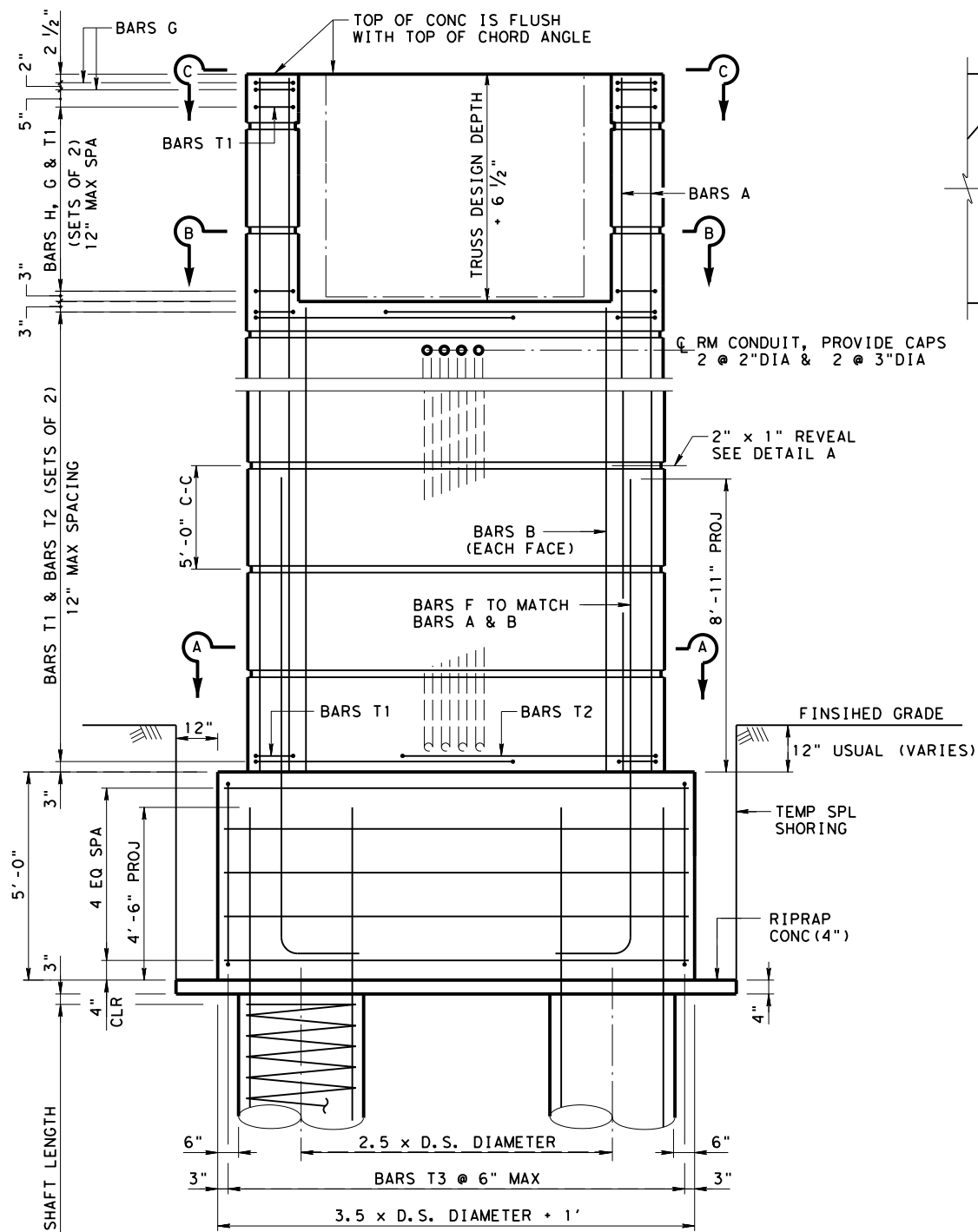
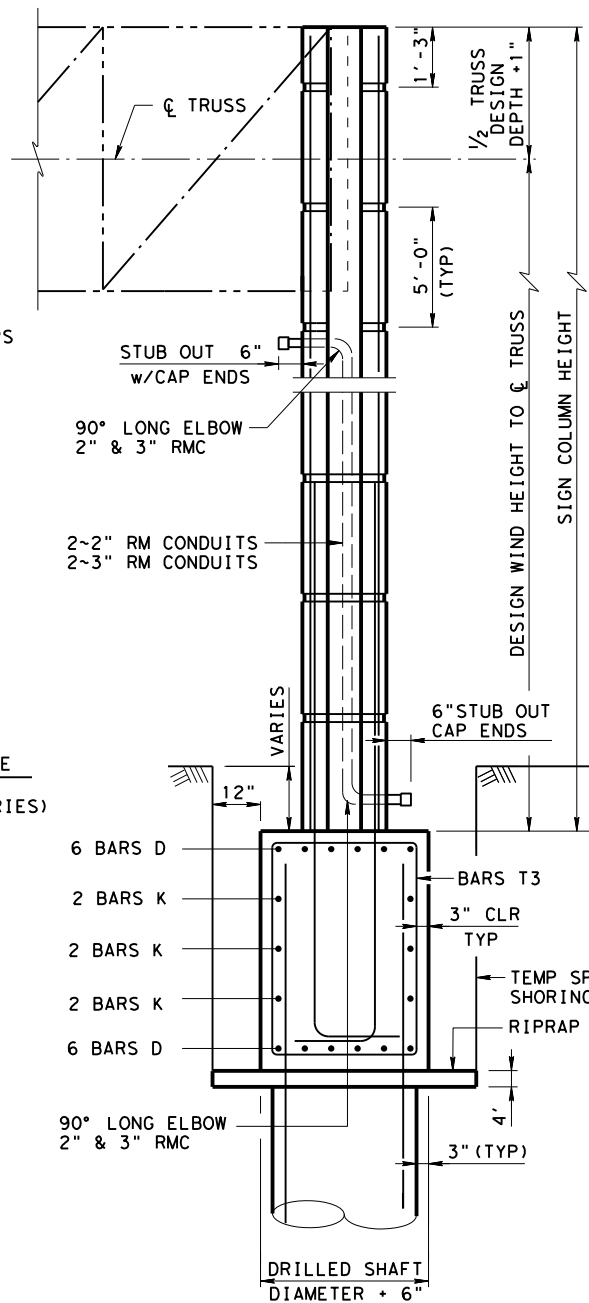
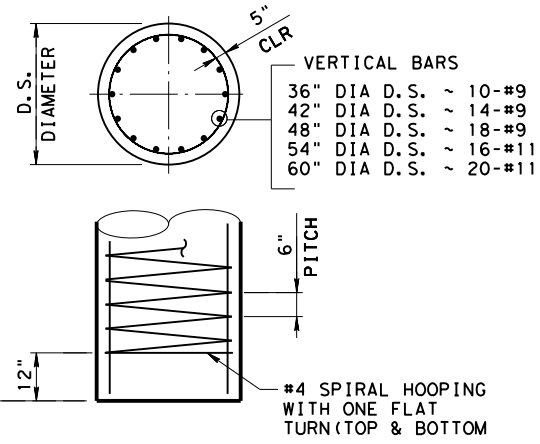


