

RAMPS

1010.5.1 - RAMP WIDTH: The minimum width of an egress ramp shall not be less than that required for corridors by Section 1016.2. A ramp that is provided, but not as an egress ramp, shall not be less than 36 inches (clear width).

A ramp required for barrier free accessibility in no case shall be less than 44 inches wide. Only when a ramp is provided that is not required for barrier free access can it be less than 44 inches wide. An example of this would be if an elevated area had one compliant ramp for barrier free access, and if a second ramp were provided, it could have a width down to 36 inches.

1010.5.2 - RAMP HEADROOM: The minimum headroom in all parts of the means of egress ramp shall not be less than 80 inches.

The minimum headroom required on ramps of 6'-8" provides the necessary headroom clearance for most people. This requirement is identical to the minimum required headroom for doorways.

1010.5.3 - RAMP RESTRICTIONS: Means of egress ramps shall not reduce in width in the direction of egress travel. Projections into the required ramp and landing width are prohibited except for handrails and stringers. Doors opening onto a landing shall not reduce the clear width to less than 42 inches.

1010.6.1 - MAXIMUM RAMP SLOPE: The maximum slope of egress ramps shall be 1 unit vertical to 12 units horizontal (1:12); however, ramps that are provided as required by ICC/ANSI-117 shall have a maximum slope of 1 unit vertical in 12 units horizontal (1:12).

This requirement is similar to that required of the ramp width. A ramp required for barrier free accessibility in no case shall have a slope steeper than 1:12. If a steeper ramp slope is allowed, the center of gravity of a person using a wheelchair or walker shifts to the rear and the person, along with their mobility aid, will flip over backwards.

1010.3 - MAXIMUM RAMP CROSS SLOPE: The maximum cross slope of a ramp surface that is used to provide access as required by ICC/ANSI-117 shall not be more than 1 unit vertical and 48 units horizontal (1/48).

This requirement permits a wheelchair user to track in a straight direction without wandering to one side or another on an excessive cross slope.

1010.6 & ICC/ANSI A117.1 - LANDINGS: Landings shall be provided at all points of turning, entrances and exits, and at doors. Ramps with a slope of more than 1 unit vertical in 12 units horizontal (1:12) shall not have a vertical rise of more than 30 inches between landings. Ramps that are provided as required by section ICC/ANSI-117.1 shall not have a vertical rise of more than 30 inches between landings. All landings shall be long enough to provide a minimum 42 inches clear from any door swing to the ramp. Each landing shall have a minimum length of 60 inches in the direction of travel.

Landings provide a safe haven where persons can rest prior to or on their way up a ramp, and a place where they can brake and slow down on their way down a ramp. Through this means, the physically disabled person is not confronted with a short landing and/or wall at the end of a landing with insufficient length for braking and slowing down. The landing space required beyond the door swing is to help assure that the person will have sufficient space so as to not roll back down the ramp involuntarily while attempting to open a door.

1009.11 & 1012 - RAMP GUARDS AND HANDRAILS: Refer to the current Michigan Building Code for code text.

Guards are required on any side of a ramp with an adjacent grade or floor lower than that of the ramp. Handrails are required on both sides of a ramp.

1010.7 - EXIT RAMP CONSTRUCTION: Refer to the current Michigan Building Code for code text.

1010.7.1 - RAMP SURFACE: Refer to the current Michigan Building Code for code text.

1010.7.2 - EXTERIOR RAMPS: Exterior ramps that are a component of the means of egress required elsewhere in the code shall be in compliance with the requirements of Section 1010.7.2..

1012 - GUARDS - GENERAL: Refer to the current Michigan Building Code for code text.

1012.2 - GUARD HEIGHT: Refer to the current Michigan Building Code for code text.

The minimum height of ramp guard rails is 36-42 inches. This serves as protection from falling off the sides of a ramp for able-bodied persons and children, as well as for physically disabled persons.

1012.3 - OPENING LIMITATIONS: Refer to the current Michigan Building Code for code text.

A ramp with a guardrail system that includes openings between railings or balusters must limit those openings to prevent passage of a 4 inch diameter sphere.

1009.11 - HANDRAILS - GENERAL: Refer to the current Michigan Building Code for code text.

1009.11 - 1009.11.7 - HANDRAIL DETAILS: Refer to the current Michigan Building Code for code text.

Ramp handrails must be continuous, and free of any construction that may be sharp or abrasive. Handrails must be at least 1 ½ inches from the mounting surface, and have edges with a minimum 1/8 inch radius.

1009.7 - HANDRAIL PROJECTION: Refer to the current Michigan Building Code for code text.

The maximum handrail projection of 3 ½ inches into the required ramp width permits a sufficient clearance for physically disabled persons using any type of mobility aid.

1009.11.1 - HANDRAIL HEIGHT: Refer to the current Michigan Building Code for code text.

Ramp handrail height is 34 inches minimum to 38 inches maximum. If the ramp has handrails that are part of the guardrail system, the handrail may be 34 inches minimum to 42 inches maximum.

