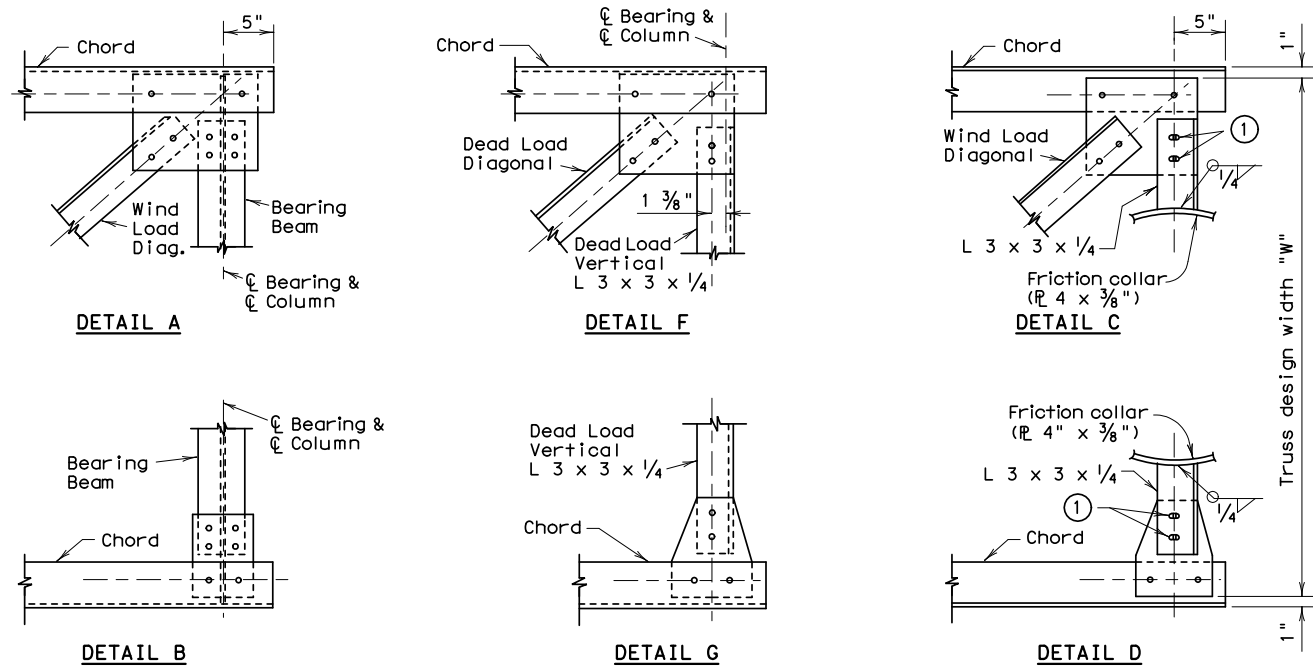
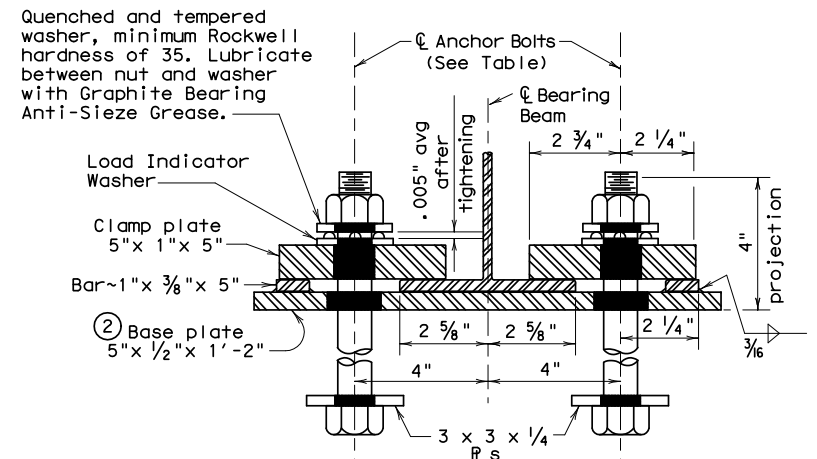
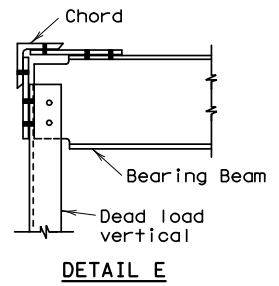


