

REVISIONS:	BY:

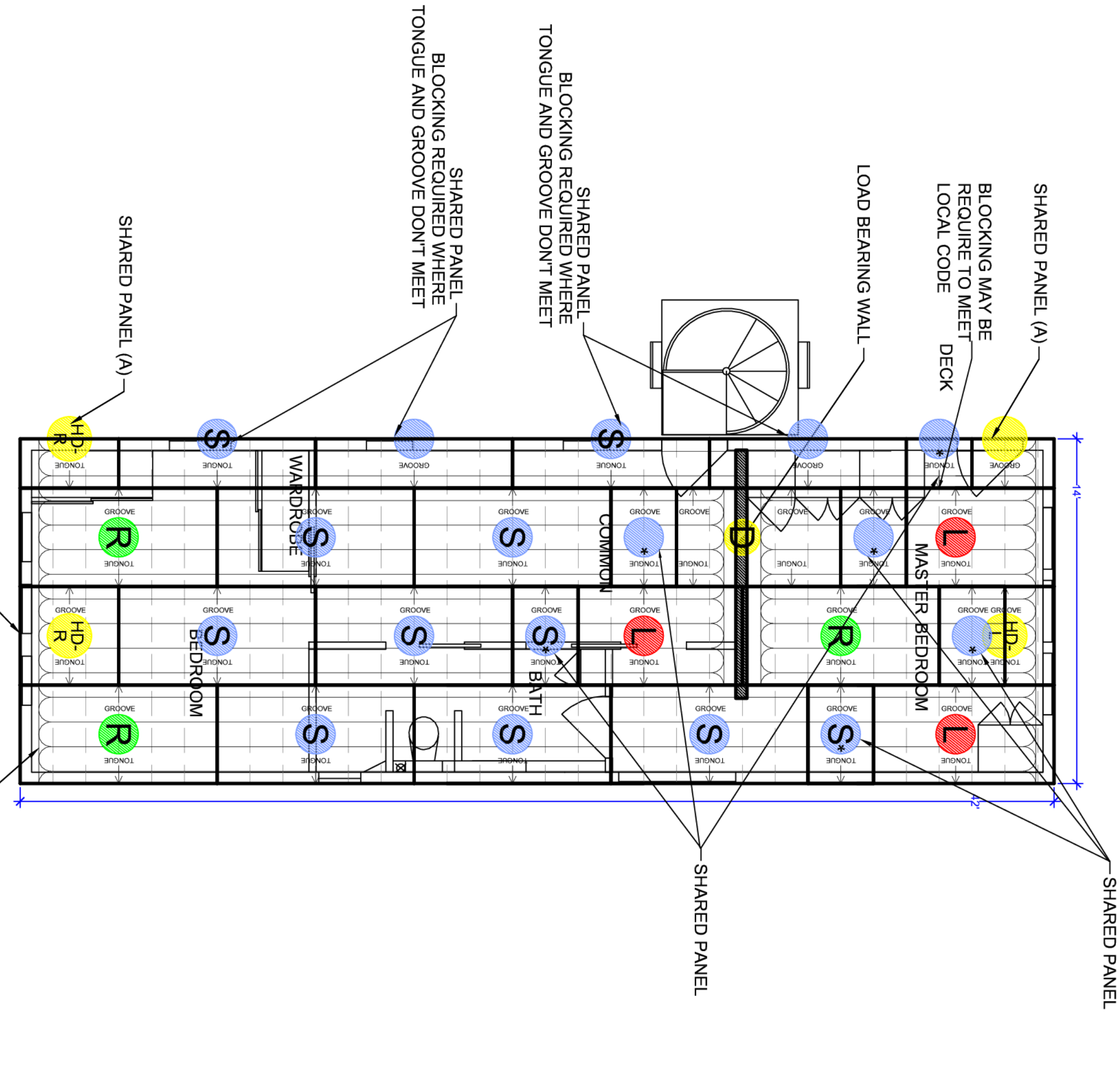
WARMBOARD, INC.
8035 SOQUEL DR. SUITE 41-A
APTOS, CA 95003
VOICE: (877)338-5493 FAX: (831)685-9278
WWW.WARMBOARD.COM EMAIL: PLANS@WARMBOARD.COM



