

# PASSAIC RIVER

# GREENWAY

**Adopted by the Hudson  
County Planning Board**

**4/18/2023**

# ACKNOWLEDGEMENTS

**Hudson County Executive**  
Hon. Thomas A. DeGise

HUDSON COUNTY PLANNING  
**Francesca Giarratana, PP, AICP**  
Planning Division Chief

**Kevin Force, PP, AICP**  
Supervising Planner

**Sam Schroeder, PP, AICP**  
Supervising Planner

**Marcella Traina**  
Assistant Planner

**Mark Serrano**  
Assistant Planner

**Zach Kourgialis**  
Planning Intern

DEPARTMENT OF PLANNING  
OFFICE OF DIGITAL INFORMATION

**Daryl Krasnuk**  
Director

**Gregory Kane**  
Graphic Artist

DEPARTMENT OF PLANNING  
& BUSINESS OPPORTUNITY

**ShaRhonda Walker**  
Director

**Francesca Giarratana, PP, AICP**  
Deputy Director

OFFICE OF THE COUNTY ENGINEER  
**Byron A. Nicholas, PP, AICP**  
Supervising Transportation Planner

HUDSON COUNTY PLANNING BOARD

**Samantha Lugo**  
Chair

**Rushabh Mehta**  
Vice Chair

**John Allen**  
Commissioner

**Daniel Choffo**  
Commissioner

**Floyd Jeter**  
Commissioner

**Francis Kenny**  
Commissioner

**Hon. Jerry Walker**  
County Commissioner

**Hon. Yraida Aponte-Lipski**  
County Commissioner Alternate

**Kennedy Ng**  
First Alternate

**Tanya Rodriguez**  
Second Alternate

**Thomas Malavasi, PE, PP, CME**  
County Engineer

**Joseph Glembocki, PE**  
Assistant County Engineer

CONTRIBUTORS:

Town of Harrison  
Borough of East Newark  
Town of Kearny

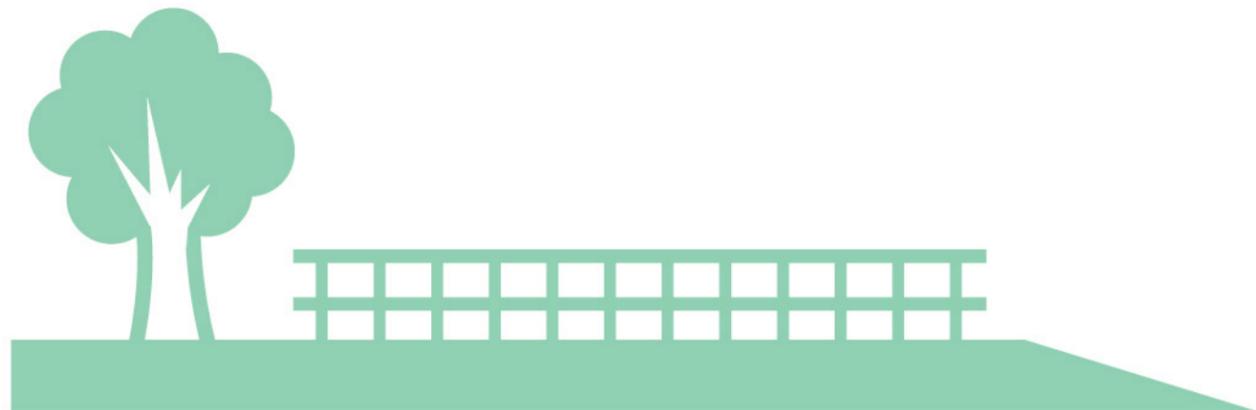
# ABOUT THIS DOCUMENT

Welcome to the Passaic River Greenway! Along with the Hudson and Hackensack Rivers, the Passaic is one of the defining natural landmarks of New Jersey, flowing through various scenic locations such as the Paterson Great Falls and Dundee Canal. In its lowest reaches, the Passaic River flows past the northeast part of the city of Newark on its western bank, and Kearny, East Newark, and Harrison to the east, before joining the Hackensack River at the northern end of Newark Bay.

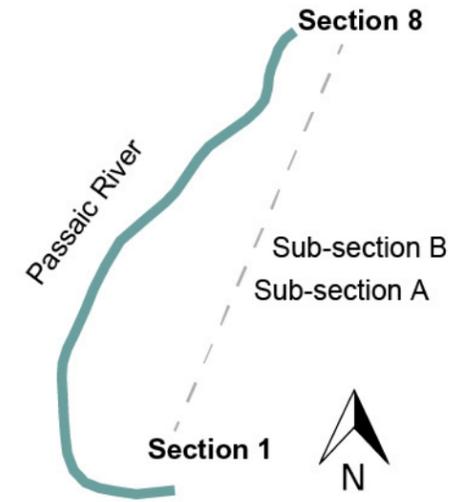
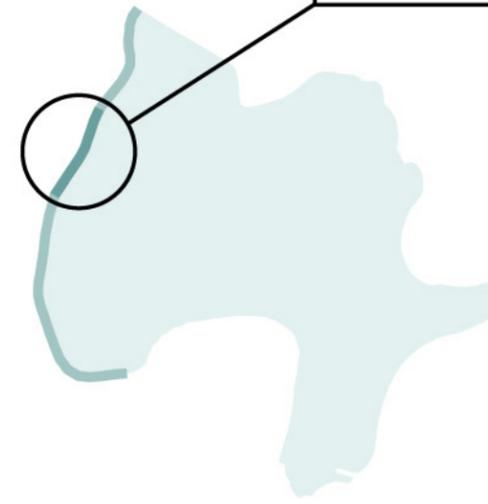
Together, the municipalities of Kearny, East Newark, and Harrison have been historically important centers of industry, but they also continue to serve as a vital intersection between New Jersey's two largest cities, Newark and Jersey City, and three of the state's most populous counties, Hudson, Bergen and Essex County. Harrison serves as the connection for several multi-modal transportation routes of regional importance including Interstate Route 280, the Northeast Corridor railroad line, the Morris & Essex railroad line, and the Port Authority Trans-Hudson (PATH) rapid transit station. These municipalities are also accessed via the New Jersey Turnpike and located within a few miles of Newark Liberty International Airport, the Garden State Parkway, US Routes 1&9 and Interstate Route 78.

The area is home to tens of thousands of residents and several exciting attractions like Red Bull Arena and the Passaic River waterfront. The upcoming cleanup of the Passaic River will soon create new opportunities for economic and social growth throughout the waterfront area. The Kearny waterfront currently features a lively mix of suburbs, parks and recreation, commercial centers, bridges and boat launches. East Newark and Harrison meanwhile, are both in the process of transition away from their industrial pasts as preparations are made to redevelop their waterfronts into new parks and residential communities.

This plan will serve as a guide to exploring and navigating the Passaic River waterfront. It details the full length of the Passaic Greenway, a publicly accessible trail along the river. While portions of the trail currently exist and are served by a variety of amenities and connections, others face significant obstacles to completion. The Passaic River Greenway Plan describes and identifies current conditions, connections to nearby landmarks and destinations, short and long-term opportunities, as well as gaps and challenges to implementation. The intent of this plan is to inspire a greater connection with the Passaic River and to envision the possibilities of expanding and enhancing the Greenway. Through a collaboration between local governments, non-profit organizations, private business, residents and property owners, we can further protect, preserve and expand access to the waterfront for everyone.



**LOCATION**  
Each section number is accompanied by an overview of the Passaic Riverwalk. Know where that section is by looking for the highlighted portion of the trail.

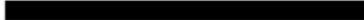


The sections work their way up the east end of the Passaic river, starting at Red Bull Arena and working north towards Kearny.

Many sections will go in further detail, explaining details of the Greenway by sub-section, which also work their way south to north within each section.

## GLOSSARY LEGEND

### Path Status

-  Completed
-  Planned
-  Proposed
-  Temporary

*Existing or recently completed pathways, may require repairs or further enhancements*

*Soon to be implemented as part of municipal redevelopment plans*

*Potential primary connections that will integrate all other existing and planned trails into a comprehensive multi-jurisdictional Greenway*

*Short-Term connections to circumvent incomplete sections of the Greenway, may not be optimal for bike and pedestrian use*

### Sections

-  Section 1
-  Section 2
-  Section 3
-  Section 4
-  Section 5
-  Section 6
-  Section 7
-  Section 8



## ABOUT THE PASSAIC

The Passaic River is approximately 80 mi (129 km) long, intersecting seven different counties throughout northern New Jersey. The river flows northward from Morris County through the Great Swamp National Wild Refuge, where most of the river's several tributaries drain into, until it reaches the border of Paterson and Bergen County, and swings southward towards the Newark Bay.