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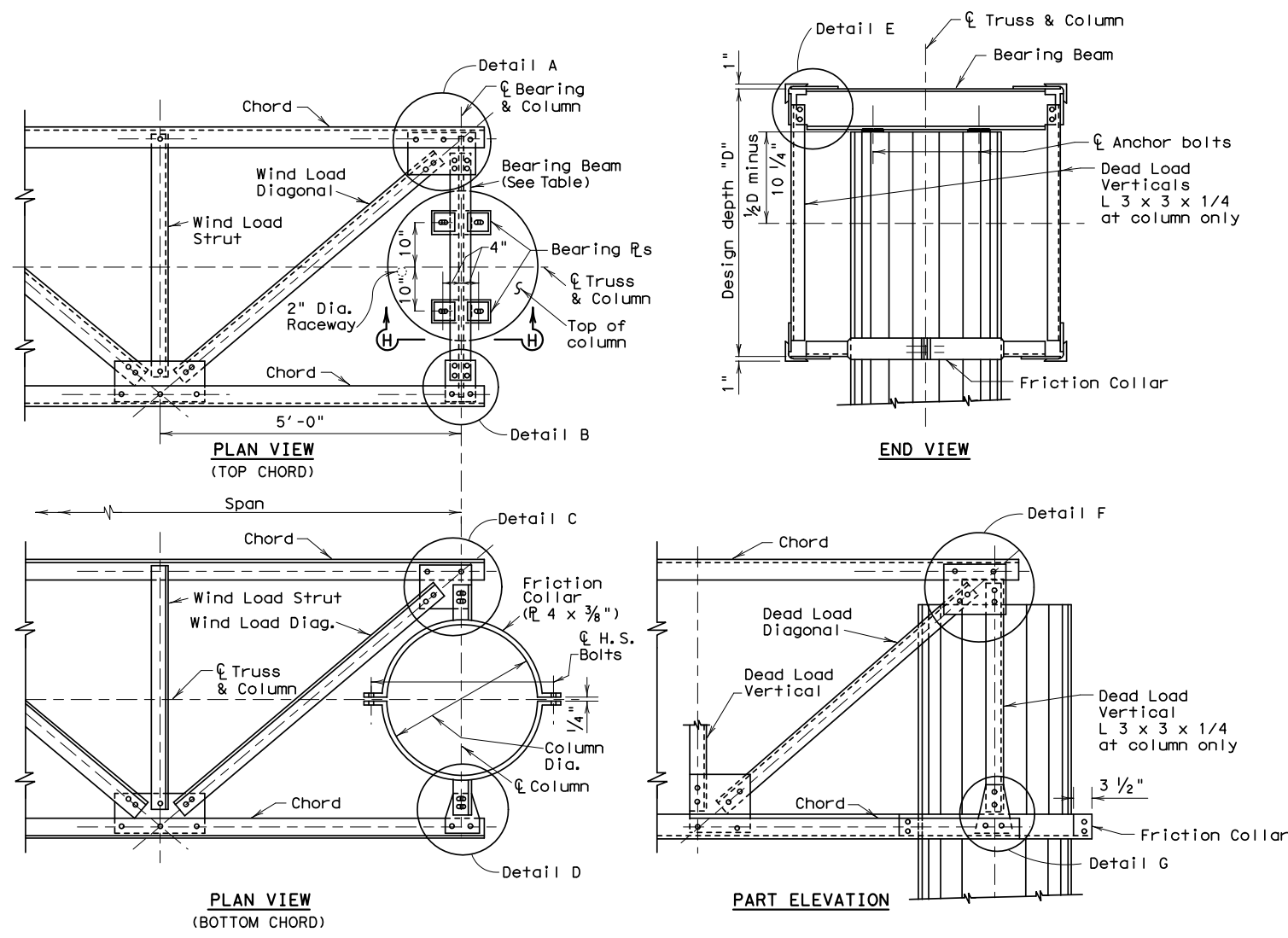
- ① Slotted holes in gusset plates only.
- ② Oversized Hole diameter = Anchor Bolt diameter + 1/2"



