Property Inspection Report

OPEN FRAME

[redacted]

Sierra in West Ranch

Monday, December 08, 2014

Phase Inspection:		Date
☐Phase I:	Foundation Pre-pour	Not inspected by Grace HIS
☒Phase II:	Open Frame	Monday, December 8, 2014
☐Phase III	Final Inspection	

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[redacted]

SCOPE

The client has contracted with this inspector to observe and evaluate the existing portions of the framing, electrical lines, water and gas piping, HVAC ducting and mechanical exhaust duct including clothes dryers.

GENERAL

No architectural plans, diagrams, specifications or reports were on-site at the time of this inspection; there were no workmen on-site.

All code references, as adopted by the City of Friendswood, TX, unless otherwise noted, were taken from

- 2009 International Residential Code (IRC)
- 2014 National Electric Code (NEC) as adopted by the State of Texas
- 2009 International Energy Conservation Code as adopted by the State of Texas

See http://www.ci.friendswood.tx.us/Codes-Standards/ for additional information.

We recognize that some of the issues noted below may have been discovered by the builder's own quality control, or may be slated to be repaired. Our responsibility to our client, however, requires that we point these items out as in need of repair.

OBSERVATIONS

Foundation

In lieu of the architectural plans this foundation was inspected based on the Post-Tensioning Institute's *Construction and Maintenance Procedures Manual For Post-Tensioned Slab-on-Ground Construction 2nd Edition*. The Post-Tension Cable foundation appears to have been tensioned and covered. We recommend that the Builder provide the Buyer with a copy of the Engineer's post tension cable report

The foundation was not identified as a Post Tension Slab. The Post Tensioning Institute (PTI) notes a *requirement* for a brass plate or stamp within the concrete floor of the garage space or metal tag on the water line noting: ***Post Tension Slab: Do not cut or core***. Note that this requirement is for protection against repairs which may damage the cables and create additional damage to the foundation.

Roof Cover

The flashing noted between the side walls and roof was hemmed (also known as "J") or "L" flashing. Flashing against a vertical sidewall should be the *step-flashing type or method*, a minimum of 4" high and a minimum of 4" wide and turned out at the end of the vertical sidewall in a manner that directs water away from the wall and onto the roof and/or gutter. ***NOTE****: While this flashing will become acceptable when the 2012 International Residential Code is adopted, and may be accepted by local code authorities, it does not meet the manufacturer's installation requirements.* [IRC 2006 §R905.2.8.4] [IRC 2009 §R905.2.8.3] [IRC 2012 §R905.2.8.3]

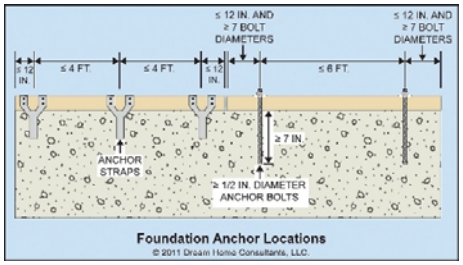
Isolated shingle tabs had not laid flat against the roof deck. These should be monitored over the course of the first year. Should they not eventually lay flat, they should be repaired or replaced within the warranty period. Further evaluation, weather conditions permitting, will be made at the final inspection.

Roof Structure and Attic

There was no access to the attic space above the kitchen area. Attic spaces greater than 30" high measured from the top of ceiling framing to the underside of the roof framing, and larger than 30 sq ^{ft} require a minimum of a 22" x 30" opening. [IRC 2009 §R807.1]

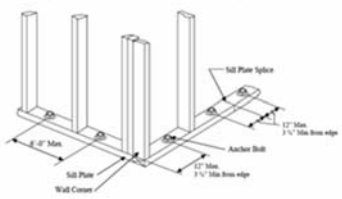
Framing

We were not able to determine whether the frame was properly anchored to the concrete slab; we did not have information on the length of the anchor bolts. Bolts shall be at least 1/2 inch (12.7 mm) in diameter and shall extend a minimum of 7 inches (178 mm) into concrete or grouted cells of concrete masonry units. There was at least four inches of bolt exposed therefore requiring a bolt at least 11 inches long. Bolts are available in 10 and 12 inch lengths. *[2009 IRC §R403.1.6]*

