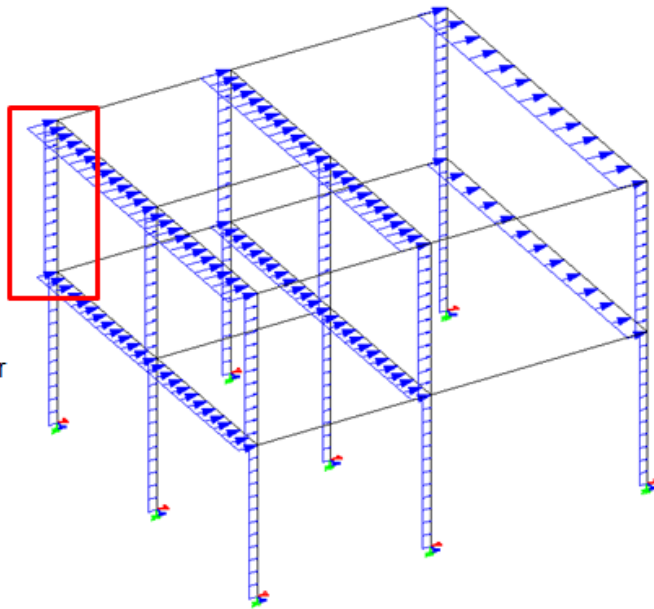


In this case flange side of member of 190.4mm or 0.1904m.



Force coefficient will be calculated from solidity ratio (ϕ) = A_e / A_g and CP3 Table 20.

$$A_e = (0.1904\text{m}) \times \{(7 \times 3) + (8 \times 2)\} = 7.0448 \text{ m}^2$$

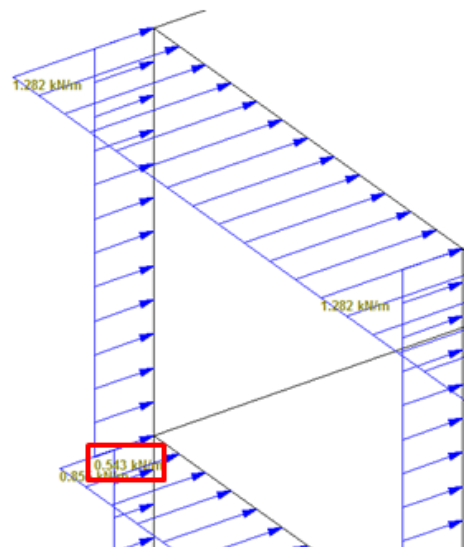
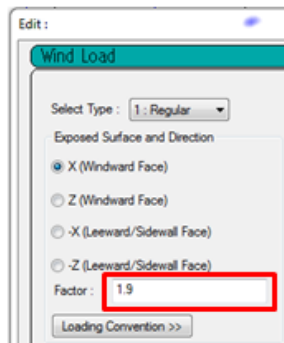
$$A_g = 7 \times 8 = 56 \text{ m}^2$$

$$\phi = 0.1258 \text{ and therefore } C_f = 1.9$$

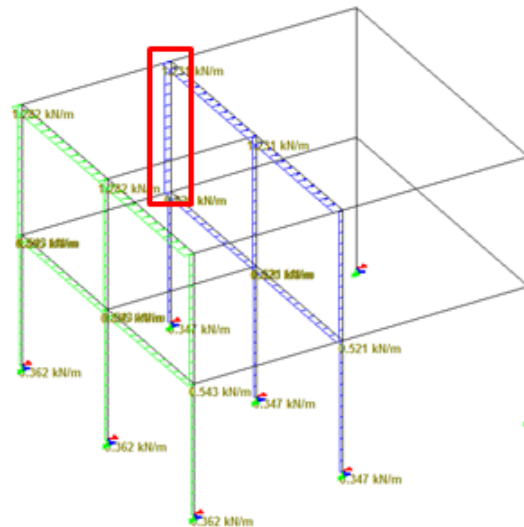
Given an assumed intensity (q) of 1.5 kN/m @ 7m.

$$W = 1.9 \times 1.5 \times 0.1904$$

$W = 0.542 \text{ kN/m}$ (uniform load assign to the member).



Calculating for leeward, the uniform value of the column is just $C_f \times q \times A_e$ of windward which is $W = 0.521 \text{ kN/m}$ given a factor of 1.824.



