

The Focus of this Lesson is:

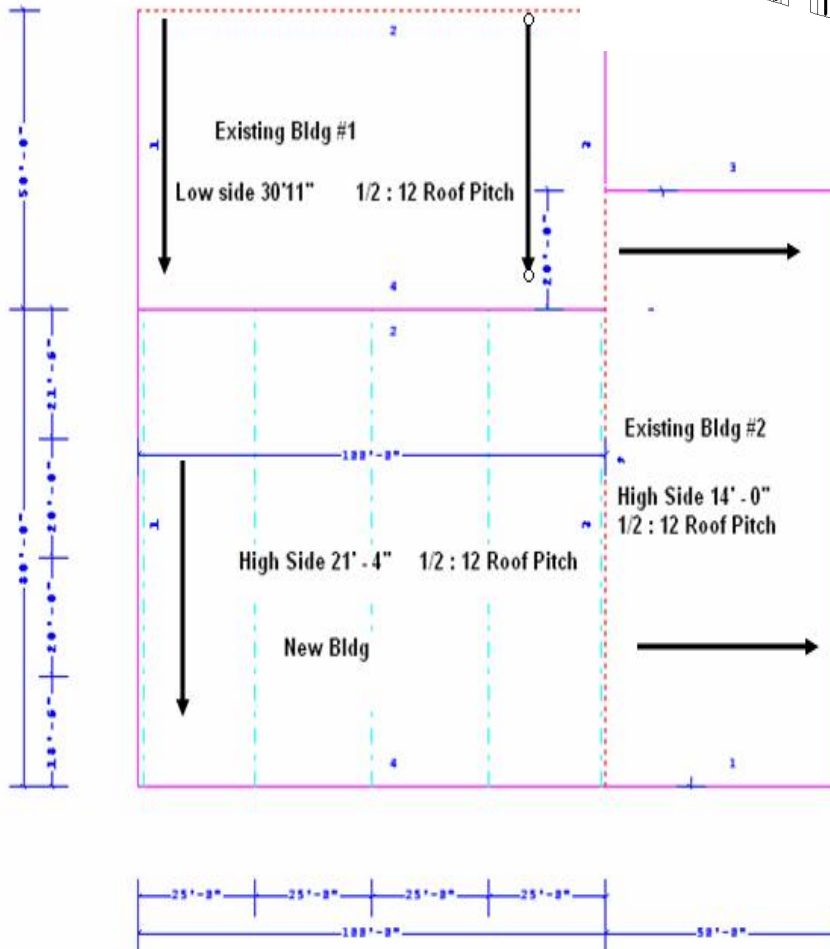
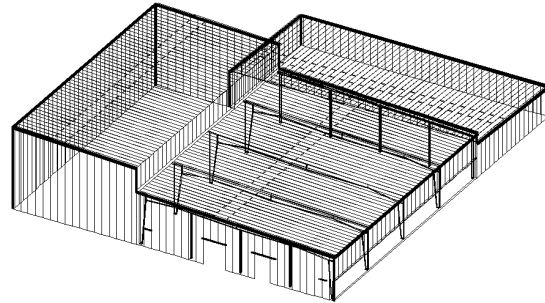
- Add existing buildings to your projects
- Check loading
- Check and change trim types
- See the parts that are detailed

Lesson Comments:

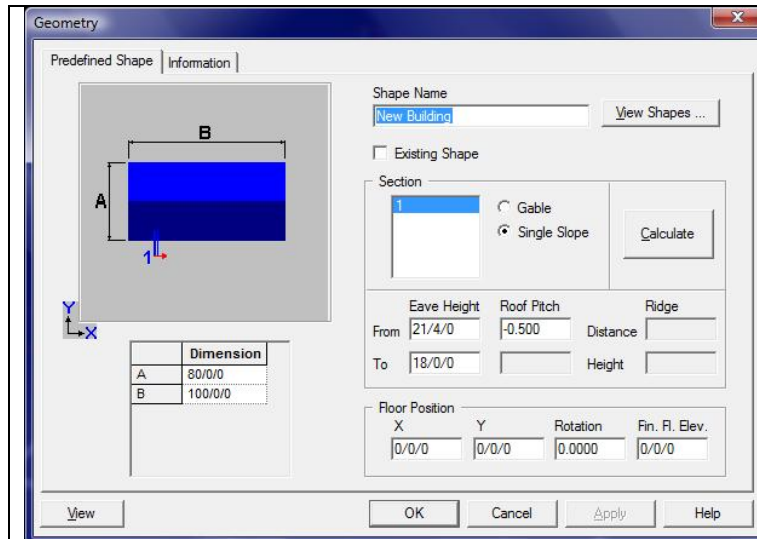
In this lesson we will add existing buildings to our new building so that loads get transferred and trim conditions get detailed. We will look at how you can check to see exactly what parts you are getting on your project.

Existing Buildings around your job can impact the loading that your new building will receive. Any Buildings placed in VPCCommand within 20'-0" of each other will apply loads to the other buildings.

Use SSR roof and Panel Rib walls. Eave Gutter and Base Trim w/Angle.
Your loads and codes from your default building

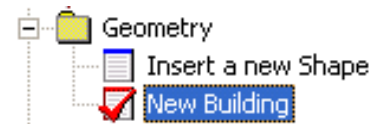


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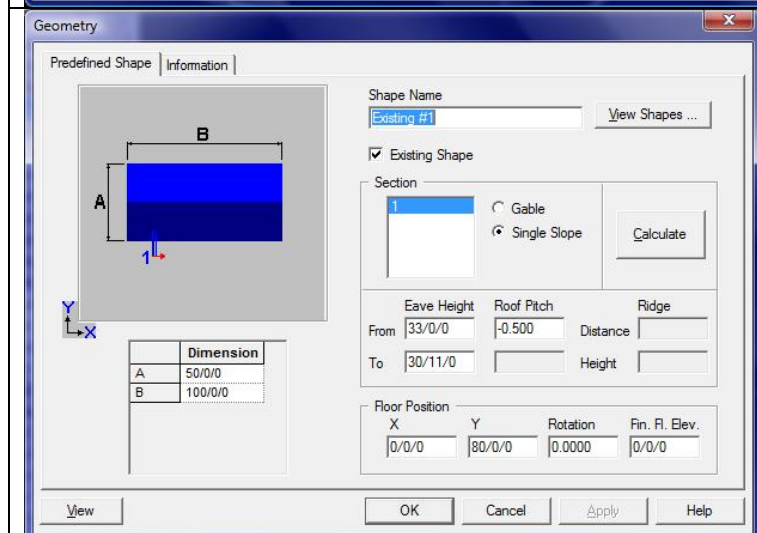


- 1) Input the Buildings
 - You could start with any one of the buildings just as long as you can locate them in the correct x-y location.
 - For this lesson we can start with the New Building and locate the existing buildings around it.

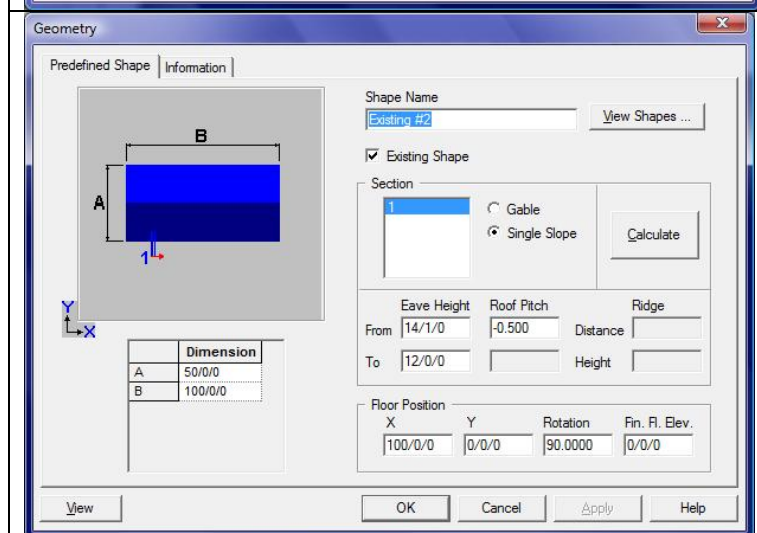
2)



