

REAL HARDWOOD FLOORS

INSTALLATION CARE & MAINTENANCE



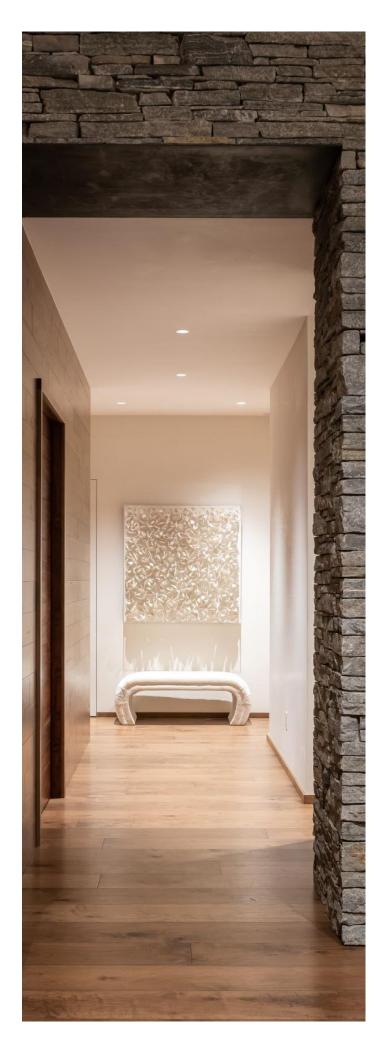


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Burchette & Burchette Hardwood Floors

Installation, Care and Maintenance

INTRODUCTION

On behalf of Burchette and Burchette, we thank you for your interest and pursuit of an artisan handcrafted floor. We pride ourselves in the fact that we craft each floor by hand. Every detail from the edge detail, facial texture, filling of knots, coloring processes, and the finish is done by hand with meticulous consideration to crafting an organic and natural floor, unlike all the mass-manufactured flooring in the market today.

These guidelines are written to promote a successful installation and receive the best experience and service. Please consult your project manager for assistance with any questions or concerns.

1. JOB SITE CONDITIONS

Your wood floor is a natural product extremely sensitive to its environment. Installing the wood floor in a well-maintained job site will only create the best experience and provide the best results. In addition to a well-maintained site, the environmental conditions should be monitored and maintained per our recommended specifications. The General Contractor/Customer is responsible for ensuring these guidelines are followed and reporting to Burchette & Burchette regarding any concerns related to the site conditions before the flooring is delivered and installed.

- **Site Condition:** Keeping a debris-free job site will help prevent unnecessary dirt and sand from collecting on the surface and edges of the wood floor during installation.
 - The structure must be fully enclosed and weather-tight. It is strongly encouraged that
 painting is completed except for the final paint-on Trim detail that may impact flooring
 installation.
 - o All Concrete, Tile, and Plaster (wet work) have been completed and no longer contribute moisture to the environment that would affect normal living conditions.
 - Exterior Grading may impact the conditions of the substrate inside the home.
 Crawlspaces and Basements should be environmentally controlled before installation.
 Neglecting to address these environments before installation can directly affect the wood flooring.
- **HVAC:** The HVAC system should be in place and operational.
 - o Inside temperature should be maintained between 68 − 73 degrees Fahrenheit and Relative Humidity between 30 − 50 %. Your flooring is kiln-dried to 6 − 9%, which is the moisture content the floor naturally lives at under these conditions. (If Engineered: Your Plywood Readings will differ and are unrelated to the Veneer as the Glue within the Ply will create false readings − only read the moisture in the Veneer) Please refer to the EMC diagram to understand how the RH affects the floor's moisture.

2. ENVIRONMENTAL CONDITIONS

The Chart below illustrates how temperature and RH directly affect the Moisture Content of Wood. The shaded box inside the chart is the acceptable range for the appropriate Environmental Conditions. Anything outside of these parameters could cause your wood floor to develop undesirable results that are symptomatic of environmental changes. It is imperative to understand that the performance of your wood floor depends on how well you can maintain your environment. Please consult with your project manager to determine ways to ensure these parameters are met.

