

WOODWORKS Grille System Assembly and Installation Instructions

GENERAL

1.1 Product Description

The WoodWorks Grille system is a bamboo core ceiling system available in 2 standard slat heights and 2 warm wood finishes – Natural Bamboo & Carbonized Bamboo. Both the nominal 300x2400mm panels and installation system are provided by Armstrong Ceiling Solutions. Panels can be installed with Prelude 43 Black suspension system with a backers system and dowel system. Flexible backer for curved applications, are also offered through Armstrong. For applications where the WoodWorks Grille system is to be installed on a slope, contact YISC team for further instructions and drawing details.

1.2 Material and Surface Finish

Slats, backers, and dowels are constructed from Bamboo. Slats have a semi-gloss coating. Backers and dowels have a black factory finish.

1.3 Storage and Handling

All ceiling components should be stored in a dry interior location and shall remain in the original packaging prior to installation to avoid damage. The materials shall be stored off the floor in a flat, level condition. Do not store in unconditioned spaces with humidity greater than 55% or lower than 25% or with temperatures greater than 30°C and lower than 20° C . Use proper care when handling to avoid damage or soiling. WoodWorks Grille panels can be cleaned with a soft dry cloth.

CAUTION: Use proper care and caution when handling suspension systems due to the sharp edges on all exposed clips.

1.4 Site Conditions

Building areas that will receive a ceiling shall be free of construction dust and debris. Installation of the products shall be carried out where the temperature is between 20°-30° C and relative humidity levels maintained between 25% RH and 55% RH. These temperatures and humidity conditions must be met throughout the lifetime of the ceiling.

Real bamboo and bamboo composite products are natural building materials and they will react to changes in humidity. (Bamboo tends to contract with lower humidity and expand with higher humidity.)

Bamboo may also have a tendency to warp, twist, or bow, due to the natural stresses in the components and these humidity changes. Be aware of these natural tendencies when evaluating the products.

It is also necessary for the area to be enclosed and for the HVAC systems to be functioning and in continuous operation. All wet work (plastering, concrete, etc.) must be complete and dry. These products cannot be used in exterior or semi - exterior applications.

To ensure that the ceiling panels have stabilized to the current building conditions, prior to their installation, the planks must be placed in an environmentally stable building location for a minimum of 72 hours.

1.5 Color

WoodWorks Grille panels are made of bamboo. Natural variations in color and grain are characteristic of bamboo products. To maximize visual consistency, panels should be unpacked and examined collectively to determine the most desirable arrangement for installation. The suspension grid to be used would be in Black (RAL9005) shade.

1.6 Ordering Considerations

Be sure to account for extra material that is normally needed for wood installations. When installing WoodWorks Grille panels, you should consider ordering at least 5% extra material.

Up to 10% more may be needed for odd size or diagonal installations. It is the customer's responsibility to plan each layout and order the correct amount of installation material needed, taking into account their design.

1.7 Fire Performance

As with other architectural features located at the ceiling, WoodWorks

Grille panels may obstruct or skew the planned fire sprinkler water distribution pattern, or possibly delay or accelerate the activation of the sprinkler or fire detection systems by channeling heat from a fire either toward or away from the device. Designers and installers are advised to consult a fire protection engineer, and their local codes for guidance where automatic fire detection and suppression systems are present.

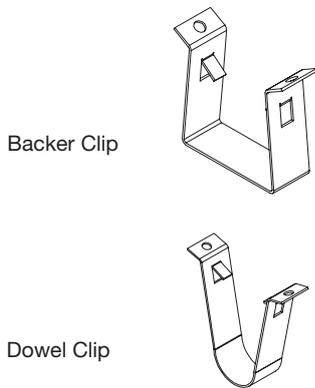
2. WOODWORKS GRILLE PANELS AND ACCESSORIES

2.1 Wood Slats

WoodWorks Grille panels are available in two slat heights and **two** mounting system.

2.2 Backer Clips and Dowel Clips

Metal spring clips are used to attach panels to 24mm Black Prelude 43 suspension system.



