

Allegheny Riverfront Vision Plan



ECOLOGY

Cahill Associates/CH2M Hill
Viridian Landscape Studio
Continental Conservation

URBAN FORM

Perkins Eastman

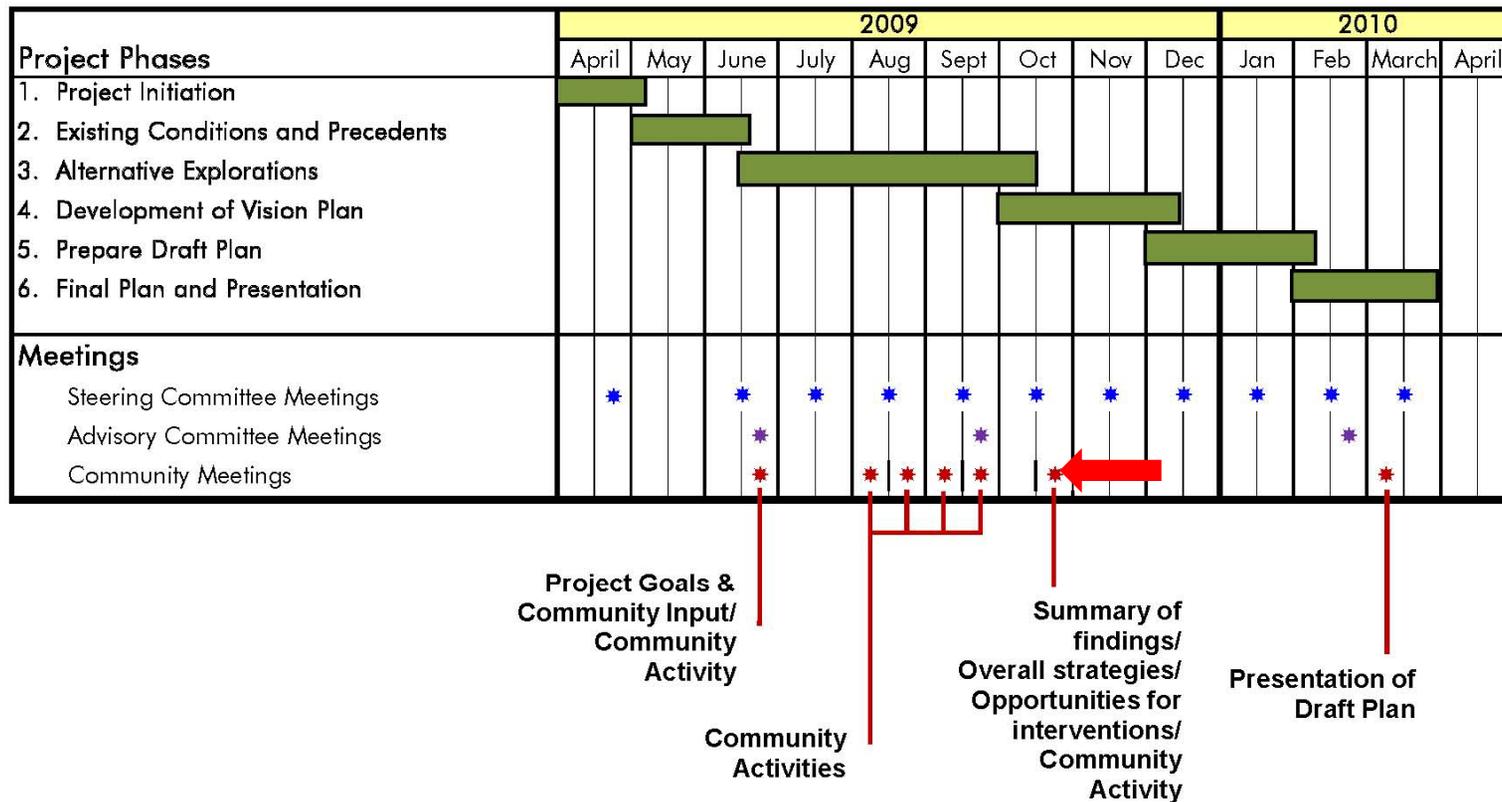
CONNECTIONS

Trans Associates
Clear View Strategies

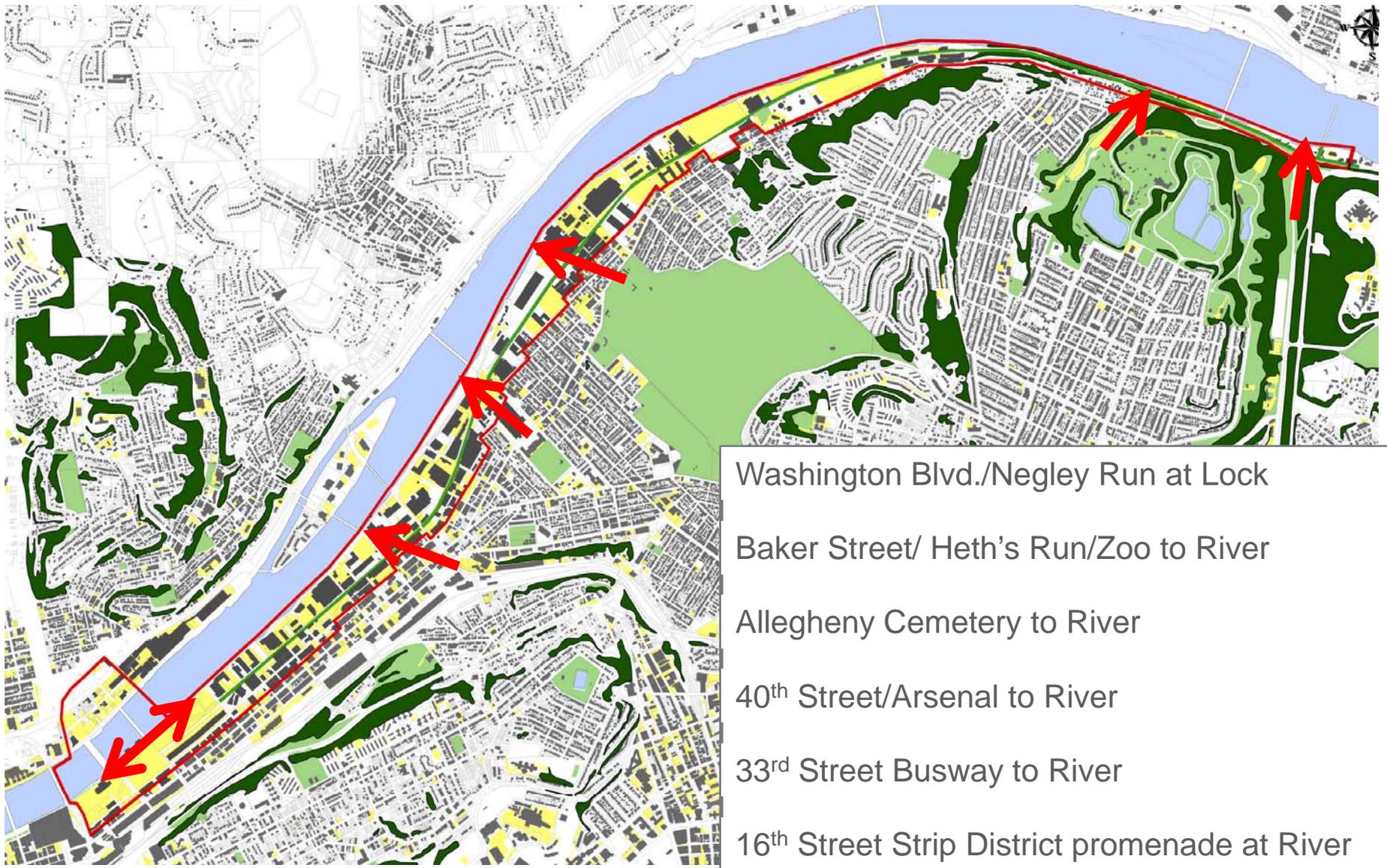
MARKET

GSP Consulting

Project Schedule



Ecology: Opportunities for Major Intervention



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Design Charrette



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Charrette Area: Smallman Street



