

SHEET NUM.				PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	5	8	18							
				01/STR/BR					STRUCTURE OVER 20 FOOT SPAN (HAN-568-5.57)	
				LUMP	LUMP	202	11002	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN	
				80	80	202	22900	80 SY	APPROACH SLAB REMOVED	
				LUMP	LUMP	503	11100	LS	COFFERDAMS AND EXCAVATION BRACING	
				LUMP	LUMP	503	21301	LS	UNCLASSIFIED EXCAVATION, AS PER PLAN	16
				39,888	39,888	509	10001	39,888 LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	16
				165	165	511	21522	165 CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE	
				2	2	511	33500	2 EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
				102	102	511	43510	102 CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	
				143	143	512	10100	143 SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
				97,381	97,381	513	10281	97,381 LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN	16
				816	816	513	20000	816 EACH	WELDED STUD SHEAR CONNECTORS	
				91	91	516	13900	91 SF	2" PREFORMED EXPANSION JOINT FILLER	
				127	127	516	14021	127 FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	17
				8	8	516	44101	8 EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (12"x12"x2")	22
				222	222	517	70000	222 FT	RAILING (TWIN STEEL TUBE)	
				LUMP	LUMP	518	21230	LS	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
				250	250	SPECIAL	51822300	250 FT	STEEL DRIP STRIP (DS-1-92)	
				132	132	518	40000	132 FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
				80	80	518	40010	80 FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
				107	107	524	94702	107 FT	DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK	
				36	36	524	94704	36 FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK	
				213	213	526	30001	213 SY	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN	17
				91	91	526	90010	91 FT	TYPE A INSTALLATION	
				224	224	601	32104	224 CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	
				38	38	846	00110	38 CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
									MAINTENANCE OF TRAFFIC	
	20			20	253	02000	20	20 CY	PAVEMENT REPAIR	
	20			20	407	10000	20	20 GAL	TACK COAT	
	10			10	441	50000	10	10 CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
	1			1	616	10000	1	1 MGAL	WATER	
	50			50	617	10100	50	50 CY	COMPACTED AGGREGATE	
									INCIDENTALS	
				LS	614	11000	LS		MAINTAINING TRAFFIC	
				5	619	16010	5	5 MNTH	FIELD OFFICE, TYPE B	
				LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
				LS	624	10000	LS		MOBILIZATION	

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GENERAL SUMMARY

HAN-568-5.57

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MAL
CHECKED
RDM

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ESTIMATED QUANTITIES										
ITEM	EXTENSION	01/STR/BR TOTAL	UNIT	DESCRIPTION	APPR. SLAB	ABUT.	SUPER.	GEN.	SHEET #	
202	11002	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN				LUMP		
202	22900	80	SQ YD	APPROACH SLAB REMOVED	80					
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING				LUMP		
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN		LUMP			2/16	
509	10001	39888	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN		13342	26546		2/16	
511	21522	165	CU YD	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE		58	107			
511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE		2				
511	43510	102	CU YD	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING		102				
512	10100	143	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		98	45			
513	10281	97381	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN			97381		2/16	
513	20000	816	EACH	WELDED STUD SHEAR CONNECTORS			816			
516	13900	91	SQ FT	2" PREFORMED EXPANSION JOINT FILLER		91				
516	14021	127	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN		127			3/16	
516	44101	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (12" x 12" x 2"), AS PER PLAN		8			8/16	
517	70000	222	FT	RAILING (TWIN STEEL TUBE)			222			
518	21230	LUMP		POROUS BACKFILL WITH FILTER FABRIC		LUMP				
518	22300	250	FT	SPECIAL - STEEL DRIP STRIP			250			
518	40000	132	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		132				
518	40010	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		80				
524	94702	107	FT	DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK		107				
524	94704	36	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK		36				
526	30001	213	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN	213				3/16	
526	90010	91	FT	TYPE A INSTALLATION	91					
601	32104	224	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC		224				
846	00110	38	CU FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	38					

