

# **PRO-CRETE**



- **HEADERS**
- **U LINTELS**
- **SILLS**

## **Pro-Crete Materials Concrete Lintels**

Load Tables for FBC version 2023

Florida Product Approval # FL23932-R2 (FL23932.1)

### **Pro-Crete Materials**

#### **Production Plant**

1320 Industrial Dr.  
Wildwood, FL 34785  
(352) 748-1505

#### **Mailing Address**

1617 South Division Ave.  
Orlando, FL 32805  
(407) 422-3768

**GENERAL NOTES**

**1. CODES**

- 1.1. FLORIDA BUILDING CODE 8<sup>TH</sup> EDITION, 2023 RESIDENTIAL SECTIONS R402.2 & R606.
- 1.2. FLORIDA BUILDING CODE 8<sup>TH</sup> EDITION, 2023 BUILDING SECTIONS 1901.2 & 2107.
- 1.3. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-19).
- 1.4. BUILDING CODE FOR MASONRY STRUCTURES (TMS 402-16).
- 1.5. SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602-16).
- 1.6. AMERICAN SOCIETY OF CIVIL ENGINEERS MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-22).

**2. CONCRETE**

- 2.1. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS:
  - 2.1.1. PRE-CAST WITH STANDARD REINFORCEMENT 4,000PSI
  - 2.1.2. PRE-CAST WITH PRESTRESS REINFORCEMENT 6,000PSI
  - 2.1.3. GROUT PER ASTM C476  $f'_g = 3,000\text{PSI}$  WITH MAXIMUM 3/8" AGGREGATE AND 8" TO 11" SLUMP.

**2.2. REINFORCING BARS:**

- 2.2.1. STEEL PLACED IN PRE-CAST LINTEL AT TIME OF FABRICATION  
ASTM A615 GRADE 60.
- 2.2.2. STEEL IN LINTEL AND KNOCK OUT BLOCK (PLACED IN FIELD)  
ASTM A615 GRADE 40 OR GRADE 60.

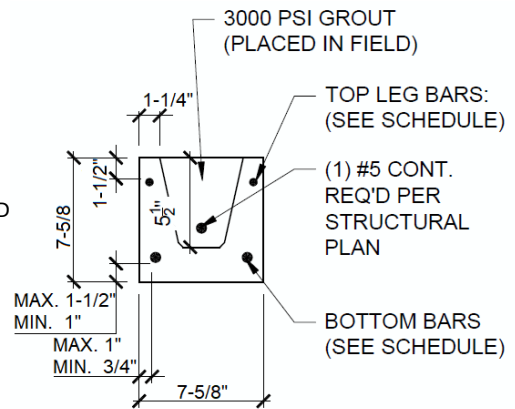
- 2.3. PRESTRESS STRANDS ASTM A416 7-WIRE, STRESS RELIEVED 270KSI.
- 2.4. DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315.
- 2.5. CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.

**3. MASONRY**

- 3.1. CONCRETE MASONRY UNIT (CMU) SHALL COMFORM TO ASTM C90, NORMAL WEIGHT WITH MINIMUM NET AREA COMPRESSIVE STRENGTH 2,000PSI.
- 3.2. MORTAR SHALL CONFORM TO ASTM C270 TYPE M OR S.
- 3.3. FULL MORTAR JOINTS ARE REQUIRED.
- 3.4. MINIMUM AGGREGATE 28-DAY COMPRESSIVE STRENGTH OF CMU AND MORTAR SHALL NOT BE LESS THAN  $f'_m = 2,000\text{PSI}$ . MASONRY STRENGTH SHALL BE ESTABLISHED BY THE "UNIT STRENGTH METHOD" OR ALTERNATIVELY BY THE "PRISM TEST METHOD" WHERE UNIT STRENGTH METHOD REQUIREMENTS HAVE NOT BEEN MET.
- 3.5. FIBER REINFORCED CONCRETE MAY BE USED FOR SHIPPING AND HANDLING PURPOSES AT MANUFACTURER'S OPTION.

**4. STRUCTURAL**

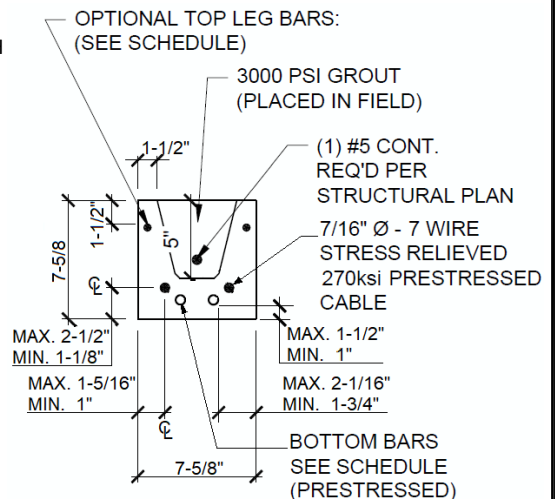
- 4.1. SAFE LOAD VALUES ARE BASED ON LINTELS HAVING A BEARING OF 8" (WITH A MINIMUM ACCEPTABLE BEARING OF 4" (NOMINAL) FOR FILLED LINTELS AND 6 1/2" FOR UNFILLED LINTELS IN THE DIRECTION OF SPAN PER TMS 402-16 SECTION 4.3.4).
- 4.2. SAFE LOAD VALUES BASED ON RATIONAL DESIGN ANALYSIS PER ACI 318 AND TMS 402.
- 4.3. DESIGNER MAY EVALUATE CONCENTRATED LOADS FROM THE SAFE LOAD TABLES BY CALCULATING MAXIMUM RESISTING MOMENT AND SHEAR AT  $d$  DISTANCE AWAY FROM THE FACE OF THE SUPPORT.
- 4.4. FOR LINTEL LENGTH AT 6'-6" OR GREATER, VERTICAL CELL FILLED SOLID WITH GROUT AND MINIMUM ONE (1) #5 VERTICAL REBAR IS REQUIRED AT EACH END OF THE LINTEL.
- 4.5. LINTELS THAT ARE GREATER THAN 14'-0" CLEAR SPAN MUST BE PROVIDED TEMPORARY SUPPORT AND NOT BE REMOVED UNTIL 2 DAYS AFTER GROUT PLACEMENT.
- 4.6. (2) #5 REBARS IN LINTEL OR CMU BOND BEAM MAY BE SUBSTITUTED WITH (1) #7 REBAR.
- 4.7. FOR COMPOSITE LINTEL HEIGHTS NOT SHOWN, USE SAFE LOAD FROM THE NEXT LOWER HEIGHT.
- 4.8. ALL SAFE LOADS IN UNITS OF POUNDS PER LINEAR FOOT.