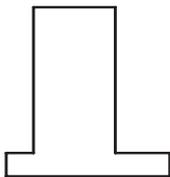
2.3 Trim Accessories

Wood trim options are available in coordinating slat finishes:

- Ledgers for wall molding trim



- Junctions for panel joints



- End caps for exposed panel ends



Note: Please refer to the product brochure/datapage for more information on above accessories

2.4 ACOUSTICAL INFILL PANEL OPTION

Optra glasswool of size 600x600mm and Black colors can be used as infill panels to provide additional acoustics. They are slide on top of the WoodWorks Grille slats, but some field cutting of these infill

panels will need to be done so that they fit properly at the ends of the panels.

3. INSTALLATION

Before starting any WoodWorks Grille ceiling installation, be sure to confirm any seismic requirements that may need to be met for your project.

3.1 NON-SEISMIC INSTALLATION

WoodWorks Grille slats install perpendicular to the main beams. The main beams shall be spaced 1200mm O.C. The 1200mm cross tees shall intersect the main beams at 90° every 600mm, creating a 600 x 1200mm module. Then 600mm cross tees shall be installed parallel to the main beam creating a 600 x 600mm module.

Installation on suspension systems that do not meet this tolerance will produce unacceptable panel alignment.

WoodWorks Grille panels require two people to handle each panel safely, minimize damage, and provide panel support during installation.

See the last page of this document for a ceiling layout example.

3.2 Suspension System

Use Prelude 43 black T-Bar suspension system, main beams, cross tees, and wall molding of size 19x19mm in black to support the WoodWorks Grille panels.

3.2.1 The suspension system is directional. Refer to the reflected ceiling plan to determine the suspension system layout. Main beams must run perpendicular to the panel length.

3.2.2 Refer to the reflected ceiling plan for the finished height of the ceiling. Add the overall height of the WoodWorks Grille panel to determine the elevation of the suspension system. The WoodWorks Grille panel height and weight is listed on the data sheet.

3.2.3 Install wall molding along the perimeter at the established suspension system elevation.

3.2.4 Refer to the reflected ceiling plan to determine the panel orientation and size. Backers or dowels must be aligned with the main beams or cross tees. The first main beam should be no more than 300mm off the wall and then 1200mm on center across the installation. Use 12 gauge hanger wire 1200mm on center to support the main beams. In addition to the above requirements, also follow ASTM C636 requirements.

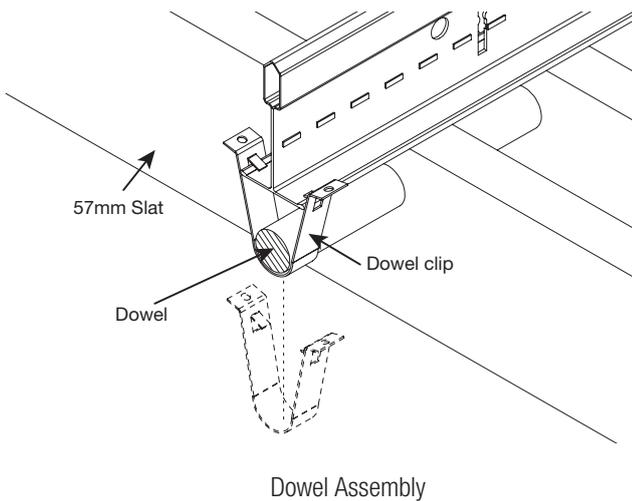
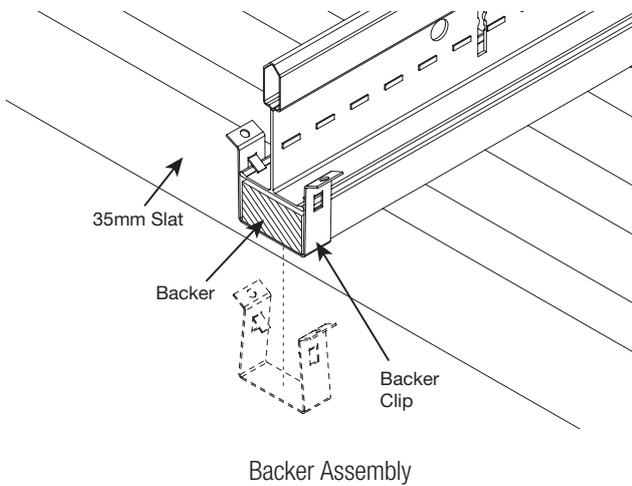
3.2.5 Install 1200mm cross tees at 600mm on center between the main beams. This will create a 600 x 1200mm suspension system module.

