

11-NOV-09
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GEORGIA DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION DIVISION - OFFICE OF BRIDGE & STRUCTURAL DESIGN
THE ANALYSIS AND DESIGN OF PIERS FOR BRIDGES - V 4.2.07 - AASHTO SPECS 1984 INTERIM
REVISED: JUNE 30, 2008
55' CURB-CURB; 9 BEAMS; 140' SPAN; 17' TALL; BRIDGE 2A ; PIER 7

PROB. NO. 0001

DESIGN NO.	NO. CAN	NO. COL	NO. LLC	SKEW	ANG	F'C	FC	N	FY	FS	DESIGN DATA		CONC.	Z	* * * CAP			REINFORCING			STEEL	* * * CAP			
OPTIONS				D	M	S	PSI	PSI	PSI	PSI	EC	ES	STRAIN	FACT	MAIN	STR	MAX	MAX	MIN	MIN	MIN	TOP	MIN	DEPTH	BOT
D	D	L	2	3	18	0-00-00	3500.	1400.	8.	60000.	24000.	3409.	29000.	0.0030	170.	11	5	13	13	11	2	2.00	4.00	3.00	2.00

COLUMN	REINFORCING	STEEL	R	KL	OC	OF	CM	BD1	BD2	IMPACT	SOIL	WT	ALL.S.P.	MIN	MAX	EDGE	PILE	REBAR	ALL.PILE	ALL.PILE		
MIN.P	MAX.P	CL.SP.	CLEAR	MODE	COEF					%	KCF	KSF	PL	SP	PL	SP	DIST	DEPTH	CLEAR	CAPACITY	UPLIFT	P
1.00	8.00	2.50	3.750	2	2.00	0.70	0.90	0.00	1.00	0.75	18.87	0.120	0.000	3.00	9.00	1.250	1.000	3.000	235.000	-9.999		

CAP DATA

CN	C	L	A	DE	BC	BE	DH	LH	XB1	XB2	XB3	XB4	XB5	XB6	XB7	XB8
11	L	9.000	2.500	4.000	5.000	5.000	2.000	6.500	5.376	2.876						
12	C	19.920	2.500	6.000	5.000		0.000	0.000	2.500	4.772	6.324	3.824				
13	3	SAME AS CAP SECTION 2														
14	4	SAME AS CANTILEVER 1														

COLUMN DATA

CN	P	I	T	S	HT	A	DT	BT	DB	BB	DL	FLEX	ND	NB	SZ	ND	NB	SZ	ND	NB	SZ	SLOPE	EP	AP			
21	1	C	T		17.000	0.000	5.000	5.000	5.000	5.000	4.000	0.000	5	5	11	5	5	11	14	14	11	13	14	11	0.000	0.000	0.000
22	1	2	SAME AS COLUMN 1																								
23	1	3	SAME AS COLUMN 1																								

FOOTING DATA

CN	S/P	B	D	T	DEL.B	DEL.D	DEL.T	R.B/D	R.D/B	S.HT.	NP	SYM.	BP	DP	SET.
31	P	7.000	7.000	3.000	0.500	0.500	0.250	1.000	1.000	2.500	4	3	0.000	0.000	0.000
32	2	SAME AS FOOTING 1													
33	3	SAME AS FOOTING 1													

GROUP II WIND

SUPERSTRUCTURE	AREA*STD.	WIND ON SUPERSTRUCTURE					INTENSITIES					* WIND FORCE		* WIND ON PIER		
TRANS.	LONG.	WIND	FT1	FL1	FT2	FL2	FT3	FL3	FT4	FL4	FT5	FL5	APT	APL	PT	PL
1365.	2730.	1	50	0	44	6	41	12	33	16	17	19	7.375	7.375	2.087	18.982

GROUP III WIND

STD.	* WIND ON SUPERSTRUCTURE	INTENSITIES					* STD.					* WIND ON LIVE LOAD					* LENGTHS		* WIND ON LL								
WIND	FT1	FL1	FT2	FL2	FT3	FL3	FT4	FL4	FT5	FL5	WIND	FT1	FL1	FT2	FL2	FT3	FL3	FT4	FL4	FT5	FL5	TRANS.	LONGI.	APT	APL	LL	ARMS
1	50	0	44	6	41	12	33	16	17	19	1	100	0	88	12	82	24	66	32	34	38	140.0	280.0	15.583	15.583		

MISCELLANEOUS FORCES

CENTRI.	TRACTION	FORCE	AND	ARMS	EXPANSION	SHRINKAGE	STREAM	FLOW
FT	FL	APT	APL	COEFFICIENT	COEFFICIENT	PT	PL	
0.000	9.860	15.583	15.583	0.00018000	0.00022000	0.000	0.000	