**NOTES:**

- 1. MIN. BEARING REQUIRED AT EA. END - 4" (NOM.)
- 2. STANDARD FOR REINF. STEEL - ASTM A615

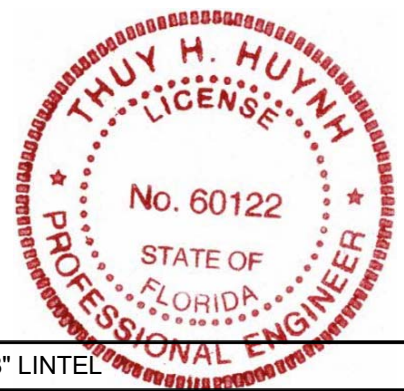
**TYPICAL LINTEL SECTION  
PRECAST CONCRETE**



**NOTES:**

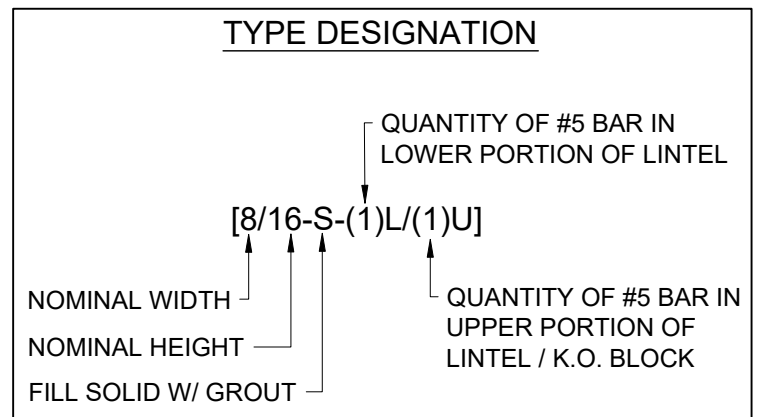
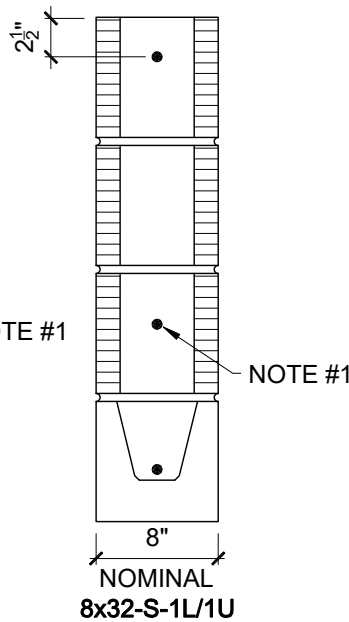
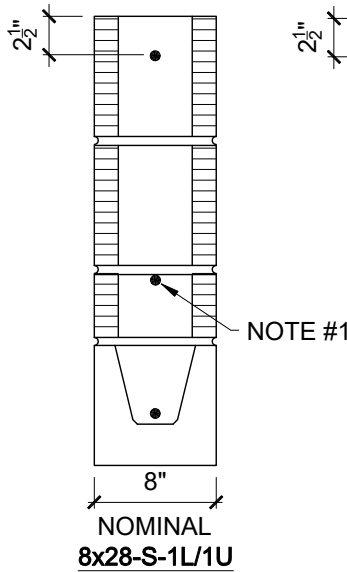
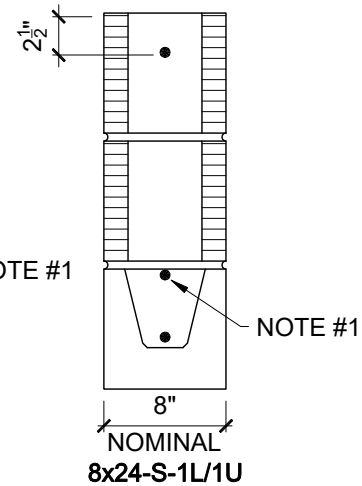
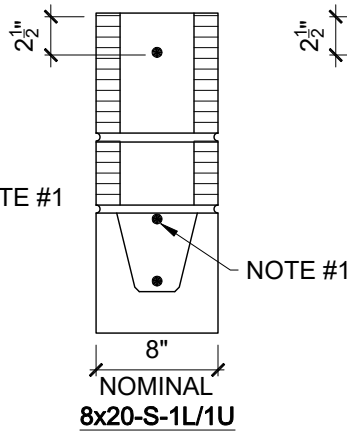
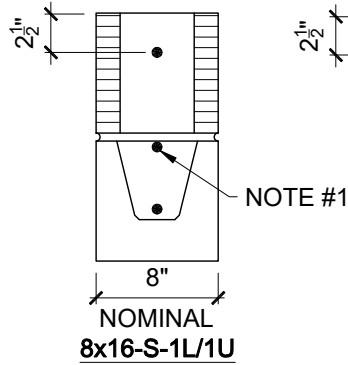
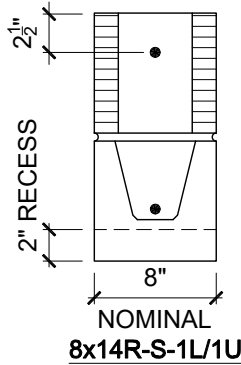
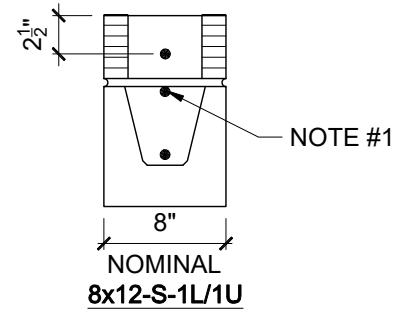
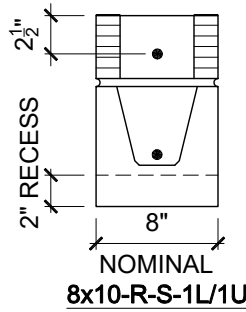
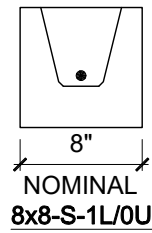
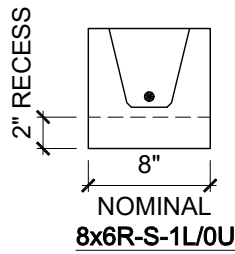
- 1. MIN. BEARING REQUIRED AT EA. END - 4" (NOM.)
- 2. STANDARD FOR REINF. STEEL - ASTM A615

**TYPICAL LINTEL SECTION  
PRESTRESS CONCRETE**



**MCD**  
STRENGTH BY DESIGN  
MONTA CONSULTING & DESIGN  
OF WMR AND ASSOCIATES, LLC CERT.  
OF AUTHORIZATION NO. 9177  
1035 GREENWOOD BLVD., SUITE 173  
LAKE MARY, FL 32746  
PHONE: (407) 681-1917  
www.montaconsulting.com

GENERAL NOTES & DETAILS 8" LINTEL		
PRO-CRETE MATERIALS CORPORATION		
1617 Division Ave. Orlando, FL 32805 Telephone: (407) 422-3768	THUY H. HUYNH, P.E. FLORIDA LIC. No. 60122	SHT. NO.  SK1 of 14
JOB NO: 18696		



NOTE #1: (1) #4 MN. REQUIRED FOR DEEP BEAM ONLY



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LINTEL DETAILS

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FLORIDA LIC. No. 60122

SHT. NO.

SK2 of 14

**8" LINTEL SAFE GRAVITY LOADS (PLF), Fy = 40ksi**

LENGTH	TYPE	8x8-P	8x8-S-0L	8x12-S-0L	8x16-S-0L	8x20-S-0L	8x24-S-0L	8x28-S-0L	8x32-S-0L
			8x8-S-1L	8x12-S-1L	8x16-S-1L	8x20-S-1L	8x24-S-1L	8x28-S-1L	8x32-S-1L
2' - 10"	Precast	2318	1550	2615	4896*	6570*	8243*	9916*	10000*
			3733	10000	6467*	8333*	10000*	10000*	10000*
3' - 6"	Precast	1436	952	1609	3114	4217*	5321*	6426*	7531*
			2465	6039	10000	6385*	7708*	9031*	10000*
4' - 0"	Precast	1065	700	1186	2305	3125	3945*	4765*	5587*
			1961	4362	8020	10000	6524*	7627*	8751*
4' - 6"	Precast	819	533	907	1770	2400	3033	3666*	4300*
			1625	3408	5743	8507	7110	6541*	7565*
5' - 4"	Precast	931	1247	2135	3478	3077	3848	4620	5392*
			1319	2569	4460	7196	9921	7946	6259*
5' - 10"	Precast	817	1024	1755	2863	2529	3164	3800	4435
			1161	2207	3693	5877	8183	6548	7647
6' - 6"	Precast	692	1139	2024	3227	4504	6159	7376	5719
			1139	2024	3227	4598	7054	10000	10000
7' - 6"	Precast	570	938	1624	2498	3314	4535	5433	4203
			938	1624	2498	3408	4864	7067	9087
8' - 6"	Precast	483	777	1352	1946	2584	3471	4159	3209
			720	1352	1934	2700	3702	5073	6742
9' - 4"	Precast	428	633	1110	1593	2204	2841	3405	2620
			639	1114	1674	2298	3081	4099	5257
10' - 6"	Precast	368	487	858	1329	1767	2540	2645	2028
			550	949	1407	1897	2797	3222	4007
11' - 4"	Precast	330	544	903	1312	1742	2252	2868	3630
			544	903	1312	1742	2252	2868	3552
12' - 0"	Precast	308	507	838	1210	1596	2048	2586	3215
			507	838	1210	1596	2048	2586	3171
13' - 4"	Precast	270	433	729	1045	1365	1732	2157	2566
			414	729	1045	1365	1732	2157	2605
14' - 0"	Precast	254	388	685	978	1272	1606	1988	2310
			390	685	978	1272	1606	1950	2389
14' - 8"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			470	1008	1418	1893	2345	2871	3232
15' - 4"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			426	916	1290	1724	2137	2616	2946
17' - 4"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			424	702	952	1330	1651	2023	2280
19' - 4"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			252	553	751	1054	1310	1607	1814
21' - 4"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			200	443	678	853	1062	1168	1474
22' - 0"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			185	414	634	798	994	1222	1381
24' - 0"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			149	339	522	659	824	1014	1147

\* LINTEL MEETS DEEP BEAM CRITERIA



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8" LINTEL LOAD TABLE

**PRO-CRETE MATERIALS CORPORATION**

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Orlando, FL 32805  
Telephone: (407) 422-3768

JOB NO: 18696

**THUY H. HUYNH, P.E.**  
FLORIDA LIC. No. 60122

SHT. NO.

