



RootWorks—Revitalizing Racine's Urban River Corridor

RootWorks

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I. Executive Summary



Today, Racine returns to its roots to create a dynamic place for next generation businesses, urban workers and residents, building upon the area's innovative heritage and spirit of world-class manufacturing.

Introduction: Revitalizing Racine's Urban River Corridor. This Plan fosters the renewal of Racine's historic industrial district with a vision developed through neighborhood input, stakeholder interviews and extensive market research. This community vision links River access and innovative stormwater run-off management techniques to Racine's heritage while bolstering economic growth. RootWorks bridges a proud past and a promising future by incorporating results of the *Root River Corridor Redevelopment Project* (2011-2012) with recommendations from the *Back to the Root Plan* (2008), and the *Racine Downtown Plan* (2005).

Specifically, four interdependent goals described in the *Back to the Root Plan* complement previous Plans and were critical in shaping the strategies outlined in RootWorks:

- Create a Sense of Place
- Stimulate Economic Growth
- Allow Public Access and Interaction
- Improve Water Quality

Regional Position: Root River Corridor Focus Area. RootWorks envisions the rebirth of the Root River Corridor as the heart of the City and a hub for economic growth by capitalizing on Racine's unique geography within the Chicago-Milwaukee MegaCity.

Redevelopment: Stimulating Economic Growth. The overall redevelopment strategy for the estimated 325-acre Root River Corridor focuses on infilling existing properties, opening opportunities that maximize established assets, and developing catalytic projects that will inspire further growth in the area. Though this strategy responds to the needs and opportunities within the Corridor, it also addresses economic needs of the entire community. Areas of focus have been delineated into the following planning areas or districts:

- Transit Oriented Development District
- Machinery Row
- CNH Downtown Riverfront Campus
- Belle Harbor District
- Walker Site Redevelopment

These areas are differentiated by their geographic location, historic and current land uses and role in the community. Key redevelopment recommendations include the repositioning, branding, and infill of catalytic sites within each district.

Connections: Public Access and Interaction.

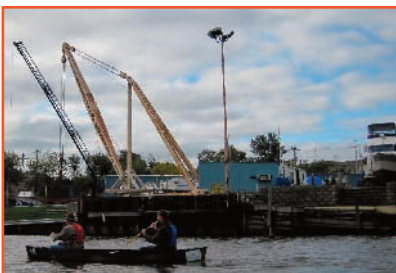
Adjacent to the Transit Center and along the Lake Michigan Circle Tour, the Corridor links retail districts and established neighborhoods. Unique recreational assets intersecting this Corridor include the Root River Pathway and the Lake Michigan Pathway.

While much of the necessary infrastructure is in place, RootWorks recommends projects that further promote regional connectivity. These recommendations offer opportunities for connections to existing and planned amenities while increasing River accessibility. This includes the creation of the River Loop, a proposed 1.75 mile long recreation loop connected to the Root River Pathway.

Water Quality: Improving Water Quality.

RootWorks recognizes the role of effective stormwater management infrastructure in improving water quality and wildlife habitat within the Root River Corridor. Stormwater Best Management Practices (BMP) include stormwater harvesting and roof runoff reduction, river-edge stormwater

treatment, brownfield encapsulation, riverbank stabilization, shoreline vegetation management, and other low -impact development techniques. Implementation of stormwater BMPs will effectively reduce the impact properties have on water quality.



RootWorks: Redevelopment Implementation.

Recommendations have been developed to implement a community vision and deliver results within the next 1 to 3 years. Projects have been identified and categorized into two priorities:

- River Access & Connections
- Redevelopment & Positioning

Successful project implementation will involve a broad range of partners and require the support of private, public, and nonprofit sectors. They will require investments in public infrastructure, and coordination between the City of Racine, property owners and developers. River Access and Connections recommended projects are:

- West Bluff Overlook Area
- Pedestrian Bridge
- East Bluff Overlook Area
- North River Boardwalk
- Paint on the Street Bike Connections

Redevelopment & Positioning recommended projects are:

- Machinery Row District
- Water Street Pedestrian Loop
- Belle Harbor District

The following pages detail recommendations for returning Racine to its Root.

II. Introduction and Goal of the Plan

The Root River Corridor Redevelopment Initiative

reclaims the Root River as the heart of Racine.

Building upon of the community's historic industrial heritage and strong recreational and urban living assets, this Plan will stimulate economic growth and job creation, highlight local assets, and improve public River access and water quality.

The decline in manufacturing and production in Racine has left behind underused warehouses and contaminated sites along a River that once shaped the area's geography, culture, and economy. After years of neglect, however, the Root River is poised to again become the center for the region's economic rebirth.

The Root River Council (RRC) formed in 2006 to consider ways the City of Racine could revitalize the Root River Corridor, particularly from the Racine Harbor to Quarry Lake Park. Public input and expert advice was summarized into the *Back to the Root Plan* which was adopted by Common Council in 2008.

Subsequently, the Root River Council partnered with the River Alliance of Wisconsin, the City of Racine, Racine County Economic Development Corporation, and Vandewalle & Associates to create the *Root River Corridor Redevelopment Plan* for the Root River area in Downtown Racine. This Plan builds upon previous studies including the *Racine Downtown Plan* (2005), *A Comprehensive Plan for the City of Racine: 2035* (2009),

Root River Urban Corridor Overlay District and Study (2011), and the *Root River Pathway Master Plan* (1999).

Furthermore, this Plan incorporates a commitment to public involvement including outreach to diverse populations, public meetings, business and property owner interviews, and multi-media outlets.

Many of the recommendations that follow in this Plan resulted from local knowledge and input generated from public outreach efforts.

Through the Root River Corridor Redevelopment Plan, the River will attract new industry, spawn entrepreneurial activity, promote tourism and commerce, and increase the general quality of life for residents and visitors.

The Plan focuses on overcoming the following obstacles:

- Prevalence of former industrial and potentially contaminated brownfield sites
- Public accessibility/under-use
- Low quality stormwater runoff
- Community disengagement/negative perception of the River
- Lack of coherent redevelopment strategies

The Root River Corridor Redevelopment Plan is a blueprint for an industrial redevelopment district that celebrates the community's connection to its diverse and entrepreneurial past, and to the River that helped make it possible.



III. Regional Position: Root River Corridor Focus Area



During the 19th and 20th centuries, Racine was a Midwestern hub of diversity and manufacturing. Much of the area's success was due to its location within the Chicago-Milwaukee corridor and its access to the Root River.

Manufacturing businesses, such as J.I. Case Threshing Machine Co., Mitchell & Lewis Wagon,

Fish Brothers and T.M. Geiser used the River to import raw materials and export their finished products. In 1900 alone, this strategically-placed area ranked third in the country in the production of farm machinery and fourth in wagons, carriages, and foundry products.

Racine's entrepreneurial strength has largely been due to its diversity of ideas, skills, and backgrounds. Immigrants came in waves from different parts of Europe for employment in these industries. More recently, Blacks and Latinos have migrated from the South and Southwest. Immigration was such a central component to the area's culture that the City was

known for its ethnic enclaves, such as "Czech Bethlehem", "English Settlement", "Bronzeville", and the "Barrio". In 1930 alone, 60% of Racine County was foreign-born.

Racine today. The aforementioned diversity of ideas, skills and backgrounds in Racine is still true today, but the Root River has largely been forgotten as the gathering place for economic and social exchange. RootWorks is about revitalizing the area to once again become a catalyst for economic growth and a public gathering place.



^{1,2} Racine: Growth and Change in a Wisconsin County; Edited by Nicholas C. Burckel; 1977

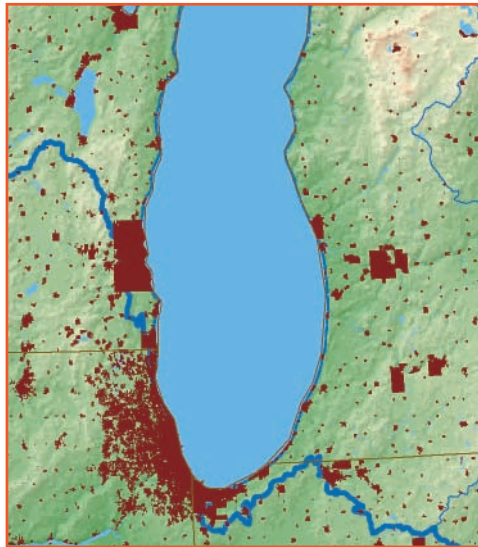
It's hard to overstate Racine's contributions to manufacturing in the United States, but it might best be reflected through key inventions including the fractional horsepower electric motor (Hamilton Beach), motorized hair clippers (Andis Co.), lawn mowing equipment (Jacobsen/Textron), the steerable lift axle (Dennis Lange), malted milk (Horlick), the steam car (Carhart), the garbage disposal (Hammes/InSinkErator), and Carnuba Wax (SC Johnson and Sons). Imagine what inventions await the Racine of the future.

