

Evaluation Tools

Pedestrian Environments



Outline

- The Problem
- What is ***Pedestrian Friendly?***
- What is ***Auto Dominated?***
- Setting Priorities

The Problem



Charlier Associates, Inc.



Independent
Insurance
Agent

KOHN-SENF
AGENCY
631-5400

FOR LEASE

GORDON

Domino's

FOR INFORMATION
631-1097

INSURANCE



DECA REALTY
COMPANY

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REALTY
COMPANY

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Hydrex
P

What is ***Pedestrian Friendly?***

Evaluation Tools



Types of Walking

- Rambling
- Utilitarian Walking
- Strolling, Lingerling
- Promenading
- Special Events



Rambling



Charlier Associates, Inc.

Rambling

Redmond



Rambling



Prospect

Upcountry
Maui



Rambling

Prospect



Rambling

Prospect



Rambling

Utilitarian Walking



Charlier Associates, Inc.

Wailuku

Enter
←

First Hawaiian Bank


Utilitarian Walking



Kailua



Utilitarian Walking

A man in a blue t-shirt, light blue jeans, a white baseball cap, and a red backpack is walking on a paved sidewalk. He is holding a blue and white striped umbrella. The sidewalk is bordered by a concrete curb and a grassy area with a wooden utility pole. In the background, a multi-lane road with traffic lights and several vehicles (including a white van, a green pickup truck, and a black pickup truck) is visible. The sky is overcast.

Upcountry Maui Utilitarian Walking

Utilitarian Walking



Redmond

Strolling & Linger



Charlier Associates, Inc.

Boulder



Strolling, Lingerin

Winter Park, FL



Strolling, Lingerin

Pukalani

R GALLON

WATER VENDING

REVERSE OSMOSIS
WATER AVAILABLE IN HARDWARE STORE
878-VEND

PURIFIED WATER

35¢

Per Gallon

Reverse Osmosis

MONEY
REMOVED
NIGHTLY

35¢

ay Mo

me
25¢ free

Strolling, Lingerin

Boulder



Strolling, Lingerin

Promenade



Charlier Associates, Inc.

Promenade



Boulder

Special Events



Charlier Associates, Inc.

Boulder



Special Events



Boulder

Special Events

Types of Pedestrian Environments



Pedestrian Environments

“Pedestrian Friendly”

Pedestrian Environment Continuum



Pedestrian Place/District

- Mixed use with retail
- Gathering place – identifiable as a PLACE
- Significant pedestrian presence
- Motor vehicles present, do not dominate
- Supportive transportation required (parking, transit, bike)



Honolulu/Waikiki



Pedestrian Place

Boulder



Pedestrian Place



La Spezia, Italy

Pedestrian Place

Winter Park, FL



Pedestrian Place

Miami Beach, FL

Pedestrian Place



Winter Park, FL



Pedestrian Place

Pedestrian Supportive

- Mixed use including residential
- May include gathering PLACES
- Pedestrians present at busy times
- Motor vehicles present, do not dominate



Redmond



Pedestrian Supportive

Mt. Vernon, IA

Pedestrian Supportive



Longmont



Pedestrian Supportive

Berkeley



Pedestrian Supportive



Pedestrian Supportive

Boulder



Pedestrian Supportive

Boulder



Pedestrian Supportive

Lanai



Pedestrian Supportive

Pedestrian Supportive



Gold Hill

Pedestrian Tolerant

- All land uses except freeway & certain special uses (airport runway, garbage dump, etc.)
- Utilitarian walking & rambling only
- Motor vehicles present, may tend to dominate



Redmond

Pedestrian Tolerant



Longmont



Pedestrian Tolerant

Pedestrian Tolerant

Maui



Maui



Pedestrian Tolerant

Pedestrian Intolerant

- Any land use
- Little or no walking
- Motor vehicles dominate
- Unsafe, unpleasant



Longmont



Pedestrian Intolerant

Longmont

Pedestrian Intolerant



Hawaii Island



Pedestrian Intolerant

Maui



Pedestrian Intolerant

Anywhere, USA



Pedestrian Intolerant

Maui



Pedestrian Intolerant

Flagstaff, AZ



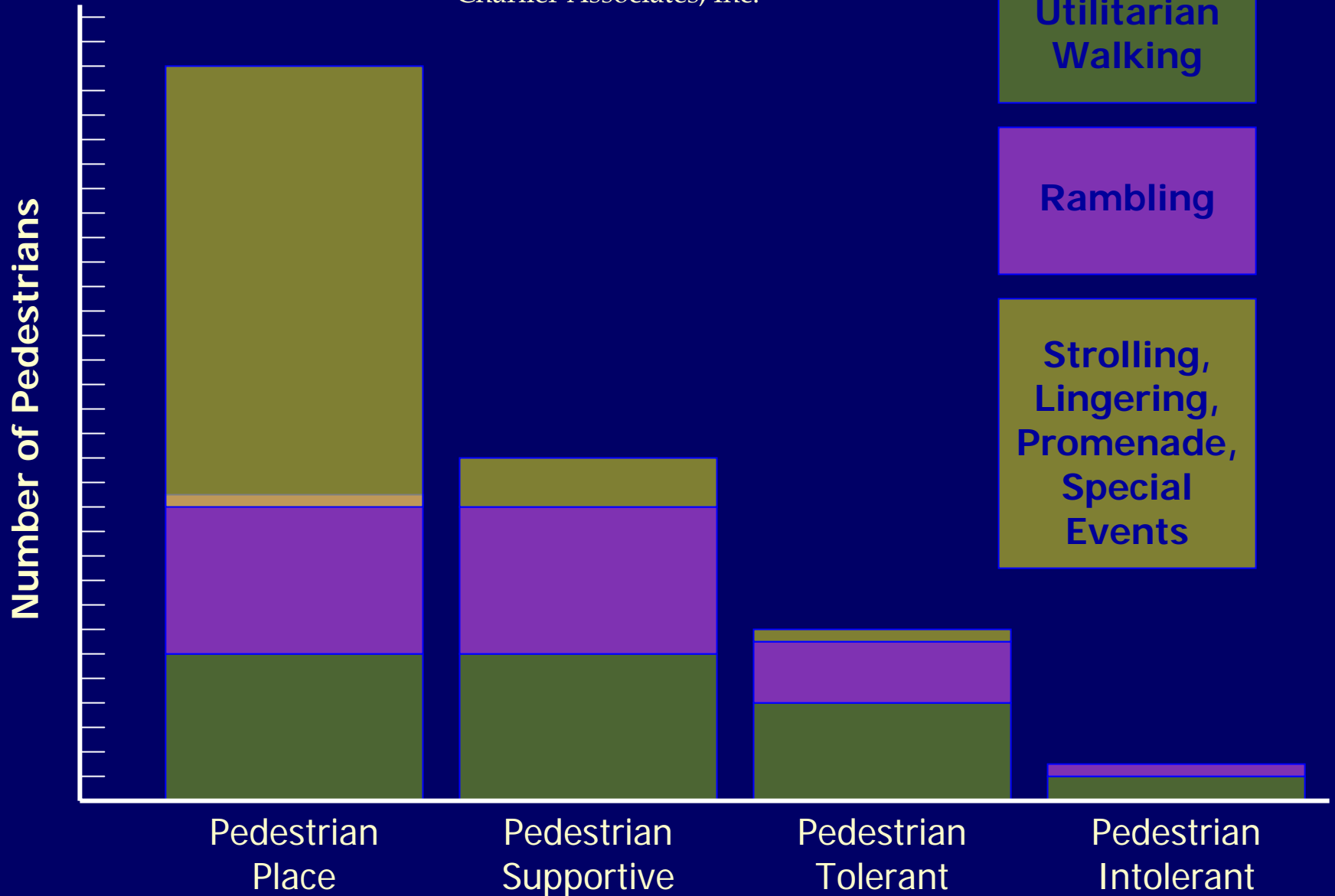
Pedestrian Tolerant

Pedestrian Intolerant



Flagstaff, AZ

Walk Environments and Types of Walking



Key Factors

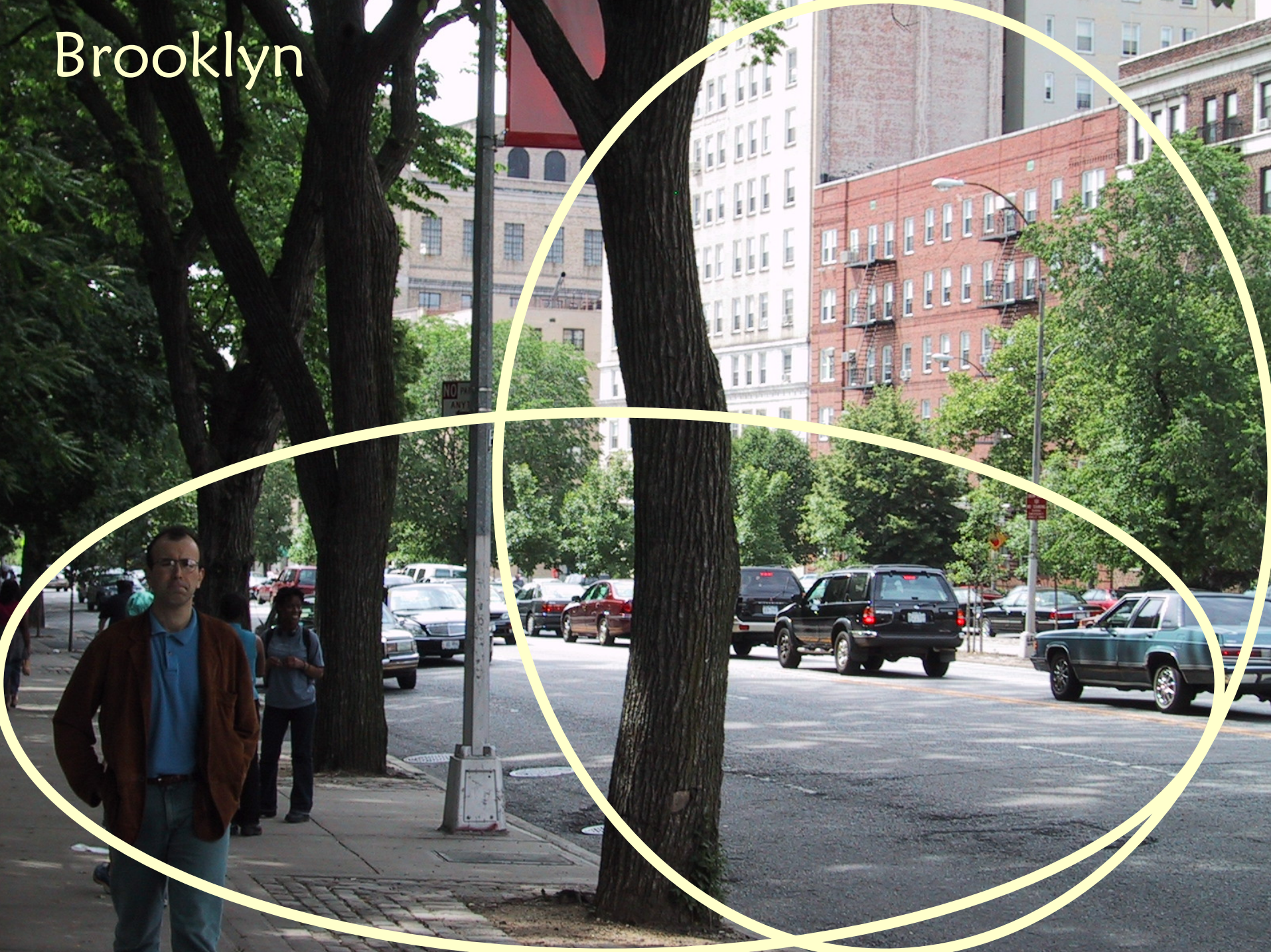
“Pedestrian Oriented”