SK3 of 14

**8" LINTEL SAFE GRAVITY LOADS (PLF), Fy = 60ksi**

LENGTH	TYPE	8x8-P	8x8-S-0L	8x12-S-0L	8x16-S-0L	8x20-S-0L	8x24-S-0L	8x28-S-0L	8x32-S-0L
			8x8-S-1L	8x12-S-1L	8x16-S-1L	8x20-S-1L	8x24-S-1L	8x28-S-1L	8x32-S-1L
2' - 10"	Precast	2318	1551	2615	4896*	6570*	8243*	9916*	10000*
			3733	10000	6467*	8333*	10000*	10000*	10000*
3' - 6"	Precast	1436	952	1609	3731	4872*	6195*	7518*	8792*
			2465	6037	10000	6385*	7708*	9031*	10000*
4' - 0"	Precast	1065	700	1186	2765	3750	4735*	5721*	6708*
			1961	4362	9459	10000	6524*	7627*	8751*
4' - 6"	Precast	819	533	906	2126	2885	3645	4406*	5168*
			1625	3408	6572	10000	10000	6541*	7565*
5' - 4"	Precast	931	1247	2135	3865	3425	4284	5145	6006*
			1319	2569	4460	7545	10000	10000	6259*
5' - 10"	Precast	817	1024	1755	3183	2816	3424	4233	4943
			1161	2207	3693	5877	9074	10000	10000
6' - 6"	Precast	692	1139	2024	3227	4504	6585	7889	6120
			1139	2024	3227	4598	7054	10000	10000
7' - 6"	Precast	570	938	1624	2498	3314	4644	5813	4500
			938	1624	2498	3408	4864	7067	10000
8' - 6"	Precast	483	777	1352	1946	2584	3553	4451	3438
			720	1352	1934	2700	3702	5073	7070
9' - 4"	Precast	428	633	1110	1593	2203	2965	3647	2809
			639	1114	1674	2298	3081	4099	5478
10' - 6"	Precast	368	487	858	1341	1823	2696	2834	2175
			550	949	1407	1897	2797	3222	4154
11' - 4"	Precast	330	544	903	1312	1742	2252	2868	3630
			544	903	1312	1742	2252	2868	3630
12' - 0"	Precast	308	507	838	1210	1596	2048	2596	3216
			507	838	1210	1596	2048	2596	3171
13' - 4"	Precast	270	533	730	1045	1366	1732	2157	2566
			415	730	1045	1366	1732	2157	2605
14' - 0"	Precast	254	388	685	978	1272	1606	1988	2311
			390	685	978	1272	1606	1950	2389
14' - 8"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			470	1008	1418	1893	2345	2871	3232
15' - 4"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			426	916	1290	1724	2137	2616	2946
17' - 4"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			324	702	952	1330	1651	2023	2280
19' - 4"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			252	553	751	1054	1310	1607	1814
21' - 4"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			200	443	678	853	1062	1168	1474
22' - 0"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			185	414	634	798	994	1222	1381
24' - 0"	Prestressed	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
			149	339	522	659	824	1014	1147

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SHT. NO.

SK4 of 14

**8" LINTEL SAFE UPLIFT LOADS (PLF), Fy = 40ksi**

LENGTH	TYPE	8x8-S-1U	8x12-S-1U	8x16-S-1U	8x20-S-1U	8x24-S-1U	8x28-S-1U	8x32-S-1U
		8x8-S-2U	8x12-S-2U	8x16-S-2U	8x20-S-2U	8x24-S-2U	8x28-S-2U	8x32-S-2U
2' - 10"	Precast	3772	10000	4896*	6570*	8243*	9916*	10000*
		3772	10000	4896*	6570*	8243*	9916*	10000*
3' - 6"	Precast	2504	6093	4439	4872*	6195*	7518*	8792*
		2504	6093	10000	4872*	6195*	7518*	8792*
4' - 0"	Precast	2000	4416	3322	4373	5263*	6366*	7490*
		2000	4416	8987	10000	5263*	6366*	7190*
4' - 6"	Precast	1665	3463	2582	3397	4214	5031*	5849*
		1665	3463	6353	9856	10000	5031*	5849*
5' - 4"	Precast	1301	2547	1806	2374	2944	3513	4084*
		1301	2547	4275	6859	8538	6869	4084*
5' - 10"	Precast	1151	2198	1499	1971	2443	2915	3387
		1151	2198	3577	5653	7066	5688	6623
6' - 6"	Precast	968	1778	1201	1578	1955	2332	2709
		968	1824	2939	4421	5633	4538	5283
7' - 6"	Precast	716	1316	900	1181	1462	1743	2025
		807	1483	2322	3336	4185	3374	3931
8' - 6"	Precast	552	1014	703	920	1139	1357	1576
		692	1249	1922	2602	3236	2615	3044
9' - 4"	Precast	454	835	586	767	948	1129	1310
		618	1103	1628	2151	2675	2164	2519
10' - 6"	Precast	356	654	468	612	755	899	1042
		538	949	1285	1696	2108	1710	1989
11' - 4"	Precast	430	787	406	530	653	777	872
		507	878	1104	1456	1809	1470	1710
12' - 0"	Precast	383	699	366	476	587	698	783
		475	818	986	1300	1615	1314	1476
13' - 4"	Precast	308	563	303	393	484	575	645
		416	720	802	1057	1312	1071	1203
14' - 0"	Precast	279	510	278	360	443	526	609
		376	680	730	961	1192	975	1133
14' - 8"	Prestressed	298	494	422	506	626	746	865
		393	635	830	994	1237	1474	1715
15' - 4"	Prestressed	274	453	387	464	574	684	793
		374	603	760	915	1134	1353	1572
17' - 4"	Prestressed	215	356	326	365	451	587	680
		322	524	641	720	892	1161	1349
19' - 4"	Prestressed	233	353	266	348	430	513	595
		285	438	523	686	850	1015	1179
21' - 4"	Prestressed	192	291	219	308	381	454	527
		235	392	431	605	751	896	1042
22' - 0"	Prestressed	180	274	226	290	359	428	497
		221	380	445	573	710	847	985
24' - 0"	Prestressed	152	231	174	245	302	360	418
		186	345	341	483	598	714	829

