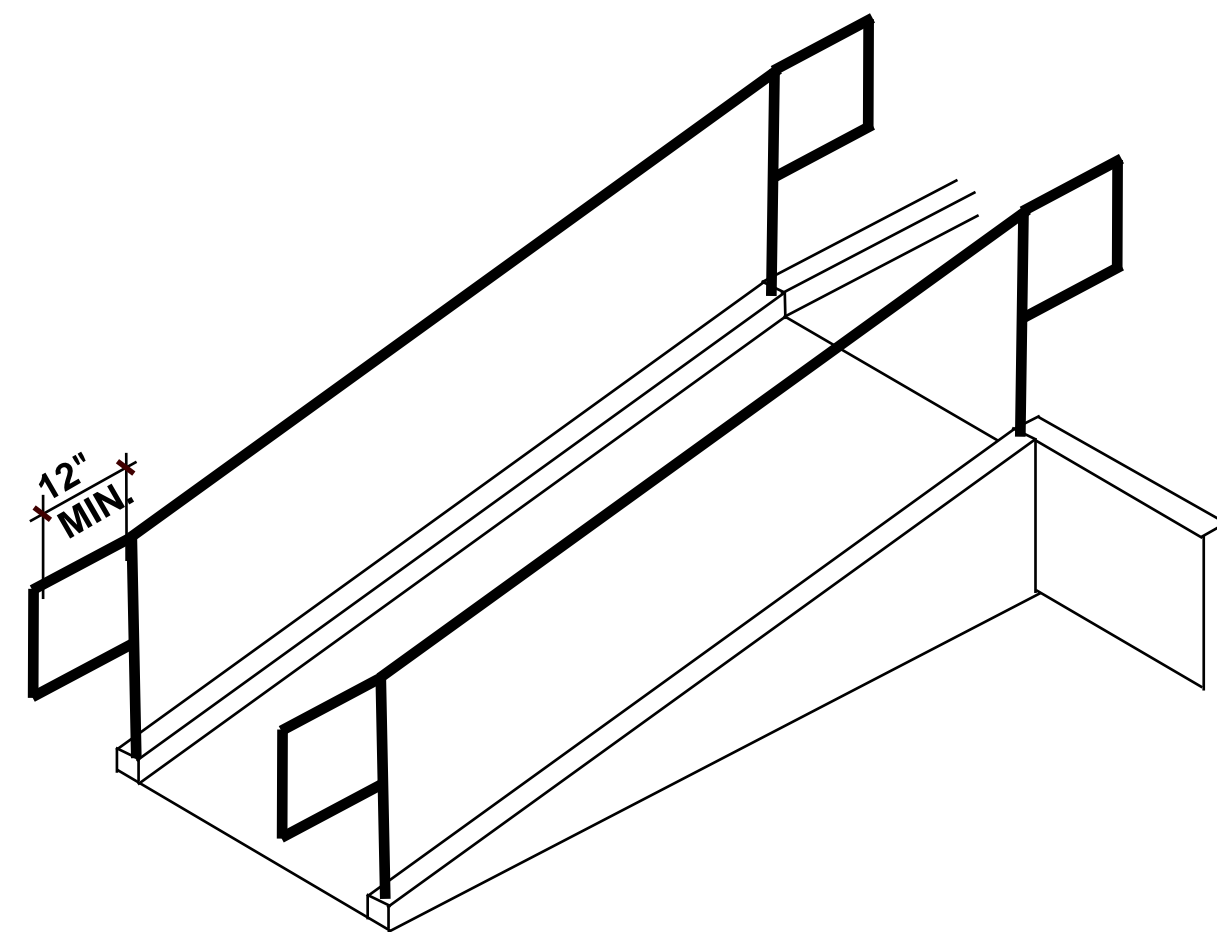
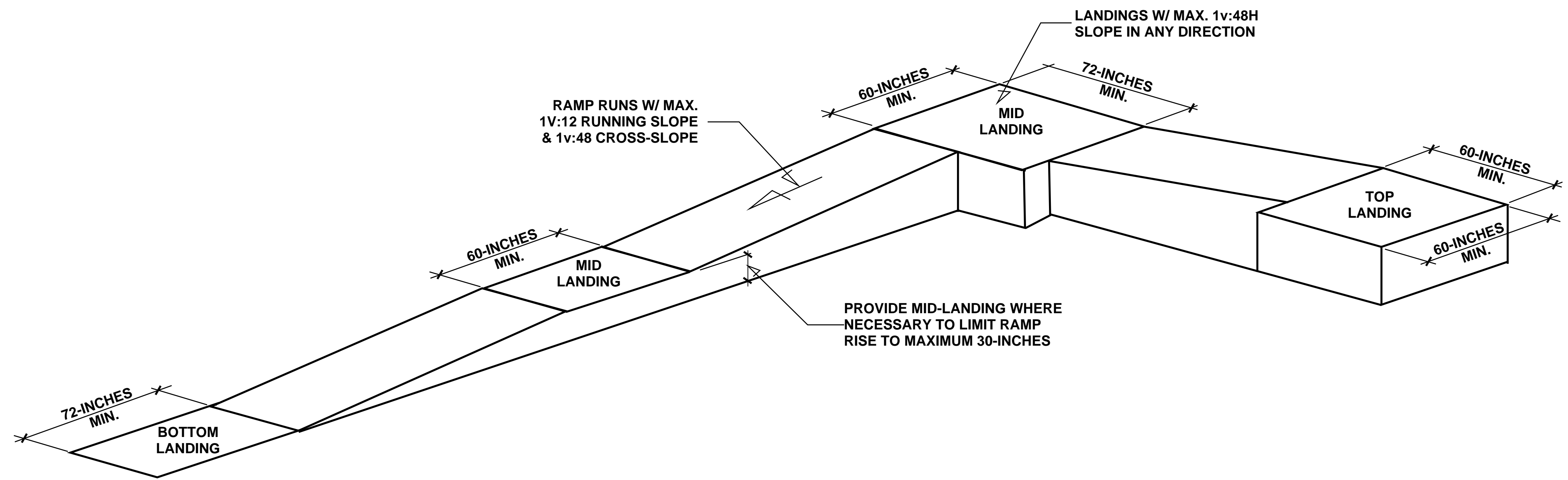


