

**HUMBOLDT COUNTY BUILDING DEPARTMENT
CITY OF WINEMUCCA BUILDING DEPARTMENT**
FOOTING DETAIL FOR ONE AND TWO FAMILY CONSTRUCTION
(2006 International Residential Code & 2006 International Building Code)
Based on 1500 psf

1. Plates, sills or sleepers on concrete or masonry which is in direct contact with the earth shall be treated wood. IRC Section R318 & R319.1(3)

2. Foundation plates or sills shall be bolted to the foundation or foundation wall with not less than 1/2" bolts, embedded at least 7" into unreinforced concrete and spaced not more than 6 feet apart (2-story anchor bolts shall be placed 4 feet apart). There shall be a minimum of two (2) bolts per piece with one bolt located within 12" of each end of each piece. **Plate washers a min. of 0.229 x 3" x 3" thick shall be used on each bolt.** A properly sized nut shall be tightened on each bolt to the plate. IRC Section 403.1.6 & R602.11.1. **Anchor bolts shall not be countersunk in the sill plate.**

3. Minimum of 4" of compacted soil below the slab.

4. Minimum of (1) #4 bar shall be installed within 12" of the top of the stemwall and (1) #4 rebar located 3" to 4" from the bottom of the footing. R403.1.3 Monolithic foundations shall have a minimum of one No. 4 bar at the top and bottom. IRC Section R403.1.3.2 All rebar shall be supported

5. 1/2" diameter steel at 48" on center. The vertical bar shall extend 3" clear of bottom of the footing, have a standard hook & extend a min. of 14" into the stemwall. IRC Section R403.1.3

6. One #4 horizontal rebar installed within 12" of the top of the wall and one #4 rebar located 3" to 4" from bottom of footing. IRC Section 403.1.3.1

7. Rebar shall not be bent with heat. IBC Section 1907.3.1. When lapping rebar the rebar shall be lapped a min. of 20" for #4 (1/2) inch rebar

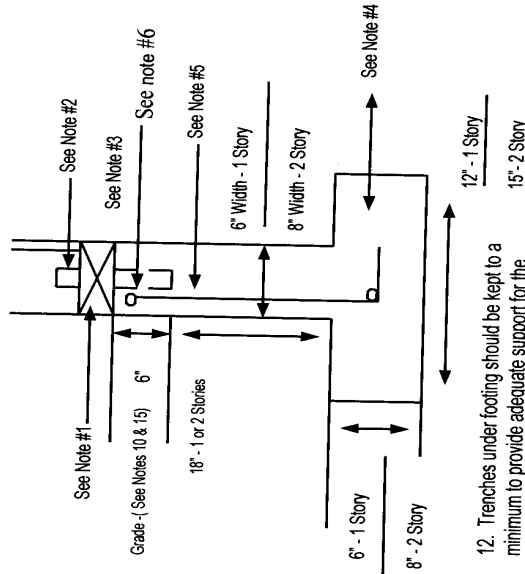
8. Monolithic footing design only - for a garage a total of 24" is required. 18" below grade, 6" above grade.

9. Footing shall be continuous under garage door opening. IRC Section R403.1.2

10. The grade away from foundation wall shall fall a minimum of 6" within the first 10 feet (See Exception) IRC Section R401.3

11. Conduits and piping shall not penetrate the bottom 12" of the footing unless approved by the Building Official.

CONCRETE



12. Trenches under footing should be kept to a minimum to provide adequate support for the footing.

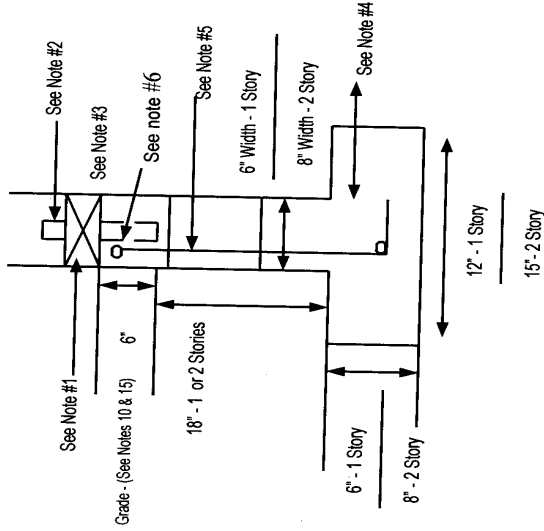
13. Under floor areas shall be ventilated by openings of 1 s.f./150 s.f. of floor area. One opening shall be within 3' of each corner. Close with 1/4" mesh. IRC Section 408.2. Closable vents not permitted unless a vapor retarder material is installed.

14. Provide an 18"x24" foundation crawl space access. Access shall not be located under a door to the residence. IRC Section R408.3

15. Footings & foundation shall extend below the frost line and be continuous. IRC Section R403.1.4.1 & 403.1.2

16. Foundations supporting wood shall extend at least 6" above the adjacent finished grade. IRC Section R319.1(5) & R401.1.6

BLOCK STEMWALL



16. Tie down devices are required where there is less than 4" from a corner to an opening or if the wall requires intermediate bracing and there are openings at the intermediate bracing area. Each panel end stud shall have a tie-down device fastened to the foundation, capable of providing an approved uplift capacity of not less than 1,800 pounds. IRC Sections R602.10 & R602.11

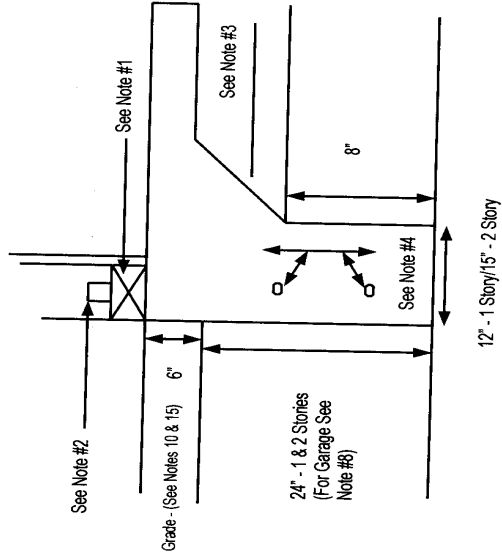
17. Engineered tie down system required if there is less than 2'8" to a corner

18. Masonry walls shall be solidly grouted. IRC Section R403.1.3

19. All exterior footings shall be placed at least 12" below undisturbed ground surface.

20. **All seismic hardware, all vertical reinforcement shall be in place at the time of the footing inspection**

MONOLITHIC



12' - 1 Story / 15' - 2 Story