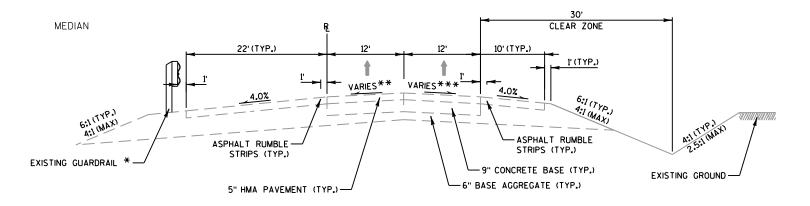
GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
PAVEMENT MARKING
TRAFFIC CONTROL

PROJECT NO: 1060-44-72 HWY: IH 94 COUNTY: WAUKESHA GENERAL NOTES AND UTILITY CONTACTS SHEET: E

FILE NAME: \milw00\ingrproj\59899\t1\020201\_gn.pptx PLOT DATE: PLOT BY: PLOT NAME: PLOT SCALE: 1:1



2



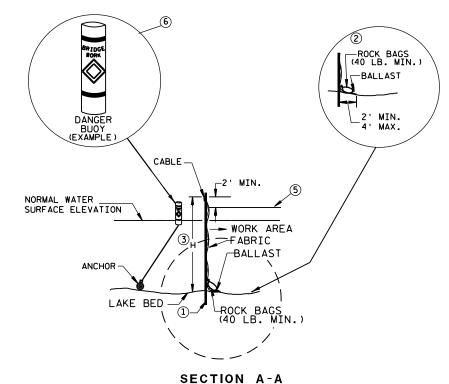
### EXISTING TYPICAL SECTION

INTERSTATE 94 EASTBOUND APPROACH TO B-67-069

\* ONLY LOCATED ON APPROACH ON WEST END OF B-67-069

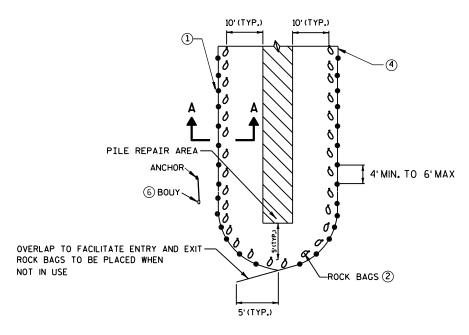
\*\* SLOPE VARIES FROM 1.5% TO -2.0% TO MATCH BRIDGE CROSS SLOPE. \*\*\*SLOPE VARIES FROM 1.5% TO 2.0% TO MATCH BRIDGE CROSS SLOPE