ESTIMATED QUANTITIES

HAN-568-5.57
OVER OUTLET DITCH

HAN-568-5.57
PID No. 98588

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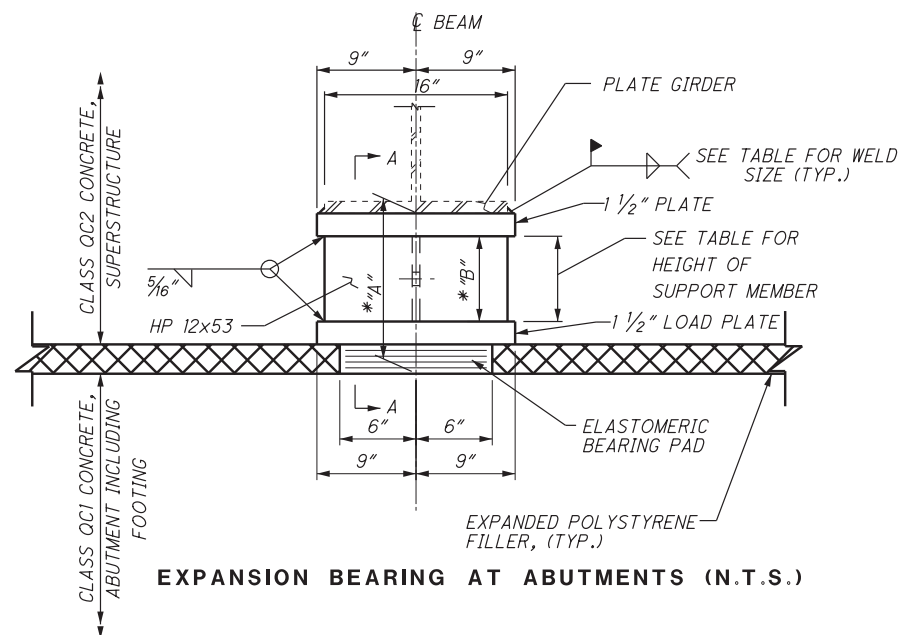
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REVIEWED DATE
JRC 12/16/2019
STRUCTURE FILE NUMBER
3204929

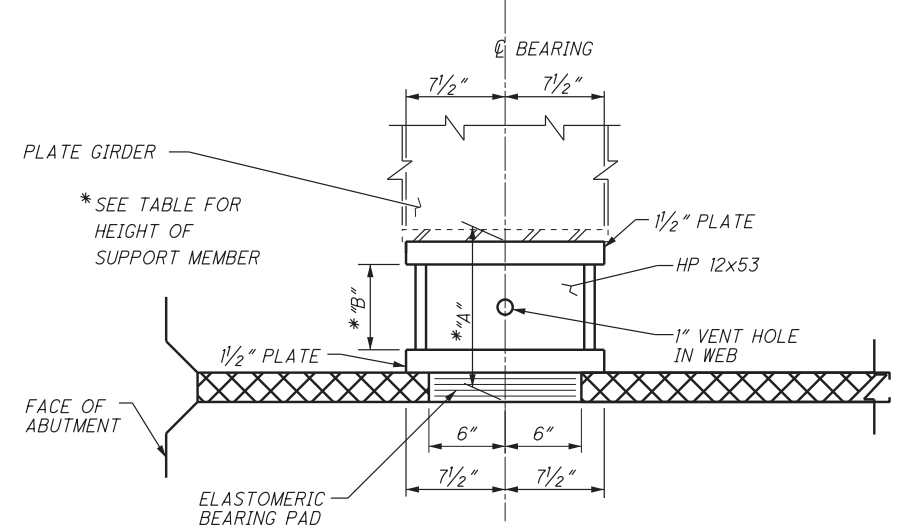
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REVISOR MAL
CHECKED RTH

DESIGN AGENCY
ODOT DISTRICT ONE,
CAPITAL PROGRAMS

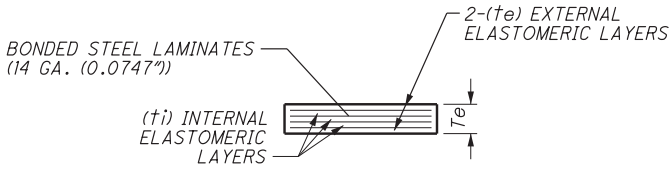
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EXPANSION BEARING AT ABUTMENTS (N.T.S.)



SECTION A-A (NOT TO SCALE.)