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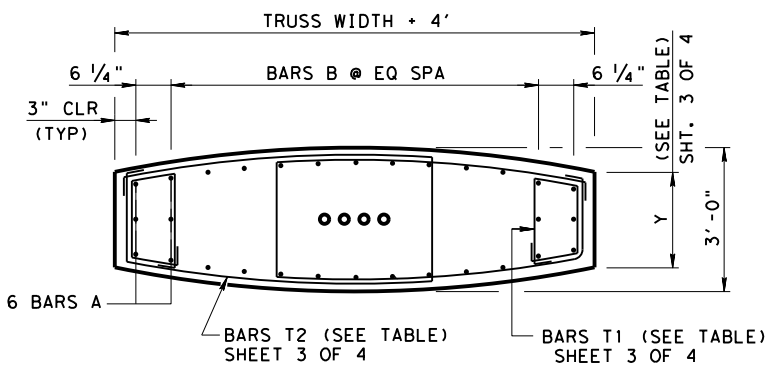
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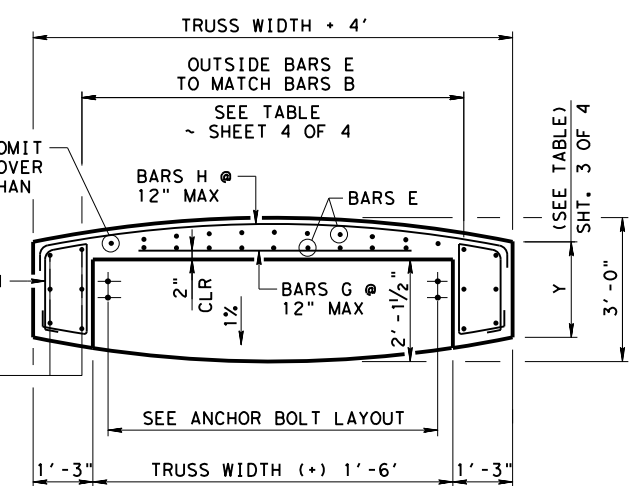
FRONT ELEVATION



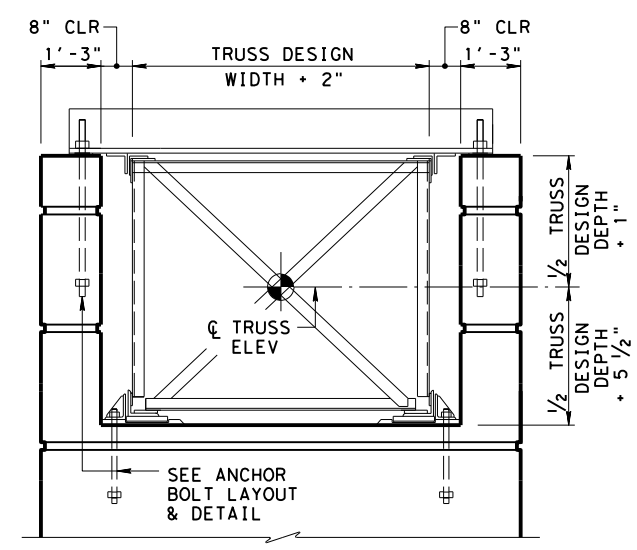
SIDE ELEVATION



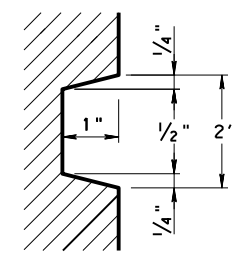
SECTION A-A



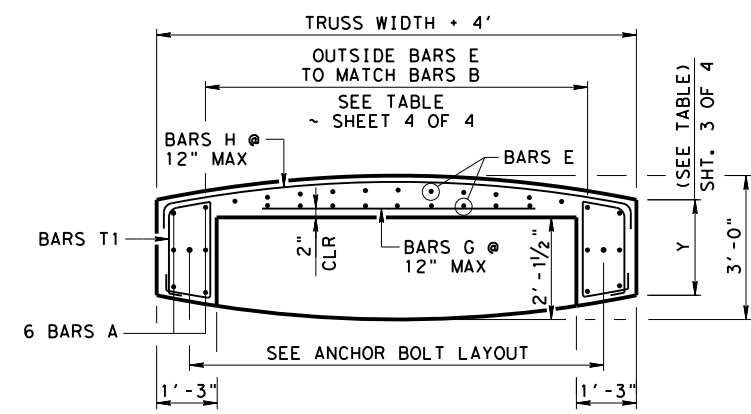
SECTION B-B



STRUSS ELEVATION



SECTION A-A



SECTION C-C

GENERAL NOTES:

1. CONCRETE SHALL BE CLASS "C" F'c = 3600 psi.
2. ALL REINFORCING SHALL BE ASTM A615 GRADE 60.
3. ALL DIMENSIONS OF THE REINFORCING BARS ARE TO ϕ OF BARS UNLESS OTHERWISE NOTED
4. CHAMFER ALL EXPOSED CORNERS $\frac{3}{4}$ ".
5. ANCHOR BOLT ASSEMBLIES AND ALL STEEL HARDWARE, INCLUDING CONDUIT IN THE COLUMNS ARE INCIDENTAL TO ITEM 650 OVERHEAD SIGN SUPPORTS.
6. ALL ANCHOR BOLTS SHALL BE A193-B7.
7. ALL STEEL HARDWARE SHALL BE GALVANIZED.
8. COMPONENTS OF THE STRUCTURE DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND /OR AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.
9. CONCRETE COLUMNS ARE DESIGNED FOR THE EQUIVALENT AREA OF A 10'-0" DEEP SIGN PANEL OVER 100% OF THE SPAN LENGTH. DESIGN INCLUDES 3 POUNDS PER FOOT SQUARED FOR SIGN PANEL AND 20 POUNDS PER FOOT FOR LIGHTS AND 50 POUNDS PER FOOT FOR WALKWAYS OVER 100% OF THE SPAN LENGTH.

