

Richmond Industrial Trail Feasibility Study

Connecting five Philadelphia neighborhoods to each other, the Delaware River and beyond



About Rails-to-Trails Conservancy

Rails-to-Trails Conservancy (RTC) serves as the national voice for more than 160,000 members and supporters, 30,000 miles of rail-trails and multiuse trails, and more than 8,000 miles of potential trails waiting to be built, with a goal of creating more walkable, bikeable communities in America. Since 1986, we have worked from coast to coast, supporting the development of thousands of miles of rail-trails for millions of people to explore and enjoy.

RTC's diverse teams work collaboratively to advocate for and advance trail networks nationwide. In Philadelphia, staff advance local and statewide policy, champion projects, and provide advocacy, community support and technical assistance. Within specific trail development projects, such as the Richmond Industrial Trail, RTC also serves as a champion to help fund and advocate for trail building.

Much of the work completed by RTC's Northeast Regional Office would not be possible without support from city agencies, partners, community groups and residents whose advocacy continues to advance projects like these.

Acknowledgments

November 2018 Produced by Rails-to-Trails Conservancy

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The team wishes to recognize and thank RTC staff and others who contributed to the accuracy and utility of this report: Joe LaCroix and Anthony Le, graphic design; and Amy Kapp, editor.

Renderings created for this document were provided by Jing Bian and Dennis Mbugua.

This study was made possible by the generous support of the William Penn Foundation.



Steering Committee

A broad Steering Committee composed of local agencies, community organizations, political representatives and stakeholders was formed to guide the concept planning process. This group, the Richmond Industrial Trail Steering Committee, was charged with reviewing the planning work and vetting the plan recommendations.

Rails-to-Trails Conservancy is grateful for the guidance and contributions made by the following individuals:

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Executive Summary

In 2017, Rails-to-Trails Conservancy (RTC) was funded by the William Penn Foundation to advance planning and development of the Richmond Industrial Track Rail Corridor in the Kensington, Fairhill and Port Richmond communities. Like many other cities in the United States, the location of rail lines in Philadelphia has helped shape its commercial, neighborhood and industrial contours. Decades of divestment and loss of industry led to a neglected environment within the communities adjacent to this track and on the rail corridor. Short dumping, drug use and nuisance activities were pervasive. A \$1.8 million corridor cleanup by Conrail, with the City of Philadelphia, led to some stabilization and opened the door for trail development to become a transformative factor in the creation of neighborhood improvement efforts, blight remediation and public health goals.

RTC gathered information on corridor conditions and analyzed and reported on any existing references to the project in other neighborhood-, city- and county-level plans. RTC also conducted stakeholder interviews and provided partner outreach and evaluation. RTC worked with local partners to conduct a SWOT (strengths, weaknesses, opportunities and threats) analysis of potential partners/champions, opportunities and barriers to developing the trail; define the scope of work needed; and prioritize next steps, including segmentation of the corridor and the identification and cultivation of lead partners and champions.

As a result of this process, RTC determined that a Delaware River to Schuylkill River connection along the Richmond Industrial Track and connecting corridor is not feasible at this time. However, analysis found that the 1.87-mile corridor between Richmond and American streets is feasible for trail development, with the potential to move forward in the next five to 10 years. Crucial to this project's potential is that the railroad, Conrail, has expressed an interest in trail development as a way to stabilize its right-of-way and the adjacent areas after a large cleanup of the corridor. Conrail has already begun leasing portions of land along the corridor to neighborhood stakeholders.

Two potential trail builders were identified through this process. Delaware River Waterfront Corporation (DRWC) and the Hispanic Association of Contractors & Enterprises (HACE) expressed interest in becoming trail developers within their organizations' geographic boundaries. In September 2018, HACE celebrated the opening of a one-block section of trail. Both organizations submitted funding applications for planning to advance their respective segments of trail. The Philadelphia Water Department (PWD) identified ways in which trail development could support its stormwater goals and be funded in part through aligning trail engineering with stormwater capture.

The cost to develop the trail from Richmond Street to American Street would range from \$1.65 million to \$3.67 million, depending on trail design and other improvements. Immediate next steps for RTC are to support DRWC and HACE in advancing their trail efforts and collaborate with private developers to include connecting trail segments in their future developments. Additionally, RTC will work to further identify appropriate trail maintenance strategies, promote the Richmond Industrial Trail to be part of the Circuit Trails regional network and increase the trail's ranking on the city's priority list.