BEARING PAD DETAIL

HEIGHT OF SUPPORT MEMBER

ABUTMENT BEARING SUPPORT MEMBER DIMENSIONS				
Support Dimensions (ft.)	Girder 1	Girder 2	Girder 3	Girder 4
Dim. "A"	Rear. Abut. 1.01	1.12	1.10	0.93
	Fwd. Abut. 0.97	1.12	1.13	1.01
Dim. "B"	Rear. Abut. 0.60	0.71	0.69	0.52
	Fwd. Abut. 0.56	0.71	0.72	0.60

NOTES:

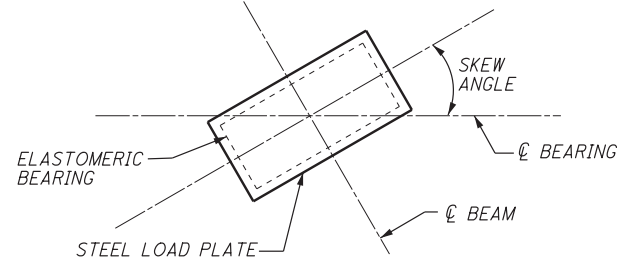
BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS AND SUPPORT MEMBERS. PAYMENT WILL BE AT THE CONTRACT PRICE FOR ITEM 516, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (12"x12"x2"), AS PER PLAN.

ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.

WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

THE STEEL LOAD PLATE SHALL BE ASTM A572/A709, GRADE 50 STEEL AND SHALL BE BONDED TO THE ELASTOMER BY VULCANIZATION DURING THE MOLDING PROCESS. THE STEEL HP SECTION SHALL BE ASTM GRADE 36 STEEL.

STEEL LOAD PLATES AND HP 12 x 53 STEEL SHAPES ARE INCLUDED WITH THIS ITEM FOR PAYMENT.

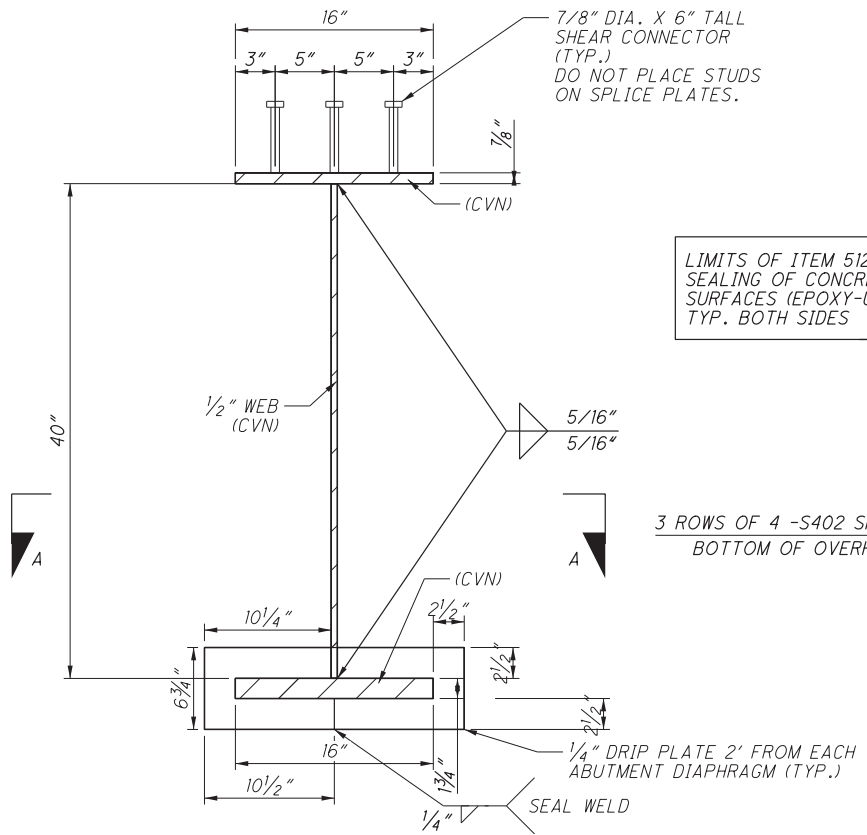


LAMINATED ELASTOMERIC BEARING ORIENTATION AT ABUTMENTS (N.T.S.)