3.2.6 Next, insert 600mm cross tees at the midpoints of the cross tees in Section 3.2.5. You should now have a 600 x 600mm suspension system module. This is required to keep the WoodWorks Grille panels perpendicular to the main beams and backers/dowels aligned along the suspension system for clip attachment.

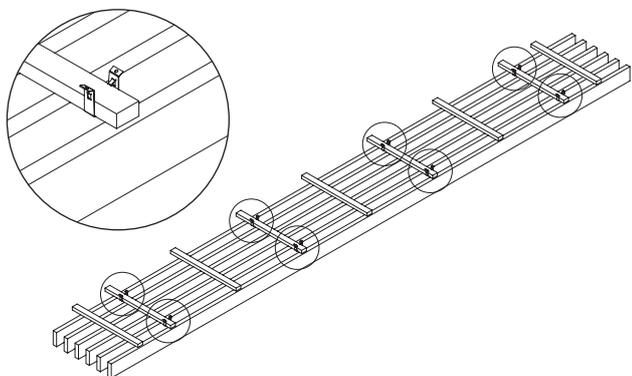
3.2.7 Additional cross tees can be installed in the system as needed to support mechanical fixtures such as lights and speakers.

3.3 WoodWorks Grille Panel Installation

3.3.1 WoodWorks Grille panels are installed in sequence across the room. The first row of panels will have the male side towards the wall. Backer/dowel may need to be trimmed for proper panel alignment.



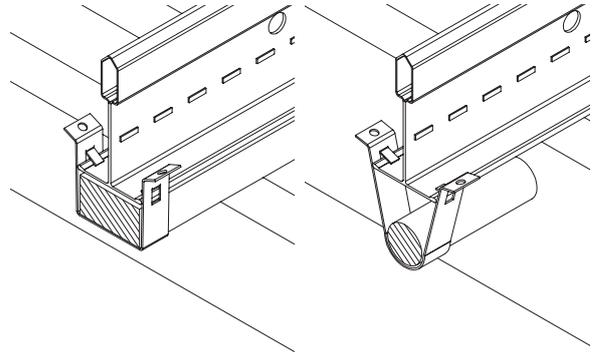
3.3.2 The WoodWorks Grille panel is attached to the suspension system with a clip. Attach two clips on every hanging backer (backer that aligns with the suspension system). This should total 8 clips per full size panel.



3.3.3 Begin at one wall, raise the panel up against the suspension

system, and align the backers/dowels with the suspension system.

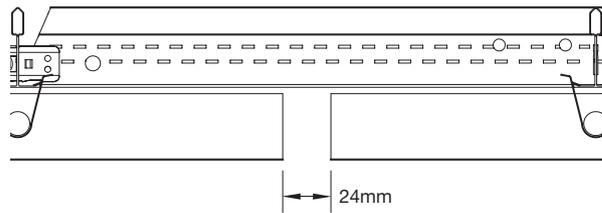
Push upwards on the clip to engage the clip tabs onto the suspension system flange. Make sure both clip tabs engage the suspension system flange.