Introduction and Background

Purpose and Scope

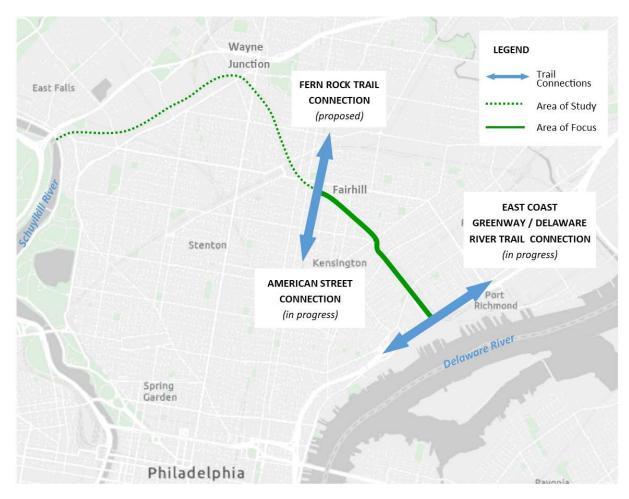
Located less than 4 miles north of central Philadelphia, the Richmond Industrial Track has created both opportunities and challenges for the communities adjacent to this line. Its geography crosses five neighborhoods and transitions from the elevated Lehigh Viaduct to a section known as "the cut," which runs below grade. Once the most active freight line in the city, it was key in supporting the region's economic growth. In recent years, the corridor has been better known as a site for dumping, trespassing and drug use. Today, the corridor is envisioned in over 12 plans (described later in this study) as a rail-with-trail with the potential to serve more than 40,000 residents living within a half-mile of the corridor. A rail-with-trail would provide a safe biking and walking route appropriate for all ages and abilities, where, currently, unprotected bicycling facilities and substandard or missing sidewalks are common.

The rail-with-trail also would allow for low-cost or no-cost opportunities for exercise in an area where the rate of obesity is 37 percent and 40 percent of residents do not exercise. These rates are 6 percent and 10 percent higher than the city averages, respectively, and 8 percent and 14 percent higher than national rates.¹ Philadelphia's Community Health Improvement Plan proposes increasing physical activity and specifically improving access in neighborhoods to spaces where residents feel safe exercising. The project also would provide green space in areas where there is currently little. Increased green space not only creates beauty, but is also shown to reduce stress and provide stormwater management opportunities. In Philadelphia's Greenworks sustainability plan, the city envisions that all residents would benefit from parks, trees, stormwater management and safe, affordable low-carbon transportation. Finally, the trail would bring people to the corridor for positive use, creating an "eyes-on-the-street" effect that would dissuade nuisance activities.

This document serves to collect the initial information and suggestions necessary to bring this concept to reality and bring the benefits outlined above to residents. The study presents a closer look at current corridor conditions, opportunities and challenges and makes preliminary recommendations for a trail that could eventually become a key river-to-river connection in the Circuit Trails regional network.

¹ 500 Cities Project, Centers for Disease Control and Prevention. Data provided at the census tract level.





A river-to-river trail alignment was explored as part of the feasibility study process. Given the complexity of the physical landscape, the effort concentrated on the eastern portion of the rail corridor.



About Rails-With-Trails



The Schuylkill River Trail is a rail-with-trail that runs along Norfolk Southern's Morrisville Line. Image by Thom Carroll

With the increasing popularity of rail-trails across the country, communities are looking for other innovative ways of transforming transportation corridors to accommodate multiple uses and securing land for safe, popular and effective trail development. Rails-with-trails—shared-use paths that are within or directly adjacent to active railroad corridors—provide even more opportunities for bolstering active transportation systems by offering safe, attractive community connections.

Currently, there are 343 rails-with-trails in 47 states within the United States, totaling 917 miles, and more are being built each year. The Schuylkill River Trail is a successful example of an existing rail-with-trail in Philadelphia, with the Schuylkill Banks section between the Fairmount Water Works and Christian Street abutting an active CSX right-of-way. Approximately 2 miles in length, the Schuylkill Banks segment provides recreational space in the center of this historic city.

Although safety is a commonly raised concern when developing trails near active railroad corridors, safety is actually improved by directing people along designated passageways. Successful precedents exist in corridors of varied characteristics (e.g., freight, passenger, high-volume or high-speed). Trails that are located within railroad rights-of-way are often required to follow guidelines set by the railroad owner or operator. For example, some railroads require a minimum setback from the track centerline or construction of a barrier (usually a fence), or both, between the trail and tracks. Providing additional insurance coverage is also a common requirement that railroads apply to easement, lease or license agreements with trail managers.

According to data collected by the Federal Railroad Administration (FRA) Office of Safety Analysis, tens of thousands of fatalities have occurred on railroad corridors since RTC released its first rail-with-trail study in 1992. However, there are only two known fatalities involving a trail user on a rail-with-trail. This data could suggest that rail-with-trail facilities can reduce fatalities by providing safer ways to traverse the corridor and cross tracks where necessary.

Additional resources are provided in *America's Rails-with-Trails*, a comprehensive study produced by RTC in 2013. Key findings and best practices are presented to help address concerns that railroads and communities may have when considering rail-with-trail facilities. For more information, visit railstotrails.org/railwithtrail.



Project Goals

The purpose of this study is to provide an assessment for developing a rail-with-trail on the Richmond Industrial Track, and to:

- Provide information on existing conditions and adjacent land uses
- Suggest design and trail alignment options
- Suggest implementation strategies and project phasing
- Identify potential funding opportunities
- Provide guidance for possible implementation and maintenance strategies for each segment

Produced as a feasibility study, this is intended to be the first planning effort to inform future, more extensive plans to develop the trail.

Project Benefits

Trail systems help to achieve the above goals by offering:

- Blight remediation: Trail systems can be an effective strategy when aligning with neighborhood stabilization goals and community interests.
- Crime prevention through environmental design (CPTED): Increasing sight lines and programming activity on previously vacant land serves to decrease crime and increase personal safety.
- Equitable investment in communities: Investing in public infrastructure and amenities in under-resourced areas has a larger impact value than same-dollar investments in other areas.
- Trauma reduction: Increased recreational and physical activities, combined with increased greening, reduces trauma.
- Health benefits: Walking and biking have widespread physical and mental health benefits, including weight loss, cardiovascular improvements and feelings of connection to one's neighbors and neighborhoods.

