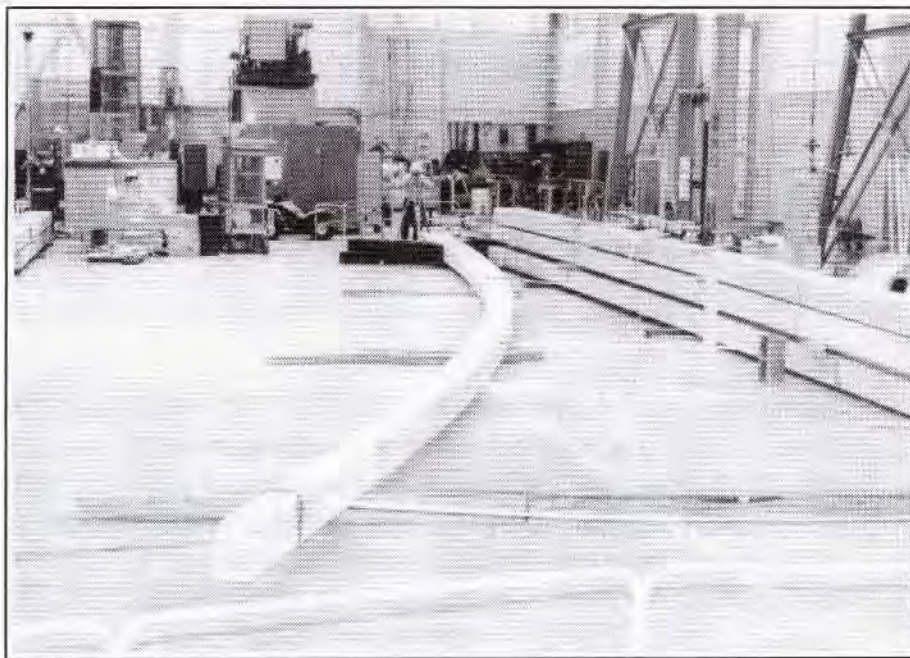


LWS Laminated Wood Systems, Inc.

E-LAM[®] *The Ultimate Power of Laminated Wood*

**Coastal Douglas fir
&
Southern Pine**



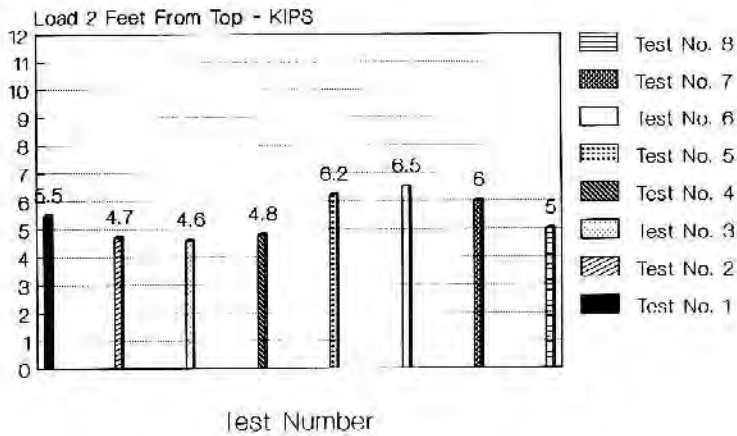
**Longitudinal & Transverse
Pole Test Data**

E-LAM[®] POLE TEST DATA FOR COASTAL DOUGLAS FIR & SOUTHERN PINE

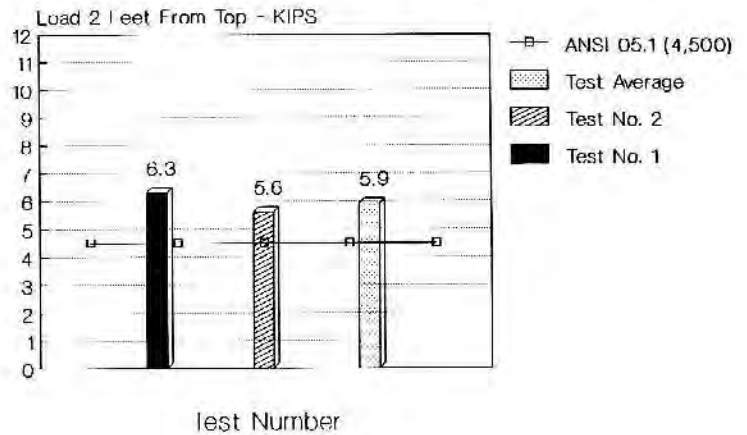
- Purpose:** The purpose of this test report was to consolidate existing test data for glued laminated wood poles, thus validating the rated capacities of E-LAM[®] poles.
- Procedures:** Laminated Wood Systems, Inc., support staff has been the driving force behind the reintroduction of quality laminated wood products to the utility industry. Their work has included the testing of thousands of distribution crossarms over a four year period to track the consistency of the base resource, much like the cylinder test for concrete and the coupon test for steel. At the same time, numerous full scale tests were conducted on laminated wood poles made from both Coastal Douglas fir and Southern Pine. All poles that were tested utilized proprietary layups developed by Laminated Wood Systems, Inc. To assure the most accurate data for this report, only the test results developed by independent certified laboratories were chosen.
- Conclusion:** Laminated Wood Systems, Inc., has developed a wealth of test data for glued laminated products. This report represents but a small portion of this data. However, this report verifies the rated capacities of E-LAM[®] laminated wood poles fabricated from both Coastal Douglas fir and Southern Pine.