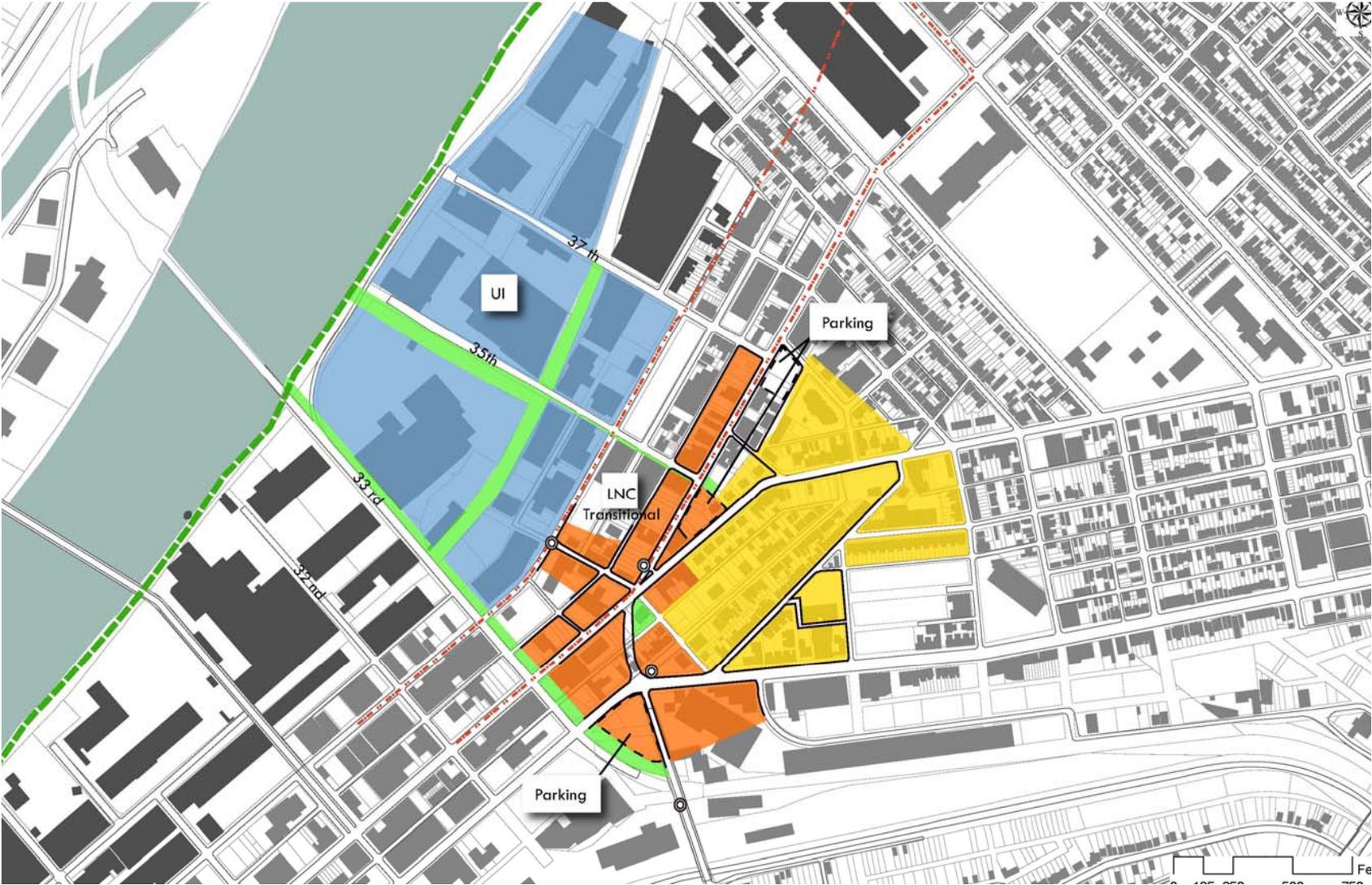
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Charrette Area: Doughboy Square



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Charrette Area: 40th Street



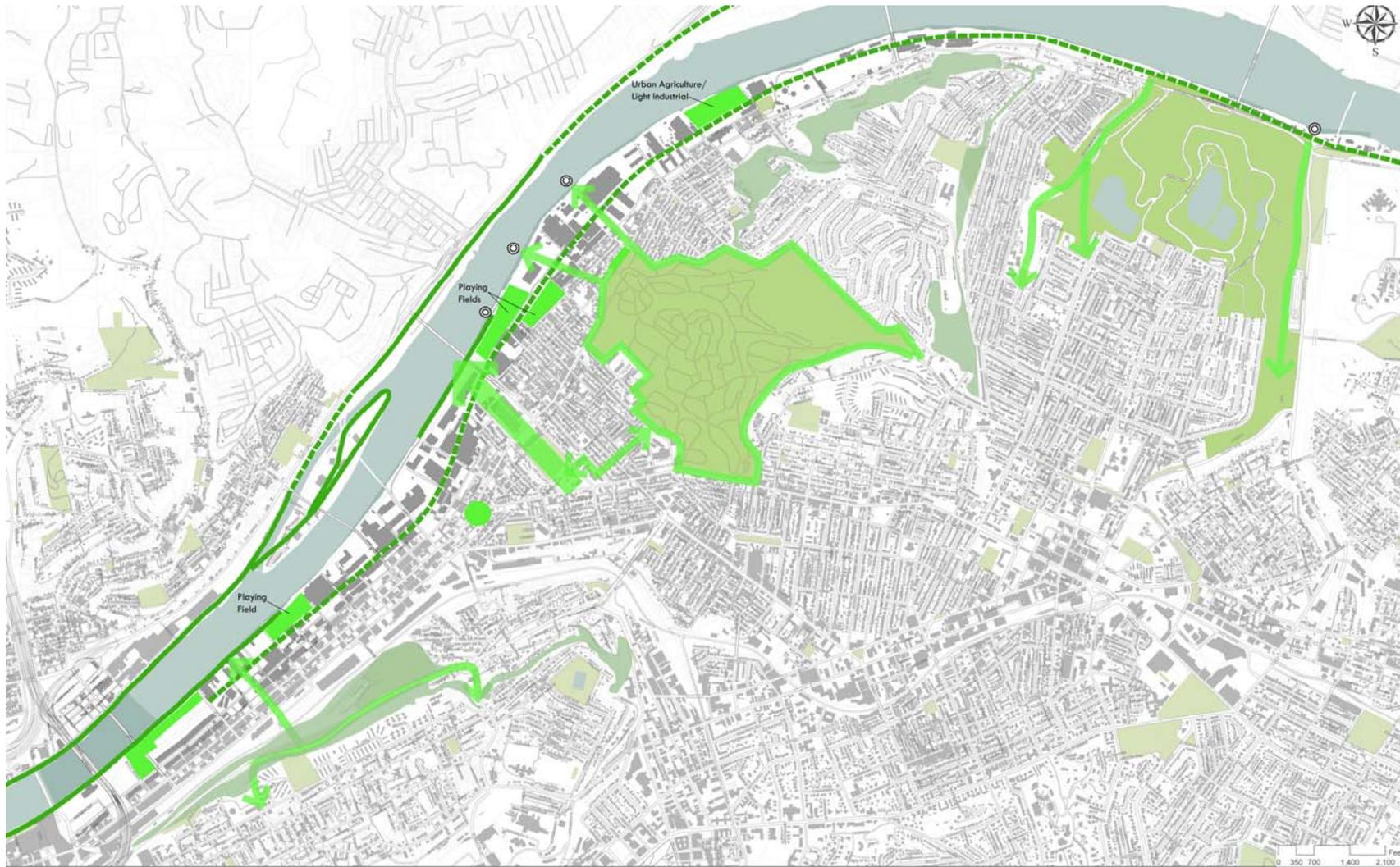
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Green Connections



