

STORM WATER PERMIT

NO PERMIT REQUIRED

STATE OF	PROJECT	SHEET	TOTAL SHEETS	
SOUTH DAKOTA	0001-451	1	15	
Plotting Date:	05/10/2018			

INDEX OF SECTIONS

Sheet	1	Title Sheet
Sheet	2-4	Estimate of Quantities & General Notes
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End WB MRM: 24.02+0.386

ESTIMATE OF QUANTITIES

Non-Section Method

BID ITEM	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0100	Remove Concrete Footing(s)	Lump Sum	LS
632E0014	1.75' Diameter Breakaway Support Concrete Footing	46.0	Ft
632E0016	2' Diameter Breakaway Support Concrete Footing	16.0	Ft
632E1225	W6x12 Steel Post	59.0	Ft
632E1235	W6x20 Steel Post	37.0	Ft
632E1250	W8x24 Steel Post	46.0	Ft
632E1260	W8x31 Steel Post	55.0	Ft
632E3113	Extruded Aluminum Sign, Nonremovable Copy High Intensity	550.0	SqFt
634E0110	Traffic Control Signs	150.3	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0280	Type 3 Barricade, 8' Single Sided	1	Each

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Section A - Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: http://www.sddot.com/resources/Manuals/EnvironProcManual.pdf

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Office at 605-773-3098 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

COMMITMENT B: FEDERALLY THREATENED. ENDANGERED. AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible durina fliaht.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Environmental Office and the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements will apply:

Construction and/or demolition debris consisting of concrete, asphalt 1. concrete, or other similar materials will be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates. and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

CLEARANCES

State Historical Preservation Office (SHPO or THPO) concurrence has not been obtained for this project.

Action Taken/Required:

The Contractor is responsible for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

STATE OF	PROJECT	SHEET	TOTAL
SOUTH DAKOTA	0001-451	2	15

COMMITMENT I: HISTORICAL PRESERVATION OFFICE

SCOPE OF WORK

The work on this project includes, but is not limited to, furnishing and installing new extruded aluminum signs, sign posts, and foundations; and associated work.

PERMANENT SIGNING

The Contractor shall furnish all signs, posts, stiffeners, bases, hardware, and labor for installation of permanent signs in size, type, and quantity as shown in these plans and/or as required by the Engineer.

The Contractor shall provide all labor and equipment necessary to install permanent signing, remove existing signs, and reset existing signs as detailed in these plans and/or as required by the Engineer. Payment for furnishing and installing permanent signs will be paid for at the contract unit price for each type of sign based on sheeting requirements per square foot of sign. All signs shall have sheeting as noted on the sign detail sheets. Payment for new signposts, hardware, bases, and labor will be made at the contract unit price per foot for W6x12 Steel Post, W6x20 Steel Post and W8x31 Steel Post. See breakaway post details regarding posts, hardware, bases, and footings. Measurement of post lengths for payment will be for above ground post lengths as field measured. The sign post contract items shall include post bases and all hardware. The lengths of the posts in the sign tables are approximate lengths only. The post lengths shall be verified by the Contractor.

The Contractor shall stake the signs and the Engineer will verify the location prior to installation. The lateral distance from the roadway and the height of the sign shall be established by the Contractor according to the Standard Plates in the plans and the MUTCD.

The Contractor shall install a state furnished date decal on each new sign installed on the project. The cost for labor and equipment to install date decal shall be incidental to other contract unit prices.

LOGO SIGNS

The Contractor shall install new logo signs or shall remove, reset, and/or replace existing logos as shown in these plans. The Contractor shall install new state furnished business logos or reset existing business logos on each sign as directed by the Engineer (Maximum of 4 each per sign for Sign# WB-01, WB-02, EB-01, and EB-02 and Maximum of 6 each for Sign# EB-03). Legend, numerals, and arrows for the ramp logo signs shall be installed as per the sign construction details or as directed by the Engineer. Contact the Rapid City Region Traffic Engineer - Jon Suomala (605)394-2695 for distances to the businesses from the ramp logo signs.