The Chicago-Milwaukee MegaCity.

The Chicago-Milwaukee Region is a world "MegaCity" – defined by the United Nations as a metropolitan area of more than 10 million people.

There are only 25 MegaCities, putting it in elite company with global cities such as Beijing, London, Tokyo, New York, Sao Paulo, and Shanghai. MegaCities create a hub of technology, culture, finance and creativity that businesses and top employers find attractive.

The City of Racine is located near the center of the Chicago-Milwaukee MegaCity, about 80 miles from Chicago and 30 miles from Milwaukee. Yet while at the center of the MegaCity with ample water resources, Racine does not have direct access to these nearby metro areas. The average commute from Downtown Racine to Interstate 94 is 20 minutes. Because the planned Kenosha-Racine-Milwaukee (KRM) service is on hold, there are no passenger rail connections to Chicago or Milwaukee from the City. What

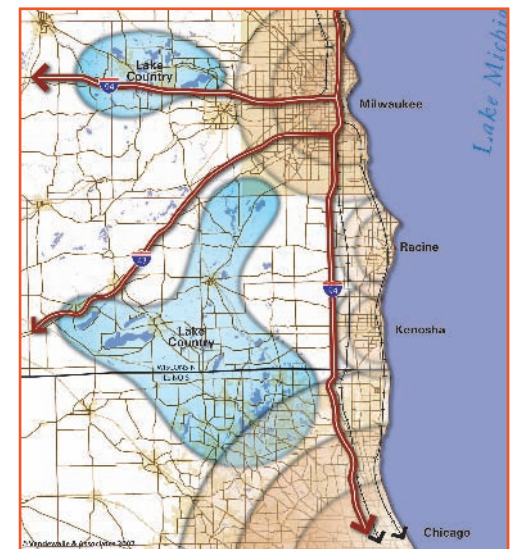


Racine lacks in direct access, however, it makes up in recreational and cultural opportunities.

Necklace of coastal cities. The Chicago-Milwaukee MegaCity is comprised of numerous coastal cities located on one of the world's largest bodies of freshwater. Lake Michigan puts Racine in an elite group of cities - those with a dramatic coastline for a backdrop, and major recreational opportunities just outside the door. Racine offers a large cluster of recreational opportunities with two key waterfronts: Lake Michigan and the Root River.

The Lake and River offer beaches, cycling trails, the scenic Lake Michigan Circle Tour, several marinas, canoe launches and world-class fishing.

In addition, trails within the Corridor are connected to the Jens Jensen-designed park network. Jensen, a famous 20th century landscape architect, designed parks to



emphasize the natural assets of the Midwest through the use of native plant species and natural forms. Recognizing Jensen's skills, Racine hired him to design what is now the Jens Jensen Park Network, an intricate system of urban parks along the Root River.

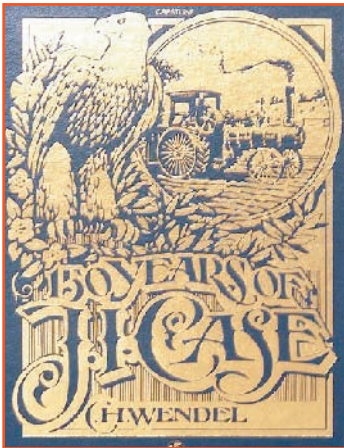
River Corridor Redevelopment Area.

The Root River Corridor Redevelopment Plan encompasses the area adjacent to the River, from Memorial Drive in the west, State Street in the north to the Harbor (via Dodge Street), Lake Michigan to the east, and 8th Street to the South; the vast majority of the Corridor is used for commercial purposes.

Within walking distance to the Corridor are residential neighborhoods, the Downtown retail district, and the Sixth Street Arts and Entertainment area, all of which are near Lake Michigan. Many of the major regional employers are located in or near the Corridor, including CNH, S.C. Johnson, Johnson Financial, Wheaton Franciscan-All Saints Hospital, Johnson Outdoors, Gateway Technical College, Racine County Court House and Law Enforcement Center, City Hall, Twin Disc, and InSinkErator.



IV. RootWorks Redevelopment Initiative: Corridor Repositioning



The history and diversity of the Corridor remain assets to the community; RootWorks is about positioning and connecting these assets to develop the area's potential and create a unique identity.

Currently, most of the warehouses are underused and largely forgotten. Yet these warehouses connect us to Racine's history as an economic powerhouse. These can once again inspire and accommodate new businesses and the expansion of existing ones.

RootWorks aims to reposition the Corridor to drive a new economy that

reflects the industrial past, takes advantage of entrepreneurship, and fosters economic and workforce development.

Overriding goals for Corridor repositioning include:

- Maintaining a high quality of life, and maximizing a competitive edge to attract new businesses and residents while supporting existing businesses and benefiting community members
- Leveraging Racine's local entrepreneurship, corporate strengths, and innovation; building an urban technology corridor that advances the local economy around place-based assets such as clean water technology and regional food
- Identifying the types of businesses and private-sector developments that should be targeted
- Advancing Racine's role as a Coastal City by protecting and enhancing both the coastline of Lake Michigan and its watersheds, and active participation in the Great Lakes Initiative
- Advancing local and regional transit connections and amenities, including the use of the Racine Metro Transit Center for all modes of public transportation to align the City with funding opportunities

What follows is a vision for the redevelopment of the Corridor into an urban live/work environment that creates a new, mixed-use district, boosts the viability of nearby commercial districts, increases access to the River, and inspires economic growth.

This vision is RootWorks.



Led by Machinery Row, Racine in 1900 ranked third in the US in the production of farm machinery and fourth in wagons, carriages, and foundry products. Racine's riverfront drew entrepreneurs of many nationalities and backgrounds, building the economic base of this manufacturing city.



Today Racine has room to grow new manufacturing along the River and create a dynamic place for the next generation of new businesses and urban workers – built on the area's innovative heritage and spirit of world-class manufacturing.

RootWorks



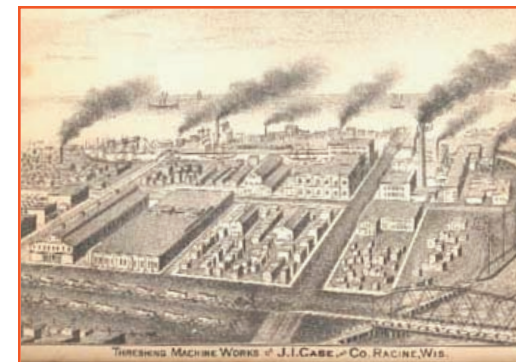
The Roots of Ingenuity and Knowhow



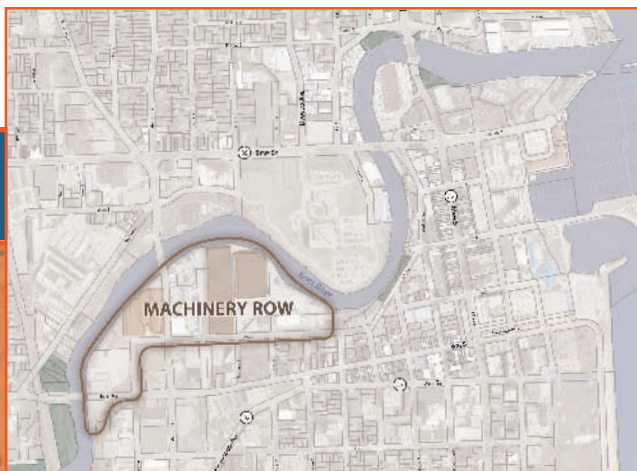
On the site of Racine's original economic engine.

RootWorks springs from the birthplace of such historic enterprises as J.I. Case's PlowWorks, Western Publishing, Mitchell Wagons, Fish Brothers, and The Massey Harris Co.

RootWorks is well positioned to drive the City's new economy – adding urban jobs, building quality housing, and growing the tax base. Racine's many design, machining and tooling assets, and high-tech and creative talent can reclaim their legacies, and have what they need to grow.



It's the power of the River. As a former industrial center, RootWorks' urban riverfront has all the right elements. Entrepreneurial businesses will find a well-established urban center with technology infrastructure, space to expand, a ready workforce, and convenient amenities. Top talent will be attracted to RootWorks' dynamic riverfront with ample access to culture, shopping, and abundant recreation.



Machinery Row: a bustling, eclectic live-work center.

The catalyst for RootWorks is *Machinery Row*, with warehouses and industrial buildings lining Water Street. Rich with character and history, these buildings will see reuse as urban lofts, live-work units, and creative spaces for growing new businesses. Just out the door, the River Loop connects workers to 1.75 miles of scenery, walkways, River access and parkway.