DEAD LOAD SUPERSTRUCTURE AND LIVE LOAD CASES

I.D.	NL	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
D.L.	0	245.826 272.691	0.000 0.000	272.691 245.826	0.000	272.691	272.691	0.000	272.691	0.000	272.691	272.691	0.000
LL 1	1	72.204 0.000	0.000 0.000	65.207 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL 2	2	72.204 0.000	0.000 0.000	93.965 0.000	0.000	72.226	36.428	0.000	0.000	0.000	0.000	0.000	0.000
LL 3	3	72.204 0.000	0.000 0.000	93.965 0.000	0.000	72.226	93.954	0.000	72.226	0.000	7.659	0.000	0.000
LL 4	4	72.204 0.000	0.000 0.000	93.965 0.000	0.000	72.226	93.954	0.000	89.815	0.000	79.885	47.596	0.000
LL 5	1	0.000 65.207	0.000 0.000	0.000 72.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL 6	2	0.000 93.965	0.000 0.000	0.000 72.204	0.000	0.000	0.000	0.000	0.000	0.000	36.428	72.226	0.000
LL 7	3	0.000 93.965	0.000 0.000	0.000 72.204	0.000	0.000	7.659	0.000	72.226	0.000	93.954	72.226	0.000
LL 8	4	0.000 93.965	0.000 0.000	0.000 72.204	0.000	47.596	79.885	0.000	89.815	0.000	93.954	72.226	0.000
LL 9	1	0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	32.592	0.000	72.226	0.000	32.592	0.000	0.000
LL10	2	0.000 0.000	0.000 0.000	3.824 0.000	0.000	72.226	93.954	0.000	72.226	0.000	32.592	0.000	0.000
LL11	3	0.000 3.824	0.000 0.000	3.824 0.000	0.000	72.226	93.954	0.000	72.226	0.000	93.954	72.226	0.000

DEAD LOAD SUPERSTRUCTURE AND LIVE LOAD CASES

PIER-55-9-140-17.OUT

I.D.	NL	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
LL12	4	43.761 3.824	0.000 0.000	76.050 0.000	0.000	93.650	93.954	0.000	72.226	0.000	93.954	72.226	0.000
LL13	2	0.000 0.000	0.000 0.000	0.000 0.000	0.000	18.208	72.226	0.000	93.954	0.000	72.226	18.208	0.000
LL14	3	0.000 0.000	0.000 0.000	58.145 0.000	0.000	90.434	79.266	0.000	93.954	0.000	72.226	18.208	0.000
LL15	4	0.000 58.145	0.000 0.000	58.145 0.000	0.000	90.434	79.266	0.000	93.954	0.000	79.266	90.434	0.000
LL16	2	72.204 65.207	0.000 0.000	65.207 72.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL17	3	72.204 65.207	0.000 0.000	93.965 72.204	0.000	72.226	36.428	0.000	0.000	0.000	0.000	0.000	0.000
LL18	4	72.204 93.965	0.000 0.000	93.965 72.204	0.000	72.226	36.428	0.000	0.000	0.000	36.428	72.226	0.000

□ COLUMN MOMENTS(KIP-FEET), SHEARS(KIPS), REACTIONS(KIPS)

