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Certified Member #12085
American Society of Home Inspectors®

Construction Inspection Report

Prepared For: Mr. and Mrs. Joe Homebuyer

123 W Hillsborough, #423

Tampa, FL 33619

Report Number: 9099000

Inspection Date: 0/00/00 Time: 02:30:00

Property Information

Address: 123 Persimmon Lane, Tampa

Reported Square Footage: 2900

Notes

The report contained herein is CONFIDENTIAL, and is given solely for the use and benefit of the client, and is not intended to be for the benefit of or relied upon by any other buyer, lender, title insurance company, property insurance company or other any third party. DO NOT DUPLICATE WITHOUT PERMISSION. Terms and conditions crucial to interpretation of the report are contained in a separate Pre-Inspection Agreement. Do not use this report without consulting the Pre-Inspection Agreement.

New construction is inspected using the approved set of plans for the building. This set of plans has been “approved” by the local building department as meeting the requirements of the applicable building codes. Often, an engineer will seal the plans to certify that they meet the requirements of the code. The construction is observed and compared to the plans. In the case of manufactured products, such as metal hurricane clips, manufactured floor joists, etc., the manufacturer’s installation instructions are used as criteria for inspection. These manufactured products all have code approval based on specific application instructions. Variations from these instructions constitute code violations. Local practices are also taken into account.

Variations from the plans are noted in the report. These variations from the plans may represent items that do not meet the requirements of the applicable code and that may need repair, replacement, or modification to meet the requirements of the code.

In most cases, the items listed in the report that require attention are not our “opinion” that something is wrong or does not meet code requirements. They are simple observations of fact that the building is not being constructed in accordance with the approved plans. This method of inspection and reporting leaves little room for argument or discussion as it simply checks to see if the builder is following his approved plans and the building code.

Bear in mind that building codes are not intended to be used to determine the best way to construct a building. The requirements in the codes are intended as the **minimum** needed to build a safe building. Simply meeting the minimum requirements does not always constitute good building practice.

Note that in spite of long standing code requirements, local building departments are not yet enforcing requirements that roof coverings, windows, doors, siding, etc., be able to resist hurricane force winds. Few products in these categories are available that will meet code requirements for resisting high wind forces.

Foundation

The foundation and floor slabs were completed prior to inspection and cannot be inspected at this stage.

Repair The garage floor slab was finished improperly with water on the surface resulting in numerous trowel marks on the surface rather than a smooth surface. Repairs are needed.

Wall Construction

The first floor exterior walls room are constructed of concrete block. The location and number of filled vertical cells containing steel reinforcing were checked against the plans and found to be consistent. The walls and beams at the top of the walls have been filled with grout. The presence or absence of steel reinforcing cannot be verified at this point.

Repair The rear door opening in the masonry wall has been enlarged by cutting one side. In doing so, the reinforcing steel in the vertical cell next to the door was removed. Repairs should be made as specified by the engineer.

Repair The masonry column supporting the concrete beam on the back patio is leaning outward at the top. The beam is crooked as a result. It should be possible to improve the appearance of this with stucco.

Repair A cell in the concrete block wall next to the family room sliding glass door has not been filled with grout.

Framing

Frame Walls (Load Bearing)

Wood frame second floor walls were examined. Wood species, member dimensions, stud spacing, fasteners, sheathing, and attachment were examined. The construction of the walls appears to be consistent with the plans except:

Repair The approved plans require 2x6 studs for the second floor walls. 2x4 studs were substituted. This change should be approved (in writing) by the engineer who sealed the plans.

Repair Some of the exterior corners of the second floor walls do not have overlapping top plates to tie the wall corners together. This is a building code requirement.¹

Repair The right rear corner of the second floor wall structural sheathing is pieced together at the corner using a 3" wide piece and will not hold the corner together. Small pieces of sheathing cannot be used for structural sheathing. This is a building code requirement.²

¹ Standard Building Code: B2308.1.5 Studs shall be capped with double top plates installed to provide overlapping at corners and at intersections with bearing partitions. End joints in double top plates shall be offset at least 24 inches (610 mm).

