

PIVOTLINE[®]

Manual-Rail Finishing System

Stationary Rail Installation Guide



Revision 3 10/2023

 **Guffey Systems**[™]
The Power of Productivity



Thank you for purchasing Guffey Systems' PivotLine® Manual Rail Finishing System. We believe this to be the most effective material handling system available, and we stand ready to assist you with technical support at any point during your setup and adoption of this system.

Phone: (865) 850-9508

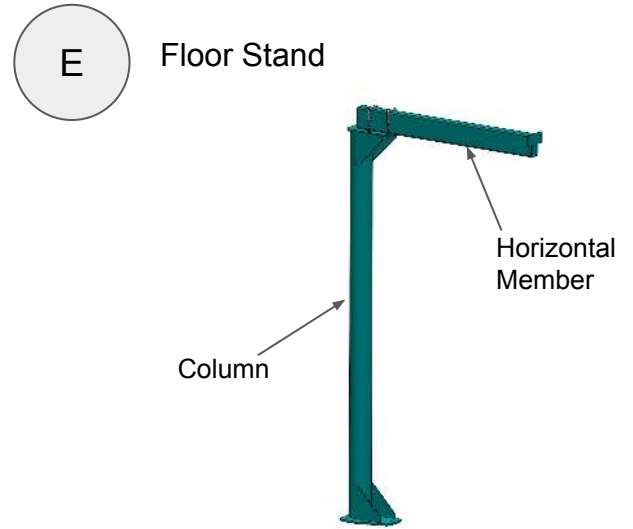
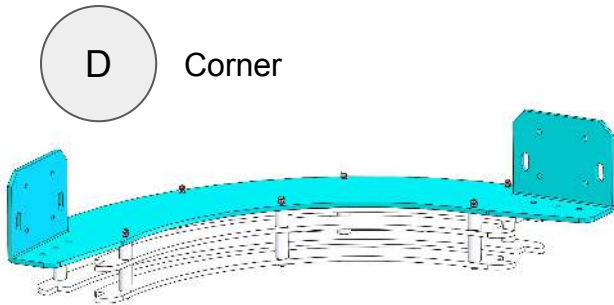
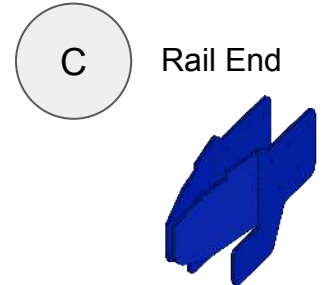
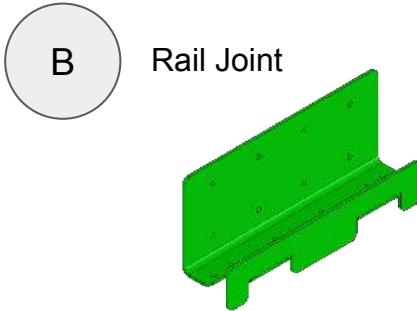
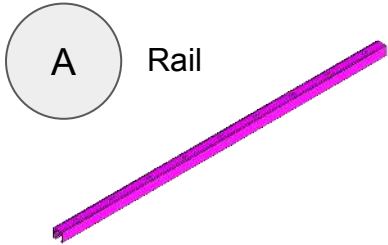
Call us 8am to 5pm Eastern Time, Monday – Friday, or Text us any time

This installation guide is intended to assist the end user during assembly of the Guffey Systems' PivotLine® Stationary Rail components.