PROJECT NO: 1060-44-72 HWY: IH 94 COUNTY: WAUKESHA EXISTING TYPICAL SECTIONS SHEET **E** 



OLOTION A A

#### **ENHANCED TURBIDITY BARRIER POST INSTALLATION**



**PLAN VIEW** 

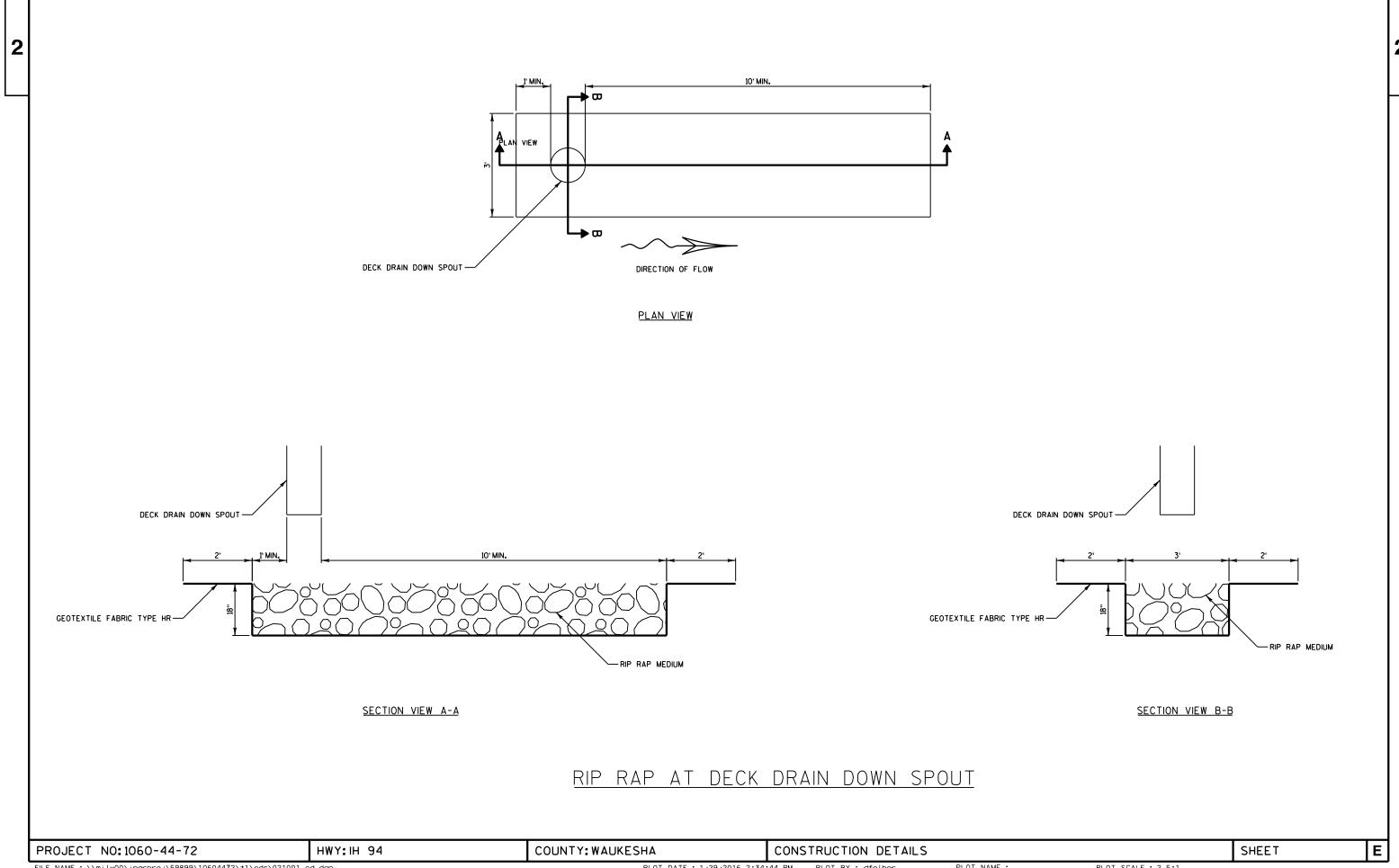
#### ENHANCED TURBIDITY BARRIER PLACEMENT DETAILS

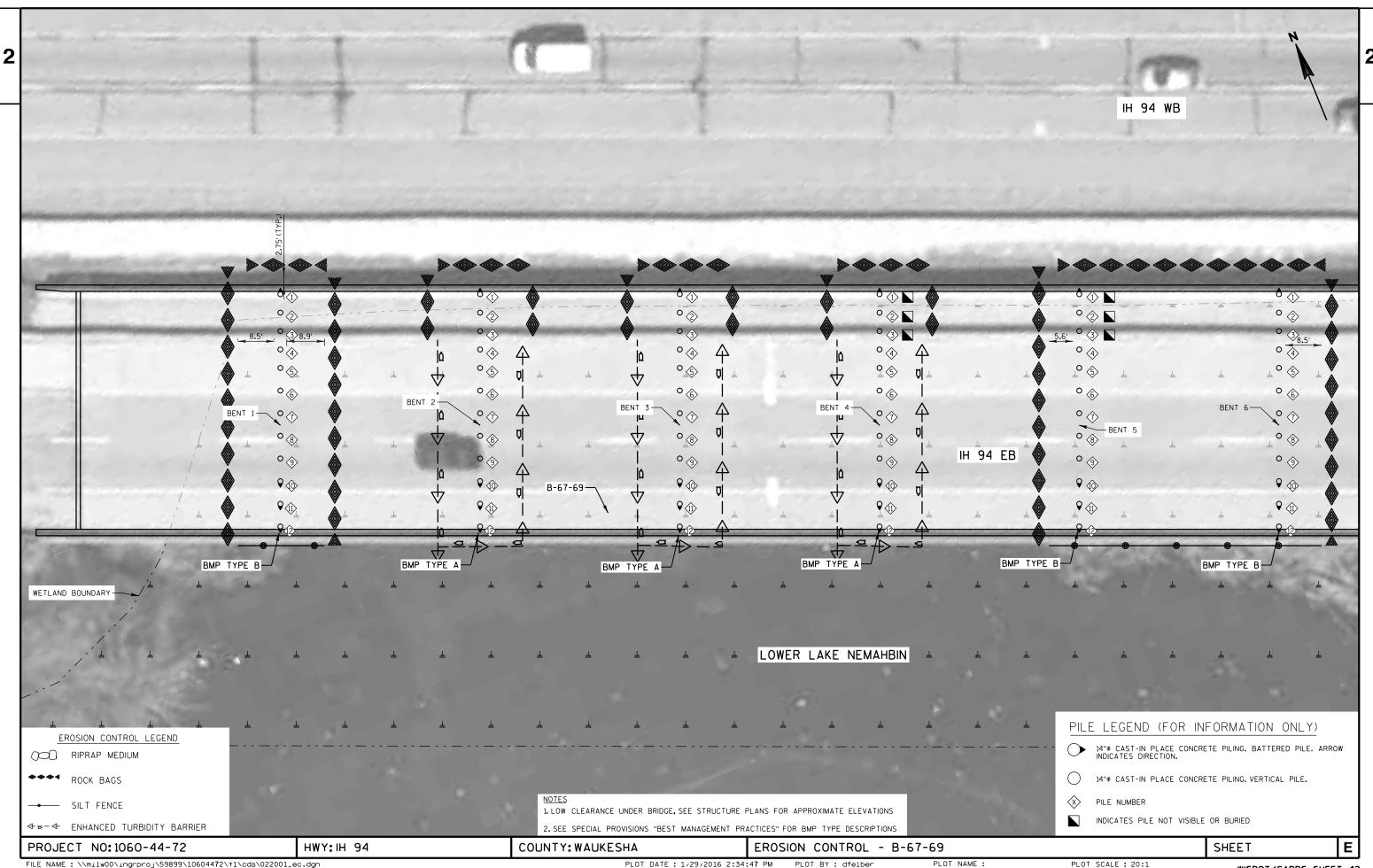
#### GENERAL NOTES

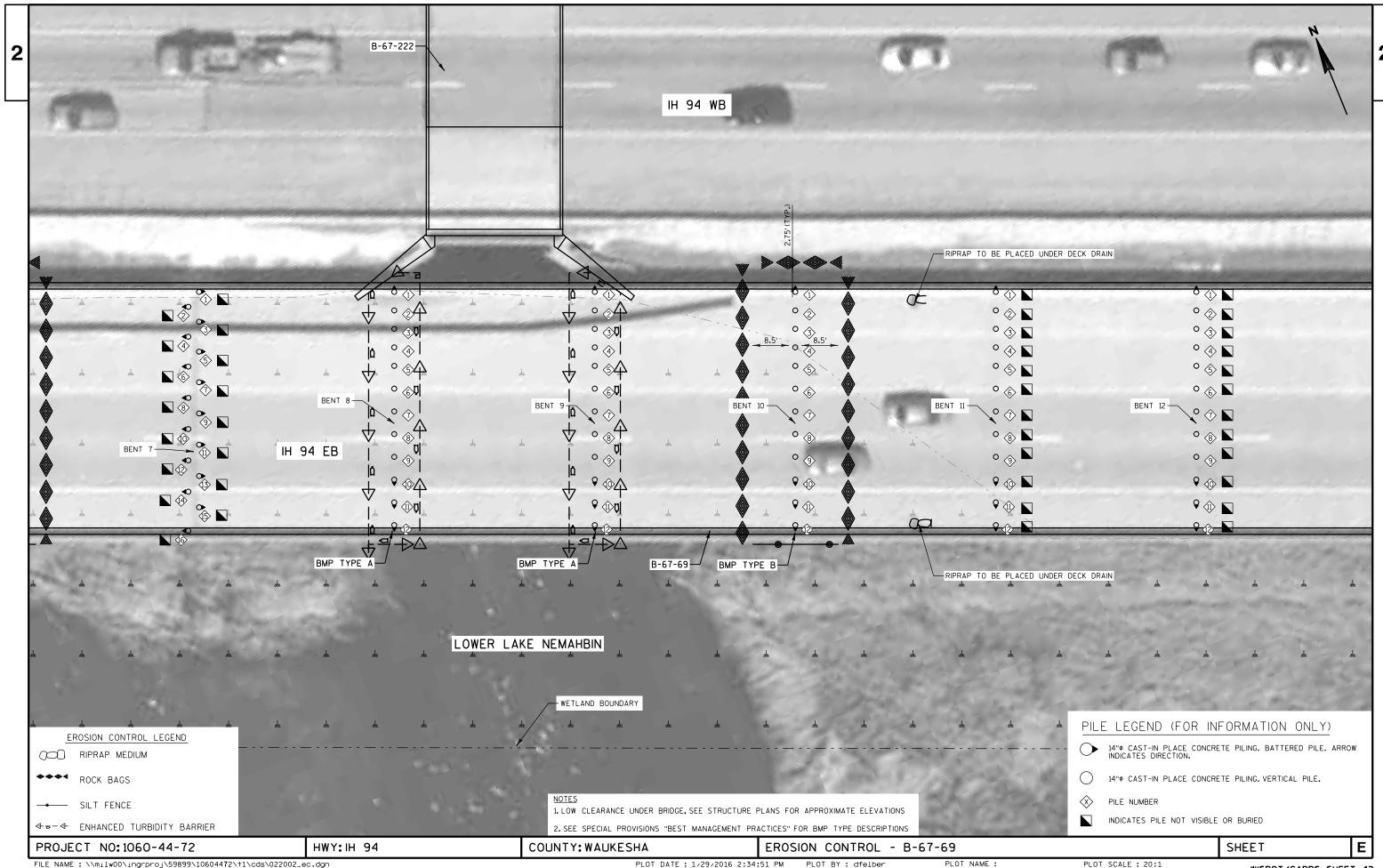
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

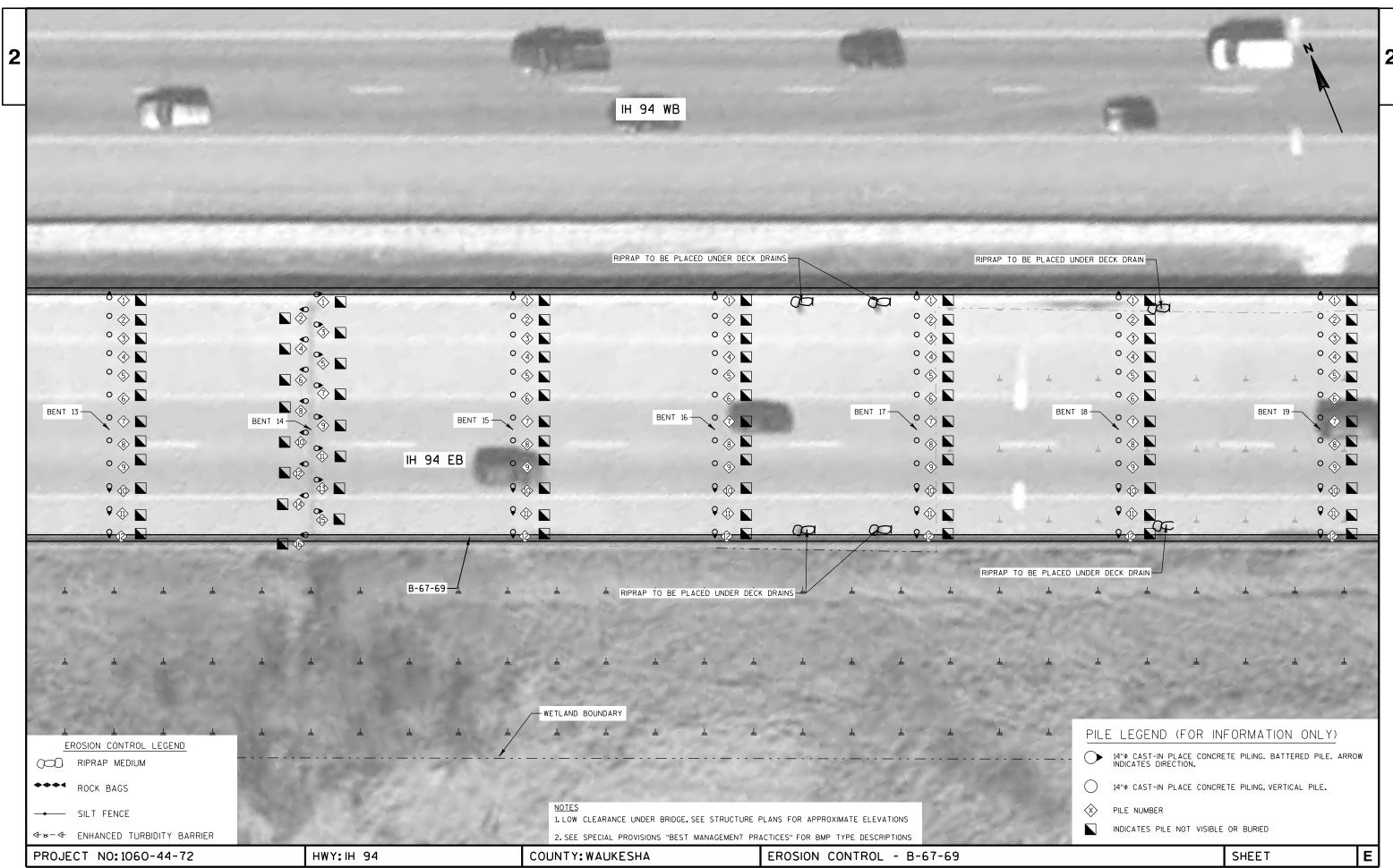
TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

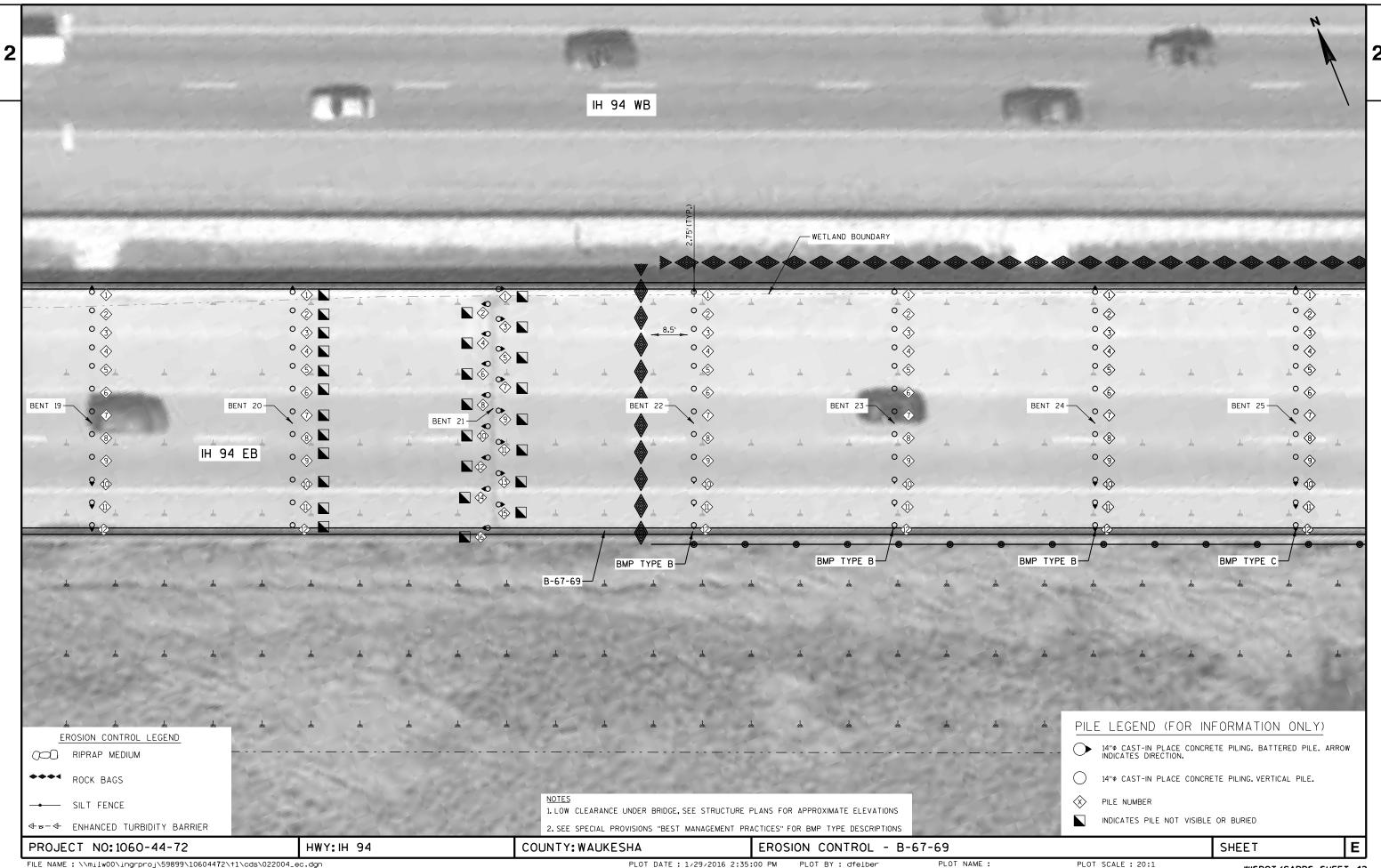
- 1 DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- (2) INSTALL A CONTINOUS LINE OF ROCK BAGS TO ANCHOR THE BARRIER TO THE LAKE BED.
- (3) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- 4 ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- (5) USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