All cost for labor and equipment necessary to furnish and install the new logo signs shall be incidental to the contract unit price per each for EXTRUDED ALUMINUM SIGN. REMOVABLE COPY HIGH INTENSITY. Payment for all labor and equipment necessary to remove and/or reset all existing legend, numerals, arrows, and business logos shall be incidental to all other contract unit prices.

FURNISH & INSTALL EXTRUDED ALUMINUM SIGN, NON-REMOVABLE COPY HIGH INTENSITY

Measurement of sign areas will include payment for the entire extruded aluminum sign backing. This payment for signs designated as Extruded Aluminum Sign shall include all labor (including installing date decals), equipment, and materials to complete the work, and shall be paid for at the contract unit price per square foot for Extruded Aluminum Sign, Non-Removable Copy High Intensity.

SHEETING REQUIREMENTS

All legend and border utilizing the color black shall be vinyl or screen printed black, non-reflectorized material. All other legend and border shall be of the same type of sheeting as the background of the sign. All signs in the table for Permanent Signing that call for Type IV sheeting shall have High Intensity retroreflecitve background.

SIGN LEGEND, BORDER, BACKGROUND, AND MOUNTING

All sign material shall comply with Section 982 of the Specifications.

All upper-case letters, lower-case letters and all numerals shall be as shown in these plans.

The sign colors shall be as stipulated in the MUTCD and as shown in the sign details.

The border on all signs in these plans shall be 2 inches wide.

The corner radius on all signs greater than 3 feet and less than 6 feet in height shall be 6 inches. The corner radius on all signs greater than 6 feet in height shall be 12 inches.

The side trim moldings shall be painted with a color that matches the color of the sign background sheeting. The color coat shall be preceded by zinc chromatic primer. Paints shall be approved by the Engineer prior to use.

REMOVE CONCRETE FOOTINGS

The Contractor shall remove the existing footings at eastbound I-90 MRM 29.00+0.222 as shown in the table for Permanent Signing. The Contractor shall be responsible for disposing of the concrete bases that are removed.

The pair of concrete bases that call for being removed in the table for Permanent Signing shall be included in the lump sum unit price for "Remove Concrete Footings". This payment shall include all cost for labor and equipment necessary to remove, dispose of, and backfill holes for the existing concrete bases at I-90 MRM 29.00+0.222 eastbound.

TRAFFIC CONTROL

Adequate traffic control devices have been included in the Itemized List For Traffic Control for one mainline and one ramp work area. If the Contractor chooses to work at multiple locations at the same time, no additional payment will be made for the additional traffic control devices required.

ITEMIZED LIST FOR TRAFFIC CONTROL

		EX	PRESSWAY	/ INTERSTA	TE
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W5-4	RAMPNARROWS	1	48" x 48"	16.0	16.0
W13-1P	ADVISORY SPEED (plaque)	1	30" x 30"	6.3	6.3
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
SPECIAL	RAMP WORK AHEAD	1	48" x 48"	16.0	16.0
W21-5a	LEFT or RIGHT SHOULDER CLOSED	2	48" x 48"	16.0	32.0
W21-5b	LEFT or RIGHT SHOULDER CLOSED AHEAD	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	2	48" x 24"	8.0	16.0
		EXPRES TRAFF	SWAY / INTI IC CONTRO SQFT	ERSTATE L SIGNS	150.3

TYPE 3 BARRICADES	
ITEM DESCRIPTION	QUANTITY
Type 3 Barricade, 8' Single Sided	1 Each

STATE OF	PROJECT	SHEET	TOTAL
SOUTH DAKOTA	0001-451	3	15

CONCRETE FOOTINGS

The exposed portion of fixed base concrete footings shall be formed to provide a uniform diameter section and half-inch chamfer on the grout pad as shown on the footing details. The amount of exposed concrete footings, anchor bolts, or slip bases on the up-slope side of the footing shall not be greater than 4 inches as shown on the footing details.

