

HEALTHIER NEW BRUNSWICK

New Downtown Park: Healthy Options for Use & Access

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PROJECT BACKGROUND

- Studio Client - Healthier New Brunswick Initiative (City of New Brunswick, key stakeholder)
- Wolfson Parking Deck slated for demolition
- New Brunswick Parking Authority's oldest parking deck
- Proposal for downtown “pocket park”
- Downtown area lacking open space
- Health impacts of a new park located downtown New Brunswick

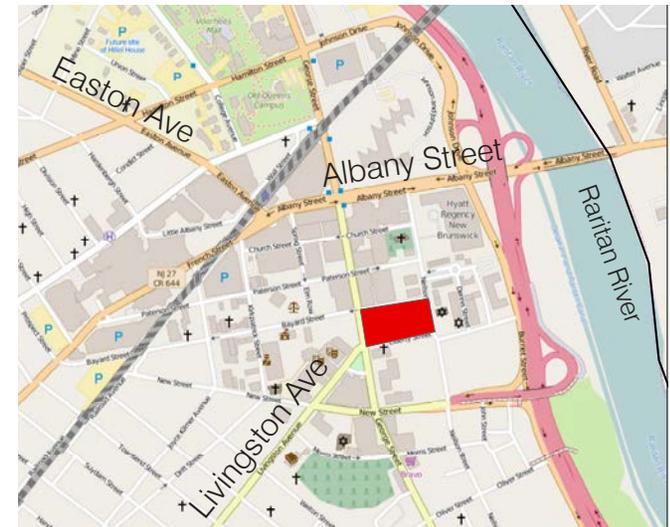
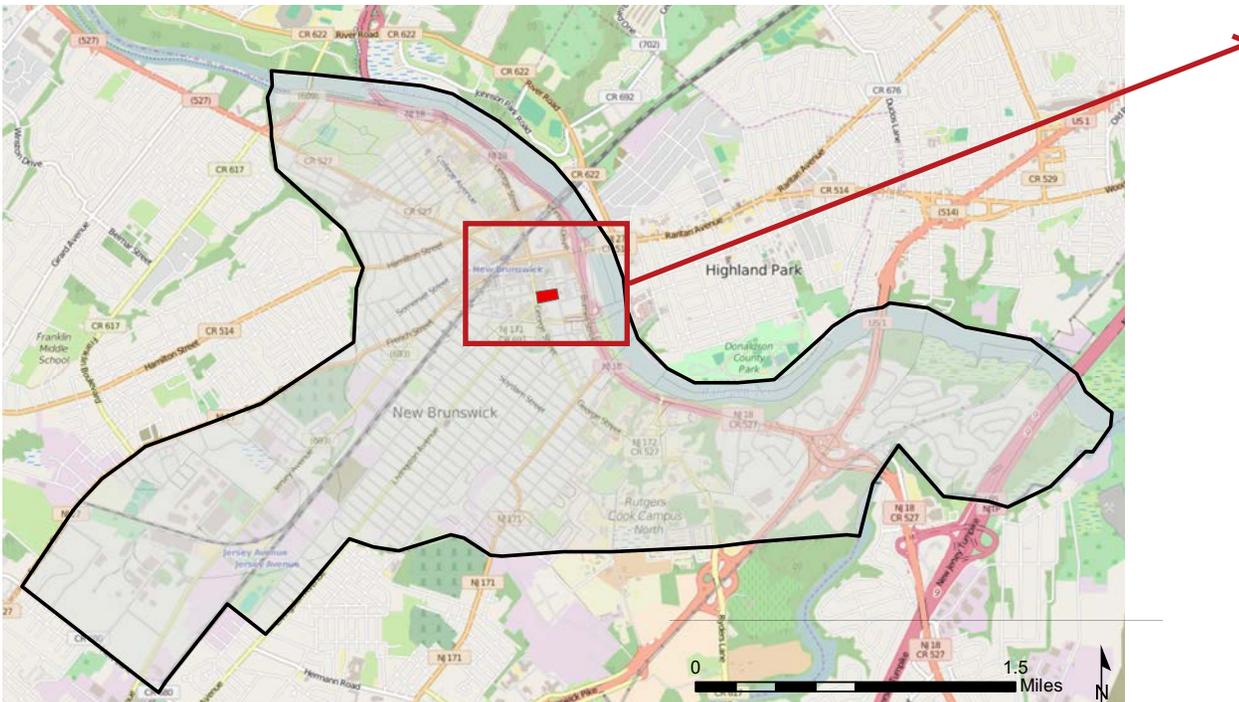
Wolfson Parking Deck



Neilson Street between New and George Streets

THE PROPOSED SITE

- Site is about 1.12 acres
- Located Downtown/City Market area
- Close to New Brunswick top employment centers
- Primarily commercial with adjacent residential