- Safe connections: Patrolled trail networks provide children with safer ways to get to school, commuters with safer ways to get to work, and everyone with safer ways to visit friends, stores and restaurants without needing access to a personal automobile.
- Regional watershed protection: Trails help connect and preserve our natural landscapes, provide needed links between fragmented habitats, and offer tremendous opportunities for protecting plant and animal species. Greenways serve as buffer zones that protect our waterways and streams from pollution runoff.
- Economic benefits: Trails provide economic benefits for new and existing businesses and save money on transportation expenses.
- Transit connections: Trails provide firstand last-mile connections, helping to ease the burden of getting from residential areas to public transportation and beyond.



Trail Development

Overview

Trail development is a process that takes many years and involves a lot of capacity, strong partners, multiple funding streams and broad advocacy. Roles and engagement vary from step to step, and ongoing progress is only made through the identification of, and support for, the trail champions who lead each step of the way. Each step typically requires application for and the receipt of one or multiple funding sources.





Plan Review

Rails-to-Trails Conservancy conducted a broad review of neighborhood-based, citywide and regional planning efforts that either pertain to this area or suggest a trail concept for this location. Thirteen plans developed between 2007 and 2017 reference a strong desire to create a physical trail connection in this area. Two alternative transportation projects are currently under development that would bookend this proposed segment. More than 5,271 residents and 1,236 stakeholders were engaged in these efforts, demonstrating broad support for advancement of a trail.²



<u>A Civic Vision for the Central Delaware, 2007</u> PennPraxis

This document was created with the guidance of an advisory group comprising more than 80 key stakeholders across 10 neighborhoods that run adjacent to the Central Delaware River. It recommends that the Lehigh Viaduct connect to a proposed park system along the Delaware River. The Lehigh Park is proposed to serve potential job centers and could be the entry point to a cross-city trail.



New Kensington Riverfront Plan, 2008

New Kensington Community Development Corporation

This plan, which engaged 29 stakeholders, introduces a vision for the Lehigh Viaduct as a potential state or regional park. It notes the potential for a park that would include trails with connections to the East Coast Greenway and potentially the Schuylkill River. The proposed green space would also provide key environmental services such as stormwater management, air quality improvement and wildlife habitat.



Center City Greenway Feasibility Study, 2009

Pennsylvania Environmental Council

In 2009, research was conducted to determine the best route for the East Coast Greenway to cross Philadelphia. The Lehigh Viaduct was considered but was not ultimately chosen as the primary connection route. The authors note that the Lehigh connection option was beneficial in that it would not impact vehicular traffic. It also notes that the grade separation could pose a safety concern.



Green2015: An Action Plan for the First 500 Acres, 2010

Philadelphia Parks and Recreation

This ambitious plan highlights the potential for the Richmond Industrial Track corridor to connect neighborhoods in North Philadelphia that do not have equitable access to green space to the Delaware River. It also notes that certain areas along this corridor have enough space to conform to rail-with-trail standards.

² These numbers are based on the plans that provided engagement numbers. Not all plans listed provided this information.





Master Plan for the Central Delaware, 2011

Delaware River Waterfront Corporation

This plan proposes a park with distinct characteristics every half-mile along the Delaware waterfront, including at Lehigh Avenue. Also acting as a trailhead, this proposed park indicates desire for a multiuse trail, parking, a public building, a boat launch ramp and a connection between the park and the pier. Guidelines specify 6.6 acres, riparian and upland vegetation, pedestrian access from the neighborhood and the region, and light industrial use at the edges.



Lehigh Somerset, A Conceptual Master Planning Study, 2011

New Kensington Community Development Corporation

Concepts within this resident-driven plan suggest that the rail corridor be repurposed as part of a regional park network that would connect inland neighborhoods to the waterfront. It was also noted that the rail corridor in its present state serves to separate communities and invite illegal activity. To begin the development process, it is suggested that stewardship and surveillance be increased.



American Street Corridor Status Update, 2011

Philadelphia Water Department

The American Street infrastructure improvement plan, now under construction, will include improved pedestrian access, bike lanes and streetscaping with a focus on stormwater management. The plan identifies a proposed Richmond Industrial Trail as a potential connection.



Philadelphia Trail Master Plan, 2013

Philadelphia City Planning Commission and Philadelphia Parks and Recreation

The Lehigh Viaduct Trail is included in this plan as a "low priority" project. This trail scored high for demand because of its proximity to schools, parks, recreation centers and for its location in a low-car-ownership neighborhood. Despite this, its overall low ranking resulted from lack of site control, the fact that there is no public ownership of property, the potential for environmental contamination as well as high acquisition and construction costs, and the absence of a leader on the project. This plan includes a map showing the connection from the Lehigh Viaduct Trail to the proposed Fern Rock American Trail. In the 2018 update to the plan, the project is again included, but it is still ranked as a low priority.