3.3.4 Continue installing WoodWorks Grille panels — male to female — across the room.

3.4 WoodWorks Grille Reveal

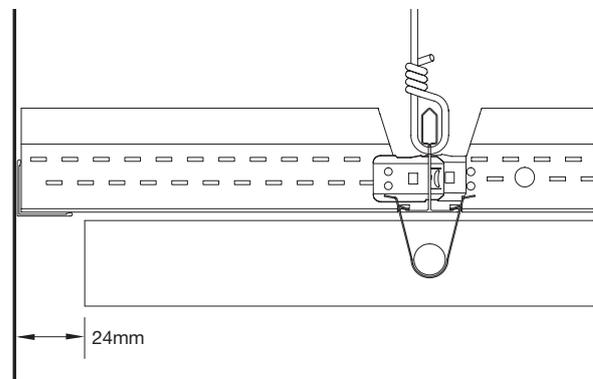
3.4.1 WoodWorks Grille panels will have a 24mm reveal between panel ends. This uniform spacing and alignment is maintained by the Prelude 43 suspension system assembly.



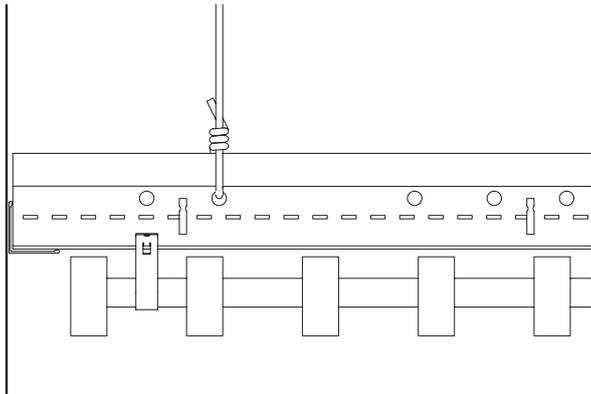
3.5 WoodWorks Grille Borders

3.5.1 Refer to the ceiling plan for border panel size and spacing.

3.5.2 The border where the panel ends meet the wall should have allowance for a 24mm border in the ceiling plan.

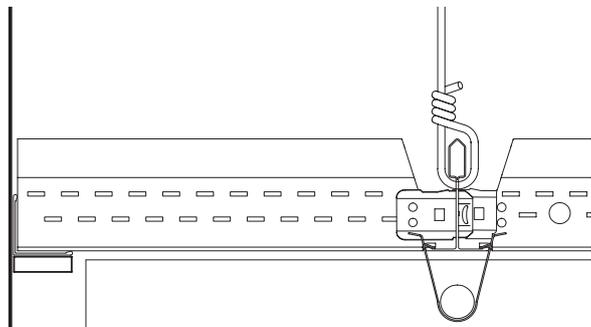


3.5.3 The border where panel sides meet the wall is determined by the first and last slat that is installed. These panels should be mechanically screwed to the grid to maintain the border.

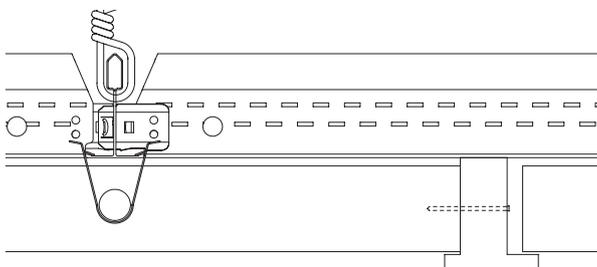


3.6 WoodWorks Grille Accessories

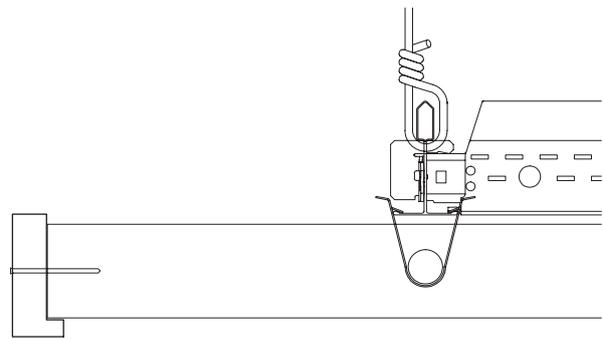
3.6.1 Ledger trim can be used to cover the wall molding with the same finish as the WoodWorks Grille panel. The ledger can be fastened to the molding with adhesive or screwed from above with 6mm long screws.



