



## Transforming Aging Corridors: Creating Great Streets and Places

# REJUVENATING CORRIDORS

- Streets Are Sized For Automobiles Rather Than For People
- Streets Often Serve The Suburbs and Not the Cities Through Which They Run
- Entire Corridors Often Zoned For Retail, Rather Than A Variety of Uses
- The United States Is Chronically “Over-Retailed”
- The Tax Base of American Cities Is Overly Dependent Upon Retail
- Multiple Land Ownerships Make Redevelopment Challenging
- Infrastructure Is Aging
- The Time for Planning and Redevelopment Is Now!





- Residential
- Neighborhood Retail (South Grand District)
- Commercial Core
- Park/Open Space

① **Gateway Opportunity**  
Access onto South Grand from major East/West Arterial.

② **Gateway Opportunity**  
Beginning of South Grand District, neighborhood retail hub.

③ **Gateway Opportunity**  
Logical location to condense traffic, major intersection.

#### Existing Conditions Inventory

- Posted speed limit on South Grand = 25 mph
- 85% of vehicles travel 42 mph on South Grand
- Approximate travel time from South Grand District to downtown St Louis = 10 min (via car)
- An average of 23,000 vehicles travel through the South Grand District per day
- Existing roadway width (and pedestrian crossing distance) = 56'
- 80' ROW with 4 travel lanes and 2 parallel parking lanes
- Existing sidewalks = 11.5' wide

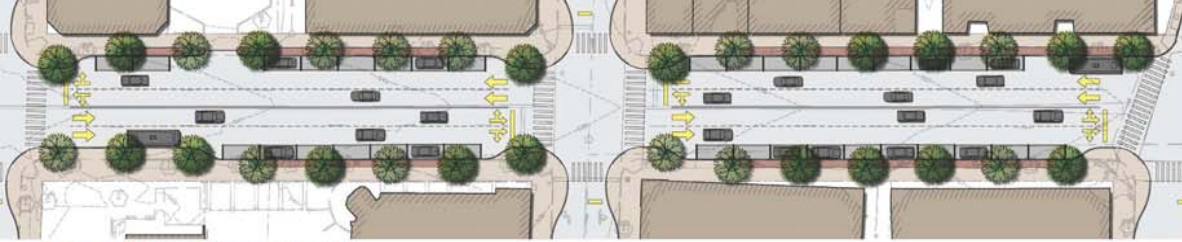


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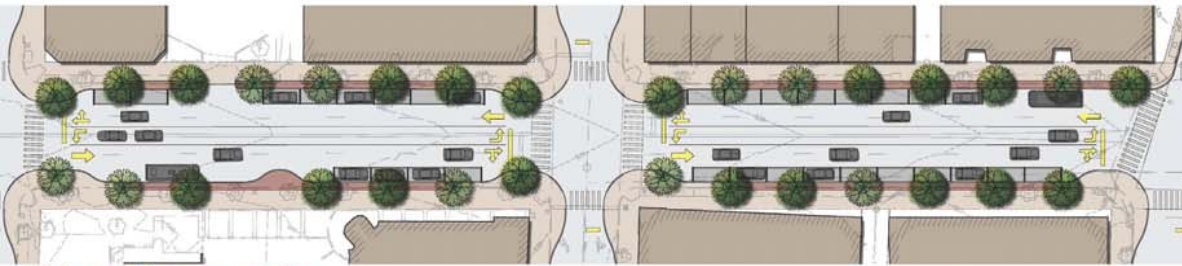
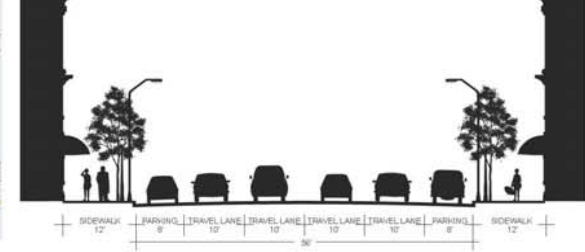
# PUBLIC PROCESS



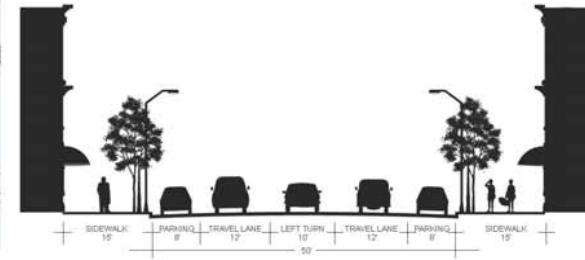
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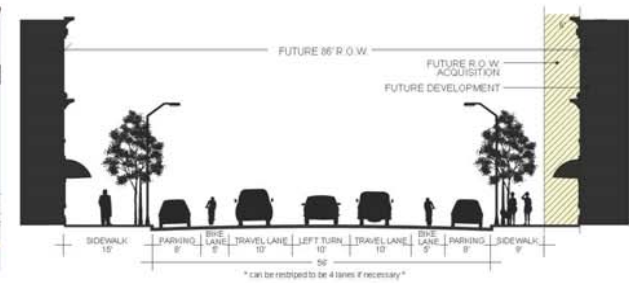
4 Lane Basic Enhancement



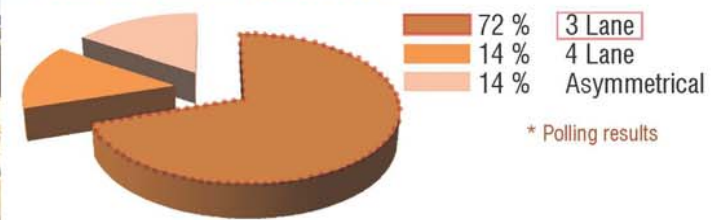
3 Lane Enhancement Plus



3-4 Asymmetrical (contingent upon ROW acquisition, may be re-striped for 4 lanes)



I prefer the following future street?



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Typical Block Plan

- ① Outdoor Dining
- ② Pervious Parking Lane
- ③ Rain Garden
- ④ Left-Turn Lane
- ⑤ Travel Lane/Bike Sharrow
- ⑥ Bus Shelter
- ⑦ Bus Stop
- ⑧ Accessible Parking Space
- ⑨ Pervious Concrete Sidewalk
- ⑩ Intersection Bulbout
- ⑪ Proposed Street Tree
- ⑫ Street Lamp
- ⑬ Planting Area



Typical Block Cross Section

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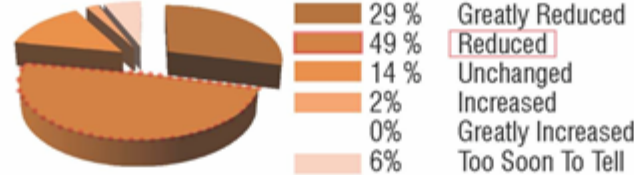




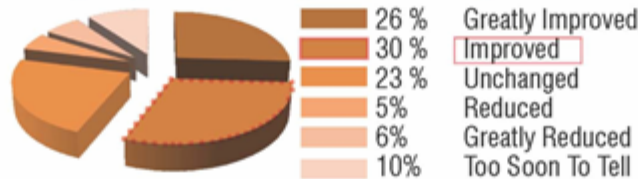
### Overall Design Strategy

- 1 Remove Alley Curb-Cuts
  - Create access from side-streets
  - Eliminate vehicular/pedestrian conflicts
  - Create opportunities for urban parks
- 2 Improve Accessibility
  - Provide minimum of one accessible parking space per block
  - Provide clear accessible path along sidewalk
  - Provide accessible curb ramps at every intersection
- 3 Bus Stop Circulation
  - Provide efficient bus stop circulation with bus pull-offs
  - Plan bus stops for future tandem buses
- 4 Street Lighting
  - Create lighting plan consistent with Dark Sky requirements
  - Improve pedestrian safety by introducing appropriate light levels, according to city standards
- 5 Improved Crosswalks
  - Reduce crossing distance
  - Use visual and audio cues to help orient the visual and hearing impaired

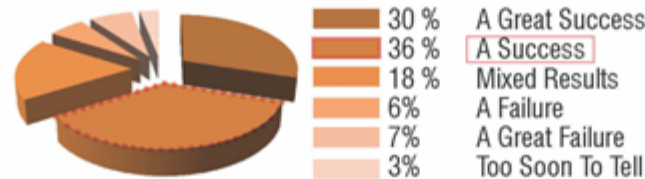
### During the pilot test, I feel automobile speeds were:



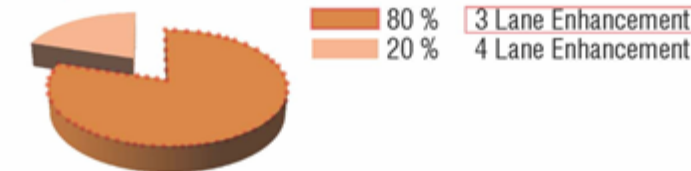
### During the pilot test, I feel pedestrian safety was:



### How would you assess the pilot test of the three lane option?



### The plan for South Grand I prefer is:



Pilot Test Photo

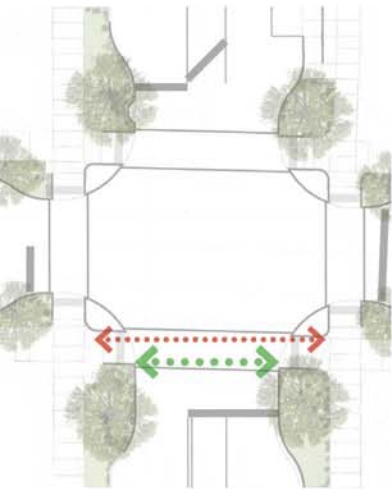
### Considering the master plan, should the three lane section be extended all along the South Grand Corridor?