North of Lehigh Neighborhood Revitalization Plan, 2013

New Kensington Community Development Corporation

This resident-driven plan outlines specific goals and strategies for this corridor and notes a significant amount of unused land along the viaduct from Kensington Avenue to Aramingo Avenue. Profound vacancy throughout the area attracted nuisance activities. Residents felt it was critical to control access to the viaduct at the two principal access points and to actively program or develop vacant spaces into community-supporting uses.





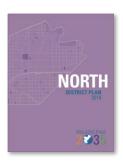
<u>Heart of Kensington Collective Impact 2022, 2017</u> Impact Services Corporation

Public outreach conducted during the creation of this plan found that residents rated safety of the neighborhood and quality of streets, sidewalks and public spaces as "poor." Impact Services Corporation is working with partners on a major neighborhood stabilization effort in the immediate area, which includes plans for capital investment in an old vacant mill building at A Street and East Indiana Avenue, and an adjacent community center at North Front Street and Tusculum Street, facing this rail corridor.



The Good Lands 2025 Neighborhood Plan, 2017 Hispanic Association of Contractors & Enterprises

This resident-driven plan outlines a neighborhood revitalization strategy focused on equity and investment in the Fairhill area. A key rendering envisions a walking path along Gurney Street. Negative uses and poor streetscape conditions occurring on and around the proposed trail alignment were noted as priority issues to address, and the plan outlines a crime prevention through environmental design strategy to address them. Suggested remedies include fencing, vegetation control, and social and policy changes.



North District Plan 2018
Philadelphia City Planning Commission

This plan highlights existing barriers that impede area residents from accessing environmental resources. It further recommends that rail-trails would increase the number of residents who could benefit from regional trail networks. The Lehigh Viaduct Trail is designated as a prioritized trail in the plan, connecting to the proposed Fern Rock American Trail. The Lehigh Viaduct Trail is included in a list of projects that should be targeted for a feasibility study.



95 revive.com, Neighborhood Improvements
Pennsylvania Department of Transportation

The expansion of I-95 through Philadelphia has been in planning and construction for more than 10 years. Where it intersects with the Lehigh Viaduct, planning is underway to include a "maintenance road" or trail beneath the I-95 infrastructure. Construction for this segment is expected to be completed in 2025.





The Richmond Industrial Track continues to be an extremely active rail line and is expected to expand operations in future years. Image courtesy Flying Kite

Rail Ownership and Operations

Sixty percent of this 5.8-mile rail-with-trail studied—from the Delaware River to Wayne Junction—is owned by Conrail, which operates freight on the line. The coming years may see increases in freight traffic through this area. Though some sections of track are fairly narrow and create pinch points, there are other areas that include wide swaths of land with appropriate width to accommodate both uses.

To date, Conrail has not developed a rail-with-trail on active industrial rail corridors it owns. This is largely due to the perceived safety and liability concerns from operating freight adjacent to pedestrian activity. Given these concerns, there are two geographic areas that currently meet the conditions that would be required for consideration of rail-with-trail. In these locations, perceived conflict or coactivity is minimized due to either topographical differences between proposed trail alignment and active track, or sufficient physical separation between the two uses.

In 2017, Conrail conducted a large cleanup of the Richmond Industrial Track from Richmond Street to American Street. Some of Conrail's strategies for sustaining the cleanup included partnership agreements for beautification and maintenance of vacant land, as well as stewardship by adjacent community organizations. Two areas in particular were seen as the most likely to advance for the trail project in the near term: the street-level portions along Gurney and Tusculum streets, and the southernmost side of the rail corridor from Aramingo Avenue to Richmond Street. Unused bridges along this edge would allow a trail connection over the streets below and reduce any need for special street crossings.

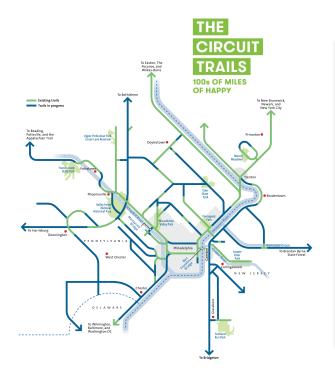
Because rail-with-trail is a new proposition for Conrail, and due to the pervasive trespassing and access challenges resulting from the opioid crisis centered in this area, the minimum conditions for consideration of a trail within these specific segments include secure fencing at least 6 feet high, high levels of maintenance, active patrolling and security, and a plan that will thoroughly address these requirements and be captured in any legal arrangement between Conrail and the trail manager.

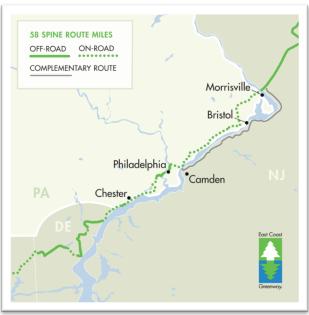
CSX and the Southeastern Pennsylvania Transportation Authority (SEPTA) own and operate the last portion of the rail line from Wayne Junction to the Schuylkill River and operate active passenger rail along this line. Discussions with them have not yet begun. Alignment is much more complicated and is likely to be cost prohibitive at this stage.



Local, Regional and National Connections

The Circuit Trails is a planned 800-mile system of trails throughout the Greater Philadelphia region. This network of trails will stretch throughout southeastern Pennsylvania and southern New Jersey, connecting rural, suburban and urban neighborhoods. There are currently more than 330 miles of the Circuit Trails completed, with another 76 miles of trails in planning or design.