An entrepreneurial business magnet in the past, Racine's riverfront has high profile space opening up once more. Several sites in the Corridor are poised for redevelopment, including large parcels of land for new businesses and corporate centers.

A Place New Businesses Can Take Root and Grow



RootWorks already has the seeds of emerging economic clusters in place, including LaunchBox, a place for facilitating new ideas and fostering new businesses. Other types of businesses within RootWorks include renewable energy technologies, water technologies, machining and agriculture technologies, medical applications, and agricultural production. Here Racine can also grow its own new businesses in the fields of product design, visual arts, communications, film and media production, and environment design.



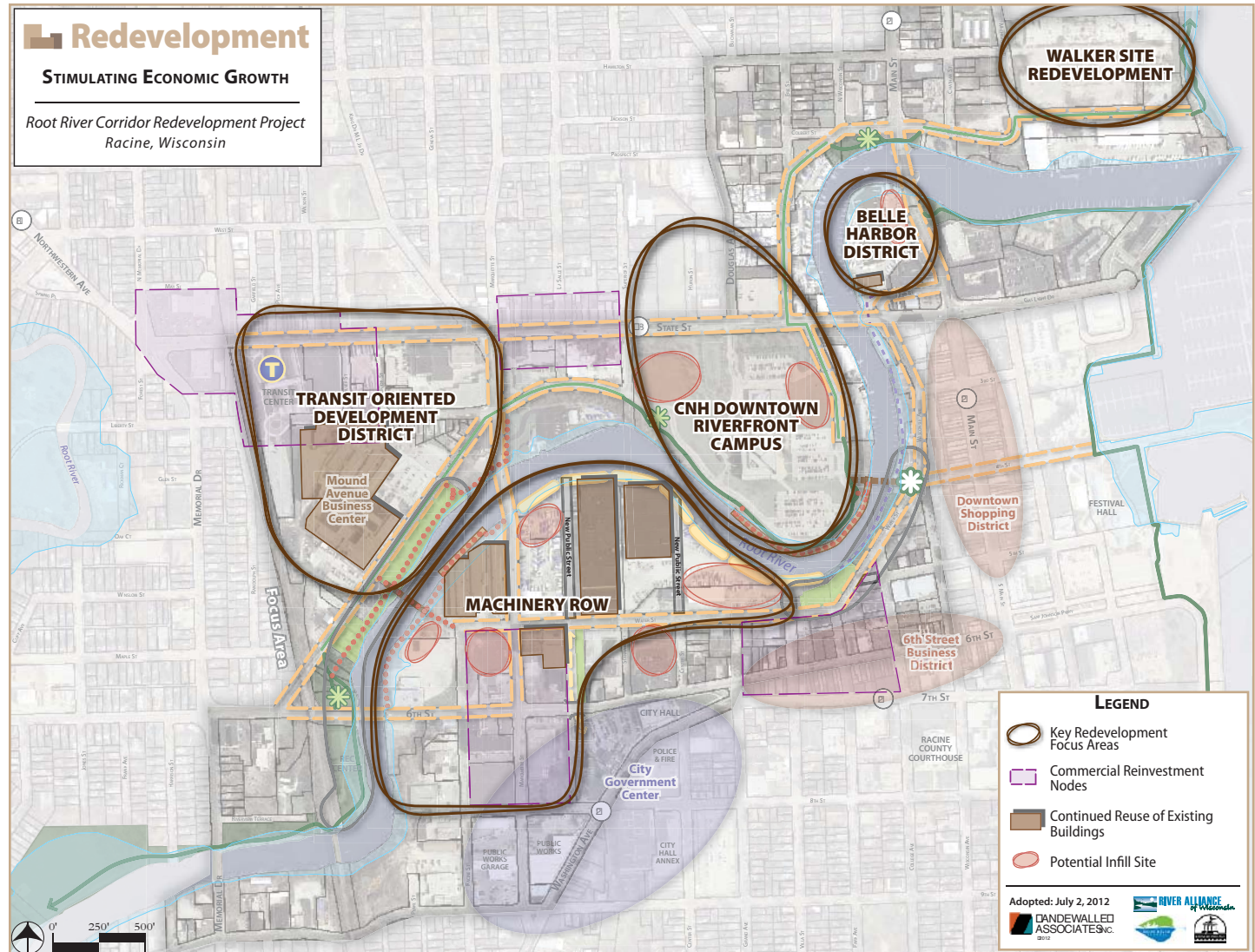
The Chicago-Milwaukee Corridor is ready-made. Racine enjoys close proximity to all that Chicago and Milwaukee offer – which not only allows entrepreneurs to connect to the global marketplace, it also attracts and keeps top employees and world-class talent.

RootWorks is a key component in advancing Root River revitalization. Implementation of the RootWorks urban riverfront redevelopment initiative puts a new focus on the tremendous asset of the Root River. RootWorks promotes all the goals of the Root River Council: creating a sense of place, stimulating economic growth, allowing public access and interaction, and improving water quality.

central city jobs
water quality
urban living
public access
business growth
environmental education
economic growth
brownfield redevelopment
tax base

V. Redevelopment Plan: Stimulating Economic Growth

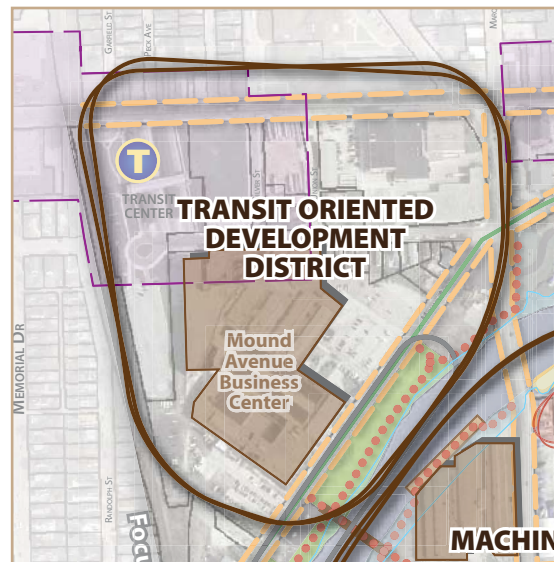
The redevelopment strategy for the estimated 325-acre Root River Corridor Redevelopment Plan area focuses on the growth of tax-base in the heart of Racine to rebuild the core of the community which, surrounded by municipalities, is unable to add land to the City. To do so, the redevelopment strategy promotes: capitalizing on the infill of existing properties, building off of existing assets, and advancing redevelopment of catalytic sites to proactively advance growth in the area.



Implementing these goals within the project area would include building off existing assets and recent City investments in the Transit Oriented Development (TOD) District, repositioning and redeveloping the Machinery Row District area, encouraging infill at the Case New Holland (CNH) Downtown Riverfront Campus, and strategic positioning and infill at the Belle Harbor Marina and Walker redevelopment site. What follows is a list of specific recommendations related to land use, economic development, and public improvements for the Corridor redevelopment.

Transit Oriented Development (TOD) District:

Historic train depot and current bus transfer station centrally located to employment, Downtown, and neighborhood areas. The approximately 40-acre TOD District can be repositioned to build off of existing assets in the area; promote the Mound Avenue Business Center; capitalize on City investments in the State Street area; and build new economic assets through business district revitalization and infill of City properties.



TOD District Proposed Projects:

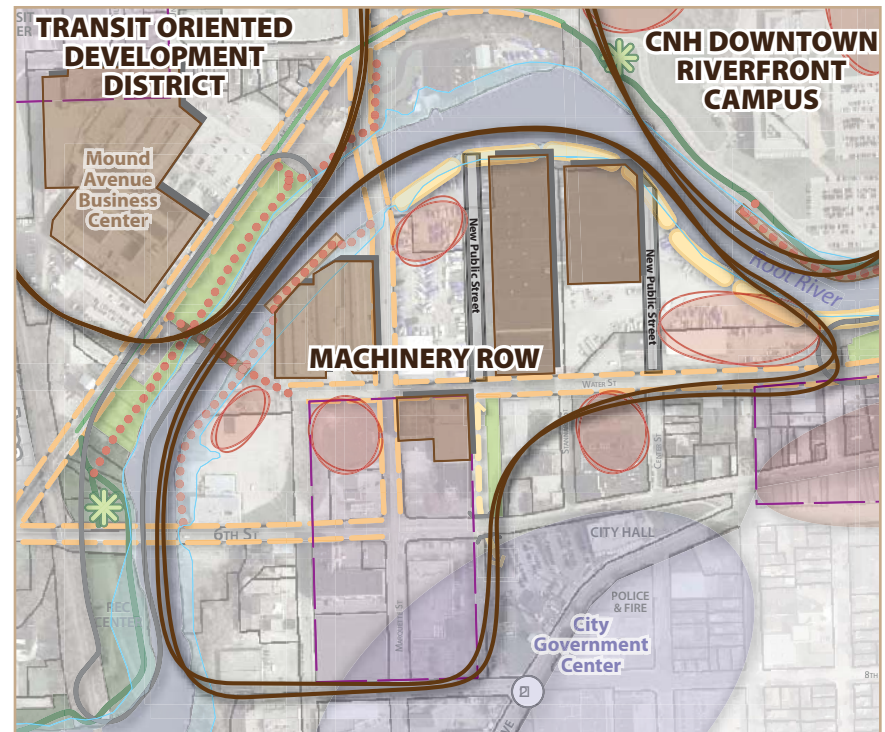
1. Develop redevelopment or reuse strategies (including assessment and clean-up as necessary) for priority catalytic sites, including the west overlook area properties and the Mound Ave. Business Center, building off of the City's investments in public infrastructure and property acquisition in the area.
2. Encourage Mound Avenue Business Center marketing strategy development, building off of the RootWorks Initiative, for increased and targeted business development in order to fill the approximately 250,000sf of vacant space in the facility.
3. Coordinate with private property owners in the West Bluff Overlook Area to determine feasibility for park and pathway development in the area including programming that may be associated with neighboring schools and the Root River Environmental Education Community Center (REC).
4. Advance adaptive reuse of the former Western Publishing pedestrian bridge to connect pedestrians and bicyclists to the West Bluff Overlook and Water St./Racine St. area in coordination with West Bluff Overlook development.
5. Support the development of the Kenosha-Racine-Milwaukee (KRM) commuter rail, with a focus on the Racine-Kenosha-Chicago connection as the next phase to enhance connectivity in the region and locally, specifically to promote Root River Corridor business growth.
6. Add a circulator bus connection between the Sturtevant Amtrak station and the Racine TOD station.

7. Rehabilitate and infill the high-traffic and transit connected commercial intersection of State Street and Northwestern Avenue for retail and services.
8. Rehabilitate and reinvest in the existing historic properties in the State Street commercial corridor for neighborhood commercial retail and services.

Machinery Row: Racine's historic industrial district, with remnants of its industrial heritage in the original manufacturing and warehouse buildings. The 50-acre area can be repositioned for revitalization to thrive once again as an economic asset and distinguishable district in the heart Racine. As the launching point of the RootWorks Initiative, this area can be repositioned for a mix of commercial and light-industrial flex-space, retail, residential and public open space connected to the River.

Machinery Row Proposed Projects:

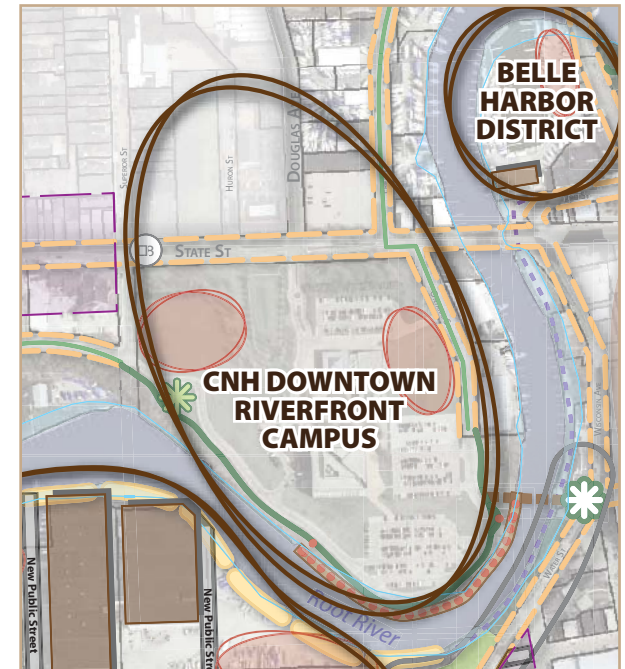
1. Focus redevelopment efforts initially on the 30 acres of riverfront/River adjacent properties along Water Street. Create strategies for the assessment, clean-up and reuse of the priority sites in coordination with land use planning and developer recruitment.
2. Promote private sector adaptive reuse of existing buildings as well as infill development projects that contain a mix of ground floor retail aligned with Water Street, and commercial, office, and residential uses (live/work and market rate apartments) – oriented to both Water Street and the public riverfront promenade.
3. Improve access and connectivity to the riverfront by reinstituting public street connections through the large historic manufacturing sites on the riverfront. This will also break-up large building parcels for incremental redevelopment and reuse of sites by the private sector.
4. Target business development in Machinery Row:
 - Advance the RootWorks Initiative building off of existing and developing economic development strategies to recruit businesses for infill development and reuse of existing buildings to provide unique business development opportunities as well as employment for the urban workforce.



- Create opportunities for creative class small business start up and development.
 - Create Machinery Row marketing/branding strategy for business development that includes communication materials as well as physical features including historic manufacturing icons such as historic signage and equipment.
5. Promote investment and redevelopment of the highly-visible intersection of Marquette and 6th Streets. This high-traffic intersection has strong retail potential for uses including a small market, and other businesses that could capture the drive-by traffic as well as surrounding residential market.
 6. Incorporate streetscape and arts and interpretation elements along Water Street in coordination with the River Loop project. Elements may include street trees, benches, improved sidewalks, crosswalks and pedestrian-scaled lighting throughout the District.
 7. Connect Machinery Row to neighboring business districts including the 6th Street and Downtown Shopping District via physical and programmatic improvements. Connections to Machinery Row and the 6th Street District can be made via the north/south-oriented streets that connect Water and 6th Streets. Connections to Downtown can be made via Water Street/Wisconsin Avenue at the 4th Street Terminus as well as 5th Street.

Case New Holland (CNH) Downtown Riverfront Campus:

The historic location of Case headquarters and tractor manufacturing and assembly. The CNH Downtown Riverfront Campus is around 30 acres of privately-owned property. Currently, not all of the land is being utilized, and there is the potential for additional infill and elevated status in the area, which would promote employment growth and neighborhood connections for current and future employees.



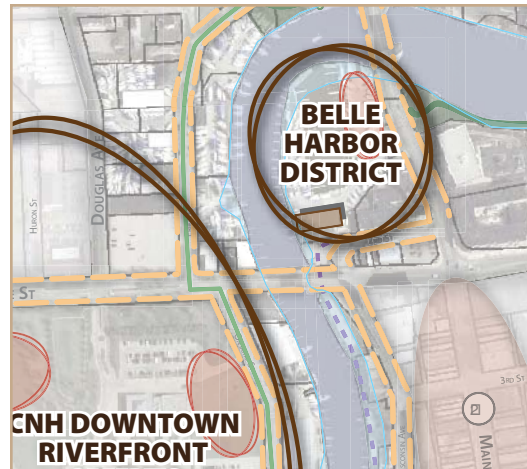
CNH Downtown Riverfront Campus Proposed Projects:

1. Capitalize on the presence of CNH and its Italian parent company Fiat Industrial in Racine and in the Root River Corridor through relationship building and collaboration on the long-term stability of the CNH Downtown Riverfront Campus.

2. Promote infill of the available vacant land on the Campus for tax-base growth over the long-term. As specific infill development is planned, determine strategies for assessment and clean-up of sites as needed. In addition to CNH growth, additional potential future land uses in the area to achieve economic and redevelopment vision could include residential infill and complementary office development.
3. Explore development of a bridge at the 4th Street terminus (a historic bridge location), reconnecting the CNH Campus to the Downtown Business District and the River Loop.

Belle Harbor District:

Reposition highly visible, 5-acre, County-owned Belle Harbor marina site with potential for infill development related to water recreation, retail, bar/brewery and restaurant use.

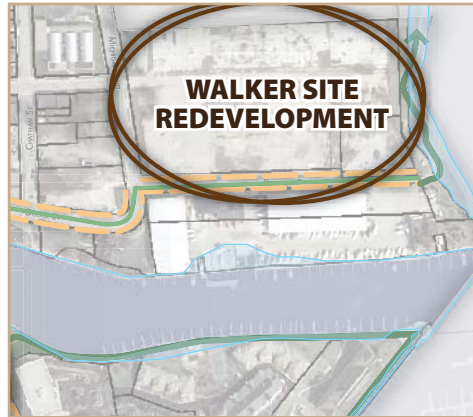


Belle Harbor District Proposed Projects:

1. Coordinate with the County on potential infill on a portion of the Belle Harbor site if long-term use for boat storage or other marine uses is not anticipated. Priority uses in this area could include destinations such as a brewery/restaurant, outdoor sports equipment sales and rental, focused on paddle sports and active water uses. As specific infill development is planned, determine a strategy for assessment and clean-up of sites as needed.
2. Program site infill in concert with the existing boat docks to offer slips for transient use. Further, with a paddle sports retail development, kayaks and canoes could be launched, rented and tested-out within the existing marina area.
3. Connect the Belle Harbor District area, visually and physically, to the River Loop as well as the adjacent State & Main mixed use development and the Downtown Shopping District, thereby serving as a gateway to the area when heading south over the Main Street bridge.