3)

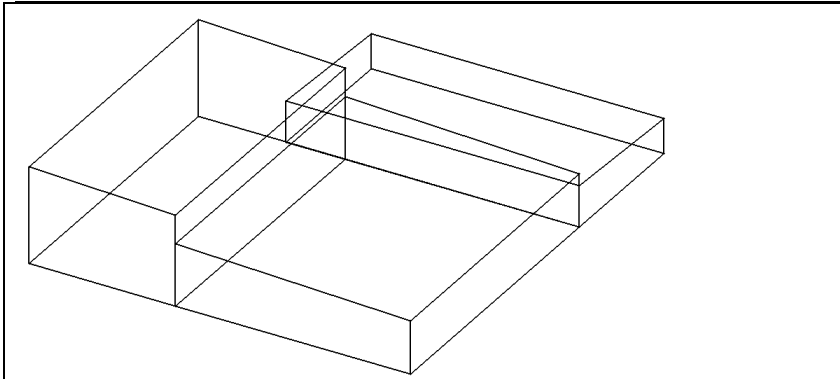


- 4) After you enter the New Building, you can add the existing buildings around it.
- 5) Open the Geometry folder.
- 6) Double click Insert a New Shape.
- 7) Define Existing 1 as shown here.

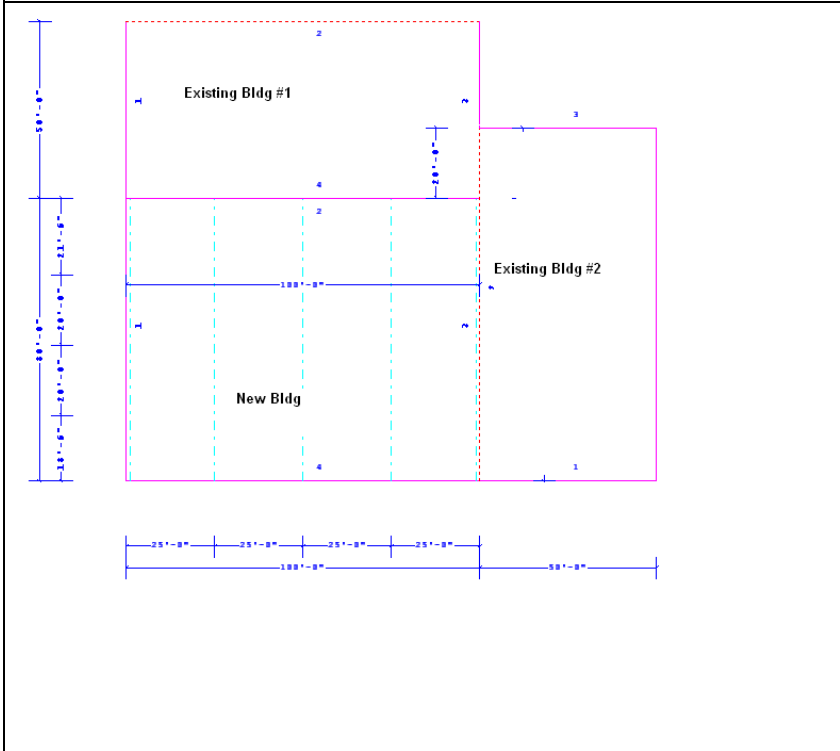


- 8) Define Existing 2 as shown here.
- 9) Make sure to click the Existing Shape Check box.