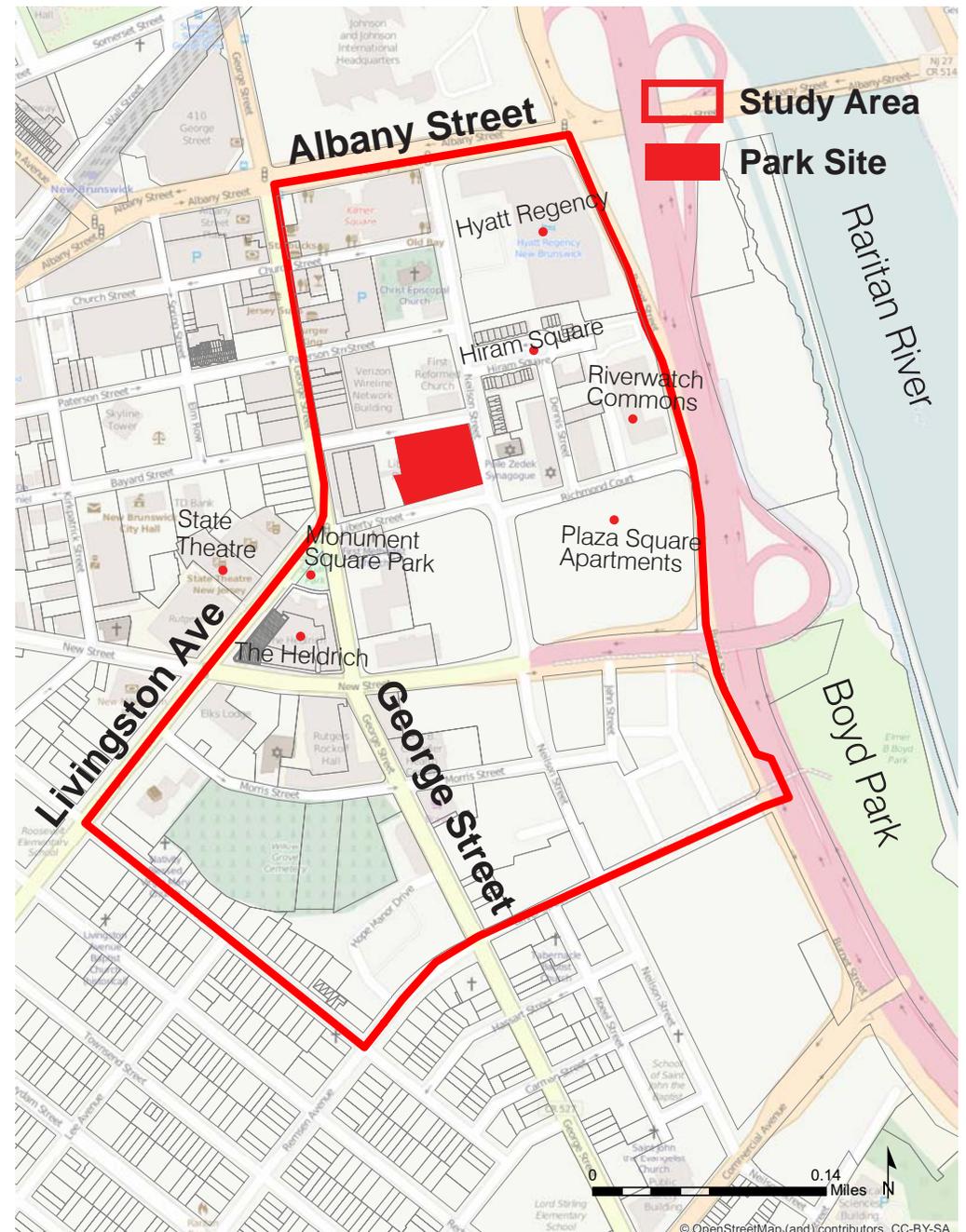


THE PROPOSED SITE

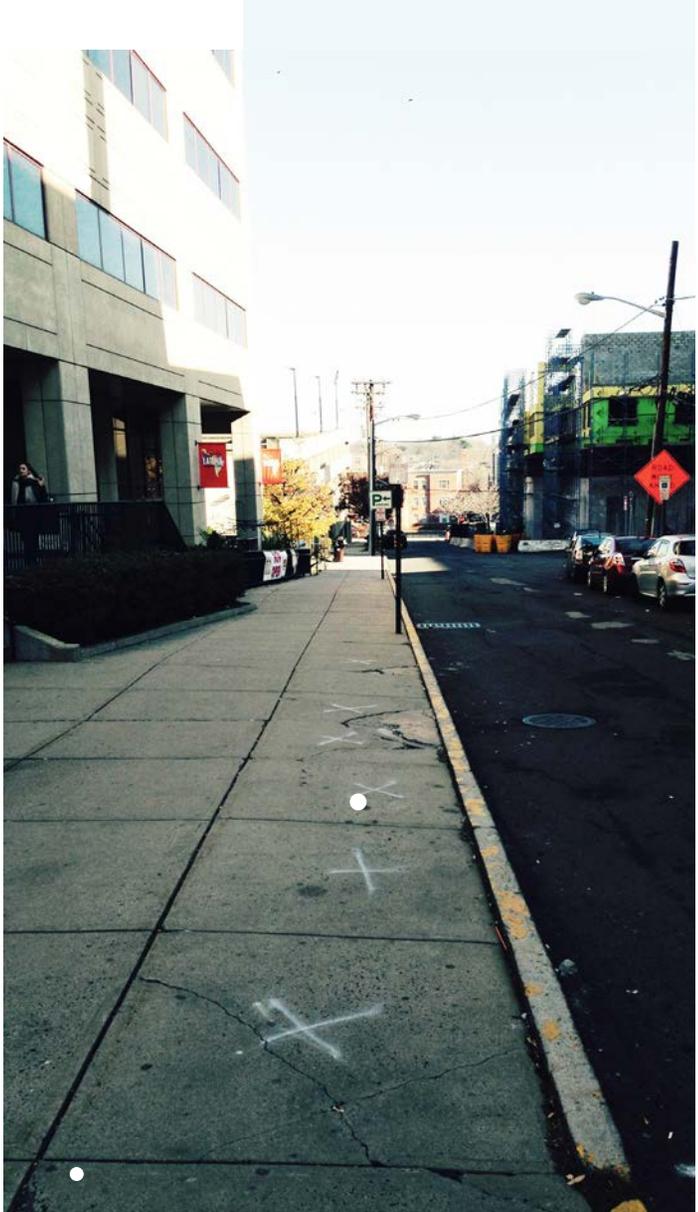


THE STUDY AREA

- Determined by studio team to include a 15 city block radius (22 census blocks)
- About 0.13 square miles (City is 5.8 square miles total)
- Bordered by Raritan River, Boyd Park, and Commercial Corridor
- Primarily Commercial with Residential along outer boundaries
- About 4,190 jobs in study area (12% of all city employment)



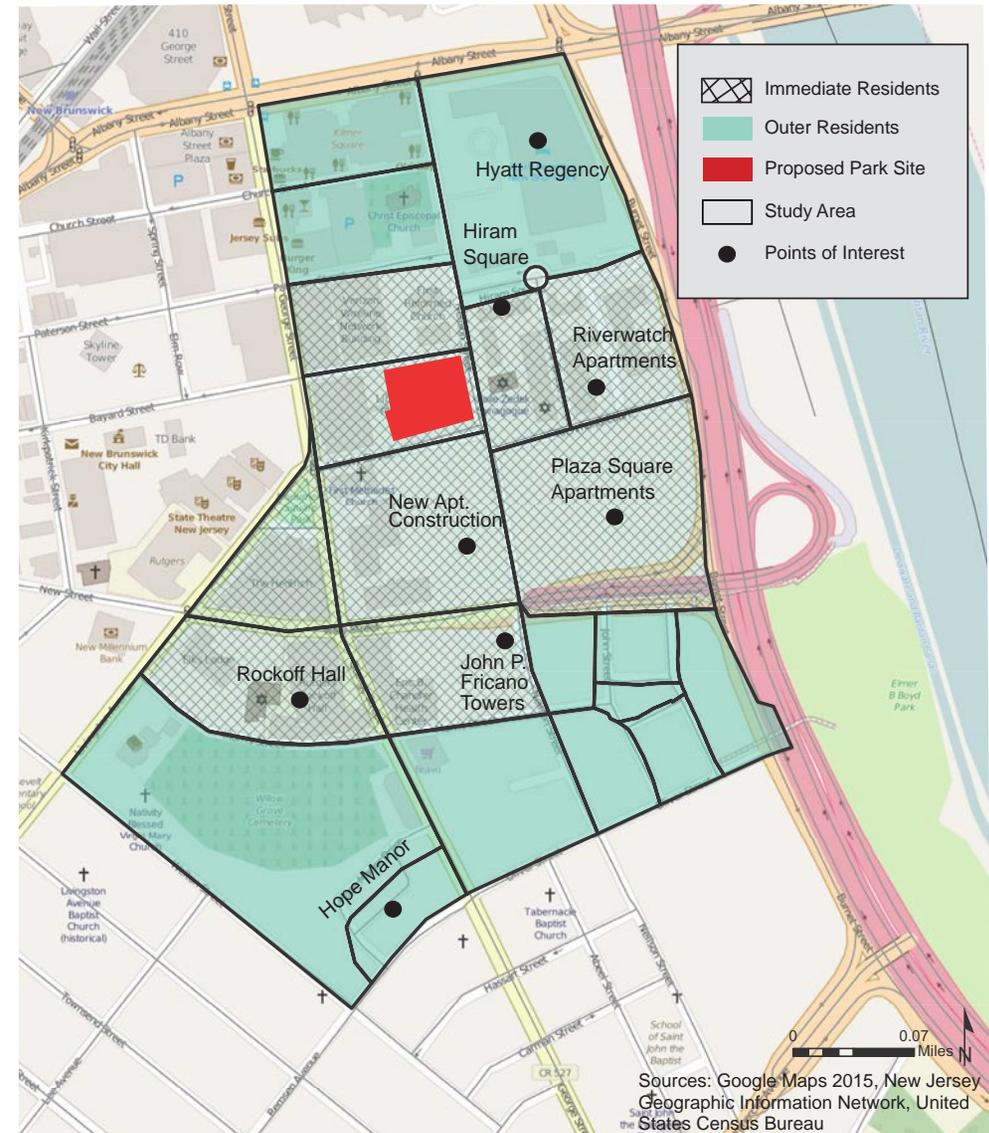
THE STUDY AREA



POTENTIAL PARK USERS

Five key user groups identified:

- (1) Immediately adjacent residents
- (2) Non-adjacent residents ('Outer')
- (3) Daytime users
- (4) Children
- (5) Seniors