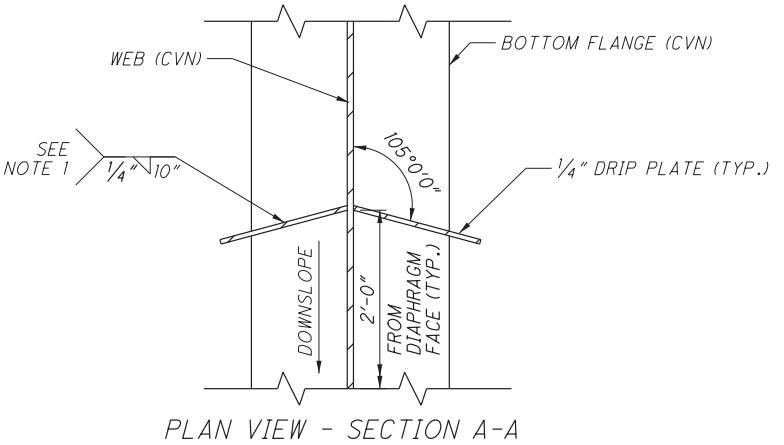
BEARING DETAILS TABLE

BEARING LOCATION	BEARING TYPE	length	width	NO. REQ'D	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	ti	NO. OF ti	te (2 EA.)	NO. OF INT. LAMINATES (14 GAGE)	Te	REQUIRED DUROMETER	WELD SIZES	LOAD PLATE THICKNESS
REAR ABUT.	EXPANSION	12"	12"	4	87.87	77.17	165.04	0.375"	3	0.25"	4	1.9238"	60	3/8"	1.5
FWD. ABUT.	EXPANSION	12"	12"	4	87.87	77.17	165.04	0.375"	3	0.25"	4	1.9238"	60	3/8"	1.5

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GIRDER AND SHEAR CONNECTOR DETAIL