RICE 1054HOUSE ADDITION
JOB # 25181
WA USA

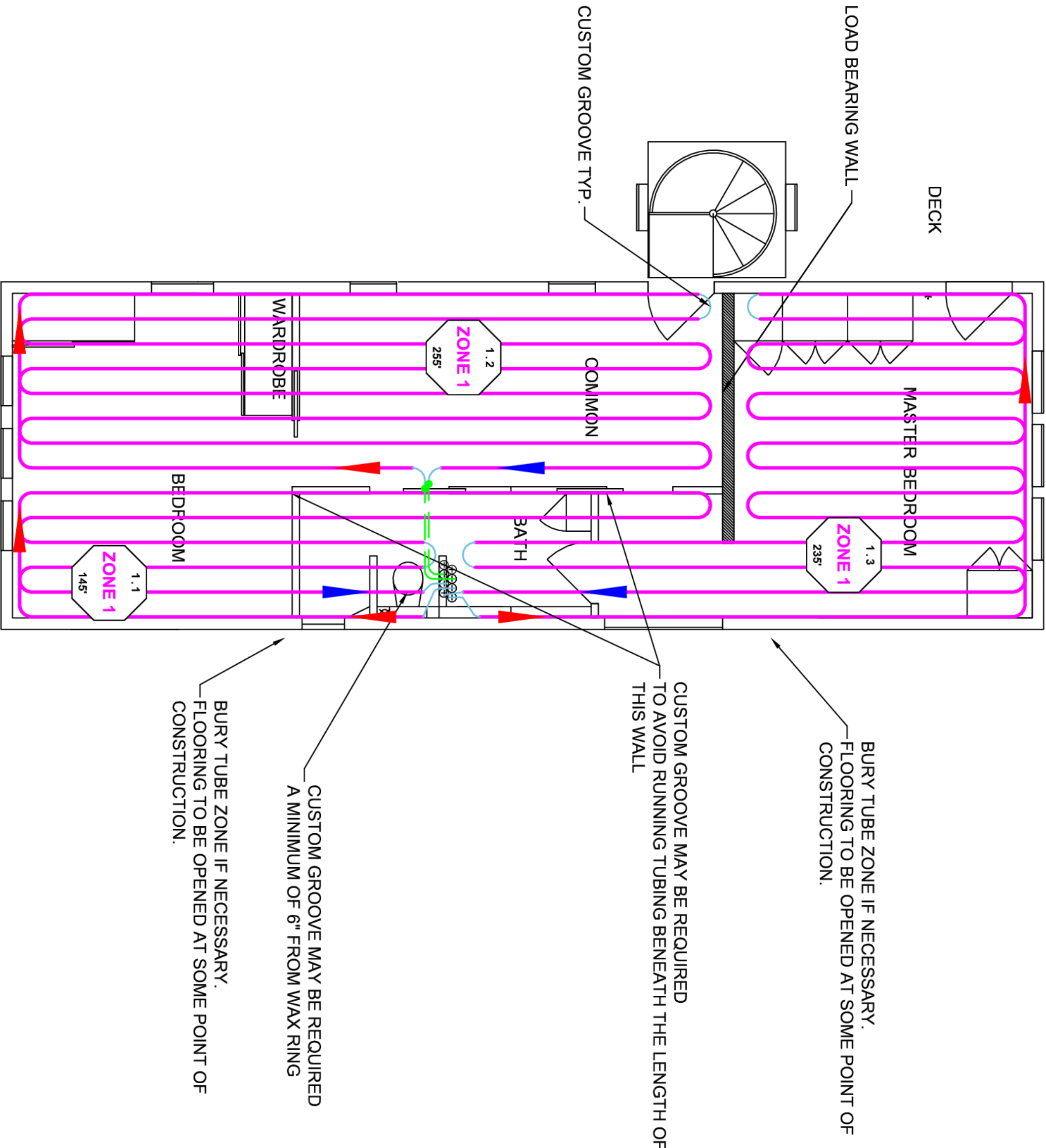
PANEL/TUBING
LAYOUT

DATE:	09-29-09
SCALE:	1/4" = 1'
DRAWN:	D EBERLY
REVIEWED:	J McDONALD
SHEET:	1 OF 2



SECOND FLOOR PANEL LAYOUT

Scale: 1/4"=1'-0"



SECOND FLOOR TUBING LAYOUT

Scale: 1/4"=1'-0"

MANDATORY

INSTALLING CONTRACTOR IS RESPONSIBLE TO VERIFY ALL MEASUREMENTS PRIOR TO ANY WARMBOARD INSTALLATION.
FOLLOW ALL WARMBOARD INSTALLATION INSTRUCTIONS AND RPA GUIDELINES.
USE ONLY WARMBOARD APPROVED TUBING.
USE AN APPROPRIATELY WEIGHTED ROLLER TO PRESS TUBING INTO CHANNELS.