LOAD	COL	TRANSVERSE								LONGITUDINAL			
		PC	MT	V	MB	RF	ML	MR	MT	V	MB	MF	
UNIT F.AT CL.CAP	1	0.194	2.271	0.306	2.937	0.194	0.000	-2.271	1.333	0.333	5.667	5.667	
	2	0.000	3.188	0.387	3.396	0.000	-1.594	-1.594	1.333	0.333	5.667	5.667	
	3	-0.194	2.271	0.306	2.937	-0.194	-2.271	0.000	1.333	0.333	5.667	5.667	
EXPANSION OF CAP	1	85.406	1134.187	156.054	1518.735	85.406	0.000	-1134.187	0.000	0.000	0.000	0.000	
	2	-170.811	0.000	0.000	0.000	-170.811	-567.093	567.093	0.000	0.000	0.000	0.000	
	3	85.406	-1134.187	-156.054	-1518.735	85.406	1134.187	0.000	0.000	0.000	0.000	0.000	
SHRINKAGE OF CAP	1	-104.385	-1386.228	-190.733	-1856.232	-104.385	0.000	1386.228	0.000	0.000	0.000	0.000	
	2	208.769	0.000	0.000	0.000	208.769	693.114	-693.114	0.000	0.000	0.000	0.000	
	3	-104.385	1386.228	190.733	1856.232	-104.385	-1386.228	0.000	0.000	0.000	0.000	0.000	
DEAD LOAD TOTAL	1	860.831	-60.039	-5.298	-30.020	909.581	1470.498	-1410.459	0.000	0.000	0.000	0.000	
	2	909.581	0.000	0.000	0.000	978.108	1367.529	-1367.529	0.000	0.000	0.000	0.000	
	3	929.358	60.039	5.298	30.020	909.581	1410.459	-1470.498	0.000	0.000	0.000	0.000	
TRAC. FORCE 1 LN	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-64.363	-3.287	-107.089	-107.089	
	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-64.363	-3.287	-107.089	-107.089	
	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-64.363	-3.287	-107.089	-107.089	
WIND ON SUBSTR.	1	0.405	4.739	0.639	6.130	0.405	0.000	-4.739	-25.309	-6.327	-107.565	-107.565	
	2	0.000	6.654	0.808	7.087	0.000	-3.327	-3.327	-25.309	-6.327	-107.565	-107.565	
	3	-0.405	4.739	0.639	6.130	-0.405	-4.739	0.000	-25.309	-6.327	-107.565	-107.565	
GROUP 2 WIND 1 1	1	26.281	159.723	21.547	206.583	26.281	0.000	-159.723	-25.309	-6.327	-107.565	-107.565	
	2	0.000	224.265	27.242	238.854	0.000	-112.132	-112.132	-25.309	-6.327	-107.565	-107.565	
	3	-26.281	159.723	21.547	206.583	-26.281	-159.723	0.000	-25.309	-6.327	-107.565	-107.565	
GROUP 2 WIND 1 2	1	26.281	159.723	21.547	206.583	26.281	0.000	-159.723	25.309	6.327	107.565	107.565	
	2	0.000	224.265	27.242	238.854	0.000	-112.132	-112.132	25.309	6.327	107.565	107.565	
	3	-26.281	159.723	21.547	206.583	-26.281	-159.723	0.000	25.309	6.327	107.565	107.565	
GROUP 2 WIND 2 1	1	23.176	141.125	19.038	182.528	23.176	0.000	-141.125	-87.417	-11.787	-240.652	-240.652	
	2	0.000	198.152	24.070	211.042	0.000	-99.076	-99.076	-87.417	-11.787	-240.652	-240.652	
	3	-23.176	141.125	19.038	182.528	-23.176	-141.125	0.000	-87.417	-11.787	-240.652	-240.652	
GROUP 2 WIND 2 2	1	23.176	141.125	19.038	182.528	23.176	0.000	-141.125	87.417	11.787	240.652	240.652	
	2	0.000	198.152	24.070	211.042	0.000	-99.076	-99.076	87.417	11.787	240.652	240.652	
	3	-23.176	141.125	19.038	182.528	-23.176	-141.125	0.000	87.417	11.787	240.652	240.652	
GROUP 2 WIND 3 1	1	21.624	131.826	17.784	170.501	21.624	0.000	-131.826	-149.524	-17.247	-373.740	-373.740	
	2	0.000	185.095	22.484	197.136	0.000	-92.548	-92.548	-149.524	-17.247	-373.740	-373.740	
	3	-21.624	131.826	17.784	170.501	-21.624	-131.826	0.000	-149.524	-17.247	-373.740	-373.740	
GROUP 2 WIND 3 2	1	21.624	131.826	17.784	170.501	21.624	0.000	-131.826	149.524	17.247	373.740	373.740	
	2	0.000	185.095	22.484	197.136	0.000	-92.548	-92.548	149.524	17.247	373.740	373.740	
	3	-21.624	131.826	17.784	170.501	-21.624	-131.826	0.000	149.524	17.247	373.740	373.740	

□ COLUMN MOMENTS(KIP-FEET), SHEARS(KIPS), REACTIONS(KIPS)