Most of the exterior sheathing was covered with stucco lath and could not be inspected.

The wall between the house and garage is a load bearing wall carrying loads from floor trusses and roof trusses. Fastening is incomplete and does not meet the plan specifications.

Repair The approved plans require 2x6 studs for the load bearing wall between the house and garage. 2x4 studs were substituted. This change should be approved (in writing) by the engineer who sealed the plans.

Repair The top plate of the garage bearing wall has 3 2" deep notches made to make room for floor trusses. This wall carries loads from roof trusses. The top plate cannot be notched in this manner.

Repair The garage bearing wall is not bolted to the masonry walls as required on the plans on sheet S-10.

Repair No hold down is installed at one side of the door opening between the house and garage.

Repair A section of the garage bearing wall located to the left of the door has a deflected (sagging) top plate. Further evaluation should be made by the design engineer and repairs made as deemed necessary.

Repair The wood top plate at the fireplace area need to be anchored to the top of the masonry wall.

Repair A built up column in the garage load bearing wall is missing strapping at the top.

Repair Studs in the bearing wall are not connected to the top plate with metal connectors as required.

Repair The 2 2x12 beams specified on sheet A3 Note 4 of the plans at the front porch were not installed.

Repair Walls in the front porch area are not properly fastened. Straps are folded rendering them ineffective. The wood knee walls are not anchored properly to roof sheathing they bear on. Support for the walls is poor.

Floor Framing

² B2308.2.2.1 SHEATHING. Structural sheathing shall be installed in accordance with the provisions of Table B2308.2.2B when acting as wall bracing. To be considered effective as bracing, the sheathing shall be at least 48 inches (1219 mm) in width covering three 16-inch (406 mm) stud spaces or two 24-inch (610 mm) stud spaces and be fastened to the wall studs according to Table B2306.1.

The plans for the manufactured wood floor trusses were not present. Inspection for proper installation could not be made.

Floor Sheathing

The plywood floor sheathing was examined. Type, thickness, and fastening appear to be consistent with the plans for the house.

Roof Trusses

Each truss has a plan sheet that shows the size of the truss, how it is assembled, bearing locations, uplift loads from wind forces, and gravity loads that must be supported. Many trusses require bracing that is specified on the plan for the truss. The wood roof trusses were examined using the truss manufacturer's engineering. Location, bearing, fastening, and bracing appear to be consistent with the truss engineering except as noted below.

Repair The roof trusses are fastened to the top of the masonry wall using metal straps embedded in the beam at the top of the wall. Some of these are located in the wrong position and are not effective as a result. Some are bent under the truss, or too far away from the truss. This condition will allow the trusses to lift upward during hurricane force winds. The manufacturers of these straps require them to be tight against the truss. Locations: Above living room sliding glass door. Above garage overhead door.

Repair A truss near the dining room is not strapped to the garage bearing wall to prevent uplift.

Repair Truss 1J and 1N located on either side of the front entry are not anchored for uplift at all.

Repair Truss 8D has an intermediate bearing point that is not supported. The uplift load at the is bearing point is 4528 lb. The truss is not fastened properly for uplift at any of the bearing points. Straps are inadequate for the uplift loads and are not fastened in a continuous load path to the foundation.

Repair Truss 8D bearing R1 has uplift load of 3396. The single strap is inadequate for this load and is not carried to the foundation.

Repair Truss 8D bearing R3 has an uplift load of 2012 lb. The straps are inadequate and the load is not carried to the foundation.

Repair Bracing is missing from multiple trusses above the garage bearing wall. (2B-2G, etc.)

Repair A truss in this area is broken and leaning.

Repair Lateral bracing for the truss webs is not anchored at the ends or diagonally braced. This bracing is required to be anchored at the ends or braced or it is not effective. The purpose of the anchoring or X bracing is to prevent the webs from buckling as a unit. Consult the truss designer's standard bracing details or TPI HIB 91.

Repair Truss 3D: The web members are not nailed at 4" on center as specified on the truss engineering.