Footings for breakaway signs shall be below ground as shown on the footing details and need not be formed.

Excavation for footings shall be accomplished from off the roadway and shoulders where feasible. The excavation areas shall be covered if not filled by nightfall. Concrete shall be placed within 24 hours of excavation.

BREAKAWAY SIGN POSTS & FOOTING INFORMATION

							Footing Steel					
					Footing	Footing	Stub Post	Longitudi	nal Steel	Spir		
Sign #		Location	MRM	Post Size	Diameter, ft	Depth, ft	Length, ft	Qty and Size	Length, ft	Diameter	Length	Quantity, Ib
EB-01	I-90 E	EB Mainline	22.00 + 0.670	W 6 X 20	1.75	7	2.25	8 - #6 Bars	6.67	1.4167	42.25	80.11
EB-02	I-90 E	EB Ramp	23.47 + 0.201	W 6 X 12	1.75	4	2.00	8 - #6 Bars	3.67	1.4167	28.75	44.06
EB-03	I-90 E	EB Mainline	29.00+0.210	W 8 X 24	1.75	8	2.50	8 - #6 Bars	7.67	1.4167	46.75	92.12
WB-01	I-90 W	WB Mainline	24.02 + 0.386	W 8 X 31	2.00	8	2.75	8 - #7 Bars	7.67	1.667	54.75	145.95
WB-02	2 I-90 W WB Ramp		24.02 + .191	W 6 X 12	1.75	4	2.00	8 - #6 Bars	3.67	1.4167	28.75	44.06

Two-post, one direction breakaway sign supports

	PERMANENT SIGNING - Interstate - 90 MRM: 22.00 - 24.41															
					SIGN					POST						
EXISTING M RM (Approx.)	NG M RM NEW M RM (Approx.)		Number Width Height (in) Facing Traffic		Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post Length (ft) Size (in) # of Sh Posts Slip		Shear Slip Base	SIGN DESCRIPTION	WORK TO BE DONE		
NA	22.00+0.670	LOGO-4	156	120	EASTBOUND	EXTR ALUM	NO	130.0	IV	YES	18.5	W6x20	2	YES	SPECIAL SERVICE SIGN - 4 LOGOS (EB-01) <mainline interstate=""></mainline>	INSTALL NEW EXTRUDED ALUMINUM SIGN ON NEW BREAKAWAY POSTS & FOOTINGS
NA	23.47+0.201	LOGO-4	120	60	EASTBOUND	EXTR ALUM	NO	50.0	IV	YES	14.5	W6x12	2	YES	SPECIAL SERVICE SIGN - 4 LOGOS (EB-02) <interstate 23="" exit="" off-ramp=""></interstate>	INSTALL NEW EXTRUDED ALUMINUM SIGN ON NEW BREAKAWAY POSTS & FOOTINGS
NA	24.02+0.386	LOGO-4	156	120 WESTBOUND	EXTR ALUM	NO	130.0	IV	YES	27.5	W8x31	2	YES	SPECIAL SERVICE SIGN - 4 LOGOS (WB-01) < Mainline Interstate>	INSTALL NEW EXTRUDED ALUMINUM SIGN ON NEW BREAKAWAY POSTS & FOOTINGS	
NA	24.02+0.191	LOGO-4	120	60	WESTBOUND	EXTR ALUM	NO	50.0	IV	YES	15.0	W6x12	2	YES	SPECIAL SERVICE SIGN - 4 LOGOS (WB-02) <interstate 23="" exit="" off-ramp=""></interstate>	INSTALL NEW EXTRUDED ALUMINUM SIGN ON NEW BREAKAWAY POSTS & FOOTINGS
29.00+0.222	2 29.00+0.210 LOGO-6 228 120 EASTBOUND EXTRALUM YES 190.0 V YES 23.0 W8x24			2	YES	SPECIAL SERVICE SIGN - 6 LOGOS (EB-03) < Mainline Interstate>	REMOVE OLD FOOTINGS AND INSTALL NEW EXTR. ALUM. SIGN ON NEW BREAKAWAY POSTS & FOOTINGS									