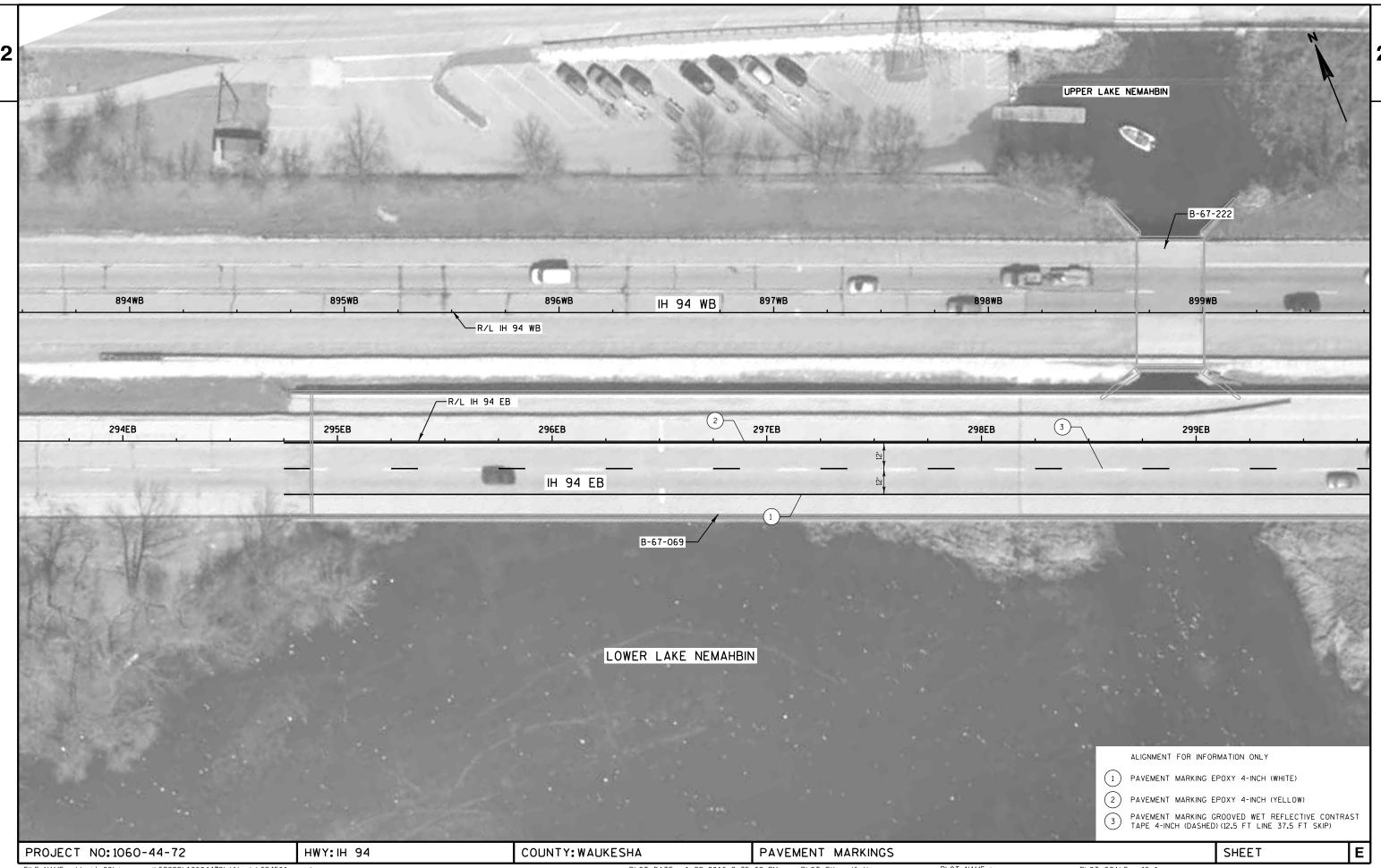


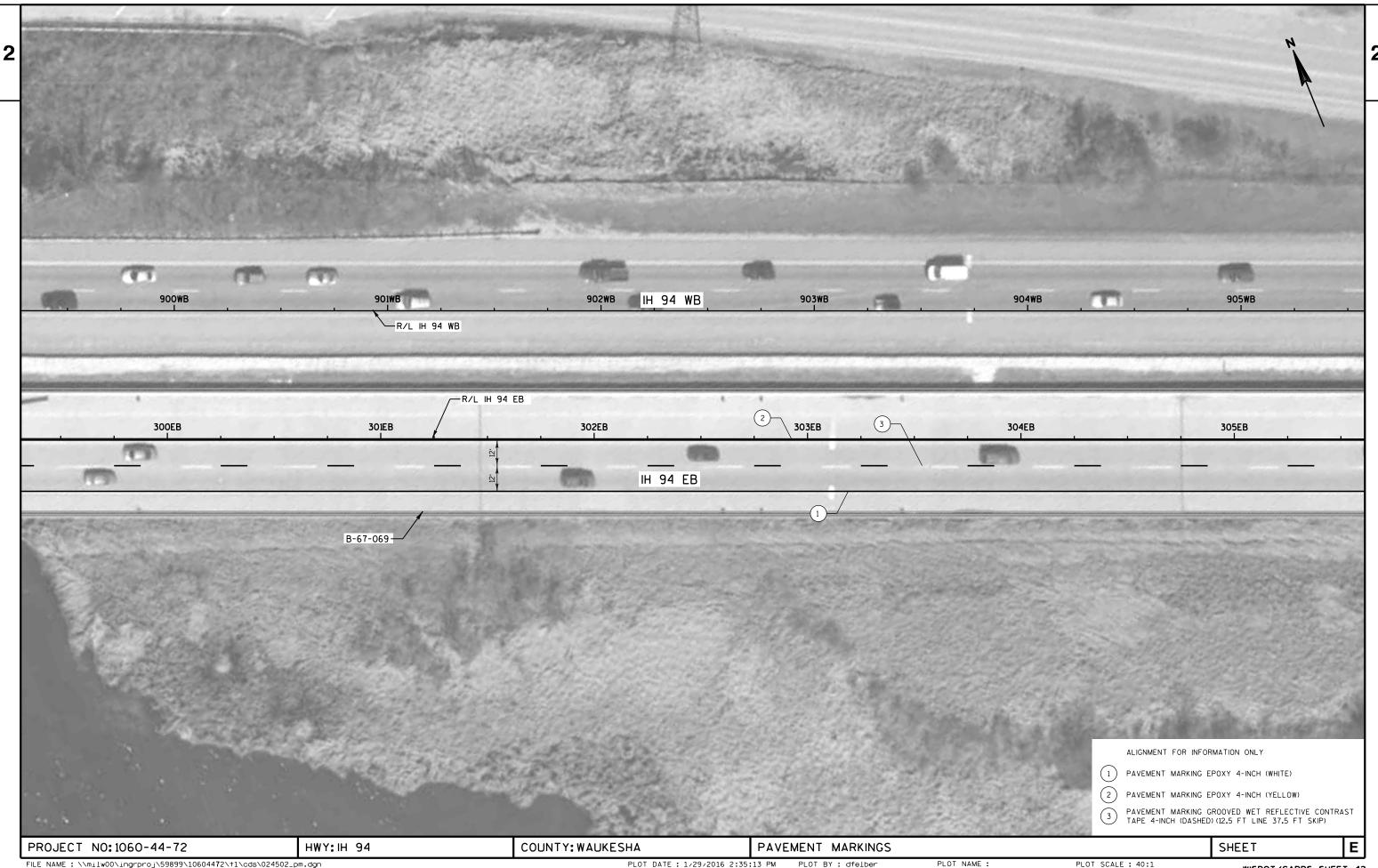




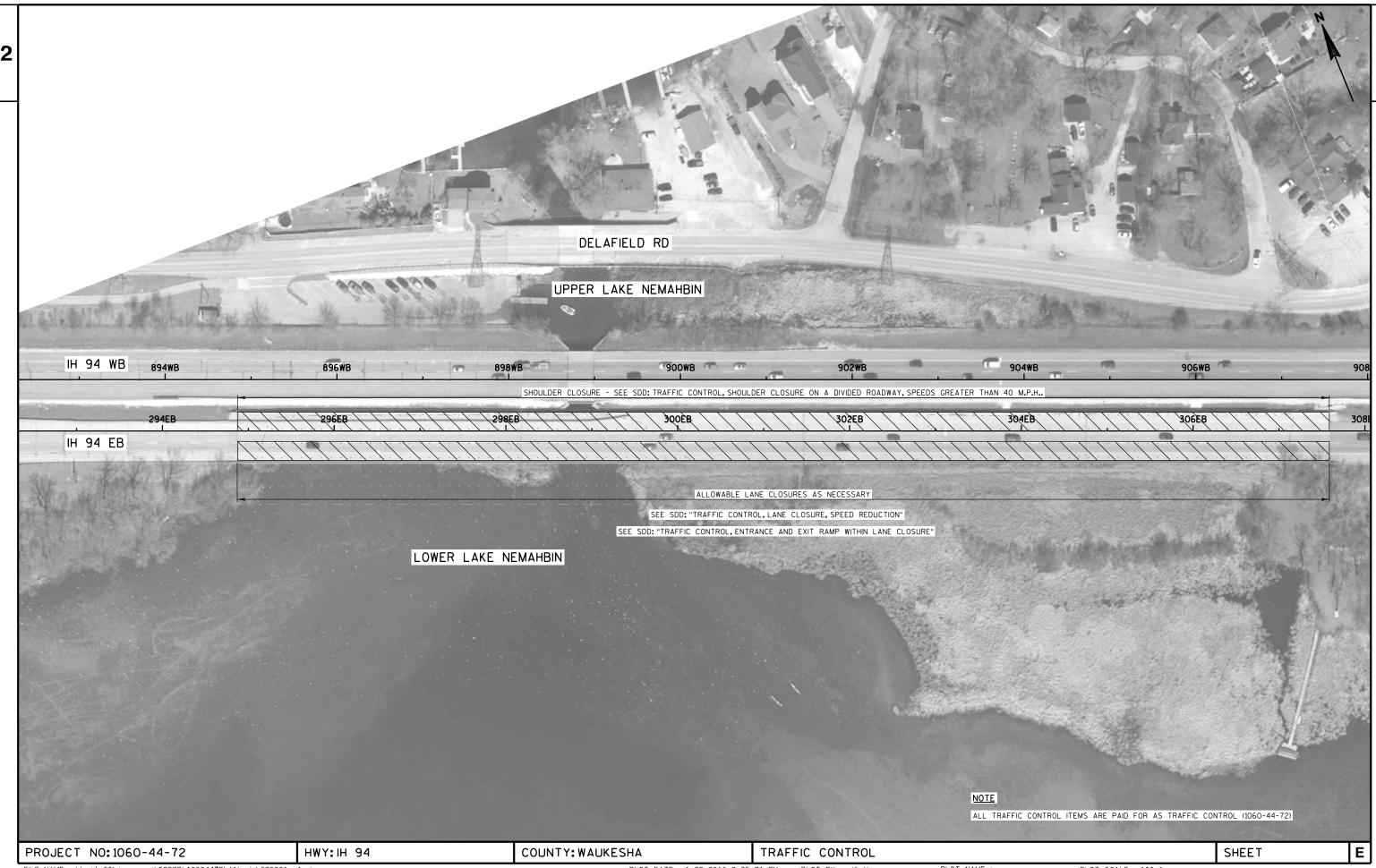


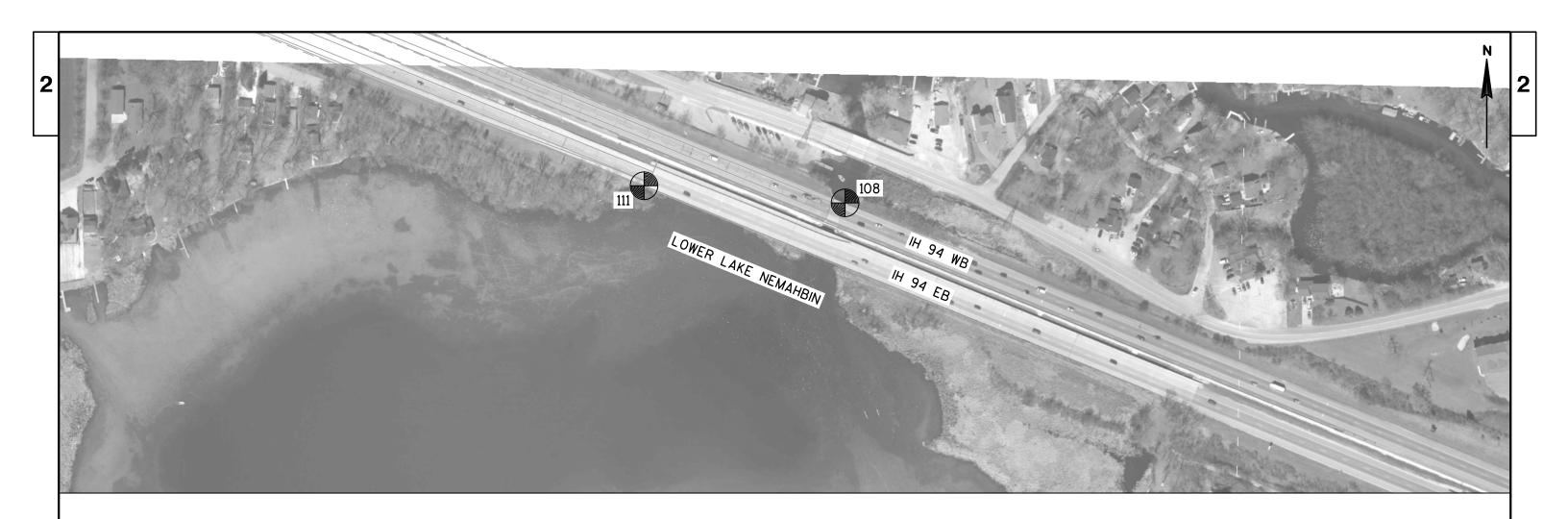












BENCHMARKS							
BM #	NORTHING	EASTING	DESCRIPTION	ELEVATION			
107	177578.496	631556.708	BM WisDOT alum disk.NE wall of B-67-6863.Stamped elev = 913.32	913 <b>.</b> 235			
108	178314.494	629742.65	BM WisDOT alum disk.NE wall of B-67-222-89.Stamped elev = 880.20	880.147			
109	179355.552	627013.748	BM WisDOT alum disk. NE wall of B-67-275.	916.792			
110	179284.132	626754.016	BM WisDOT alum disk. SW wallof B-67-274.	917.841			
111	178351.646	629306.376	BM WisDOT alum disk.SW wall of B-67-69-62.Stamped elev = 883.48	883.369			
112	177475.663	631464.999	BM WisDOT alum disk. SW wallof B-67-67-62. Stamped elev = 912.76	912.713			

