



**TOWN OF DEWEY-HUMBOLDT**  
**P.O. BOX 69**  
**HUMBOLDT, AZ 86329**  
**Phone 928-632-8643 • Fax 928-632-7365**

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## **Residential Plan Checklist**

This checklist is an outline of items the Plan Checker is reviewing. It is not necessarily complete and is subject to change. All homes are to be built in accordance with the IRC 2003.

### **SITE REQUIREMENTS**

- Owner/Contractor name and mailing address.
- All utilities need locations and specifications (depth, material, size) shown on site plan.

### **GENERAL**

- Provide a complete site plan to include utility line locations, dimensions, topography, contour lines (existing and proposed), slopes, drainage flow directions, finished floor elevations, pad elevations at all corners of structure and grading (cut and fill) amounts.
- Provide a complete foundation layout fully dimensioned with cross-sectional details of the foundation. Include stepped footings details and their location. If stem walls are used at varying heights, the locations and sizes must be noted on the foundation plan.
- Provide a complete floor plan for every floor, including the basement. This shall include, but not be limited to, use of the rooms, windows/door locations and sizes including safety glazing requirements, mechanical equipment locations, shear wall bracing locations and details, and any specifications for fire separations as adopted in the 2005 Town of Dewey-Humboldt Administrative Code.
- Provide a complete electrical layout including electrical service and any sub panel locations. Indicate size of electrical service and locations of all outlets including receptacles, AFCI receptacles, GFCI receptacles, lights switches and smoke detectors.
- Provide a complete roof framing plan. This shall include all bearing header sizes over openings and their locations. A complete roof layout with proposed live and dead loads and any concentrated loads, such as HVAC equipment or any other imposed roof loads.
- Provide a complete floor-framing layout with all floor joist sizes, beam sizes and their locations. Indicate under-floor access location and size.
- Provide complete drawings of all elevation views. Include patio covers, decks, bay windows, etc. Provide height dimensions for roof line, headers, top plate

and finished floors. Show existing native grade line and proposed finished grade line.

- Provide a complete cross-section typical of the building, showing proposed materials to be used and how load path connections are to be achieved. Provide details for and framing connections that would not be typical of the cross section.
- Provide a square footage summary for each of the following; Livable, Garage, Carport, Covered Patios, Porches, basement (finished or unfinished) and any other areas.
- Provide two (2) sets of truss design drawings with layout sheets from the manufacturer. Trusses shall be designed per 2003 IRC/2002 TPI.
- Provide two (2) copies of floor framing system from manufacturer along with layout sheet and structural calculations.

## **ELEVATION**

- Indicate all materials used, type and application including – Stucco, concrete block, glass block, roof covering type, siding, veneers, etc.
- Provide attic ventilation calculations for all concealed attic spaces; include required and provide net free ventilation area. Also, indicate the type, size, and location of attic ventilators. Attic ventilation required minimum 1:150 sf with corrosion resistant mesh for cover.  
ICBO 4838 2" wide vent .16 NFA/LF ICBO 5214 Ridge Vent  
12 x 24 = 112, 24 x 24 = 237, 24 x 30 = 306 lomanco.com gmetals.com
- The minimum area of ventilation openings shall not be less than 1 sf for each 150 sf of under-floor space area. One such ventilation opening shall be within 3 feet of each corner of the building.
- Chimneys shall extend at least 2 foot higher than any portion of the building within 10 feet, but shall not be less than 3 feet above the point where the chimney passes through the roof. Spark arresters as per IRC M1001.6.1 shall be provided.
- Shingles applied on roofs with slopes less than a 4:12 pitch shall require two layers of underlayment.
- Weather resistant sheathing paper shall be required.

## **BUILDING LOCATION**

- Exterior walls <3 feet from property line shall be one-hour treated, no opening
- Building/slope setbacks.
- Projections <3 feet from property line to be one-hour rated.
- Eaves over required windows <3 feet from property line.
- Exterior stairways not permitted <3 feet from property line.

## **FOUNDATION / CONCRETE**

- All minimum foundation depths shall be considered from top of undisturbed soil.