LOAD	COL	TRANSVERSE								LONGITUDINAL			
		PC	MT	V	MB	RF	ML	MR	MT	V	MB	MF	
GROUP 2 WIND 4 1	1	17.483	107.028	14.439	138.429	17.483	0.000	-107.028	-190.929	-20.887	-462.465	-462.465	
	2	0.000	150.277	18.255	160.053	0.000	-75.139	-75.139	-190.929	-20.887	-462.465	-462.465	
	3	-17.483	107.028	14.439	138.429	-17.483	-107.028	0.000	-190.929	-20.887	-462.465	-462.465	
GROUP 2 WIND 4 2	1	17.483	107.028	14.439	138.429	17.483	0.000	-107.028	190.929	20.887	462.465	462.465	
	2	0.000	150.277	18.255	160.053	0.000	-75.139	-75.139	190.929	20.887	462.465	462.465	
	3	-17.483	107.028	14.439	138.429	-17.483	-107.028	0.000	190.929	20.887	462.465	462.465	
GROUP 2 WIND 5 1	1	9.203	57.434	7.748	74.284	9.203	0.000	-57.434	-221.983	-23.617	-529.008	-529.008	
	2	0.000	80.642	9.796	85.888	0.000	-40.321	-40.321	-221.983	-23.617	-529.008	-529.008	
	3	-9.203	57.434	7.748	74.284	-9.203	-57.434	0.000	-221.983	-23.617	-529.008	-529.008	
GROUP 2 WIND 5 2	1	9.203	57.434	7.748	74.284	9.203	0.000	-57.434	221.983	23.617	529.008	529.008	
	2	0.000	80.642	9.796	85.888	0.000	-40.321	-40.321	221.983	23.617	529.008	529.008	
	3	-9.203	57.434	7.748	74.284	-9.203	-57.434	0.000	221.983	23.617	529.008	529.008	
GROUP 3 WIND 1 1	1	16.077	79.708	10.753	103.093	16.077	0.000	-79.708	-7.593	-1.898	-32.269	-32.269	
	2	0.000	111.918	13.595	119.198	0.000	-55.959	-55.959	-7.593	-1.898	-32.269	-32.269	
	3	-16.077	79.708	10.753	103.093	-16.077	-79.708	0.000	-7.593	-1.898	-32.269	-32.269	
GROUP 3 WIND 1 2	1	16.077	79.708	10.753	103.093	16.077	0.000	-79.708	7.593	1.898	32.269	32.269	

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	2	0.000	111.918	13.595	119.198	0.000	-55.959	-55.959	7.593	1.898	32.269	32.269
	3	-16.077	79.708	10.753	103.093	-16.077	-79.708	0.000	7.593	1.898	32.269	32.269
GROUP 3 WIND 2 1	1	14.162	70.314	9.486	90.943	14.162	0.000	-70.314	-48.158	-4.656	-108.689	-108.689
	2	0.000	98.727	11.993	105.149	0.000	-49.363	-49.363	-48.158	-4.656	-108.689	-108.689
	3	-14.162	70.314	9.486	90.943	-14.162	-70.314	0.000	-48.158	-4.656	-108.689	-108.689
GROUP 3 WIND 2 2	1	14.162	70.314	9.486	90.943	14.162	0.000	-70.314	48.158	4.656	108.689	108.689
	2	0.000	98.727	11.993	105.149	0.000	-49.363	-49.363	48.158	4.656	108.689	108.689
	3	-14.162	70.314	9.486	90.943	-14.162	-70.314	0.000	48.158	4.656	108.689	108.689
GROUP 3 WIND 3 1	1	13.205	65.617	8.852	84.868	13.205	0.000	-65.617	-88.723	-7.414	-185.108	-185.108
	2	0.000	92.132	11.192	98.125	0.000	-46.066	-46.066	-88.723	-7.414	-185.108	-185.108
	3	-13.205	65.617	8.852	84.868	-13.205	-65.617	0.000	-88.723	-7.414	-185.108	-185.108
GROUP 3 WIND 3 2	1	13.205	65.617	8.852	84.868	13.205	0.000	-65.617	88.723	7.414	185.108	185.108
	2	0.000	92.132	11.192	98.125	0.000	-46.066	-46.066	88.723	7.414	185.108	185.108
	3	-13.205	65.617	8.852	84.868	-13.205	-65.617	0.000	88.723	7.414	185.108	185.108
GROUP 3 WIND 4 1	1	10.652	53.091	7.162	68.667	10.652	0.000	-53.091	-115.767	-9.253	-236.054	-236.054
	2	0.000	74.544	9.055	79.394	0.000	-37.272	-37.272	-115.767	-9.253	-236.054	-236.054
	3	-10.652	53.091	7.162	68.667	-10.652	-53.091	0.000	-115.767	-9.253	-236.054	-236.054
GROUP 3 WIND 4 2	1	10.652	53.091	7.162	68.667	10.652	0.000	-53.091	115.767	9.253	236.054	236.054
	2	0.000	74.544	9.055	79.394	0.000	-37.272	-37.272	115.767	9.253	236.054	236.054
	3	-10.652	53.091	7.162	68.667	-10.652	-53.091	0.000	115.767	9.253	236.054	236.054
GROUP 3 WIND 5 1	1	5.546	28.039	3.783	36.265	5.546	0.000	-28.039	-136.049	-10.632	-274.264	-274.264
	2	0.000	39.370	4.782	41.931	0.000	-19.685	-19.685	-136.049	-10.632	-274.264	-274.264
	3	-5.546	28.039	3.783	36.265	-5.546	-28.039	0.000	-136.049	-10.632	-274.264	-274.264

