

RESIDENTIAL ROOM ADDITION – FULLY SHEATHED PRESCRIPTIVE BRACED WALL LINE DESIGN

Boulder City
Building Department
401 California Avenue
Boulder City, NV 89005
(702) 293-9282

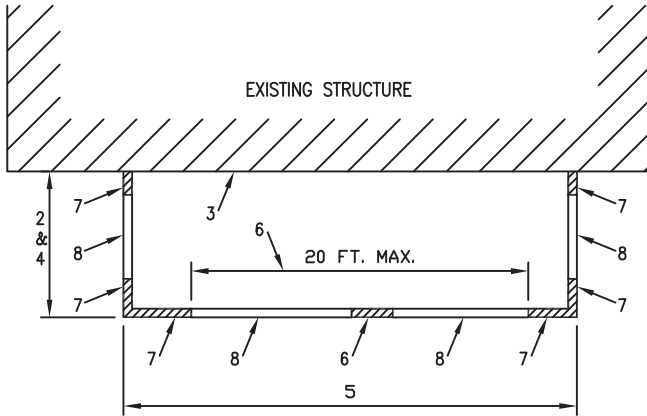
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Building & Fire Safety Dept.
240 Water Street
Henderson, NV 89015
(702) 267-3650

Las Vegas
Building & Safety Dept.
333 N. Rancho Drive
Las Vegas, NV 89106
(702) 229-6251

THE RESIDENTIAL ADDITION MUST CONFORM TO ALL OF THE FOLLOWING TO UTILIZE THIS HANDOUT. IF THE ADDITION CANNOT COMPLY WITH THESE ITEMS, YOU MAY PROVIDE A DESIGN CONFORMING TO THE PRESCRIPTIVE REQUIREMENTS OF THE INTERNATIONAL RESIDENTIAL CODE OR AN ENGINEERED DESIGN.

BRACED WALL LINES MUST BE CONSTRUCTED TO PROVIDE LATERAL BRACING FOR THE ADDITION. THE SAMPLE FLOOR PLAN BELOW SHOWS A TYPICAL ADDITION AND THE BRACED WALL LINES REQUIRED. ADDITIONAL INTERIOR WALLS MAY BE CONSTRUCTED WITHIN THE SPACE, HOWEVER, ARE NOT SHOWN HERE.

ROOF/CEILING DEAD LOAD SHALL NOT EXCEED 20 PSF AND WALL DEAD LOAD SHALL NOT EXCEED 15 PSF IN ACCORDANCE WITH IRC TABLE R602.10.3(4), ITEMS #4 AND #5.



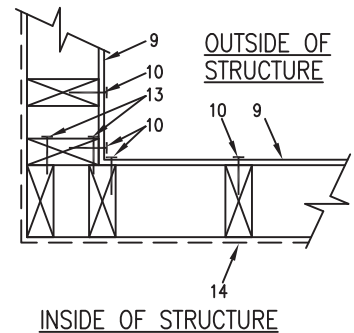
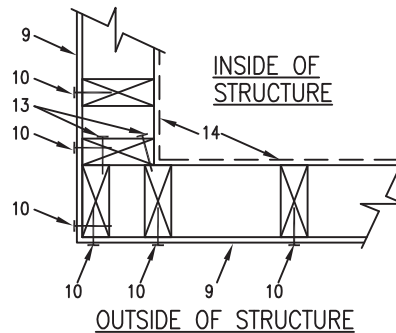
SAMPLE FLOOR PLAN – NOTES ON PLAN REFER TO NOTES BELOW

BRACED WALL PANEL LENGTH AND ADJACENT CLEAR OPENING HEIGHT REQUIREMENTS FOR FULL HEIGHT WALL PANELS IN A CONTINUOUSLY SHEATHED WALL		
HEIGHT OF WALL	FULL HEIGHT WALL PANEL MINIMUM LENGTH	MAXIMUM OPENING HEIGHT TO THE FULL HEIGHT WALL PANEL
8- FEET	32- INCHES	80- INCHES
	24- INCHES	64- INCHES
9- FEET	36- INCHES	90- INCHES
	27- INCHES	72- INCHES
10- FEET	40- INCHES	100- INCHES
	30- INCHES	80- INCHES

MAXIMUM OPENING HEIGHT SHALL BE MEASURED FROM THE BOTTOM OF SILL TO THE UNDERSIDE OF THE HEADER. A MINIMUM OF 20 PERCENT OF THE LENGTH OF THE WALL MUST BE CONSTRUCTED FULL HEIGHT OF THE WALL IN PANELS OF A MINIMUM WIDTH LISTED IN THE TABLE.