PROJECT NO:1060-44-72 HWY:H 94 COUNTY:WAUKESHA BENCHMARKS SHEET **E** 

DATE 26	APR16	EST	IMATE	E OF QUAN	
LI NE NUMBER	ITFM	ITEM DESCRIPTION	UNI T	TOTAL	1060-44-72 QUANTI TY
0070	213. 0100	Finishing Roadway (project) 0002. 1060-44-72	EACH	1. 000	1. 000
0190	509. 1500	Concrete Surface Repair	SF	130.000	130.000
0210	517. 4000. \$	S Containment and Collection of Waste Materials (structure) 0003. B-67-069	LS	1. 000	1. 000
0250	606. 0200	Riprap Medium	CY	10.000	10.000
0340	619. 1000	Mobilization	EACH	0. 330	0. 330
0360	628. 1104	Erosi on Bal es	EACH	100.000	100.000
0370	628. 1504	Silt Fence	LF	395.000	395.000
0380	628. 1520	Silt Fence Maintenance	LF	395.000	395.000
0390	628. 1905	Mobilizations Erosion Control	EACH	6. 000	6. 000
0400	628. 1910	Mobilizations Emergency Erosion Control	EACH	6. 000	6. 000
0450	628. 7570	Rock Bags	EACH	1, 220. 000	1, 220. 000
0480	630. 0160	Seeding Mixture No. 60	LB	48.000	48. 000
0520	642. 5001	Field Office Type B	EACH	0. 500	0. 500
0540	643. 0100	Traffic Control (project) 0002. 1060-44-72	EACH	1. 000	1. 000
0550	643. 0300	Traffic Control Drums	DAY	2, 910. 000	2, 910. 000
0560	643. 0420	Traffic Control Barricades Type III	DAY	30. 000	30. 000
0570	643. 0705	Traffic Control Warning Lights Type A	DAY	60. 000	60. 000
0580	643.0715	Traffic Control Warning Lights Type C	DAY	140.000	140.000
0590	643.0800	Traffic Control Arrow Boards	DAY	110.000	110. 000
0600	643. 0900	Traffic Control Signs	DAY	530. 000	530. 000
0640	643. 1050	Traffic Control Signs PCMS	DAY	40. 000	40. 000
0650		S Truck or Trailer Mounted Attenuator	DAY	90. 000	90. 000
0680	645. 0120	Geotextile Fabric Type HR	SY	85. 000	85. 000
0690	646. 0106	Pavement Marking Epoxy 4-Inch	LF	2, 600. 000	2,600.000
0720	646. 0841. \$	S Pavement Marking Grooved Wet Reflective	LF	325.000	325.000
		Contrast Tape 4-Inch			
0810	ASP. 1TOA	On-the-Job Training Apprentice at \$5.	HRS	250. 000	250. 000
0820	ASP. 1TOG	00/HR On-the-Job Training Graduate at \$5.00/HR	прс	250. 000	250. 000
0820	SPV. 0090	Special 4000. Pile Repair Special	LF	720. 000	720. 000
0900	SPV. 0105	Special 0002. Survey Project 1060-44-72	LS	1. 000	1. 000
0930	SPV. 0105	Special 4000. Repair Access	LS	1. 000	1. 000
0950	SPV. 0180	Special 0002. Enhanced Turbidity Barrier	SY	465. 000	465. 000

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#### **MOBILIZATION**

 CATEGORY
 PROJECT
 EACH

 1000
 1060-44-72
 0.33

 PROJECT 1060-44-72
 0.33

#### **SURVEY PROJECT**

#### **FINISHING ROADWAY**

| 213.0100.0002 | FINISHING | ROADWAY | 1060-44-72 | EACH | Toology | PROJECT | 1

FILE NAME: I:\59899\10604472\t1\cds\030201\_mq.ppt

#### **EROSION CONTROL MOBILIZATION**

		<u>628.1905</u>	<u>628.1910</u>
			MOBILIZATIONS
		MOBILIZATIONS	<b>EMERGENCY</b>
		EROSION	EROSION
	_	CONTROL	CONTROL
CATEGORY	PROJECT	EACH	EACH
1000	1060-44-72	6	6
•	PROJECT 1060-44-72	6	6

PROJECT NO: 1060-44-72 HWY: IH 94 COUNTY: WAUKESHA MISCELLANEOUS QUANTITIES SHEET: I

PLOT DATE : 2/1/2016 10:00:39 AM

PLOT BY : HNTB Corp.

PLOT NAME :

PLOT SCALE : 1:1

3

#### **EROSION CONTROL ITEMS**

			606.0200	628.1104	628.1504	628.1520	628.7570	630.0160	645.0120	SPV.0180.0002
			606.0200	020.1104	020.1304	626.1520 SILT	020.7370	SEEDING	GEOTEXTILE	ENHANCED
			RIPRAP	EROSION	SILT	FENCE	ROCK	MIXTURE	FABRIC	TURBIDITY
			MEDIUM	BALES	FENCE	MAINTENANCE	BAGS	NO. 60	TYPE HR	BARRIER
CATEGORY	PROJECT	LOCATION	CY	EACH	LF	LF	EACH	LB	SY	SY
CATEGORI	TROJECT	LOCATION	<u> </u>	LAGIT	LI	LI	LAGIT	LD	<u> </u>	- 01
1000	1060-44-72									
		BENT 1			20	20	150	1.9		
		BENT 2					50	1.9		65
		BENT 3					50	1.9		66
		BENT 4					50	1.9		66
		BENTS 5 & 6			65	65	190	6.1		
		BENT 8						1.1		87
		BENT 9						1.1		87
		BENT 10			20	20	150	1.9		
	BETWE	EN BENTS 10 & 11 NORTH DRAIN	1						9	
	BETWE	EN BENTS 10 & 11 SOUTH DRAIN	1						10	
	BETWE	EN BENTS 16 & 17 NORTH DRAIN	2						15	
	BETWE	EN BENTS 16 & 17 SOUTH DRAIN	2						15	
	BE	NT 18 NORTH DECK DRAIN	1						10	
	BE	NT 18 SOUTH DECK DRAIN	1						9	
		BENT 22 TO BENT 26			210	210	335	19.9		
	SUE	BTOTAL	8	0	315	315	975	37.7	68	371
	UNDIS	TRIBUTED	2	100	80	80	245	10.3	17	94
	PROJEC	T 1060-44-72	10	100	395	395	1220	48.0	85	465

PROJECT NO: 1060-44-72 HWY: IH 94 COUNTY: WAUKESHA MISCELLANEOUS QUANTITIES SHEET: **E** 

### 3

### TRAFFIC CONTROL ITEMS

643.0100.0002

		PROJECT 1060-44-70 TOTALS		1	2.	910	3	0	60	)	14	l0	110	0	5	30	40	)	90	)
		SUBTOTALS		1	99	2,910	3	30	6	60	14	140	3	110	21	530	4	40	1	90
		SHOULDER CLOSURE NIGHT TIME LANE CLOSURES	10	 	24 75	2,160 750	 3	 30	 6	 60	 14	 140	1 2	90 20	4 17	360 170	 4	 40	1 	90 
1000	1060-44-72		90	1																
CATEGORY	PROJECT	ROADWAY	DURATION DAYS	TRAFFIC CONTROL 1060-44-72 EACH	CO	AFFIC NTROL RUMS I DAYS	BARRI	TROL CADES PE III DAYS	WARI LIGI TYP EACH	HTS	LIG	NING HTS PE C DAY	CONT ARR BOA EACH	OW RDS	CON	AFFIC ITROL GNS LDAY	CONT SIG PCI EACH	NS MS	MOU	ILER- NTED UATOR DAY
					<b>T</b> D	A EE10		FFIC	CON		CON	FFIC TROL	TRAF		<b>TD</b> 4	- FFIO	TRAF			K OR

### PAVEMENT MARKING ITEMS

646.0106 646.0841.S

PAVMENT MARKING
PAVEMENT GROOVED WET
MARKING REFLECTIVE
EPOXY CONTRAST TAPE
4-INCH 4-INCH

12.5 FT LINE/37.5 FT GAP

				YELLOW	WHITE	WHITE
CATEGORY	PROJECT	STAGE	ROADWAY	LF	LF	LF
1000	1060-44-72	STAGE 1				
	STA 294EB	+75 TO STA 307EB+75	IH 94 EB	1,300	1,300	325
		STAGE 1 SUBTOTAL		1,300	1,300	325
	PROJECT	1060-44-72 TOTAL		2,60	00	325

PROJECT NO: 1060-44-72 HWY: IH 94 COUNTY: WAUKESHA MISCELLANEOUS QUANTITIES SHEET: **E** 

# Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D27-02	TRAFFIC CONTROL. SHOULDER CLOSURE ON DIVIDED ROADWAY. SPEEDS GREATER THAN 40 MF

### **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.

TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.



