



RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

RICHMOND *RIVERFRONT* PLAN

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INTRODUCTION



INTRODUCTION

The James River is an unparalleled natural and cultural resource, unique to Richmond and critically poised to catalyze both growth and conservation at the core of the City. The Richmond Riverfront Plan is a transformative and comprehensive vision for the future of the downtown Richmond Riverfront on both the north and south sides of the James River. The 2009 Downtown Plan recognized the James River as one of the Seven Foundations of the Plan that embody both the citizenry's vision for the future of their Downtown and the basics of planning for highly livable cities. The Downtown Plan promotes the James River as Richmond's "great, wet Central Park" and recommended the creation of a detailed design plan for both banks of the riverfront from the Lee Bridge downstream to the City line/Ancarrow's Landing. The intention of the proposed design plan was to allow residents and visitors to fully enjoy this unique natural feature by creating a series of clear connections to the riverfront, developing a comprehensive system of natural open space along the river and creating green connections between city parks and the riverfront, expanding existing recreational activity along the river, such as waterfront festivals, kayaking and rowing, and to preserve views to the river by limiting building heights and protecting important viewsheds.

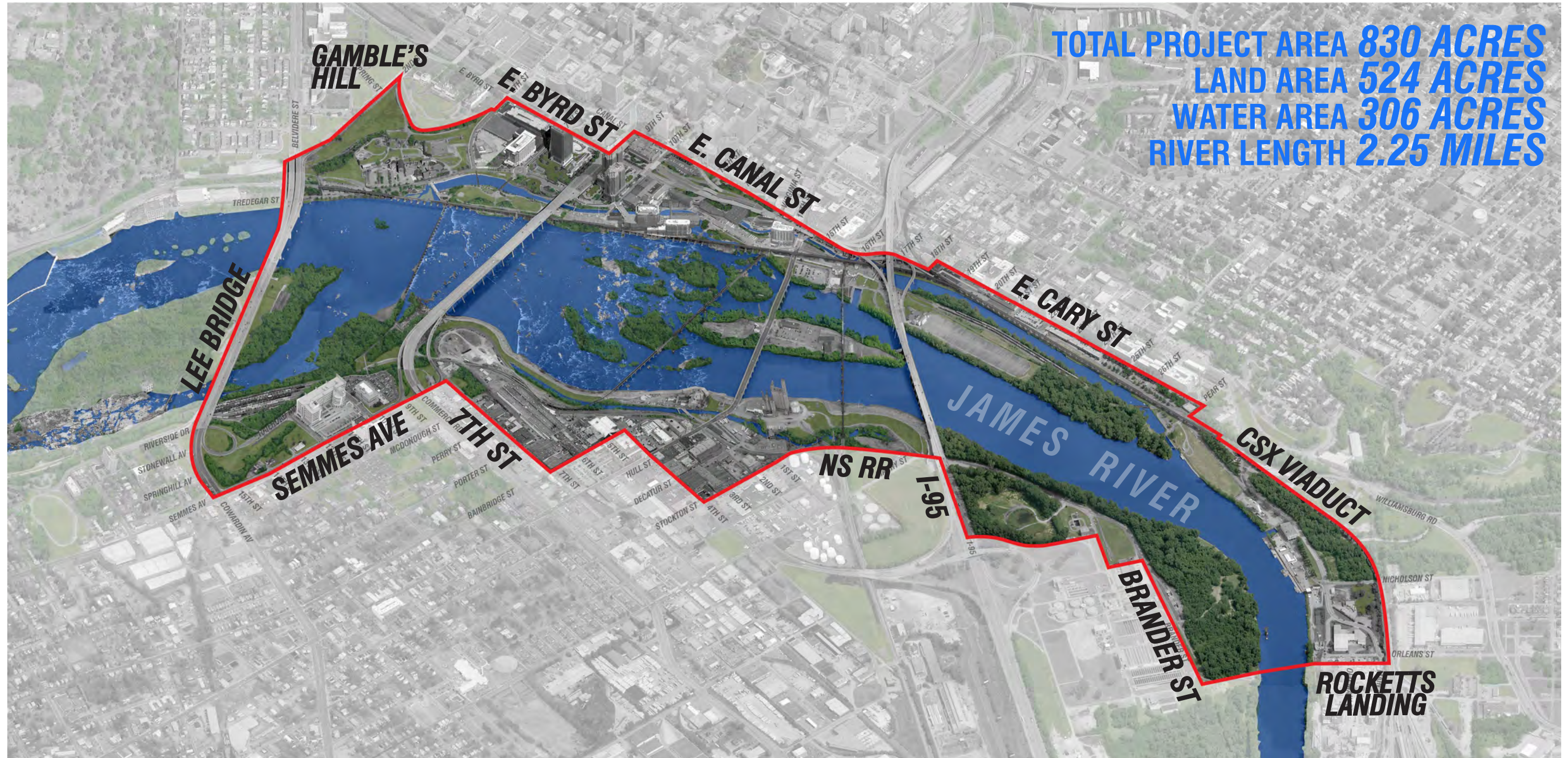
As a continuation of the 2009 Downtown Plan, the Riverfront Plan provides a bold strategy to revitalize this 2.25 mile long stretch of the James River, from the Lee Bridge to Rocketts Landing, extending at least 200' inland from both banks.

The river experience is foremost in importance. The James River is a singular resource that should be publicly accessible and protected for future generations. Expanded use and access should be accompanied by significant social, ecological, and economic improvements that are both quantitative and qualitative. The Plan recognizes and celebrates the wealth of Richmond's cultural history, industrial artifacts, and ecological diversity along the City's vibrant Riverfront. This melding of historic and contemporary cultural, industrial and natural forces has and continues to shape the distinctive sense of place that is Richmond.

The Plan identifies opportunities for new and expanded connections and open spaces, incorporating a broad range of landscape experiences and programmatic opportunities; it also highlights preferred private development sites that will both gain from and contribute to the long-term stewardship of the Riverfront. The Riverfront Plan establishes the James River as a shared amenity for Richmond's broader community, a dynamic year-round attraction for the surrounding counties and region, as well as an international destination. Strengthening and re-forging physical connections and continuities with the river will significantly enhance adjacent neighborhoods, reverberating benefits well beyond the project boundary.

The Riverfront Plan is the result of input from public and private study area stakeholders, community groups, and City organizations. In addition, three public presentations at the Virginia War Memorial, in September, October and December 2011, documented the evolution of the Riverfront Plan and generated substantial citizen input. The Riverfront Plan is the product of this critical dialogue, a document that represents Richmond's vision for the future of its Riverfront. The Riverfront Plan is a cohesive vision for incrementally achieving a transformed Riverfront, phased based on existing conditions, feasibility and anticipation for significant impact of both public and private redevelopment opportunities. Priorities reflect a balance of estimated capital costs, funding sources, and prospective short- or long-term impacts on access to and along the Riverfront. Strong leadership and a unified entity for long-term governance and stewardship will drive the Plan's implementation and the realization of a much-anticipated, renewed Richmond Riverfront.

Above all else, the Plan redefines the City-River relationship, dramatically expanding both visual and direct physical access to the James River. The Plan maps out a transformation comprised of incremental interventions, some bold and sweeping, and some subtle and strategic; together they describe an enhanced urban landscape. The long-term vision for the Richmond Riverfront is a sustainable public landscape corridor seamlessly connected with the River's significant resources upriver and downriver, and a reaffirmed focus on the James River as the heart of the Richmond region.



PROJECT BOUNDARY



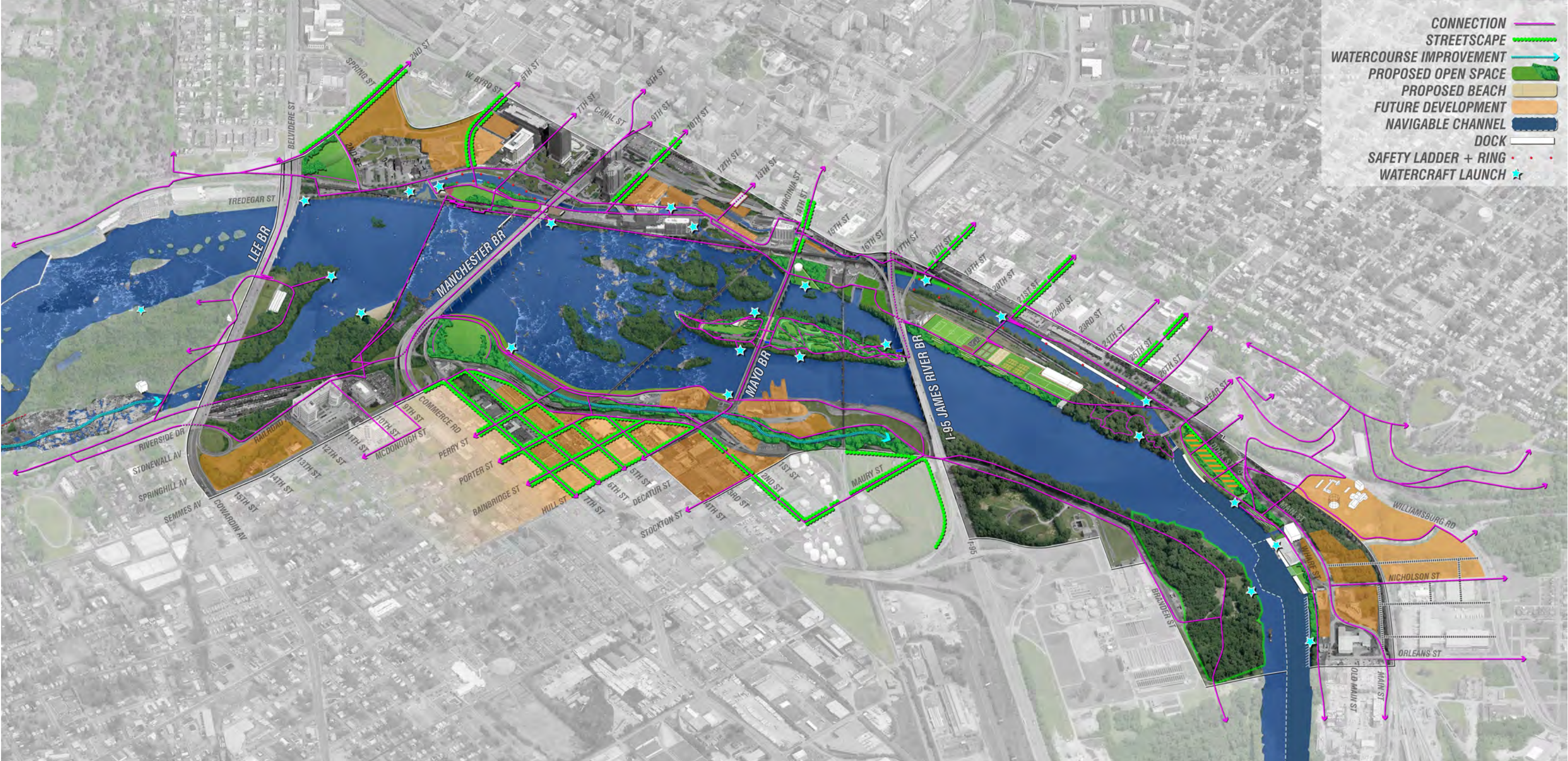
The project boundary focuses on the stretch of the James River between the Lee Bridge and Rocketts Landing, extending a minimum of 200-feet back from either bank to align with the street grid or rail tracks. The objective is to capture adequate acreage to be considered for either redevelopment or transformation into public open space, with direct adjacency to the river. These parcels will have direct influence on land use and access as the Riverfront evolves.

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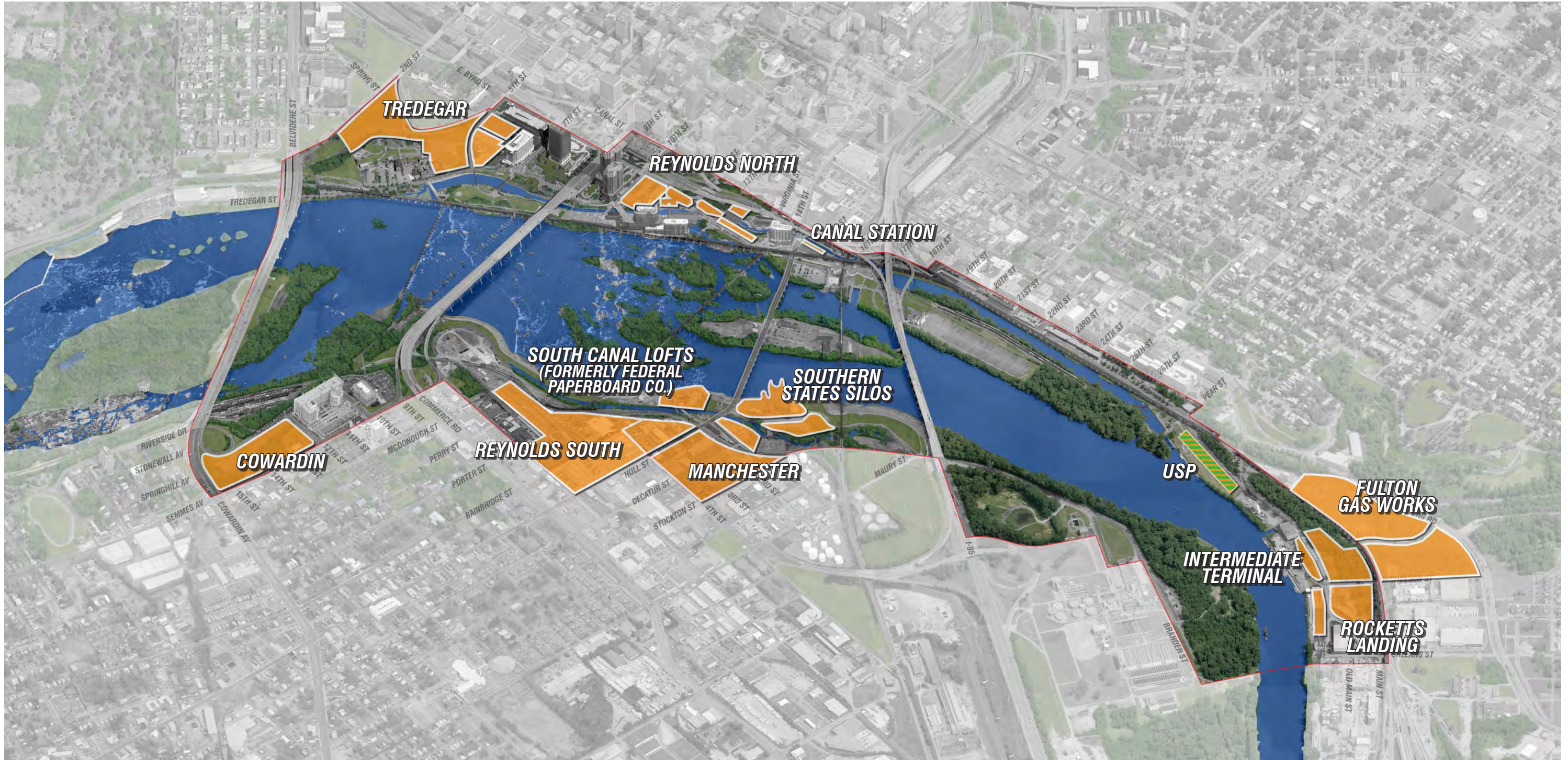
2

RIVERFRONT PLAN



RICHMOND RIVERFRONT PLAN A SINGLE, UNIFIED, COHESIVE SYSTEM



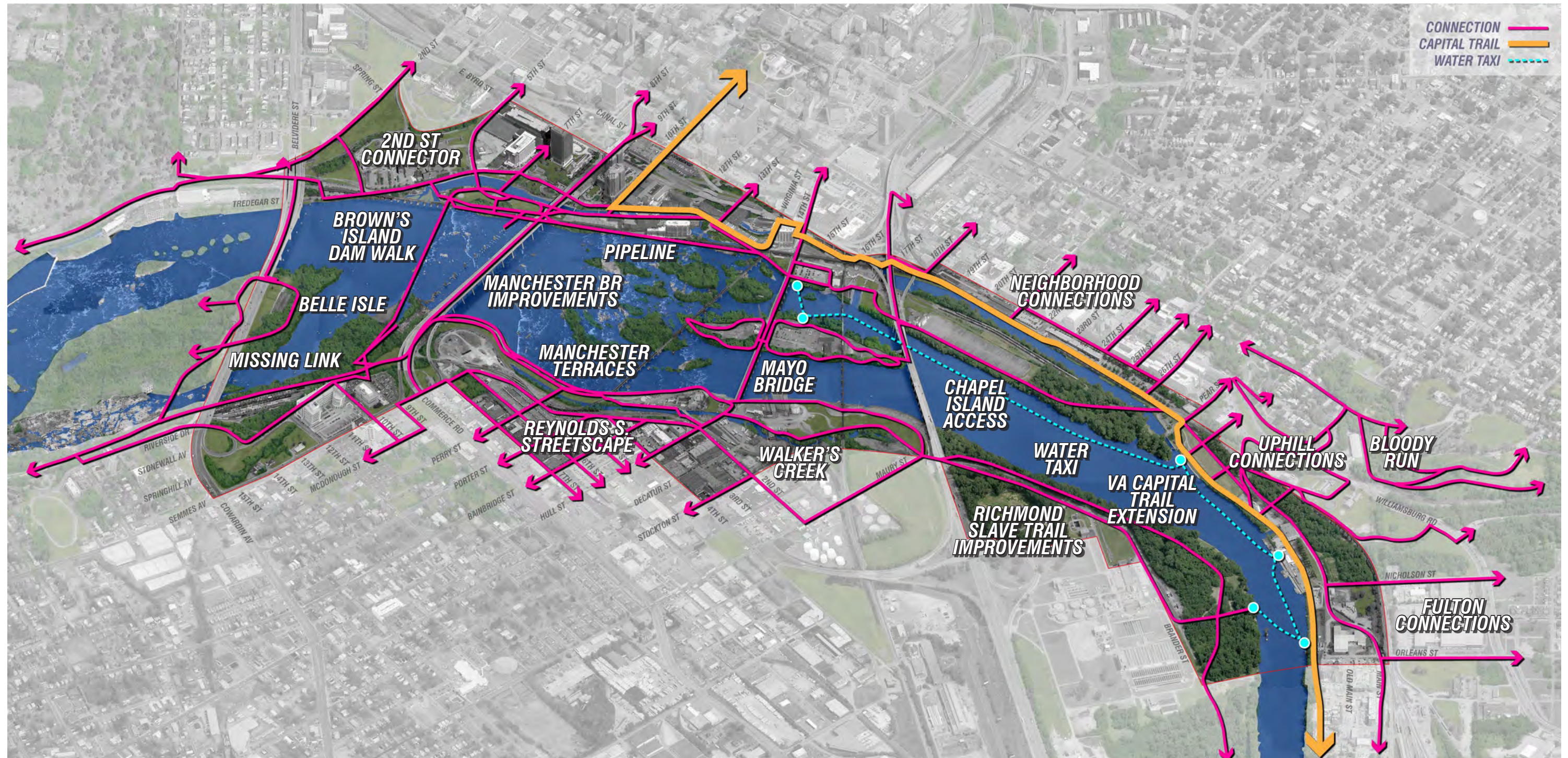


FUTURE DEVELOPMENT



The Plan anticipates incremental redevelopment of under-utilized parcels and languishing former industrial sites. Development strategies should favor mixed-use, with an emphasis on street level retail, where appropriate. The fundamental emphasis of redevelopment along the Riverfront is to intensify pedestrian activity at street level through infill development with sufficient density to be an attractor and destination of activity. Greater density reinforces urban character, provides for an increase in pedestrian activity, resulting in a safer and more vibrant city. Each redevelopment project will be subject to the existing public process and review to assess and enforce

massing and detailing complementary to the Riverfront. The architectural expression of new infill development should reference the rich historic context of the Richmond Riverfront, speaking to the present without discarding the past, creating the next generation of landmark structures and neighborhood places.

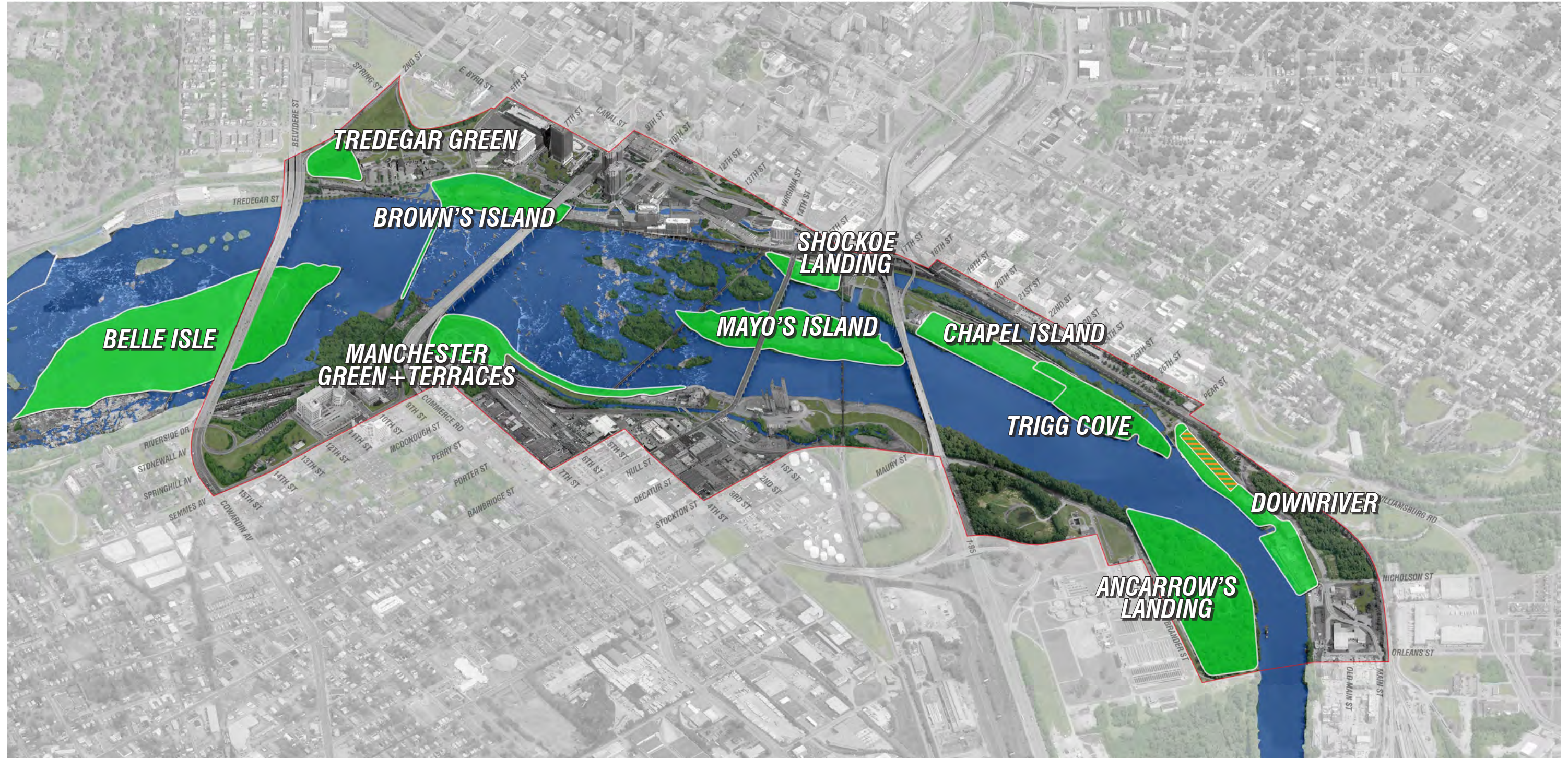


CONNECTIONS



The Richmond Riverfront currently enjoys an abundance of pedestrian and bike routes of varying quality and difficulty, from broad, pedestrian-only sidewalks, to multi-use walks and single-track, off-road bike trails. In several prominent locations, however, there are notable omissions and opportunities to dramatically improve this circulation network. At a basic level, the Plan is focused on improving access to the James River, encouraging greater ease of access to, along, across and around the river via a diversity of routes, some linear and some loops. Improving these connections hinges on expanded access along active rail tracks, across existing infrastructure structures, through both public and private

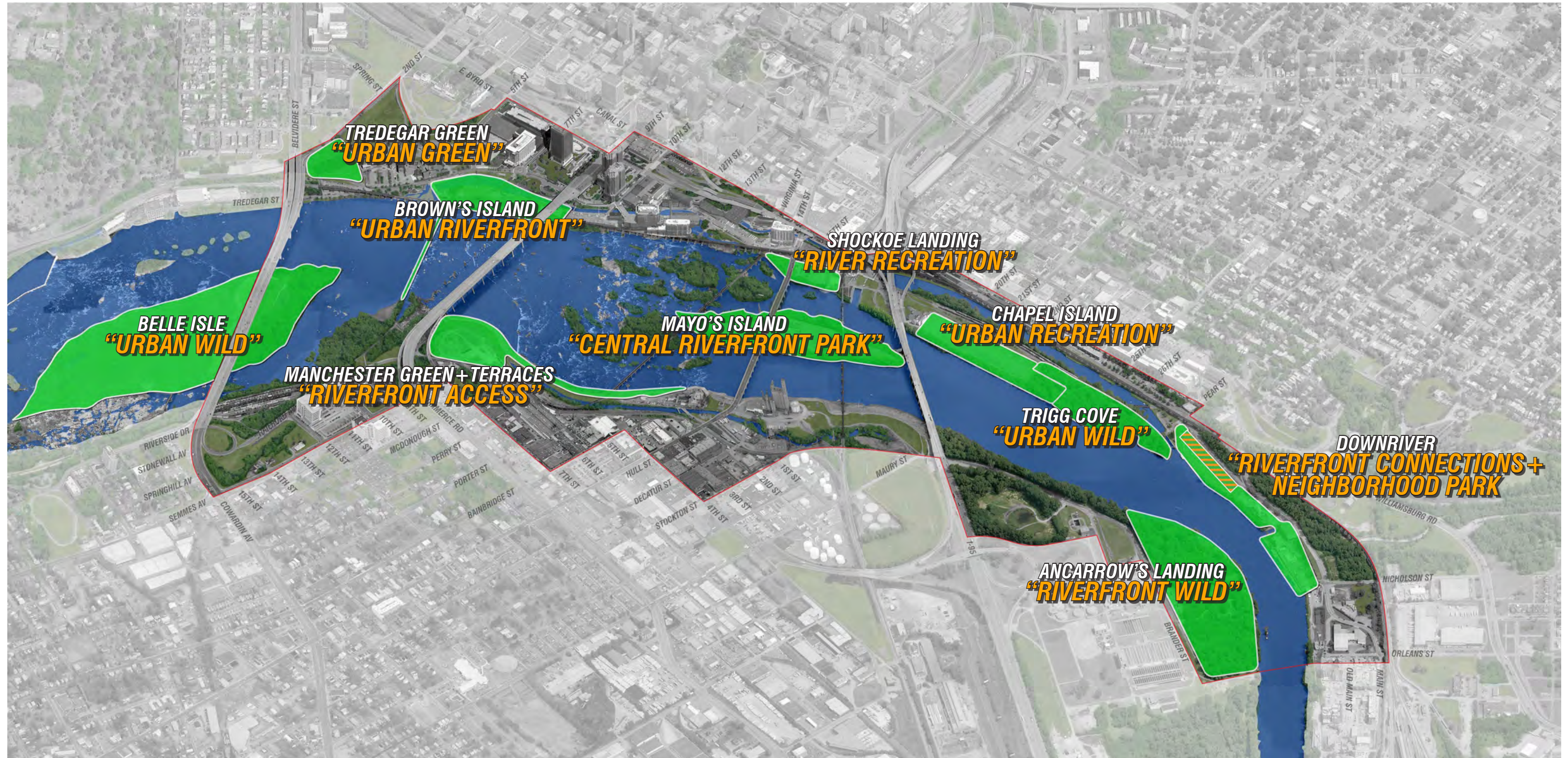
property, as well as public streetscape improvements. The Plan anticipates connections to broader regional networks, including the East Coast Greenway and the Virginia Capital Trail. Completing the Virginia Capital Trail from Great Shiplock Park downriver expediently is necessary to achieve completion of the trail to coincide with the sesquicentennial of the end of the Civil War and the World Road Cycling Championships in 2015.



PIVOTAL PLACES



There are ten underutilized sections of the Riverfront that can be reconfigured as pivotal destinations along the Riverfront. Each parcel has unique characteristics, constraints and adjacencies that define a singular potential for contributing to the larger Richmond Riverfront. These properties, highlighted in green, include: existing publicly-accessible spaces, existing public property, and property proposed for easements or outright acquisition.

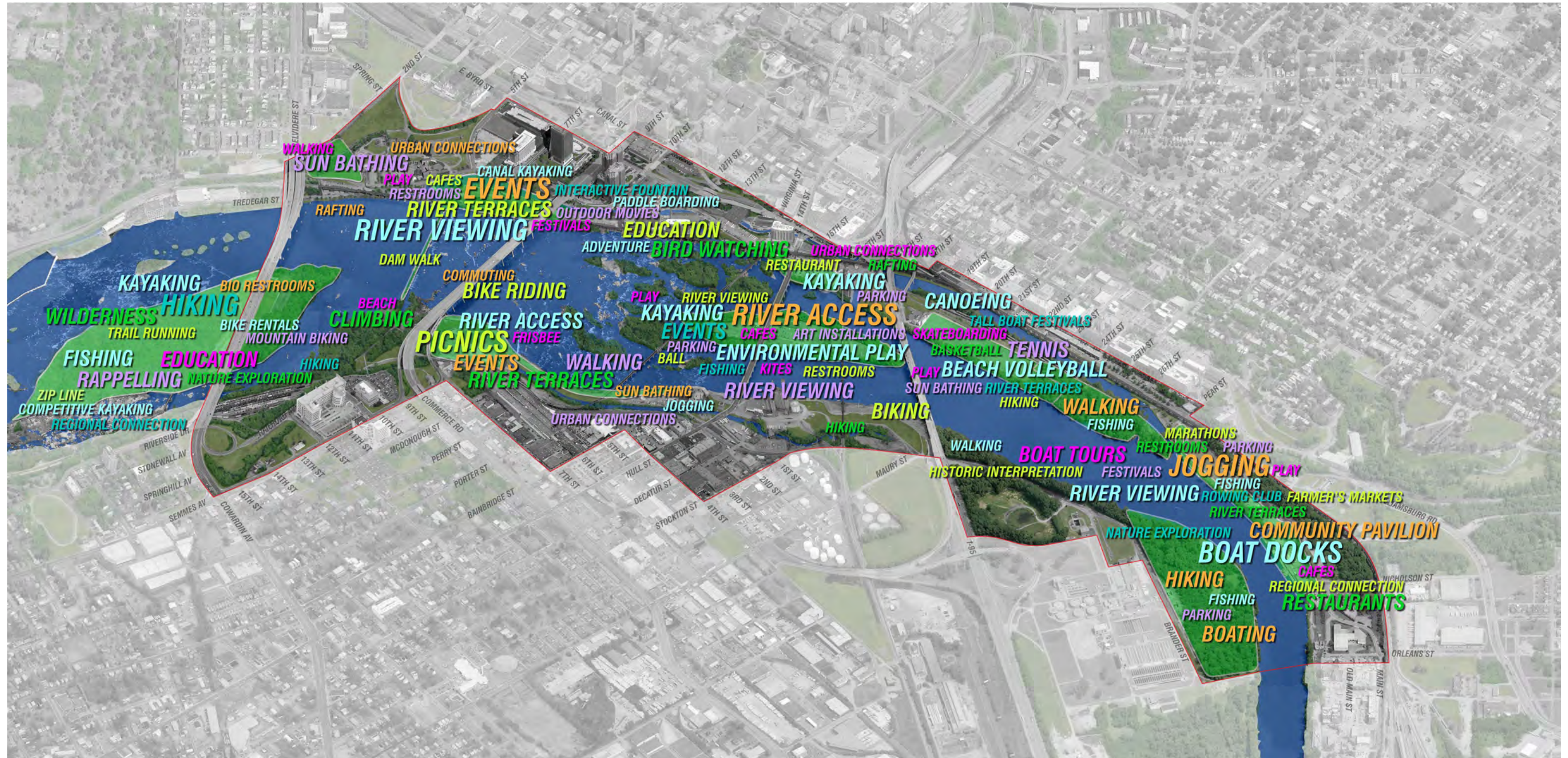


RIVERFRONT CHARACTER



The James River is the dominant landscape feature of Richmond, and the geographic determinant for the founding of the City. Richmond was historically sited at the Falls of the James, the geologic boundary separating the coastal plain from the Piedmont, and the farthest inland reach of tidal fluctuation, and therefore coastal commerce. This fall line or zone is most visibly associated with the rapids upstream of Mayo Bridge, and the steep descent to the tidal portion of the river. While the James River is a singular geographic feature, the riparian landscape it has sculpted at the micro scale is varied. Human occupation and successive waves of industrial development have dramatically transformed the Richmond

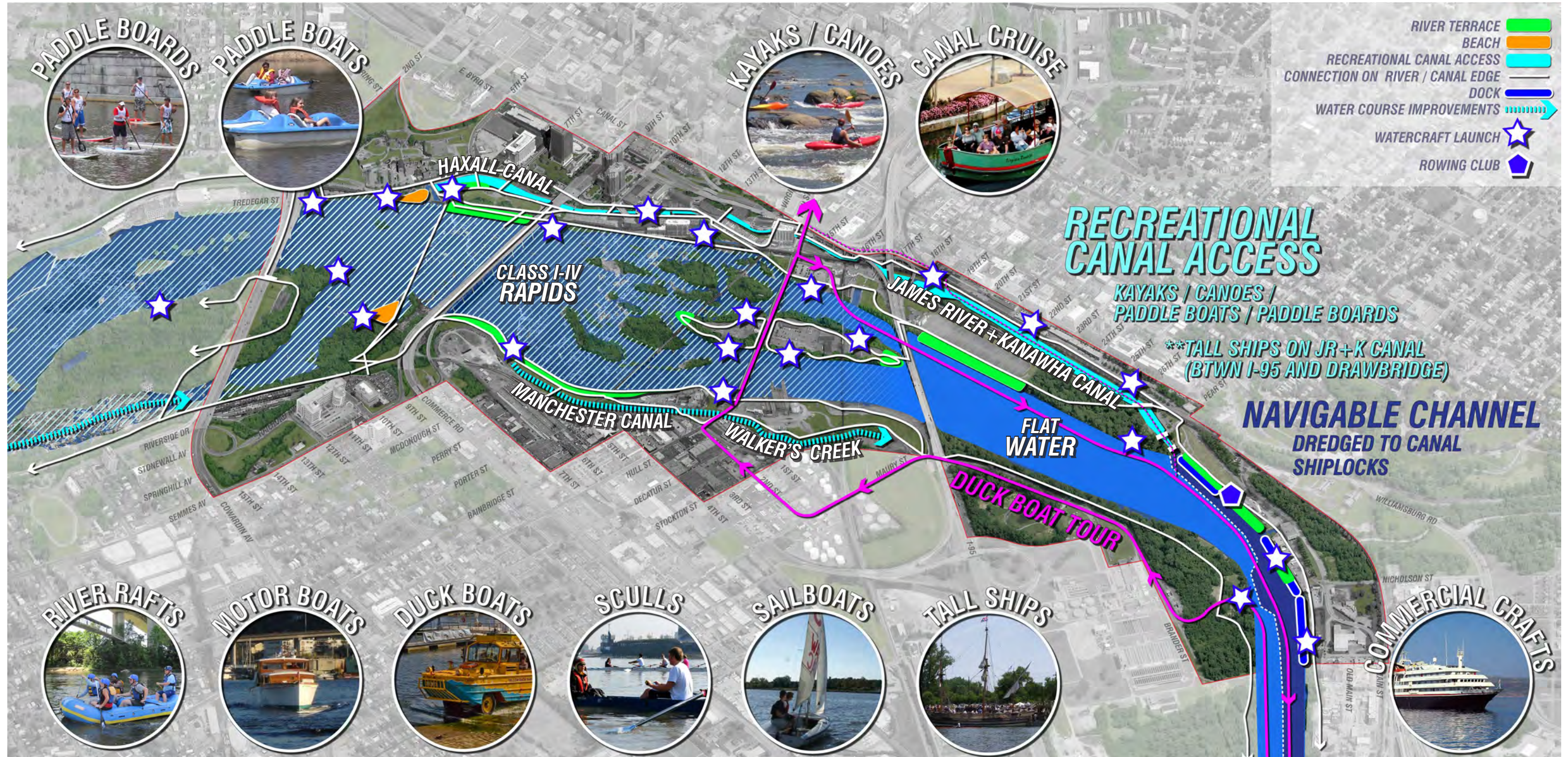
Riverfront through dam, bridge, rail and viaduct infrastructure, as well as significant filling operations. This has produced a diversity of landscape characters, from relatively 'wild,' to fully 'urban,' with variations between these extremes. The Plan embraces the rich and varied character of the Riverfront: while the James River cannot uniformly be all things to all users, there can and should be a great diversity of character and function. The James River is integral to the brand and image of Richmond, with untapped potential to influence the creation of future iconic spaces along the Richmond Riverfront.



PROGRAM



Programmatically, some activities are necessarily confined to specific landscape features (rafting) whereas others (biking) are more adaptable to varied topographic features. The programmatic *word cloud*, or visually-weighted representation of activities illustrated above, loosely suggests predominant opportunities for a wide range of recreational pursuits, both passive and active. Many program types exist along the Riverfront today, from fishing to class IV river kayaking; walking to wall climbing. The Riverfront Plan seeks to enhance those natural and recreational activities that currently exist by expanding access to and additional areas for their participation. The Plan also looks to diversify the existing uses by widening the breadth of activities that could occur on the Riverfront to yield a truly world-class destination.







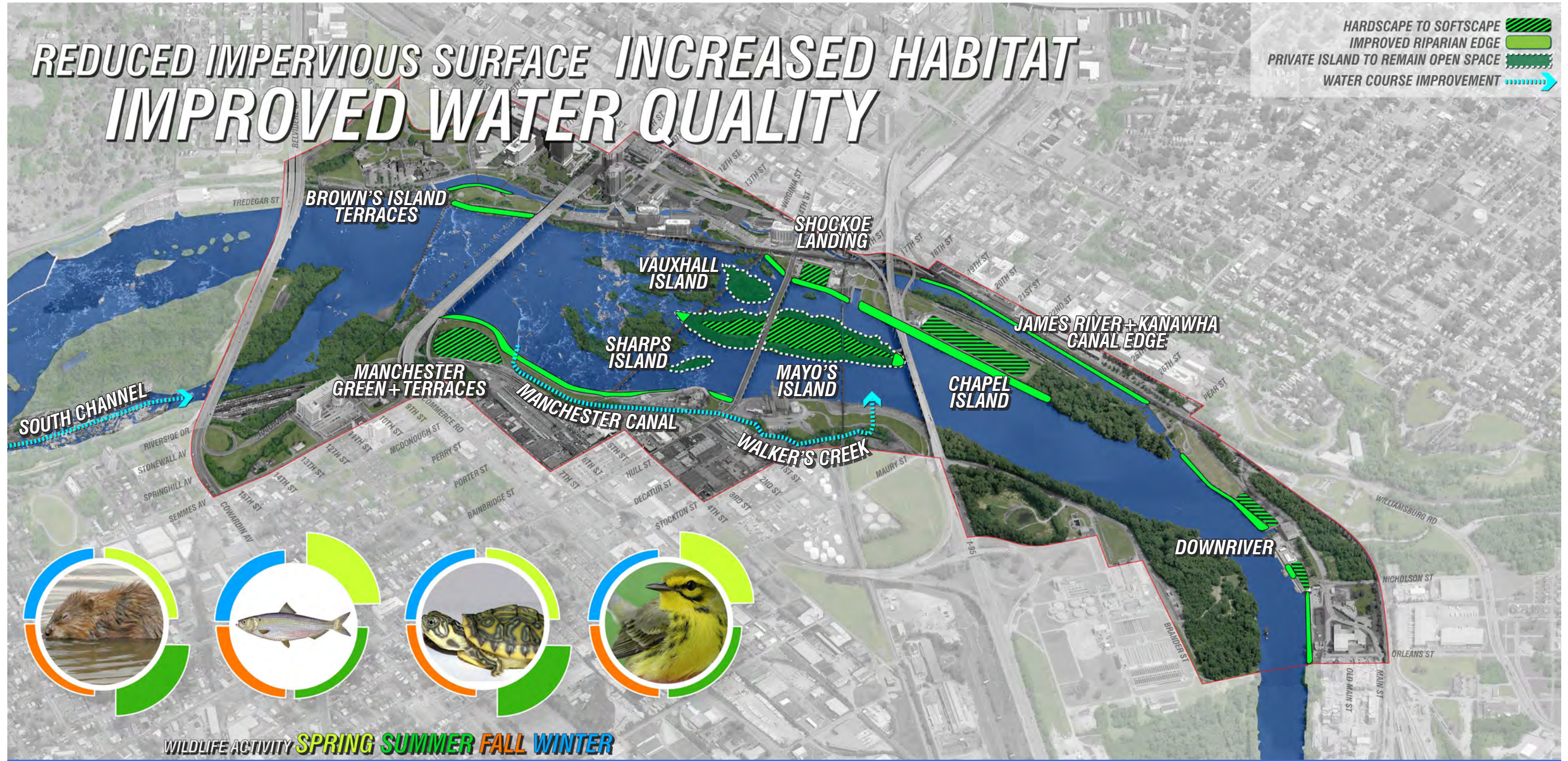
WATER ACCESS

Connection to the James River can be both visual and physical, including sweeping views to and across the Riverfront, as well as new opportunities for engaging the water sheet. Interaction with the James ranges from sunbathing on the rocks; recreational watercraft passage through the rapids; flat water craft plying the tidal zone below 14th Street; fishing from various structures; or simply walking within the rocky, sandy and vegetated riparian zone. River terraces provide expanded access for both viewing and touching the water. More direct physical access to the river includes expanded locations for personal watercraft launch and takeout. A new, multi-tenant boathouse for sculling shells, as well as expanded marina

docks for commercial and recreational boats of all dimensions are concentrated downriver below Great Shiplock Park. Both the Haxall and James River & Kanawha Canals hold unrealized potential for personal watercraft recreation, providing activity within steps of the Canal Walk and Virginia Capital Trail. Reconfiguration of the Haxall Canal and Walker's Creek outfalls offer opportunities for celebrating the literal return of water to the James River.

REDUCED IMPERVIOUS SURFACE INCREASED HABITAT IMPROVED WATER QUALITY

HARDSCAPE TO SOFTSCAPE 
 IMPROVED RIPARIAN EDGE 
 PRIVATE ISLAND TO REMAIN OPEN SPACE 
 WATER COURSE IMPROVEMENT 



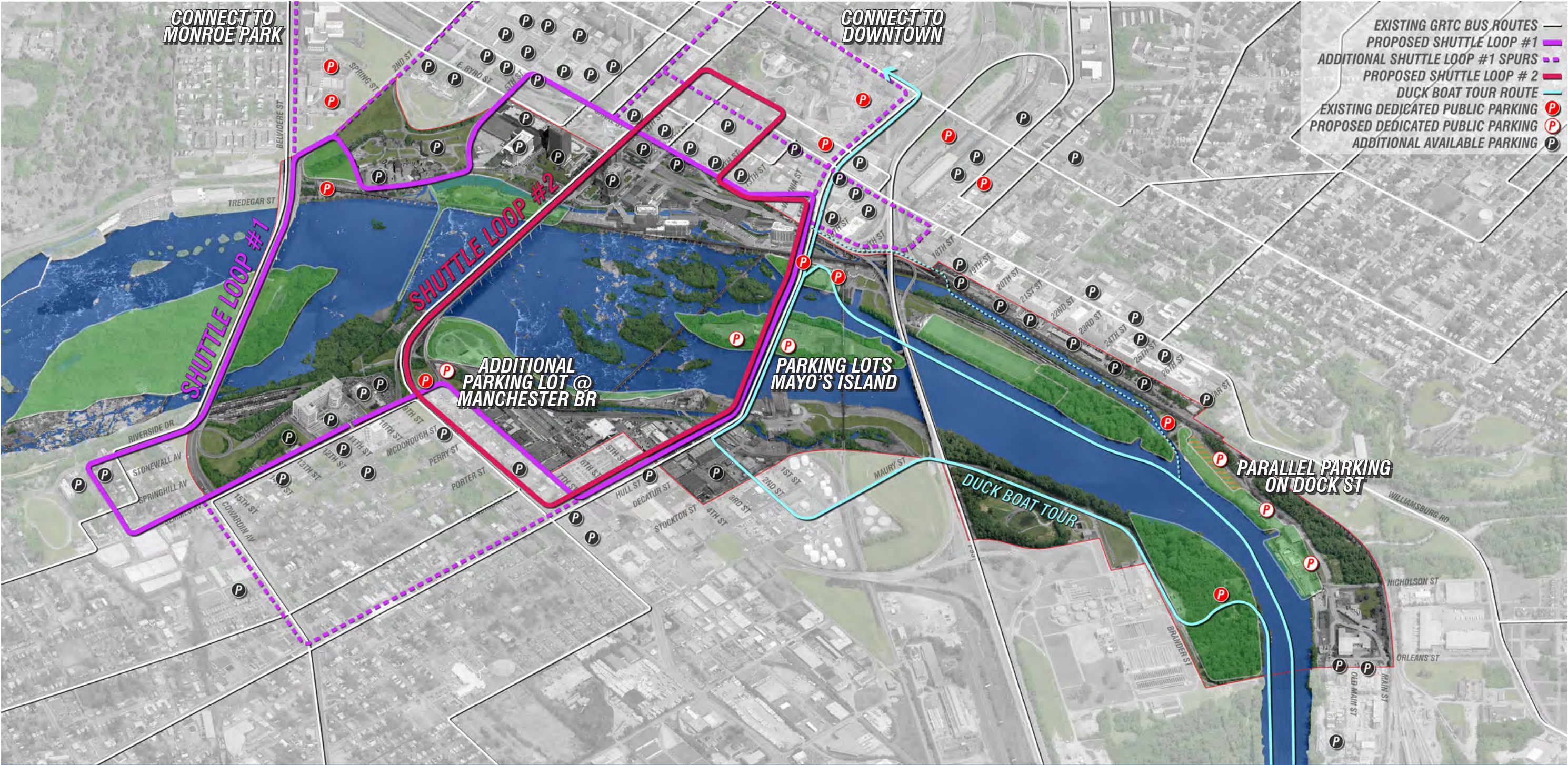
WILDLIFE ACTIVITY **SPRING** **SUMMER** **FALL** **WINTER**

ECOLOGICAL IMPROVEMENTS

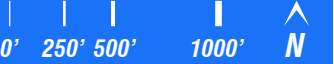


The water quality of the James River has long suffered unrestricted industrial pollution, which has dramatically reduced flora and fauna within the Riverfront corridor. The latter half of the 20th century saw both a significant reduction in river edge industrial activity and a renewed regulatory effort to enforce water quality standards. Together these two trends have incrementally catalyzed regrowth of vegetation, spurred a return of wildlife, and an improvement in water quality. The Plan aims to transform impervious hardscape or compacted industrial soils to landscaped softscape capable of infiltrating storm water on site. The Plan identifies areas where riparian, or river-dependent, species of vegetation can be

installed or restored with the objective of accelerating the return of diverse fauna species, expanding the natural web of habitats along the Riverfront. The Plan identifies several privately-owned islands in the James River, and advocates that their owners commit to long-term restrictive covenants to protect their current undeveloped status, or sell them to the City or Commonwealth for inclusion in a conservation easement.

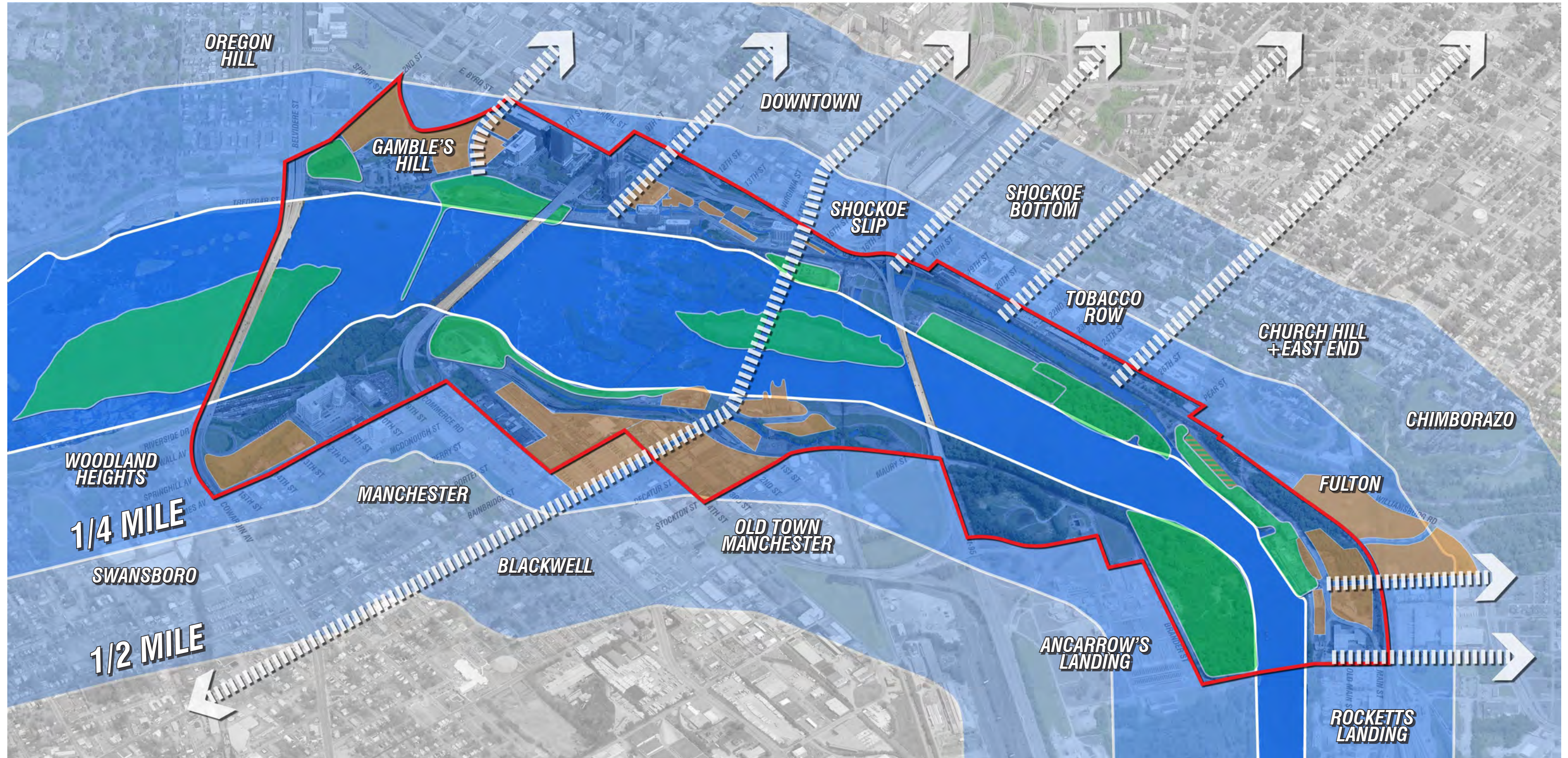


PUBLIC TRANSPORTATION + PARKING



Prevailing perception is that there is ample bus service across the River, but it does not adequately serve the recreational users of the Riverfront. There is no such consensus with regard to parking availability, with more than half the comments indicating that there is a surplus of available parking, while the balance indicate that there is insufficient parking close to the James River. The combination of one-way streets and peak hour parking restrictions work against the efforts of many downtown workers and visitors to access the Riverfront precisely when they have the chance at the end of the day. The Plan takes the long view that Richmond has an abundance of surface and garage parking, though the absence of

a coordinated parking authority and plan is sorely missing and needed to support the Riverfront Plan with adjustments to two-way streets where feasible, and strategic peak hour street parking. Each destination within the Riverfront should have a minimum amount of dedicated off-street parking with appropriate metering restrictions to deter daily office worker parking, yet allow for recreational use. Seasonal use of a shuttle operated by a third party vendor could help handle peak demand, connecting distant parking with the Riverfront, with the flexibility to refine routes based on desire and demand.



REVERBERATIVE IMPACT

The Plan identifies redevelopment sites within the project study area, with the understanding that investment in the public Riverfront will catalyze a reverberative impact well beyond the project area. Investing in public realm improvements attracts significant private investment, triggering further on-site and local investment and associated increased revenues. The accessibility of the Riverfront to adjacent neighborhoods through the Plan's comprehensive network of connections maximizes opportunities for the reverberative impact of Riverfront improvements beyond the site boundary. Beyond pure economics, an improved Riverfront has the potential to dramatically impact the lives, health, fitness and well-being of Richmond residents through broadened opportunities to engage the natural environment and each other outdoors.



BELLE ISLE HISTORY

Old Dominion Iron and Nail Works viewed from Spring Hill, 1895 | SPECIAL COLLECTIONS AND ARCHIVES, VCU LIBRARIES

Throughout Richmond's history, Belle Isle formed one of the most dramatic natural spectacles along the entire Falls of the James River. Geologically, the core of the island is a large granite outcropping that gave the island its original name, Broad Rock. This granite island divided the James River into two deep gorges. The rush of the James River around the island, particularly when the river was in flood, created a roar that could be heard for miles around and a sight considered to be majestic and sublime. The rapid descent of the river at Belle Isle drew industrial development to the island in the nineteenth century that shaped the present island landscape. The beauty of the river spectacle at Belle Isle prompted the preservation of vantage points on the opposite banks of the river and led to the incorporation of the island into the James River Park system in 1972.

BELLE ISLE DAM This dam structure directed water into the Power Canal, initially as a wing dam. The present dam constructed in 1905 closed the South Channel of the river (except in high water).

BELLE ISLE POWER CANAL Begun in 1815 and expanded in 1905, this mill canal provided hydropower to industry on Belle Isle for more than a century.

BELLE ISLE IRON AND NAIL WORKS SITE AND RUINS Constructed in 1815, this iron works drew water from the Power Canal to operate its metal-working equipment.

BELLE ISLE QUARRY The Belle Isle Quarry was one of dozens of quarries that thrived along the Falls of the James, prior to granite becoming largely obsolete after the use of reinforced concrete became widespread.

BELLE ISLE PRISONER OF WAR CAMP AND CEMETERY The Confederate Government established a military prison on the island during the Civil War, and the wretched conditions of the prison made the name of Belle Isle infamous. Artillery emplacements on the high ground of the island secured an overcrowded and unsanitary tent encampment where some 30,000 men were imprisoned in the middle years of the war. The prisoners who died were initially buried on the island and their remains were removed after the war.

