

PLAN REVIEW COMMENTS

CITY OF BROOKINGS
898 ELK DRIVE
BROOKINGS OR 97415
(541)469-1130 voice
(541)469-3650 fax

Date: _____
Permit: _____

OWNER NAME: _____

JOB ADDRESS: _____

Plans shall be in compliance with the provisions of the State of Oregon Residential Specialty Code.

This list shall remain attached to the plans and become a part of them. The items on this list are general code requirements. Plans are not to be changed without authorization from the City of Brookings Building Department. The Building Permit issued in conjunction with this plan review expires within 180 days of approval, within 180 days of abandonment of work or within 24 months of date of issue. Permits are not transferable.

I have received a copy of this plan review document. I have read and understand and will abide by all terms and conditions noted.

Owner's signature _____

Date _____

THIS COVER PAGE TO BE RETAINED BY THE BUILDING DEPARTMENT

GENERAL:

1. The City of Brookings does not provide engineering services. Although every effort has been made to assist in assuring the design is structurally adequate, the responsibility to assure structural adequacy rests with the building designer. Engineering calculations may be submitted for review in lieu of any structural changes noted on the plans.
2. A copy of these approved plans and the inspection record card are required to be maintained in a conspicuous place on the job site and available to the inspector during all inspections.
3. Inspections are required at the following intervals:
 - A. Foundation: Prior to pouring the footing and/or foundation.
 - B. Underfloor: Prior to pouring any thickened concrete slab intended for structural support, including plumbing, electrical and mechanical under the slab. **OR**
Underfloor: Prior to installing floor sheathing, including the subfloor.
 - C. Framing: After all framing and masonry is complete and rough electrical, plumbing and heating equipment are in place, inspected and approved.
 - D. Insulation: After all insulation and required vapor barriers are in place, before interior wall covering is applied.
 - F. Final: After finish grading, paving, final plumbing and electrical have been inspected and approved, and the building is completed and ready for occupancy.

If additional inspections are desired it is the responsibility of the permit holder to obtain the services of a special inspector.

4. Separate permits are required for plumbing and electrical installations.
5. Approved numbers or addresses shall be provided for all new buildings in such a position as to be plainly visible from the street or road fronting the property.

FOUNDATION

6. The building or structure is required to meet minimum set back requirements. Set backs will vary depending on building height and property zoning. Proper set backs for your building will be determined during the site plan process. The required set back from adjacent structures is 8'.
7. Cut or filled slopes shall not be steeper than 2 horizontal to 1 vertical unless a soils investigation report is submitted.
8. Structures placed on or adjacent to slopes steeper than 3 horizontal to 1 vertical, ascending or descending, shall comply with Sec.R403.1.9
9. The top surface of the footing shall be level, provide stepped footings where the bottom surface of the footing exceeds 1 vertical in 10 horizontal.
10. Footings and foundations shall be constructed of masonry, concrete or approved treated wood. Exterior footings and foundations shall extend below the frost line, which is a

- minimum of 12" below finish grade soil.
11. Concrete shall have the following compressive strength:
 - A. Basement walls and foundations not exposed to weather: 2500 psi
 - B. Basement and interior slabs on grade (except garage floor): 2500 psi
 - C. Foundation or basement walls or other vertical walls exposed to weather: 3000 psi
 - D. Carport slabs, garage floor slabs, porches and steps exposed to weather: 3000 psi
 12. Footing and wall sizes shall be as follows: These footing sizes are based on an allowable soil pressure of 1500 psf. On soil with a lower allowable soil pressure footing sizes shall be designed by an Oregon registered engineer.
 - A. One story 6" wall with 12" x 6" footing
 - B. Two story 8" wall with 15" x 7" footing
 - C. Three story 10" wall with 18" x 8" footing
 13. When the footing and foundation wall are placed separately, either provide a keyway to prevent lateral displacement or they must be tied together by a minimum #3 vertical rebar 4' o.c.
 14. A UFR grounding rod must be included in the footing. A minimum #4 bar at least 20' long and tied to the footing reinforcing in at least 3 places must extend a minimum of 12" above the plate.
 15. Foundation walls shall extend at least 6" above the finished grade. This project is located in earthquake zone D2. A soils investigation may be required.
 16. Foundation plates shall be bolted with minimum ½" bolts embedded at least 7" into concrete or masonry and spaced not more than 6' apart for 1 story, 4' for 2 story with a minimum of 2 bolts per piece with 1 bolt within 12" of each end of each piece. Washer size 2 x 2 x 3/16 or 2 ¼ x 3/16.
 17. Provide sill sealer between the wall and foundation where the foundation wall encloses a heated space.
 18. Crawl space foundation ventilation requires 1 SF/150 SF of the underfloor area. At least one vent shall be within 3' of each side of each corner. Vent openings shall be provided with a corrosion resistant wire mesh with the least dimension being 1/8".
 19. Provide a minimum 18" X 24" access opening to under-floor crawl space. If the furnace is installed in the crawl space, the opening must be large enough to remove the largest piece of equipment but not less than 30" X 30".