\* Polling results

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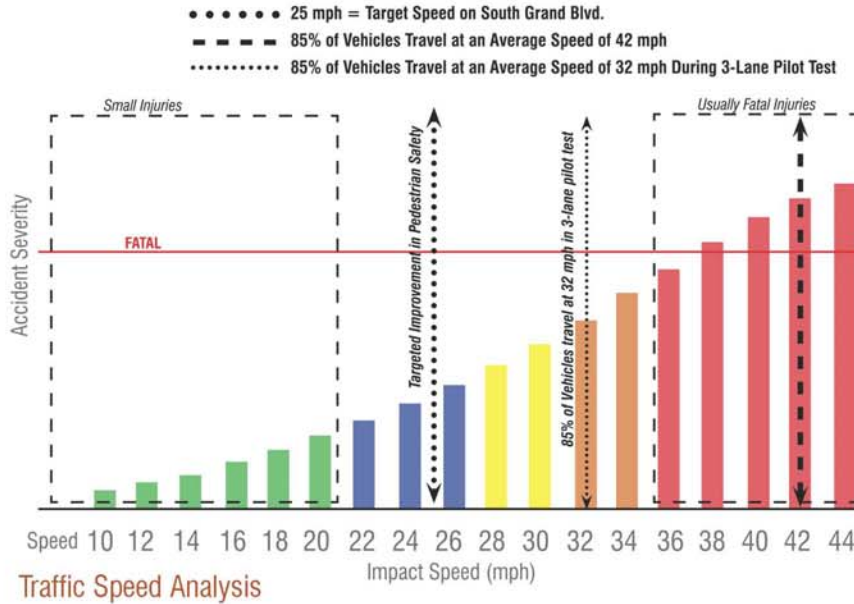


Crosswalk Distance

- Existing Crossing Distance = 56'
- Proposed Crossing Distance = 37'

**Human Comfort Metrics**

**Crosswalk Timing/Distance**  
 Decrease crosswalk distance to less than 40'. Time crosswalk signals to 2.5'/second (target for visually impaired and elderly).



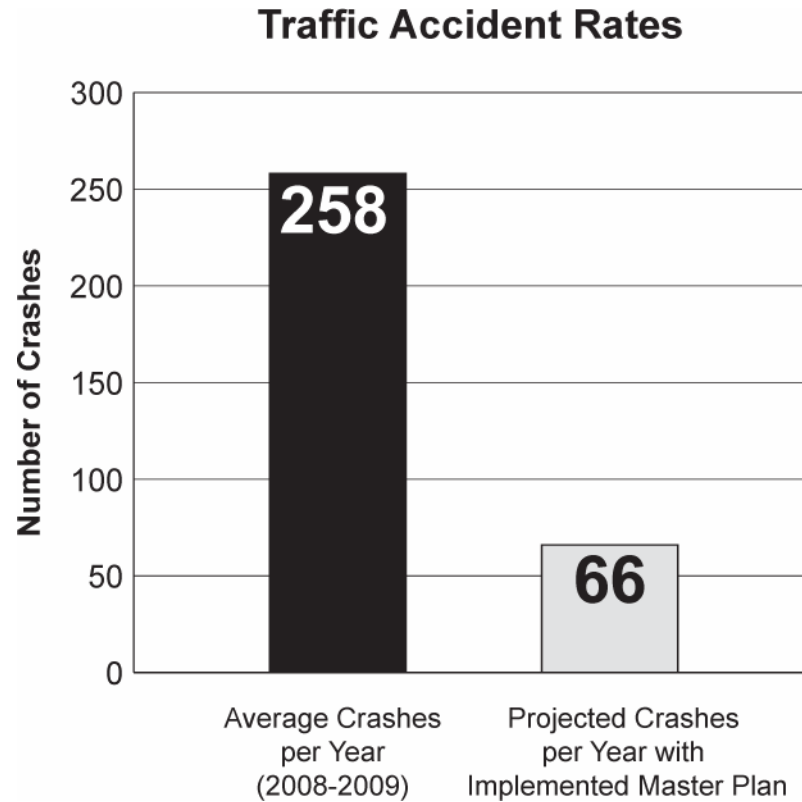
**Traffic Speed**  
 Reduce average traffic speed to posted speed limit by narrowing the roadway, providing intersection bulbouts and adjusting signal timing.

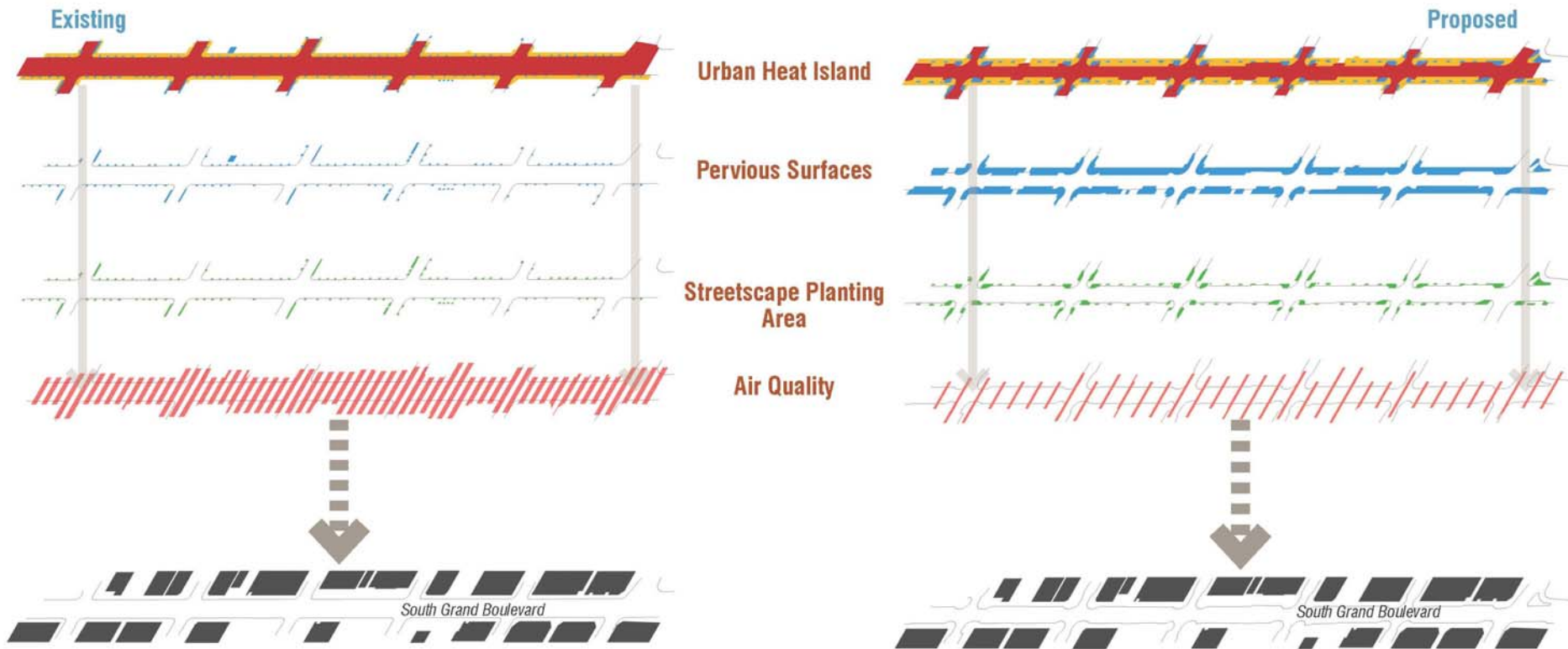
**Accidents**  
 Decrease average number of annual accidents from by 20% by creating a safer and more efficient street.





# Metrics





**Environmental Metrics**

**Urban Heat Island**

Reduce peak temperature in streetscape environment by average of 5-7 degrees through low albedo materials and increasing planted areas.

**Pervious Surfaces**

Increase opportunity for pervious surfaces from 2% to 50% of ROW by utilizing porous pavement, increasing planting areas and constructing rain gardens.