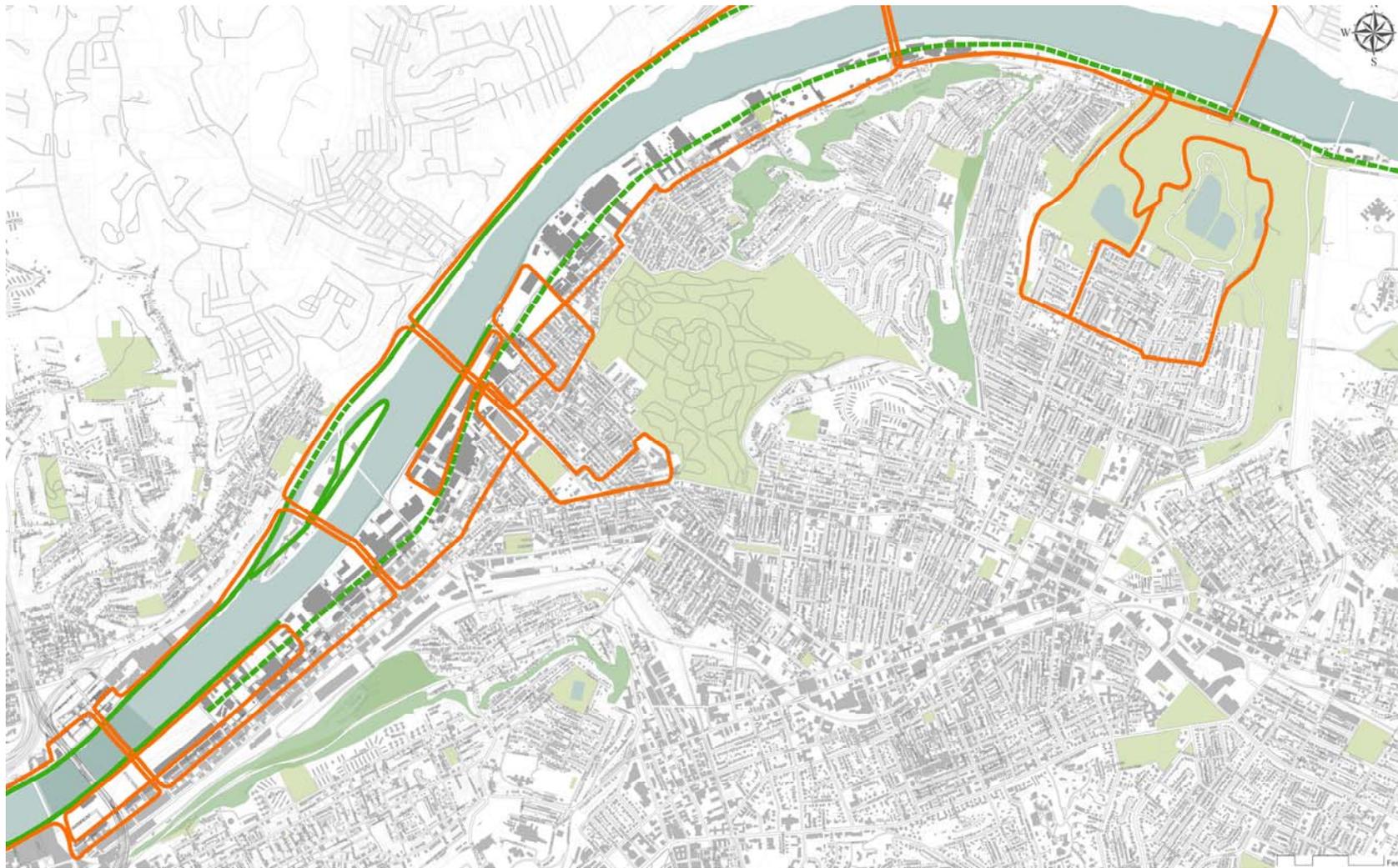
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Walking and Bike Trails as Loops



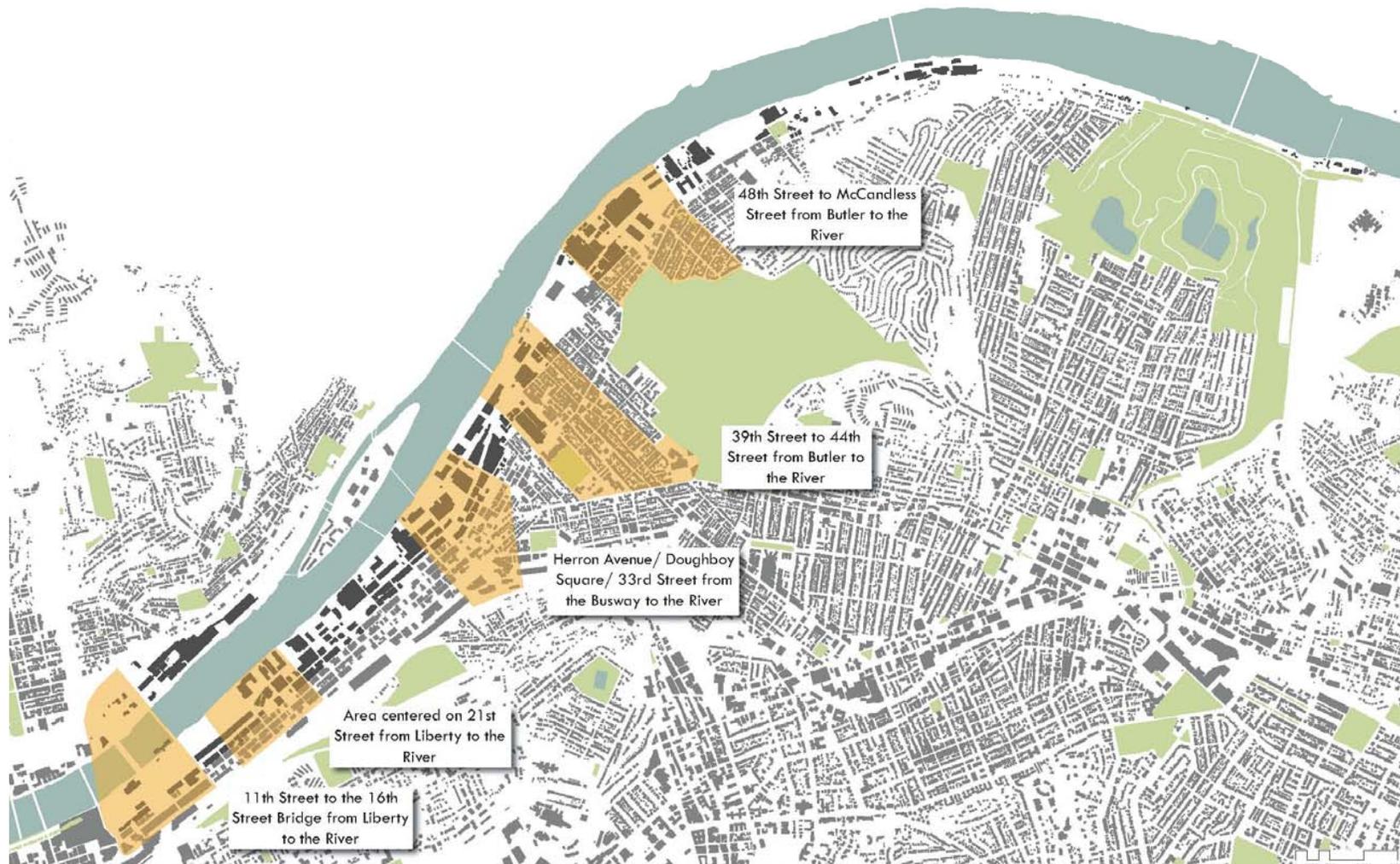
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Charrette Areas