3.6.2 Junction trim can be used between WoodWorks Grille panels to fill the 24mm reveal. This option will be specified on the ceiling plan. The junction trim must be installed progressively as the panels are installed. Install the first row of WoodWorks Grille panels. Place the shorter flange of the junction trim against the panel slats. Use 38mm 4d finish nails every 300mm to fasten the junction trim to the panel end. Install the next row of panels. The panel end will fit part way into the deeper side of the junction. This panel end will float free in the junction trim to allow for expansion and contraction of the WoodWorks Grille panels.



3.6.3 End caps can be used as trim for the panel end when the installation is not wall to wall, a floating cloud, or trim around a fixture. Cut the end cap trim to fit as required and use 32mm 3d finish nails every 300mm to fasten the end cap to the panel end.



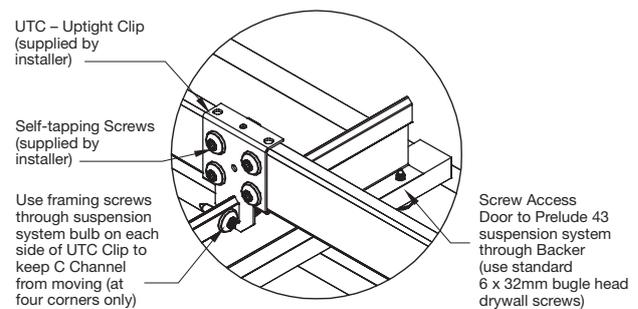
3.7 Mechanical Fixtures

3.7.1 Mechanical fixtures such as lights, speakers, and sprinklers should be installed into the acoustical suspension system, if acoustical backing is to be used with WoodWorks Grille, before installing the WoodWorks Grille panels. Fixtures can be installed at the suspension system height or flush with the bottom of the panel. Fixture weight or housing must be supported by the acoustical suspension system. Install additional cross tees for support as needed. Refer to the ceiling plans for specific details. WoodWorks Grille panels can be cut to fit around fixture openings. Use the WoodWorks Grille end cap to trim the cut slats or sand and stain, or paint exposed field cut edges to match the panel finish.

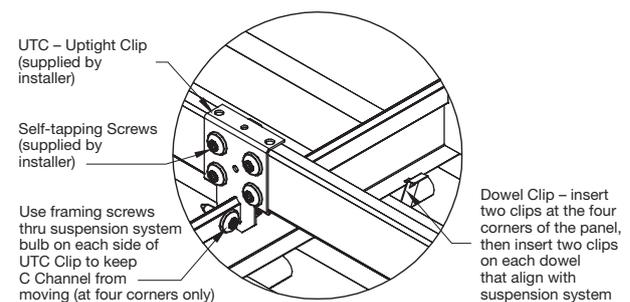
3.8 Access Options

3.8.1 To create an access door in the field: For a panel with backers, attach several pieces of Prelude 43 suspension system to the backer with standard 6 x 32mm bugle head drywall screws. For a panel with dowels, insert two clips at the four corners of the panel, then insert two clips on each dowel that align with the suspension system.