Historically, the Passaic River was vital for Lenape groups like the Acquackanonk and Hackensack, who used the river for fishing during the pre-Columbian era. European settlers would later use the river to build canals, hydropower facilities and industrial mills around the Great Falls of Paterson, making the river an important part of New Jersey's early industrial development. The lower river, a 17-mile stretch from the Dundee Dam to Newark Bay, flows through the most urbanized and industrialized areas of the state, where it has suffered from severe pollution and industrial abandonment from the 19th and 20th centuries to the present day. Manufacturing has contaminated the river's sediments with dioxin, mercury, PCBs and various other toxic chemicals, worsening the river's water quality. Poor land-use management has also degraded the river's shorelines and exposed vulnerable, often immigrant populations, to flooding while obstructing access to the waterfront.

In 1984, the lower river was placed on the Superfund National Priorities List, and consumption of fish and shellfish from the site was prohibited. After several small-scale remedial actions, in March 2016 the U.S. Environmental Protection Agency (EPA) issued an ambitious new cleanup plan for an eight-mile stretch of the lower river. It is considered one of the most polluted sections of water in the nation and the project one of the largest clean-ups ever undertaken. In the years since the announcement of the plan, a diverse array of partners and activists successfully negotiated to expand the cleanup for the full 17 miles of the lower river. Meanwhile, various residents, local governments, community and environmental groups are planning for a bright new post-cleanup future and working to attract residents old and new to the soon-to-be revitalized Passaic River, through land redevelopment, park creation, education and cultural events.



## BACKGROUND: REDEVELOPMENT PLANS

There are several redevelopment plans occurring in Harrison, East Newark and Kearny that will lay the grounds for a waterfront greenway. Some areas have already finished their projects and include waterfront walkways as part of their finished designs. Below is a brief overview of some redevelopment plans, how far along they are in their implementation and how the Passaic River Greenway has or will be integrated into their development.

### HARRISON WATERFRONT REDEVELOPMENT PLAN (2012)

Harrison is currently in the process of implementing an ambitious redevelopment of the town's industrial Riverbend in coordination with the Hudson County Hazard Mitigation Plan to reduce flooding. Several residential and mixed-use developments surrounding Red Bull Arena are finished or in the process of being built. During the summer of 2020, the Harrison Township Committee passed a resolution purchasing the land along the waterfront with the intention of developing a Cape May Street riverside park. This park will be one of the starting/ending points of the Passaic River Greenway and give new residents easy access to open space. In addition, nearly all the waterfront properties north of Railroad Avenue and west of 2nd Street have been successfully converted into residential and commercial buildings, with only a few remaining parcels still in preparation for development.

Unfortunately, several areas of the proposed plan will likely not be implemented anytime soon, raising questions about the short-term implementation of the greenway. The proposed waterfront parks and walkways in the Planned Office District, owned by PSE&G, and the parcels south of Railroad Ave and west of 1st Street, owned by freight and trucking interests, will only be available for development once the owners are ready to sell. The waterfront redevelopment plan ensures that the proposed areas will be developed once the properties are sold; there are currently no plans for expropriation.

Therefore, the only short-term walkway connection from the riverside park to the Bridge Street Bridge involves following the sidewalks along Frank E. Rogers Boulevard, passing underneath the railways, then turning on NJ Railroad Ave and following the sidewalks down to the Eddy's waterfront pathway. This is not ideal path for a greenway given the level of traffic and the current condition and size of the sidewalks along these roadways.

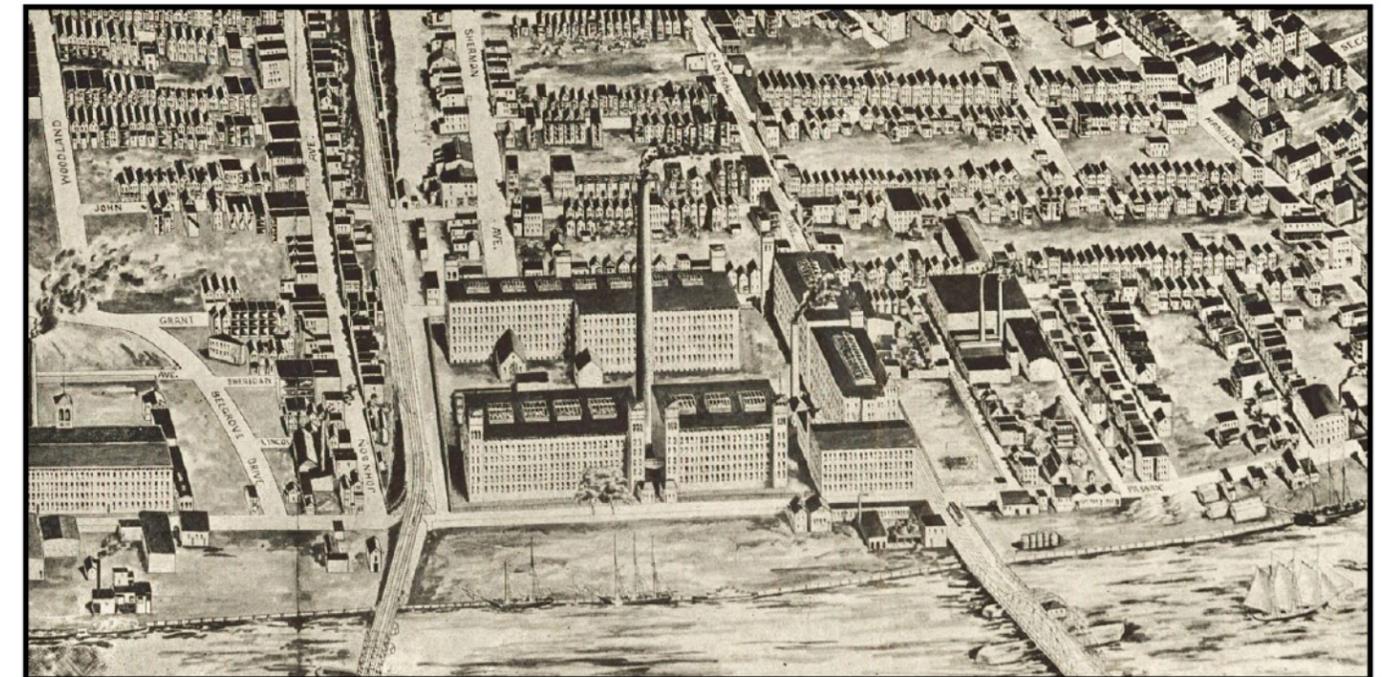


Amended Harrison Waterfront Redevelopment Plan 2012  
Town of Harrison, Hudson County, New Jersey – Adopted April 3, 2012

## EAST NEWARK RIVERFRONT PARK

In June 2021, the U.S. Fish and Wildlife Service and the national Oceanic and Atmospheric Administration released a final environmental assessment and early restoration plan of East Newark calling for a new five-acre park to be built along the waterfront. This project would be a funded, designed and constructed by potentially responsible parties (PRP) as a part of the extensive Diamond Alkali Superfund Site (DA Site) and Berry's Creek Study Area (BCSA), both located in northeast New Jersey. The proposed restoration is located directly along the Passaic River at the DA Site, in direct proximity to the BCSA watershed, and is expected to provide ecological benefits and recreational services relating to both Sites.

The proposed park, to the maximum extent practicable, would incorporate natural landscaping components, such as trees, pollinator gardens, native grasslands, and wetlands, and create public access to the Passaic River shoreline. Preliminary conceptual landscape design includes meadow and/or wetland areas, an elevated walkway over water along the Passaic River, upland tree canopy understory, including shrubs, groundcover and pervious paths. The project would also include provisions for possible future development of a kayak or similar boat launch, if appropriate.<sup>1</sup>