THE BELLE ISLE NORTH DAM Constructed in 1908, this dam connected to the Hollywood Dam, blocking the flow of the North Channel of the James (except in high water) until the dam's breach in 1972.

HOLLYWOOD DAM This dam began as a small wing dam for and viewing platform from the Richmond Waterworks in 1831. In the conversion of the waterworks to a hydroelectric plant in 1908, the City expanded the dam to its current extent.

HOLLYWOOD CEMETERY Hollywood is one of America's most important examples of a "rural cemetery" established in 1847 to take advantage of the view of the river around Belle Isle.

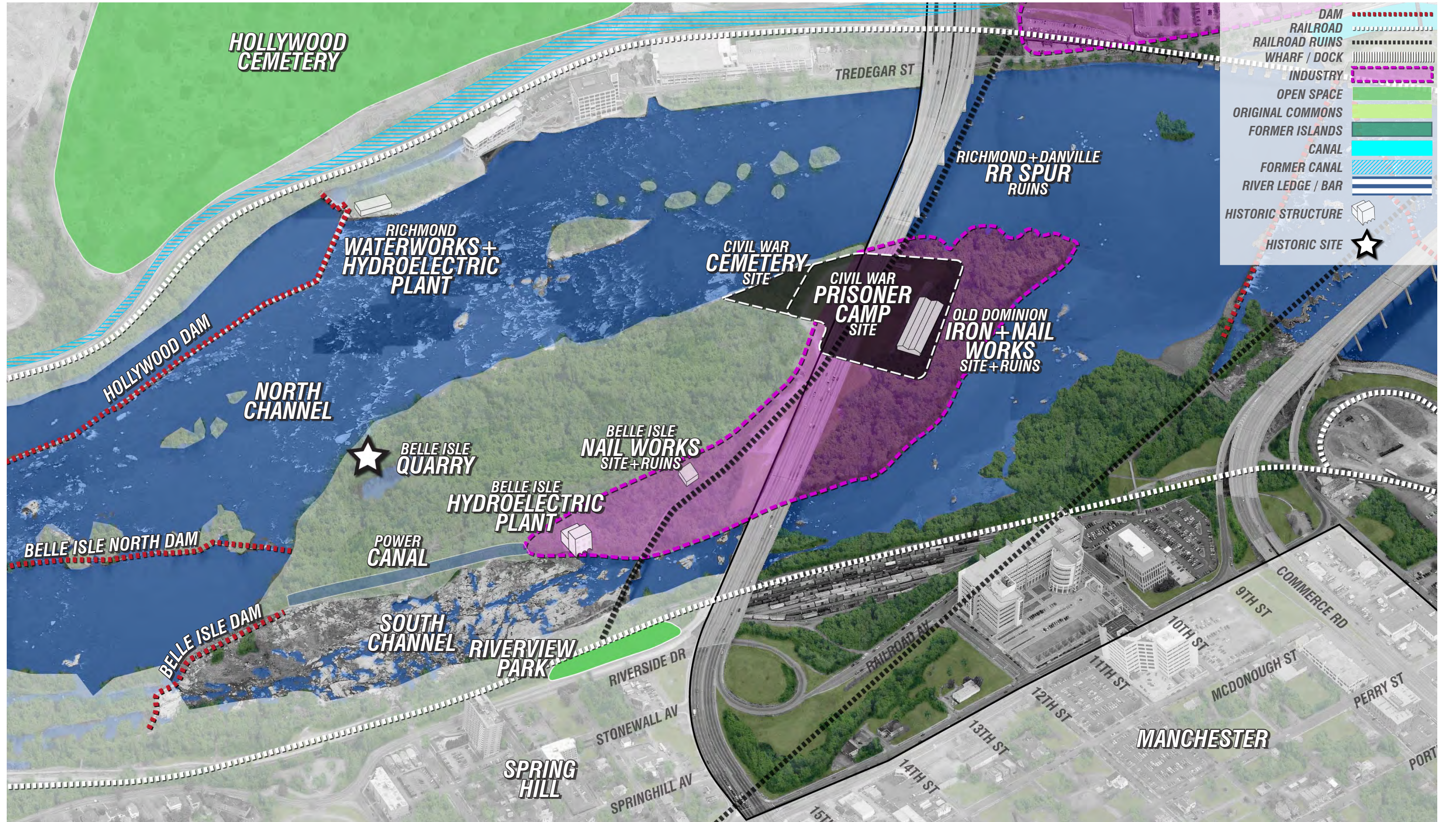
THE OLD DOMINION IRON AND NAIL WORKS By 1895, this successor to the Belle Isle works completely covered the eastern end of the Belle Isle and during its operations expanded the island's footprint by dropping slag over the banks of the island.

RIVERVIEW PARK This hilltop park is a viewing point for Belle Isle constructed in 1936 in conjunction with the first Lee Bridge and Riverside Drive.

RICHMOND AND DANVILLE RAILROAD SPUR BRIDGE RUINS This bridge completed a spur of the railroad across the South Channel in 1852 and the North Channel c. 1870, providing worker access and material transport to Belle Isle.

RICHMOND WATERWORKS AND HYDROELECTRIC PLANT The first municipal waterworks began to harness the river to raise water to a municipal reservoir in 1831, and in 1908 the City of Richmond converted it to a hydroelectric plant to power municipal streetlights.

BELLE ISLE HYDROELECTRIC PLANT The Virginia Railway and Power Company constructed this hydroelectric plant on the Belle Isle Power Canal in 1905 to generate electric power for Richmond's electric streetcar system.



BELLE ISLE HISTORY

BELLE ISLE

“URBAN WILD” 54 ACRES

The 54-acre Belle Isle is protected under the James River Park System Conservation and Open Space Easement, established in 2009 to maintain the relative natural aspects of the island, as well as +200 acres of additional Riverfront parkland; this easement effectively prohibits new construction, commercial operations, and motorized recreation. The island enjoys arguably the best pedestrian connection to the north bank along the Belle Isle Pedestrian Bridge, a suspension bridge retrofit beneath the Lee Bridge. The island also has a vehicle-capable bridge connecting to the south bank, restricted to public safety and authorized operations vehicles, which must cross the Norfolk Southern switchyard below Riverside Drive. The absence of vehicular access and non-linear, non-universal-access from the south bank reinforces a relative isolation for Belle Isle. The island's physical isolation allows for a dramatic detachment from the urban environment of both banks, providing a much valued natural retreat positioned prominently upriver of downtown. At the same time, this detachment allows for a somewhat elastic interpretation of rules in an environment largely removed from the enforceable laws of the City. Illustrative signs cheerfully instruct visitors on how to behave during their stay.

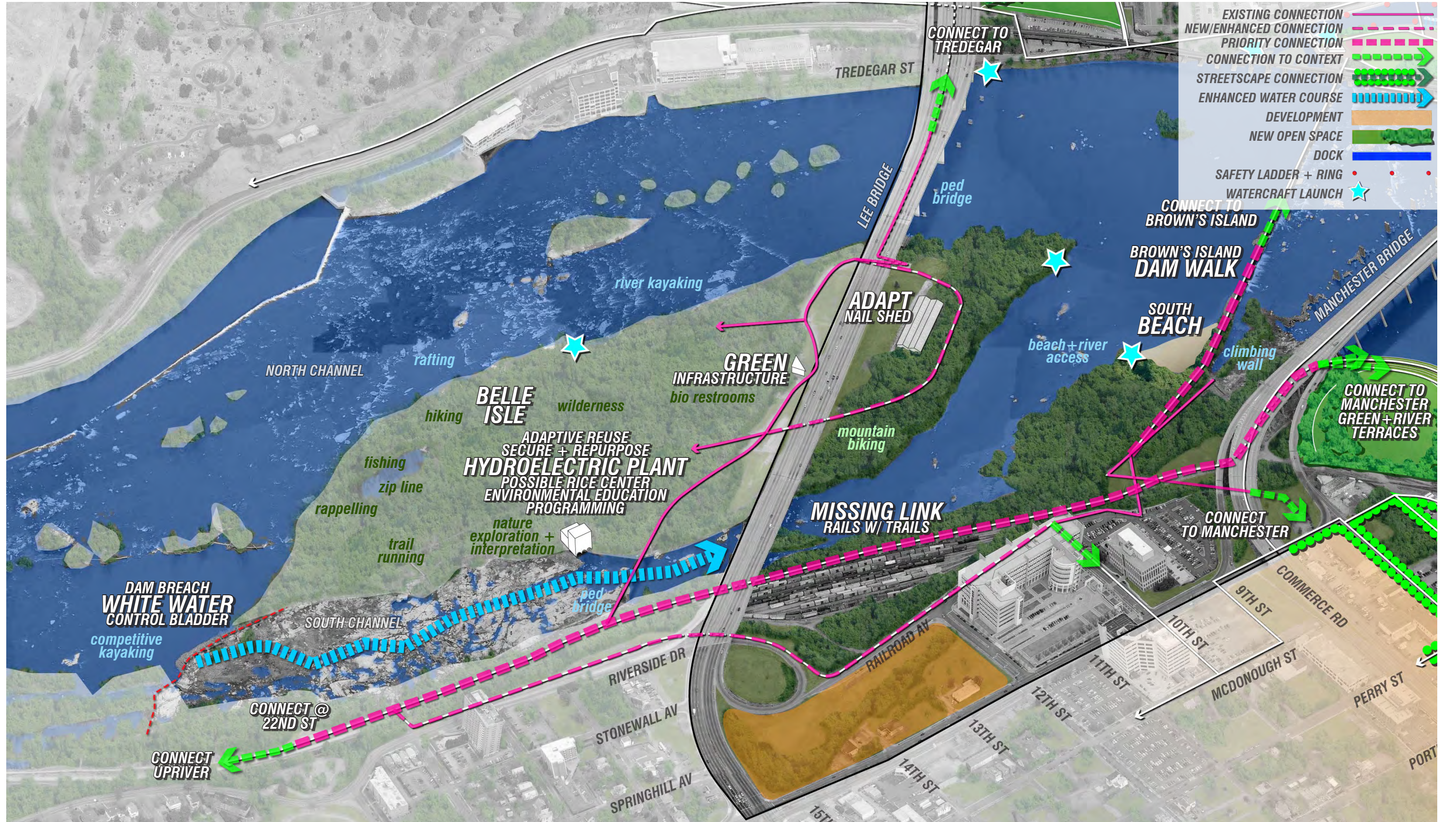
The Plan embraces the natural wildness of Belle Isle as it is today. Several vacant structures offer opportunities for adaptive reuse, consistent with the existing island atmosphere. Although the former Hydroelectric Plant along the south channel of the River is boarded up, it remains an attractive location for illegal activity. The Plan promotes the adaptive reuse of the structure to achieve three objectives: 1. Transforming a nuisance into a positive; 2. Adapting a former industrial structure into a node of environmental education programming, possibly with Rice Center participation; 3. Programming the structure as a node for public safety, staffed on weekends to further promote public safety across the island through periodic bike patrols.

The triangular structure, a former Nature Center/Lavatory constructed in the 1990s, is prominently positioned along the main north-south trail bisecting the island. This building could be adapted as an eco-composting toilet facility, providing an expanded personal hygiene solution without running a sanitary sewer line to the south bank. Similar facilities are provided in far more remote and constrained locations nationwide, capitalizing on an off-the-grid, sustainable systems approach to park amenities. The Old Dominion Nail Shed could be adapted to provide reliable shade and refuge from the weather as a picnic shelter or event shelter. Alternatively, a portion of the shed may soon be used as a bike skills course, in accordance with a pending proposal. A companion off-road bike skills course recently completed south of the shed has reshaped the ground and retained existing trees to create a new amenity on the island.

General trail improvements across the island will enhance visits and facilitate greater, controlled access to the River. Across the south channel, the Plan envisions the potential for a sandy beach. This location is free of trees and situated on a comparatively slack water side of the River, without excessive underwater plant growth. This South Beach corresponds with the south bank abutments of the Brown's Island Dam, which when repurposed, will provide a direct pedestrian connection to Tredegar Beach on the north bank, effectively positioning a beach at either end of the dam structure.

Competitive-level kayaking may be accommodated on the south channel on a seasonal basis, without impacting the North Channel rapids. The south channel is dry compared to the main north channel of the James River, due to the Belle Isle Dam at the upriver tip of Belle Isle. With further study, a strategic removal of a portion of the masonry dam and replacement with an air-inflatable or water-filled bladder dam would allow for controlled diversion of water into the south channel, attracting skilled river kayakers and international-level competitions.





EXISTING CONNECTION (solid pink line)

NEW/ENHANCED CONNECTION (dashed pink line)

PRIORITY CONNECTION (dotted pink line)

CONNECTION TO CONTEXT (green arrow)

STREETScape CONNECTION (green dashed line)

ENHANCED WATER COURSE (blue dashed line)

DEVELOPMENT (orange area)

NEW OPEN SPACE (green area)

DOCK (blue rectangle)

SAFETY LADDER + RING (red dots)

WATERCRAFT LAUNCH (blue star)

BELLE ISLE





RAILS WITH TRAILS

MISSING LINK TRAIL

There is a significant missing link on the south bank, impeding pedestrian and bike access between 21st Street along the river and the Manchester Floodwall Walk. Currently, access along this stretch is limited to an informal dirt path, which allows cross connections into the City at the 21st Street stair, which will never be ADA accessible, and at the Sun Trust parking lot. An alternate, paved route is possible along the existing Norfolk Southern switchyard directly adjacent to the south channel. Recent Commonwealth of Virginia legislation (Virginia Code § 29.1-509) limits liability to railroads (HB504) by extending recreational use indemnification to railroads, allowing rails with trails along active rail corridors. In this instance there is adequate dimensional width available to pave an accessible 3,000-foot long route between the active rail track and the existing chain link fence. Norfolk Southern could continue to use this corridor for vehicular access and maintenance. The possibility of pedestrians and cyclists being hit by trains would be reduced because they would have a safer alternative to crossing or walking the rails.



EXISTING



EXISTING

BROWN'S ISLAND DAM WALK

A notable link between north and south banks of the River can be established by adapting the existing Brown's Island Dam structure for pedestrian and bike travel. The structure is largely intact, with new sections required on either end to reconnect the steel structure to the north and south banks. The existing historic steel vocabulary would be adapted to incorporate durable safety guardrails and accessible grating, clearly distinguishing between the old and the new. The existing "Three Days in April 1865" installation of decking and narrative would remain intact at the north abutment. In several locations along the length of the dam, seating areas would be added, cantilevering out over the James River as observation promontories and rest zones along the 1,500-foot long span. This adaptively re-purposed artifact of industry would become the key component to cross-river foot and bicycle traffic, directly connecting both banks of the River at the center of Richmond's public realm. The ability to traverse the River free from vehicular traffic has proven its value on the Lee Bridge suspension link, and the Dam Walk would reinforce this circulation loop with an entirely different proximity to the rapids.



TREDEGAR GREEN HISTORY

Detail of Plan of the City of Richmond, Henrico County, Virginia, M. Ellyson, 1856 | VALENTINE RICHMOND HISTORY CENTER

Tredegar Green is situated on the lower slope of Oregon Hill, originally referred to as Belvidere Hill. Beginning in the middle of the nineteenth century, Oregon Hill developed as a neighborhood for workers at the Virginia Penitentiary and in various industries along the James River. The hill originally sloped down to a creek valley traversed by the James River and Kanawha Canal and flanked by Gamble's Hill. The completion of the canal inaugurated a period of industrial development, and over the course of the nineteenth century iron works, an armory, and paper, flour, and textile mills began operating between the canal and the James River.

BELVIDERE In 1758, William Byrd III constructed Belvidere near the present intersection of China and Pine Streets, a large mansion with such spectacular views of the Riverfront that Byrd named the house Belvidere, the Italian word for beautiful view. Belvidere burned in 1854, and the subsequent Belvidere subdivision established the present street grid over the mansion site.

OREGON HILL (ORIGINAL SUBDIVISION) In 1847, the Harvie family platted the original Oregon Hill subdivision east of Belvidere Street and South of Spring Street. Over time the entire area of Belvidere Hill came to be referred to as Oregon Hill. Roadway improvements in 1936 and the construction of the Virginia War Memorial in 1956 eliminated the street grid and buildings in the 1847 subdivision.

RIVERSIDE PARK The City of Richmond completed land acquisition for the park in 1915, and in 1936 the City constructed Riverside Parkway (now Oregon Hill Parkway) through the park to connect to the 2nd Street Viaduct and Lee Bridge.

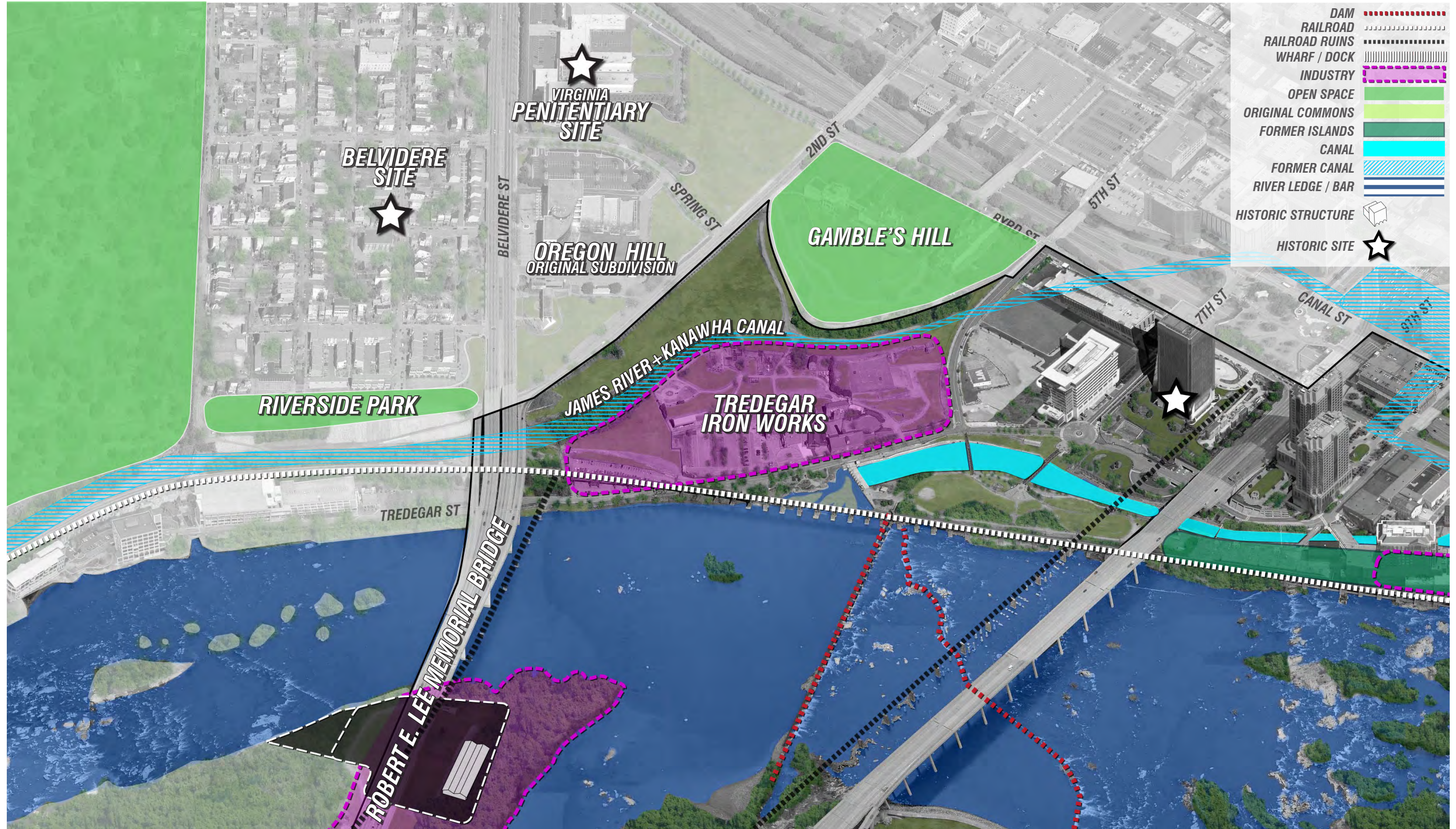
ROBERT E. LEE MEMORIAL BRIDGE In 1934, the City constructed the first Robert E. Lee Memorial Bridge slightly to the east of the present structure (completed in 1989). In conjunction with the 1934 construction, the City built the 2nd Street viaduct to continue 2nd Street south from Byrd Street to connect to the Lee Bridge and Riverside Park.

THE JAMES RIVER AND KANAWHA CANAL Between 1785 and 1800, the planning and construction of the James River and Kanawha Canal created a level canal bed and towpath between the Great Turning Basin (between 7th and 12th Streets) and the Three Mile Locks (Byrd Park). Construction of the canal effectively dammed the creek below Oregon Hill and created a turning basin known as Harvie's Pond.

TREDEGAR IRON WORKS From its founding in 1836 into the twentieth century, the Tredegar Ironworks manufactured all kinds of finished ironwork in a large complex between the canal and the James River. The James River and Kanawha Canal initially transported the raw materials for the ironworks and powered the large waterwheels serving the complex.

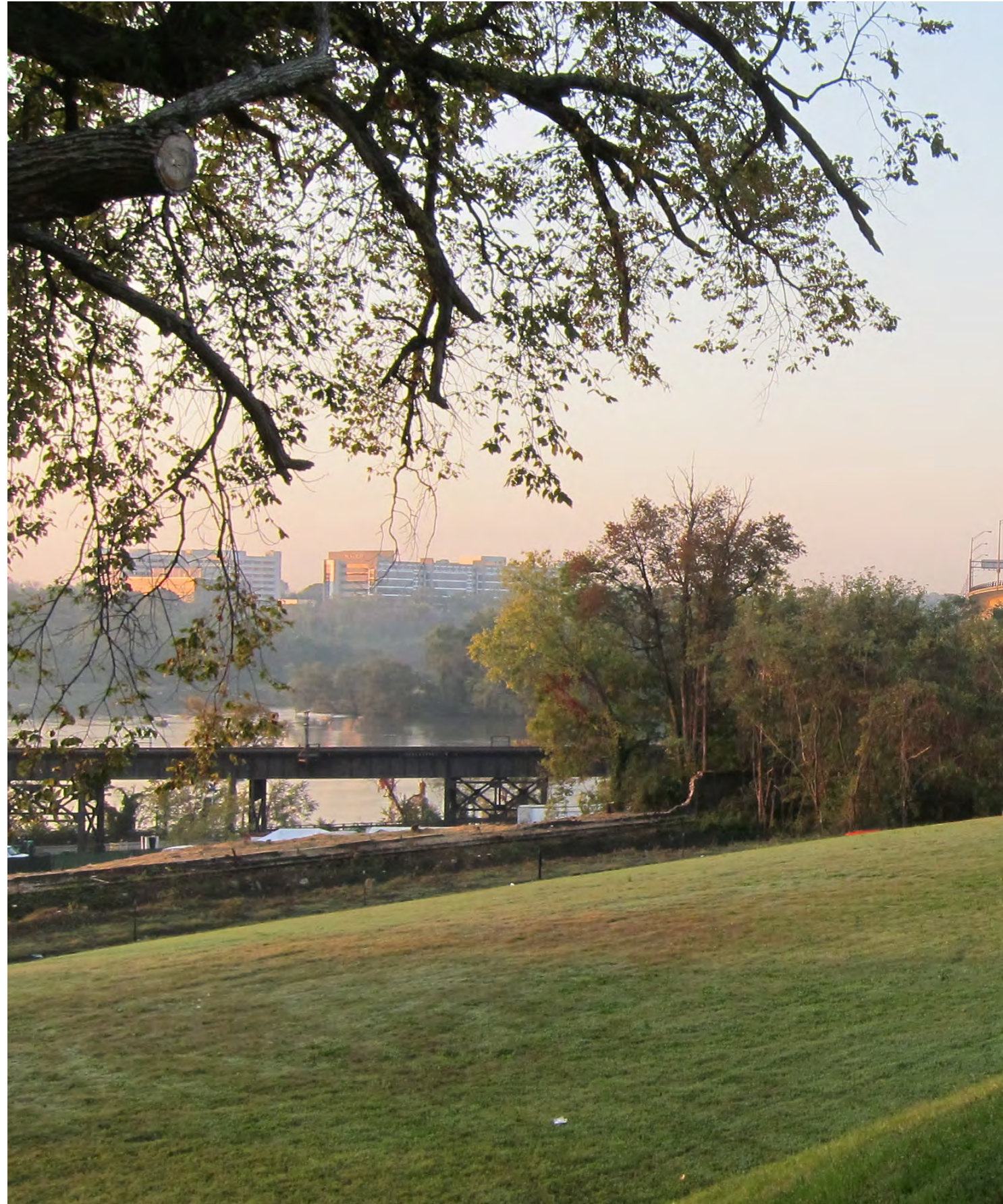
GAMBLE'S HILL Gamble's Hill took its name from the large Gamble mansion that stood at its crest. By the middle of the nineteenth century, Gamble's Hill was a thriving residential neighborhood.

VIRGINIA PENITENTIARY SITE Looming over the surrounding area, the Virginia State Penitentiary complex occupied the site northeast of Belvidere and Spring Streets between 1797 and 1992.



TREDEGAR GREEN HISTORY





TREDEGAR GREEN

“URBAN GREEN” 3 ACRES

Tredegar Green is envisioned as an open public landscape, directly connecting the Virginia War Memorial property at 2nd Street with the Tredegar Iron Works at the James River. The catalytic intervention is the anticipated construction of the 2nd Street Connector that will traverse the steep slope, aligned with the Iron Works fence. Once complete, the 3-acre landscape between the connector and the Lee Bridge will be available for unrestricted public use, primarily as a passive public landscape. With the removal of the existing fencing, vegetation and brick wall, this former NewMarket parcel will expand the public realm by offering an ideal vantage point to view the river from above, and remain a main performance venue for the annual Richmond Folk Festival.

The site is bisected by the dry bed of the James River & Kanawha Canal. The future potential for this industrial artifact is significant; a pedestrian walk could be constructed within or along the canal bed, or the canal could be restored. The 2nd Street Connector is expected to incorporate a culvert structure bridging the canal bed. Preceding studies advocated for the restoration of the canal westward to Maymont Park. Canal boats could carry passengers along a 1.8 mile run between Maymont Park and Tredegar Green. All public improvements to and investments in Tredegar Green should support the goal of westward (or appropriate) canal restoration, as the canal could once again become a functioning connective conduit, a historic blueway.

NewMarket Corporation retains private ownership of parcels between 2nd and 7th Streets. While discontinuous, the arc of the dry canal bed continues around the Tredegar Iron Works, terminating at 5th Street. The canal alignment might be referenced as a site generator for future development as a pedestrian landscape and connector. Between 5th and 7th streets, development has proceeded with a commercial tower and associated parking structures. Future private development trends suggest additional mixed-use towers, incorporating commercial office, hotel and residential uses. Build-out of this block, particularly with a hotel, will heighten expectations for improved pedestrian access along Tredegar Street including continuous sidewalks; an improved streetscape; and greater public access into the development block.

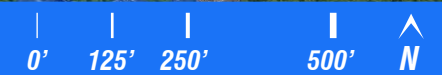
The existing public parking lot will be reconfigured yet remain intact as a key universally-accessible trailhead, allowing pedestrians and cyclists to head off to Belle Isle, Brown’s Island, and beyond. The existing path and bridge connection to Oregon Hill merits greater attention, with the objective of an accessible route connecting Oregon Hill Parkway to Tredegar Street. The recently-completed pedestrian bridge spanning the canal bed is not fully accessible. A universally-accessible route linking Tredegar Street and the Belle Isle Pedestrian Bridge, at the lower end, to the North Bank Trail and Oregon Hill Parkway on the upper end, will greatly improve the public perception that this pivotal connection is both safe and traversable for all.

Construction of the 2nd Street Connector should include a traffic engineering reevaluation of the current one-way restriction where Oregon Hill Parkway meets the Lee Bridge ramps and 2nd Street. As is, vehicular traffic under the Lee Bridge is exclusively one-way westbound, with no provision for eastbound travel between Oregon Hill and the Riverfront at the Tredegar Iron Works. Adjustments to striping and posted restrictions concurrent to completion of the 2nd Street Connector should be made to ensure safe and improved vehicular connections in this area.



EXISTING CONNECTION	
NEW/ENHANCED CONNECTION	
PRIORITY CONNECTION	
CONNECTION TO CONTEXT	
STREETSCAPE CONNECTION	
ENHANCED WATER COURSE	
DEVELOPMENT	
NEW OPEN SPACE	
DOCK	
SAFETY LADDER + RING	
WATERCRAFT LAUNCH	

TREDEGAR GREEN





BROWN'S ISLAND HISTORY

Detail of Plan of the City of Richmond drawn from actual survey and original plans, Micajah Bates, 1835 | VIRGINIA HISTORICAL SOCIETY

Brown's Island is a portion of the Richmond Riverfront shaped by industrial development. Industrial operations on Brown's Island closed down in the second half of the twentieth century, and the City developed the island as a public park with dramatic views of the river.

BROWN'S ISLAND The origins of Brown's Island are mysterious. An 1809 map shows open water at this location, but by 1817, maps depict a recognizable Brown's Island. The island probably began as a sandbar that was eventually shaped into an island by a combination of pilings, alluvial deposits, and fill. By 1835, the island was attached to Johnson's Island and formed the south bank of the Haxall Canal. Various industries occupied the island over the years, and the owners of the last one, the Albemarle Paper Company, donated the island to the City for use as a park.

JOHNSON'S ISLAND The excavation of Ross's (later Haxall) Mill Canal from 8th Street eastward to 12th Street formed this island, now indistinguishable from Brown's Island

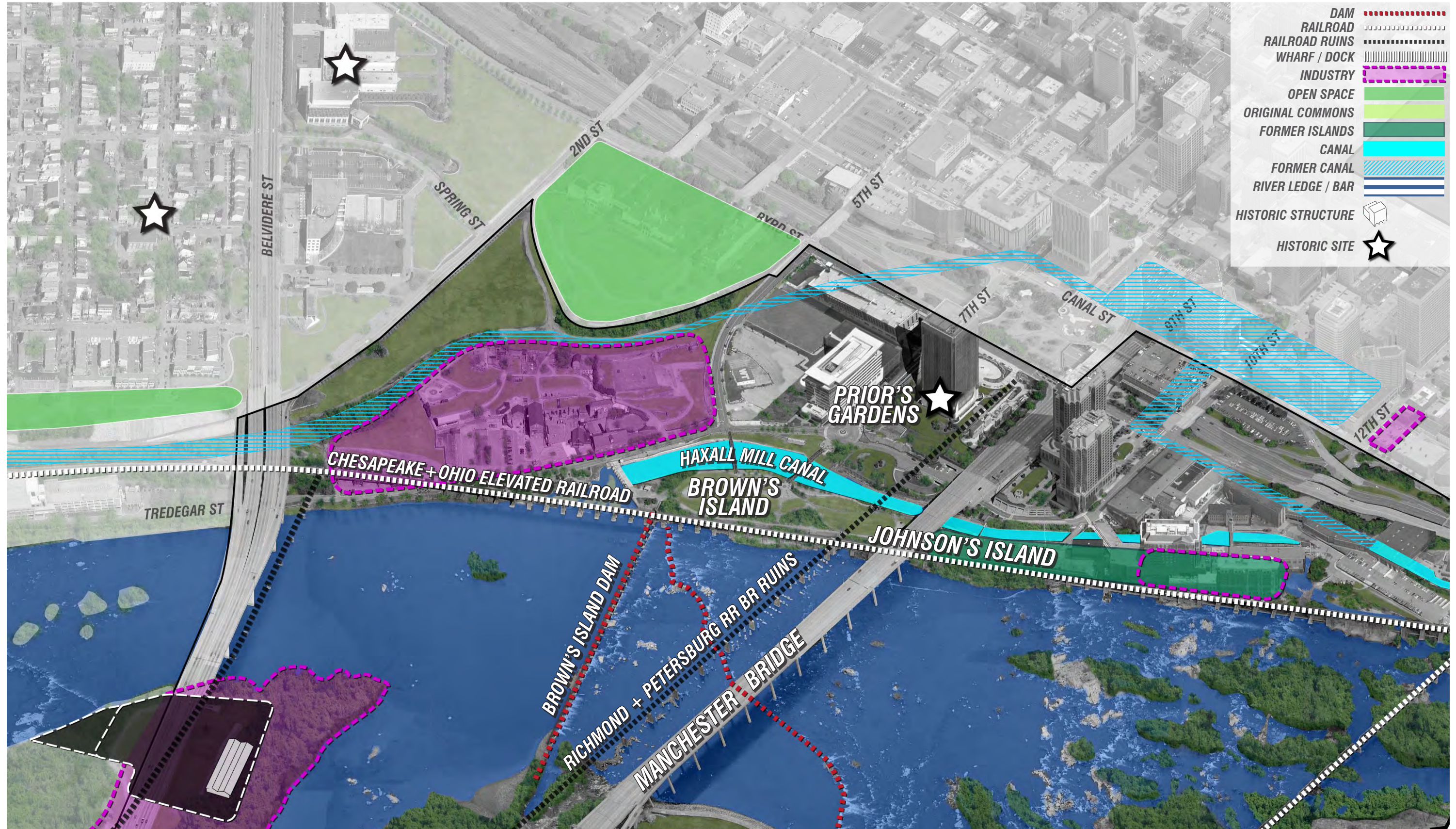
PRIOR'S GARDENS In the early nineteenth century, this private pleasure garden stood above the banks of the river at the present-day location of the Federal Reserve bank. Prior's Gardens was equipped with a classical pavilion and terraced gardens, and customers of the garden could enjoy ice cream, music, fireworks, and outstanding views of the Falls.

CHESAPEAKE AND OHIO ELEVATED RAILWAY In 1904, the Chesapeake and Ohio Railroad constructed one of the longest elevated railways in country, if not the world. Extending almost two miles from Fulton Yards in the east to Oregon Hill in the west, this unimpeded and flood-proof rail section formed a rail by-pass around Downtown Richmond.

MANCHESTER BRIDGE Constructed in 1972, this massive structure is the third bridge on the site. The first bridge on the site was known as the Manchester or Free Bridge.

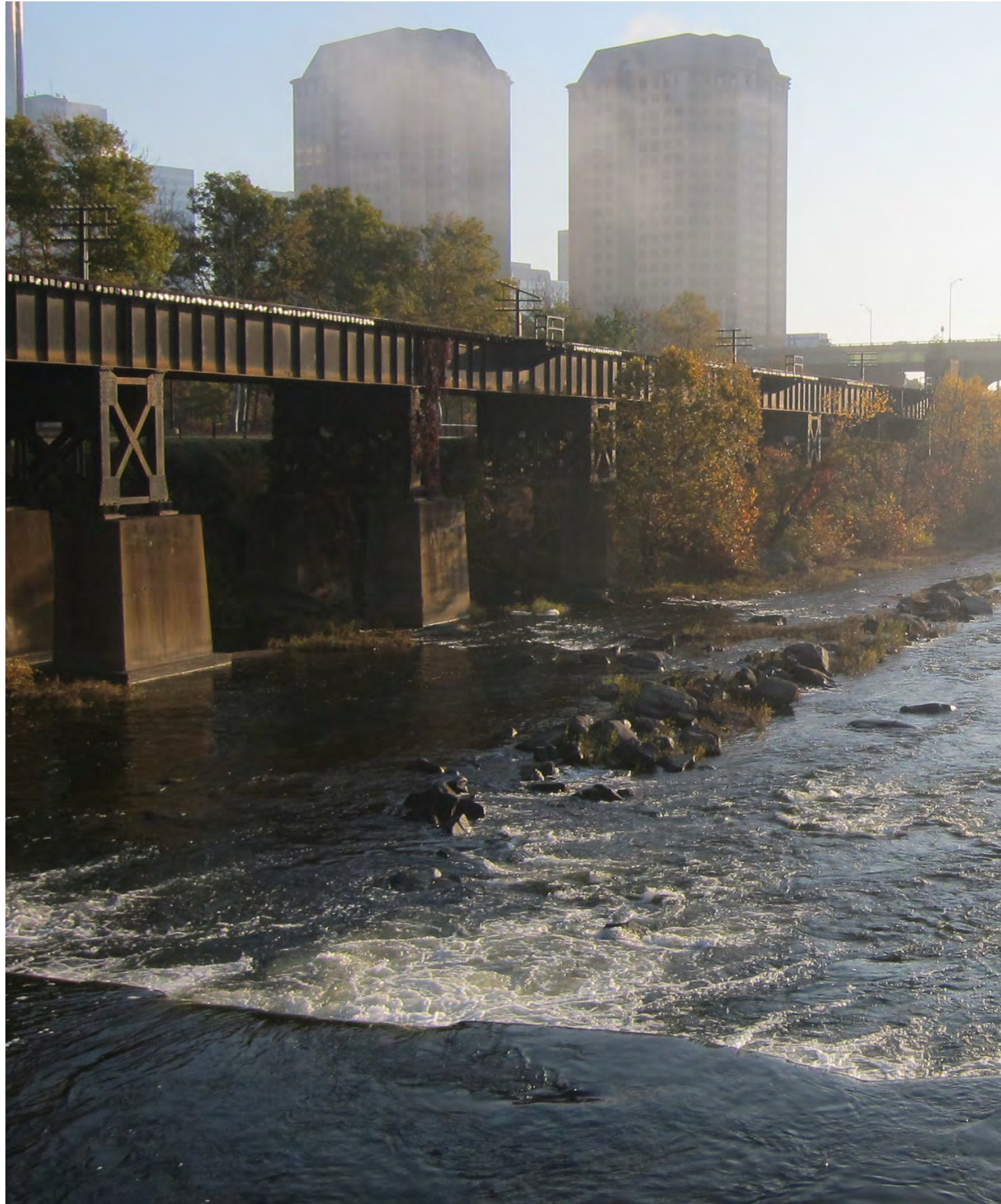
RICHMOND AND PETERSBURG RAILROAD BRIDGE In 1838, Richmond native Moncure Robinson constructed this wood-decked structure with stone piers. The tall piers of the structure raised the bridge deck out of danger from floods and connected tall abutments on the north and south banks of the river. The bridge burned in 1865, and was subsequently reconstructed several times; the final construction that rose in 1904 and was demolished in 1972 included the concrete piers that are present today as ruins.

BROWN'S ISLAND DAM The construction of a power plant at the eastern end of the Haxall Canal starting in 1904 necessitated the construction of this dam to assure a steady and regulated flow to the plant's steam turbines. The sluice gates of the dam could be adjusted to regulate the flow into the canal.



BROWN'S ISLAND HISTORY





BROWN'S ISLAND

"URBAN RIVERFRONT" 7 ACRES

Brown's Island is Richmond's primary public event landscape. Venture Richmond manages seasonal performances, festivals and events, with temporary stages erected at either end of the well-maintained lawn. The lawn is the fundamental focal space, adaptable to a variety of event configurations, with mature, shade-providing sycamores lining the river side of the lawn. The recently completed Foundry Park Bridge spans the Haxall Canal at 5th Street, increasing public access to the island. The immediate adjacency of Brown's Island to the James River and the under-utilized Haxall Canal offers great potential for expanding the island program, activating it when there are no events underway. Brown's Island sits immediately adjacent to Pipeline Rapids, one of the most beautiful stretches of the James River. A fundamental objective of the Riverfront Plan is to work around the barrier of the CSX viaduct to open up Brown's Island more directly to the James River. A number of additional reconfigurations along the perimeter of the island, described on subsequent pages, transform Brown's Island from a seasonal event space to a daily destination.

The first and most cost efficient improvement is to encourage use of non-motorized, personal recreational watercraft along the Haxall Canal. Select events already condone the use of kayaks, canoes and stand up boards. Ample public comment articulates the desire that water passage along the half mile of canal would be popular for a variety of reasons, with the primary result the introduction of activity to an otherwise quiet water sheet. A combination of permanent access ladders and life rings can be intermittently fastened to the canal walls for life safety and emergency egress.

A new arrival plaza would extend from Tredegar Street across the adjustable dam span to the existing "3 Days in April 1865" installation. This new, permeable paver-clad plaza would expand into the lawn, allowing for a café and/or concessions. A small restroom facility would be integrated into the structure, with café vendor responsible for maintenance and security. The existing heliport would be reconfigured as a children's water play space.

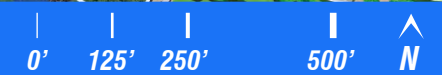
The 7th Street Bridge over the Haxall Canal currently terminates in a stepped cone bisected with stairs, preventing passage of bikes, strollers and wheelchairs. The southern stair can be reconfigured to a smaller footprint, integrating a consolidated stair with a universal-access ramp aimed downriver.

The gravel, back-of-house logistics lot beneath the Manchester Bridge is a critical connective passage to the Canal Walk, and yet it currently sends the visual cue that this is not a public space, nothing more than a back-of-house operation. Logistics and public passage can both be integrated, with permeable pavers transforming and expanding the pavement into an arrival plaza capable of accommodating turning tractor trailers. The existing shipping container storage strategy could be unified through a cohesive architectural intervention to make the storage more intentional and less haphazard, or replacement with a shed appropriate for a public space and dedicated to festival and event programming.



EXISTING CONNECTION	
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DEVELOPMENT	
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DOCK	
SAFETY LADDER + RING	
WATERCRAFT LAUNCH	

BROWN'S ISLAND





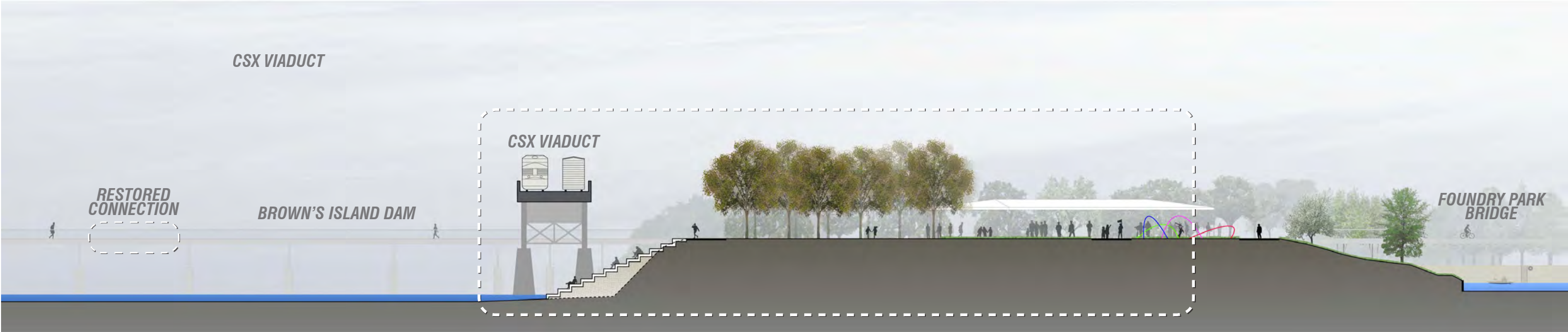
BROWN'S ISLAND





HAXALL CANAL

Arrival at Brown's Island involves crossing the Haxall Canal at one of several bridges. The new Foundry Park Bridge at 5th Street is a much-needed alternative accessible route to and from the island. Nevertheless, the arrival 'on' the island from any of the spans remains underwhelming. With the anticipated future development of parcels adjacent to MeadWestvaco, the upriver tip of Brown's Island will become a destination. Transforming a portion of the existing island edge from steeply sloping lawn to stone terraces with an interactive fountain accomplishes several objectives. First, a civic water feature provides visual activity and white noise audible from Tredegar Street as enticement to explore the island. People attract more people and a water feature provides a visual draw to those that opt to get wet and play in the water, as well as visitors who are drawn to watch others. Potable water would be captured and re-circulated on the upper portion of the fountain, whereas the lower jets throwing arcs into the canal would recirculate canal water.



JAMES RIVER

RIVER TERRACES

SYCAMORE GROVE

EVENT / FESTIVAL

PLAY / CAFE

HAXALL CANAL



BROWN'S ISLAND RIVER TERRACES

The riverside of Brown's Island is defined most prominently by the passage of the CSX Viaduct paralleling the length of the island. The rail viaduct is a heavy visual presence, in part because the steep slope beneath the structure is rubble strewn and vegetated with volunteer species, inhibiting pedestrian passage. Nevertheless, views under the viaduct to Fishway Rapids and Pipeline Rapids are impressive, and as yet underutilized. Richmond is the only U.S. city with class IV rapids within the City limits. Getting closer to the water will enhance the experience of people visiting the island; immersing them more fully in the audible and visual majesty of the rapids.

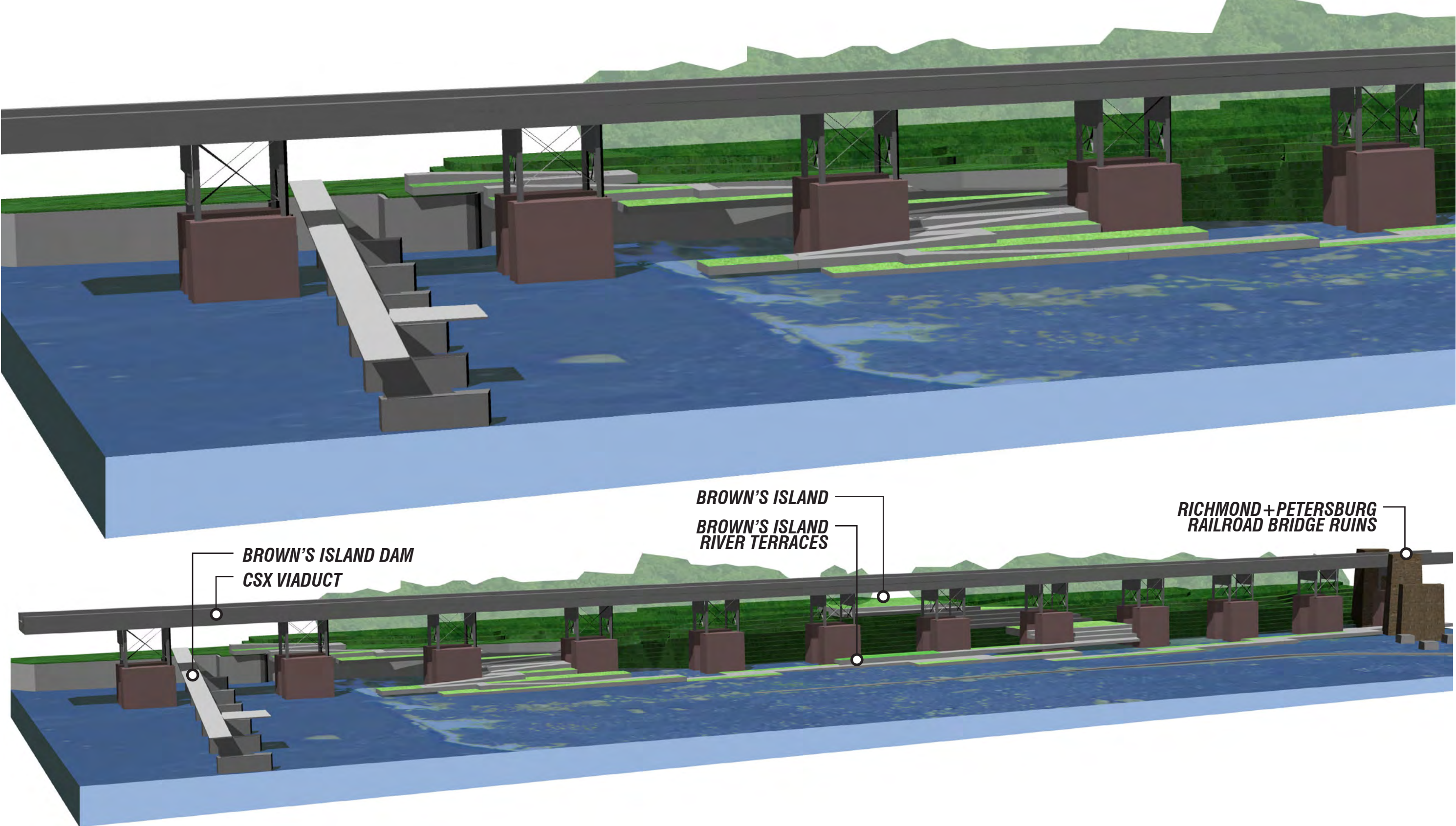


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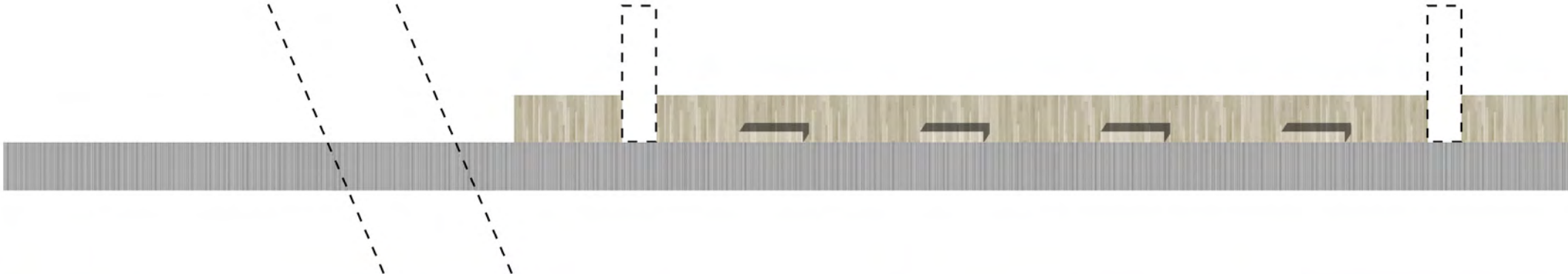


BROWN'S ISLAND RIVER TERRACES

The Brown's Island River Terraces will thread a universally-accessible route down from the event lawn, beneath the viaduct, and along the rapids. The River Terrace project would transform a heretofore underdeveloped slope to create a promontory-as-path down to the river, connecting visitors to Brown's Island to the Pipeline Rapids below. This crucial pedestrian link promises direct interaction with the James River. This non-linear network of walks and switchbacks will connect to the existing Pipeline walk, and will need to be configured on mini-piles, with industrial-strength detailing to weather the intense seasonal flooding and debris that will immerse the terraces. The CSX viaduct will provide shade from the southern sun. A retrofitted screen beneath the viaduct will protect the public from debris dropped from freight trains passing on the viaduct above .



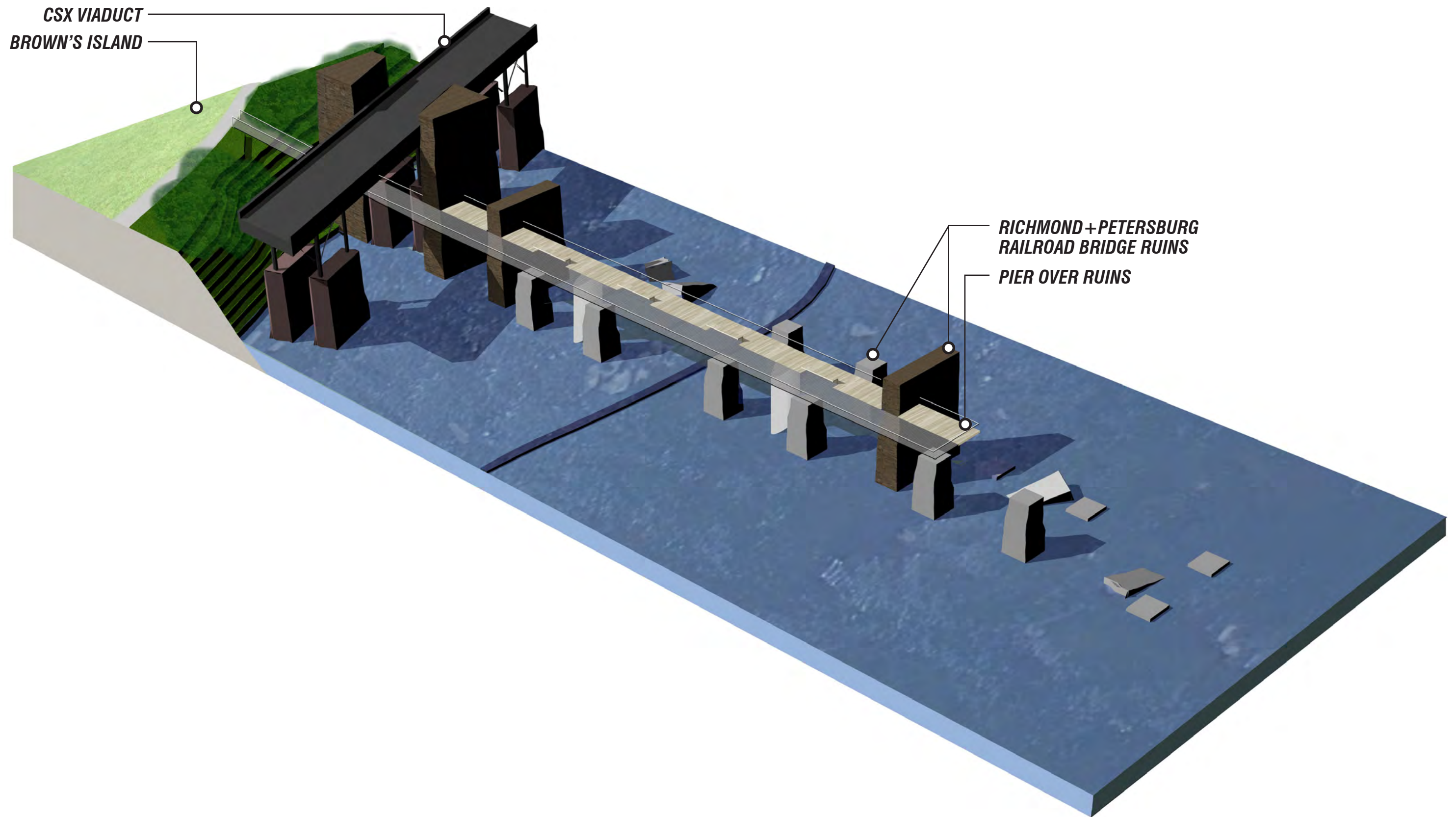
BROWN'S ISLAND RIVER TERRACES



PIER OVER RICHMOND + PETERSBURG RR RUINS



Located 200-feet upriver from the Manchester Bridge, the massive structural columns of various incarnations of the Richmond and Petersburg Railroad Bridge survive as majestic ruins. While some are plumb and upright, repeated flood events have toppled others. The limited restoration of this railroad bridge would integrate new steel spans with the existing piers and abutments constructed of ashlar granite and concrete, supporting a mix of wood decking and steel grating over the Pipeline Rapids. The 250-foot-long pier would connect to the Brown's Island lawn, passing under the CSX viaduct. Integrated seating and subtle night lighting of the new and old structures would provide a new destination adaptely reusing Richmond's existing historic infrastructure for an innovative contemporary purpose.