Repair Truss 3D is missing bolting required at each panel point as specified on the truss engineering.

Repair The uplift loads at truss 3D are 6529 & 6286 lb. The straps used to fasten the truss are inadequate for the load. Multiple straps may not be used in this manner according to the strap manufacturer. Heavy metal connectors are required here that are suitable for the loads.

Repair Web bracing is missing from truss 7E

Repair A web is knocked loose from a joint in truss 7H.

Repair Truss 7D is missing a web brace.

Repair Truss 7C has a broken web.

Repair Truss 7C is missing one web brace.

Repair 7M is missing a web brace.

Repair Nothing supports the conventionally framed ridge rafter at the ridge of the roof upstairs. Support should be installed here.

Repair Kneewalls at the front entry area are not strapped to the roof structure.

Repair TG1 near stairs is supported by a metal bucket. All nail holes should be filled.

Repair Trusses over the living room sliding glass door are not bearing on the wall. They should be shimmed to bearing.

Interior Walls (Non Load Bearing)

Interior wall framing was examined and found to be in adequate condition.

Dimensions of interior rooms were not measured during this inspection. You may wish to verify these dimensions.

Repair Fireblocking should be installed per Standard Building Code requirements³ at the angled walls in the kitchen and wall above archway to master suite.

Roof Covering

The roof is covered with asphalt fiberglass dimensional shingles installed over 15 lb. felt. The installation appears consistent with the manufacturer's installation instructions. The shingles are well sealed so nailing could not be observed.

Repair Nails at ridge vents and at ridge cap shingles should be sealed to prevent leakage. The exposed nail head are potential leaks.

Repair The 2/12 slope of the small roof over the fireplace area requires special underlayment which was not installed⁴. The reasoning behind these provisions is that at lower slopes, water does not run off the roof as easily and is likely to penetrate the shingle surface making the possibility of leaks much more likely.

Windows and Doors

The installation of the windows was examined and found to be adequate. No loose windows were found. No gaps in caulking were found except as noted below. The entry doors are not yet installed.

Repair Gaps in caulking were observed at windows in the garage and on the right side of the house. A gap is present under the window to the right of the fireplace. Caulking should be completed here to prevent leakage.

Repair Round top windows exposed to the weather such as these often leak after a couple of years due to poor installation practices. We recommend foaming solid the area around the round top of the window to prevent water entry.

Repair The frame for the fixed glass window is bowed at the bottom.

Shower Pan

³ B705.3.1.1 Fireblocking shall be provided in all walls and partitions to cut off all concealed draft openings both horizontal and vertical and to form a fire barrier between floors and between the upper floor and the roof space. See also B2305.1. B705.3.1.3 Walls and stud partitions shall be fireblocked at floors, ceilings and roofs. Fireblocking in noncombustible partitions shall not be required at the ceiling for suspended ceiling systems. Fireblocking shall consist of approved noncombustible materials unless otherwise specified in this code. Material shall be securely fastened in place. B705.3.1.4 The annular space around pipes, tubes, conduit, wires, cables and vents shall be protected in accordance with Table B705.3.1.4, B705.4.6 and Table B705.4.4.

SBC B2305.1.4 Fireblocking shall be installed in wood frame construction in the following locations:

B2305.1.4(1) In concealed spaces of stud walls and partitions including furred spaces at ceiling and floor levels.

⁴ B1504.2.1 2:12 pitch up to 4:12 pitch. Underlayment shall be two layers of felt applied in the following manner. Apply a 19-inch (483 mm) strip of underlayment felt parallel with and starting at the eaves, fastened sufficiently to hold in place. Starting at the eave, apply 36-inch (914 mm) wide sheets of underlayment overlapping successive sheets 19 inches (483 mm) and fastened sufficiently to hold in place.

Repair The PVC shower pan is installed in a manner that will allow leakage to occur at the curb. The pan at the curb should be extended up the sidewall of the door opening to prevent leakage at the ends of the curbs. We observe many 3-5 year old showers with leakage and loose tiles in these locations.

Please feel free to call at any time if you have any questions. END OF REPORT