Project: Venture X – Wall Sign
220 W. Congress
Detroit, MI

General Notes:

1- Governing Building Code: Michigan Building Code 2015
2- Sign structure is not independently stable until all systems and components are completed assembled, connected, and detailed.
3- Design Loads: ASCE 7-10
   - Wind Loads based on:
     i. V = 120 mph
     ii. Iw = 1.0
     iii. Exposure C
     iv. Internal Pressure Coefficient = +/- 0.18
4- The structure has been designed to withstand a 120 mph (3-sec gust) design wind speed with a maximum design pressure of 25.7 psf per ASCE 7-05.

Using Archon WinPost Program;

Wind load Calculation

OUTPUT DATA

Actual Bending Stress = 361.18 psi
Allowable Bending stress = 22049.00 psi
Total Wind force on attachments = 3229.71 psi
Attachments Wind pressure = 27.39 psf
Wind pressure = 25.89 psf
Ok, bending stress adequate
End Pressure is OK!

INPUT DATA

Wind Velocity = 120 mph
Height above ground to the center of the top sign = ~ 65 ft.
Gross area attachment (signage) = 111.00 SqFt
Quantity = 1 Sign
See details/notes on drawings