LEWIS &
VAN VLEET
Incorporated

principals
chris c. van vleet, p.e.
gary j. lewis, p.e.

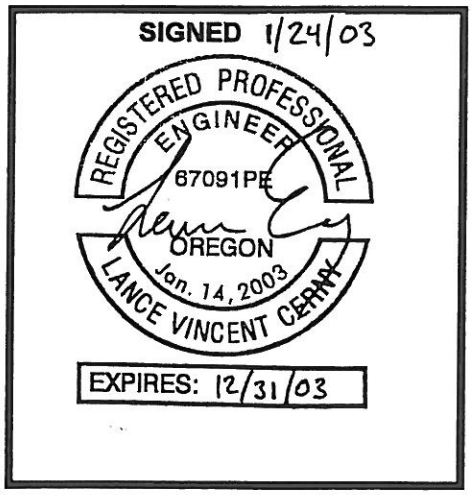
STRUCTURAL CALCULATIONS

FOR

Future Lite Track Tent Study

PREPARED FOR

SE Consulting



Lewis & Van Vleet Inc. Job Number 02272

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Job: 20 ft Tent - Study
Client: S.E. Consulting Design
Job No: 00398 By: CM
Date: 1/01 Sheet No. 10

20 ft TENT STUDY SUMMARY

ENCLOSED – ALL SIDE WALLS	BAYS AT 10 FT O.C. MAXIMUM
CAPACITY	70 MPH WIND EXP. C COMBINED WITH 15 PSF SNOW LOAD

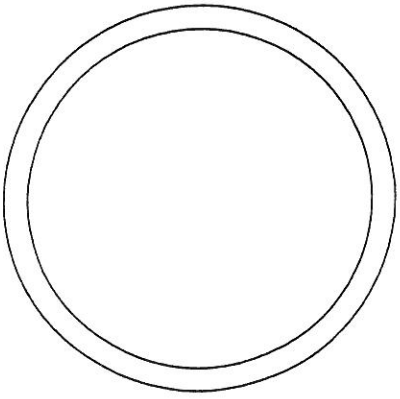
PARTIALLY – NO SIDE WALLS	BAYS AT 10 FT O.C. MAXIMUM
CAPACITY	70 MPH WIND EXP. B COMBINED WITH 15 PSF SNOW LOAD
CAPACITY	70 MPH WIND EXP. C NO SNOW LOAD ALLOWANCE

SUMMARY: 30' LIGHT TRACK TENT STUDY

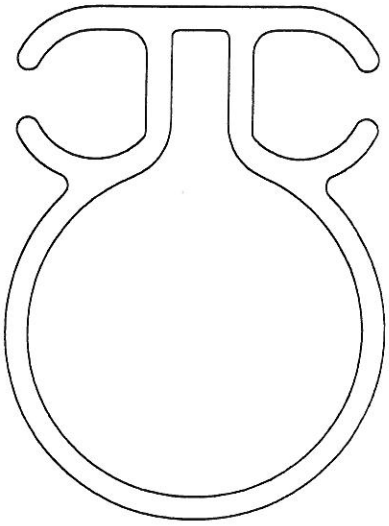
This study was conducted to determine the wind load capacities for 4 different member configurations of a 30' tent frame. The frames were analyzed using RISA 2D, a finite element analysis. The computer models were constructed such that the wind pressure applied to the model was easily modified, and through trial and error, the wind pressures were varied until the capacity of the controlling member was reached. From there, this pressure was back converted into a UBC mph wind speed. All wind speeds/pressures were assuming exposure B. This analysis has been limited to the member strengths under overall loading. The capacities of connections, or possible secondary loading to members from assembly details, have not been considered. The introduction of secondary loading to the legs would lower the noted maximum wind speeds slightly. I would expect that some member connections, particularly brace to rafter or leg connections, will require a substantial connection to reach the controlling wind loads.

The following is a list of the wind capacities for the various configurations:

Configuration #1 (2" x 1/8" leg, lite track rafter, tension cable)	10' bay: 47 mph 15' bay: 38 mph
Configuration #2 (2" x 1/8" leg, lite track rafter, no tension cable)	10' bay: 41 mph 15' bay: 33 mph
Configuration #3 (lite track leg and rafter, tension cable)	10' bay: 75 mph 15' bay: 61 mph
Configuration #4 (lite track leg and rafter, no tension cable)	10' bay: 64 mph 15' bay: 52 mph