WHEN ALTERING THE DIRECTION OF FLOW



### **PLAN VIEW**



#### FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

**EROSION BALES FOR SHEET FLOW** 

### TYPICAL INSTALLATIONS OF **EROSION BALES / TEMPORARY** DITCH CHECKS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 /S/ Beth Connestro
CHIEF ROADWAY DEVELOPMENT ENGINEER

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## TYPICAL APPLICATION OF SILT FENCE

6

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# PLAN VIEW SILT FENCE AT MEDIAN SURFACE DRAINS



### GENERAL NOTES

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

- $\bigcirc$  HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- 3 WOOD POSTS SHALL BE A MINIMUM SIZE OF 11/8" X 11/8" OF OAK OR HICKORY.
- 4) SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- (5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

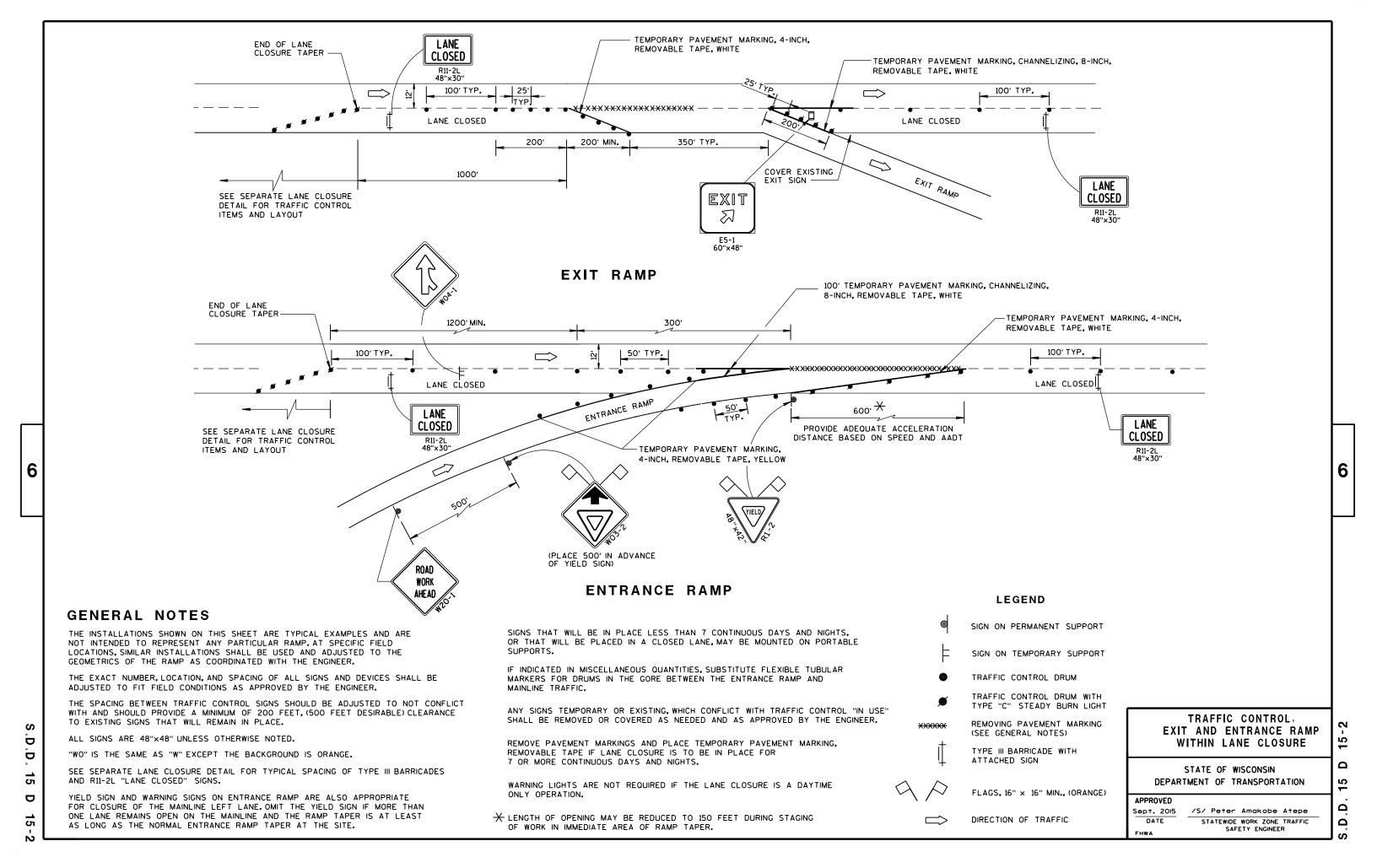


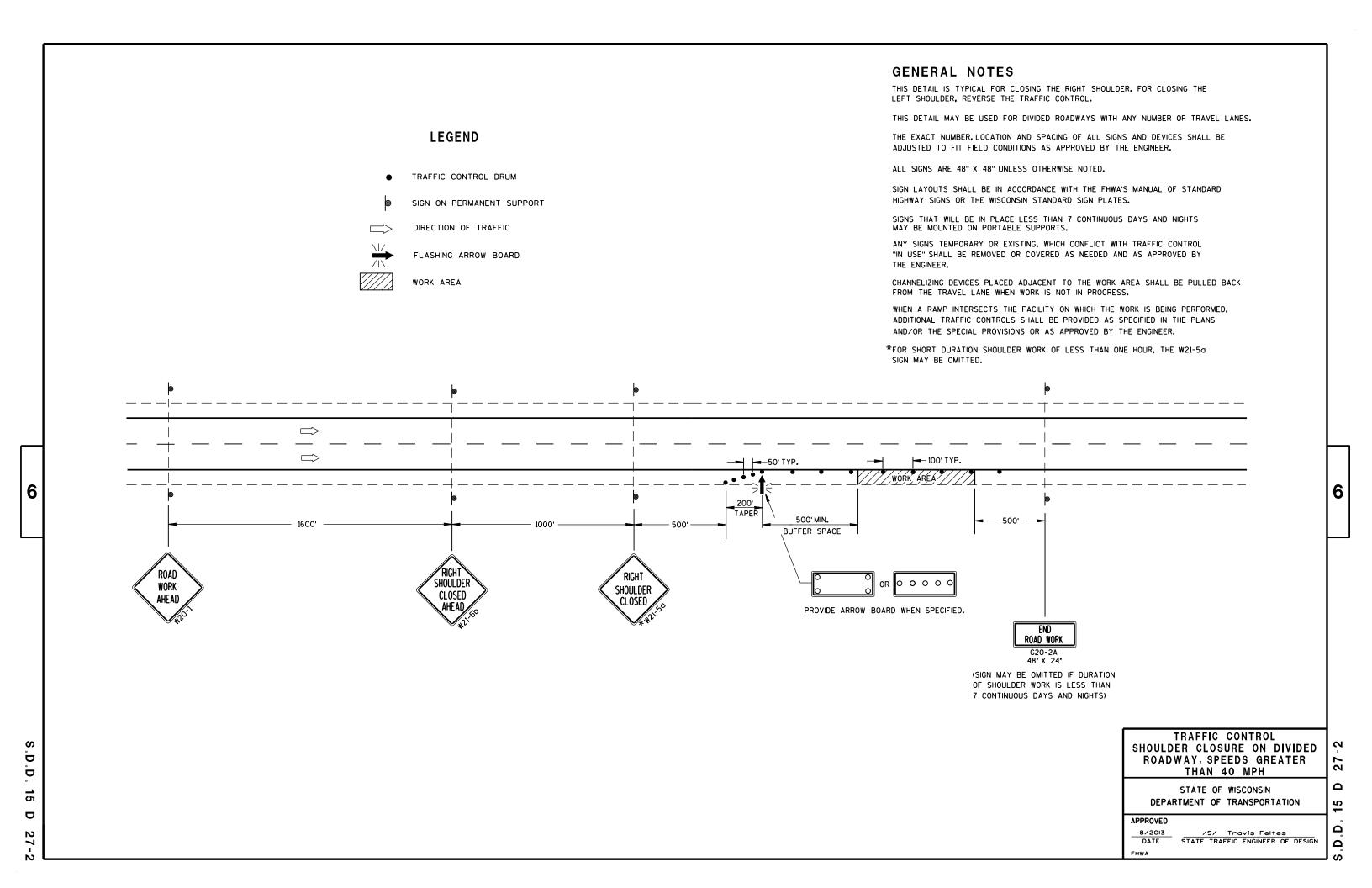
SILT FENCE

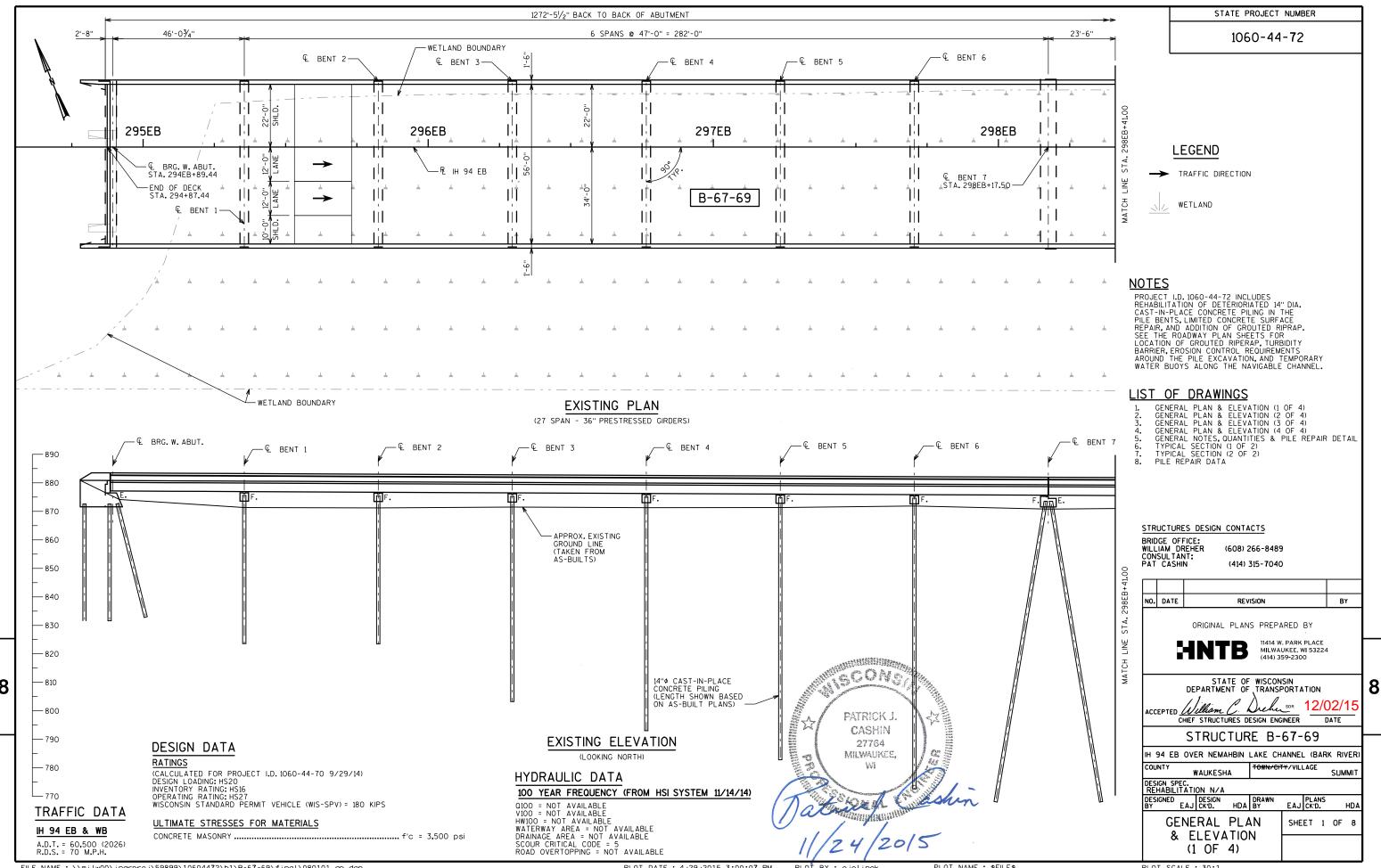
S.D.D. 8 E 9-6

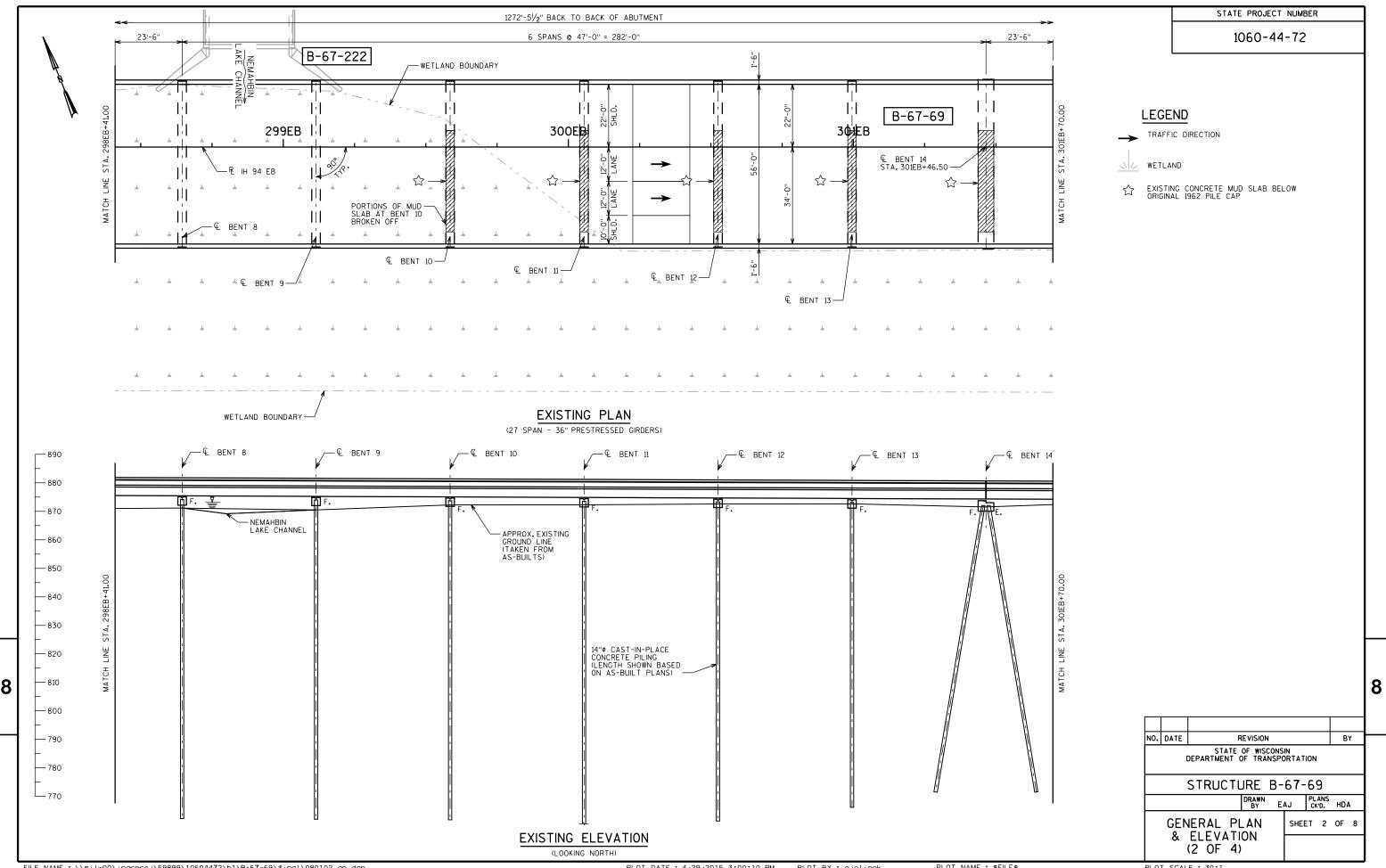


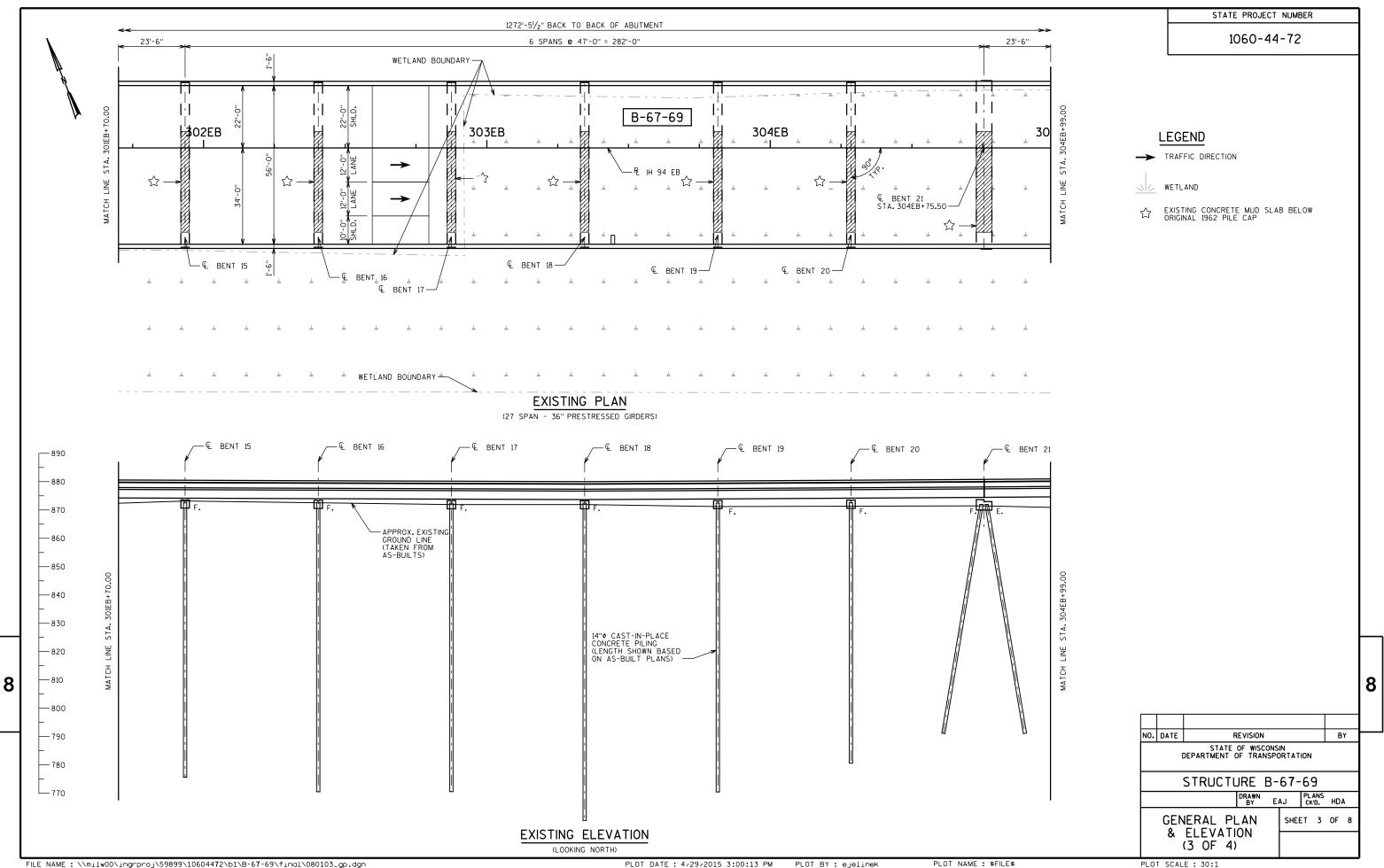