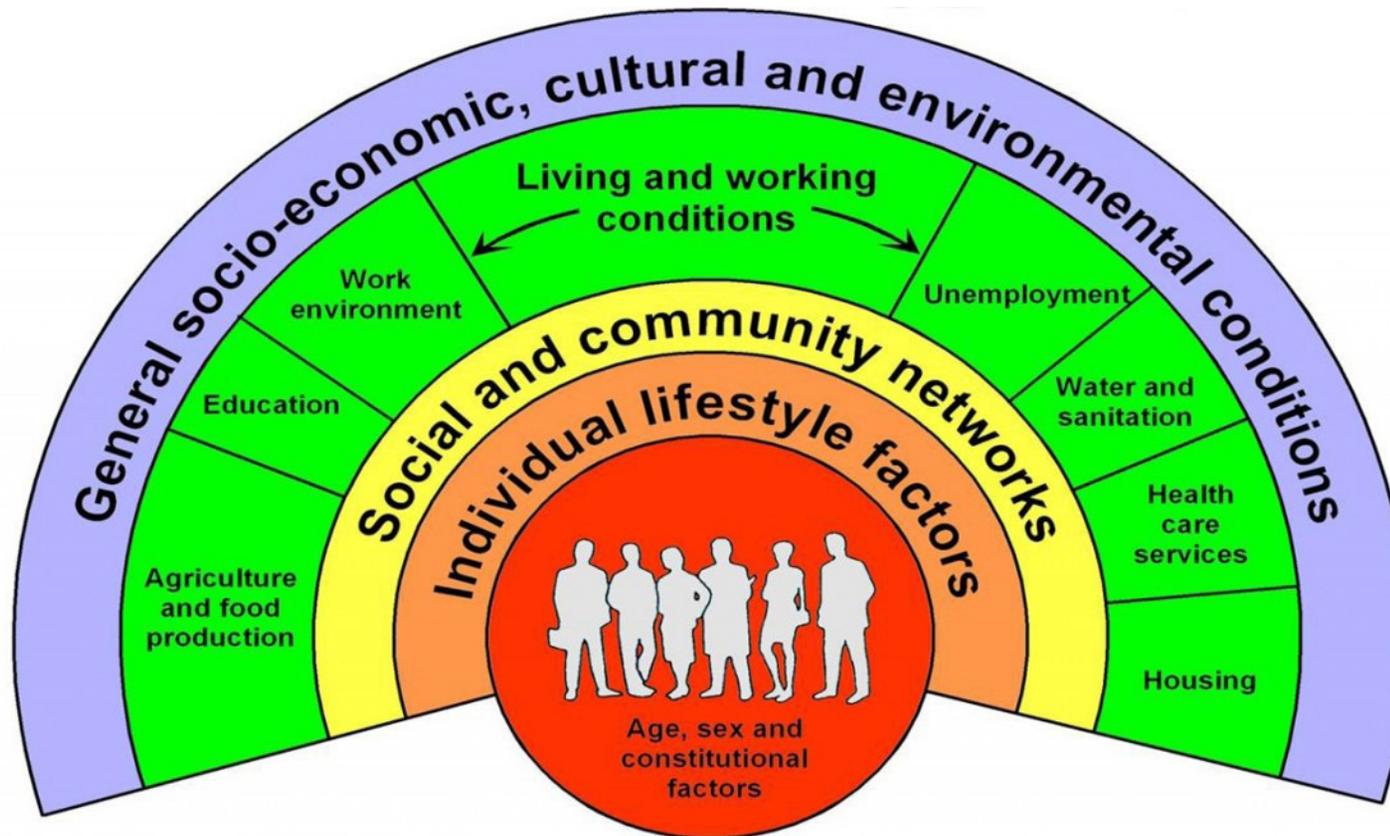


PARK USERS :

Underserved Populations

Underserved Population	Health Challenges
Seniors	<ul style="list-style-type: none">• streetscapes and parks lack mobility-sensitive amenities & design• more likely to experience psychological symptoms of distress• (unclean) open spaces often perceived as unsafe
Children	<ul style="list-style-type: none">• sedentary activities becoming more common• many lack access to well maintained play areas
Disabled Adults	<ul style="list-style-type: none">• streetscapes and parks lack mobility-sensitive amenities & design• more likely to experience psychological symptoms of distress• more likely to be overweight/obese and have high blood pressure
African Americans & Latinos	<ul style="list-style-type: none">• minority neighborhoods less likely to have walkable streetscapes• more likely to be overweight/obese and have diabetes

URBAN PARKS & PUBLIC HEALTH



Source: Dahlgren and Whitehead, 1991

URBAN PARKS & PUBLIC HEALTH

Urban parks are:

“green engines to help address health to housing, to education and environmental justice, and countering sprawl to combating crime”

Trust for Public Land:

- City benefits can be as high as \$350 million (direct use benefits)

USDA Forest Service,
Study of Lincoln Park, Chicago:

- Minorities travel farther, travel by car more frequently, visit less, and more likely to visit in groups

Pier A Park, Hoboken NJ



URBAN PARKS & PUBLIC HEALTH

- Some populations are at higher risk for health disparities
- US Dept. of Health and Human Services
 - Healthy People 2020
 - National effort dedicated to improving health outcomes



“Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities”

URBAN PARKS & PUBLIC HEALTH

Physical	Mental and Social	Environmental
<ul style="list-style-type: none">• Combat Obesity and related diseases• Saves direct health care \$ spent on treatment• Saves indirect costs of lost productivity	<ul style="list-style-type: none">• Decreased stress and depression levels• Less potential for mental fatigue• Symptom alleviation for ADD, Alzheimer's and Dementia• Fosters learning, alertness, imagination, creativity• Reinforces social ties	<ul style="list-style-type: none">• Decrease pollution• Mitigate stormwater runoff• Provide cooling winds• Protect biological diversity

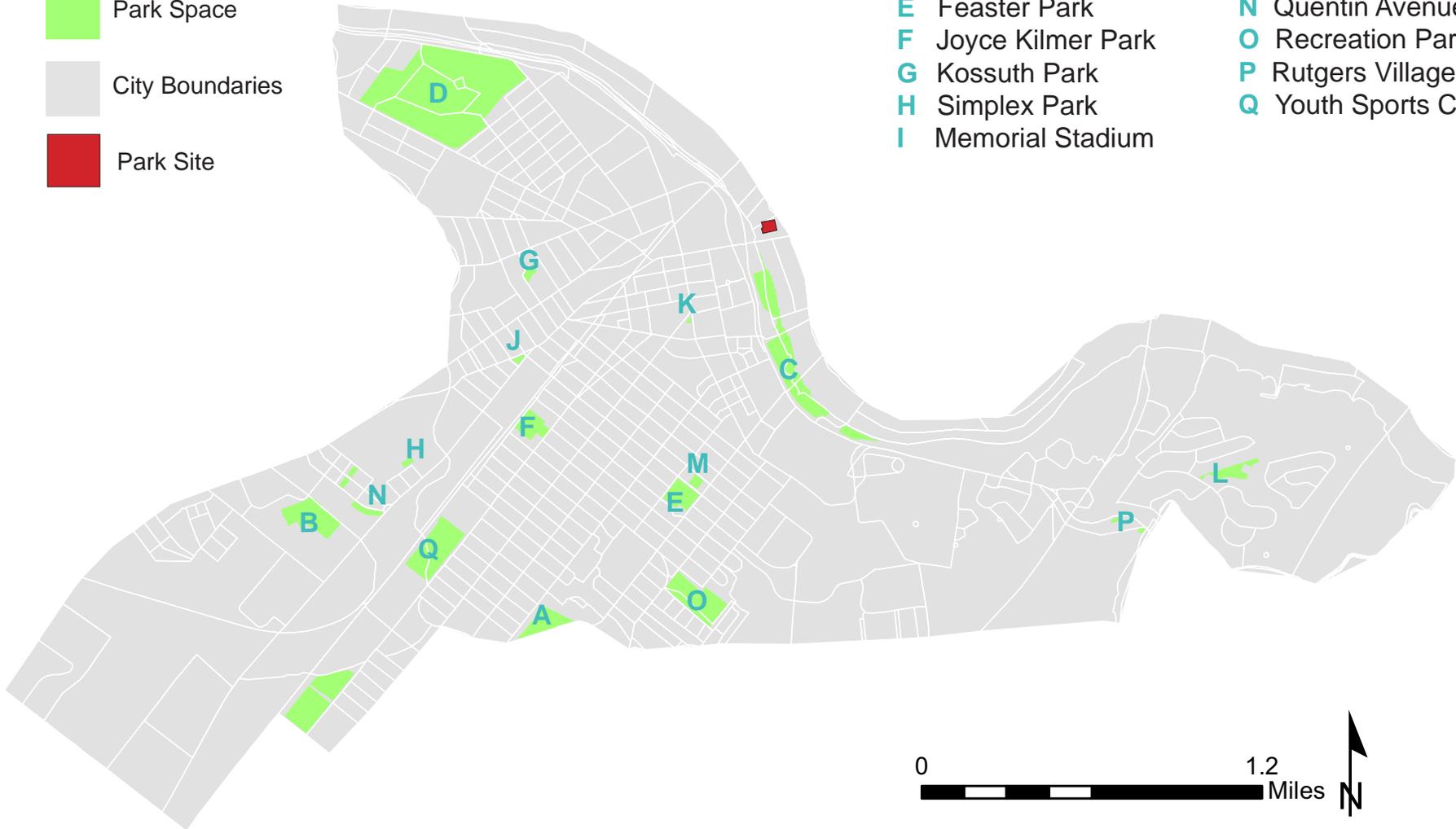
LOCAL HEALTH SNAPSHOT

- In Middlesex County:
 - Highest rates of diabetes among those 65 years and older, males, and black residents
 - Highest rates of heart disease in non-Hispanic whites, males, and individuals Seniors
- NJ Childhood Obesity Survey identified four important trends in New Brunswick childhood obesity:
 - NB children are more likely to be overweight and obese than nationally
 - Obesity is particularly prevalent in younger, Hispanic children
 - Most children do not meet daily recommended 60 min. of physical activity
 - Traffic, sidewalk conditions, and crime deter many children from parks