\* LINTEL MEETS DEEP BEAM CRITERIA



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SK5 of 14

**8" LINTEL SAFE UPLIFT LOADS (PLF), Fy = 60ksi**

LENGTH	TYPE	8x8-S-1U	8x12-S-1U	8x16-S-1U	8x20-S-1U	8x24-S-1U	8x28-S-1U	8x32-S-1U
		8x8-S-2U	8x12-S-2U	8x16-S-2U	8x20-S-2U	8x24-S-2U	8x28-S-2U	8x32-S-2U
2' - 10"	Precast	3772	10000	4896*	6570*	8243*	9916*	10000*
		3772	10000	4896*	6570*	8243*	9916*	10000*
3' - 6"	Precast	2504	6093	9773	4872*	6195*	7518*	8792*
		2504	6093	10000	4872*	6195*	7518*	8792*
4' - 0"	Precast	2000	4416	7300	6473	5263*	6366*	7490*
		2000	4416	8987	10000	5263*	6366*	7490*
4' - 6"	Precast	1665	3463	5662	5024	6243	5449*	6473*
		1665	3463	6353	10000	10000	5449*	6473*
5' - 4"	Precast	1301	2547	3945	3504	4353	5203	6053*
		1301	2547	4275	7156	10000	10000	6053*
5' - 10"	Precast	1151	2198	3267	2904	3607	4311	5015
		1151	2198	3577	5653	9327	10000	10000
6' - 6"	Precast	997	1858	2608	2320	2881	3442	4004
		968	1858	2940	4420	6714	9941	10000
7' - 6"	Precast	830	1509	1941	1731	2148	2566	2983
		807	1509	2323	3336	4734	6812	8605
8' - 6"	Precast	711	1270	1505	1344	1667	1991	2314
		692	1270	1922	2683	3664	4988	6644
9' - 4"	Precast	592	1099	1246	1116	1383	1650	1918
		618	1103	1682	2309	3085	4082	5416
10' - 6"	Precast	464	861	985	885	1096	1307	1519
		538	949	1434	1934	2531	3060	4112
11' - 4"	Precast	520	897	848	763	945	1126	1264
		507	897	1298	1734	2244	2852	3377
12' - 0"	Precast	462	836	758	684	846	1008	1132
		475	836	1207	1602	2058	2594	3048
13' - 4"	Precast	372	688	619	560	692	825	926
		421	720	1059	1392	1768	2198	2554
14' - 0"	Precast	337	622	564	512	632	752	873
		399	680	999	1307	1653	2044	2419
14' - 8"	Prestressed	402	592	627	754	933	1113	1292
		393	635	771	994	1241	1519	1836
15' - 4"	Prestressed	374	563	575	691	856	1020	1184
		374	603	730	937	1166	1423	1712
17' - 4"	Prestressed	313	490	485	543	673	875	1016
		326	524	629	802	989	1195	1422
19' - 4"	Prestressed	275	405	395	518	641	765	889
		275	438	552	700	860	1029	1216
21' - 4"	Prestressed	227	363	326	458	567	676	786
		227	392	493	567	692	826	1058
22' - 0"	Prestressed	214	351	337	433	536	639	742
		214	380	475	600	730	870	1112
24' - 0"	Prestressed	180	319	258	365	451	538	625
		180	345	426	541	656	779	992

\* LINTEL MEETS DEEP BEAM CRITERIA



MONTA CONSULTING & DESIGN  
OF WMR AND ASSOCIATES, LLC CERT.  
OF AUTHORIZATION NO. 9177  
1035 GREENWOOD BLVD., SUITE 173  
LAKE MARY, FL 32746  
PHONE: (407) 681-1917  
www.montaconsulting.com

8" LINTEL LOAD TABLE

PRO-CRETE MATERIALS CORPORATION

1617 Division Ave.  
Orlando, FL 32805  
Telephone: (407) 422-3768

JOB NO: 18696

THUY H. HUYNH, P.E.  
FLORIDA LIC. No. 60122

SHT. NO.

SK6 of 14

**GENERAL NOTES**

**1. CODES**

- 1.1. FLORIDA BUILDING CODE 8<sup>TH</sup> EDITION, 2023 RESIDENTIAL SECTIONS R402.2 & R606.
- 1.2. FLORIDA BUILDING CODE 8<sup>TH</sup> EDITION, 2023 BUILDING SECTIONS 1901.2 & 2107.
- 1.3. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-19).
- 1.4. BUILDING CODE FOR MASONRY STRUCTURES (TMS 402-16).
- 1.5. SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602-16).
- 1.6. AMERICAN SOCIETY OF CIVIL ENGINEERS MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-22).

**2. CONCRETE**

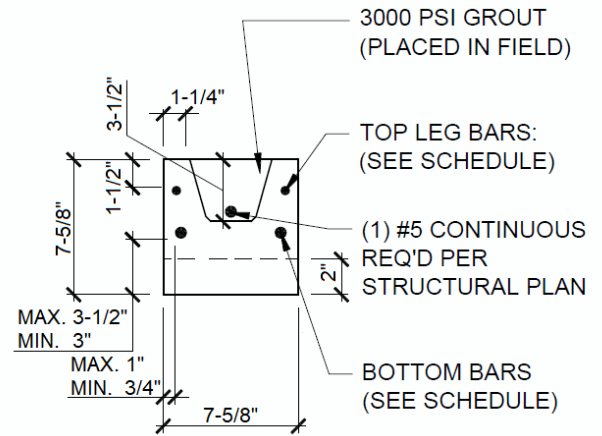
- 2.1. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS:
  - 2.1.1. PRE-CAST WITH STANDARD REINFORCEMENT 4,000PSI
  - 2.1.2. GROUT PER ASTM C476  $f'_g = 3,000\text{PSI}$  WITH MAXIMUM 3/8" AGGREGATE AND 8" TO 11" SLUMP.
- 2.2. REINFORCING BARS:
  - 2.2.1. STEEL PLACED IN PRE-CAST LINTEL AT TIME OF FABRICATION ASTM A615 GRADE 60.
  - 2.2.2. STEEL IN LINTEL AND KNOCK OUT BLOCK (PLACED IN FIELD) ASTM A615 GRADE 40 OR GRADE 60.
- 2.3. DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315.
- 2.4. CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.

**3. MASONRY**

- 3.1. CONCRETE MASONRY UNIT (CMU) SHALL COMFORM TO ASTM C90, NORMAL WEIGHT WITH MINIMUM NET AREA COMPRESSIVE STRENGTH 2,000PSI.
- 3.2. MORTAR SHALL CONFORM TO ASTM C270 TYPE M OR S.
- 3.3. FULL MORTAR JOINTS ARE REQUIRED.
- 3.4. MINIMUM AGGREGATE 28-DAY COMPRESSIVE STRENGTH OF CMU AND MORTAR SHALL NOT BE LESS THAN  $f'_m = 2,000\text{PSI}$ . MASONRY STRENGTH SHALL BE ESTABLISHED BY THE "UNIT STRENGTH METHOD" OR ALTERNATIVELY BY THE "PRISM TEST METHOD" WHERE UNIT STRENGTH METHOD REQUIREMENTS HAVE NOT BEEN MET.

**4. STRUCTURAL**

- 4.1. SAFE LOAD VALUES ARE BASED ON LINTELS HAVING A BEARING OF 8" (WITH A MINIMUM ACCEPTABLE BEARING OF 4" (NOMINAL) FOR FILLED LINTELS AND 6 1/2" FOR UNFILLED LINTELS IN THE DIRECTION OF SPAN PER TMS 402-16 SECTION 4.3.4).
- 4.2. SAFE LOAD VALUES BASED ON RATIONAL DESIGN ANALYSIS PER ACI 318 AND TMS 402.
- 4.3. DESIGNER MAY EVALUATE CONCENTRATED LOADS FROM THE SAFE LOAD TABLES BY CALCULATING MAXIMUM RESISTING MOMENT AND SHEAR AT d DISTANCE AWAY FROM THE FACE OF THE SUPPORT.
- 4.4. FOR LINTEL LENGTH AT 6'-6" OR GREATER, VERTICAL CELL FILLED SOLID WITH GROUT AND MINIMUM ONE (1) #5 VERTICAL REBAR IS REQUIRED AT EACH END OF THE LINTEL.
- 4.5. LINTELS THAT ARE GREATER THAN 14'-0" CLEAR SPAN MUST BE PROVIDED TEMPORARY SUPPORT AND NOT BE REMOVED UNTIL 2 DAYS AFTER GROUT PLACEMENT.
- 4.6. (2) #5 REBARS IN LINTEL OR CMU BOND BEAM MAY BE SUBSTITUTED WITH (1) #7 REBAR.
- 4.7. FOR COMPOSITE LINTEL HEIGHTS NOT SHOWN, USE SAFE LOAD FROM THE NEXT LOWER HEIGHT.
- 4.8. ALL SAFE LOADS IN UNITS OF POUNDS PER LINEAR FOOT.



