

RESIDENTIAL ROOF HEADERS (L/180)
California Building Code 2007 Edition (CBC), NDS 2005

**ROOF BEAMS
 CONSTRUCTION LOAD**

**Structural Glued Laminated Timber
 Douglas Fir-Larch**



F_b **F_v** **E** **C_D** **Deflection limit.**
 2400 265 1.8 1.00 **Span / 180 for TOTAL LOAD**
 psi psi million
 psi

BEAM CAPACITY, UNIFORM LOAD w, plf

BEAM SIZE	BEAM Wt plf	SPANS, ft																
		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
3 1/8 x 6	4.6	586	300	174	109	73	51	38	28	22	17	14	11	9	8	6	6	5
3 1/8 x 7 1/2	5.7	916	586	339	214	143	100	73	55	42	33	27	22	18	15	13	13	9
3 1/8 x 9	6.8	1318	844	586	369	247	174	127	95	73	58	46	38	31	26	22	22	16
3 1/8 x 10 1/2	8.0	1794	1148	798	586	393	276	201	151	116	91	73	60	49	41	34	34	25
3 1/8 x 12	9.1	2344	1500	1042	765	586	412	300	225	174	137	109	89	73	61	51	51	38
3 1/8 x 13 1/2	10.3	2966	1898	1318	969	742	586	427	321	247	194	156	127	104	87	73	73	53
3 1/8 x 15	11.4	3662	2344	1628	1196	916	723	586	440	339	267	214	174	143	119	100	100	73
3 1/8 x 16 1/2	12.5	4338	2836	1969	1447	1108	875	709	586	451	355	284	231	190	159	134	134	97
3 1/8 x 18	13.7	4969	3375	2344	1722	1318	1042	844	697	583	461	369	300	247	206	174	174	127
3 1/8 x 19 1/2	14.8	5666	3961	2751	2021	1547	1223	990	815	679	574	469	381	314	262	221	221	161
5 1/8 x 6	7.5	961	492	285	179	120	84	62	46	36	28	22	18	15	13	11	9	8
5 1/8 x 7 1/2	9.3	1501	961	556	350	235	165	120	90	70	55	44	36	29	24	21	18	15
5 1/8 x 9	11.2	2162	1384	961	605	405	285	208	156	120	94	76	62	51	42	36	30	26
5 1/8 x 10 1/2	13.1	2943	1883	1308	961	644	452	330	248	191	150	120	98	80	67	57	48	41
5 1/8 x 12	14.9	3844	2460	1708	1255	961	675	492	370	285	224	179	146	120	100	84	72	62
5 1/8 x 13 1/2	16.8	4865	3113	2162	1588	1216	961	701	526	405	319	255	208	171	143	120	102	88
5 1/8 x 15	18.7	6006	3844	2669	1961	1501	1178	944	722	556	437	350	285	235	196	165	140	120
5 1/8 x 16 1/2	20.6	7114	4651	3230	2373	1808	1412	1132	926	740	582	466	379	312	260	219	186	160
5 1/8 x 18	22.4	8149	5535	3844	2824	2133	1666	1335	1093	911	756	605	492	405	338	285	242	208
5 1/8 x 19 1/2	24.3	9292	6496	4511	3288	2484	1940	1555	1273	1060	896	767	626	515	430	362	308	264
5 1/8 x 21	26.2	10563	7313	5232	3785	2859	2233	1790	1465	1220	1032	883	764	644	537	452	384	330
5 1/8 x 22 1/2	28.0	11983	8149	5965	4315	3260	2546	2040	1670	1391	1176	1007	871	760	660	556	473	405
5 1/8 x 24	29.9	13581	9054	6743	4878	3685	2878	2306	1888	1573	1329	1138	984	860	757	671	574	492
5 1/8 x 26 1/2	33.0	16740	10743	7910	5889	4449	3474	2784	2279	1899	1605	1374	1188	1038	914	810	723	649
6 3/4 x 6	9.8	1266	648	375	236	158	111	81	61	47	37	30	24	20	16	14	12	10
6 3/4 x 7 1/2	12.3	1978	1266	732	461	309	217	158	119	92	72	58	47	39	32	27	23	20
6 3/4 x 9	14.8	2848	1823	1266	797	534	375	273	205	158	124	100	81	67	56	47	40	34
6 3/4 x 10 1/2	17.2	3876	2481	1723	1266	848	595	434	326	251	198	158	129	106	88	74	63	54
6 3/4 x 12	19.7	5063	3240	2250	1653	1265	889	648	487	375	295	236	192	158	132	111	94	81
6 3/4 x 13 1/2	22.1	6407	4101	2848	2092	1583	1236	923	693	534	420	336	273	225	188	158	135	115
6 3/4 x 15	24.6	7910	5063	3516	2559	1933	1510	1210	951	732	576	461	375	309	258	217	185	158
6 3/4 x 16 1/2	27.1	9370	6126	4239	3067	2317	1809	1450	1187	975	767	614	499	411	343	289	246	211
6 3/4 x 18	29.5	10733	7290	5001	3618	2734	2135	1711	1401	1167	986	797	648	534	445	375	319	273
6 3/4 x 19 1/2	32.0	12239	8539	5823	4213	3183	2485	1992	1631	1358	1148	983	824	679	566	477	405	348
6 3/4 x 21	34.5	13913	9632	6703	4850	3664	2861	2293	1877	1564	1322	1131	979	848	707	595	506	434
6 3/4 x 22 1/2	36.9	15783	10733	7642	5529	4177	3262	2614	2140	1783	1507	1290	1116	974	858	732	623	534
6 3/4 x 24	39.4	17888	11925	8639	6250	4722	3687	2955	2419	2015	1703	1458	1261	1101	970	860	756	648
6 3/4 x 26 1/2	43.5	22047	14150	10418	7545	5700	4451	3568	2920	2433	2056	1760	1523	1330	1171	1038	927	832
6 3/4 x 27	44.3	22998	14635	10733	7818	5906	4612	3696	3026	2521	2131	1824	1578	1378	1213	1076	960	862
6 3/4 x 28 1/2	46.8	26143	16184	11719	8664	6545	5111	4096	3353	2793	2361	2021	1748	1527	1344	1192	1064	956

NOTES

- Horizontal shear at "d" distance from support controls design in area left of solid line. (***Bold Italics***)
- Deflection controls design in area right of double line. (**Bold**)
- Bending stress controls design in area between solid and double lines.

**DIVISION OF BUILDING AND SAFETY
 COUNTY OF VENTURA**

**B & S
 STD B-46**

BUILDING OFFICIAL _____ *Jim MacDonald*

DATE: 01/01/08