**Planting Areas**

Increase opportunity for streetscape planting areas from 2% to 15% of ROW by narrowing South Grand Boulevard and creating bulbouts for rain gardens.

**Air Quality**

Reduce vehicle emissions by 50% by calming traffic by 15 mph, reducing stopping times and reducing traffic lanes.

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- ① Pervious Concrete Sidewalk
- ② Seatwall Faced with Recycled Brick
- ③ Ornamental Planter Fence
- ④ Parking Lane with Pervious Paving
- ⑤ Willow Oak Street Trees
- ⑥ 3-Lane Traffic Plan
- ⑦ Rain Garden
- ⑧ Identity Banner
- ⑨ Reused Street Lamp with High Efficiency Bulb



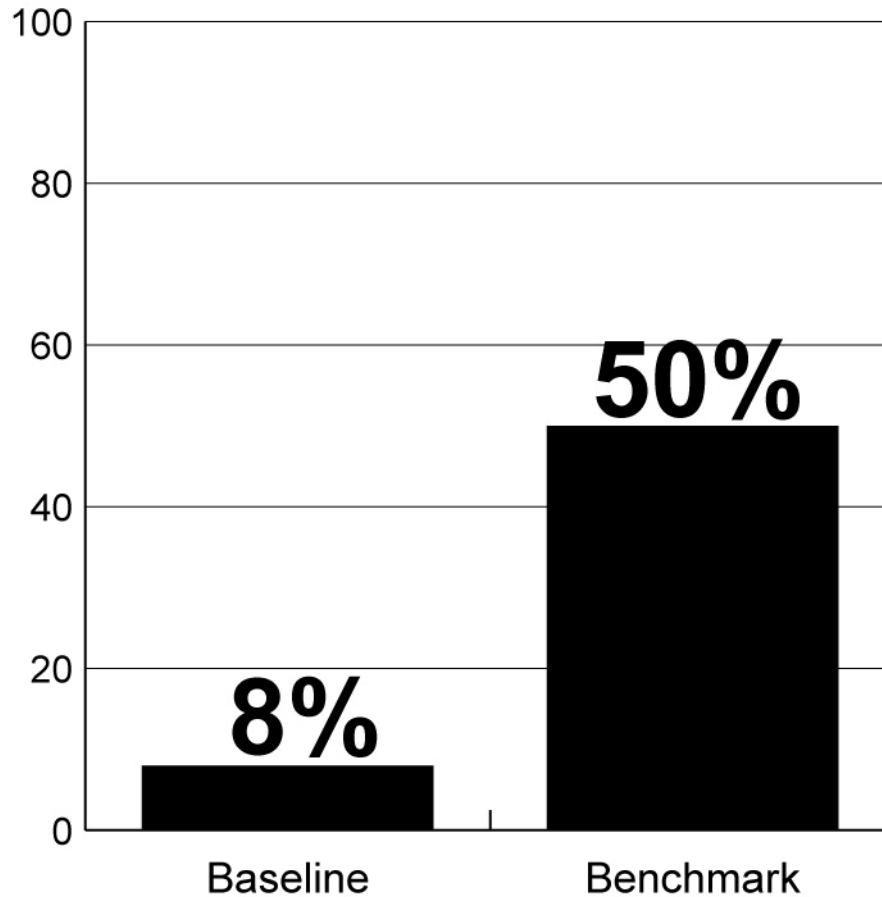
Streetscape Rain Garden and Seating Area



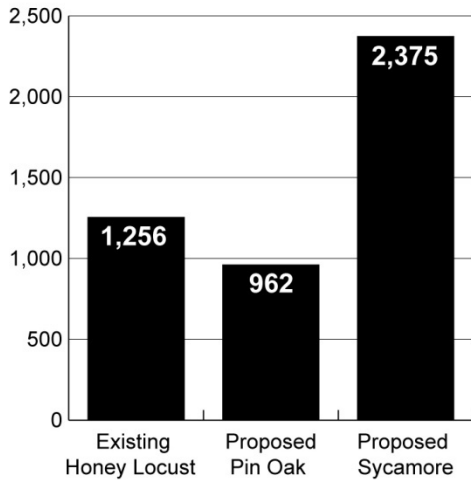
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## Assessment of Visual Quality

Percentage of Responses “Good” or “Very Good”

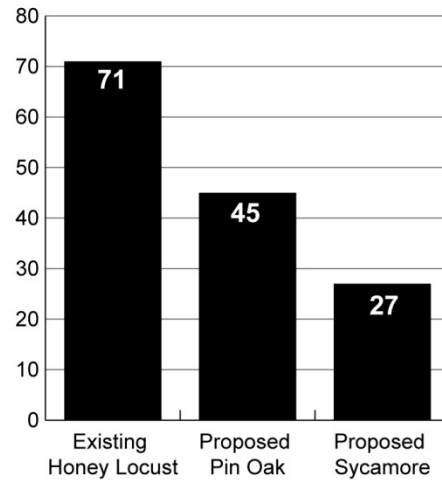


**Tree Canopy**  
(square feet per tree)



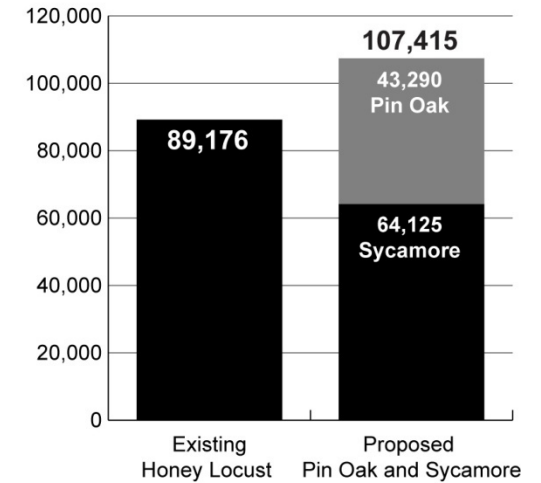
**X**

**Number of Trees**



**=**

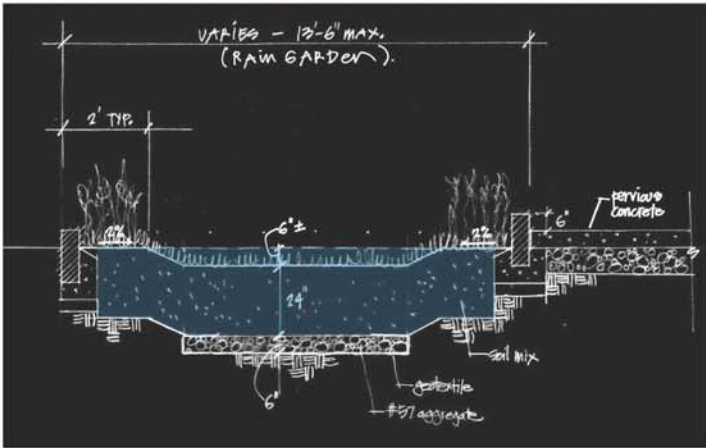
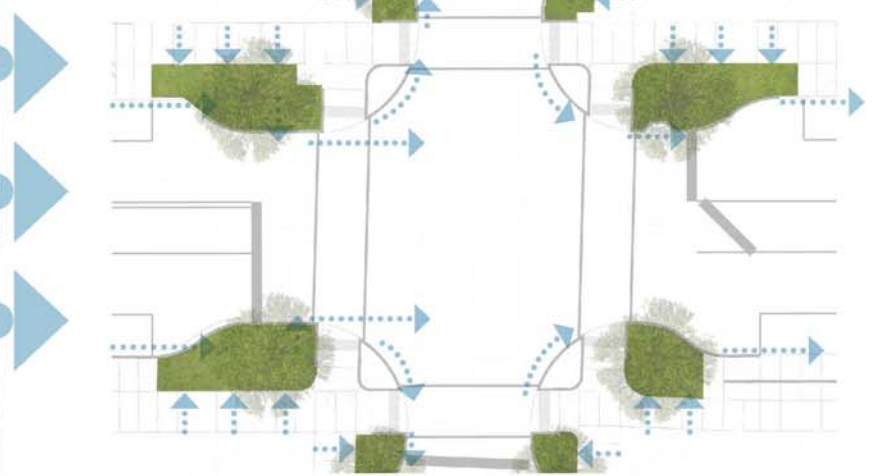
**Tree Canopy**  
(total square feet)



*Midwest Community Tree Guide Benefits, Costs, and Strategic Planning (USFS/USDA):*

*Definition of canopy cover: the area of land surface that is covered by tree canopy, as seen from above (measured in square feet)*