□ COLUMN MOMENTS(KIP- FEET), SHEARS(KIPS), REACTIONS(KIPS)

LOAD	COL	TRANSVERSE *								LONGITUDINAL		
		PC	MT	V	MB	RF	ML	MR	MT	V	MB	MF
GROUP 3 WIND 5 2	1	5.546	28.039	3.783	36.265	5.546	0.000	-28.039	136.049	10.632	274.264	274.264
	2	0.000	39.370	4.782	41.931	0.000	-19.685	-19.685	136.049	10.632	274.264	274.264
	3	-5.546	28.039	3.783	36.265	-5.546	-28.039	0.000	136.049	10.632	274.264	274.264
LIVE LOAD LL 1	1	154.718	-137.912	-10.826	-46.138	154.718	388.169	-250.257	0.000	0.000	0.000	0.000
	2	-17.418	73.333	7.813	59.485	-17.418	-94.495	21.162	0.000	0.000	0.000	0.000
	3	0.111	18.943	3.014	32.290	0.111	-18.943	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL 2	1	236.409	-20.218	-1.100	1.520	236.409	388.169	-367.950	0.000	0.000	0.000	0.000
	2	43.917	-33.941	-2.311	-5.342	43.917	112.654	-78.713	0.000	0.000	0.000	0.000
	3	-5.503	30.902	3.411	27.080	-5.503	-30.902	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL 3	1	225.141	21.744	2.464	20.142	225.141	349.352	-371.096	0.000	0.000	0.000	0.000
	2	152.818	-75.552	-6.121	-28.506	152.818	222.284	-146.732	0.000	0.000	0.000	0.000
	3	-6.948	35.267	3.657	26.904	-6.948	-35.267	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL 4	1	182.252	3.126	1.112	15.782	182.252	291.127	-294.253	0.000	0.000	0.000	0.000
	2	200.623	26.325	3.159	27.381	200.623	277.121	-303.446	0.000	0.000	0.000	0.000
	3	-29.359	-57.889	-4.271	-14.726	-29.359	57.889	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL 5	1	0.111	-18.943	-3.014	-32.290	0.111	0.000	18.943	0.000	0.000	0.000	0.000
	2	-17.418	-73.333	-7.813	-59.485	-17.418	-21.162	94.495	0.000	0.000	0.000	0.000
	3	154.718	137.912	10.826	46.138	154.718	250.257	-388.169	0.000	0.000	0.000	0.000
LIVE LOAD LL 6	1	-5.503	-30.902	-3.411	-27.080	-5.503	0.000	30.902	0.000	0.000	0.000	0.000
	2	43.917	33.941	2.311	5.342	43.917	78.713	-112.654	0.000	0.000	0.000	0.000
	3	236.409	20.218	1.100	-1.520	236.409	367.950	-388.169	0.000	0.000	0.000	0.000
LIVE LOAD LL 7	1	-6.948	-35.267	-3.657	-26.904	-6.948	0.000	35.267	0.000	0.000	0.000	0.000
	2	152.818	75.552	6.121	28.506	152.818	146.732	-222.284	0.000	0.000	0.000	0.000
	3	225.141	-21.744	-2.464	-20.142	225.141	371.096	-349.352	0.000	0.000	0.000	0.000
LIVE LOAD LL 8	1	29.359	57.889	4.271	14.726	29.359	0.000	-57.889	0.000	0.000	0.000	0.000
	2	200.623	-26.325	-3.159	-27.381	200.623	303.446	-277.121	0.000	0.000	0.000	0.000
	3	182.252	3.126	-1.112	-15.782	182.252	294.253	-291.127	0.000	0.000	0.000	0.000
LIVE LOAD LL 9	1	5.765	18.047	1.592	9.023	5.765	0.000	-18.047	0.000	0.000	0.000	0.000
	2	125.880	0.000	0.000	0.000	125.880	109.324	-109.324	0.000	0.000	0.000	0.000
	3	5.765	-18.047	-1.592	-9.023	5.765	18.047	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL10	1	68.718	155.810	13.051	66.051	68.718	0.000	-155.810	0.000	0.000	0.000	0.000
	2	207.739	-132.277	-12.369	-77.992	207.739	370.792	-238.515	0.000	0.000	0.000	0.000
	3	-1.635	0.175	-0.682	-11.766	-1.635	-0.175	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL11	1	55.186	123.830	10.926	61.915	55.186	0.000	-123.830	0.000	0.000	0.000	0.000
	2	260.638	0.000	0.000	0.000	260.638	449.986	-449.986	0.000	0.000	0.000	0.000
	3	55.186	-123.830	-10.926	-61.915	55.186	123.830	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL12	1	150.608	60.163	5.785	38.180	150.608	176.444	-236.607	0.000	0.000	0.000	0.000
	2	216.255	17.596	2.029	16.896	216.255	360.464	-378.059	0.000	0.000	0.000	0.000
	3	45.371	-93.956	-7.814	-38.879	45.371	93.956	0.000	0.000	0.000	0.000	0.000

