

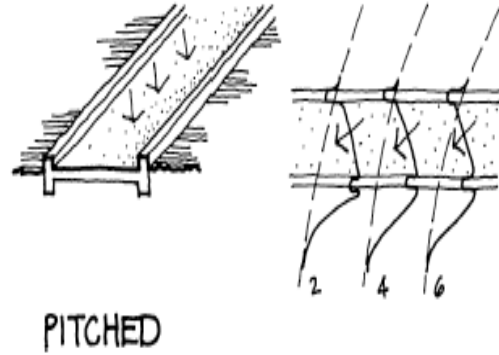
LECTURE EIGHT  
CIRCULATION

OVERVIEW  
PLANNING  
CONSIDERATIONS  
PATTERNS  
VEHICULAR  
ROADS  
PARKING  
BICYCLE  
PEDESTRIAN  
LIGHTING

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## Walkway drainage

walkways slope laterally 1/4"  
per foot; wider walks  
crowned



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## Curb cuts

- maximum curb height should be 6 to 6-1/2 inches
- curb ramps should not exceed 8% or a 1:12 gradient
- nonslip surfaces but not corrugated which collects ice and snow and become slippery

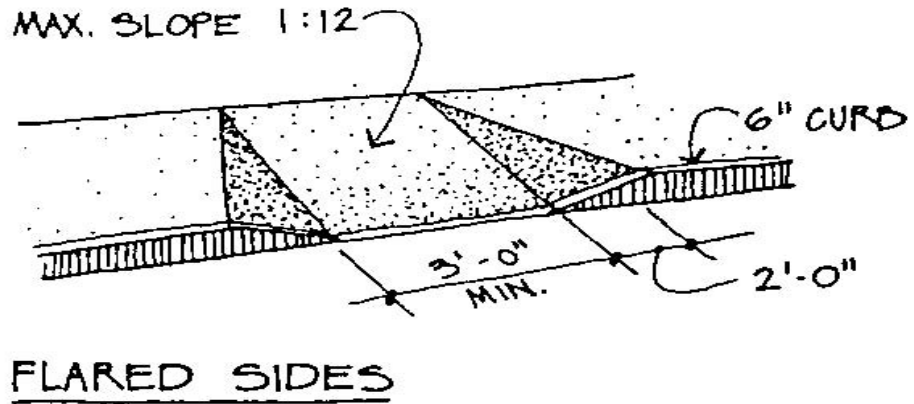


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### Curb cuts

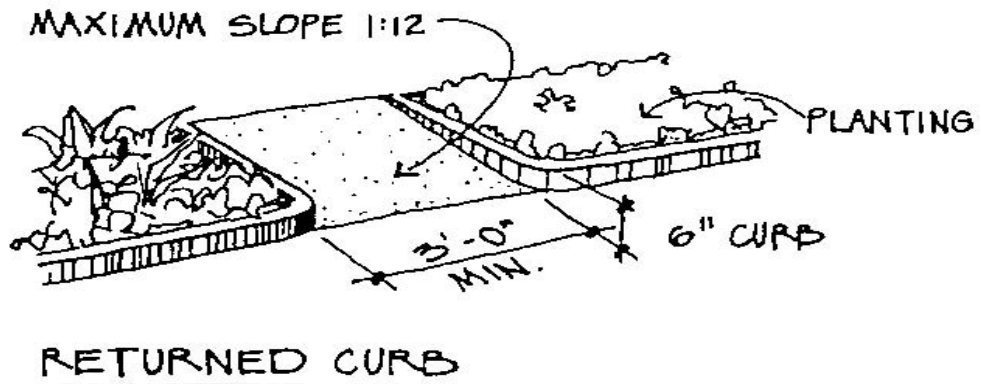


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### Curb cuts

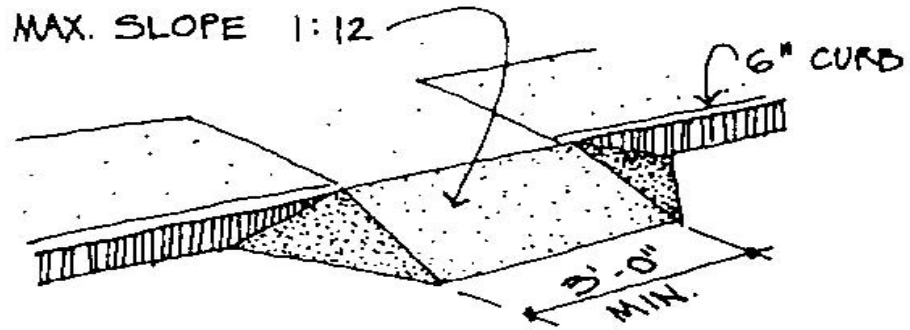


