

**Steven Rockfeld Inc**  
**103 Northgate Circle**  
**Melville New York 11747**

**Inspection Date:** 09-16-2020

**Claim Number:** n/a

**Commissioning Agent:** Anthony Marchionne, Zan Development, [REDACTED]  
New York 10704 [REDACTED]

**Dealer:** Zan Development, [REDACTED] Anthony, (914) 772-3256

**Inspection Site:** [REDACTED] Edgemont, New York, 10583

Primary Number: [REDACTED] Work: ( ) Cell: ( )

**Product to Inspect:** unknown | White Oak | Natural | 3000 sq ft

**Concern:** Gaps, crowning and squeaking.

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**Individual(s) Present Upon Inspection:** [REDACTED] Anthony Marchionne,  
[builder].

**Rooms Installed:** First -floor and second-floor of the home.

**Site Description:** Residential | New Construction | Single Family | Owner occupied

Adults: 2 | Children: 3 | Pets: 0

AC: Central | Heat: Forced Air | Exterior Gradient: Away from building | Subfloor: Wood

The home is located in a residential community fully landscaped with a paved driveway.

#### **History & Maintenance per Interviews and Comments of Involved Parties:**

Date Installed: 08 - 2019 | Date Problem(s) Noticed: 02 - 2020 | Installed By: Consumers Contractor

The homeowner Mr. Jee states that his wood flooring was installed in his newly built home in August of 2019. He started to have a concern with the floor in February of 2020. The concern gaps, crowning and squeaking.

According to Anthony Marchionne, [builder]::

- The floor was delivered and acclimated to the home for 3 days with the HVAC up and running.
- His flooring contractor did do moisture testing and did not install the floor till there was a 2% difference between the plywood subfloor and the wood which was to be installed.
- The home was primed but not fully painted.
- The floor is maintained with a dust mop.
- There were originally no humidification or dehumidification systems installed in the home. In March of 2020, an Aprilaire humidification system was installed on each zone of the home.
- The floor is installed on a plywood subfloor which is installed over an unfinished basement. The wood flooring was mechanically fastened to the plywood subfloor.
- There was a 15 lb saturated felt paper installer on top of the plywood subfloor.

#### **Observations & Applicable Field Tests:**

During the inspection of this 3 1/4 inch x 3/4" solid site finished Select White Oak wood flooring which is installed on the consumer's first and second floor of the home, the concerns are Gaps, crowning and squeaking.

Gaps:

- Located in random areas throughout the installation there are gaps. The gaps range in size from 1/64 inches to 1/16 inches.
- The gaps are located on the long edges of the boards.

#### Crowning:

-Located in the dining area there is a 10x10 section of the floor which is crowned.[According to Mr. Jee this area was subject to water damage].

#### Squeaking:

-Located in the kitchen in front of the cabinets there is a section where the floor both deflects and squeaks.

#### Testing:

Using a Delmhorst Moisture Meter and a hammer probe in the pin mode which ranges from 0-60%. The reading on the top of the wood in the living room was 9.2%, [in range]. The reading in the bottom of the wood was 8.1%, [in range], and the reading on the top of the plywood subfloor was 9.5%, [in range].

Using a Delmhorst Moisture Meter and a hammer probe in the pin mode which ranges from 0-60%. The reading on the top of the wood in the hallway was 9.1%, [in range]. The reading in the bottom of the wood was 9.3%, [in range], and the reading on the top of the plywood subfloor was 9.1%, [in range].

Using a hygrometer the rH in the living room 49%, [in range]. The indoor air temperature was 71.4 degrees F.

Using high-powered magnets the fastening schedule in the areas of squeaking in the kitchen was 1-9 inches from the ends and 6-18 inches along the length of the boards. This is erratic fastening.

Using high-powered magnets the fastening schedule in the living room was 4-6 inches from the ends and 4-8 inches along the length of the boards.

The inspector measured the individual boards throughout the kitchen. The boards measured 3 1/4 inches wide. He then measured three (3) sets of ten (10) boards.

The overall set measurement was 32 11/16 inches. The next set measured in the front room was 32 1/2 inches, and the last set measured in the hallway was 32 11/16 inches. The floor has expanded.

Using a straightedge and a Taber gauge and a feeler gauge I was able to measure the crowning in the dining area from .008 -.020 inches.

### **Analysis and Conclusion:**

#### Gaps:

Abnormal gaps, are gaps that are prominent (spaces between boards), non-seasonal (they do not close at any point during the year), and occur at a regular frequency.

Wood is a hygroscopic natural material. It shrinks and swells as it loses or gains moisture in response to moisture changes in its surrounding environment.

Gaps in wood floor systems occur as a result of moisture reductions in the wood that occur following

installation, which causes them to shrink across their widths, and develop spaces between the boards.

Improper acclimation of the wood flooring prior to installation is the primary cause for the development of gaps in the installed flooring system.