EXISTING PARK SPACE



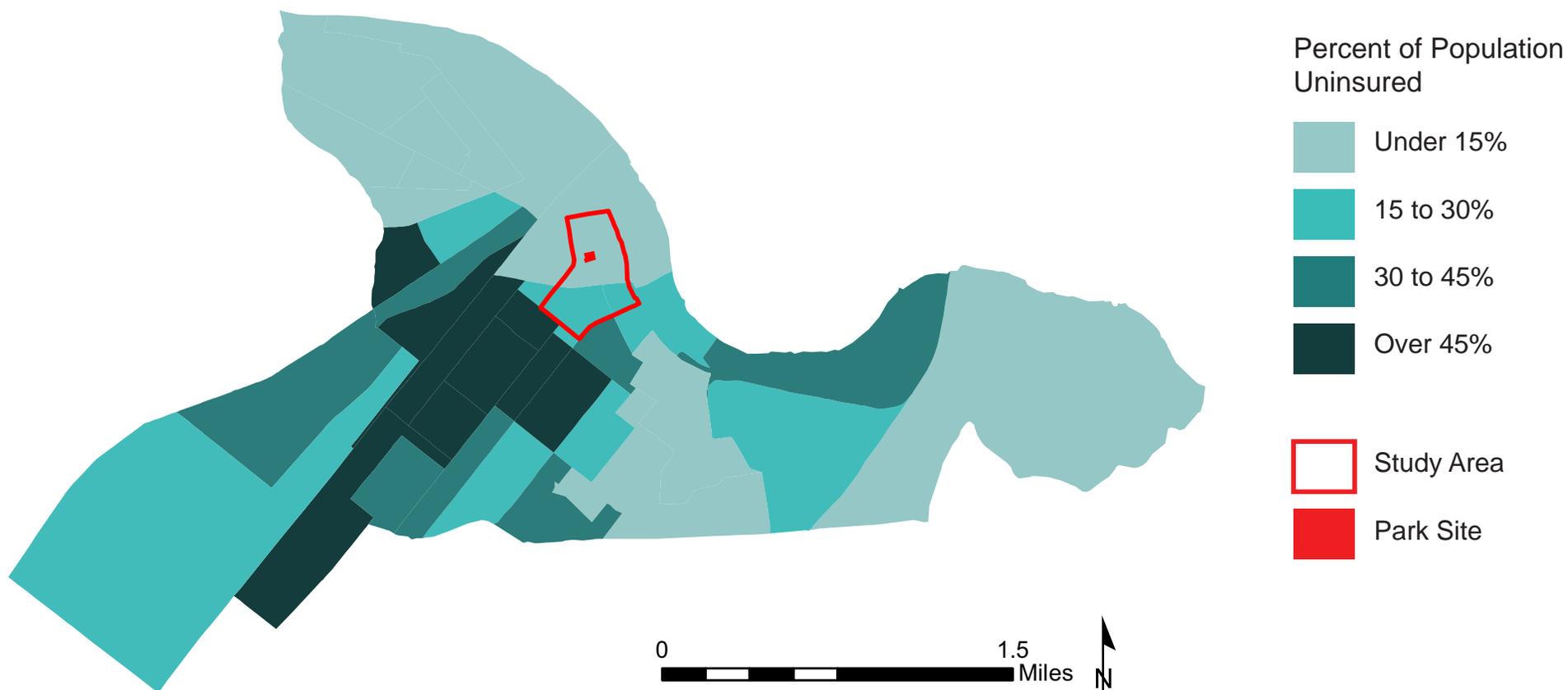
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|----------------------------|------------------------------------|
| A Alex Baker Park | J Monument Park |
| B Archibald Park | K Monument Square Park |
| C Boyd Park | L Murphy Park |
| D Buccleuch Park | M Pitman Park |
| E Feaster Park | N Quentin Avenue Park |
| F Joyce Kilmer Park | O Recreation Park |
| G Kossuth Park | P Rutgers Village Mini Park |
| H Simplex Park | Q Youth Sports Complex |
| I Memorial Stadium | |



Data sources: New Jersey Department of Environmental Protection (NJDEP), 2013; Middlesex County Department of Planning, NJ Office of Information Technology (NJGIT) Park Amenity Inventory adapted from New Brunswick Parks and Gardens Brochure, 2015

HEALTH INSURANCE

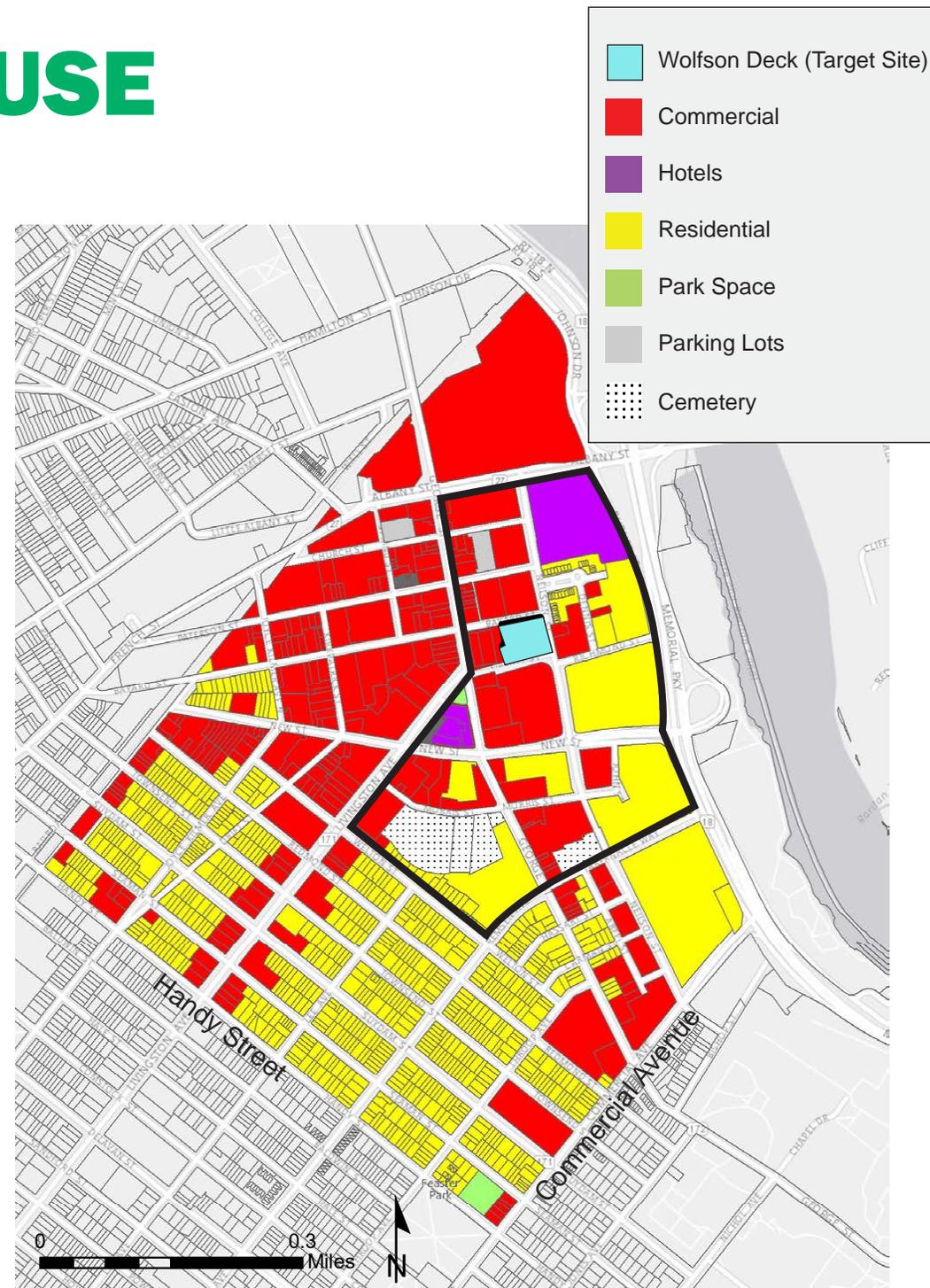
- Downtown core & Rutgers campuses: 0 to 15% uninsured
- Block groups immediately south of downtown: 15 to 30% uninsured
- Livingston Ave residential corridor: Over 45% uninsured



Sources: New Jersey Geographic Information Network,
United States Census Bureau, ACS 2013

