

## SUSPENDED FLOORS WITH ALUMINUM HEAT EMISSION PLATES ON TOP OF THE SUBFLOOR—OPTION 1

**NOTE:** Use Mr. PEX® Design Software to establish heat loss for the structure, and to calculate output, surface temperature, water temperature and tubing/manifold pressure drops.

**STRUCTURAL NOTE:** Project Engineer, Project Architect or System Designer need to verify and approve the structural impact of the radiant system on the building prior to installation.

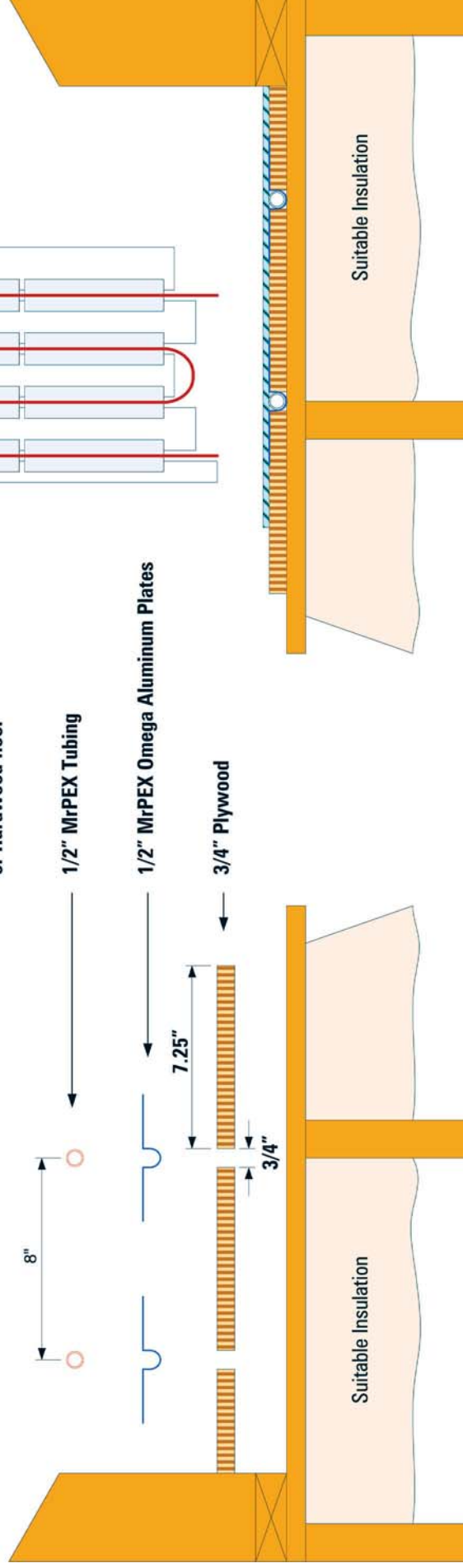
- ▶ Make sure subfloor is clean and free of nails/screws etc..
- ▶ Rip 3/4" plywood into 7.25" wide strips for the main area and 4" to 7.25" wide strips for first run by the wall.
- ▶ Frame-in two walls of the area to be covered with smaller strips. Make sure to keep as close to a 90 degree angle as possible. Glue and screw the plywood strips to the sub-floor.
- ▶ Glue and screw the 7.25" plywood strips in the required layout pattern. Install strips with a 3/4" gap between and leave ample room for tube turn at the end of each run.
- ▶ Place omega plates in the 3/4" grooves. Leave 1/4"–1/2" space between plates. Using a pneumatic stapler, staple only one side of the omega plate to the plywood.
- ▶ Prepare the area where the tubes enter the manifold.
- ▶ Start laying the tube snapping it into the omega plates as you go along. Connect the tubing to the manifold and repeat process for next loop.
- ▶ Once tubing is installed, perform a pressure test of 40–60 psi for 24 hrs to ensure that the tubing has not been damaged during installation.
- ▶ Install adequate underlayment for planned floor covering. For carpeting and tile it is recommended to use 1/4" hardy backer board or similar. Pay close attention to where the tubes are located before gluing and screwing down the backer board. For hard wood floor, follow wood floor manufacturers recommendations. Leave system under pressure on to notice any damage during installation.