Disclaimer

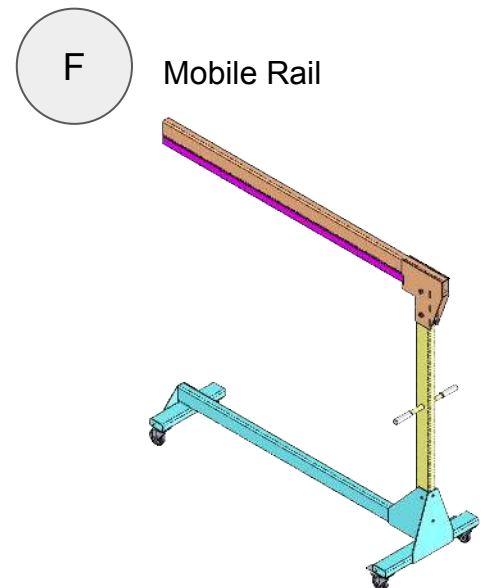
The instruction given in this guide is not tailored to your specific spray booth. The structural supports, connection method, and material selection are the responsibility of the end user. If you are uncertain of your ability to properly secure this rail in your building, consider consulting a qualified structural engineer.

STATIONARY RAIL COMPONENTS



HARDWARE GROUPS

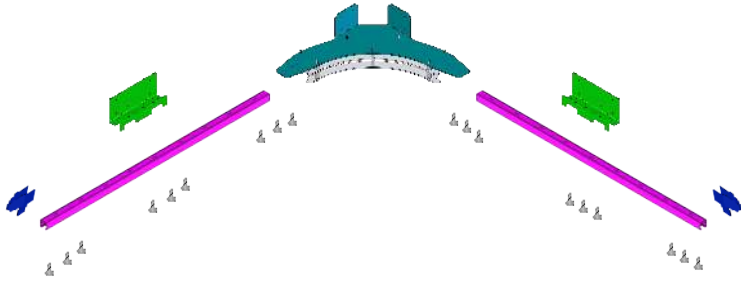
GROUP	ITEMS
G	M6 x 20mm Button-Head Screw
	M6 Flat Washer
	M6 Hex Nut (Nylon Locking)
H	M8 x 20mm Hex Screw
	M8 Flat Washers, qty2
	M8 Hex Nut (Nylon Locking)
J	Concrete Anchor 3/8" x 3"
	3/8" Flat Washer
	3/8" Hex Nut
	Steel Shims
K	3/8" Galvanized U-Bolt
	3/8" Galvanized Flat Washer
	3/8" Galvanized Hex Nut, qty2



1

Prepare for Assembly.

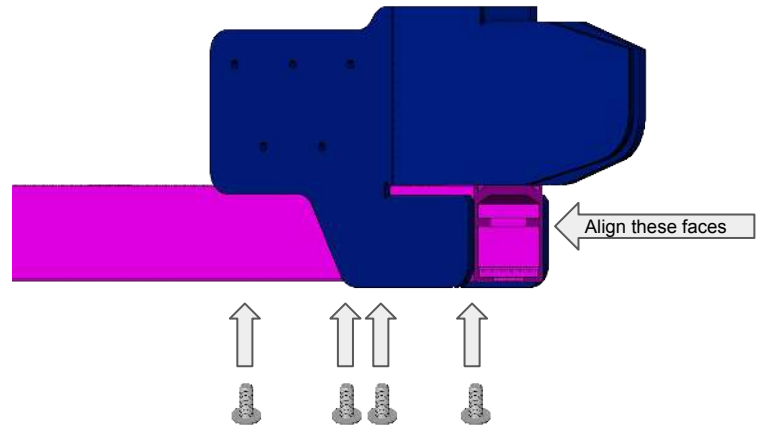
Unpack and lay out the components of the stationary rail system in the configuration they are to be installed. The L-Shaped configuration shown is an example only. During the initial assembly process, support assembled components off of the floor to provide tool clearance, and to avoid bending or twisting the rails.



2

Assemble the Rail Ends.