PIER OVER RICHMOND + PETERSBURG RR RUINS



MANCHESTER HISTORY

LEFT *Manchester Mills viewed from the mouth of Shockoe Creek, 1865* | LIBRARY OF CONGRESS
 RIGHT *Detail of Baist Atlas, 1889* | CITY OF RICHMOND DEPARTMENT OF PLANNING AND DEVELOPMENT REVIEW

IN 1769, William Byrd III founded the City on a portion of south bank of the river known as Rocky Ridge. He recognized the industrial potential the Falls of the James River afforded this site, and named the new city Manchester after England's great industrial center. Hydropower and its position as a gateway to Southside Virginia made Manchester a transportation and industrial center in the nineteenth century.

FALLS PLANTATION Around 1663, William Stegge received a 5000-acre royal land grant extending up and down the south bank of the James River that he and his heirs developed as the Falls Plantation, including the future site of Manchester.

THE MANCHESTER STREET GRID The street grid of Manchester dates to its founding in 1769. The Manchester Town Council renamed the streets in Manchester after heroes of the early American Navy in 1817.

MANCHESTER COMMONS The 1769 Manchester plan included a town commons along the river to serve as an open space for the general use of the town population.

THE MANCHESTER CANAL SYSTEM Byrd's charter for Manchester ensured that his new town would share access to the hydropower of the James River with Richmond, paving the way for Manchester to develop as an industrial area.

MANCHESTER MILL CANAL Around 1730 William Byrd of Westover constructed a small grist mill and mill canal on the south bank of the James. Byrd's canal probably provided the alignment of the present Manchester Mill Canal completed around 1800. The canal received water from a small wing-dam in the river (rebuilt and enlarged over the years) and provided hydropower to Manchester's industries. The mill canal terminated just east of Hull Street at a large pond that overflowed into the natural channel of Walker's Creek.

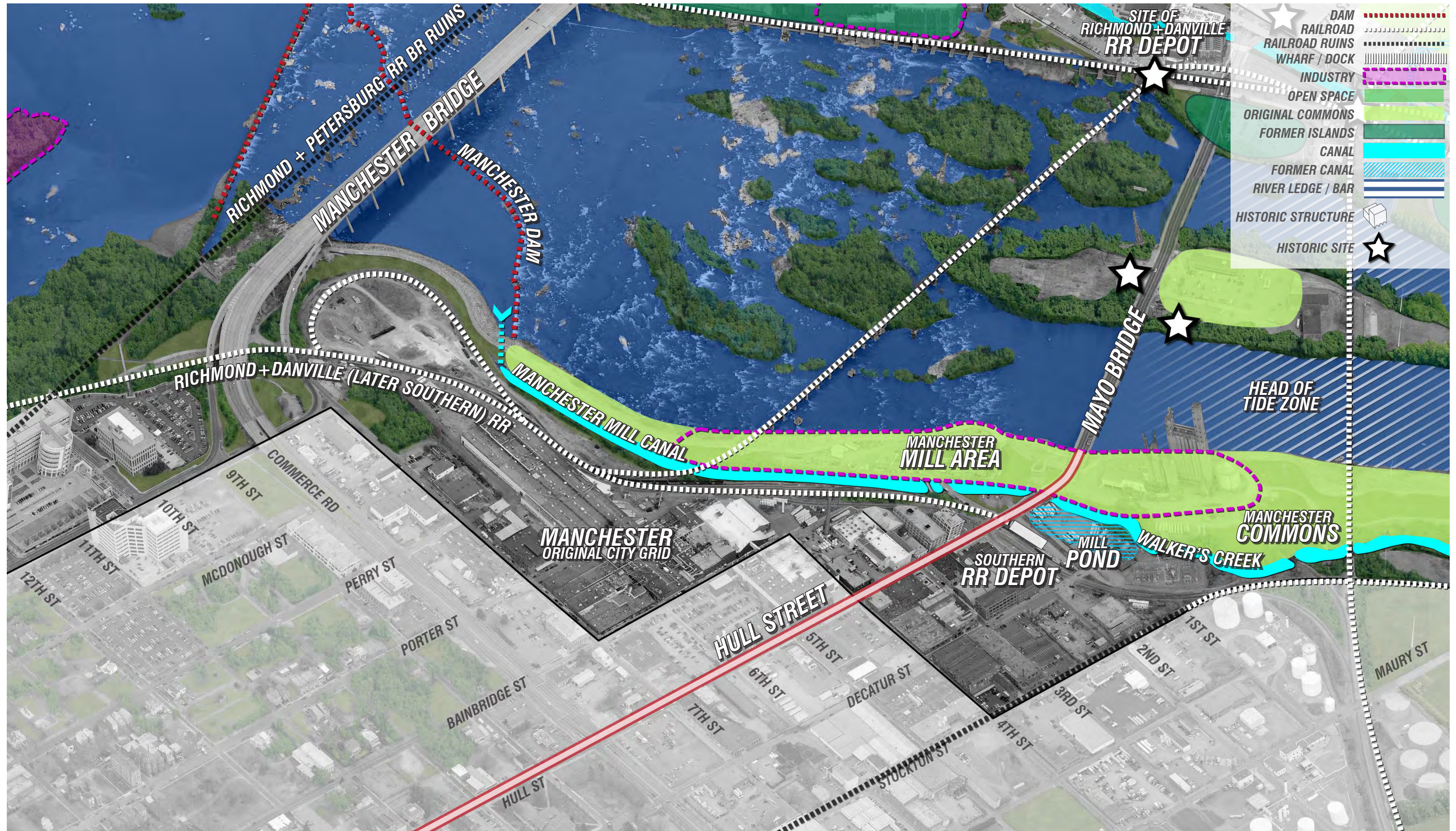
MILL AREA Following the completion of the Mill Canal, textile mills and grist mills were erected along the old Manchester Commons, west of the pond dam. This complex of massive buildings rivaled the industrial buildings on the north bank of the river. The Mill area, presently demarcated by the Manchester Floodwall, survived the Civil War unscathed only to be demolished in the twentieth century.

MAYO BRIDGE The location of the first Mayo Bridge abutment at the foot of Hull Street in 1788 assured Hull became the primary corridor of Manchester.

MANCHESTER BRIDGE The first Manchester Bridge (also known as the Free Bridge) was chartered in 1873 and provided a free alternative to the toll bridge operated by the Mayo Family. The present bridge completed was completed in 1972, and is the third on this site.

RICHMOND AND PETERSBURG RAILROAD BRIDGE In 1836, this stone-supported wooden bridge connected Richmond and Manchester by rail for the first time. A bridge on this alignment survived into the twentieth century, leaving the southern abutment (the Manchester Climbing Wall) and bridge piers as majestic ruins.

RICHMOND AND DANVILLE (LATER SOUTHERN) RAILROAD In 1849, the Richmond and Danville Railroad constructed the second railroad bridge across the James and established the rail alignment through Manchester used today. In 1894, the Southern Railroad acquired and expanded this line and in the opening decade of the twentieth century built the Manchester Depot (now the Virginia Railway Museum) and the present rail bridge across the James.



MANCHESTER HISTORY





MANCHESTER

“RIVERFRONT ACCESS” 10 ACRES

The Manchester side of the James River, between the Manchester Bridge and the I-95 Bridge, is dominated by the 5,550-foot long Manchester Floodwall and levee, lined with an extensive amount of armoring rip rap. This promises secure flood protection, while offering little access to the river itself and virtually nothing in terms of riparian landscape. The US Army Corps of Engineers included a public trail along the top of the floodwall, corresponding with the 2,000-foot upriver end of the structure. This flood wall walk crosses the Norfolk Southern tracks on a bridge structure that prevents the path from being universally accessible for its entire length. Nevertheless, this elevated walk offers stunning views north across the river and rapids to downtown. This vantage point suggests future strategies for reconnecting Manchester to the James River, despite the floodwall, as well as ways to render the path universally accessible for its entirety.

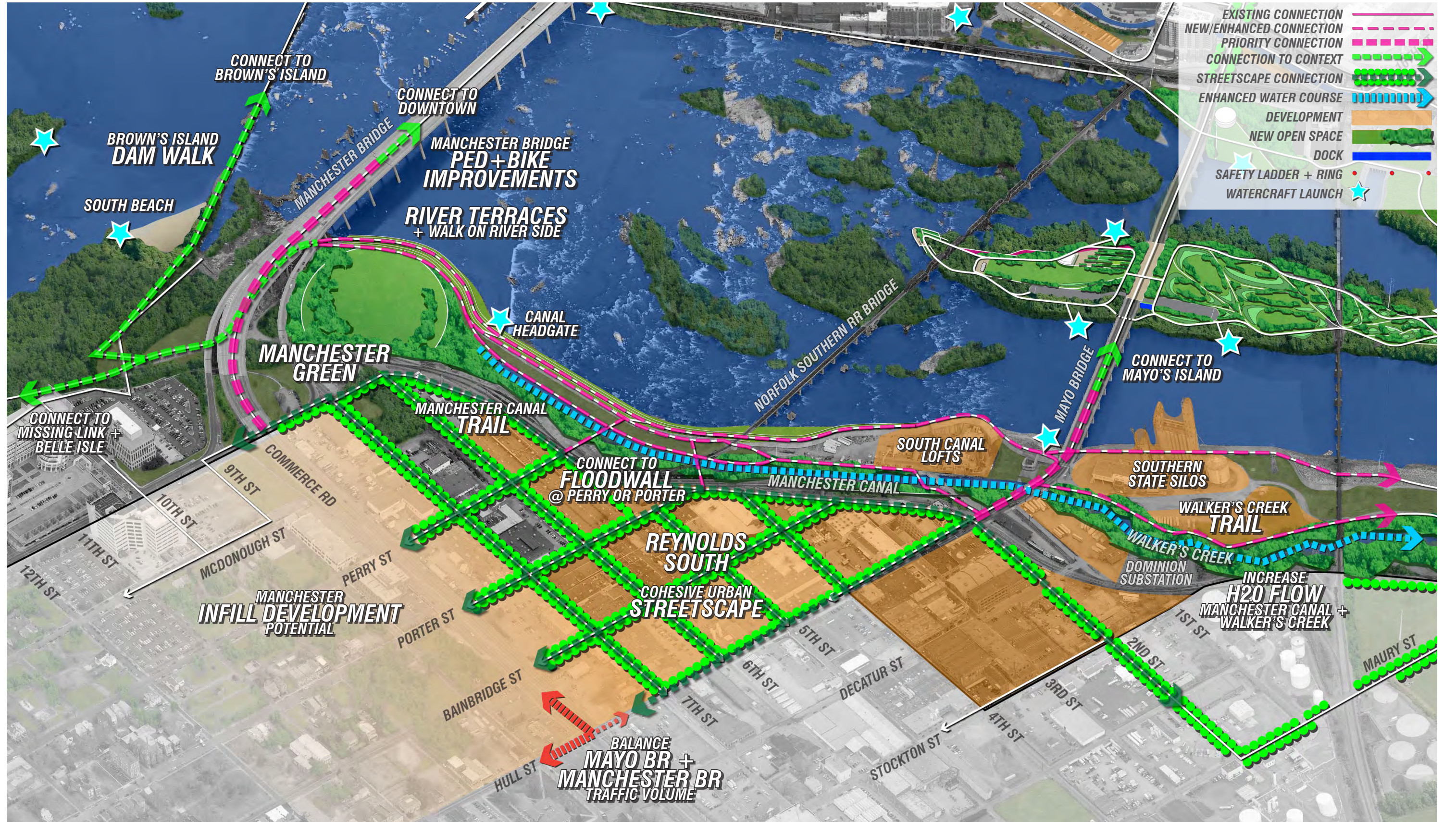
Norfolk Southern owns a 7-acre rail yard behind the floodwall. The active main line is situated to the south side of the parcel, leaving the majority of this teardrop-shaped property largely underutilized. An active, single spur follows the arc of the floodwall curve, for intermittent storage of rail cars. Through acquisition of this private property, the City of Richmond could establish a substantial new, public open space on the south bank of the James River, spurring catalytic redevelopment of the former Reynolds South property. This new open space, Manchester Green, would effectively provide a bookend to Brown’s Island, directly connected along the Brown’s Island Dam Walk.

The Reynolds South property is currently under study by private developers for mixed-use redevelopment of the now closed manufacturing facilities; this will include adaptive reuse of historic structures and new construction. It is imperative to reincorporate the Reynolds blocks back into the Manchester street grid by reopening closed streets to full access. The fundamental objective of the Riverfront Plan in this development is to maximize public passage through and between the new and adapted structures, reinforcing the perception of this area as a fully integrated, and publically-accessible mixed-use district rather than a self-contained enclave. Detailing the Reynolds South streetscape through a combination of public and private funding needs will ensure continuity of vocabulary from Commerce Avenue and Hull Street to the floodwall. This is particularly important where multi-story parking structures are to be configured, and elevated streets and pedestrian bridges are anticipated; one or more spans will need to extend to and connect with the existing Manchester Floodwall Walk.

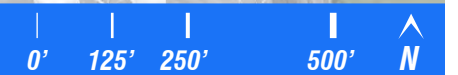
Positioned at the Manchester Floodwall, on either side of the Mayo Bridge, two industrial buildings offer a commanding view of the river and of the downtown skyline. The former Federal Paper Board Co., upriver of the Mayo Bridge, is in the process of conversion to less than one hundred residential units. The Southern States Silos, downriver of the Mayo Bridge, remains in operation as a grain transfer operation, relying on truck transport rather than rail or barge traffic. When the lessee ends operations at the silos, the owner anticipates future redevelopment as a mixed-use project. Both sites are protected from flooding by the floodwall, which also provides a sizable physical and visual barrier to the river. Once both properties are adapted to post-industrial use, they will take advantage of spectacular river views from above the floodwall.

Southern States in particular boasts unparalleled panoramic views of Richmond. The structure could be pulled down, and replaced with a structured parking podium, with mixed-use commercial and residential components above. The current structure is the tallest on the south bank of the river, with any replacement structure unlikely to attain the same height through zoning constraints. The current height then becomes a positive aspect to balance against the potential complexity and cost of adapting a grain elevator to new residential or commercial uses.

The Manchester Canal and Walker’s Creek are as yet unrealized opportunities for accessible water frontage. While the canal morphs into the creek as it passes under Hull Street, the flow velocity is so slight as to be misinterpreted as stagnant. There are two opportunities for this water course: First, open the Manchester dam wider to allow a greater volume of water into the canal/creek, facilitating increased flow. Improve pedestrian access along the canal/creek to bring visitors into closer contact with the water, while improving vegetation along this corridor, upgrading habitat. Second, maximizing opportunities for an abrupt drop of the water course would attract more attention to the function of the canal, and provide a river-powered ‘event’ which visitors can view and hear, behind the floodwall. The Dominion substation may be the ideal location, assuming that the structure is now merely a pass through, and no longer generating power.



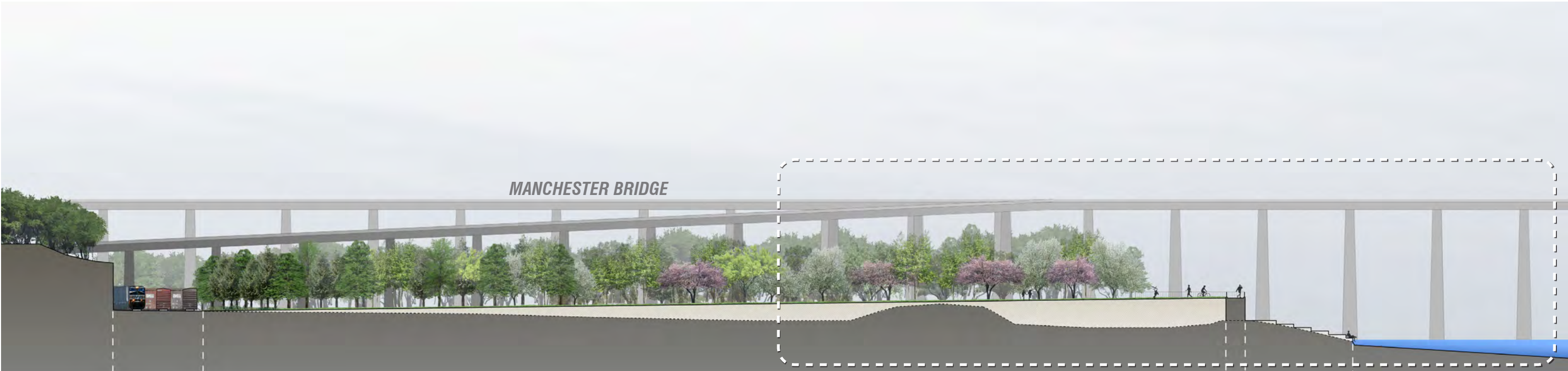
MANCHESTER





MANCHESTER





NORFOLK SOUTHERN RR

MANCHESTER GREEN

FLOODWALL WALK

RIVER TERRACES

JAMES RIVER

MANCHESTER

0' 25' 50'



EXISTING

MANCHESTER RIVER TERRACES

Taking advantage of existing City plans for a vehicular access maintenance road under the Manchester Bridge to the Manchester Canal intake valve, the rip rap is transformed through replacement and armoring with a stepped series of terraces. The access road is configured primarily as a dual use pavement for public recreation and City maintenance vehicles. The terrace walls would either be integrated into the existing rip rap armor, or engineered as a new structure capable of withstanding seasonal floods, doing nothing to undermine the existing floodwall structure. The stepped terraces between walls would be vegetated with a variety of non-woody, riparian species to maximize habitat, while minimizing maintenance and erosion. All improvements in proximity to floodwall and rip rap armoring require coordination and permitting with U.S. Army Corps of Engineers.



MANCHESTER GREEN

The fundamental intervention is to back fill the Norfolk Southern rail yard with engineered fill and tie backs to ensure that floodwall stability remains uncompromised. Filling in this parcel will yield a new public landscape coinciding with the existing Floodwall Walk, and subtly sloping back toward the active rail line. This 7-acre landscape would be vegetated with an adequate shade buffer and access restrictions along the rail, orienting views out across the river to downtown. Programming for the Green will be primarily passive, with an emphasis on informal play and picnicking, while accommodating occasional seasonal performances or events. Lighting, site furnishings, and possible playground and shelter will help make this landscape a family destination for daily and seasonal events.



EXISTING



MANCHESTER BRIDGE

N >

The existing median of the Manchester Bridge is open to pedestrian traffic; however, because of the sizable stair on the Manchester terminus, it is not universally-accessible nor reasonably available for bike traffic. Preliminary study suggests that the median at Semmes Avenue could be reconfigured to replace the stair with a universally accessible ramp. A road diet of the Manchester Bridge could possibly eliminate one innermost lane in each direction. This would allow for the potential repurposing of this space as a linear, perennial landscape, greatly enhance the current experience of crossing the James River along the half-mile span. This stair/ramp substitution would dramatically improve public access on the Manchester side, shifting

focus back to the north bank intersection of 9th Street with E. Byrd Street, where the number of turning and merge lanes total eleven, for study to improve bike and pedestrian access and safety. Reconfiguration of the intersection of Hull and Commerce to allow left hand turns onto Commerce would make possible the option for northbound traffic to access downtown without being channeled across the Mayo Bridge.



MANCHESTER: VIEW FROM FLOODWALL WALK, LOOKING NORTH TOWARDS DOWNTOWN RICHMOND



REYNOLDS NORTH / CANAL WALK HISTORY

View south from the Gallego Mill, 1905 | SPECIAL COLLECTIONS AND ARCHIVES, VCU LIBRARIES

The construction of the James River and Kanawha Canal (started in 1785) and the Haxall Mill Canal (started in 1790) began the long and complicated industrial and transportation history of this area. The last thirty years have witnessed post-industrial redevelopment centered on the improvement of the Richmond Canal Walk.

GREAT TURNING BASIN SITE Between 1785 and 1800, the James River and Kanawha Canal Company successfully constructed a canal around the Falls of the James that provided a means of navigation to the turning basin. Until the construction of the Tidewater Connection Locks, the basin marked the eastern terminus of the canal. After the closing of the canal in 1877, the Chesapeake and Ohio Railroad filled the basin and for almost 100 years used the basin site as a rail yard. The construction of the Downtown Expressway in 1972 and the subsequent construction of the James Center obliterated most of the basin, leaving Basin Bank Street and some granite blocks as the remaining fragments of this massive structure.

TIDEWATER CONNECTION LOCKS In 1854, the James River and Kanawha Canal Company completed the Tidewater Connection Locks, an engineering marvel of five locks and a canal extension that allowed canal boats to move between the south side of the basin and the Richmond Dock (ship canal) east of 14th Street. Falling into disuse after the closing of the canal, three of the five locks were demolished to make room for the Downtown Expressway. Two of the original locks remain east of 12th Street.

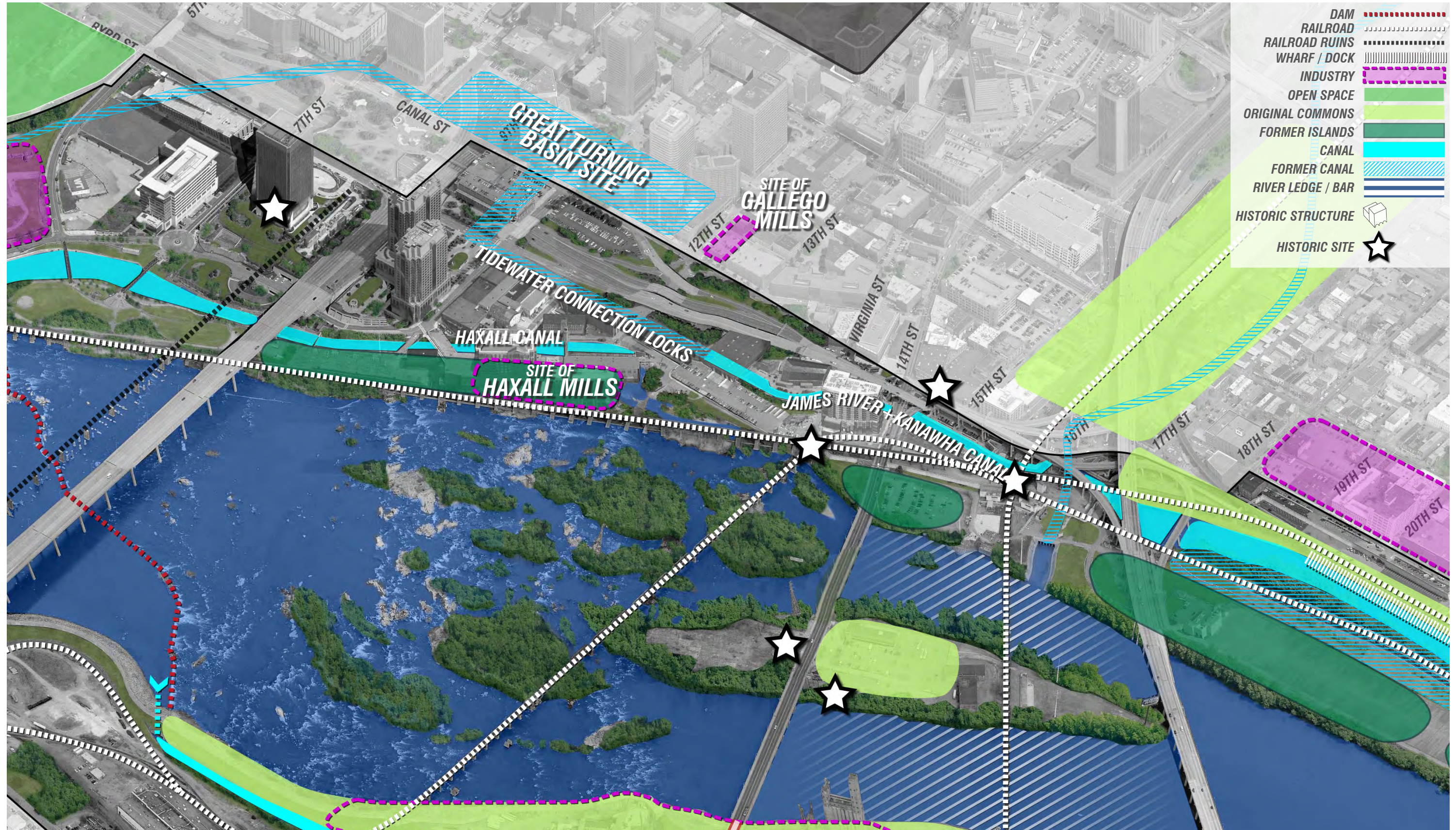
13TH STREET BRIDGE This antebellum stone arch bridge crosses the canal east of the Tidewater Locks, and is an impressive artifact of the canal system.

GALLEGO MILLS Following the completion of the turning basin in 1800, the first Gallego Mills rose at the eastern end of the turning basin, powering waterwheels from the overflow of the basin. By 1860, the Gallego was the largest building in Richmond and possibly the largest flour mill in the world. Destroyed by the 1865 evacuation fire, the ruins of the mill formed a ghostly landmark in Richmond's Burnt District. Subsequently rebuilt, the mill survived until 1930.

HAXALL CANAL AND MILLS David Ross constructed a mill canal in 1790 to power his gristmill at the foot of 12th Street. The Haxall Mills succeeded Ross's Mill, replacing it with larger buildings on the same site. The output of Haxall and Gallego Mills made Richmond the flour milling leader of the United States in 1860. Only partially rebuilt after the Civil War, the Haxall struggled and finally closed around 1900.

POWER PLANT The Virginia Railway and Power Company demolished the Haxall Mill in 1904 and constructed a coal fired plant that used water from the Haxall Canal to generate steam to turn electrical turbines that generated power for electric streetcars. The shell of this building still stands on the Haxall Canal.

REYNOLDS FOIL PLANT After 1926, the Reynolds Metals Company began the manufacture of Reynolds Wrap aluminum foil and other products in older industrial buildings along the Haxall Canal. The plant expanded over the years and finally closed in 2008.



REYNOLDS NORTH / CANAL WALK HISTORY





REYNOLDS NORTH CANAL WALK

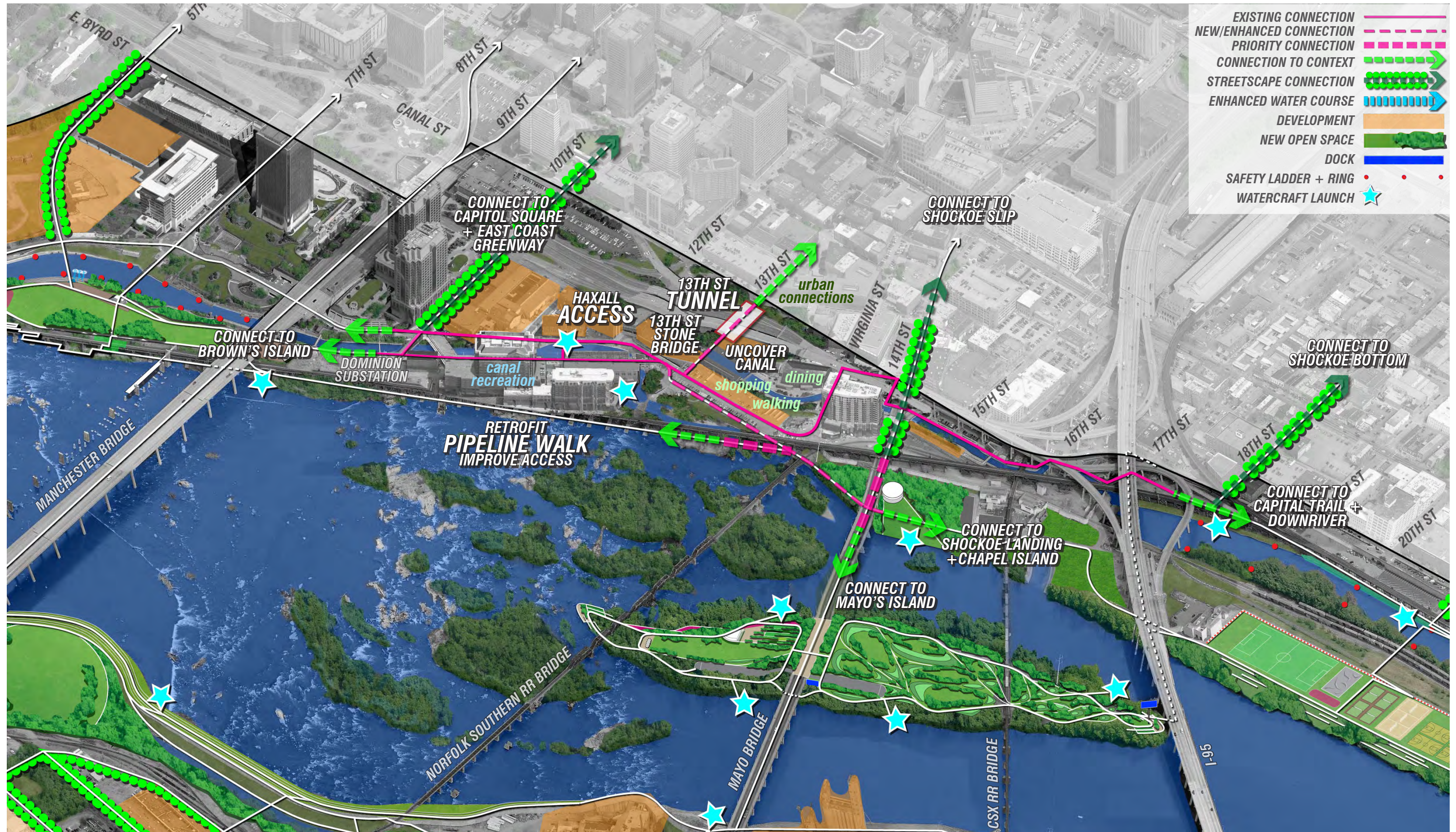
“URBAN CANAL”

The Canal Walk is a 1.25-mile long public pedestrian landscape that follows portions of both the Haxall and James River & Kanawha, both 18th century canals. The City of Richmond completed the \$52 million Canal Walk in 1999, with the objective of catalyzing redevelopment of residential, entertainment and commercial uses. Pedestrian walks follow both sides of each canal between 11th and 16th streets with some interruptions, with multiple stair and ramp connections to the City street grid above. The Canal Walk incorporates substantial quantities of cut stone from the historic canals, and integrates interpretive markers. The interpretive elements describe various industrial, cultural people and events. The Richmond Slave Trail intersects with the Canal Walk at 14th Street, and the East Coast Greenway at 10th Street.

Redevelopment has incrementally gravitated to the Canal Walk, with several residential towers, offices, and entertainment projects completed, and several more on the way. Activity along the Canal Walk appears lower than one would expect, due in part to the relative absence of adequate ground level retail, food and drinking opportunities. In the summer, the absence of shade, vendors, restrooms, and variety of establishments to shop and linger at works against the Canal Walk as a destination.

The City of Richmond continues to work with private developers to shape prospective new construction and adaptive reuse of existing structures to incorporate ground level retail beneath upper floors of residential and commercial office space. Achieving a true mixed-use will be instrumental in activating the Canal Walk eighteen hours a day, balanced with residents attracted to the Riverfront living. Efforts are underway to expose more of the James River & Kanawha Canal to daylight near 13th Street, as well as reconfiguration of the Haxall Canal edge near 12th Street to increase access to the water sheet, and expand universal-access connections to the City street grid above. A public elevator is currently planned to link the 10th Street sidewalk to the Canal Walk behind the Italianate Building. The Riverfront Plan supports efforts to expand access along and across canals to make visits easier to navigate on foot. One significant reconnection is to restore the 13th Street right of way through to Shockoe Slip, in the process making the little visited 13th Street stone bridge once again a vibrant cobble stone covered span. Less cost intensive but no less important is the need to establish one or more restrooms available to public users. The City will continue to work with private developers to incorporate privately operated, maintained and secured restrooms in the ground floor of one or more buildings, with all recognizing that this amenity is key to accommodating and attracting visitors and customers.

The Haxall Canal water depth fluctuates between three and five feet, whereas the James River & Kanawha Canal is shallower at a depth of two to three feet. Venture Richmond operates canal boat rides along the James River & Kanawha Canal, and manages outdoor concerts and events. As noted elsewhere in the Plan, adjusting the current prohibition on all personal, non-motorized recreational watercraft on the Haxall Canal is a significant move to encourage residents to use the water sheet, thereby activating this urban space, and in turn attracting more visitors who enjoy people watching. Similarly, the currently posted prohibition on bikes along the Canal Walk works against activity levels in this area. Properly revised signs should favor pedestrian right of way throughout the Canal Walk, while encouraging responsible bicycle operation within this shared space.



REYNOLDS NORTH / CANAL WALK





EXISTING

10TH ST DOMINION RAMP

The Dominion electrical transmission substation lies immediately downriver of the Manchester Bridge, constricting the Canal Walk to one of the narrowest passages along the Haxall Canal. The 10th Street Bridge connects to the substation, offering a stair down to the Canal Walk. The stair is the East Coast Greenway link to the Canal Walk, and can be reconfigured to incorporate a universal access ramp. The blank concrete wall can be transformed with a combination of architectural detailing, a green wall, or lighting to make this environment less coarse. This is a prime example of fusing art-driven interventions with infrastructure improvements to enhance the Riverfront experience.

URBAN CONNECTIONS
HISTORIC COBBLESTONE
DOWNTOWN ACCESS TO CANAL + RIVERFRONT
PEDESTRIAN ONLY



EXISTING

13TH STREET TUNNEL

An historic stone arch bridge paved in cobblestones sits disconnected and hidden behind the Reynolds North buildings. With the anticipated redevelopment of Reynolds North, including one strategic building removal, this bridge will be newly visible from the Canal Walk. The tunnel has the potential to connect Shockoe Slip with the Canal Walk, greatly improving two key visitor destinations. The Expressway embankment currently renders the bridge a dead end. Preliminary assessment confirms that a pedestrian tunnel could be built under the Expressway embankment, reconnecting to downtown and the street life of Cary Street.



SHOCKOE LANDING HISTORY

View north from Manchester across Mayo's Island, 1816 | COLLECTION OF T. TYLER POTTERFIELD

Shockoe Landing is the area where Shockoe Valley, Shockoe Creek, and the Shockoe Bottom and Shockoe Slip neighborhoods meet the James River. This portion of the Riverfront is rich in transportation and Civil War history, and has a complicated history of physical development.

SHOCKOE CREEK Shockoe Creek forms one of the largest natural drainages in Richmond north of the James River, and it shaped the valley that separates Church Hill to the east from Shockoe Hill to the west. Shockoe Creek meandered through the floodplain of the valley until sewer projects slowly transformed the creek from stream to sewer in the late nineteenth and early twentieth centuries.

ROCK LANDING Shockoe is apparently an English corruption of the Powhatan Native American word for stone, a probable reference to the Rock Landing, a granite outcropping that once flanked the western side of Shockoe Creek at its mouth (the present-day northwest corner of 15th and Dock Streets). The landing marked the upper limit of navigation on the tidal James. The construction of the Richmond Dock made the landing a feature of that canal structure, but subsequent urbanization obliterated it.

CANALS The construction of Richmond Dock, started in 1816, completed the first leg of the canal system through Shockoe Landing, east of 14th Street. In 1854, the Tidewater Connection Locks linked the Richmond Dock to the Great Turning Basin. Railroad construction, following the closing of the James River and Kanawha Canal in 1877, obliterated the Canal between Virginia and 18th Streets. These alterations necessitated the use of a modified canal footprint in the 1992 canal reconstruction through this area.

FORMER ISLAND Originally, the northern section of Mayo's Bridge spanned a small island incorporated into the north shore after 1816.

SANDY BAR In the eighteenth and nineteenth centuries, the Sandy Bar (also known as Chapel Island) formed the east side of the mouth of Shockoe Creek opposite the Rock Landing. Recent scholarship suggests that on April 4, 1865, the United States Navy rowed Abraham Lincoln to this landing, and from there he walked up 18th Street to Main Street for his triumphal tour of Richmond.

RICHMOND AND DANVILLE RAILROAD In 1850, the Richmond and Danville Railroad established a depot on this site and constructed a bridge across the river. Confederate President Jefferson Davis and the members of his cabinet left Richmond on a train from the Richmond and Danville on April 2, 1865 and the next day retreating Confederate forces started burning nearby warehouses, which caused the Richmond Evacuation Fire. The fire consumed all of the bridges along the Riverfront, as well as the area north of the river between Shockoe Creek, Capitol Square, and Gamble's Hill.

A RAILROAD CROSSROADS Richmond's railroads rebuilt and grew substantially in the decades following the war. The reconstruction of the Richmond and Danville line after the war and the establishment of the Chesapeake and Ohio Railroad in 1877 inaugurated this new rail era. The convergence of these lines with the expansion of the Southern Railroad after 1894 resulted in railroad gridlock. To ease the congestion in the area in 1904, the new Seaboard Airline and the Chesapeake and Ohio railways constructed elevated rail lines, resulting in the great railroad curiosity known as the Triple Track Train crossing.



SHOCKOE LANDING HISTORY





SHOCKOE LANDING

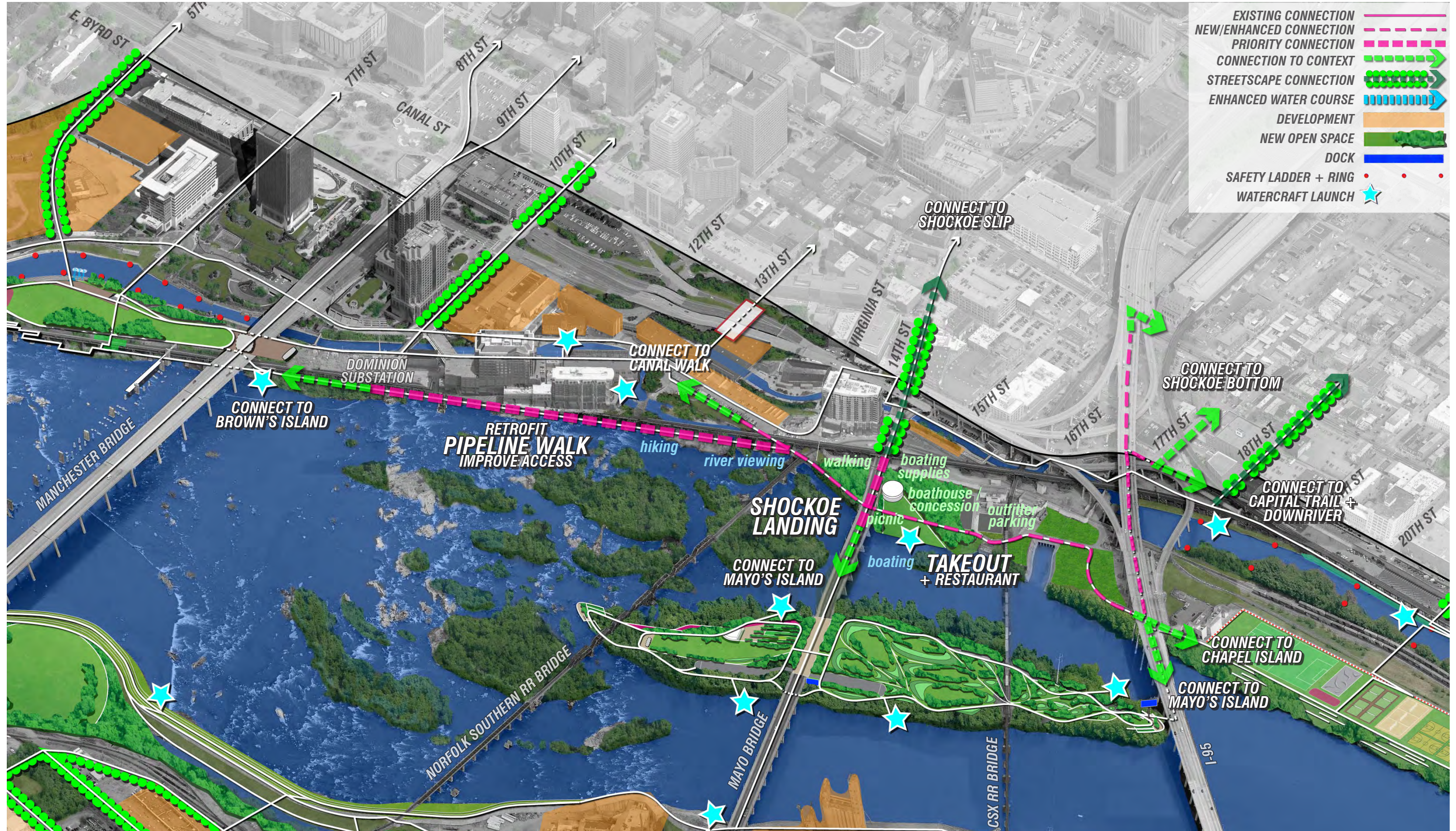
“RIVER RECREATION” 2 ACRES

The Mayo Bridge lands on the north bank of the James River traversing various residual properties unprotected by the floodwall in an area the Plan refers to as Shockoe Landing. Ownership of the parcels includes Norfolk Southern and the City of Richmond. Portions of these properties are being used for or being contemplated for surface parking. The Riverfront Plan envisions a different future, where this 2-acre area is transformed into a pivotal nexus of recreational connections, including the 14th Street Takeout, and access trails along the river and across to Mayo’s Island. Acquisition of the Norfolk Southern parcel will help upgrade these parcels into a cohesive public landing, providing access downriver to Chapel Island. These parcels were previously occupied by rail and port facilities that witnessed the departure of the Confederate Government, the origin of the Evacuation fire, and arrival of U.S. President Lincoln within the same week in 1865, providing an as yet untapped opportunity for interpretation.

Acknowledging the cow path leading from the upriver Canal Walk at 12th Street to Mayo Bridge, the Plan anticipates that this rough trail can be upgraded to full multi-purpose use and extended downriver along Chapel Island, making 14th Street a crossroads of linear river edge trails. The triangular grass parcel upriver of 14th Street is therefore a pivotal City-owned parcel. As such, the Plan advocates against repurposing publicly-owned parcels as dedicated parking for private development protected by the floodwall.

The existing gravel lot is to be transformed into a public landscape anchored by a vendor-operated ‘boathouse’ restaurant situated above the floodplain, affording views south across to Mayo’s Island and watercraft activity associated with the 14th Street Takeout. The reconfigured takeout would effectively expand upriver, with a more generous access ramp to the river, and expanded public parking, metered to deter daily parking. The boathouse may have a vendor-operated concession for river-related outfitting and recreation, and publicly-accessible restrooms for visitors exploring the river by foot, wheel or water.

Further upriver of 14th Street, additional connective projects make access to and along the river easier, including upgrades to the Pipeline Walk. Taken together, these discrete projects reinforce existing or establish new routes of passage for greater River access.



EXISTING CONNECTION	
NEW/ENHANCED CONNECTION	
PRIORITY CONNECTION	
CONNECTION TO CONTEXT	
STREETScape CONNECTION	
ENHANCED WATER COURSE	
DEVELOPMENT	
NEW OPEN SPACE	
DOCK	
SAFETY LADDER + RING	
WATERCRAFT LAUNCH	

SHOCKOE LANDING





PIPELINE WALK RETROFIT - DOWNRIVER

The Pipeline Walk is an existing 30" diameter steel pipe fastened to the massive concrete footings of the CSX viaduct. From just upriver of Virginia Street, the pipe is topped with a 26"-wide, open steel decking for routine maintenance access. The decking and associated handrail continue upriver nearly 1750', where the handrail ends. Total immersion in seasonal flooding subjects this structure to extreme structural stress and debris strikes. The Pipeline currently rewards a small percentage of visitors willing to scale a ladder to reach stunning views of the James River archipelago upriver of Mayo's Island and Pipeline Rapids. Broader public access to this impressive natural resource could be provided by retrofitting the existing steel decking and guardrails. Universal-access could be accommodated by: widening the steel decking and guardrails; integrating intermittent code-compliant turning zones; and substituting an accessible ramp for the existing ladder access. The objective is to improve access and safety along an exhilarating stretch of the Pipeline Rapids.

LEVEL WALKING SURFACE
UNIVERSALLY-ACCESSIBLE **CURBS FOR SAFETY + DRAINAGE**
INTERMITTENT TURNING ZONES
ROOKERY VIEWING



EXISTING

PIPELINE WALK RETROFIT - UPRIVER

The Pipeline Walk grating abruptly transitions to a concrete-encased vault, approximately 5' wide, continuing upriver beneath the viaduct for another 650' before veering off into the river just below the Brown's Island Dam. A topping slab of concrete can be added to flatten the crown into an accessible pedestrian surface. Low curbs would allow for drainage and a greater sense of safety, free of guardrails where the vertical drop distance is less than 30". In the vicinity of the Manchester Bridge, the existing grades allow for an accessible connection between the Pipeline Walk and Brown's Island. This would provide for a linear loop rather than a dead end. In any improvement scenario, recurring 5' x 5' rest zones will need to be provided to allow visitors to linger and change direction without impeding passage of all users.



MAYO'S ISLAND HISTORY

View of Mayo's Island from Manchester, 1852 | VALENTINE RICHMOND HISTORY CENTER
 INSET View of Mayo's Island, photographed by Mathew Brady c. 1863 | U.S. NATIONAL ARCHIVES

Mayo's Island is strategically located at the convergence of the fall zone and tidewater sections of the James River. Since 1788 bridges have connected Hull and 14th Streets, replacing an earlier ferry crossing near the island. The ferocity of the James River, industrialization, and bridge construction have all combined to shape the modern footprint of the island.

MAYO'S ISLAND Mayo's Island began as two islands: Tollhouse Island to the west and Confluence Island to the east. The two islands were merged and expanded by fill and alluvial deposits to create Mayo's Island's present form. The Tollhouse Island section contained the tollhouse and a wooded grove used for picnics, barbeques, fishing, and quoits (a cross between bocce and horseshoes) matches. The island is subject to severe flooding, and was completely submerged during a flood in 1936.

MAYO BRIDGE The Mayo family of Richmond obtained a charter to construct and operate a toll bridge across the river in 1785. The first Mayo Bridge opened in 1788, and it was the first span across the James River. Floods in 1790, 1802, 1813, 1835, 1847, and 1877, and the 1865 Evacuation Fire ended the service of successor bridges. A term of the consolidation agreement between Manchester and Richmond in 1910 required a new bridge to connect Hull and 14th Streets. The resulting Mayo Bridge was completed in 1913. It is a filled concrete arch structure reminiscent of arched bridges in Paris and London, a majestic bridge form that became popular for concrete bridges in the United States.

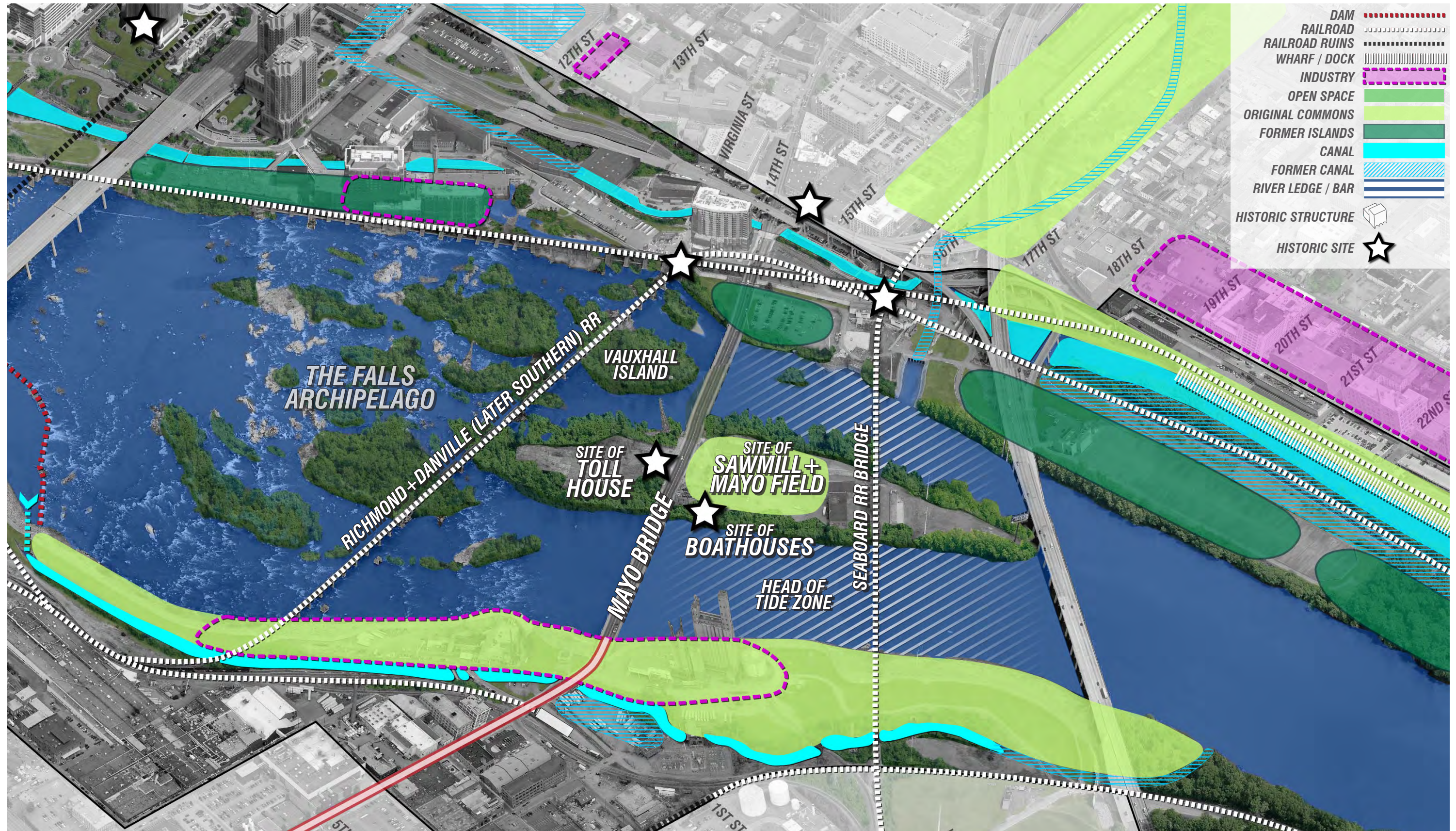
SAWMILL AND MAYO FIELD A sawmill occupied the eastern end of the island for much of the nineteenth century. Following its closing, the island became a private recreation facility known as City Park. The centerpiece of the park was Mayo Field, a baseball stadium that was in use until around 1940.

BOATHOUSES In the eighteenth and nineteenth centuries, boating for recreation and commercial fishing was widespread in the tidewater section of the James. Following the founding of the Virginia Boat Club in 1875, competitive shell rowing became popular on the tidewater. By 1895, the club and the Richmond YMCA constructed Philadelphia-style boathouses on the south side of the island.

RAILROAD BRIDGES The Southern Railroad Bridge incorporates material from several earlier bridge construction projects, including the 1850 Richmond and Danville Bridge and the concrete in-fill sections that date to around 1910. The Seaboard Airline Railroad connected to Tampa, Florida in 1905, and the surviving steel truss bridge dates from that time.

VAUXHALL ISLAND Vauxhall Island is named for Vauxhall Gardens, the great pleasure garden of eighteenth century London. Richmond's Vauxhall pleasure grounds operated on the island in the nineteenth century. Patrons could access the island on a footbridge from Mayo's Bridge and enjoy barbeque, a barroom, a shuffleboard court, fishing, and other amusements.

THE FALLS ARCHIPELAGO A unique archipelago of islands is adjacent to Mayo's and Vauxhall Islands, and includes Bailey's Island, Burton's Land, Creek Island, Devil's Kitchen, Shad Island, Sharp's Island, Terrapin Island, and many unnamed islets. A variety of activities took place on the islands, including commercial fishing operations during the spring shad runs, summer all-male skinny dipping excursions in the rapids and pools, and granite quarrying for construction of bridge piers and retaining walls.



MAYO'S ISLAND HISTORY





MAYO'S ISLAND

“CENTRAL RIVERFRONT PARK” 16 ACRES

Mayo's Island sits at the center of the Richmond Riverfront, positioned mid-river and bisected by Mayo Bridge, that connects it to the north and south banks. The island itself has incrementally grown in all dimensions, the result of man-made additions and flood effects that transformed the island from riparian land to recreational and eventually industrial use. The 1890 F.W. Beers map identifies the island as “Island Park,” with recreational use that continued into the 20th century, before the impact of severe flood events.

Mayo's Island is strategically located to serve communities on both the north and south sides of the River as a premier regional public open space. Mayo's Island is both the largest and most vehicular-accessible of all the islands; additionally, it is adjacent to the habitat-rich archipelago of smaller islands immediately upriver. The island should be acquired for public use as open space, consistent with recommendations in the 2009 Downtown Master Plan, that envisioned Mayo's Island as the centerpiece of the Riverfront. The island could provide a distinct open space that provides walking and biking trails, multiple watercraft launches, an exploratory green landscape, play areas, an event lawn, and restored riparian overlooks upriver and downriver. Existing parking lots could be reused adjacent to the road, and a plaza with concessions and recreational equipment rentals could offer support for a variety of programs. The rehabilitation of Mayo Bridge should integrate with this anticipated revitalization of Mayo's Island, in support of this anticipated active, pedestrian landscape. The Plan recommends that 14th Street as it crosses the island be reconfigured to calm traffic speed and accommodate the anticipated foot and bike traffic crossing the street from one side of the island to the other. The acquisition and transformation of Mayo's Island into public open space is a priority for protecting the integrity of the James River as an accessible landscape, reflective of Richmond's rich natural and cultural legacy: Mayo's Island becomes the ‘green jewel’ of the Richmond Riverfront.

Current uses include surface parking rental, recycling transfer, and artist loft rental. The majority of the site is paved with impervious concrete and asphalt. Future development of this privately-owned island is constrained by three significant factors: flooding, infrastructure, and utilities. The general topographic elevation of the island is lower than the 100-year flood, making redevelopment extremely difficult from a regulatory standpoint. Historically, the island has endured multiple catastrophic floods resulting in immersion and the total loss of various structures. Additionally, the 1994 floodwall on either bank of the James is likely to amplify the flooding impact at Mayo's Island; the former wide breadth of the river at this location is now constrained between two floodwalls, concentrating floodwaters. Any redevelopment of commercially-viable structures requires a secondary emergency vehicle egress route to either bank of the river, at an elevation higher than the 100-year flood. While any new egress bridge would be a significant cost, it would also have to surmount the height of the floodwalls that protect the City from a 280-year flood event. The absence of any detectable link to the City sanitary sewer system is the third constraint. Written records and site investigations have shown no evidence of a functioning sanitary sewer system; therefore island structures do not currently conform to regulatory health and building codes. The cost of addressing all three constraints, particularly the implied public funding of significant infrastructure improvements to solve the constraints, leads the City to focus on acquisition rather than private development.

