

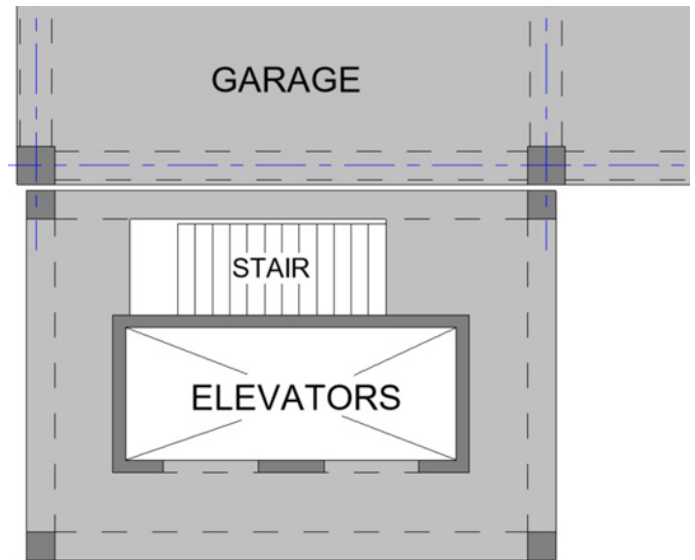
Design Tip: Stairs & Elevators

For a quality cast-in-place concrete garage with safe egress, consider these design concepts for stairs and elevators.

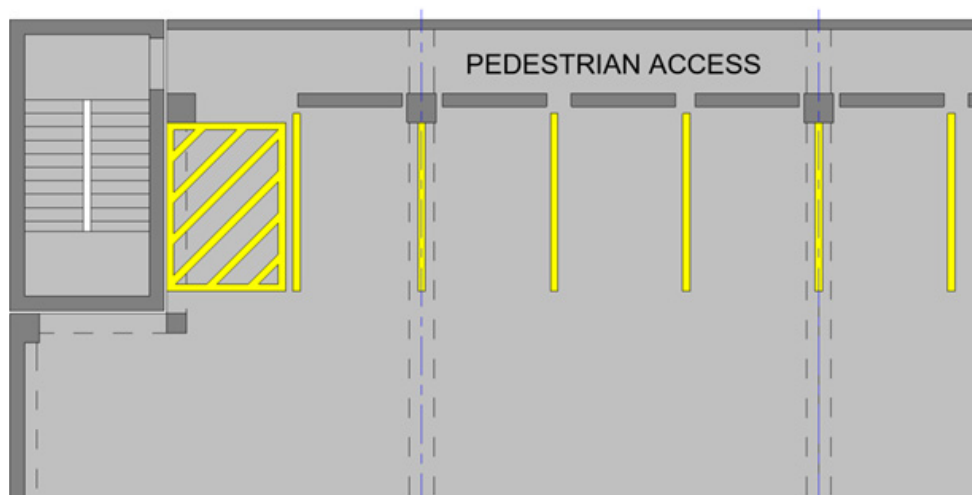
Cast-in-place garages allow for greater design flexibility. Elevators and stairways can be located where needed to provide access to the primary structure and accommodate the needs of those with physical disabilities. To ensure safe egress, walkways can be incorporated into the design to separate pedestrians from traffic. Below are a few general concepts and tips for stairs and elevators.

OVERALL DESIGN TIPS

- Isolate elevator and stair areas from the main garage with expansion joints that will allow the garage to expand or contract from thermal and post-tensioned (PT) cable forces.
- Keep in mind that elevator and stair areas are likely to advance ahead of the garage to shorten the overall project schedule. If the areas are constructed in advance, access for PT tensioning jacks will likely be restricted in the area. Account for other tensioning measures, such as using only dead-end anchors adjacent to the locations constructed in advance.
- When safe pedestrian access is a concern, create protected passageways to elevators and stairwells. A good approach is to extend and cantilever a walkway outside the exterior columns. Extend the garage beams beyond the columns to carry the slab loads for a walkway. Pedestrians will be safely drawn away from the path of moving vehicles.



Isolate the elevator and stair area from the main structure.



Pedestrian access beyond exterior columns