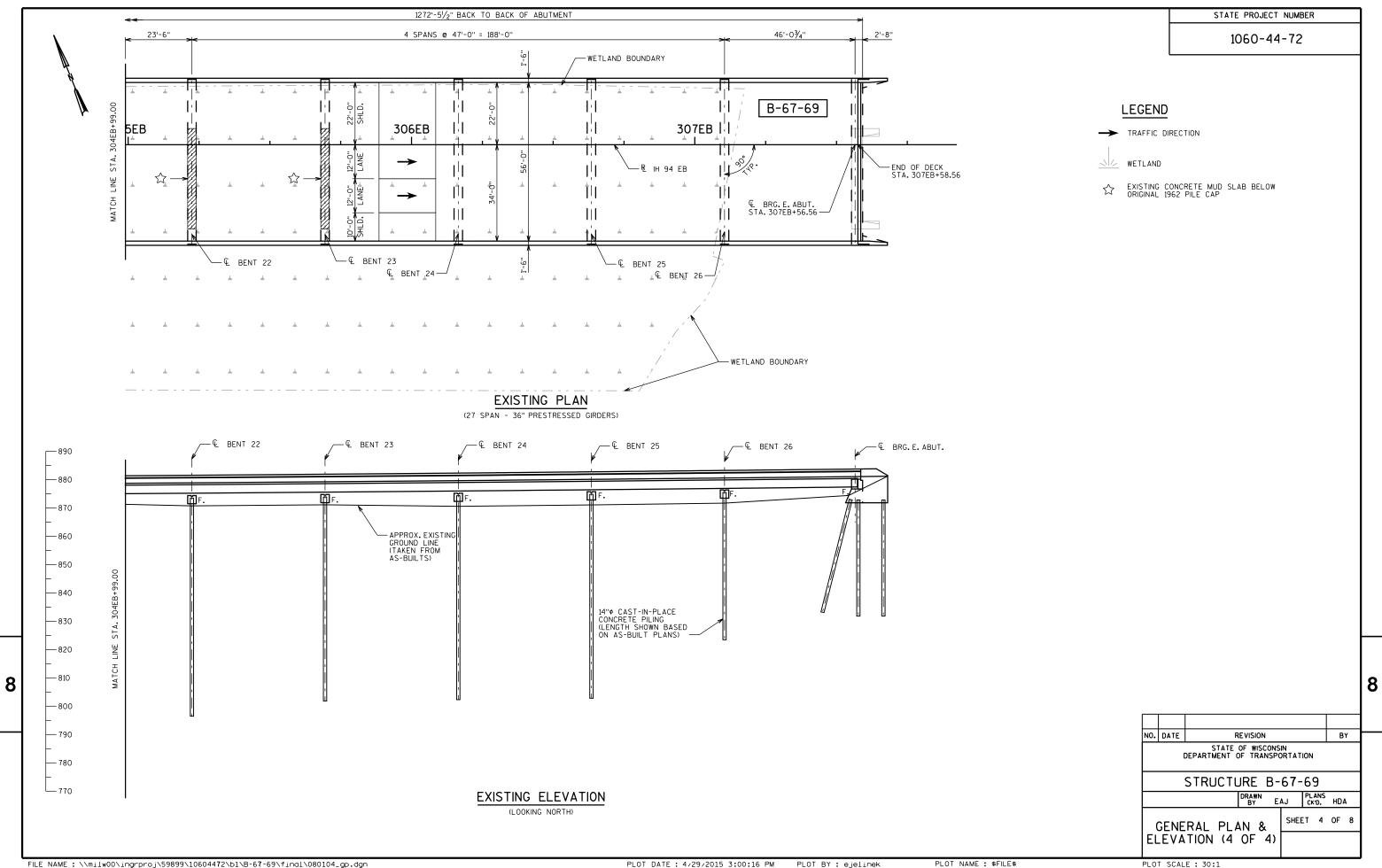












### GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ON PILE BENTS 1-6,8-13,15-20 AND 22-26,PILES 1-4 & 12 WERE INSTALLED IN 1990 WITH THE BRIDGE WIDENING. PILES 5-11 WERE INSTALLED WITH ORIGINAL CONSTRUCTION IN 1962. ON PILE BENTS 7,14 & 21,PILES 1-5 & 16 WERE INSTALLED IN 1990 WITH THE BRIDGE WIDENING. PILES 6-15 WERE INSTALLED WITH ORIGINAL CONSTRUCTION IN 1962.

PILES AT BENTS 7 AND 11-21 WERE NOT INSPECTED DURING THE UNDERWATER INSPECTION OF APRIL 2014. CONDITION OF THE PILES AT THESE LOCATIONS IS UNKNOWN. IF ANY PILES AT THESE BENTS ARE VISIBLE DURING THE STRUCTURE REPAIR, THE PROJECT ENGINEER WILL DETERMINE IN THE FIELD IF ADDITIONAL REPAIR LOCATIONS ARE REQUIRED.

TYPICAL PILE DETERIORATION IS LOCATED NEAR THE WET/DRY ZONE OF THE PILES. REPAIR AREAS AND QUANTITES INDICATED IN THESE PLANS ARE APPROXIMATE, BASED ON PREVIOUS INSPECTIONS. ACTUAL CONDITIONS MAY VARY AT TIME OF CONSTRUCTION. ADJUST THE NUMBER OF PILE REPAIRS AND LIMITS OF EACH PILE REPAIR AS DIRECTED PER THE FIELD ENGINEER.