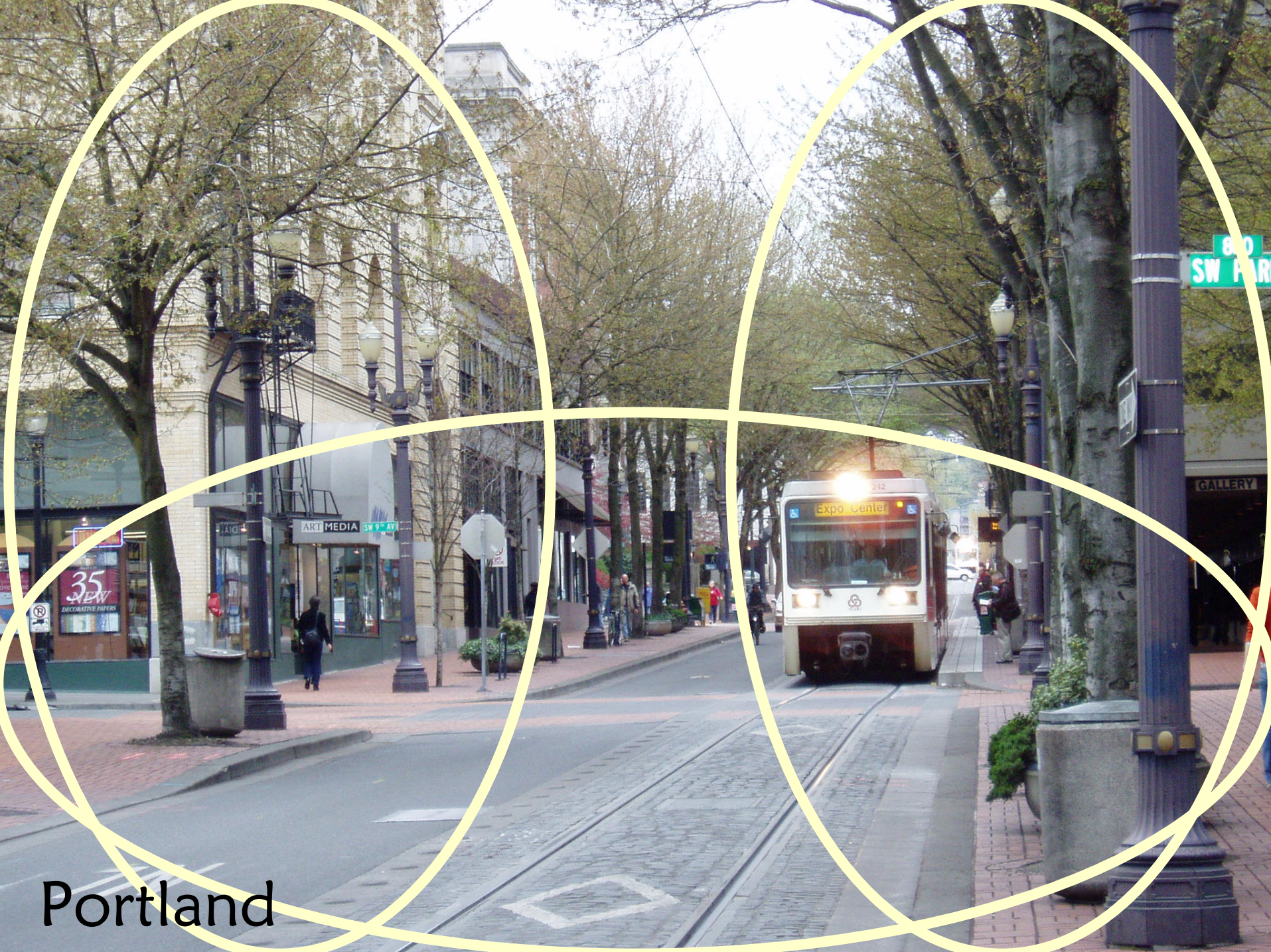




Boulder

Brooklyn





Portland

Pasadena



Driggs



Lakewood



Factors: “Pedestrian Oriented”

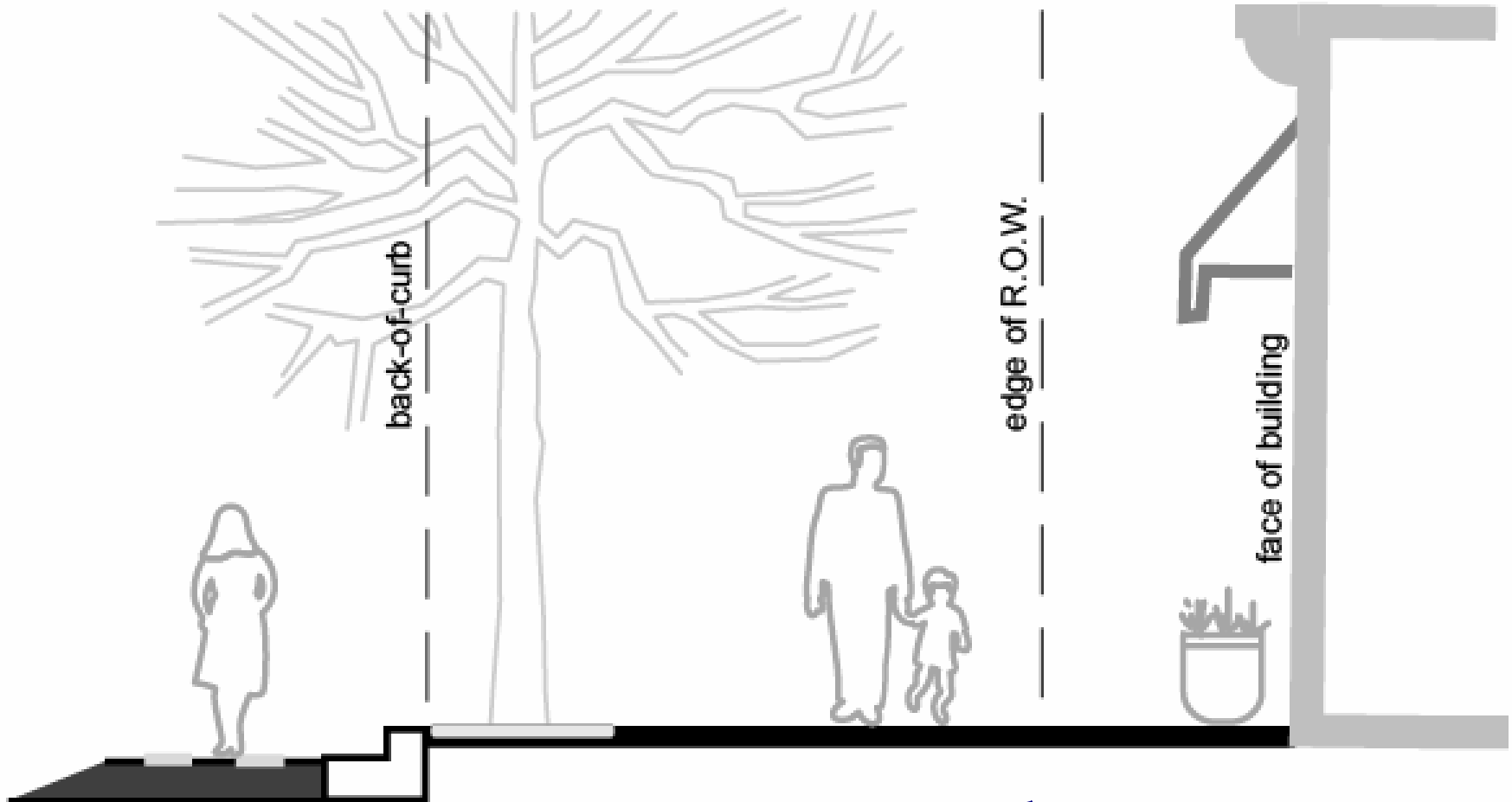
- Street design & space allocation
- Proportion of street room
- Character of street wall
- Traffic buffering
- Connectivity
- Weather protection: sun, rain
- Land use mix