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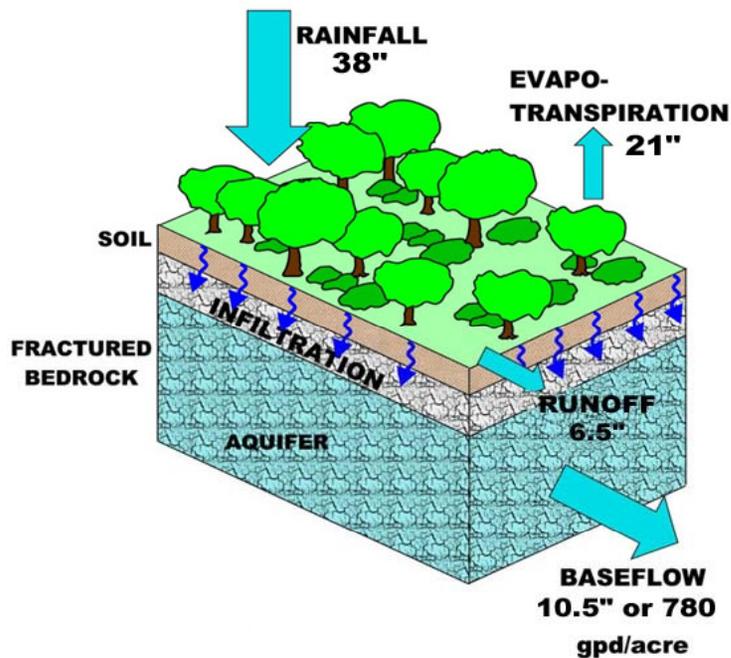
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Ecological Principles: Respect the Hydrological Cycle

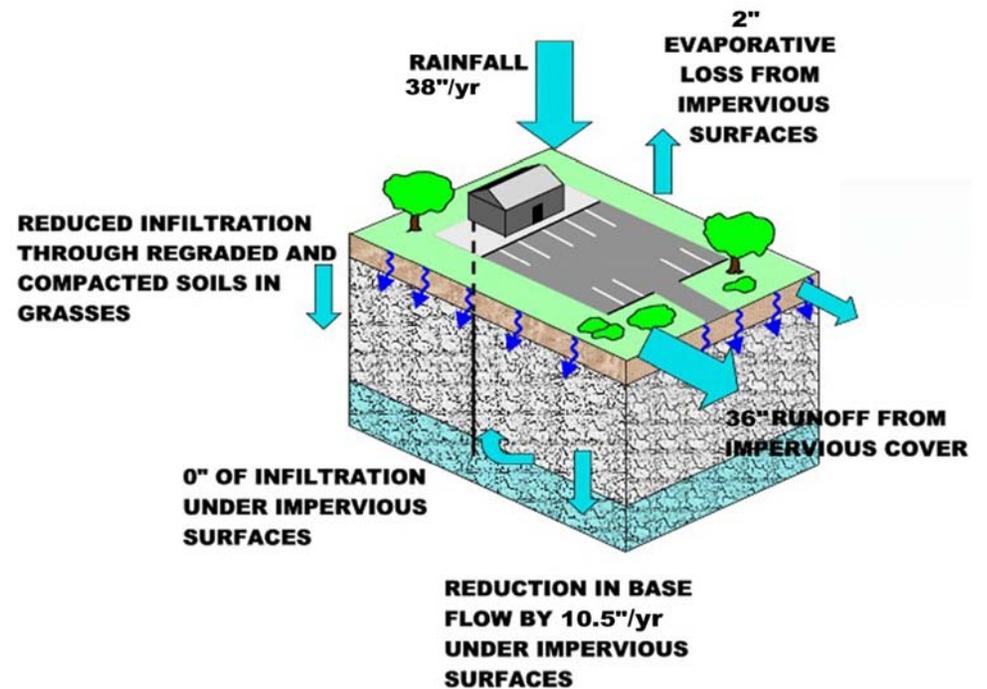
ANNUAL HYDROLOGIC CYCLE for an UNDISTURBED ACRE in the ALLEGHENY PLATEAU



Before

ANNUAL HYDROLOGIC CYCLE for a DEVELOPED ACRE in the ALLEGHENY PLATEAU

Numbers show effects of impervious surfaces
on the hydrologic cycle



After

Existing Resources

- Woodland Canopy
- Existing Parks & Open Space
- Historic Streams
- Floodplain
- Existing Street Trees



Recommendation: Repair and Protect River Edge

Existing Resources

- Woodland Canopy
- Existing Parks & Open Space
- Historic Streams
- Floodplain
- Existing Street Trees

Proposed Resources

- River Edge Buffer
- Stream Buffer

Leaf Food
Leaves fall into a stream and are trapped on woody debris (fallen trees and limbs) and rocks where they provide food and habitat for small bottom dwelling creatures (such as insects, amphibians, crustaceans and small fish) which are critical to the aquatic food chain.

Canopy and Shade
The leaf canopy provides shade that keeps the water cool, retains dissolved oxygen, and encourages the growth of diatoms, beneficial algae, and aquatic insects. The canopy improves air quality by filtering dust from wind erosion, construction, or farm machinery.

Fish/Wildlife Habitat
Wooded stream corridors provide the most diverse habitats for fish and other wildlife. Woody debris provides cover for fish while preserving stream habitat over time. Forest diversity is valuable for birds.

Filtering Runoff
Rain and sediment that runs off the land can be slowed and filtered in the forest, settling out sediment, nutrients, and pesticides before they reach streams. Infiltration rates 10-15 times higher than grass turf and 40 times higher than a plowed field are common.

Nutrient Uptake
Fertilizers and other pollutants that originate on land are taken up by tree roots. Nutrients are stored in leaves, limbs, and roots instead of reaching the stream. Through a process called denitrification, bacteria in the forest floor convert harmful nitrate to nitrogen gas, which is released into the air.

Bulkhead to be stabilized and revegetated where possible

Riparian forest trees

Historically this is how now buried streams would have once looked.