□ COLUMN MOMENTS(KIP- FEET), SHEARS(KIPS), REACTIONS(KIPS)

LOAD	COL	TRANSVERSE *								LONGITUDINAL		
		PC	MT	V	MB	RF	ML	MR	MT	V	MB	MF
LIVE LOAD LL13	1	23.080	61.564	5.432	30.782	23.080	0.000	-61.564	0.000	0.000	0.000	0.000
	2	228.662	0.000	0.000	0.000	228.662	288.864	-288.864	0.000	0.000	0.000	0.000
	3	23.080	-61.564	-5.432	-30.782	23.080	61.564	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL14	1	114.169	140.043	11.806	60.656	114.169	0.000	-140.043	0.000	0.000	0.000	0.000
	2	239.227	-70.024	-6.730	-44.378	239.227	388.791	-318.768	0.000	0.000	0.000	0.000
	3	17.614	-51.287	-5.076	-35.010	17.614	51.287	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL15	1	92.509	113.269	9.994	56.635	92.509	0.000	-113.269	0.000	0.000	0.000	0.000
	2	227.214	0.000	0.000	0.000	227.214	372.984	-372.984	0.000	0.000	0.000	0.000
	3	92.509	-113.269	-9.994	-56.635	92.509	113.269	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL16	1	154.829	-156.855	-13.840	-78.427	154.829	388.169	-231.314	0.000	0.000	0.000	0.000

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	2	-34.836	0.000	0.000	0.000	-34.836	-115.657	115.657	0.000	0.000	0.000	0.000
	3	154.829	156.855	13.840	78.427	154.829	231.314	-388.169	0.000	0.000	0.000	0.000
LIVE LOAD LL17	1	212.868	-35.245	-3.702	-27.693	212.868	349.352	-314.107	0.000	0.000	0.000	0.000
	2	23.849	-96.546	-9.111	-58.344	23.849	82.343	14.203	0.000	0.000	0.000	0.000
	3	134.294	151.933	12.813	65.896	134.294	197.419	-349.352	0.000	0.000	0.000	0.000
LIVE LOAD LL18	1	173.180	-38.340	-3.383	-19.170	173.180	291.127	-252.787	0.000	0.000	0.000	0.000
	2	65.875	0.000	0.000	0.000	65.875	143.526	-143.526	0.000	0.000	0.000	0.000
	3	173.180	38.340	3.383	19.170	173.180	252.786	-291.127	0.000	0.000	0.000	0.000