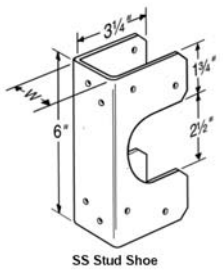


Foundation Anchor Locations

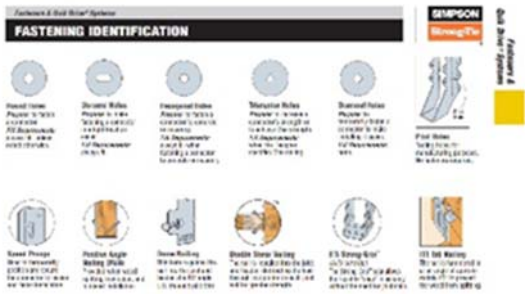
There was no anchor on one of the two sides at each of two splices in the sill plate on the outside wall of the garage. Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet (1829 mm) on center. *[2012 IRC §R403.1.6]*



Nails were missing from two stud shoes over studs in the master bathroom at the inside-wall sink area. Simpson Strong-Tie, the manufacturer of this product, requires that all round holes be secured with fasteners.



SS Stud Shoe



Exterior Walls

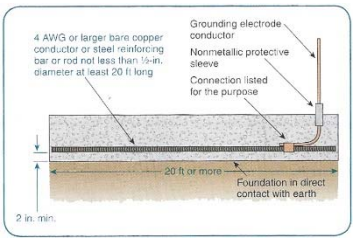
Wall cladding had not been applied at the time of this inspection.

Windows

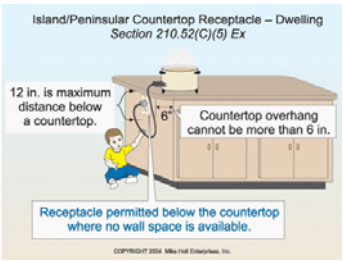
We could not positively determine whether caulk had been applied to the nailing fins of each of the windows. Indirect evidence, including caulk smears and globs was observed on or around the window rough-in openings. The Manufacturer's Installation Instructions state that "***(Required)*** *Apply a generous (at least ¼" diameter), continuous bead of caulk to the exterior of the rough opening to ensure an adequate seal between the back of the nailing fin and the exterior surface of the rough opening.*" and that *"Caulk behind the window flange with a nominal 3/" diameter bead of sealant towards the outer edge of the mounting flange or covering mounting holes."* *Manufacturer's Installation Instructions*

Electrical

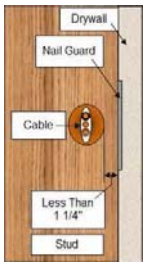
A concrete encased electrode (aka Ufer ground) was observed within the outside wall of the garage. This electrode is required when the concrete is in direct contact with the earth. Concrete installed with insulation, vapor barriers, films or similar items separating the concrete from the earth is not considered to be in "direct contact" with the earth. [2006 IRC §E3508.1.2] [2009 IRC §E3508.1.2] Note that while we are not able to positively determine whether such a vapor barrier is in place the International Residential Code *requires* that a 6-mil-thick polyethylene film be applied as a moisture barrier. [2006 IRC § R406.3.2] [2009 IRC § R406.3.2] *While the builder may have left a portion of the grade beam uncovered by a vapor barrier, we are not able to determine whether a) the exposed area provides enough contact, or b) whether damage may result in the event of high voltage discharge such as by lightning.*



One or more receptacles on the back side of the peninsular counter at the kitchen sink was improperly placed. *In kitchens and dining rooms* (IRC 2006) or *In kitchens, pantries, breakfast rooms, dining rooms and similar areas or dwelling units* (IRC 2009 and IRC 2012), an outlet may be located no more than 12 inches below the countertop only when the countertop extends no more than 6" beyond its support base. [2006 IRC §E3801.4 through §E3801.4.5 Exception] [2009 IRC §E3901.4 through §E3901.4.5 Exception] [2012 IRC §E3901.4 through §E3901.4.5 Exception]