Note: Discussion of the significance of the Existing Shape checkbox will be explained later.



10) Your building should look similar to the following. The existing buildings are located on the back sidewall and the right endwall of the New building. Remember that the left most point (least "X" and least "Y" value) of any shape is its origin and that it is subject to change as the building is rotated.



11) Add centerline of Frame Locations

- **New Building:** For this example we can use 25'-0" bays in the New Building.
- The left endwall frame should be a rigid frame with endposts due to the framed openings that are required.
- Keep in mind that the right endwall frame can be a post and beam if we add endwall bracing.
 - * Look for this in a step later in the lesson.

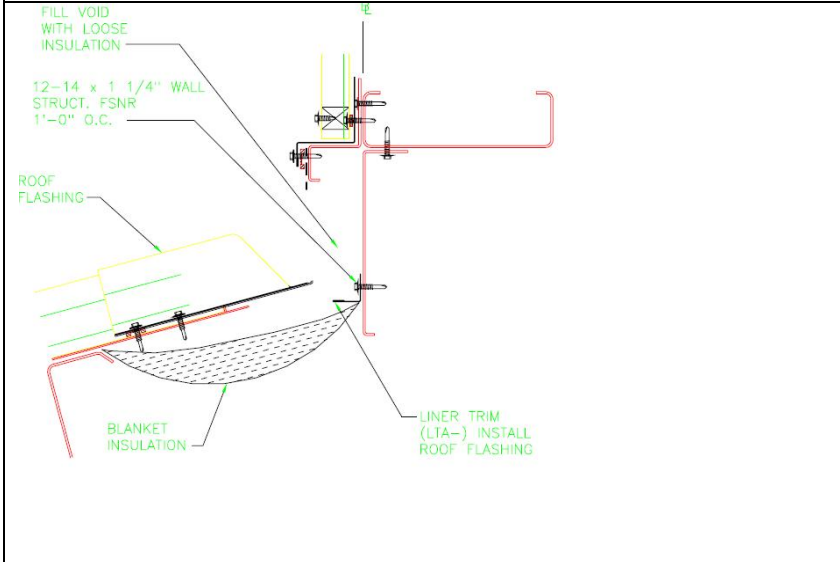
Frame Locations on New Building, Side 4

Frame Locations

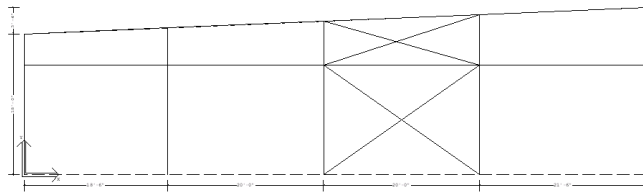
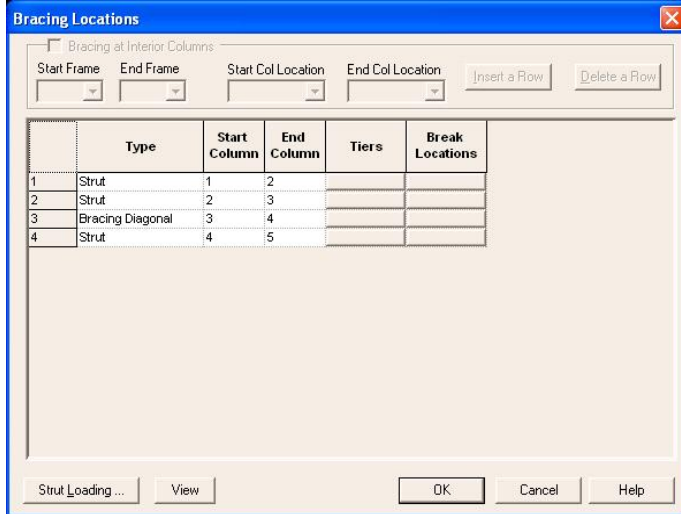
Orientation from Wall: Perpendicular Special