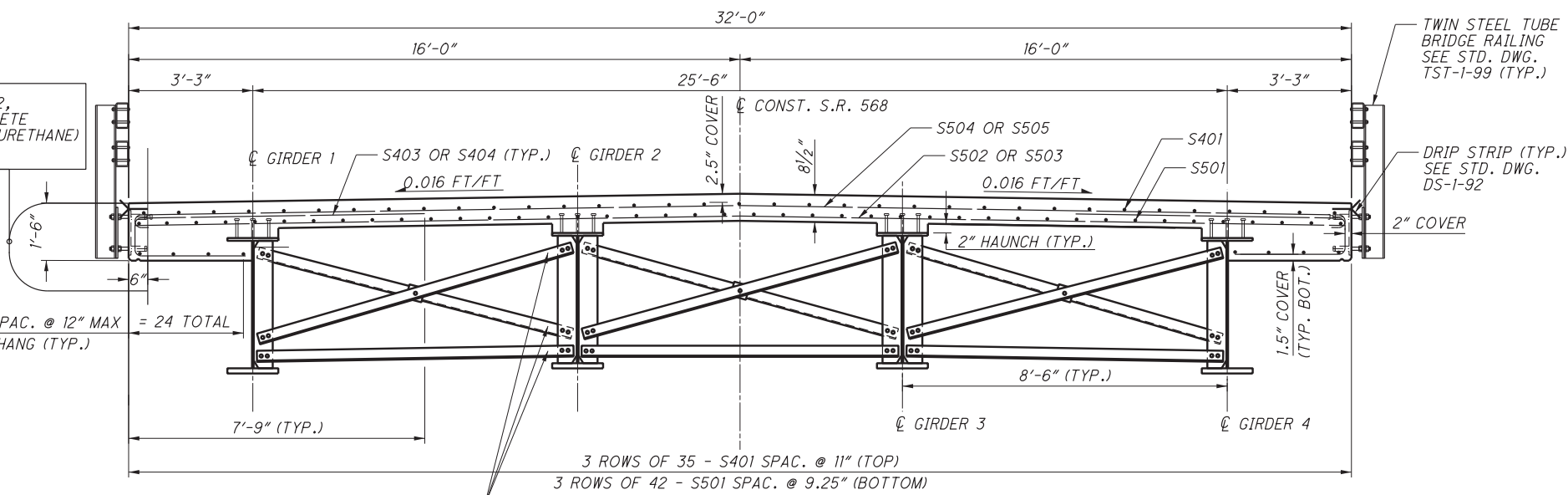
PLAN VIEW - SECTION A-A

NOTE:
1. ONLY WELD THE UPSIDE OF THE DRIP PLATE TO THE FLANGE AND WEB

LIMITS OF ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) TYP. BOTH SIDES

3 ROWS OF 4 - S402 SPAC. @ 12" MAX = 24 TOTAL
BOTTOM OF OVERHANG (TYP.)

L3 1/2" X 3 1/2" X 3/8" CROSSFRAME ANGLES (TYP.)
STIFFENERS AND CROSSFRAMES ARE TYPE 4 PER STD. DWG. GSD-1-96



DECK TRANSVERSE SECTION

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CAPITAL PROGRAMS

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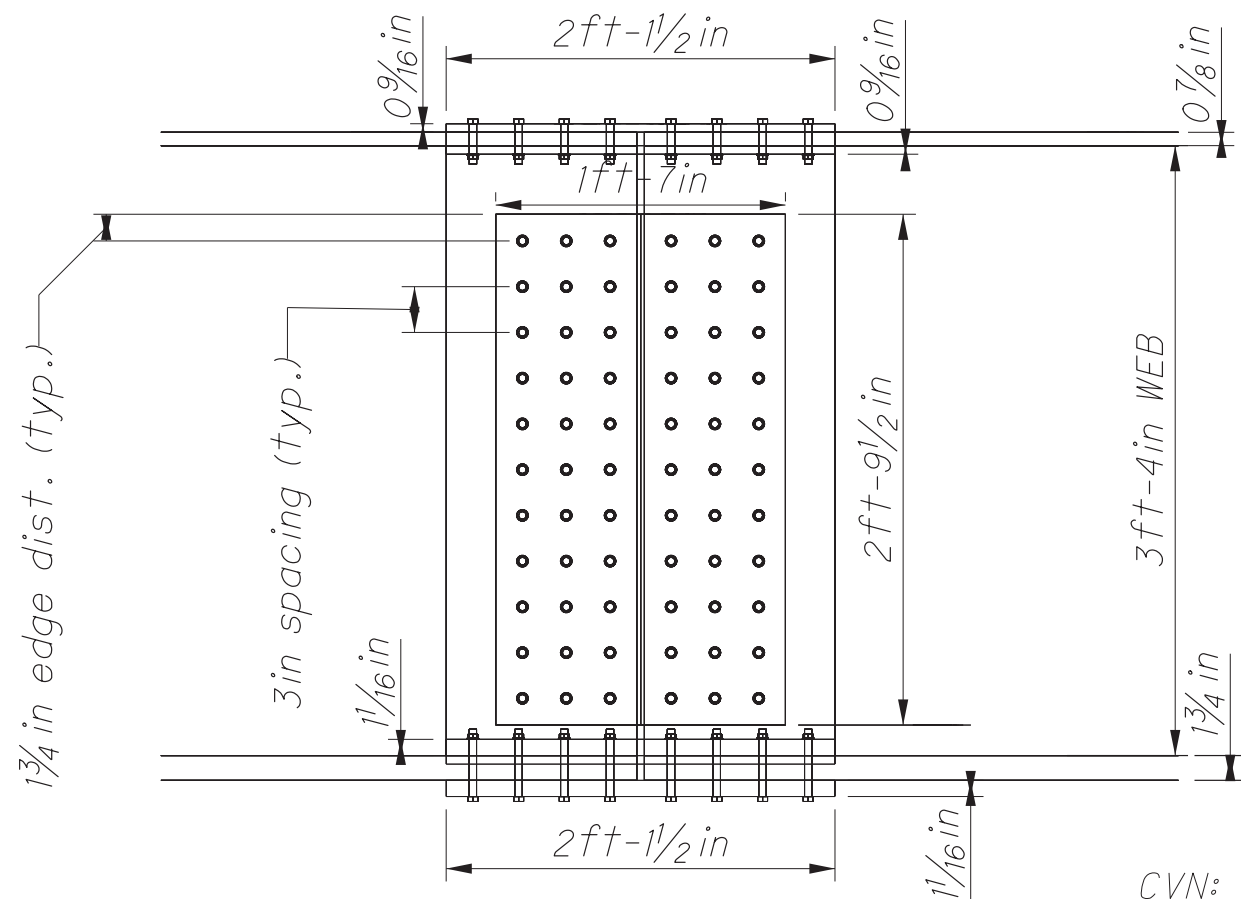
TYPICAL SECTION
HAN-568-5.57
OVER OUTLET DITCH

