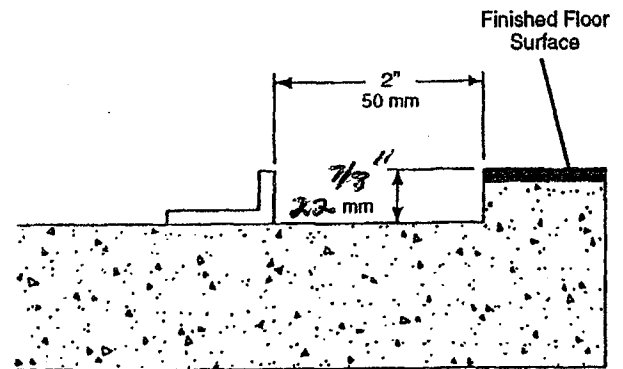




1. Prepare the floor recess

Prepare a recess in the concrete flooring where the mat will be located. The recess should be at least:

- $7/8"$ (22 mm) deep
- 4" (100 mm) wider than the outside dimensions of the frame — this allows 2" (50 mm) on all sides to maneuver the frame into position



2. Drill anchor holes

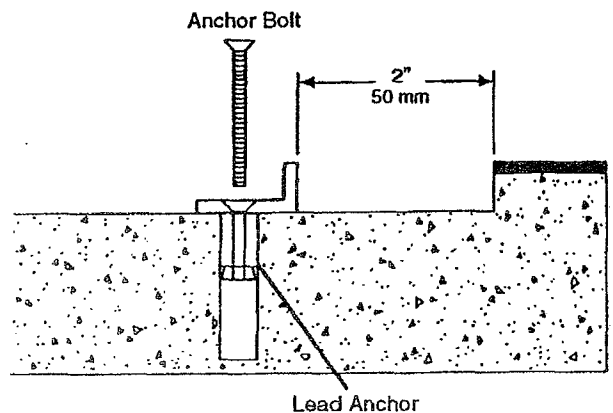
The mat frames should be secured to the concrete floor using anchor bolts into lead anchors that are set into the floor.

Drill holes in the frames at about 2-ft (6-m) intervals for the bolts. Countersink the holes.

Set the frames into the recess at the appropriate locations to position the mat(s). Mark the hole locations on the concrete.

Remove the frames and drill holes in the floor for the anchors.

Install the anchors using an anchor setting tool.



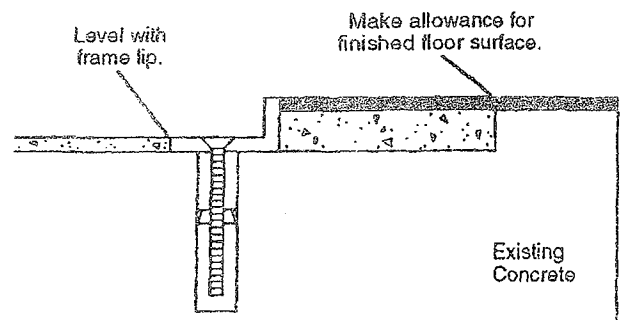
3. Secure frames in the recess

Reinstall the frames. Secure them to the floor with $1/8" \times 1 1/2"$ anchor bolts into the lead anchors.

NOTE: If necessary, shim under the frame sections so that the top edge of the frames is flush with the finished floor surface, and the frames are level.

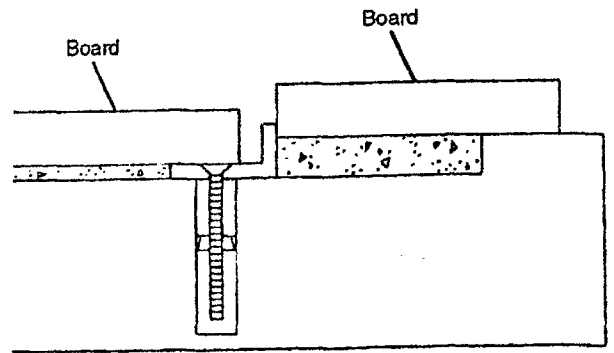
4. Pour concrete

Pour concrete (or grout) around the edges and in the center of the frame.



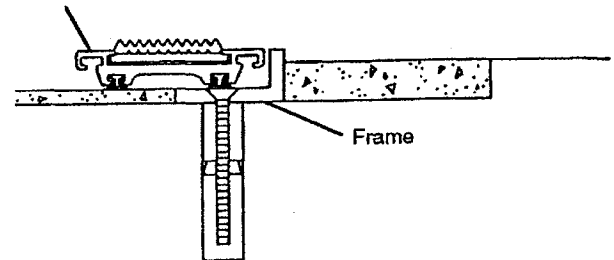
5. Level the concrete

Cut a board just slightly shorter than the width of the frame.
Use the board to smooth and level the concrete.