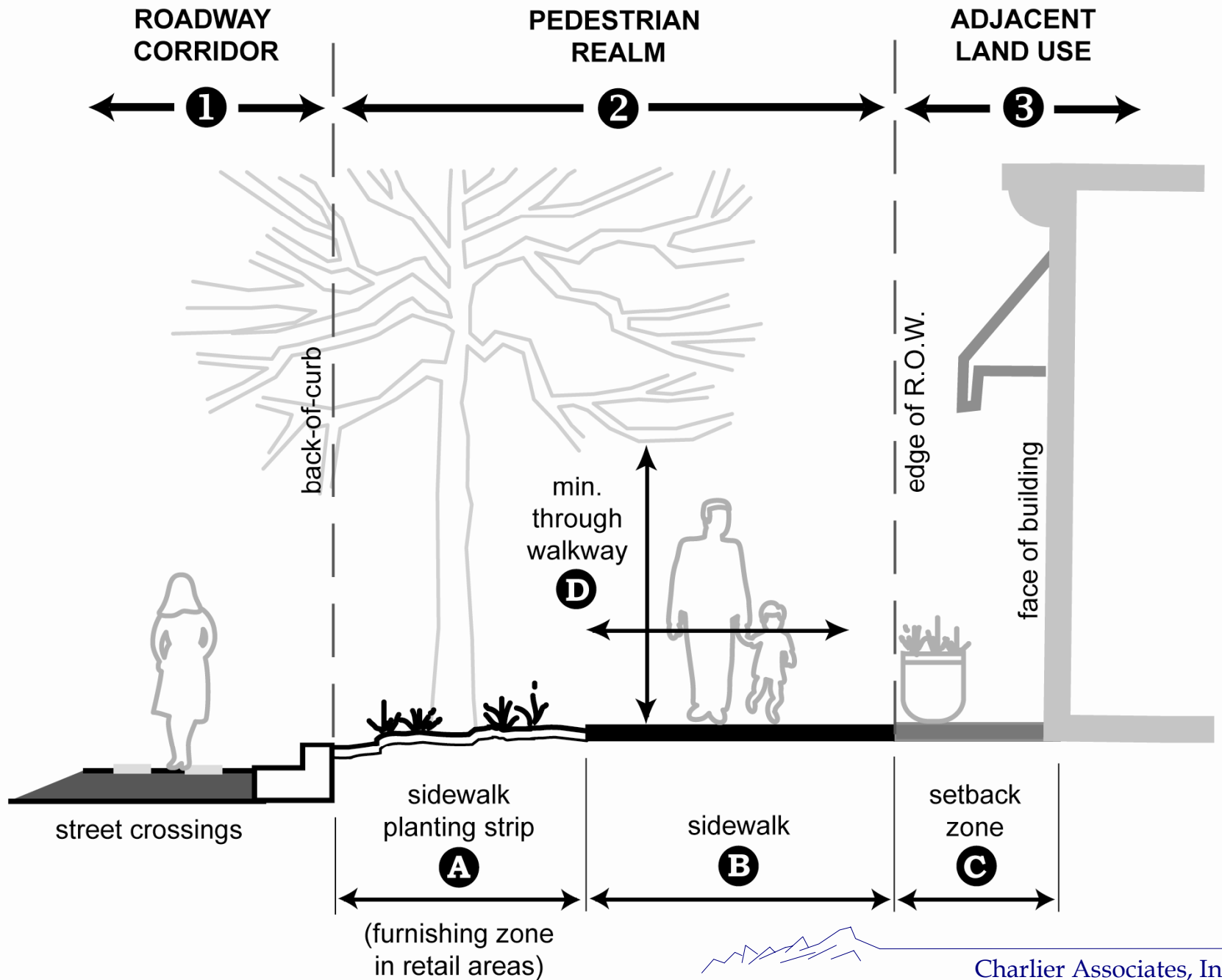


ROADWAY
CORRIDOR

PEDESTRIAN
REALM

ADJACENT
LAND USE







Boulder

Urban Scale & Proportion of Street Room

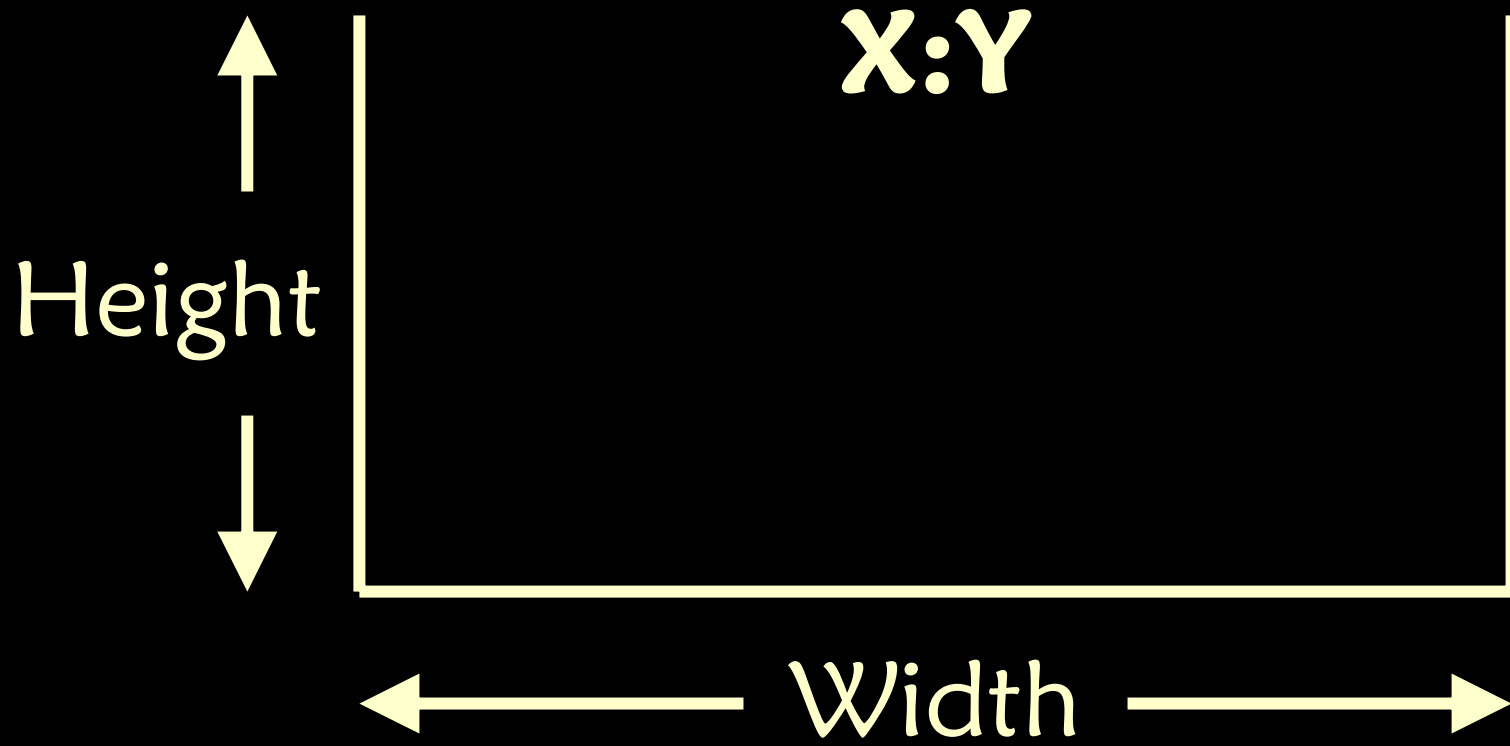


Charlier Associates, Inc.

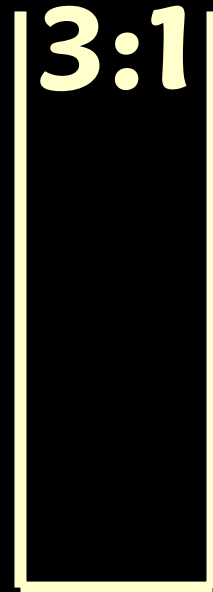
St. Louis area



Height to Width Ratio



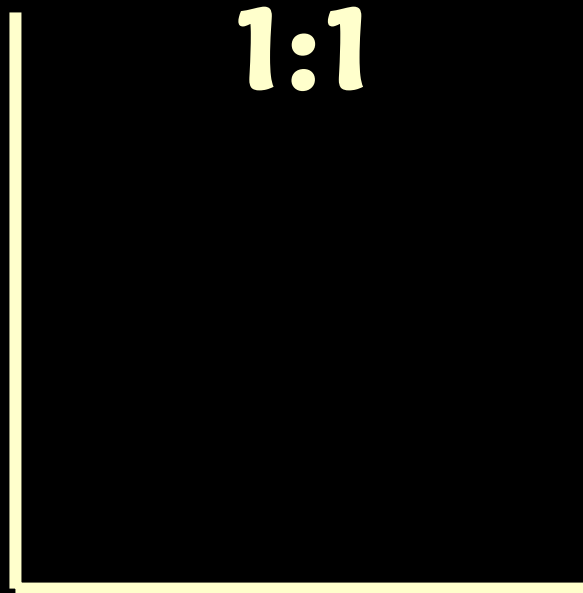
Height to Width Ratio





San Francisco

Height to Width Ratio

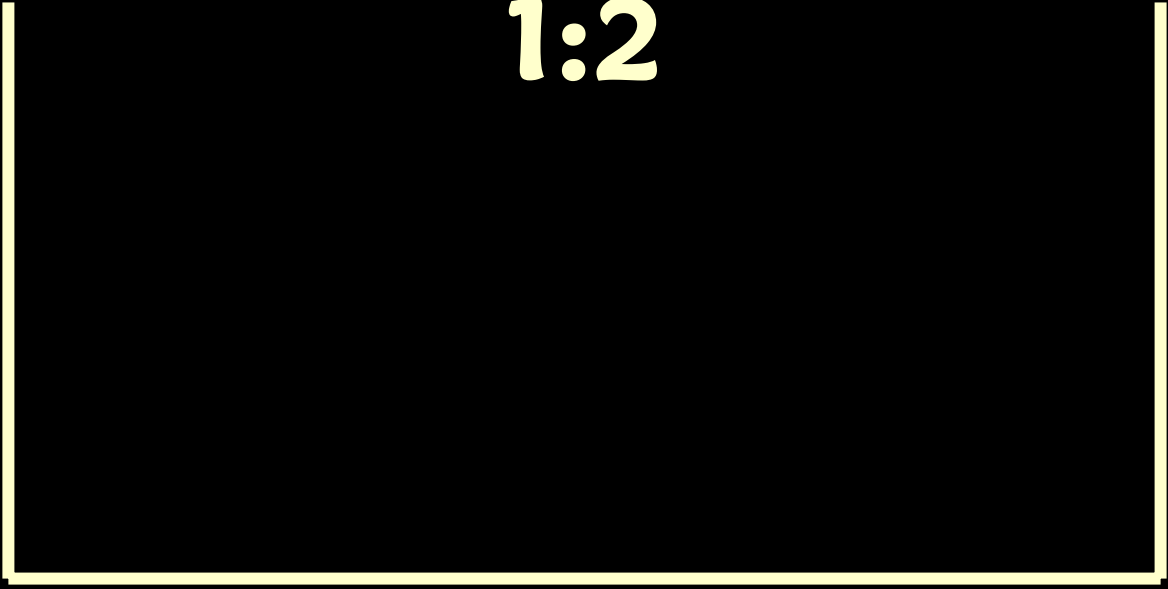




Minneapolis

Height to Width Ratio

1:2





Newbury - Boston

Height to Width Ratio

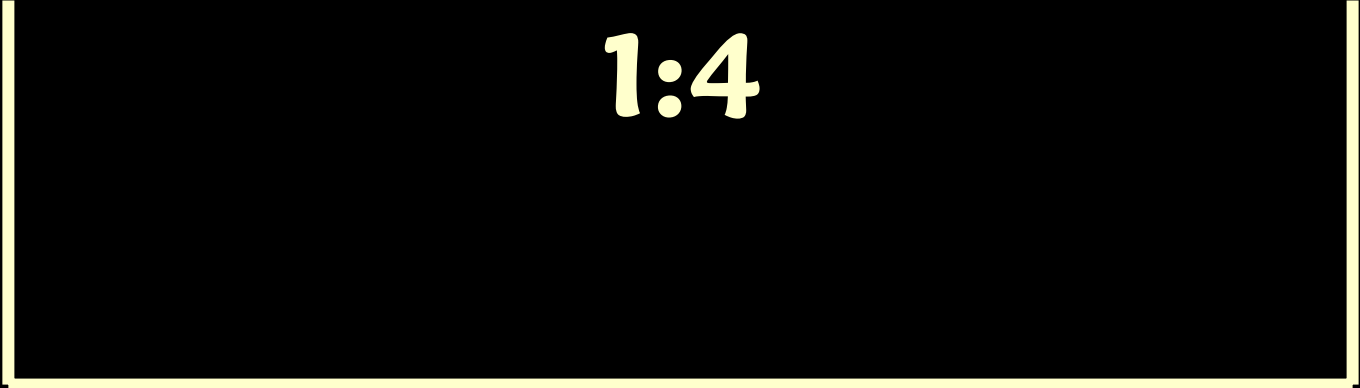


1:3





Height to Width Ratio



1:4





Pleasanton

Height to Width Ratio

1:16



St. Louis Area



Lakewood





San Francisco

Driggs





Bellows Falls



Lahaina

Character of Street Wall



Charlier Associates, Inc.