EMC (Equilibrium Moisture Chart)

Fahrenhe	celcius																			
30	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11,3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
40	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14,9	16.5	18.5	21.0	24.3	26.9
50	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
60	1.3	2.5	3.6	4.6	5.4	6.2	7.0	7.8	8.6	9.4	10.2	11.1	12.1	13.3	14.6	16.2	18.2	20.7	24.1	26.8
70	1.3	2.5	3.5	4.5	5.4	6.2	6.9	7.7	8.5	9.2	10.1	11.0	12.0	13.1	14.4	16.0	17.9	20.5	23.9	26.6
80	1.3	2.4	3.5	4.4	5.3	6.1	6.8	7.6	8.3	9.1	9.9	10.8	11.7	12.9	14.2	15.7	17.7	20.2	23.6	26.3
90	1.2	2.3	3.4	4,3	5.1	5.9	6.7	7.4	8,1	8.9	9.7	10.5	11.5	12.6	13.9	15.4	17.3	19.8	23.3	26.0
100	1.2	2.3	3.3	4.2	5.0	5.8	6.5	7.2	7.9	8.7	9.5	10.3	11.2	12.3	13.6	15.1	17.0	19.5	22.9	25.6
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	98

Relative Humidity (percent)

• **Dry Conditions:** In low-humidity areas, you may consider running vaporizers to keep the RH at a suitable level; we like to see at least 25% RH in those dry mountain settings.

3. DELIVERY, HANDLING AND STORING

Your flooring will arrive to you in the same conditions it left our manufacturing facility. Each board is packaged by hand with foam padding sandwiched between each face. In most cases, you should expect two boards per bundle. Each order is then palletized, framed, and covered with black-tinted plastic to protect it from sunlight and moisture. Depending on your location, your material will be enclosed in a custom-built crate or plated and covered. Since each order is customized, these crates will vary in length and weight, averaging approximately 1,000 sf of flooring per crate. (Quantity per crate does vary)

- **Job Site Delivery:** Please ensure that the delivery address is accessible by Conestoga or Semi. A Forklift should be arranged to be on-site for unloading. Customers are responsible for unloading all materials. If a forklift is unavailable, enough manpower must be on site and ready to unload by hand.
- **Business Delivery:** Please ensure that the Business Address is accessible by Semi, a Loading Dock, and/or Forklift are available.
- **Storing & Staging Materials:** Materials should be stored inside the Environmentally Conditioned space immediately upon delivery and packaged until installation begins. For the best installation experience, keep the materials stacked as originally packaged when staging inside the property.
- **Inspection:** Burchette and Burchette Hardwood Floors warrant that the products manufactured are free from defects and workmanship upon delivery. If a product is determined to be defective at the time of delivery, then Burchette & Burchette Hardwood Floors shall, at its option, repair or replace the defective product. Installation of materials is considered full acceptance and voids any claim concerning the specifications over Grade, Color, Width, Thickness, or any discrepancies related to the contract or approved sample.

Burchette & Burchette Hardwood Floors

Installation, Care and Maintenance

4. SUBFLOOR PREP

Your subfloor should be prepped and leveled prior to installation. Check for pops and squeaks within the subfloor and floor joist and refasten as necessary. High and low edges within the plywood should be flattened using an edger or sander. Make sure (especially in remodels) that your subfloor is at least 7/8" thick and does not flex excessively, or it will cause squeaks in the floor.

Plywood Subfloor Install

- The subfloor must be flat, clean, dry, and structurally sound, free of squeaks and protruding fasteners.
- The subfloor must be thoroughly cleaned and free of debris or other material that may impact the adhesion of the flooring to the substrate.
- For glue-down installations and installations using mechanical fasteners of less than 2", the subfloor should be flat to within 3/16" in 10 feet or 1/8" in 6 feet.
- If peaks or valleys in the subfloor exceed the tolerances specified above, sand down the high spots and fill the low spots with a leveling compound or other material approved for use under wood flooring. However, the builder's or general contractor's responsibility is to provide the wood flooring contractor with a subfloor that is within the tolerances listed above.
- The subfloor should not read (per NWFA specifications) more than 2% of your wood floor.
- With Pattern flooring, such as Herringbone, Chevron, Parquet, etc. It is especially important that the subfloor is exceptionally flat, as any undulation will transfer into the pattern floor and create misfitting.

CONCRETE SUBFLOOR GUIDELINES

Engineered floors may be installed directly on a concrete subfloor under the conditions and application provided below. Never attempt to install a SOLID wood floor to concrete or below grade. Per our recommendations, ALL concrete installations should be treated with a primer or Moisture Barrier.