MOISTURE CONTROL

13. Drains shall be provided around all concrete or masonry foundations enclosing habitable or usable space located below grade.
14. Provide an approved vapor barrier (6 mil polyethylene) under structure, the vapor barrier may be omitted in detached garages and other outbuildings if unheated.
15. Damproofing for foundation walls shall be as per Sec.R406.
16. Final grading shall provide a downward slope away from the house along all foundation walls. The final grade shall provide a minimum slope of one-half unit vertical in 12 units horizontal (4 percent slope) for a minimum of 6 feet from the house or provide design for alternate method for approval by the Building Official.

DECAY AND TERMITE PROTECTION

17. The following locations require the use of decay resistant or pressure treated wood:
 - A. In the crawl space, wood joists with less than 18" clearance and wood girders with less than 12" clearance to exposed earth.
 - B. All sills which rest on concrete or masonry exterior walls.
 - C. Sills and sleepers on a concrete or masonry slab which is in direct contact with the ground.
 - D. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than ½" on top, sides and ends.
 - E. Wood siding, sheathing and wall framing on the exterior of a building having less than 6" clearance from the ground.
 - F. Wood structural members supporting moisture-permeable floors or roofs which are exposed to the weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.
 - G. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry or concrete walls below grade except when an approved vapor retarder is applied to the interior of the exterior wall.
 - H. All wood in contact with the ground and which supports permanent structures intended for human occupancy shall be approved wood suitable for ground contact use.
 - I. Posts, poles and columns supporting permanent structures which are embedded in concrete in direct contact with the ground or in concrete exposed to the weather shall be approved pressure treated wood suitable for ground contact use.
18. All fasteners except ½" diameter or greater steel bolts, used in treated wood are required to be hot-dipped galvanized steel, stainless steel or other approved corrosion resistant fasteners. All nails and staples used to fasten roof coverings shall be corrosion resistant.
19. Wood columns shall be approved treated wood unless supported by piers projecting 2" above the floor or finish grade and separated by an approved impervious barrier.
20. All surfaces (inside and out) of steel columns shall be given a shop coat of rust-inhibitive paint, except for corrosion resistant steel treated with coatings to provide corrosion resistance.

FLOORS

21. All load bearing dimension lumber is required to be identified by a grade mark or certificate of inspection issued by an approved agency. Unless otherwise noted on the plans, all structural lumber is assumed to be: Joists, rafters and beams up to 4" thick - Douglas Fir #2 or better; beams, posts and timbers greater than 4" in thickness - Douglas Fir #1 or better. If other lumber is to be used, advise this office. Joists, rafters, headers and beams are all assumed to be installed on edge.
22. Fill material under slabs shall be compacted to assure uniform support and shall not

exceed 24" for clean sand or gravel and 8" for earth. A 4" base course consisting of clean graded sand, gravel or crushed stone passing a 2" sieve and retained on a 1/4" sieve shall be placed on the prepared subgrade when the slab is below grade. The base course is not required when the slab is on well-drained or sand-gravel mixture soils.