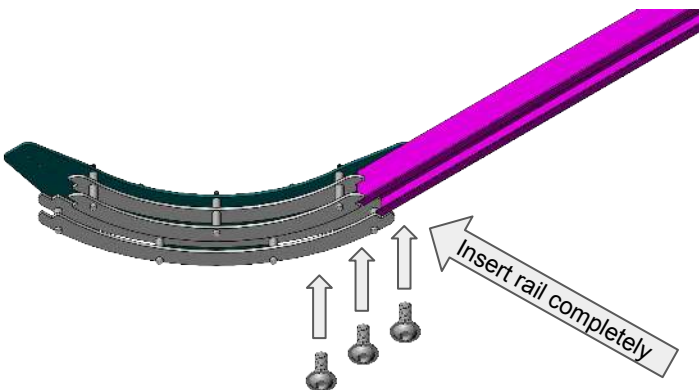
Use qty4 of Hardware Group (G) to mount a Rail (A) to each Rail End (C). Align the end of the Rail (A) to be flush with the Rail End (C) face indicated below. Use the existing slots in the Rail (A) where possible. It will be necessary to drill additional holes thru the rail using a 1/4" drill bit to use all the holes in the Rail End (C).



3

Assemble the Corners.

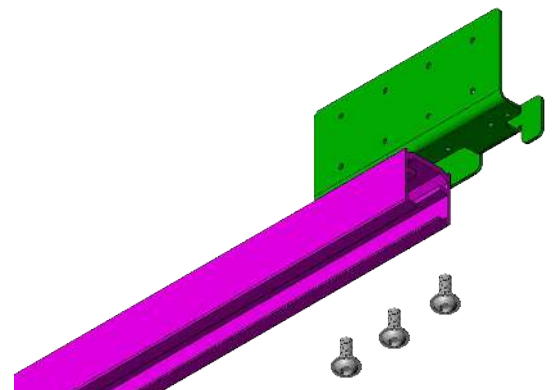
Use qty3 of Hardware Group (G) to mount a Rail (A) to each end of each Corner Assembly (D). Butt the end of the Rail (A) against the inner rail surface of the Corner Assembly (D). Use the existing slots in the Rail (A) where possible. It will be necessary to drill additional holes in the rail using a 1/4" drill bit to use all the holes in the corner assembly.



4

Assemble the Rail Joints

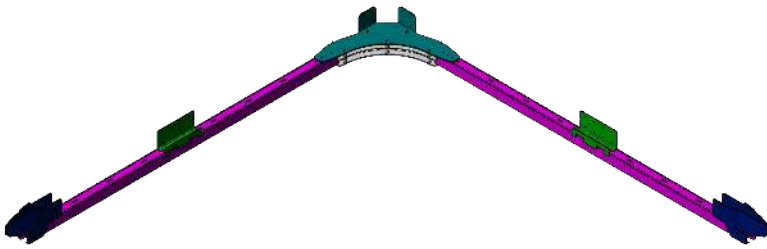
Center a Rail Joint (B) on the mating ends of any Rails (A) that abut one another. Clamp the Rail Joint (B) tabs against the side of each Rail (A) to assure alignment during assembly. Use qty6 of Hardware Group (G) to mount the Rails (A) to the Rail Joint (B). Use the existing slots in the Rail (A) where possible. It will be necessary to drill additional holes thru the rail using a 1/4" drill bit to use all the holes. The Rail Joint (B) is used as a Floor Stand (E) or ceiling support point.



5

Determine the Installed Position.

With the stationary rail assembled, lay the unit directly on the floor of the spray area and position it in the desired location relative to walls and other obstacles. Make note of overhead obstructions that may interfere with the rail, rail supports, or workpieces when in its final position. Confirm that the assembly is square. Use a plumb bob to accurately transfer mount point locations to overhead structure.



6

Determine the Support Method.

