



COUNTY OF RIVERSIDE BUILDING AND SAFETY DEPARTMENT

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CONSTRUCTION WITHOUT A PERMIT (CWP) **INSPECTION PROCEDURE**

NON-DESTRUCTIVE TESTING:

All building plans submitted for buildings and structures constructed without permit (CWP) shall comply with the current adopted California Building Codes and shall require a letter of foundation/footing verification stamped and signed from the building plan design professional (California licensed, architect, civil, or structural engineer) of record for this project.

The verification letter shall include all foundation components to include but not be limited to:

1. Foundation width & depth.
2. Rebar size & spacing.
3. Presence of slab reinforcing and vapor retarder\capillary break.
4. Indicate all anchoring and/or holdown device types, locations, spacing and embedment depth.

A non-destructive test and report shall be required from an independent materials testing company or the project design professional (Engineer of Record) and provided at the expense of the responsible party. At a minimum, three foundation locations must be examined and at least one pad footing (if applicable) must be verified for the items listed above. If the foundations/footings appears to be unsatisfactory, it may be necessary to expose additional locations for inspection.

The letter of verification shall indicate the method of verification (include testing reports) and clouding of the plans as to the location of the verification methods of testing. All building plans and details shall correlate with the findings documented in the verification letter.

Where the findings of the existing construction fall short of minimum current code compliance, plans reflecting a retro fit or new design shall be provided by the design professional to comply with current code requirements.

All building plans, details, and the verification letter shall require the stamp and signature of the California licensed architect, civil, or structural engineer on record for the project.

CWP DECONSTRUCTION FOR INSPECTION:

When projects are constructed without the benefit of a permit, no inspections are performed and the construction becomes concealed. Unfortunately, when this occurs it becomes necessary for the Building Department to request that deconstruction occur to allow for proper inspection. Once a full review can be performed and prior to plan approval, the plans examiner will indicate on the plans the locations that must be deconstructed/exposed for inspection purposes. (CBC 110.1)

Deconstruction will be utilized to expose the following wall components:

Shear Walls – Approximately 25% of all shear walls will be exposed by removal of the drywall, stucco, or other finishes for the entire length and height of the shear wall on both the interior and exterior. The construction of the wall including endposts, mudsills, edge nailing members, top plates, as well as other components detailed herein must be as specified on the approved plans. If the construction appears to be unsatisfactory then it may be necessary to expose additional walls for inspection.

Shear Wall Nailing – Shear wall nailing must be as specified on the approved plans.

Shear Transfer – Shear transfer is the connection of the roof or floor framing above to the top of a shear wall. It may be located on either the interior or exterior of the shear wall. It usually consists of flat or L-shaped plate connectors. Shear transfer connections will require that a 2' wide portion of the ceiling directly above the shear panel be exposed for at least the entire length of the shear wall and possibly more if requested by the plans examiner. Shear transfer type and spacing must be as specified on the plans. If the shear transfer appears to be unsatisfactory, it may be necessary to expose additional walls for inspection.

Sill Nailing – Sill nailing is a form of shear transfer that occurs at the bottom of a shear wall that is either at an upper floor or above a raised foundation or cripple wall. Sill nailing connections must be exposed for at least the entire length of the shear wall and possibly more if requested by the plans examiner. Sill nail size and spacing must be as specified on the plans. If the sill nailing appears to be unsatisfactory, it may be necessary to expose additional walls for inspection.

Drag Straps – When used, drag straps tie the top of a shear wall to a roof or floor framing member. The plans examiner will indicate when and where drag straps will be exposed for inspection. If the drag straps appear to be unsatisfactory, it may be necessary to expose additional locations for inspection.

Holdowns – Holdowns typically consist of straps nailed to the outside of the wall embedded into the foundations or heavy gage L-shaped steel device inside the wall nailed or bolted to the endposts and embedded into the concrete. Pull test (to verify the full design load can be achieved) shall be conducted by an independent materials testing company for at least 25% of all embedded seismic anchorages. A report must be provided to the inspector prior to framing approval.

In the event of a pull-test failure, testing of ALL holdowns will be required along with repair of any inadequate holdowns by methods agreed upon between the engineer of record (EOR) and the Building Department.

Visual certification may be allowed at the building inspector's discretion for embedded seismic anchorages for patio covers, carports, gazebos and similar structures of an accessory or miscellaneous nature.

Anchor Bolts – Anchor bolts attach the mudsill to the foundation below. Anchor bolts must be exposed for at least the entire length of the shear wall and possibly more if requested by the plans examiner. Anchor bolt size and spacing must be as specified on the plans. If the anchor bolts appear to be unsatisfactory, it may be necessary to expose additional locations for inspection.