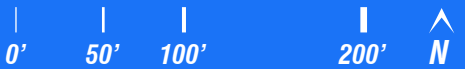


MAYO'S ISLAND





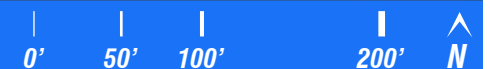
MAYO'S ISLAND: SHORT-TERM PLAN



Acquisition of Mayo's Island would provide for a range of short-term public access opportunities. Nature trail circuits along the island perimeter offer upriver views to the rapids. Multiple ramps down to the water edge accommodate watercraft launch and recovery, as well as easy pedestrian access down to the water sheet. Several hundred existing parking spaces could provide temporary event venues, including farmer or flea markets, food festivals, or skate competitions. Existing buildings should be closed and secured short term, awaiting final removal. The downriver end is already a green lawn, immediately usable for informal play. The 2015 World Cycling Championships could use the island for preparation, staging, and support logistics, with ample vehicular parking, as well as grandstand viewing of the race crossing the River.



MAYO'S ISLAND: LONG-TERM PLAN



Mayo's Island would be transformed from a predominantly paved parking lot with decaying buildings to an island landscape inviting exploration. Pedestrian and bike trails would traverse the island, maximizing access along the river and across the island, intersecting with a diversity of programmatic activities. From open lawns for informal play to integrated play environments, the transformed Mayo's Island would offer opportunities for play, bike and skate rental, as well as passive gardens, within an iconic 21st-century landscape capitalizing on its position in the middle of the river. The intersection of Mayo Bridge with Mayo's Island can be detailed as a speed table, or benched travel way, effectively calming speeding

bridge traffic most days, while on rare occasions allowing the bridge to be closed for civic events. At 16-acres, Mayo's Island is more than twice as large as Brown's Island, and positioned squarely in the middle of the James River. A publicly-owned Mayo's Island would allow ample space for a new Richmond landscape type: an exploratory, green landscape capable of hosting events and festivals, a dynamic hybrid landscape that does not exist along the Richmond Riverfront.



RAPIDS OVERLOOK

EVENT LAWN + PLAY

CAFE PLAZA

MAYO BRIDGE

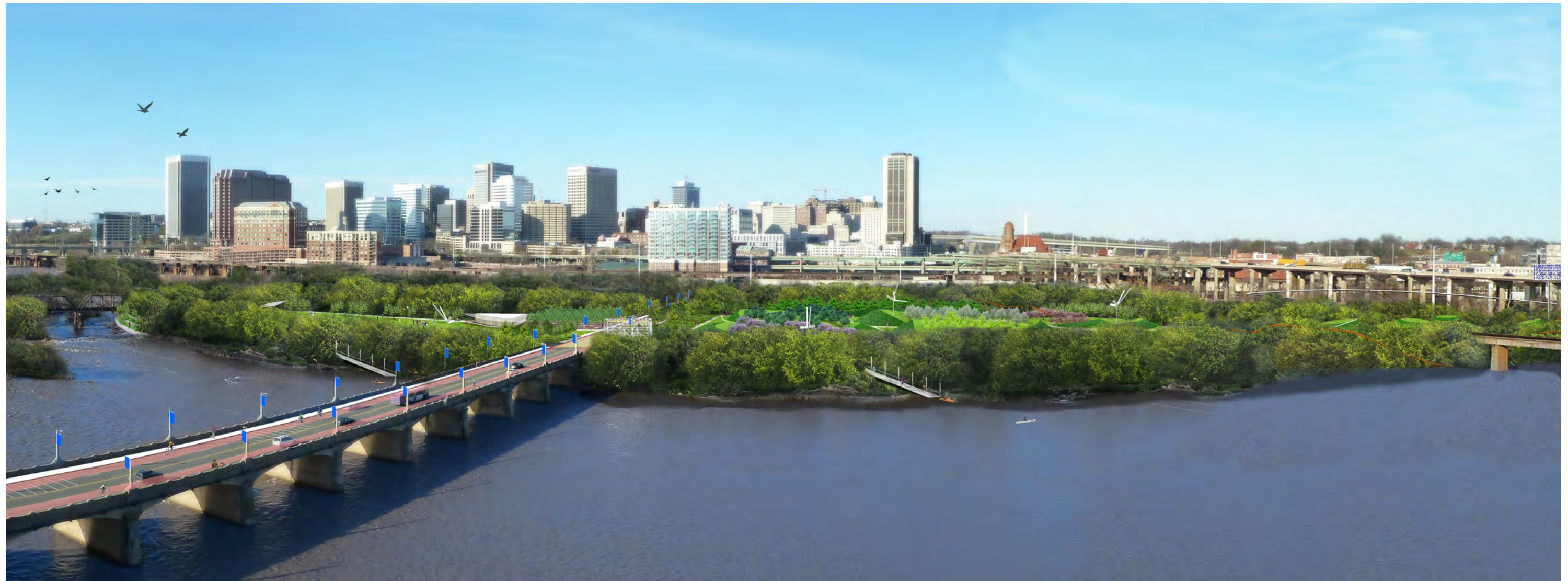
EXPLORATORY LANDSCAPE

TIDAL OVERLOOK

I-95 JAMES RIVER BR

MAYO'S ISLAND

0' 50' 100'



MAYO'S ISLAND: VIEWED FROM THE SOUTH BANK, MAYO'S ISLAND BECOMES THE 'GREEN JEWEL' IN THE RICHMOND RIVERFRONT



MAYO'S ISLAND **UPRIVER**



MAYO'S ISLAND **DOWNRIVER**

INTERACTIVE ART INSTALLATIONS **NATURE CIRCUITS**
EXPLORATORY LANDSCAPE
EVENTS+PLAY **WATERCRAFT LAUNCHES**
LANDSCAPE TOPOGRAPHY+VEGETATION
RECREATIONAL ACTIVITIES



MAYO'S ISLAND: EXPLORATORY LANDSCAPE

The fundamental anticipated change to Mayo's Island is the replacement of existing vehicular pavements with permeable lawn and vegetation. The perimeter tree cover would be left virtually intact as a mature shade canopy enclosing an exploratory landscape of non-linear recreational path circuits reinforced by drifts of trees. Each circuit is defined by enclosing landform topography, drifts of trees, and singular, interactive art installations. The objective is to create a green landscape with a diversity of experiences that must be discovered on foot or wheel. Each circuit would have a central open space suitable for informal play, or formalized event activities.

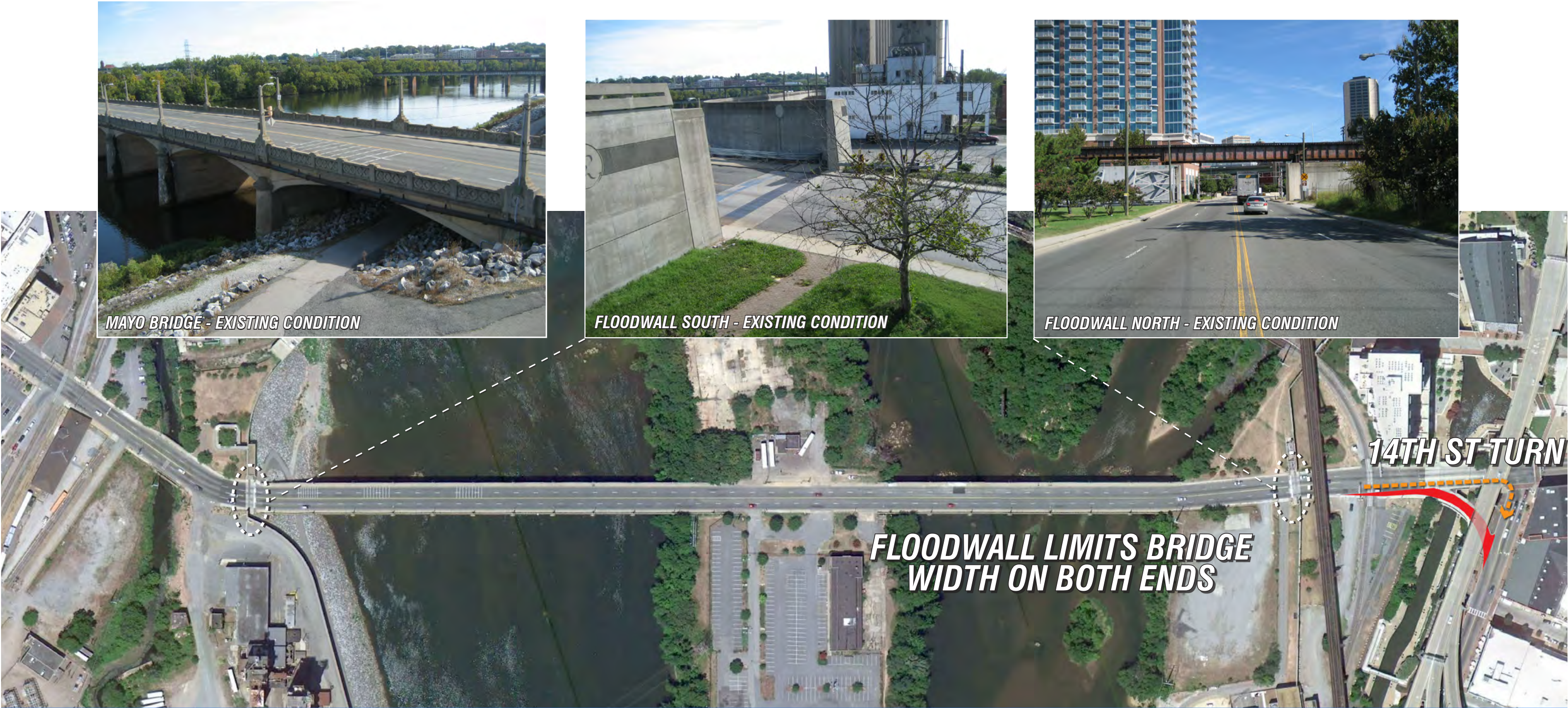
PEDESTRIAN BRIDGE CROSSING
CONNECT MAYO'S ISLAND TO CHAPEL ISLAND / SHOCKOE BOTTOM
BIKE ACCESS
DOWNRIVER+UPRIVER VIEWS



EXISTING

MAYO'S ISLAND TO CHAPEL ISLAND PED BRIDGE

A pedestrian suspension bridge could be retrofitted to hang from the bottom of the I-95 James River Bridge, connecting the downriver tip of Mayo's Island to Chapel Island, 17th Street, and potentially up to the Main Street Station in Shockoe Bottom. The objective is to provide a pedestrian-only alternative to accessing Mayo's Island from multiple points other than 14th Street. The concept borrows from the successful pedestrian bridge precedent suspended beneath the Lee Bridge, connecting to Belle Isle.



MAYO BRIDGE - EXISTING CONDITION

FLOODWALL SOUTH - EXISTING CONDITION

FLOODWALL NORTH - EXISTING CONDITION

FLOODWALL LIMITS BRIDGE WIDTH ON BOTH ENDS

MAYO BRIDGE



The 1913 Mayo Bridge is the last remaining historic bridge crossing the James River in Richmond. A 2011 analysis and feasibility study has proposed multiple alternatives for the bridge in need of either significant rehabilitation or near total reconstruction. The Mayo Bridge/14th St (U.S. Route 360) is part of the National Highway System. The following guiding principles for the review of the design options available to the City will be followed before any final recommendations are made. Any rehabilitation or reconstruction of the Mayo Bridge will:

- Maintain the historically accurate architectural appearance of the existing Mayo Bridge.
- Implement historically accurate architectural lighting fixtures for the Bridge.
- Install wider sidewalks to accommodate pedestrians and other activities (e.g., fishing, sightseeing, etc.)

- Safely accommodate all forms of transportation across the bridge including:
 - Pedestrians and bicycles
 - Vehicular traffic
 - Existing public transit and potential future transit options
- Use the existing access doors in the flood wall
- Provide access to Mayo Island

There will be opportunities for continued dialogue and input with the public, the Planning Commission, and the State and Federal oversight agencies before any recommendation is made prior to the start of the National Environmental Policy Act (NEPA) process which must be followed.



14TH ST + MAYO BRIDGE APPROACH

N >

Northbound vehicular traffic leaving the Mayo Bridge has the option of continuing north on 14th Street or bearing right into a turn with a yield sign onto Dock Street. The effect is to keep downriver-bound traffic moving smoothly without delay. A consequence is a difficult pedestrian environment where pedestrians must cross the descending turn mid-curve. The Plan recommendation is to further evaluate either closing the right-hand turn; requiring all traffic to negotiate the signaled intersection at 14th and Dock Street; to significantly reconfigure the existing crosswalk; or employ other measures to enforce slower vehicular speeds along the descending curve, and increase driver awareness of the pedestrian crossings.



CHAPEL ISLAND HISTORY

View from Chapel Island across the Richmond Dock, c. 1885 | SPECIAL COLLECTIONS AND ARCHIVES, VCU LIBRARIES

Chapel Island occupies a long tidal stretch of the James River to the east of Mayo's Island, and it has a long and complicated history.

RICHMOND COMMONS In the planning of Richmond in 1737, the area along the river was reserved as the Richmond Commons, the first public open space in Richmond's history. Among other purposes, the space provided an informal promenade along sycamore-lined banks of the river channel that separated the Commons from Chapel Island.

CHAPEL ISLAND/SANDY BAR FISHERY Originally, Chapel Island was a relatively small sandbar, named for the eighteenth century house of worship located on it. Also known as the Sandy Bar Fishery, here workers using seine nets harvested large numbers of shad and other fish. The construction of the Trigg Shipyard in 1898 changed the size and configuration of the island by filling in the river channels between Chapel Island, the old Richmond commons and Wildewilt's Island.

WILDEWILT'S ISLAND/FISHERY A German immigrant entrepreneur named Wildewilt took possession of a shipwreck at this location around 1800, converting it to a saloon and oyster house. He placed pilings in the river to catch sand and flood debris that enlarged the wreck to an island. Eventually ice flows ground Wildewilt's enterprise into oblivion, but the island continued as a commercial fishery.

LIBBY PRISON AND WATER STREET One of many warehouses along Water Street (the location of the present elevated railway) fronting the Richmond Dock after 1816, the Libby Ship Chandlery achieved infamy as a Confederate military prison. The demolition of the building for reconstruction as a Chicago tourist attraction after 1880 prompted the subsequent demolition of the remaining Water Street buildings by 1904.

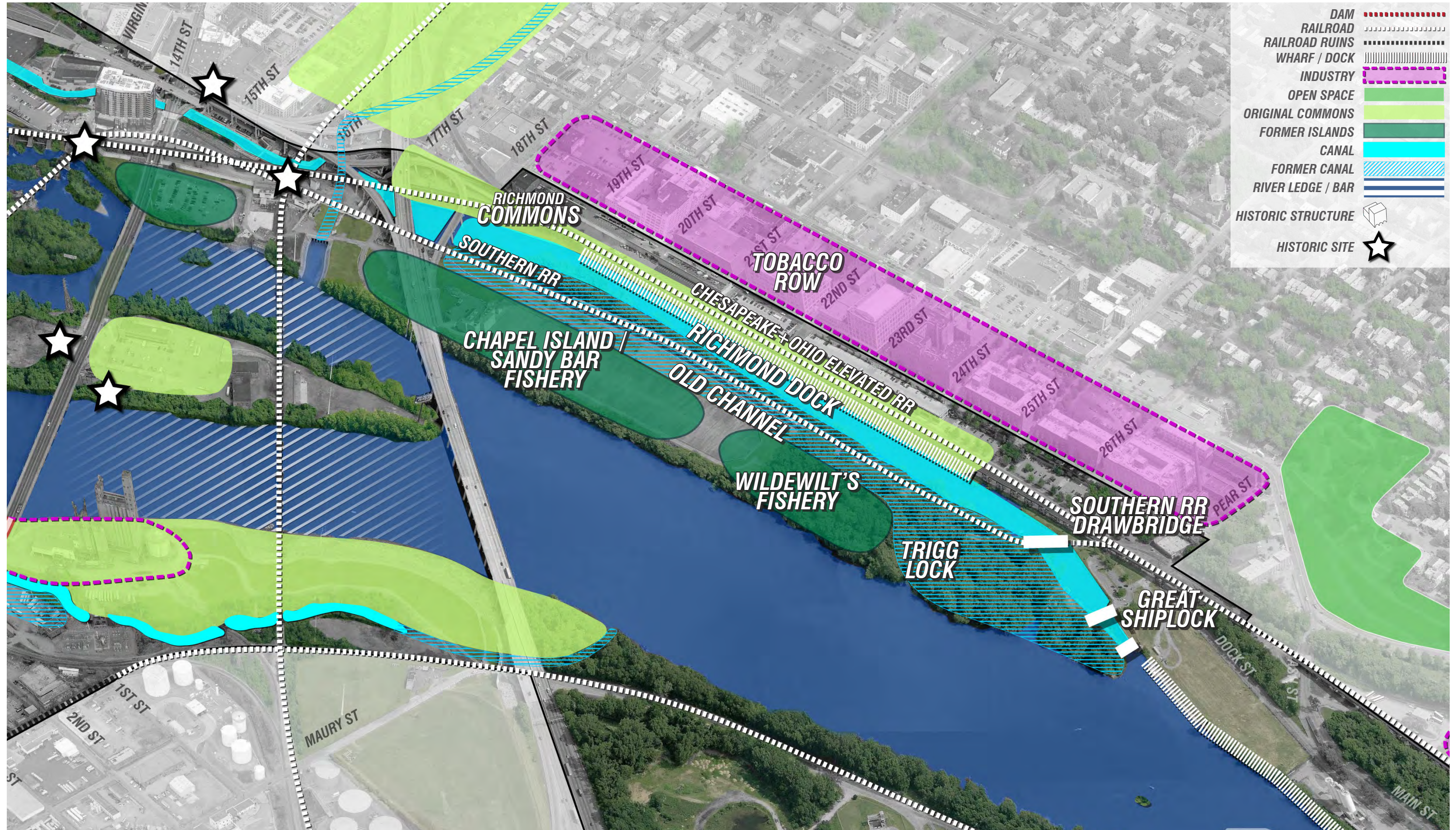
RICHMOND DOCK The shallow waters along Chapel Island prompted Richmond leaders to organize the Richmond Dock Company in 1816 to improve upriver navigation. The company subsequently constructed the Richmond Dock, a ship canal that provided a navigation channel of ten feet or greater between 14th Street and 28th Streets. The 1854 construction of the Tidewater Connection Locks joined the Dock to the Great Turning Basin and made it a part of the James River and Kanawha Canal.

GREAT SHIPLOCK The present granite locks built in 1854 replaced the original 1816 locks of the Richmond Dock and provided for the passage of vessels between the tidewater and ship canal levels.

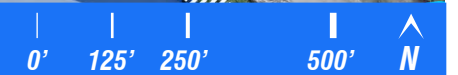
TRIGG LOCK Between 1898 and 1906, the William R. Trigg Company built torpedo boats for the Federal Government. The lock ruins still present on the island were used by the Trigg company to launch their completed vessels from the Richmond Dock into the James River.

CHESAPEAKE AND OHIO RAILROAD In 1877, the Chesapeake and Ohio Railroad built its first line on the south side of the Dock, and in 1904 shifted their line to the present elevated railway.

THE SOUTHERN RAILROAD Around 1894, the Southern Railroad had constructed rail spurs on the north side of Dock Street that eventually facilitated the development of the Tobacco Row industrial area. After 1906, the Southern constructed the present drawbridge across the Dock and rail line extending across Chapel Island.



CHAPEL ISLAND HISTORY





CHAPEL ISLAND

“Urban Recreation” 10 ACRES

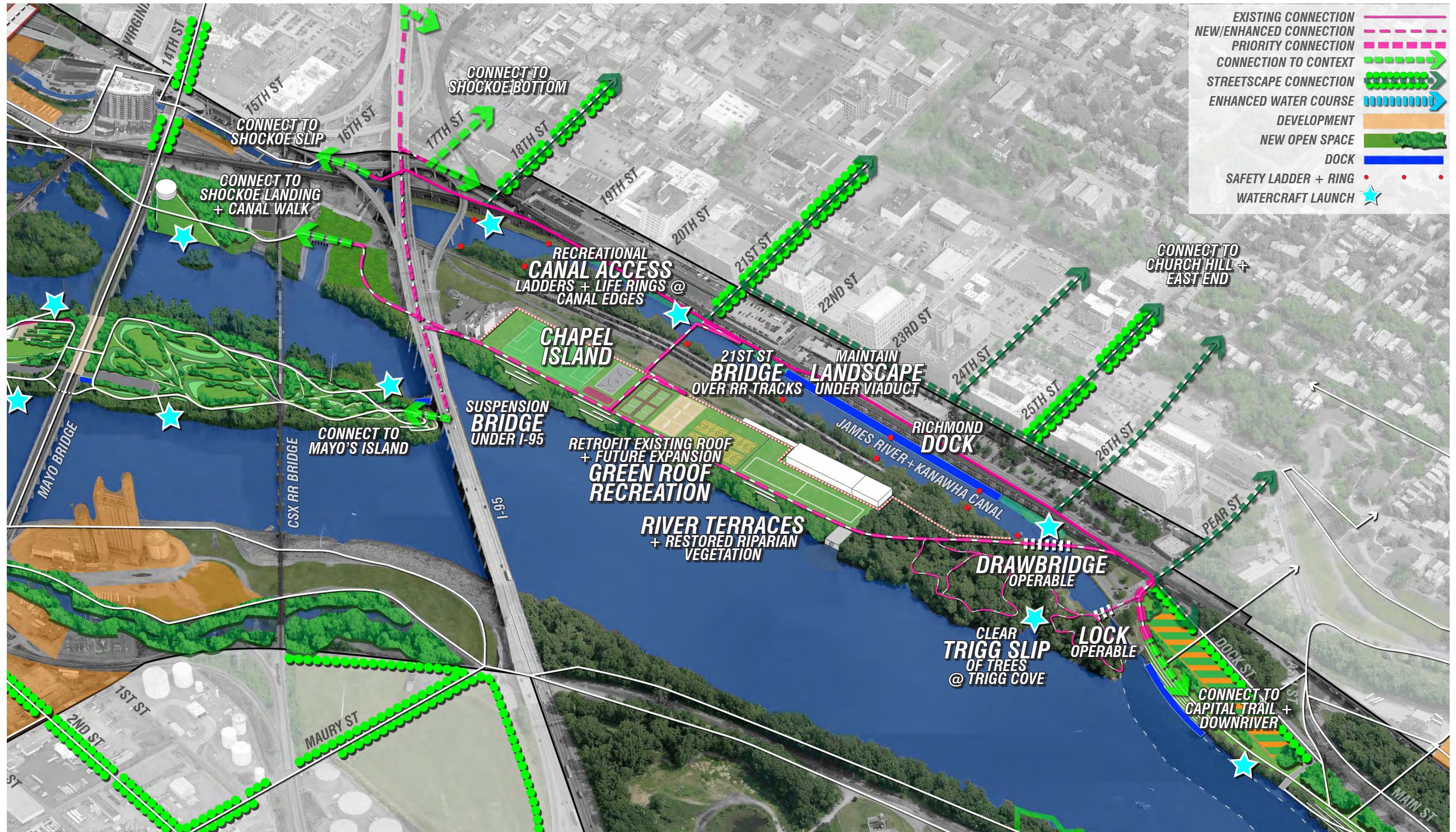
Chapel Island is largely dedicated to public infrastructure, with site access restricted to Department of Public Utilities (DPU) operations related to flood control, assorted Combined Sewer Overflow (CSO) structures, and a greater than 5.5-acre Shockoe Combined Sewer Retention Basin. The Norfolk Southern switchyard and mainline to West Point occupies the canal-side portion of the island, effectively precluding public access to the island-side of the James River and Kanawha Canal, between the floodwall at 17th Street and the Norfolk Southern drawbridge adjacent to 26th Street. Public access is available to the densely forested, 11-acre downriver portion of the island, corresponding to the Trigg Shipyard ruins; the riverside of the Great Shiplock locks; and land abutting the retention basin. Public visitors can access the lower tip of the island by traversing either of the lock gates via steps, but without ADA access, at Great Shiplock Park. The 14th Street Takeout provides river access for rafting and kayak watercraft along the island, without provisions for long-term parking.

Pending projects for Chapel Island include the significant expansion of the Shockoe Retention Basin, increasing the facility downriver by between 33% and 50% of its existing footprint. This expansion will push into the lower 11-acres of forested DPU-administered land. Current facility planning by DPU anticipates UV-treatment of water, and therefore a less restrictive setback to public access. The existing facility pre-treats combined sewer water before it is piped to the sewage treatment facility on the south bank. Making use of emerging treatment technologies could result in a reduction of the facility footprint, and should be explored in order to minimize loss of forested acreage. The ideal scenario is a reduction of the current facility footprint, rather than expansion, through the implementation of cutting edge treatment technologies to yield improved quality and volume treatment.

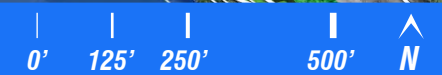
Concurrent planning by the Richmond Regional Planning District Commission for an improved trail through the Trigg Shipyard zone is complementary with the basin expansion. The combination of expanded infrastructure and expanded public access to the island points toward an opportunity to accomplish three tasks: First, improved odor control of the retention basin through technology, and second, dual use of the existing and future phases of the Shockoe Basin to provide something more than an expansive asphalt pavement as roof. Third, and most important from a Riverfront vantage point, is the opportunity to extend public access along the riverside length of the island.

Expanding public access along the facility from Great Shiplock Park to Mayo Bridge will provide three quarters of a mile of additional trail access to the Riverfront, responding to public comments to “expand public access to the shoreline.” Existing vegetation on the riverside of the basin facility can be selectively thinned to provide for multiple advantageous views onto the James River, without fully exposing the DPU facility to view from the river. An 8-foot fence can be positioned along the basin structure to restrict public access to the roof, confining recreational use along the existing basin, and to the basin expansion roof. Universal access is not currently available to the island from Great Shiplock Park, as lock gates both include steps. A short-term, interim configuration anticipates a reversible modification that provides ramps at one or both lock gates, affording universal-access from parking lot to island. Longer term, attaching a universally-accessible span to the fixed Norfolk Southern drawbridge would provide universal-access without adding a new span across the canal. Adding a span to the outside of the drawbridge acknowledges that the drawbridge is currently in the down position, and has apparently been altered to remain in this position as the mechanism for lifting is no longer operational. If the canal is to again become navigable, a long-term goal, then the drawbridge will necessarily need to be restored to function. Universal accessibility improvements will similarly need to be adjustable so that watercraft can pass under any span or through the lock gates.

The downriver tip of Chapel Island was the former home of the Trigg Shipyard. The concrete lock abutments remain intact, though the gates have been removed and canal connection filled in and re-vegetated. The scale of the stepping abutments and iron rings hint at their historic vessel use. As such, this former lock could be reinterpreted as an amphitheater of sorts with strategic removal of trees between the abutments resulting in Trigg Cove, an open space clearing in the forest canopy, directly adjacent to the backwater cove formerly used to launch war craft, now used to launch recreational watercraft.



CHAPEL ISLAND





CHAPEL ISLAND: SHORT-TERM





CHAPEL ISLAND: SHORT-TERM

A continuous, publicly accessible trail along the Shockoe Retention Basin would bring more people to Chapel Island and along the James River, from 14th Street to Great Shiplock Park. Selective thinning of existing Chapel Island vegetation would allow for riparian replacement species and the strategic insertion of seating overlooks along the river. A perimeter fence would preclude public access to the roof of the sewage facility, redirecting attention to the river. The existing basin roof is prominently visible from distant towers and homes, and is an open invitation to envision alternate uses. Strategies for reclaiming the 5.5-acre and eventually 7 to 8-acre rooftop range from the purely utilitarian to purely recreational, each with significant costs. A green roof could be configured without public access, utilizing lightweight, pre-planted trays of low-maintenance plants positioned behind a restrictive fence controlling access to the roof. Similarly, a solar panel array of nearly 8-acres positioned on the roof would generate significant power, reducing DPU reliance on conventional power sources.





CHAPEL ISLAND: LONG-TERM





CHAPEL ISLAND: LONG-TERM

Long-term, the roof of the retention facility could be structurally retrofitted to span the existing subsurface CSO basin to support a new public landscape. Public programming could include a combination of regulation-sized soccer fields, basketball courts, a skate park, tennis courts, beach volleyball courts, or alternatively, passive walks across an extensive vegetated green roof landscape. The long term objective is to transform a purely infrastructural environment into a dual-use landscape, integrating sewer functions with public access and recreation. The close proximity of Chapel Island to recent residential redevelopment in Shockoe Bottom and Tobacco Row makes a publicly-accessible Chapel Island all the more enticing as a common Riverfront open space, with public improvements catalyzing further adjacent redevelopment.



EXISTING



JAMES RIVER & KANAWHA CANAL

Navigation of watercraft into the canal is currently impossible given three factors. First, the James River and Kanawha Canal was declared a non-navigable waterway for the purposes of certain U.S. Coast Guard regulations through a 1999 Congressional Declaration (Pub. L. 106-32, June 1, 1999, 113 Stat. 115; 33 U.S.C. § 59ij), and the City has restricted public boating in the canal. Second, the Norfolk Southern drawbridge is both inoperable and fixed in the lowered position, meaning that it is functional for railroad passage, but cannot be raised for watercraft passage. Third, the lock gates at Great Shiplock Park are non-functional due to sedimentation in the lock requiring future dredging, as well as a non-functioning lock mechanism. An automated or on-demand mechanism would be necessary to again return the locks to their functional capacity suitable for watercraft passage. The combination of these three issues precludes the passage of commercial and historic watercraft that would enliven and activate the James River and Kanawha Canal water sheet. One short-term

programming adjustment would be to adjust restrictions, eliminating prohibition on the use of non-motorized, personal recreational watercraft such as canoes and kayaks from using the lower canal between 17th Street and the locks. Allowing this activity, with prominently posted warnings regarding the risks of doing so, would provide much needed activity on an otherwise underutilized stretch of the Riverfront. Richmond City Code Chapter 26, Article XI regulates activities on both the Haxall and James River and Kanawha canals, and articulates the joint responsibility of granting approval for water sheet activity. Under the Congressional Declaration, the City may obtain technical assistance from the Secretary of Transportation to ensure public safety with regard to how vessels are built, maintained, and operated on the James River and Kanawha Canal, who may terminate the Declaration with proper public input.



TOBACCO ROW

The parcels between Cary and Dock streets are primarily parking lots allocated to the residential redevelopment of Tobacco Row. The quantity of parking is linked to the residential units of the various rehabilitated structures, and may exceed the number of cars actually using the permitted facilities. There may be an opportunity to reduce the footprint of the surface parking lots, or allow for limited public use of the lots, through an amended agreement between the City and building owners. Three of the nine blocks are constructed as two-story parking structures, with the top level of parking coinciding with Cary Street. The parcels between 18th and 21st streets are bisected by the floodwall along the transverse centerline of the blocks, complicating their potential for alternative uses. Land use of these parcels is limited as they are subject to flooding below Cary Street. There may be opportunities to consolidate

existing surface parking into additional parking structures, effectively reducing the footprint of surface parking by 50%, or another three blocks. This would allow for the removal of impermeable surface lots and the expansion of permeable surfacing as either a private or public open space, with the objective of encouraging more outdoor pedestrian activity.



ANCARROW'S LANDING HISTORY

Fishing on the James, view to west from Rocketts, 1895 | SPECIAL COLLECTIONS AND ARCHIVES, VCU LIBRARIES

The Ancarrow's Landing area marked the southeastern boundary of the Falls Plantation and formed a broad, flood-prone plain between the confluence of Walker's Creek upriver and an unnamed and now-vanished creek down river. While the problem of floodwaters spreading over this area discouraged settlement and urbanization, it proved a suitable landing for watercraft down river from navigation hazards and shallow water.

JONES' ROCK Jones Rock is a portion of a granite ledge that marked the beginning of shallow water on the south side of the river. The combination of this rock ledge and shallow water upriver from it made navigation upriver to Manchester difficult and prompted ships to dock at Ancarrow's Landing and the Manchester Docks.

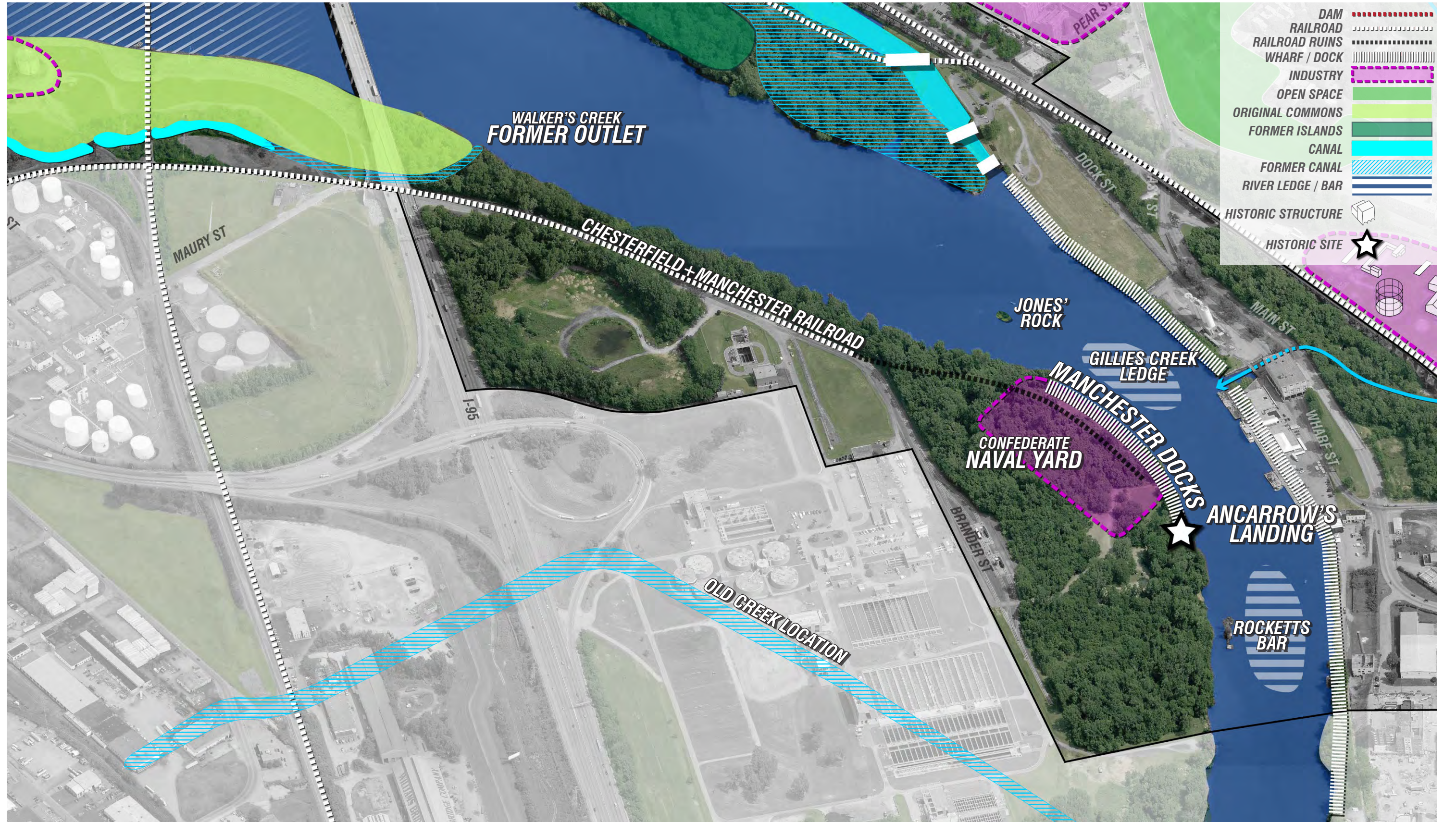
ANCARROW'S LANDING In spite of being evocative and ancient-sounding, Ancarrow's is the name of a twentieth century boat yard that operated on this site, the infrastructure of which remains today. This area provided a docking place for the landing of African slaves and British goods, and the loading of hogsheads of tobacco.

UP RIVER ROAD A road probably connected the landing at Ancarrow's to Manchester and points upriver early in the history of the area. Maps suggest that modern Brander Street follows the alignment of this roadway.

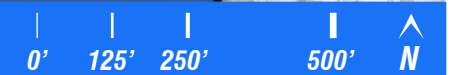
CHESTERFIELD AND MANCHESTER RAILROAD In the early nineteenth century, the Midlothian Coal fields in Chesterfield County became the first substantial coal mining area in the United States. The Chesterfield and Manchester Railroad, a gravity-powered rail line completed in 1831, economically moved coal to shipping at Manchester Docks. Later in the nineteenth century, the Richmond and Danville Railroad (later the Southern) operated this as a steam rail line.

MANCHESTER DOCKS The massive granite retaining walls of the Manchester Docks are some of the most impressive waterfront infrastructure in Richmond. The docks were part of a nineteenth century effort to improve port facilities of the south bank of the river. As coal waned in importance as a source of outbound freight following the Civil War, fertilizer imports, for the Virginia-Carolina Fertilizer Company plant located just upriver, became a significant type of freight on the docks.

CONFEDERATE NAVAL YARD During the Civil War, the Confederate Naval Yard occupied much of the Ancarrow's area, as well as a portion of Rocketts. The yard made a significant contribution to Civil War and naval history with the construction of Confederate ironclads. These ironclads guarded the Confederate Capitol against naval attack until their sinking downriver during the Confederate evacuation in 1865. The wreck of the ironclads proved a significant navigation hazard after the Civil War and contributed to the decline in shipping at Ancarrow's and Rocketts.



ANCARROW'S LANDING HISTORY



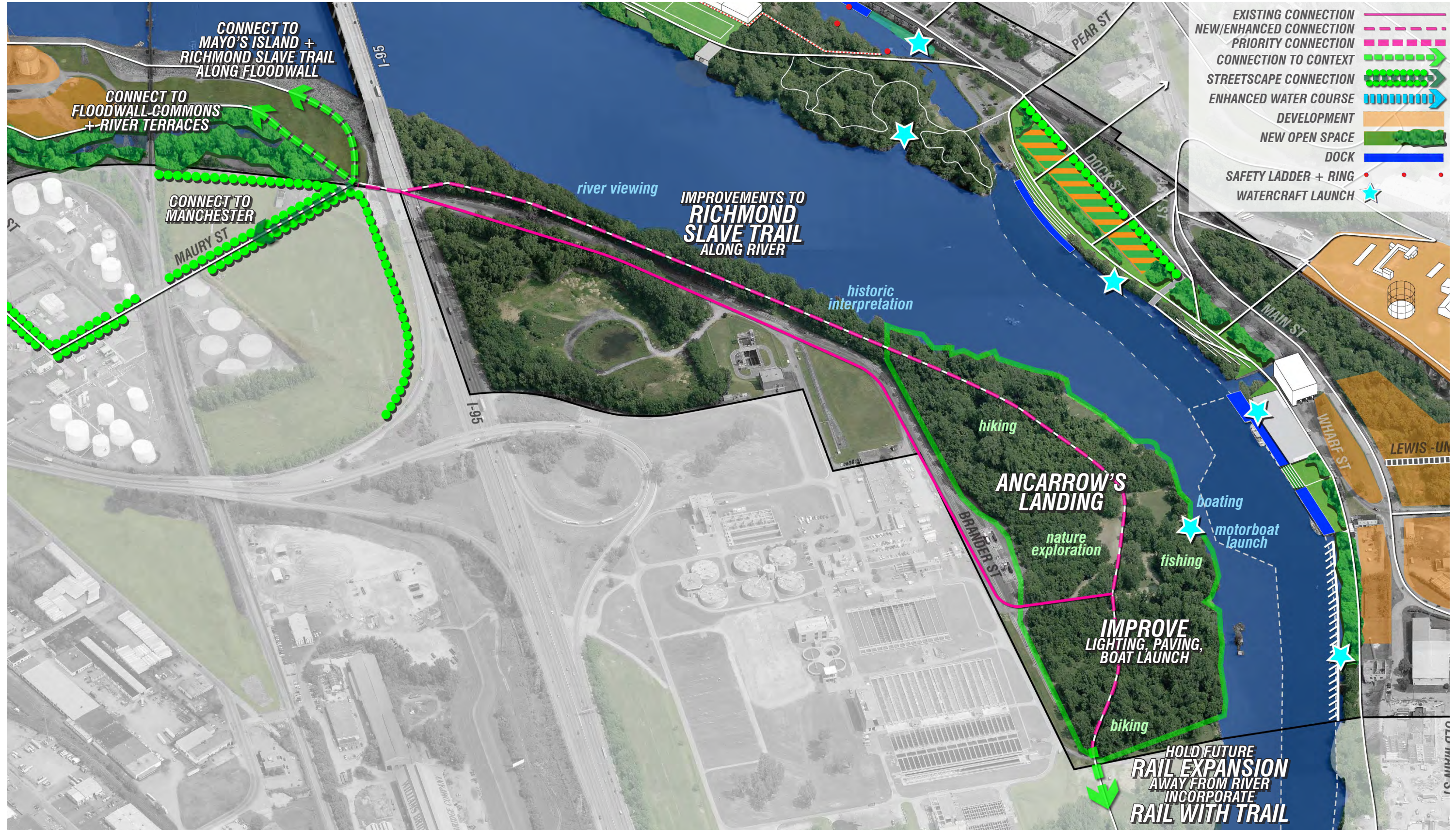


ANCARROW'S LANDING

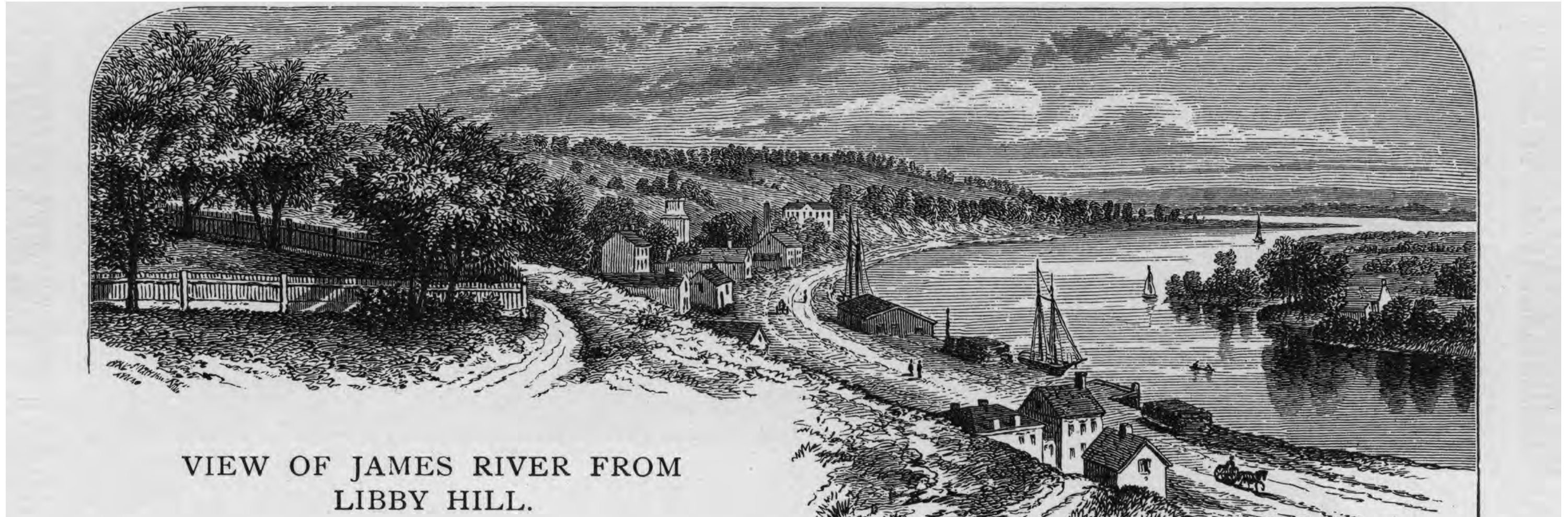
"Riverfront Wild" 30 ACRES

Ancarrow's Landing on the downriver south bank is widely perceived to have few constraints and therefore offer broad potential for Riverfront attractions and public use. Ancarrow's is accessed by land along Brander Street, a dead end providing access to both the Landing and to the sewage waste water treatment facility. This relative end-of-the-line location suffers from a lack of through traffic and adjacent activity that would otherwise attract impromptu visits. Located on the unprotected side of the floodwall, subject to seasonal flooding, and constrained by the Norfolk Southern rail tracks, more than a mile-and-a-quarter from Hull Street, Ancarrow's is remote, and perceived unsafe by some. This combination of remoteness, absence of flood protection, perceived safety, and adjacency to the occasionally odoriferous treatment plant have kept the Landing largely unimproved. Vehicular distance from downtown has historically proven to be a hurdle for developing and improving the Landing. The boat ramp remains well used, with ample parking. The Richmond Slave Trail originates in the Landing, and proceeds upriver as a walking trail along the narrow forested bank between river and rail on Norfolk Southern property. The Richmond Slave Trail chronicles the trade history of enslaved Africans, and their local movement between the Manchester Docks, Rocketts Landing, the downtown slave markets, and transport to points beyond via water and rail.

Discussion of various strategies for Ancarrow's has considered its potential for a boathouse, marina, and bridge to the north bank. Ultimately there were few compelling programmatic recommendations beyond improved operations and maintenance. Anticipated changes likely to affect Ancarrow's include the discontinued use of the chlorine tanks at the treatment facility, triggering the end of rail service to these tanks. Nevertheless, rail traffic may increase along this siding if plans to extend the Norfolk Southern line to the deep water port come to pass. Rail expansion is contingent on the development of rail-dependent customers further downriver. The extension of rail downriver across City-owned property should be contingent on freeing up underutilized railroad parcels elsewhere in the middle of the Riverfront. Any rail extensions should furthermore look to incorporate pedestrian and cycling paths consistent with the rails with trails effort to establish multi-modal opportunities for both commerce and recreation. Where possible, trails along the river should be extended downriver to connect to southerly routes, with the objective of increasing through-cycling and pedestrian traffic to Ancarrow's Landing.



ANCARROW'S LANDING



VIEW OF JAMES RIVER FROM
LIBBY HILL.

View of Rocketts from Libby Hill as it appeared c. 1800 (published 1896) | VALENTINE RICHMOND HISTORY CENTER

DOWNRIVER HISTORY

The view down the James River from Libby Hill has an uncanny similarity to the upriver view from Richmond Hill at Richmond-Upon-Thames, England. Richmond's founder, William Byrd of Westover, recognized the similarity when establishing and naming Richmond in 1733. The scene that enraptured Byrd and countless others since is a beautiful arc of the tidewater James. The north shore of this arc is an area historically known as Rocketts, a thriving shipping area in the nineteenth century with wharves extending for more than half a mile along the river. In the late nineteenth and twentieth centuries, the increasing size and depth of merchant vessels reduced the number of ships docking at Rocketts, due to the comparatively shallow waters of the port. Rocketts declined as newer port facilities down river and deeper ports elsewhere diverted cargoes from Rocketts and eventually brought its history as a working waterfront to an end.

NAVIGATION OBSTACLES The same granite underlayment that forms the Falls of the James River continues into the tidewater section of the River forming three substantial navigation obstacles: Rocketts Bar, the Gillies Creek Ledge, and Jones' Rock. Above these obstacles, only watercraft drawing seven feet or water could pass. The City of Richmond spent considerable toil and treasure, particularly from 1850 to 1860 and 1930 to 1940, to remove or neutralize these navigational barriers and hazards.

RICHMOND WHARVES By 1835 a continuous line of wharves extended from the Great Shiplock all the way down river to Lower Rocketts. Maintained by the City of Richmond and private merchants, these wharves received passengers and cargoes from and sent them across the Chesapeake Bay, the Atlantic, and as far away as South America and California. Incoming cargoes included finished goods, seafood, coffee, and fertilizer, while iron goods, flour, tobacco, and coal were among the port's exports.

BLOODY RUN Bloody Run is a small tributary of Gillies Creek, which separates Libby Hill and Chimborazo Hill and is credited with the being the site of a seventeenth-century battle between Virginia colonists and Native Americans.

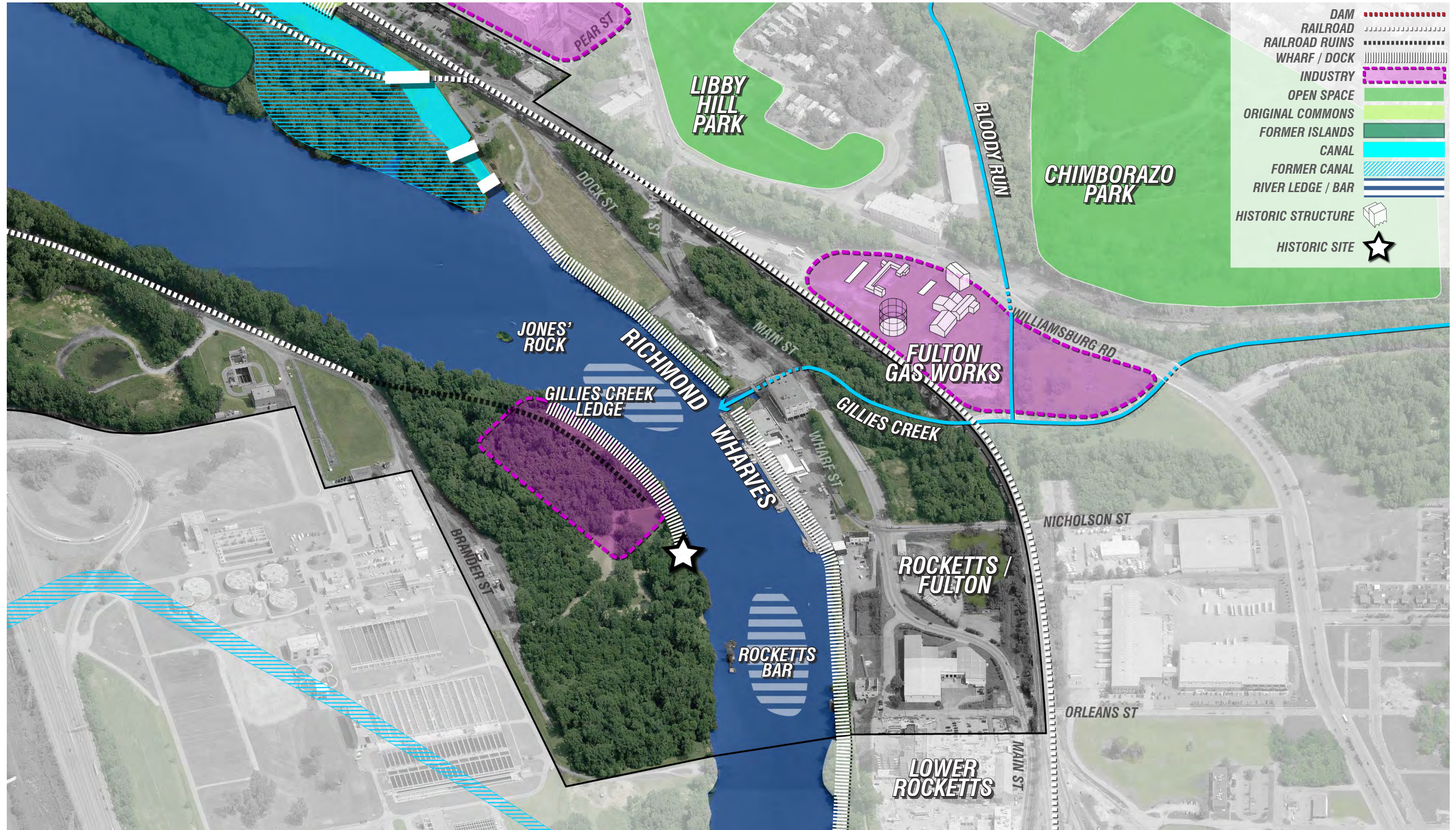
GILLIES CREEK Gillies Creek runs through one of the largest creek valleys in the Richmond area. Its confluence with the James is midway along the lower waterfront.

ROCKETTS/FULTON Rocketts is the name of a ferry that operated across the river near the mouth of Gillies Creek. The wharves that developed along the river in this area became known as Rocketts as well, with the wharves farthest downriver being known as Lower Rocketts. In the twentieth century the name faded from general use and the name Fulton came to be applied to the eastern section of Richmond along Gillies Creek and the James River. Twentieth-century urban renewal programs led to the demolition of all of the historic structures in Fulton, leaving Gillies Creek Park and the modern neighborhoods now present there.

FULTON GAS WORKS From 1854 until the middle of the twentieth century, the City of Richmond manufactured coal gas for Richmond homes, businesses, and streetlights here. The cast iron gas holder (tank) framework is the largest and most visible structure in the complex.

LIBBY HILL Libby Hill is a prominent spur of Church Hill (also known as Richmond Hill). Libby Hill Park provided the vantage point that inspired the naming of Richmond by William Byrd of Westover.

CHIMBORAZO HILL Chimborazo Hill was one of the first things seen by ships' crews navigating up the river. The hill was jokingly referred to as Chimborazo after an Ecuadorian volcano viewable far out in the Pacific.





SCENIC RESOURCES: HISTORIC VIEW FROM LIBBY HILL

WHITE OUTLINE HIGHLIGHTS CURRENT LOCATION OF LEHIGH CEMENT SILOS

SCENIC RESOURCES



Richmond's Riverfront and river views contribute dramatically to the City's unique sense of place, quality of life, and desirability of property. Richmond's river landscape possesses an intricate mix of the natural and built environments. The river is intertwined with historic ruins and modern towers. The community boasts a range of river views: distant and proximate, panoramic and discrete, public and private, general and priority. The City should endeavor to address these scenic resources in a balanced manner that recognizes, prioritizes, and enhances this range of views. Future growth and public action along the Riverfront must embrace the value of river views while protecting rights and facilitating appropriate development.

The views from certain vantage points deserve special attention as priority views. These priority views are public amenities. They have significant public value and/or historic importance and should be defined, preserved and enhanced for the community. Examples of potential priority views include from the vantage point on Oregon Hill with a view angle from the Lee Bridge to Brown's Island, and from the vantage point on Libby Hill with views reminiscent of Richmond upon Thames. Through improvements to the Riverfront and redevelopment, additional priority views and vantage points may be identified, such as, for example, the view of the downtown skyline from public vantage point(s) in Manchester.

Certain tools are available for the City to protect priority views. These include overlay zoning (for height, massing, setbacks, etc.), property acquisition, conservation easements, and transferrable development rights. Of course, views from priority vantage points are not purely natural and are not frozen in time; such views already include a mix of built elements (some historic) and even with some protections, the broader landscape will continue to evolve.

A balanced approach to scenic resources cannot protect existing views from all private vantage points. One property owner, simply being first in time, does not diminish the rights of other owners to use their property to reasonable heights. Views are dynamic—new elements have been added through generations and will continue to be added. However tools and strategies are available to address and enhance public and private river views as development occurs. These include building height limits (potentially graduated with distance from the river), conditional use permitting, massing and story step-back requirements, as well as standards for access and right-of-way improvement. Limited, narrow intrusions that become part of the view without precluding vistas from other vantage points should be encouraged.