2



2



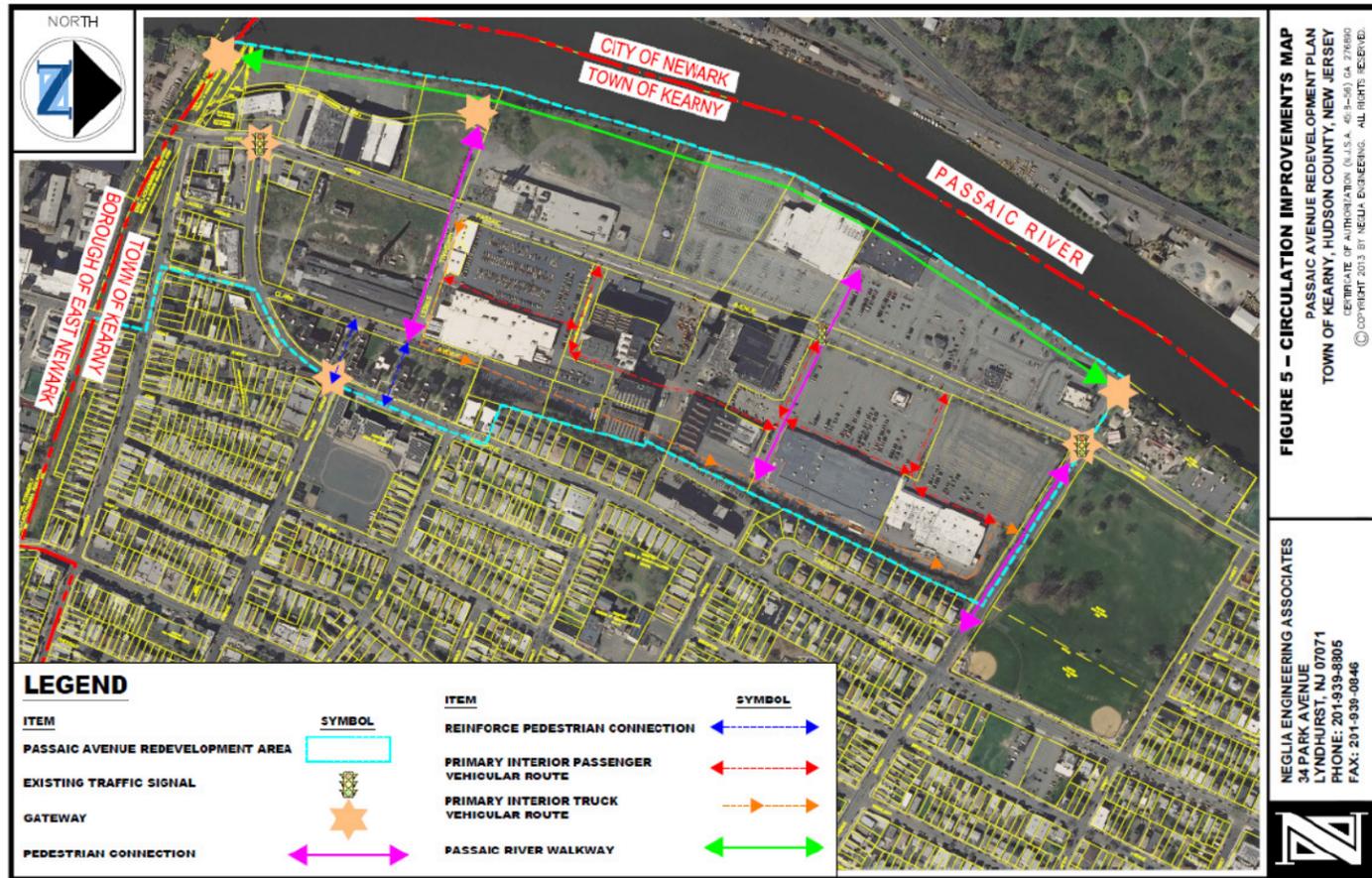
2

<sup>1</sup> Final Early Restoration Plan (U.S. Fish and Wildlife Preserve)

<sup>2</sup> East Newark Riverfront Park Restoration Project – August 10, 2022

# AMENDED PASSAIC AVENUE REDEVELOPMENT PLAN

The Passaic Avenue Redevelopment along the Kearny waterfront will focus on the redesign and development of vacant and underutilized parcels as newly permissible land uses that are structured to better complement existing commercial activity within the area. The Town Council recognizes the value of the waterfront as a socio-economic asset and is actively pursuing State and Federal incentive programs for assistance to clean up brownfield sites, implement flood protection and stimulate the redevelopment of Kearny's Passaic Avenue transportation corridor and waterfront properties. The Passaic River Greenway has been fully integrated with the current plan and includes pedestrian connections to both commercial and recreational amenities and the surrounding residential area.



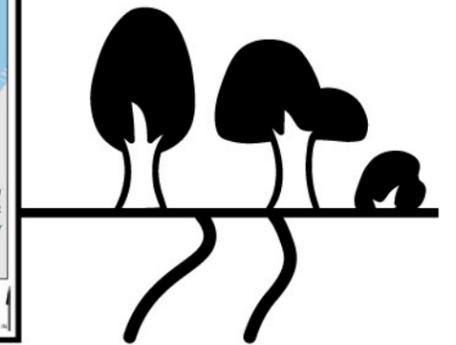
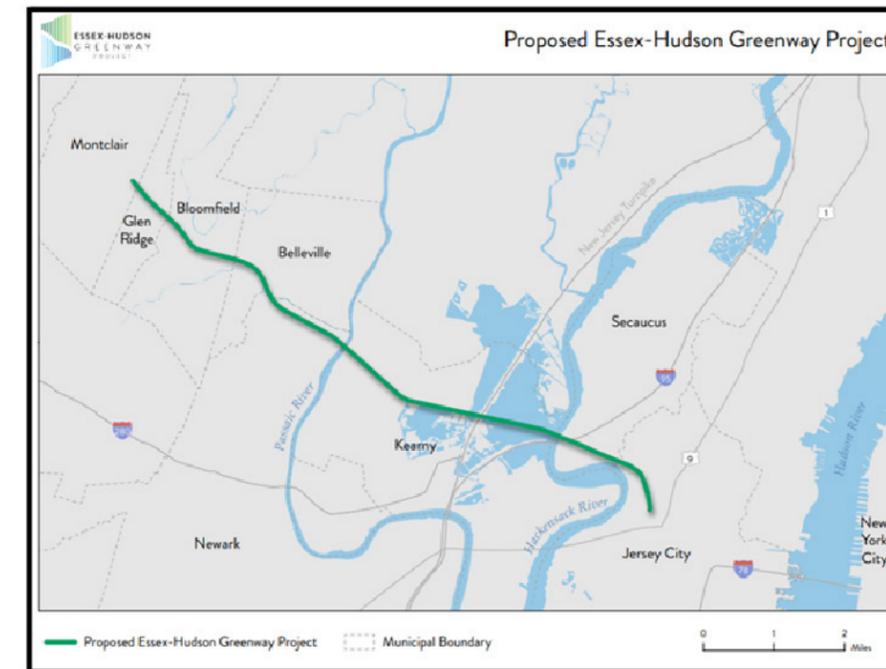
Amended Passaic Avenue Redevelopment Plan 2017  
Prepared For: Town of Kearny, Hudson County, New Jersey – March 2014, Amended November 2017



# ESSEX-HUDSON GREENWAY CONNECTION

The Essex-Hudson Greenway Coalition — comprised of the Open Space Institute, the New Jersey Bike & Walk Coalition and the September 11th National Memorial Trail Alliance — has been advocating for the creation of a linear park in Northern New Jersey which will pass through Kearny and intersect with the Passaic River Greenway. In July 2020 the Open Space Institute of New Jersey reached a preliminary purchase and sale agreement with Norfolk Southern Railway of nearly nine miles of former railway in Essex and Hudson. The property spans two counties and eight municipalities and will cost the state \$65 million. The greenway will span an average of 100 feet.

Under a framework announced by Gov. Philip D. Murphy in 2021, the state will purchase the 135-acre property and create a green space solution that will provide walkers, runners, cyclists, hikers and others with a linear park and multi-use trail connecting Montclair, Glen Ridge, Bloomfield, Belleville, Newark, Kearny, Secaucus and Jersey City. The integration of the Essex-Hudson Greenway with the Passaic River Greenway provides a great opportunity for cross-county pedestrian connection and recreation.



## SHORT TERM OPPORTUNITIES

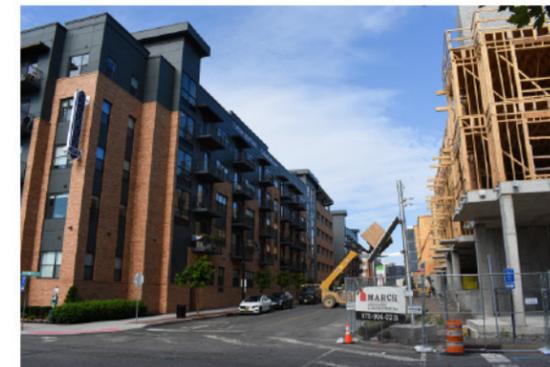
- Initial site cleanup of waterfront area completed in 2017. Grant funding for acquisition and redevelopment provided by the Hudson County Open Space Trust Fund, the Office of Natural Resource Restoration and the NJDEP Green Acres Program.
- Add signs designating the vacant land south of Red Bull Area as the Cape May Street Waterfront Park and as the starting and ending point of the Passaic River Greenway.
- Explore funding options for the inclusion of a dog park near the Jackson Street Bridge.