Note: When Bearing Beam is located off center, clamp plate may be turned as needed to give bearing area.

GENERAL NOTES:

Design conforms to the 1975 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals and Interim revisions thereto.
 All structural steel shall conform to ASTM A36.
 All parts, including anchor bolts, shall be galvanized after fabrication per Item 445, "Galvanizing".
 Details on this sheet are applicable for design wind heights between 15 and 30 feet.
 All connection bolts shall conform to ASTM A325 Type 1.
 After truss is aligned in its final position, anchor bolt nuts shall be tack welded to washer and washer tack welded to clamp plate. Galvanizing in welded area shall be repaired in accordance with Item 445, "Galvanizing".
 Anchor bolts and nuts for anchor bolts shall be "Alloy Steel" per Item 449 "Anchor Bolts".
 Anchor bolts shall be tightened per Item 449.
 Truss End Wind Struts are replaced by Bearing Beam on top and Friction Collar with L 3 x 3 x 1/4 on bottom. End Dead Load Verticals are replaced by L 3 x 3 x 1/4.
 Details and towers shown on standard drawing OSBT are not used with single column towers.
 For connection details not shown hereon see standard drawing OSBC.
 All concrete shall be Class C.
 All reinforcing steel shall conform to Item 440, "Reinforcing Steel".
 Details shown hereon are intended to be used with standard drawings "Overhead Sign Bridge Details" and OSBC. Details shown on standard drawing OSBC should be modified as shown on this drawing. When this drawing is used standard drawing OSBT is not required.



TRUSS END CONNECTION MODIFICATION DETAILS

SHEET 1 OF 2

Texas Department of Transportation
Traffic Operations Division

**OVERHEAD SIGN BRIDGE
TRUSS DETAILS
SINGLE COLUMN**

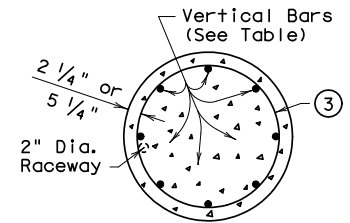
OSBC-SC-Z1

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	DIST	COUNTY		SHEET NO.