QUESTIONS? FOR IMMEDIATE ASSISTANCE
1-877-338-5493 (8am - 5pm PST)

PANEL SCHEDULE		
TYPE	QUANTITY	COMMENTS
S	11	①
L	3	①
R	3	①
D	3	① ②
P	0	③

ANY PANELS IN THE DRAWING THAT ARE MARKED WITH AN ASTERISK (*) ARE CONVENTIONAL PLYWOOD PANELS. A CORRECT INSTALLATION.
DOUBLE PANELS WILL CONSIST OF A HALF DOUBLE-LEFT PANEL AND A HALF DOUBLE-RIGHT PANEL. ON THE "HD-L" OR "HD-R", THIS MEANS THAT YOU CUT ONE OF THESE SIDE AS MARKED FOR THE INSTALLATION.
CONVENTIONAL TONGUE AND GROOVE PLYWOOD PANELS USED TO FILL IN EMPTY SPACES WHERE WARMBOARD MAY NOT BE APPROPRIATE.

WARMBOARD LEGEND

S	STRAIGHT PANEL
L	LEFT TURN PANEL
R	RIGHT TURN PANEL
D	DOUBLE TURN PANEL
HD-R	HALF DOUBLE PANEL-RIGHT TURN
HD-L	HALF DOUBLE PANEL-LEFT TURN
P	CONVENTIONAL PLYWOOD PANEL

●	BURIED POINT
—	TUBING
—	BURIED TUBING
—	JOIST
—	CUSTOM GROOVE
▲	SUPPLY
▼	RETURN
⊕⊕	MANIFOLD

IMPORTANT NOTE: INSULATION BELOW WARMBOARD IS MANDATORY FOR PROPER PERFORMANCE.
AN ASTERISK "*" DENOTES A TRIMMED PANEL.

ESTIMATED CUSTOM ROUTES	
TURNS	9
TOTAL LINEAR LENGTH OF STRAIGHT ROUTES	5'

LOOP SCHEDULE			
ZONE	MANIFOLD	LOOP	LENGTH
ZONE 1	1	1	145'
ZONE 1	1	2	255'
ZONE 1	1	3	235'
TOTAL			635'-0"

THIS WARMBOARD DESIGN CONSIST OF: SPECIFYING PANELS, TUBING, AND MANIFOLDS ONLY.

WARMBOARD SHOP DRAWINGS DO NOT INCLUDE THE FOLLOWING:

- ROOM BY ROOM HEAT LOSS CALCULATIONS
- PROPER DESIGN OF FLOW RATES AND REQUIRED WATER TEMPERATURES
- SIZING OF CIRCULATIONS PUMPS AND DISTRIBUTION LINES
- SIZING AND SPECIFYING HEAT SOURCE AND MECHANICAL BOILER TRIM
- COMPLETE ELECTRONIC CONTROL STRATEGY

WARMBOARD INC HIGHLY RECOMMENDS CONSULTING WITH A QUALIFIED RADIANT DESIGNER OR MECHANICAL CONTRACTOR FOR DOCUMENTATION.

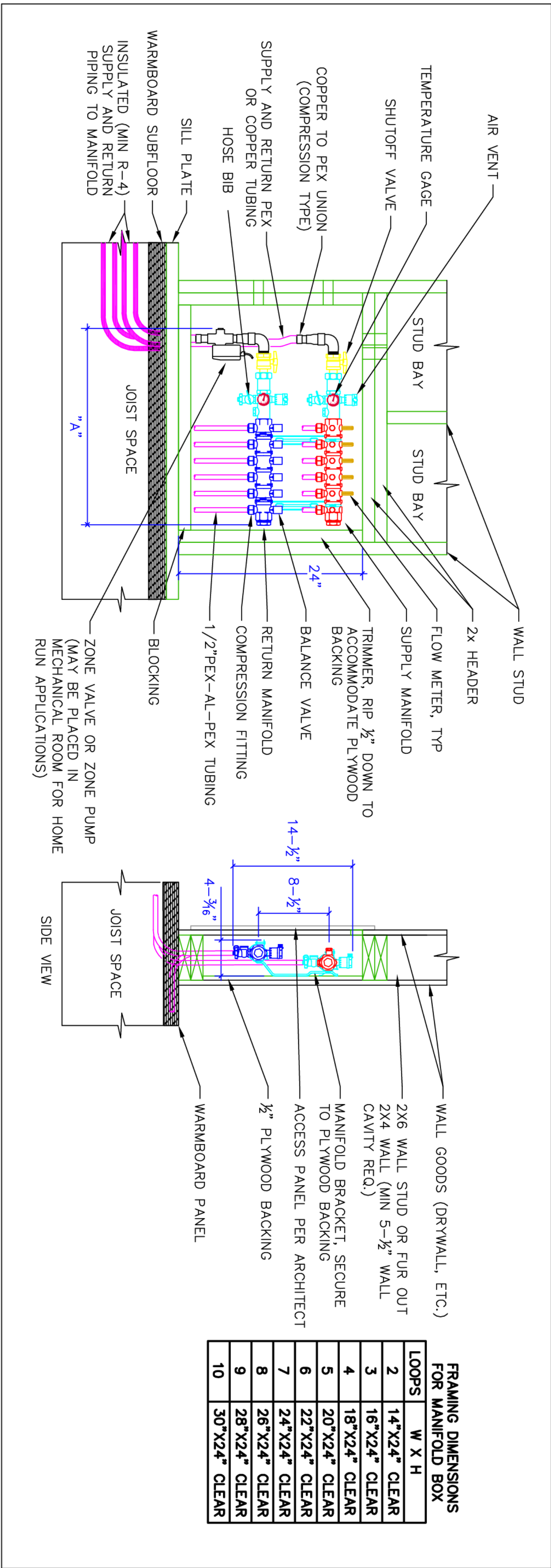
WHEN IN DOUBT, ASK!