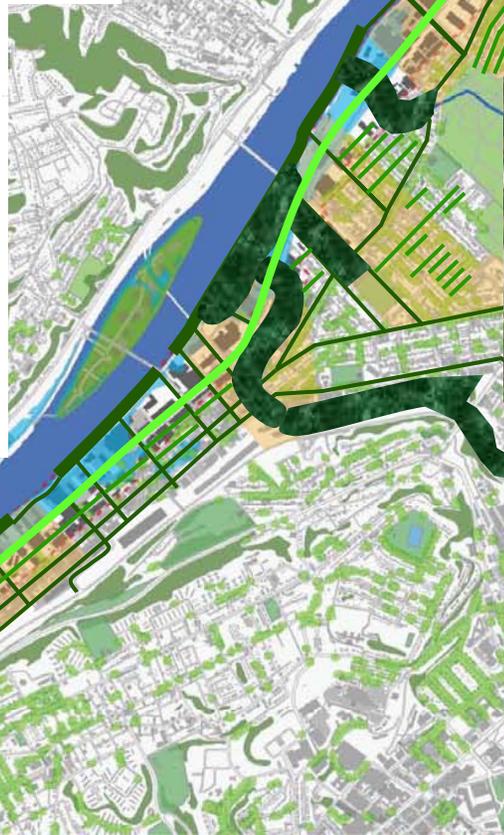
Green Infrastructure Integrates and Connects Natural Areas

Existing Resources

- Woodland Canopy
- Existing Parks & Open Space
- Historic Streams
- Floodplain
- Existing Street Trees

Proposed Resources

- River Edge Buffer
- Stream Buffer
- Green / Open space
- AVR Corridor / Linear Green Space
- Green Streets / Stormwater Retrofits
- Green Alleyways



Public right-of-ways: green latticework



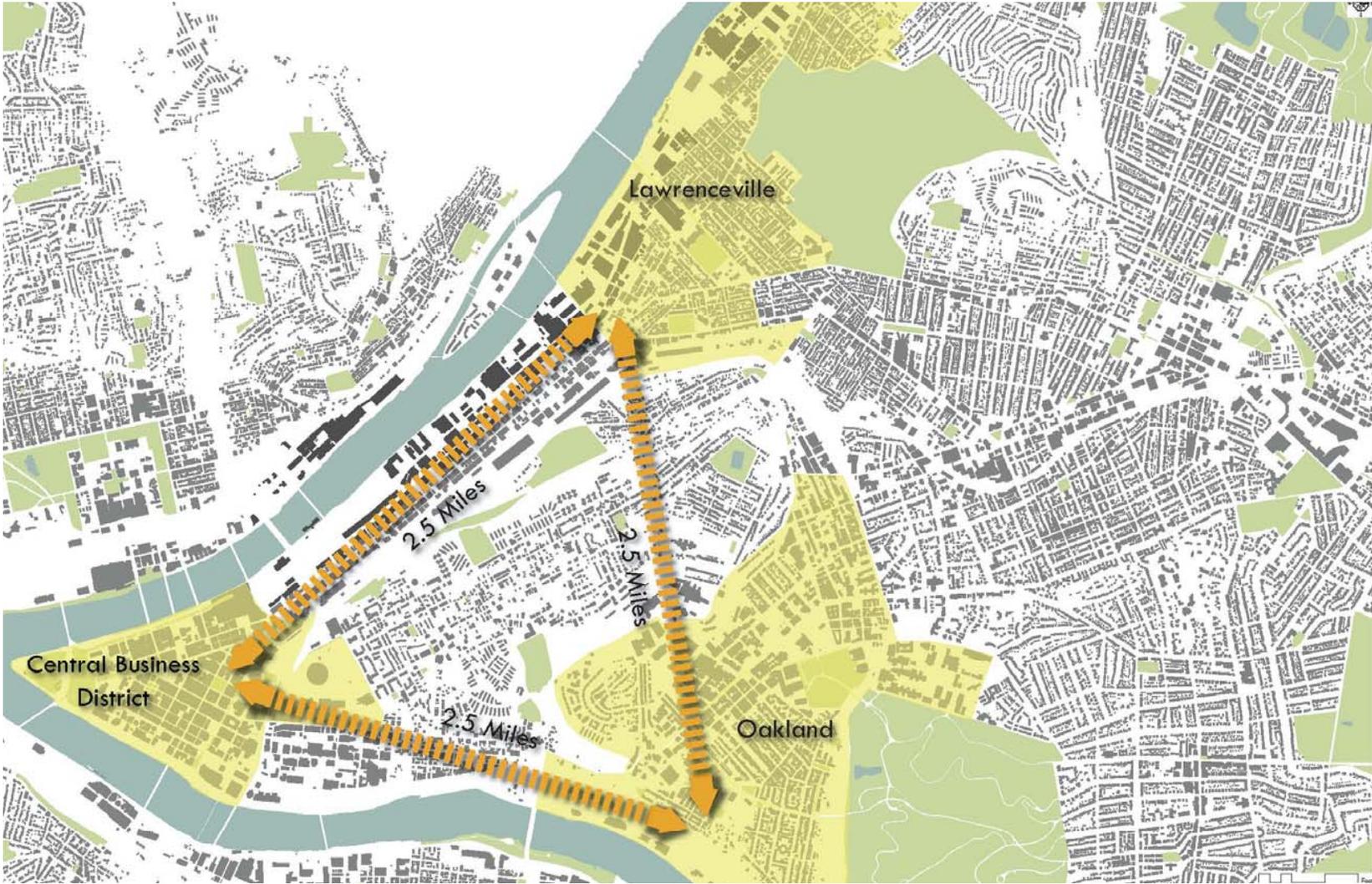
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The New Golden Triangle



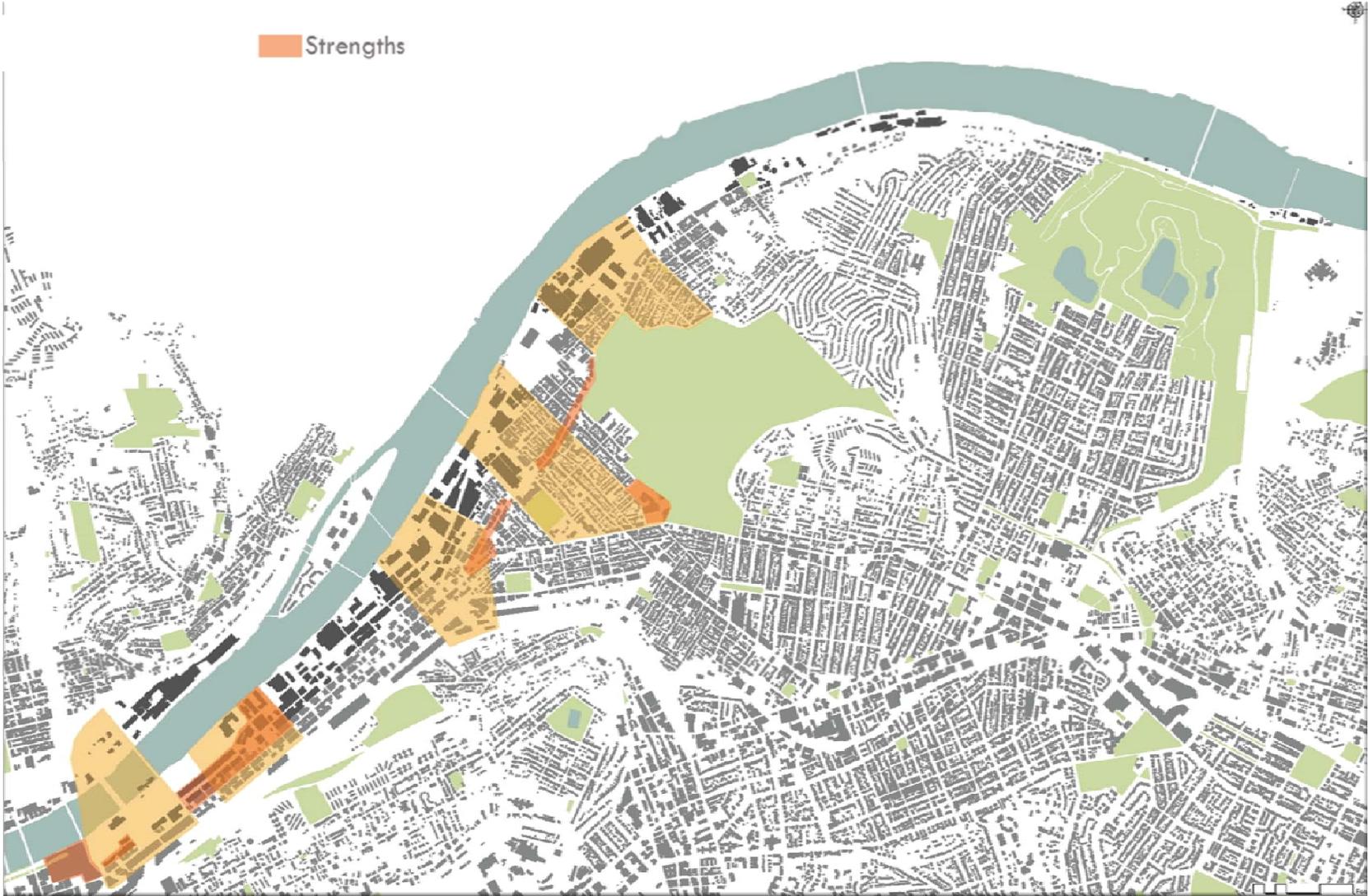
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Strengths and Opportunities



