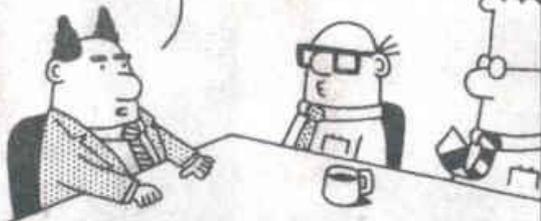
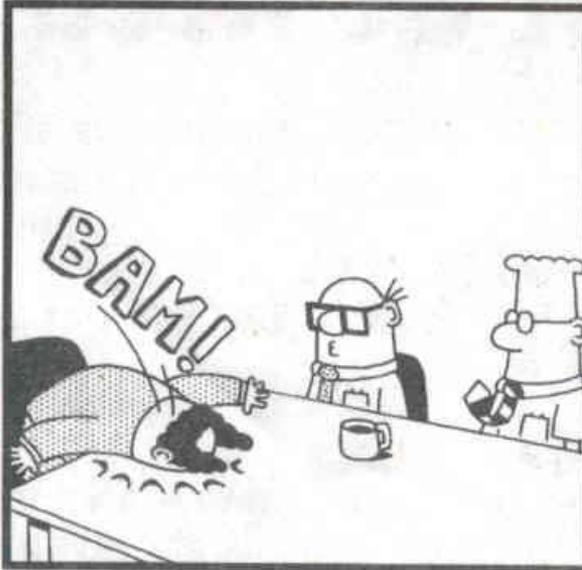


Dilbert

TO DEFEND AGAINST
LAWSUITS, OUR
RECORDS RETENTION
POLICY HAS BEEN
UPDATED TO INCLUDE
THIS...

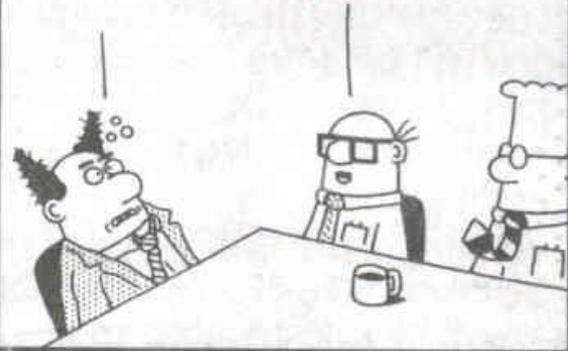


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WHAT
WAS I
TALKING
ABOUT?
THE RECORDS
RETENTION
POLICY.



Guidelines for Accessible Public Rights-of-Way

ADA TRUNCATED DOME
DETECTABLE WARNING PANELS
AND SIDEWALK CROSS SLOPES

WHY?

- New requirements by ADA
- 45 degree trawled in grooves DO NOT give enough detection for visually impaired people.
- Cross Slopes too steep

REQUIREMENTS

- 2.0% Cross Slopes on all sidewalks even at driveways
- ADA ramps
- Detectable Warning Panels

ADA RAMPS AND DETECTABLE WARNING PANELS

Detectable Warning Panels

- Detectable warnings are standardized surface features on walking surfaces to warn visually impaired people of the transition between the sidewalk and the street.
- Requirements are:
 - A Detectable Warning Panel shall consist of a surface of truncated domes aligned in a square grid pattern.
 - Dome Size - Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch minimum to 1.4 inches maximum, a top diameter of 50% of the base diameter minimum to 65% of the base diameter maximum, and a height of 0.2 inches.

Detectable Warning Panels

● More Requirements:

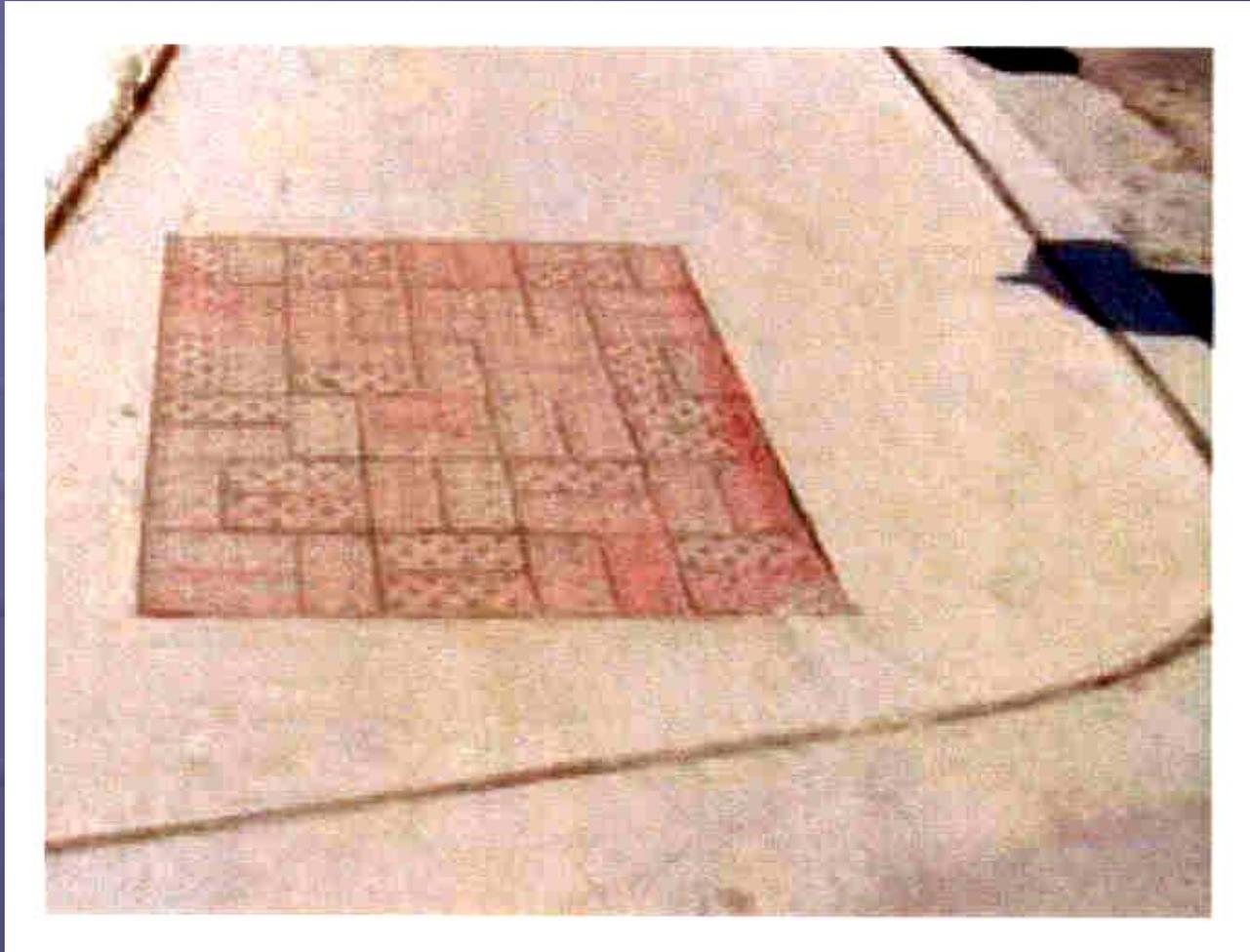
- Dome Spacing - Truncated domes is a detectable warning surface shall have a center-to-center spacing of 1.6 inches minimum and 2.4 inches maximum and a base-to-base spacing of 0.65 inches minimum measured between the most adjacent domes on the square grid.
- Size - Detectable warning surfaces shall extend 24 inches in the direction of travel and the full width of the curb ramp landing.
- The detectable warning surface shall be located so that the nearest edge is 6" minimum and 8" maximum from the face of the curb.
- Visual contrast with adjacent walking surface.

Detectable Warning Panels

● Some Products Available

- Variety of pavers (sizes)
- Stamping
- Epoxy fastened mats filled with resin
- Etc.