Please review all installation instructions. If there are any questions or need for technical assistance call: 1 877 338-5493

MANIFOLD & TUBING MATERIALS LIST		
QTY	DESCRIPTION	NOTES
	1000' X 1/2" PEX AL PEX ROLL	
1	500' X 1/2" PEX AL PEX ROLL	[1.1,1.2]
1	300' X 1/2" PEX AL PEX ROLL	[1.3]
	HOME RUN SUPPLY & RETURN	
	2 PORT SUPPLY & RETURN MANIFOLD KIT	
	3 PORT SUPPLY & RETURN MANIFOLD KIT	SINGLE ZONED
1	4 PORT SUPPLY & RETURN MANIFOLD KIT	
	5 PORT SUPPLY & RETURN MANIFOLD KIT	
	6 PORT SUPPLY & RETURN MANIFOLD KIT	
	7 PORT SUPPLY & RETURN MANIFOLD KIT	
	8 PORT SUPPLY & RETURN MANIFOLD KIT	
	9 PORT SUPPLY & RETURN MANIFOLD KIT	
	10 PORT SUPPLY & RETURN MANIFOLD KIT	
3 prs.	1/2" COMPRESSION FITTINGS (by pairs)	
0	24 VOLT ACTUATORS	

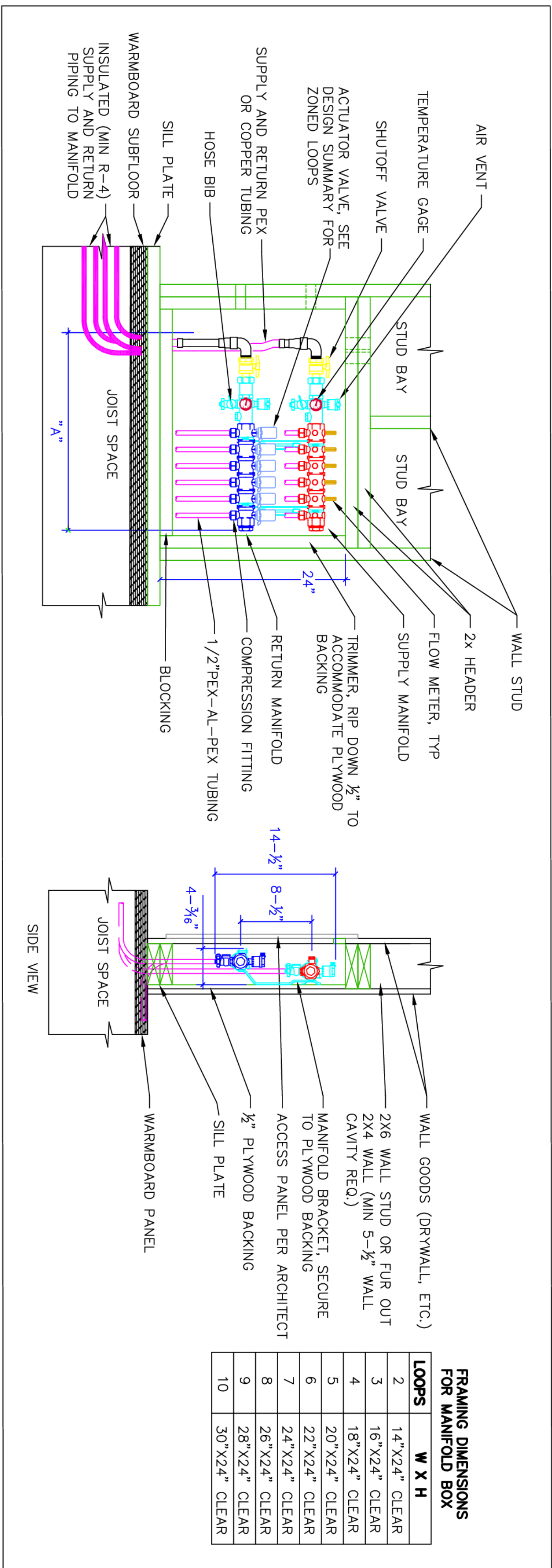
1 SINGLE ZONE MANIFOLD INSTALLATION-NO ACTUATORS REQUIRED

SCALE: NONE



2 MULTI ZONE MANIFOLD INSTALLATION- ACTUATORS REQUIRED

SCALE: NONE



TUBING & MANIFOLD LAYOUT

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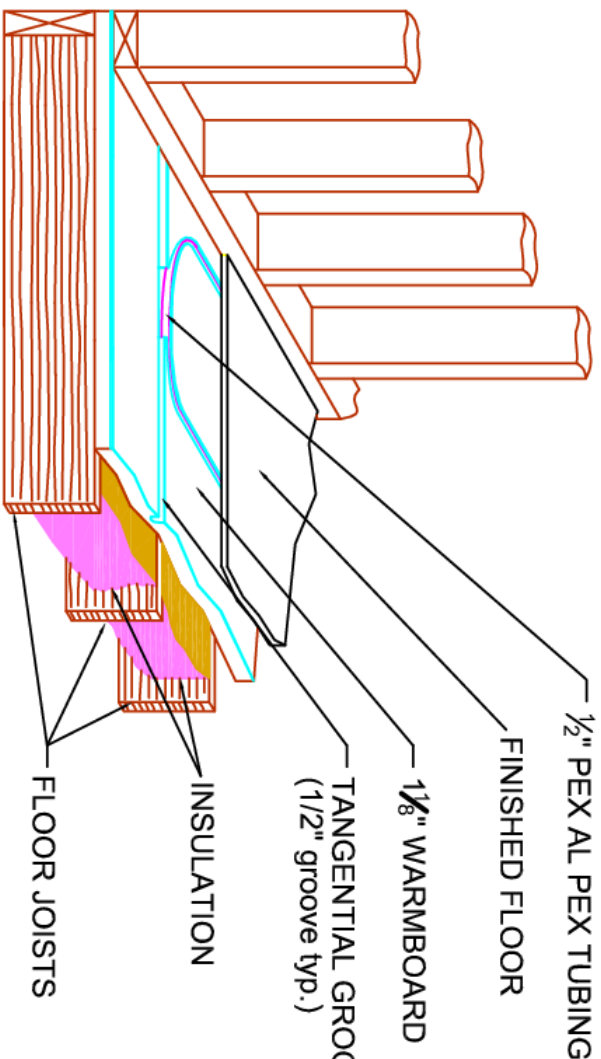