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## Curb cuts



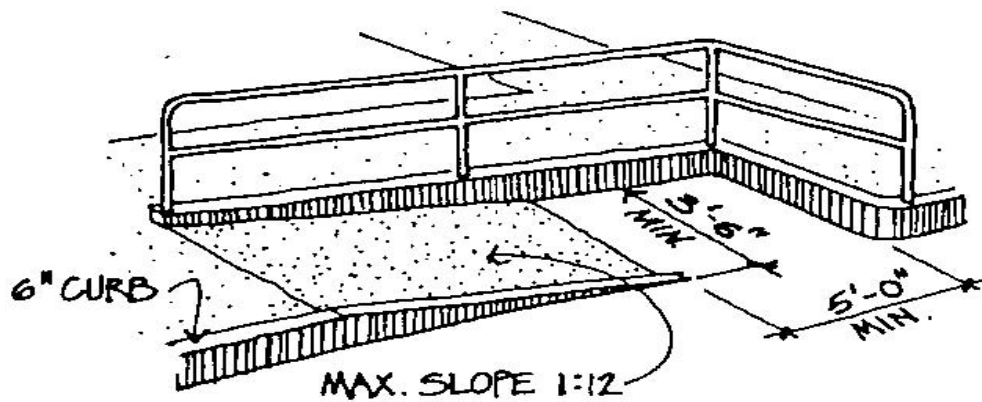
BUILT-UP

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## Curb cuts



PARALLEL



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## Pedestrian circulation - stairs

minimum of 3 risers NO 1 or 2 risers

if more than 4 risers, provide handrail

if more than 8' wide, provide center handrail for every multiple of 8'

exterior stairs have different proportions than interior

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## Pedestrian circulation - stairs

- exterior typically risers of 5-1/2 tread of 15" or 6" riser to 14" tread
- monumental stairs 3" riser & 19" tread or 4' riser & 17" tread; do not use in heavy traffic areas
- exterior stair rule 2 risers + tread = 26" to 27"
- public stairs never more than 50% gradient