Detectable Warning Panels



Detectable Warning Panel (NDDOT Design Memo 10-2003)

- Minimum size of 1' x 2' and be at least 3/4" thick.
 - Why?
 - Durability (10,000 psi)
 - Color throughout
 - Other states have good success

Detectable Warning Panels



Detectable Warning Panels





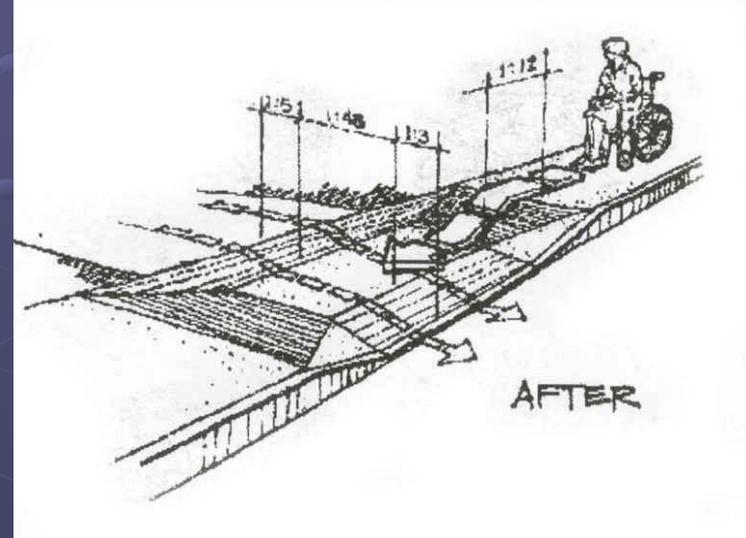
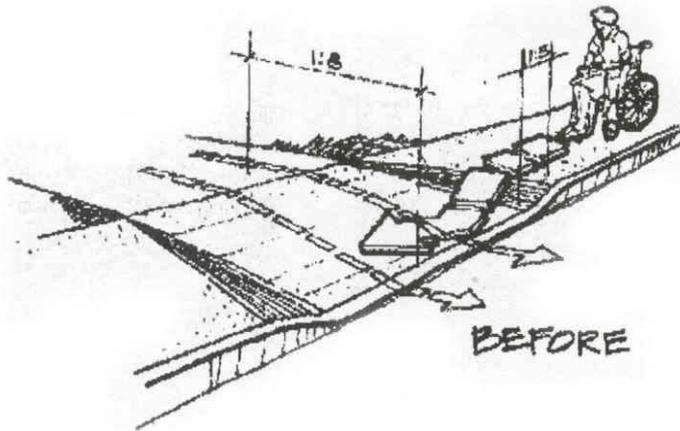
CROSS SLOPES ON SIDEWALKS

Cross Slopes on Sidewalks

- 2.0 % Maximum
 - Even at driveways

Cross Slopes on Sidewalks

Figure 11



Cross Slopes on Sidewalks

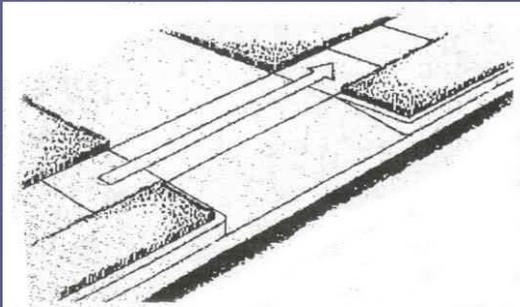


Figure 5-3. GOOD DESIGN:
Driveway crossings on sidewalks with planting strips should be designed with level landings and returned curbs. Using returned curbs instead of flares benefits pedestrians by forcing motorists to enter the driveway crossing at more of a right angle and thus at a slower speed.

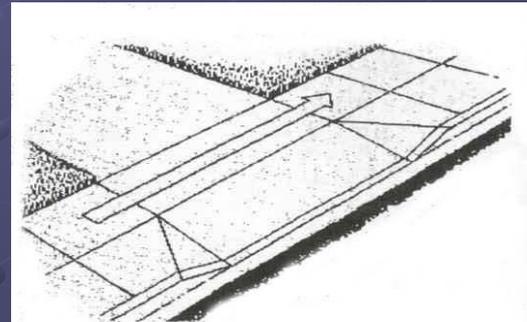


Figure 5-4. GOOD DESIGN:
Driveway crossings on a wide sidewalk corridor should be designed to include level landings.