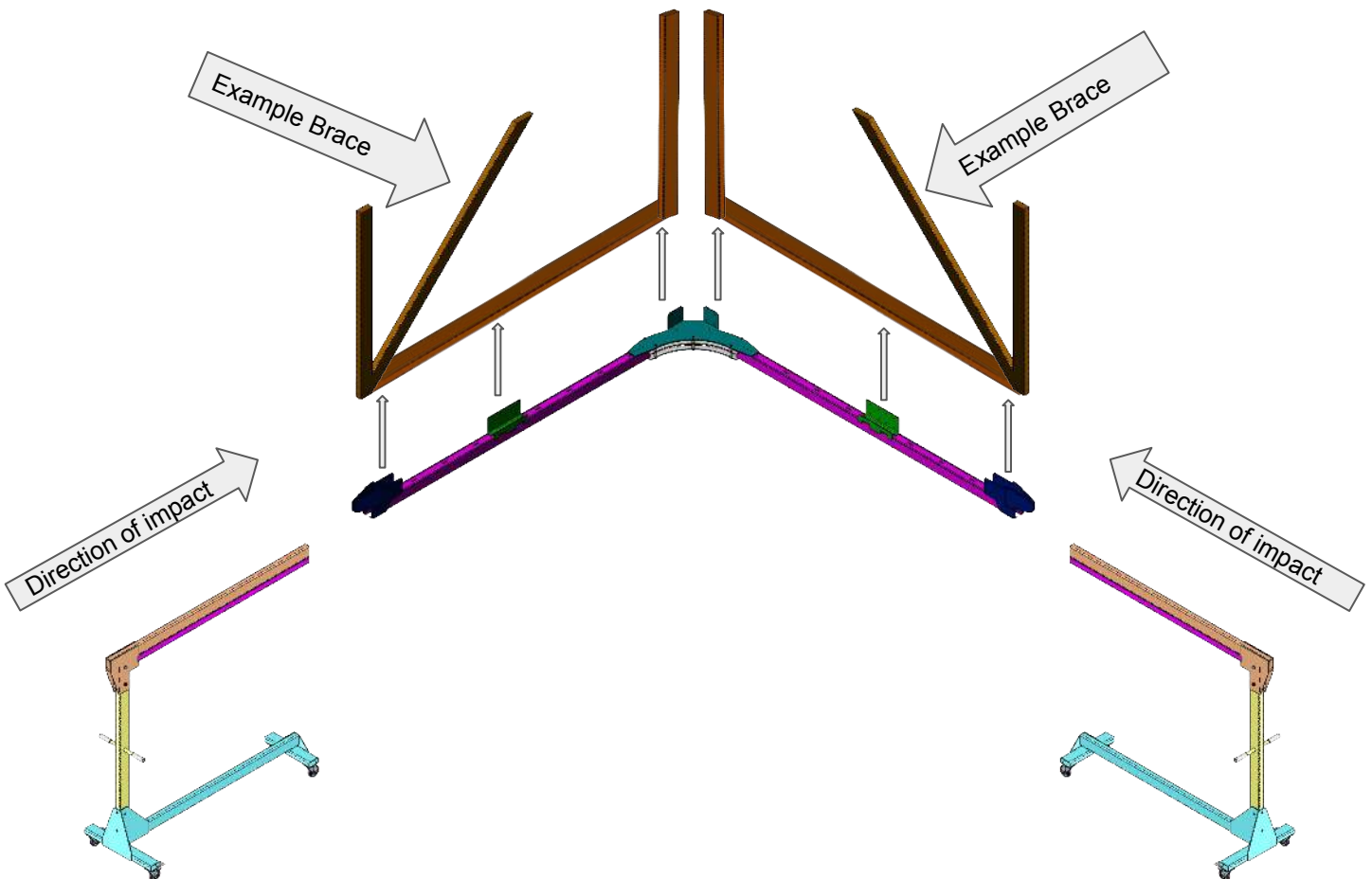
Due to the large variation in spray facilities, the interface between the stationary rail assembly and the building is the sole responsibility of the end user. A combination of Floor Stands (E) and site-built ceiling support may be used.