Total Distance: 100/0/0 Remaining: 1/0/0

Location	Space	Description	Angle	Group
1	1/0/0	Rigid Frame with Endposts	90.0000	
2	25/0/0	Rigid Frame	90.0000	
3	50/0/0	Rigid Frame	90.0000	
4	75/0/0	Rigid Frame	90.0000	
5	99/0/0	Post & Beam	90.0000	



- **Existing Building #1:** Because the low side of Existing Building #1 is higher than the low eave of the New Building there will be a need for Wall to Roof flashing between the 2 buildings.
- Because we have input the existing buildings, VPCOMMAND will recognize the condition and add this trim.



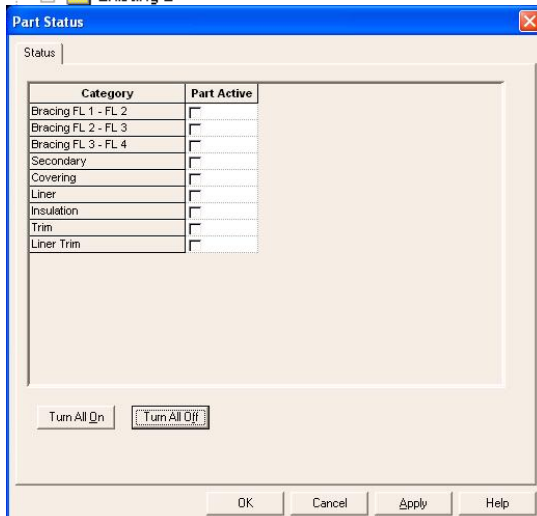
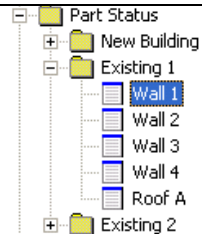
12) End wall Bracing

- Since we used a Post and Beam frame on the Right end wall, and the wall is open below the high eave of Existing #2, you will need to add end wall bracing.
- You add the bracing to the end wall just as you do a side wall by changing the Strut to Diagonal Bracing.

13) We added existing buildings to our New Building so that tie in trim conditions would price and any snowbuild up or other loads could get transferred correctly. Now we need to ensure that the secondary, framing, trim, covering, etc. at the existing buildings do not price unless we want them to.