JOISTS

23. Floor joists/girder spans shall conform with Tables R502.3.1
24. Floor joists shall have 2" thick solid blocking the full depth of the joist at the ends of the joists except where both ends are nailed to a header, band or rim joist or adjoining stud. Joists having a depth to thickness ratio exceeding 6 : 1 based on nominal dimensions shall be supported laterally by solid blocking, diagonal bridging or a 1 X 3 bridging nailed to the bottom of the joist at intervals not exceeding 10'. Manufactured joists shall be blocked per the manufacturer's requirements . Installation instructions for manufactured joists must be supplied on the jobsite at the framing inspection.
25. Floor joists shall have a bearing of not less than 1 1/2" on wood or metal and 3" on masonry or a 1 X 4 ribbon strip and nailed to the adjacent stud.
26. Joists under and parallel to bearing partitions shall be doubled or a beam adequate to support the load shall be used.
27. Where manufactured joists are used a similar manufactured rim joist shall be used rather than sawn rim joists per manufacturers instructions.
28. Openings in floor framing shall be framed with a header and trimmer joists. For openings not exceeding 4', the header joist may be a single member the same size as the floor joist. When the header joist span exceeds 4', the trimmer joists and header joists shall be doubled and of sufficient cross-section to support the floor joist framing into the header. Approved hangers shall be used for the header joist to trimmer joists connections when the header joist span exceeds 6'. Holes bored in joists shall not be within 2" of the top or bottom of the joist and the diameter shall not exceed 1/3 the depth of the joists. Notches in the top or bottom of the joists shall not exceed 1/6 the depth nor be located in the middle 1/3 of the span. Cantilevered joists shall not be notched unless reduced section properties and lumber defects are considered in the design.

SHEATHING

29. Plywood floor sheathing shall have a minimum panel ID #24/16 for joists 16" o.c. and #48/24 for joists 24" o.c. For spans exceeding 2', approved T & G 1 1/8" plywood or 2" T & G floor decking is required. Plywood is required to be installed perpendicular to supports.
30. Panel span rating for plywood and wood structural panels for floor sheathing shall meet the requirements of Table R503.2.1.1(1) and R503.1.1(2).

WALLS

31. All openings in bearing walls shall be provided with adequate headers. Header sizes are required to be as noted on the plan or per Table R502.5
32. **Wall Bracing:**
Both interior and exterior walls must be braced in compliance with Section R602.10. for Category D2 or engineering must be submitted.
33. Foundation cripple walls shall be framed of studs not less in size than the studs above. If over 14" in height, they shall have the size required for an additional story. When over 14" in height they shall be provided lateral support as noted above. Stud walls less than 14" in height shall be sheathed with wood structural panels attached to both the top and bottom plates or constructed of solid blocking.
34. Maximum diameter of holes bored in bearing wall studs is 40% (60% in interior non-bearing or exterior studs or bearing studs if such studs are doubled and not more than two successive studs are bored). Maximum notching in bearing wall studs is 25% (40% in non-bearing partitions). When sills or plates of exterior walls are cut for pipes by more than 50% of its width, the plate shall be reinforced with 24 gauge steel angle or other equivalent support spanning the distance between the appropriate studs.
35. Columns: minimum 4 X 4 wood or standard steel pipe 3" diameter.
36. Firestopping is required in the following locations: Firestopping shall consist of 2" nominal lumber, two thickness of 1" nominal lumber with broken lap joints, one thickness of 23/32" wood structural panel with joints backed with 23/32" structural panel, 1/2" gypsum board or 1/4" cement based mill board. Unfaced fiberglass batt insulation may be used provided it fills the entire cross section of the wall cavity to a minimum height of 16" measured vertically.
 - A. In concealed space of stud walls including furred spaces not to exceed 10' horizontal and at the ceiling and floor levels.
 - B. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, cove ceilings, etc.
 - C. In concealed spaces between stair stringers at the top and bottom of the run and wall cavity in line with the stringers.
 - D. In openings around vents, pipes, ducts, chimneys and fireplaces at ceiling and floor levels.
37. Approved corrosion-resistive flashing shall be provided at top and sides of all exterior window and door openings in such a manner as to be leakproof, except that self-flashing windows having a continuous lap not less than 1 1/8" over the sheathing material around the perimeter of the opening, including corners, do not require additional flashing. Similar flashing shall be installed at the intersection of chimneys or other masonry construction with frame walls, under and at the ends of masonry, wood or metal coping and sills; continuously above all projecting wood trim at wall and roof intersections; under built-in gutters; at junction of chimneys and roofs; in all roof valleys and around all roof openings.
38. Utility grade studs cannot be spaced more than 16" o.c. or 8' height for bearing wall or 10' for nonbearing wall.
39. Asphalt-saturated felt or other approved material shall be applied over studs or exterior

- wall sheathing of exterior walls.
40. Approved weather-resistant exterior siding material is required. T-1-11 siding without an approved subsiding cannot be used with stud spacing exceeding 16" o.c. unless it is labeled accordingly.