Floor Stands (E) are sufficient for all support needs if they are installed according to Guffey System's recommendation. If using Floor Stands (E) in combination with site-built structure, review Steps 7-10 before proceeding.

Any site-built structure that supports the stationary rail assembly must meet the following criteria:

- Meet any applicable local codes.
- Be capable of supporting a weight of 500 pounds per 6' section of Rail (A) used.
- Include bracing sufficient to account for the impact of the Mobile Rail (F) when it couples to the stationary rail assembly. See example below.
- Result in the rail being level within 1/4" over the entire length.

Example Ceiling Braces

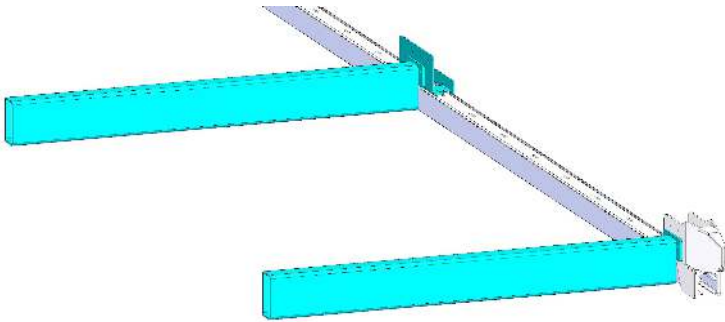


7

If you are NOT using any Floor Stands (H), proceed to Step 11.

Temporarily Attach Horizontals.

With the Stationary Rail Assembly flat on the floor and in position, temporarily attach the Floor Stand (E) horizontal members in their locations. The horizontal members should sit flat on the floor as shown below. Use qty2 of Hardware Group (H) for each horizontal member.

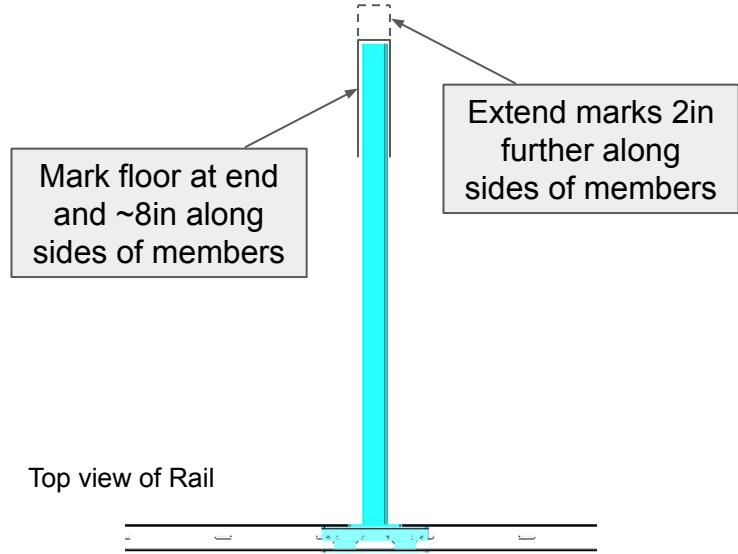


8

Mark Column Positions.

Mark the position of the end and sides of each horizontal member as shown in the top view below. In order to position the column for target workpiece clearance, the end of each horizontal member must be more than 2in from any obstruction (wall, etc.).

Extend the lines drawn on the sides of the horizontal members 2in further out, as shown below. This will help you accurately locate the columns to achieve the target workpiece clearance.



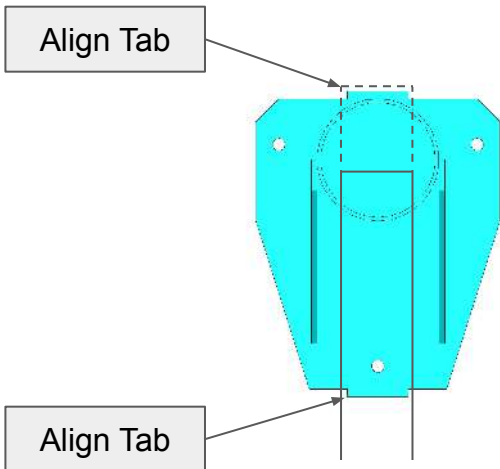
9

Drill and Install Anchors.