**NOTES:**

- 1. MIN. BEARING REQUIRED AT EA. END - 4" (NOM.)
- 2. STANDARD FOR REINF. STEEL - ASTM A615

**TYPICAL RECESS LINTEL SECTION  
PRECAST CONCRETE**

**MCD**  
STRENGTH BY DESIGN  
MONTA CONSULTING & DESIGN  
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GENERAL NOTES & DETAILS RECESS LINTELS		
PRO-CRETE MATERIALS CORPORATION		
1617 Division Ave. Orlando, FL 32805 Telephone: (407) 422-3768	THUY H. HUYNH, P.E. FLORIDA LIC. No. 60122	SHT. NO.  SK7 of 14
JOB NO: 18696		

**8" RECESS LINTEL SAFE GRAVITY LOADS (PLF), Fy = 40ksi**

LENGTH	TYPE	8x6R-P	8x6R-S-0L	8x10R-S-0L	8x14R-S-0L	8x18R-S-0L	8x22R-S-0L	8x26R-S-0L	8x30R-S-0L
			8x6R-S-1L	8x10R-S-1L	8x14R-S-1L	8x18R-S-1L	8x22R-S-1L	8x26R-S-1L	8x30R-S-1L
3' - 8"	Precast	848	852	1152	2558	3552	4548*	5544*	6540*
			1195	3342	7405	10000	6188*	7411*	8675*
4' - 0"	Precast	697	699	945	2104	2923	3744	4564*	5386*
			1050	2817	6071	9877	10000	6695*	7825*
4' - 4"	Precast	583	583	786	1758	2445	3132	3820*	4508*
			936	2433	4946	8288	10000	6102*	7026*
4' - 6"	Precast	536	535	721	1616	2248	2880	3513*	4146*
			887	2277	4526	7632	9783	5833*	6827*
5' - 8"	Precast	564	703	1479	2698	3711	3138	3815	4493
			694	1622	2903	4722	7517	9710	10000
5' - 10"	Precast	542	659	1388	2533	3485	2946	3582	4218
			668	1552	2754	4417	6886	9125	10000
6' - 8"	Precast	446	680	1411	2360	3569	5056	6522	7677
			680	1411	2360	3569	5056	7895	10000
7' - 0"	Precast	419	639	1315	2175	3240	4505	5877	6918
			639	1315	2175	3240	4538	6800	9848
7' - 6"	Precast	384	585	1192	1945	2845	3869	5072	5971
			585	1192	1945	2845	3896	5623	8121
9' - 8"	Precast	279	364	805	1250	1760	2386	2950	3475
			367	782	1250	1771	2400	3192	4137

\* LINTEL MEETS DEEP BEAM CRITERIA

**8" RECESS LINTEL SAFE GRAVITY LOADS (PLF), Fy = 60ksi**

LENGTH	TYPE	8x6R-P	8x6R-S-0L	8x10R-S-0L	8x14R-S-0L	8x18R-S-0L	8x22R-S-0L	8x26R-S-0L	8x30R-S-0L
			8x6R-S-1L	8x10R-S-1L	8x14R-S-1L	8x18R-S-1L	8x22R-S-1L	8x26R-S-1L	8x30R-S-1L
3' - 8"	Precast	848	852	1152	3065	4258	5453*	6650*	7846*
			1195	3342	7849	10000	6188*	7411*	8675*
4' - 0"	Precast	697	699	945	2523	3507	4492	5478*	6465*
			1050	2817	6071	10000	10000	6696*	7825*
4' - 4"	Precast	583	583	786	2110	2935	3761	4587*	5415*
			936	2433	4946	9343	10000	6102*	7026*
4' - 6"	Precast	536	535	721	1940	2700	3460	4220*	4981*
			887	2277	4526	8605	10000	5833*	6827*
5' - 8"	Precast	564	703	1479	2826	4126	3494	4249	5005
			694	1622	2903	4722	7884	10000	10000
5' - 10"	Precast	542	659	1388	2681	3875	3280	3890	4700
			668	1552	2754	4417	7204	10000	10000
6' - 8"	Precast	446	680	1411	2360	3569	5057	6974	8212
			586	1411	2360	3569	5096	7895	10000
7' - 0"	Precast	419	639	1315	2175	3240	4505	6285	7400
			639	1315	2175	3240	4538	6800	10000
7' - 6"	Precast	384	585	1192	1945	2845	3870	5425	6389
			585	1192	1945	2845	3896	5623	8370
9' - 8"	Precast	279	364	805	1250	1760	2386	3159	3721
			367	782	1257	1771	2400	3192	4224

\* LINTEL MEETS DEEP BEAM CRITERIA



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8" RECESS LINTEL LOAD TABLE

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JOB NO: 18696

THUY H. HUYNH, P.E.  
FLORIDA LIC. No. 60122

SHT. NO.

SK8 of 14

**8" RECESS LINTEL SAFE UPLIFT LOADS (PLF), Fy = 40ksi**

LENGTH	TYPE	8x6R-S-1U	8x10R-S-1U	8x14R-S-1U	8x18R-S-1U	8x22R-S-1U	8x26R-S-1U	8x30R-S-1U
		8x6R-S-2U	8x10R-S-2U	8x14R-S-2U	8x18R-S-2U	8x22R-S-2U	8x26R-S-2U	8x30R-S-2U
3' - 8"	Precast	1224	3386	6639	6509	6217*	7440*	8704*
		1224	3386	6639	10000	6217*	7440*	8704*
4' - 0"	Precast	1079	2861	5264	5379	6922	6725*	7854*
		1079	2861	5264	10000	10000	6725*	7854*
4' - 4"	Precast	965	2477	4361	4520	5817	6131*	7055*
		965	2477	4361	8262	10000	6161*	7055*
4' - 6"	Precast	916	2321	4016	4166	5361	5862*	6856*
		916	2321	4016	7332	10000	5862*	6856*
5' - 8"	Precast	678	1612	2586	2542	3272	4002	4733
		678	1612	2586	4101	6749	9749	10000
5' - 10"	Precast	654	1544	2461	2391	3077	3763	4451
		654	1544	2461	3858	6225	9167	10000
6' - 8"	Precast	530	1277	1921	1803	2320	2838	3356
		530	1277	1920	2977	4485	6847	8207
7' - 0"	Precast	478	1170	1733	1627	2094	2561	3029
		500	1169	1783	2728	4034	5985	7407
7' - 6"	Precast	414	1012	1500	1408	1812	2217	2621
		461	1066	1610	2423	3505	5034	6409
9' - 8"	Precast	244	597	884	830	1068	1307	1546
		343	771	1133	1633	2235	2982	3779

\* LINTEL MEETS DEEP BEAM CRITERIA

**8" RECESS LINTEL SAFE UPLIFT LOADS (PLF), Fy = 60ksi**

LENGTH	TYPE	8x6R-S-1U	8x10R-S-1U	8x14R-S-1U	8x18R-S-1U	8x22R-S-1U	8x26R-S-1U	8x30R-S-1U
		8x6R-S-2U	8x10R-S-2U	8x14R-S-2U	8x18R-S-2U	8x22R-S-2U	8x26R-S-2U	8x30R-S-2U
3' - 8"	Precast	1224	3386	6639	10000	6127*	7440*	8704*
		1224	3386	6639	10000	6217*	7440*	8704*
4' - 0"	Precast	1079	2861	5264	10000	10000	6725*	7854*
		1079	2861	5264	10000	10000	6725*	7854*
4' - 4"	Precast	965	2477	4361	8646	10000	6131*	7055*
		965	2477	4361	8646	10000	6131*	7055*
4' - 6"	Precast	916	2321	4016	7648	10000	5862*	6856*
		916	2321	4016	7648	10000	5862*	6856*
5' - 8"	Precast	678	1612	2586	4228	6473	7918	6282
		678	1612	2586	4228	6749	10000	10000
5' - 10"	Precast	654	1544	2461	3975	6086	7445	5907
		654	1544	2461	3975	6225	10000	10000
6' - 8"	Precast	555	1277	1981	3057	4590	5615	4454
		555	1277	1981	3057	4485	6832	10000
7' - 0"	Precast	523	1194	1838	2799	4132	5067	4020
		523	1194	1838	3057	4132	5973	9218
7' - 6"	Precast	481	1089	1658	2484	3585	4385	3479
		481	1089	1658	2484	3505	5025	7363
9' - 8"	Precast	311	782	1164	1639	2114	2585	2051
		343	771	1164	1633	2235	2978	3932

\* LINTEL MEETS DEEP BEAM CRITERIA



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8" RECESS LINTEL LOAD TABLE

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Telephone: (407) 422-3768

JOB NO: 18696

THUY H. HUYNH, P.E.  
FLORIDA LIC. No. 60122

SHT. NO.