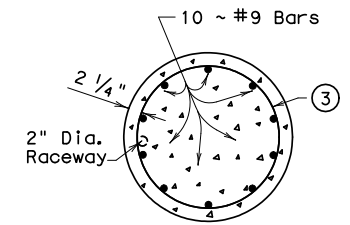
ZONE 1 100 M.P.H. WIND

SPAN	REACTIONS				COLUMN BENDING MOMENTS (Kip-Ft.)																												Height
	Ft.	D.L.	W.L.	Torque	14'	15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	25'	26'	27'	28'	29'	30'	31'	32'										
"Dia x 1'-3" Anchor Bolts	40	2.74	9.97	10.29	153	163	173	183	193	204	214	224	234	244	254	265	275	285	295	305	315	326	336	30" Diameter Column									
	45	3.09	11.22	11.58	171	182	193	205	216	228	239	251	262	274	285	296	308	319	331	342	354	365	377										
	50	3.56	12.48	12.87	191	204	217	229	242	255	267	280	293	306	318	331	344	357	369	382	395	407	420										
	55	3.92	13.75	14.16	211	225	239	253	267	281	295	309	323	337	351	365	379	393	407	421	435	449	463										
	60	4.58	15.01	15.45	230	245	260	276	291	306	322	337	352	368	383	398	414	429	444	459	475	490	505										
1" Dia x 1'-6" Anchor Bolts	65	5.12	16.28	16.74	249	266	282	299	316	332	349	365	382	399	415	432	448	465	482	498	515	532	548	36" Diameter Column									
	70	5.68	17.57	18.03	269	287	305	323	341	359	376	394	412	430	448	466	484	502	520	538	556	574	592										
	75	6.12	18.86	19.33	289	308	328	347	366	385	405	424	443	462	482	501	520	539	559	578	597	616	636										
	80	6.61	20.21	20.62	309	330	350	371	392	412	433	454	474	495	515	536	557	577	598	618	639	660	680										
	85	7.27	21.52	21.92	329	351	373	395	417	439	461	483	505	527	549	571	593	615	637	658	680	702	724										
	90	7.70	22.83	23.21	347	373	396	419	442	466	489	512	536	559	582	605	629	652	675	699	722	745	768										
	95	8.62	24.20	24.51	370	395	411	444	469	494	518	543	568	592	617	642	666	691	716	740	765	790	814										
	100	8.95	26.24	26.91	402	429	455	482	509	535	562	589	616	643	669	696	723	750	776	804	830	857	883										
	105	9.86	27.60	28.27	422	451	479	507	535	563	591	619	648	676	704	732	760	788	817	845	873	901	929										
	110	10.50	28.97	29.62	443	473	502	532	562	591	621	650	680	709	739	768	798	827	857	887	916	946	975										
1/4" Dia x 2'-0" Anchor Bolts	115	11.30	30.33	30.98	464	495	526	557	588	619	650	681	712	743	774	804	835	866	897	928	959	990	1021	42" Diameter Column									
	120	11.90	31.75	32.33	486	518	550	583	615	648	680	712	745	777	810	842	874	907	939	971	1003	1036	1069										
	125	13.19	33.22	33.69	508	542	576	610	644	677	711	745	779	813	847	881	915	949	982	1016	1050	1084	1118										
	130	14.69	34.60	35.05	529	564	600	635	670	706	741	776	811	847	882	917	953	988	1023	1059	1094	1129	1164										
	135	15.38	36.00	36.40	550	587	624	661	697	734	771	808	844	881	918	954	991	1028	1065	1101	1138	1175	1211										
	140	16.30	37.43	39.43	574	612	650	688	727	765	803	841	879	918	956	994	1032	1070	1108	1147	1185	1223	1261										
	145	17.62	38.93	40.86	597	636	676	716	756	795	835	875	914	954	994	1034	1073	1113	1152	1192	1232	1272	1312										
	150	18.23	40.43	42.29	620	661	702	743	785	826	867	908	950	991	1032	1073	1114	1155	1197	1238	1279	1321	1362										
	155	19.72	41.94	43.73	643	685	728	771	814	857	899	942	985	1028	1070	1113	1156	1199	1242	1284	1327	1370	1413										

COLUMN BARS		
BAR SIZE	BAR LAP	
	Gr 40	Gr 60
# 9	3'-10"	5'-8"
#10	4'-10"	7'-3"
#11	5'-11"	8'-11"