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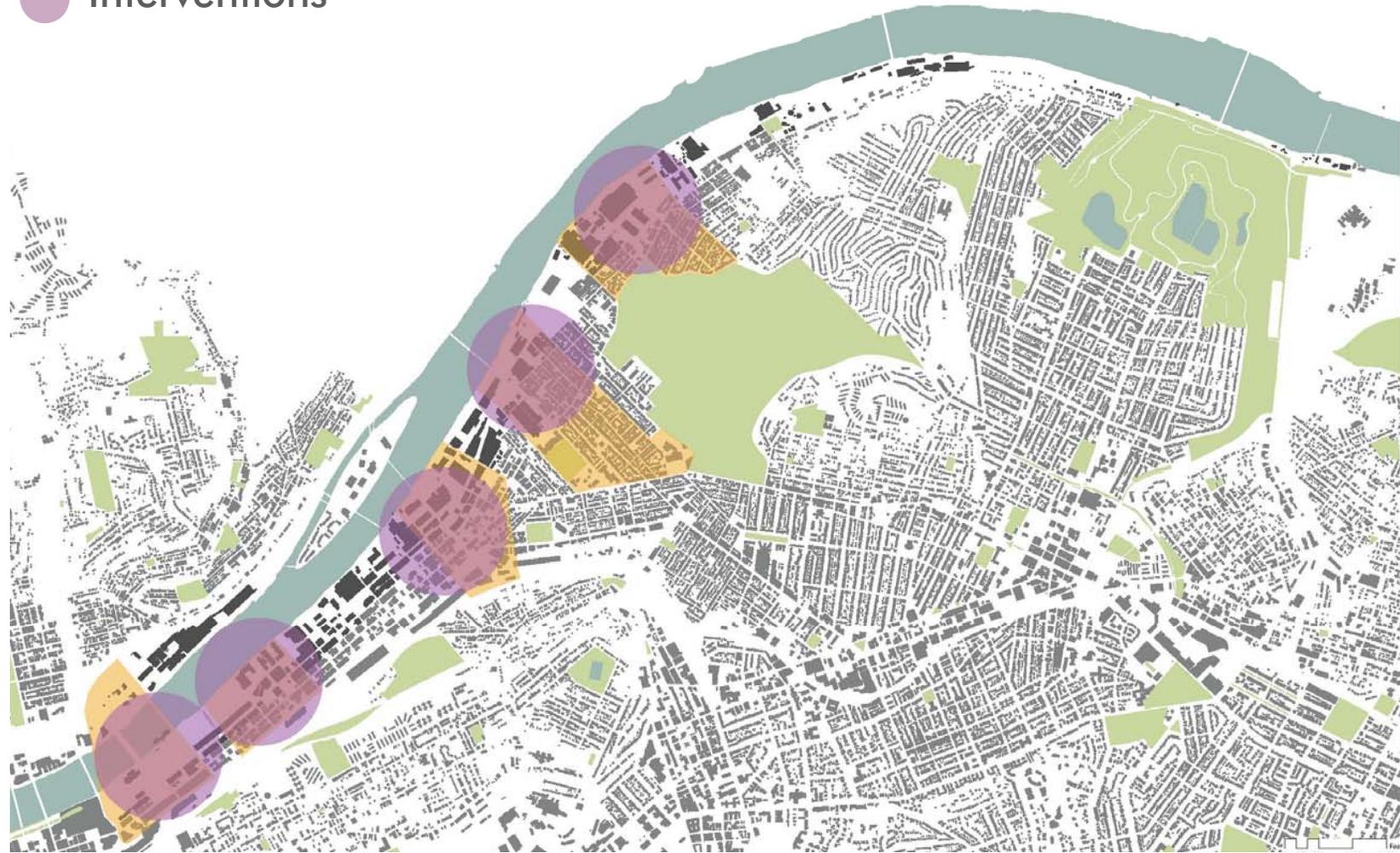
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Locations for Interventions

● Interventions



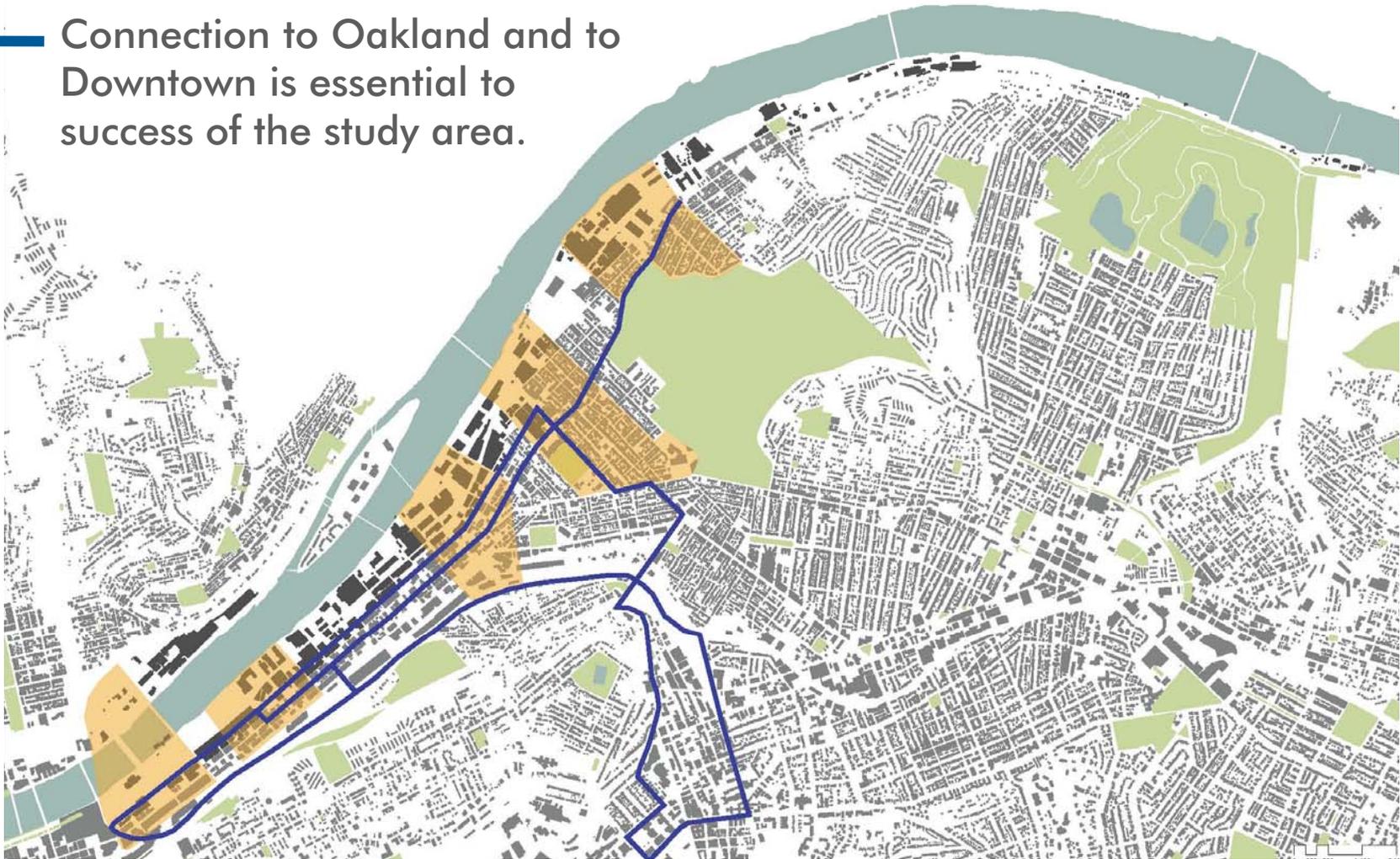
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— Connection to Oakland and to Downtown is essential to success of the study area.