*Iris fulva*



*Lobelia cardinalis*



*Cephalanthus occidentalis*



*Penstemon digitalis*



*Carex vulpinoidea*



*Phlox paniculata*



*Asclepias tuberosa*



*Baptisia australis*



*Echinacea purpurea*

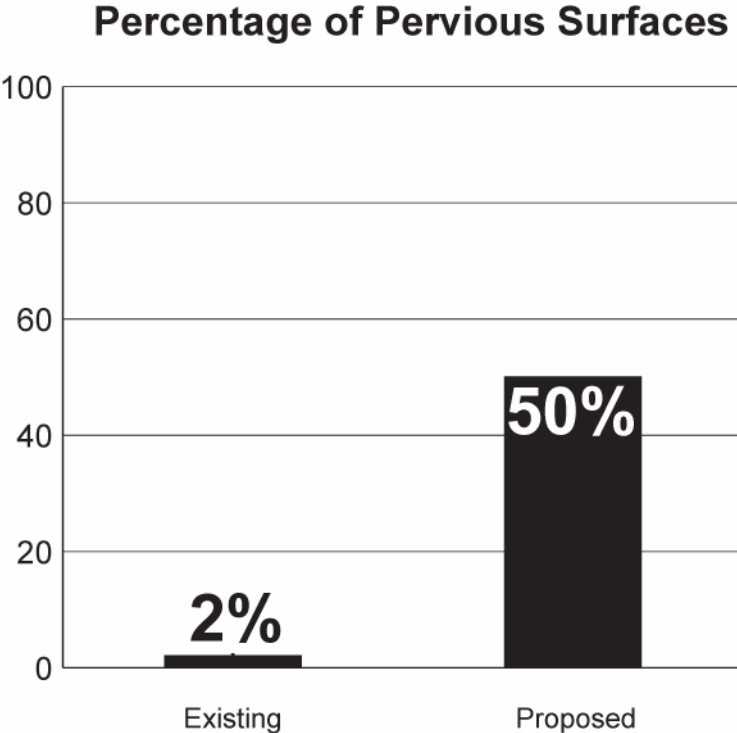


*Sporobolus heterolepis*



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# Metrics





Existing Streetscape Photo

- ① Outdoor Dining Space
- ② ADA Compliant “Clear Pedestrian Zone”
- ③ Tree Pit Planter Area
- ④ Permeable Pavers In Parking Lane
- ⑤ Intersection Bulbout



Moving Forward



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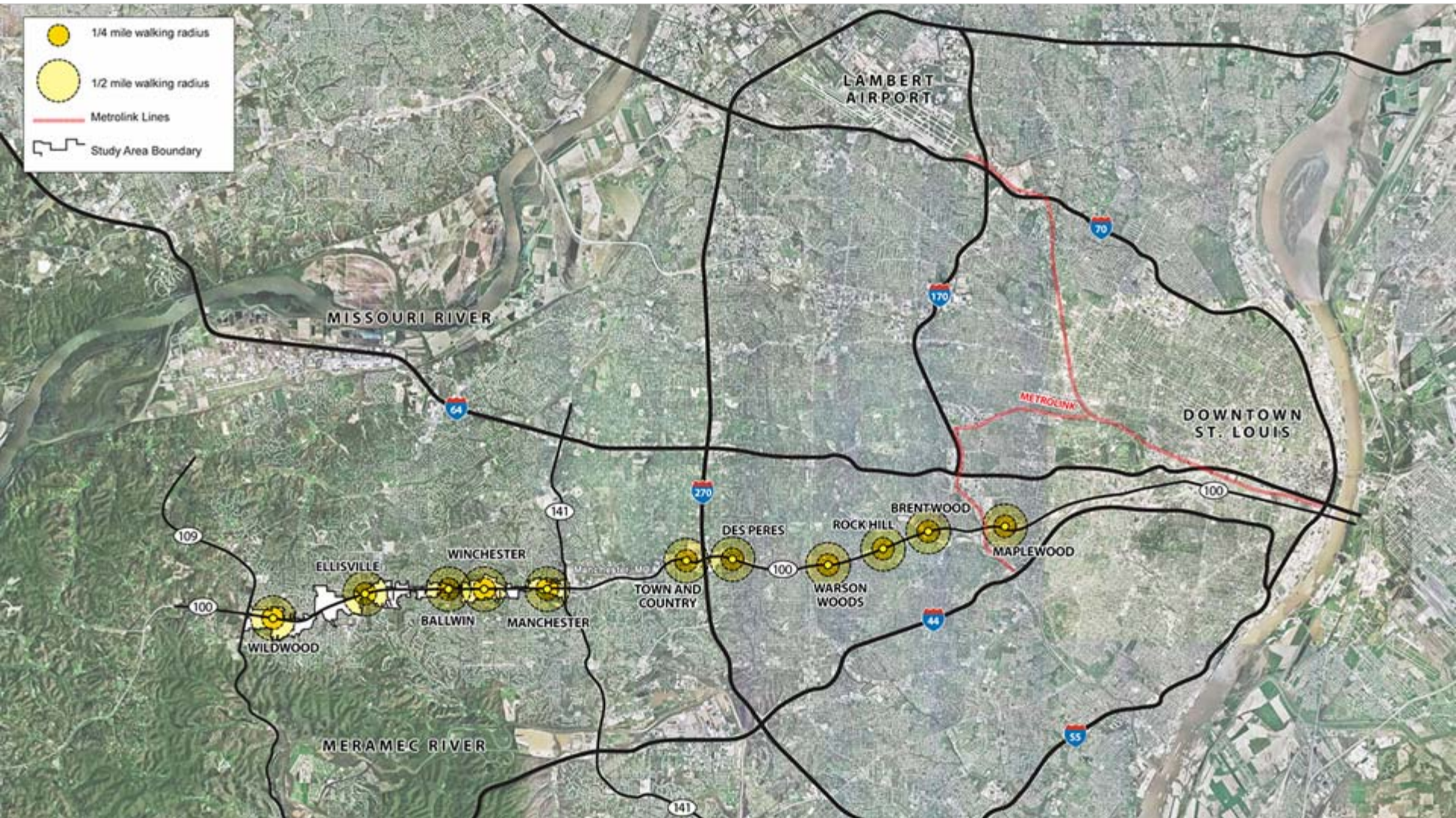