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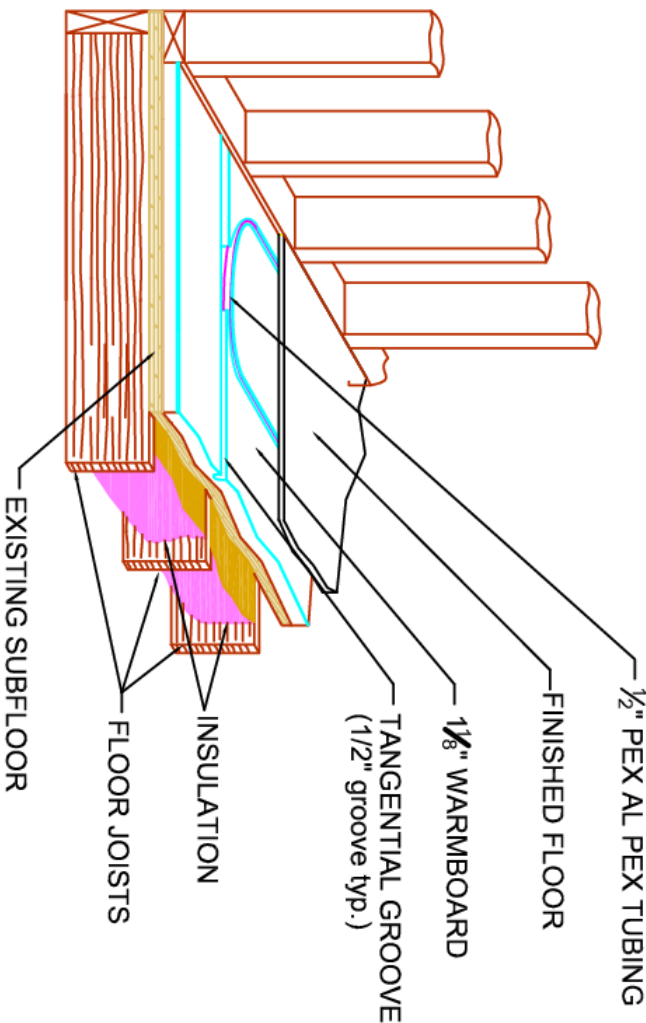
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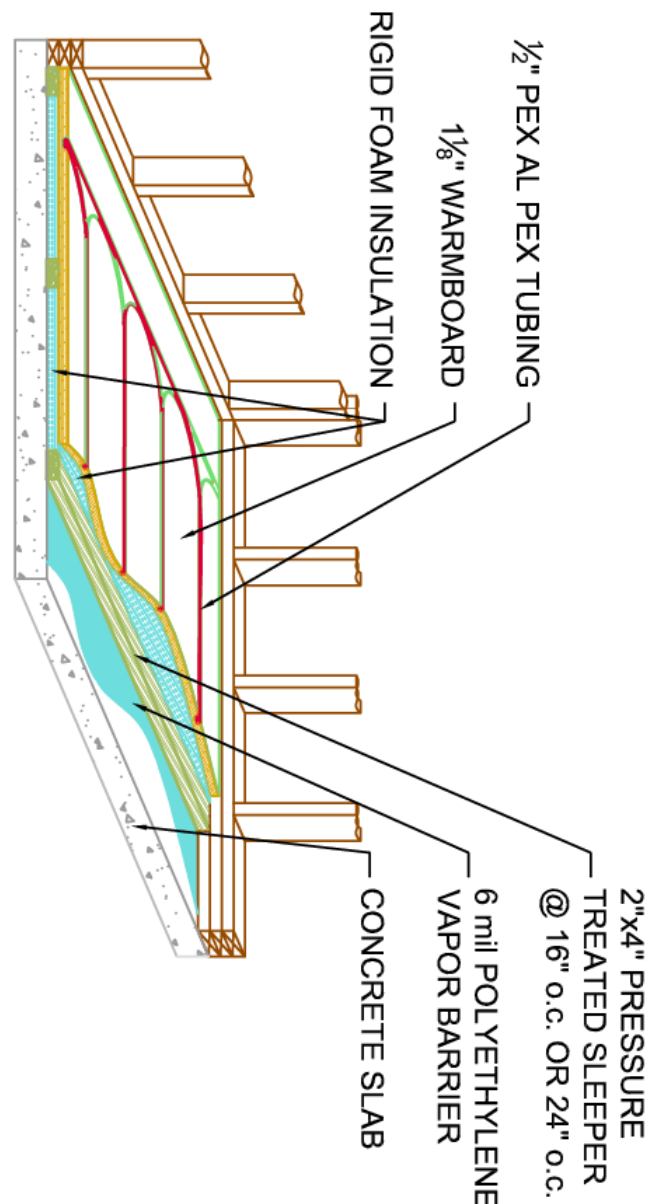
WARMBOARD OVER JOIST/JI

