ALLOWABLE DESIGN VALUES (psi)				
Fiber Stress in Bending "F_b"(1)	"f-E" Classification	Modulus of Elasticity (million psi) "E"	Tension Parallel to Grain "F_t"	Compression Parallel to Grain "$F_{c\|\|}$"
900	900f-1.0E	1.0	350	1050
1050	1050f-1.2E	1.2	450	1225
1200	1200f-1.3E	1.3	600	1400
1350	1350f-1.4E	1.4	750	1600
1450	1450f-1.3E	1.3	825	1600
1500	1500f-1.5E	1.5	900	1650
1500	1500f-1.6E	1.6	900	1650
1500	1500f-1.7E	1.7	900	1650
1650	1650f-1.5E	1.5	1020	1700
1650	1650f-1.6E	1.6	1020	1700
1650	1650f-1.7E	1.7	1020	1750
1800	1800f-1.6E	1.6	1175	1750
1850	1850f-1.7E	1.7	1175	1850
1950	1950f-1.7E	1.7	1375	1800
2100	2100f-1.8E	1.8	1575	1875
2250	2250f-1.9E	1.9	1750	1925
2400	2400f-2.0E	2.0	1925	1975
2550	2550f-2.1E	2.1	2050	2025
2700	2700f-2.2E	2.2	2150	2100
2850	2850f-1.8E	1.8	1600	2100
2850	2850f-2.0E	2.0	1925	2100
2850	2850f-2.3E	2.3	2300	2150
3000	3000f-2.4E	2.4	2400	2200

Major Species Southern Yellow Pine:			
E Level	F_V	$F_{c\perp}$	Specific Gravity
1.7 million psi and less:	175 psi	565 psi	0.55
1.8 million psi:	See Section 601.5 (a)		
1.9 million psi and higher:	190 psi	805 psi	0.57

Table 600-1: MSR design values

(1) The tabulated Extreme Fiber bending values "F_b" are applicable to lumber loaded on edge. When loaded flatwise, these values may be increased by multiplying by the following factors:

Nominal Width	4"	6"	8"	10" & Wider
Factor	1.1	1.15	1.15	1.2

602. MACHINE EVALUATED LUMBER

All Species of Southern Pine 2" and Wider

602.1 Machine Evaluated Lumber (MEL) is lumber that has been non-destructively evaluated by ALSC Board of Review approved mechanical grading equipment to predict certain mechanical properties. The MEL machine evaluates each piece and sorts and marks the material into various strength classifications. MEL is also required to meet certain visual requirements as set forth herein.

602.2 A grade mark on Machine Evaluated Lumber indicates the stress rating system used meets requirements of the grading agency's qualification and quality control procedures. The grade mark shows the agency trademark, the mill number, the species identification, seasoning designation, and a grade code. The design values shown on the grade mark are fiber stress in bending, tension, and average modulus of elasticity. The grade mark may include the designation of "1W" or "2W" to signify that the lumber has been visually graded to meet or exceed the wane restrictions for No. 1 or No. 2 wane as specified in Sections **312** and **313**.

602.3 Design values for Machine Evaluated Lumber (MEL) are shown in Table 600-3. Grades of MEL may be produced with other stress assignments if the machine rating indicates the assignment is appropriate.

602.4 Machine output is controlled by testing pieces and adjusting machines so that the desired average edge modulus of elasticity (MOE) and working stresses for

ALLOWABLE DESIGN VALUES (psi)				
Grade Name	Fiber Stress in Bending "F_b"(1)	Tension Parallel to Grain "F_t"	Compression Parallel to Grain "$F_{c//}$"	Modulus of Elasticity (million psi) "E"
M-5	900	500	1050	1.1
M-6	1100	600	1300	1.0
M-7	1200	650	1400	1.1
M-8	1300	700	1500	1.3
M-9	1400	800	1600	1.4
M-11	1550	850	1675	1.5
M-12	1600	850	1675	1.6
M-14	1800	1000	1750	1.7
M-15	1800	1100	1750	1.5
M-18	2000	1200	1825	1.8
M-19	2000	1300	1825	1.6
M-21	2300	1400	1950	1.9
M-22	2350	1500	1950	1.7
M-23	2400	1900	1975	1.8
M-24	2700	1800	2100	1.9
M-25	2750	2000	2100	2.2
M-26	2800	1800	2150	2.0
M-28	2200	1600	1900	1.7
M-29	1550	850	1650	1.7
M-30	2050	1050	1850	1.7
M-31	2850	1600	2150	1.9

Major Species Southern Yellow Pine:			
E Level	F_V	$F_{c\perp}$	Specific Gravity
1.7 million psi and less	175 psi	565 psi	0.55
1.8 million psi	See Section 602.5 (b)		
1.9 million psi and higher	190 psi	805 psi	0.57

Table 600-3: MEL design values

(1) The tabulated Extreme Fiber bending values "F_b" are applicable to lumber loaded on edge. When loaded flatwise, these values may be increased by multiplying by the following factors:

Nominal Width	4"	6"	8"	10" & Wider
Factor	1.1	1.15	1.15	1.2