

17 points on street network & design

STREET NETWORK DESIGN

1. Walking v cycling v driving network
 - a. 5 and 10 minute rules
 - b. Gaps in network
2. View corridors, destinations, legibility
 - a. Visual cues for drivers (trees, edge lines, overhead signs, lights)
 - b. Rhythm
3. Street layout
 - a. Catchment areas, intersection/length ratio
 - b. Natural traffic calming via T-junctions & turns
4. Urban form (height-width ratio, building wall, courtyards, alleys, fenestration)
 - a. Economic (street retail, vendors)
 - b. Edge v middle of space
 - c. Private v. public
 - d. Front-back v. internal form typology
5. Street typology

STREET DESIGN

6. Small, low speed or large, high speed junctions
 - a. Intersection priority - stop lines, bike boxes, queue jump lanes
 - b. Right angle intersections
7. Speed
 - a. Separate slow from fast traffic (all modes)
 - b. Protect the vulnerable
 - c. Traffic calming
 - d. Turning speed - radii
 - e. Vision cone
 - f. Crash severity
8. Movement flows
 - a. Vehicles (one-way, no turns)

- b. Pedestrians (desire lines, possible routes)
- 9. Sight Distance & Visibility
 - a. Minimize visibility to increase attention
 - b. Maximize visibility to increase predictability
 - c. Eye contact
- 10. Design & control vehicle
 - a. Two design cyclists - one vehicular, one pedestrian
 - b. Two design pedestrians - fast (minimal delay, through, jogging) & slow (talking, sitting, cafés, children)
 - c. Effective width (lanes, sidewalks, etc.)
- 11. Straight, continuous walkways
 - a. Sidewalks over driveways
 - b. Wheelchair ramps
 - c. Coordinate street furniture, plantings, trees
 - d. Detectable transition zones
- 12. Crossing distance & time
 - a. Wider sidewalks and curb extensions v. medians
 - b. Street crosswalks aligned with sidewalks
 - c. Desire lines
 - d. Medians & refuge islands
 - e. No tunnels or bridges
- 13. Vehicle predictability - lanes, passing areas
 - a. On-street parking v. bicycle operations
 - b. Pavement treatment to mirror function, not mode
- 14. Signal priority (LPI, transit, LBI)
 - a. Signal phasing - natural order
 - b. Signals are for traffic control, not safety
 - c. Maximize fluidity, minimize delay - signal progression, roundabouts, short signal cycles
- 15. Lighting
 - a. Bright at conflict points
 - b. Background lighting to see silhouettes
- 16. 85th percentile rule
- 17. Minimize signs - natural design