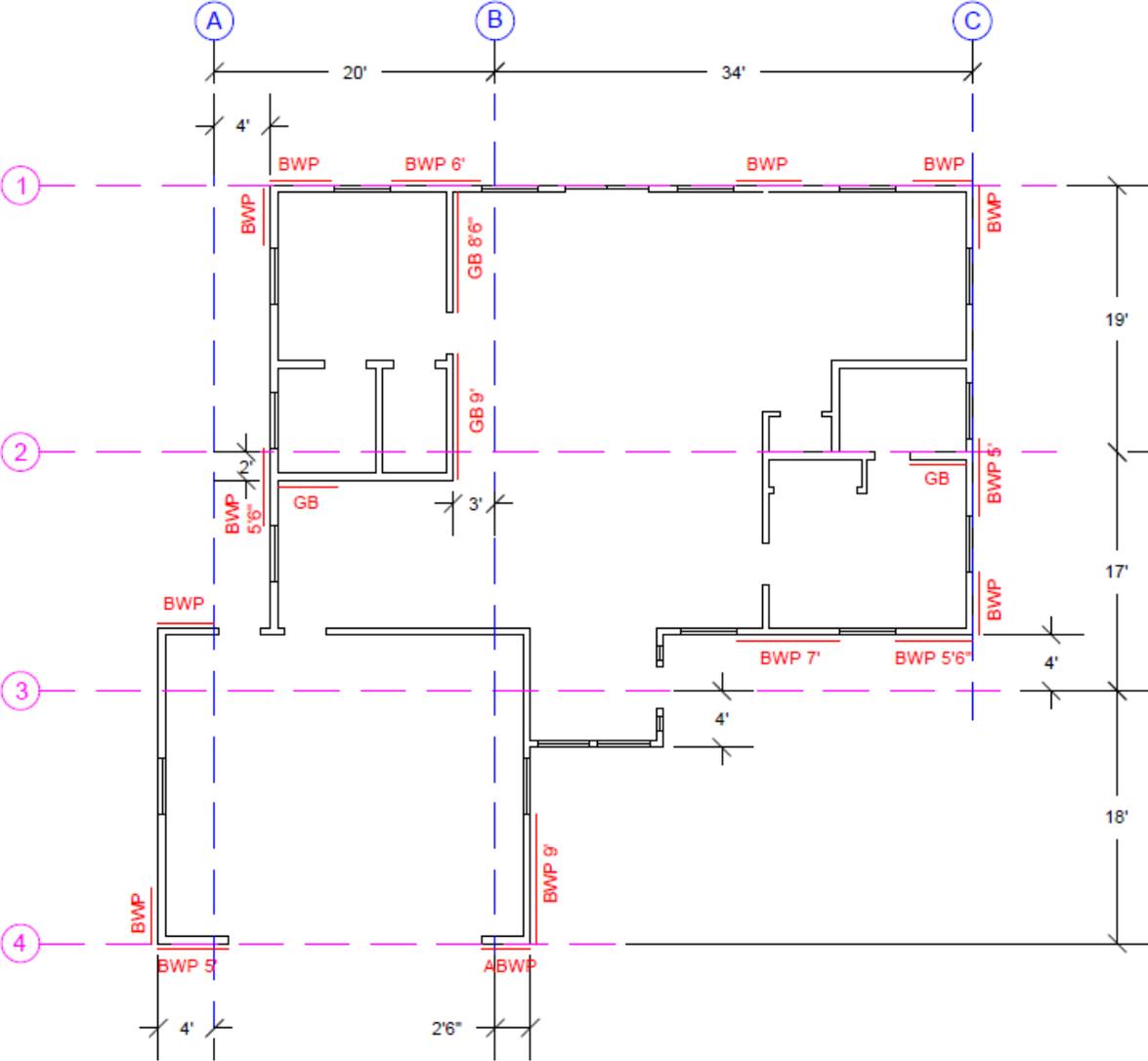


# 2017 ORSC Prescriptive Wall Bracing Calculator - Wind Instructions

This calculator is *not* intended to teach the user how to do a lateral bracing calculation or teach code. It is intended to help the user present their work to their local jurisdiction in an easy to follow format and do the math for the user. The user needs to be familiar with the code requirements when using this calculator to be able to take advantage of its versatility.

1. Identify your braced wall lines and brace wall locations (length and type). The following is an example of what your plan should resemble. Color was used in the example for clarity, however it is not required. Plan needs to be to scale.