The Circuit Trails network is a system of trails within the Greater Philadelphia region.

The East Coast Greenway is a plan to connect Maine to Florida through trails. Image courtesy East Coast Greenway Alliance

The East Coast Greenway is currently the country's longest walking and biking route—connecting 15 states, 450 cities and towns, and 3,000 miles of people-powered trails from Maine to Florida. The East Coast Greenway's route through Philadelphia begins at the northern edge of the city along the Delaware River and then runs past the Richmond Industrial Track and through the center of Philadelphia.

At this time, the current Delaware River Trail and East Coast Greenway are designated Circuit Trails. It is anticipated that the proposed Richmond Industrial Trail could fit within the Circuit Trails guidelines and design standards, and could be designated as a part of the regional trail network, connecting under-resourced communities in Philadelphia to the network and generating equitable access to a rich recreational and transportation system.



Funding Opportunities

Securing funding for trail development takes dedication and persistence. Much of the existing and planned multiuse trail infrastructure in Philadelphia was developed using a combination of federal and local capital funds. Below are some various funding streams that are used to advance trail systems in Philadelphia. Nontraditional funding sources should also be explored.

Community Conservation Partnerships Program (Pennsylvania Department of Conservation and Natural Resources [DCNR] via many sources, including Recreational Trails Program): DCNR's Bureau of Recreation and Conservation assists local governments and recreation and conservation organizations with funding for projects related to parks, recreation and conservation. *Grants: planning, acquisition, development.* \$1,148,000 was awarded to one Philadelphia trail project in 2018.

Regional Trails Program (Delaware Valley Regional Planning Commission [DVRPC]): DVRPC's Regional Trails Program provides planning assistance and financial support to trail developers, counties, municipalities and nonprofit organizations to complete the Circuit Trails, Greater Philadelphia's 800-mile network of multiuse trails. With financial support from the William Penn Foundation, the Regional Trails Program has provided more than \$11 million in funding to 55 trail planning, design and construction projects. *Grants: planning, design, construction.* A total of \$400,000 was awarded to two Philadelphia trail projects in 2017.

Transportation Alternatives (TA) Set-Aside Program (Pennsylvania Department of Transportation [PennDOT]): The TA Set-Aside Program provides funding for projects and activities defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhancing mobility, community improvement activities, environmental mitigation, trails that serve a transportation purpose and Safe Routes to School projects. *Grants: planning, design, construction*. A total of \$997,000 was awarded to one Philadelphia trail project in 2018.

Transportation and Community Development Initiative (TCDI) (DVRPC): The TCDI is an opportunity to support smart growth initiatives that implement the Connections 2045 Plan for Greater Philadelphia. *Grants: planning.* A total of \$100,000 was awarded to one Philadelphia trail project in 2015. Grant cycles are typically every other year.

Multimodal Transportation Fund (PennDOT): The dedicated Multimodal Transportation Fund stabilizes funding for ports and rail freight, increases aviation investments, establishes dedicated funding for bicycle and pedestrian improvements, and allows targeted funding for priority investments in any mode. *Grants: engineering, acquisition, construction.* A total of \$183,750 was awarded to one Philadelphia trail amenity project in 2018.

Greenways, Trails and Recreation Program (GTRP) (Department of Community & Economic Development): The GTRP can be used for projects that involve the development, rehabilitation and improvement of public parks, recreation areas, greenways, trails and river conservation. *Grants: planning, design, acquisition, construction.* Grant amounts range from \$100,000 to \$3 million. At least one grant to a Philadelphia trail project was made in 2017.



Neighborhood Assistance Program (NAP) (Department of Community & Economic Development): NAP is a tax-credit program designed to encourage businesses to invest in projects benefiting distressed neighborhoods and low-income individuals. Categories of projects include community economic development, community services, neighborhood assistance for physical improvements, neighborhood conservation and crime prevention. Contributing businesses may receive a tax credit of up to 55 percent. A nonprofit community organization is eligible to receive the funds and must commit to the program for one year. NAP has multiple components including the Special Program Priorities and Neighborhood Partnership Program outlined below.

- Special Program Priorities (SPP): For distressed areas and low-income populations, this program can be used for a variety of activities, including blight elimination. Contributing businesses may receive a tax credit of up to 75 percent. Nonprofit community organizations are also eligible to receive the funds and must commit to the program for one year. In 2017, Conrail committed a total of \$300,000 to Impact Services Corporation for blight remediation efforts. Tax credits in the amount of \$836,000 were made available to projects in Philadelphia in 2017.
- Neighborhood Partnership Program (NPP): This program is designed to address specific development needs as identified by a pre-existing community strategic plan in a distressed, low-income area. A five-year commitment is eligible for a tax credit of up to 75 percent for participating businesses. A six-year or longer commitment of a minimum of \$50,000 per year is eligible for a tax credit of up to 80 percent. Conrail had previously committed five years of NPP to New Kensington Community Development Corporation for a total value of \$300,000. In 2017, Conrail committed to six years of NPP to the Hispanic Association of Contractors & Enterprises (HACE) at \$150,000 per year or a total of \$900,000. Tax credits in the amount of \$812,500 were made available to projects in Philadelphia in 2017.

