



Building Department Newsletter

April 2009

Special points of interest:

- Damp Proofing and Water Proofing Foundation Walls
- Make Time for BMP Maintenance
- Deck Ledger Attachments
- Ecology Water Quality Inspectors to Begin Using Field Tickets

Damp Proofing and Water Proofing Foundation Walls

The International Residential Code, Section 406, requires all concrete foundation walls that retain and enclose interior spaces and floors below finished grade (such as basements and crawlspaces) be damp proofed or water proofed. This requirement is for unoccupied as well as occupied spaces in a building, including crawl spaces.

The extra effort of waterproofing a foundation is required when the foundation is constructed in an area with a known high water table or where severe soil-water conditions exist.

The following methods are acceptable for **damp proofing** foundation walls only:

1. Bituminous coating;
2. 2 pounds per square yard of acrylic modified cement;
3. 1/8 inch coat of surface-bonding cement complying with ASTM C 877;
4. Any material permitted for waterproofing in section R406.2;
5. Other methods or materials must be approved by the building official.

The following methods are acceptable for **damp proofing** or **waterproofing** foundation walls:

1. 2-ply hot mopped felts;
2. 55 pound roll roofing;
3. 6-mil polyvinyl chloride;
4. 6-mil polyethylene;
5. 60-mil flexible polymer cement;
6. 1/8 inch cement-based, fiber-reinforced, waterproof coating;
7. 60-mil solvent-free, liquid applied synthetic rubber.

The joints in membrane waterproofing are required to be lapped and sealed with an adhesive compatible with the membrane.

Make Time for BMP Maintenance

Now is a good time of year to inspect your erosion and sediment control Best Management Practices (BMPs). No matter how good they looked last year when you installed them, winter inevitably takes its toll on erosion control BMPs. Chances are that your silt fence has a few holes and your catch basin inserts (silt sacks) are full of dirt and debris. Rock and straw bale check dams probably need to be dug out as well. In order for the BMPs to remain effective, they must be maintained. Re-grading and stabilizing eroded slopes will also be a good idea. A fresh load of rock and/or gravel on your construction entrance probably wouldn't hurt either. You are the best judge of what needs fixing out on your construction site. Please remember to include erosion control BMP maintenance as part of your spring cleaning.

Deck Ledger Attachments

Typically in our area deck ledger boards are attached directly to the house framing. The correct type, size and spacing of attachments along with the naturally durable or preservative treated lumber is critical to ensure the safety and security of the deck. When selecting the type of fasteners, the corrosive properties of the environment and the use of preservative treated lumber must be considered.

The deck ledger shall not be connected to the house by nails only. The ledger shall be secured with lag screws or thru bolts to the rim board or some other structural member which in turn is connected to the structural framing. Secured thru bolts with washer and nuts provide the best ledger connection with 1/2" lag screws with washers being the minimum type of attachment allowed.

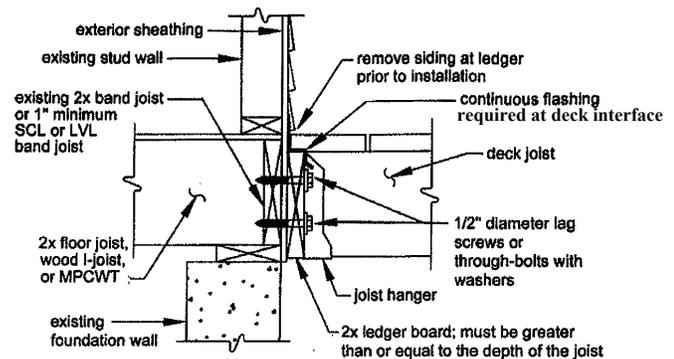
Proper care is mandatory when installing lag screws. The installation of 1/2" diameter lag screws requires a 1/2" diameter pilot hole drilled into the ledger with a 5/16" diameter hole drilled into the rim or structural framing. Do not drill the 1/2" diameter hole into your rim board or structural framing and do not install lag screws with a hammer.

The newer style ledger lock (Fasten Master) and the SDS (Simpson) structural wood screws are convenient for installation in that pre drilling is not required but care should be taken as per manufacture installation recommendation. When designing the deck you must research the manufacture recommendations for load

calculation and the spacing required for structural wood screw installation.

An approved corrosive resistant flashing must be installed for protection against water/moisture migration behind the ledger board causing decay or reentering the building envelope wall cavity. The technique used to install the flashing is just as important as the type of flashing material used in preventing the decay of the structural members that support the deck.

You can reference ledger attachment on the web at the Prescriptive Residential Wood Deck Construction Guide. The prescriptive deck guide provides installation of the 1/2" lag screw attachment and spacing as they correspond to deck joist size and length. This publication is only a reference and has not been adopted by the International Building Code at this time.



Reference Only for General Attachment of Ledger Board to Band Rim Board

Ecology Water Quality Inspectors to Begin Using Field Tickets

Beginning in 2009, Washington Department of Ecology water quality inspectors can issue field tickets for water quality violations they see during inspections of sites covered by the state's Construction Stormwater Permits.

Inspectors will have authority to issue \$500 to \$3,000 field tickets. Ecology's goal is to streamline the enforcement process and reduce large numbers of common violations its inspectors regularly see at these sites. These violations lead to discharges of untreated wastewater, spills of oil or other hazardous chemicals, muddy runoff from construction sites, and other polluted runoff.

Except for flagrant violations, site operators will be given time to fix problems before they get a ticket. Ecology will write tickets only after issuing a written warning or noting the problem in a previous inspection report. The new approach will solve small but serious pollution problems early, while the issue is still timely. The tickets will help Ecology give timely feedback and are similar to traffic tickets. Recipients are required to pay field ticket fines and confirm with Ecology that they have fixed the problem.

For further information, see Water Pollution Tickets at:

<http://www.ecy.wa.gov/enforce.html>