ROOF AND CEILING

41. The roof shall be designed to sustain dead loads plus live loads. The ground snow load is 25 PSF based on an approximate elevation of 400 feet or less.
42. This area has a design wind load of 90 MPH sustained. Provide a continuous uplift path from the foundation to the roof. This includes: nailing pattern to tie wall sheathing to foundation plate and top wall plate, provide adequate connections for beams to columns thus having a good lateral force resisting system, additional nailing for gable end truss at roof sheathing and end wall joints, providing positive connection. Note: toe-nailing rafters or trusses to walls is not adequate.
43. All trusses are required to be designed and stamped by an Oregon registered engineer. Provide truss engineering to this office with plan submittal. Trusses shall not be altered without a stamped design by an architect or engineer licensed in Oregon. Lateral bracing noted on the truss engineering must be installed.
44. **NOTE:** do not nail trusses to interior nonbearing walls.

JOISTS AND RAFTERS

45. Where not parallel to and tied to adjacent ceiling joists, rafters shall be tied with a rafter ties located as near the plate as practical and within the lower third of the run. Rafter ties shall be spaced not more than 4' o.c. If rafters are not adequately tied, a ridge beam will be required. Rafters shall be framed to a minimum 1" ridge board, not less in depth than the cut end of the rafter or to each other with gusset plates as a tie.
46. Rafters may only be cut or notched as noted previously for floor joists.
47. Trusses and rafters are required to be anchored to the wall by approved anchors .
48. Rafters and ceiling joists having a depth to thickness ratio exceeding 5:1 (2"x 12") or larger shall be supported laterally at bearing points by solid blocking to prevent rotation.
49. Valley and hip rafters shall be not less than 2" nominal thickness and not less in depth than the cut end of the rafters. At valleys, install a 2x laid flat under the full cut dimension of the rafters. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point.
50. Openings in roof and ceiling framing shall be framed as noted previously for floor joists.

ATTICS

51. Attic spaces having 30" or greater vertical clear height are required to have a minimum 22" x 30" attic access.

52. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. The net free ventilating area shall be 1/150 of the area of the space or 1/300, provided at least 50% and not more than 80% of the required vents are in the upper portion of the area at least 3' above the eave or cornice vents with the balance provided by eave or cornice vents or the ventilation may be 1/300 if a 1 perm vapor barrier is installed in the warm side of the ceiling. Enclosed rafter spaces must have vents at the top and bottom of each space with a 1" air space above the insulation to provide cross ventilation.

SHEATHING/ROOF

53. Plywood roof sheathing shall not exceed the allowable spans indicated by the panel ID # located on the panel.
54. Plywood roof sheathing shall be bonded with exterior glue and identified as Exposure 1 where the underside is exposed. Specify panel span rating for plywood and wood structural panels roof sheathing.
55. Appropriate valley flashing is required for all roof coverings.
56. Storm drainage: a controlled method of water disposal from roofs that will collect and discharge all roof drainage to an approved drainage system is required.
57. Roof covering is required to be capable of accommodating the loads in Table R301.5. The wind load in this area is 90 mph. sustained. Roof covering must be applied per manufacturers installation instructions. Roof covering may not be installed on roofs having pitch less than the following:
- A) Composition shingles 2:12
 - B) Tile, clay or concrete shingles 3:12
 - C) Wood shingles - 3:12; if less than 4:12 they shall be installed with reduced exposure or over an underlayment of not less than one ply of No. 15 felt.
 - D) Wood shakes 4:12 unless installed over an underlayment of not less than No. 15 felt
 - E) Metal sheeting - verify minimum pitch with manufacturers installation instructions.

INTERIOR

58. In all habitable rooms provide natural light and ventilation by means of windows equal to 10% of the room area, 1/2 of which shall be operable. In lieu of operable exterior openings a mechanical ventilation system providing .35 air changes per hour may be provided.
59. Habitable rooms have a required ceiling height of 7'. Beams spaced not less than 4' o.c. may project not more than 6" below the required ceiling height. When the ceiling slopes the minimum height must be maintained in 1/2 the required room area.. Ceiling heights in basements without habitable spaces may be not less than 6'8", except for obstructions where the clear height shall be 6'4". Sec. 305.
60. Minimum room sizes: habitable rooms must be at least 70 SF with 7' minimum width; kitchen must be at least 50 SF, one 120 SF room required per Sec. 304.

