

July 29, 2014

Nick Sommer, President  
Willowbrook Condominium Association, Inc.  
[HOA.Board@gmail.com](mailto:HOA.Board@gmail.com)

**RE: Willowbrook Condominium Association, Inc.  
KEG File No. 10RS-0541  
Professional Engineering Services: Unit #8977 Flooring Review and Recommendations**

Dear Mr. Sommer,

Karins Engineering Group, Inc. (KEG) visited Unit #8977 and met with the Owner, Ms. Miller, along with John Hewlin and you on July 23, 2014. We observed some areas of concerns and noted the flooring issues as related by Ms. Miller. Our observations were visual and limited to readily accessible areas. In addition, KEG was able to review written documentation provided by Ms. Miller including:

- Whetstone Engineering and Testing report.
- Correspondence from Manasota Flooring.
- Correspondence between KB Home and the Client.
- Breathe Easy Mold Remediation report.
- Correspondence and report from Cain and Bultman as Armstrong representative.
- L&N Services inspection report.
- Inspect Solutions report.
- The Client list of complaints.

It is our understanding the building was permitted April 6, 2009 and Ms. Miller took ownership sometime in September 2009. KEG also reviewed the KB Home and Structural Engineering and Inspections (SEI) Building Plans dated 11/5/08 and reviewed by the Manatee County 1/28/09.

Based on our review, the floor assembly consists of;

- TJI wood trusses with bracing, blocking and tie-downs.
- Oriented Strand Board (OSB) ¾ inch subfloor sheathing fastened to the TJI.
- Various flooring underlayment.
- Armstrong Laminate #77729.
- Various size trim lumber.

There are visual and documented issues reported with the flooring system installation that reportedly remain unresolved and include, but are not limited to:

- Soft spots.
- Deflection at multiple locations.
- Bumps or high spots.
- Uneven and/or un-level areas at the subfloor.
- Water damage:
  - During new construction
  - Exterior wall and window leaks
  - Appliance leaks

- Swelling and damaged subfloor.
- Subfloor joints not breaking on trusses or blocking.
- Improper underlayment material areas.
- Improperly placed laminate plank joints.
- Flooring peaking (tenting) or locked in.
- Luan improperly fastened.
- Underlayment installed short of walls.
- Floor squeaks.
- Lifted flooring corners and edges.

KEG was able to visually and physically confirm the presence of soft areas at multiple locations throughout the unit.

Based on our review it appears the majority of the flooring issues are due to improper subfloor preparation and the improper installation of the Armstrong flooring.

In order to provide a proper laminate flooring repair, all questionable areas should be examined and prepared according the flooring manufacturer's specifications and industry standards.

1. The TJI joists should be properly installed per the manufacturer's specifications with proper strapping, bracing and blocking
2. The OSB subfloor should be glued to the trusses and fastened per the plan schedule. Any damaged or soft/weak areas should be replaced. All sheathing joints should break on a truss or appropriate blocking.
3. The preparation of the subfloor must be performed to meet the requirements of the specifications provided by Armstrong prior to installation of the underlayment. Armstrong recommends S-1836 Quiet Comfort Premium Underlayment and all installation specifications should be followed.
4. The Armstrong 77729 laminate flooring should be installed according to the installation requirements.

The *Armstrong Laminate Flooring Installation Instructions* are readily available for reference.

At a minimum, KEG recommends repairs to comply with the manufacturer's specifications and the building plans.

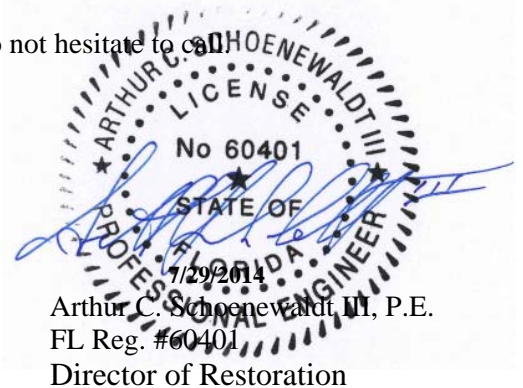
This report is prepared for the sole benefit of the client. Any unauthorized use without our permission shall result in no liability or legal exposure to Karins Engineering Group, Inc.

We trust this information is helpful. Should questions arise, please do not hesitate to call.

Sincerely,  
**Karins Engineering Group, Inc.**

*WG Clarke*

William G. Clarke  
Senior Project Manager  
FL BN-6240



Arthur C. Schoenewaldt III, P.E.  
FL Reg. #60401  
Director of Restoration

