

ANALYSIS OF VALMONT INDUSTRIES LIGHTING STRUCTURE
 IN ACCORDANCE WITH AASHTO-2009 RQMTS. (FINAL DEFLECTED POSITION)
 BY BNS 5/12/2014 VERSION Fuse 1.10.0.540 32-bit

SUBJECT: VERMONT, 34' & 31' MAST ARMS W/12' LUM ARM

FOLDER: VTTRAF FILE: 3431L12

GROUP IV FATIGUE ANALYSIS OF SIGNAL AND SIGN / POLE CONNECTION: ARM

COMPONENT	LOAD	STRESS RATIO	STRESS CAT.	STRESS (KSI)
BUILT-UP BOX GUSSET	NATURAL WIND GUST	0.57	E'	1.47
	TRUCK-INDUCED GUST	0.21	E'	0.55
POLE CROSS SECTION				
	TRUCK-INDUCED GUST	0.48	E	2.18
SIMPLEX BOLT	NATURAL WIND GUST	0.41	D	2.88
	TRUCK-INDUCED GUST	0.21	D	1.44
BUILT-UP BOX GUSSET	NATURAL WIND GUST	0.50	E'	1.29
	TRUCK-INDUCED GUST	0.19	E'	0.50
POLE CROSS SECTION				
	TRUCK-INDUCED GUST	0.43	E	1.96
SIMPLEX BOLT	NATURAL WIND GUST	0.36	D	2.52
	TRUCK-INDUCED GUST	0.19	D	1.30