DOWNTOWN LAND USE

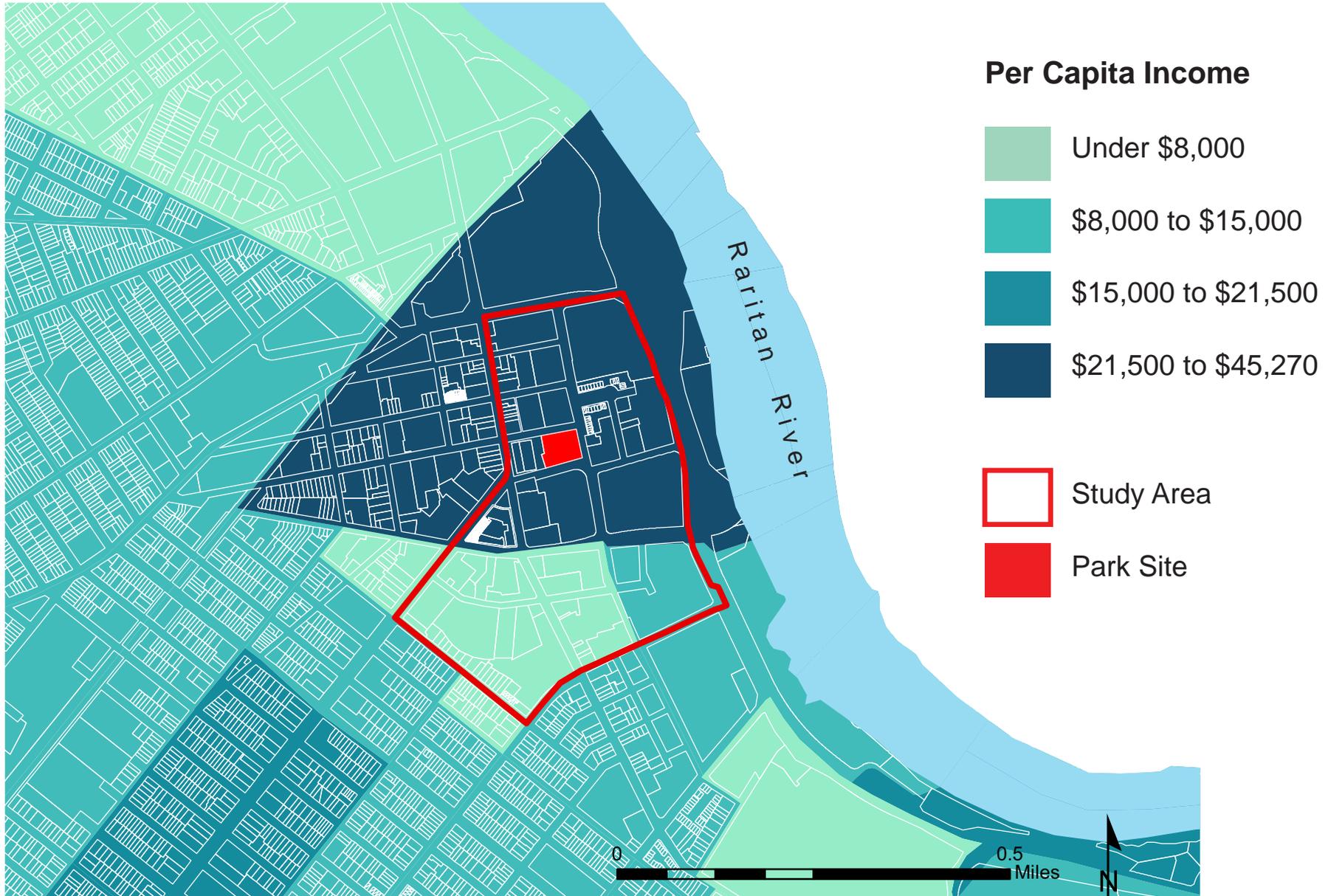
- Dominating land uses city-wide are residential, commercial and industrial
- Downtown land use primarily commercial
- Residential development in the downtown area has been increasing over past few years



Data sources: New Jersey Department of Environmental Protection (NJDEP), 2013; Middlesex County Department of Planning, NJ Office of Information Technology (NJOIT)

STUDY AREA INCOME

Per Capita Income



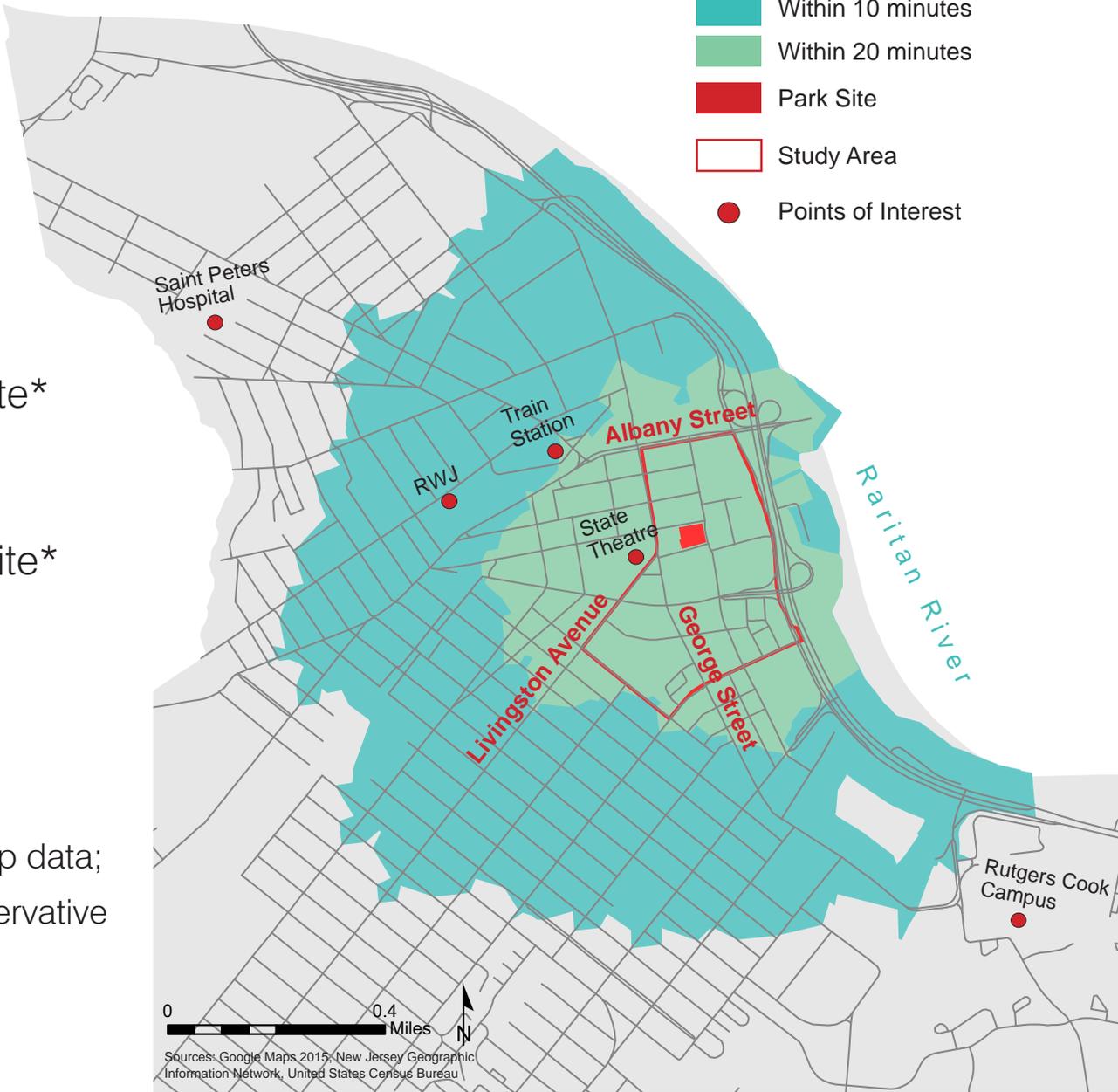
Data sources: New Jersey Geographic Information Network, Google Maps, U.S. Census Bureau, ACS 5-year estimates

LINKAGES & ACCESS

Residents in walking distance:

- 4,579 live within 10 minutes of site*
- 23,447 live within 20 minutes of site*

*Data from 2013 5-Year ACS block group data; walking network calculated from a conservative estimated movement speed of 2.8 mph



LINKAGES & ACCESS

Wayfinding

- Majority of signage located at or near train station
- Oriented to parking, business, government, theater, transit, & healthcare
- Downtown/ City market districts less wayfinding signage than other parts of city
- Little to no wayfinding present for public spaces including existing park space
- Little wayfinding for non-English speaking community members
- Primary concerns are Hispanic/Latino & Russian-speaking senior populations