**1A** - Intersection between the Waterfront Redevelopment Area, the Harrison Industrial Center entrance and Red Bull Stadium, on Cape May Street.



**1B** - Fenced-off area to be converted into the Cape May Street Waterfront Park and Passaic River Greenway.



**1C** - Development of residential buildings on Riverbend Drive, north of Cape May Street and west of Red Bull Stadium.



## SECTION DESCRIPTION

Stadium Redevelopment District: The area around Red Bull Arena is being redeveloped into residential and mixed-use districts. The waterfront park will extend from Cape May Street to the shoreline, and from the Jackson Street Bridge to the Harrison Industrial Center (owned by PSE&G). The redevelopment plan also includes a Route 280 Interchange connection onto Cape May Street in order to reduce congestion during Red Bulls games.

Materials: Existing 6ft wide sidewalk along Cape May Street. Planned 6-12 ft asphalt mix greenway along the water within the upcoming Cape May Street Waterfront Park (anticipated for completion by the end of 2024).

## LONG TERM OPPORTUNITIES

- A few remaining buildings on the waterfront site have to be demolished and cleared. The start date for the waterfront park redevelopment is yet to be determined, but once begun, construction will take an estimated year and a half to complete.
- Incorporate a safe greenway connection to Section 2 into the design of the Cape May Street Park and the rehabilitation of the Jackson Street Bridge.
- The surrounding area is still dominated by surface commuter parking, although a new parking deck adjacent to the PATH has opened and additional structured parking is planned.

## CHALLENGES

- The Redevelopment Plan is a long-term project and requires negotiation between various stakeholders.
- The residential development around Red Bull Arena will likely cause increased traffic throughout the area, especially on Frank E. Rogers Boulevard. Structured parking and the Route 280 interchange connection may help reduce congestion but will take further time to implement.



Source: Flickr

## RED BULL STADIUM

Jackson St

Cape May St

- Completed
- ▬ Planned
- - - Temporary
- Proposed

## SHORT TERM OPPORTUNITIES

- Sidewalks on Frank E. Rogers Boulevard, NJ Railroad Ave and Cifelli Drive to be designated as a temporary walkway until the relevant properties are acquired and developed.
- Coordinate implementation of the Passaic River Tidal Flood Control Project, also known as the South 1st Street levee/flood system, which will use a combination of floodwalls and levees to provide protection for development from tidal floods from the Jackson Street Bridge to the Dock Bridge.

## LONG TERM OPPORTUNITIES

- Once acquired, the PSE&G site will be converted into a large-scale, comprehensively planned development consisting primarily of 10-25 story office towers, a waterfront park and several acres of inclusionary housing.
- Site design should capitalize on proximity to the PATH station and the Passaic River by integrating pedestrian connections to the PATH station.
- Plan for the construction of a waterfront greenway and the inclusion of various amenities such as benches, seating, lighting, trash receptacles and wayfinding signage designating the area as part of the Passaic River Greenway.
- Create public access underneath the Dock Bridge and encourage a detailed study for the construction of a boardwalk underpass connection to Section 3. Such a connection is critical to building a cohesive greenway.

## CHALLENGES

- The site is constrained by underground utilities (including a large gas vein along the river) and contamination from its historic use. Development and location of the buildings will be determined by these constraints.
- The site has yet to be acquired by the Town of Harrison so the timeline for development is to be determined.

## PSE&G SITE

## SECTION DESCRIPTION

**Planned Office District:** A 26-28-acre PSE&G industrial site built to the water's edge lies south of the PATH station, between the Jackson Street Bridge and the Newark Penn Station Dock Bridge.

**Materials:** Existing 6ft wide sidewalk on Frank E. Rogers Boulevard. Possible 6-12ft boardwalk underneath the Jackson Street Bridge. Proposed 12-16ft asphalt or mixed material greenway along the waterfront.



Source: NJ.com



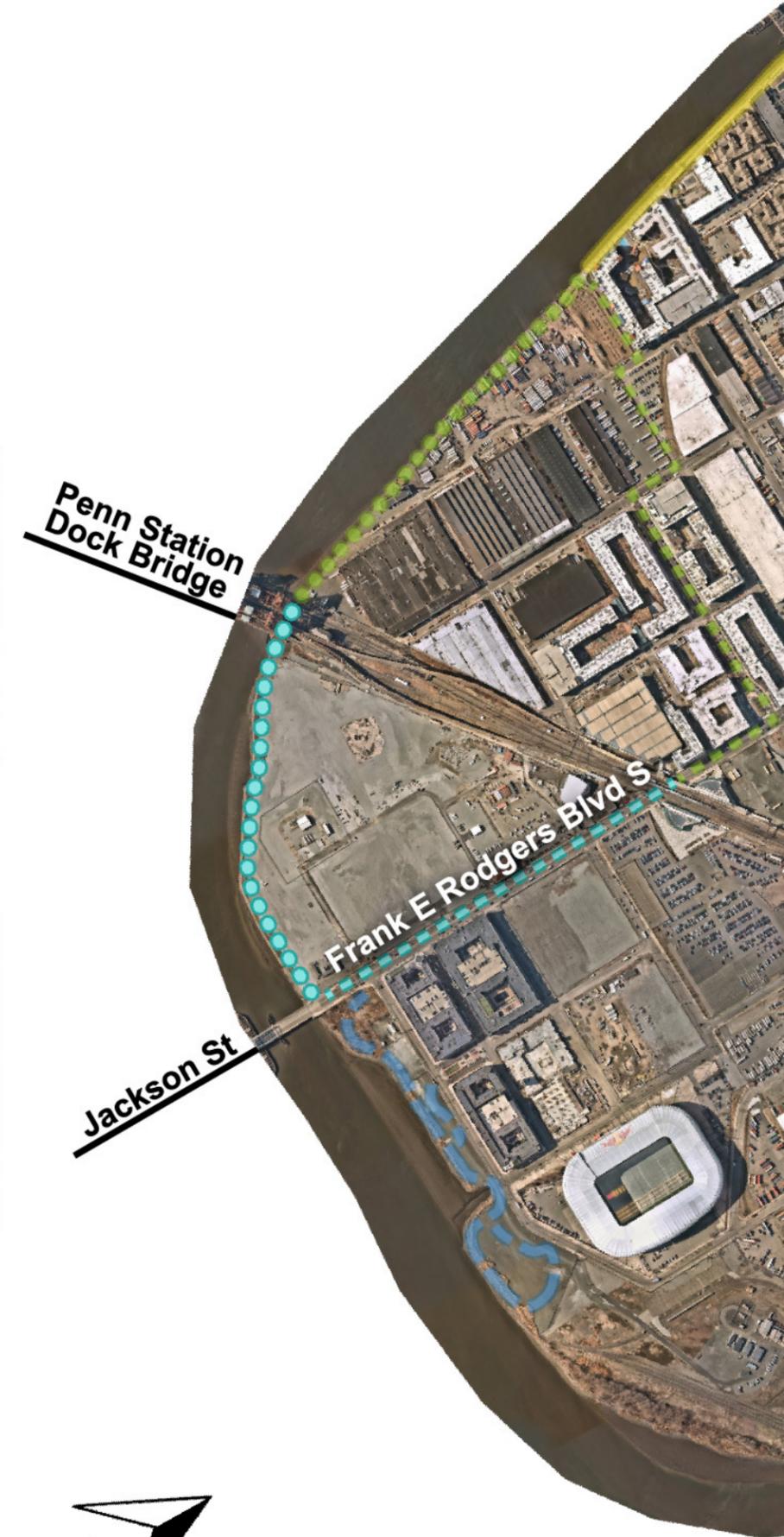
**2A** - PSE&G facility between the Jackson Street Bridge and Dock Bridge – to be converted into a Planned Office District.



**2B** - View from the Jackson Street Bridge – area to be converted into a waterfront greenway.



**2C** - View of the PSE&G site from across the Passaic River.



## SHORT TERM OPPORTUNITIES

- Sidewalks on Frank E. Rogers Boulevard, NJ Railroad Ave and Angelo Cifelli Drive to be designated as a temporary walkway until the relevant properties are acquired and developed.
- Encourage coordination between Harrison, site owners and developers for acquisition of the relevant properties.
- Promote and maintain pedestrian circulation where industrial sites persist in the process of redevelopment. Industrial sites are currently classified as non-conforming uses under the Harrison Waterfront Redevelopment Plan.



**3A** - View underneath the Dock Bridge.



**3B** - Buildings, parking lots and trucking facilities on 1st Street are built up to the water and to the Dock Bridge. Plans for bridge rehabilitation and boardwalk construction to be determined.



