

Perpendicular curb ramp design is the safest

Perpendicular Curb ramp designs focus on pedestrian safety, especially considering Boston's long winters, and high traffic volumes, both pedestrian and vehicular. Additionally, below are a list of reasons to design perpendicular ramps and a list of reasons for regulations that prohibit use of apex ramps.

Perpendicular curb ramps

- Are aligned perpendicular to vehicular traffic;
- Provide a straight path of travel on tight radius corners;
- Are aligned with the crossing direction on tight radius corners;
- Are usually positioned within crosswalk; and
- Are at the expected crossing location for all pedestrians.

Diagonal (apex) curb ramps

- Put pedestrians into a potential area of conflict with motorists who are traveling straight and turning;
- Require turning at the top and bottom of the ramp;
- Provide no alignment with the proper crossing direction, which is difficult for most people with disabilities;
- Make the essential level maneuvering area difficult to achieve at the bottom of the curb ramp; and
- Can cause a person with vision impairment to mistake a diagonal curb ramp for a perpendicular curb ramp and unintentionally travel into the middle of the intersection due to the lack of, or ambiguous, audible cues from the surge of traffic.

Sources:

1. The State regulations (521CMR 21.2.21) prohibit the installation of "apex" ramps except when there is a significant site constraint (521CMR 21.2.1.1).
2. (https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/sidewalks207.cfm)

Frequently used building code links:

521 CMR 4.00: APPEAL AND VARIANCE

<http://www.mass.gov/ocabr/docs/dpl/dps/aab-regs/521004.pdf>

521 CMR 20.00: ACCESSIBLE ROUTE

<http://www.mass.gov/ocabr/docs/dpl/dps/aab-regs/521020.pdf>

521 CMR 21.00: CURB CUTS

<http://www.mass.gov/ocabr/docs/dpl/dps/aab-regs/521021.pdf>

521 CMR 22.00: WALKWAYS

<http://www.mass.gov/ocabr/docs/dpl/dps/aab-regs/521022.pdf>

521 CMR 24.00: **RAMPS**

<http://www.mass.gov/ocabr/docs/dpl/dps/aab-regs/521024.pdf>

521 CMR 35.00: **TABLES AND SEATING**

<http://www.mass.gov/ocabr/docs/dpl/dps/aab-regs/521035.pdf>