Santa Fe



Nashville



Nashville



Boulder

Victor



Traffic Buffering



Bainbridge Island



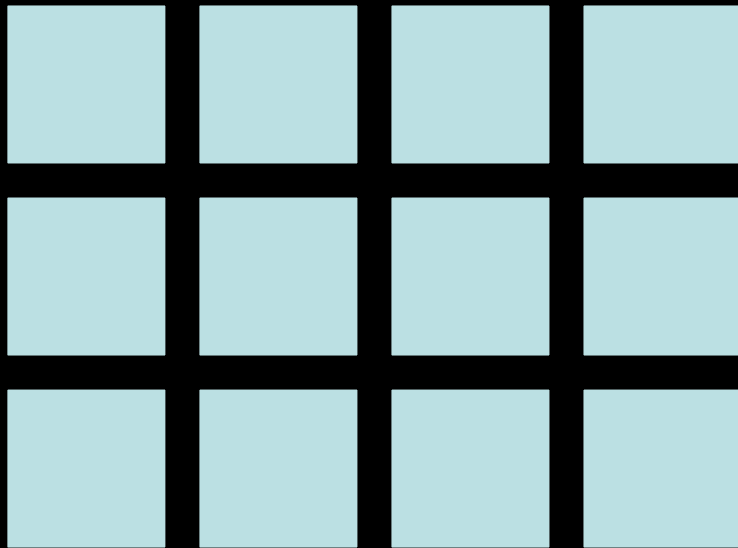
Boulder



Connectivity (Grain)

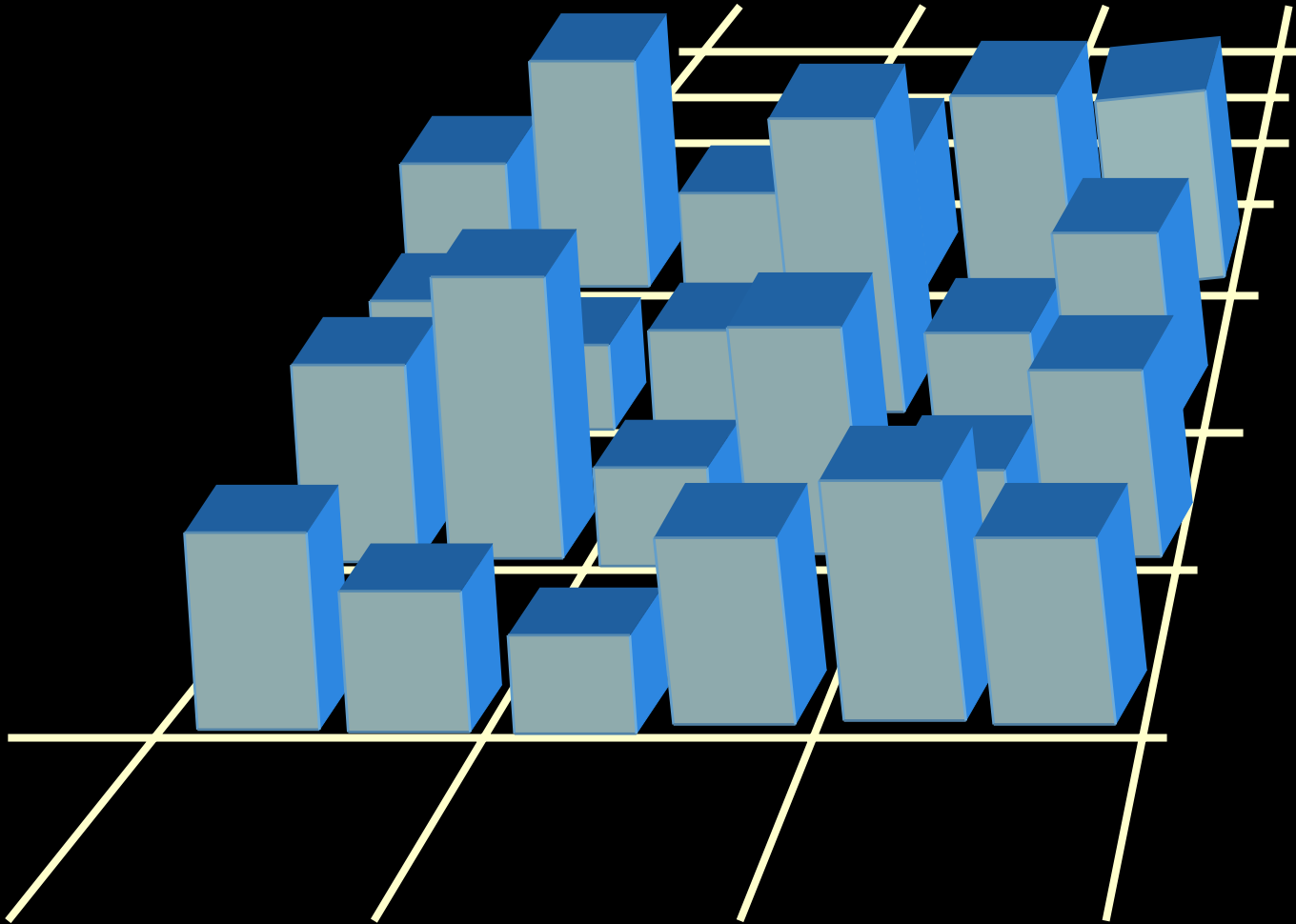


Pedestrian Networks



The ideal
pedestrian “grain”
is 250’ to 350’







Portland Pearl District

DOWNTOWN PORTLAND

This map illustrates the urban layout of downtown Portland, Oregon, centered around the Willamette River. Major transportation routes are clearly marked, including Interstate 5 (I-5), Interstate 30 (I-30), and various surface streets like Broadway, Main Street, and Commercial Street. The map highlights several key landmarks and areas of interest:

- Yellow Shaded Area:** The central downtown core, bounded roughly by the Willamette River to the east and the city center to the west.
- Landmarks:**
 - Civic Stadium:** Located near the center of the downtown core.
 - Oregon Convention Center:** Situated near the riverfront.
 - Memorial Coliseum:** Located near the riverfront, south of the convention center.
 - Lloyd Center:** A major shopping and business district located east of the downtown core.
 - OMSI (Oregon Museum of Science and Industry):** Located near the riverfront, south of the convention center.
 - University of Oregon Health Sciences Center:** Located near the riverfront, south of the convention center.
- Streets and Highways:** The map shows a dense network of streets, including major thoroughfares like Broadway, Main Street, and Commercial Street. Highways 30, 505, 405, 26, 99W, and 99E are also depicted.
- Geographical Features:** The Willamette River flows through the center of the map, with several bridges crossing it. Parks and green spaces are also indicated.



Image © 2006 Sanborn

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Pointer 45°31'42.24" N 122°40'40.69" W

Streaming 100%

Eve alt. 8384 ft







Portland Pearl District



Portland Pearl District



Guide to the new Pear



- 1 **Boyd's Coffee**
404 N.W. 11th Ave. / 226-2580
- 2 **Inner Bean**
925 N.W. Davis St. / 546-3275
- 3 **Pearl Bakery**
182 N.W. North Ave. / 827-0910
- 4 **Poot's Coffee & Tea**
1114 N.W. Couch St. / 867-2444
- 5 **Starbucks**
1134 N.W. Ginn St. / 221-7426
1182 N.W. Leasing St. / 223-5223

HOME DECOR

- 1 **Athena's Antiques**
621 N.W. Flamingo St. / 229-430-8338
- 2 **Bella Casa**
526 N.W. 14th Ave. / 222-5357
- 3 **Bernadette Brou**
1134 N.W. Everett St. / 226-6546
- 4 **Bodhi Tree**
223 N.W. Park Ave. / 247-6750
- 5 **Bon Chic**
404 N.W. 10th Ave., Ste. 100 / 52
- 6 **Capsule Homes**
615 N.W. Olsen St. / 325-4355
- 7 **Cargo**
724 N.W. 14th Ave. / 260-8349
- 8 **Christiane Millings Oriental Rugs**
280 N.W. 12th Ave. / 274-4440
- 9 **Cielo Home & Garden**
529 N.W. 12th Ave. / 445-8711
- 10 **Circa A.D.**
1204 N.W. Olsen St. / 221-1269

- 12 **Dieci Soli**
304 N.W. 17th Ave. / 222-4221
- 13 **Dig Gardens**
425 N.E. 17th Ave. / 223-4443
- 14 **East West Fusion**
408 N.E. 17th Ave. / 243-6006
- 15 **French Quarter Lin**
1313 N.E. Glen St. / 392-0250
- 16 **Gaillery Zen**
525 N.W. 10th Ave. / 221-3184
- 17 **Hunt & Gather**
1302 N.E. 16th St. / 227-5400
- 18 **J.D. Madison**
1301 N.E. Glen St. / 427-0032
- 19 **Khaden Tibetan Car**
1024 N.W. Glen St. / 227-1187
- 20 **LaZhu-Pacific Trad**
221 N.E. 17th Ave. / 243-8914
- 21 **Lux Lighting**
1109 N.W. Glen St. / 399-4754
- 22 **Möbiwerks**
130 N.W. 10th Ave. / 343-2444
- 23 **Moberg Fireplaces**