Cross Slopes on Sidewalks

Figure 5-5. POTENTIAL PROBLEM: Although gradually sloped driveway crossings are beneficial to people with mobility impairments, they can be problematic for people with vision impairments unless there is a detectable difference in slope at the edge of the street. If a visually impaired person veers toward the street and isn't able to recognize where the driveway ends and the street begins, they may enter the street without realizing it.

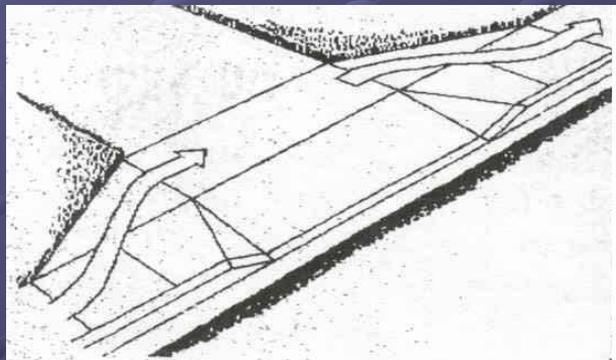
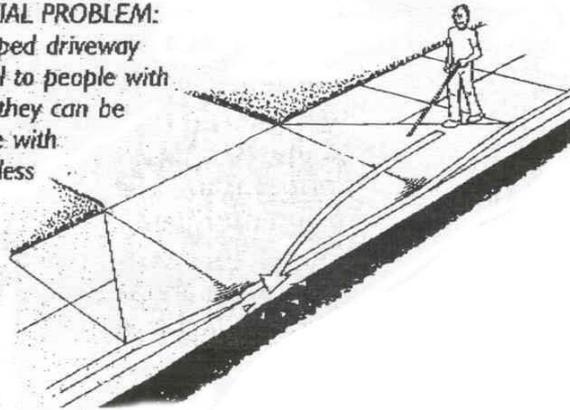


Figure 5-6. GOOD DESIGN: Securing additional right-of-way from the adjacent property is a good strategy for improving pedestrian access on narrow sidewalks.

Cross Slopes on Sidewalks

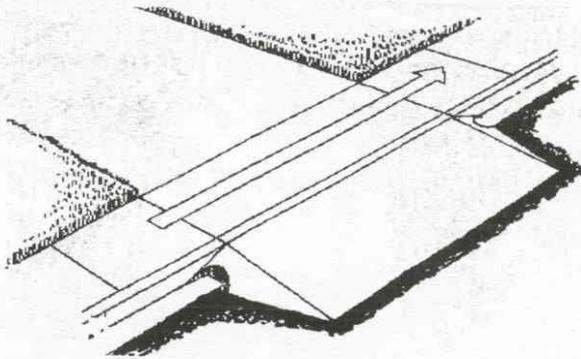


Figure 5-7. SATISFACTORY DESIGN: Built-up driveway crossings promote pedestrian access on narrow sidewalks by extending the ramp into the roadway and allowing the sidewalk to remain level. This ramp works better on roadways with on-street parking and in areas with no snow.

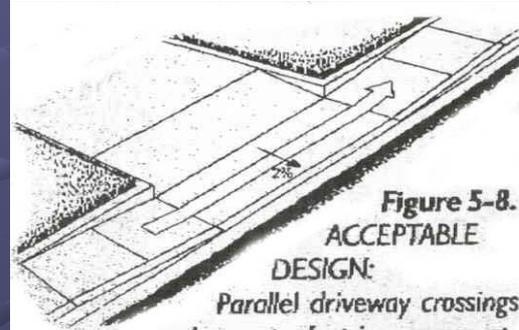


Figure 5-8. ACCEPTABLE DESIGN: Parallel driveway crossings enhance pedestrian access at a driveway crossing when there is no room to provide a level landing. Parallel driveway crossings are not as desirable as other accessible driveway crossings because users are forced to negotiate two ramps instead of a level surface.

A 3D grid of spheres on a blue background. The spheres are arranged in a regular pattern, receding into the distance, creating a perspective effect. The background is a solid, dark blue color.

QUESTIONS???