LINKAGES & ACCESS

Wayfinding



LINKAGES & ACCESS

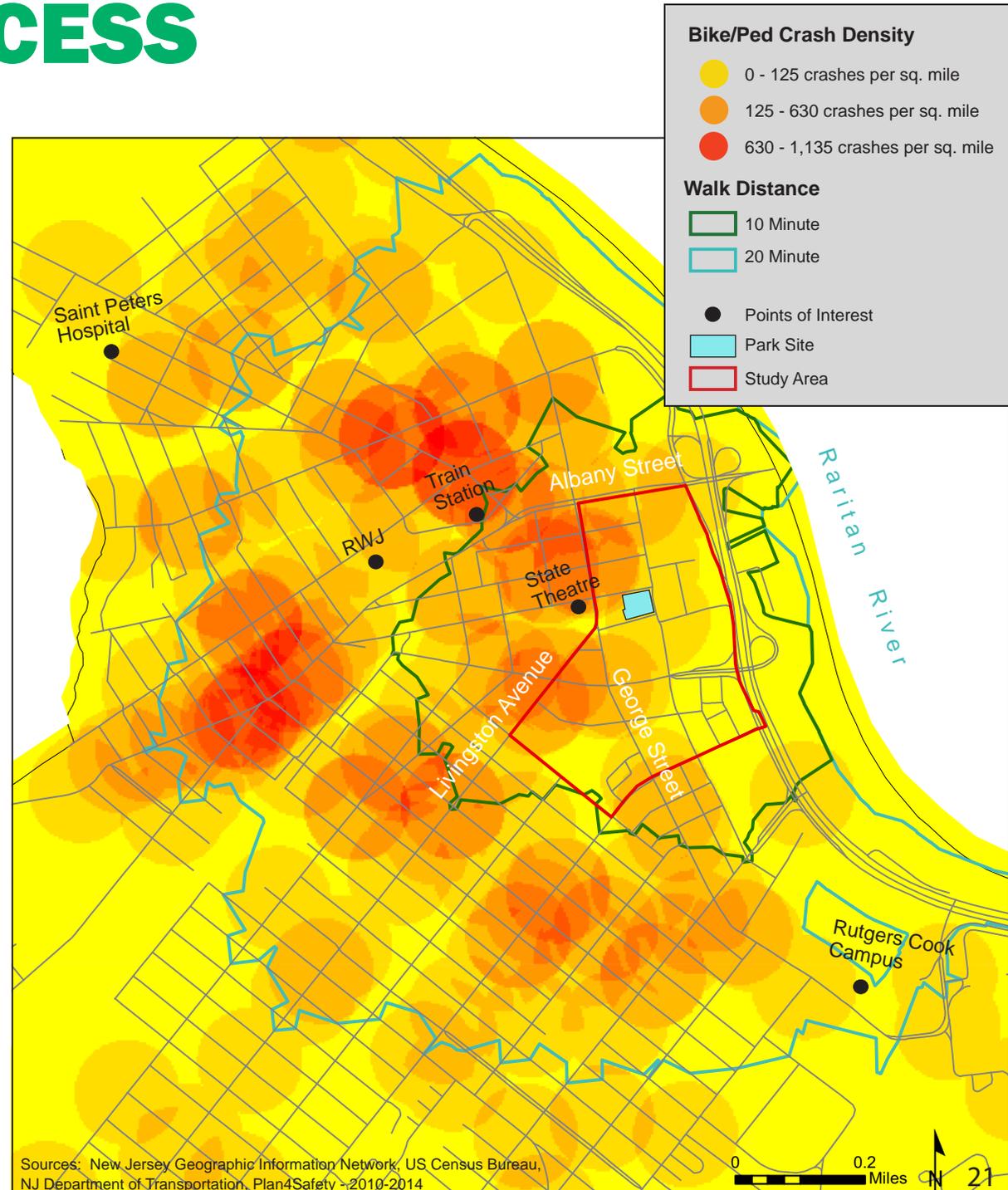
- Vehicle and Pedestrian Safety

- Bike-ped crashes cluster along two main corridors:

French St.

Easton Ave.

- Commercial corridors close to residential



STREET WALKABILITY

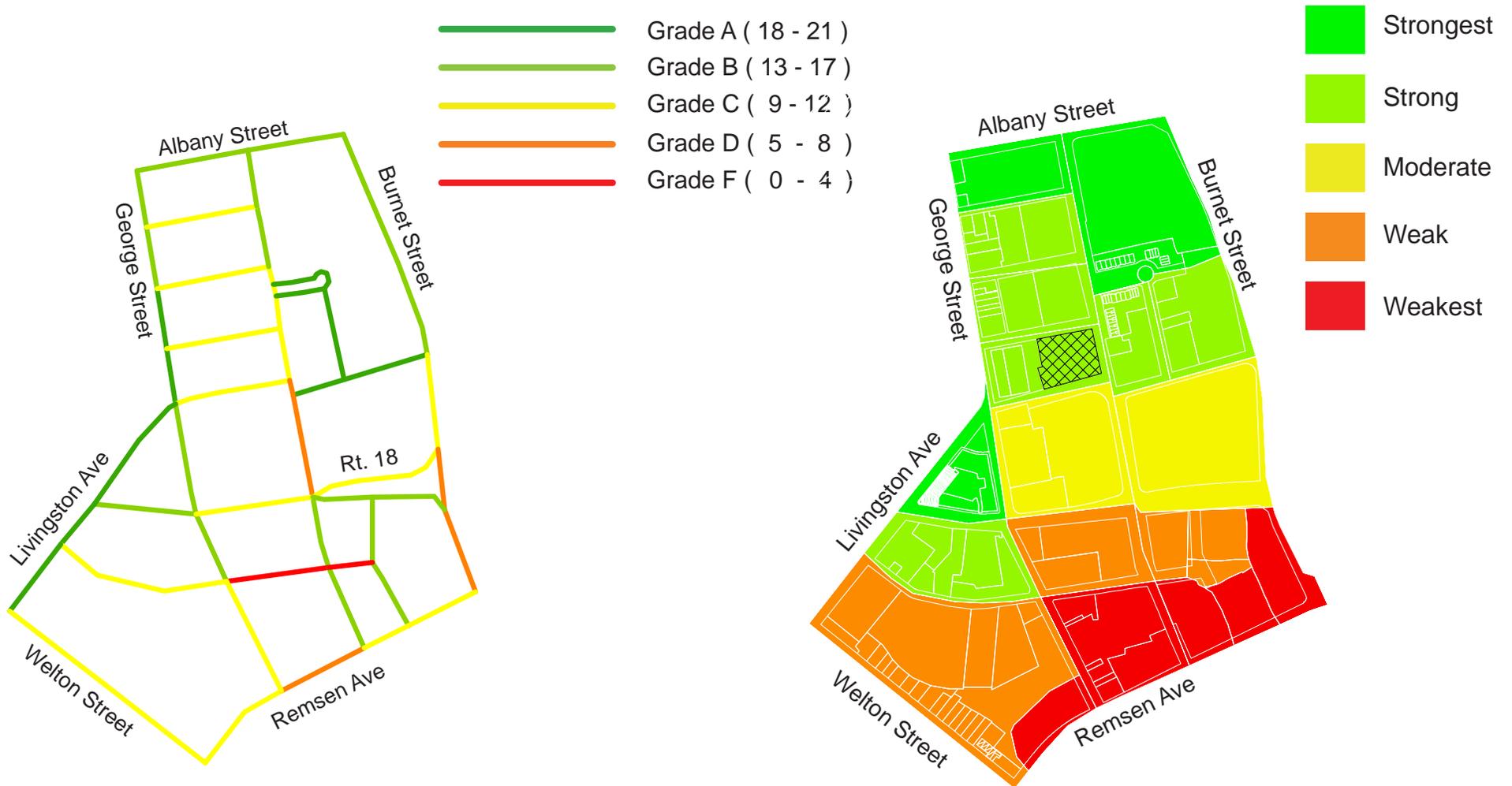
Methodology

- Eight weighted factors used for street and block condition analysis:

Factor	Weight
Sidewalks	0 - 5 Points
Lighting	0 - 4 Points
ADA compliance	0 - 3 Points
Obstructions	0 - 3 Points
Speed limit	0 - 2 Points
Cyclist accommodations	0 - 1 Points
Seating/amenities	0 - 1 Points

STREET WALKABILITY

Street and Block Condition Assessment



Data sources: Project team field work, 2015; Middlesex County Department of Planning, NJ Office of Information Technology (NJOIT); New Jersey Geographic Information Network (NJGIN)

STREET WALKABILITY

Street and Block Condition Examples

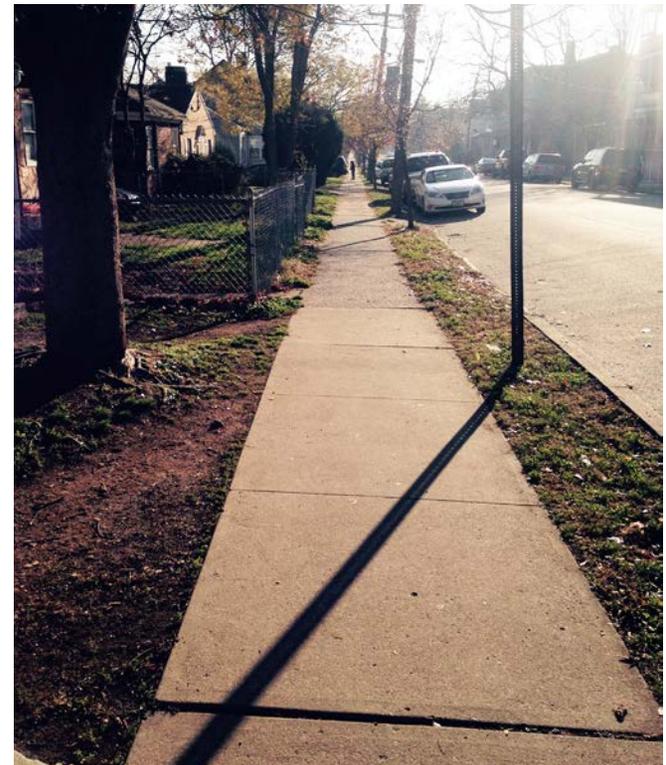


Street	Grade	Block Condition
Livingston Ave (Between George & Welton Streets)	A	Strong