WET/DRY ZONE PROXIMITY TO EXISTING GROUND ELEVATION VARIES. EXCAVATION TO 1'-6" BELOW THE LOW WATER ELEVATION OF 869.6 ASSUMED AT EACH PILE TO APPLY THE REPAIR SYSTEM UNLESS OTHERWISE DIRECTED BY THE FIELD ENGINEER.

EXCAVATION WHERE NECESSARY, PILE SURFACE PREPARATION, INSTALLATION OF PILE REPAIR WRAP SYSTEM, AND BACKFILLING AROUND PILE ARE INCLUDED IN BID ITEM "PILE REPAIR SPECIAL".

ASSUME LEAD PAINT ON ALL EXISTING PILES.

ASSUME EXISTING FILL MATERIAL AROUND PILES IS A LOW CEMENT CONTENT SLURRY.

"CONCRETE SURFACE REPAIR" AREAS ARE REQUIRED AT PILE BENTS 7,14, AND 21 CAPS AND GIRDER 3 OF SPAN 7. LIMITS OF REPAIR AREAS WILL BE DETERMINED BY THE PROJECT ENGINEER.

QUANTITIES SHOWN FOR "CONCRETE SURFACE REPAIR" ARE APPROXIMATE.

REFER TO EROSION CONTROL PLANS FOR GROUTED RIPRAP TO BE PLACED BELOW EXISTING FLOOR DRAINS.

BID ITEM "CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-069" TO BE USED FOR PILE REPAIR AND CONCRETE SURFACE REPAIR. NO HAZARDOUS MATERIAL REQUIREMENTS NECESSARY FOR REMOVED CONCRETE SURFACE REPAIR MATERIALS.

### TOTAL ESTIMATED QUANTITIES

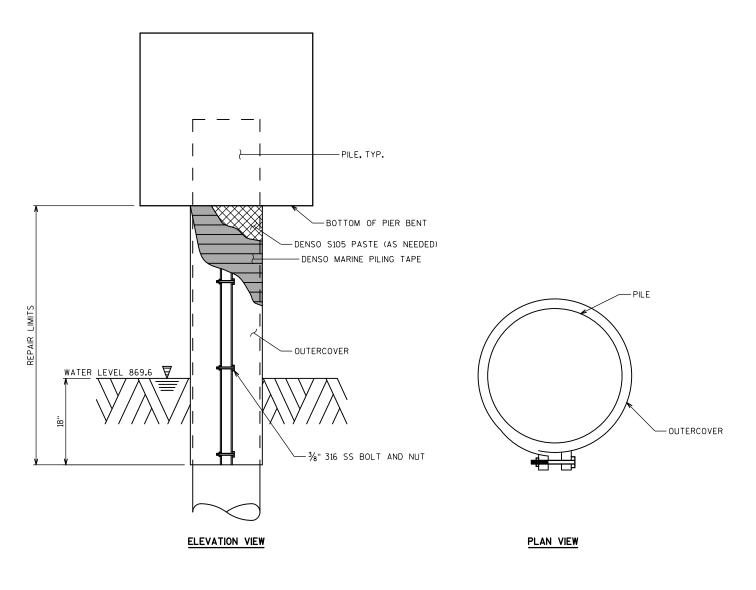
ITEM NO.	BID ITEM	UNIT	TOTAL
509.1500	CONCRETE SURFACE REPAIR	SF	130
517.4000.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-069	LS	1
SPV.0090.4000	PILE REPAIR SPECIAL	LF	720
SPV.0105.4000	REPAIR ACCESS	LS	1

ALL ITEMS ARE CATEGORY 2000

8

STATE PROJECT NUMBER

1060-44-72



PILE REPAIR PROTECTION SYSTEM

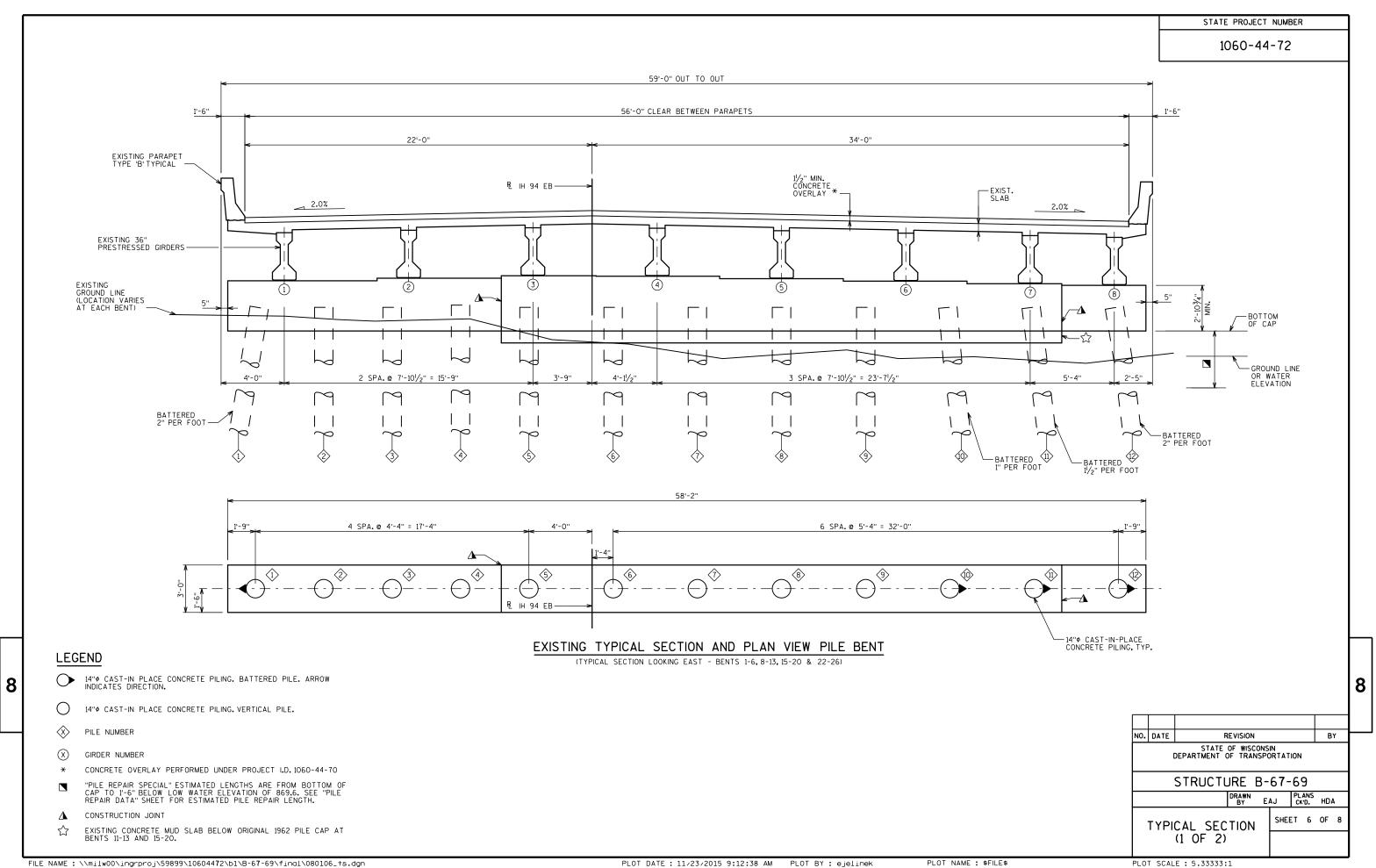
NO. DATE REVISION BY

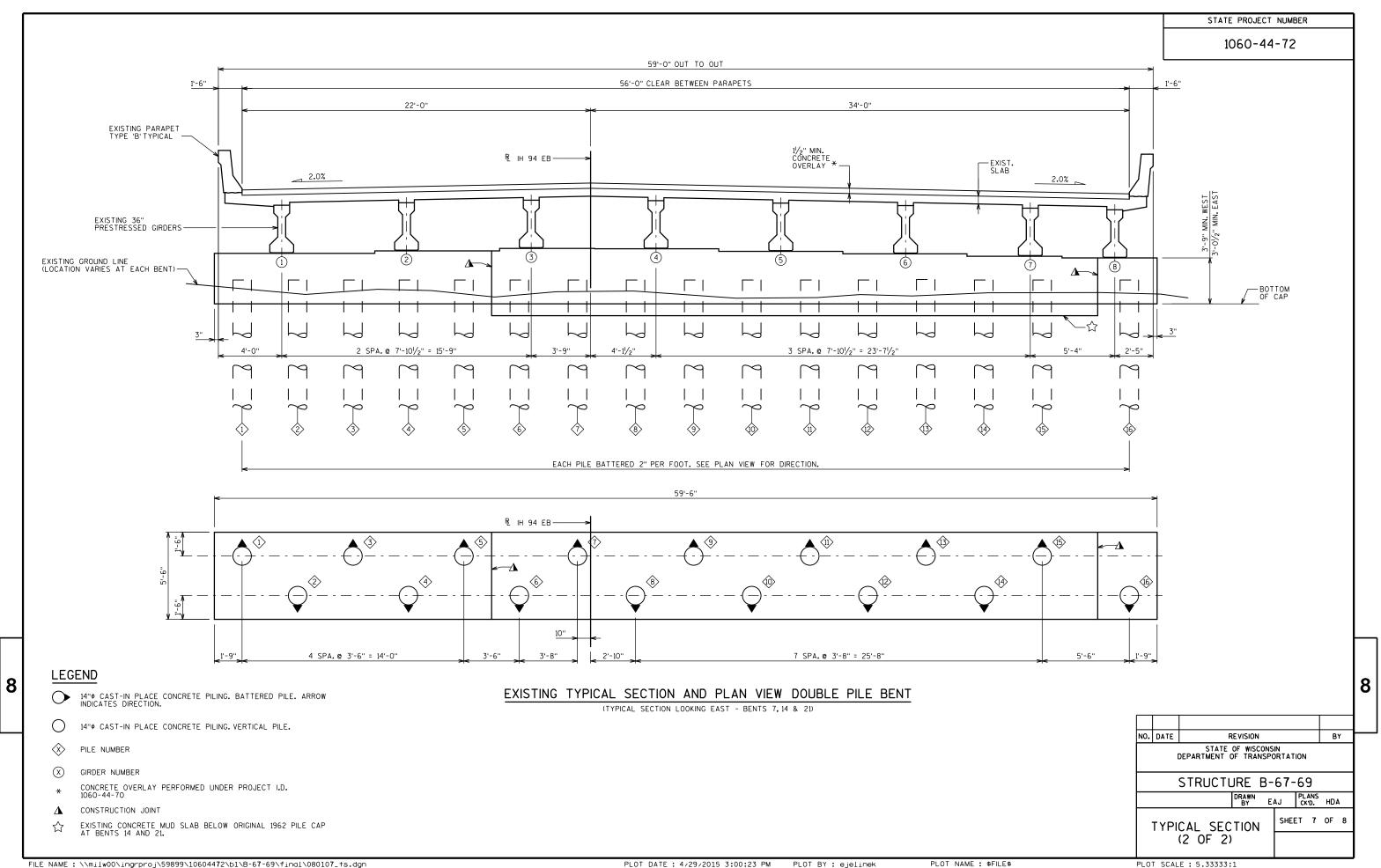
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-69