HAN-568-5.57
PID No. 98588

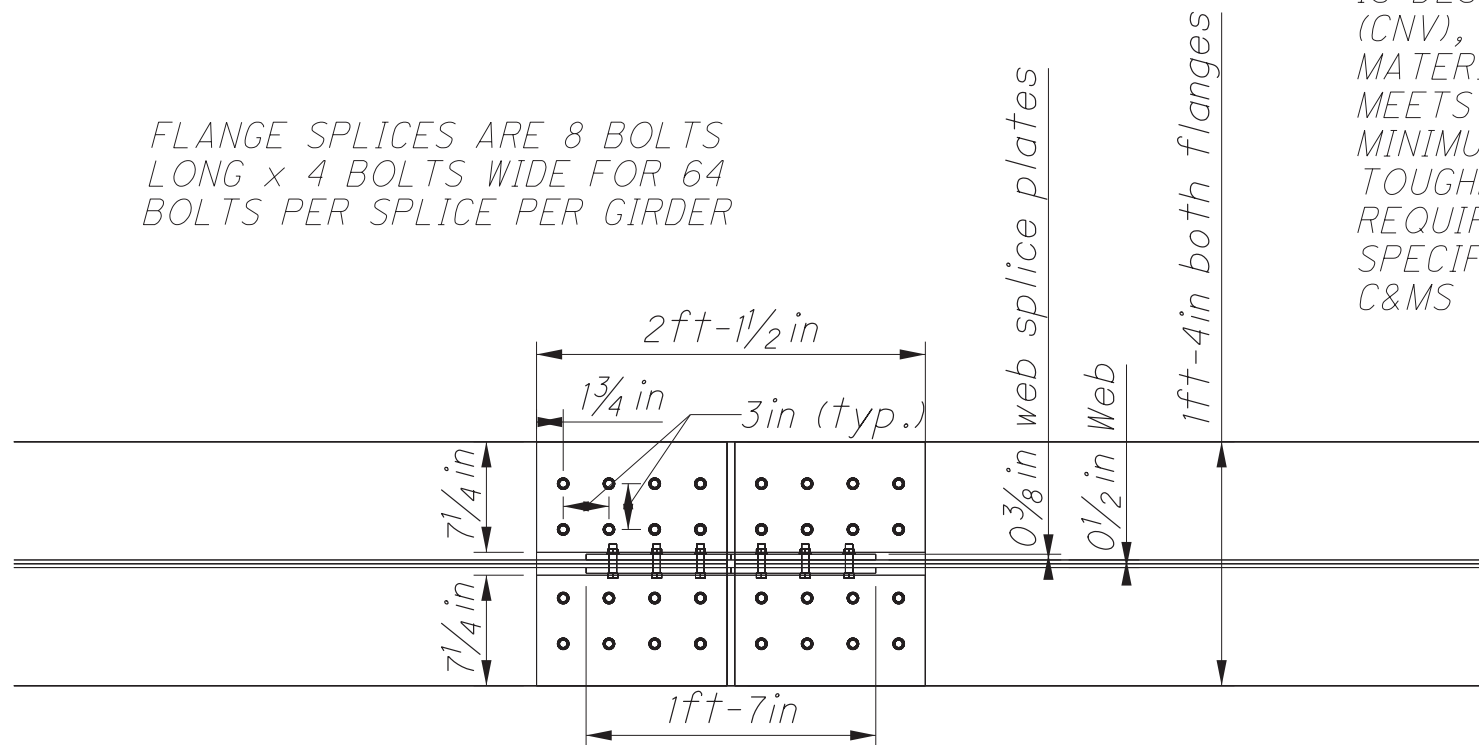
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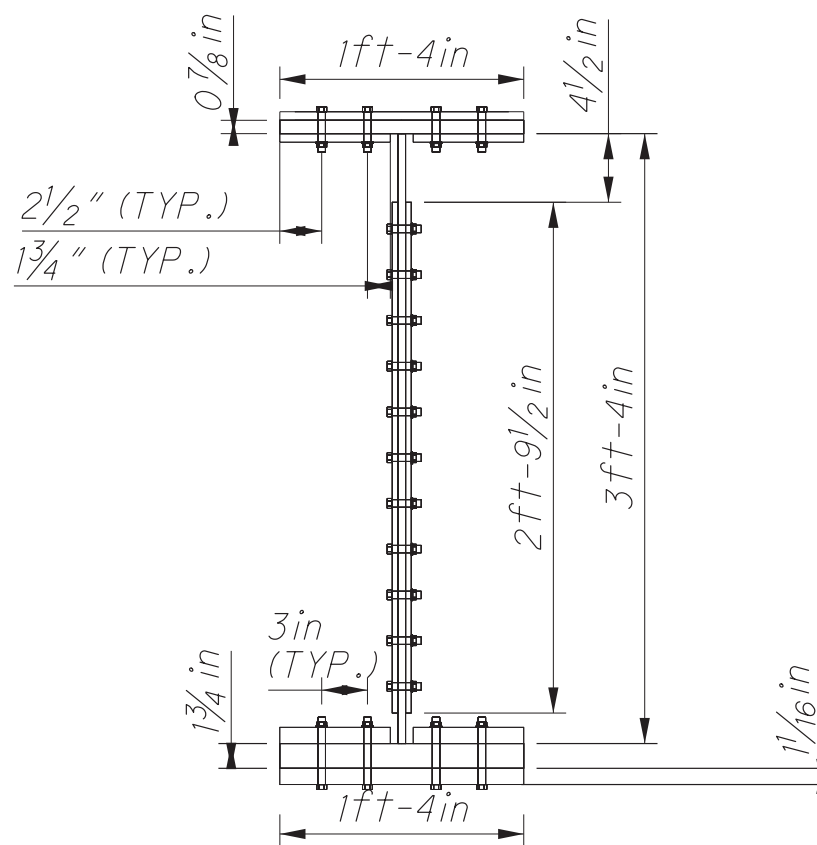
WEB PLATES HAVE 66 BOLTS, 6 COLUMNS OF 11 ROWS