NOTES :

1. MAXIMUM OF ONE-STORY OR 10- FEET IN HEIGHT MEASURED FROM BOTTOM OF FOUNDATION SILL PLATE TO TOP OF WALL DOUBLE TOP PLATE.
2. BRACED WALL LINES PERPENDICULAR TO THE STRUCTURE MAY BE A MAXIMUM OF 16- FEET IN LENGTH.
3. VERIFY EXISTING BUILDING BRACED WALL LINE HAS AT LEAST 2 FULL HEIGHT BRACED WALL PANELS WITH HEIGHT/LENGTH RATIO NOT GREATER THAN 3.5 OR (1) FULL HEIGHT BRACED WALL PANEL WITH HEIGHT/LENGTH RATIO 1 OR LESS.
4. BRACED WALL LINES WITH A LENGTH 16- FEET OR LESS SHALL HAVE NOT LESS THAN TWO FULL HEIGHT BRACED WALL PANELS WITH MINIMUM LENGTH PER TABLE ABOVE OR ONE FULL HEIGHT BRACED WALL PANEL WITH MINIMUM LENGTH OF 48 INCHES OR MORE IN ACCORDANCE WITH IRC SECTION R602.10.2.3.
5. BRACED WALL LINES PARALLEL TO THE STRUCTURE MAY BE A MAXIMUM OF 25- FEET IN LENGTH.
6. ADDITIONAL INTERMEDIATE FULL HEIGHT BRACED WALL PANEL REQUIRED ALONG BRACED WALL LINE IF SPACING BETWEEN FULL HEIGHT BRACED WALL PANELS EXCEEDS 20- FEET.
7. PROVIDE FULL HEIGHT BRACED WALL PANELS AT EACH CORNER OF ADDITION. SEE THE TABLE ABOVE FOR THE MINIMUM LENGTH OF EACH FULL HEIGHT BRACED WALL PANEL. FOR OTHER POSSIBLE END CONDITIONS ALONG BRACED WALL LINE SEE IRC FIGURE R602.10.7.
8. LOCATION WHERE DOORS, WINDOWS AND OTHER OPENINGS ARE ALLOWED. FOR HEIGHT OF OPENING ALLOWED SEE THE TABLE ABOVE.
9. ENTIRE LENGTH OF BRACED WALL LINE, INCLUDING ABOVE AND BELOW OPENINGS, SHALL BE SHEATHED ON ONE SIDE WITH MINIMUM 3/8- INCH, 24/0 SPAN EXTERIOR RATED STRUCTURAL PANEL (OSB, PLYWOOD, ETC).
10. SHEATHING TO BE NAILED WITH 8d COMMON NAILS AT 6- INCHES ON CENTER AT EDGES AND 12- INCHES ON CENTER AT INTERMEDIATE SUPPORTS.
11. MAXIMUM STUD SPACING IS 16- INCHES ON CENTER.
12. ALL BRACED WALL LINES SHALL BE PROVIDED WITH A CONTINUOUS REINFORCED CONCRETE FOUNDATION (12- INCHES WIDE BY 12- INCHES MINIMUM DEPTH BELOW GRADE). SEE REGIONAL STANDARD RESIDENTIAL ROOM ADDITION B-114 FOR DETAILS.
13. 16d NAILS AT 12- INCHES ON CENTER.
14. GYPSUM BOARD ON THE INTERIOR OF THE STRUCTURE.
15. ALL FULL HEIGHT BRACED WALL PANELS SHALL HAVE AT MINIMUM (TWO) 1/2- INCH DIAMETER ANCHOR BOLTS BUT SPACING NOT TO EXCEED 6- FOOT ON CENTER MAX., WITH AN EMBEDMENT DEPTH OF 7- INCHES. EACH PIECE OF FOUNDATION SILL PLATE SHALL HAVE MINIMUM TWO BOLTS PLACED NOT MORE THAN 12- INCHES OR LESS THAN 4- INCHES FROM EACH END OF EACH PIECE. THE BOLTS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. ALL ANCHOR BOLTS SHALL HAVE 3- INCH X 3- INCH X 0.229- INCH PLATE WASHERS.



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