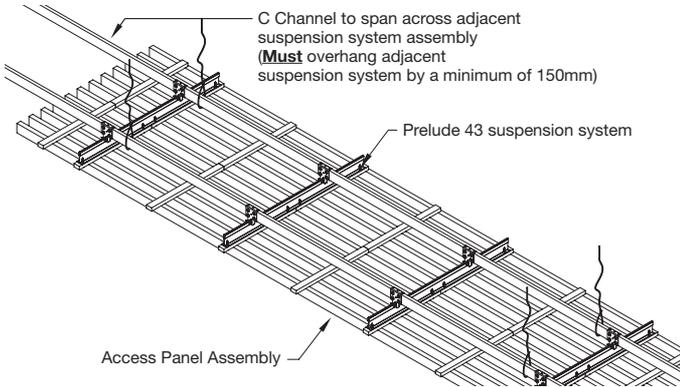
WoodWorks with Backer



WoodWorks with Dowel

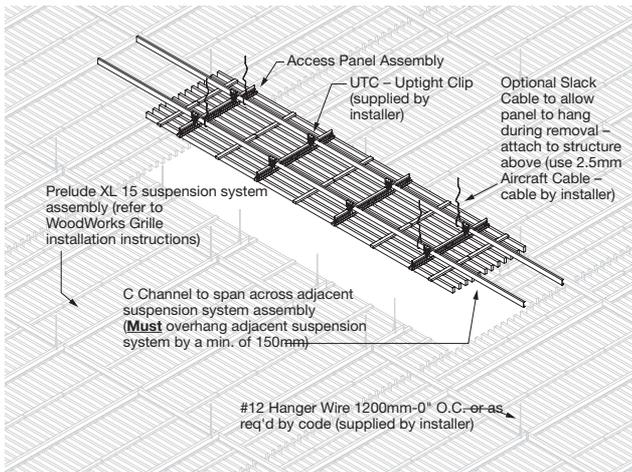


Next, use two pieces of 38mm channel to act as outriggers to support the access panel. These channels should be attached to the top of the suspension system with UTC clips. The weight of the access door will rest on the adjacent suspension system. Based on the weight of the WoodWorks Grille panels, access doors can be very heavy. We recommend extra support on the main beams and cross tee around the access door and using a minimum of two individuals to remove or lift the access doors.



Shown on WoodWorks Backer

Additional hanger wire may be required on the adjacent suspension system. Channels must overhang adjacent suspension system by a minimum of 150mm.



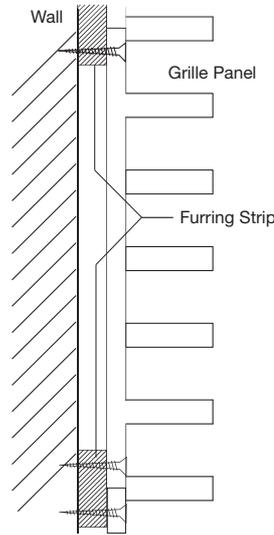
Shown on WoodWorks

4.5 Wall Installations

4.5.1 Panel orientation can be horizontal or vertical.

4.5.2 Furring should be attached to wall structure and then the WoodWorks Grille should be attached to the furring. Pre-drill clearance hole in backer.

4.5.3 Furring spacing – for backer panels, furring spacing is 300mm O.C. The seam of the two panels should meet at the center of the furring.



Grille Panel Backer

4.5.4 For panel attachment, use two screws per backer.

4.5.5 WoodWorks Grille panels can be cut to fit receptacles or other wall fixtures. Use normal woodworking tools to achieve the desired opening. Attach backer (by others) for extra support as needed.

4.5.6 Use the WoodWorks Grille end cap to trim cut slats or sand and stain, or paint exposed field cut edges to match the panel finish.

5. CUTTING

When you cut a panel to length, you can use normal woodworking tools, (e.g., circular saws, saber saws, coping saws, etc.).