Concrete Subfloor

- The concrete subfloor must be flat within 1/8" in a 10-foot radius.
- If the slab is out of specification, consider grinding it to level it. Grinding can remove many high spots, depressions can be filled with approved patching compounds, and slabs can be flattened using a self-leveling concrete product.
- Concrete substrates must be dry.
- Concrete moisture meters and other tests can help identify moisture problem areas. However, NWFA guidelines specify using relative-humidity testing (ASTM F-2170), calcium chloride testing (ASTM-1869), or calcium carbide (CM) testing (ASTM D=4944-04 and Mil-Spec CRD-C154-77) to identify the slab's moisture content.
- If a slab test is too high in vapor emission to glue a floor down, consider using a vapor retarder type
 product, installing a vapor retarder and a plywood sub-floor, or using an alternative installation
 method.
- Concrete slabs with a calcium chloride reading of more than 3 require a vapor retarder with a perm rating of 1 or less.
- The concrete slab must be free from non-compatible sealers, waxes and oil, paint, drywall compound, etc.
- Check for the presence of sealers by applying drops of water to the slab; if the water beads up, there
 may be a sealer or oils.
- DO NOT attempt to glue a wood floor over a chalky or soft concrete slab.
- Burnished, slick steel-troweled slabs may require screening with a 30-grit abrasive.
- A calcium chloride test may be necessary to check for moisture. A Moisture Barrier should be applied when gluing an engineered floor directly to concrete. Follow your glue manufacturer's guidelines for correct application.

6. RADIANT HEAT INSTALLATIONS

Our Engineered Floors can accept installation over Hydronic Heating Systems but are <u>NOT</u> suitable for Electric Heating Mats. While an Engineered construction is more dimensionally stable than Solid Wood, some denser species, such as Maple, Jatoba, and Hickory, are less stable. If installing Solid Wood over Radiant, consider species known for their inherent dimensional stability, such as Quartersawn White Oak.

General Radiant Heat Install Guide:

- To minimize the effect that rapid temperature changes will have on the wood floor's moisture content, NWFA recommends installing an outside thermostat. If one is absent, suggest to your customer that this should be considered. Unlike conventional heating systems, which switch on as needed, radiant systems work most effectively and with less trauma to the wood floor if the heating process is gradual, based on small incremental increases in relation to the outside temperature.
- If the subfloor is concrete and has cured, turn the heat on, regardless of season, and leave it on for at least 5-6 days to drive out residual moisture before installation of the wood flooring.
- Radiant heat is dry heat. A humidification system may be necessary to maintain wood flooring in its comfort zone.
- o The maximum allowable subfloor surface temperature is 85°F (29.44°C).
- Expect some heating season shrinkage.
- o Some occasional hairline checks may occur and are not considered a defect.
- o If radiant heat runs too hot, it can cause an engineered floor to cup.
- O If the room temperature and/or climate is left cooler during vacancy, when returning, DO NOT rapidly increase the radiant heat temperature, as this could shock the wood floor and cause cupping. Instead, slowly increasing the temperature and allowing the wood floor to adjust is recommended. It is better to leave the space in normal living conditions to avoid such occurrences.

7. INSTALLATION GUIDE

As with all wood flooring, the installer is the final inspector of the product. As an installer, you are responsible for cutting out minor defects as they may arise. Because of the nature of the handmade product, there is potential for over/underwood in occasional spots. It is to be expected as a natural attribute of the floor of a 0.030" tolerance (the thickness of a credit card). If you have an edge that performs at a higher or lower acceptance than that, it will need to be shuffled and repositioned. Heavily textured floors will have a much higher range of variance and require careful consideration of the flooring layout. The floor must be dry laid before it is secured down. A waste factor is predetermined to include standard cut loss in installation as well as the very occasional scant end (more common in solid floor).

Since we have several artisans who craft each floor, you should expect something truly unique and one-of-a-kind. Every edge detail is done by hand and, therefore, will vary in look and appearance from board to board. Our hand-eased edge may occasionally result in a slightly lipped edge. This is not a defect but rather a natural occurrence in the product that authenticates the nature of the handcrafted material.