CAP ANALYSIS AND DESIGN DATA

CAP MOMENTS AND SHEARS

POINT	D.L.TOT.	MOMENTS(KIP-FEET)						SHEARS(KIPS)					
		G1 MAX.+	G1 MAX.-	G2 MAX.+	G2 MAX.-	G3 MAX.+	G3 MAX.-	DL T.LT	DL T.RT	G1 + LT	G1 + RT	G1 - LT	G1 - RT
P 1	-27.990	-27.990	-27.990	-27.990	-27.990	-27.990	-27.990	-16.104	-335.677	-16.104	-335.677	-16.104	-492.432
P 2	-1015.213	-1015.213	-1466.040	-1015.213	-1015.213	-1015.213	-1285.169	-351.261	-351.261	-351.261	-351.261	-508.016	-508.016
C 1L	-1911.647	-1911.647	-2754.362	-1911.647	-1911.647	-1911.647	-2416.267	-365.886		-365.886		-522.641	
C 1R	-1833.596	-1757.031	-2639.245	-1625.957	-2041.236	-1684.128	-2419.642		398.695		562.798		383.611
P 4	-855.139	-813.410	-1304.513	-691.854	-1018.425	-748.665	-1205.712	384.070	384.070	548.173	548.173	368.986	368.986
P 5	911.036	1597.294	640.960	989.659	832.413	1361.205	710.078	356.154	1.656	520.257	39.471	341.070	-40.791
P 6	804.527	1390.127	676.004	838.102	770.952	1171.941	710.812	-35.340	-389.838	2.475	-352.023	-77.786	-609.729
P 7	-728.986	-572.432	-1175.002	-627.567	-830.404	-584.629	-1046.673	-412.208	-412.208	-374.393	-374.393	-632.099	-632.099
C 2L	-1777.788	-1526.697	-2754.707	-1632.016	-1923.560	-1554.688	-2435.516	-426.833		-389.018		-646.724	
C 2R	-1777.788	-1526.697	-2754.707	-1632.016	-1923.560	-1554.688	-2435.516		426.833		639.195		389.018
P 9	-728.986	-572.432	-1175.002	-627.567	-830.404	-584.629	-1046.673	412.208	412.208	624.570	624.570	374.393	374.393
P10	804.527	1337.560	676.004	838.102	770.952	1140.464	710.812	389.838	35.340	602.199	76.426	352.023	-2.475
P11	911.036	1459.123	640.960	989.659	832.413	1278.468	710.078	-1.656	-356.154	39.430	-341.070	-39.471	-520.257
P12	-855.139	-813.410	-1304.513	-691.854	-1018.425	-748.665	-1205.712	-384.070	-384.070	-368.986	-368.986	-548.173	-548.173
C 3L	-1833.596	-1757.031	-2639.245	-1625.957	-2041.236	-1684.128	-2419.642	-398.695		-383.611		-562.798	
C 3R	-1911.647	-1911.647	-2754.362	-1911.647	-1911.647	-1911.647	-2416.267		365.886		522.641		365.886
P14	-1015.213	-1015.213	-1466.040	-1015.213	-1015.213	-1015.213	-1285.169	351.261	351.261	508.016	508.016	351.261	351.261
P15	-27.990	-27.990	-27.990	-27.990	-27.990	-27.990	-27.990	335.677	16.104	492.432	16.104	335.677	16.104

PT.	M+ UNF. K-FT.	M- UNF. K-FT.	TOP REINFORCE.		BOT.REINFORCE.		CAP DESIGN DATA LEFT STIRRUPS		RIGHT STIRRUPS		D IN.	FC PSI	PS %	FS/FF RATIO	FS/FZ RATIO	
			AS	NO.SIZE	AS	NO.SIZE	M.SP.	AV/IN	BAR&SPAC	M.SP.						AV/IN
P 1	-21.531	-21.531	3.12	2 # 11	3.12	2 # 11	0.00	0.000	#5@ 0.00	24.00	0.050	#5@12.40	61.38	0.09	0.000	0.076
P 2	-780.933	-988.592	6.40	5 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00	0.16	0.284	0.884
C 1	-1375.192	-1858.667	9.12	6 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00	0.23	0.667	1.309
P 4	-638.578	-864.789	5.69	4 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00	0.14	0.388	1.036
P 5	1016.899	576.395	3.12	2 # 11	6.98	5 # 11	24.00	0.050	#5@12.40	0.00	0.000	#5@ 0.00	72.00	0.17	0.552	0.909
P 6	888.604	559.667	3.12	2 # 11	6.07	4 # 11	0.00	0.000	#5@ 0.00	24.00	0.056	#5@11.12	72.00	0.15	0.539	1.064
P 7	-488.647	-766.201	5.12	4 # 11	3.12	2 # 11	24.00	0.062	#5@ 9.97	24.00	0.062	#5@ 9.97	72.00	0.12	0.438	0.918
C 2	-1251.872	-1817.515	9.12	6 # 11	3.12	2 # 11	24.00	0.066	#5@ 9.35	24.00	0.064	#5@ 9.66	72.00	0.23	0.739	1.280
P 9	-488.647	-766.201	5.12	4 # 11	3.12	2 # 11	24.00	0.060	#5@10.33	24.00	0.060	#5@10.33	72.00	0.12	0.438	0.918
P10	864.391	559.667	3.12	2 # 11	5.83	4 # 11	24.00	0.054	#5@11.56	0.00	0.000	#5@ 0.00	72.00	0.14	0.500	1.035
P11	953.255	576.395	3.12	2 # 11	6.37	5 # 11	0.00	0.000	#5@ 0.00	24.00	0.050	#5@12.40	72.00	0.15	0.472	0.852
P12	-638.578	-864.789	5.69	4 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00	0.14	0.388	1.036
C 3	-1375.192	-1858.667	9.12	6 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00	0.23	0.667	1.309
P14	-780.933	-988.592	6.40	5 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00	0.16	0.284	0.884
P15	-21.531	-21.531	3.12	2 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	0.00	0.000	#5@ 0.00	61.38	0.09	0.000	0.076