SK9 of 14

GENERAL NOTES

1. CODES

- 1.1. FLORIDA BUILDING CODE 8<sup>TH</sup> EDITION, 2023 RESIDENTIAL SECTIONS R402.2 & R606.
- 1.2. FLORIDA BUILDING CODE 8<sup>TH</sup> EDITION, 2023 BUILDING SECTIONS 1901.2 & 2107.
- 1.3. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-19).
- 1.4. BUILDING CODE FOR MASONRY STRUCTURES (TMS 402-16).
- 1.5. SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602-16).
- 1.6. AMERICAN SOCIETY OF CIVIL ENGINEERS MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-22).

2. CONCRETE

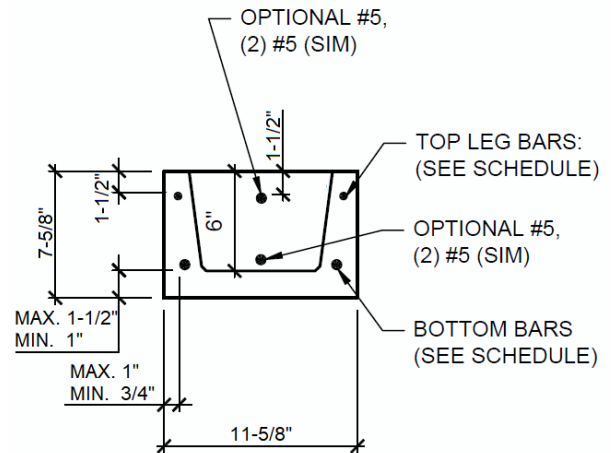
- 2.1. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS:
  - 2.1.1. PRE-CAST WITH STANDARD REINFORCEMENT 4,000PSI
  - 2.1.2. GROUT PER ASTM C476  $f'_g = 3,000PSI$  WITH MAXIMUM 3/8" AGGREGATE AND 8" TO 11" SLUMP.
- 2.2. REINFORCING BARS:
  - 2.2.1. STEEL PLACED IN PRE-CAST LINTEL AT TIME OF FABRICATION ASTM A615 GRADE 60.
  - 2.2.2. STEEL IN LINTEL AND KNOCK OUT BLOCK (PLACED IN FIELD) ASTM A615 GRADE 40 OR GRADE 60.
- 2.3. DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315.
- 2.4. CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.

3. MASONRY

- 3.1. CONCRETE MASONRY UNIT (CMU) SHALL COMFORM TO ASTM C90, NORMAL WEIGHT WITH MINIMUM NET AREA COMPRESSIVE STRENGTH 2,000PSI.
- 3.2. MORTAR SHALL CONFORM TO ASTM C270 TYPE M OR S.
- 3.3. FULL MORTAR JOINTS ARE REQUIRED.
- 3.4. MINIMUM AGGREGATE 28-DAY COMPRESSIVE STRENGTH OF CMU AND MORTAR SHALL NOT BE LESS THAN  $f'_m = 2,000PSI$ . MASONRY STRENGTH SHALL BE ESTABLISHED BY THE "UNIT STRENGTH METHOD" OR ALTERNATIVELY BY THE "PRISM TEST METHOD" WHERE UNIT STRENGTH METHOD REQUIREMENTS HAVE NOT BEEN MET.

4. STRUCTURAL

- 4.1. SAFE LOAD VALUES ARE BASED ON LINTELS HAVING A BEARING OF 8" (WITH A MINIMUM ACCEPTABLE BEARING OF 4" (NOMINAL) FOR FILLED LINTELS AND 6 1/2" FOR UNFILLED LINTELS IN THE DIRECTION OF SPAN PER TMS 402-16 SECTION 4.3.4).
- 4.2. SAFE LOAD VALUES BASED ON RATIONAL DESIGN ANALYSIS PER ACI 318 AND TMS 402.
- 4.3. DESIGNER MAY EVALUATE CONCENTRATED LOADS FROM THE SAFE LOAD TABLES BY CALCULATING MAXIMUM RESISTING MOMENT AND SHEAR AT  $d$  DISTANCE AWAY FROM THE FACE OF THE SUPPORT.
- 4.4. FOR LINTEL LENGTH AT 6'-6" OR GREATER, VERTICAL CELL FILLED SOLID WITH GROUT AND MINIMUM ONE (1) #5 VERTICAL REBAR IS REQUIRED AT EACH END OF THE LINTEL.
- 4.5. LINTELS THAT ARE GREATER THAN 14'-0" CLEAR SPAN MUST BE PROVIDED TEMPORARY SUPPORT AND NOT BE REMOVED UNTIL 2 DAYS AFTER GROUT PLACEMENT.
- 4.6. (2) #5 REBARS IN LINTEL OR CMU BOND BEAM MAY BE SUBSTITUTED WITH (1) #7 REBAR.
- 4.7. FOR COMPOSITE LINTEL HEIGHTS NOT SHOWN, USE SAFE LOAD FROM THE NEXT LOWER HEIGHT.
- 4.8. ALL SAFE LOADS IN UNITS OF POUNDS PER LINEAR FOOT.



**TYPICAL 12-INCH LINTEL  
PRECAST CONCRETE**



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GENERAL NOTES & DETAILS - 12" LINTEL

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JOB NO: 18696

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FLORIDA LIC. No. 60122

SHT. NO.

SK10 of 14

**12" LINTEL SAFE GRAVITY LOADS (PLF), Fy = 40ksi**

LENGTH	TYPE	12x8-P	12x8-S-2L	12x12-S-2L	12x16-S-2L	12x20-S-2L	12x24-S-2L	12x28-S-2L	12x32-S-2L
2' - 10"	Precast	3615	6013	10000	8585*	10000*	10000*	10000*	10000*
3' - 6"	Precast	2311	3935	9808	10000	8141*	10000*	10000*	10000*
4' - 0"	Precast	1816	3119	7031	10000	10000	8556*	10000*	10000*
4' - 6"	Precast	1494	2580	5472	10000	10000	10000	8894*	10000*
5' - 4"	Precast	1150	1998	3985	7017	10000	10000	10000	8410*
5' - 10"	Precast	1010	1758	3422	5808	9293	10000	10000	10000
6' - 6"	Precast	867	1513	2876	4717	7162	10000	10000	10000
7' - 6"	Precast	714	1249	2315	3671	5315	7620	10000	9492
8' - 6"	Precast	606	1060	1934	2998	4215	5805	7981	7266
9' - 4"	Precast	537	940	1697	2597	3589	4835	6453	5949
10' - 6"	Precast	462	810	1446	2182	2964	3909	5077	4621
11' - 4"	Precast	420	736	1307	1956	2633	3433	4399	3919
12' - 0"	Precast	391	685	1212	1805	2415	3126	3971	3463
13' - 4"	Precast	343	601	1056	1561	2068	2647	3317	2752
14' - 0"	Precast	323	566	992	1461	1928	2456	3062	2472
14' - 8"	Precast	253	513	935	1372	1805	2290	2842	2230
15' - 4"	Precast	240	441	883	1293	1695	2144	2649	2019
17' - 4"	Precast	205	286	681	1017	1356	1696	2036	1530
19' - 4"	Precast	132	190	529	793	1060	1327	1596	1186

\* LINTEL MEETS DEEP BEAM CRITERIA

**12" LINTEL SAFE UPLIFT LOADS (PLF), Fy = 40ksi**

LENGTH	TYPE	12x8-S-2T	12x12-S-2T	12x16-S-2T	12x20-S-2T	12x24-S-2T	12x28-S-2T	12x32-S-2T
2' - 10"	Precast	4043	10000	9013*	10000*	10000*	10000*	10000*
3' - 6"	Precast	2790	7426	10000	8620*	10000*	10000*	10000*
4' - 0"	Precast	2264	5555	10000	10000	9004*	10000*	10000*
4' - 6"	Precast	1904	4436	8722	7854	9857	9304*	10000*
5' - 4"	Precast	1506	3322	5980	5454	6845	8238	8766*
5' - 10"	Precast	1338	2887	5014	4507	5657	6808	7960
6' - 6"	Precast	1165	2458	3989	3585	4500	5416	6332
7' - 6"	Precast	935	1942	2953	2655	3332	4010	4688
8' - 6"	Precast	898	1766	2805	3824	3209	3857	4505
9' - 4"	Precast	768	1560	2355	3149	2642	3176	3710
10' - 6"	Precast	602	1223	1846	2468	2071	2489	2907
11' - 4"	Precast	514	1044	1577	2108	1769	2126	2483
12' - 0"	Precast	457	928	1402	1784	1572	1890	2208
13' - 4"	Precast	368	748	1129	1509	1266	1522	1778
14' - 0"	Precast	333	677	1021	1365	1146	1377	1609
14' - 8"	Precast	283	616	930	1243	1043	1253	1464
15' - 4"	Precast	244	563	849	1135	952	1144	1336
17' - 4"	Precast	159	438	661	883	741	891	1040
19' - 4"	Precast	104	351	529	707	593	713	833