# Manchester Road

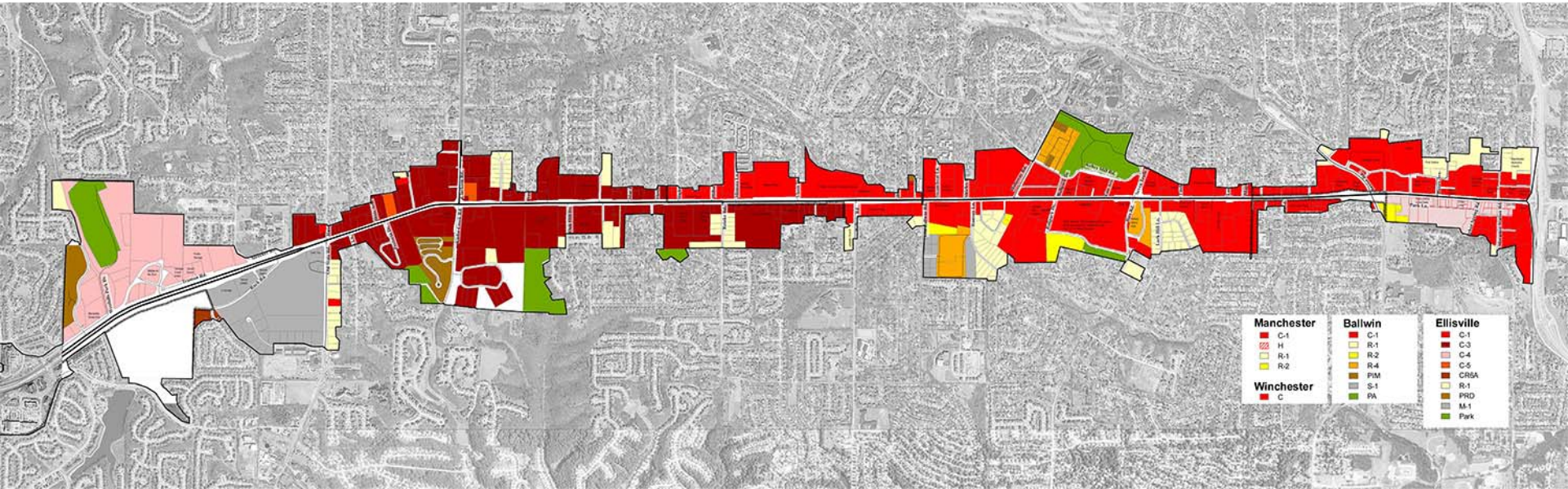


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# Regional Context Map



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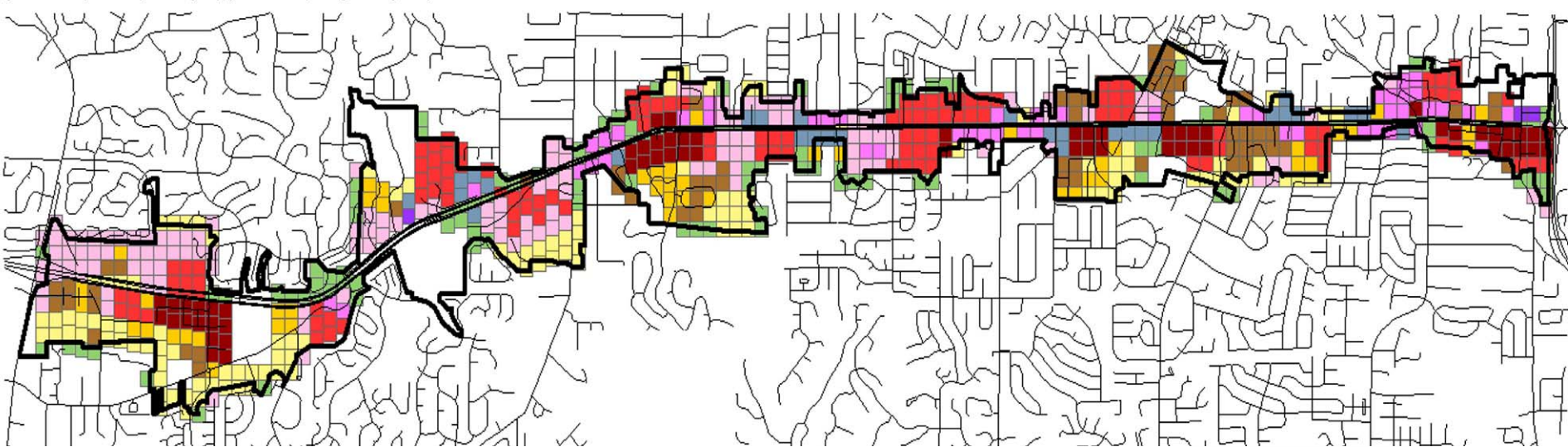
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# The “Chip Game”

- 26 Chip Games Played
- Four Public Sessions
- Mayors and City Administrators
- Chamber of Commerce and Auto Dealers
- City Councils and Planning Commissions



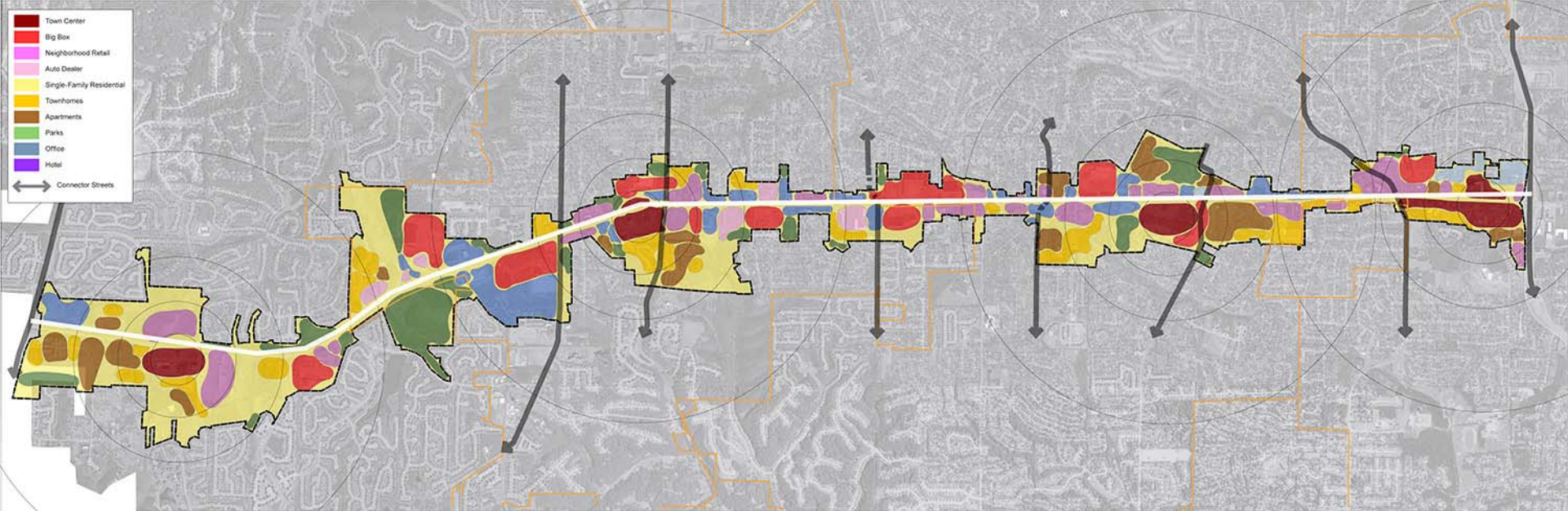
# Average of 26 Games



- Town Center
- Big Box
- Apartments
- TownHomes
- NeighborhoodRetail
- Office
- AutoDealer
- SFR
- Hotel
- Park (left over)

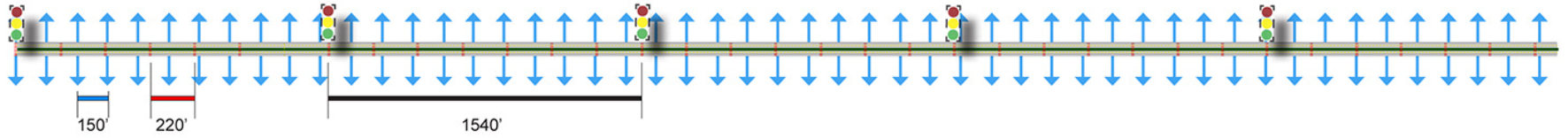


# SELECTED SCHEME: Four Town Centers

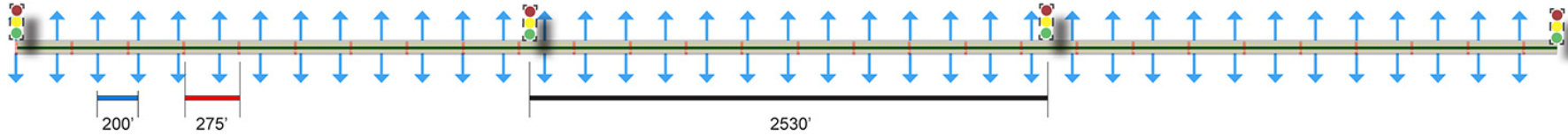


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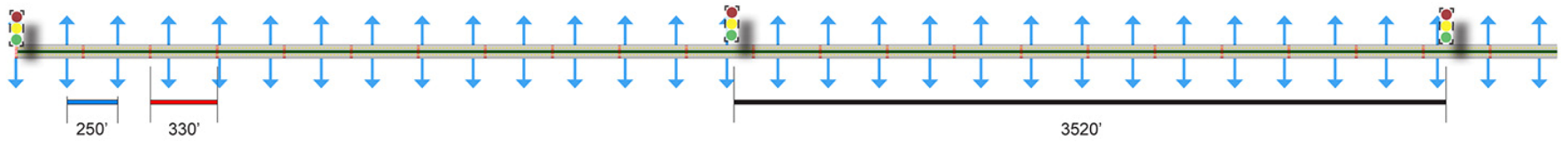
35 mph



40-45 mph



50+ mph

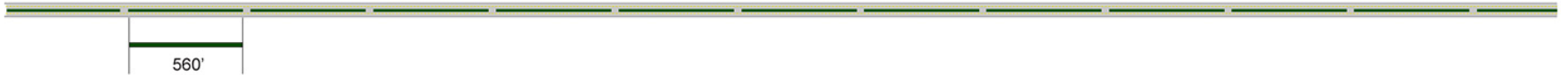


### MEDIAN SPACING

35 mph



40-45 mph



50+ mph



# Final Access Management Plan



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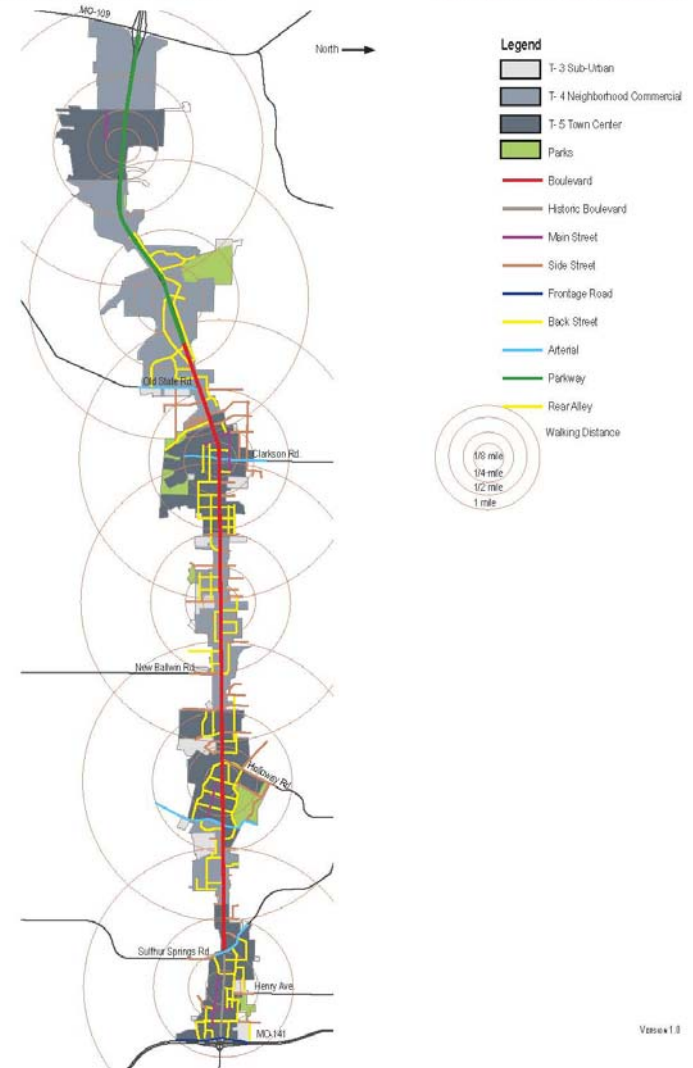
# Form Based Code

A means of regulating development to achieve a specific urban form.