- Minimum footing sizes shall be 1 floor 12" x 12", 2 floors 15" wide by 18" deep, and 3 floors 18" wide x 24" deep.
- Typical cross-sections for any foundation, reference all sections to plan.
- Minimum depth of concrete slab 3-1/2".
- Step footings for slope > 1:10.
- Provide minimum two #4 rebar continuous in footing top and bottom.
- Specify concrete strength on plans.
- Girders to be minimum 12" above ground level or approved resistant-grade lumber.
- Floor joists to be minimum 18" above ground or approved resistant grade lumber.
- Foundation plates to be approved – foundation grade lumber.
- Under floor access to be minimum 18" x 24" unobstructed by pipes, ducts, or similar construction.
- Mud sill above finish grade.

## **FOUNDATION**

- Foundation plates and sills shall be bolted to the foundation with Min. 1/2" bolts at 6' or less o.c. and embedded in a min. 7" into the foundation.
- All plates in contact with concrete (interior and exterior, load bearing and non-load bearing) shall be pressure treated or foundation grade redwood.
- Footings shall be on undisturbed soil or engineered compacted fill. Compaction reports to be provided at foundation inspection.
- Appliances location in a garage or carport shall be protected from impact by automobiles. See PB-15 Policies and Procedures for approved methods.
- There shall be a floor or landing on each side of each exterior door. The width of the landing shall not be less than the door served with a minimum distance of 36" measured in the direction of travel.
- Required hold downs, as specified by engineering or as required for any alternate/narrow braced wall panels, shall be listed and their locations showed on the foundation plan.
- Thickened slab locations and details shall be shown for interior braced wall panels-include attachment method of sill plate.
- Garage or Carport surface used for parking of vehicles shall be sloped to drain liquids to the main vehicle entry doorway or an approved drain.
- Footing details (interior and exterior) shall be located on the foundation sheet or the detail sheet and shall be cross-referenced to the foundation plans. Specify depth and width of all footings and pads- include sizes and spacing for all reinforcement steel.
- All exterior footings shall be placed at least 12" below natural grade.
- The foundation shall extend a minimum of 6" above finished grade.

## **STRUCTURAL**

- Specify type of design and construction of all walls and partitions. Wood stud walls shall comply with prescriptive requirements of IRC R602 or shall be

designed by an Arizona Registrant. Masonry and concrete basements shall comply with prescriptive requirements of IRC R404 or shall be designed by an Arizona Registrant. Provide design for unrestrained walls.

- CLEARLY indicate all exterior and interior braced wall panel locations. Specify the method of bracing to be used. A sealed lateral analysis, prepared by an Arizona Registrant, will be required if the bracing does not comply with conventional provisions. See handout on prescriptive requirements of wall bracing in IRC R602.10.
- Provide details to show how lateral forces are transferred from the diaphragms through intermediate elements to shear walls and to the foundation. All blocking, fasteners and anchors shall be shown on the plans.
- Specify lumber grade, species and size of all framing members.
- Specify all mechanical connections of trusses to walls for uplift, lateral and bearing loads as required by truss calculations. A continuous load path shall be provided from truss ties to the foundation.
- Specify size and spacing of all framing members. Indicate post sizes, locations and connections (post-base and post-cap to beam), rafters and joist.
- Specify type or model of all mechanical fasteners and connections.
- Provide section and details where indicated on plans.
- Provide complete floor (if applicable) and roof framing plans. Specify size and spacing of all framing members. Indicate all post sizes.
- Indicate the size and span of headers and lintels in all bearing and non-bearing walls. Provide manufacturer's span charts for pre-manufactured steel lintels.
- Masonry columns shall be provided with lateral ties of min. #4 wire surrounding the vertical reinforcement at a min of 16" o.c. with two #4 ties within 5" of the top of the column.

### **FRAMING/ WALLS**

- Specify wood species and lumber grade for all horizontal and vertical framing lumber.

### **INTERIOR WALLS**

- Gypsum board applied 48" in length to both faces or 96" to one face. Walls to be on foundation with anchor bolts or "shot down" per manufacturer's specifications for shear.
- Panels to be in line or offset not more than 4 feet.