Walker Site Redevelopment:

City-owned approximately 9-acre Walker site just north of Pugh Marina at the lakefront is anticipated to be redeveloped for a mix of uses including residential, office, commercial, institutional uses, as well as public open space. New investment and redevelopment within the Root River Corridor will assist in repositioning this key site on the City's lakefront.



Walker Site Redevelopment Proposed Projects:

1. Cooperate with City team in their marketing efforts as they identify potential future land uses to achieve economic and redevelopment vision.
2. Create a strategy for clean-up and reuse of the site based on anticipated future land uses.

VI. Connections: Public Access and Interaction



Connectivity — both real and perceived – to the Root River Corridor from outlying areas as well as within Racine is critical to the successful revitalization of the area. While about 20 minutes from I-94, the Corridor is well-located in the historic and commercial heart of

the City. The Lake Michigan Circle tour which follows WI Hwy 32 through the Corridor is a recognized wayfinding route, and in addition, WI Highways 20 and 38 connect traffic to the Corridor.

The multi-modal Racine Metro Transit Center, located on State Street, at the northwest edge of the Corridor, is home to the Belle Urban bus system transfer center as well as the Racine Railroad Depot. The historic depot, constructed in 1902, is restored and awaiting the eventual expansion of commuter rail back to the area, to connect Racine with Chicago, Kenosha, and Milwaukee.

Bicycling as a Lifestyle Choice. Several community options exist for developing bicycling as a lifestyle choice for commuting, neighborhood transportation and recreation. Trek, a global bicycle company based in Wisconsin, currently promotes the following:

B-Cycle: Racine could develop a B-cycle bike sharing program to offer predictable bicycle access in the Corridor and beyond. B-cycles works through a membership program, where a member can purchase the use of a bicycle either online or at a B-cycle bicycle station. After purchasing the use, the member can choose any bike on the selected stations, use it for the selected length of time, and return it to any B-cycle bicycle station.

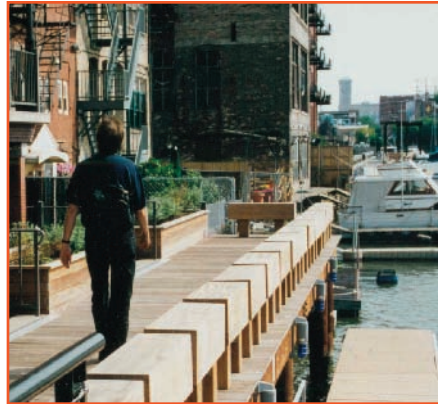
Dreambikes: Racine could develop a youth training and empowerment program connected to local neighborhoods. Dreambikes, for example, is a non-profit organization that strategically places used bicycle stores in low-income neighborhoods to provide both inexpensive bikes to area residents and job opportunities and professional growth for area youth.



Recreational Assets. The Root River Pathway extends 4 miles, east-to-west, beginning at the Main Street Bridge and ending in Colonial Park. The pathway is both on-road and off-road at different points along the route, has trailheads and signage along the route, and leads through the historic industrial center, and into the necklace of City parks just beyond. The pathway connects to the Racine and Sturtevant trails and the MRK and North Shore trails as well as the Lake Michigan Pathway. The 10-mile Lake Michigan Pathway runs along Racine's Lake Michigan shoreline. On the north side of Racine the pathway connects to Racine County's Milwaukee-Racine-Kenosha (MRK) trail; on the south side it connects to Racine County's North Shore Trail. 3rd Coast Bicycles, located near the Corridor, offers bicycle rentals to those do do not own them. The Corridor is home to open spaces including the Root River Environmental Education Community Center (REC), Azarian Park, and an open space on the northwest side of the Main Street bridge.

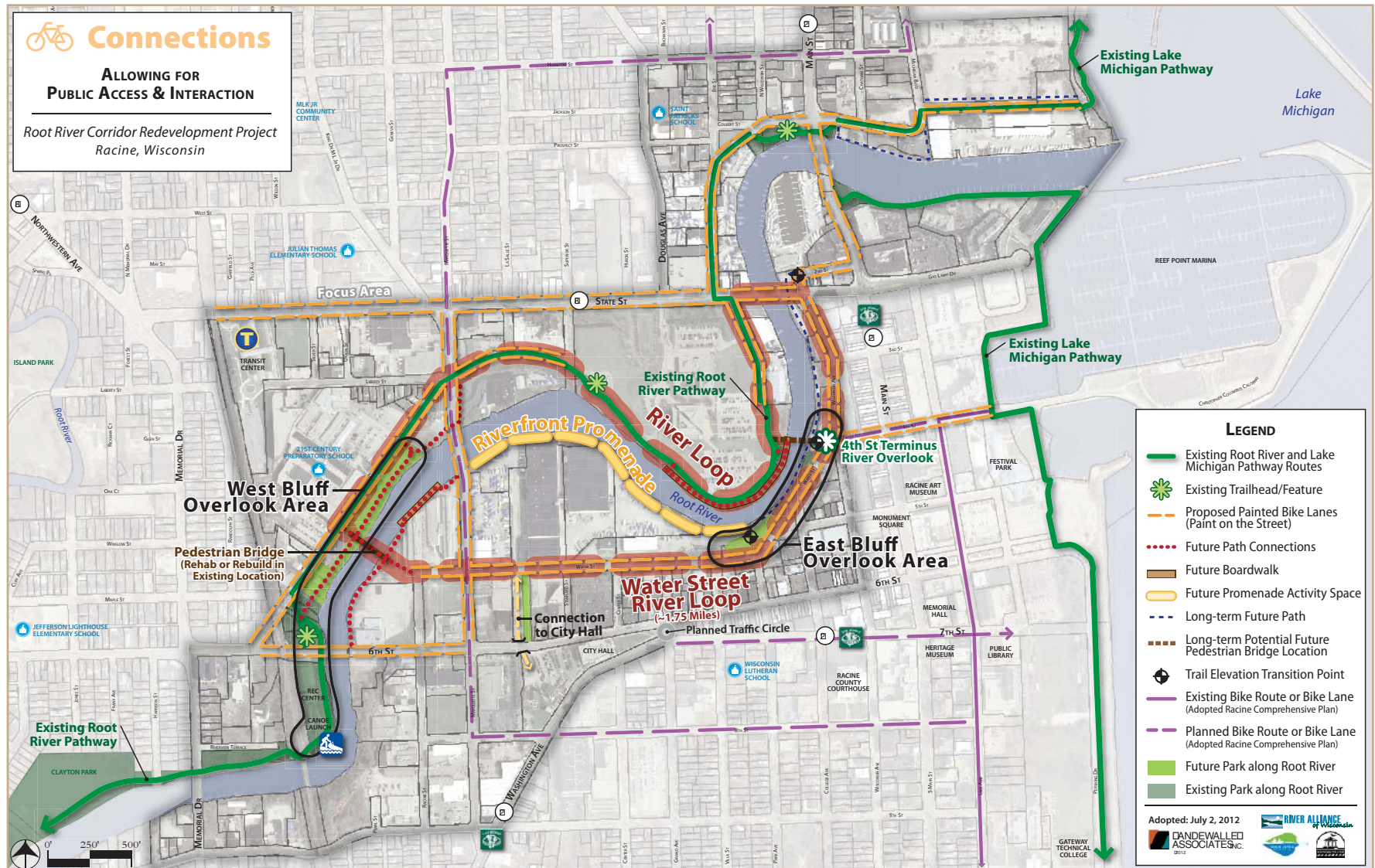
Proposed Projects

To increase public access and interaction in the Root River Corridor, consider the following:



Milwaukee riverwalk.