**3C** - Plans for redevelopment of the area postponed and to be determined. Should implement temporary path to connect the greenways until further development.

## LONG TERM OPPORTUNITIES

- The remaining freight facilities between the Dock Bridge and NJ Railroad Ave will be predominantly converted into a park and residential buildings with some commercial uses following the Harrison Waterfront Redevelopment Plan.
- Coordinate with Harrison and other stakeholders to integrate greenway design ideas and amenities with the broader Redevelopment Plan.

## CHALLENGES

- Similar constraints as in Section 2. The waterfront area south of the Eddy townhouses and west of 1st Street has yet to be acquired by the Town of Harrison so the timeline for development is to be determined.

## FREIGHT AREA ON 1ST STREET



## SECTION DESCRIPTION

**Freight Area:** An area comprised of industrial, freight and retail storage facilities. Waterfront area to be redeveloped into a park, and the more inland parcels converted into residencies.

**Materials:** Existing 6ft sidewalk on Frank E. Rogers Blvd and NJ Railroad Ave. Proposed 6-12ft boardwalk underneath the Railway Bridge and 12-16ft asphalt or mixed material greenway along the waterfront.



- Completed
- - - Planned
- . . . Temporary
- ● ● ● ● Proposed



## SHORT TERM OPPORTUNITIES

- Increase signage for the finished section of the walkways throughout the residential areas.
- Connect and integrate the finished walkways with the rest of the Redevelopment Area.



## SECTION DESCRIPTION

**Residential District:** Area that has already been converted into residential buildings in accordance with the Harrison Waterfront Redevelopment Plan, using funds from the Hudson County Open Space Trust Fund. Includes an approx. 10-foot-wide concrete riverfront walkway with metal railings, waste bins, seating and other amenities.

**Materials:** Existing 14-16ft wide mixed material waterfront paths with amenities including railings, lampposts, seating and trash receptacles. Existing 6ft sidewalks and 12ft cross walk on Harrison Ave. Proposed 6-12ft underpass (boardwalk) or overpass (metals) to circumnavigate the Bridge Street Bridge.

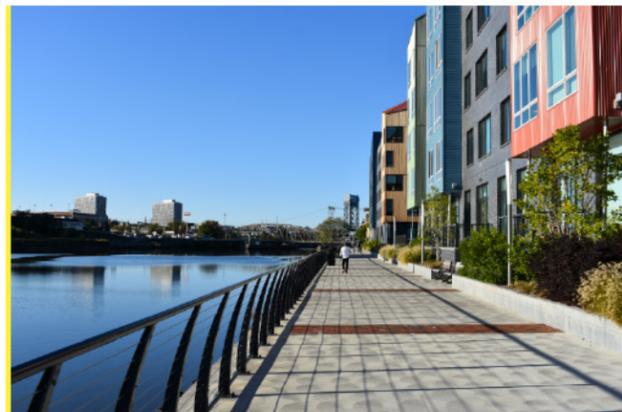
## LONG TERM OPPORTUNITIES

- Incorporate a safe greenway connection between walkways into the rehabilitation of the Bridge Street Bridge.
- Create public access underneath the Newark Drawbridge in order to construct a boardwalk underpass connecting the existing walkways to Section 5 of the greenway.

## CHALLENGES

- Permission required for access and redevelopment of the Bridge Street Bridge and Newark Drawbridge from Essex County and NJ Transit respectively.
- Separate ownership and jurisdiction on each side of the Bridge Street Bridge impedes development. Bridge studies and proposals require coordination between developers, Harrison and Hudson County.

## EDDY WATERFRONT WALKWAY



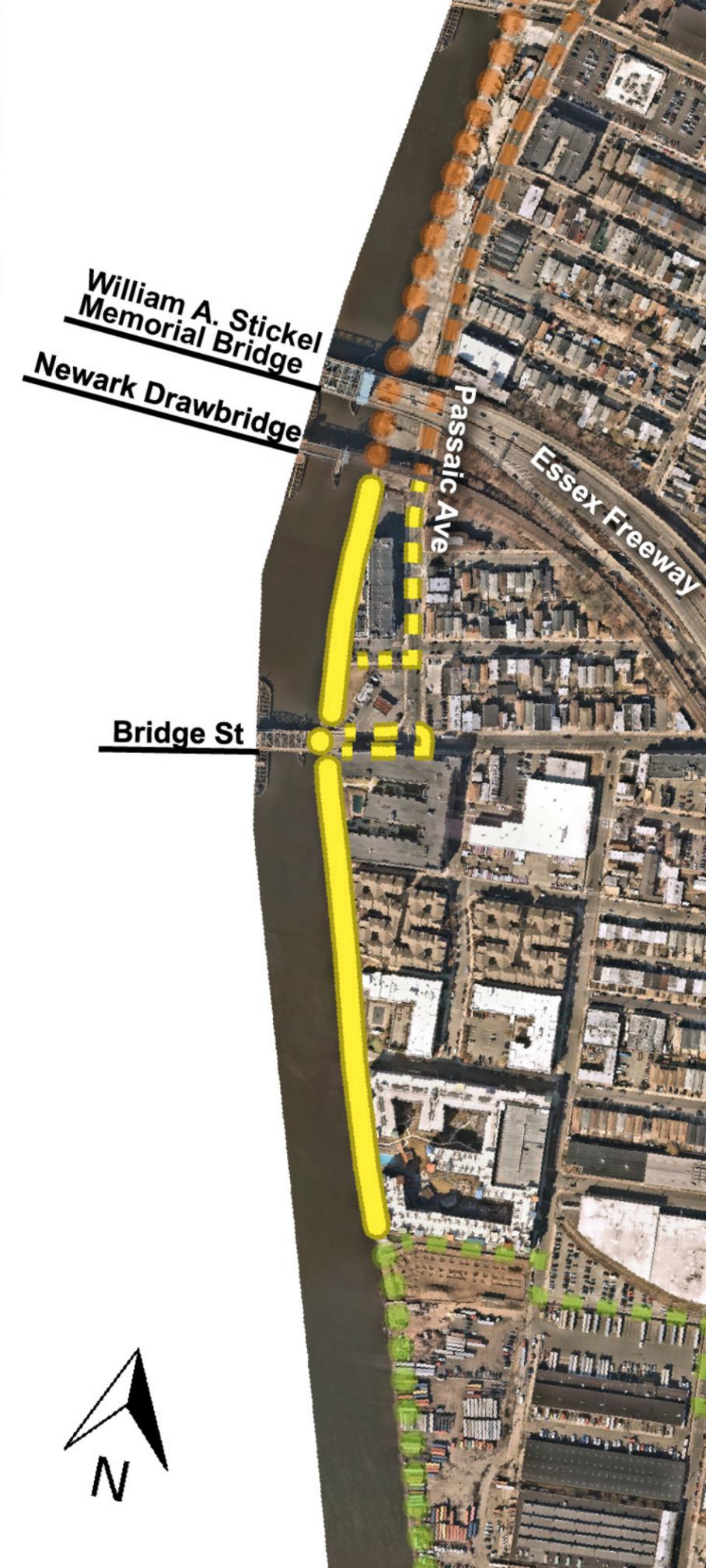
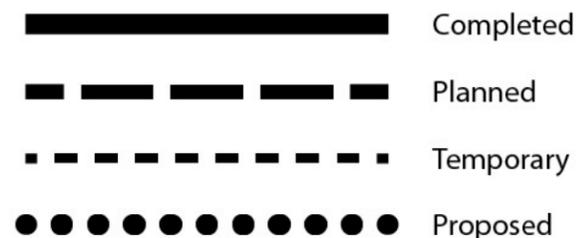
**4A** - Paved waterfront walkways and amenities alongside several residential structures from NJ Railroad to Harrison Avenue. Adequate width for both pedestrians and cyclists.



**4B** - Pedestrians must walk across Harrison Ave from one walkway to another to pass the Bridge Street Bridge. Plan a more direct greenway connection that does not disrupt traffic



**4C** - Walkway ends at the Newark Drawbridge. A parking lot extends from the NWD to underneath the WAS bridge. Plan for boardwalk connection and redevelopment.



## SHORT TERM OPPORTUNITIES

- Coordinate with and support design of the East Newark Natural Resource Restoration Project which will build a five-acre park in East Newark that will provide public access to the shoreline and include an elevated walkway along the Passaic River (2-year estimated construction time).
- Support and incorporate the greenway into the redesign of the Clay Street Bridge, which is being redeveloped with an added right turn lane.
- Sidewalks on Passaic Avenue to be designated as temporary walkways until the relevant properties are developed. Plan for the inclusion of wayfinding signage designating the East Newark Park as part of the broader Passaic River Greenway.