### **EXTERIOR WALLS**

- Diagonal bracing not recognized as approved bracing in seismic zone C.
- Four foot panels of 3/8" plywood or structural equivalent to be located at each corner and every 25 feet on center with a maximum of 8 feet from end of wall.

- Alternate panels are allowed with approved connections on continuous foundations.
- Generally every story: Each end of wall and 25 feet on center minimum 16% of building.
- Two-story – First-story cover 25% of building length.
- Three-story – First-story cover 40% building length, second-story cover 25% of building length.
- Bearing studs to be 10 foot maximum unless designed.
- Specify sizes of all headers and beams.
- Studs supporting two floors to be minimum 3 x 4 or 2 x 6.
- Provide fire blocking as required.
- Provide cross sectional drawings of all typical walls and stairways.

## **FLOORS**

- Specify floor joist span and size.
- Double joists under bearing wall and partitions.
- Bearing walls perpendicular to walls not off-set from two girders/joists, more than joist depth.
- Provide minimum bearing of 1-1/2" for wood or metal, 3" for masonry.
- Provide under floor ventilation, 1:150 sf covered with corrosion resistant mesh.

## **ROOF / CEILING**

- For roofs less than 3:12 slope supporting members to be designed as beams.
- Rafters and ceiling joist shall be laterally supported to prevent rotation; trusses to be solid blocked at bearing points or approved metal brackets.
- Rafter ties 4 foot OC.
- Roof sheathing to be of approved materials.
- Minimum 22" x 30" attic access required in spaces with 30" or more headroom.
- Truss layout and truss calculations required for trussed roofs. Must have Arizona stamp.
- Rafter span and size required to be shown by layout drawing.

## **FLOOR PLAN REQUIREMENTS**

- One room must be a minimum of 120 sf, other habitable rooms (except kitchens) minimum 70 sf.
- No habitable room except a kitchen to have an area less than 70sf, or a width less than 7' in any dimension.
- Minimum habitable room ceiling height 7'6" except laundry rooms, hallways, corridors or bathrooms can be 7'.
- Habitable room window area 10% room size, minimum 10 sf.
- Ventilation requirements 5% openable window to room size or mechanical ventilation with two air exchange per hour and 20% air coming from outside.

- Bathrooms or similar required to have a minimum 1.5 sf openable window or exhaust fan.
- Glazing to be subject to human impact loads.

## **FLOORPLAN**

- Label and dimension all rooms and spaces. Habitable rooms shall have a ceiling height of 7'6". Hallways, corridors, bathrooms, toilet rooms, laundry rooms, and basements shall have a ceiling height of not less than 7 feet.
- The minimum width of a hallway shall not be less than 3 feet.
- An attic access opening shall be provided to attic areas that exceed 30 square feet and have a vertical height of 30" or greater. The rough framed opening shall not be less than 22" x 30" and shall be located in a hallway or other readily accessible location. A 30" minimum, unobstructed headroom in the attic space shall be provided above the access opening.
- Openings between the garage and residence shall be equipped with a solid wood door, not less than 1-3/8" thick, or shall be 20 minutes fire-rated doors and shall be maintained self-closing and self-latching.
- Openings from private garage directly into a room used for sleeping purposes shall not be permitted.
- The garage shall be separated from the residence and its attic area by not less than 1/2" gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated by not less than 5/8" Type X gypsum board or equivalent. Where separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 1/2" gypsum board or equivalent.
- Ceiling gypsum board application: When applying a water-based texture material, the minimum gypsum board thickness shall be increased from 3/8" to 1/2" for 16 inch o.c. framing, and from 1/2" to 5/8" for 24 inch o.c. framing or 1/2" sag resistant ceiling rated board shall be used.
- At least one required exit door shall be a side hinged door not less than 3 feet in width and 6'8" in height.
- Appliances having an ignition source shall be elevated such that the source of ignition is not less than 18" above the floor in garages. (exception is clothes dryers).
- Every sleeping room and basement with habitable space shall have at least one window (minimum net clear opening 5.7 sf, 5.0 sf net clear opening at grade floor- minimum opening width of 20" and minimum opening height of 24" and the finished sill height shall not be more than 44" from the floor); or provide an exterior door for emergency egress.
- All habitable rooms shall be provided with aggregate glazing area of not less than 8% of the floor area of such rooms. The minimum open able area to outdoors shall be 4% of the floor area being ventilated.
- The following shall be considered specific hazardous locations for purpose of safety glazing:

- Glazing in any part of a building wall enclosing a tub/shower/sauna compartment where the bottom edge of the glazing is less than 60 inches measured vertically above any walking surface.
- Glazing in an individual fixed or operable 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 glazing in walls perpendicular to closed door.
- Safety glazing shall be installed when all of the following conditions are met; exposed area of an individual pane is greater than 9 sf, bottom edge is less than 18" above the floor, top edge is greater than 36" above the floor, and one or more walking surfaces are within 36" horizontally of the glazing.
- Glazing in railings regardless of an area or height above walking surface shall be safety glazing, including structural baluster panels and nonstructural in-fill panels.
- Glazing adjacent to stairway landings and ramps or within 60" of the bottom and 36" of the top of stairways where the bottom edge of the glass is less than 60" above a walking surface shall be safety glazing.
- Glazing in walls and fences enclosed indoor and outdoor swimming pools, hot tubs, and spas within 60" of the walking surface or deck level and within 60" from the waters edge shall be safety glazing.
- Window wells and required window well ladders shall comply with IRC 310.2. Provide details and dimensions to verify compliance.
- There shall be a floor landing at the top and bottom of each stairway. The width of each landing shall not be less than the stairway served. Every landing shall have a minimum dimension of 36" measured in the direction of travel.
- Detail stairway showing framing (stringer) sizes, bracing, connections and footings (as necessary).
- The maximum riser height shall be 7 ¾" and minimum tread depth shall be 10". IRC 311.5
- The minimum headroom in all parts of the stairway shall not be less than 6'8" measured vertically from the slope plane adjoining the tread nosing or from the floor surface of the landing or platform.
- Four or more stair risers shall have at least one handrail. Handrails shall be provided on at least one side of the stairs, be continuous from one point directly above the top and bottom riser of a flight of stairs, and have a minimum and maximum height of 34" and 38" respectively, measured vertically from the nosing of the treads. The handgrip oration of handrails shall have a circular cross section of 1 ¼" minimum to 2" maximum; edges shall have a minimum radius of 1/8". IRC 311.5.6
- Provide connection details on plans for required guardrails or handrails. IRC 312
- Provide 36" minimum high guardrail for decks, porches, balconies and raised floors (more than 30" above grade or floor below) and on open sides of stair landings. Open guardrails shall have intermediate members such that a 4" sphere can not pass through. 4 ¾" diameter sphere at sides of stair treads. IRC 312.2

- Indicate the location of heat source for the residence

## **FIREPLACE**

- Install fire / draft stops.
- Factory built units to have manufacturer's listing number and be installed to manufacturer's specifications.

## **EXITS**

- Exit door minimum 36" wide, 6'8" high minimum 32" clear open.
- Landing to minimum 36" in direction of travel.
- Two exits required for third stories over 500 sf in area.

## **STAIRWAYS**

- Enclosed spaces under stairways to be one hour fire resistive construction.
- Exterior stairs not permitted in yards where openings are not allowed or are required to be protected.
- On winding stairs, run width to be minimum 6" at narrow end of riser.
- Spiral stairway not to be used for an exit for more than 400 sf.

## **HANDRAILS / GUARDRAILS**

- Guardrails required for more than 30" above floor to grade.
- Handrail to return to newel post or wall.
- Handrail to extend not less than 12" beyond top/bottom riser.

## **MECHANICAL**

- FAU location to be shown on plans. (No more that 20' from AA).
- Show location of return air / diffusers.
- All attic equipment to meet manufacturer's clearances.
- Switch control near attic access for light at or near equipment.
- Clothes dryer to be exhausted to outside.
- Provide HVAC information, size, AMP load, weight of FAU.