Congestion and Connections

— Areas with greatest congestion: general and truck

- - Missing connections



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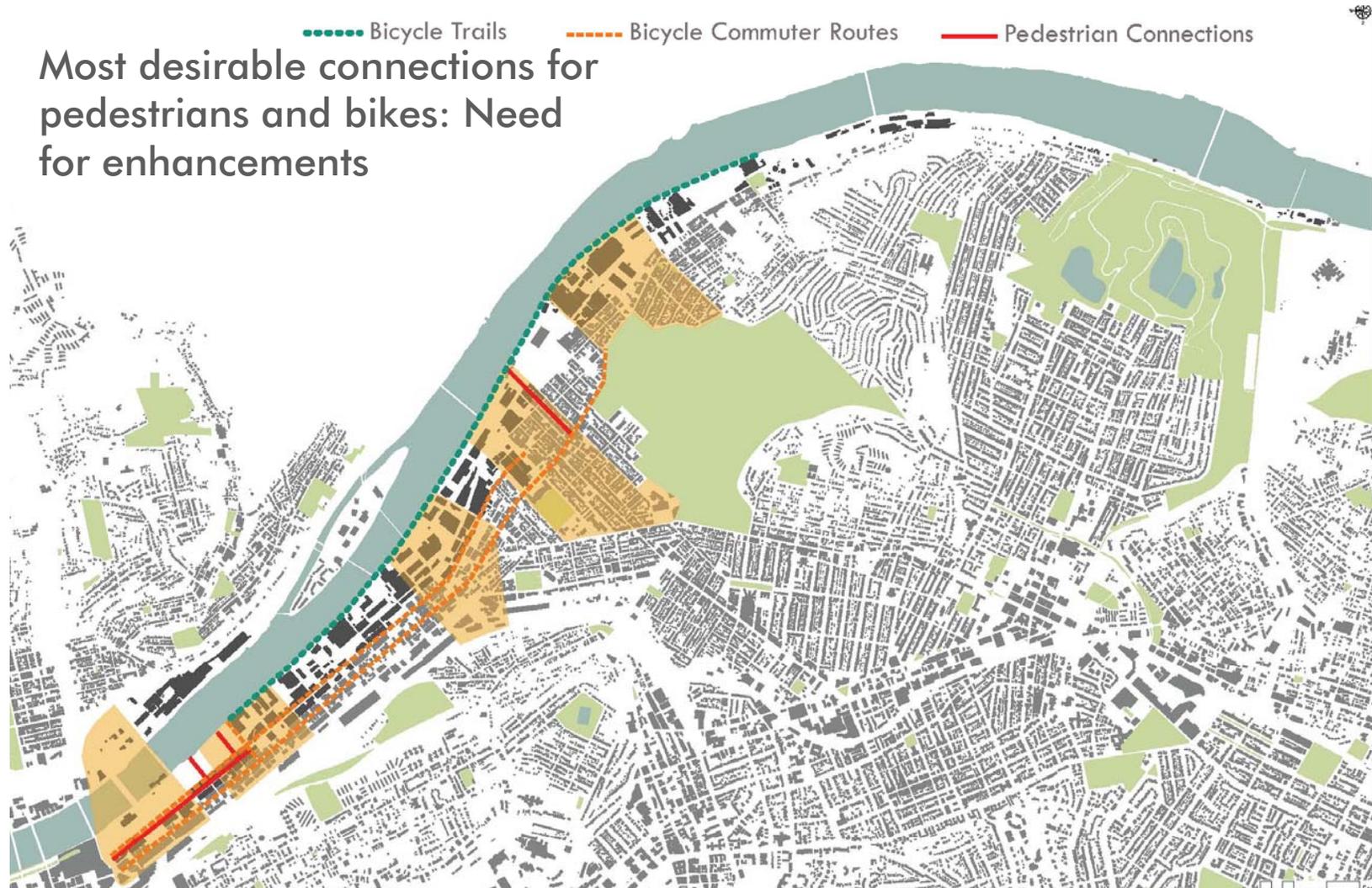
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Bicycle and Pedestrian Connections

Most desirable connections for pedestrians and bikes: Need for enhancements



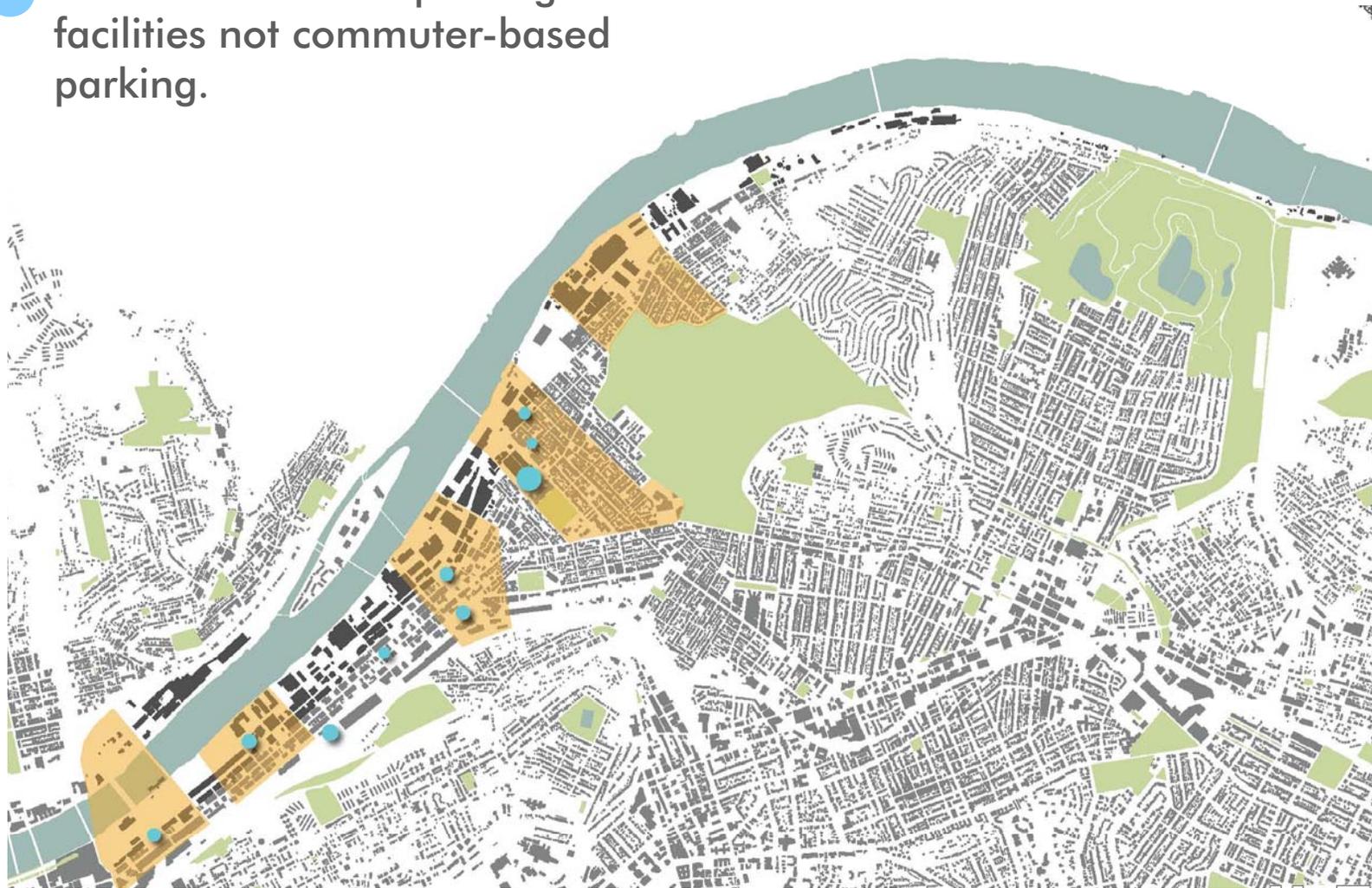
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- Intermodal shared parking facilities not commuter-based parking.