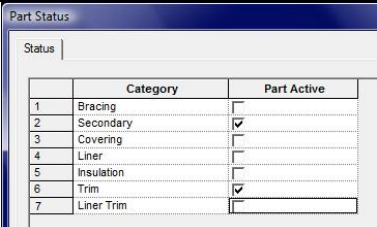
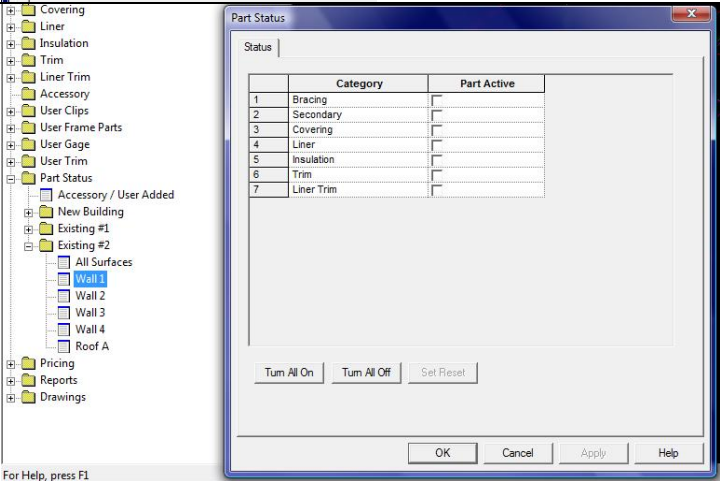
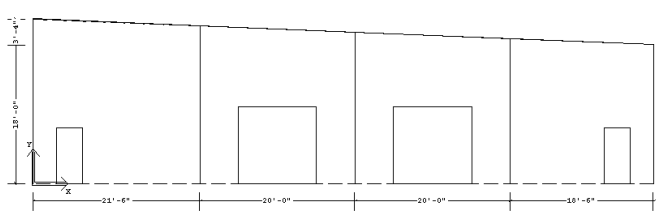
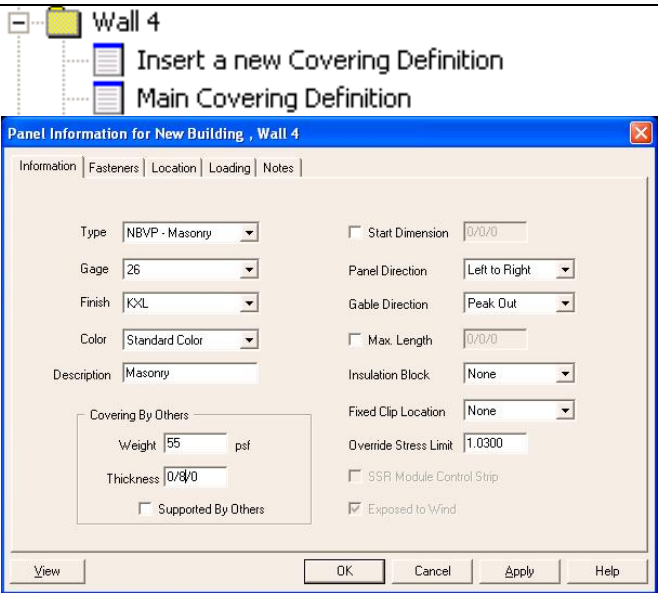
14) Identify any items on the existing buildings that you may need.

- Trim Wall to Roof condition on wall 3 of the New Building.



15) Go to the Parts Status folder in the tree for Existing #1 and Turn All Off for every wall and roof, except for Wall 4.

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	<p>16) On Wall 4 the screen should have Secondary and Trim turned on.</p>
	<p>17) Because you identified Existing #2 as an Existing Building when defining the Geometry (Step), all of the walls are already turned off.</p>
	<p>18) Framed Openings in wall 1 of New Building:</p> <ul style="list-style-type: none"> Add a 3070 Walk Door framed opening 3'-0" from each sidewall, on Wall 1. Add 2 -10'x10' overhead door openings to wall 1 as well with each one centered between the end posts as shown here.
<p>Wall 4</p> <p>Insert a new Covering Definition</p> <p>Main Covering Definition</p> 	<p>19) We need to add an 8'-0" masonry wall to wall 4 of the New Building.</p> <ul style="list-style-type: none"> Go to Covering / Default Information / Shape Name / Wall 4 and Insert New Covering Definition. Define it as masonry NBVP and type in the weight and thickness of the material you are using.



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Panel Information for New Building , Wall 4

Information | Fasteners | Location | Loading | Notes

Span: Full Span Partial Span

Shape: Rectangle Gable Full Height

Start Dimension: From Left Edge 0/0/0
 From Right Edge 0/0/0
 Frame Center Line 0

End Dimension: From Start Dim 0/0/0
 From Flight Edge 0/0/0
 Frame Center Line 0

Base Elevation: 0/0/0
 Top Height: 7/11/15

Gable Point: Pitch First Pitch Ridge Distance
 Height Second Pitch Ridge Height

View OK Cancel Apply Help

20) Notice we can define the height of the masonry wall 1/16" below the actual height so that we can add a girt at 8'-0" exactly (this is done because the Covering Type of NBVP-Masonry removes all secondary.

Secondary

- Default Information
- Spaces
 - New Building
 - Default Spaces
 - Wall 1
 - Wall 2
 - Wall 3
 - Wall 4
 - Default Spaces
 - Generated Spaces

21) To add the girt go to Secondary / Spaces / New Building / Wall 4 and double click Generated Spaces.