Douglas fir Transverse Tests

EL-1-70P, 70-Foot Class 1
12-1/4" x 8-1/4" - 17-1/4" x 70'-0"

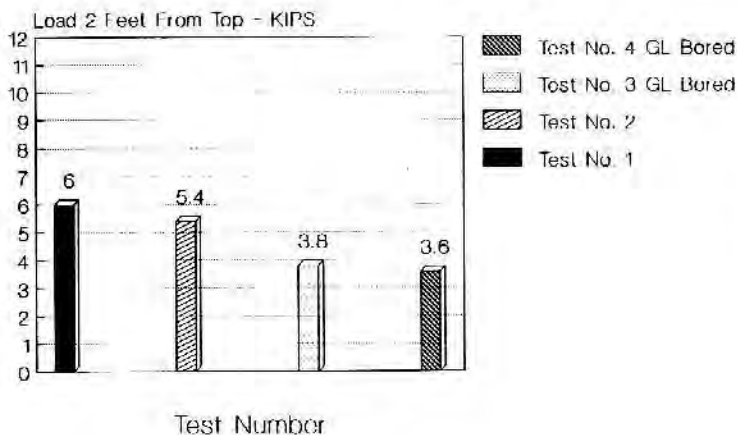


EL-1-90H, 90-Foot Class 1
12-1/4" x 7-3/4" - 20-3/4" x 90'-0"

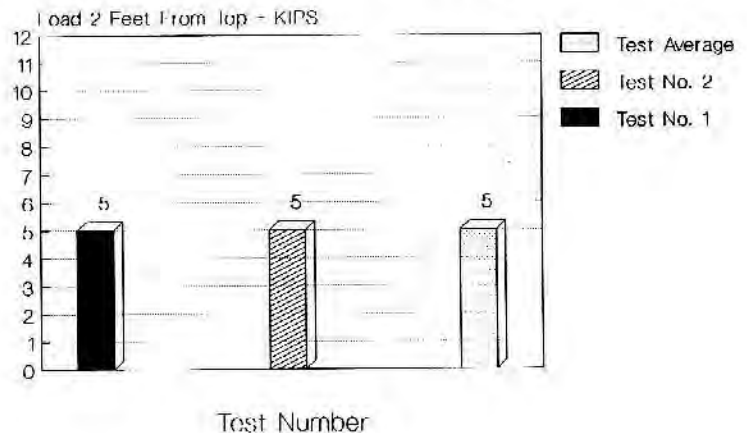


Douglas fir Longitudinal Tests

EL-1-70P, 70-Foot Class 1
12-1/4" x 8-1/4" - 17-1/4" x 70'-0"

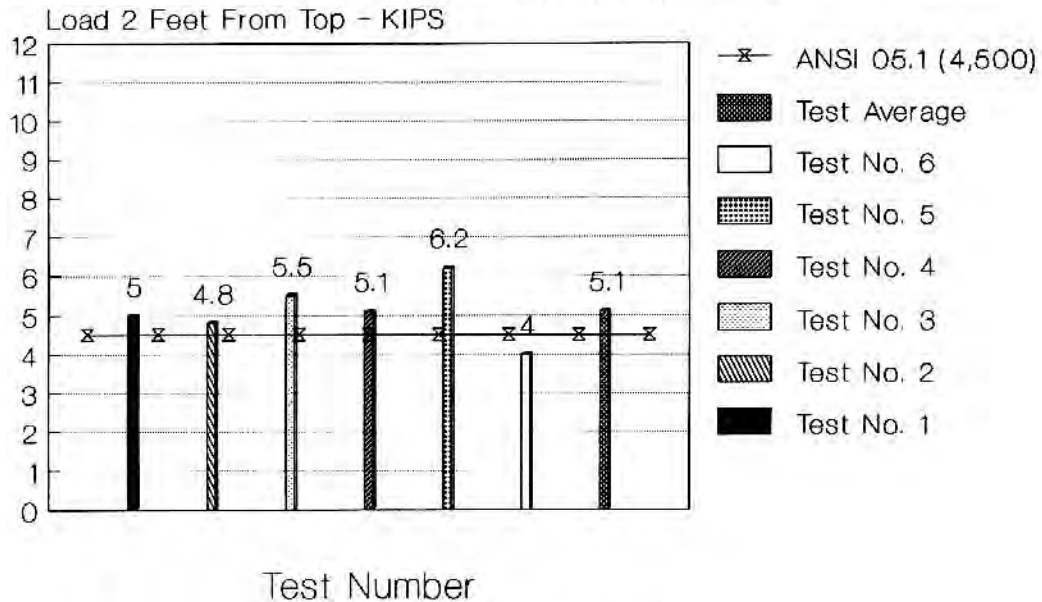


EL-1-90H, 90-Foot Class 1
12-1/4" x 7-3/4" - 20-3/4" x 90'-0"



Southern Pine Transverse Tests

Tangent Poles
PEL-1-70, 70-Foot Class 1
10-1/4" x 6-1/4" - 18-1/2" x 70'-0"



Cambered Poles
PELC-H3-40C, 40 Foot
6-3/4" x 8" - 19-1/4" x 40'-0"