Development and access should facilitate physical and visual connection to the river. Development may be arranged along access corridors and/or with stair-stepped bulking (or terracing) in order to maximize views and draw Riverfront value inland into the property. New or extended public right-of-way should be oriented as view corridors to preserve and enhance sight lines to the river, frame discrete or episodic river views, and provide physical access. During redevelopment, sightlines and public access can be adjusted or restored.

The City may consider additional analysis to identify more priority views and vantage points for the Riverfront and the City as a whole (such as views of the downtown skyline from Church Hill). Such a process would include: (i) analyzing the quantity and quality of views; (ii) prioritizing views for protections; and (iii) assessing and implementing appropriate tools and strategies. This process would include public input throughout the effort.

DOWNRIVER

“River Connections + Neighborhood Park” 10 ACRES

The downriver end of the study area encompasses everything between Pear Street and Rocketts Landing, from Dock and Wharf streets to the river, with the adjacent Fulton Gas Works as an important outlying parcel. With the exception of the Gas Works, these are low-lying river edge parcels subject to flooding and therefore challenging to transform from former industrial properties into marketable mixed-use projects with commercial or residential components. Regulatory restrictions on land use, other than industrial use, preclude occupiable building space that is subject to flooding. This necessitates raising any occupiable structure one foot higher than the federally determined 100-year flood zone; it also requires a secondary means of emergency vehicle egress to allow for public safety access and evacuation during flood events.

The most prominent and time-sensitive pending downriver project is the completion of the Virginia Capital Trail, which is expected to follow the existing CSX rail line through Rocketts Landing, crossing the Intermediate Wharf and Lehigh Cement parcels. The trail is ultimately anticipated to follow a public access easement across the Riverfront portion of the USP parcel, connecting to the completed trail at Great Shiplock Park, thereby connecting the 50+ miles of continuous multi-purpose trail between Williamsburg and Richmond by 2014. Interim trail improvements along the Lehigh and USP parcels may be necessary.

All downriver parcels should actively improve and engage the Riverfront. From Great Shiplock Park down to Gillies Creek, the shoreline is comprised of rubble and volunteer species; with the completion of the Virginia Capital Trail, public realm improvements should include the restoration of this riparian edge ecology. These parcels should incorporate passive and active Riverfront recreation opportunities, including a variety of docks and watercraft launches that take advantage of the adjacent navigable channel and flat water. A community boathouse may be appropriate on the upriver portion of the Lehigh site, while Annabel Dock will offer a berth for deepwater vessels such as tall ships and commercial cruises. Terraces at Lehigh and Intermediate dock provide direct access down to the river’s edge.

The Route 5 Multimodal Corridor Study has evaluated various alternatives for addressing the growth in vehicular congestion along the heavily-traveled corridor stretching from downtown Richmond into eastern Henrico County. The Corridor Study consultant team recommends Concept 2, with an alignment concentrating traffic along existing Williamsburg Avenue rather than a significant road widening through Rocketts Landing, although a final recommendation has not been made by the Metropolitan Planning Organization (as of the date of this Plan).

The Riverfront Plan does not endorse either of the two options developed under the Route 5 Corridor Study but urges the MPO and the consultant team to look at other options. As the focus of the Riverfront Plan is to improve public access to the Riverfront, public realm landscape and developable parcels, any transportation improvement options that would run a broad swath of regional highway through Rocketts Landing and along the lower Riverfront is detrimental to the objectives of improving the Riverfront access and public realm landscape. Vehicular pavement expansion along rivers and waterfronts is antithetical to larger national trends to remove vehicular travel structures from the water edge. Configuring significant roadway infrastructure and retaining wall structures within the Riverfront runs counter to efforts to bolster the James River as a destination and desirable place to live and play.

USP The +5-acre USP parcel (formerly known as the Tarmac property) sits between Great Shiplock Park and Lehigh Cement, with +800 feet of river frontage. To address the role of this property within the context of Richmond’s Riverfront, this plan defers in all matters relative to this parcel to the language in the 2009 Downtown Plan that has already been adopted as part of the City’s Master Plan. The Downtown Plan recommends two alternates for this key parcel along the riverfront: a Development Scenario featuring Urban Center-character development with a strip of land along the waterfront designated for public use, and a Public Open Space Scenario that features the preservation of the waterfront property as a Natural Area. For illustrations of these two scenarios from the Downtown Plan, please see page 173.

There are numerous statements in the 2009 Downtown Plan that will have a bearing on the review of proposals for this property. They include, but are not limited to, the following:

- Develop a comprehensive system of natural open space along the river and create green connections between city parks and the riverfront. The City should work with private property owners to assist in the creation of a continuous public waterfront along the river [. . .] Where possible, additional waterfront park land should be acquired and made available for public use. Where this is not possible, clearly marked pathways should be created to connect Downtown’s riverfront parks, allowing visitors continuous access to the waterfront and an engaging experience of Downtown’s natural features.
 - Preserve views to the river by limiting building heights and protecting important viewsheds. Downtown’s dramatic topography affords striking views of the river; by some accounts, Richmond received its very name because its view of the James River was similar to the prospect from Richmond-upon-Thames, England. [. . .] It is essential that rezoning of land and new construction in Downtown be carefully considered and that building heights be controlled to protect these historic views.
 - Improve visual and physical access to the river. In addition to creating new view corridors to the James River, preserving existing and historic viewsheds towards the river is essential to connecting the city to the river. Future development along the riverfront needs to be carefully considered so that it will not impact significant historic views such as “the view that named Richmond” from the top of Libby Hill Park.
 - Acquire unique properties for open space along the river. The City should actively work to acquire properties for public open space along the river. As the revitalization of Downtown continues, and as more people begin living and working in the area, the need for open space will swell and new signature spaces along the river will need to be made available to all. Now is the time to realize that key properties are limited in number and for the City to actively pursue the purchase of these properties. Properties to acquire include those with historic, scenic, wildlife, or recreational values, among others. In particular, the former Tarmac property parcel and the Lehigh Cement Factory on the north side of the river and Mayo Island in the center of the river should be purchased. The City should purchase the properties at fair market value and negotiations with these various property owners should begin as soon as possible.
- If the properties are not acquired by the City for public use, any redevelopment should include significant public open space components, including spaces that allow for access to the James River.
- Extend and connect walking trails. The Virginia Capital Trail is a 54-mile trail that will link Williamsburg and Richmond, primarily along the Route 5 corridor. [. . .] As the evolution of Downtown continues, there should be a continuous trail on the north bank of the James River, from Rockett’s Landing to Tredegar Ironworks.

LEHIGH The Lehigh Cement parcel is currently active as a cement processing facility served by rail. Lehigh is in the process of shifting operations to a county location, and transfer of this property to the City is progressing. Upon completion, the rail activity will cease and the silos can be pulled down, with the property reconfigured for public access to the James River. Vehicular parking should conform to either parallel on-street parking or head-in parking, rather than a dedicated off-street lot, in order to maximize public open space. The current rail alignment should continue downriver as the Virginia Capital Trail alignment. The Virginia Capital Trail becomes the spine along which pedestrian and cycle traffic follows the river, as well as the interface between the river and adjoining neighborhoods and properties. River edge trees should be selectively replaced with appropriate riparian species; while terraces

*DOWNRIVER**(continued)*

step down to provide direct river access. A boathouse may be located on the upriver portion of the Lehigh site. There are several paper streets perpendicular to the river that should be studied for their ability to connect into the Virginia Capital Trail, providing greater physical links to future up-slope development.

INTERMEDIATE The Intermediate Wharf, a City-owned parcel, fronts the James River with three distinct bulkhead structures. The main Warehouse Dock bulkhead begins at Gillies Creek, extending some 370-feet downriver, or half the length of the parcel. The elevated paved slab continues to be used as a multi-purpose platform for various events, including the Tall Ships Festival. A seasonal or permanent community pavilion could be positioned on the wharf slab, capitalizing on the raised promontory for events. A floating dock could be attached parallel to the front of the Warehouse Dock, with an associated gangway for access down, accessible for fishing as well as boat access. There is the potential to attract a relatively new class of ocean-going cruise ships, each approximately 250-feet in length and requiring a substantial 300-foot long dock to tie up to.

The wood Intermediate Dock bulkhead, 150-feet long, has significantly deteriorated, and though fenced off, fishing from this location remains attractive and public access continues. Intermediate Dock will need to be replaced or pulled down. Two options to explore include a sloped lawn beginning near the rail spur, sloping gradually down toward the water, as well as a second option that substitutes the wood bulkhead with a concrete or stone terrace stepping down to the water edge. The 220-foot long Annabel Dock bulkhead is concrete and can continue to be used for commercial watercraft.

Three rail lines splay off of the main spur that continues upriver across Gillies Creek. Of the four tracks, only the second or third should define the alignment for the Virginia Capital Trail. The main spur (or second from Wharf Street) remains active today, and aligns with the bridge over Gillies Creek. The third track (from Wharf Street) could conceivably be the trail alignment with a tighter radius curve to meet the bridge. The primary reason to shift from the second to third track is to accommodate head in parking from Wharf Street rather than parallel on-street parking. The trade-off lies in balancing parking demand and pavement against public open space. Cobblestone paving dominates between the rail tracks, and where possible, should be either kept in place or reconfigured to contrast with the Virginia Capital Trail asphalt, and the pavement of Wharf Street parking. The trail alignment should not conform to the first track from Wharf Street, as that rail dead ends at the Gillies Creek bulkhead, and would require either a third bridge, or two immediate 90-degree turns, neither of which are desirable. The existing rail bridge has been preliminarily confirmed as sound, since ongoing rail traffic far exceeds future pedestrian loading requirements.

ROCKETTS LANDING Additional boat docks and slips are anticipated for the river edge, between Nicholson and Orleans, with incremental development of parcels uphill of the Virginia Capital Trail. Reconfiguration of Main Street, particularly as it approaches Nicholson Street, will precede substantial redevelopment of Rocketts Landing parcels below Nicholson Street. Efforts to reconnect the historic Fulton Hill area back to the Riverfront could occur via existing CSX underpasses, particularly at Denny Street and Louisiana streets, where existing timber rail viaducts occur in the rail embankment. The existing boathouse at Rocketts Landing may need to be relocated or reconfigured. A single combined boathouse with multiple clubs and users has generally been viewed as a positive tenant and could be reconfigured within Rocketts Landing. If this proves unwieldy, the shared boathouse facility should ideally gravitate upriver no further than the USP site.

FULTON GAS WORKS The Fulton neighborhood has a long history in the development of Richmond. Adapting the existing buildings to new, occupiable uses renews the property while keeping the historic fabric intact. The Fulton Gas Works is both an opportunity and a challenge. The property boasts several intact historic structures and industrial artifacts which have been protected through restricted access to the site. The 20-acre complex lies derelict due to soil contamination following decades of nineteenth century industrial use as a City-operated gas works. Federal funding is not directly available to the City for cleanup or mitigation according to EPA regulations since the City was the owner and the polluter.

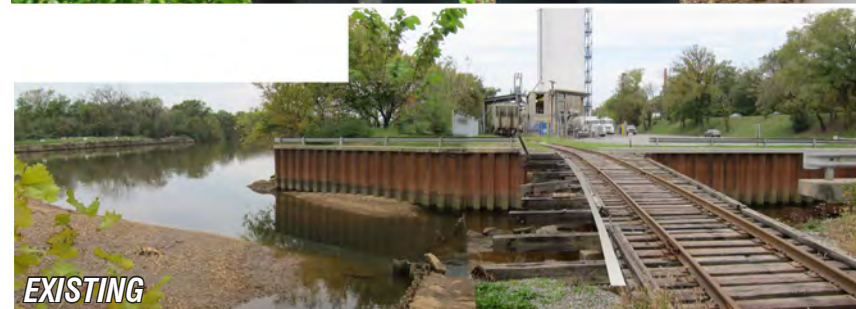
The City is exploring a range of options to activate the site for redevelopment, including transfer of the Fulton Gas Works to a third party to address the contamination with the objective of developing a revenue-producing strategy for the property.

Several of the existing industrial artifacts should be retained as well, notably the collapsible gas tank structure, as emblematic of the past site function even if not operable. Scenarios for redevelopment hinge on soil remediation funding. The elevated CSX viaduct bisects the site from the Riverfront; however, acquisition of surplus CSX rail right-of-way at grade that bisects the site from east to west will help consolidate the City parcel with the Richmond Housing and Redevelopment Authority parcel into a more attractive property. Gillies Creek arcs across the site from east to west, also bisecting the southern third of the property from the bulk of the site to the north. The culvert-lined drainage channel poses additional complexities in terms of flood inundation, a 100-foot wide Chesapeake Bay Resource Protection area on either side of the channel, and a Resource Management Area covering the entire property requiring a permit for any grading activities. Re-grading of the site for surface parking may be an effective strategy for encapsulating contaminated soils on site.



DOWNRIVER





DOWNRIVER OPEN SPACE + RIVER ACCESS

The Lehigh Cement parcel is a prime location for downriver public open space and direct River access. Upon transfer of the property to the City, the Lehigh Silos should be removed to maximize open space, and improve views to the River. The Virginia Capital Trail should follow the existing rail alignment across Gillies Creek, taking advantage of the existing bridge crossing. From the repurposed bridge, the trail would curve upriver to run along the edge of the James to meet the completed section of the Capitol Trail at Shiplock Park. An open, shaded green would offer options for passive recreation on the north side of the trail, while river terraces step down to provide public water access on the south side. Selective removal and replacement of volunteer species along this River edge will improve the native riparian shoreline. The upriver portion of the site may be suitable for a community boathouse; a ramp from the boathouse down to the water will allow for the launch of sculls and other watercraft. On-street parallel or head-in parking along Water Street accommodates visitors that arrive by car, while minimizing the loss of open space to parking.

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3

PRIORITIES



PRIORITIES

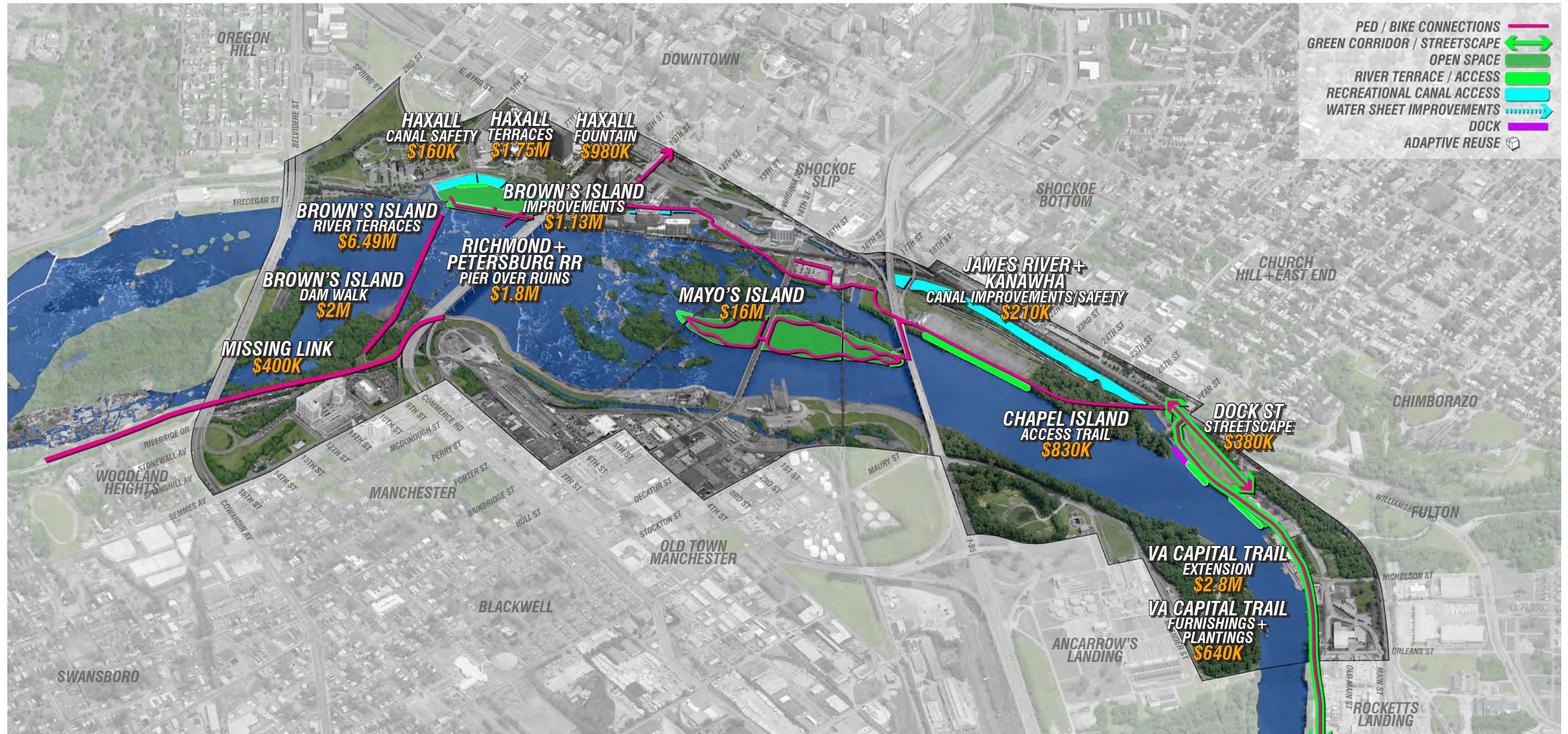
Change on the Riverfront will be an incremental process of capital improvement subject to the annual budget process and associated funding and fundraising efforts. The Riverfront Plan identifies individual projects that can be designed and built reasonably independent of each other, assigning each project to one of three priorities. Priority One projects are either connective or significant in their ability to establish a perception-changing improvement to the Riverfront. Some of the connective projects directly improve physical access to, across, or along the James River. Others, such as Mayo's Island, are viewed as transformational in terms of their ability to establish new public realm landscape destinations through property acquisition. Priority Two projects are generally less connective and more focused on upgrading existing structures or under-utilized parcels. Priority Three projects are more connective, and include several significant infrastructure upgrades: restoring functional access to the James River & Kanawha Canal, and acquisition of a portion of the Norfolk Southern rail yard for Manchester Green.

The projects within each Priority are not sequentially ordered, recognizing that funding will determine which mix of projects may be pursued during any one timeframe. The Plan intentionally clusters adjacent projects together rather than spreading projects equally across the entire Riverfront. This reflects the Plan emphasis on consolidating improvements where possible to achieve the biggest result. In some instances, such as completing the Virginia Capital Trail or acquiring Mayo's Island, there are short-term timeframe targets for which completion would be conducive to associated events, such as the 2015 World Cycling Championships.

Many of the identified projects occur within the James River 100-year floodplain and will require early consultation with various City, Commonwealth and Federal agencies. The U.S. Army Corps of Engineers in particular will necessarily require preliminary coordination to help guide development of any concepts that interact with the flood control structures on either side of the river. The Corps will ultimately issue permits for construction of work within the 100-year floodplain, and interacting with floodwall and flood control structures.

The Riverfront Plan provides an initial master plan level of detail, identifying magnitude of estimated costs for budgetary purposes. The numbers shown are 2012 hard costs for construction and exclude costs of land acquisition, significant demolition or stabilization, and escalation of construction costs due to phasing. Costs associated with geotechnical investigation, determining site contamination, mitigation or remediation are excluded, and may apply to specific projects.

Soft costs include design and engineering fees and contingencies associated with pre-construction and post-construction activities. Detailed, quantitative assessment will be necessary to confirm technical requirements for each project, including thorough site investigation and preliminary engineering. Anticipated soft costs are an additional 15% for site investigation, design and permitting. Contingencies represent reserve funding held to account for unforeseen conditions, including 10% for design, and an additional 10% for construction, both of which may be reduced as construction documents near completion.

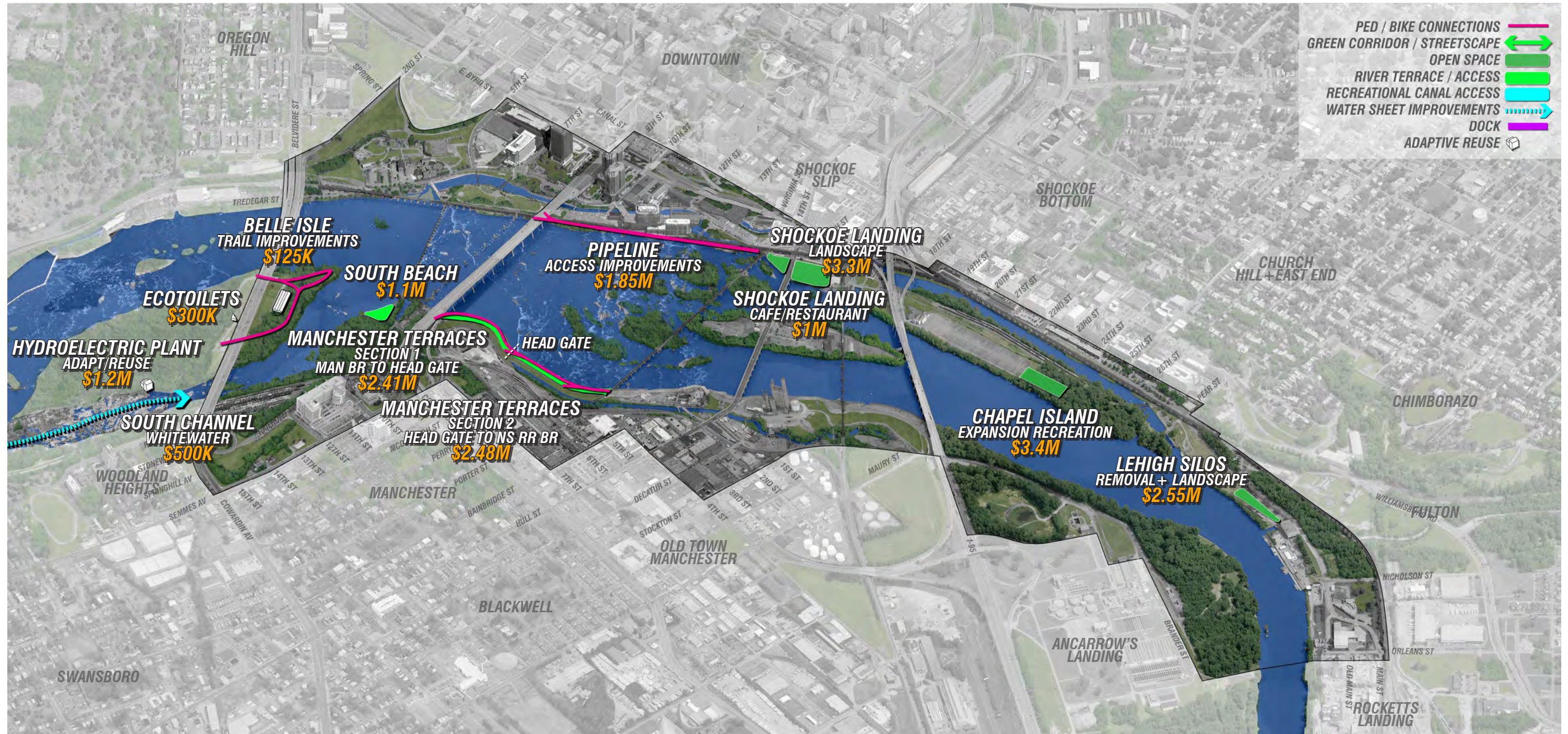


NOTE: hard costs in 2012 dollars; excludes land acquisition, significant demolition or stabilization, contamination/remediation, escalation of costs, and soft costs.

PRIORITY 1 BUDGET COSTS

\$35.6M | 0' 250' 500' 1000' N

Initial Priority One projects are connective, favoring the completion of the Virginia Capital Trail, Brown's Island Dam Walk, and the Missing Link Trail. Allocating funding to life safety improvements along both the Haxall and James River & Kanawha canals provides added initiative to make the two water sheets available for recreational opportunities. The remainder of Priority One focuses on Brown's Island improvements and acquisition of Mayo's Island, with both expected to be phased upgrades.

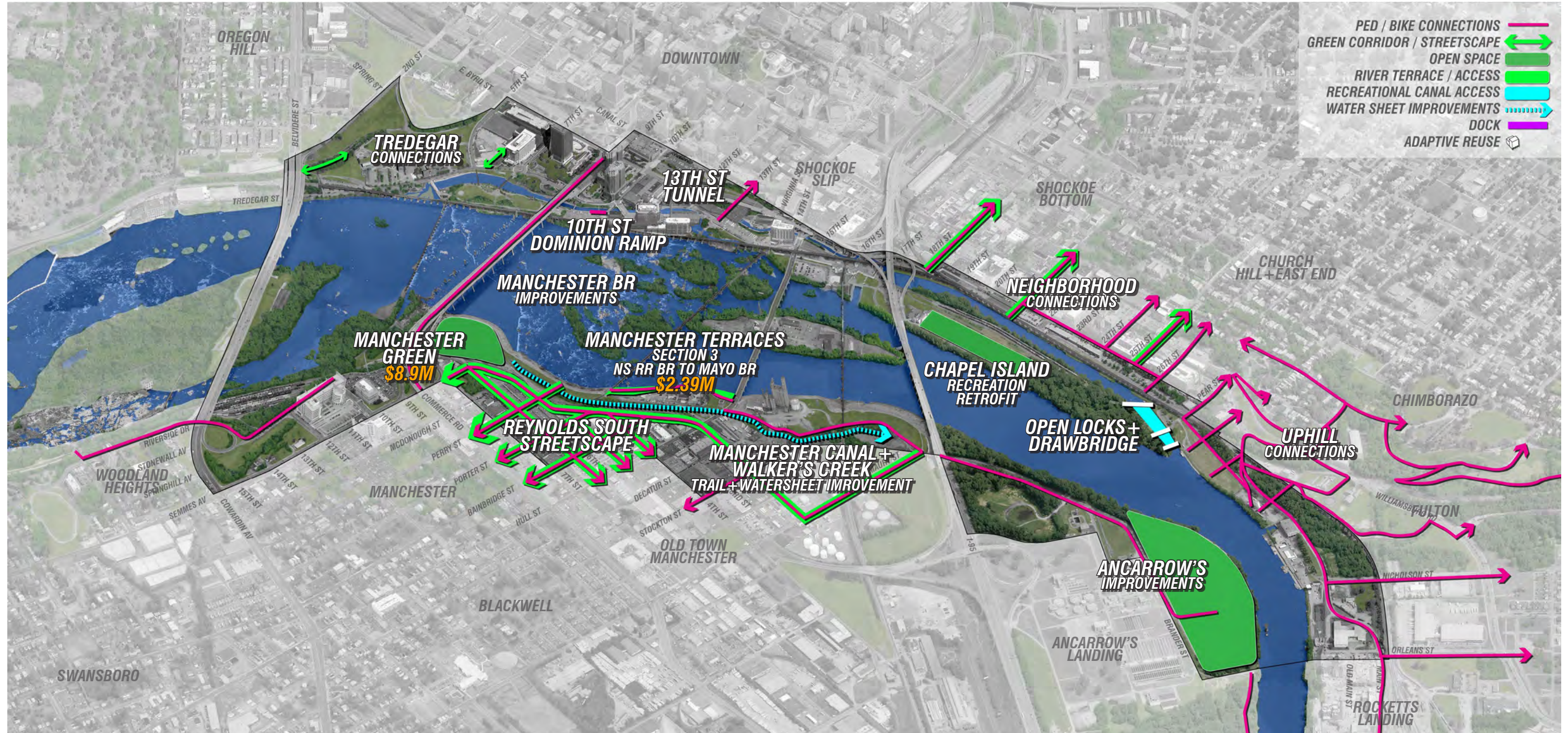


NOTE: hard costs in 2012 dollars; excludes land acquisition, significant demolition or stabilization, contamination/remediation, escalation of costs, and soft costs.

PRIORITY 2 BUDGET COSTS

\$20.2M | 0' 250' 500' 1000' N

Connective projects remain in the majority, with accessibility improvements to existing routes, including the Pipeline Walk, the Manchester Terraces and Belle Isle trails. New destinations include Shockoe Landing, South Beach, the Lehigh property, and landscape program for the top of the anticipated expansion of the retention basin on Chapel Island.



NOTE: hard costs in 2012 dollars; excludes land acquisition, significant demolition or stabilization, contamination/remediation, escalation of costs, and soft costs.

PRIORITY 3 BUDGET COSTS

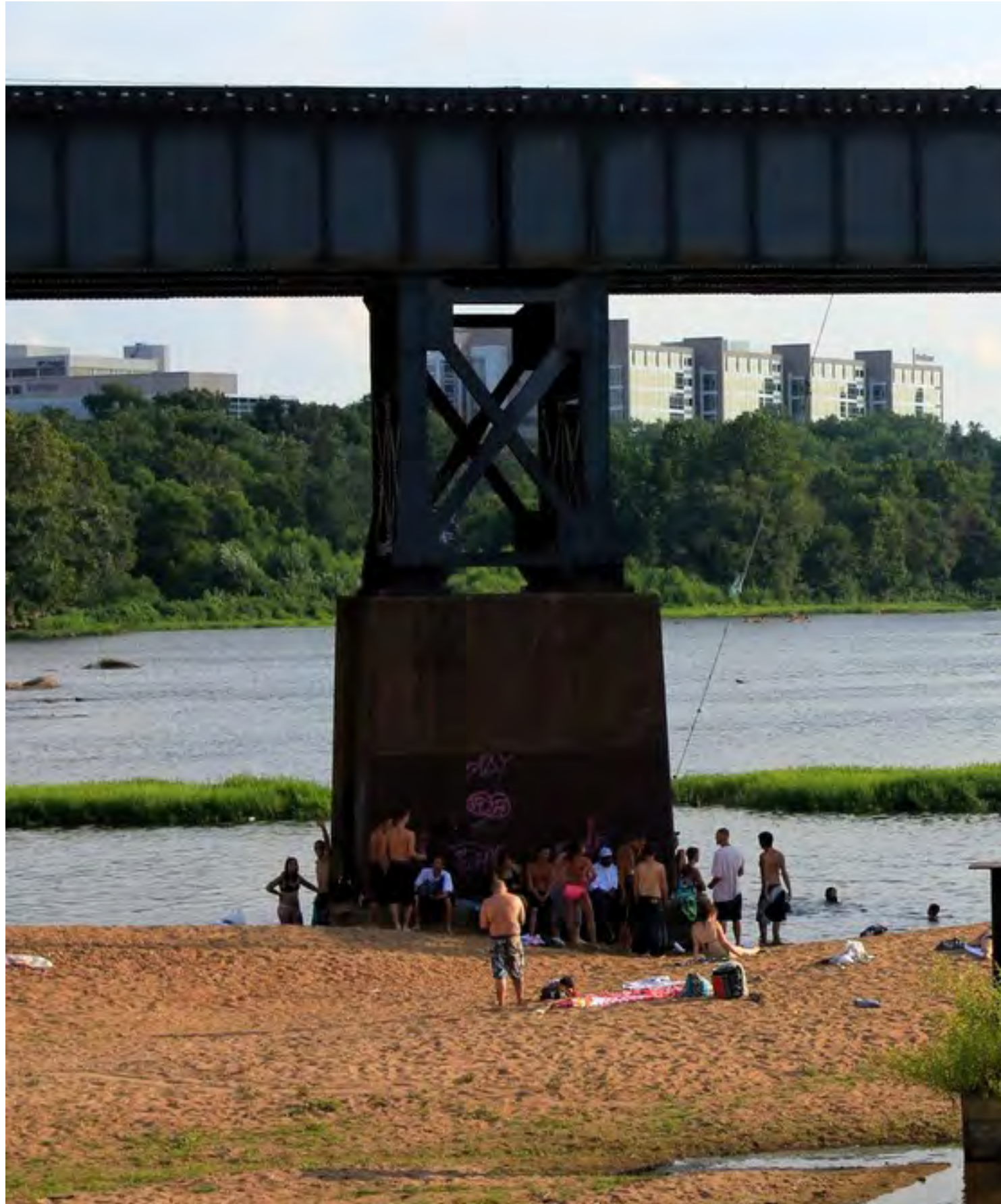


Priority Three projects include reinstating operation of both the Great Shiplock and Chapel Island drawbridge, allowing boats to once again enter the lower James River & Kanawha Canal basin. Manchester Green is the primary new destination landscape, and the reconfiguration of the existing Chapel Island retention basin roof for recreational access. The remainder of projects are connective, embracing accessibility and streetscape improvements to maximize physical connections between river and neighborhoods.

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IMPLEMENTATION + GOVERNANCE



IMPLEMENTATION + GOVERNANCE

At the core of the Richmond Riverfront Plan is an exciting overarching mission to create a single, cohesive Riverfront system that expands access to the James River for all demographics and better connects the downtown and Manchester with several adjacent neighborhoods. This unified system will leverage the Riverfront's natural assets to create an enticing and diverse array of coordinated signature open spaces, destinations, and programs. Vital to the Riverfront's operation as a unified place and experience will be the creation of a new, unified governance and implementation entity devoted to this new gem at the heart of the City of Richmond.

Several transformational open space systems around the country have demonstrated that a coordinated approach to governance through the creation of a new operating entity dedicated exclusively to the Riverfront can have powerful benefits. The Richmond Riverfront system will have funding, maintenance, and programming needs that will sometimes differ dramatically from those of the existing parks under the control and management of Richmond's Department of Parks, Recreation, and Community Facilities. A single, new mission-driven entity will coordinate investments, raise capital and maintenance funding, carry out ongoing operations and maintenance, drive programming, and collaborate with stakeholders to define and preserve the character of a unique new Riverfront. Furthermore, the creation of a distinct governance entity will enhance opportunities for strong branding of the Riverfront. Tentatively referred to here as the Riverfront Management Board, such an entity will work closely and collaboratively with multiple City departments and groups, including City Council, the Department of Parks, Friends of the James River Park, and the broader Richmond community; at the same time, its independence from other branches of government will allow it to be an important champion for the short- and long-term interests of the Riverfront.

Dedicated park management entities are not new to Richmond: for example, the Maymont Estate and Monroe Park are both City-owned open spaces that are operated and managed by dedicated entities. As the Plan progresses, the City of Richmond will have a number of decisions to make as to the structure and responsibilities of the Riverfront Management Board or a similar entity. Models from a variety of successful open space and waterfront entities demonstrate that there are many possible approaches to structuring such an organization to balance a diverse set of interests and coordinate a complex set of responsibilities. This section describes these important considerations in further detail.

GOVERNANCE

- Define and enforce mission
- Engage with communities, public agencies, private developers, and businesses

IMPLEMENTATION

- Raise funding for capital costs
- Manage design and construction
- Manage temporary uses
- Create brand image, logo, and materials to reflect mission

OPERATIONS + MAINTENANCE

- Manage fundraising and sponsorship for operating costs
- Operate and maintain open spaces
- Enforce safety and security

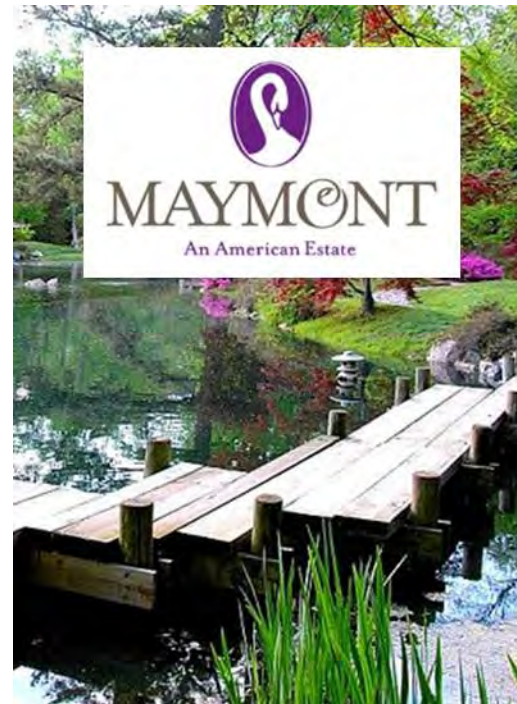
PROGRAMMING

- Coordinate and enhance events programming with third parties
- Cultural, historical, and arts programming and permanent installations

COORDINATED GOVERNANCE

The Richmond Riverfront Plan is a bold vision to create a new, signature Riverfront destination with a wide diversity of open spaces and programs. Through careful coordination of a range of responsibilities and activities, including Governance, Implementation, Operations and Maintenance, and Programming, the Riverfront will be able to realize its full potential. The creation of a new Riverfront entity dedicated to these tasks will solidify the City's commitment to creating and preserving a high-value, world-class, signature open space that will define the new face of downtown Richmond.

RICHMOND



MAYMONT FOUNDATION

- Governance
- Implementation
- Operations and maintenance
- Programming
- Fundraising

CITY OF RICHMOND

- Ownership
- Operating subsidy



MONROE PARK CONSERVANCY

- Governance
- Implementation
- Operations and maintenance
- Programming
- Fundraising, including VCU annual subsidy

CITY OF RICHMOND

- Ownership
- Capital for infrastructure improvements

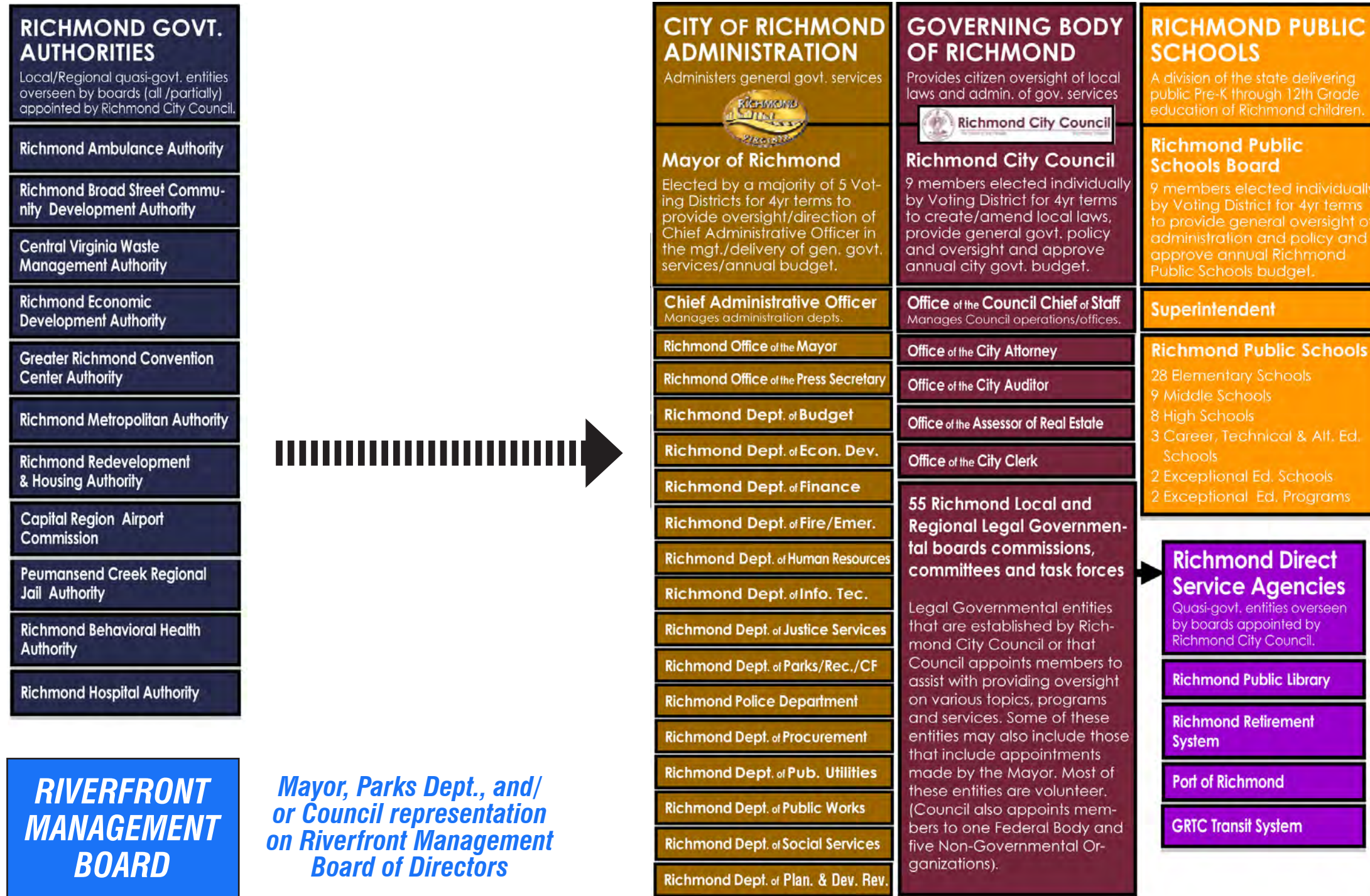
NATIONAL + INTERNATIONAL (MAYOR AND COUNCIL HAVE VARYING LEVELS OF GOVERNANCE)



STEWARDSHIP MODELS

Maymont Estate and Monroe Park are two examples of open spaces in Richmond that are governed by dedicated entities. While the City of Richmond owns the Maymont Estate and provides an operating subsidy, the Maymont Foundation is responsible for ensuring that the unique character and mission of the estate is preserved in accordance with its founding. Similarly, the Monroe Park Conservancy was recently formed to ensure that Monroe Park enjoys a high level of maintenance; it expects to receive operating funds from Virginia Commonwealth University (VCU) and is able to raise private funds for the implementation of the park's rehabilitation plans. At the same time, the City of Richmond retains ownership of the property

and provides additional governance and funding. There is significant variety in the form and structure of successful dedicated open space entities throughout the United States and abroad. These stewardship models enable flexibility to better coordinate responsibilities and activities with their respective Mayor, City Council, and other City agencies and stakeholders. Around the country dedicated management entities successfully create and maintain unique open space destinations and provide examples of best practices for coordinating Governance, Implementation, Operations, Maintenance, and Programming.



RIVERFRONT MANAGEMENT BOARD

As the Riverfront Plan progresses, a next step will include defining the specific governance structure, board members, and responsibilities of the Riverfront Management Board to balance autonomy and accountability, coordinate publicly and privately owned resources, maintain a consistent mission for the entire Riverfront system, and create an entity highly capable of carrying out the Richmond community's vision. The creation of a Riverfront Management Board would formalize the City's commitment to making its Riverfront a spectacular recreational, cultural, and economic asset. A new dedicated Riverfront Management Board would have a clear mission and the capacity to coordinate with stakeholders to execute the multiple integrated

tasks to make the Riverfront open spaces an exciting, diverse, and successful open space system. The Riverfront Management Board would work closely with existing City agencies and officials, and its board could include representatives selected by the Mayor, the City Council, the Department of Parks, Recreation, and Community Facilities, and other important agencies and stakeholder groups such as Venture Richmond and Friends of the James River Park.

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FUNDING + MAINTENANCE



FUNDING + MAINTENANCE

A wide range of funding sources is available to build, improve upon, and maintain the open spaces described in the Riverfront Plan. Signature open spaces around the country have successfully attracted capital from Federal and local sources, private funds from philanthropy and sponsorships, concessions, special taxes, and private real estate value capture. There are also several site-specific funding sources to consider, including the potential for revenue from appropriate development of the City-owned Fulton Gas Works site as well as revenue that can be generated through the monetization of Commonwealth of Virginia conservation easements that limit the amount of development in appropriate areas.

In many cases, the net present value of funds needed to operate and maintain signature open spaces over time often exceeds the initial capital expenditures for their construction. Therefore, a next step of the Richmond Riverfront Plan should entail developing a comprehensive and sustainable financing strategy that will identify funding sources for both up front capital expenditures as well as ongoing operations and maintenance costs to ensure that the Riverfront remains an attractive, well-maintained and well-programmed urban destination for many years to come.



CAPITAL FUNDING

The compelling vision for the Richmond Riverfront and the creation of a dedicated Riverfront Management Board will enable the public realm landscape to attract and accept capital funding from a diverse range of local, national, public, private, and philanthropic sources.



CITY OF RICHMOND

- Tax increment bond offering
- 1% fund
- Municipal appropriations
- General obligation bonds

STATE SOURCES

- Department of Conservation and Recreation funds
- State natural resources grants
- Conservation easement

FEDERAL SOURCES

- Transportation funds
- Conservation funding
- Economic development funds
- Brownfields program
- Stormwater / flood control funding

FOUNDATIONS

- Robins Foundation
- The Jackson Foundation
- Trust for Public Land
- City Parks Alliance
- Other local, state, and national foundations

LOCAL PHILANTHROPY

- Capital campaign involving business and civic leadership
- Donations from individuals and families

CAPITAL FUNDING

In future stages, the City, private landowners, and the Riverfront Management Board will be able to identify and secure specific capital sources that build upon the concepts described in this Riverfront Plan. Some examples that should be considered include existing local public funding sources for parks as well as new revenue that can be generated by capturing new economic value that will be catalyzed by Riverfront investments. Several components of the Riverfront Plan may be eligible for funds from the Commonwealth of Virginia that are available for parks and open spaces, particularly through conservation and natural resources programs. Several components of the Riverfront Plan are also consistent

with Federal funding sources that are available for a variety of purposes, including transportation, conservation, and economic development. In addition to public sources, further private funding for capital costs may be secured through a combination of national foundations and local philanthropy. As discussed in the previous section, one of the important responsibilities and advantages of a dedicated Riverfront Management Board will be its ability to coordinate and secure a funding strategy that leverages the diversity of benefits the open space system will provide to Richmond and the region.



REQUIRED OPERATING FUNDING

**CITY OF RICHMOND
BASELINE COMMITMENT**
(~current \$/acre for City parks)

ALTERNATIVE SOURCES

**GAP:
PHILANTHROPY**

OPERATING FUNDS

There are many potential operating funding sources available to the Riverfront Management Board, and many signature urban parks have guaranteed the quality of their operations by creatively assembling a variety of operating funds. Compared to capital funding, it is important to note that there are fewer dedicated Federal, State, and foundation sources for operating funds; moreover, operating fund sources must be available on an ongoing basis. A solid and sustainable approach to funding operations and maintenance of the Riverfront Management Board will likely involve a baseline public commitment from local sources that serves as the foundation to attract a variety of more creative philanthropic and

alternative revenue sources. Such an approach has been successful in a variety of signature parks and also enables flexibility to respond to changing economic and demographic conditions as the community and economy evolves over time.



PRIVATE REAL ESTATE VALUE CAPTURE

- *BID/special assessment fees*
- *Developer impact fees*
- *Tax revenues from new development*
- *Tax increment financing*
- *Conservation easement proceeds*

PROCEEDS FROM PUBLIC LAND DEVELOPMENT

- *Conversion of public land to higher value uses*
- *Example: Gas Works site*

EARNED INCOME

- *Food concessions*
- *Events/programming*
- *New public parking*
- *Activity fees*
- *Corporate sponsorship*

RETAIL VALUE CAPTURE

- *New retail development on public land*
- *Sales tax revenue from increased area sales*

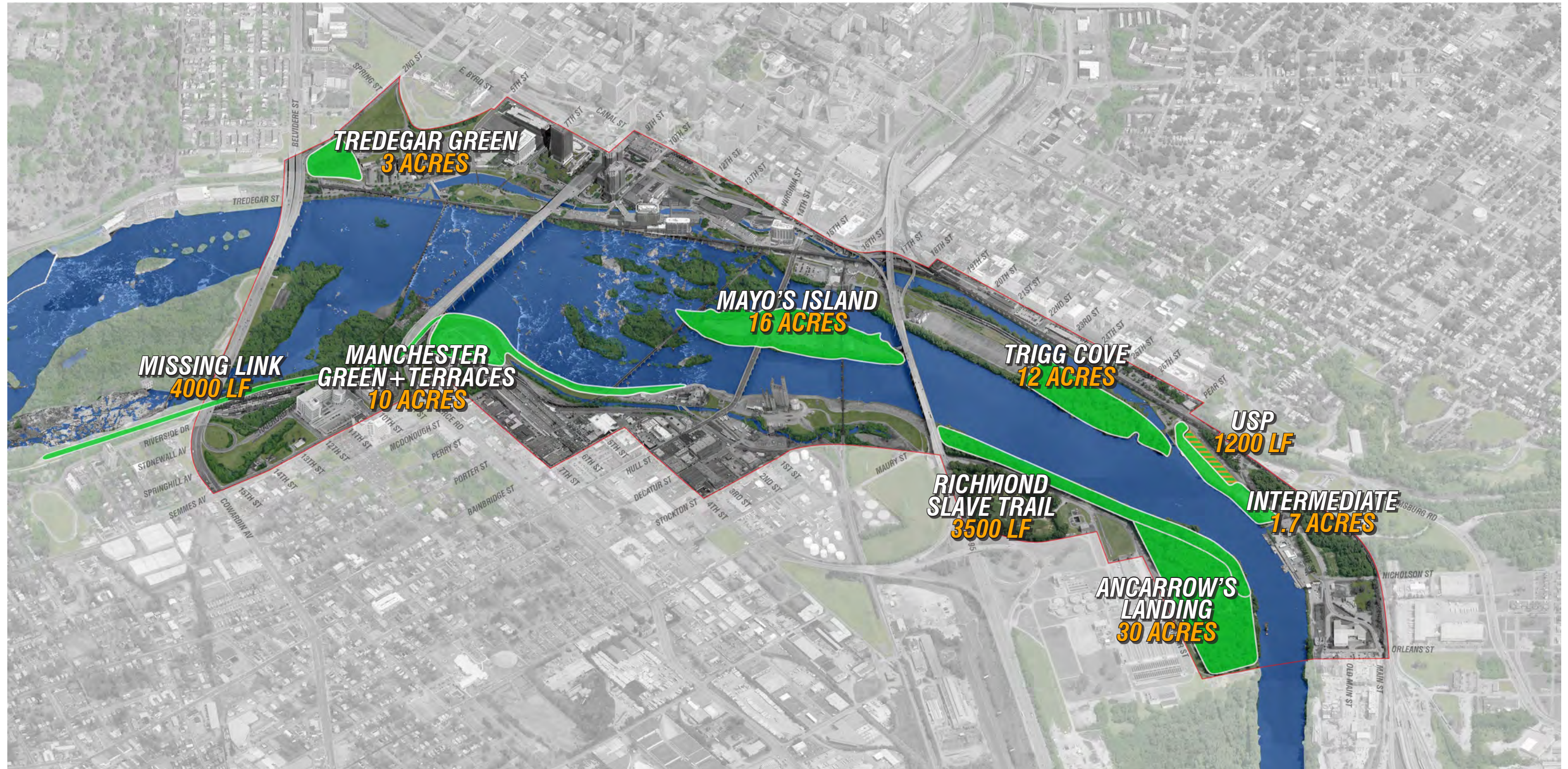
PRIVATE PARKING VALUE CAPTURE

- *Commercial parking tax revenues*
- *Parking tax increment*

ALTERNATIVE SOURCES

The Richmond Riverfront Plan offers the opportunity to leverage a wide variety of potential sources for operating funds. One funding source that is commonly used throughout the country and has been used in Richmond in the past includes capturing incremental property tax revenue that is generated from new development and economic value that is created as a result of new Riverfront investments and amenities, such as in the form of a tax-increment financing (TIF) district. Additionally, proceeds from public land development (specifically on the Gas Works site, as discussed in the following pages), earned income from programming, new retail taxes, and parking tax revenues are sources that should be explored

further. As the Riverfront Plan progresses, the City and stakeholders should be consulted to help determine the magnitude of revenues that may be available from these and other alternative sources.



REAL ESTATE VALUE CAPTURE FROM OPEN SPACE

The Virginia Department of Conservation & Recreation allows an income tax credit for up to 40 percent of the value of donated land or conservation easements. The resulting Land Preservation Tax Credits can be monetized on the secondary market to generate revenues that can subsequently be captured and dedicated towards the funding of open space improvements. Several open spaces throughout the system may be suitable for donation or conservation easements that could generate substantial revenues via the sale of Land Preservation Tax Credits. A larger area of the USP site would qualify under the Public Open Space Scenario.



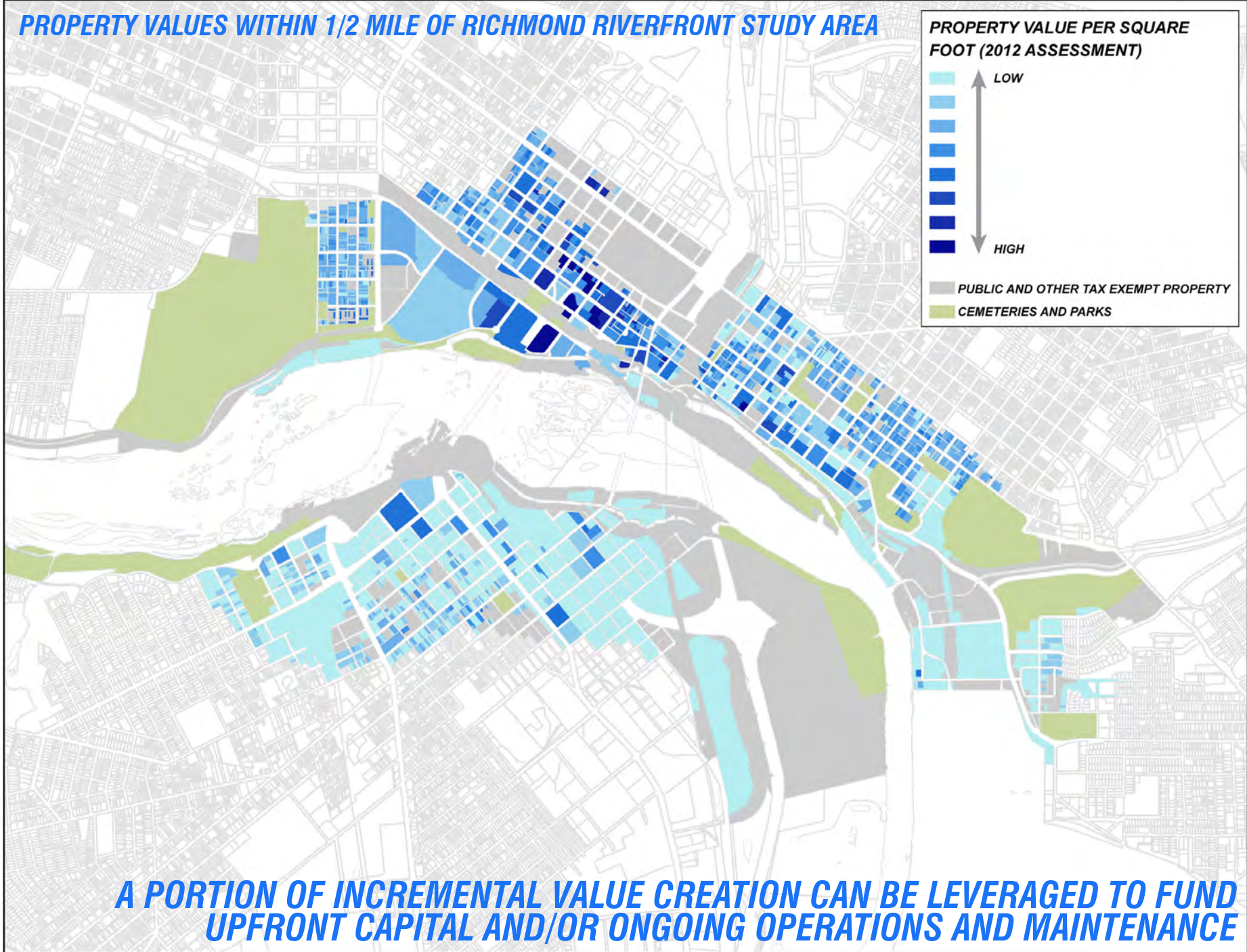
REAL ESTATE VALUE CAPTURE FROM FULTON GAS WORKS

Appropriate development of the City-owned Fulton Gas Works site may generate revenue that can fund improvements for the Riverfront system while also improving and remediating the site's current environment. One approach to capturing such value would include the sale of the site to a private developer who would subsequently be responsible for remediation. Another approach would entail remediation of the site by the City and subsequent sale for development. In both cases, all or a portion of the revenue after remediation expenses could be dedicated to the Riverfront system. In some cases, a private owner would have greater flexibility for remediation funding strategies such as equity investment that may not be

available to the public. Alternatively, the City may be able to transfer the property to a special purpose public entity such as an industrial development authority, a housing authority, or a public recreation facilities authority. A public entity may be eligible for various remediation funds through EPA's Brownfields Program and Virginia's Brownfields Restoration and Economic Redevelopment Assistance Fund. As the Plan progresses, further investigation will be required to determine the most appropriate path to remediate the site, given potential liability for pre-existing contamination, and to consider the potential for development that contributes to the community and Riverfront.