After removing the horizontal members, set each Floor Stand (E) column in place by aligning the tabs on the column base with the floor marks made in step 8, as shown below. Mark the three (3) hole locations in each column base. Remove column.

Drill 3/8" holes using the concrete bit provided. Each hole must be a minimum of 1.75in deep.

Insert the concrete floor anchors provided in Hardware Group (J). Tap in with a hammer, leaving about 1in of thread protruding.

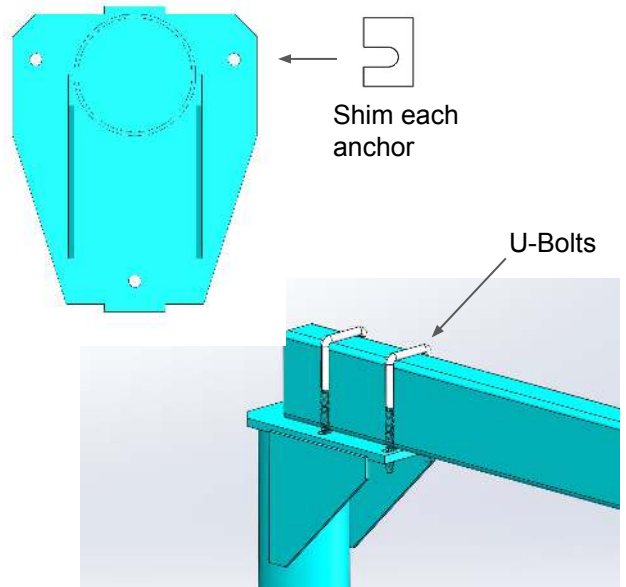


10

Install Floor Stands.

Attach columns to floor using washers and hex nuts included with Hardware Group (J). Add a Shim from Hardware Group (J) under the base plate at each anchor to assure stability. Add more shims as needed until column is plumb within 1/2" of vertical. Tighten anchors to 20 ft-lbs torque.

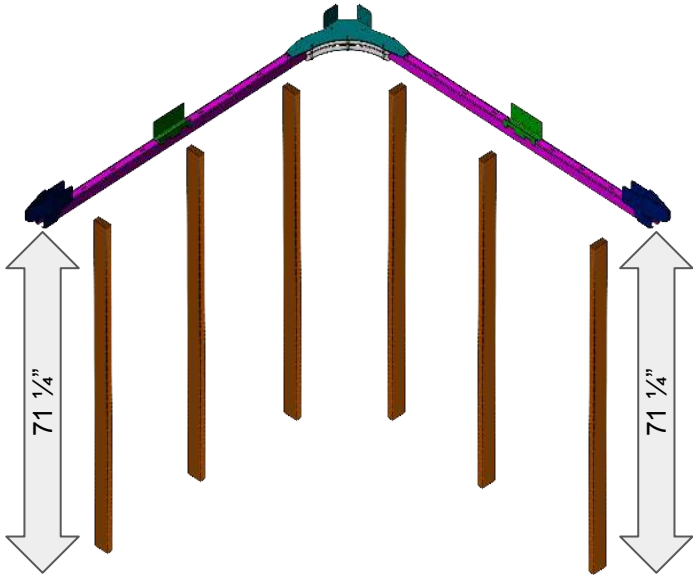
Assemble horizontal members to columns as shown, using Hardware Group (K) U-bolts.



11

Support Rail Temporarily.