## **MECHANICAL**

- Provide exhaust fans to the outside of bathrooms, water closet compartments, and similar rooms if not supplied with natural ventilation (1.5 sf)
- Provide combustion air for all fuel-burning appliances including size, type and location of openings (within 12" from floor and ceiling).
- Attics containing appliances requiring access shall be provided with an opening and passageway large enough to remove the largest appliance, but not less than 30" high and 22" wide and not more than 20' in length. A level service

space at least 30" deep and 30" wide shall be present along all sides of the appliance where access is required.

- A lighting fixture controlled by a switch located at the required passageway opening and receptacle outlet shall be provide at or near the appliance location in accordance with Chapter 38 of the 2003 IRC.

## **PLUMBING**

- Toilet to be 30" minimum clear width, 24" clearance in front.
- Underground soft copper in sleeved for island sinks.

## **PLUMBING**

- Reference locations and provide size of roof drains and scuppers.
- Provide fixture unit valve schedule for water demand calculations and indicate water meter and building supply line sizes.
- Show temperature and pressure release valve discharging to an approved location, 1" min. and 6" max above finished grade.
- Specify if appliances are gas, electric, or propane. Reference location of appliances and equipment.

## **ELECTRICAL**

- All rooms to have wall switch controlled lighting.
- Show size and location of service, minimum 100 AMP.
- Means shall be provided to disconnect for conductors in a building or other structure.
- GFCI required in bathrooms, garage and kitchens. (All 125 volt single phase, 15 and 20 AMP receptacles installed within 6 feet of sinks, basins or laundry trays shall have ground-fault circuit interrupter protection for personnel).
- The following appliances are required to have a separate 20- amp circuit; Dishwasher, Trash Compactor, Swamp Cooler, Microwave oven, and Washer. The Washer circuit may serve one additional outlet in the laundry area.

## **ELECTRICAL**

- Provide a complete electrical plan.
- Provide bonding to the interior metal water piping and above ground portion of gas piping systems
- Provide a note indicating a min of two 20 Amp rated branch circuits for receptacles located in the kitchen , pantry, breakfast and dining areas, a 20 Amp rated branch circuit to the laundry, separate 20 Amp rated branch circuit for bathroom receptacles.
- Provide a note indicating all branches that supply 125 V, single phase, 15 Amp and 20 Amp receptacle outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter(s).

- Provide a receptacle outlet in hallways 10 feet or more in length.
- Receptacles shall be installed so that no point along the floor line in any unbroken wall space is more than 6 feet, measured horizontally, from an outlet in that space. A wall space shall include any space 2 feet or more in width (including space measured around corners) and unbroken along the floor line by doorways, fireplaces, and similar openings. The fixed panel of sliding glass doors is considered wall space.
- Provide at least one receptacle outlet in the laundry.
- Provide at least one 120V GFCI receptacle in garage and basement in addition to a receptacle provided for stationary appliances.
- In kitchen and dining rooms, at least one receptacle outlet shall be installed at each island or peninsula counter space with a long dimension of 24" from a receptacle outlet and shall be GFCI protected.
- In kitchen and dining rooms, a receptacle outlet shall be installed at each wall counter space 12" or wider so that no point along the wall is more than 24" from a receptacle outlet and shall be GFCI protected.
- Provide at least one receptacle outlet on the wall within 36" on the outside edge of each lavatory basin in bathrooms.
- Provide at least one weatherproof receptacle outlet, not more than 6'6" above grade and GFCI protected, at the front and back of each dwelling.
- A convenience receptacle outlet shall be installed for the servicing of HVAC equipment located in attics and crawl spaces. The receptacle shall be accessible, located on the same level and within 25 feet of the equipment.
- At least one wall switched-controlled lighting outlet shall be installed in every habitable room and bathroom.
- Provide a lighting outlet on the exterior side of all exits/entrances.
- Provide a lighting outlet in all stairways with 6 or more risers, switched at each floor level.
- Provide interconnected smoke alarms in each sleeping room, outside of each sleeping area in the immediate vicinity of the bedrooms, and on each additional story of the dwelling. Smoke alarms shall be hard wired with battery backup.
- Indicate the size (rating) of the electrical panel(s), and location of sub panel(s) with breaker size, feeder and ground wire size if applicable.
- Recessed lighting to be IC.