\* LINTEL MEETS DEEP BEAM CRITERIA



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12" LINTEL SAFE GRAVITY & UPLIFT LOAD TABLE

**PRO-CRETE MATERIALS CORPORATION**

1617 Division Ave.  
Orlando, FL 32805  
Telephone: (407) 422-3768

JOB NO: 18696

**THUY H. HUYNH, P.E.**  
**FLORIDA LIC. No. 60122**

SHT. NO.

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### 12" LINTEL SAFE GRAVITY LOADS (PLF), Fy = 60ksi

LENGTH	TYPE	12x8-P	12x8-S-2L	12x12-S-2L	12x16-S-2L	12x20-S-2L	12x24-S-2L	12x28-S-2L	12x32-S-2L
2' - 10"	Precast	3615	6013	10000	8585*	10000*	10000*	10000*	10000*
3' - 6"	Precast	2311	3935	9808	10000	10000	10000*	10000*	10000*
4' - 0"	Precast	1816	3119	7031	10000	10000	8556*	10000*	10000*
4' - 6"	Precast	1494	2580	5472	10000	10000	10000	8894*	10000*
5' - 4"	Precast	1150	1998	3985	7017	10000	10000	10000	8410*
5' - 10"	Precast	1010	1758	3422	5808	9293	10000	10000	10000
6' - 6"	Precast	867	1513	2876	4717	7162	10000	10000	10000
7' - 6"	Precast	714	1249	2315	3671	5315	7620	10000	10000
8' - 6"	Precast	606	1060	1934	2998	4215	5805	7981	10000
9' - 4"	Precast	537	940	1697	2597	3589	4835	6453	8645
10' - 6"	Precast	462	810	1446	2182	2964	3909	5077	6561
11' - 4"	Precast	420	736	1307	1956	2633	3433	4399	5588
12' - 0"	Precast	391	685	1212	1805	2415	3126	3971	4991
13' - 4"	Precast	343	601	1056	1561	2068	2647	3317	4103
14' - 0"	Precast	323	566	992	1461	1928	2456	3062	3764
14' - 8"	Precast	253	513	935	1372	1805	2290	2842	3474
15' - 4"	Precast	240	441	883	1293	1695	2144	2649	3225
17' - 4"	Precast	206	286	755	1099	1430	1794	2196	2645
19' - 4"	Precast	132	190	636	952	1233	1537	1869	2233

\* LINTEL MEETS DEEP BEAM CRITERIA

### 12" LINTEL SAFE UPLIFT LOADS (PLF), Fy = 60ksi

LENGTH	TYPE	12x8-S-2T	12x12-S-2T	12x16-S-2T	12x20-S-2T	12x24-S-2T	12x28-S-2T	12x32-S-2T
2' - 10"	Precast	4043	10000	9013*	10000*	10000*	10000*	10000*
3' - 6"	Precast	2790	7426	10000	8620*	10000*	10000*	10000*
4' - 0"	Precast	2264	5555	10000	10000	9004*	10000*	10000*
4' - 6"	Precast	1904	4436	8722	10000	10000	9304*	10000*
5' - 4"	Precast	1506	3322	5980	10000	10000	10000	8766*
5' - 10"	Precast	1338	2887	5031	8046	10000	10000	10000
6' - 6"	Precast	1165	2458	4152	6344	9326	10000	8816
7' - 6"	Precast	975	2009	3290	4815	6900	8323	6527
8' - 6"	Precast	989	1766	2805	3977	5484	7513	8839
9' - 4"	Precast	804	1564	2451	3419	4618	6154	7278
10' - 6"	Precast	700	1348	2083	2858	3781	4877	5703
11' - 4"	Precast	642	1227	1881	2558	3348	4166	4872
12' - 0"	Precast	579	1144	1746	2360	3067	3703	4331
13' - 4"	Precast	444	968	1472	1974	2478	2983	3488
14' - 0"	Precast	389	875	1332	1786	2242	2699	3156
14' - 8"	Precast	283	798	1213	1626	2040	2455	2871
15' - 4"	Precast	244	729	1107	1484	1863	2242	2622
17' - 4"	Precast	159	567	862	1156	1450	1746	2041
19' - 4"	Precast	104	454	690	925	1161	1397	1634

\* LINTEL MEETS DEEP BEAM CRITERIA



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www.montaconsulting.com

<b>12" LINTEL SAFE GRAVITY &amp; UPLIFT LOAD TABLE</b>		
<b>PRO-CRETE MATERIALS CORPORATION</b>		
JOB NO: 18696	THUY H. HUYNH, P.E. FLORIDA LIC. No. 60122	SHT. NO.  SK12 of 14

1617 Division Ave.  
Orlando, FL 32805  
Telephone: (407) 422-3768

8", 8" RECESS, AND 12" LINTEL SAFE LATERAL LOADS (PLF)							
LENGTH	TYPE	8x8-P	8x8-S	8x6R-P	8x6R-S	12x8-P	12x8-S
2' - 10"	Precast	1105	2103	NA	NA	2396	6471
3' - 6"	Precast	689	1310	NA	NA	1660	6471
3' - 8"	Precast	NA	NA	689	1185	NA	NA
4' - 0"	Precast	514	977	570	979	1349	4665
4' - 4"	Precast	NA	NA	479	823	NA	NA
4' - 6"	Precast	398	757	441	758	1136	3648
5' - 4"	Precast	430	836	NA	NA	900	2675
5' - 8"	Precast	NA	NA	418	733	NA	NA
5' - 10"	Precast	356	690	393	689	800	2306
6' - 6"	Precast	410	818	NA	NA	697	1857
6' - 8"	Precast	NA	NA	389	783	NA	NA
7' - 0"	Precast	NA	NA	386	694	NA	NA
7' - 6"	Precast	303	606	334	601	556	1375
8' - 6"	Precast	234	467	NA	NA	491	1228
9' - 4"	Precast	192	384	NA	NA	404	1012
9' - 8"	Precast	NA	NA	197	354	NA	NA
10' - 6"	Precast	151	301	NA	NA	317	793
11' - 4"	Precast	199	417	NA	NA	270	677
12' - 0"	Precast	177	370	NA	NA	240	602
13' - 4"	Precast	134	298	NA	NA	194	485
14' - 0"	Precast	130	322	NA	NA	175	439
14' - 8"	Precast	NA	NA	NA	NA	154	400
	Prestressed	NA	283	NA	NA	NA	NA
15' - 4"	Precast	NA	NA	NA	NA	135	365
	Prestressed	NA	252	NA	NA	NA	NA
17' - 4"	Precast	NA	NA	NA	NA	94	284
	Prestressed	NA	183	NA	NA	NA	NA
19' - 4"	Precast	NA	NA	NA	NA	69	227
	Prestressed	NA	167	NA	NA	NA	NA
21' - 4"	Prestressed	NA	129	NA	NA	NA	NA
22' - 0"	Prestressed	NA	120	NA	NA	NA	NA
24' - 0"	Prestressed	NA	96	NA	NA	NA	NA



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**8", 8" RECESS & 12" LINTEL SAFE LATERAL LOAD TABLE**

**PRO-CRETE MATERIALS CORPORATION**

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 Orlando, FL 32805  
 Telephone: (407) 422-3768

JOB NO: 18696

THUY H. HUYNH, P.E.  
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SHT. NO.