EXITING

61. At least 1 side-hinged exit door not less than 3' x 6'8" shall be provided from the residence. The minimum width of a hallway or exit access is 3'. All egress doors shall be readily operable from the inside without the use of a key or special knowledge or effort.
62. A minimum 3' x 3' landing is required on each side of an egress door except at the top of an interior flight of stairs provided the door does not swing over the stairs. The floor or landing shall not be more than 1 ½" lower than the top of the threshold except the landing at the exterior of an exterior door other than the main exit door, shall not be more than 8 " below the top of the threshold.
63. Egress ramps shall have a maximum slope of 1:8. Handrails shall be provided as noted below on at least one side of all ramps exceeding a 1:12 slope. A minimum 3' x 3' landing shall be provided at the top and bottom of ramps where doors open onto the ramp and where the ramp changes direction.
64. All sleeping rooms shall have at least 1 exterior door or operable window approved for emergency egress or rescue. The units must be operable from the inside to a full clear opening without the use of separate tools. Egress windows are required to have a minimum net clear opening height of 22" and a minimum net clear opening width of 20" and minimum net clear opening area of 5.7 SF. The sill height may not be more than 44" from the floor.
65. No addition to a dwelling shall block or preclude the use of an existing required emergency egress window from a sleeping room.

HAZARDOUS LOCATIONS

66. Provide safety glazing including but not limited to the following locations: Each unit of glazing shall be permanently identified by the manufacturer.
 - A. Glazing in ingress and means of egress doors except jalousies.
 - B. Glazing in sliding door assemblies and swinging doors.
 - C. Glazing in storm doors.
 - D. Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers. Glazing in any part of a building wall enclosing these compartments where the bottom edge of the glazing is less than 60" above the drain inlet.
 - F. Glazing in a panel adjacent to a door where the nearest vertical edge is within a 24" arc of the door in a closed position and whose bottom edge is less than 60" above the floor or walking surface except when there is an intervening wall or other permanent barrier between the door and the glazing.
 - G. Glazing that meets all of the following conditions: In lieu of safety glazing, protective bar (1 ½" height minimum) may be installed on the accessible side of the glazing 36" above the floor. The bar shall be capable of withstanding a horizontal load of 50 pl without contacting the glass.
 - 1) Exposed area of an individual pane greater than 9 sq.ft.
 - 2) Bottom edge less than 18" above the floor
 - 3) Top edge greater than 36" above the floor
 - 4) One or more walking surfaces within 36" horizontally of the glazing
 - H. All glazing in railings

- I. Glazing in walls and fences enclosing swimming pools and spas when bottom edge of glazing is less than 60" above walking surface and within 36" horizontally of a walking surface.
- J. Glazing adjacent to stairways, landings and ramps within 36 inches horizontally of a walking surface when the exposed surface of the glass is less than 60 inches above the nosing of the tread.
- K. Glazing adjacent to stairways within 60 inches horizontally of the bottom tread of a stairway in any direction when the exposed surface of the glass is less than 60 inches above the nosing of the tread.

STAIRWAYS

- 67. Porches, balconies or raised floor surfaces located more than 30" above floor or grade shall have guardrails not less than 36" in height. Open sides of stairs with a total rise of more than 30" shall have guardrails not less than 34" in height measured vertically from the nosing of the tread. Required guardrails shall have rails such that a 4" diameter sphere cannot pass through.
- 68. Stairways are required an 8" maximum rise and 9" minimum run. A nosing not less than 3/4 inch but not more than 1 1/4 inches shall be provided on stairways with solid risers unless the tread depth is 10 inches or greater. Stairs having more than 3 risers are required a handrail. Handrails are required to be 30"-38" in height above the nosing of the tread and shall be continuous the full length of the stair. Ends shall be returned or shall terminate in newel posts or safety terminals. The handgrip portion of the handrails shall be not less than 1 1/2" nor more than 2 5/8" in cross sectional dimension, or the shape shall provide an equivalent gripping surface. It shall have a smooth surface with no sharp corners. The minimum headroom clearance is 6'8" measured from the nosing of the tread. The minimum stairway width is 3' except 30" is acceptable if another stairway 3' wide is provided from the floor.
- 69. Winding stairs are required a minimum width of tread not less than 6" and at least 9" at a point 12" from the side where the treads are narrower.
- 70. Spiral stairs are required a minimum width of 26" with each tread having a 7 1/2" minimum tread width at 12" from the narrow edge. All treads shall be identical and the rise shall be no more than 7 3/4. A minimum headroom of 6'6" is required.
- 71. Enclosed accessible space under stairs shall have walls and soffits protected on the enclosed side with 1/2" gypsum board.