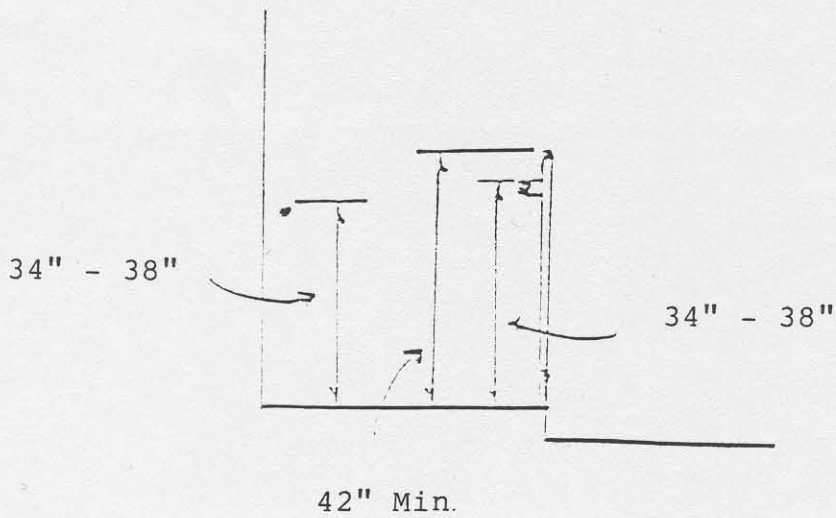
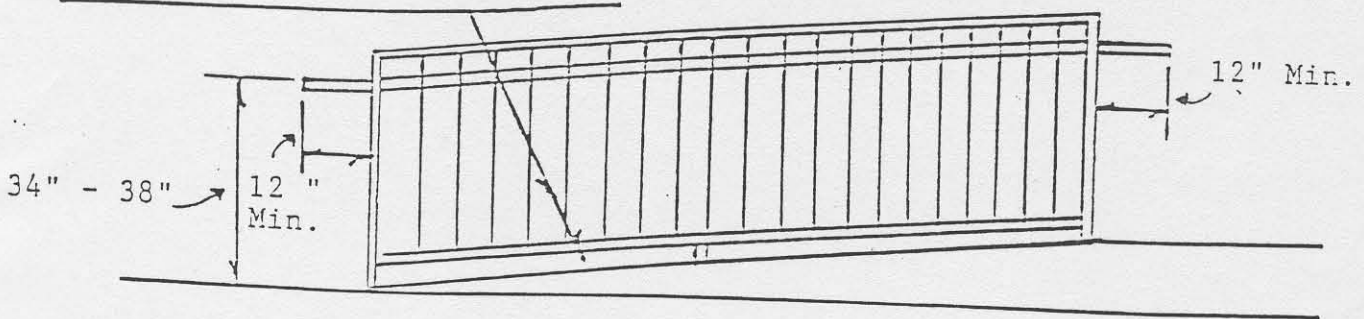
1009.5 - HANDRAIL EXTENSIONS: Refer to the current Michigan Building Code for code text.

Handrail ends are required to extend a minimum 12 inches beyond the ramp slope in the direction of ramp travel. This handrail extension permits a wheelchair user to grab the bar for leverage at the start of a ramp, as well as for giving them a handrail to grab on to prior to rolling down the ramp.

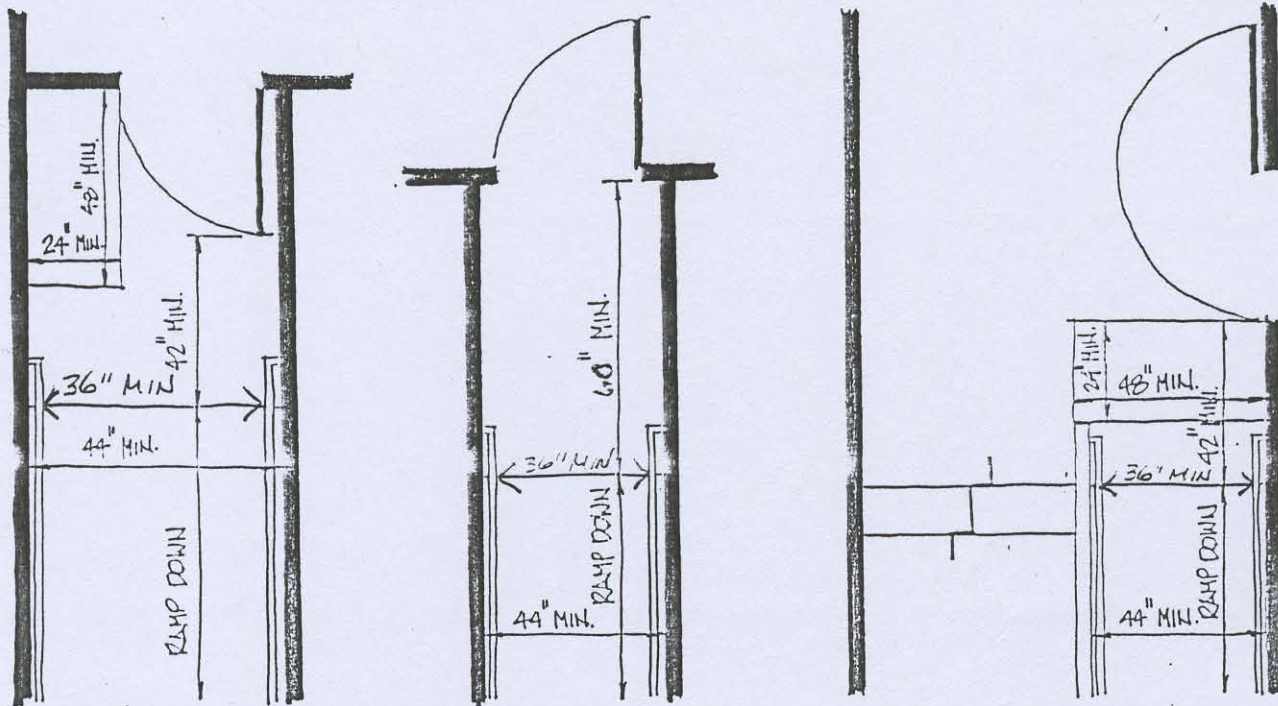
RAMPS - 1010



Maximum guard opening to limit passage of a 4" sphere.



INTERIOR RAMP LANDINGS - 1010.6



EXTERIOR RAMP LANDINGS - 1010.6