Abnormal gaps will develop following the installation of flooring that is suitably wetter than the in-situ (in service) environment can or will support, and which will dry, and shrink as the flooring reaches equilibrium with the environment. The greater the disparity between the Moisture Content (wetness) of the flooring and the in-situ conditions at installation, the larger the gaps will be between boards once it reaches equilibrium. If the entire quantity of wood is "wet", the frequency of abnormal gaps will be high. If only a percentage of the wood is "wet", the frequency of abnormal gaps will be proportionately less.

Although improperly manufactured flooring may be an originating source for "wet" wood flooring, it has no potential to cause abnormal gaps until it has been installed. Wood manufactured with suitable moisture contents also may become "wet" as a result of placement in improper storage conditions at various points in the chain of ownership. Yet again, the potential for abnormal gaps to develop as a result of this condition, occur only if the flooring is installed before it has suitably acclimated.

\*Due to field testing with board measurement's it appears that the wood flooring was not fully acclimated to the home.

This is consistent with the home being painted during the acclimation process. This is both an installation and a site related concern.

Crowning:

- This is a condition where the center of the affected boards is higher than its edges(convex). It normally occurs when a previously cupped floor is sanded before it has dried to its equilibrium moisture content. Excessive moisture conditions such as flooding, leaks, excessive moisture in crawl spaces and basements will often cause a floor to cup. If the high edges of the cupped floor are sanded flat prior to the floor being properly dried, crowning will occur as the floor continues to dry. Make sure that the floor moisture content has equalized between the top of the boards and the bottom of the boards prior to sanding and refinishing. This can be accomplished by utilizing proper moisture meters and checking the moisture content at varying depths.

\*This is a site related concern and can be corrected with sanding the floor.

Squeaking and deflection:

-The concern with the squeaking and deflection in front of the kitchen cabinets is consistent with the floor not being properly fastened to the subfloor. This section of the flooring would need to be removed and replaced.

\*This is an installation concern.

Recommendations:

With the concern with the gaps throughout the installed flooring, it appears that the wood has been through the summer months. I do not believe that the floor is going to expand any further.

Whatever gaps are in the floor would be considered permanent.

1] The second-floor office has slight gapping. To determine if the floor can be re-sanded and then

the gaps filled, screened, and finished. The floor should then go through the winter season and see if the filler stays in and the gaps stay closed.

2] During the heating season keep the Aprilaire Humidifier set between 35-55%.

3] If the filler stays in and the gaps remain closed than the rest of the floor could go through the same process.

4] The affected floor in the kitchen would need to be removed and installed correctly by a fastening schedule of 1-3 inches from the ends and 4-6 inches along the length of the boards.

5] The gaps that are wider than a business card may need to be replaced.

#### Filler Process:

1. Prior to filler application, the floor must be thoroughly vacuumed to remove dust and debris from nail holes, knots, and between floorboards.

2. Spot-fill beveled-edged products; square-edged products may be spot-filled or trowel-filled.

3. Use a filler or putty that is compatible with the stain and/or finish that will be applied.

4. Most latex-based fillers cannot be bleached. Some touch-up putty and hard wax sticks cannot be stained or bleached.

5. The color of the filler must be consistent with the overall color tone of the floor. FILLING NATIONAL WOOD FLOORING ASSOCIATION TECHNICAL PUBLICATION © 2016 NATIONAL WOOD FLOORING ASSOCIATION 27

6. For light-sensitive wood, the filler should be reasonably consistent with the overall color tone of the floor. Light-sensitive wood species will change color over time, as compared to the color of the wood filler.

7. You can make your own filler with the fine dust from the sanding process mixed with a compatible mixing agent to form a thick paste. This process is ideal for color-sensitive species of wood and for difficult-to-match colors of wood since you are using the same material. If the floor is to be colored, make sure your mix can be colored by testing before application.

8. Wood filler must be pushed into the gaps and voids, not just bridging the gap.

9. Nail hole filler must be flat with the surface of the floor (not indented or depressed) and reasonably consistent with the overall color tone of the flooring. The filler may not be recommended or required on every floor.

10. In areas with humidity swings, do not fill seasonal gaps during the dry seasons (winter months). The filler used in these situations will likely cause damage to the flooring when the wood expands again in the humid seasons.

11. Loose floors will not hold floor-filling compounds.

12. Popped filler can occur when filler pops and sinks in cracks when the environmental conditions are unstable from season to season.

Report Notation: All field test methods are not to ASTM Standards. Tests conducted are for indication only. All testing is conducted and documented for the Day/Time of the inspection only. Conditions outside of testing date and/or time are not indicated nor recorded except as noted in the inspection report.

This report is based on information available to the inspector at the time of the inspection. The observations and conclusions are made to a reasonable degree of certainty. This inspector [Steven Rockfeld], reserves the right to add and/or to modify these findings should additional information become available.