## LONG TERM OPPORTUNITIES

- Explore opportunities for redevelopment of the parking lot underneath William A. Stickel Bridge and public easements along the waterfront of the concrete factory properties owned by Penn Jersey Certified Concrete, and plan for their incorporation into the Passaic River Greenway.
- Connect the greenway to the Clark Thread Company Historic District, which will renovate a former thread company into a new town center offering more than 600 residences and 100,000 sf feet of retail.
- The former railway at the northern border of East Newark (connected to the NX "Annie" Bridge) presents an opportunity for redevelopment into a linear park. No significant study has been conducted on the matter yet.

## CHALLENGES

- Negotiate and coordinate the development and connection of different properties and redevelopment projects into the Passaic River Greenway.
- The timeline for redevelopment of the parking lot and concrete factory sites is yet to be determined.

## PARK SITE AREA



## SECTION DESCRIPTION

**East Newark Waterfront:** Comprises the waterfront of all East Newark including several industrial and vacant lots from the Stickel Bridge to Johnston Ave.

**Materials:** Existing 10-16ft sidewalks on Passaic Avenue. Planned combination of boardwalks, mixed material and asphalt waterfront pathways of varying width from Clay Street to Johnston Ave as part of the East Newark Riverfront Restoration. Proposed 12 ft wide extension of the greenway portions of the Restoration, adding boardwalks, mixed material and asphalt pathways along the waterfront from Hamilton Street to Clay Street.



Source: East Newark Riverfront Park



**5A** - Parking lot located on Passaic Avenue underneath the William A. Stickel Bridge.



**5B** - Bella Vista Industries and Eastern Concrete Materials.



Source: Jersey Digs

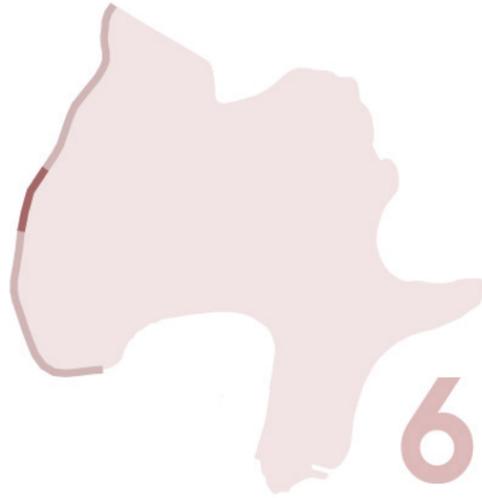
**5C** - Planned restoration of the Clark Thread Company Historic District into the new East Newark Town Center.

- Completed
- - - Planned
- - - - - Temporary
- ● ● ● ● Proposed



## SHORT TERM OPPORTUNITIES

- Enhance existing walkways and install additional amenities such as benches, trash receptacles and wayfinding signage designating the area as part of the Passaic River Greenway.
- Plan and construct new pathways connecting and integrating the vacant/underdeveloped waterfront parcels south of Marshall Street, with the completed pathways and Section 5.
- Investigate possible flood risks and control measures.



## SECTION DESCRIPTION

***Kearny Commercial Waterfront:** The waterfront from Johnston Avenue to Bergen Avenue is comprised mainly of residential buildings and large commercial centers with abundant parking lots. Except for a few parcels south of Marshall Street, this area includes a finished concrete riverfront walkway.*

***Materials:** Existing 6-12ft sidewalks along Passaic Ave. Existing 10-12ft asphalt pathways with metal railings but few other amenities along the commercial waterfront. Proposed extension of asphalt pathways from Johnston Ave to Marshall Street.*

## LONG TERM OPPORTUNITIES

- Reduce total surface parking and invest in pedestrian/transit alternatives.
- Encourage development that takes advantage of the waterfront and scenery such as restaurants with outdoor patios.
- Demolish vacant and deteriorating buildings and prepare sites for either redevelopment or conservation as natural areas.
- Explore funding and development options for historic sites and signage memorializing the area's industrial past.

## CHALLENGES

- Requires further negotiation, coordination and incentives between various commercial and residential stakeholders.

## UNFINISHED DEVELOPMENT SITE



**6A** - Finished residential development and waterfront walkway.



**6B** - Kearny commercial mall. Part of the Passaic Avenue Redevelopment Plan. Will include pedestrian connections between the waterfront walkway and surrounding area.



**6C** - Finished waterfront walkway located behind the mall. May include additional amenities and design elements.

- Completed
- - - Planned
- · · Temporary
- ● ● Proposed



## SHORT TERM OPPORTUNITIES

- Extend and widen existing walkways and install additional amenities such as benches, trash receptacles and wayfinding signage designating the area as part of the Passaic River Greenway.
- Encourage landscaping and maintenance of vegetation throughout the park, promoting greater daylight, openness and accessibility. Explore options for improved sightlines and viewsheds along the Passaic River.
- The Greenway will complement new enhancements to the futsal court, roller hockey rink, and surrounding area.

## LONG TERM OPPORTUNITIES

- Demolish vacant and deteriorating buildings and mark various parcels for conservation as natural areas.
- Build pedestrian connections across Passaic Ave to connect the Greenway with the surrounding neighborhood.
- Encourage rehabilitation of the Kearny Boat Launch dock and Kearny's acquisition of the vacant and dilapidated Skinner Bros. property, and plan for their incorporation into the Greenway.

## CHALLENGES

- Take mitigating measures to protect the parks from soil erosion and stormwater runoff.



**7A - KEARNY BOAT LAUNCH**

## SECTION DESCRIPTION

Kearny Riverfront & Parks: The area between Passaic Avenue and the Passaic River is mostly grass and woodlands that include the Kearny Riverwalk, Archery and Boat Launch, a parking lot, soccer field, field hockey court, the Peruvian Heritage Park, the Kearny Riverbank Park, the Kearny Dog Park and Frank A. Cardoza Park. There is a small, 1-person wide concrete path along the river near the tree line, this path only widens at Frank A. Cardoza Park.

Materials: Existing but intermittent 6ft wide sidewalks along Passaic Avenue, 5ft concrete pathways (in disrepair and with obstructive foliage) along the waterfront, and 12ft concrete pathways (in good condition) at Frank E. Cardoza Park. Proposed expansions and extensions of pathways to 12-16ft in width using asphalt mixes and additional amenities.



**7B** - Kearny memorial soccer field with asphalt pathway obstructed by tree foliage. The area also includes a nearby roller hockey rink.



**7E** - Frank Cardoza Park is an isolated area and walkway loop with no pathway connection to other amenities on the waterfront.



**7C** - Kearny Riverbank Park Asphalt pathway (5 foot width).



**7D** - The Kearny Community Garden, followed by the Kearny Dog Park, includes a continuous sidewalk on Passaic Avenue but no waterfront pathway.

- Completed
- - - Planned
- · · Temporary
- ● ● Proposed



## SHORT TERM OPPORTUNITIES

- Support the construction of the Kearny Riverbank Bike Trail, the rehabilitation of the Norman Doyle Pavilion playground and enhancement of the general area.
- Designate the Norman Doyle Pavillion as the starting and ending point of the Passaic River Greenway.
- Extend and widen existing walkways and install new benches, bike lanes, wayfinding signage and additional amenities.

## SECTION DESCRIPTION

*Arlington Riverfront:* The waterfront area from Frank Cardoza Park to the Belleville Turnpike Bridge contains few park pathways or amenities. The Passaic Ave road converges with the river around the West-Arlington Railroad Bridge, soon to be converted into the Essex-Hudson Greenway. The remaining area from Linden Avenue to the Norman Doyle Pavilion is set for redevelopment into the Kearny Riverbank Bike Trail.

*Materials:* Existing but intermittent 6ft wide sidewalks along Passaic Avenue and 5ft concrete pathways (in disrepair) along the waterfront. Planned asphalt bike trail 10ft wide from Linden Ave to the Norman Doyle Pavilion. Proposed pathway extensions connecting Frank Cardoza Park with the upcoming Essex-Hudson Greenway and Kearny Bike Trail, 10-16ft wide using asphalt mixes and boardwalk materials.

**8A** - Abandoned railway to be converted into the Essex-Hudson Greenway.



## LONG TERM OPPORTUNITIES

- Coordinate with NJ State the planning and construction of an ADA compliant connection of the Passaic River Greenway with the Hudson-Essex Greenway.
- Plan the construction of new walkways and amenities connecting and integrating Frank Cardoza Park, the Hudson-Essex Greenway and the Kearny Bike Trail into the broader Passaic River Greenway
- Support the inclusion of enhancements to the Kearny Boathouse and Hartung Recreation Center, such as additional greenery, scenic vistas and picnic areas for residents and crew members.