Lateral Bracing Plan

Scale: \_\_\_\_\_

2. Fill out the job site information section of the form.

Job Name: <b>PRESCRIPTIVE WALL BRACING CALCULATOR INSTRUCTIONS</b>				Permit Number: <u>12345</u>
Job Address <u>500 CENTRAL AVENUE</u>		City: <u>COOS BAY</u>	Date: <u>November 17, 2017</u>	
Check which floor this applies to:	1st floor: <u>X</u>	2nd floor: _____	Number of Stories: <u>1</u>	Seismic Zone: <u>D2</u>
Eave to Ridge Height: <u>10'</u>	Wall Height: <u>9'</u>	Wind Speed: <u>135</u>	Wind Exposure: <u>C</u>	

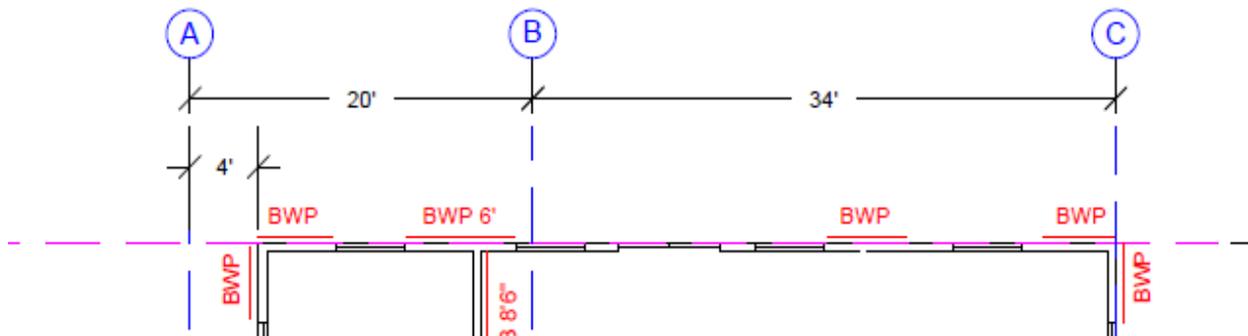
3. Fill in the adjustment factors for each wall line. If you find you do not have enough bracing at the end you can go back and change the factors as needed and the calculator will change the math and update the fields. Some of the adjustment factors may not apply. **If you are not going to take the adjustment factor or the factor does not apply then a value of 1 or 1.0 must be entered for the calculator to work.**

Wall line ID (indicate wall line ID's on plans):	1	2	3	4	5	A	B	C	D	E
Wind Exposure Category Factor (item 1):	1.2	1.2	1.2	1.2		1.2	1.2	1.2		
Roof Eave to Ridge Height Factor (item 2):	1	1	1	1		1	1	1		
Wall Height Adjustment Factor (item 3):	0.95	0.95	0.95	0.95		0.95	0.95	0.95		
Number of Braced Wall Lines Factor (item 4):	1.45	1.45	1.45	1.45		1.3	1.3	1.3		
Additional 800-Pound Hold-Down Device Factor (item 5):	1	1	1	1		1	1	1		
Interior Gypsum Board Finish Factor (item 6):	1	1	1	1		1	1	1		
Gypsum Board Fastening Factor (item 7):	1	1	1	1		1	1	1		
<b>Total Wind Adjustment Factor:</b>	<b>1.653</b>	<b>1.653</b>	<b>1.653</b>	<b>1.653</b>	<b>0.000</b>	<b>1.482</b>	<b>1.482</b>	<b>1.482</b>	<b>0.000</b>	<b>0.000</b>

**Note:** The Total Wind Adjustment Factor will automatically populate when all factors are entered.

- Next fill in the bracing method or type.
- Fill in the braced wall line spacing value. Use the furthest distance to an adjacent wall line on either side.

Example: Braced line spacing for A = 20 (20' is the only adjacent line)  
 B = 34 (34' is the furthest adjacent line)  
 C = 34 (34' is the only adjacent line)



6. From the corresponding ORSC Table, enter the required bracing.
7. The final step is to enter the amount of bracing provided on the plan. If this amount is greater than the Total Required Bracing Length then in the next box “PASS” will appear. If the amount is less than the Total Required Bracing Length then in the next box “FAIL” will appear.

Braced Wall Line	Bracing Method	Braced Wall Line Spacing	Req'd Bracing Per Table R602.10.3(1)	Total Wind ADJ Factor	Total Required Bracing Length	Length Provided	PASS or FAIL
1	WSP	19	5.25	1.653	8.68	18	PASS
2	GB	19	9.05	1.653	14.96	8	FAIL
3	WSP	18	5.25	1.653	8.68	16.5	PASS
4	WSP	18	5.25	1.653	8.68	9	PASS
5				0.000	0.00		
A	WSP	20	5.5	1.482	8.15	13.5	PASS
B	GB	34	14.6	1.482	21.64	26.5	PASS
C	WSP	34	8.5	1.482	12.60	13	PASS
D				0.000	0.00		
E				0.000	0.00		

8. Repeat the above steps for the 2017 ORSC Prescriptive Wall Bracing Calculator - Seismic.

If all of the PASS or FAIL boxes say PASS then the calculator part is complete and ready to be printed for submittal. If any of the boxes say FAIL then you will need to go back and adjust your factors or amount of bracing provided.