FULTON GAS WORKS: EXISTING CONDITIONS



UPLIFT PROPERTY VALUES + CATALYZE DEVELOPMENT

Precedents from around the country show that investment in high-quality waterfront open spaces leads to substantial economic benefits for the public and private entities. Successful implementation of the Richmond Riverfront Plan would lead to a significant economic benefit for the City of Richmond and the entire region, ranging from new visitors attracted to the waterfront, associated retail spending and commercial activity in nearby businesses downtown and in Manchester, new jobs supported by increased commercial activity, as well as increased real estate values. As this map of relative property values within 1/2 mile of the Riverfront study area demonstrates, a significant proportion of sites adjacent to the

Riverfront study area are privately-owned, and many of those outside of downtown have relatively low property values. Particularly on the Manchester side of the river as well as further downriver, several vacant or underutilized properties have the potential to be redeveloped. Public investment in the Riverfront is likely to catalyze new private development and raise overall property values, not only improving neighborhoods but also supporting tax increment financing mechanisms that can generate up-front capital funds and/or ongoing operations and maintenance funds.

10% VALUE UPLIFT FROM PUBLIC REALM IMPROVEMENTS
+ 10% VALUE UPLIFT FROM CATALYZED NEW DEVELOPMENT

\$7 MILLION INCREASE IN ANNUAL TAX REVENUE

\$90 MILLION SUPPORTABLE BOND OFFERING

INCREASED TAX REVENUE

Investments in the Riverfront would catalyze new value on adjacent properties that could be captured through the use of a tax-increment financing (TIF) structure or other mechanisms that could be leveraged to provide significant Riverfront funding that would be beneficial to both the public sector and private owners. The public realm investments proposed by the Riverfront Plan would likely increase the value of existing properties and catalyze new development on currently vacant and underutilized parcels. In many similar downtown public realm projects around the country, real estate values and infill development has led to tremendous value creation. Using conservative assumptions and based upon the current property values in the study area, the Riverfront Plan could generate upwards of \$90 million for investment in the Riverfront system.

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CONCLUSION



CONCLUSION

The Richmond Riverfront Plan recognizes the value of the existing natural resource that is the James River. The river has endured generations of cultural change and environmental damage. Decades of post-industrial decline and changing market trends have shifted away from the river, allowing for a slow environmental rebound, and an increasing recognition that this river corridor holds great promise for Richmond's future. The natural resource and recreation advocates have collaboratively drawn increasing attention to the James River as a singular landscape coursing through the historic and cultural heart of Richmond, and the Riverfront needs investment to realize the full potential as a regional and national attraction. Building upon the wealth of existing natural, cultural, historic, and recreational resources requires both public and private investment, as well as balanced conservation and development. To paraphrase the mayor of Oklahoma City, the vibrancy of the core is directly proportionate to the quality of life of those outside the core: investing in the James River will catalyze further investment and improvements. Expanding awareness and access to the James Riverfront will draw more visitors and residents alike, strengthening Richmond.

The Richmond Riverfront Plan was sparked by the 2009 Downtown Plan to bring further attention to the Riverfront. This effort has brought further clarity to opportunities and challenges, pointing the way forward for further investigation and action. Among the efforts to engage, in unranked order:

- *Develop the individual priority projects further to refine anticipated capital costs, and construction detailing*
- *Coordinate short- and long-term City infrastructure projects to ensure integrated public access, and cost sharing opportunities*
- *Refine maintenance and operations expectations, prioritizing levels of service and attention for specific Riverfront areas*
- *Initiate preliminary coordination meetings with local, regional, Commonwealth and Federal agencies to ensure smooth transition from planning to regulatory approvals and permitting*
- *Explore acquisition of privately held property with pivotal future Riverfront potential*
- *Investigate strategic potential of applying Commonwealth conservation easements across assorted private and public parcels*
- *Maximize, capitalize and leverage the anticipated media exposure of the 2015 World Cycling Championships to improve the Riverfront*
- *Improve access to the James River with an expanded diversity of types and locations, particularly emphasizing access enabling physical touching, entering or moving across the water sheet, and recreational watercraft access in the canals*
- *Accelerate comprehensive reform and coordination of downtown parking policies, including lots, garages, and on-street spaces to open up an ample supply to meet peak Riverfront demands*
- *Encourage private investment in properties that reinforce public access to and along the Riverfront*
- *Adopt a coordinated branding and wayfinding system to replace the multiple systems now in place, effectively rebranding the Riverfront identity as a singular landscape*

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APPENDIX 1: ANALYSIS

Historic Maps 128
Analysis Maps 136
Scenic Resources 172

RICHMOND RIVERFRONT PLAN

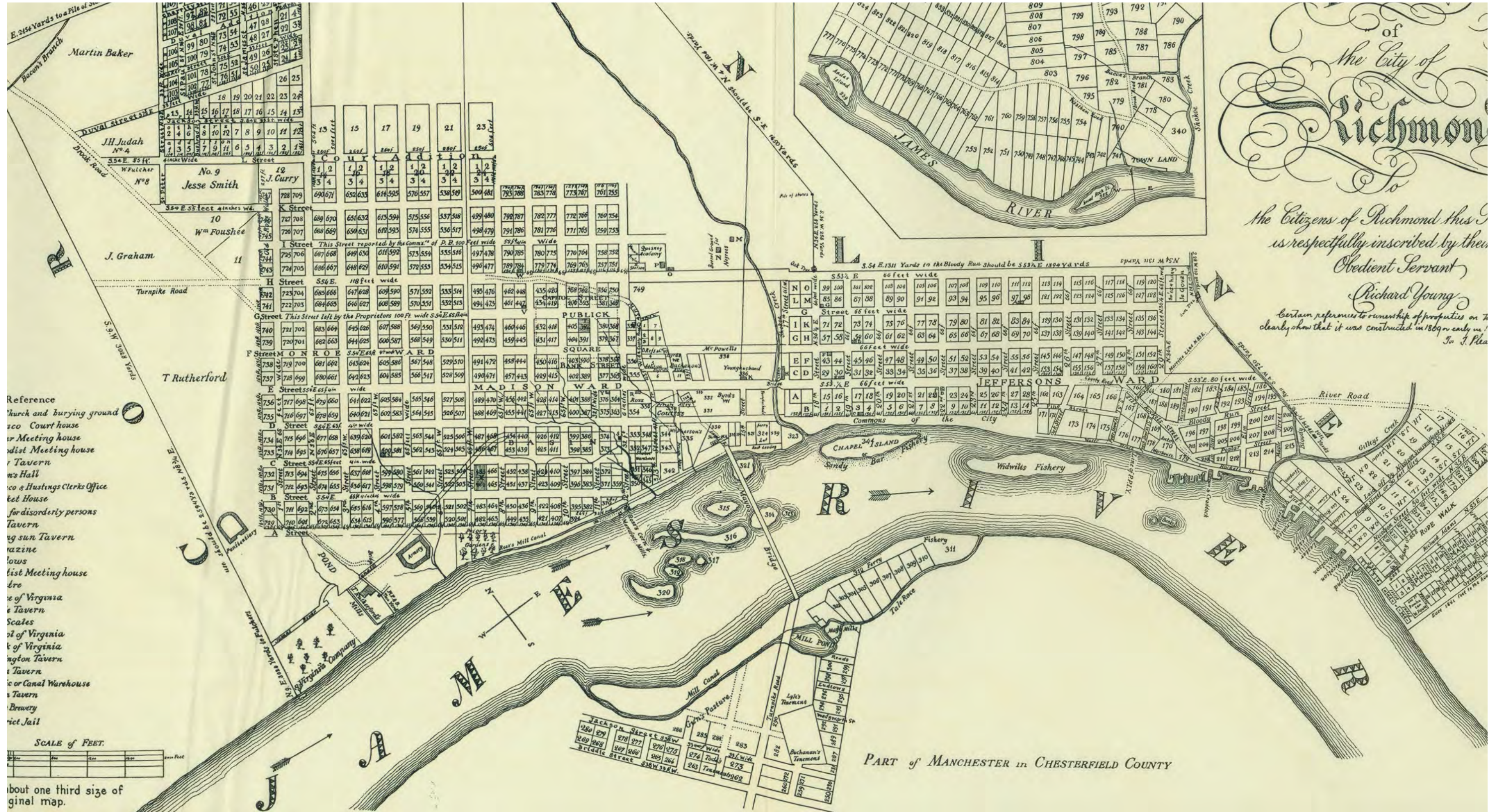
DRAFT 4 SEPTEMBER 2012

ORIGINAL CITY COMMONS

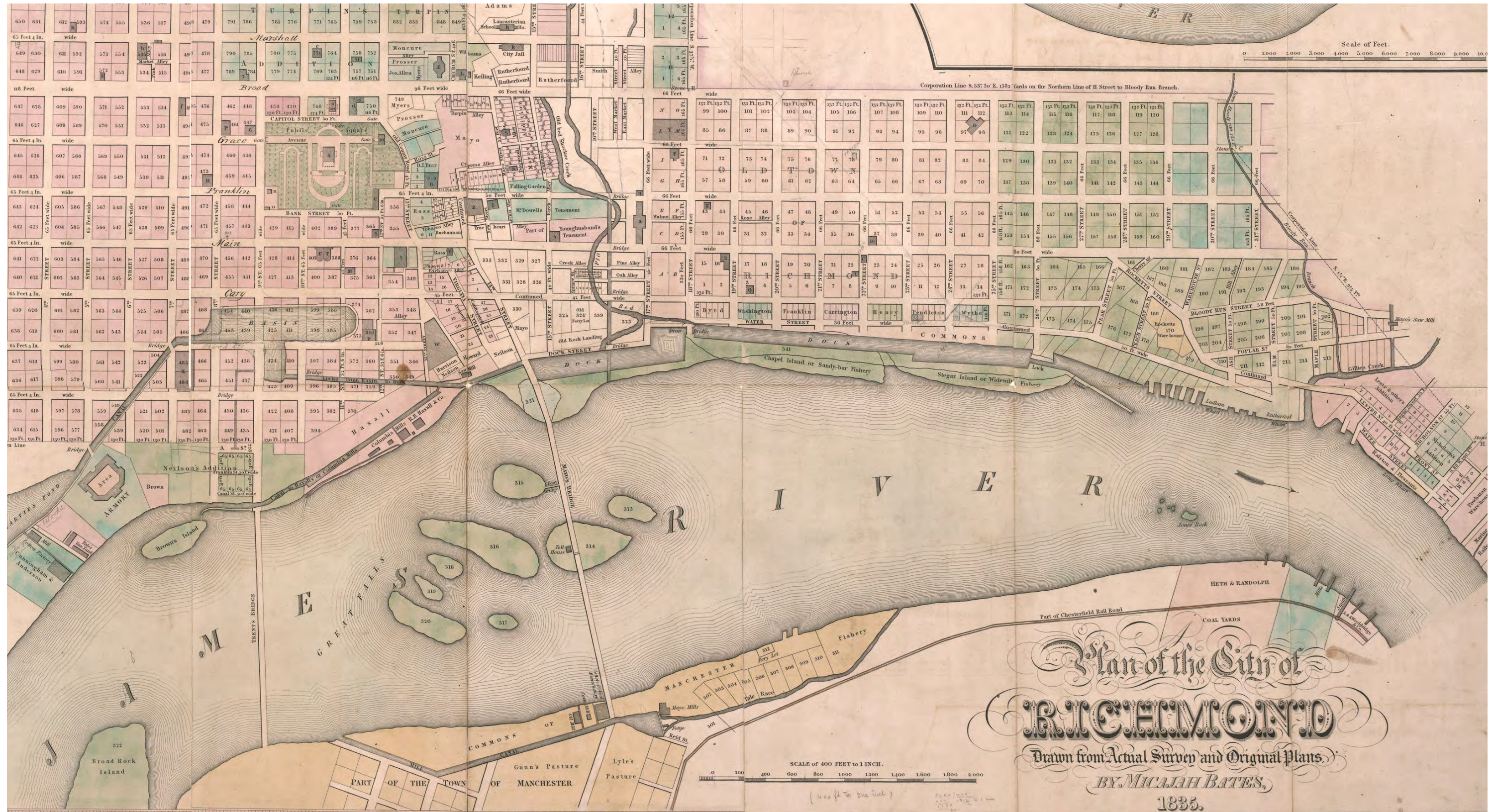
Richmond enjoys a wealth of historic maps and photographs documenting the evolution and remaking of the James River waterfront. The 1809 Richard Young map has been adapted to illustrate the location of the Richmond Commons on the north bank and Manchester Commons on the south bank, both of which were commonly available to all for commerce, grazing, and recreation

IMAGE: Detail of Plan of the City of Richmond, Richard Young 1 CITY OF RICHMOND DEPARTMENT OF PUBLIC WORKS.





1809 Plan of the City of Richmond, Richard Young | CITY OF RICHMOND DEPARTMENT OF PUBLIC WORKS

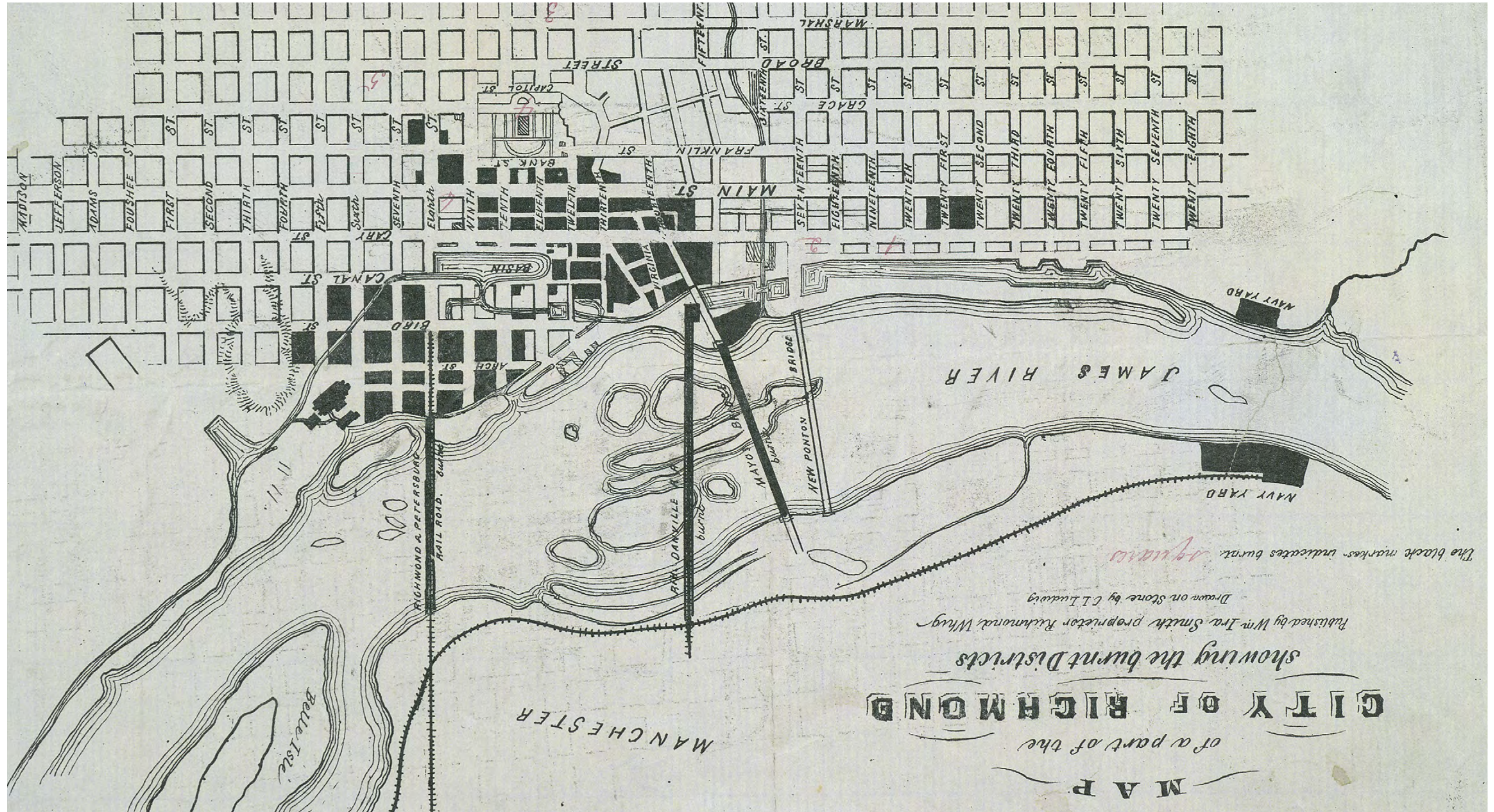


1835 Plan of the City of Richmond, Micajah Bates | VIRGINIA HISTORICAL SOCIETY



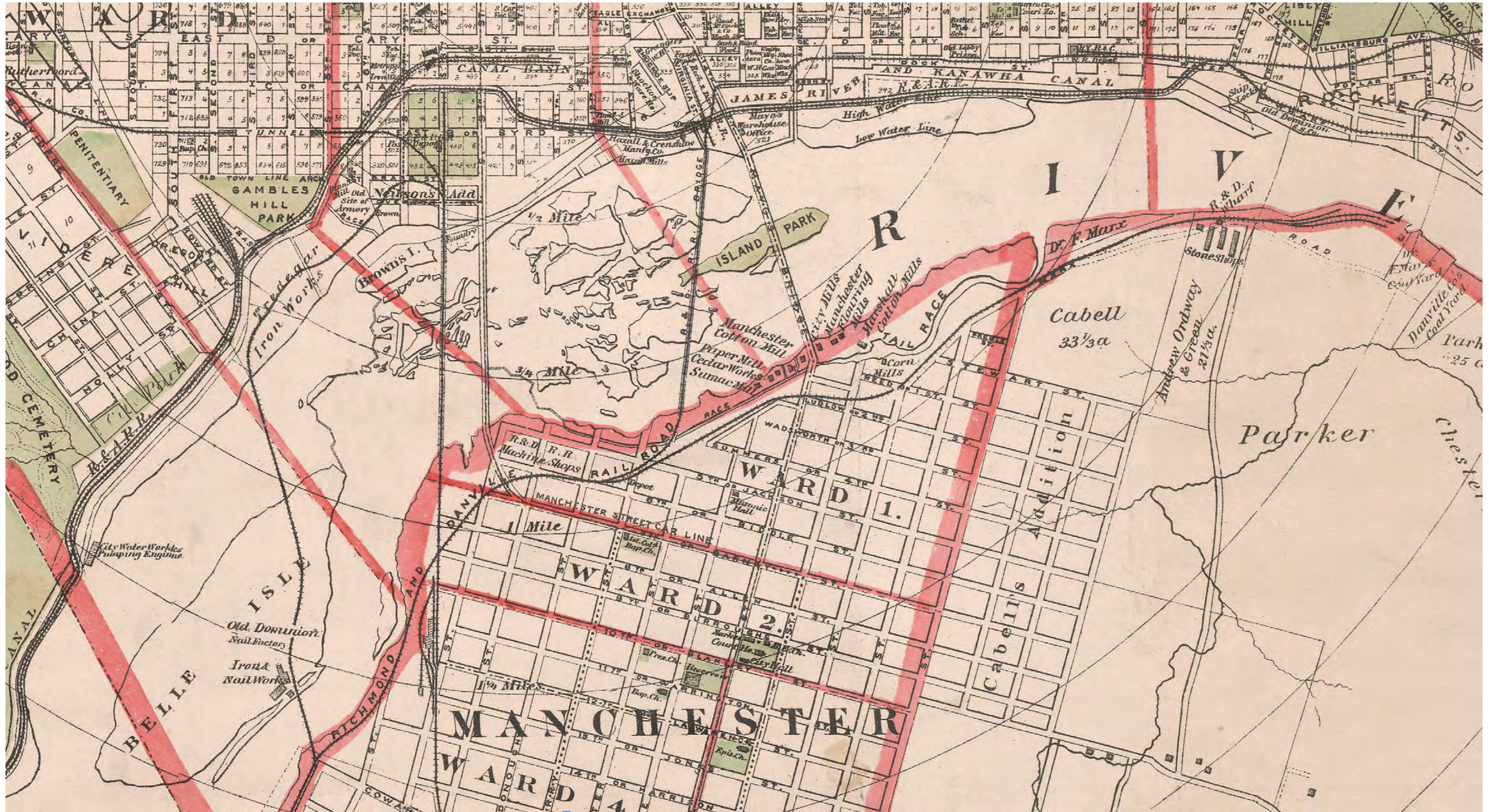
1856 Map of the City of Richmond, M. ELLYSON | VALENTINE RICHMOND HISTORY CENTER

1800	1850	1900	1950	2000
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c. 1865 City of Richmond showing the burnt districts (oriented upside down, north up) | LIBRARY OF VIRGINIA

1800	1850	1900	1950	2000
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1890 Map of Richmond, Manchester, and Suburbs, F. W. Beers | VIRGINIA HISTORICAL SOCIETY

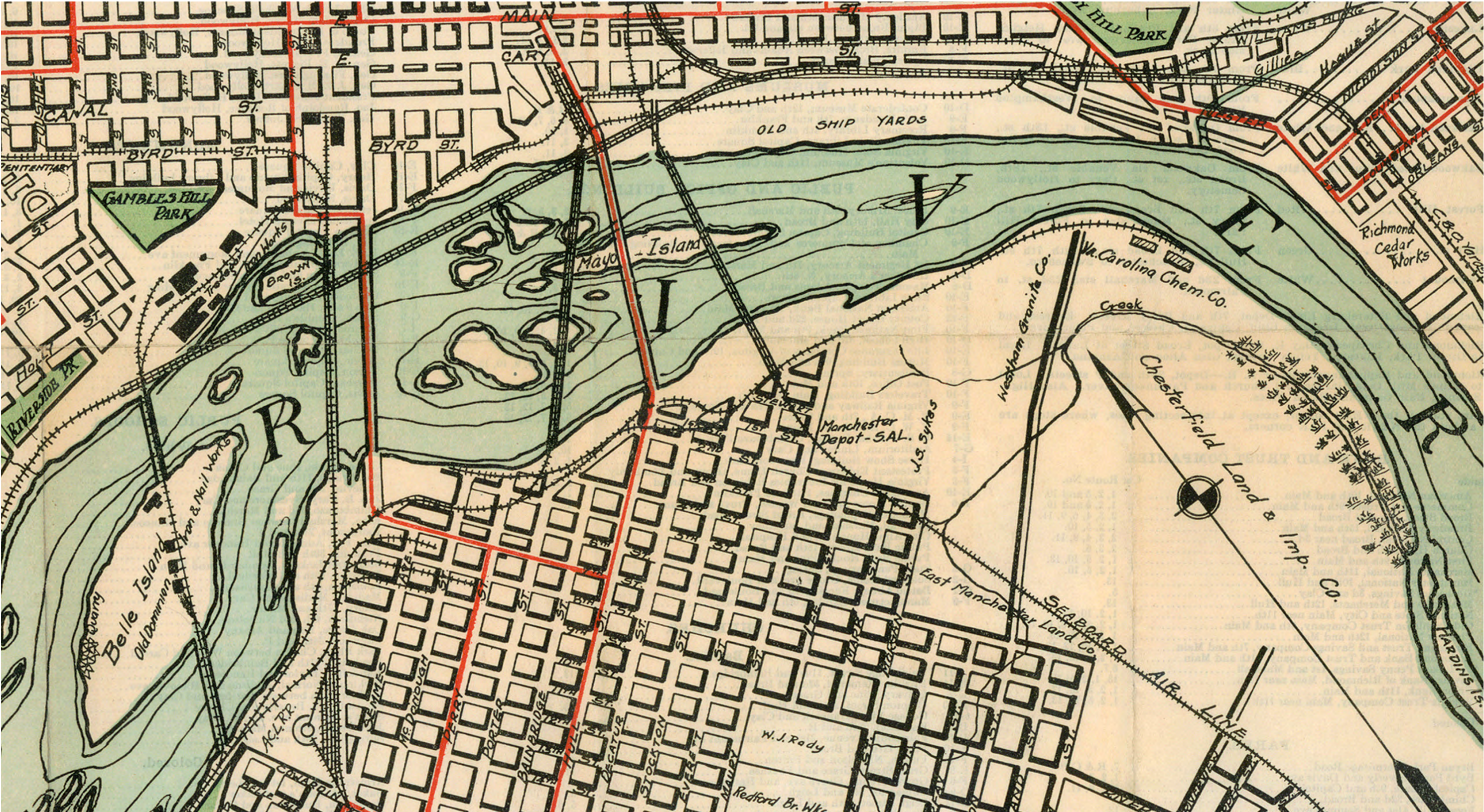
1800

1850

1900

1950

2000



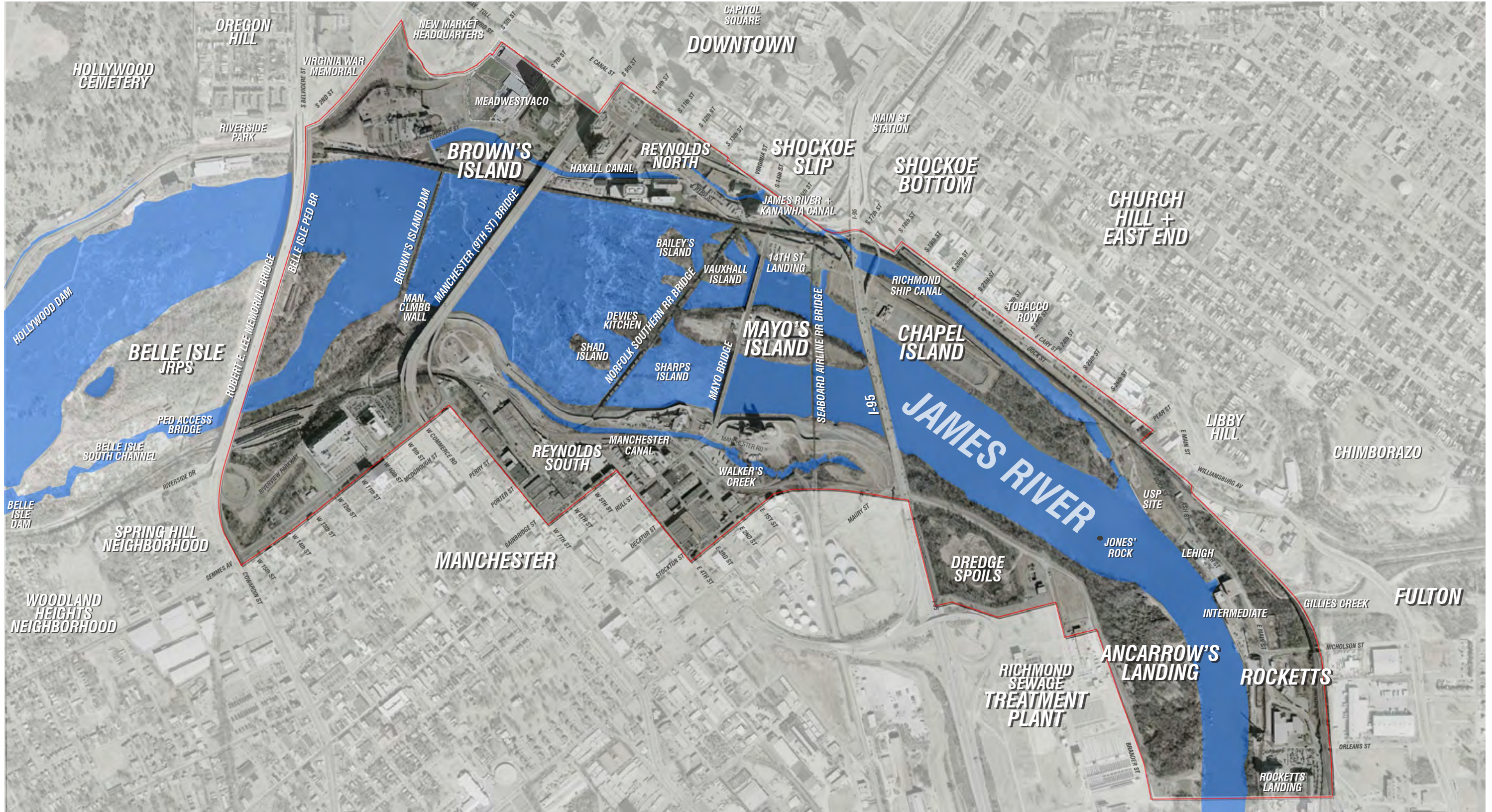
1914 Information Map of the City of Richmond, Bolton, Clarke & Pratt | VALENTINE RICHMOND HISTORY CENTER

1850

1900

1950

2000



2012

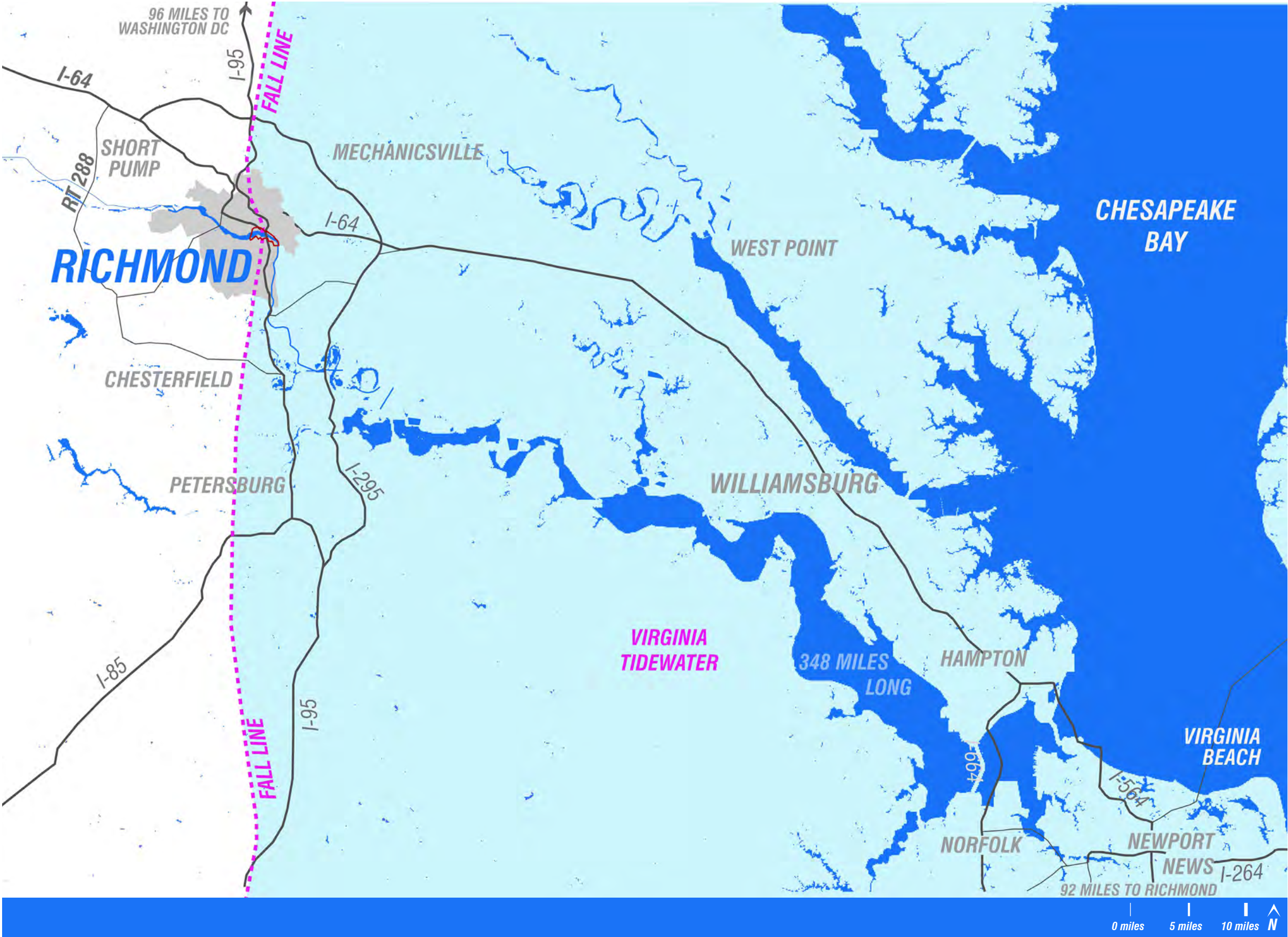


RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

REGIONAL CONTEXT

Richmond was originally sited to coincide with the fall zone, the line of rapids marking the farthest upriver extent of tidal change, approximately 100-river miles from the Chesapeake Bay. The fall zone constitutes the visible transition between soft coastal lands and hard piedmont uplands. The rapids both limited coastal transit, and powered water-generated industry, making Richmond a strategic location.



**ONE RIVER
ONE STATE
ONE CITY**

Richmond is positioned on the James River, the longest river in the Commonwealth at 384-miles in length. The river has historically separated Richmond from Manchester. Even though annexation erased the municipal distinction, the perception of barrier remained as intense industrial activity made the Riverfront more back-of-house.

National economic and regulatory shifts in the late 20th Century transformed the Richmond Riverfront into a post-industrial landscape rich in tangible artifacts, multiple historical narratives, and recovering flora and fauna.

Consequently, the Richmond Riverfront has incrementally attracted more recreational activity and development, drawn to the natural wildness of the James River.

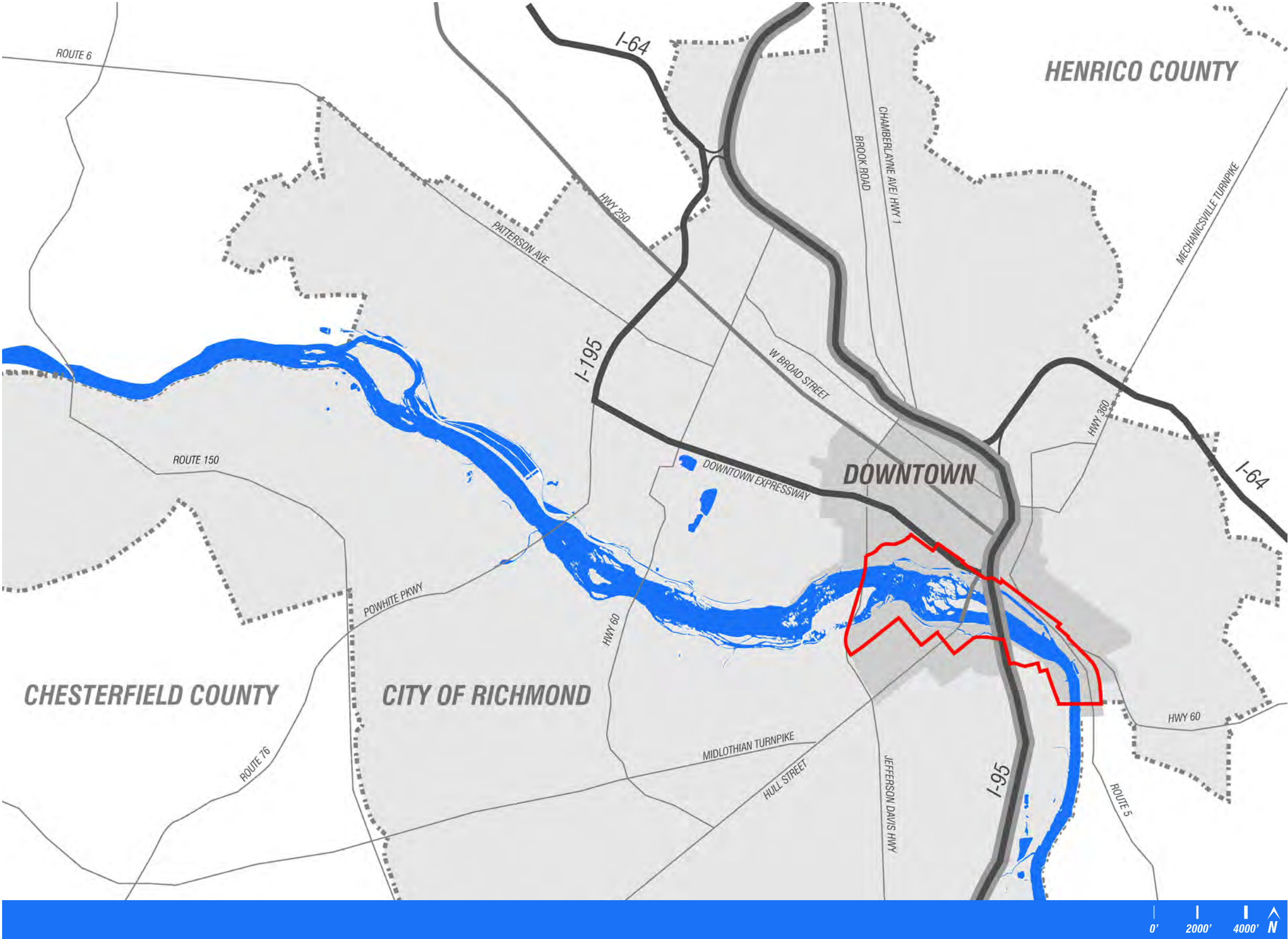


RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

ROADS

At a regional scale, the Riverfront is bisected by Interstate 95, the primary east coast vehicular corridor. The expansive infrastructure of I-95 and Downtown Expressway bridges, ramps and grade changes provides expedient vehicular travel; however, it constrains pedestrians and cyclists by creating significant physical barriers to accessing the Riverfront. The Lee Bridge was retrofitted to include a popular and well-used pedestrian suspension bridge, suggesting potential for a similar structure beneath the I-95 James River Bridge.

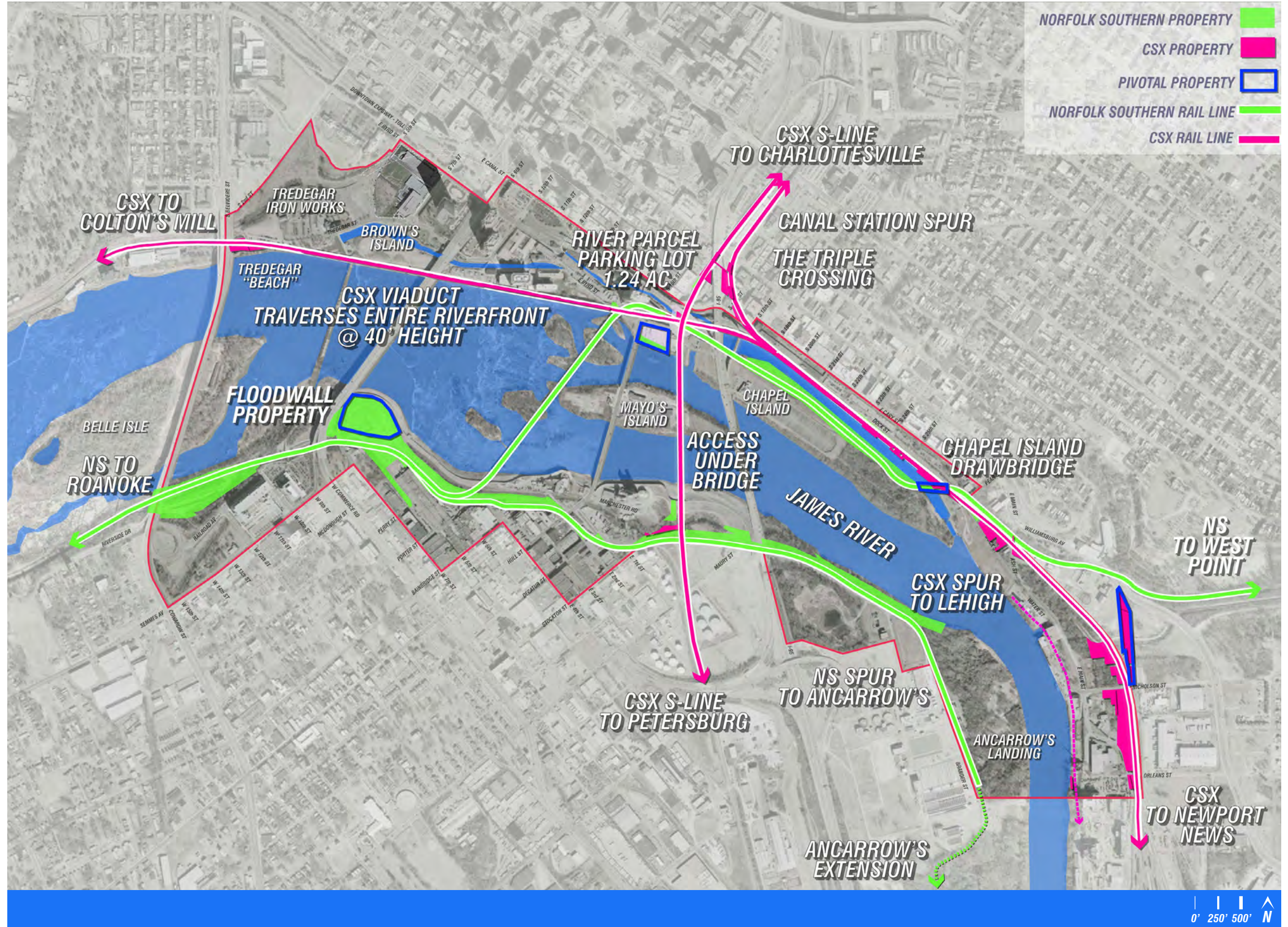


RAILROADS

CSX and Norfolk Southern railroads each have two primary lines that crisscross the Riverfront. The combination of at-grade parcels and overhead viaduct infrastructure poses a barrier for pedestrian access to and along the Riverfront. CSX has successfully coordinated with the City to allow passage of the Virginia Capital Trail along Tobacco Row.

Norfolk Southern owns two pivotal properties, one at 14th Street, and the other at the Manchester Floodwall, both of which figure prominently in future Riverfront improvements. The Missing Link and drawbridge at Great Shiplock Park are two Norfolk Southern properties that should be reconfigured for public passage without ownership transfer.

CSX owns a pivotal parcel within the Fulton Gas Works site that bears acquisition to make the larger property developable. Property acquisition and access should be negotiated with an eye toward resolving other access and easements, such as a future Norfolk Southern expansion south from Ancarrow's Landing.



RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

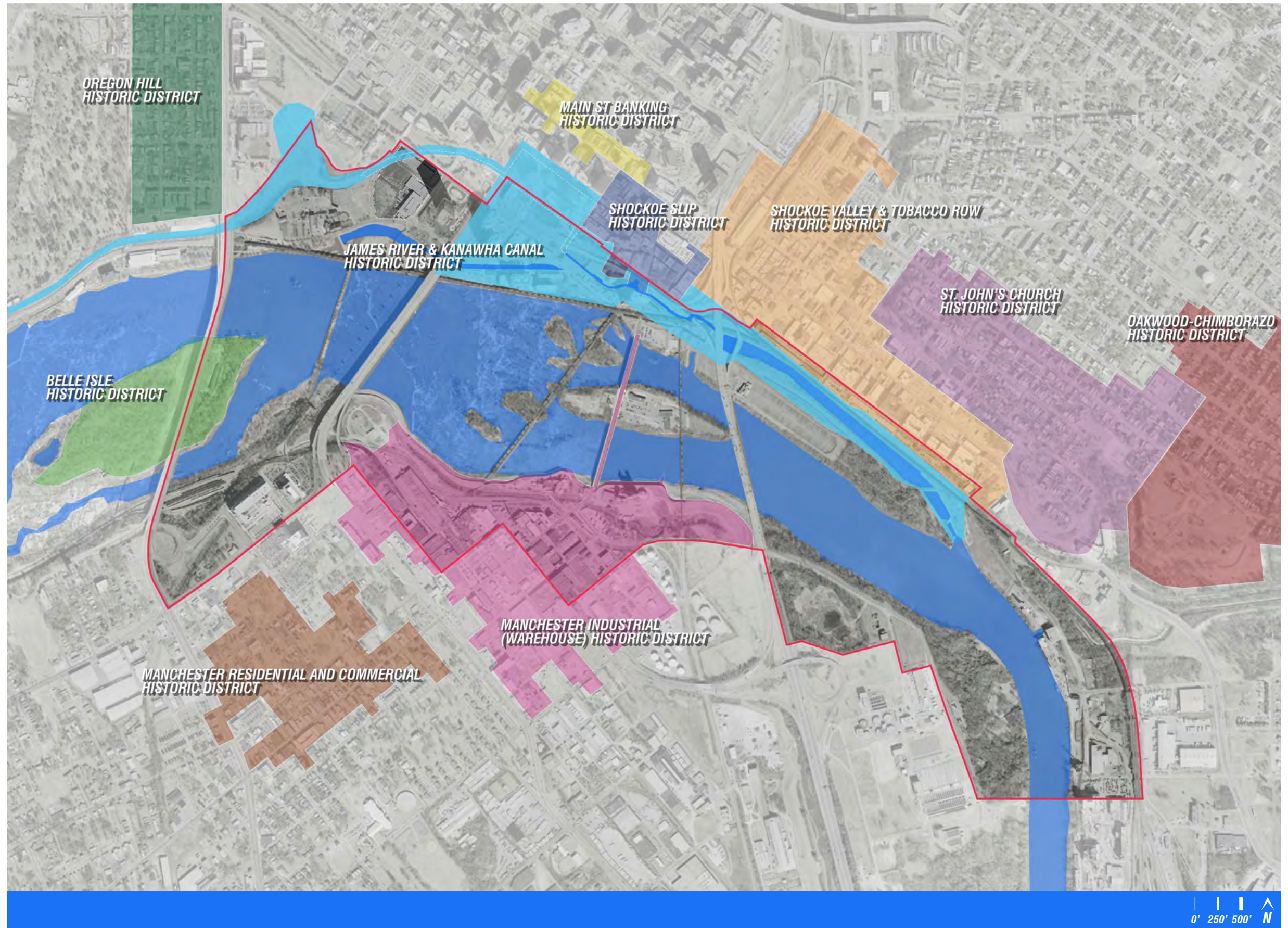
NEIGHBORHOODS

The James River provides a common border to a number of Richmond neighborhoods. The Plan recognizes that each neighborhood has a unique history and character that in turn influences the program and land use of the Riverfront. This diversity of neighborhood land use, ranging from industrial to residential to public infrastructure-dominant provides valued cues to way finding as one traverses the Riverfront.



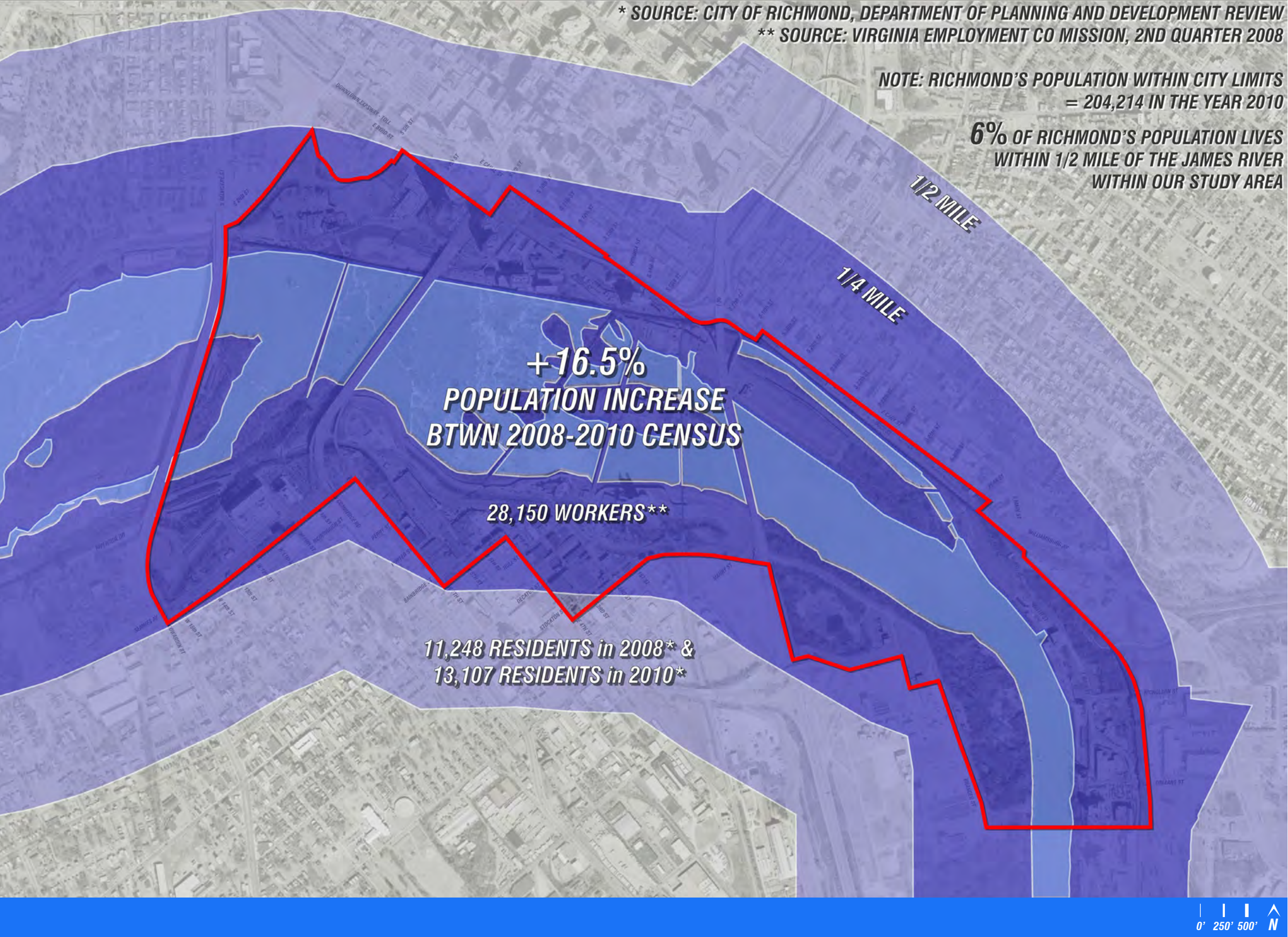
HISTORIC DISTRICTS

Richmond's long history has ensured that there is a wealth of historic architecture. This history is well preserved in the many State and Federal historic districts that are in close proximity to or within the Riverfront project area. The Riverfront Plan recognizes the value of these spectacular historic resources. The redevelopment efforts along the Riverfront are sensitive to protecting and promoting the appreciation for these assets.



POPULATION

Reflecting the shift of industrial activity to outlying locations, residential occupancy downtown has increased in the preceding 5 years. This is evidence of a rediscovery of the Riverfront as a positive element of Richmond, providing the primary attractor to development of both commercial and residential development. While the majority of Richmond residents live more than a half mile beyond the James River, census data indicates that the numbers are increasing at double digit rates within the half mile.



WATER NAVIGATION

Existing sites for watercraft launch and recovery begin at Ancarrow's Landing where literally hundreds of boats a day are launched during fishing season. The 14th Street Takeout is a key raft recovery location. There are numerous opportunities from Belle Isle to Rocketts Landing to configure additional public water access locations capable of integrating pedestrian viewing of the river with physical launch and landing of non-motorized, personal recreational watercraft. Kayaks, standup boards, canoes and rafts run the upriver stretch of the Riverfront, with the objective of gaining access to the Haxall Canal and James River & Kanawha Canal. Sculls, sailboats and motor boats operate below 14th Street, while canal boats circulate within the James River & Kanawha Canal. The long-term goal is to return tall ships to the lower James River & Kanawha Canal, via a renewed navigation channel, operable locks and drawbridge.



RICHMOND RIVERFRONT PLAN

TOURISM

DRAFT 4 SEPTEMBER 2012

The top tourist destinations are all beyond the boundary of the Riverfront Plan, though resident and suburban visitors overwhelmingly express positive comments on the need to protect and expand the natural resources and recreational potential of the James River as it courses through downtown Richmond. Infill redevelopment and upgrade to the public realm jointly reinforce the Riverfront as a tourism anchor destination for the City and the surrounding region.