Form-based codes create a predictable public realm by controlling physical form primarily, with a lesser focus on land use.

EXHIBIT A. REGULATING PLAN

Manchester Road Form-Based Code



Version 1.0



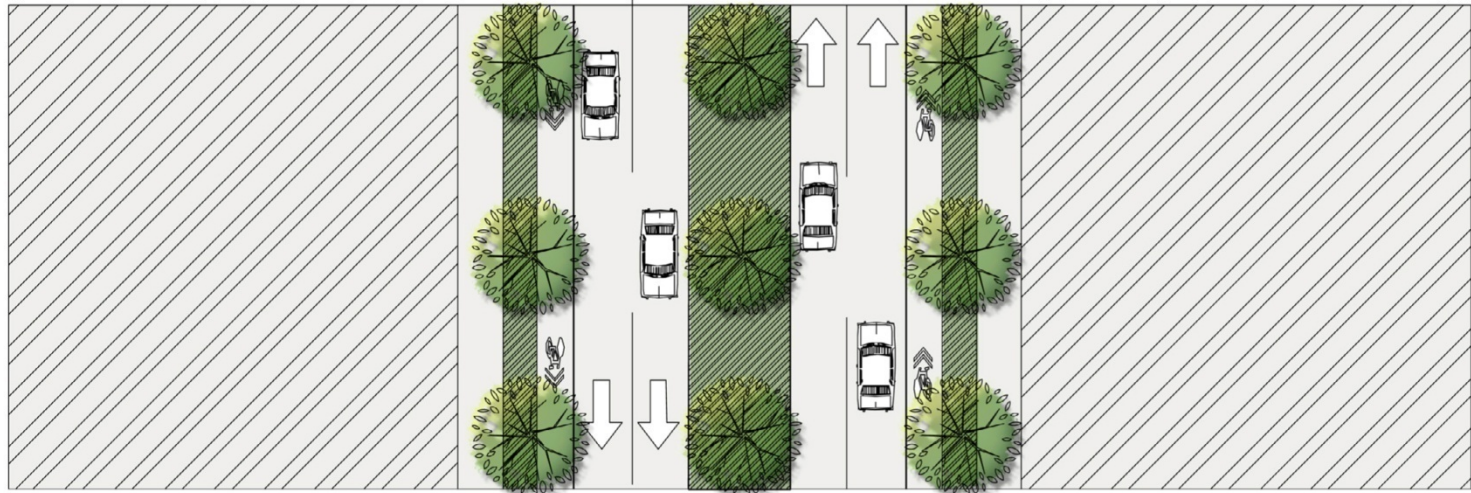
# Form Based Code: Thoroughfare Plan



- New Boulevard
- Historic Boulevard
- Main Street
- Side Street

- Frontage Road
- Back Street
- North-South Arterial
- Parkway





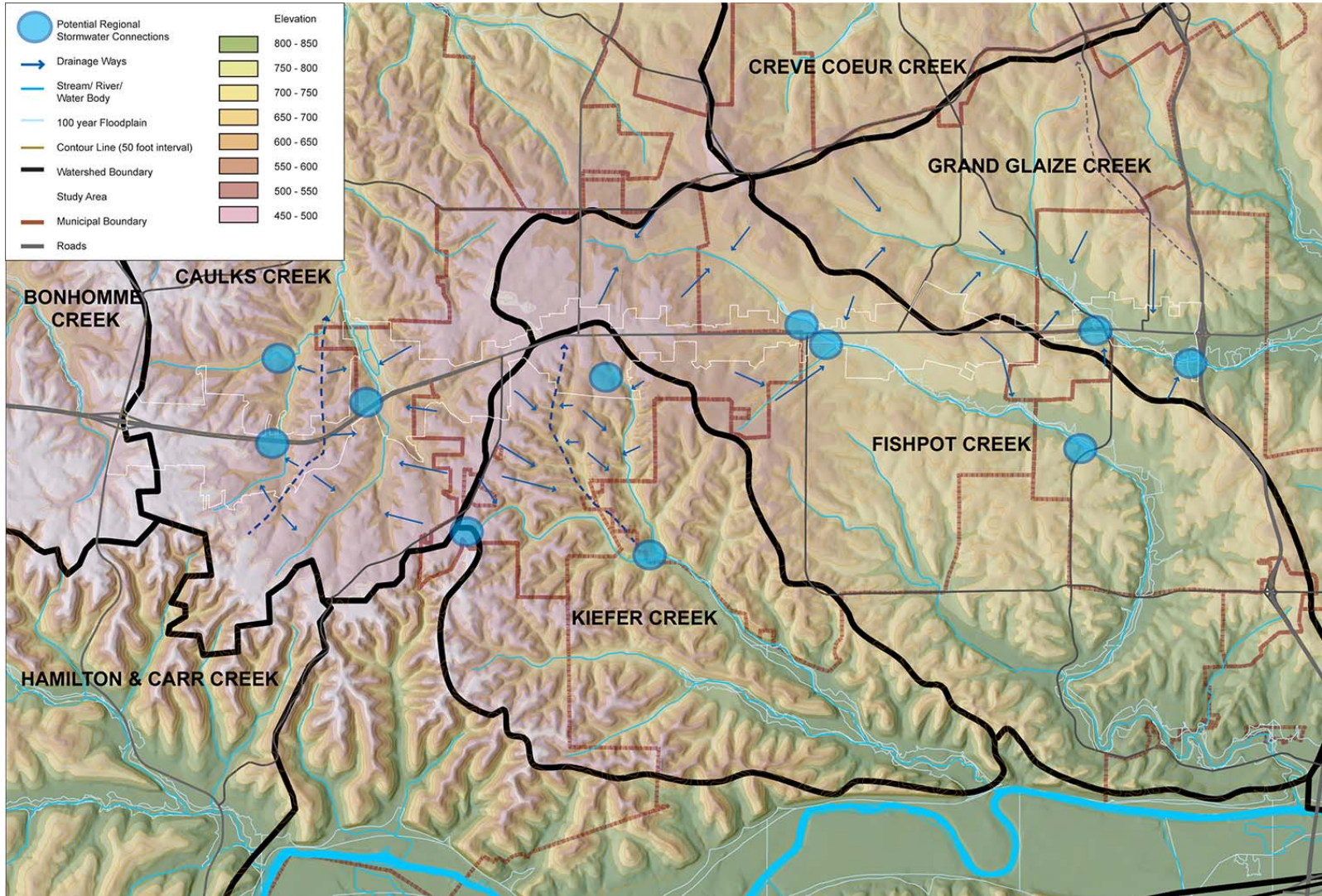
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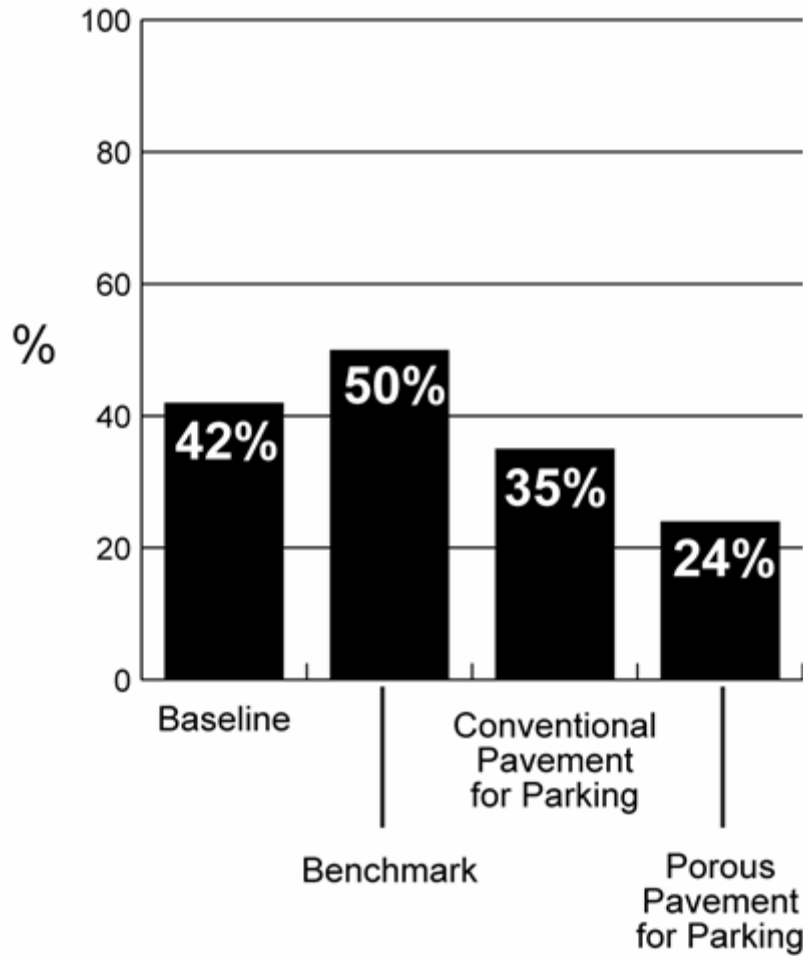
# Stormwater