- Installation Practice: Any Burchette & Burchette Plank Floor should be installed in accordance with NWFA (National Wood Flooring Association) guidelines by either Glue & Nail Assist or Trowel Glued. We recommend Gluing using WAKOL products such as MS 262 or MS 265 and vapor barrier P280 when needed. Follow the Glue manufacturer's steps for application. All installations should be completed per NWFA guidelines. Please have your installer refer to and follow the methods approved by the NWFA.
- **Direction:** Flooring direction should be installed perpendicular to the Joist and per the NWFA guidelines. Consult with your Architect for appropriate direction.
- **Dry Laying:** It is imperative that the floor be dry laid before it is secured down. Look for any outliers that may need to be shuffled. Depending on the material, some floors may need more attention due to color variation or heavy texture.
- **Expansion:** A ½" expansion joint around the room's perimeter is required. Wood flooring cannot fit tightly against a wall or base.

8. CLEANING BEFORE COVERING

Your wood floor has been meticulously crafted by the hands of our artisans, using only the highest quality materials and finishes. We take pride in creating heirloom-quality wood floors that feature hand-textured surfaces, multi-step applied colors, and a hand-applied finish, all of which make the floor a stunning centerpiece of any home. Our goal is for this wood floor to endure for generations with proper care and maintenance, becoming a cherished part of your family's legacy.

• **Cleaning:** The first step in taking care of your floor is keeping it clean. Grit and abrasives from outside (and sometimes inside the home) are the items that cause scratches, such as polymeric sand from hardscaping, a "sandy" brick interior wall that, when brushed against, drops off sand and grit on the floor, salt in the winter seasons, a sandy or gritty sidewalk, even the grout from interior rockwork. All of these are a few examples of what causes scratches and undue wear on the floor. **DO NOT** put flooring protection down over a dirty floor; you will regret it.



VACUUMING

For the grit that makes its way inside the house, regularly vacuuming the floor is essential as well. It is important to use a vacuum with the proper head attachment. Above is an illustration of a horsehair wand attachment. This is ideal for vacuuming your hardscape surfaces. NEVER use a beater bar attachment on your wood floor. This will cause wear on the finish.



MOPPING

Mopping should be done with a lightly dampened Terry cloth mop head and cleaner sprayed on the floor. Refer to Care and Maintenance for guidance on which cleaning application to use for your flooring.

9. PROTECTING THE FLOOR

When selecting a protective cover for your wood flooring, it's essential to consider the type of flooring, finish, and installation stage before settling on a particular brand. While Ram Board is an excellent option in most cases, softer woods like Walnut may require a padded-like covering, such as Econo-Runner, especially in more extreme construction zones.

• **Protection:** Apply an approved Hardwood Floor protection over the clean, debris-free floor. For softer woods such as Walnut, extra protection with a thicker, padded-like quality is strongly recommended. If heavy construction is anticipated after installation, take additional steps to ensure the floor stays covered and free of dirt and grime. If your flooring protection becomes damaged or peeled back during construction, take the time to vacuum and clean the floor before re-covering to prevent unnecessary scuffs and surface scratches. Some



RAM BOARD

Ram Board Flooring Protection can easily be applied to protect your floor. Please ensure your floor is thoroughly cleaned before covering it to prevent unnecessary damage.

USING PAINTER'S TAPE ON YOUR WOOD FLOOR COULD CAUSE DAMAGE IF LEFT ON FOR AN EXTENDED PERIOD OF TIME.



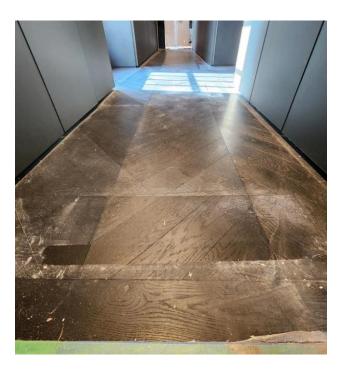
ECONO RUNNER

Econo Runner Floor Protection can add extra protection to your wood floor. We recommend this product over softer woods, such as Walnut, or if heavy construction is expected after installation.

10. MAINTAINING THE PROTECTIVE COVERING

Maintaining flooring protection throughout construction prevents damage from dirt and grime under protective coverings and reduces the need for additional touch-ups or board replacement.





MAINTAIN

While the Ram Board has protective qualities, it can easily be torn during construction. In this situation, dust and debris can become trapped under the protection, creating a sandpaper-like abrasive and could damage the finish. Take steps to maintain and clean the floor in the event of finding damaged protection.

UNCOVERING

When uncovering the flooring protection, dust and grime may be collected under the covering during installation. In this case, clean the floor by following the instructions in this document. Use Stain Pen Markers to touch up any noticeable damaged areas. In the event of severely damaged boards, it is best to utilize the added waste and replace boards instead of spot sanding and recoating.