Secondary Spaces Information for New Building , Wall 4

Frame Intersections: Start End Elevations: Low High Refresh

Revised	Type	Shape	Composite	Depth	Thick.	Thk. Con	
1	Yes	Secondary Member	Plate Glass Header	<input type="checkbox"/>	8.50	0.0590	Minimum
2	No	Secondary Member	Zee	<input type="checkbox"/>	8.50	0.0590	Minimum
3	Yes	Secondary Member	Plate Glass Header	<input type="checkbox"/>	8.50	0.0590	Minimum
4	No	Secondary Member	Zee	<input type="checkbox"/>	8.50	0.0590	Minimum
5	Yes	Secondary Member	Plate Glass Header	<input type="checkbox"/>	8.50	0.0590	Minimum
6	No	Secondary Member	Zee	<input type="checkbox"/>	8.50	0.0590	Minimum
7	Yes	Secondary Member	Plate Glass Header	<input type="checkbox"/>	8.50	0.0590	Minimum
8	No	Secondary Member	Zee	<input type="checkbox"/>	8.50	0.0590	Minimum

Spaces At: Insert Or Location At: Delete View OK Cancel Help

22) Insert a girt at 8'-0". Change the Shape to Plate Glass Header from the drop down list for each girt located at the 8'-0" elevation.

23) Scroll to the right and set the deflection limit to L/240, or whatever your specific material requires.

Deflection

240
0
240
0
240
0
240
0

Loading for Entire Building

Building Code | Live Load | Wind Load | Snow Load | Seismic | Deflection Conditions | Reference Values | Notes

Frames are Vertically Supporting

Metal Roof Purlin and Panels

Def V	Loa	App	Buldn
180	L	1.00	03BC
180	S	1.00	03BC
180	W	0.70	03BC

Deflection Limit Override: W/

Frames are Laterally Supporting

Reinforced Masonry Wall

Def H	Loa	App	Buldn
200	E	0.60	VPSTD
200	W	0.70	VPSTD

Open Wall

Def V	Loa	App	Buldn
150	L	1.00	03BC
150	S	1.00	VPSTD

Interior Wall with Flexible Finish

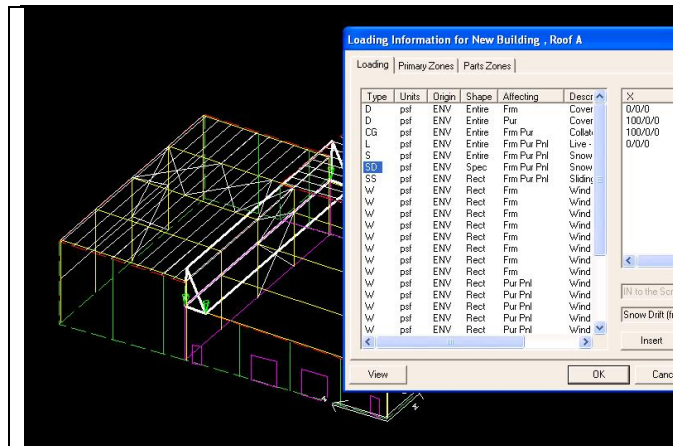
Def H	Loa	App	Buldn
90	W	0.70	03BC

Cancel Apply Help

24) Also if you need to hold a horizontal deflection limit on your primary frames you can do so by going to Loading / Loads and Codes / Deflection Conditions tab and choosing the option that best matches the type of material you are using.

- Any questions check with your Service Center.

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25) Check Loading

- Where the New Building and Existing Building #1 meet there will be some snow load applied to the New Building if required.
- You can check to make sure VPCCommand is loading the building by going to Loading / New Building / Roof A and double click to revise.
- Now you can highlight the Snow Drift (SD) load and move the window out of your way. You should see it graphically on the screen.