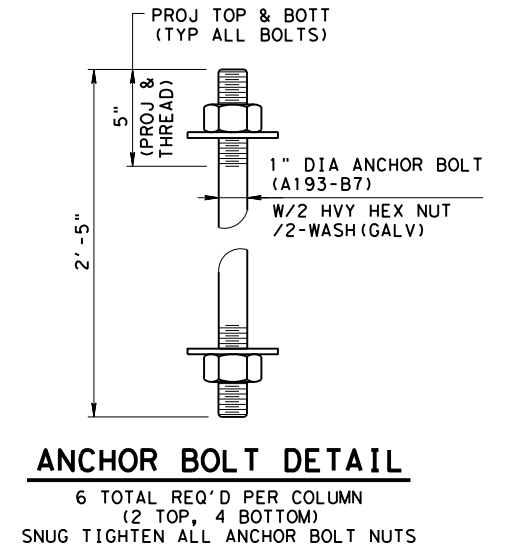
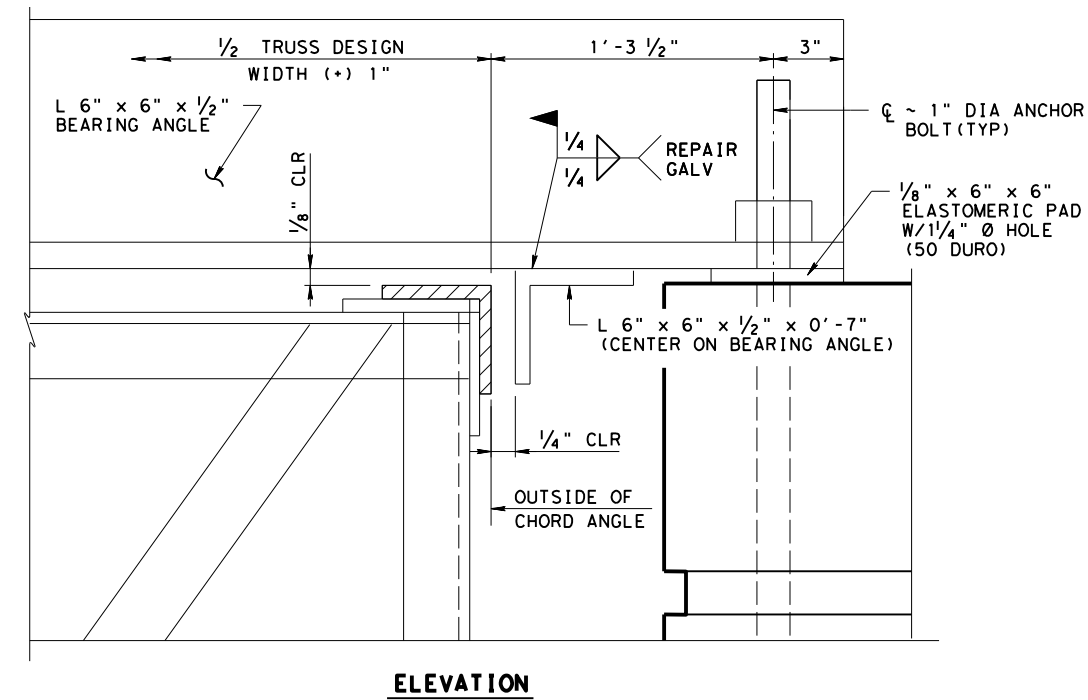
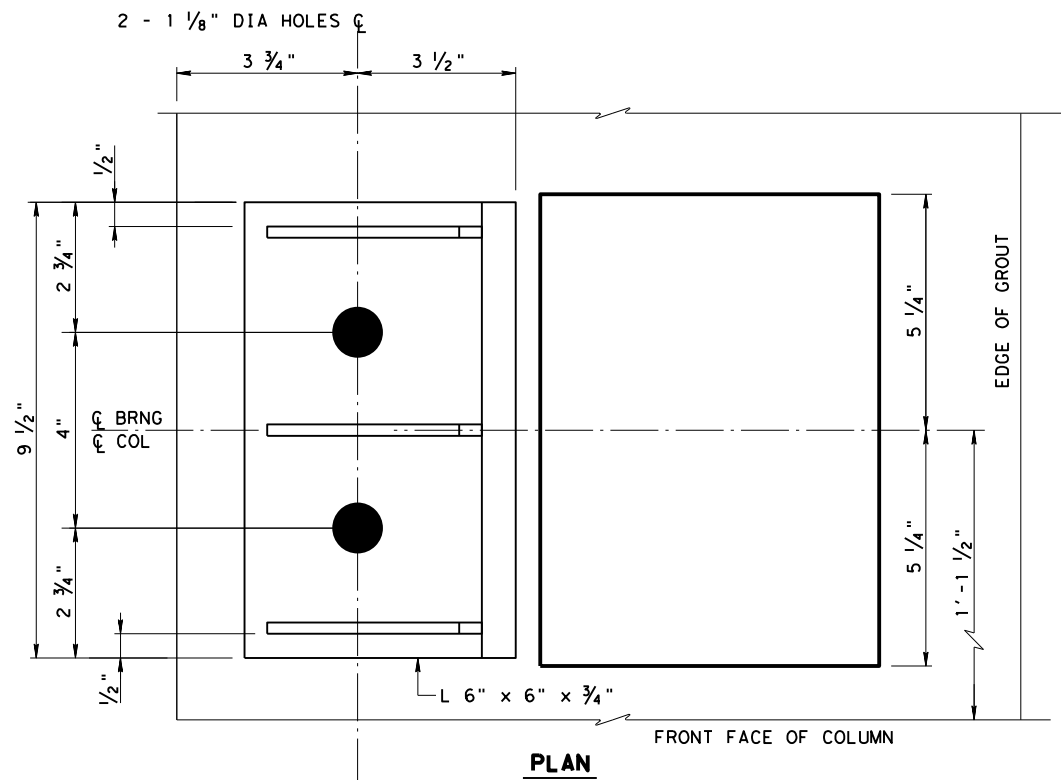


OVERHEAD SIGN BRIDGE COLUMN DETAILS
WAVE SCHEME

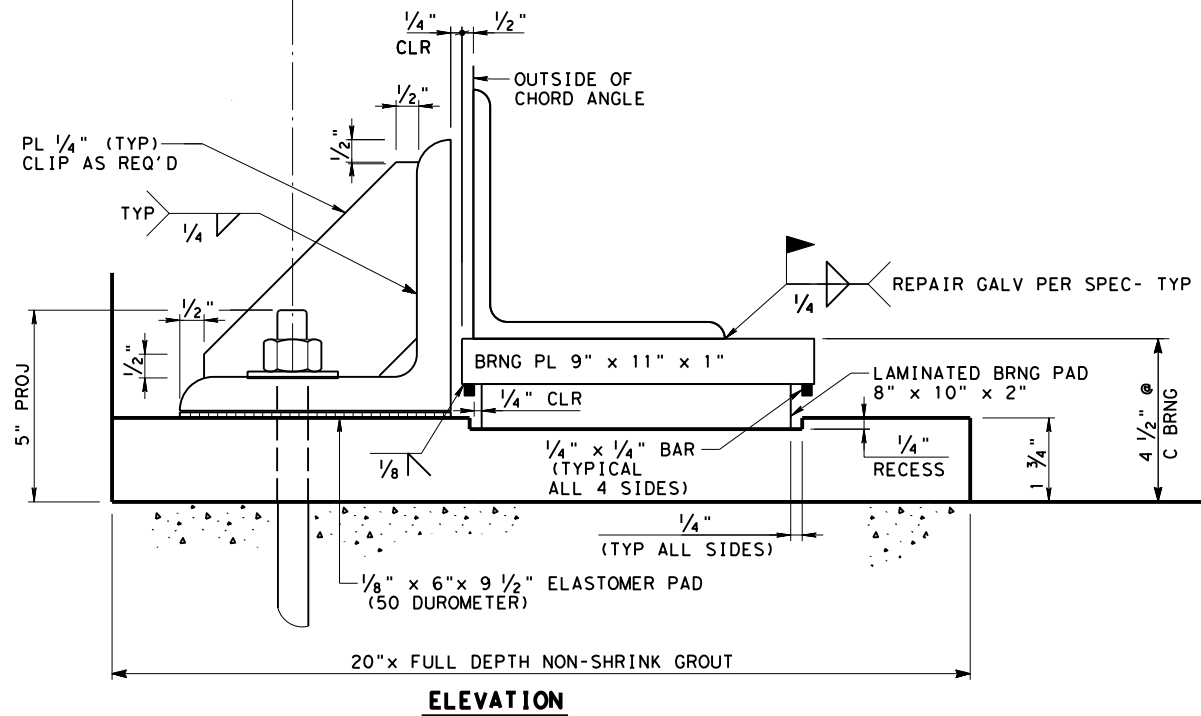
OSB-WS-25 (HOU)