## CHALLENGES

- Passaic Ave runs very close to the river's edge. May require inclusion of a ramp connection with the Essex-Hudson Greenway. Coordinate planning and construction with NJ State.



**8B** - Arlington Dog & Cat Hospital. Surrounded by large stretches of greenery to be redeveloped into a riverbank bike trail.



**8D** - The Norman Doyle Pavilion and Riverbank Park. Includes a dilapidated playground, set for rehabilitation.



**8C** - The county border near the Kearny Boathouse and Belleville Turnpike Bridge.

- Completed
- - - Planned
- · - · - Temporary
- ● ● ● ● Proposed



# DESIGN STANDARD RECOMMENDATIONS

These design standards are intended to serve as guidance for walkway construction and maintenance, reflecting best practices for specifications and features. Installation and maintenance will require a collaboration between various property owners, governments, agencies, and other stakeholders.

## OFF-ROAD PATHWAY

An off-road pathway running parallel along the water's edge is always preferred where feasible.

- The pathway, and all sidewalks, crosswalks, and curb ramps, as well as the materials from which they are constructed, should comply with ADA standards.
- The pathway should be paved with either asphalt or concrete. When feasible, permeable pavements are encouraged.
- Pavers may be used for decorative accent purposes such as border areas or amenity spaces.
- For portions over water, a pressure-treated timber or composite boardwalk should be installed. The direction of the wood should not be parallel to the direction of traffic to limit the possibility of splinters. Transitions between paved and boardwalk portions of the pathway should maintain a level surface for safety and comfort for rolling wheels.
- All surfaces should be textured to avoid the potential for slipping.
- Where necessary, surfaces should be designed to support the maximum load anticipated for vehicular traffic, such as maintenance vehicles or fire equipment.
- Where feasible, the preferred pathway width should be 18' to allow for two-directional pedestrian and bicycle traffic.
- Pavement markings should be used to indicate directionality of traffic and division of bicycle and pedestrian spaces.
- To allow for passing without conflicts, no less than 12' width is recommended for any section of the paved pathway.
- Where possible, an additional 4' of easement is recommended on either side of the pathway as a buffer to allow for vegetation. Where space is constrained, the buffer is more important on the land side, as providing a vegetated buffer between neighboring properties and streets while maintaining views of the river is the priority.
- Amenity spaces, such as seating areas and plazas adjacent to the pathway, are encouraged throughout the length of the Greenway.

## ON-ROAD PATHWAY

Where existing land uses and/or terrain do not allow for the creation of a pathway directly adjacent to the water, an on-road pathway offers an interim solution.

- The pathway, and all sidewalks, crosswalks, and curb ramps, as well as the materials from which they are constructed, should comply with ADA standards.
- Pedestrians may use sidewalks. Separated, protected bicycle lanes designated with pavement markings are preferred. At a minimum, sharrows should be included in the roadway, with accompanying roadside signage designating the Greenway and bicycle route.

## VEGETATION

Vegetation has numerous benefits: it provides a visual and audio buffer from the surrounding urban context, improves the aesthetic appearance of the Greenway, helps to absorb stormwater, and provides a habitat for wildlife.

- Native, riparian, urban-tolerant plants and trees should be used.
- Smaller-scale plantings should be used directly alongside the water to prevent obstructing the view and minimize required trimmings.

## AMENITIES

Amenities may serve to enhance the experience of users along the Greenway.

- All amenities should be made of high-quality, durable materials that are suitable for the marine environment, tamper and graffiti resistant, with a long lifespan and minimal periodic maintenance. All amenities placed within the 100-year flood plain must be designed to withstand flood conditions.
- Seating should be provided along the pathway and in adjacent plaza spaces. Seating types may include benches and wall seating.
- Trash receptacles should be placed along the length of the Greenway. Additional trash cans shall be provided as necessary at plazas, gathering places and near concessions and retail uses which generate trash. Trash receptacles should only be installed if a program is in place to consistently empty them.
- Bicycle parking should be provided along the Greenway, particularly at plazas, parks, and connecting walkways, to allow for bicyclists to stop and relax and to discourage the use of the handrail, benches, or trees as fixtures to which bicycles may be attached. Bike racks should be securely mounted, either embedded in concrete or surface mounted with tamper-proof hardware. Racks should provide two points of contact to allow a bicycle to be locked with a U-lock to the frame and one of the wheels. Bike lockers may also be considered for locations where longer-term storage may be desired.
- Lighting may be used to facilitate early morning and evening use of the Greenway. Lighting is also recommended in areas where natural light is limited such as underpasses. Lighting fixtures should be of a consistent design and color and complement the design of other amenities and signage. Lighting should be pedestrian scale, and fixtures should be cut-off to limit light pollution.
- Drinking fountains are encouraged in amenity spaces.
- Consideration should be given to creating a sense of place in plazas and amenity spaces through the design, colors, and materials of amenities, as well as the inclusion of public art.



## SIGNAGE

Signage with a consistent design should be used along the Greenway to provide directions and information.

- Signs should be located where most effective in terms of decision points and informational needs. They should be located for prominence and readability. Whenever possible, simple graphic symbols should be used in place of text, as they are easily identifiable and can allow for understanding by users with language barriers.
- To promote branding and recognition, a visually consistent graphic design theme should be used on all signage throughout the Greenway, with an established typeface, fonts, and color palette. A primary logo for the Greenway should be designed and used across signage. Additional logos may help with highlighting specific features or themes. Signs should maintain consistent shapes.
- Where applicable, signage directing Greenway users to publicly accessible restrooms should be placed along the pathway.
- The order of messages on signage should be kept consistent along the length of the Greenway. Messages at the top of signs should relate to the most immediate points of decision, such as turns, and messages for users not making a change should be lower. Closer destinations should be higher while the furthest points should be at the bottom.
- Directional signage should be provided to all intersecting or nearby trails, nearby parks, plazas, transit stops, and other public areas, including distances and/or walking times, where applicable.
- Distance markers should be placed along the length of the Greenway at an interval of every 1/10th of a mile, where feasible. The markers should integrate the logo and Greenway colors to help users confirm that they are on the Greenway.
- Wherever the pathway intersects with a roadway, advance warning signs should be placed on both the pathway and the roadway.
- Interpretive signage at select locations can highlight points of interest and promote education about the natural environment.
- Maps and directories can highlight nearby business districts. Any maps should be oriented so that the top of the map is the direction the viewer is facing.
- Gateway signs marking entry points can help raise interest in the Greenway and promote its identity and use. They should be large enough to be seen from a distance.
- Space can be reserved for changeable signage such as decorative seasonal banners and signs to promote special events.
- Any necessary regulatory signs should maintain consistency with the overall graphic design theme.



Example of signage from the Hudson River Waterfront Walkway.

# PASSAIC RIVER GREENWAY WORKING GROUP

Supporters should encourage the formation of a Passaic River Greenway Working Group, comprising local officials, community organizations, property owners, and residents, with representatives from the County and each municipality, to plan and advocate for the Greenway.

Working with private property owners and municipal staff, the Working Group would advance the completion of the Greenway. The Working Group could promote the Greenway to users and to policymakers and funders. The Working Group could discuss issues affecting the Greenway and help achieve resolutions. The Working Group may set design standards and review proposed installations for consistency. The Working Group could coordinate maintenance and upgrades. The Working Group could also help to organize and sponsor special events on or along the Greenway.



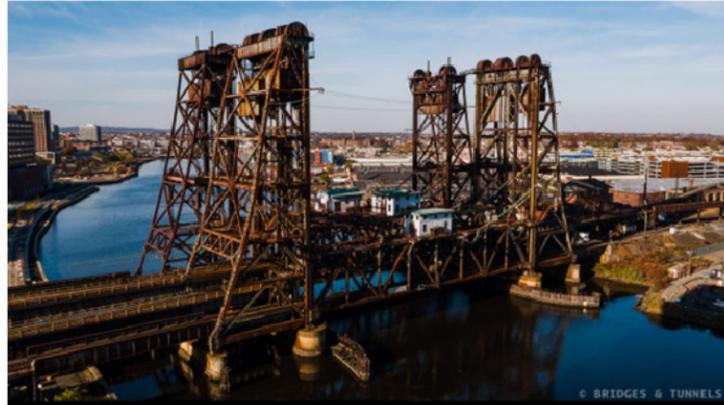
# APPENDIX

There are several bridges along the waterfronts of Harrison, East Newark and Kearny, that will influence the design and construction of the Passaic River Greenway. Some of these bridges have experienced rehabilitation in the recent past or are slated for upcoming rehabilitation in the near future.