740 N.W. 11th Ave. / 224-5481
 11 Sur In Table
 1102 N.W. 10th St. / 295-0505
 12 Susan Hebert Imports
 1221 N.W. 8th St. / 240-1711
 13 Sweetwater Fashions
 1307 N.W. 8th St. / 222-4843
 14 Ten Thousand Villages
 914 N.W. Everett St. / 231-0535
 15 Versailles in the City
 904 N.W. 8th St. / 222-2307
 16 What the Wind Bites
 422 N.W. 13th Ave. / 224-0999
 17 The Whole 9 Yards
 1033 N.W. Glisan St. / 223-2919
 18 Zocalo Imports
 222 N.W. 10th Ave. / 224-0678

• CLOTHING AND ACCESSORIES

1 Aubergine
 1100 N.W. Glisan St. / 223-2531

- 4 Gold Leaf Fine
524 N.W. 12th Ave. / 321-5
- 7 Hanna Andersen
227 N.W. 10th Ave. / 321-5
- 8 Henry Ponry
405 N.W. 10th Ave. / 222-7
- 9 Judith Arnell Jr.
717 N.W. 11th Ave. / 257-4
- 10 Monique's Boutique
425 N.W. 10th Ave. / 224-7
- 11 Odessa
718 N.W. 11th Ave. / 233-15
- 12 Patagonia
967 N.W. Irving St. / 525-2
- 13 Physical Elements
1134 N.W. Lemay St. / 224-6
- 14 Widney Moore
992 N.W. 13th Ave. / 223-4

• GALLERIES

- 15 Alyssa Duckler
1236 N.W. 8th St. / 223-7
- 16 Blackfish

- 7 Friedart Studio
1306 N.W. Hoyt St. / 225
- 8 Gallery 33
1400 N.W. Everett St. / 21
- 9 Harvey & Stone
530 N.W. 12th Ave. / 225
- 10 Janice Griffith
1301 N.W. 12th Ave. / 225
- 11 Lara Sydney
1230 N.W. Hoyt St. / 225
- 12 The Lawrence
903 N.W. Davis St. / 228
- 13 Mailroom
512 N.W. North Ave. / 230
- 14 Mark Woolley
126 N.W. North Ave. / 230
- 15 PGX Contemporary
604 N.W. 12th Ave. / 225
- 16 Pearl
221 N.W. 18th Ave. / 245
- 17 Phillip Feldman
1241 N.W. Johnson St. / 230
- 18 Print Arts No

43 Waterston
 454 N.W. 72nd Ave. /
 44 Yoshida's P
 206 N.W. 103rd Ave. /
 MISCELLANEOUS
 1 BASCO (Build
 Equipment Supp
 7411 N.W. Davis St.
 2 City Flower
 124 N.W. 16th Ave. /
 3 Daisy King's
 134 N.W. Eighth Ave.
 4 Desperado
 428 N.W. 11th Ave. /
 5 Oblation Pr
 & Press
 515 N.W. 12th Ave. /
 6 Peter's Off
 238 N.W. Ninth Ave.
 7 Powell's Cit
 1805 S.W. Burnside St.
 8 R.W. Furst
 282 N.W. 11th Ave. /

4196
Art
 3971
NEOUS
 r's
 (Co.)
 9029
Interiors
 4780
 9-9633
 2592
rs
 9093
Supply
 1490
of Books
 8-4638
ons
 7094

2 Pinnacle
 R.R. 9519 and North
 2965
 2 Lexis App
 1125 N.W. 10th Ave.
 911 N.W. 10th St.,
 2 Station
 R.R. North Ave. and
 2964
 2 Brewery
 R.R. 7119 Ave. and
 2965
 2 Burlington
 900 N.W. Lemay St.
 2964

PARKS
 2 Jamison
 2 North Pr
 2964

St., 176 co
ments
39 rentals,
rental unit, 2
ce
ing St., 171
ocks
St., 144
apartme
63 rentals,
quare, 28
Square

Weather Protection (sun, rain)





Boulder

Land Use Mix



Charlier Associates, Inc.



Boulder

What is *Auto Dominated*?

Evaluation Tools







Factors: “Auto Dominated”

- Vehicle speeds
- Roadway width
- Presence or absence of buffers
- Ratio of ped space to auto space





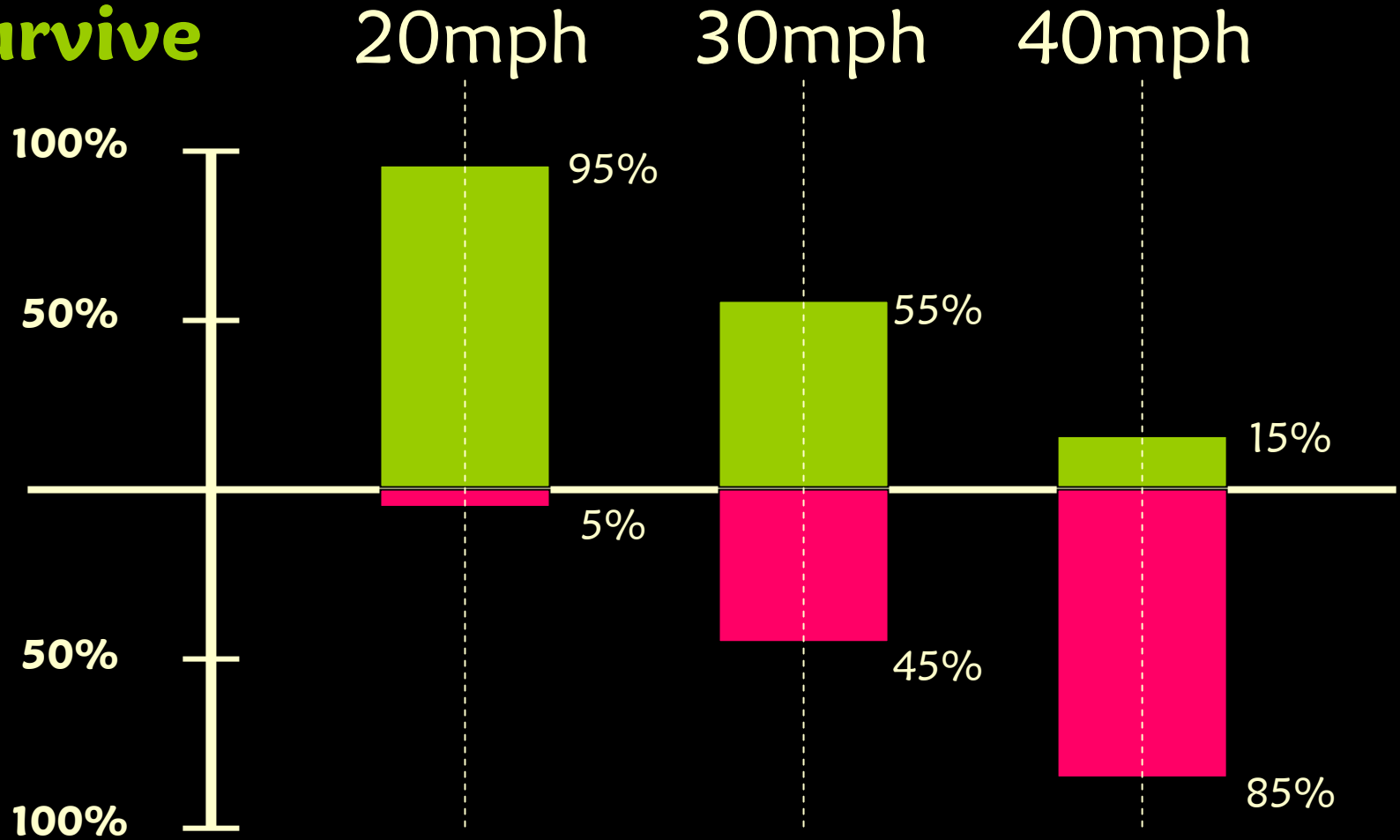
Aurora



Aurora

Pedestrian Survival Rates – Vehicle Speeds

% survive



% die



Driggs





Pedestrian Crossing Time

Curb Extensions: **YES**

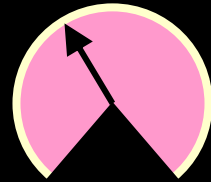
Lane Width: **12 ft**

Walk Speed: **250 fpm**

Seconds: 5 10 15 20 25



Vehicle Approach Time



25 mph

Feet:

200

400

600

800

1000

1200

1400

2 lane w/ parking

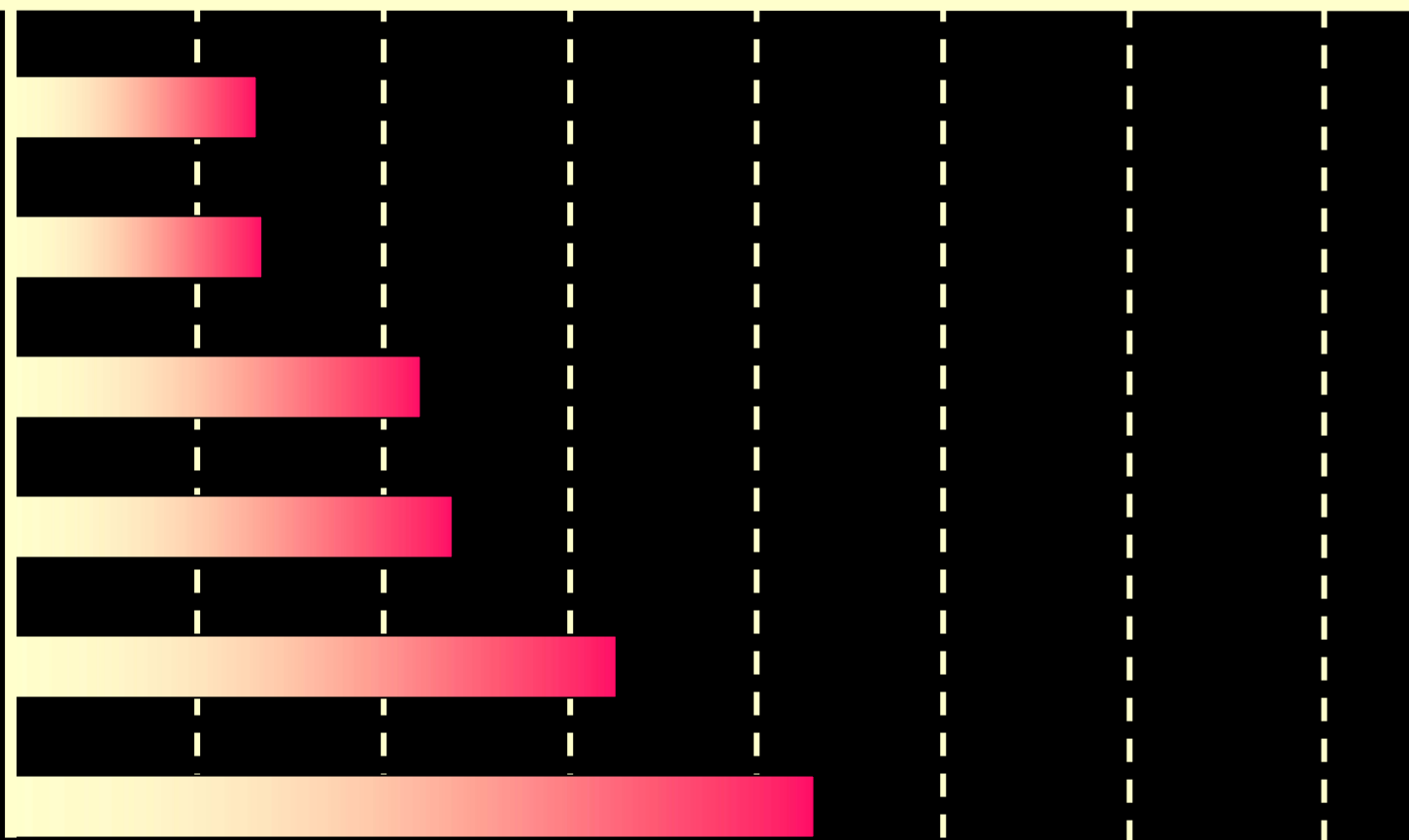
3 lane w/ parking

4 lane no parking

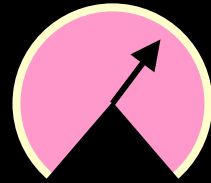
4 lane w/ parking

6 lane no parking

8 lane no parking



Vehicle Approach Time



45 mph

Feet:

200

400

600

800

1000

1200

1400

2 lane w/ parking

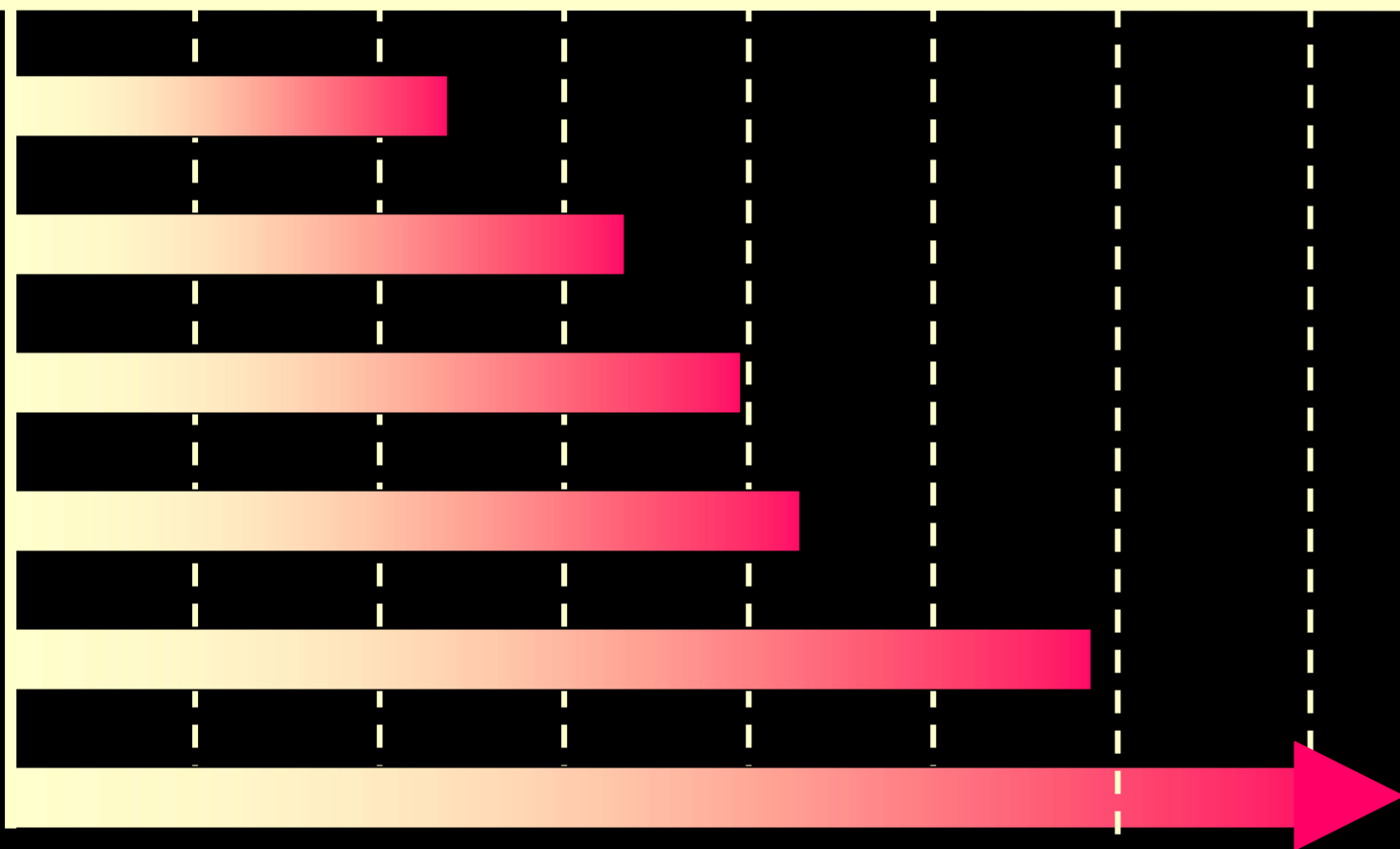
3 lane w/ parking

4 lane no parking

4 lane w/ parking

6 lane no parking

8 lane no parking





STATE LAW
YIELD
TO PEDESTRIANS
IN CROSSWALK



STATE LAW
YIELD
TO PEDESTRIANS
IN CROSSWALK



STATE LAW
YIELD
TO PEDESTRIANS
IN CROSSWALK



Pedestrian Crossing Time

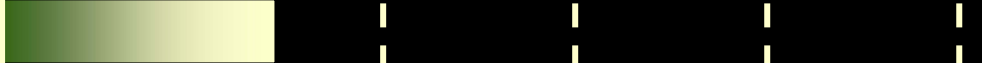
Curb Extensions: **YES**

Lane Width: **12 ft**

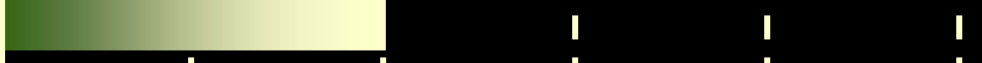
Walk Speed: **250 fpm**

Seconds: 5 10 15 20 25

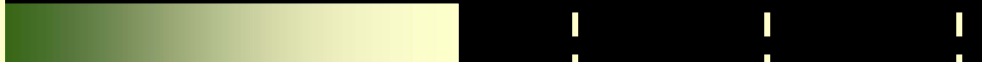
2 lane w/ parking



3 lane w/ parking



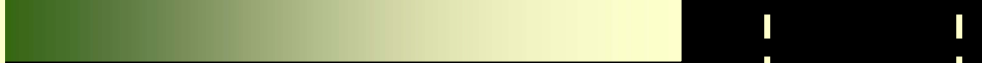
4 lane no parking



4 lane w/ parking



6 lane no parking



8 lane no parking



Pedestrian Crossing Time

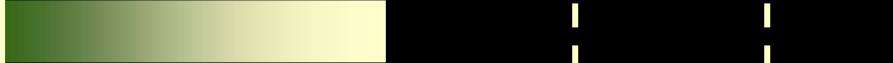
Curb Extensions: **NO**

Lane Width: **12 ft**

Walk Speed: **250 fpm**

Seconds: 5 10 15 20 25

2 lane w/ parking



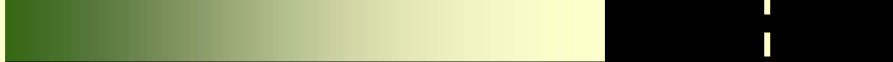
3 lane w/ parking



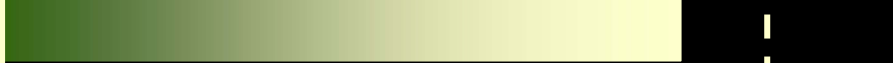
4 lane no parking



4 lane w/ parking



6 lane no parking



8 lane no parking





Pedestrian Crossing Time

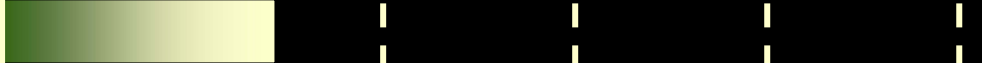
Curb Extensions: **YES**

Lane Width: **12 ft**

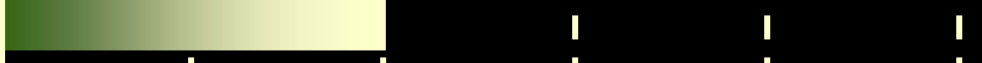
Walk Speed: **250 fpm**

Seconds: 5 10 15 20 25

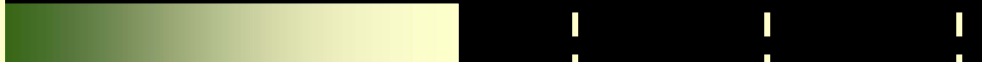
2 lane w/ parking



3 lane w/ parking



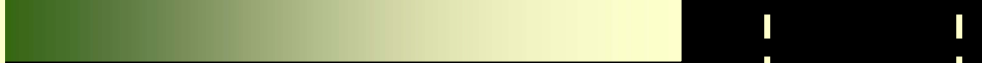
4 lane no parking



4 lane w/ parking



6 lane no parking



8 lane no parking



Pedestrian Crossing Time

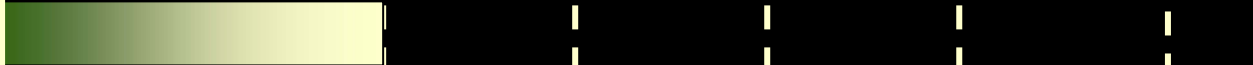
Curb Extensions: **YES**

Lane Width: **12 ft**

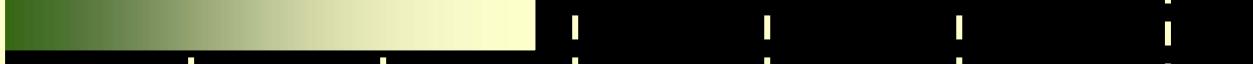
Walk Speed: **180 fpm**

Seconds: 5 10 15 20 25 30

2 lane w/ parking



3 lane w/ parking



4 lane no parking



4 lane w/ parking



6 lane no parking

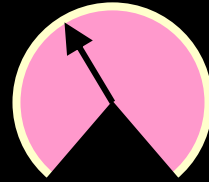


8 lane no parking



Vehicle Approach Time

Walk Speed: 250 fpm



25 mph

Feet:

200

400

600

800

1000

1200

1400

2 lane w/ parking



3 lane w/ parking



4 lane no parking



4 lane w/ parking



6 lane no parking

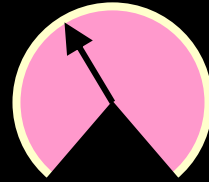


8 lane no parking



Vehicle Approach Time

Walk Speed: 180 fpm



25 mph

Feet:

200

400

600

800

1000

1200

1400

2 lane w/ parking

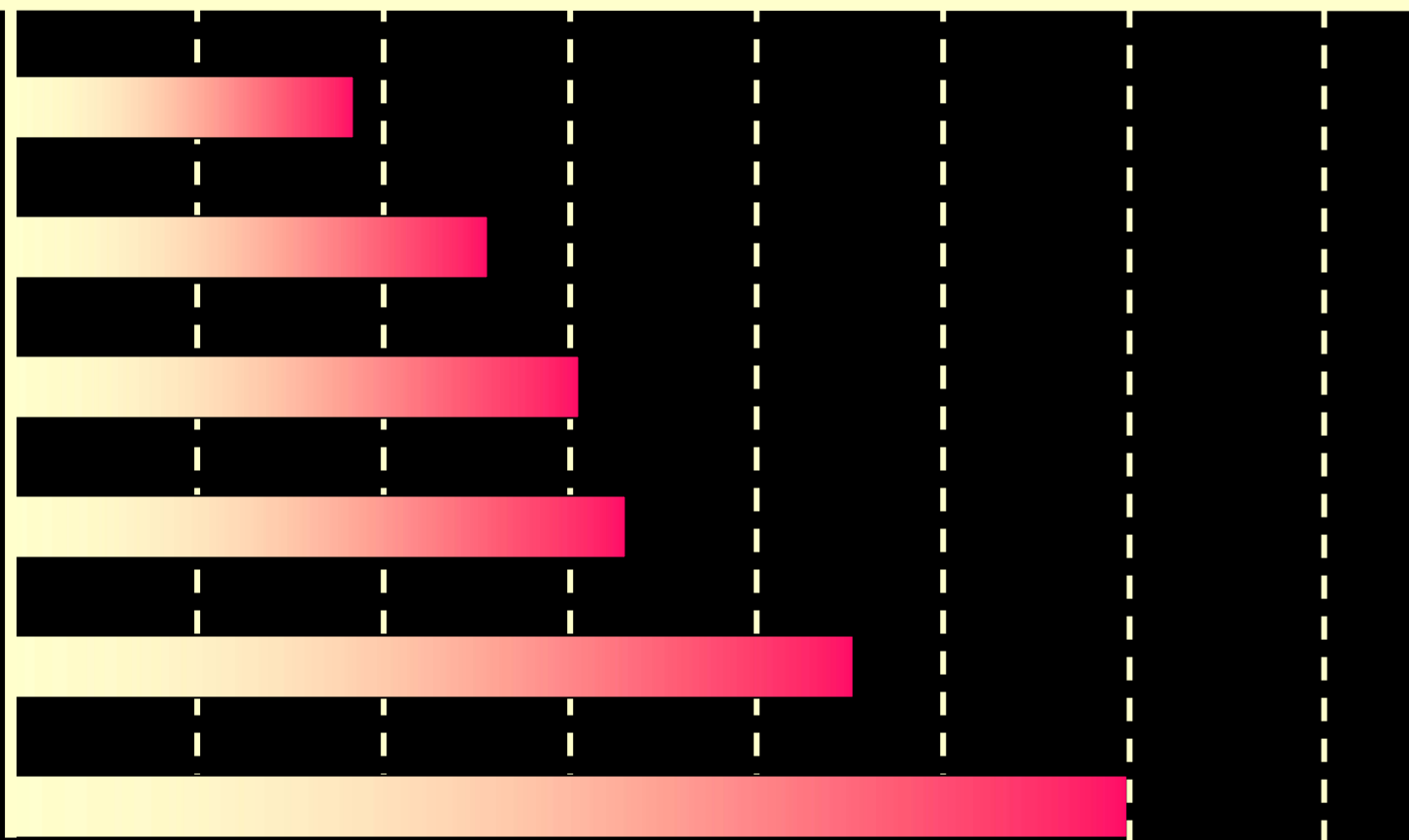
3 lane w/ parking

4 lane no parking

4 lane w/ parking

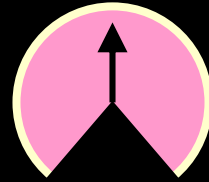
6 lane no parking

8 lane no parking



Vehicle Approach Time

Walk Speed: 180 fpm



35 mph

Feet:

200

400

600

800

1000

1200

1400

2 lane w/ parking

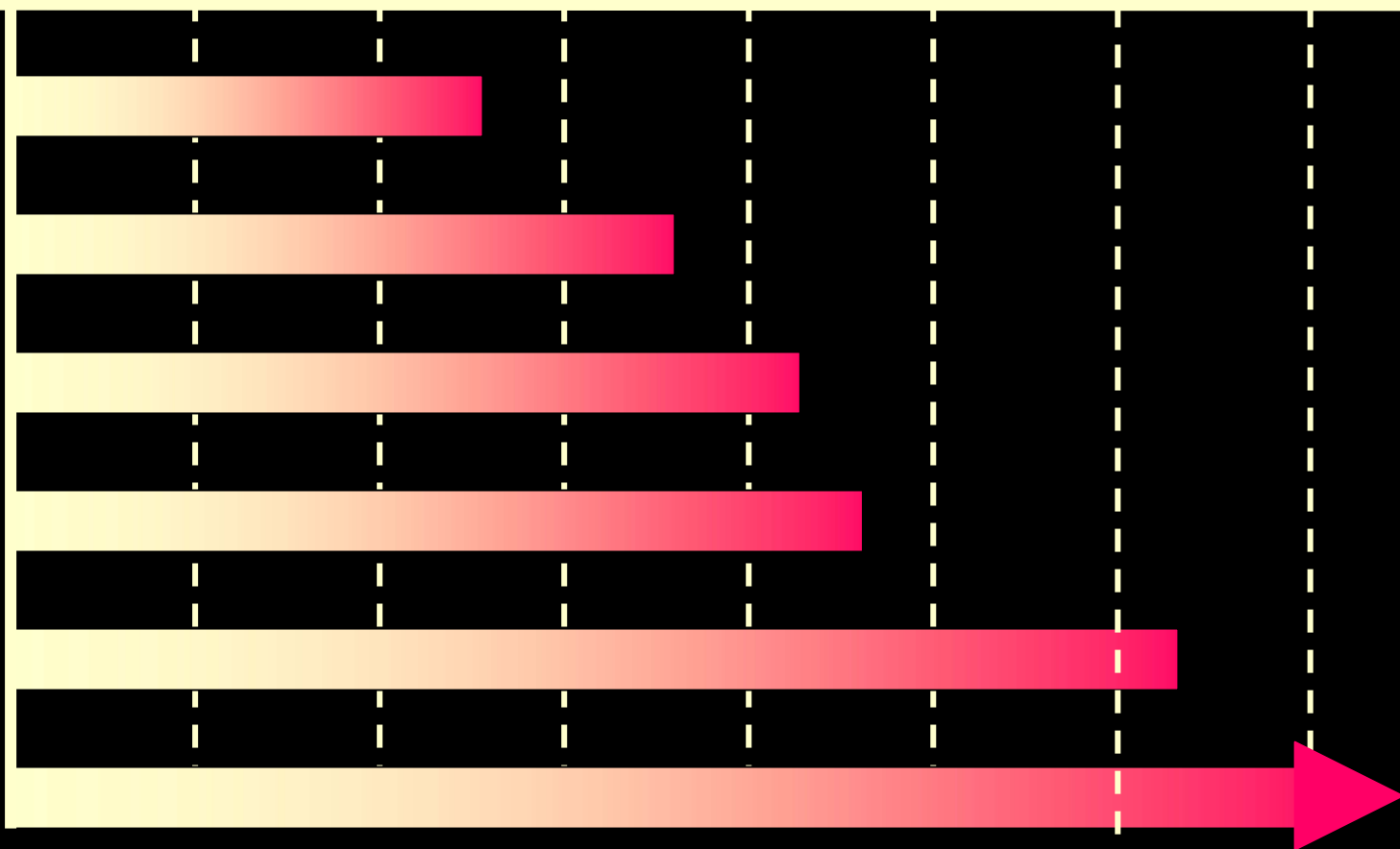
3 lane w/ parking

4 lane no parking

4 lane w/ parking

6 lane no parking

8 lane no parking



Criteria: Auto Dominated

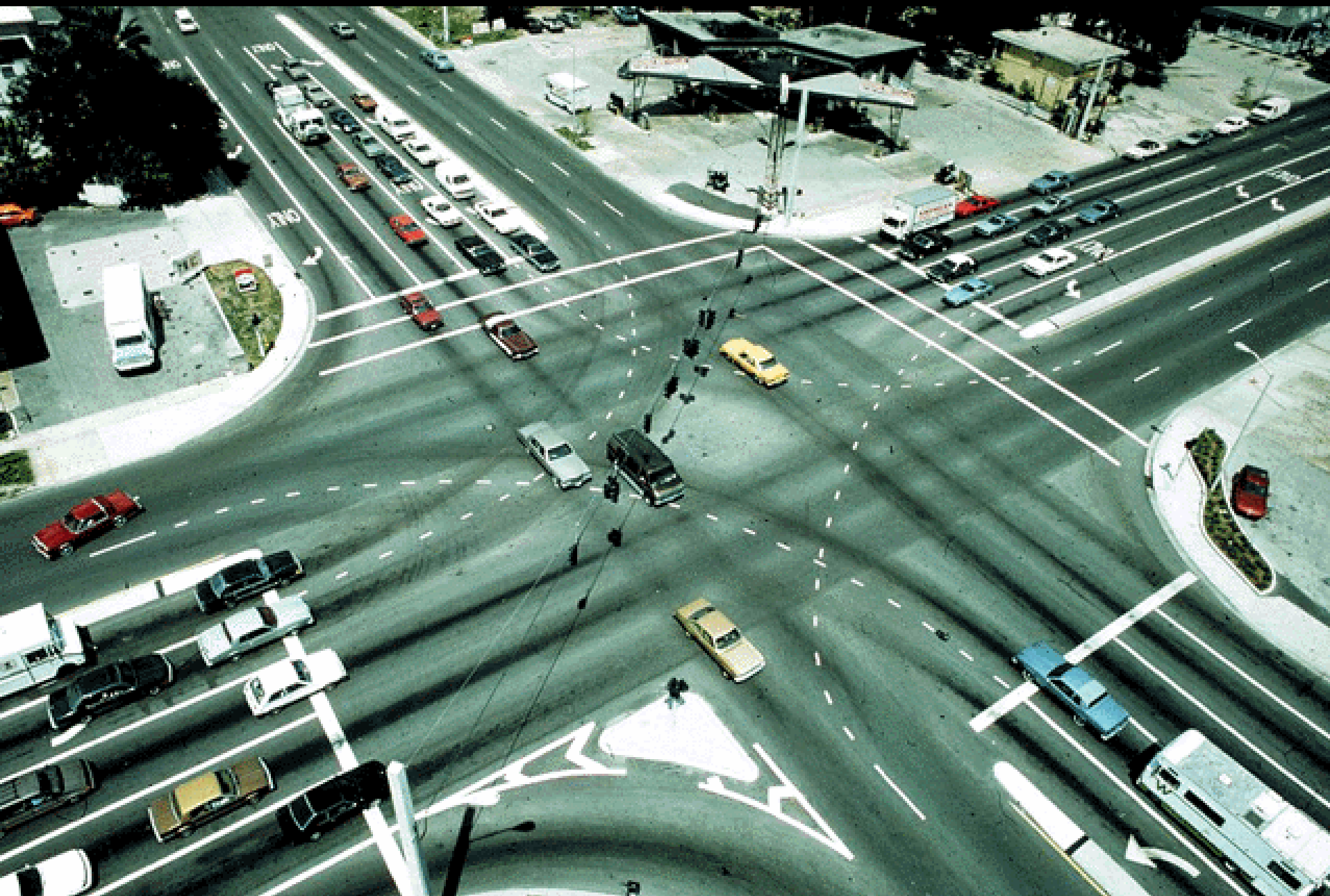
- Vehicle speeds 25 mph
- Roadway width 42 ft
- Buffers Yes
- Ratio ped space : street 1 to 1.5



Criteria: Auto Dominated

- Vehicle speeds 45 mph
- Roadway width 72 ft
- Buffers No
- Ratio ped space : street 1 to 5









Setting Priorities

Evaluation Tools







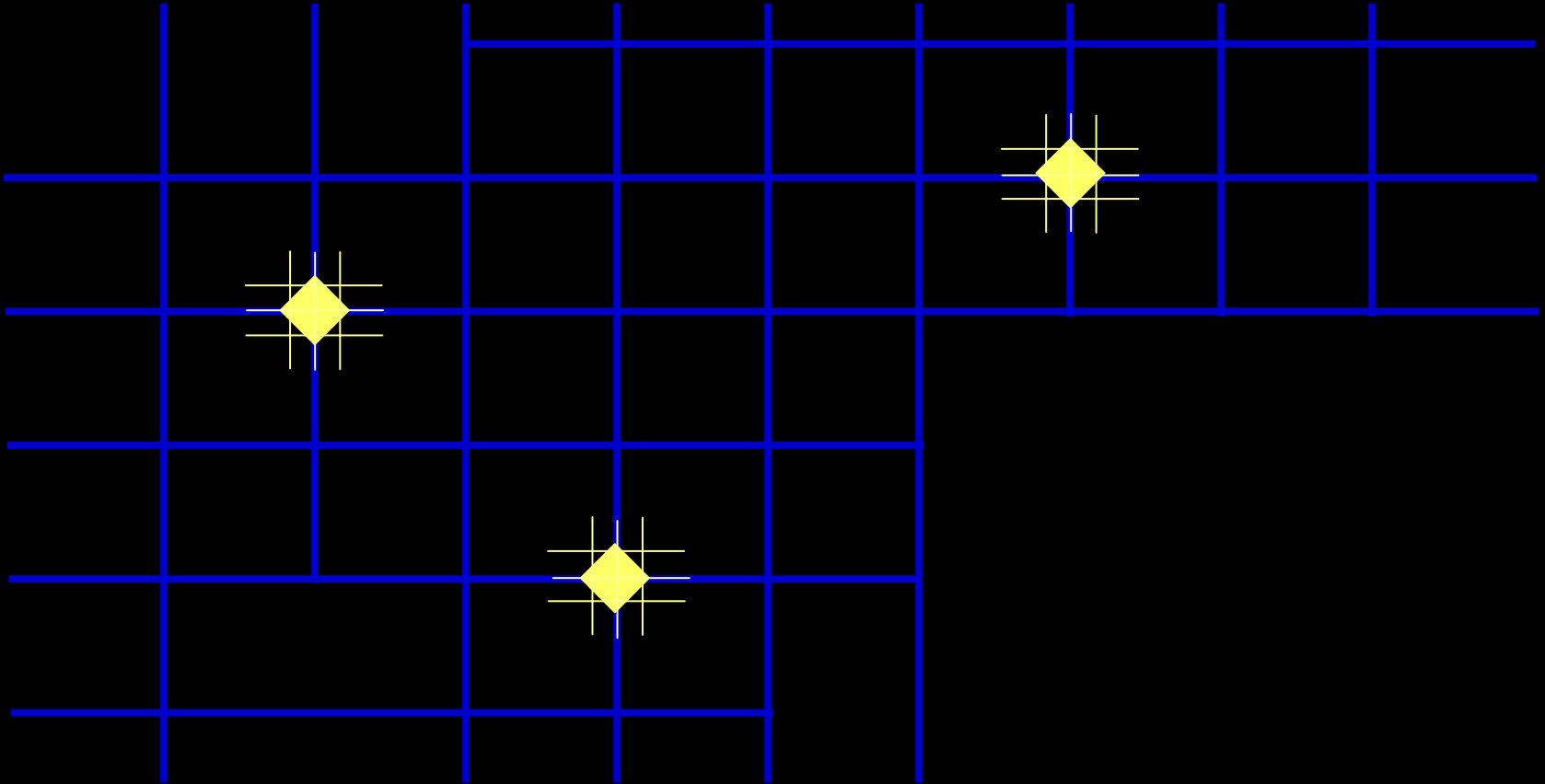
SPEED
LIMIT
35

Boulder

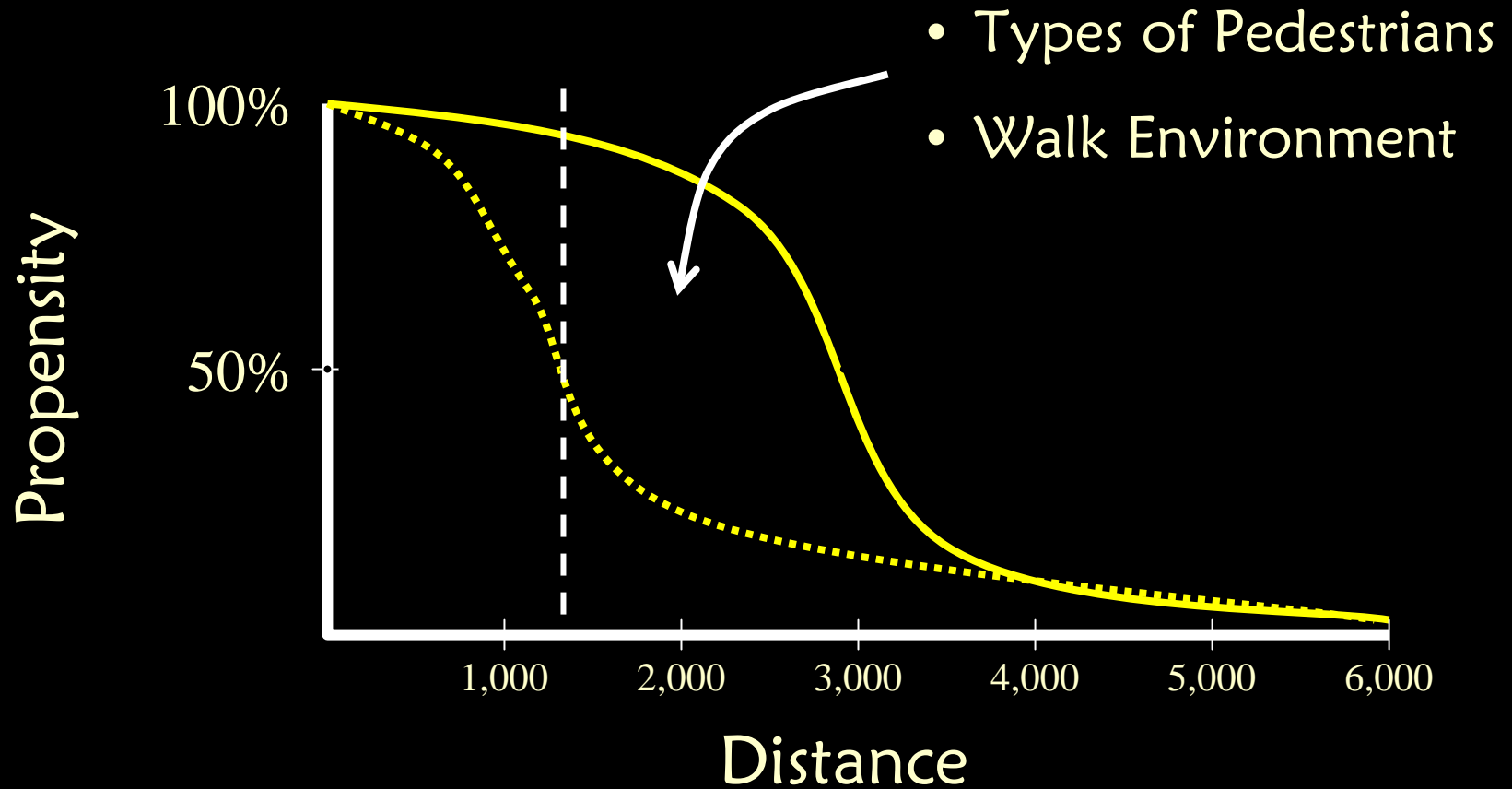


Boulder

Real-World Pedestrian Structure (Nodes and Corridors)



Pedestrian Walk Distance



Boulder





Winter Park



Thank You