Redevelopment Assistance Capital Program (RACP) (Pennsylvania Office of the Budget): RACP is a commonwealth grant program administered for the acquisition and construction of regional economic, cultural, civic, recreational and historical improvement projects. Program projects are authorized in the Redevelopment Assistance section of the Capital Budget Itemization Act; have a regional or multijurisdictional impact; and generate substantial increases or maintain current levels of employment, tax revenues or other measures of economic activity. RACP projects are state-funded projects that cannot obtain primary funding under other state programs. *Grants: construction.* A total of \$1.5 million was awarded to trail projects in 2017.

Soak It Up Adoption Program (Philadelphia Water Department): This program provides civic associations with up to \$5,000 per year to maintain green stormwater infrastructure while promoting neighborhood beautification. Funds can be used for labor and equipment. *Grants: maintenance.*



Design and Construction

This section provides specific design guidelines and standards from a variety of authoritative sources on multiuse trails and rails-with-trails, as listed below:



America's Rails-with-Trails: A Resource for Planners, Agencies and Advocates on Trails Along Active Railroad Corridors (Rails-to-Trails Conservancy, 2013)



Guide for the Development of Bicycle Facilities (American Association of State Highway and Transportation Officials, 2012)



Rails-with-Trails: Lessons Learned (U.S. Department of Transportation, 2002)



Trail Planning, Design and Development Guidelines (State of Minnesota, Department of Natural Resources, 2007)

Design and construction of the Richmond Industrial Trail will be two of the more complicated pieces to move this project forward. Prioritizing the project and advancing it as a river-to-river connection could take years. But segmenting the project as proposed would tap into some existing interests at play to address current challenges in neighborhoods adjacent to the trail corridor and leverage other capital development projects to include a trail.

The process of designing and constructing the trail can occur once portions of the right-of-way have been acquired and funding is secured. There are opportunities to tap into neighborhood-based plans in the very near future, which could serve as an early action and set a tone for trail development.

Although the trail is identified in existing planning documents, Rails-to-Trails Conservancy recommends it be included in future citywide and regional planning efforts to be officially recognized as a priority project. Inclusion in these overarching plans ensures that trail development is coordinated with various aty plans and policies that affect land use and public facility development decisions.

This study focuses on a preliminary examination of feasibility for trail development. It is intended to set the foundation for future planning efforts, which should include robust public participation to ensure involvement from a wide and varied group of interested stakeholders.

Developing a detailed trail master plan will be necessary to identify site-specific conditions and offer more detailed strategies for necessary improvements, including environmental conditions, physical improvements, trail amenities, detailed cost estimates and an implementation plan. Detailed construction plans and specifications will draw from the master plan and guide trail construction.



Trail Management and Maintenance

Proactive and coordinated trail management and maintenance are vital to ensuring the effective operation and stewardship of existing trails within the City of Philadelphia. As many trails are managed by different entities, it is important to identify trail management responsibilities and projected maintenance costs for each trail segment.

Rails-with-trails have a unique set of management and maintenance concerns. In general, the adjacent railroad will not contribute to maintenance of the trail, although it will regularly clear vegetation alongside the tracks. Some railroads also require trail maintenance staff to complete an annual safety certification administered by the railroad and to coordinate with the railroad when performing maintenance within the rail right-of-way. Given the wide, diverse range of distances from the rail within this trail alignment, there will likely be various maintenance scenarios for each trail segment.

Annual maintenance costs vary widely in urban areas depending on the type of trail and area needs. In Philadelphia, annual trail maintenance costs start at \$10,000 per mile for very basic maintenance. Traditionally, this covers such tasks as mowing; vegetation and root trimming; sweeping; and snow, litter and graffiti removal. Less frequently, repair to trail signage and pavement markings, clearing of trail drainage systems or culverts, and asphalt crack sealing are required. Resealing over the entire length of the trail should be performed approximately once every eight years at a cost of approximately \$25,000 per mile. If maintenance is performed regularly, the lifespan of an asphalt trail can easily exceed the current average (based on a limited data set) of 20 years.

Philadelphia has three trail management organizations within the city, outside of Philadelphia Parks & Recreation: the Schuylkill River Development Corporation, the Delaware River Waterfront Corporation and the Riverfront North Partnership. Their maintenance structure along the Delaware River and Schuylkill River has been one of the most historically successful management structures for outdoor projects in the city. Trail development can take more than 20 years. While the city may be interested in advancing these efforts and therefore supportive, having an organizational entity that can push this project over two decades and through various administrations is critical to success.

These organizations' experience in managing and maintaining trail systems is likely to be a model for management and maintenance of this trail as well. Though the organizations do not work inland of the rivers currently, understanding whether they would consider being a development or maintenance partner is a critical first step. While the Richmond Industrial Trail will be unique in Philadelphia, the following case studies were chosen as important models to inform the project in terms of management structure.



Trail Management Case Study: The Rail Park

The Reading Viaduct, now known as the Rail Park, is a \$10 million project that was launched in 2016. Located five blocks from City Hall in the heart of Philadelphia, its location, the density of the surrounding area, the potential for private donors and political interest were key factors in the ability to advance this quarter-mile project within a relatively short time frame.