2" DIA. ALUMINUM TUBE



LITE TRACK TUBE

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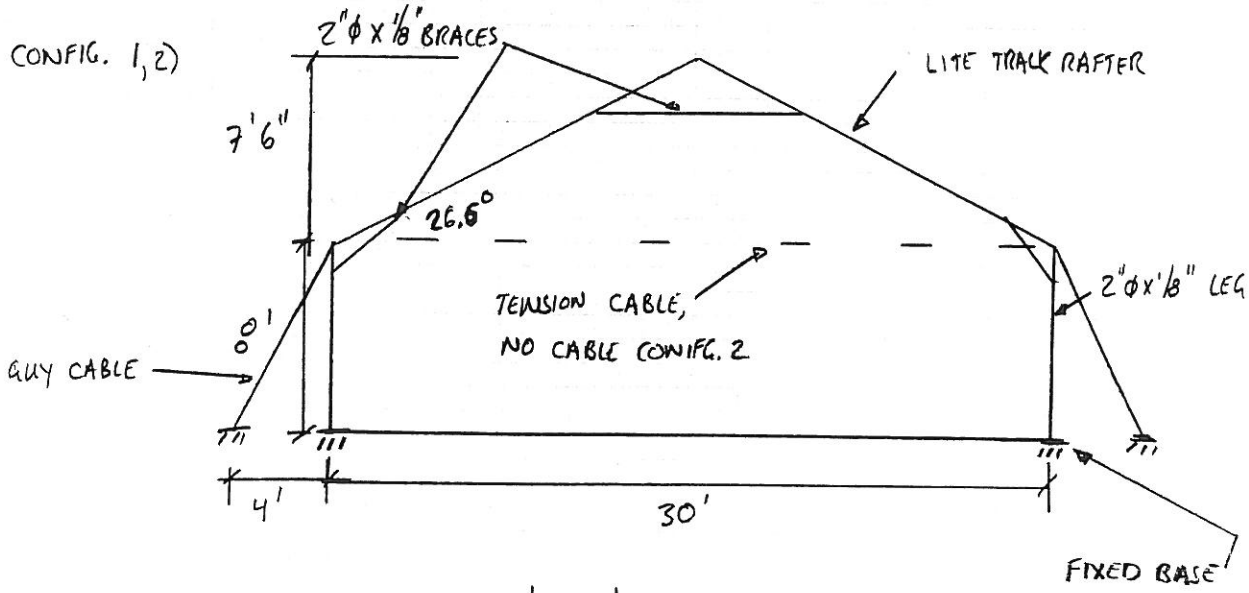
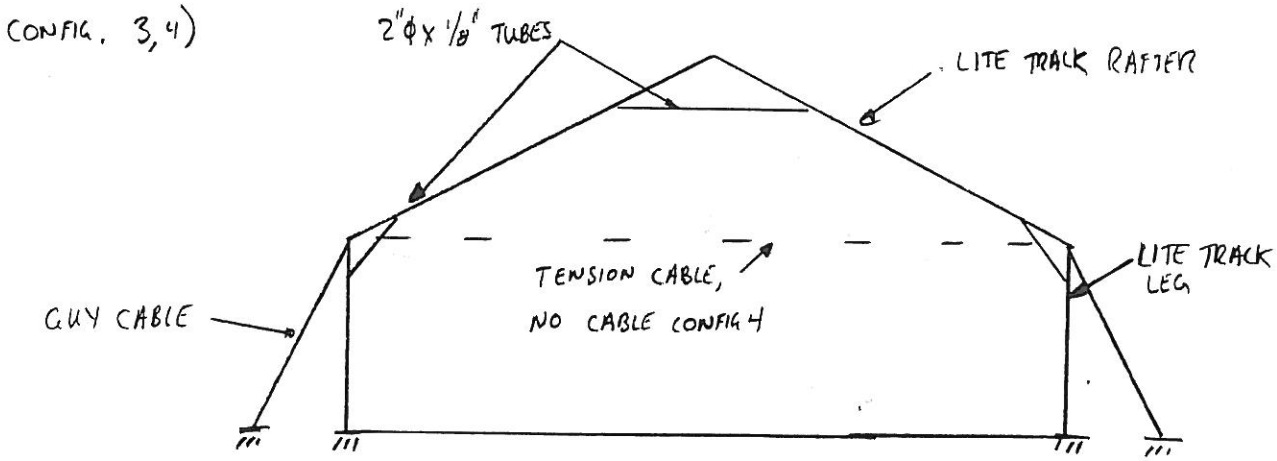
Job 30' LIGHT TENT STUDY
Client SE CONSULTING
Job No. 002272 By LC
Date 12/02 Sheet No. S1

(4) CONFIGURATIONS, (2) BAY SPACINGS EA. CONFIGURATION



10' & 15' BAY SPACINGS



10' & 15' BAY SPACINGS