GENERAL NOTES SLAB INSTALLATION

- Insul-Tarp should be installed with the white side facing up. Overlap at the seams to assure insulation value throughout the area. Spot taping the joints will prevent movement. Insul-Tarp will act as a vapor barrier eliminating the need for plastic. A thermal break is required where the concrete slab meets exterior (foundation) wall(s). 1" rigid insulation works well for this application.

- Wire Mesh should be installed in a tied neat pattern, imitating graph paper, allowing a 6" overlap. This will provide a grid when tubing, reducing the amount of measuring.

- The Tube is ½" in diamter. Loops are a maximum of 300' in length. Loop spacing is calculated as 12" on center. The loops are spaced 6" away from the outside walls.

- Be sure to cover ends of tube with tape to prevent debris form getting in.

- Locate and temporarily mount the remote manifold(s). If one or more of the remote manifolds will be located within a stud cavity, it is important to make accurate measurements when fixing the manifold's location. The manifold can be temporarily bracketed to a plywood panel supported on wooden or steel stakes driven into the subgrade.

- All loops of tubing begin and end at the remote manifold and are installed one loop at a time. The pipe ends should be organized according to the piping layout usually in supply/return order for every loop. Indicate supply and return side of each loop as well as where each loop goes and the length of each loop. This can be done with colored tape or a marker.

- When installing tube to the remote manifold, wet the "O" ring on the manifold prior to sliding the tube on. Be sure to bevel the inside edge of the tube before sliding it on the manifold. Roll out the coil of tubing like rolling a "tire" following the layout pattern. Tie the tube down to the wire mesh. Be sure to allow enough tube to return to the manifold. The tube should be tied to the wire mesh using twist wire ties or

nylon pull ties and should be tied every 4’ to 6’ on straight runs. You will place ties at the apex of the loop and two ties at the bend on each side.

- We recommend you place small pieces of 1” rigid insulation under the tubing directly under the manifold as there is a great deal of tube torque in this area. This process allows the concrete to completely enclose and flow under the tubing at the manifold area

- When all loops have been installed, prepare the manifold(s) for pressure testing. Install a pressure test gauge in one end of either the supply or return manifold and a Schrader air valve in the other end. Plug the unused manifold ends. Air test gauge can be filled to any pressure. 50 psi is enough for a test and easy to remember. Use a soap bubble solution to check for leaks at the manifold connections and pressure gauge. Leave the loops pressurized for at least 24 hours. Air pressure will vary due to outdoor air temperature. Do not be alarmed if pressure in tubing has decreased the morning after installation. There should however still be air in tubing. If you feel you have a leak, check the manifold first. Leave air in tubing during concrete pour.

- When pouring the concrete slab, lift the tubing and mesh approximately 1” from the bottom of the slab, as you pour the concrete. If you plan on cutting the slab, you may want to pre-plan where and then set mesh on 1” blocks at those locations, prior to the pour. Small pieces of the 1” rigid insulation will work well for this.