11. PREVENTIVE MEASURES

Follow these simple recommendations listed below to protect against unnecessary damage while living on your wood floor.

- **Sliding Objects:** Avoid sliding objects across the floor as any grit under the object can scratch the floor.
- Walk-Off Mats: Install walk-off mats at all exterior doors to prevent dirt/grit from tracking inside your home.
- **Carpet Runner:** Installing a runner around your cooking surface can help prevent hot grease or cooking oils off the wood floor. These types of spills could penetrate the finish of your wood floor.
- **Tap In Felt Tabs:** Furniture Felt Tabs are needed under furniture. Often, furniture comes with a hard plastic tab or a metal tab on the bottom. These are horrible for your wood floor as they create a pressure point that will mar the wood floor. Remove these from the furniture. Rather than using a stick-on felt often seen at the store, order a more permanent solution (which we also offer), a t,ap in Safeglide.

SAFEGLIDES

These Safeglides Felt Floor Protectors will attach to your furniture easily with a gentle tap of a hammer. They also have a displacement core, wider than the felt, to keep from creating pressure points that can mar the floor. These are crucial to minimizing wear around barstools, dining tables, etc.



RUBBER CASTERS

For office or gaming chairs, please consider using rubber casters, not metal or plastic, as these also create a pressure point. If you are going to use a metal or plastic caster, you should consider putting a rug or protection under that area.



II. CARE AND MAINTENANCE - EUROPEAN OIL FINISH

Follow these simple care instructions to keep your floors looking beautiful and new. If you are unsure which Finish Care relates to your floor, please call us; someone will be happy to guide you in the right direction.

EUROPEAN OIL FINISH

European Oil Finish provides a beautiful finish that can be easily maintained for years to come. To ensure the best experience, please avoid spills from bleach, hot cooking oil, greasy foods, or other natural oil-based products, as these spills could leave behind stains that are difficult to clean. In such cases, higher concentrated maintenance products may be needed for a deeper cleaning.

European Oil Finish Cleaning Steps:

- Sweep the floor to remove large dirt particles.
- Vacuum-swept floor to remove any dust.
- Mix European Oil Soap with Water into a hand-held spray bottle.
- First, damp mop with soap mixture using a Terry Cloth Mop.
- Do not leave any standing water on the floor. Damp-mopping is sufficient.
- Wring and rinse your Terry Cloth Mop head occasionally to remove collected dirt.
- Do not walk on the floor until completely dry (15 minutes).
- Note: If the floor is not dry in 5 minutes, you are leaving it too wet.

12. CARE AND MAINTENANCE – SIGNATURE FINISH

Follow these simple care instructions to keep your floors looking beautiful and new. If you are unsure which Finish Care relates to your floor, please call us; someone will be happy to guide you in the right direction.

SIGNATURE FINISH

Signature Finish provides a beautiful, hearty finish that is easy to clean and maintain. While this finish is considered our most durable coating, keeping walk-off mats at exterior doors and felt tabs on furniture is still encouraged. Sharp edges or small grit under enough pressure can still leave behind surface scratches that are difficult to touch up.

Signature Finish Cleaning Instructions:

- Keep grit off the floor using walk-off mats at all exterior doors. This will help prevent dirt and grit from getting on the floor and keep doormats clean. Throw rugs just inside the entrances are also helpful.
- Put fabric-faced glides (preferably felt) on the legs of your furniture. They allow furniture to be
 moved easily without scuffing the floor. Clean the glides regularly since grit can become embedded
 in them. Use Tap in Felt Tabs for the best results, and avoid Peel and Stick, as these can easily fall
 off your furniture.
- Vacuum floor regularly using a brush attachment. You may also use a dust mop daily or as needed.
- Wipe up spills promptly with a dry cloth or paper towel. Use a slightly dampened cloth for sticky spills.
- It is excellent practice to keep your floor as clean as possible. When cleaning is needed, add one cup of white vinegar to one gallon of warm water or other approved hardwood flooring cleaners. Use a terry cloth mop and damp mop the floor. Never wet mop or use a string mop to clean your hardwood. (Never leave puddles or too much water on the floor.)
- Never wax a polyurethane finish floor. Once waxed, the floor will have to be completely sanded down to raw wood to restore the floor.