NOTE: *** FS/FZ RATIO EXCEEDS 1.0! ***

COLUMN ANALYSIS AND DESIGN OUTPUT

CN	T B	GR	LLC	WC	R	E S	C F	S F	PF	MTF	MLF	PM	MTM	MLM	PU	MTU	MLU	PU/PM	B	D
1	B	5		1.1	R	S			973.6	-2616.0	134.5	973.6	2616.0	500.2	2230.5	5989.4	1145.2	2.290	60.00	60.00
2	T	4	LL11	0.0		S			1818.4	0.0	0.0	1818.4	909.2	959.5	6034.5	3031.4	3199.3	3.324	60.00	60.00
2	B	4	LL11	0.0		S			1881.8	0.0	0.0	1881.8	940.9	993.0	6034.8	3031.2	3199.0	3.212	60.00	60.00

3	T	4	LL16	0.0	S	1184.7	2084.1	0.0	1184.7	2084.1	PIER-55-9-140-17.OUT			1741.5	2.841	60.00	60.00
3	B	5		1.1	S	689.4	2606.7	-134.5	689.4	2606.7	613.5	3372.6	5916.1	745.7	2.122	60.00	60.00

COLUMN DESIGN DATA

CN	T	B	FACE 1 NO. SIZE	FACE 2 NO. SIZE	FACE 3 NO. SIZE	FACE 4 NO. SIZE	AS	PS	BD12	BD	SUMPU	SUMPC	DEL.T	DEL.L	CM	R	PHIC
1	T		7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.026	3899.	636326.	1.000	1.036	0.400	2	0.70
1	B		7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.026	3405.	635226.	1.000	1.027	0.400	2	0.70
2	T		7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.000	4024.	634465.	1.000	1.055	0.785	2	0.70
2	B		7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.000	4024.	634465.	1.000	1.055	0.785	2	0.70
3	T		7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.026	3899.	636326.	1.000	1.036	0.400	2	0.70
3	B		7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	0.75	0.020	2554.	638127.	1.000	1.019	0.400	2	0.70

FOOTING 1 DESIGN LOADS

F	G	LLID	WC	ES	C	S	P	MT	VT	ML	VL	P4	P3	P2	P1	MTF	VBF	VPF	LOAD
3	4	LL 6	0.0			S	1004.076	1884.973	196.956	0.000	0.000	64.147	64.147	291.811	291.811	98.896	-0.492	29.029	MAX.P1
3	4	LL 6	0.0			S	1305.299	2450.465	256.043	0.000	0.000	83.391	83.391	379.354	379.354	128.565	-0.640	37.737	MAX.MT
3	4	LL16	0.0			S	1216.081	2537.898	269.976	0.000	0.000	62.580	62.580	370.426	370.426	125.475	-0.640	35.196	MAX.VT
3	4	LL 6	0.0			S	1305.299	2450.465	256.043	0.000	0.000	83.391	83.391	379.354	379.354	128.565	-0.640	37.737	MAX.VP
3	4	LL 6	0.0			S	1305.299	2450.465	256.043	0.000	0.000	83.391	83.391	379.354	379.354	50.644	-0.640	37.737	MAX.ML
3	4	LL16	0.0			S	1216.081	2537.898	269.976	0.000	0.000	62.580	62.580	370.426	370.426	47.212	-0.640	35.196	MAX.VL
3	4	LL 3	0.0			S	799.351	1908.885	199.107	0.000	0.000	28.630	28.630	259.086	259.086	87.568	-0.492	23.197	MAX.P3

FOOTING 1 ANALYSIS/DESIGN RESULTS

FOOTING SIZE			* BAR REINFORCEMENT STEEL						* SECTION CAPACITIES			
B	D	T	P1/PA	AS	NO.SIZE	SPAC.	PLACEMENT	MT.	VB	VP	DS	FC
9.750	9.750	3.000	0.993	0.61	20 # 5	@ 5.750	TOP LONG	53.634	23.266	46.531	19.278	0.000
				1.50	10 #11	@11.625	BOT.TRAN	136.443	24.494	48.987	20.295	0.000

NUMBER OF PILES = 6 BP = 3.625 DP = 3.625

FOOTING 2 DESIGN SAME AS FOOTING 1

FOOTING 3 DESIGN SAME AS FOOTING 1