1. Develop the West Bluff Overlook along Mound Avenue, to expand the City-owned open space from 6th Street along Mound Avenue. Utilize overlook development to bridge the off-street gap between 6th Street and Marquette.
2. Develop the East Bluff Overlook, to expand Azarian Park to the north and southwest, with the addition of parkland at the terminus of Park Avenue at Water Street and at the terminus of 4th Street at Water Street.
3. Create the River Loop to develop an approximately 1.75 mile recreational loop to connect residents and visitors to the River and Water Street area.
4. Complete Root River Pathway connections along River's edge, where possible, to fill missing links to existing pathways including the area near the 6th Street bridge, north to Marquette on both sides of the River.
5. Consider repair and construction of a public boardwalk adjacent to the CNH campus.
6. Repair, or reconstruct, and open to the public the former Western Publishing pedestrian bridge and make it part of the public loop system.
7. Develop a riverfront promenade, public gathering and event space, in the riverfront area between the Marquette Street bridge and Sam's River Road, in coordination with private reinvestment in the riverfront, develop strict design standards for redevelopment parcels connected to the promenade to ensure project quality and positive public experience in the promenade area.
8. Increase bicycle connectivity in the Corridor. In addition to planned on-road bike lanes, consider preparation and implementation of a "paint on the street" bike route program in the Corridor to connect people within the area as well as to the surrounding neighborhoods and business districts.
9. Return former north-south rights-of-way to public streets in the Water Street area to reconnect the area and open up downtown and Water Street to the River once again. New streets provide reconnection points and they will assist in breaking up large parcels to allow for new platting into redevelopment sites.
10. Incorporate additional trailheads and transition points along the River Loop and Root River Pathway to provide opportunities to recreate at both the lower or River level and upper bluff level in the Corridor. Transition points could be incorporated at 2nd Street and Park Avenue.
11. Connect the 4th Street Terminus and 4th Street to the east – providing a visual and physical connection to the Downtown district, Reef Point Marina, and Festival Park. Consider long-term development of a pedestrian bridge at 4th Street to connect to the CNH peninsula.
12. In the long-term create off-street connections along Sam's River Road and Reichert Court.
13. Develop an Arts and Interpretation Plan for public spaces and River Loop.



VII. Water Quality: Improving Water Quality



The final stretch of the Root River runs through the City of Racine before it empties into Lake Michigan. As the former heart of manufacturing and employment in the City the River remains, still today, the most densely populated – and polluted – stretch of the River. Given the historical and present uses of the Root River Corridor, it is unlikely that this stretch of the River can ever be returned to a pristine natural state. But

thoughtful redevelopment can help improve the water quality of the River by managing stormwater on the surrounding land before it reaches the River.³

On a natural landscape, most water evaporates from land surface, transpires through plants to the atmosphere, or filters into groundwater. In urban settings, however, much of this water becomes runoff from impermeable surfaces, meaning that it does not filter back down to the groundwater and instead becomes stormwater runoff that drains into waterways. Stormwater runoff carries pollutants and contaminants with it, and is therefore a serious contributor to pollution and ecosystem disturbance in rivers and waterways; more so given the Root River Corridor's legacy of heavy industrial activity along the waterfront. Working with federal and state agencies, the City of Racine is working to reduce these contaminants (known as total suspended solids) by 40%.

With this in mind, and with the goal of improving water quality in the Root River overall, the Plan recommends implementing green infrastructure methods. Future development on the River can help reduce stormwater runoff using a number of green infrastructure strategies: bluff and streambank stabilization, riveredge vegetation and stormwater treatment,

³There are several efforts by other units of government and nonprofits to evaluate the Root River and its water quality in the entirety of its basin, such as the City of Racine Health Department and Root-Pike WIN. This plan is focused solely on the Root River Corridor depicted geographically on page 7 of this plan.

stormwater harvesting, and brownfield encapsulation. These recommendations are area-appropriate and are in tandem with site redevelopment recommendations.

As such, these recommendations acknowledge the brownfields in the Root River Corridor. Brownfields are known or likely contaminated properties, and are major contributors to stormwater runoff pollution in rivers. In Racine specifically, contaminated soils from brownfields may leach into the Root River and decrease its water quality. Brownfield remediation not only improves water quality, but also gives the City the broadest range of options for future use and economic development. Previous studies have evaluated and catalogued potential and known brownfields in the Root River Corridor.⁴

To manage stormwater in a brownfields environment, the City has at least three options: remediate the contaminated property; harvest or collect stormwater before it infiltrates the site; and clean stormwater as it leaves a brownfield. Infiltration is not an option on brownfields sites, as it may allow for contaminants to leak into groundwater systems.

For sites where remediation is not immediately possible, The United States Environmental Protection Agency (USEPA) offers the following recommendations for using green infrastructure on brownfield sites:

⁴ *Root River Planning Boundary Property Inventory. A report to the Racine Department of City Development, August 2010. River Alliance of Wisconsin (2010)*

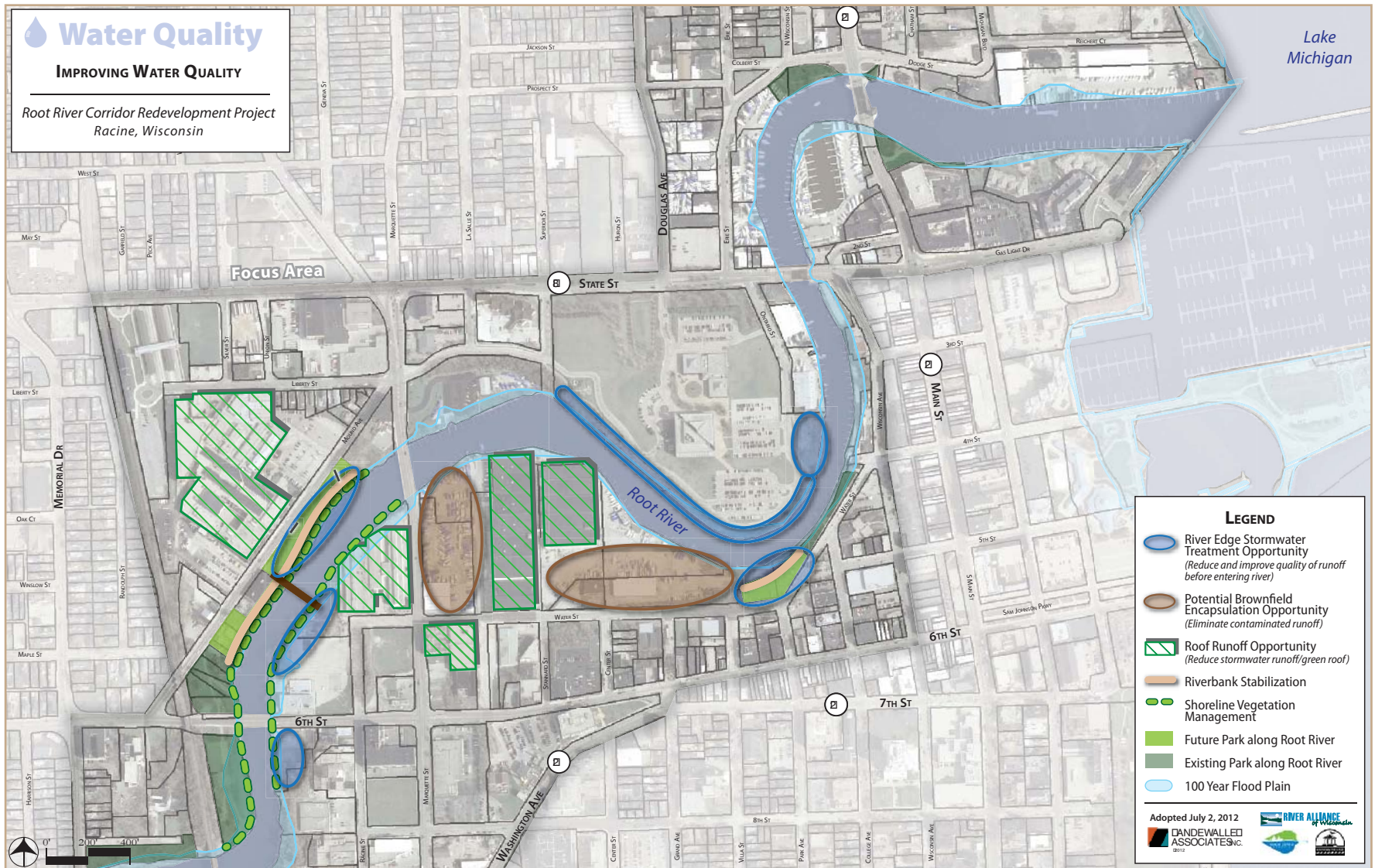


Example of cantilevered riverwalk treatment of Milwaukee Riverwalk.

- Differentiate between groups of contaminants to minimize risk.
- Keep non-contaminated stormwater separate from contaminated soils and water to prevent leeching and spreading of contaminants.
- Prevent soil erosion using vegetation, existing trees, and structural practices like swales or sediment basins.
- Include measures that minimize runoff within and adjacent to brownfields – such as green roofs, green walls, large trees, and stormwater cisterns.⁵

⁵ *Design Principles for Stormwater Management on Compacted, Contaminated Soils in Dense Urban Areas (2008)*

http://www.swrcb.ca.gov/rwqcb4/water_issues/programs/stormwater/municipal/ventura_ms4/CommentLetters/attachBIA/Attachment%205.%20EPA%20Bioretention%20Brownfields.pdf



Proposed Stormwater Management Techniques

In an effort to target stormwater management that will reduce the impact properties within the focus area have on the quality of the Root River, a selection BMPs to manage stormwater in the Corridor, as well as specific sites where they could be applied, follows.

