

Application:

Grouped Curbs

Group multiple daylighting apertures to minimize roof penetrations or replace existing skylights

Solatube® Daylighting Systems can be used to create an efficient roof design for new construction by grouping multiple units together in a single custom curb cap. By doing this, daylighting can be introduced into a structure with fewer roof penetrations. This technique also works well for modernization projects where outdated or inefficient skylights require replacement with a more efficient, optically-enhanced option.

Objective

Minimize the number of roof penetrations required to effectively daylight a building interior by using custom-built curb caps that group multiple Solatube Daylighting Systems together.

Potential Products Used

- Solatube Brighten Up® Series 290 DS Daylighting Systems;
- SolaMaster® Series 330/750 DS Daylighting Systems
- Curb cap adapters
- Curb cap or self-flashing on custom curb by others

Solution

Custom-built curb caps were fabricated to fit the designated roof opening, then Solatube flashings were applied to the custom curb cap. Next, the curb cap assembly was affixed to the roof curb, and Solatube extension tubes and angle adapters were attached to roof assembly. From the multi-unit curb cap assembly, the tubes were extended downward into the building interior toward the desired ceiling diffuser locations.

Considerations

To recreate this effect, keep the following considerations in mind:

- For assistance creating custom-built curb caps, reference the Solatube product CAD details available at <http://www.solatube.com/commercial/technical-resources/index.php>.
- The custom cap must accept and use off-the-shelf Solatube product flashings without the need for trimming or modification in any way.
- Solatube curb caps can also be used in conjunction with custom curb adapters to achieve the same effect.