- ⚡ Be very careful that the concrete is absolutely smooth and level with the inside lip of the frame. This will allow the mat to lie perfectly flat and avoid rocking.

Level the concrete so the mat will lie flat when installed.



7. Recheck all dimensions

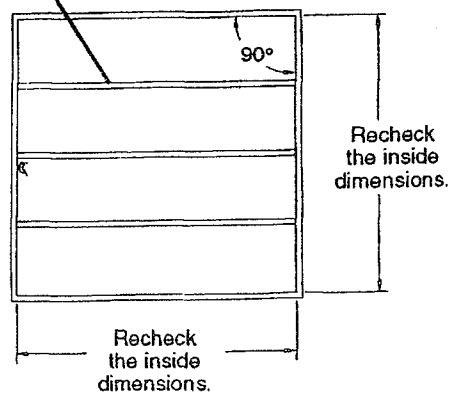
Before the concrete sets, recheck that:

- The frame sides are straight
- The frame corners are at correct angles so the mat will fit properly
- All inside dimensions of the frame are accurate according to drawing measurements

If the frame bows inward, use spreaders inside the frame until the concrete is thoroughly set.

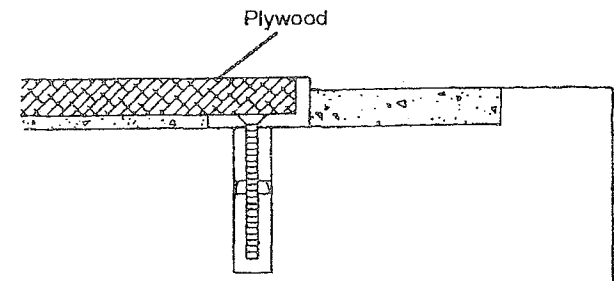
IMPORTANT: The mat is made to fit snugly into the frame according to the drawing. Reese cannot be responsible for problems that result from improperly installed frames.

Use spreaders if frame bows inward.



8. Protect the frame edges

When the concrete has hardened, install plywood or other material in the recess to protect the frame edges from damage until the mat is installed.





Installation Guide #448 Roll-Grate Frame

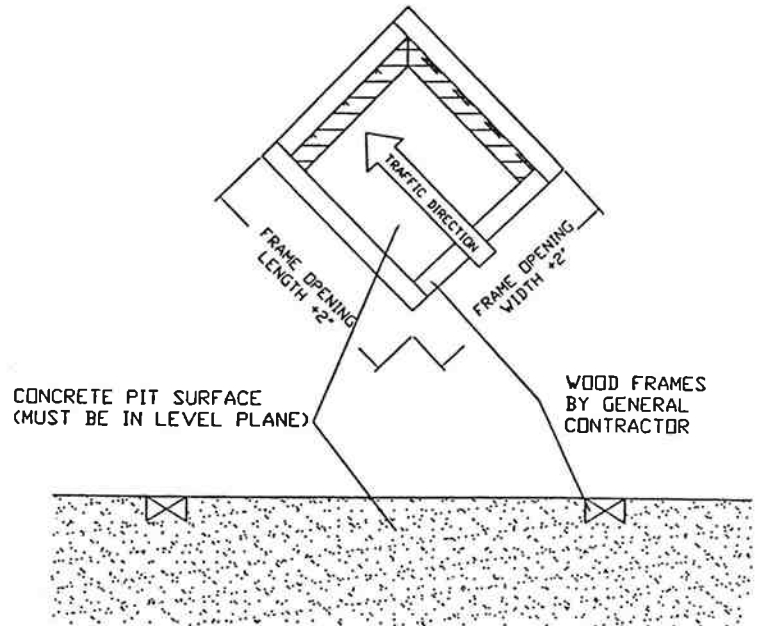
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Note: Before installation begins, make sure that the traffic direction is correct & the rails run perpendicular to the traffic flow.