FLANGE SPLICES ARE 8 BOLTS LONG x 4 BOLTS WIDE FOR 64 BOLTS PER SPLICE PER GIRDER



CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN C&MS 711.01



Member Details:
 Welded plate girder
 Web: 1/2" x 40" (CVN)
 Top Flange: 7/8" x 16" (CVN)
 Bottom Flange: 1 3/4" x 16" (CVN)

Splice Details:
 Top Flange Top Splice Plate:
 Single 9/16" x 2'-1 1/2" x 16" (CVN)
 Top Flange Bottom Splice Plates:
 Twin 9/16" x 2'-1 1/2" x 7 1/4" (CVN)
 Web Splice Plates:
 Twin 3/8" x 2'-9 1/2" x 1'-7" (CVN)
 Bottom Flange Top Splice Plates:
 Twin 1 1/16" x 2'-1 1/2" x 7 1/4" (CVN)
 Bottom Flange Bottom Splice Plate:
 Single 1 1/16" x 2'-1 1/2" x 16" (CVN)

1 3/4" min. edge distance typical
 3" c/c spacing of holes typical
 1" Dia. Bolts, grade A325, Type III
 Standard AASHTO hole size = 1 1/8" max. dia.

MEMBER AND SPLICE DETAILS

HAN-568-5.57
 OVER OUTLET DITCH

HAN-568-5.57

PID No. 98588

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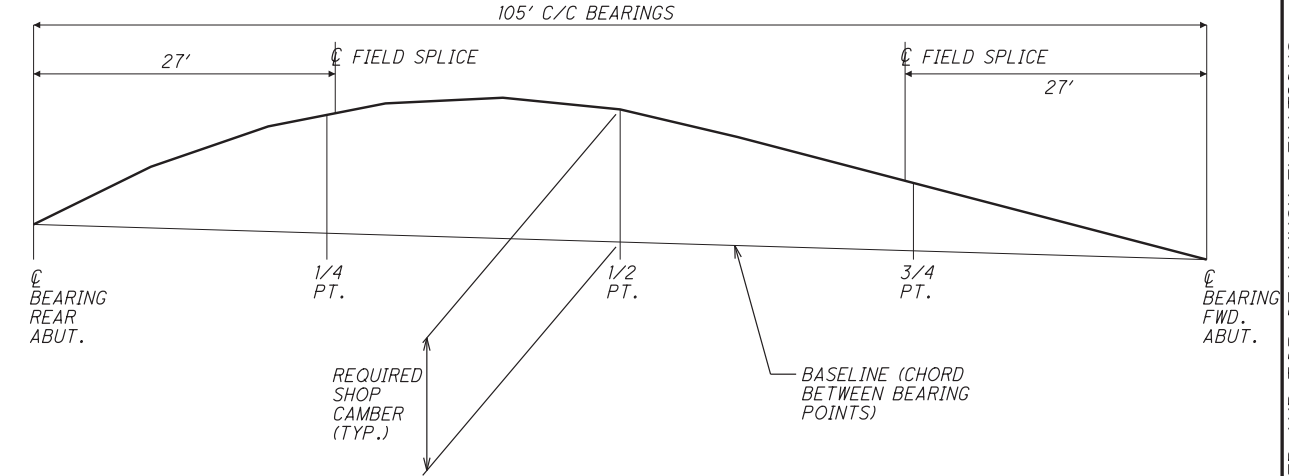
CONSTRUCTION CAMBER, SCREED, & TOP OF HAUNCH ELEVATIONS FOR DECK PLACEMENT						
LOCATION	HAN-568-5.57	RR. ABUTM'T. BRG. PT.	1/4 PT.	1/2 PT.	3/4 PT.	FWD. ABUTM'T. BRG. PT.
DECK EDGE	STATION	294+04.25	294+30.50	294+56.75	294+83.00	295+09.25
	OFFSET FROM CL (FT)	16.00 LT	16.00 LT	16.00 LT	16.00 LT	16.00 LT
	FINAL DECK ELEV.	791.643	791.679	791.669	791.631	791.594
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
GIRDER #1	STATION	294+01.00	294+27.25	294+53.50	294+79.75	295+06.00
	OFFSET FROM CL (FT)	12.75 LT	12.75 LT	12.75 LT	12.75 LT	12.75 LT
	FINAL DECK ELEV.	791.688	791.729	791.725	791.688	791.650
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
GIRDER #2	STATION	293+92.50	294+18.75	294+45.00	294+71.25	294+97.50
	OFFSET FROM CL (FT)	4.25 LT	4.25 LT	4.25 LT	4.25 LT	4.25 LT
	FINAL DECK ELEV.	791.800	791.857	791.867	791.836	791.798
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
GIRDER #3	STATION	293+84.00	294+10.25	294+36.50	294+62.75	294+89.00
	OFFSET FROM CL (FT)	4.25 RT	4.25 RT	4.25 RT	4.25 RT	4.25 RT
	FINAL DECK ELEV.	791.772	791.843	791.869	791.849	791.811
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
GIRDER #4	STATION	293+75.50	294+01.75	294+28.00	294+54.25	294+80.50