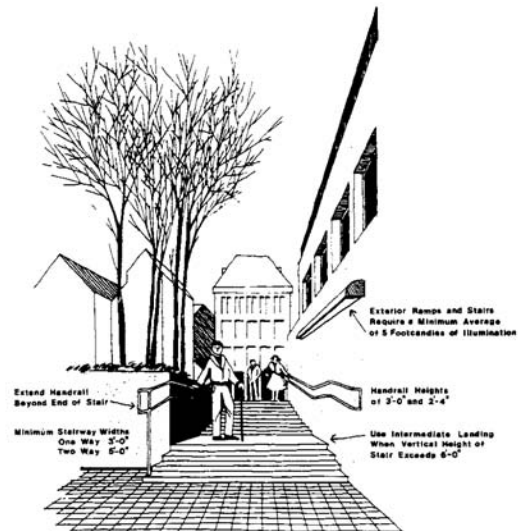
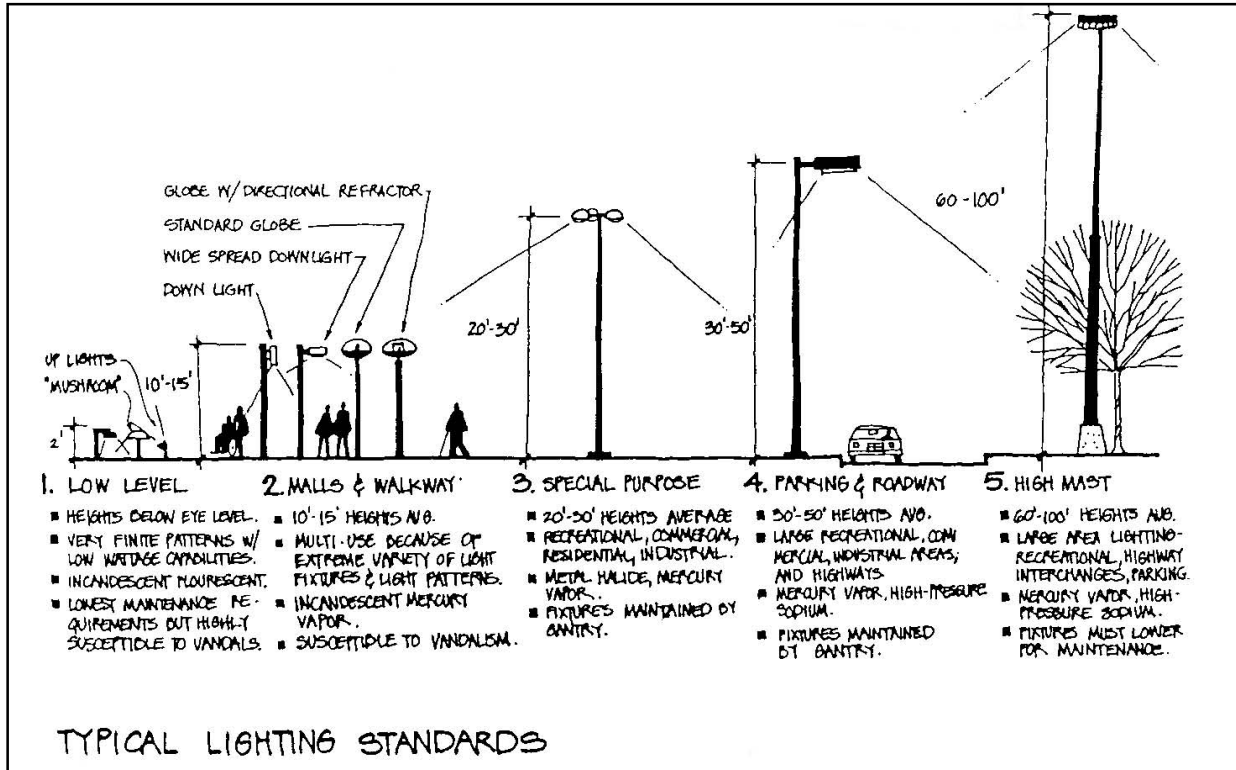


Figure 16-17 Stair guidelines and criteria.



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## Low pedestrian lighting

Purpose: to provide safety and security after dark

Should occur at building entrances, at intersections, stairs, ramps, abrupt changes in grade, dead ends and remote walks

pedestrian lighting varies from 1/2 to 5 foot-candles (building entrances, steps and intersections)