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### 8" AND 12" LINTEL STEEL REINFORCEMENT SCHEDULE

LENGTH	TYPE	8" LINTEL		12" LINTEL	
		TOP STEEL	BOTTOM STEEL	TOP STEEL	BOTTOM STEEL
2' - 10"	Precast	2 - #2	2 - #2	2 - #2	2 - #5
3' - 6"	Precast	2 - #2	2 - #2	2 - #2	2 - #5
4' - 0"	Precast	2 - #2	2 - #2	2 - #2	2 - #5
4' - 6"	Precast	2 - #2	2 - #2	2 - #2	2 - #5
5' - 4"	Precast	2 - #2	2 - #3	2 - #2	2 - #5
5' - 10"	Precast	2 - #2	2 - #3	2 - #2	2 - #5
6' - 6"	Precast	2 - #2	2 - #4	2 - #2	2 - #5
7' - 6"	Precast	2 - #2	2 - #4	2 - #2	2 - #5
8' - 6"	Precast	2 - #2	2 - #4	2 - #2	2 - #5
9' - 4"	Precast	2 - #2	2 - #4	2 - #3	2 - #5
10' - 6"	Precast	2 - #2	2 - #4	2 - #3	2 - #5
11' - 4"	Precast	2 - #3	2 - #5	2 - #3	2 - #5
12' - 0"	Precast	2 - #3	2 - #5	2 - #3	2 - #5
13' - 4"	Precast	2 - #3	2 - #5	2 - #3	2 - #5
14' - 0"	Precast	2 - #4	2 - #5	2 - #3	2 - #5
14' - 8"	Precast	NA	NA	2 - #3	2 - #5
	Prestressed	2 - #3 <sup>(1)</sup>	2 - #5 2 - 7/16" strand	NA	NA
15' - 4"	Precast	NA	NA	2 - #3	2 - #5
	Prestressed	2 - #3 <sup>(1)</sup>	2 - #5 2 - 7/16" strand	NA	NA
17' - 4"	Precast	NA	NA	2 - #3	2 - #5
	Prestressed	2 - #3 <sup>(1)</sup>	2 - #5 2 - 7/16" strand	NA	NA
19' - 4"	Precast	NA	NA	2 - #3	2 - #5
	Prestressed	2 - #4 <sup>(1)</sup>	2 - #5 2 - 7/16" strand	NA	NA
21' - 4"	Prestressed	2 - #4 <sup>(1)</sup>	2 - #5 2 - 7/16" strand	NA	NA
22' - 0"	Prestressed	2 - #4 <sup>(1)</sup>	2 - #5 2 - 7/16" strand	NA	NA
24' - 0"	Prestressed	2 - #4 <sup>(1)</sup>	2 - #5 2 - 7/16" strand	NA	NA

<sup>(1)</sup> OPTIONAL REBARS TO BE USED FOR SHIPPING AND HANDLING PURPOSES ONLY.

### 8" RECESS LINTEL STEEL REINFORCEMENT SCHEDULE

LENGTH	TYPE	TOP STEEL	BOTTOM STEEL
3' - 8"	Precast	2 - #2	2 - #2
4' - 0"	Precast	2 - #2	2 - #2
4' - 4"	Precast	2 - #2	2 - #2
4' - 6"	Precast	2 - #2	2 - #2
5' - 8"	Precast	2 - #2	2 - #3
5' - 10"	Precast	2 - #2	2 - #3
6' - 8"	Precast	2 - #2	2 - #4
7' - 0"	Precast	2 - #2	2 - #4
7' - 6"	Precast	2 - #2	2 - #4
9' - 8"	Precast	2 - #2	2 - #4



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8" & 12" LINTEL STEEL REINFORCEMENT SCHEDULE

PRO-CRETE MATERIALS CORPORATION

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# Monta Consulting & Design

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## Pro-Crete Materials Corporation

# INSTALLATION INSTRUCTIONS

Version 1.0

October, 2020

# Monta Consulting & Design

of WMR and Associates, LLC

## Pro-Crete Materials Corporation

### PRECAST AND PRESTRESSED LINTELS (8" AND 12" WIDE)

In order for proper installation of precast lintels, Monta Consulting & Design, has prepared this installation instructions to be used in conjunction with quality control methods of the contractor and good construction practices.

#### **Preparation**

1. All reinforcements shall be cleaned by removing mud, oil, or other materials that will adversely affect or reduce bond at the time mortar or grout is placed. Reinforcement with rust, mill scale, or a combination of both will be accepted as being satisfactory without cleaning or brushing provided the dimensions and weights, including heights of deformations, of a cleaned sample are not less than required by the ASTM specification covering this reinforcement in this Specification.
2. Prior to placing masonry, remove laitance, loose aggregate, and anything else that would prevent mortar from bonding to the lintel.
3. Debris – Construct grout spaces free of mortar dropping, debris, loose aggregates, and any material deleterious to masonry grout.

#### **Lintel / masonry erection**

1. Placing lintel – Length of bearing of lintels on their support shall be a minimum of 4 inches for filled lintels and 6 ½ inches for unfilled lintels in the direction of span. Provide a temporary support for lintels that are greater than 14' – 0"; the temporary support shall not be removed until 2 days after the grout placement.
2. Placing mortar and units (for composite lintels only)
  - Bed and head joints – Unless otherwise required, construct 3/8 inches thick bed and head joints. Construct joints that also conform to the following:
    - a) Unless otherwise required, tool joint with a round jointer when the mortar is thumbprint hard.
    - b) Remove masonry protrusions extending ½ inches or more into cells or cavities to be grouted.
  - Place hollow units so:
    - a) Face shells of bed joints are fully mortared.
    - b) Head joints are mortared, a minimum distance from each face equal to the face shell thickness of the unit.
    - c) Vertical cells to be grouted are aligned and unobstructed openings for grout are provided in accordance with the Project Drawings.

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of WMR and Associates, LLC

- Place clean units while the mortar is soft and plastic. Remove and relay in fresh mortar any unit disturbed to the extent that initial bond is broken after initial positioning.

## Reinforcement installation

- a) Support and fasten reinforcement together to prevent displacement beyond the tolerances allowed by construction loads or by placement of grout or mortar.
- b) Completely embed reinforcing bars in grout in accordance with TMS 402-16.
- c) Maintain clear distance between reinforcing bars and any face of masonry unit or formed surface, but not less than  $\frac{1}{4}$  inches for fine grout or  $\frac{1}{2}$  inches for coarse grout.
- d) Splice only where indicated on the Project Drawings, unless otherwise acceptable.
- e) Unless accepted by the Architect/ Engineer, do not bend reinforcement after it is embedded in grout or mortar.
- f) Place joint reinforcement so that longitudinal wires are embedded in mortar with a minimum cover of  $\frac{1}{2}$  inches when not exposed to weather or earth and  $\frac{5}{8}$  inches when exposed to weather or earth.

## Grout placement

- a) Placing time – Place grout within  $1\frac{1}{2}$  hours from introducing water in the mixture and prior to initial set.
- b) Confinement – Confine grout to the areas indicated on the Project Drawings. Use material to confine grout that permits bond between masonry units and mortar.
- c) Grout pour height – Do not exceed the maximum grout pour height given in the TMS 602-16 Section 3.5C.
- d) Grout lift height – Place grout in lifts not exceeding grout lift height given in the TMS 602-16 Section 3.5D.
- e) Consolidation – Consolidate grout at the time of placement.
  - Consolidate grout pours 12 inches or less in height by mechanical vibration or by puddling.
  - Consolidate pours exceeding 12 inches in height by mechanical vibration and reconsolidate by mechanical vibration after initial water loss and settlement has occurred.

## Field quality control

- a) Verify masonry unit strength,  $f_m$  in accordance with the TMS402-16.
- b) Sample and test grout as required by the TMS402-16 Articles 1.4B and 1.6.

## Cleaning

Clean exposed masonry surfaces of all stains, efflorescence, mortar or grout droppings, and debris.

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## Limitations of use

- a) Support on wood – Lintel shall not be support on wood girders or other form of wood construction.
  - b) Construction loads – Do not apply construction loads that exceed the safe superimposed load-carrying capacity of the masonry and temporary support, if used.
- Impact resistance – Lintels apply to the design or construction of masonry for buildings, parts of buildings, or other structures, if the project is located in areas where the ultimate wind speed exceeds 160 mph, exposure B shall be filled solid with grout.