Trim

125	55307	1/4-14 x 1 1/4 Carbon (Traxx 3)
68	80130	Closure Panel Rib Inside 3"
0.5000	80345	Mastic Box 3/16 X 7/8 X 28" - Box of 100
1	80347	Mastic Box 3/16 X 7/8 X 9"(50) and 3"(150)
29080	80349	Mastic Roll 3/16 X 7/8 X 40'
56300	80390	Mastic Roll 3/16 X 1/4 X 40'
5	BWAD207	
5	BWC20	
10	BWT110	
10	LTAD	
50	PS4	SSR Panel Stiffener - Endlap PS4
550	57650	Roof Stitch 1/4-14 X 1 1/8" (Traxx 1) S Steel
100	57400	Roof Struct 1/2-14 X 1 1/4" (Traxx 2) S Steel
10	SWRTA1	SWRTA SSR Wall to Roof Flash 1:12 (PR/WR)
133-3300	Wall Stitch 7/8 Carbon	Wall Stitch 1/4-14 x 7/8 HWH (Traxx1)

26) Check Trim and Secondary

- between the New Building and the existing buildings to make sure the proper trim is present.
- You can also run the job and view the parts list to see exactly which trim gets detailed.
- Go to Trim / New Bldg / Roof A
- With Roof A highlighted, click the parts list toolbar button.

Trim Conditions

Rev	Condition	Type	Color	Start Dim.	Start Elev.	Stc	
1	No	SSR Rake	Rake Fascia	Patrician Bronze	0/0/0	30/11/0	50/0
2	No	SSR Wall to Roof	Wall to Roof Trim - Metal	Match Roof Color	0/0/0	14/0/0	20/0
3	No	Panel Rib Wall Base	Crimp w/ Angle	Patrician Bronze	20/0/0	0/0/0	30/0
4	No	Outside Corner	Outside Corner Trim	Match Wall Color	0/0/0	214/0	0/0/0
5	No	Panel Rib Wall Open	Trim Not Applicable	Not Applicable	0/0/0	0/0/0	20/0
6	No	Point Trim	Point Trim	Patrician Bronze	20/0/0	14/0/0	0/0/0

27) Go to Trim / Building Name / Wall # and Revise to see exactly what is being detailed.

- For Wall 3 of the New Building we can see that the Wall to Roof flashing is going to be priced for this condition.
- Check the start elevation to be sure it is in the correct location, for this case 14'-0" would be correct.



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	Revised	Type	Shape	Start Elev.
1	No	Secondary Member	Cee	14/6/0
2	No	Secondary Member	Cee	14/6/0
3	No	Secondary Member	Zee	17/5/4
4	No	Secondary Member	Cee	14/6/0
5	No	Secondary Member	Zee	17/5/4
6	No	Secondary Member	Cee	14/6/0
7	No	Secondary Member	Zee	17/5/4

28) We can also check the secondary on this wall to make sure the wall to roof girt is in place.

- Go to Secondary / Spaces / New Building / Wall 3 / Generated Spaces and you will see that VPCCommand added a girt at 14'-6" which is correct for this condition.

Panel Information for New Building , Roof A

Information | Fasteners | Loading | Notes

Location	Type	Shape	Units	Start
Entire Surface	L	Entire	psf	0/0/0
Entire Surface	S	Entire	psf	0/0/0
Snow Drift Eave	SD	Spec	psf	0/0/0

Description

Standard Spacing is Adequate
 Standard Spacing is Adequate
 Standard Spacing is Adequate

29) You can also check the covering design to see if it is failing due to the snow build up by going to the Covering / Default Information/Shape Name/Roof A.

- Double click the Main Covering Definition and click the Loading tab at the top of the window.
- Notice the third load in the list is called snow drift. If you scroll to the far right side of this line you will see the message telling you if the design was acceptable or if the secondary spaces need to be modified.

30) If the design fails VPCCommand will automatically decrease the purlin spacing as required.

31) Run the job and generate reports as required.