River Edge Stormwater Treatment – Infiltrate water prior to entering the River, treat water then outfall into River, using methods such as buffer zones of native plantings, bioswales, rain gardens or upstream detention.

These methods could be implemented on about 4,000sf of land along the River.



Rain gardens capture and infiltrate stormwater runoff, and can also remove pollutants.



Existing river edge conditions in the Root River Corridor.

Brownfield Encapsulation – Capture water before it reaches the contaminated soil over capped areas using evapotranspiration (the return of water to the atmosphere by evaporation or plants).

This Plan identifies about 10 acres of land which could be targets for encapsulation methods.



Phytoremediation, the use of green plants to remove contaminants from soils, is a cost-effective method for cleaning brownfields.



Potential brownfield encapsulation area in the Root River Corridor area.



Roof Runoff Opportunity/Stormwater Harvesting – Harvest and reuse stormwater through methods such as using rain barrels and landscape irrigation. Another option to capture roof stormwater is a green roof. A green roof is a man-made roof with partial or complete vegetation on top.



Green roof benefits include reduced stormwater runoff and reduced heating and cooling costs.



Example of existing roof top for green roof opportunity in the Root River Corridor Area.

Unshaded rooftops, parking lots, and other impervious areas are warmer than natural environments and therefore can heat the stormwater passing over them which can be detrimental to aquatic life and increase algae blooms. Stormwater harvesting also can assist in reducing the prevalence of overheated water into the Root River.

About 16 acres of rooftop has been identified for potential stormwater harvesting in the Corridor. The areas indicated are privately-owned buildings and therefore any efforts to promote green roofs or stormwater harvesting on these sites would be led by the private property owner.

Riverbank Stabilization – Eliminate soil erosion into the River using redirection such as through bioswales, ditches and grade drainage. A bioswale is a landscape feature designed to remove silt and pollution from surface water runoff.

Riverbank stabilization methods could be used along the Corridor.



Another option to managing steep slopes or bluffs are living walls which offer eco-friendly erosion protection. A living wall is a vertical arrangement of vegetation that can help infiltrate stormwater runoff and prevent the soil from eroding. Photo courtesy of the Bruce Company.



Example of riverbank stabilization opportunities in the Root River Corridor.



Shoreline Vegetation Management – Encourage vegetation management using methods such as removing the existing invasive

species and planting native species. Native plants are those species that were growing here before humans brought in plants from distant places.



Native, non-invasive species are built to handle the local environment.

Planting native plants provides habitat and also decreases the use of chemical fertilizers and pesticides.

Native plantings would be beneficial in the Corridor.



Example of shoreline vegetation management opportunities in the Root River Corridor.



Example of riverbank stabilization and riverwalk in Fort Atkinson

VIII. RootWorks Redevelopment Implementation

Tremendous momentum has been generated through the Root River Corridor planning process. At this time, it is important to continue the momentum underway towards the redevelopment and repositioning of the area—known as the RootWorks Initiative. Based on meetings with property owners, businesses, developers as well as residents and local leadership – feasibility is high and therefore it is ideal to build off the momentum and begin to first advance the recommendations that may be accomplished in the next 1-3 years.

In the big picture of implementation, actions that should occur to advance the Root River Corridor Redevelopment Plan and increase implementation feasibility include:

1. Adopt the Plan as an amendment to the City of Racine Comprehensive Plan.
2. Advance implementation of the Plan and catalytic projects in coordination with a Project Management Organization comprised of City staff, RCEDC, and other project partners.

Implementation of multiple redevelopment projects along a parallel timeline, with intersecting project components and overlapping partners and interests is a complicated process which should be managed by a dedicated implementation project management team approach. For this reason, in order to advance the implementation of this redevelopment project, it is recommended that a dedicated team



be assembled to focus on the day-to-day tasks, redevelopment expertise, and project management necessary to advance implementation.

3. Incorporate relevant Plan recommendations into the City's Comprehensive Park and Open Space Plan.
4. Amend the 2005 Downtown Design Standards manual to recognize the redevelopment recommendations in this Plan.

5. Amend the Zoning Ordinance (Chapter 114 of the Municipal Code) to implement recommendations in this Plan.
6. Utilize this Plan as the framework to create a Redevelopment District and Plan (Wis. Stat. §66.1333(6)) which enables the Redevelopment Authority and the Common Council to pursue additional strategies for the advancement of significant community-oriented redevelopment projects.
7. Utilize this Plan to create a Corridor area TIF District (Wis. Stat. §66.1105) to provide a way for the City to promote tax base expansion through its own initiative and effort at the appropriate time.
8. Create an official map (Wis. Stat. §62.23(6)) adopted by ordinance to indicate planned public facilities in the Corridor. The official map is intended to be used as a precise planning tool to implement a

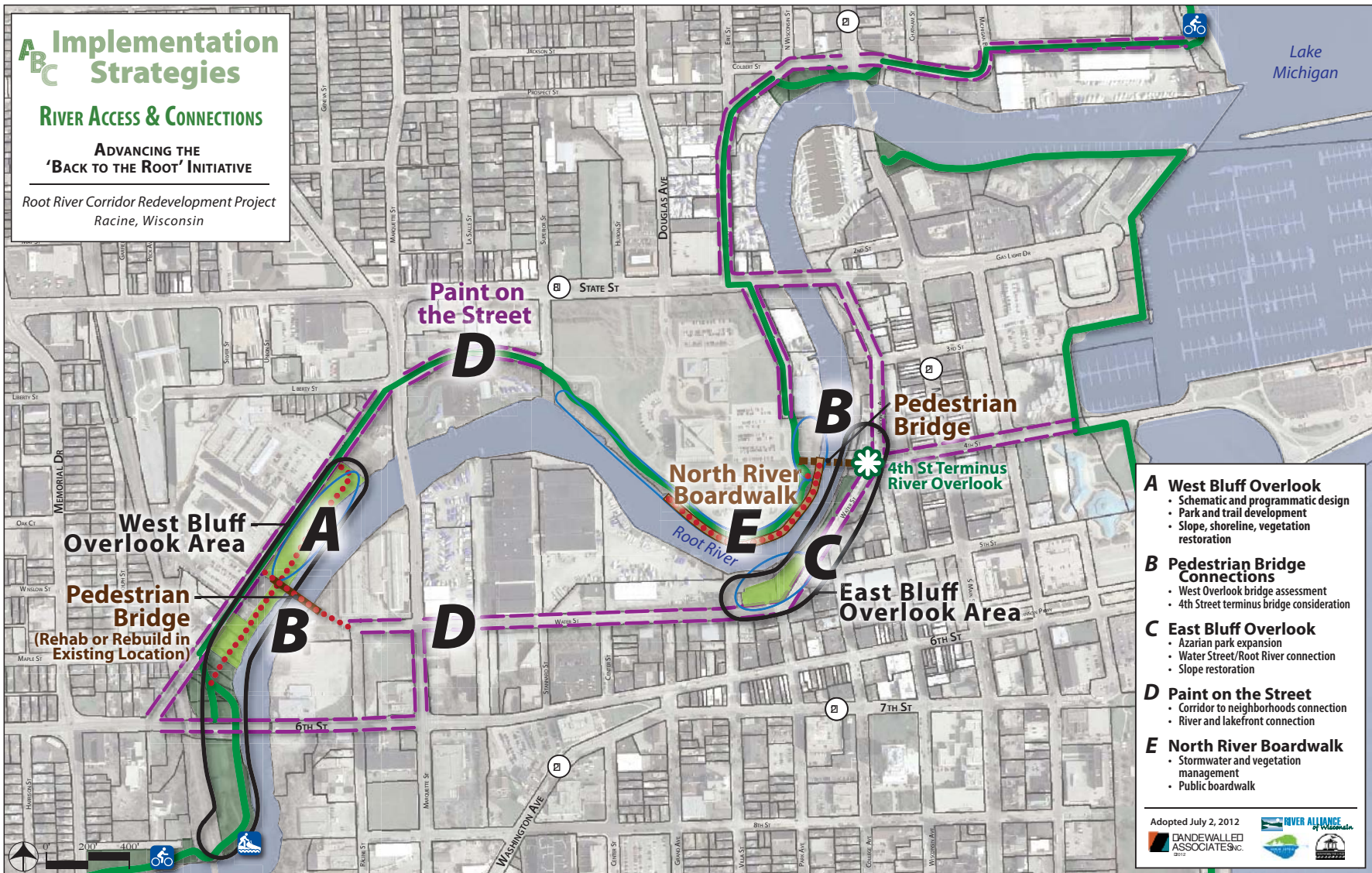
community's master plan for streets, parkways, parks, playgrounds and drainageways. Its basic purpose is to prohibit the construction of buildings or structures and their associated improvements on land that has been designated for current or future public use.