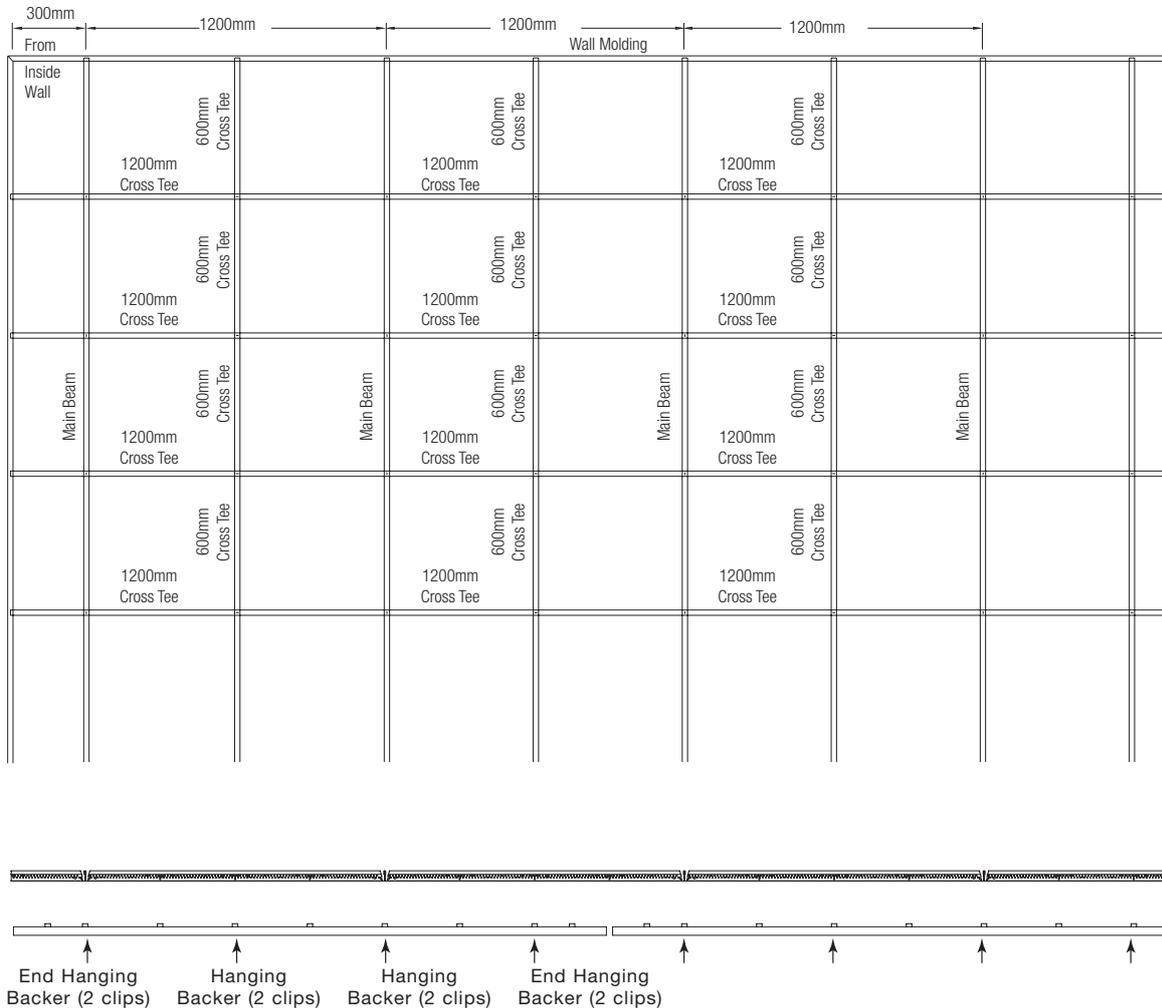
Penetrations for sprinklers (or other fixtures) can be accomplished by simple interruption of the wood planks at those locations or by using normal woodworking tools to cut access in the planks.

⚠ CAUTION: BAMBOO DUST. Sawing, sanding, and machining wood products can produce dust. Airborne wood dust can cause respiratory, eye, and skin irritation. The International Agency for Research on Cancer (IARC) has classified wood dust as a nasal carcinogen in humans.

Precautionary measures: If power tools are used, they should be equipped with a dust collector. If high dust levels are encountered, use an appropriate NIOSH-designed dust mask. Avoid dust contact with eyes and skin.

First Aid measure in case of irritation: In case of irritation, flush eyes or skin with water for at least 15 minutes.

6. TYPICAL GRID PLAN



7. CLEANING RECOMMENDATIONS

There are three methods that we recommend for cleaning a WoodWorks Grille panel. First, the panels can be vacuumed to remove any dust or dirt that may accumulate on the slats or backers. Second, use a clean, dry, soft cloth to wipe off any dirt or greasy fingerprints. If this does not clean the panel, use a damp, clean, soft white cloth or sponge with a mild detergent to wipe the panel. Third, for scuff marks that may have transferred from the backers or dowels to the slats; use a clean, soft white cloth with either Naptha or Mineral Spirits to clean scuff marks on solid wood slats. We recommend wiping the slats with normal pressure, and do not recommend scrubbing the slats with the cloth.

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