STATE OF	PROJECT	SHEET	TOTAL
SOUTH DAKOTA	0001-451	4	15

SIGN DESIGN



| E | X | I | T

-

17.8 26.9 37.3 48.1 56.2 66.2 69.7 79.7 88.5 99.3 103.1 110.5 120.5 130.2

F | O | O | D



LENGTH

120.5 10

SERIES/SIZE EM 2000

SIGN DETAIL 1:50

SIGN DETAIL

1:50



120"

FOOD

|_____₽

Panel Style: guide_fwy_general-services.ssi Dimensions are in inches.tenths

(r																			
	LETTER POSITIONS (X)															LENGTH	I SERIES/SIZE		
F	0	0	D																EM 2000
49	54.5	60.7	67.2															23.1	6

4" 6"EM 112.6" 1.4"

46.6" 46.3"



LETTER POSITIONS (X)

2 3

POS F 49

60

Panel Style: guide_fwy_general-services.ssi Dimensions are in inches.tenths

48.5"

_								
							LET	TER
	0	0	D					
	54.5	60.7	67.2					

48.5"

П	IONS	(X)				LENGTH		SERIES/SIZE
							ЕМ	2000
						23.1	6	

Letter locations are panel edge to lower left corner

		00201			
SYMBOL	ROT	Х	Y	WID	HT

WIDTH X HGHT.	10'-0" x 5'-0"
BORDER WIDTH	1.25"
CORNER RADIUS	8"
MOUNTING	Ground
BACKGROUND	TYPE: IV
	COLOR: Blue
LEGEND/BORDER	TYPE: IV
	COLOR: White /White

SIGN NUMBER EB-02

Letter locations are panel edge to lower left corner

46.3"

	COLOR: White /White				
SYMBOL	ROT	Х	Y	WID	HT

SIGN NUMBER	WB-02
WIDTH × HGHT.	10'-0" x 5'-0"
BORDER WIDTH	1.25"
CORNER RADIUS	8"
MOUNTING	Ground
BACKGROUND	TYPE: IV
	COLOR: Blue
LEGEND/BORDER	TYPE: IV
	COLOR: White /White

	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL
		0001-451	5	15

05/10/2018

Plotting Date:





Existing Logo Sign

0000	

	STATE OF	PROJECT	SHEET	SHEETS
	DAKOTA	0001-451	6	15
- Exit 2 or your map Leg	state of south DAKOTA Plotting Date: 23 end	000I-451 05/10/2018	SHEET 6	SHEETS 15
Prising B	NB-02			

PROJECT

TOTAL SHEETS



	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		0001-451	7	15
	Blotting Date	05/10/2019		

e ...\Exit 23 logo sign details.d



STATE OF	PROJECT	SHEET	TOTAL SHEETS
DAKOTA	0001-451	8	15
Plotting Date:	05/10/2018		



STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH DAKOTA	000I-451	9	15
Plotting Date:	05/10/2018		







BACK PLATE DETAIL



12 (Thk.)-

dl (Dia.) \$ 0 - tl (Thk.)

FUSE PLATE DETAIL

Post Size Α В С D S3X5.7 2 % S4X7.7 2 % S5XIO 3" W6X12 4" 2 1/a" 6" W6X15 3 1/4" W6X20 6" 3 1/4 W8X18 W8X21 5 1/4 2 9 W8X24 3 1/2" 6 1/2" W8X28 6 1/2" 1 %6 3 %" *‰*" W8X31 4 3/4" 8" ľ WIOX33 4 1/4" 8"

DETAIL "A"

under nut on S3X5.7, S4X7.7 and S5XIO Posts.