1/2" Hardy Backer Board  
or Hardwood floor

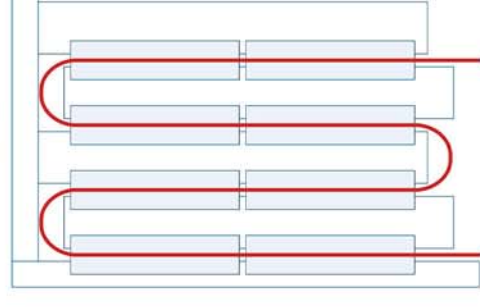
1/2" MrPEX Tubing

1/2" MrPEX Omega Aluminum Plates

3/4" Plywood



Top View

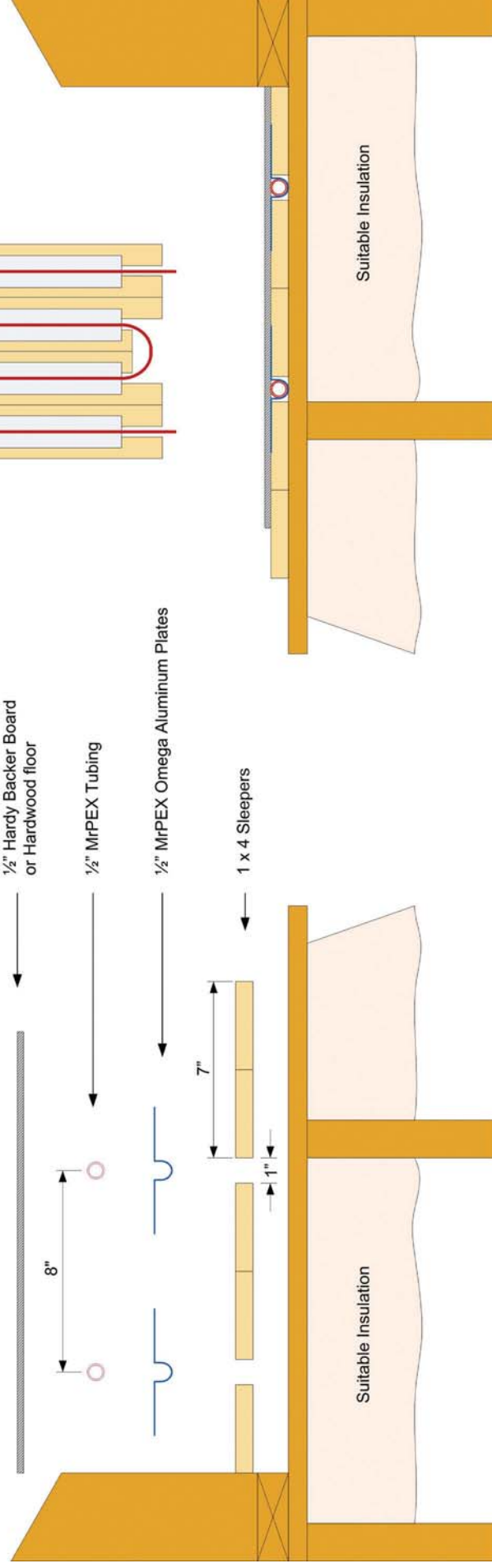


## SUSPENDED FLOORS WITH ALUMINUM HEAT EMISSION PLATES ON TOP OF THE SUBFLOOR —OPTION 2

**NOTE:** Use Mr PEX® Design Software to establish heat loss for the structure, and to calculate output, surface temperature, water temperature and tubing/manifold pressure drops.

**STRUCTURAL NOTE:** Project Engineer, Project Architect or System Designer need to verify and approve the structural impact of the radiant system on the building prior to installation.

- ▶ Make sure subfloor is clean and free of nails/screws etc..
- ▶ For fastest installation, use 1 x 4's as sleepers.
- ▶ Frame-in two walls of the area to be covered with 1 x 4 sleepers. Make sure to keep as close to a 90 degree angle as possible. Glue and screw the sleepers to the sub-floor.
- ▶ Following the first sleeper, leave a 1" gap and then continue to fasten two 1 x 4 sleepers next to each other to the subfloor covering the rest of the area. Stagger the sleepers at the end at least 8"-12" at the end of each run to leave ample room for tube turn. Accommodate for the return tube run back to the manifold.
- ▶ Place omega plates in the 1" grooves. Leave  $\frac{1}{4}$ " -  $\frac{1}{2}$ " space between plates. Using a pneumatic stapler, staple only one side of the omega plate to the sleeper.
- ▶ Start laying the tube snapping it into the omega plates as you go along. Connect the tubing to the manifold and repeat process for next loop.
- ▶ Once tubing is installed, perform a pressure test of 40 – 60 psi for 24 hrs to ensure that the tubing has not been damaged during installation.
- ▶ Install adequate underlayment for planned floor covering. For carpeting and tile it is recommended to use  $\frac{1}{4}$ " hardy backer board or similar. Pay close attention to where the tubes are located before gluing and screwing down the backer board. For hard wood floor, follow wood floor manufacturers recommendations. Leave system under pressure on to notice any damage during installation.



Top View