Scale: N/S



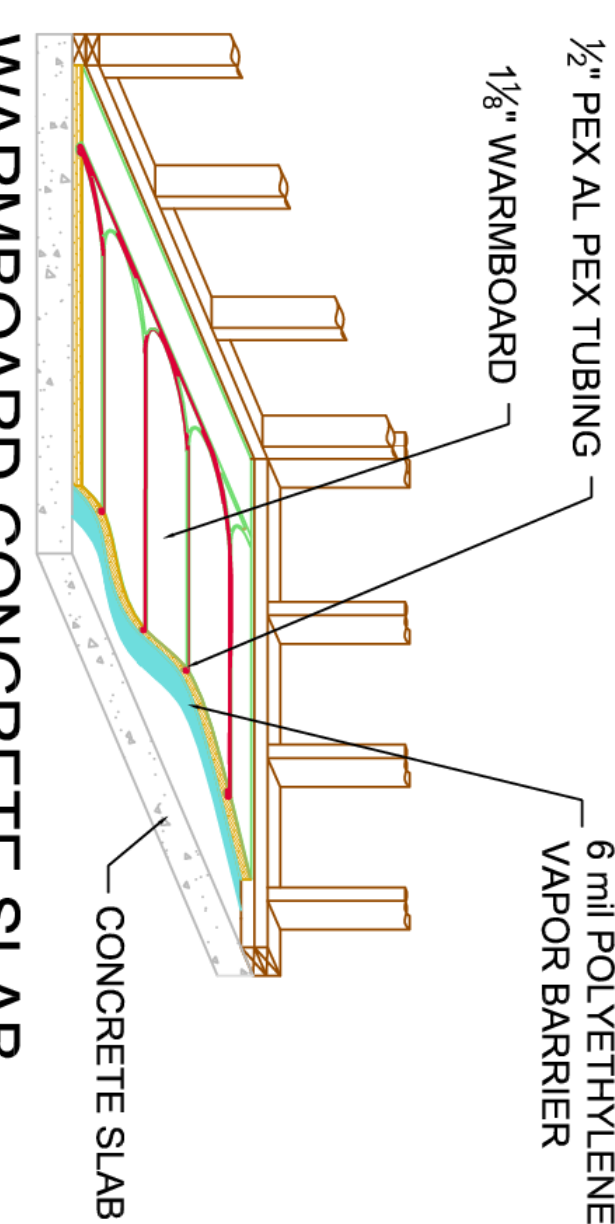
WARMBOARD EXISTING SUBFLOOR

Scale: N/S



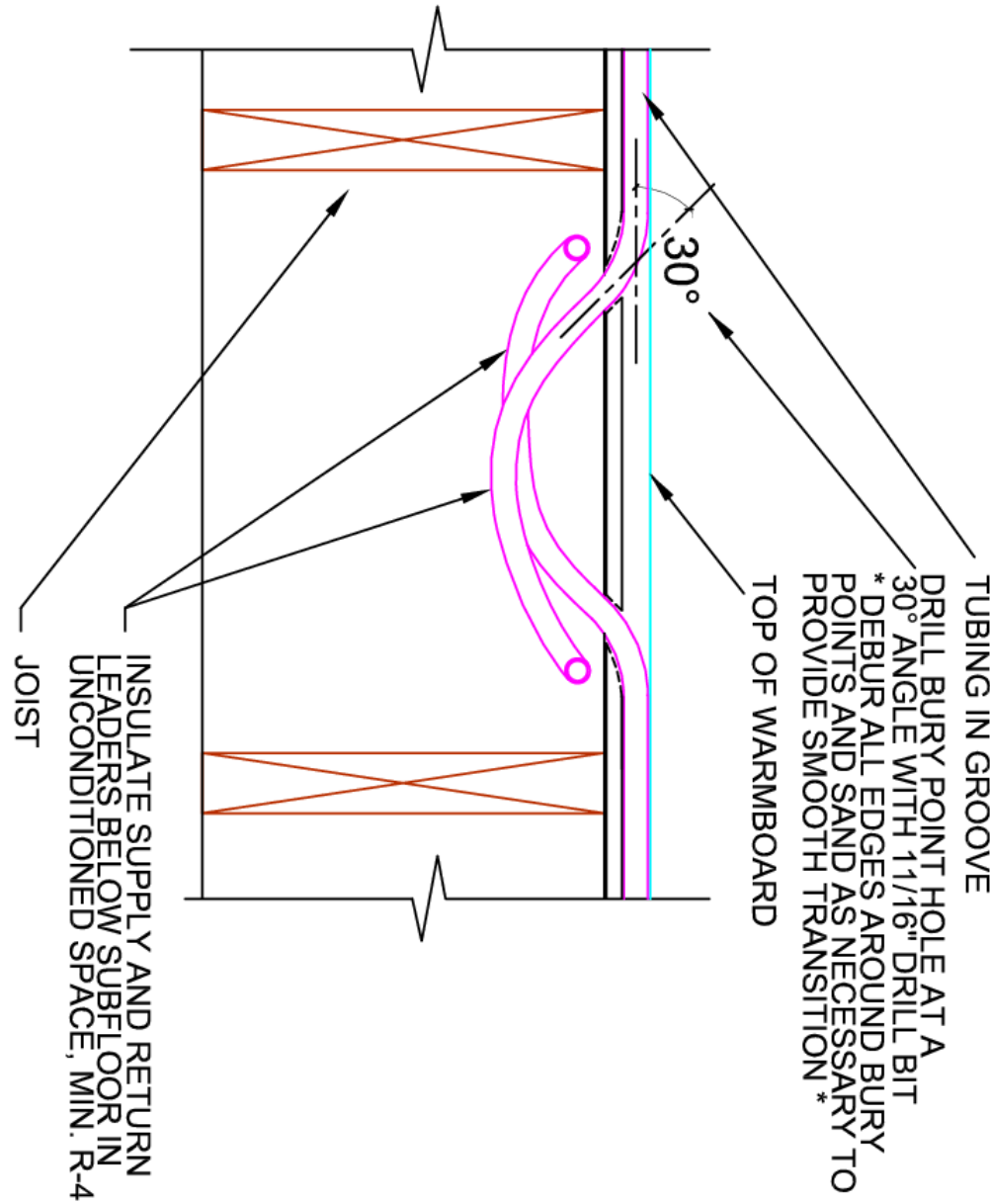
WARMBOARD CONCRETE W-SLEEPERS

Scale: N/S



WARMBOARD CONCRETE SLAB

Scale: N/S



BURY POINT DETAIL

SCALE: NONE

WARMBOARD INSTALLATION NOTES - MANDATORY:

The contractor(s) responsible for the installation of the Warmboard panels, as well as any hydronic tubing supplied by other, shall review these plans for accuracy and completeness. These contractors will also be responsible to verify all measurements prior to any Warmboard installations. Any discrepancy between these plans an the framing of the project for which they apply shall be brought to the immediate attention of Warmboard, Inc.

WHEN IN DOUBT , ASK!

Please review all installation instructions. If there are any questions or need for technical assistance call: 1 877-338-5493

A. GENERAL INFORMATION

1. WARMBOARD IS ONE COMPONENT OF A HYDRONIC SYSTEM. THIS CONCEPTUAL PLAN COVERS ONLY PANEL AND TUBING LAYOUTS AND DOES NOT CONSTITUTE A COMPLETE INSTALLATION GUIDE FOR A HYDRONIC SYSTEM. Installation of a hydronic system employing Warmboard panels requires a combination of carpentry and plumbing skills. The general contractor shall be responsible for the skills, training, and experience of the installers. Warmboard refers to floor framing information supplied by the customer. Deviations should be brought to the immediate attention of Warmboard, Inc. The hydronic contractor shall follow the tubing layout plan and tubing installation instructions supplied. They shall also be responsible for providing an accurate heat loss analysis and the installation of the hydronic system as a whole in accordance with Radiant Panel Association (RPA) guidelines. Design floor and supply water temperatures for a given floor covering will follow RPA guidelines and the Warmboard recommended water temperatures chart.

2. It is the installer's responsibility to assure the system functions properly, safely, and meets all local, state, and regional codes.

3.The installer is to supply and install all materials shown on this plan; as well as all other materials needed to complete this hydronic system and any incidental work not shown or specified, which can be reasonably inferred as belonging to the work necessary to provide the complete system.

4. Warmboard makes no guarantee for any material to be installed in this hydronic system other than the Warmboard panels.

B. WARMBOARD INSTALLATION

1. WARMBOARD shall verify the compatibility of their layout with the attached floor framing plan. Special attention shall be given to the compatibility of Warmboard panels and joist layout.

2. All supply and return tubing below subfloor in unconditioned space shall be insulated with R-4.0 pipe insulation.

3.Custom grooves shall be routed as indicated on the plans using supplied router templates, a properly sized router equipped with a template guide, and the supplied 5/8" core box router bit. All router use shall conform to supplied instructions, and all safety instructions provided by manufacturer of the router you plan to use.

4. When applicable, installation contractor shall coordinate with the plumbing contractor so as to have all plumbing stubbed out 12" above sub-floor prior to installation.

5. Alignment pins shall be used for proper alignment of panels.

6. Any excess adhesive that may interfere with tubing installation shall be removed.

7. All burrs left by custom routing and on angle holes shall be removed.

8. Refer to manufacturer's installation manual for additional guidelines for this product.

C. TUBING INSTALLATION

1. Holes for routing below sub-floor shall be drilled using an 1 1/8" bit at the correct location and in the appropriate direction, so that the end of the tube can be passed from the groove to under the floor area in the right direction, leading to the appropriate manifold location or the boiler panel.

2. All grooves shall be inspected and cleaned of any debris prior to tubing installation.

3. Tubing for radiant floor heating shall be 1/2" PEX-AL-PEX (PEX-Aluminum-PEX) as listed by ATSM.

4. Tubing shall be and remain pressurized immediately following installation into the panel diaphragm for the duration of all construction.

5. Installer is responsible for protecting tubing from freezing during construction. Should climactic conditions occur, this would require adding antifreeze and corrosion inhibiting fluids upon completion of work.

6. Installer to record length of every pipe and photograph completed installation.

7. Special note for carpeted areas: Short pieces of PEX tubing (typically offsets) shall be pressed into any unused groove areas. This provides support for the pad & carpet.



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SPECIFICATION & INSTALLATION INSTRUCTIONS

”SIMPLY SMARTER”
RADIANT HEAT”

WB SPEC

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