Edit :

Wind Load

Select Type : 1 : Regular

Exposed Surface and Direction

- ☐ X (Windward Face)
- ☐ Z (Windward Face)
- ☒ -X (Leeward/Sidewall Face)
- ☐ -Z (Leeward/Sidewall Face)

Factor : 1.824

Loading Convention >>

SNIP Parameters

☐ Apply Wind Load at the Corner

Select Configuration : 1

Wind Pressure Coeff. (NU) : 1

When Y Axis is Vertical

Define Y Range

Minimum 0 m

Maximum 0 m

Define X Range

Minimum 3.9 m

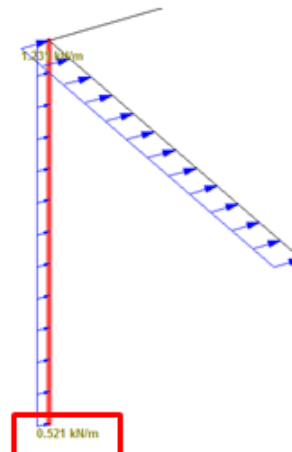
Maximum 4.1 m

Define Z Range

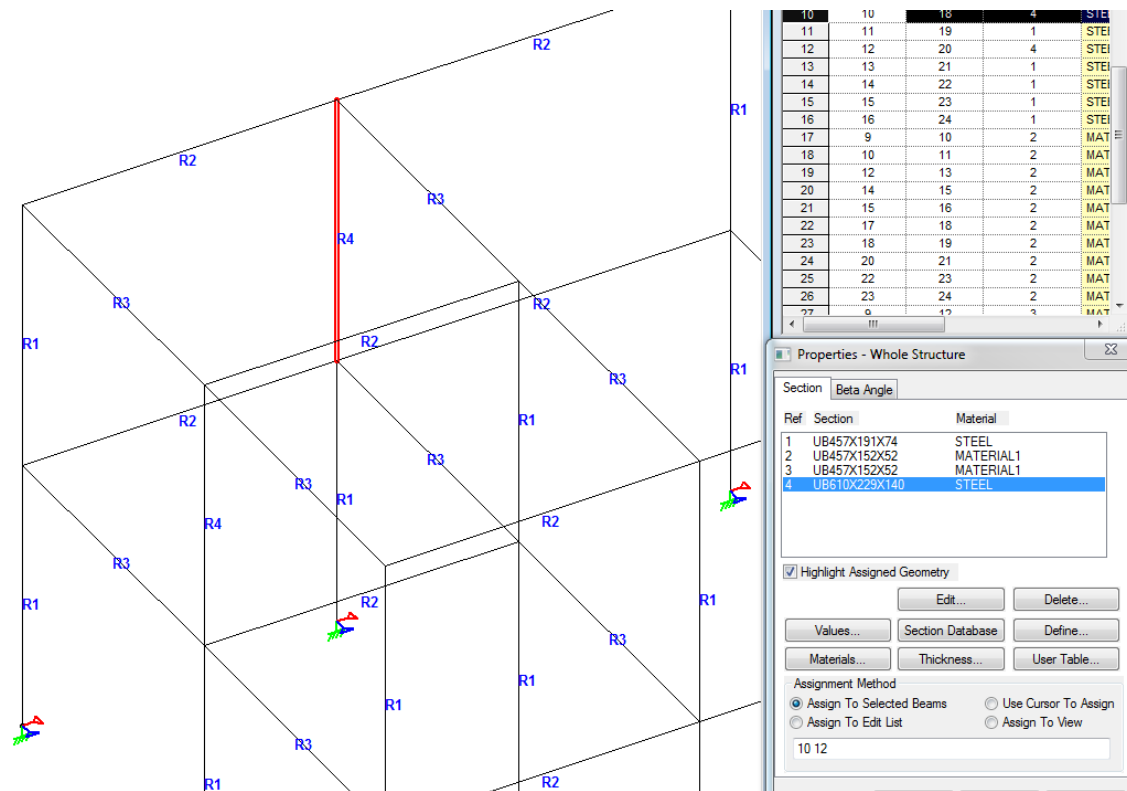
Minimum 0 m

Maximum 0 m

☒ Open Structure



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