STREET WALKABILITY

Street and Block Condition Examples

Street	Grade	Block Condition
Welton Street (Between Livingston & Remsen Avenues)	C	Weak



STREET WALKABILITY

Street and Block Condition Examples



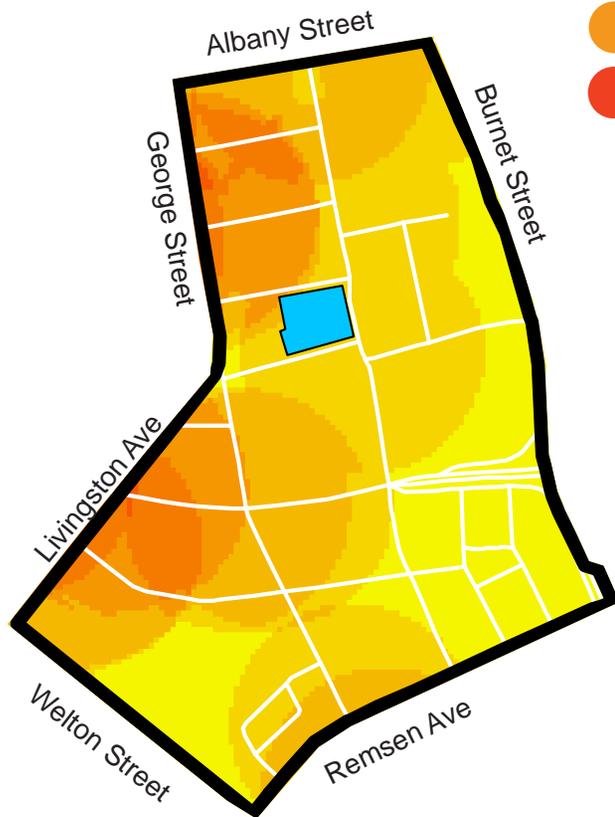
Street	Grade	Block Condition
Morris Street (Between George & John Streets)	F	Weak/Weakest

STREET WALKABILITY & SAFETY

Comparison of Crash Data and Field Work

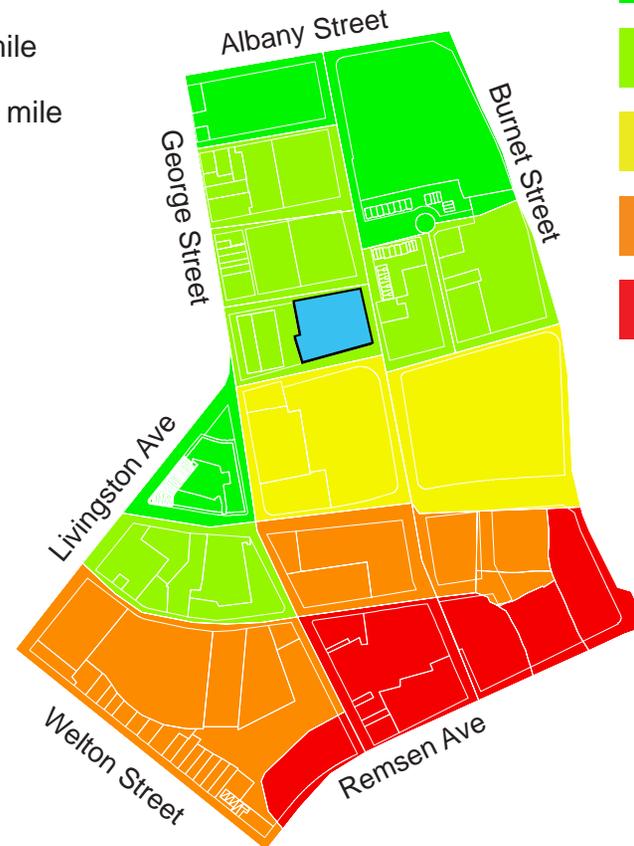
Bike/Ped Crash Density

- 0 - 125 crashes per sq. mile
- 125 - 630 crashes per sq. mile
- 630 - 1,135 crashes per sq. mile



Block Condition

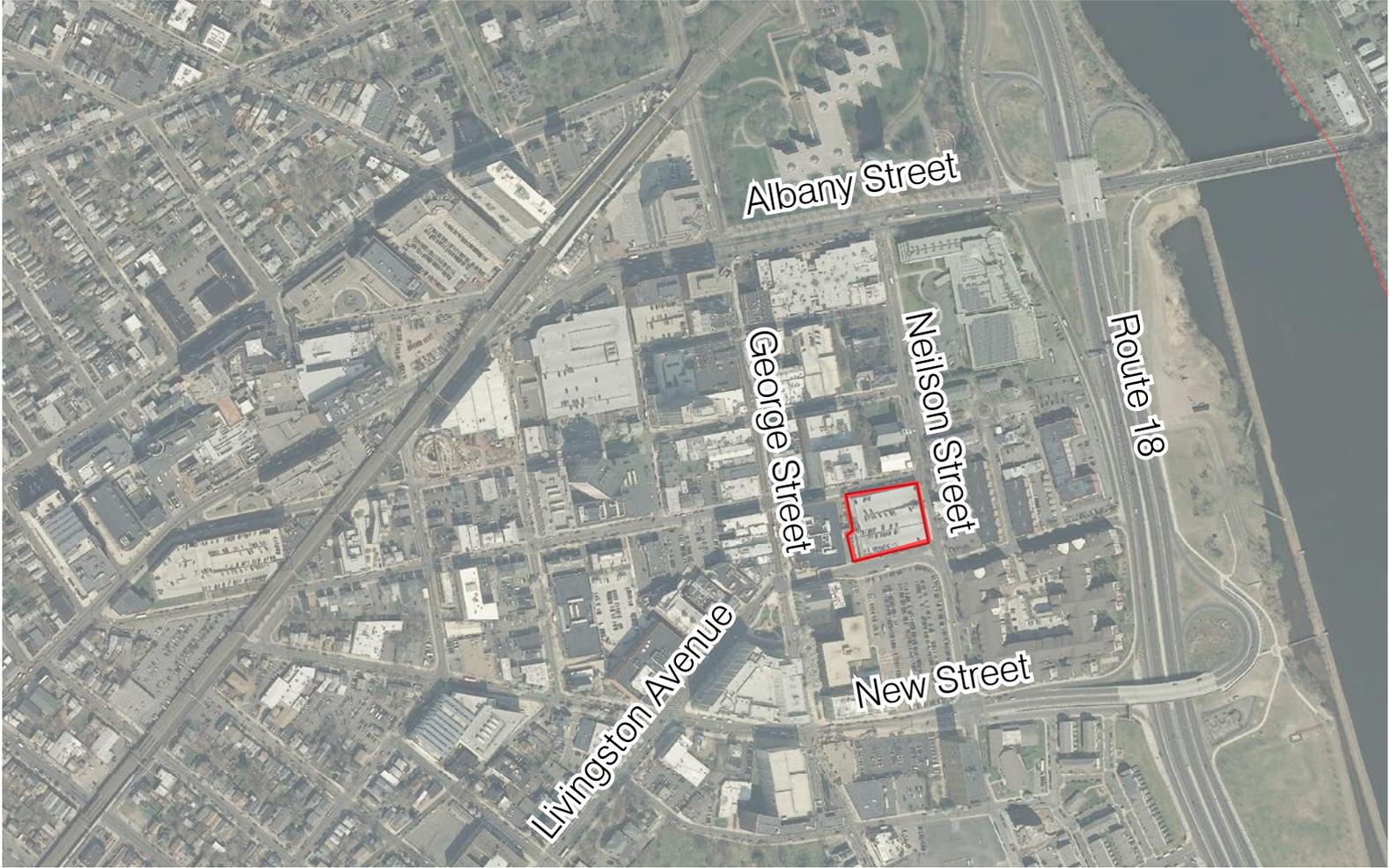
- Strongest
- Strong
- Moderate
- Weak
- Weakest



LINKAGE & ACCESS RECOMMENDATIONS

- Address pedestrian safety in high accident areas
- Prioritize sidewalk and crosswalk improvements at New St. and Neilson St.
- Also focus on residential neighborhoods south of New St.
- Redesign wayfinding network to focus on downtown rather than healthcare & theatre district only
- Signage at transition points and high traffic areas
- Uniform aesthetic (city and county integration)
- Multi-lingual signage
- Maps (easier to use than signs)