Nail-plates had not been applied on isolated studs where required: over 15 were observed and marked but this number does not reflect all deficiencies. Non-metallic cables run through bored holes in framing members shall not be closer than 1 ¼" from the edge of the framing member, or should be protected with a minimum 0.0625-inch steel plate or sleeve, a listed steel plate or other physical protection. Any others identified should be repaired at the same time. *[2012 IRC Table §E3802.1]*



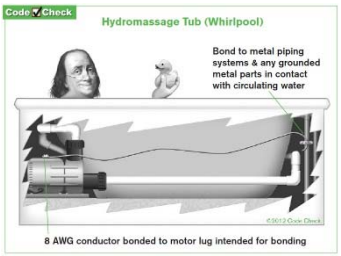
Electrical cables had been stapled on the edge in multiple locations, including, but not limited to;

- in the garage space, within 12 inches of the cabinet (10 or more)
- in the stud cavity to the right of the fireplace in the family room (4 or more)

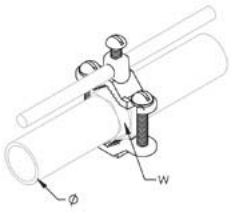
Electrical cables had be Flat cables shall not be stapled on edge. To do so may damage the cable and may cause AFCIs to trip. Any others identified should be repaired at the same time. *2014 NEC 334.30*

Cables marked with black marker

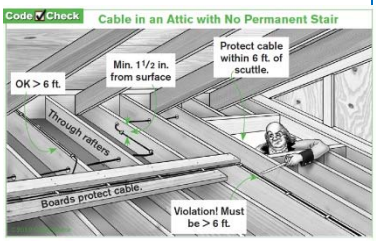
The hydro-massage therapy tub (aka "spa") was not bonded.



The gas pipe system's bonding clamp, located on the exterior where the meter will be installed, was placed over the pipe wrap and did not appear to create an effective bond.



Cables were not properly protected in the attic space proximate to the opening framed for a pull-down stairway. Where runs across the top of floor joists, in attics and roof spaces that are provided with access, the cable shall be protected by substantial guard strips that are at least as high as the cable. [2009 IRC §E3802.2.1]



A cable was run outside of the stud cavity and must be repositioned before application of the insulation and drywall; left of fireplace as viewed from the family room.

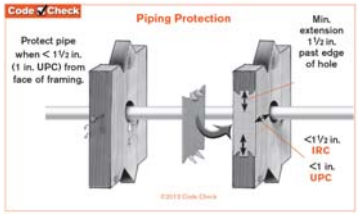
Plumbing

PEX water supply tubing was not protected where it passed through framing, including but not limited to:

1. the top plate in Bedroom #2 bath
2. studs in the master bedroom closet

Steel plates are required to protect water lines, other than galvanized and cast iron, where passing through bored holes that are less than 1 ½ inch from the face of framing. *[2009 IRC §P2603.2.1]*

1

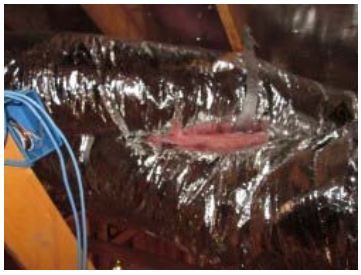


2

HVAC Ducting

One supply air box above the kitchen space was not rigidly supported or secured to the ceiling framing.

Portions of the duct were in contact with other runs. Direct contact, or even separation by insulation, may cause condensate to form leading to organic growth.



The cover of the media air filter, ahead of the *first-floor* equipment, had been partially sealed by mastic. This will prevent the home owner from easily accessing the filter for maintenance and replacement and attempts to remove the cover may cause damage.

Dryer Venting

Information: The maximum length of the exhaust duct shall be 35 feet from the connection to the transition duct from the dryer to the outlet terminal. Where fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table G2439.5.5.1. The reduced length of this exhaust duct was about 31 feet. *[2009 IRC §G2439.5.5.1]*

Where the exhaust duct is concealed within the building construction, the equivalent length of the exhaust duct shall be identified on a permanent label or tag. The label or tag shall be located within 6 feet (1829mm) of the exhaust duct connection. [2009 IRC §M1502.4.5]

Other

Note: To meet IEEC energy efficiency standards walls, doors, windows and penetrations through top plates are to be sealed. This was not observed or evaluated at the time of this inspection because construction had not reached such a stage.

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