(clip as necessary)

14

204

		DAKOTA		0001-451	10	15
NOT	ES-	Plotting Date	9: 05/10	/2018		
I. Desi	gn Specification: AASHT	O Standard S	pecifications fo	r		
Stru	ctural Supports for Higi	hway Signs, Lu	iminaires and T	raffic		
Sign	als, 2001 Edition with 20 crete Eactings shall be (003 Interims.	- 1000 - c 1			
Z. COM	untere roomings show be c	JUSS NO - IC	= 4000 p.s.i.			
3. SIT	Reinforcing Steel excer	ntsoirais shai	AJO. 1 conform to A	ST M 615		
Grad	de 60.					
5. Spir	al Reinforcing Steel ma	y be fabricated	d from cold dr	awn wire		
AST	M A82, or hot rolled plant to the second	lain or deform TM A615 Gra	ed bars confori de 60	ming to the		
6. All	Bolts and Nuts shall con	form to ASTM	A325 except f	hat 1/2" diameter bolts		
may AST	conform to either ASTM M F436. All hardware s	l A325 or AS shall be galvani	TM A449. Wash zed in accorda	hers shall conform to nce with ASTM AI53.		
7. All s acco	structural steel including prdance with ASTM AI23	Posts and Po. S.	st Stubs shall b	e galvanized in		
8. Ali How smo	Bolt Holes shall be drill rever, Flame Cutting will oth (metal projecting beyo	ed. All plate c be permitted and the plane c	uts shall prefer providing all ea of the plate face	ably be saw cuts. Iges are ground will NOT be allowed).		
9. All v of v	velding and weld inspec AWS D I.IStructural We	tion shall be in Iding Code.	accordance wil	h the latest edition		
PRO	CEDURE FOR A	SSEMBLI	NG SLIP E	BASE-		
I. Plac	e galvanized Sheet Metal	Diaphrams on	TOP of the lowe	r slip plate.		
2. Con with	one Hardened Washer d	n each bolt be	tween slip plate	s.		
3. Plui	mb post by adding shims	between slip	plates.			
4. Tigh to b	ten bolts to a practical ed surfaces and clean t	maximum, usii Ihreads. DO N	ng a 12"-15" w IOT TIGHTEN T	vrench in order O PROOF LOAD.		
5. Loos until the torg entil	en all bolts and retighte each bolt has been tight post size used (See Silp ue specified. DO NOT (re sign has been erected	en in increment tened to the sp Base Plate Do DVERTIGHTEN.	ts, using a syst becified torque ata), Tighten bo , Check torque	tematic order, corresponding to hts only to the on each bolt after		
ASSI PLA	EMBLY OF FRIC TES AND STIFI	TION FUE FENERS-	SE PLATE	S, BACK		
I. Hîgî by î	n strength bolts shall be i the use of load indicator	ightened so as washers.	; to obtain a re:	sidual tension		
2. Higi prov for	n strength bolts may be t ided in Section 11.5.6.4. Highway Bridges in lieu	ightened by the .4 of the AASI of #1 above.	•``Turn of the l HTO Standard S	lut" method as Specifications		
SHO	P PLANS-					
The fo Office the fa	abricator shall initially su of Bridge Design for r bricator who will then ma	ibmit two (2) co eview. One revi ike changes. if	pies of the shop lewed copy will b any, and then s	p plans to the be sent back to end the Office		
or Bri	age Design six (6) final	approved copie	es for distributi	ion.		
	FDF		τάμς			
			TAILS			
	S. D. DEPT.	OF IRA Cembed)	
<u> </u>			1334		, ר	
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					-	
*	Specification Update			7/11/05 AV	4	
МК	RE RE	VISION		DATED BY	4	
	SNED BY DRAWN BY H/DM TB YPCEM PCEMDSPG	CHECKED E	Kein	M. Coeden BRIDGE ENGINEER	ī	