LED, incandescent or mercury vapor



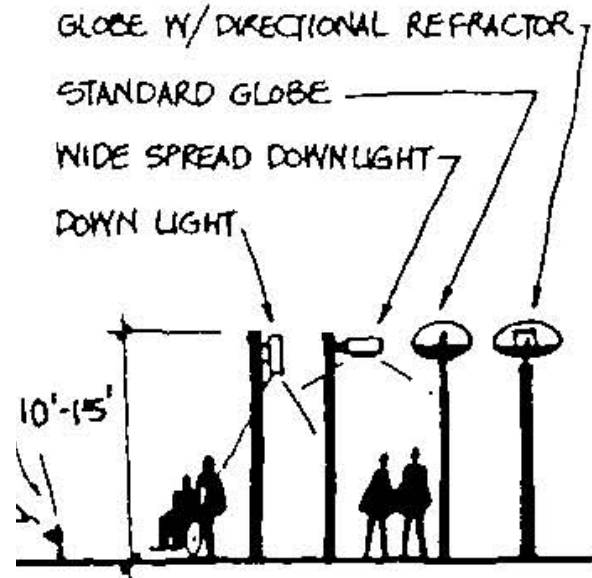
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## Pedestrian lighting - walkways and courtyards

- 10-15' light
- Multi use because of extreme variety of light fixtures
- Incandescent and Mercury Vapor
- Susceptible to vandalism

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## Vehicle lighting - roadways

For drivers OK to use mercury vapor, metal halide and high-pressure sodium; poor color rendition but economical

Street light 30-50 foot high, spaced 150-250' apart (1/2 foot candle at local roads and parking areas).





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## Light pollution

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Cut-off luminaires are now required in many municipalities to reduce night sky light trespass and pollution.

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## Signage

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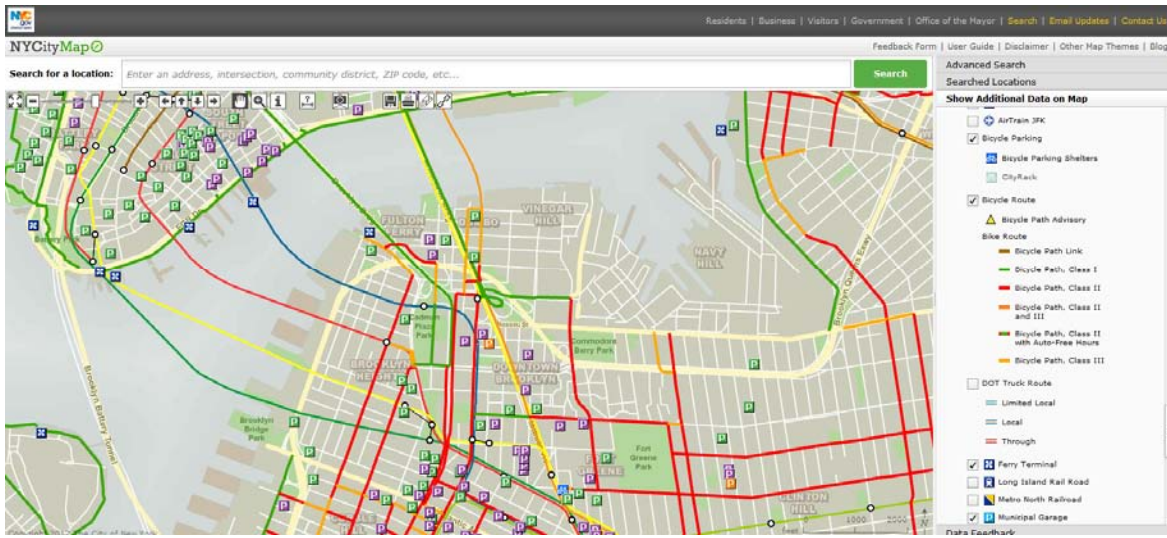
Three principal functions

1. *to regulate or control* -STOP, emergency exit, no parking. Most common; involve health & safety
2. *to give directions* - IN, OUT, To parking. Accompanied by directional graphics arrows
3. *to provide information* - IDENTIFY locations and structures; you are here, Voorhees, Faculty parking, etc

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# NYC Map - Geographic Information Systems (GIS)



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<http://gis.nyc.gov/doitt/nycitymap/>