1. Prepare the floor recess.

Prepare a recess in the concrete flooring where the grate frame will be located. The recess should be at least:

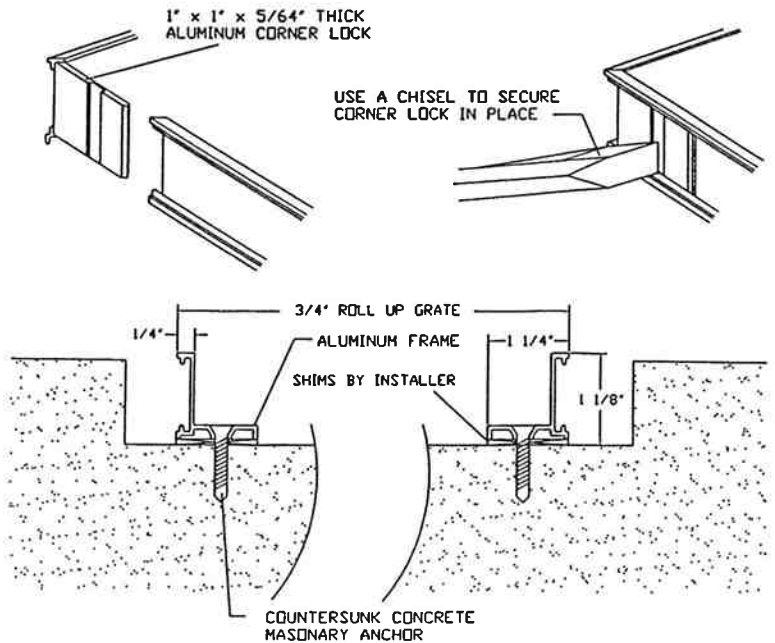
- 1-1/8" deep (subtract finished floor depth from the frame depth – this will be your total block out depth)
- 4" wider than the outside dimensions of the frame – this allows 2" on all sides to maneuver the frame into position



2. Assemble frame, drill anchor holes and secure frame in recess.

After the recess has been formed and prepared:

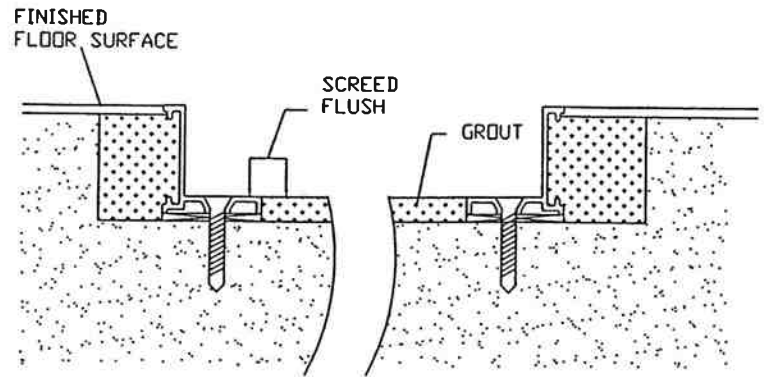
- assemble frame pieces using the corner locks provided at each corner – the frame has been mitered to allow for quick assembly
- set assembled frame into the recessed opening – square and plumb the frame to the opening and finished floor – **NOTE: if necessary, shim under the frame sections so that the top edge of the frame is flush with the finished floor**
- once the frame is in place, drill holes in frame every 2' for the screws and secure using hardware provided



3. Pour concrete/grout and level

- pour concrete/grout in the center and around edges flush with the surrounding concrete
- level the concrete/grout in the center of the frame by using a board slightly shorter than the width of the frame

Note: Be very careful to insure concrete is smooth and level with the frame - this will allow the grate to lay flat and avoid rocking



4. Recheck all dimensions

Before concrete sets, recheck that:

- the frame sides are straight
- the frame corners have correct angles so the grate will fit properly
- all inside dimensions of the frame are accurate according to the drawing measurements

If the frame bows inward, use spreaders inside the frame until the concrete is thoroughly set.

IMPORTANT: The grate is made to fit snugly into the frame according to the drawing – Reese cannot be responsible for problems that result from improperly installed frames.

5. Protect the frame edges

When the concrete has hardened, install plywood or other material in the recess to protect the frame edges from damage until the grate is installed.



Installation Guide

Roll-Grate

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1. Install position locator bars on the 448 frame. This will enable the grate to stay flush with the frame.

- To determine where the position bars
- are to be located, all sections in the traffic direction must be joined. To attach the sections, simply drop the aluminum rail from one section on to the vinyl hinge of the adjoining section. Make sure to keep the sections aligned.
- After all sections have been properly assembled, trial fit the grate into the frame. Trim vinyl ends as required for proper fit.
- After the grate is assembled and fits properly into the frame, mark the center of each corner rail on to the frame. This mark will be erased after position bars have been secured.
- Using the mark on the frame, align the position bars on to the frame and drill holes using 1/8" drill bit where screw will attach the bars.
- Using screws provided, attach bars.
- Repeat this process for all corners until all the blocks are secure and the grate fits properly into the frame system.

2. For large grates comprised of many sections:

- The factory will provide alignment bars. They will be installed at the factory. These bars will allow the grate rail alignment and still afford the luxury of easy installation and retract ability.
- Align and center the rails on sections B, E, and H so that they align with the bars on sections A and C, D and F, and G and I.