Roof Sheathing – The roof sheathing must be exposed to reveal the roof nailing along/ above the eaves as well as the plywood thickness and span rating.

Floor Sheathing – Floor sheathing typically consists of plywood nailed to 2nd floor framing or raised 1st floor framing. A 4x4 section of carpet or other flooring will need to be raised to allow for inspection for nailing and grade. If the floor sheathing appears to be unsatisfactory, it may be necessary to expose additional locations for inspection.

Trusses – If roof trusses were used, a copy of the truss plans reviewed and signed by the engineer of record for this project must be provided.

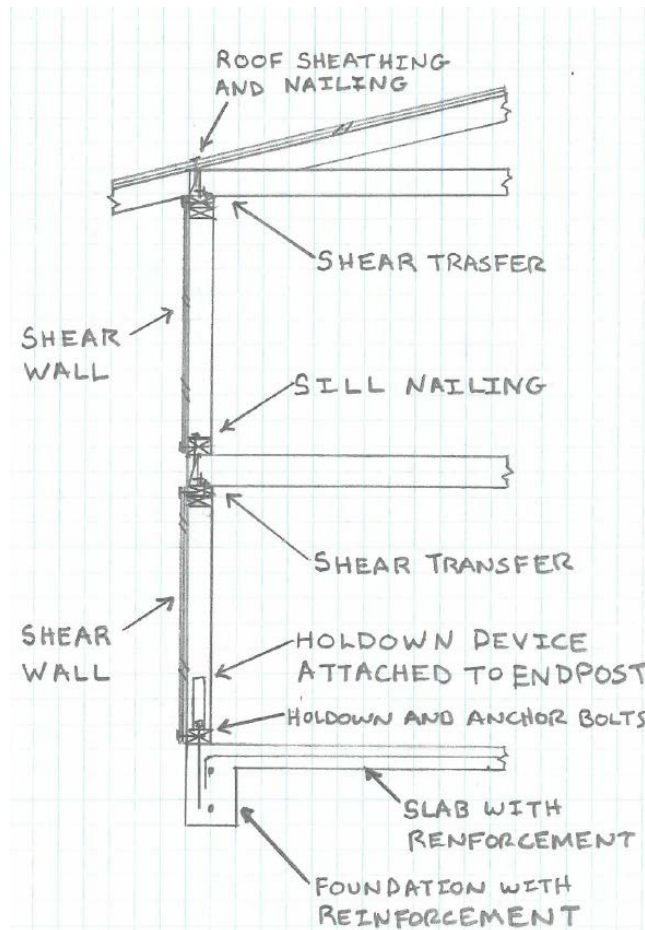


Figure 1 - Typical shear wall construction

Fire Rated Assemblies –

In residential construction, a fire rated assembly may be required for a variety of reasons. Most commonly, a fire rated separation is required between the garage and the dwelling, either at the wall or at the ceiling. Verification shall be by use of a nail locator, or the installation of additional fasteners and compliance with approved assembly requirements. Verification of wallboard thickness and material type shall be by removal of a portion of the assembly to expose at least one wallboard grade and thickness.

Electrical Systems –

All electrical panels and splice boxes shall be opened for inspection for entire systems installed without required inspections. The Building Inspector shall verify box fill and ground system bonding via selective inspection. The Building Inspector has the option of requiring the removal of electrical receptacles and/or switches as required. Bonding to metal piping systems shall be exposed and inspected. Ufer grounds shall not be accepted if installed in a foundation that was constructed without inspection.

Mechanical and Plumbing Systems –

Testing per the currently adopted California mechanical Code (CMC) and/or California Plumbing Code (CPC) shall be required for entire systems installed and concealed without required inspections. Three key locations shall be exposed as selected by the Building Department for verification of material size and configuration.

Typically those locations will be as follows:

- **Landry room to expose water supply, drain waste and vent**
- **Outside wall of bathroom to expose Lavatory, tub/shower plumbing**
- **Expose the sewer line point of exit from house**

These openings shall be at least 2 feet in height by 4 feet in width.

Visual spot verification may be allowed for partial systems or repair without required inspections. The Building Inspector may require revealing concealed components to verify code compliance.

Septic Tanks and Leach Lines, Distribution Boxes, and Connecting Piping –

When cited for the installation of a sanitation system or portion of, without required inspections, the responsible party shall contact the Riverside County Environmental Health Department for compliance requirements.