5.75 MILLION VISITORS

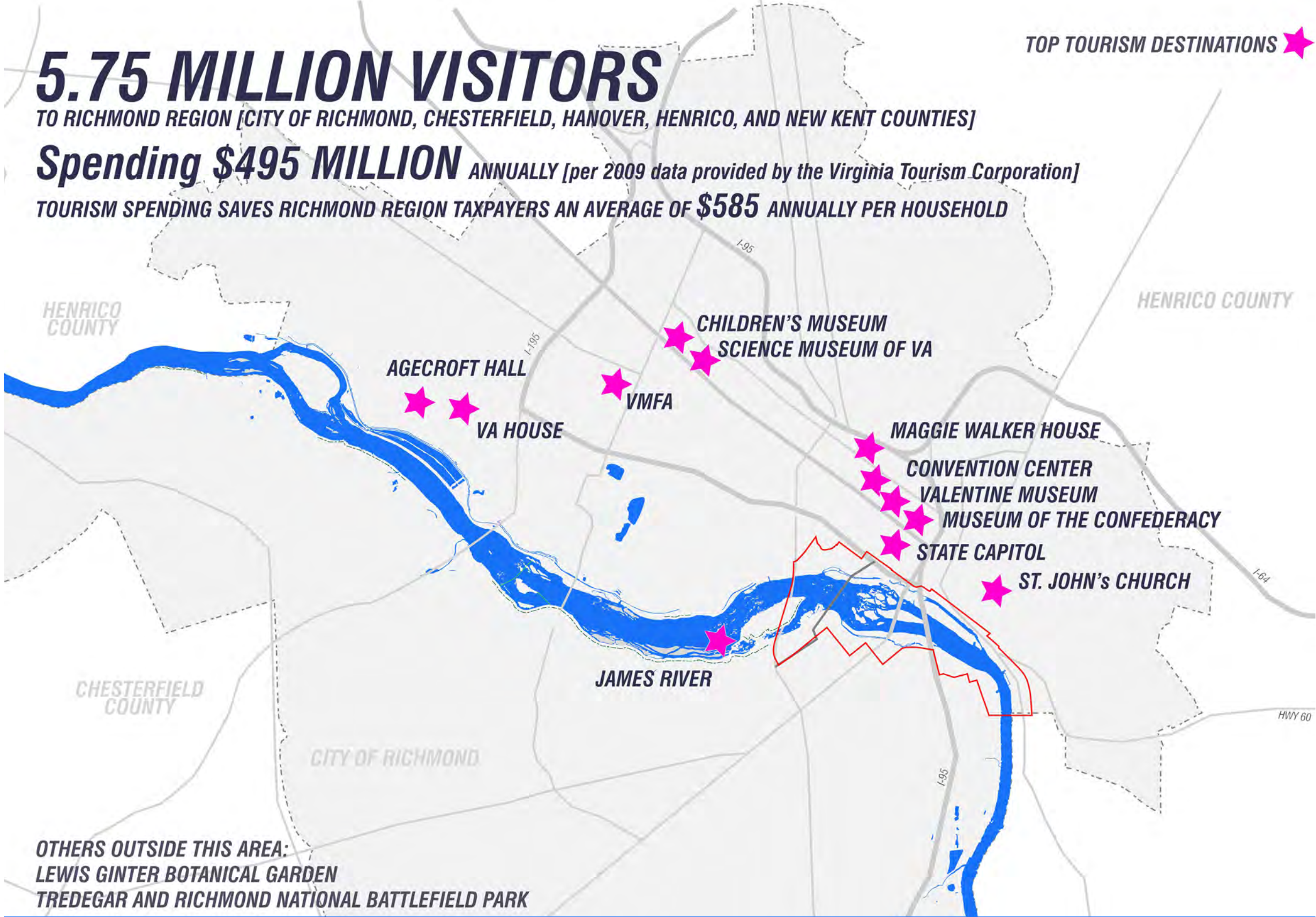
TO RICHMOND REGION [CITY OF RICHMOND, CHESTERFIELD, HANOVER, HENRICO, AND NEW KENT COUNTIES]

Spending \$495 MILLION

 ANNUALLY [per 2009 data provided by the Virginia Tourism Corporation]

TOURISM SPENDING SAVES RICHMOND REGION TAXPAYERS AN AVERAGE OF \$585 ANNUALLY PER HOUSEHOLD

TOP TOURISM DESTINATIONS ★

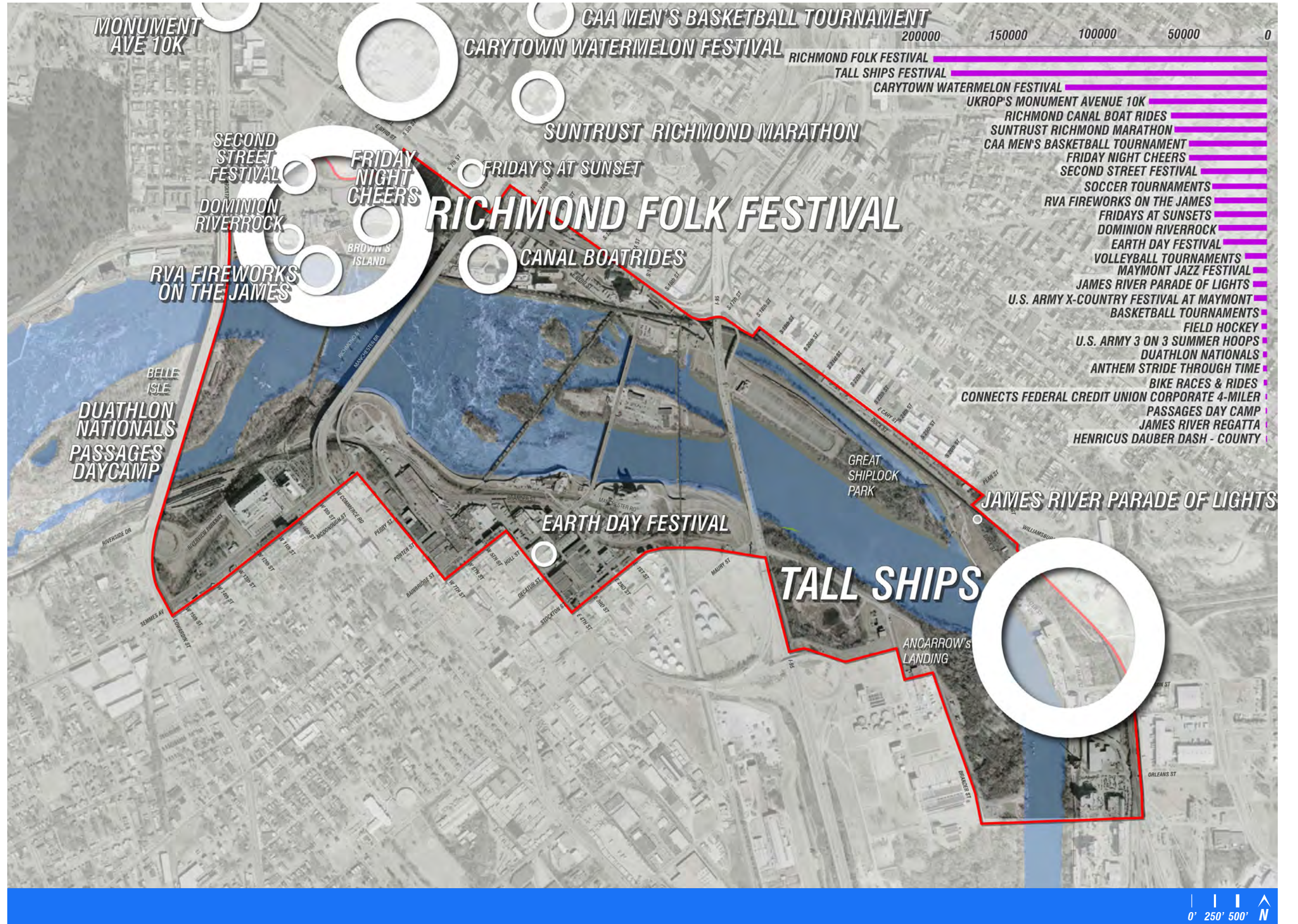


OTHERS OUTSIDE THIS AREA:
LEWIS GINTER BOTANICAL GARDEN
TREDEGAR AND RICHMOND NATIONAL BATTLEFIELD PARK



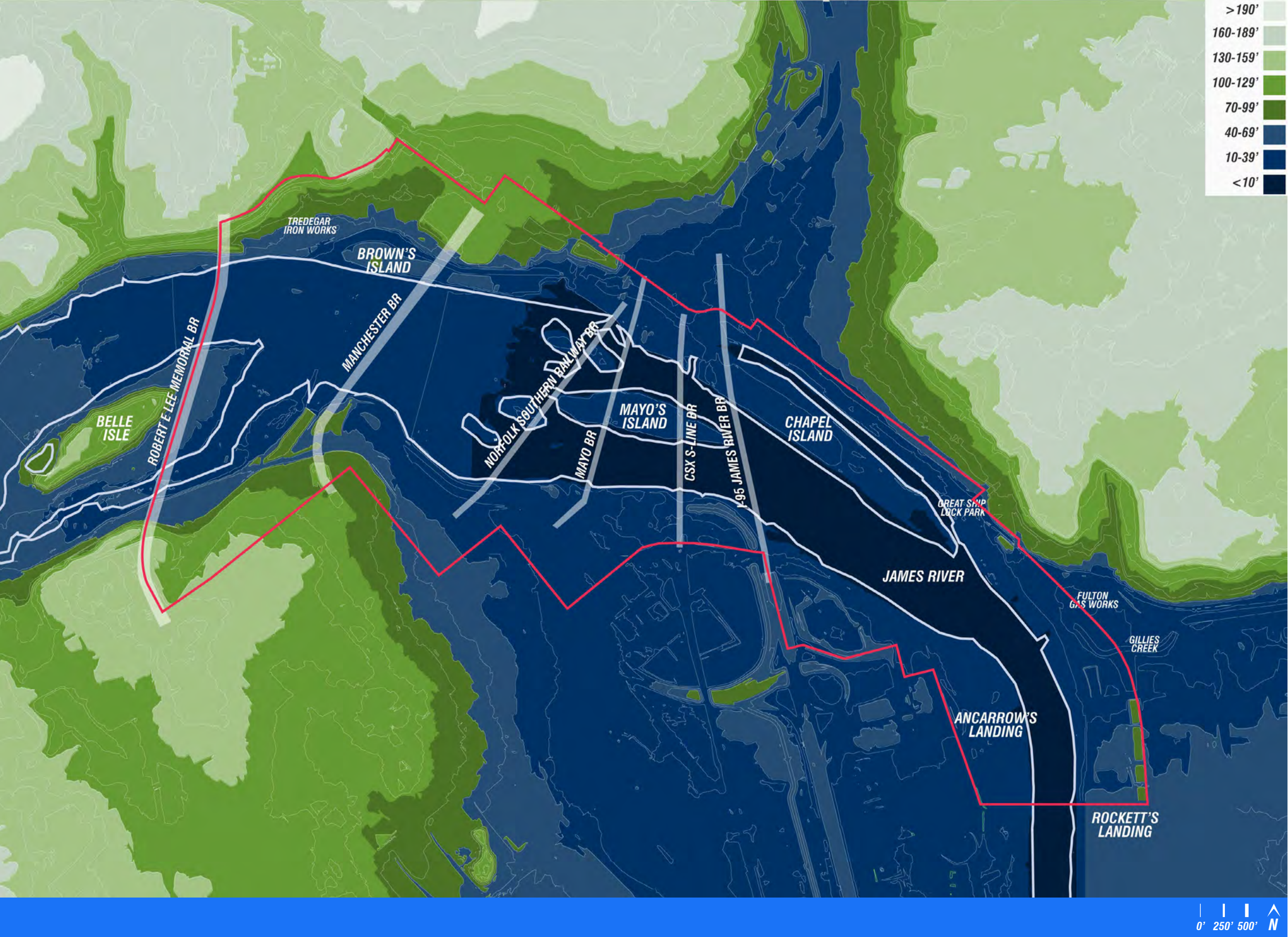
ATTRACTIONS

Dozens of events occur in Richmond each year, though few occur at the river. The two largest in recent years, the Richmond Folk Festival, and the Tall Ships Festival (held once in 2007), have been staged on the Riverfront. Assembling flexible and adaptive open spaces capable of accommodating tens of thousands of attendees is difficult in a largely built-out Riverfront. However, the plan has identified several pivotal places where additional large-scale events can be accommodated within the Riverfront.



TOPOGRAPHY

The hills of Richmond confine the James River to a comparatively deep, narrow valley as it flows through the rapids of the Falls of the James. Below the Falls, the river valley broadens out across Manchester with tributary valleys up Shockoe Valley and Gillies Creek. The James River drains a large portion of Virginia, from the Appalachians to the Chesapeake Bay.

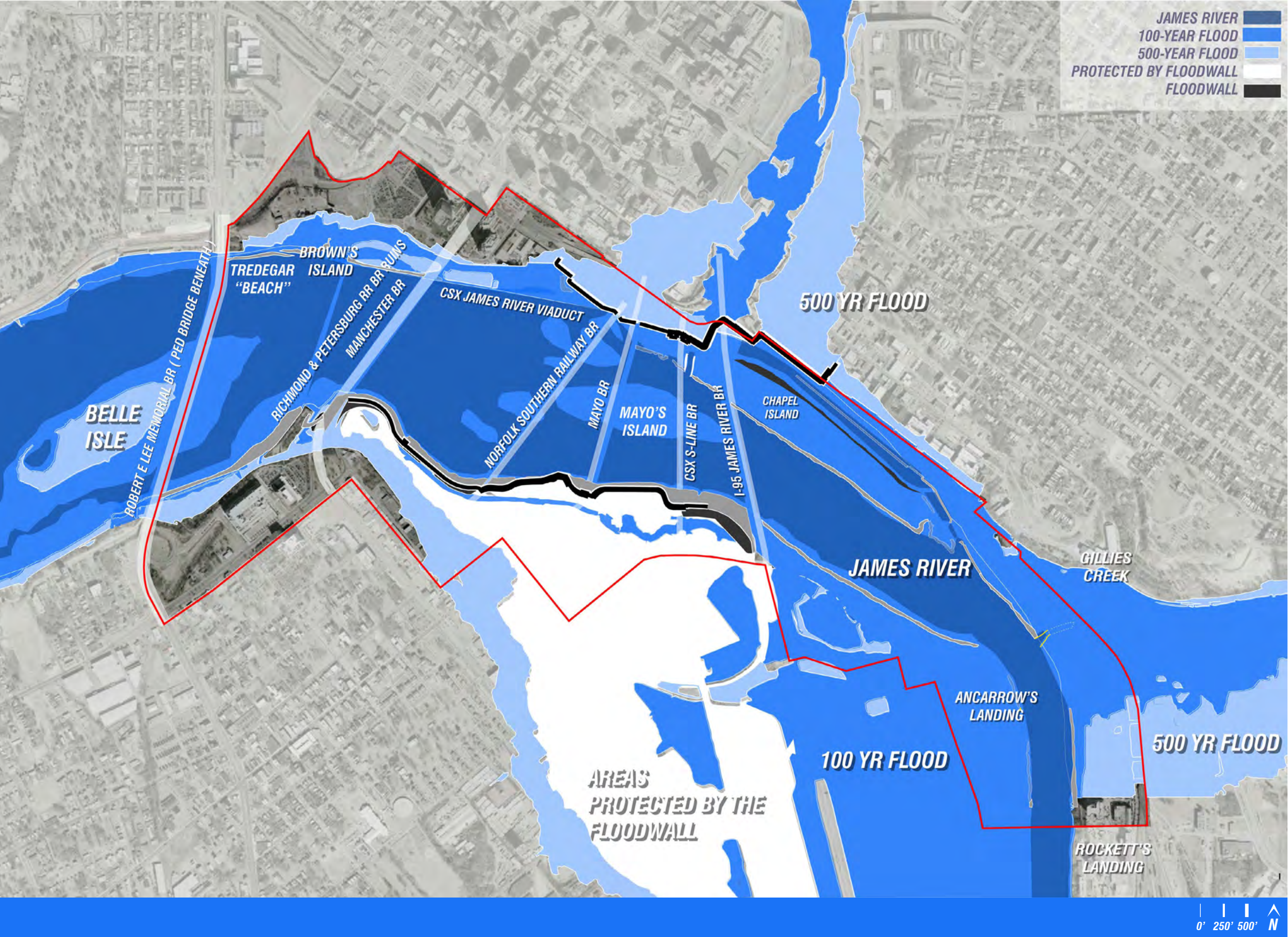


RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

FLOODPLAIN

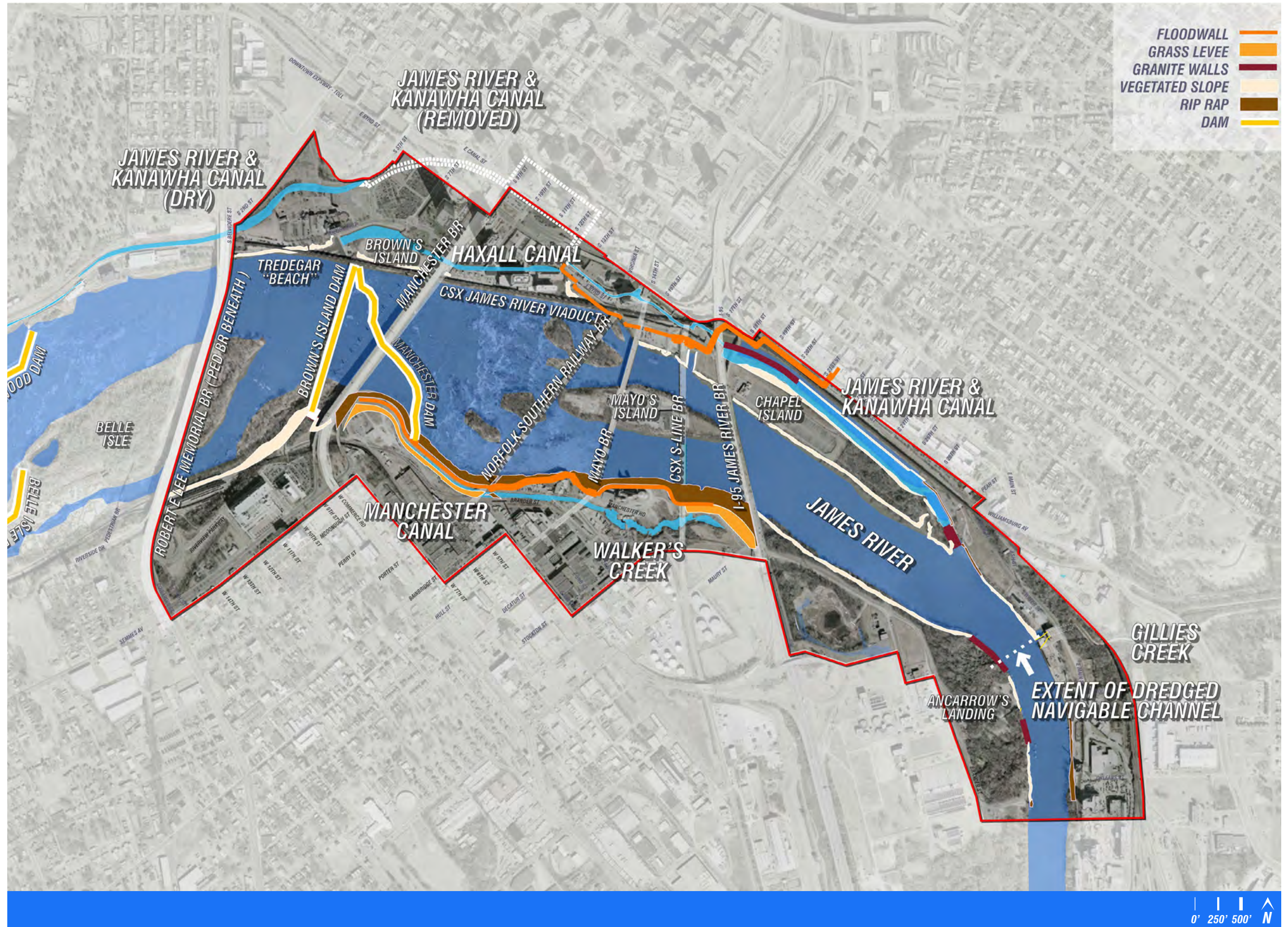
The 1990s floodwalls between the Manchester Bridge and 21st Street, on both sides of the river, were installed to protect 750 acres within Shockoe Valley and Manchester from flood events of on average 280 years. Larger flood events may impact these areas. The floodwalls, 4,500-feet long on the north bank and 2,000 feet long on the south, correspond with the length of Mayo's Island, suggesting that the destructive force of historic floods prior to the floodwalls may be intensified as floodwaters are constricted between these two walls.



FLOODPLAIN STRUCTURES

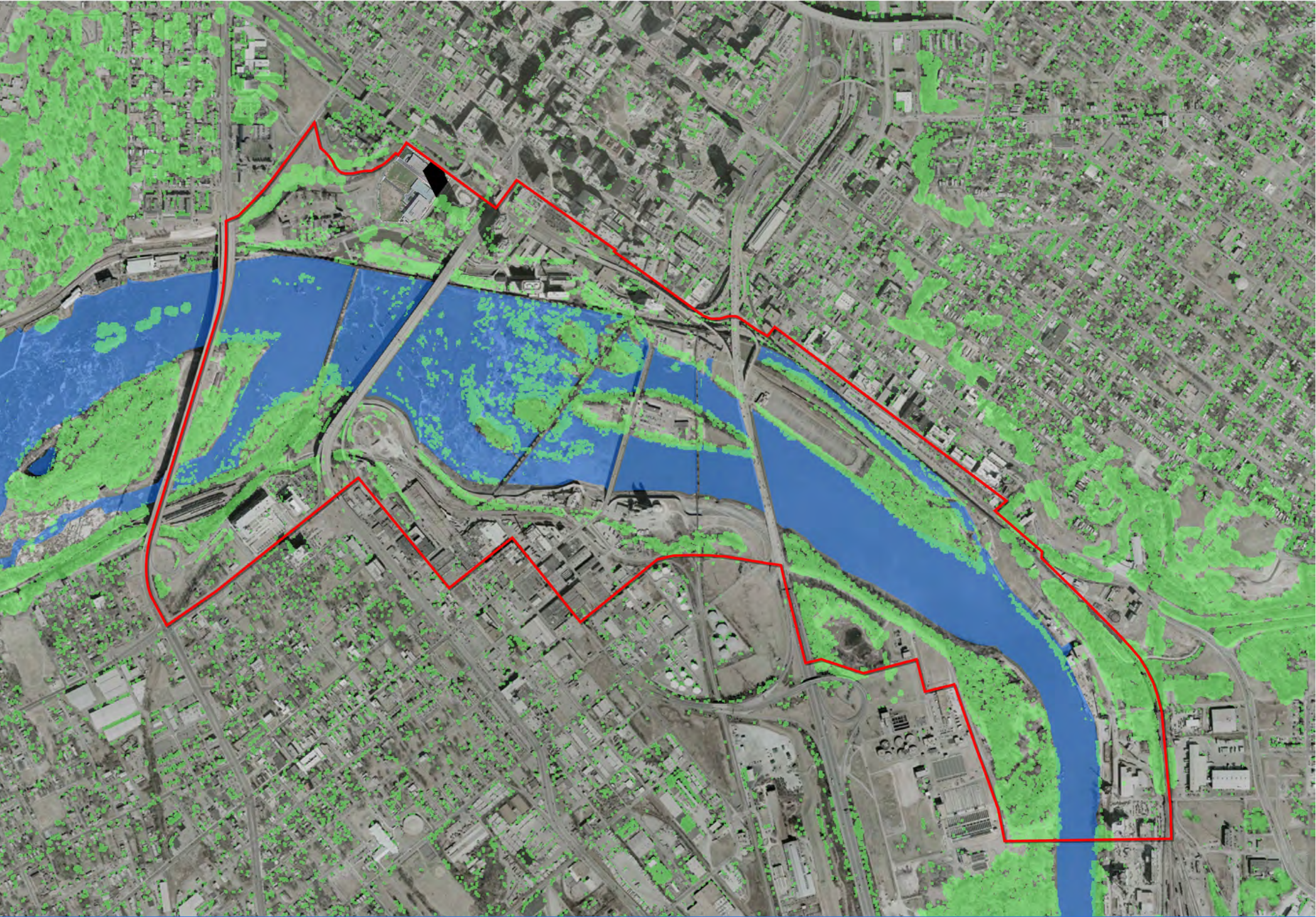
The floodwalls range from 5-feet to 30-feet in height, and are the most visible components of a larger flood protection system including a rip rap and earthen levee, overlooks, floodgates, and expansive ponding areas.

A series of dams crisscross the river diverting channel flow toward various former hydro-power structures and canals. The Haxall Canal, and the James River & Kanawha Canals are both faced with a combination of concrete and granite.



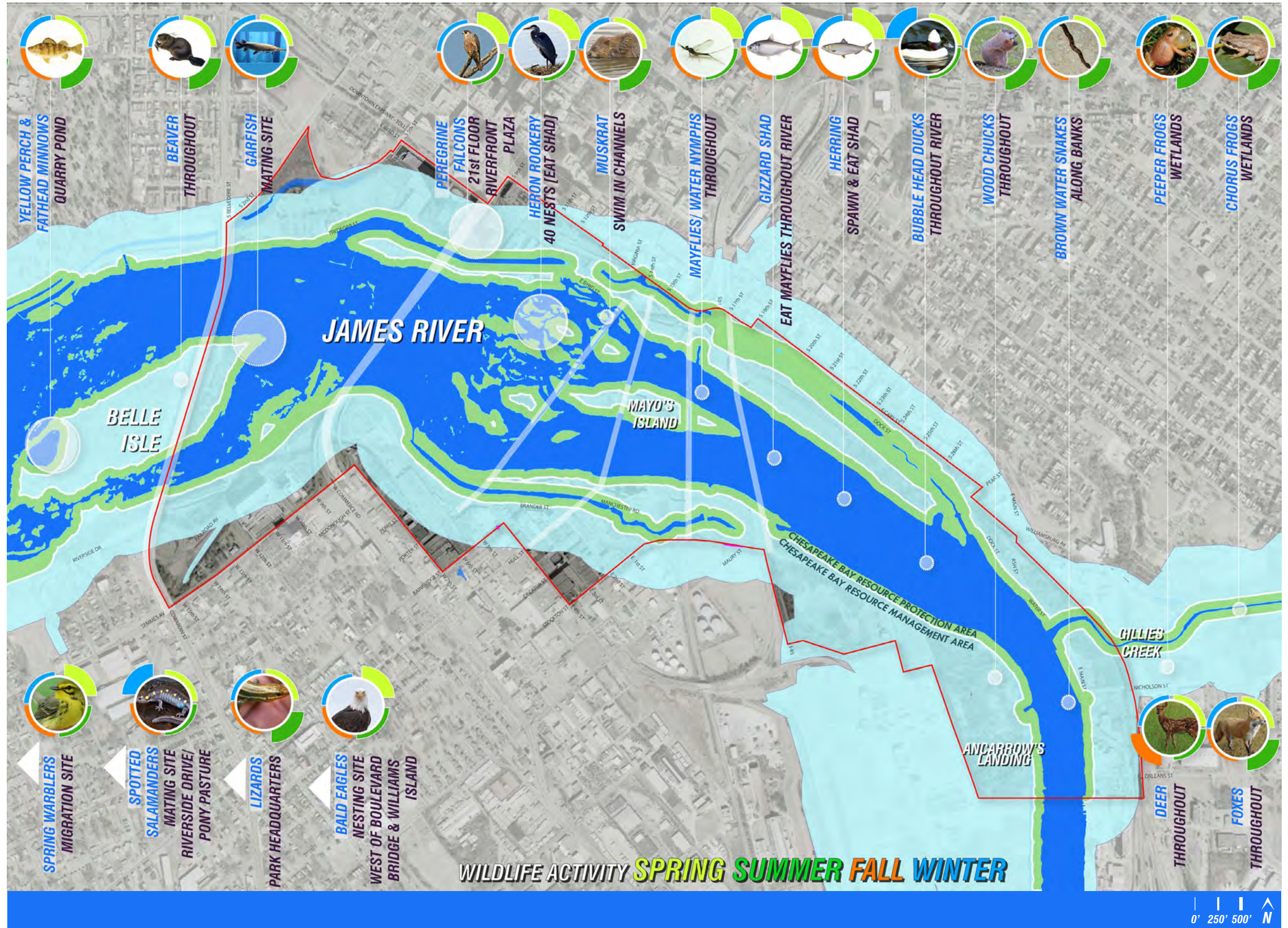
EXISTING CANOPY

Richmond enjoys one of the rare occurrences nationally of a significant river corridor perceived as being largely natural, literally steps away from downtown. The combination of steep topography, seasonal flooding, and transition of industry away from the floodplain has allowed for an incremental, self-seeding re-forestation of the Riverfront. This tree canopy is a mix of natives and invasive species contributing prominently to the visual perception of the natural wildness of the James River. The tree canopy contributes to the cooling of the City, provides much needed shade for visitors, and important habitat for a wide range of fauna.



ECOLOGY

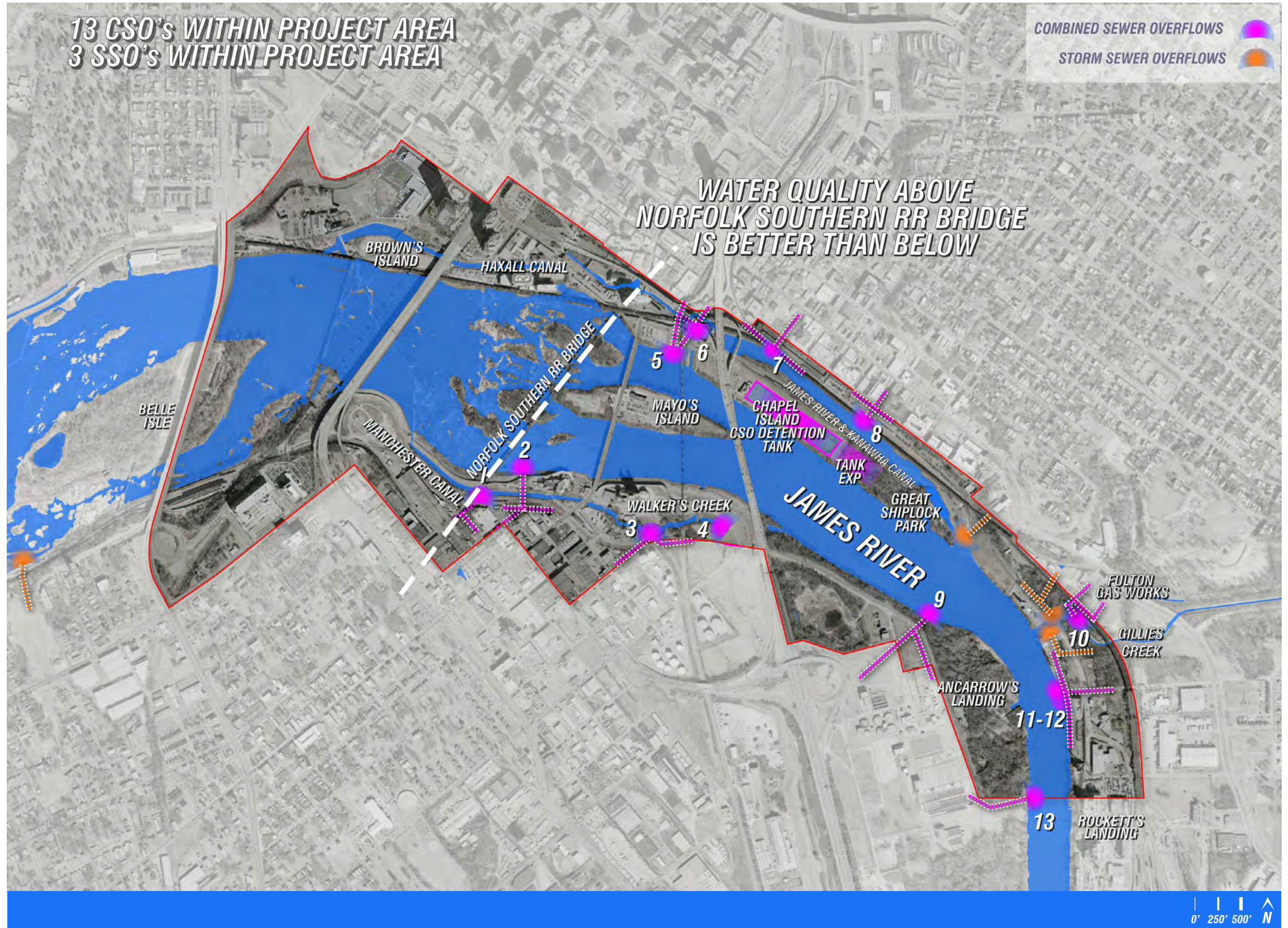
A diverse matrix of fish, amphibian, avian and mammal species make their home in the Richmond stretch of the James River corridor. While many are present all year, there are seasonal cycles, such as the spring shad run, which are visibly prominent and trigger an increase in seasonal fishing. Improvements in water quality, reduction in pervious surfaces, and expansion of the tree canopy and associated flora will further accelerate the strengthening of the interconnected habitat food web. The diagram maps individual species and records the season during which they are most noticeably active.



SEWER OVERFLOW

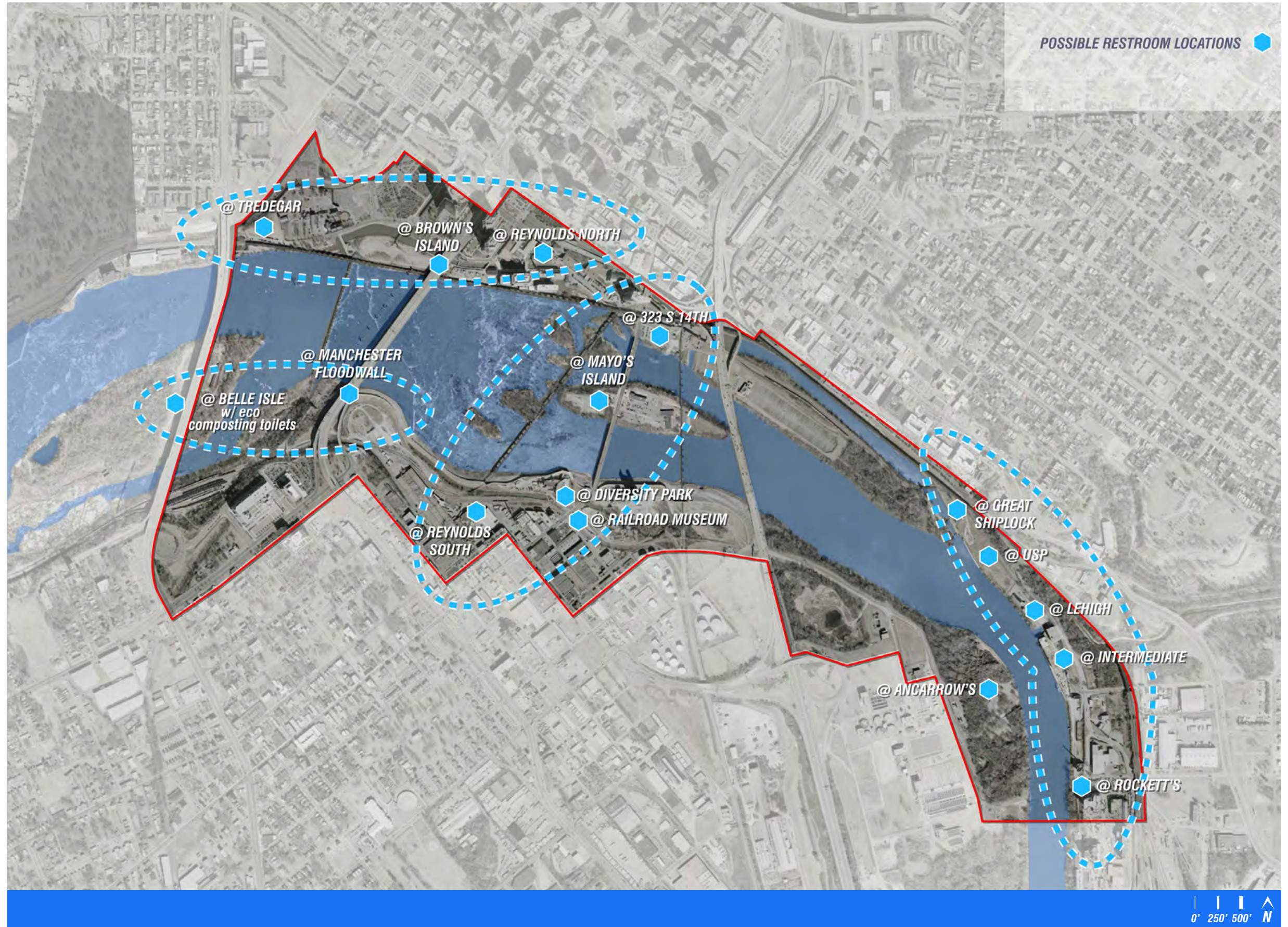
Combined Sewer Overflow (CSO) is the discharge of partially-treated sanitary sewage and storm water from a point source into a stream or river through a regulator or from retention facilities, resulting in the discharge of pollutants that sometimes, but not always, exceeds water quality standards. These overflows occur both above and below the fall line of the James River within the City of Richmond. The City operates retention basins and tunnels to store excess flow beyond what the treatment facility can process. Stored combined sewage is then released to the south bank sewage treatment facility for full tertiary treatment. When storm events exceed 2/10ths of an inch per hour partially treated sanitary sewage and stormwater are released into surface waters including creeks and the James River.

The City of Richmond continues to work toward completing a State Water Control Board schedule for compliance including a scheduled expansion of the Shockoe Retention Basin on Chapel Island. Gillies Creek is impaired for e coli bacteria and the City plans additional combined sewer improvements beyond those installed in the 2000s completing infrastructure improvement projects in 2017 pending completion of the water quality standards coordination process with the Department of Environmental Quality and securing funding within the affordability cap in the State Water Control Board Special Order by Consent (2005). Public utilities projects in the City's approved Combined Sewer Overflow Long Term Control Plan (2002) are anticipated to continue the water quality improvement of the James River.



RESTROOMS

The absence of adequate restrooms along the James River is a deterrent to family and public use of the Riverfront. Operationally, public restrooms are costly to maintain and are often magnets for illegal activities. Permanent facilities in a floodplain are expensive and risk catastrophic inundation and damage. The reality is that removable, rental portable toilets are often the most cost effective, least desirable, though often necessary. Several private developers have responded positively to the concept of incorporating publicly-accessible restrooms into their developments, taking on the responsibility of maintenance and security. A single, permanent restroom facility in each of the four designated elliptical zones would be desirable, with portable toilets maintained there until that reality occurs.

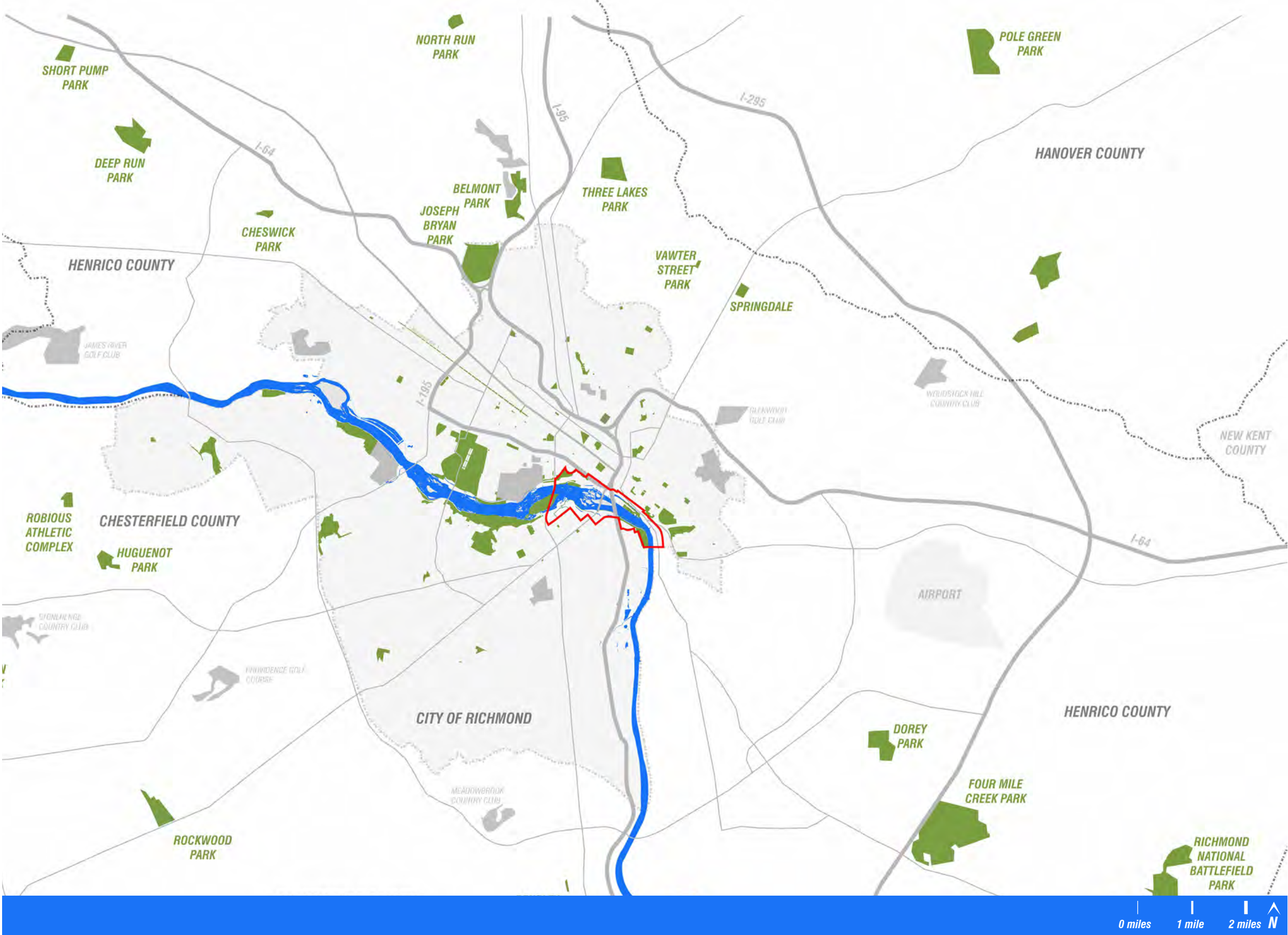


RICHMOND RIVERFRONT PLAN

REGIONAL PARKS

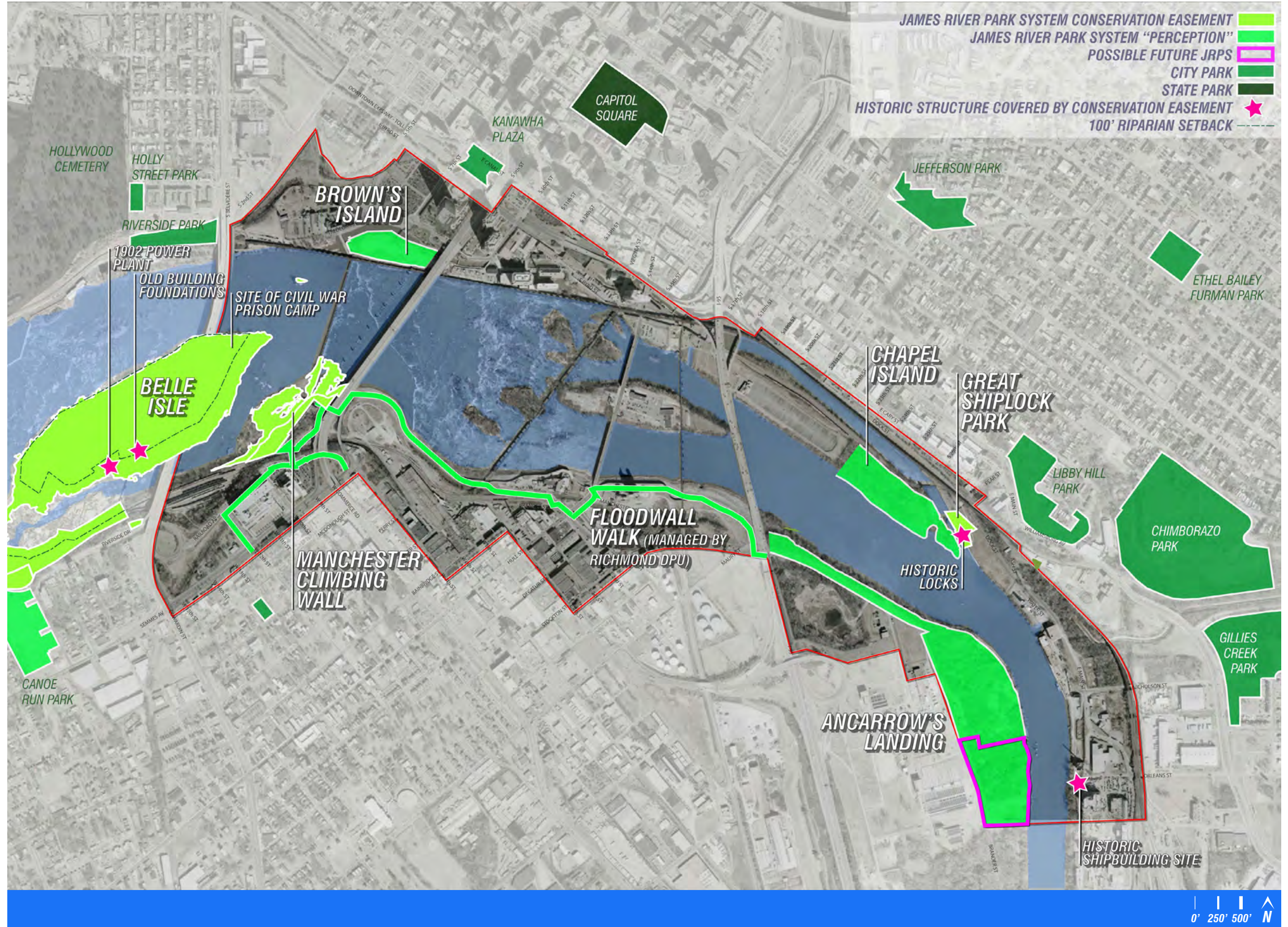
DRAFT 4 SEPTEMBER 2012

The 280-acre James River Park System, managed by the Department of Parks, Recreation and Community Facilities, is one component of a larger constellation of park properties with a variety of owners, distributed across the greater Richmond area.



RICHMOND PARKS

The James River Park System Conservation Easement applies to select parks, while other City parks are not included. For instance, there is the misperception that Brown's Island, Chapel Island and Ancarrow's Landing are part of the system, though they are not subject to the same restrictions. Venture Richmond manages Brown's Island, while Ancarrow's Landing is managed as a municipal park. The Department of Public Utilities manages Chapel Island and floodwall property. Analysis shows that future infrastructure improvements, both public and private, need to allow for public pedestrian passage to and along the river.

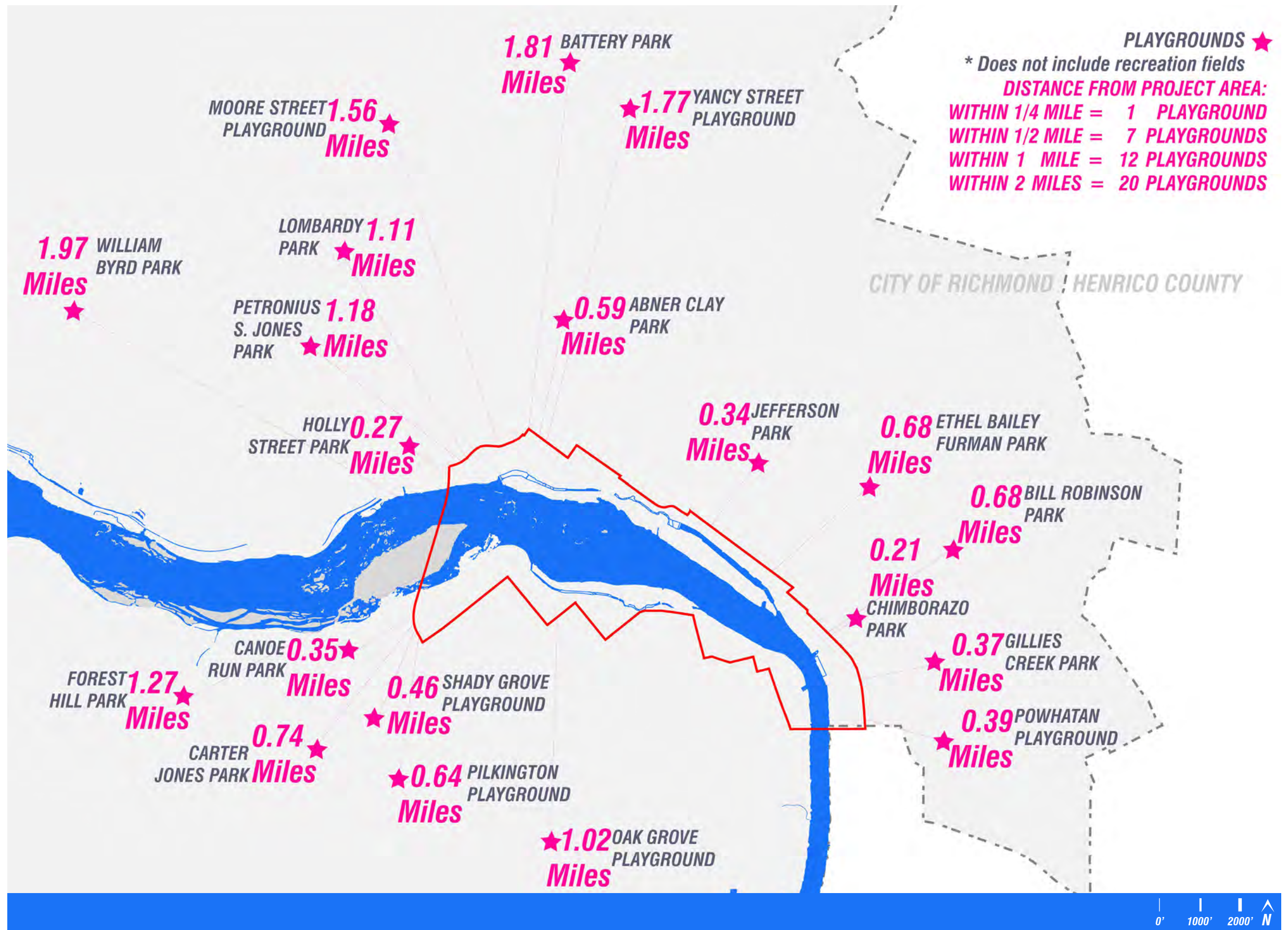


RICHMOND RIVERFRONT PLAN

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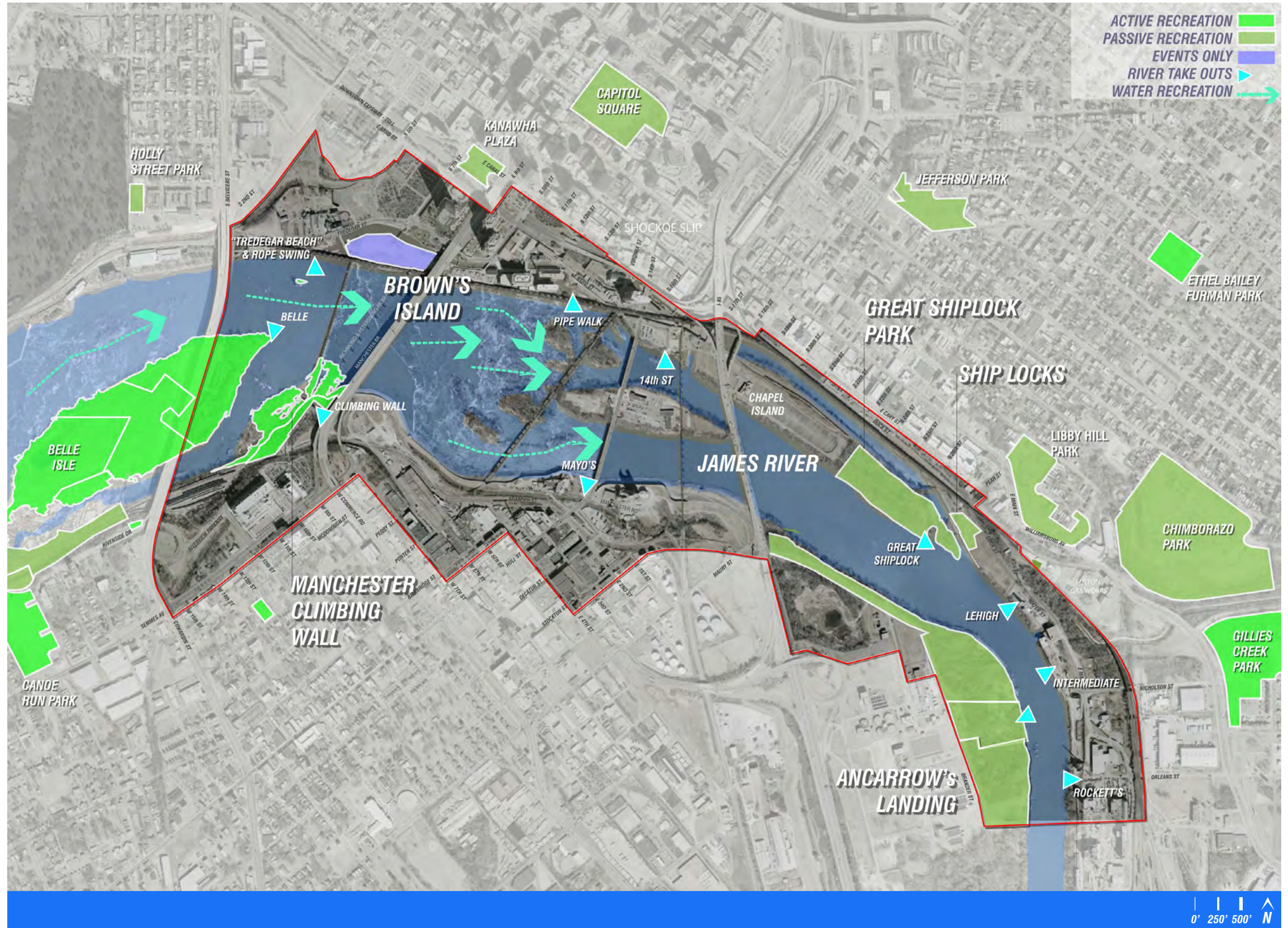
RICHMOND PLAYGROUNDS

With at least 20 playgrounds within 2-miles of the Riverfront, none are closer than a quarter mile to the study area. This is a salient discovery in that virtually all cities include at least one playground to attract families and children to participate in downtown activity, if only as an opportunity to burn off excess youthful energy. The Richmond Riverfront will need to provide a more diversified range of amenities to attract families. Playgrounds are one such amenity that can provide a safe, attractive and age-appropriate destination for families to spend time at along the Riverfront, broadening their exposure to the James River and setting in motion a life-long "River City" experience.