GARAGE

- 72. Attached garages are required the following minimum fire-protection.
 - A. Openings from a garage directly into a sleeping room are not permitted.
 - B. Openings between a garage and residence shall be equipped with solid wood doors not less than 1 3/8" thickness or a 20 minute rated door.
 - C. The garage shall be separated from the dwelling and its attic area by means of 1/2" gypsum board applied to the garage side of the wall. Garages beneath habitable rooms shall be separated from such rooms by 5/8 " Type X gypsum board or

equivalent.

- D. Ducts penetrating the separation wall shall be 26 ga. steel and have no supply or return air openings into the garage. When a vibration isolator is used it must be installed 18" minimum from the penetration.
- 73. Garage and carport floors shall be of an approved noncombustible material. The vehicular parking area shall be sloped toward the main vehicle entry doorway.
- 74. Appliances generating a spark, glow or flame shall be installed with heating elements or switches 18" above the floor level. Protection against damage by vehicles shall be provided for appliances located in a garage.

BATHROOMS

- 75. The center line of water closets shall be not less than 15" from adjacent walls or partitions. A minimum 21" clearance is required in front of water closets.
- 76. Shower compartments shall have at least 1,024 sq.in. of floor area and be of sufficient size to inscribe a circle with a diameter not less than 30".
- 77. The wall area above the built-in tubs having installed shower heads and in shower compartments shall be finished with a smooth, hard and nonabsorbent surface to a height of 6' above floor . If gypsum board is used as a base or backer for adhesive application of tile or similar material it shall be a type manufactured for that use.

INSULATION

- 78. Minimum insulation requirements must meet one of nine prescriptive energy paths. Unless specific information on path is provided path 1 will be assumed:
 - A. Windows - Class 40 - all windows must be labeled
 - B. Doors - main door - .54, all other doors - .20
 - C. Wall insulation - R-21
 - D. Underfloor insulation - R-25
 - E. Ceilings - Flat - R-38, Vault - R-30 (No more than 50% of ceiling can be less than R-38)
 - F. Skylights - Class 50 for no more than 2% of roof area. Class 40 skylights are unlimited.
 - G. Forced air ducts. R-8 in all unheated areas.
 - H. Basement walls. R-21
 - I. Slab Floor edge. R-15
- 79. Insulation facings, such as vapor barriers shall not be exposed in the attic, crawl space or any other area unless the flame spread rating of the facing material is 25 or less and smoke density is not greater than 450. .
- 80. Provide a vapor barrier with 1 perm dry cup rating or less on the warm side (in winter) of all insulation in exterior walls in heated residential buildings.

MISCELLANEOUS

- 81. Smoke detectors shall be installed in each sleeping room and outside each separate

sleeping area in the immediate vicinity of the bedrooms and on each additional story of the dwellings, including basements. In dwellings with split levels, a smoke detector need be installed only on the upper level provided the lower level is less than 1 full story below the upper level, unless there is a door separating the levels, in which case a detector is required on both levels. All detectors shall be interconnected such that the actuation of one alarm will actuate all the alarms in the individual unit providing an alarm which will be audible in all sleeping areas. Required smoke detectors shall receive their primary power from the building wiring and secondary from a battery back-up.