- 2) **Height and Grip** [CBC 1014.2 and 1014.3]. The height of handrails with the grip requirements of CBC 1014.3 shall be shown 34-inches to 38-inches above the surface of the ramp.
- 3) **Continuity** [CBC 1014.4]. Except as provided for in CBC 1014.4, the handrails shall be shown continuous for the full length of the ramp run without obstructions and for the ramp run.
- 4) **Handrail Extensions** [CBC 1014.6]. Except where permitted for handrails of aisles within assembly areas, handrails that are not continuous between ramp runs, shall be shown to extend horizontally and in the same direction of the ramp run not less than 12-inches beyond the top and bottom of the ramp run prior to the start of the return to the wall or ground, or back to a safety post.
- 7h. **Guards** [CBC 1012.9 and 1015]. Where required by CBC 1015, guards that comply with the provisions of CBC 1015 shall be provided.
- 7i. **Edge Protection** [CBC 1012.10; 11B-405.9].
 - 1) **General.** Except as provided for ramps where handrails are not required; or along the sides of ramp landings serving adjoining ramp runs or stairways, or where the vertical drop does not exceed 1/2-inch within 10-inches horizontally of the minimum ramp area, a curb, rail, or barrier that complies with CBC 1012.10.1 shall be provided on each side of the ramp and at each side of the landing.
 - 2) **Curb, Rail or Barrier** [CBC 1012.10.1; and 11B-405.9]. Where required, curbs, rails or barriers shall provide a continuous uninterrupted barrier to prevent wheel entrapment. Curbs where provided for this use shall be not less than 4-inches tall. Rails and barriers shall prevent the passage of a 4-inch diameter sphere.



Guard not shown to emphasize handrail and edge protection



- 2) **Accessible Landings.** For accessible routes—top landings shall be shown at least 60-inches square and bottom landings shall be shown to extend a minimum of 72-inches in the directions of the ramp run.
- 3) **Other Lengths.** Where along an accessible route, the length of landings other than bottom landings shall be shown 60-inches long. Except for ramp landings within Group R-2 and R-3 occupancies, where the ramp is not along an accessible route, the length of the landing need not exceed 48-inches. And within Group R-2 and R-3 dwellings, ramp landings must be at least 36-inches in length.
- 7d. **Changes in Direction** [CBC 1012.6.4 and 11B-405.7.4]. Where changes in direction occurs at landings, along accessible routes the landing shall be shown to be at least 72-inches in the direction of downward travel from the upper ramp run by 60-inches. And except for ramps within Group R-2 or R-3 occupancies, landings used as a means of egress that are not along an accessible route, needs to be at least 60-inches square. In Group R-2 or R-3 occupancies, the ramp landings shall be at least 36-inches square.
- 7e. **Doorways** [CBC 1012.6.5 and 11B-405.7.5]. Doors may overlap the landing as permitted by the provisions for accessibility. Doors in any position shall not reduce the minimum dimension of the ramp landing to less than 42-inches and doors when fully open shall not reduce the required ramp landing width by more than 3-inches.
- 7f. **Ramp Construction.**
 - 1) **Materials** [CBC 1012.7]. Except for handrails, ramps shall be built of materials consistent with the allowable materials for the building. Wood handrails may be used for all building construction types.
 - 2) **Ramp Surface** [CBC 1012.7.1 and CBC 11B-302]. The surface of the ramp shall be shown slip-resistant and where carpet or other surface is attached—firmly attached.
 - 3) **Outdoor Conditions** [CBC 1012.7.2 and 11B-405.10]. Landings subject to wet conditions shall be shown constructed to prevent the
- 7g. **Handrails** [CBC 1012.8; and 11B-405.8].
 - 1) **Requirement.** Except for ramps with a rise less than or equal to 6-inches, curb ramps, or vehicle ramps exempt by CBC 1012.1, ramps shall be shown with handrails on both sides and in compliance with CBC 1014 where the ramp is used as a means of egress and/or the provisions of CBC 11B-505 where along an accessible route of travel. Where provided—