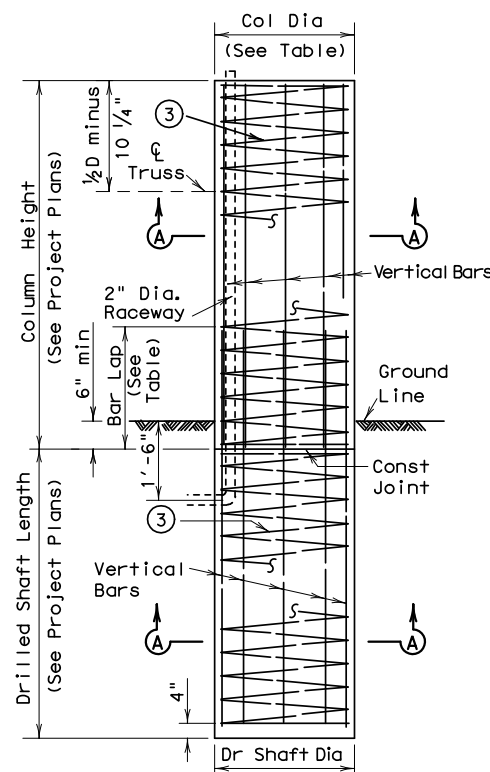
COLUMN & SHAFT SECTION A-A



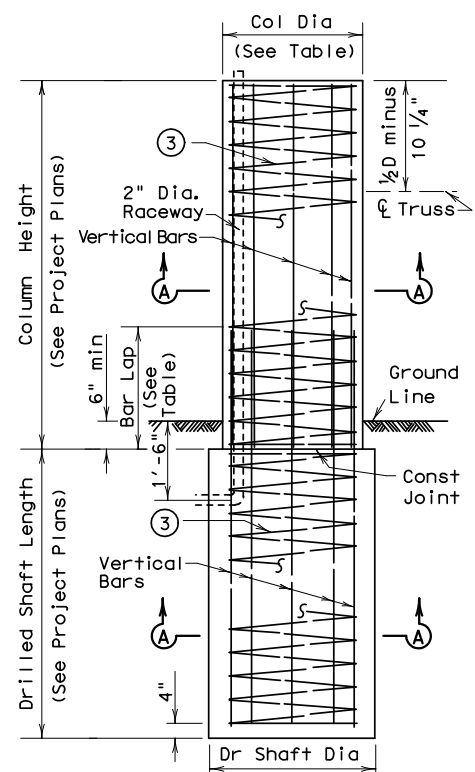
COLUMN SECTION B-B

For column and drilled shaft reinforcing steel see standard drawing OSBS-SC.
D.L. and W.L. reactions are in Kips.
Torque reactions are in Kip-Feet (Kip-Ft.).

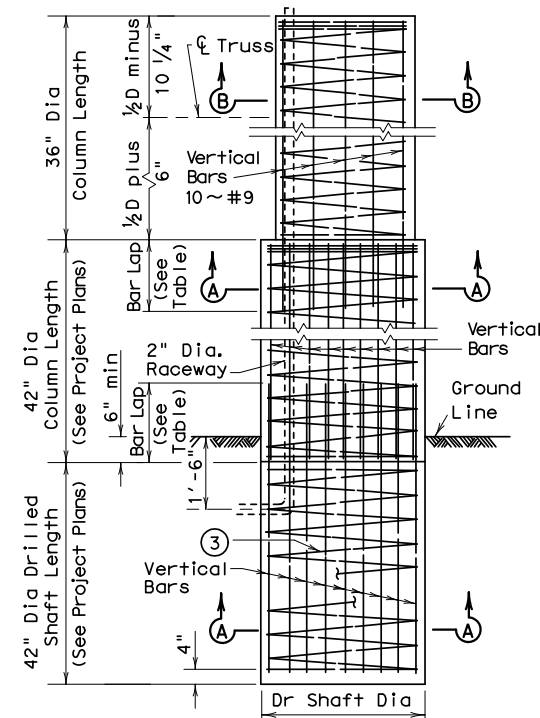
(4) Note: Maximum column size at Friction Collar is 36" Dia.
See Transition Column Details.



COLUMN & SHAFT EQUAL SIZE



COLUMN & SHAFT UNEQUAL SIZE



TRANSITION COLUMN

(3) #3 spiral at 6" pitch. Three flat turns top and one flat turn bottom.
One flat turn top and bottom in Drilled shaft.

COLUMN AND DRILLED SHAFT DETAILS

NOTE: Use same diameter spiral for both column and drilled shaft.



OVERHEAD SIGN BRIDGE TRUSS DETAILS SINGLE COLUMN

OSBC-SC-Z1

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