82. For any addition or alteration requiring a building permit, the entire building shall be provided with smoke detectors located as required above for new buildings. Smoke detectors installed under this provision need not be interconnected unless other remodeling considerations require removal of the appropriate wall and ceiling coverings to facilitate concealed interconnected wiring. Contact the State Electrical Division 541/396-2148 for additional information, clarification and permits.
83. Heating : Each thermostat shall be capable of being set from 55-75 degrees Fahrenheit. Cooling : Each thermostat shall be capable of being set for 70-85 degrees Fahrenheit
84. Stairways shall be illuminated with an artificial light source rated for a minimum of 850 lumens located in the immediate vicinity of each landing at the top and bottom of interior stairs and at the top landing of exterior stairs. Controls for the stair lighting shall be accessible at the top and bottom of each stair without traversing any step of the stair. Exterior stair lighting shall be controlled from inside the dwelling unit unless continuously illuminated or automatically activated.
85. Recessed fixtures are required to be "IC" rated.
86. Wood stoves must be installed per their installation instructions and must be labeled indicating they meet DEQ/EPA emission requirements.
87. Fireplaces and masonry chimneys shall be installed per Chapter 10. A minimum of 2" to combustible wood framing is required.
88. Provide mechanical ventilation to provide minimum 5 air changes per hour in bathrooms and utility rooms or provide exterior window openings with an area not less than 3 square feet, 1/2 of which must be operable. Exhaust ducts must be vented directly to the outside.
89. Ranges require a vertical clearance above the cook top of not less than 30" to unprotected combustible material or 24" if protected by non combustible material. If a range hood is provided it shall be vented to the outside by a single wall pipe constructed of galvanized steel, stainless, copper or other approved material. The duct shall have a smooth interior surface, be substantially airtight and shall be equipped with a back draft damper. Open top broiler units shall be provided with a hood complying with Sec. 1804 or incorporate an integral exhaust system listed for use without a hood..
90. Gas water heaters shall not be installed in a bedroom, closet, bathroom or utility room unless it is a direct vent appliance. Provide combustion air for water heater.
91. Clothes dryer exhaust vents shall terminate to the outdoors. They shall not be connected with sheet-metal screws or other fastening means extending into the vent. They shall be provided with back drift dampers. Concealed vents shall be constructed of minimum .016" rigid metal duct with joints running in the direction of air flow. Approved flexible

duct connectors may be used, but shall not be concealed within construction. The maximum length of a 4" duct shall not exceed 25' from the dryer location to wall or roof termination. Length reduction of 2.5' for 45 degree bends and 5' for 90 degree bends are required. If these lengths are exceeded contact manufacture for recommendations.

Prior to installing material it is the owner/contractors responsibility to verify that the moisture content of all cavities and surfaces are at appropriate levels per product manufacture's installation standards or other recognized industry standards.

The City of Brookings Land Development Code Section 172 Table 172.020-2 requires parking spaces, areas for maneuvering of vehicles and driveways to be paved. A seperate permit is required for work in the right of way, the owner or owners agent is responsible for all engineering required. The City of Brookings requires the installation of sidewalks prior to final inspection on all new Single Family Dwellings.

SEWER

1. The issuance of a permit is not a guarantee of a sewer connection. The City of Brookings Ord. No.4-430.IV.6 states: "Every permit shall be issued under the following conditions:
a) construction of the building sewer shall start within 4 months from the date of permit issuance
b) construction of the building sewer shall be completed within 12 months from the date of issuance of the permit. The permit holder understands that issuance of a permit by the City of Brookings is not binding of the Oregon Department of Environmental Quality (DEQ). DEQ has indicated they will generally honor a permit as long as the above quoted ordinance is observed. However, DEQ is under no obligation to honor a permit and may at anytime prohibit connections to the city sewer system, even after issuance of a city permit. The permit holder acknowledges and assumes this risk and hereby releases the City of Brookings, its councilors, officers, employees and agents from all damages that may arise if the permit holder is prohibited from connecting to the sewer system before or during construction.

City of Brookings Ord. No. 4.430.IX.4 states that all costs and expenses to the installation and connection of the building sewer on private property, including the connection to the right-of-way, shall be borne by the property owner. The property owner shall indemnify the City from any loss or damage that may directly or indirectly be occasioned by the

installation and use of the building sewer. All construction shall be performed by the property owner or by a licensed qualified plumbing contractor.

2. City of Brookings Ord. # 9-115.15 prohibits connecting a recreational vehicle to the public sewer system.
3. City of Brookings Ord. # 5-406.8 requires dwellings to be connected to a drain system to prevent the flow of surface waters across a public sidewalk.

The City of Brookings does not install or maintain mail receptacles. All mailbox issues shall be coordinated with the Postmaster. Locations of mailboxes shall not block the public sidewalk area or project into the street, as determined by the City Director of Public Works.