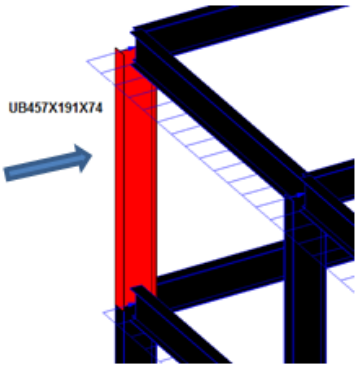
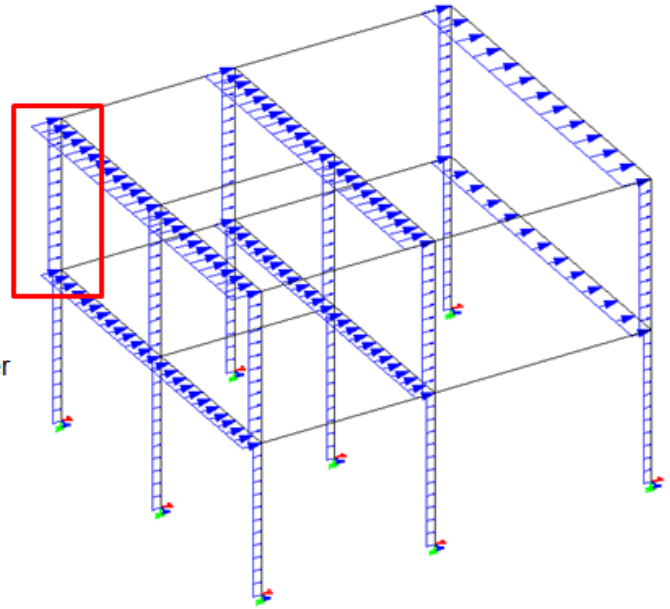


In this case flange side of member of 190.4mm or 0.1904m.



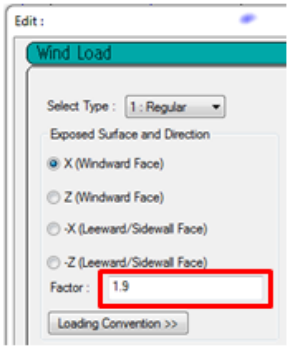
Force coefficient will be calculated from solidity ratio (Ø) = Ae / Ag and CP3 Table 20.

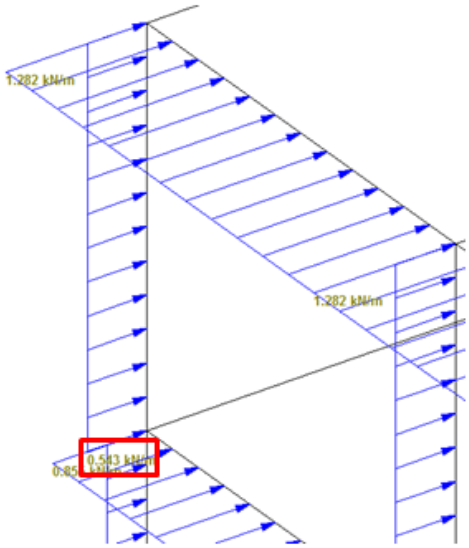
Ae = (.1904m) x {(7x3) + (8x2)} = 7.0448 m²
Ag = 7 x 8 = 56 m²

Ø = 0.1258 and therefore Cf = 1.9

Given an assumed intensity (q) of 1.5 kN/m @7m.

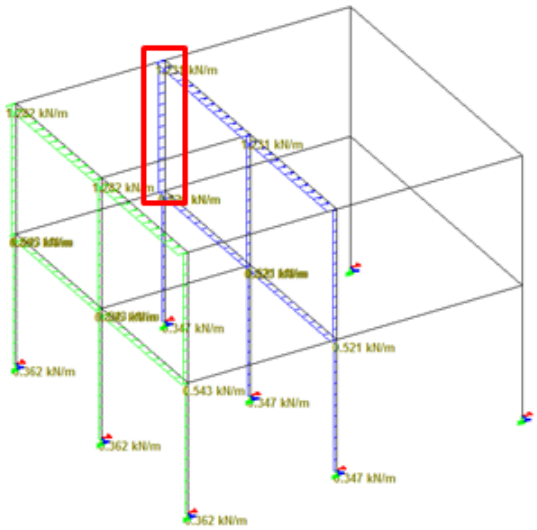
W = 1.9 x 1.5 x 0.1904
W = 0.542 kN/m (uniform load assign to the member).