FILE: OSB-WS-25 (HOU). DGN	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
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UPPER LATERAL GUIDE AND BEARING PLATE DETAIL

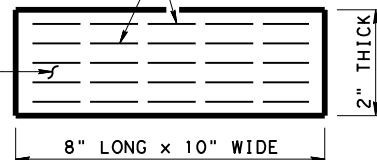


LOWER LATERAL GUIDE AND BEARING PLATE DETAIL

NO DIRECT PAY FOR ELASTOMERIC PADS OR ANCHOR BOLTS
PAYMENT FOR SIGN BRIDGE TO INCLUDE LATERAL GUIDES

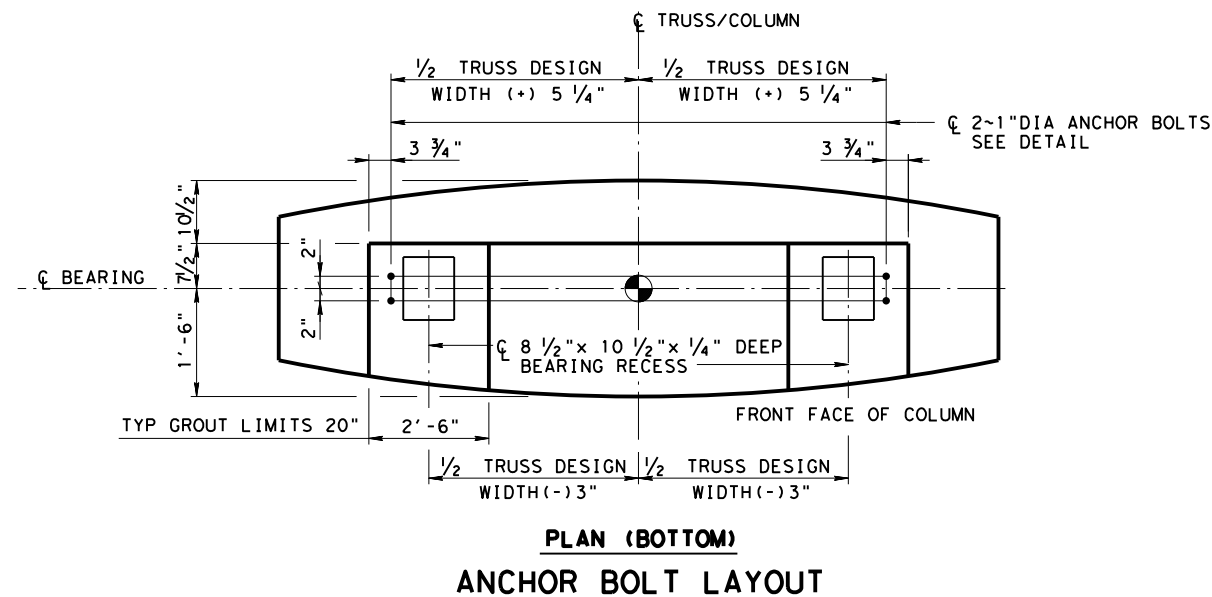
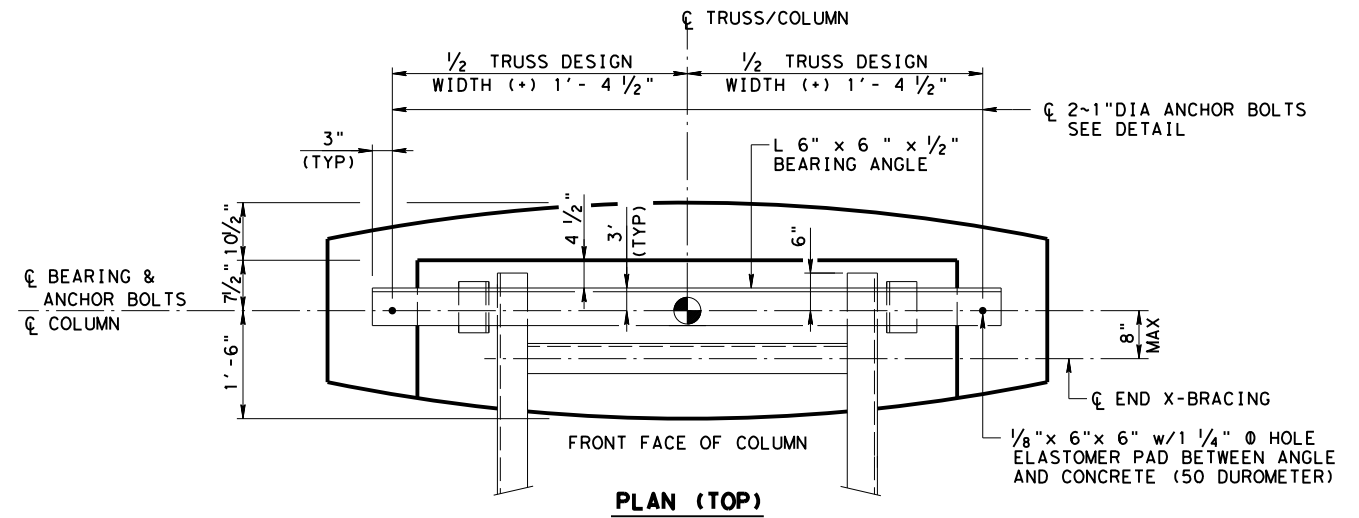
PLACE 0.105" THICK STEEL LAMINATES PARALLEL TO THE BOTTOM SURFACE OF THE PAD

50 DUROMETER ELASTOMER (6 ~ 1/4" THICK LAYERS)



LAMINATED ELASTOMERIC BEARING DETAILS

* THE USE OF POLY ISOPRENE (NATURAL RUBBER) IS NOT ALLOWED



SHEET 2 OF 4



OVERHEAD SIGN BRIDGE COLUMN DETAILS WAVE SCHEME

OSB-WS-25 (HOU)

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DIST	COUNTY	SHEET NO.		
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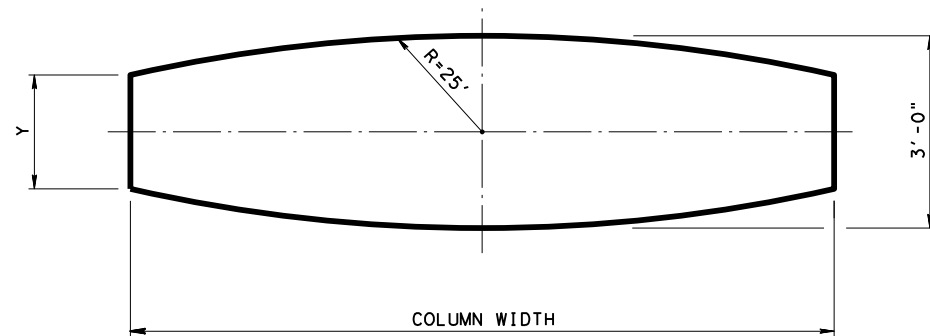
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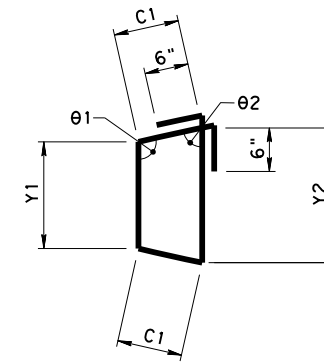
DATE:
FILE:

TABLE OF ESTIMATED BAR DETAILS

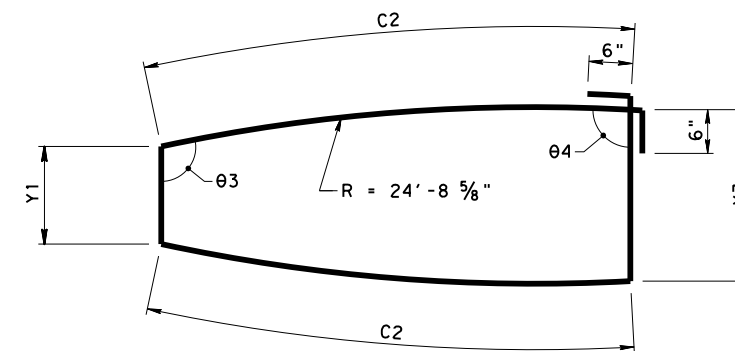
TRUSS	COLUMN		BAR T1					BAR T2					BAR H	
	WIDTH	Y (±)	Y1 (±)	Y2 (±)	C1 (±)	θ1	θ2	Y1 (±)	Y3 (±)	C2 (±)	θ3	θ4	C3 (±)	θ3
4'-6" X 4'-6"	8'-6"	2'-3 1/4"	1'-9 3/4"	2'-0"	7 3/4"	98.50°	81.50°	1'-9 3/4"	2'-4 3/4"	5'-2 1/4"	99.20°	92.66°	7'-11 1/4"	99.20°
5'-0" X 5'-0"	9'-0"	2'-2 1/4"	1'-8 3/4"	1'-11 1/4"	7 3/4"	99.09°	80.91°	1'-8 3/4"	2'-4 3/4"	5'-6 1/4"	99.76°	92.88°	8'-5 1/4"	99.76°
5'-6" X 5'-6"	9'-6"	2'-1 1/4"	1'-7 3/4"	1'-10 1/4"	7 3/4"	99.67°	80.33°	1'-7 3/4"	2'-4 1/2"	5'-10 1/4"	100.34°	92.98°	9'-0"	100.34°
6'-0" X 6'-0"	10'-0"	2'-0"	1'-6 1/2"	1'-9 1/4"	7 3/4"	100.26°	79.74°	1'-6 1/2"	2'-4 3/4"	6'-0"	100.89°	92.81°	9'-6"	100.89°
6'-6" X 6'-6"	10'-6"	1'-10 3/4"	1'-5 1/4"	1'-8 1/4"	8"	100.82°	79.18°	1'-5 1/4"	2'-4 1/2"	6'-3 3/4"	101.52°	92.94°	10'-0"	101.52°
7'-0" X 7'-0"	11'-0"	1'-9 1/4"	1'-4"	1'-7 1/4"	8"	101.41°	78.59°	1'-4"	2'-4 3/4"	6'-5 3/4"	102.11°	92.75°	10'-6 1/4"	102.11°
7'-6" X 7'-6"	11'-6"	1'-7"	1'-2 3/4"	1'-6"	8 1/4"	102.00°	78.00°	1'-2 3/4"	2'-4 3/4"	6'-9 1/2"	106.66°	92.83°	11'-0 1/2"	106.66°
8'-0" X 8'-0"	12'-0"	1'-6 1/2"	1'-1 1/4"	1'-5"	8 1/4"	102.60°	77.40°	1'-1 1/4"	2'-4 1/2"	7'-1 1/2"	103.14°	92.82°	11'-6 1/2"	103.14°



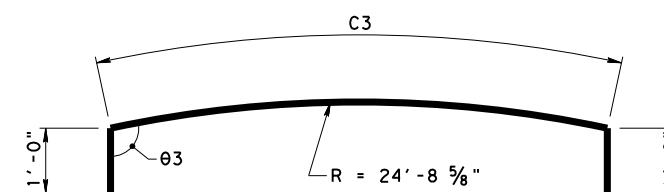
COLUMN



BAR T1 (#5)



BAR T2 (#5)



BAR H (#4)

		Bridge Houston District Standard	
OVERHEAD SIGN BRIDGE COLUMN DETAILS WAVE SCHEME			
OSB-WS-25 (HOU)			
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TABLE OF ESTIMATED FOOTING QUANTITIES (FOR ONE FOOTING)

36" DRILLED SHAFTS

BARS	NO.	SIZE	LENGTH	WEIGHT
D	12	#11	11'-2"	712
K	6	#6	11'-2"	101
T3	23	#5	15'-7"	374
* REINFORCING STEEL				LBS 1,187
TEMPORARY SPECIAL SHORING				SF 241
CL C CONC (SIGN FOOTING)				CY 7.5
RIPRAP CONC (4IN)				CY 0.9

TABLE OF ESTIMATED FOOTING QUANTITIES (FOR ONE FOOTING)

42" DRILLED SHAFTS

BARS	NO.	SIZE	LENGTH	WEIGHT
D	12	#11	12'-11"	824
K	6	#6	12'-11"	116
T3	27	#5	16'-7"	467
* REINFORCING STEEL				LBS 1,407
TEMPORARY SPECIAL SHORING				SF 269
CL C CONC (SIGN FOOTING)				CY 9.8
RIPRAP CONC (4IN)				CY 1.1

TABLE OF ESTIMATED FOOTING QUANTITIES (FOR ONE FOOTING)

48" DRILLED SHAFTS

BARS	NO.	SIZE	LENGTH	WEIGHT
D	12	#11	14'-8"	935
K	6	#6	14'-8"	132
T3	30	#5	17'-7"	550
* REINFORCING STEEL				LBS 1,617
TEMPORARY SPECIAL SHORING				SF 298
CL C CONC (SIGN FOOTING)				CY 12.5
RIPRAP CONC (4IN)				CY 1.4

TABLE OF ESTIMATED FOOTING QUANTITIES (FOR ONE FOOTING)

54" DRILLED SHAFTS

BARS	NO.	SIZE	LENGTH	WEIGHT
D	12	#11	16'-5"	1,047
K	6	#6	16'-5"	148
T3	34	#5	18'-7"	659
* REINFORCING STEEL				LBS 1,854
TEMPORARY SPECIAL SHORING				SF 326
CL C CONC (SIGN FOOTING)				CY 15.5
RIPRAP CONC (4IN)				CY 1.6

TABLE OF ESTIMATED FOOTING QUANTITIES (FOR ONE FOOTING)