Temporarily support the entire assembly using several pieces of lumber (or similar) cut to 71 1/4" long as shown below. Use these pieces to support the stationary rail assembly at the correct height. The 71 1/4" measurement should be from the floor to the bottom face of the Rail (A), and is most important where the Mobile Rail (F) couples to the Stationary Rail Assembly at the Rail Ends (C). Additional bracing (not shown) will be necessary to stabilize the unit during final installation.

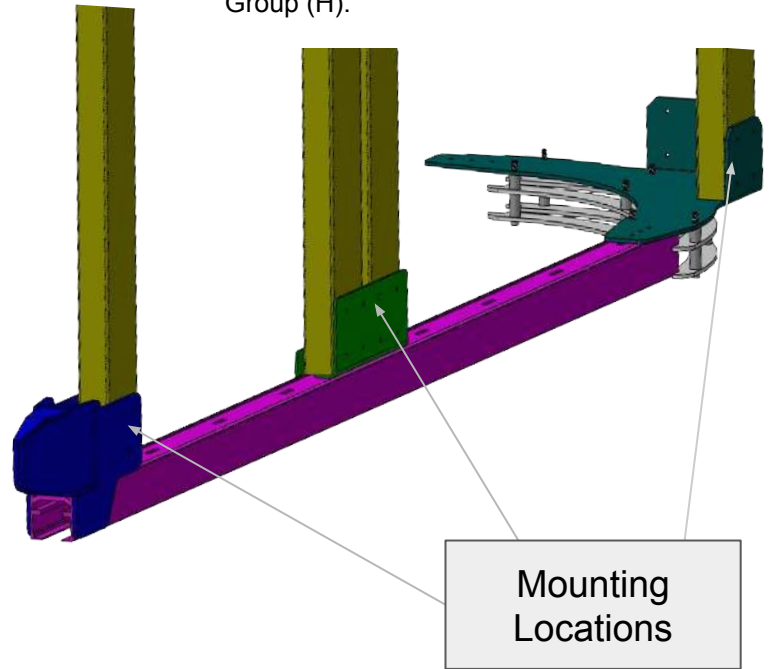


12

Fix to Support Structure.

Fasten the stationary rail unit to any site-built support structure using appropriate fasteners. The mount holes are sized for a #10 wood screw.

Attach Floor Stand (E) horizontals to each mounting location using qty2 of Hardware Group (H).



13

Adjust Mobile Rails to Stationary Rail.

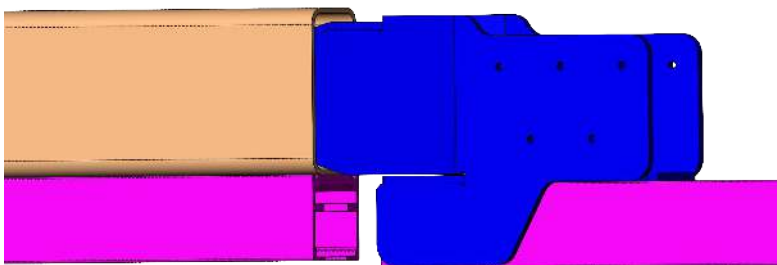
With the stationary rail assembly mounted in place at the proper height, bring an assembled Mobile Rail (F) to the Stationary Rail Assembly at a single Rail End (C). Make the necessary adjustment to the Mobile Rail (F) rail height so that it is 1/4" (6mm) higher than the Rail (A) of the Stationary Rail Assembly. The 1/4" (6mm) rise when empty allows for typical deflection when the Mobile Rail (F) is fully loaded. Refer to "Mobile Rail Assembly Instructions" for this rail height adjustment procedure.

14

Complete Height Adjustments.

Repeat Mobile Rail (G) adjustment at the same Rail End (C) location for all Mobile Rails (F) used with the system.

Finally, adjust any other stationary Rail End (C) heights to be 1/4" below the Mobile Rails (G) in your system. Following this procedure will assure that all Mobile Rails couple correctly, regardless of floor variation.



Mobile Rail
1/4" higher than
Stationary Rail



Installation is Complete