ACTIVE / PASSIVE RECREATION

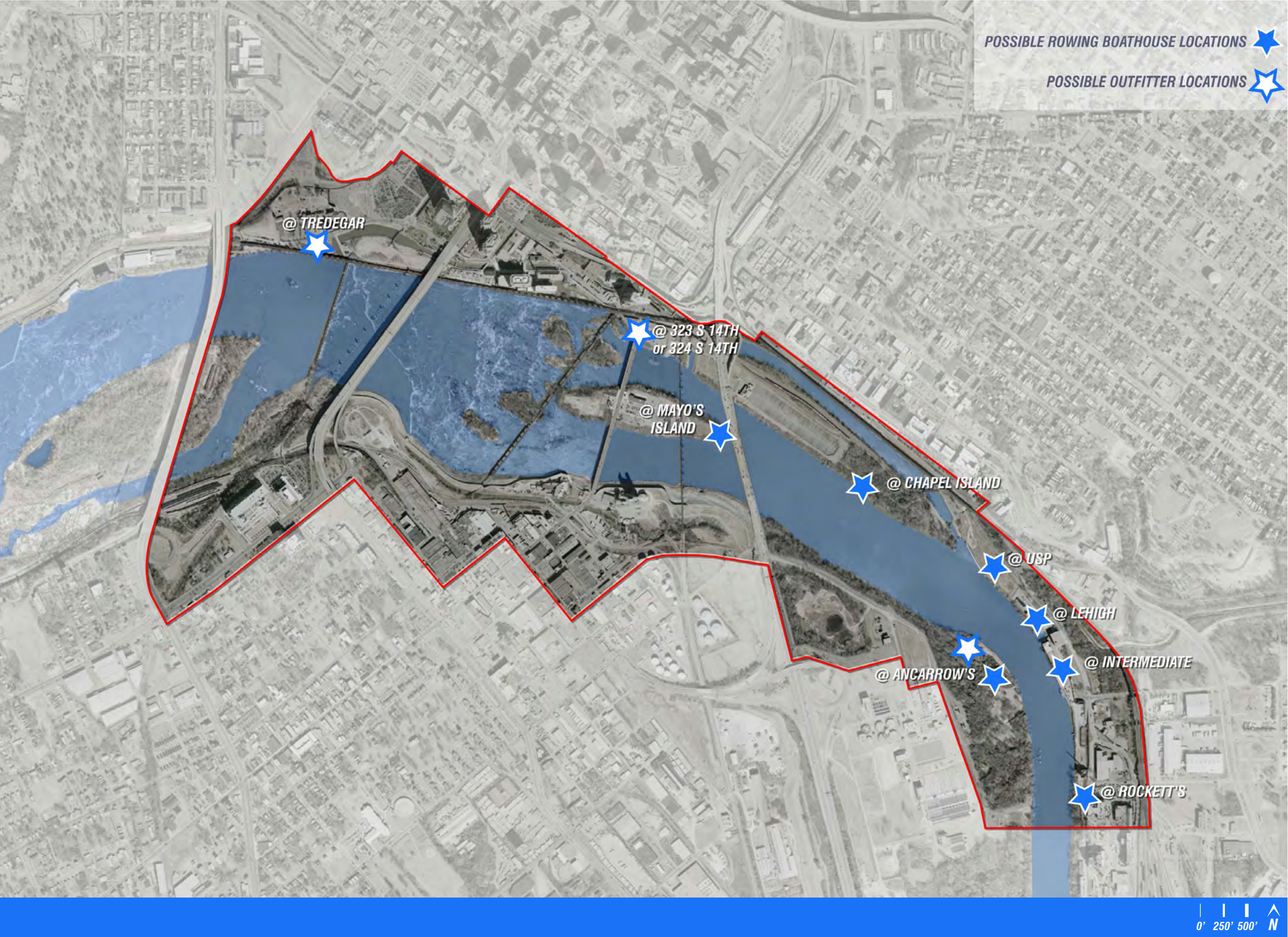
The majority of parks within the study area appear passive while the majority of recreational activity is directional, focused on movement along trails, through rapids, or climbing surfaces. These passages of concentrated movement channel through larger passive properties, blurring the distinction between passive and active parks along the Richmond Riverfront. Primary river recreation occurs through the rapids, while flat water activity occurs below the rapids, with each requiring different launch and takeout accommodations. Fishing is typically concentrated downriver of Mayo's Island, with recreational and sport fishing boating launched from Ancarrow's Landing. Brown's Island, generally a passive space, is also the primary event space capable of hosting thousands.



RICHMOND RIVERFRONT PLAN

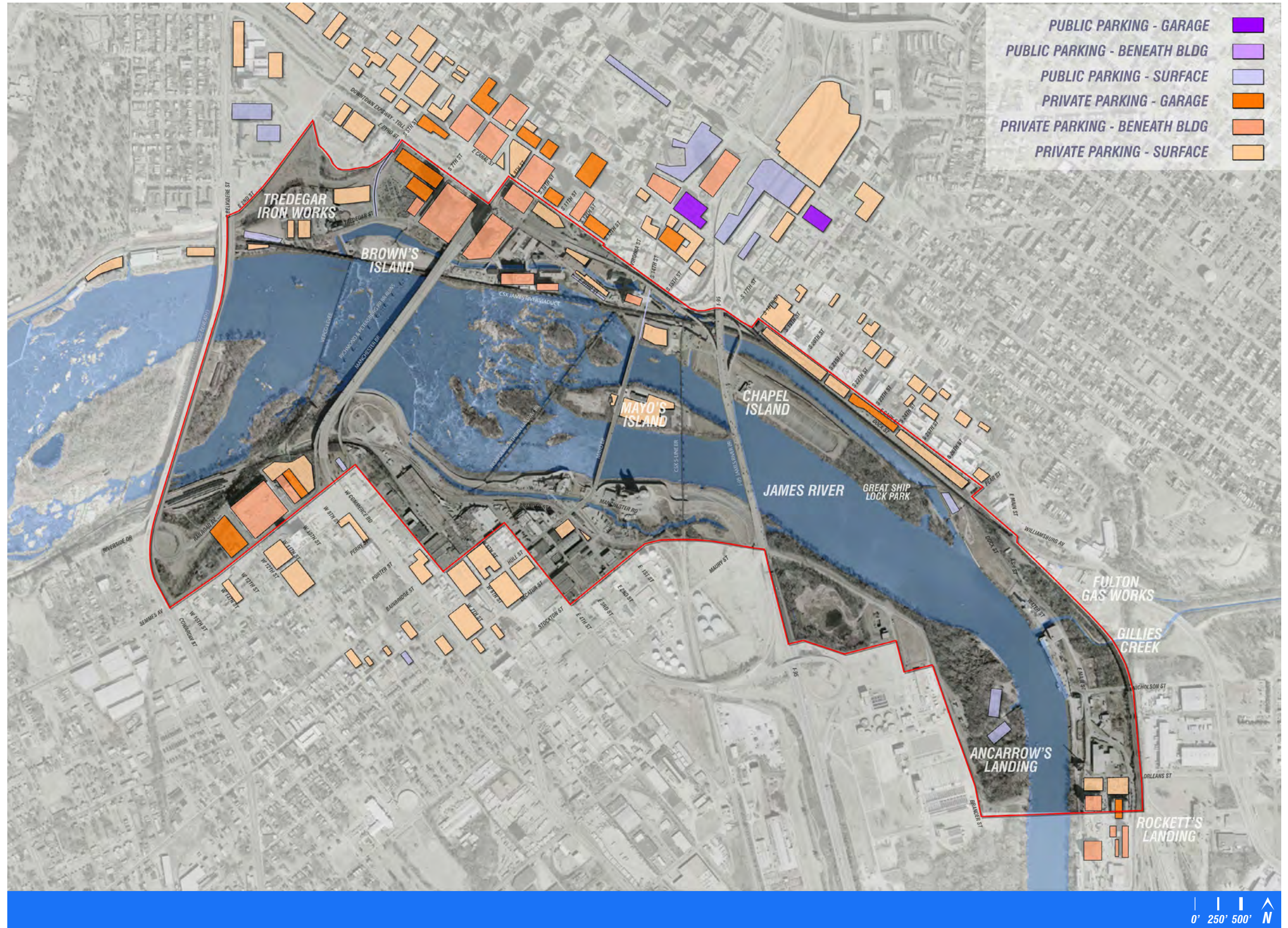
BOATHOUSES

The Virginia Boat Club (VBC) boathouse historically occupied a prime location on Mayo's Island, though was swept away in the catastrophic 1972 flood. The VBC currently share space with other clubs, jointly occupying a space within Rocketts Landing. Anticipating that these groups will eventually outgrow this venue, alternate sites for a new shared space gravitate toward the curve of the river, between Rocketts Landing and Chapel Island. Ample vehicular access, parking, affordable rent, and adequate personal safety are among key requirements for a successful new site. Flat water access is mandatory, with the downriver tip of Mayo's Island the farthest upstream possible site. A single, future boathouse would ideally be positioned along the arc of the river between Great Shiplock and Rocketts Landing.



PARKING

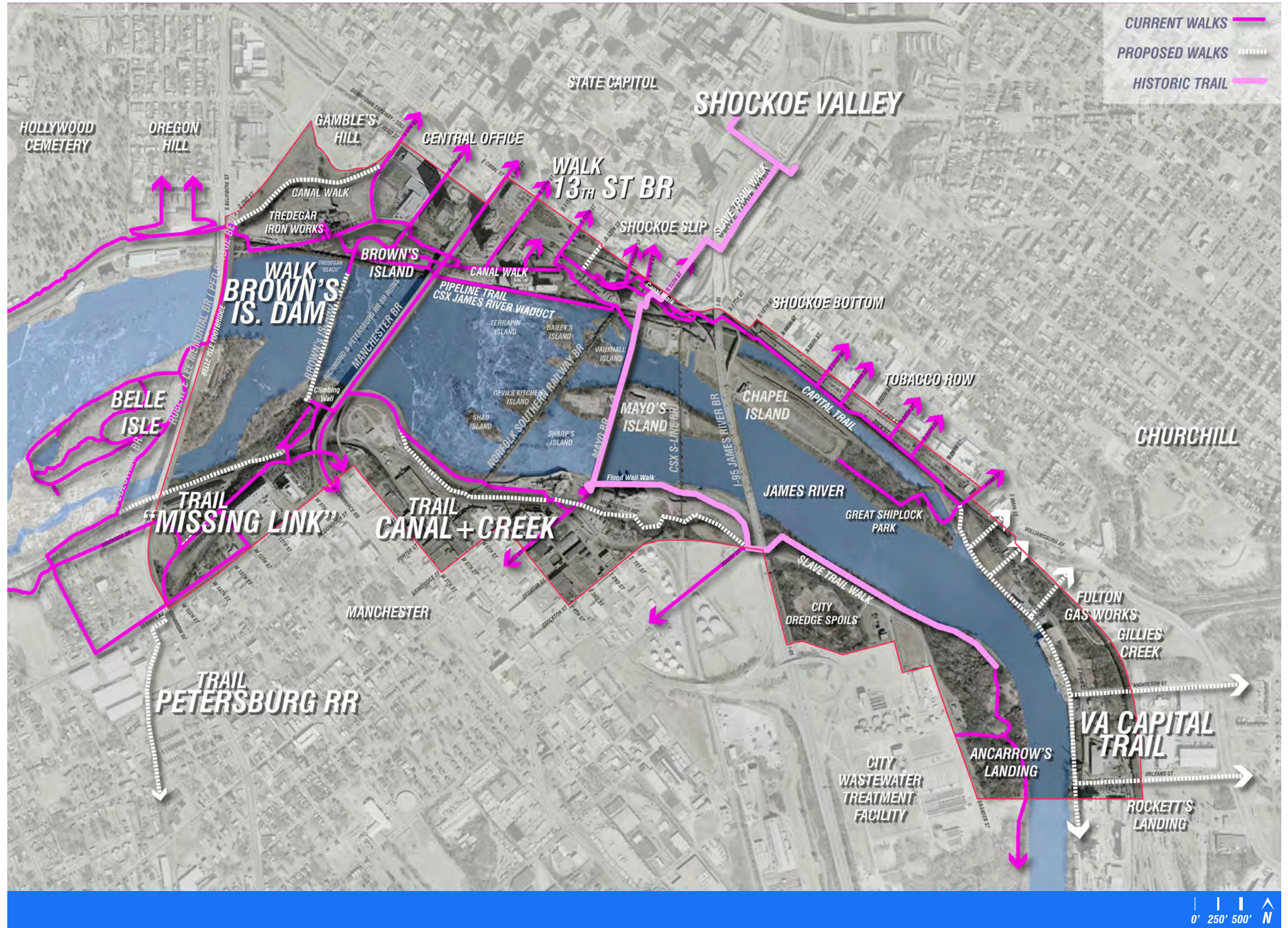
Downtown Richmond has abundant parking options, ranging from surface lots to structured parking garages. The primary public complaint is that there is not enough affordable parking in close proximity to the James River. The average response to this observation is that additional parking should not be built at the expense of existing public open space, or in place of potential public realm improvements. The absence of a downtown-wide parking authority works against a coordinated strategy for making sure privately-operated lots and garages are reasonably accessible for Riverfront access. Peak hour, on-street parking restrictions on downtown arterial streets works against encouraging residents, workers, and visitors to remain downtown after 5pm, and merits additional study for adjustment.



PEDESTRIAN CONNECTIONS

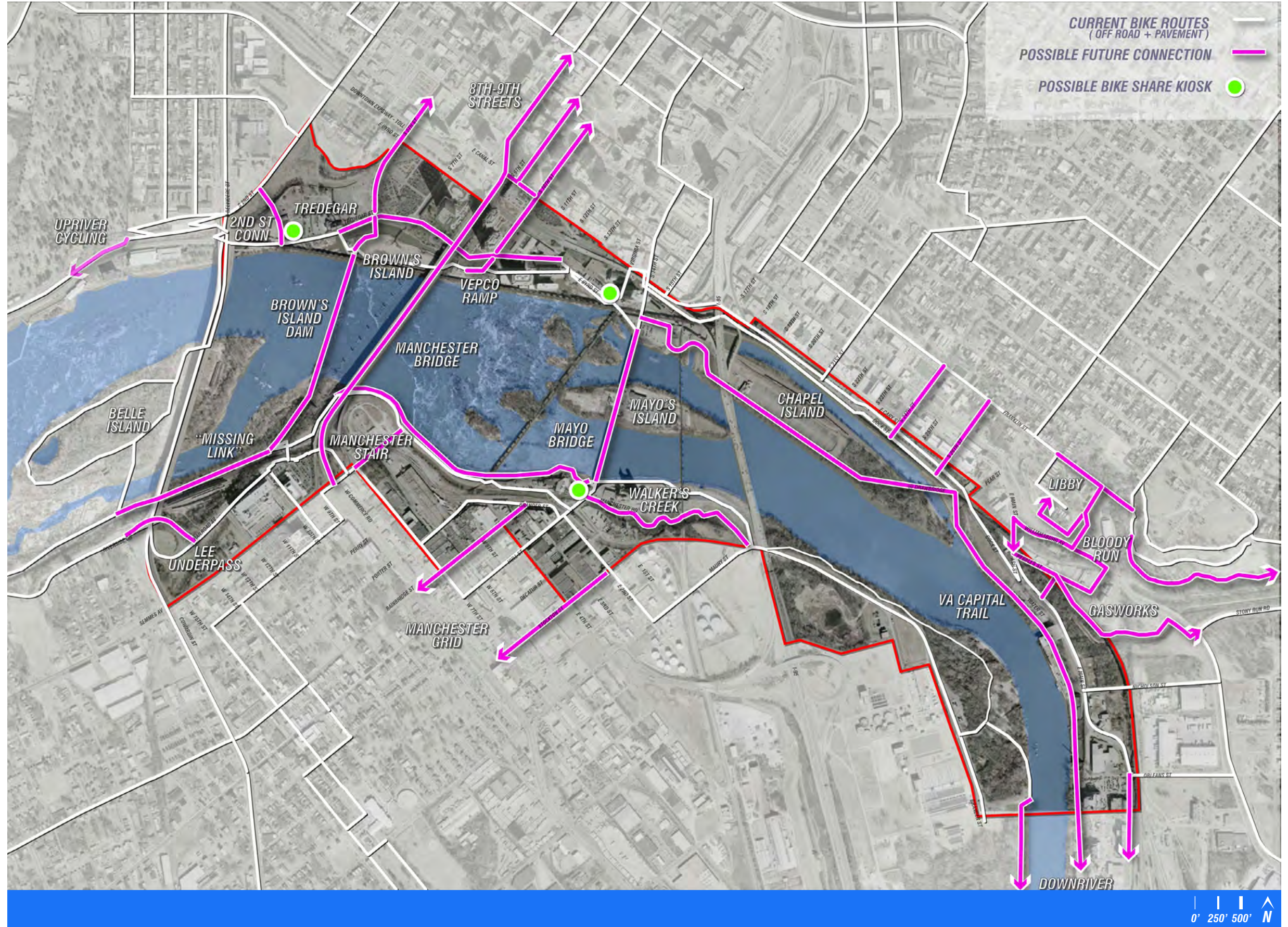
Despite sizable obstacles to accessing the Riverfront, there are a remarkable number of routes to and along the river, including connections to neighborhoods, to regional and national trails, and marked narrative trails.

Strategic links, loops, routes and connections for improvement were identified, as well as the need for a cohesive, consolidation of wayfinding signage.



BIKE CONNECTIONS

Current designated bike routes across the river total exactly one: the Belle Isle Pedestrian Bridge. Four possible additional routes include: rehabilitation of the Brown's Island Dam; Conversion of the Manchester Bridge stair to a universally-accessible route; sharrows (shared lane markings) or dedicated bike lanes on Mayo Bridge; and a new suspension bridge retrofitted beneath the I-95 Bridge. These cross river connections, along with a long list of additional street grid bike lane improvements would reinforce the accessibility and attraction of bike traffic throughout Richmond.

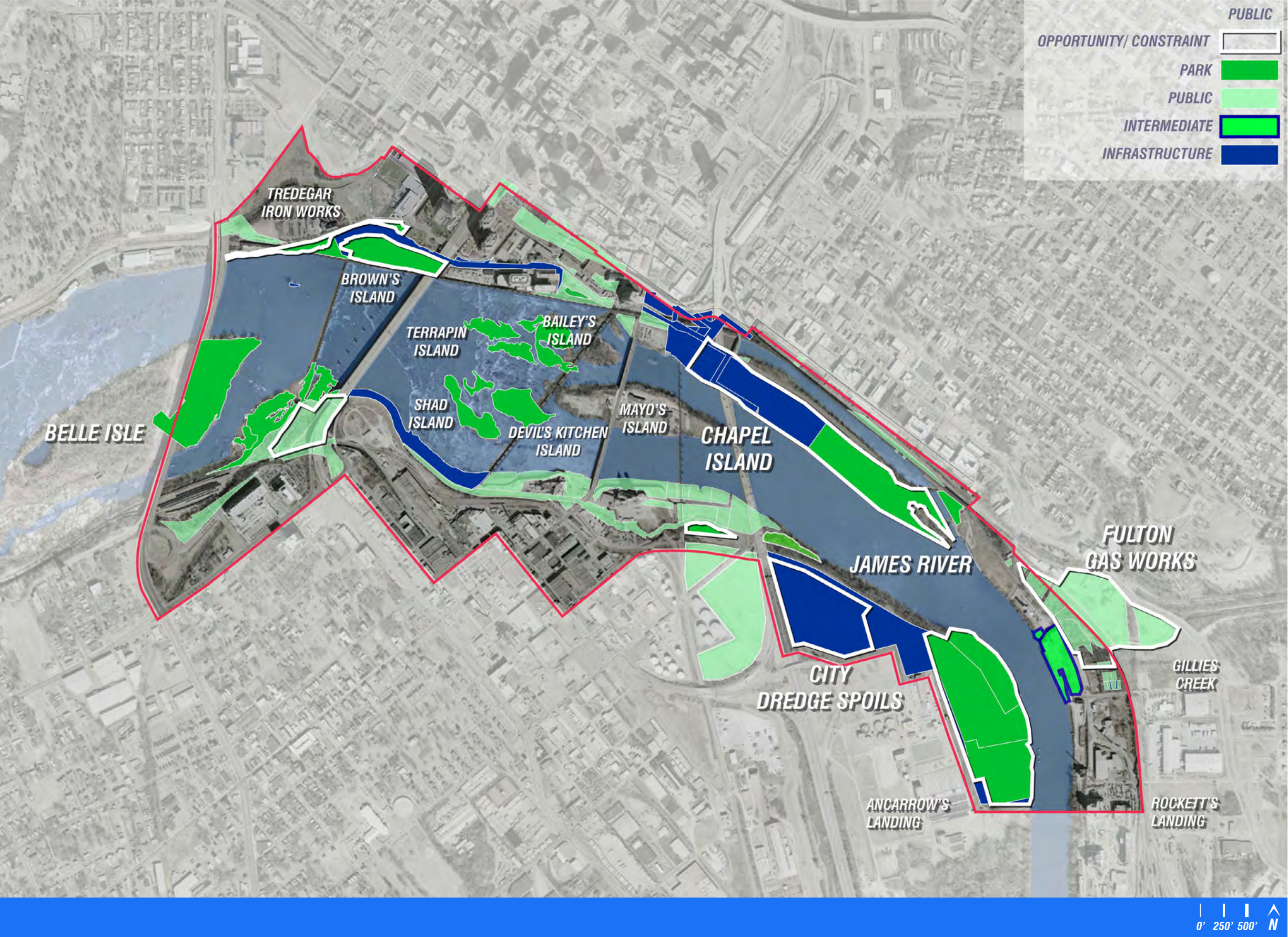


RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

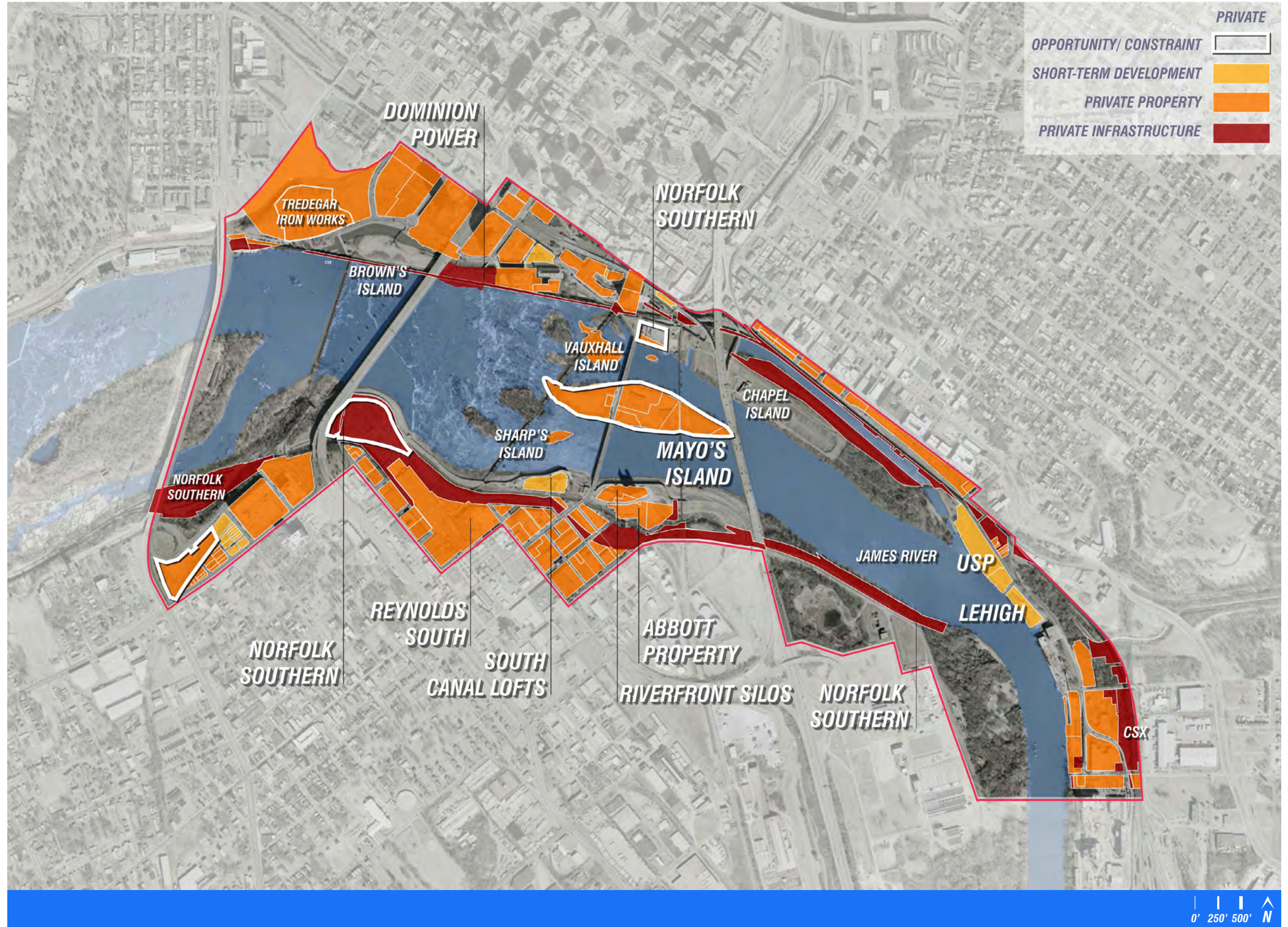
PUBLIC PROPERTY

The City of Richmond owns a large portion of the Riverfront, either as park or public infrastructure properties. Some of these properties are densely wooded, while others are underutilized post-industrial landscapes, and others dedicated to flood control structures. The Commonwealth of Virginia owns the majority of the James River, and associated rapids and riparian corridor subject to seasonal exposure. Select properties may be repurposed, adapted for dual use, or sold for redevelopment.



PRIVATE PROPERTY

Private property ownership within the Riverfront ranges from small parcels to large consolidated groups of parcels, some with obvious development potential while others face significant, infrastructure and flood constraints to any feasible market-driven development potential. Notably, Norfolk Southern and CSX railroads hold a number of linear and satellite parcels with varying degrees of railroad activity currently taking place. Limited public access along or across remains an objective.



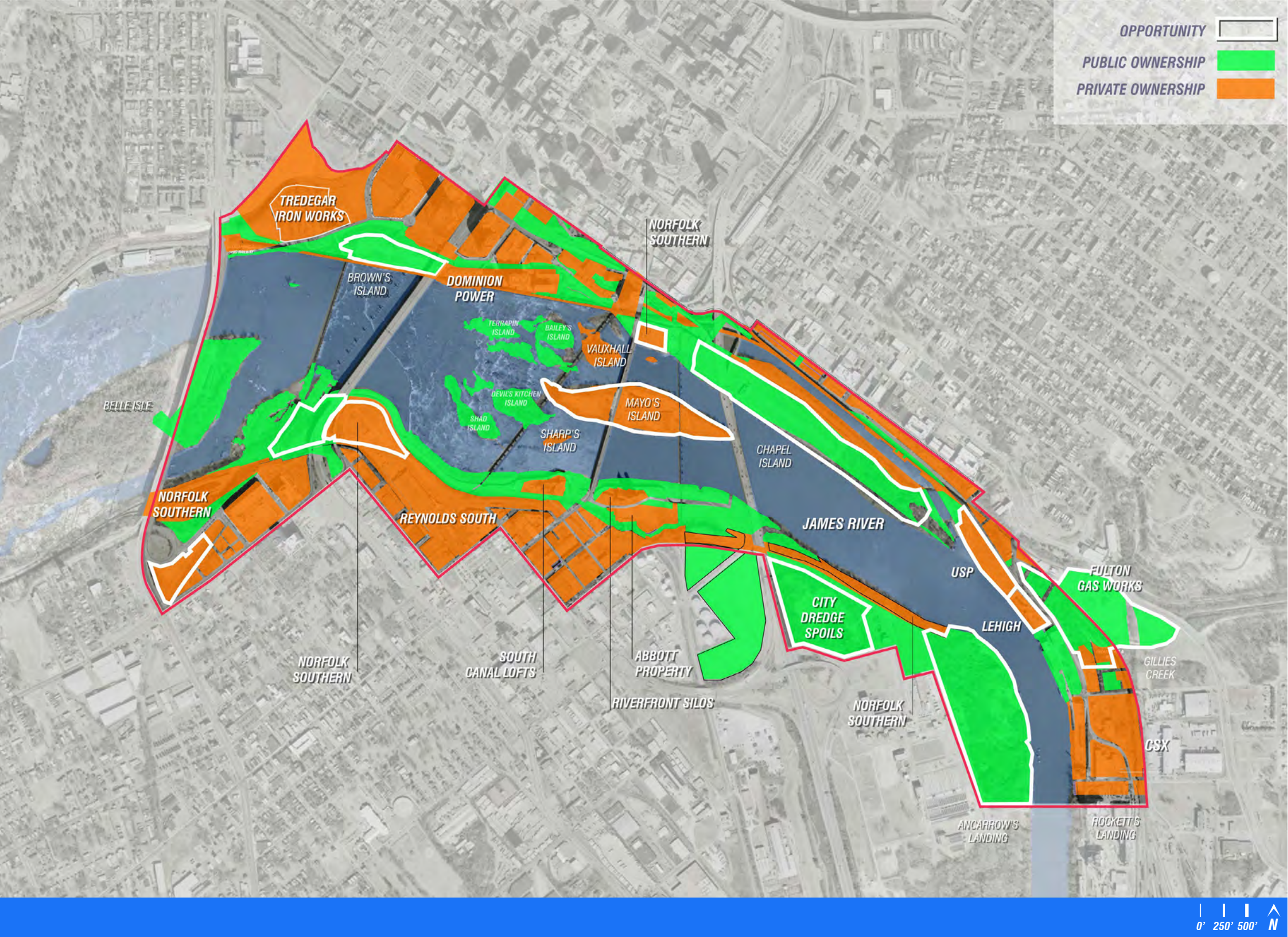
RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

PUBLIC + PRIVATE PROPERTY

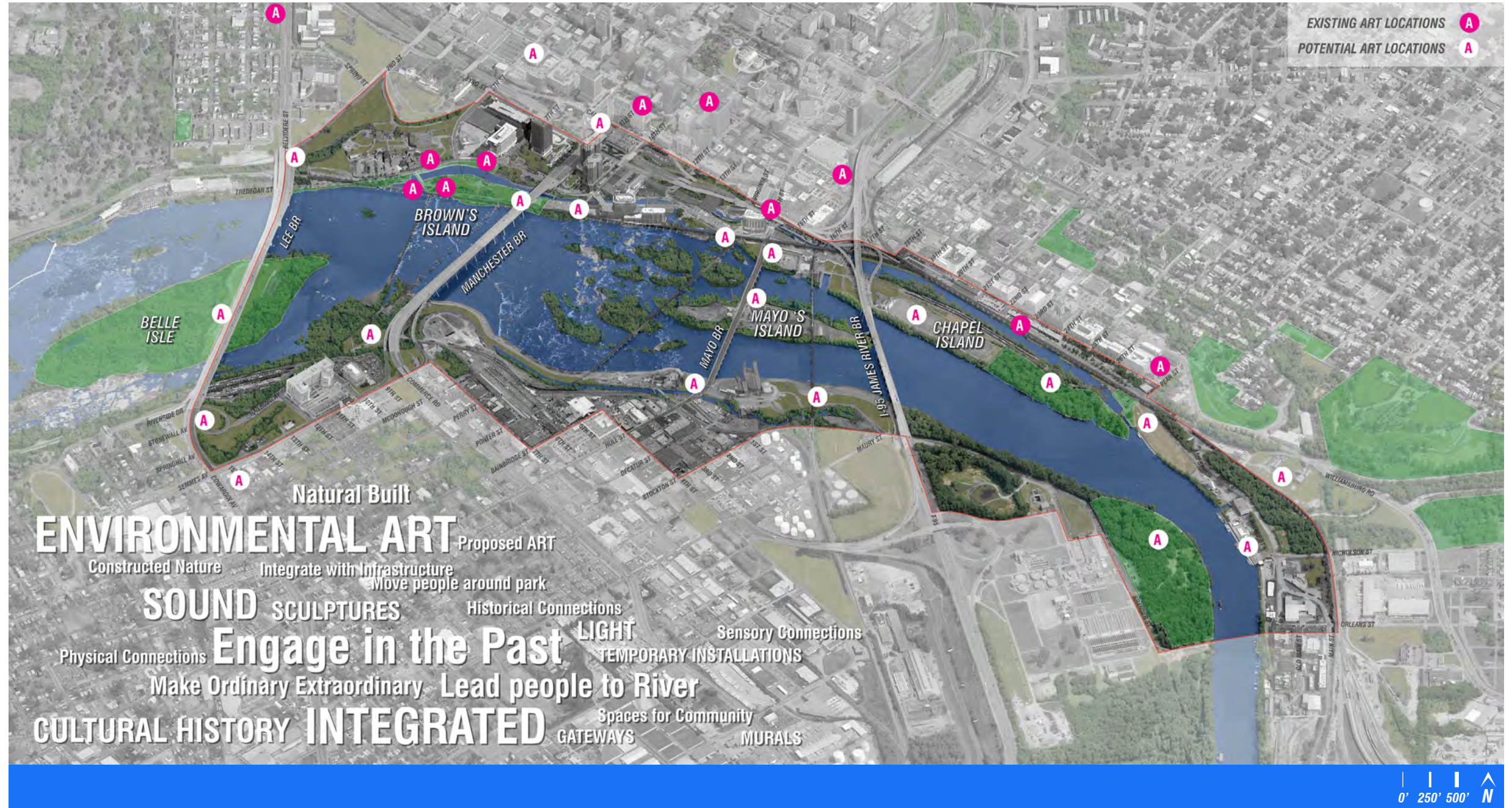
The analysis of current use, constraints and opportunities identifies a broad distribution of parcels across the Riverfront that could potentially be repurposed for public realm improvements.

Other parcels that would otherwise be pivotal parcels for public realm improvements are tied-up in infrastructure and unlikely to be adapted to public use or redevelopment.



PUBLIC ART

A diversity of public art installations occur throughout downtown and surrounding neighborhoods, though are surprisingly absent from the Riverfront, except at or adjacent to Brown's Island. Richmond has a vibrant arts community encompassing a broad range of organizations, which coordinate temporal, transitory, and permanent installations. Opinions necessarily vary about whether future art installations in the Riverfront should speak directly to the river history, ecology, and phenomenology, or more broadly embrace cultural and conceptual objectives not readily related to the James River. Wider-spread consensus is that Riverfront art should actively engage Richmond's substantial industrial infrastructure, encouraging visitors to interact with the installations.

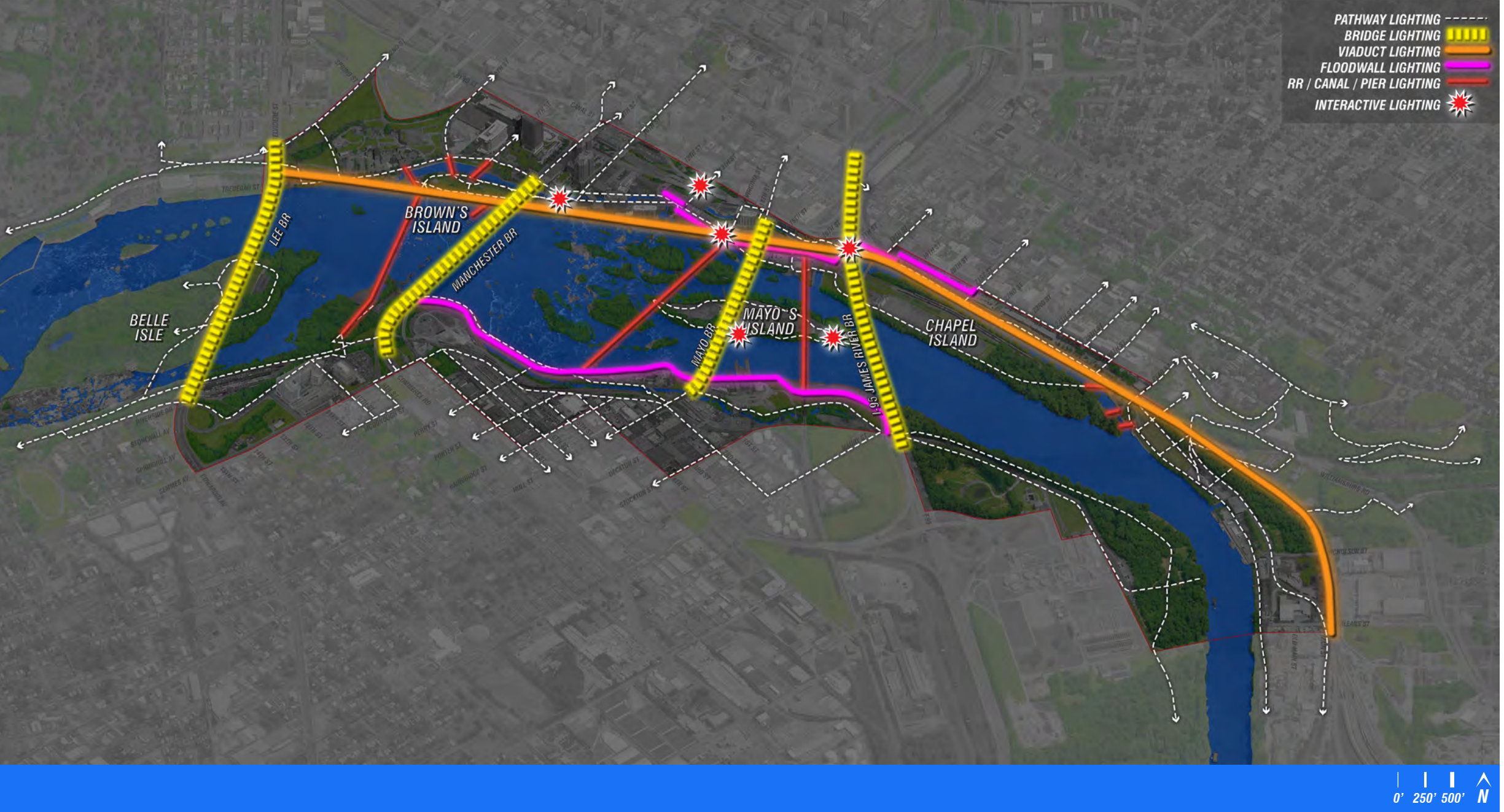


RICHMOND RIVERFRONT PLAN

LIGHTING

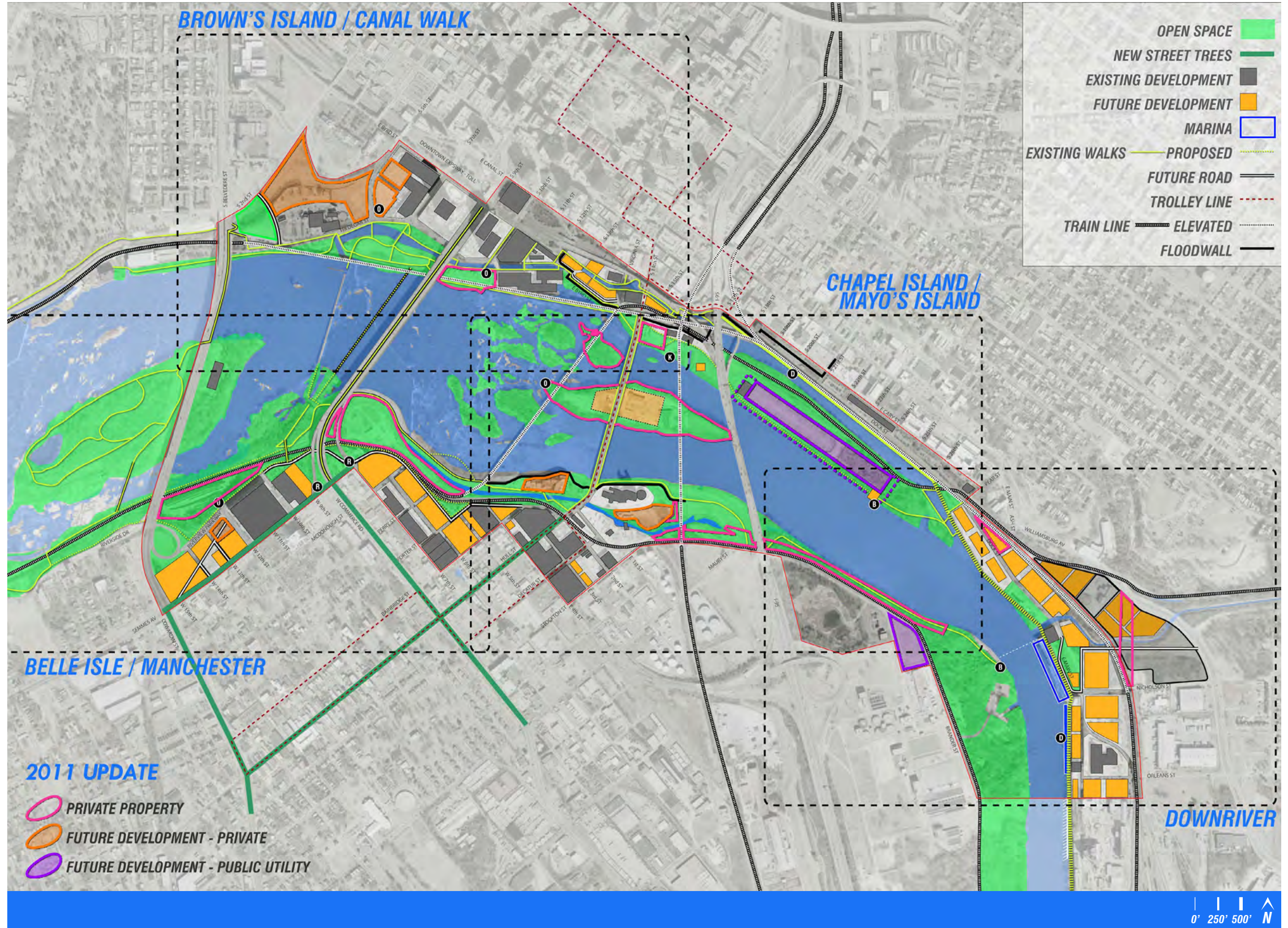
DRAFT 4 SEPTEMBER 2012

Great opportunity existis for expanding public lighting on the Riverfront. Basic pedestrian lighting should be provided for all connections, so that the Riverfront is accessible and safe. In addition, artistic lighting installations are a great way to integrate public art with a utilitarian urban need. Lighting installations would enliven the vehicular and railroad bridges that cross the river, the CSX railroad viaduct along the Riverfront, as well as the floodwall on both sides of the James. Interactive lighting installations would also enhance the Riverfront experience after dark, particularly along the Canal Walk, where restaurants and cafes offer evening destinations. The Riverfront should be a dynamic landscape corridor in all seasons and at all times of day.



2009 DOWNTOWN MASTER PLAN

The Richmond Riverfront Plan was conceived to build upon the 2009 Downtown Plan by Dover Kohl, bringing greater focus and thinking to further integrating the Riverfront as a common destination rather than barrier.

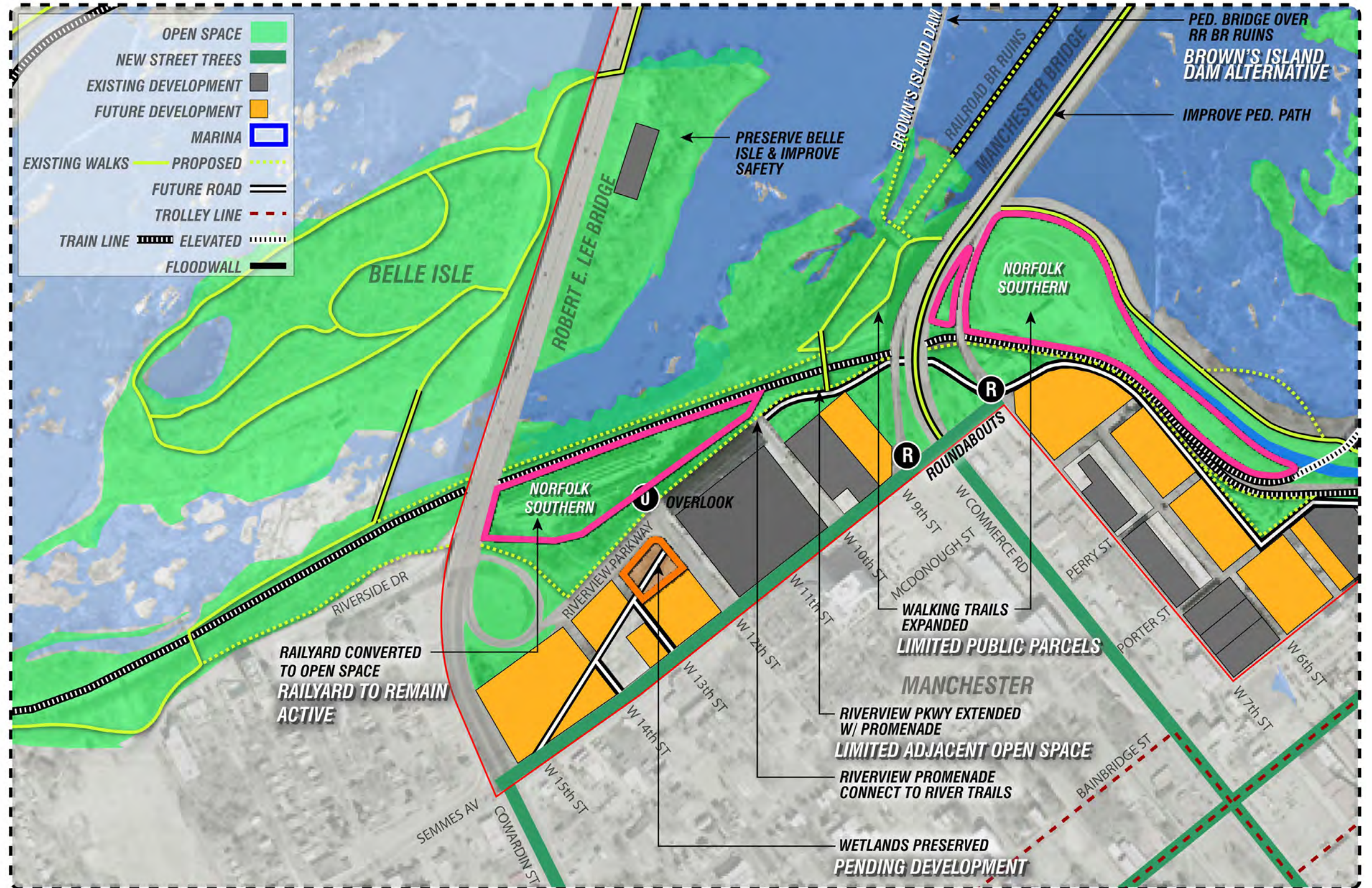


RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

2009 DOWNTOWN MASTER PLAN BELLE ISLE / MANCHESTER

The primary distinction between the 2009 Downtown Plan and the Riverfront Plan in this area is to adapt the Brown's River Dam as a pedestrian walk, rather than the less intact Richmond & Petersburg Railroad Bridge.



- 2011 UPDATE**
- PRIVATE PROPERTY
 - PENDING DEVELOPMENT - PRIVATE
 - PENDING DEVELOPMENT - PUBLIC UTILITY

BELLE ISLE / MANCHESTER BRIDGE

**2009 DOWNTOWN MASTER PLAN
BROWN'S ISLAND / CANAL WALK**

The main distinction between the 2009 Downtown Plan and the Riverfront Plan in this area is the anticipated construction of the 2nd Street Connector immediately upriver of the Tredegar Iron Works, and the anticipated conversion of NewMarket property to public landscape at Tredegar Green. Other notable differences include the re-envisioning of Brown's Island to be more urban and therefore more a part of the daily participation in Richmond City life. This recognizes the recent opening of the new pedestrian bridge to the island, and anticipates greater access down to the river, but acknowledges that the elimination of the Dominion substation at 10th Street is unlikely. On the south bank, the 2012 Plan recognizes the long-term reality of the floodwall, and the opportunity to replace the rip rap with engineered flood control terraces accessible to people.



2011 UPDATE

- PRIVATE PROPERTY
- PENDING DEVELOPMENT - PRIVATE
- PENDING DEVELOPMENT - PUBLIC UTILITY

BROWN'S ISLAND

RICHMOND RIVERFRONT PLAN

DRAFT 4 SEPTEMBER 2012

2009 DOWNTOWN MASTER PLAN CHAPEL ISLAND / MAYO'S ISLAND

The fundamental distinction between the 2009 Downtown Plan and the Riverfront Plan in this area is the 2012 Plan advocacy to acquire Mayo's Island for public open space. The Federal Paper Board Co. at the Manchester Floodwall is in the process of being adapted for residential reuse, and therefore is unlikely to be repurposed for public open space.



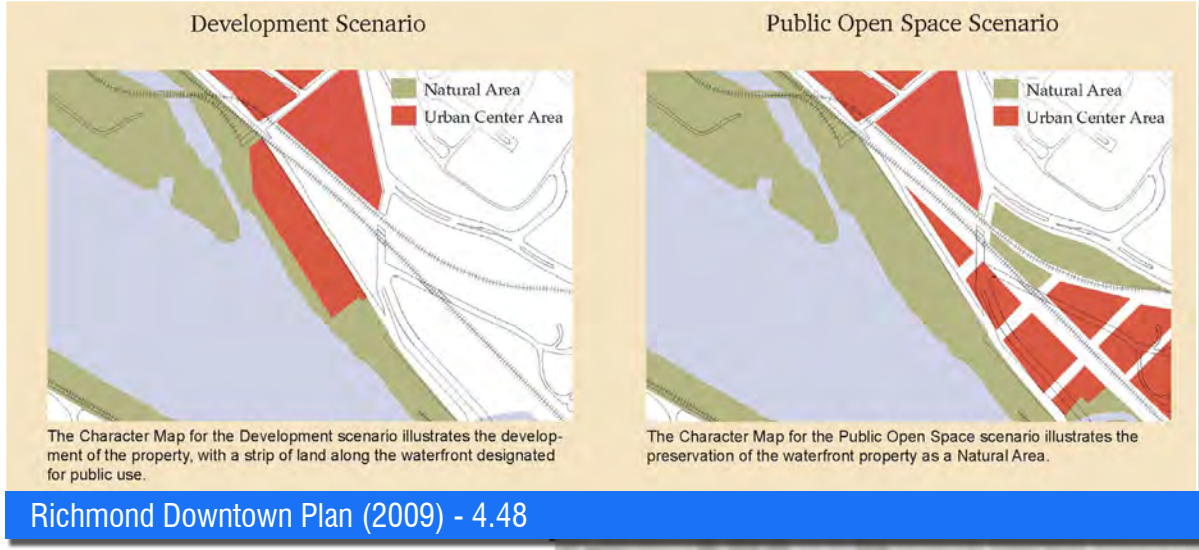
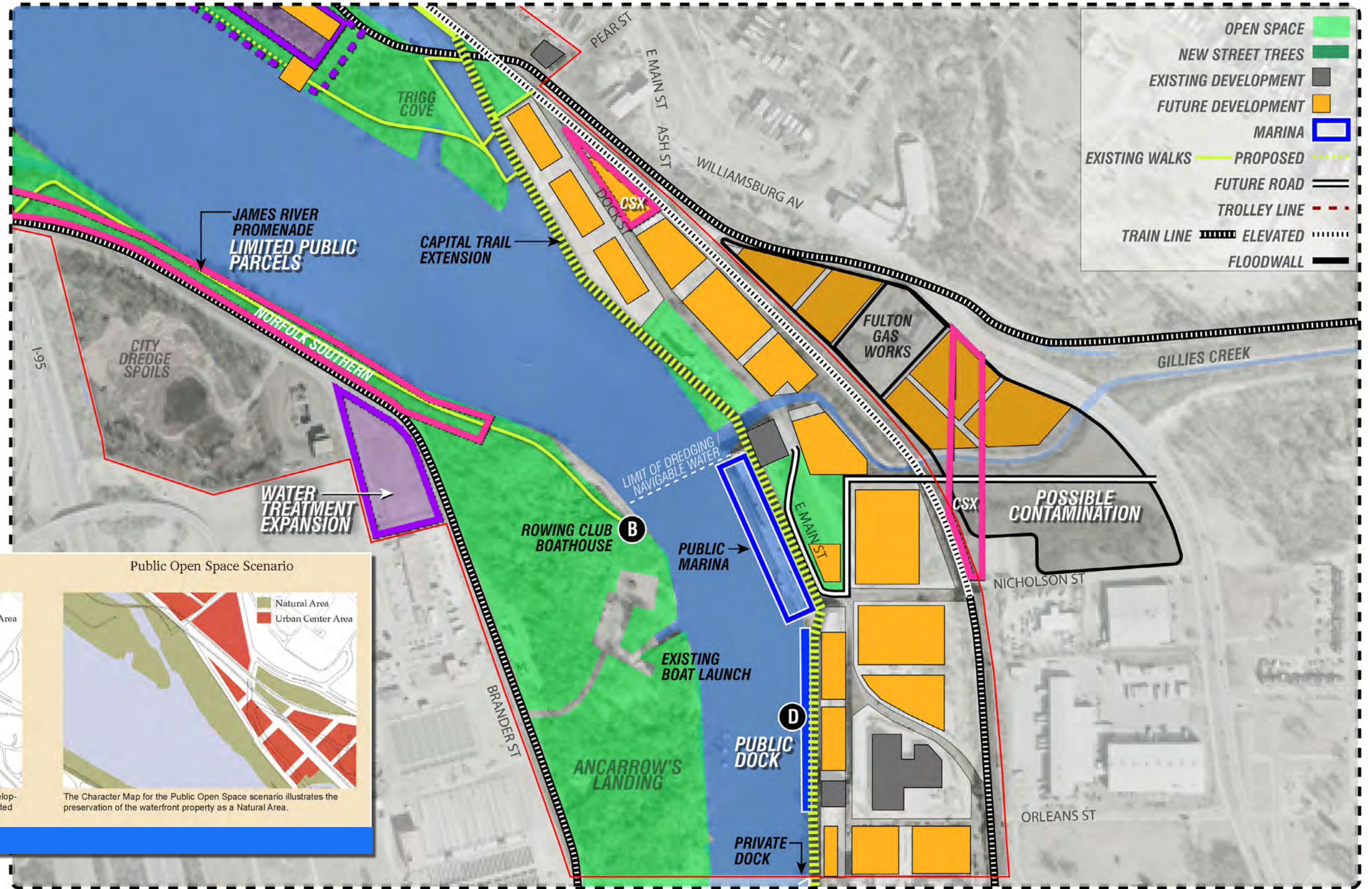
2011 UPDATE

- PRIVATE PROPERTY
- PENDING DEVELOPMENT - PRIVATE
- PENDING DEVELOPMENT - PUBLIC UTILITY

CHAPEL ISLAND & MAYO'S ISLAND

2009 DOWNTOWN MASTER PLAN DOWNRIVER

The primary distinction between the 2009 Downtown Plan and the Riverfront Plan in this area is that the Virginia Capital Trail will replace the CSX spur to Lehigh Cement, connecting on to downtown, and establishing a continuous linear public open space from Great Shiplock Park to Rocketts Landing. The Lehigh and Intermediate parcels are to be adapted for public realm improvements utilizing the existing infrastructure to provide greater access to the river, visually and directly. The Downtown Plan established two alternate scenarios for the USP site: a Development Scenario and a Public Open Space Scenario. The Riverfront Plan defers in all matters relative to this parcel to the language in the 2009 Downtown Plan that has already been adopted as part of the City's Master Plan.



2011 UPDATE

- PRIVATE PROPERTY
- PENDING DEVELOPMENT - PRIVATE
- PENDING DEVELOPMENT - PUBLIC UTILITY

DOWN RIVER

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8

APPENDIX 2: ADOPTING ORDINANCE

ADOPTING ORDINANCE

ADOPTING ORDINANCE



CITY OF RICHMOND, VIRGINIA

HARGREAVES ASSOCIATES | HR&A | ODELL | REYNOLDS WESLEY | MCGUIRE WOODS | MOFFATT & NICHOL

DRAFT 4 SEPTEMBER 2012