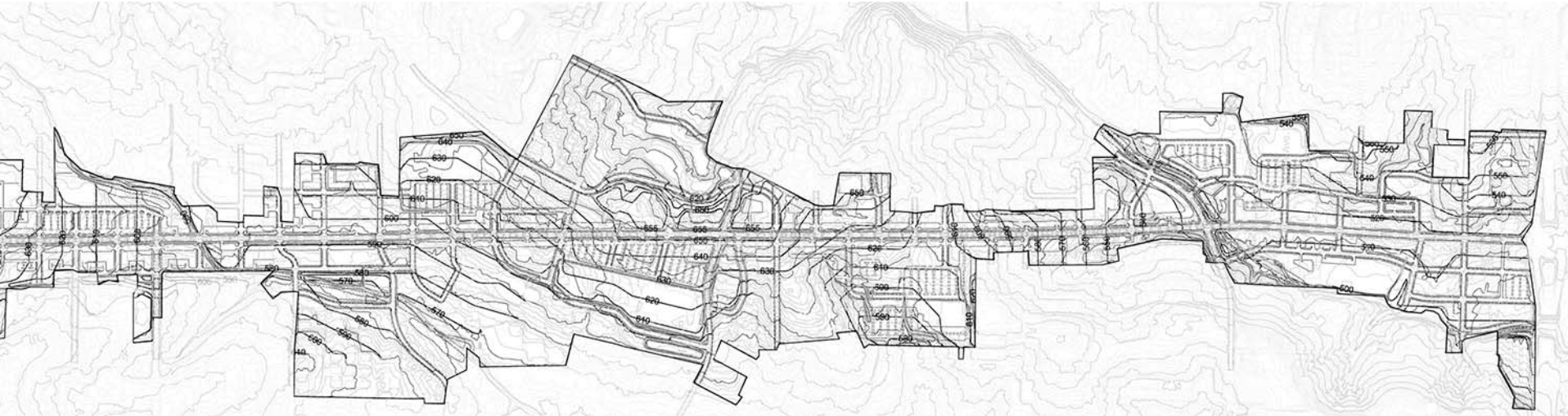
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## Impervious Surfaces



# Grading



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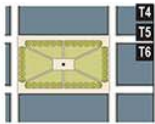
# Civic Spaces



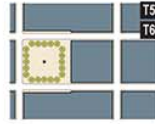
**a. Park:** A natural preserve available for unstructured recreation. A park may be independent of surrounding building Frontages. Its landscape should consist of Paths and trails, meadows, waterbodies, woodland and open shelters. Parks may be lineal, following the trajectories of natural corridors. The minimum size should be 8 acres. Larger parks may be approved as Special Districts in all zones.



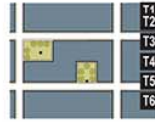
**b. Green:** An Open Space, available for unstructured recreation. A Green may be spatially defined by landscaping rather than building Frontages. Its landscape should consist of lawn and trees. The minimum size should be 1/2 acre and the maximum should be 8 acres.



**c. Square:** An Open Space available for unstructured recreation and Civic purposes. A Square is spatially defined by building Frontages. Its landscape should consist of paths, lawns and trees. Squares should be located at the intersection of important Thoroughfares. The minimum size should be 1/2 acre and the maximum should be 5 acres.



**d. Plaza:** An Open Space available for Civic purposes and Commercial activities. A Plaza should be spatially defined by building Frontages. Its landscape should consist primarily of pavement. Trees are optional. Plazas should be located at the intersection of important streets. The minimum size should be 1/2 acre and the maximum should be 2 acres.



**e. Playground:** An Open Space designed and equipped for the recreation of children. A playground should be fenced and may include an open shelter. Playgrounds should be interspersed within Residential areas and may be placed within a Block. Playgrounds may be included within parks and greens. There should be no minimum or maximum size.

SOURCE: SMARTCODE TABLE 13. CIVIC SPACE

a. Park | Tower Grove Park, St. Louis



b. Green | Ferris Park, St. Louis



c. Square | City Garden, St. Louis



d. Plaza | Kirkwood



e. Playground | Ballwin



# Utilities



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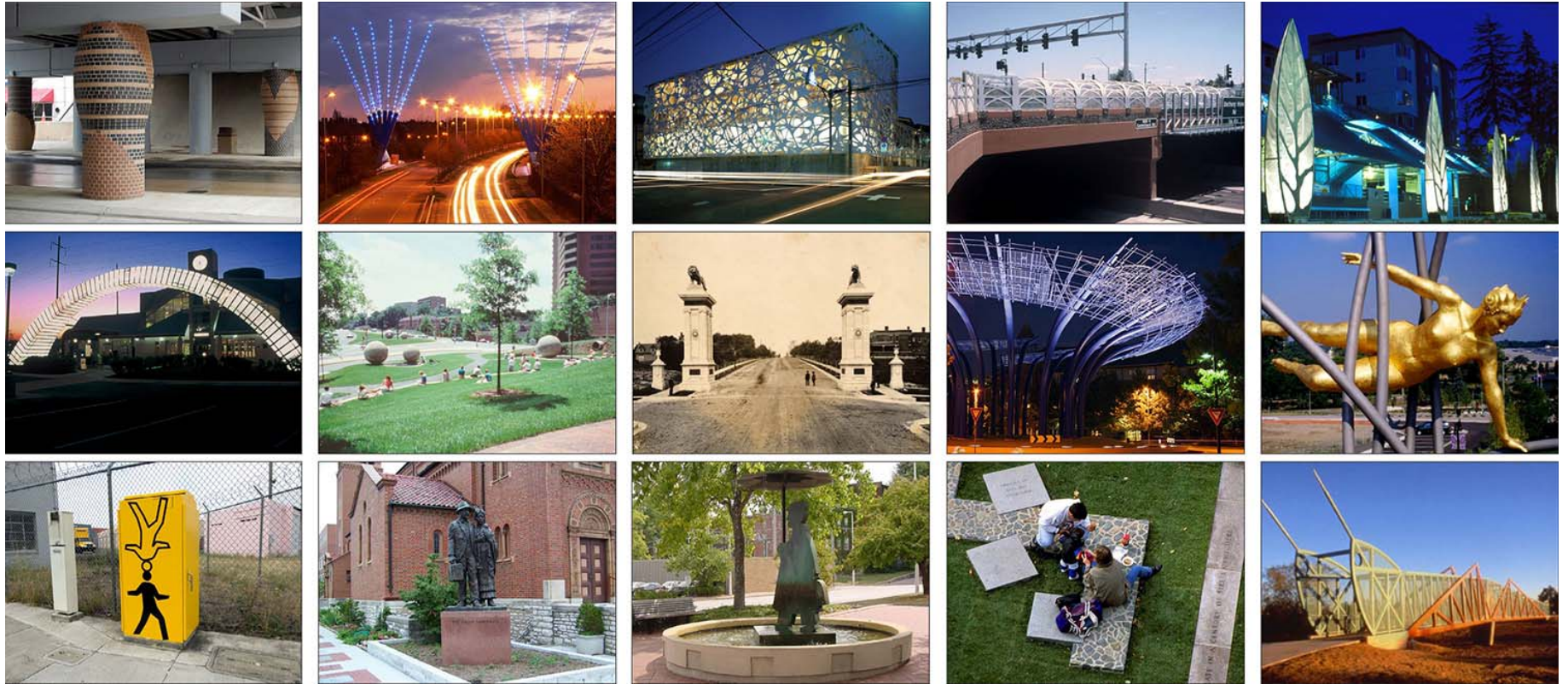
# Landscape Concept