60" DRILLED SHAFTS

BARS	NO.	SIZE	LENGTH	WEIGHT
D	12	#11	18'-2"	1,158
K	6	#6	18'-2"	164
T3	37	#5	19'-7"	756
* REINFORCING STEEL				LBS 2,078
TEMPORARY SPECIAL SHORING				SF 355
CL C CONC (SIGN FOOTING)				CY 18.8
RIPRAP CONC (4IN)				CY 1.9

* DOWEL BARS F ARE INCLUDED WITH SIGN COLUMN QUANTITIES

TABLE OF ESTIMATED COLUMN QUANTITIES (FOR ONE COLUMN)

4.5' x 4.5' TRUSS

BARS	NO.	SIZE	LENGTH	WEIGHT
A	12	#11	29'-10"	1,902
B	22	#11	24'-10"	2,903
E	20	#9	8'-6"	578
F	34	#11	15'-6"	2,800
G	7	#4	6'-0"	28
H	7	#4	9'-11 ¹ / ₄ "	47
T1	66	#5	6'-1 ¹ / ₄ "	422
T2	52	#5	15'-6 ¹ / ₄ "	845
REINFORCING STEEL				LBS 9,521
CL C CONC (SIGN COLUMN)				CY 24.1

① QUANTITIES SHOWN ARE BASED ON A SIGN COLUMN HEIGHT OF 30'. FOR EACH LINEAR FOOT VARIATION IN HEIGHT MAKE THE FOLLOWING ADJUSTMENTS:

BARS A AND B LENGTH, 1'-0"
REINFORCING STEEL, 226 LB
CL C CONC (SIGN COLUMN), 0.87CY.

TABLE OF ESTIMATED COLUMN QUANTITIES (FOR ONE COLUMN)

5.0' x 5.0' TRUSS

BARS	NO.	SIZE	LENGTH	WEIGHT
A	12	#11	29'-10"	1,902
B	22	#11	24'-4"	2,844
E	20	#9	9'-0"	612
F	34	#11	15'-6"	2,800
G	8	#4	6'-0"	32
H	8	#4	10'-5 ¹ / ₄ "	56
T1	66	#5	5'-11 ¹ / ₂ "	410
T2	50	#5	16'-1"	842
REINFORCING STEEL				LBS 9,498
CL C CONC (SIGN COLUMN)				CY 25.0

② QUANTITIES SHOWN ARE BASED ON A SIGN COLUMN HEIGHT OF 30'. FOR EACH LINEAR FOOT VARIATION IN HEIGHT MAKE THE FOLLOWING ADJUSTMENTS:

BARS A AND B LENGTH, 1'-0"
REINFORCING STEEL, 226 LB
CL C CONC (SIGN COLUMN), 0.91 CY.

TABLE OF ESTIMATED COLUMN QUANTITIES (FOR ONE COLUMN)

5.5' x 5.5' TRUSS

BARS	NO.	SIZE	LENGTH	WEIGHT
A	12	#11	29'-10"	1,902
B	22	#11	23'-10"	2,786
E	20	#9	9'-6"	646
F	34	#11	15'-6"	2,800
G	8	#4	6'-0"	32
H	8	#4	10'-11 ¹ / ₄ "	59
T1	66	#5	5'-9 ¹ / ₂ "	398
T2	50	#5	16'-8 ¹ / ₄ "	873
REINFORCING STEEL				LBS 9,495
CL C CONC (SIGN COLUMN)				CY 25.8

③ QUANTITIES SHOWN ARE BASED ON A SIGN COLUMN HEIGHT OF 30'. FOR EACH LINEAR FOOT VARIATION IN HEIGHT MAKE THE FOLLOWING ADJUSTMENTS:

BARS A AND B LENGTH, 1'-0"
REINFORCING STEEL, 226 LB
CL C CONC (SIGN COLUMN), 0.95 CY.

TABLE OF ESTIMATED COLUMN QUANTITIES (FOR ONE COLUMN)

6.0' x 6.0' TRUSS

BARS	NO.	SIZE	LENGTH	WEIGHT
A	12	#11	29'-10"	1,902
B	26	#11	23'-4"	3,223
E	22	#9	10'-0"	748
F	38	#11	15'-6"	3,129
G	9	#4	6'-0"	36
H	9	#4	11'-6 ¹ / ₂ "	69
T1	66	#5	5'-7 ¹ / ₄ "	386
T2	48	#5	16'-11 ¹ / ₄ "	848
REINFORCING STEEL				LBS 10,341
CL C CONC (SIGN COLUMN)				CY 26.5

④ QUANTITIES SHOWN ARE BASED ON A SIGN COLUMN HEIGHT OF 30'. FOR EACH LINEAR FOOT VARIATION IN HEIGHT MAKE THE FOLLOWING ADJUSTMENTS:

BARS A AND B LENGTH, 1'-0"
REINFORCING STEEL, 238 LB
CL C CONC (SIGN COLUMN), 0.99 CY.

TABLE OF ESTIMATED COLUMN QUANTITIES (FOR ONE COLUMN)

6.5' x 6.5' TRUSS

BARS	NO.	SIZE	LENGTH	WEIGHT
A	12	#11	29'-10"	1,902
B	26	#11	22'-10"	3,154
E	22	#9	10'-6"	785
F	38	#11	15'-6"	3,129
G	9	#4	6'-0"	36
H	9	#4	12'-0 ¹ / ₄ "	72
T1	66	#5	5'-6"	379
T2	48	#5	17'-5 ¹ / ₄ "	874
REINFORCING STEEL				LBS 10,331
CL C CONC (SIGN COLUMN)				CY 27.2

⑤ QUANTITIES SHOWN ARE BASED ON A SIGN COLUMN HEIGHT OF 30'. FOR EACH LINEAR FOOT VARIATION IN HEIGHT MAKE THE FOLLOWING ADJUSTMENTS:

BARS A AND B LENGTH, 1'-0"
REINFORCING STEEL, 238 LB
CL C CONC (SIGN COLUMN), 1.03 CY.

TABLE OF ESTIMATED COLUMN QUANTITIES (FOR ONE COLUMN)

7.0' x 7.0' TRUSS

BARS	NO.	SIZE	LENGTH	WEIGHT
A	12	#11	29'-10"	1,902
B	30	#11	22'-4"	3,559
E	24	#9	11'-0"	898
F	42	#11	15'-6"	3,459
G	10	#4	6'-0"	40
H	10	#4	12'-6 ¹ / ₄ "	84
T1	66	#5	5'-3 ¹ / ₂ "	365
T2	46	#5	17'-8 ¹ / ₂ "	849
REINFORCING STEEL				LBS 11,154
CL C CONC (SIGN COLUMN)				CY 27.7

⑥ QUANTITIES SHOWN ARE BASED ON A SIGN COLUMN HEIGHT OF 30'. FOR EACH LINEAR FOOT VARIATION IN HEIGHT MAKE THE FOLLOWING ADJUSTMENTS:

BARS A AND B LENGTH, 1'-0"
REINFORCING STEEL, 271 LB
CL C CONC (SIGN COLUMN), 1.06 CY.