Considered Philadelphia's High Line, this project has been advancing through a unique partnership between the City of Philadelphia, the Center City District (CCD) and Friends of the Rail Park. Spurred on by the success of New York City's



The Center City District operates the newly opened Rail Park. It is owned by the city, managed by the CCD and supported by Friends of the Rail Park. Image courtesy Philly by Drone for Center City District

High Line, the Friends group formed to advance a common vision with the city to build out a similar project in Philadelphia. Because they were a small, newly formed group, they needed other partners to advance the work. Enter the city and the CCD.

The CCD is the largest business improvement district in the city. Along with the Central Philadelphia Development Corporation (CPDC), the city's business leadership organization, and the Center City District Foundation (CCDF), the CCD works to enhance the vitality and competitiveness of Philadelphia's downtown. In 1991, the CPDC created the CCD business improvement district to deliver daily services with the goal of making Center City, Philadelphia, clean and safe. This helped transform Center City into a vibrant, 24-hour downtown, attractive to businesses, residents, students, shoppers and tourists. In addition, the CCD is responsible for the management of Dilworth, Sister Cities, John F. Collins and Cret parks, four extraordinary public spaces in the heart of Center City. CCDF, the charitable affiliate of the CCD, was launched in 2016 to support the next generation of public space improvements in Center City, including the Rail Park.

The abandoned rail spur was purchased from the Southeastern Pennsylvania Transportation Authority (SEPTA). The CCD advanced the purchase agreement, spearheaded the planning and hired the contractors to build the park. The City of Philadelphia will own the property within its inventory, and the Friends group will support the private fundraising efforts needed to maintain the park.



Trail Management Case Study: Schuylkill Banks

The Schuylkill River Development Corporation (SRDC) is a 501(c)(3) nonprofit organization charged by the City of Philadelphia with revitalizing the Schuylkill River corridor. The centerpiece of this effort is the construction, programming and maintenance of a continuous 8-mile riverfront trail and greenway with associated access points and amenities along the banks. The first phase of trail construction will connect the Fairmount Water Works and Bartram's Garden, both National Historic Landmarks. Subsequent phases of trail construction will extend Schuylkill Banks to Fort Mifflin, another National Historic Landmark, situated near the confluence of the Schuylkill and Delaware rivers.



Schuylkill Banks in Philadelphia is a successful local example of a rail-with-trail. Image by Thom Carroll/Philly Voice

SRDC is revitalizing Philadelphia's tidal Schuylkill River corridor into an asset that connects neighborhoods and encourages investment. Working with the city and stakeholders to build, maintain and program Schuylkill Banks, SRDC drives improvements in recreation and transportation, community and economic development, public health and environmental stewardship, benefiting neighbors, Philadelphia and the region.

SRDC was formed in 1992 to advocate and raise funds for the riverfront park. This early iteration was in the form of a very active neighborhood nonprofit. Thanks in large part to its advocacy, the Philadelphia Streets Department created a trail along the riverfront between Christian Street and Martin Luther King Jr. Drive, clearing, bulkheading and paving the corridor.

A decade after its founding, SRDC voted to restructure. The new corporation had a board of directors composed of stakeholders along the river, including universities, utility companies, city agencies and businesses. It also had a professional staff that was hired to fundraise, advocate for trail development, oversee capital projects and implement programming. Under the leadership of the new board, SRDC worked with the city to landscape the Center City portion of the trail, create a vision for a connected greenway along the entire tidal Schuylkill and take steps toward implementing that vision.

Between 1992 and 2015, more than \$60 million was invested by SRDC, the city and partners along the tidal Schuylkill, resulting in dramatic improvements to the built environment and the significant revitalization of neighborhoods near the completed portions of the trail and greenway.



Trail Analysis

Feasibility Study Process



RESEARCH

RTC conducted both visual and background research to understand the lay of the land, political/environmental conditions, neighborhood planning and previous concepts for a river-to-river trail alignment.



ENGAGE STAKEHOLDERS

Through one-on-one discussions with advocates, the railroad, city agencies, political representatives and neighborhood-based organizations, RTC worked to understand possible alignment with stakeholders' goals, potential hurdles, needs, values and goals for a potential trail. This process also helped identify potential champions.



CONDUCT BROAD SWOT ANALYSIS

RTC worked with local partners to conduct a SWOT (strengths, weaknesses, opportunities and threats) analysis on the potential partners/champions, opportunities and barriers to developing the trail.



IDENTIFY AREA OF FOCUS

Based on the information collected through stakeholder interviews, the level of difficulty for various river-to-river scenarios was explored. This work resulted in identified areas of opportunity for trail development that aligned with neighborhood and city goals and, as a result, seemed feasible to develop in the near term (five-10 years).



ENGAGE STEERING COMMITTEE

Three meetings were held to bring together various professionals, advocates, major property owners, political representatives, neighborhood stakeholders and representatives of city agencies. Meeting agendas reviewed and confirmed the SWOT analysis; suggested potential directions for advancement and implementation; and outlined phasing based on physical, geographic and funding constraints and opportunities.



5

FINALIZE FEASIBILITY STUDY

Through active stakeholder input, the feasibility study was finalized with recommendations for implementation and advancement of this trail for its champions.



Process

Broad SWOT Analysis

During the initial research phase of this study, Rails-to-Trails Conservancy (RTC) worked to identify and prioritize key alignment opportunities for trail development along or adjacent to the Richmond Industrial Track.