PROJECT

STATE OF

SOUTH

TOTAL SHEETS

SHEET

File



NOTE-

$\begin{array}{c} \hline \\ \hline $	of type of . N, shall be
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	<pre>wn N = 1 wn N = 2 wn N = 3</pre>
(Gaivani zed) BREAKAWAY SUPPORT STUB CLEARANCE DIAGRAM	
Image: Note: Note: The stub post and lower silp plate shall NOT extend more than 4" max. Plate Image: Note: See Silp Base Detail (Typ.) Image: Concrete Footing Image: Concrete Footing Image: Total Concrete Footing Image: Total Concrete Footing	
ELEVATION * Gener Type + Gene	
$\begin{array}{c} \hline \\ \hline $	need not b size and d

2.000"

0.078"

_0.188"

500"

3X5.

thru W8X2I

W8X24 thru

WIOx3

C3X5

C5X6.7

9/64" Hole

%" Aluminum Blind River

6" Section

Post

-Stiffeners

^{*} SLIP BASE DETAIL

Concrete Footina



RH/DM BSTDBS2B

STIFFENER DATA



		STATE	OF	P	ROJECT		SHEET	TOTAL		
		SOUT DAKOT	Ή ΓΑ		0001-451		12	15		
ίΩΤι	·c.	Plotting	g Date:	05/10/2	018					
UIE Desig Supp with	IUI L >- . Design Specification: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 2001 Edition with 2003 Interime									
with 2003 interims. Transpo Industries shall provide certification that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that used in the FHWA tests, and that it will meet the FHWA change in velocity requirements. Reference FHWA acceptance letter dated 1/8/90 (Code SST2).										
Transpo Industries shall also provide certification that the "break-safe" system furnished meets the structural requirements set forth in the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. 1994 Edition.										
. All s	tructural steel shall b	e galvanized	t in accor	dance with A	STM A123.					
i. All h	ardware shall be ga	lvanized in	accordanc	e with ASTM	A/53.					
. Fasteners, except for special bolt and coupling, are installed with lockwashers or locknuts and do not have specific torque requirements. Fasteners should be mode as tight as possible with conventional wrenches unless noted atherwise.										
. Squa	. Square and level individual components to minimize need for shimming.									
B. No n shim	. No more than two shims underneath any one coupling and no more than three shims underneath any two couplings.									
). Use weig	of this slip base all ht of all posts below	ternate is lin the hinges	mited to s is 45 lbs	ituations whe s/ft.	re the TOTAL					
WCH	IOR ASSEMB	LY-								
. Asse	mble coupling ancho	rs to installe	ation temp	late (not show	n). te loto position					
. Lower entire anchor assembly into i resh concrete and vibrate into position so that the tops of the individual anchors are flush with the finished top surface of the footings.										
COUF	PLING ASSEM	BLY-								
. Susp	end postover footir	ng and inser	rt special b	olts through i	brackets.					
. Belo . Lowe	w pracker, mreda co er post with special b	ouprings initi oolts onto loc	o ancnors i ose couplin	nas and threa	e. Id special bolts					
into Tion	couplings. Thread c	ouplings all	the way in	nto anchors.						
. Tighten special bolts with 1%" wrench. Do NOT place torque across necked down portion of coupling. Wrench flats are provided on either side for proper tightening.										
i, If p	ost is not plumb, inse	ert shims bel	tween coup	plings and an	chors.					
Breaka	way Support	n								
L.c.	hordline			Grou	ind Lîne					
	60	<u>)''</u>			O_	_				
AW AY	SUPPORT S	STUB CI	LEARA	NCE DIA	GRAM					
NOT	extend more than 4	" max. above	e the chord	dline within a	60" chord.					
ERECTION DETAILS										
	SLI	BAS	SE A	LTERN	IATE					
	(FOR E	BREAKA	WAY S	IGN SUP	PORTS)					
	S. D.	DEPT.	OF TR	ANSPOR		\sim				
							-			
ø	Ø Specification lindate 77/11/05 AV									
у МК		REVISION			DATED	BY				
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'LOT SCALE - 1.200

	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS 15
		0001-451	15	

Plotting Date: 05/10/2018

.OT NAME - 12