The following projects represent the highest priority proposed projects for the next few years. These projects are not presented or organized by level of priority. It is recommended these projects all be advanced aggressively within the same timeframe, in a coordinated project management team approach.

Racine's Launchbox Initiative pending mid-2012

"Launch Box" will be a one-stop-shop small business resource center and co-working space. Business resources provided at the center include information on how to navigate the rules and regulations at City Hall and available office space for rent. Start-ups can also use the center as their business address; do any UPS mailings, and network with other entrepreneurs in person and through an internet portal.





Implementation Strategies: River Access & Connections Priority Projects

To advance the Back to the Root Initiative's goal of Allowing for Public Access & Interaction in the Root River Corridor, the following proposed projects have been identified as priority projects for implementation over the next 1-3 years.

A. West Bluff Overlook Area – The West Bluff Overlook Area has strong potential to expand the Root River Pathway off road trail as well as incorporate programmatic elements to connect to adjacent schools and the REC. Next steps include coordination with private property owners, schematic and programmatic design, park and trail development, and slope, shoreline and vegetation restoration utilizing green infrastructure techniques.

B. Pedestrian Bridge Connections –

West Overlook Bridge – The existing bridge once used by Western Publishing staff as a short-cut to connect employees across River, should be assessed to determine whether the footings are structurally sound to either reuse the existing bridge for public use, or use the existing footings to develop a new pedestrian bridge at this location.

4th Street Terminus – The current terminus of 4th Street at Wisconsin Avenue is the historic location of a bridge that connected to the CNH peninsula. In implementation, explore the opportunity to use historic bridge footings and construct a pedestrian bridge to reconnect these points and promote the lakefront connection along 4th Street.

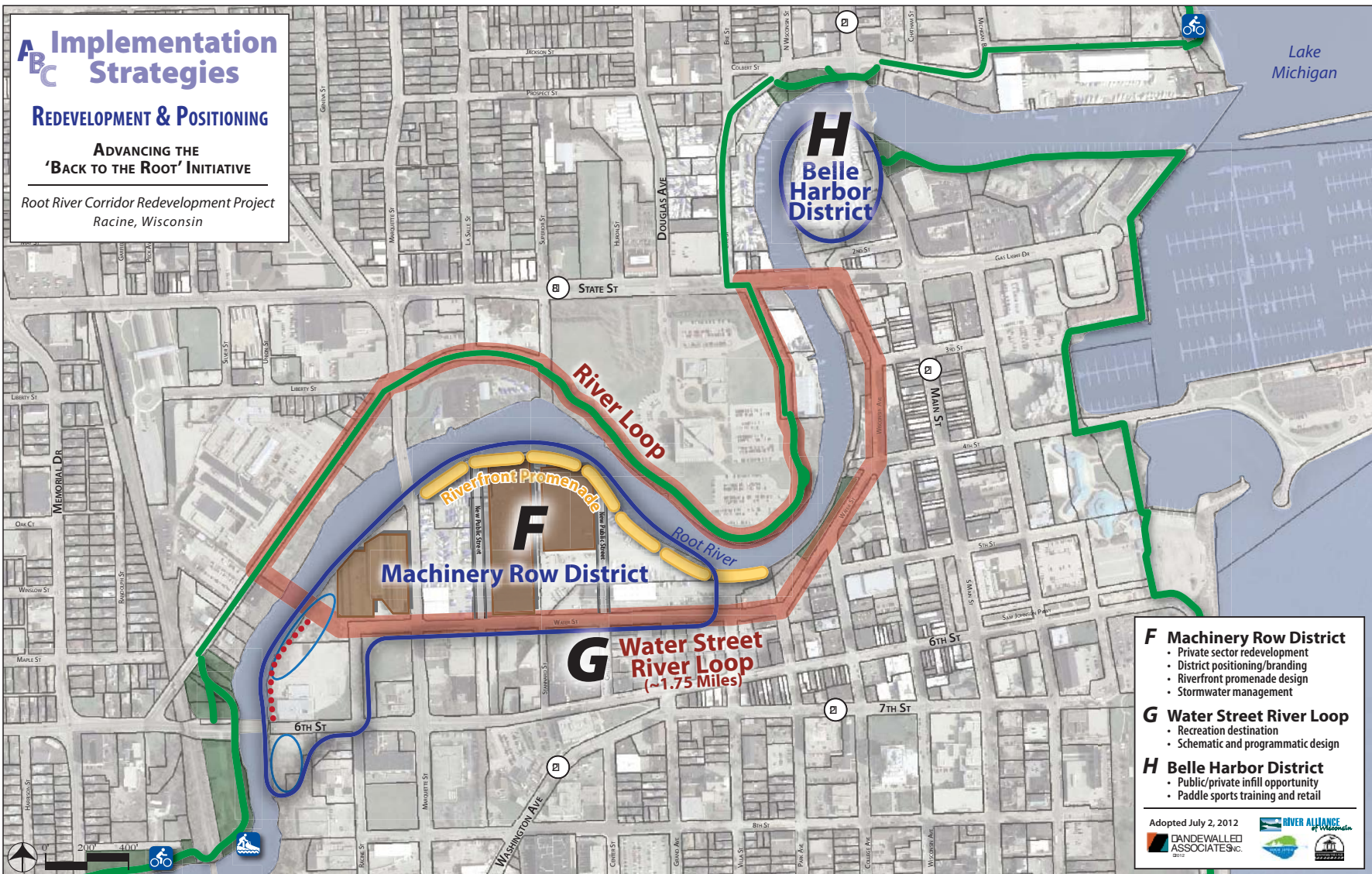
C. East Bluff Overlook Area – The existing parking lot southwest of Azarian Park is recommended for long-term park use in adopted City plans. As a crumbling parking lot and bluff, the site is ready for redevelopment and reuse as an extension to Azarian Park.

Bluff stabilization and restoration utilizing green infrastructure, with the incorporation of a Water Street to Root River/Sam's River Road connection will improve this site for the community as well as enhance stormwater management in the area.

D. Paint on the Street – Paint on the street bike lanes are bike icons and lanes delineated within the public right-of-way. Implementation of Paint on the Street in the Corridor is directly related to area redevelopment. The areas delineated for Paint on the Street in the implementation map could be completed in year 1 of implementation. Implementation of this first stage of paint on the street bike lanes within the project area will create a more bicycle-friendly and recreation-oriented River Corridor area, and provide Corridor-to-neighborhood connections and River-to-Lakefront connections.

This effort should become part of other regional and local bike planning initiatives, but for the focus area, it can be completed in the near term, it does not need to wait for other area plans to be completed.

E. North River Boardwalk – The existing docking system along the southern edge of the CNH peninsula is gated off and no longer in use, as the former slips in this location are no longer leased out. While the boat slips aren't likely to return, the investment in the pilings and boardwalk system remains. This system could be repurposed for a public boardwalk to give additional public access to the River. Further, green infrastructure stormwater management and vegetation management techniques should be advanced in this location.



Redevelopment & Positioning Priority Projects

To advance the Back to the Root Initiative's goals of Creating a Sense of Place and Stimulating Economic Growth in the Root River Corridor, the following proposed projects have been identified as priority projects for implementation over the next 1-3 years.

F. **Machinery Row District** – Efforts to accelerate the Machinery Row district as the catalytic point for Corridor revitalization should focus on:

- Recruit developers and coordinate with private sector property owners to advance the RootWorks vision in Machinery Row.
- Prepare Machinery Row District positioning and branding strategy to honor the history of the area and grow tax-base with higher-value reuse and development of the area.
- Advance riverfront promenade planning and design to create a destination for public gatherings, events, and daily use as a connection to the River.
- Extend riverfront connections heading southwest from pedestrian bridge to 6th Street, providing additional riverfront access.
- Incorporate green infrastructure stormwater management techniques related to stormwater harvesting, roof runoff opportunities, and brownfield encapsulation.

G. **Water Street River Loop** – Develop the River Loop as a recreation destination, begin with schematic planning and programmatic design of the approximately 1.75 mile recreation route. Develop the Loop as a recreation route in itself, but also plan for connections to the lakefront and adjacent routes and destinations. Future advancement of the River Loop should include retail and service business development to further enhance the Loop experience.

H. **Belle Harbor District** – Begin Belle Harbor District implementation with Racine County coordination, as the property-owner. Work with the County as a partner to determine the infill opportunity and strategy to recruit preferred uses including a potential brewpub and restaurant, and paddle sports training, rental and sports apparel retail business.

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