Residential Market Opportunities

- There is demand for more units at the $< \$500$ and $> \$1000$ / mo
- There is need for rentals and footprint for shrinking household size
- There is demand for new construction housing.
- Housing prices in the study area have been steady with a slight upward trend
- While the City of Pittsburgh has seen an increase of 5% in housing sales prices, sales prices in the study area have increased 5-12%
- The Strip District has seen the greatest rise in sales prices



Retail Market Opportunities

- Pittsburgh has a low vacancy rate for retail space
- Overall, retail in the city depends on visitor and non-resident spending
- Pittsburgh MSA has added an average of 350,000 SF of space per year and reduced retail vacancy by 35,000 SF per year
- Retail rents have been steady except for declines in Monroeville and along Rt. 8
- The Strip District attracts the largest concentration of outside consumers in the study area
- The study area attracts a mix of “Bulk” and “Basket” shoppers



Industrial

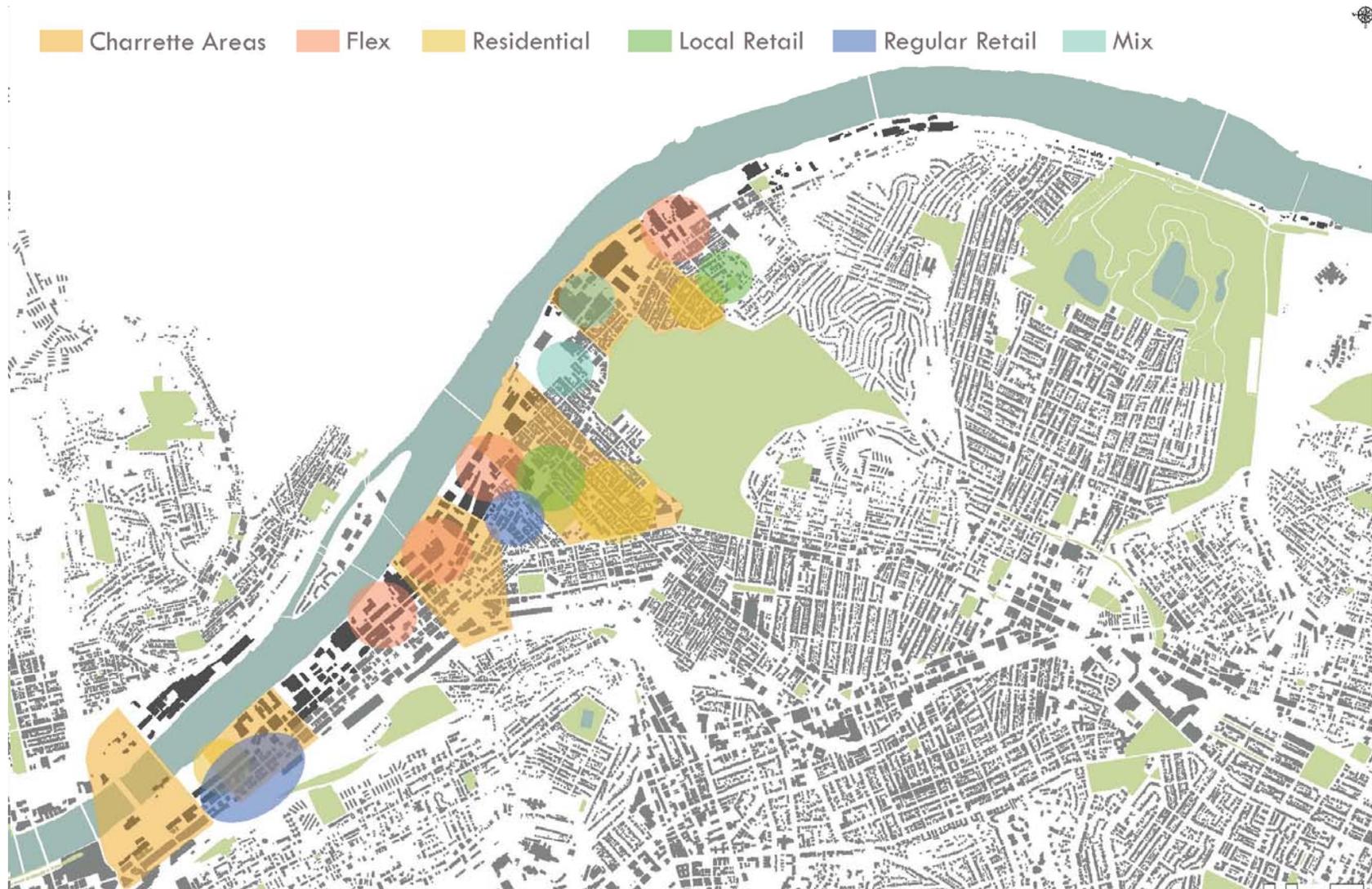
- There is a low vacancy rate and lack of construction pipeline for industrial space; Pittsburgh has productive space (output per SF)
- Pittsburgh's industrial vacancy rate of 8.4% is below the U.S. average
- Do we move out industry to make room for housing and retail?

Office

- The Pittsburgh office market is fairly saturated, the CBD is swamped with "Class A" space, rents grow slowly but hold value
- Pittsburgh ranks 39 out of 62 MSAs in CBD office vacancy at 16.8%



Office/Industrial Market Opportunities



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- Five Areas (Color Dots)
 - 11th Street to 16th Street bridge
 - 21st Street
 - Herron Avenue/Doughboy Square/33rd Street corridor
 - 39th Street to 44th Street
 - 48th Street to McCandless Street
- Discussions for each charrette area (Distribute evenly)
 - ECOLOGY
 - URBAN FORM
 - CONNECTIONS
 - MARKET

Use list of questions as a guide
- Summarize and Recap in 1 hour

New Website!

- www.alleghenyriverfrontvision.com
- Arch Pelley, Perkins Eastman
a.pelley@perkinseastman.com

Allegheny Riverfront Vision Plan



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Cahill Associates/CH2M Hill
Viridian Landscape Studio
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