PARK SITE DESIGN CONCEPT



Sources: New Jersey Geographic Information Network, 2012 Orthophotography



PARK SITE DESIGN CONCEPT

Uses	Potential Benefits	Potential Issues
Childrens Play Area	<ul style="list-style-type: none"> • Physical activity • Socialization • Mental stimulation 	<ul style="list-style-type: none"> • Injuries • Vehicle emissions • High density Traffic
Dog Park	<ul style="list-style-type: none"> • Physical activity • Socialization 	<ul style="list-style-type: none"> • Sanitation • Animal/human injuries (dog bites)
Water Feature	<ul style="list-style-type: none"> • Mental stress relief • Natural air purifier 	<ul style="list-style-type: none"> • Sanitation
Staging/Event Area	<ul style="list-style-type: none"> • Community cohesion • Promotes youth activity • Socialization 	<ul style="list-style-type: none"> • Noise • Liter • Crowding
Seating	<ul style="list-style-type: none"> • Socialization • Mental relaxation • Reduces physical fatgiue 	<ul style="list-style-type: none"> • Liter • Pests • Loitering

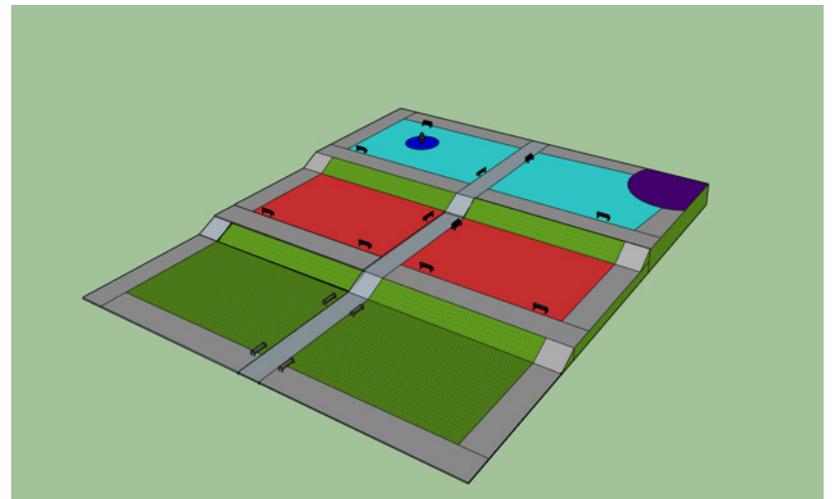
PARK SITE DESIGN CONCEPT

Recommended Park Uses	Children	Seniors	Immediate Residents	Outer Residents	Daytime
Childrens Play Area	✓			✓	
Dog Park		✓	✓	✓	✓
Water Feature	✓	✓	✓	✓	✓
Staging/Event Area		✓	✓	✓	
Seating		✓	✓	✓	✓

SITE CONSIDERATIONS

Design Issues to Consider:

- Slope
- ADA
- Runoff
- Space



SITE CONSIDERATIONS

- Options for dealing with slope

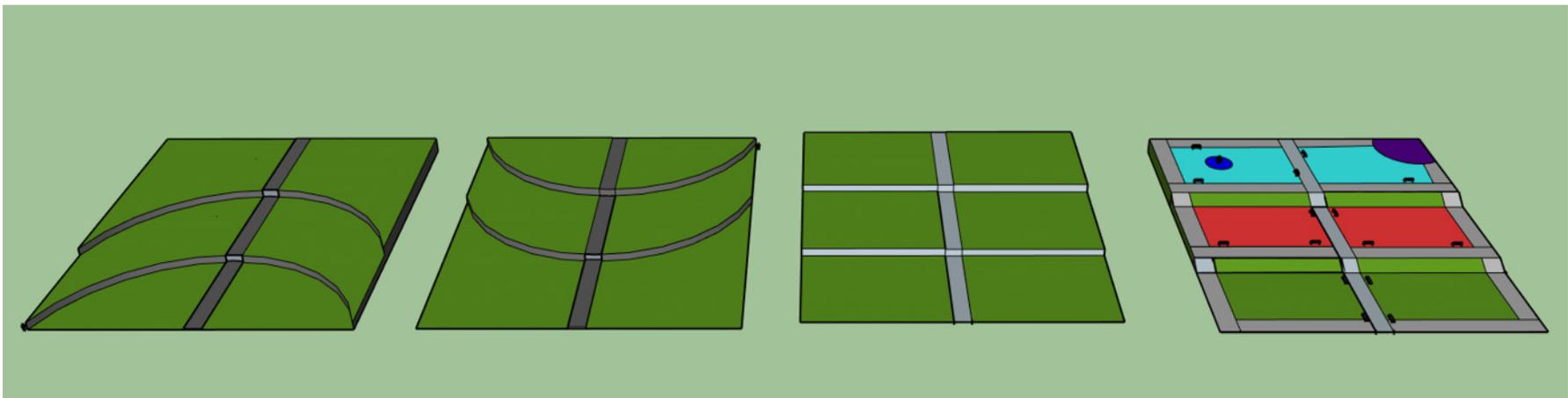
Arching

- Largest singular open space

Rectangular Steps

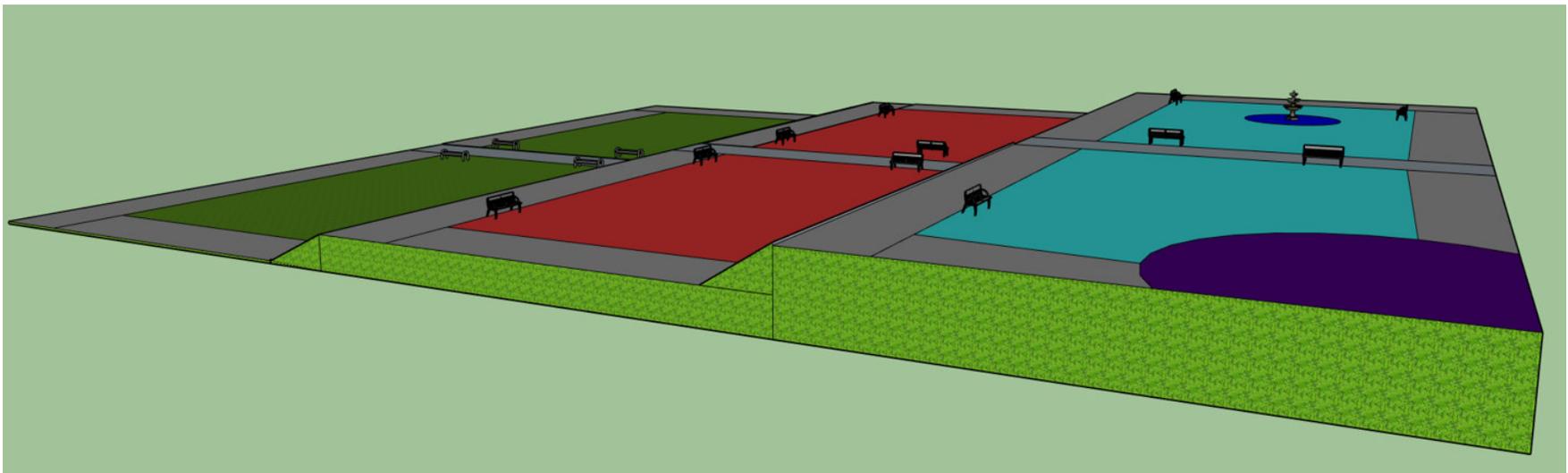
- Most Uniform

Rectangular Sloped Steps



RECOMMENDED USES

- Childrens Play Area
- Dog Run
- Staging/Event Area
- Water Feature
- Seating Area



RECOMMENDED ELEMENTS

Elements	Recommendation and Health Benefits
Entrance	<ul style="list-style-type: none">• Sense of ownership• Sense of location and presence
Fencing	<ul style="list-style-type: none">• Large surrounding exterior combined with smaller for certain spaces in interior• Separates uses, sense of safety and privacy that encourages use of park
Seating	<ul style="list-style-type: none">• Arm rail seating/flat bench seating• Separation between users and athletic adaptation
Shading	<ul style="list-style-type: none">• Perimeter trees• Provides cooling space and cleaner air
Lighting	<ul style="list-style-type: none">• Pillar and ground spot lights• Less need for security but allows for slope recognition
Playground	<ul style="list-style-type: none">• Interactive play area with permeable surface• Greatest opportunity for youth activity
Sanitation	<ul style="list-style-type: none">• Water sanitation and physical debris

ADDITIONAL RECOMMENDATIONS

- Collect more health data
- Stakeholder engagement on park design
 - Outreach to target subpopulations
- Park sustainability
 - Corporate sponsorship
 - Volunteer groups
- Develop programming that addresses needs of subpopulations
 - Partner with local schools, businesses, Rutgers University

FINDINGS

- A new park for downtown would have significant health impacts to residents and visitors
- Safety, sidewalk and crossing conditions, and wayfinding present linkage and access challenges
- Many potential user groups sharing a small space present site and programming specific challenges
- Community engagement is needed to maximize the future design and programming for the site

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THANK YOU !

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