TABLE OF ESTIMATED COLUMN QUANTITIES (FOR ONE COLUMN)

7.5' x 7.5' TRUSS

BARS	NO.	SIZE	LENGTH	WEIGHT
A	12	#11	29'-10"	1,902
B	30	#11	21'-10"	3,480
E	24	#9	11'-6"	938
F	42	#11	15'-6"	3,459
G	10	#4	6'-0"	40
H	10	#4	13'-0 ¹ / ₄ "	87
T1	66	#5	5'-1 ³ / ₄ "	351
T2	44	#5	18'-2"	836
REINFORCING STEEL				LBS 11,092
CL C CONC (SIGN COLUMN)				CY 28.2

⑦ QUANTITIES SHOWN ARE BASED ON A SIGN COLUMN HEIGHT OF 30'. FOR EACH LINEAR FOOT VARIATION IN HEIGHT MAKE THE FOLLOWING ADJUSTMENTS:

BARS A AND B LENGTH, 1'-0"
REINFORCING STEEL, 271 LB
CL C CONC (SIGN COLUMN), 1.09 CY.

TABLE OF ESTIMATED COLUMN QUANTITIES (FOR ONE COLUMN)

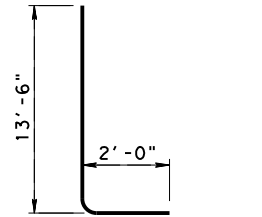
8.0' x 8.0' TRUSS

BARS	NO.	SIZE	LENGTH	WEIGHT
A	12	#11	29'-10"	1,902
B	30	#11	21'-4"	3,400
E	24	#9	12'-0"	979
F	42	#11	15'-6"	3,459
G	11	#4	6'-0"	44
H	11	#4	13'-6 ¹ / ₄ "	100
T1	66	#5	4'-10 ¹ / ₂ "	336
T2	44	#5	18'-8 ¹ / ₄ "	819
REINFORCING STEEL				LBS 11,079
CL C CONC (SIGN COLUMN)				CY 28.7

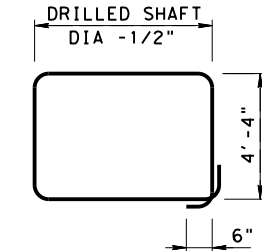
⑧ QUANTITIES SHOWN ARE BASED ON A SIGN COLUMN HEIGHT OF 30'. FOR EACH LINEAR FOOT VARIATION IN HEIGHT MAKE THE FOLLOWING ADJUSTMENTS:

BARS A AND B LENGTH, 1'-0"
REINFORCING STEEL, 271 LB
CL C CONC (SIGN COLUMN), 1.12 CY.

NOTE:
See Sheet 3 of 4 for Bars H, T1 and T2 details.



BAR F (#11)



BAR T3 (#5)

OVERHEAD SIGN BRIDGE COLUMN DETAILS
WAVE SCHEME

OSB-WS-25 (HOU)

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DATE:
 FILE:

SPAN (ft)	DESIGN WIND HEIGHT TO ϕ TRUSS (ft)	MAXIMUM DRILLED SHAFT AXIAL LOAD (kips)	MAXIMUM DRILLED SHAFT MOMENT (k-ft)	DRILLED SHAFT DIAMETER (in)	DRILLED SHAFT EMBEDMENT LENGTH (ft)			
					AVERAGE N (BLOWS/12") (SEE NOTE 8)			
					10	20	30	40
40	15	71	51	36	24	14	10	9
	20	89	83	36	30	16	12	10
	25	108	122	36	36	19	14	13
	30	128	171	36	42	22	16	15
	35	149	228	36	48	26	18	18
	40	172	294	36	55	29	20	20
	45	195	369	36	62	33	23	23
	50	219	454	36	69	36	25	25
50	15	77	51	36	26	15	11	9
	20	96	83	36	32	18	13	10
	25	117	122	36	39	21	15	13
	30	140	171	36	45	24	17	15
	35	163	228	36	52	28	19	18
	40	187	294	36	60	31	22	20
	45	212	369	36	67	35	24	23
	50	239	454	36	75	39	27	25
60	15	82	51	36	28	15	11	9
	20	104	83	36	34	19	13	11
	25	126	122	36	41	22	16	13
	30	150	171	36	48	26	18	15
	35	175	228	36	56	30	21	18
	40	201	294	36	64	33	23	20
	45	228	369	36	72	38	26	23
	50	257	454	36	81	42	29	25
70	15	87	51	36	30	16	12	10
	20	111	83	36	37	20	14	11
	25	135	122	36	44	23	17	13
	30	160	171	36	52	27	19	15
	35	187	228	36	60	31	22	18
	40	215	294	36	68	36	25	20
	45	244	369	36	77	40	28	23
	50	256	454	42	69	36	25	25
80	15	93	51	36	31	17	12	10
	20	118	83	36	39	21	15	12
	25	144	122	36	47	25	18	14
	30	171	171	36	55	29	20	16
	35	199	228	36	63	33	23	18
	40	229	294	36	73	38	26	20
	45	260	369	36	82	42	29	23
	50	271	454	42	73	38	26	25
90	15	98	51	36	33	18	13	10
	20	125	83	36	41	22	16	12
	25	152	122	36	49	26	18	15
	30	182	171	36	58	31	21	17
	35	212	228	36	67	35	24	19
	40	243	294	36	77	40	28	21
	45	256	369	42	70	36	25	23
	50	287	454	42	78	40	28	25

SPAN (ft)	DESIGN WIND HEIGHT TO ϕ TRUSS (ft)	MAXIMUM DRILLED SHAFT AXIAL LOAD (kips)	MAXIMUM DRILLED SHAFT MOMENT (k-ft)	DRILLED SHAFT DIAMETER (in)	DRILLED SHAFT EMBEDMENT LENGTH (ft)			
					AVERAGE N (BLOWS/12") (SEE NOTE 8)			
					10	20	30	40
100	15	109	55	36	36	20	14	11
	20	138	89	36	45	24	17	13
	25	169	132	36	54	29	20	16
	30	201	183	36	64	34	23	18
	35	235	244	36	74	39	27	21
	40	270	315	36	85	44	30	23
	45	283	395	42	76	40	27	23
	50	297	485	48	71	37	26	25
110	15	115	55	36	38	20	15	12
	20	146	89	36	47	25	18	14
	25	178	132	36	57	30	21	17
	30	213	183	36	67	35	24	19
	35	248	244	36	78	41	28	22
	40	263	315	42	71	37	26	20
	45	280	395	48	67	35	24	23
	50	312	485	48	74	38	27	25
120	15	121	55	36	40	21	15	12
	20	154	89	36	50	26	19	15
	25	188	132	36	60	31	22	17
	30	224	183	36	71	37	26	20
	35	261	244	36	82	43	29	23
	40	276	315	42	75	39	27	21
	45	293	395	48	70	36	25	23
	50	326	485	48	77	40	28	25
130	15	127	55	36	42	22	16	13
	20	162	89	36	52	28	19	15
	25	198	132	36	63	33	23	18
	30	236	183	36	74	39	27	21
	35	254	244	42	69	36	25	19
	40	290	315	42	78	41	28	22
	45	306	395	48	73	38	26	23
	50	324	485	54	68	36	25	25
140	15	136	60	36	44	24	17	13
	20	172	96	36	55	29	20	16
	25	211	141	36	67	35	24	19
	30	251	196	36	79	41	28	22
	35	269	261	42	73	38	26	20
	40	288	336	48	69	36	25	20
	45	308	421	54	65	34	24	23
	50	342	516	54	72	38	26	25

DESIGNER NOTE:
 THIS SHEET IS FOR DESIGNER'S USE IN DETERMINING DRILLED SHAFT DIAMETER, LOADS AND EMBEDMENT. DO NOT INSERT INTO PLANSET.