TABLE 1020.2 – MINIMUM CORRIDOR / RAMP WIDTH

OCCUPANCY	MINIMUM WIDTH (inches)	OCCUPANT CAPACITY
With occupant load less than 50	36	180
In Group E occupancies with an occupant load of 100 or more; or in corridors and areas serving stretcher traffic in ambulatory care facilities	72	360
In Group I-2 where required for bed movement or in Group I-2 and I-3 occupancies serving any area caring for one or more non-ambulatory individuals	96	480
Other	44	220

- 6b. **Headroom** [CBC 1003.3.1, 1012.5.2 and CBC 11B-307.4]. The minimum headroom clearance above a ramp shall be at least 80-inches.
- 7. **Landings.**
 - 7a. **General.** Ramps shall be shown to have landings at the top and bottom of each ramp run, as well as provisions for turning and maneuvering spaces at doors where applicable. Except for the maximum 2-percent slope in any direction for drainage purposes, changes in levels within the landing area are prohibited.
 - 7b. **Slope** [CBC 1012.6.1 for egress; and 11B-405.7.1 for accessibility]. Maximum 1v:48h (2-percent) in any direction.
 - 7c. **Width and Length Requirements** [CBC 1012.6.2 and 1012.6.3 for egress; and 11B-705.7.2 and 11B-705.7.2 for accessibility].
 - 1) **Minimum Width Requirements.** As a minimum, ramp landings shall be shown as wide as the ramp served.
 - 2) **Accessible Landings.** For accessible routes—top landings shall be shown at least 60-inches square and bottom landings shall be shown to extend a minimum of 72-inches in the directions of the ramp run.

D. Ramps [CBC 1012 for means of egress; 11B-405 for accessibility].

- 1. **Scope: Means of Egress** [CBC 1012.1]. Except for ramped aisles within assembly rooms or spaces in compliance with the provisions of CBC 1029, curb ramps in compliance with 11B-406, and vehicle ramps in parking structures for pedestrian exit that are not an accessible route serving accessible parking or EV charging spaces, ramps used as a means of egress shall be shown in compliance with CBC 1012—ramps used as a component of a means of egress shall be shown to comply with the provisions of CBC 1012. Vehicle ramps used as a means of egress that is not along an accessible route need not comply with the provisions of CBC 1012.3 through 1012.10.
- 2. **Slope** [CBC 1012.2 for egress; CBC 11B-405.2 for accessibility]. Ramps used as a part of the means of egress or for accessibility shall have a maximum running slope of 1v:12h (8.3 percent). The running slope of other pedestrian ways shall not be steeper than 1v:8h (12.5 percent).
- 3. **Cross Slope** [CBC 1012.2 for egress; CBC 11B-405.3]. The maximum cross slope of ramps shall be 1v:48h (2-percent). Grade breaks within ramp runs shall be shown perpendicular to the ramp run to prevent excessive cross slopes.
- 4. **Helical Ramps** [DOT Design Information Bulletin 82-05, October 1, 2013]. Curved (or helical) ramps with slopes up to 8.3-percent shall be shown with minimum inner radius of 50 feet or 30-feet where the slope is 5-percent.
- 5. **Maximum Vertical Rise of Ramp Run** [CBC 1012.4; CBC 11B-405.6]. The maximum rise of a ramp run shall be limited to 30-inches.
- 6. **Minimum Dimensions**
 - 6a. **Width** [CBC 1012.5.1 for egress; CBC 11B-405.5 for accessibility]. Along an accessible route, the clear width of the ramp between handrails (if provided) shall be shown as 48-inches (240 occupant load capacity) where along an accessible path-of-travel; and not less than 36-inches, not less than the clear width required by CBC Table 1020.2 for corridors, and not less than 0.2 inch per occupant as required by CBC 1005 where required for means of egress.

ACCESSIBLE RAMPS

DATE