BRIDGE - Jackson Street Bridge  
 CITY - Harrison  
 OWNER - City of Newark  
 BUILT - 1903  
 AGE - 119  
 DESIGN - Swing  
 CLEARANCE BELOW FT. - 15.1 (Low Tide)  
 TOTAL LENGTH (FT.) - 466.9  
 CARRIES - Jackson Street & Frank E. Rodgers Blvd (CR)  
 PEDESTRIAN ACCESS - Yes  
 TRAFFIC - Vehicular  
 OPERATIONAL - Yes

No study has been drafted yet for the Jackson Street Bridge, but the bridge has been grouped together with the Clay and Bridge Street bridges under the NJTPA 2040 Regional Transportation Plan as one that requires funding for repairs. According to the NJTPA's estimates, repairing the three bridges, listed as near-term projects within Essex County, will cost nearly \$1 million year-of-expenditure (YOE) dollars in capital investment.



BRIDGE - Dock Bridge  
 CITY - Harrison  
 OWNER - Amtrak  
 BUILT - 1935  
 AGE - 87  
 DESIGN - Through-truss vertical lift  
 CLEARANCE BELOW FT. - 24 (closed), 135 (open)  
 TOTAL LENGTH (FT.) - 466.9  
 CARRIES - Jackson Street & Frank E. Rodgers Blvd (CR)  
 PEDESTRIAN ACCESS - No  
 TRAFFIC - Rail  
 OPERATIONAL - Yes

The Dock Bridge has been selected for rehabilitation as part of the Northeast Corridor Gateway Program expansion and renovations. The project would convert the bridge to a fixed bridge to reduce delays on PATH, NJ TRANSIT, and Amtrak trains. It would also repair steel and concrete, and remediate and repaint the almost 90-year-old bridge.



BRIDGE - Bridge Street Bridge  
 CITY - Harrison  
 OWNER - Essex And Hudson County  
 BUILT - 1913  
 AGE - 109  
 DESIGN - Through-truss swing  
 CLEARANCE BELOW FT. - 6.9  
 TOTAL LENGTH (FT.) - 371.1  
 CARRIES - Bridge Street & Harrison Avenue, CR 508  
 Gladstone Branch (NJT)  
 PEDESTRIAN ACCESS - Yes  
 TRAFFIC - Vehicular  
 OPERATIONAL - Yes

Hudson County and Essex County are conducting a Local Concept Development Study of the existing Bridge Street Bridge over the Passaic River to improve its structural deficiencies and maintain an important transportation connection for residents and commuters in Hudson County to and from Newark's downtown business district and residential complexes. The bridge is over 100 years old and has been temporarily closed in recent years for structural and mechanical repairs. The Counties have recently received federal funding and are working with the municipalities in coordination with NJTPA and NJDOT to determine what bridge improvements are possible.

The bridge is structurally deficient with its superstructure in poor physical condition with localized advanced section losses to most steel truss members, localized advanced section losses to floor beams and girders in the approach spans, and holed through truss gusset plates in the swing span. The substructure is in satisfactory condition. The bridge's mechanical machinery and electrical system are in fair to poor condition and consist of new and obsolete devices and sub-systems that are nearing the end of their serviceable life.

The bridge railings do meet current crash safety standards, nor does the traffic control system and bridge control system operate effectively together and in accordance with current acceptable standards. The bridge is also susceptible to seismic forces and does not meet current seismic design standards.



BRIDGE - Newark Drawbridge  
 CITY - Harrison & East Newark  
 OWNER - NJ Transit  
 BUILT - 1903  
 AGE - 119  
 DESIGN - Swing  
 CLEARANCE BELOW FT. - 20  
 TOTAL LENGTH (FT.) - 870.1  
 CARRIES - Montclair-Boonton Line, Morristown Line, Gladstone Branch (all NJT)  
 PEDESTRIAN ACCESS - No  
 TRAFFIC - Rail  
 OPERATIONAL - Yes

Source: BridgeHunter.com

No recent or upcoming developments.

# APPENDIX



BRIDGE - William A. Stickel Memorial Bridge  
 CITY - East Newark  
 OWNER - NJDOT  
 BUILT - 1949  
 AGE - 73  
 DESIGN - Vertical-lift truss  
 CLEARANCE BELOW FT. - 38.4-49.5  
 TOTAL LENGTH (FT.) - 687.6  
 CARRIES - Interstate 280  
 PEDESTRIAN ACCESS - No  
 TRAFFIC - Vehicular  
 OPERATIONAL - Yes

Source: Wikipedia

In 2006, the New Jersey Department of Transportation (NJDOT) began a \$33 million reconstruction and rehabilitation of the I-280 Stickel Bridge over the Passaic River between Newark, East Newark and Harrison, in Essex and Hudson counties. The deteriorated bridge deck was replaced along with the mechanical and electrical equipment that operated the vertical lift span for navigation traffic. The eastbound and westbound decks were reconstructed and all structural steel repainted. The work was funded by the Federal Highway Administration and completed in 2009.



BRIDGE - Clay Street Bridge  
 CITY - East Newark  
 OWNER - Essex And Hudson County  
 BUILT - 1908  
 AGE - 114  
 DESIGN - Swing  
 CLEARANCE BELOW FT. - 6.9  
 TOTAL LENGTH (FT.) - 328.1  
 CARRIES - Clay Street & Central Avenue  
 PEDESTRIAN ACCESS - Yes  
 TRAFFIC - Vehicular  
 OPERATIONAL - Yes

Source: BridgeHunter.com

The Counties are also conducting an LCD Study of the Clay Street Bridge, also over 100 years and in need of several repairs and improvements that address its structural and functional design limitations.

The bridge superstructure is in poor physical condition with localized advanced section losses to steel truss members above and below the deck level and localized section losses to girders and floor beams in the swing span. The substructure is in generally fair condition but has a high potential vulnerability to scour. The bulkhead at the southwest channel embankment is severely deteriorated and failed. The bridge's electrical system is over 25 years old and consists of new and obsolete devices and sub-systems that are nearing the end of their serviceable life. The swing span has failed to open and has been stuck in the open position. The bridge railings, interlocking systems and seismic design does not meet current acceptable standards.



BRIDGE - NX Annie Bridge  
 CITY - East Newark & Kearny  
 OWNER - Norfolk Southern  
 BUILT - 1922  
 AGE - 100  
 DESIGN - Bascule (jackknife)  
 CLEARANCE BELOW FT. - 12  
 TOTAL LENGTH (FT.) - 440  
 CARRIES - Old Newark Branch of Erie Railroad  
 PEDESTRIAN ACCESS - No  
 TRAFFIC - Rail  
 OPERATIONAL - No

Source: HistoricBridges.org

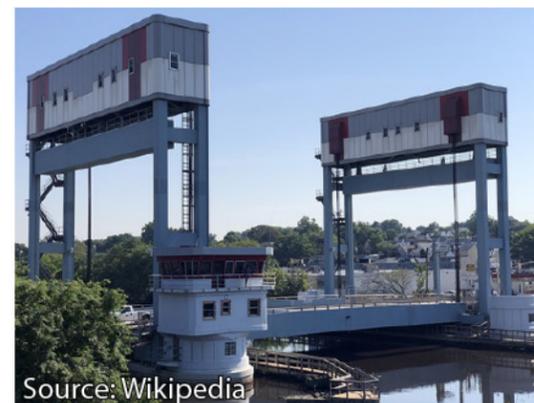
No recent or upcoming developments.



BRIDGE - West Arlington Railroad-Bridge  
 CITY - Kearny  
 OWNER - NJ Transit  
 BUILT - 1897  
 AGE - 125  
 DESIGN - Swing  
 CLEARANCE BELOW FT. - 40  
 TOTAL LENGTH (FT.) - ???  
 CARRIES - Old NJT Booton Line  
 PEDESTRIAN ACCESS - No  
 TRAFFIC - Rail  
 OPERATIONAL - No

Source: Wikipedia

The WR Draw, also known as the West Arlington Drawbridge and Arlington Rail-Line Bridge, is an out-of-service railroad bridge crossing the Passaic between Newark and the Arlington section of Kearny. It was last used for regular passenger service in 2002. The bridge will be redeveloped into a linear park as a part of the Essex-Hudson Greenway.



BRIDGE - Belleville Turnpike  
 CITY - Kearny  
 OWNER - NJDOT  
 BUILT - 2002  
 AGE - 20  
 DESIGN - Lift  
 CLEARANCE BELOW FT. - 49.9  
 TOTAL LENGTH (FT.) - 324.4  
 CARRIES - Route 7  
 PEDESTRIAN ACCESS - Yes  
 TRAFFIC - Vehicular  
 OPERATIONAL - Yes

Source: Wikipedia

No recent or upcoming developments.