

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

FOLDER: VTTRAF FILE: 3431L12

R E S U L T S S U M M A R Y

MAXIMUM COMBINED STRESS RATIO
 IN EACH MAJOR COMPONENT
 =====(GROUPS I, II & III)=====

POLE (AT 20.00 (FT)) = 0.75
 SIGNAL AND SIGN ARM 1 = 0.56
 SIGNAL AND SIGN ARM 2 = 0.53
 LUMINAIRE ARM 1 = 0.45
 BASE PLATE = 0.73
 ANCHOR BOLTS = 0.95
 S/S ARM 1 ATTACH. BOLTS = 0.42
 S/S ARM 1 ATTACH. PLATE = 0.63
 S/S ARM 2 ATTACH. BOLTS = 0.36
 S/S ARM 2 ATTACH. PLATE = 0.56

MAXIMUM FATIGUE STRESS
 RATIO IN EACH MAJOR COMPONENT
 =====(GROUP IV)=====

POLE (AT 0.00 FT) = 0.98
 SIGNAL AND SIGN ARM 1
 ARM TUBE = 1.00
 BUILT-UP BOX GUSSET = 0.57
 SIMPLEX BOLTS = 0.41
 SIGNAL AND SIGN ARM 2
 ARM TUBE = 0.95
 BUILT-UP BOX GUSSET = 0.50
 SIMPLEX BOLTS = 0.36
 ANCHOR BOLT = 0.63

MAXIMUM REACTIONS APPLIED TO FOUNDATION
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BENDING MOMENT = 77794 FT-LBS
 TORSION = 30659 FT-LBS
 SHEAR FORCE = 2370 LBS
 AXIAL FORCE = 4387 LBS

MAXIMUM BENDING + AXIAL DEAD WT. STRESS
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POLE = 16.16 KSI
 SIGN/SIGNAL ARM 1 = 11.84 KSI
 SIGN/SIGNAL ARM 2 = 10.85 KSI
 LUMINAIRE ARM 1 = 6.20 KSI

RESULTANT DEFLECTION OF POLE TOP
 CAUSED BY DEAD WEIGHT
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1.08 DEGREES