DRAWN EAJ PLANS CKD. HDA

GENERAL NOTES, OUANTITIES & REPAIR DETAIL





### PILE REPAIR DATA

	PILE NO.	ESTIMATED REPAIR LENGTH (FT)	CONDITION *	BMP ZONE **
1	1	5.6	N	В
•	2	5.6	0%	В
	3	5.6	>10%	В
	4	5.6	0%	В
	5	5.6	2%-10%	В
	6	5.6	2%-10%	В
	7	5.6	2%-10%	В
	8	5.6	2%-10%	В
	9	5.6	2%-10%	В
	10	5.6	2%-10%	В
	11	5.6	0%	В
	12	5.6	>10%	В
2	1	5.4	N	Α
	2	5.4	2%-10%	A
	3	5.4	>10%	A
	4	5.4	>10%	A
	5	5.4	N O*	Α
	6 7	5.4 5.4	0%	A
	8	5.4	2%-10% N	A
	9	5.4	2%-10%	A
	10	5.4	N N	A
	11	5.4	2%-10%	Ā
	12	5.4	2%-10%	A
3	1	5.2	N N	A
	2	5.2	2%-10%	A
	3	5.2	2%-10%	Α
	4	5.2	2%-10%	А
	5	5.2	2%-10%	Α
	6	5.2	2%-10%	Α
	7	5.2	0%	Α
	8	5.2	2%-10%	Α
	9	5.2	0%	A
	10	5.2	2%-10%	A
	11	5.2	0%	Α
4	12	5.2 PILE NOT VISII	>10% BLE - NO REPAIR A	A A
	2	PILE NOT VISI		
	3	PILE NOT VISI		
	4	5.0	N N	Α Α
	5	5.0	2%-10%	А
	6	5.0	2%-10%	Α
	7	5.0	0%	Α
	8	5.0	2%-10%	Α
	9	5.0	2%-10%	Α
	10	5 <b>.</b> 0	2%-10%	Α
	11	5.0	2%-10%	А
	12	5.0	0%	A A
5	12 1	5.0 PILE NOT VISI	0% BLE - NO REPAIR A	A A NTICIPATED
5	12 1 2	5.0 PILE NOT VISI PILE NOT VISI	0% BLE - NO REPAIR A BLE - NO REPAIR A	A A ANTICIPATED ANTICIPATED
5	12 1 2 3	5.0 PILE NOT VISII PILE NOT VISII PILE NOT VISI	O% BLE - NO REPAIR A BLE - NO REPAIR A BLE - NO REPAIR A	A ANTICIPATED INTICIPATED
5	12 1 2 3 4	5.0 PILE NOT VISII PILE NOT VISII PILE NOT VISII 4.8	O% BLE - NO REPAIR A BLE - NO REPAIR A BLE - NO REPAIR A O%	A ANTICIPATED ANTICIPATED ANTICIPATED B
5	12 1 2 3 4 5	PILE NOT VISII PILE NOT VISII PILE NOT VISII 4.8 4.8	BLE - NO REPAIR A BLE - NO REPAIR A BLE - NO REPAIR A O% N	A ANTICIPATED NTICIPATED NTICIPATED B B
5	12 1 2 3 4 5	PILE NOT VISII PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8	D% BLE - NO REPAIR A BLE - NO REPAIR A BLE - NO REPAIR A O% N 2%-10%	A ANTICIPATED NTICIPATED NTICIPATED B B B
5	12 1 2 3 4 5 6 7	5.0  PILE NOT VISII  PILE NOT VISII  PILE NOT VISII  4.8  4.8  4.8  4.8	BLE - NO REPAIR A BLE - NO REPAIR A BLE - NO REPAIR A O% N	A ANTICIPATED NTICIPATED NTICIPATED B B B B B
5	12 1 2 3 4 5	PILE NOT VISII PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A BLE - NO REPAIR A O% N 2%-10% 2%-10%	A ANTICIPATED NTICIPATED NTICIPATED B B B
5	12 1 2 3 4 5 6 7	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A 0% N 2%-10% N	A ANTICIPATED NITICIPATED NITICIPATED B B B B B B
5	12 1 2 3 4 5 6 7 8	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A BLE - NO REPAIR A 0% N 2%-10% N 2%-10% N 2%-10% N 2%-10%	A A A NTICIPATED NTICIPATED NTICIPATED B B B B B B B B
5	12 1 2 3 4 5 6 7 8 9	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A O% N 2%-10% 2%-10% N 2%-10% N 2%-10% N 2%-10% N 2%-10%	A A A NATICIPATED NATICIPATED B B B B B B B B B B B B B B B B B B B
5	12 1 2 3 4 5 6 7 8 9 10 11 12	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A OX N 2%-10%	A A A A A A A A A A A A A A A A A A A
	12 1 2 3 4 5 6 7 8 9 10 11 12 1	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A  0% N 2%-10%	A A A A A A A A A A A A A A A A A A A
	12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A 0% N 2%-10% N 2%-10% N 2%-10% N 2%-10% N 2%-10% N N 2%-10% N N N N N N N N N N N N N N N N N	A A A A A A A A A A A A A A A A A A A
	12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A 0% N 2%-10%	A A A NTICIPATED NTICIPATED B B B B B B B B B B B B B B B B B B B
	12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4	5.0  PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A 0% N 2%-10% N N 2%-10% N N N 2%-10% N N N 2%-10% N N N 2%-10% N N N 2%-10%	A A A NTICIPATED NTICIPATED NTICIPATED B B B B B B B B B B B B B B B B B B B
	12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6	5.0 PILE NOT VISI PILE NOT VISI 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A BLE - NO REPAIR A O% N 2%-10% 2%-10% N 2%-10% N 2%-10% N 2%-10% N 2%-10% N 2%-10% 2%-10% N 2%-10% 2%-10%	A A A NATICIPATED NATICIPATED B B B B B B B B B B B B B B B B B B B
	12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 7 8 9 1 1 1 1 1 1 1 1 1 1 1 1 1	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	O%	A A A A NTICIPATED NTICIPATED B B B B B B B B B B B B B B B B B B B
	12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 10 10 10 10 10 10 10 10 10	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A  0%  N 2%-10%  N 3%  10%  10%  10%  10%	A A A A A NTICIPATED NTICIPATED B B B B B B B B B B B B B B B B B B B
	12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 10 10 10 10 10 10 10 10 10	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A  0%  N 2%-10%  N 2%-10%  N 2%-100%  N 2%-100%  N 2%-100%  N 10%  >10%  >10%  >10%  >10%	A A A A A A A A A A A A A A A A A A A
	12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 10 10 10 10 10 10 10 10 10	5.0 PILE NOT VISII PILE NOT VISII 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0% BLE - NO REPAIR A BLE - NO REPAIR A  0%  N 2%-10%  N 3%  10%  10%  10%  10%	A A A A A NTICIPATED NTICIPATED B B B B B B B B B B B B B B B B B B B

### PILE REPAIR DATA

DENT	DILE NO	ESTIMATED	V.	BMP
BENT	PILE NO.	REPAIR LENGTH (FT)	CONDITION *	ZONE **
7		NO PILES VISIBI	E - NO REPAIRS	ANTICIPATED
8	1	4.2	2%-10%	Α
	2	4.2	N	Α
	3	4.2	2%-10%	Α
	4	4.2	N	Α
	5	4.2	>10%	Α
	6	4.2	2%-10%	Α
	7	4.2	N	Α
	8	4.2	2%-10%	Α
	9	4.2	2%-10%	Α
	10	4.2	2%-10%	Α
	11	4.2	N	Α
	12	4.2	2%-10%	Α
9	1	4.0	>10%	Α
	2	4.0	2%-10%	Α
	3	4.0	2%-10%	Α
	4	4.0	N	Α
	5	4.0	2%-10%	Α
	6	4.0	0%	А
	7	4.0	2%-10%	Α
	8	4.0	N	А
	9	4.0	N	A
	10	4.0	N	A
	11	4.0	2%-10%	A
	12	4.0	2%-10%	A
10	1	3.7	N N	В
10	2	3.7	N	В
	3	3.7	N	В
	4	3.7	N	В
	5	3.7	>10%	В
	6	3.7	N	В
	7	3.7	N N	
	8	3.7	N N	B B
	9		N N	
		3.7	N N	В
	10	3.7		В
	11	3.7	>10%	В
11 01	12	3.7	N N	В
11 - 21		NO DILEC VICIDI		
		NO PILES VISIBI		
22	1	3.1	N	В
	2	3.1 3.1	N N	B B
	2	3.1 3.1 3.1	N N 2%-10%	В В В
	2 3 4	3.1 3.1 3.1 3.1	N N 2%-10% 2%-10%	B B B B
	2 3 4 5	3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N	B B B B
	2 3 4 5 6	3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N	B B B B B
	2 3 4 5 6 7	3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N	B B B B B B
	2 3 4 5 6 7 8	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N	B B B B B B B
	2 3 4 5 6 7 8 9	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 27-10% 27-10% N N N N	B B B B B B B B
	2 3 4 5 6 7 8 9	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N	B B B B B B B B B B B B B B B B B B B
	2 3 4 5 6 7 8 9 10	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N	B B B B B B B B B B B B B B B B B B B
	2 3 4 5 6 7 8 9 10 11 12	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N N N N N N N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N N N N N N N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N N N N N N N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3 4	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N N 2%-10% 2%-10% N N N N N N N N N N N N N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N N N N N N N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N N N N N N N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 9 10 11 12 12 13 4 5 6 6 7 7 8 8 8 9 9 9 9 9 9 9 9 9 9 8 9 9 9 9	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N N 2%-10% 2%-10% N N N N N N N N N N N N N N N N N N N	B B B B B B B B B B B B B B B B B B B
22	2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9	3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	N N 2%-10% 2%-10% N N N N N N N N N N N N N N N N N N N	B B B B B B B B B B B B B B B B B B B

### PILE REPAIR DATA

BENT	PILE NO.	ESTIMATED REPAIR LENGTH (FT)	CONDITION *	BMP ZONE **
24	1	3.9	N	В
	2	3.9	N	В
	3	3.9	N	В
	4	3.9	N	В
	5	3.9	>10%	В
	6	3.9	2%-10%	В
	7	3.9	N	В
	8	3.9	N	В
	9	3.9	>10%	В
	10	3.9	N	В
	11	3.9	>10%	В
	12	3.9	>10%	В
25	1	4.4	N	С
	2	4.4	N	С
	3	4.4	N	С
	4	4.4	>10%	С
	5	4.4	>10%	С
	6	4.4	N	С
	7	4.4	N	С
	8	4.4	N	С
	9	4.4	>10%	С
	10	4.4	N	С
	11	4.4	>10%	С
	12	4.4	N	С
26	1	5.0	2%-10%	С
	2	5.0	>10%	С
	3	5.0	N	С
	4	5.0	2%-10%	С
	5	5.0	2%-10%	С
	6	5.0	N	С
	7	5.0	N	С
	8	5.0	>10%	С
	9	5.0	>10%	С
	10	5.0	>10%	С
	11	5.0	N	С
	12	5.0	N	С

1060-44-72

STATE PROJECT NUMBER

### LEGEND

\* CONDITION LEGEND

N NO DATA/NOT REPORTED

0% 0% LOSS REPORTED

2%-10% >2% AND <= 10% LOSS REPORTED

>10% >10% LOSS REPORTED

CONDITIONS BASED ON INSPECTION REPORT PREPARED BY COLLINS ENGINEERS, INC.,

DATED APRIL 2014

BEST MANAGEMENT PRACTICE (BMP) ZONE LEGEND TYPE

PILE LOCATED IN WATER
PILE LOCATED IN TRANSITION AREAS (WETLAND/SATURATED AREAS)
PILE LOCATED IN AREAS WITH UNSATURATED SURFACE LAYER

BMP ZONE DESIGNATION BASED ON BEST ESTIMATE AT TIME OF PLAN COMPLETION. ACTUAL CONDITIONS MAY VARY AT TIME OF CONSTRUCTION, USE PROPER METHOD FOR CONDITIONS PRESENT AT TIME OF CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.

NO. DATE REVISION BY STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION STRUCTURE B-67-69 DRAWN EAJ PLANS CKD. HDA PILE SHEET 8 OF REPAIR

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Notes



# Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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