FOUNDATION DATA AND EMBEDMENT LENGTH TABLE

 Texas Department of Transportation		 Bridge Houston District Standard	
OVERHEAD SIGN BRIDGE FOUNDATION DATA AND EMBEDMENT SELECTION TABLE WAVE SCHEME OSB-WS-25 (HOU)			
FILE: OSB-WS-25 (HOU). DGN	DN: TXDOT	CK: TXDOT	DW: TXDOT
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REVISIONS 04/2025: 2024 Spec Updates Added Note 8		DIST	COUNTY
HOU		SHEET NO.	

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DATE: FILE:

SPAN (ft)	DESIGN WIND HEIGHT TO ϕ TRUSS (ft)	MAXIMUM DRILLED SHAFT AXIAL LOAD (kips)	MAXIMUM DRILLED SHAFT MOMENT (k-ft)	DRILLED SHAFT DIAMETER (in)	DRILLED SHAFT EMBEDMENT LENGTH (ft)			
					AVERAGE N (BLOWS/12") (SEE NOTE 8)			
					10	20	30	40
150	15	142	60	36	46	24	17	14
	20	180	96	36	58	30	21	17
	25	220	141	36	70	36	25	20
	30	262	196	36	82	43	29	23
	35	280	261	42	76	39	27	21
	40	300	336	48	71	37	26	20
	45	320	421	54	68	35	25	23
50	355	516	54	75	39	27	25	
160	15	151	69	36	49	26	18	14
	20	192	110	36	61	32	22	18
	25	235	161	36	74	39	27	21
	30	279	223	36	88	45	31	24
	35	281	295	48	67	35	24	19
	40	319	379	48	76	39	27	21
	45	340	474	54	72	37	26	23
50	378	581	54	79	41	28	25	
170	15	158	69	36	51	27	19	15
	20	200	110	36	64	33	23	18
	25	245	161	36	77	40	28	22
	30	268	223	42	73	38	26	20
	35	291	295	48	69	36	25	20
	40	331	379	48	78	41	28	22
	45	352	474	54	74	39	27	23
50	391	581	54	82	43	29	25	
180	15	157	74	42	44	23	17	13
	20	197	117	42	54	29	20	16
	25	239	171	42	65	34	24	19
	30	265	236	48	63	33	23	18
	35	306	313	48	73	38	26	20
	40	330	401	54	70	36	25	20
	45	369	501	54	78	40	28	23
50	392	613	60	74	39	27	25	
190	15	165	79	42	46	24	17	14
	20	206	125	42	57	30	21	16
	25	250	182	42	68	35	25	19
	30	277	250	48	66	34	24	19
	35	319	331	48	76	39	27	21
	40	344	424	54	72	38	26	20
	45	369	529	60	70	37	25	23
50	408	647	60	77	40	28	25	
200	15	171	79	42	47	25	18	14
	20	214	125	42	59	31	22	17
	25	259	182	42	70	37	25	20
	30	287	250	48	68	36	25	19
	35	331	331	48	78	41	28	22
	40	355	424	54	75	39	27	21
	45	380	529	60	72	38	26	23
50	421	647	60	80	41	29	25	

SPAN (ft)	DESIGN WIND HEIGHT TO ϕ TRUSS (ft)	MAXIMUM DRILLED SHAFT AXIAL LOAD (kips)	MAXIMUM DRILLED SHAFT MOMENT (k-ft)	DRILLED SHAFT DIAMETER (in)	DRILLED SHAFT EMBEDMENT LENGTH (ft)			
					AVERAGE N (BLOWS/12") (SEE NOTE 8)			
					10	20	30	40
210	15	179	84	42	50	26	19	15
	20	224	133	42	61	32	22	18
	25	271	193	42	73	38	26	21
	30	299	265	48	71	37	26	20
	35	327	349	54	69	36	25	20
	40	355	447	60	68	35	25	20
	45	396	557	60	75	39	27	23
50	438	681	60	83	43	30	25	
220	15	186	84	42	51	27	19	15
	20	232	133	42	63	33	23	18
	25	281	193	42	76	39	27	21
	30	310	265	48	73	38	26	21
	35	338	349	54	71	37	26	20
	40	382	447	54	80	42	29	22
	45	408	557	60	77	40	28	23
50	451	681	60	85	44	30	25	

1. DETERMINE DRILLED SHAFT DIAMETER AND MAXIMUM DRILLED SHAFT AXIAL LOAD (KIPS) FROM TABLE BASED ON SPAN LENGTH AND DESIGN WIND HEIGHT TO CENTERLINE OF TRUSS.
2. CONTACT THE HOUSTON DISTRICT LABORATORY FOR CONCISE DRILLED SHAFT EMBEDMENT LENGTH OR USE THE FOLLOWING ITERATIVE PROCEDURE.
3. MAKE AN INITIAL ESTIMATE OF THE DRILLED SHAFT EMBEDMENT LENGTH.
4. FROM SOIL EXPLORATION DATA, DETERMINE AN AVERAGE N VALUE (BLOWS/12") OF THE SOIL THROUGHOUT THE INITIAL EMBEDMENT LENGTH. USE A WEIGHTED-AVERAGE OF THE BLOW COUNT OF INDIVIDUAL STRATA.
5. USE TABLE TO DETERMINE THE REQUIRED DRILLED SHAFT EMBEDMENT LENGTH BASED ON AXIAL LOAD AND AVERAGE N.
6. IF THE REQUIRED EMBEDMENT LENGTH DIFFERS SIGNIFICANTLY FROM THE INITIAL ESTIMATED EMBEDMENT LENGTH, RETURN TO STEP 3 WITH THE REQUIRED EMBEDMENT LENGTH DETERMINED IN STEP 5 AND REPEAT STEPS 3, 4 & 5.
7. THE EMBEDMENT LENGTH TABLE IS BASED UPON THE GREATEST EMBEDMENT LENGTH DERIVED FROM MOMENT, UPLIFT, OR THE AXIAL LOAD IN THE DRILLED SHAFT.
8. TCP N-VALUE, REFER TO APPENDIX 2, TXDOT GEOTECHNICAL MANUAL-LRFD, APRIL 2024 FOR SPT N-VALUES AND TCP BLOW COUNTS CONVERSION

DESIGNER NOTE:
 THIS SHEET IS FOR DESIGNER'S USE
 IN DETERMINING DRILLED SHAFT DIAMETER,
 LOADS AND EMBEDMENT. DO NOT INSERT
 INTO PLANSET.



**OVERHEAD SIGN BRIDGE
 FOUNDATION DATA AND
 EMBEDMENT SELECTION
 TABLE**
WAVE SCHEME
OSB-WS-25 (HOU)

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FOUNDATION DATA AND EMBEDMENT LENGTH TABLE (CONT)