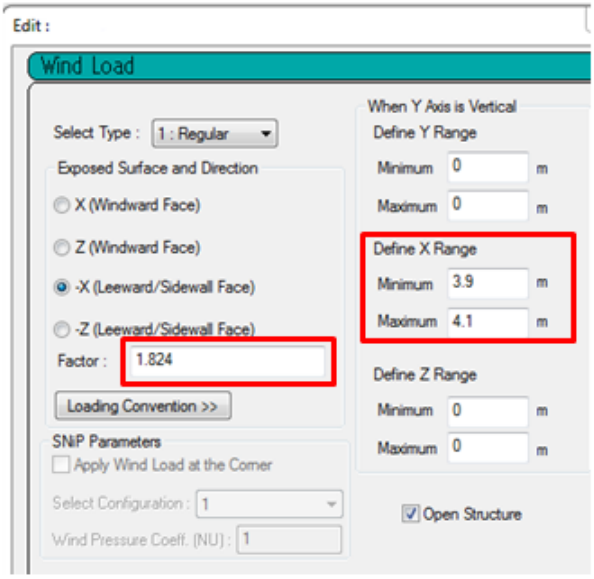


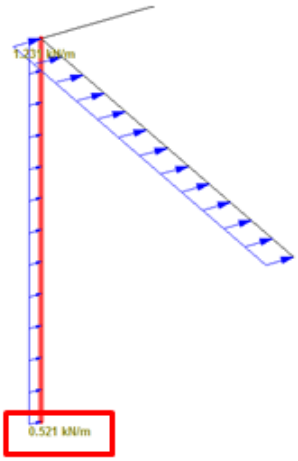


Calculating for leeward, the uniform value of the column is just Cf x q x Ae of windward which is

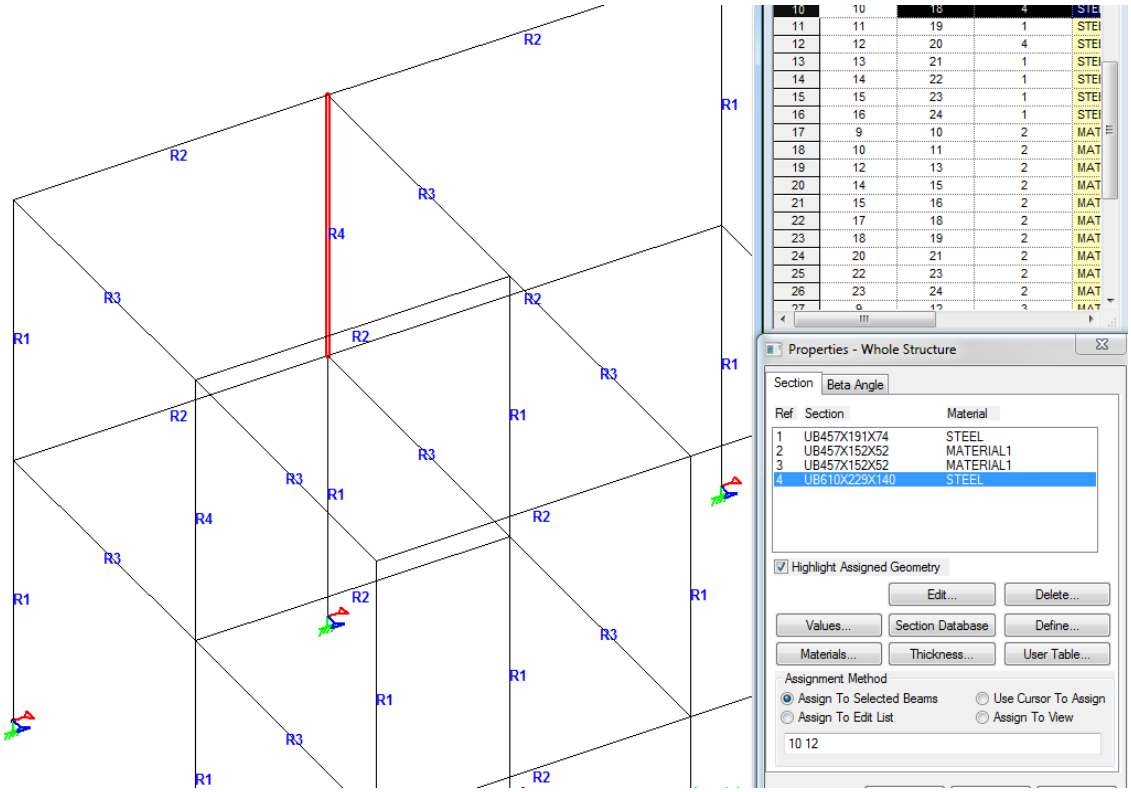
W = 0.521 kN/m given a factor of 1.824.







When I tried to change the size of the member of the leeward column from r1 to r4.



The uniform load should still be the same since the windward Ae have not been change, but unfortunately it changed base on the size of the column which is already different as per statement in the code. Now, I need to adjust the factor to get the desired result. Thanks