	OFFSET FROM CL (FT)	12.75 RT	12.75 RT	12.75 RT	12.75 RT	12.75 RT
	FINAL DECK ELEV.	791.604	791.689	791.729	791.724	791.687
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
DECK EDGE	STATION	293+72.25	293+98.50	294+24.75	294+51.00	294+77.25
	OFFSET FROM CL (FT)	16.00 RT	16.00 RT	16.00 RT	16.00 RT	16.00 RT
	FINAL DECK ELEV.	791.538	791.629	791.675	791.675	791.640
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
CENTERLINE DECK PROFILE GRADE	STATION	293+88.25	294+14.50	294+40.75	294+67.00	294+93.25
	OFFSET FROM CL (FT)	0.00 (CL)	0.00 (CL)	0.00 (CL)	0.00 (CL)	0.00 (CL)
	FINAL DECK ELEV.	791.855	791.919	791.937	791.911	791.873
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
GIRDER #1	STATION	294+01.00	294+27.25	294+53.50	294+79.75	295+06.00
	OFFSET FROM CL (FT)	12.75 LT	12.75 LT	12.75 LT	12.75 LT	12.75 LT
	FINAL DECK ELEV.	791.688	791.729	791.725	791.688	791.650
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
GIRDER #2	STATION	293+92.50	294+18.75	294+45.00	294+71.25	294+97.50
	OFFSET FROM CL (FT)	4.25 LT	4.25 LT	4.25 LT	4.25 LT	4.25 LT
	FINAL DECK ELEV.	791.800	791.857	791.867	791.836	791.798
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
GIRDER #3	STATION	293+84.00	294+10.25	294+36.50	294+62.75	294+89.00
	OFFSET FROM CL (FT)	4.25 RT	4.25 RT	4.25 RT	4.25 RT	4.25 RT
	FINAL DECK ELEV.	791.772	791.843	791.869	791.849	791.811
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000
GIRDER #4	STATION	293+75.50	294+01.75	294+28.00	294+54.25	294+80.50
	OFFSET FROM CL (FT)	12.75 RT	12.75 RT	12.75 RT	12.75 RT	12.75 RT
	FINAL DECK ELEV.	791.604	791.689	791.729	791.724	791.687
	DL DEFLECTION (FT)	0.000	0.342	0.481	0.342	0.000

SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS

TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM/GIRDER HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

CAMBER DIAGRAM (N.T.S.)



DESIGN AGENCY ODOT, DISTRICT ONE, CAPITAL PROGRAMS	
REVIEWED JRC	DATE 12/16/2019
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DESIGNED MAL	CHECKED RTH
CONSTRUCTION SCREED AND TOP OF HAUNCH ELEVATIONS HAN-568-5.57 OVER OUTLET DITCH	
HAN-568-5.57 PID No. 98588	
14 / 16	
28 35	