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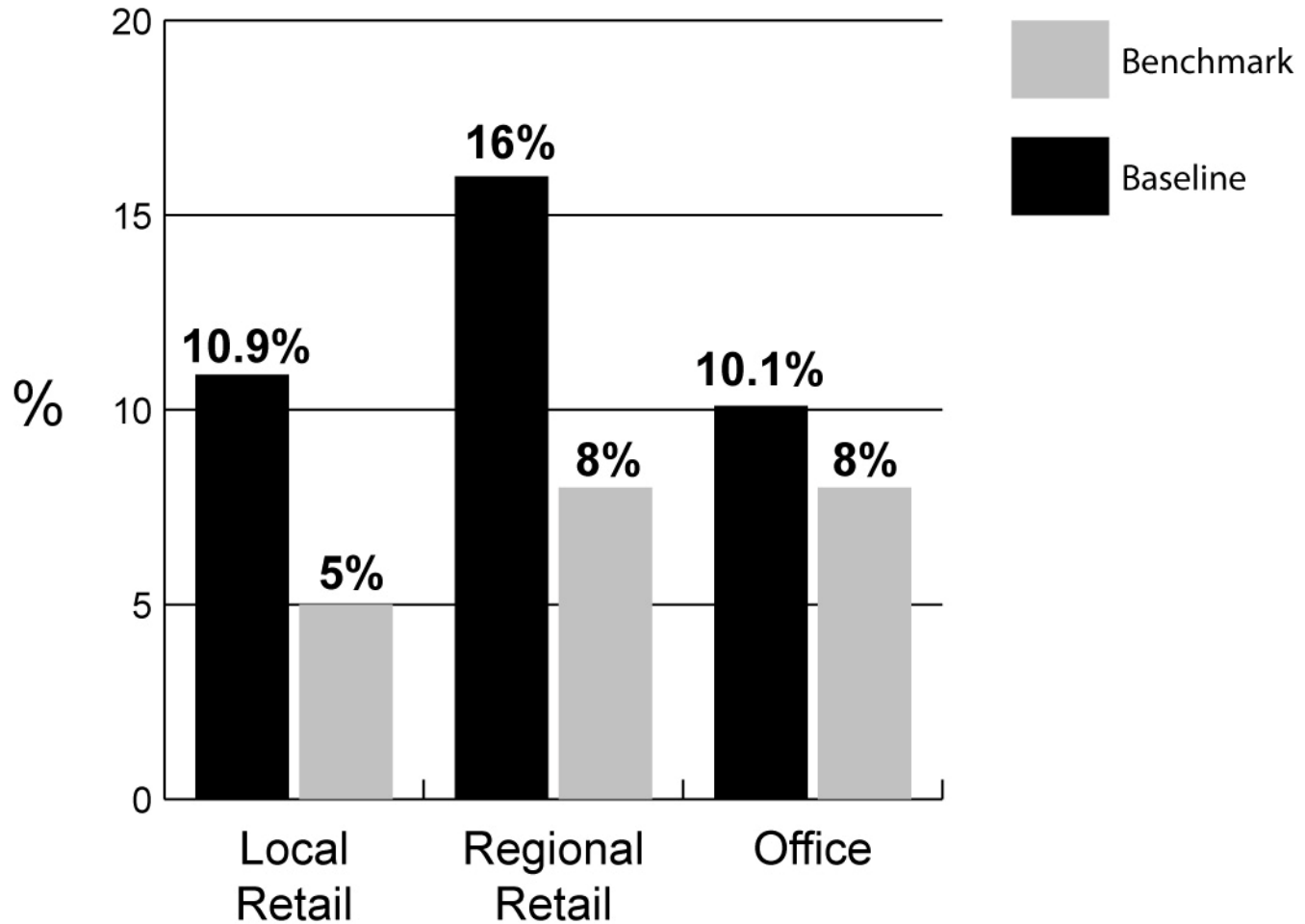
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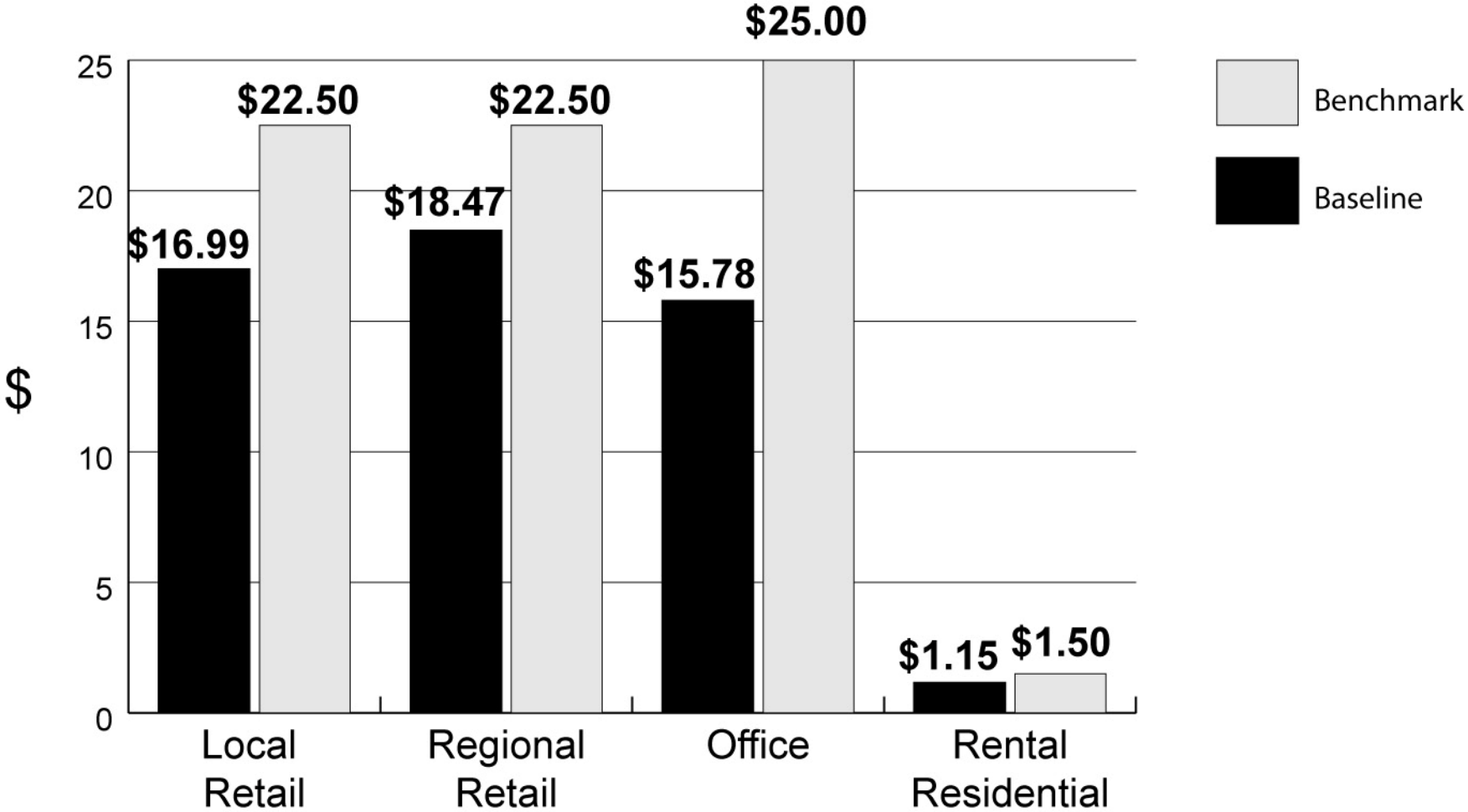
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# Vacancy Rates





# Rental Rates per square foot



# Implementation Tools

- Formation of Redevelopment District / Authority
- Amendments to Comprehensive Plans
- Adoption of Form Based Code / Zoning Changes
- Streamlining / Updating of Regulations
- Parking
- Signage
- Grading / Drainage
- Zoning
- Fiscal Impact Analyses – for each community, and entire corridor
- Detailed Design and Cost Estimates for Improvements



# Support

- East/West Gateway
- MODOT
- Metro
- MSD
- ULI District Council
- NAHB
- NAIOP
- Great Rivers Greenway
- St. Louis Open Space Council
- Trailnet
- West County Chamber of Commerce
- Manchester Road Executive Committee
- Agreement on General Planning Principles: The Five Mayors



# Overcoming Roadblocks

- Plan Across City or Neighborhood Boundaries
- Quickly Create A Mapping and Planning Framework That Is Comprehensive
- Hold Public Meetings That Transcend City or Neighborhood Boundaries
- Ground The Planning Process In Citizen Driven Solutions
- Use Multiple Techniques to Reach The Public
- Meet With Private Property Owners - Not Just The Public
- Ground The Plan In Economic Reality – Financial and Fiscal
- Create A Schedule / Cost Estimate For Implementation
- Address The Framework For Implementation