To understand the opportunities for a river-to-river connection between the Schuylkill and Delaware rivers, RTC divided the corridor into three research areas: Delaware River to Sixth Street, Sixth Street to Wayne Junction, and Wayne Junction to the Schuylkill River. RTC also mapped out physical, geographic, neighborhood and political assets for each section. Through GIS analysis and site visits, RTC developed a simple SWOT (strengths, weaknesses, opportunities and threats) analysis that included ease of construction, opportunities, neighborhood capacities and likely cost of construction.

Through the SWOT analysis and conversations with Steering Committee members, it was determined that while there is a river-to-river connection possibility here, the only trail segment likely to advance in the next five to 10 years is the segment from American Street to the Delaware River. CSX and the Southeastern Pennsylvania Transportation Authority (SEPTA) own and operate the last portion of the rail line from Wayne Junction to the Schuylkill River and operate active passenger rail along this line. Alignment is much more complicated in this research area and is likely cost prohibitive at this stage. Discussions with the rail operators did not occur during this feasibility process. Schuylkill River Development Corporation or East Falls Development Corporation may be appropriate partners in the future.

Stakeholder Engagement and Discovery

Between April 2016 and September 2018, RTC conducted outreach to major stakeholders to understand the challenges and opportunities that might help inform a concept plan or feasibility study, and to understand broad concerns any partner might have about a trail in this area. These one-on-one meetings provided a lot of context and information about the viability of trails generally, with broader input on what it would take to develop a trail here. During this early discovery, it was determined that a concept plan would be duplicative, given the concepts for a trail system here that had been studied in more than 12 previous planning efforts. As a result, RTC determined that the additional trail study would be better served by digging into questions of feasibility.

During the spring of 2018, RTC began feasibility discussions with Conrail about how, where and when there might be opportunities for trail development within these particular segments. Two legal mechanisms the company is comfortable discussing along this alignment are beautification leases and acquisition for property that is not on the active rail right-of-way (e.g., land that may not be connected to the rail corridor but is adjacent).

Conrail's efforts to stabilize the rail corridor in the midst of historic neighborhood divestment led to a new neighborhood-based strategy and approach in advance of a multimillion-dollar cleanup in 2017. Conrail's commitment was based on a previous model established in 2012 with New Kensington Community Development Corporation (NKCDC), through which Conrail gave the neighborhood-based nonprofit \$300,000 over the course of five years through the Neighborhood Partnership Program (NPP), a state tax-credit program, to advance a neighborhood development strategy adjacent to the rail corridor.



In 2017, Conrail offered similar commitments to the two neighborhood-based organizations located in the area immediately adjacent to the company's 2017 cleanup. Conrail is currently in year two of a six-year, \$150,000 per year NPP commitment to the Hispanic Association of Contractors & Enterprises (HACE) and provided Impact Services Corporation with a \$300,000 Special Priorities Project commitment.

Both funding commitments were made to further a strategy that built on Conrail and the city's recent stabilization along the corridor, combining targeted physical and safety improvements, community engagement and catalytic investments.

While the City of Philadelphia collaborated extensively and prioritized this local rail corridor cleanup strategy, the city continues to have limited resources and funding available to advance trail systems. Currently, there are 66 trails identified for development on the citywide list, ranging from shovel-ready to concept only. The Richmond Industrial Trail/Lehigh Viaduct Trail network continues to be listed among the city's identified trail projects, but given limited capacity and funding and other trail projects that are currently in the pipeline, it is not a priority and is a third-tier project on the list. City agencies including Parks & Recreation did express a willingness to advance trails that have proven champions leading them; the Delaware River Waterfront Corporation (DRWC), which is developing the trail system along the central Delaware River, is included in this list of trusted trail managers.

DRWC is a major trail developer within Philadelphia and has adjacent interests, given its goals to increase development of and access to the Delaware River waterfront (see its Master Plan for the Central Delaware). DRWC's interest in exploring the first segment of this alignment gave some additional weight to the probability that this project might find a champion for at least one segment of trail. During the process of this engagement, DRWC and Conrail negotiated an agreement to advance and fund planning efforts to connect the Lehigh Viaduct (Segment 1A) to the greater central Delaware trail system including the East Coast Greenway.

Riverfront North Partnership (RNP) also advances the vision of a connected trail along the Delaware River, specifically within Northeast Philadelphia. With the construction of multiple new segments of trail within the past few years, RNP's interest in this project stems from its potential to connect another neighborhood seamlessly to its trail and beyond.

The Pennsylvania Environmental Council and the Bicycle Coalition of Greater Philadelphia are both leaders of the Circuit Trails Steering Committee and major advocates for trails, walking and biking across the Greater Philadelphia region. Both organizations support this project's inclusion as an official Circuit Trails segment, acknowledging its ability to provide access to the Circuit Trails to a large number of residents with the construction of relatively few miles of trail.

Locally, there are also three major community groups with the capacity and interest to advance trails within this area. All three—New Kensington Community Development Corporation (NKCDC), HACE and Impact Services Corporation—have already entered into lease agreements with Conrail for land along the corridor as a means of supporting major capital investments. Though they are interested in trail development as a strategy for blight remediation and neighborhood stabilization, none has developed or managed trails, and it is not directly in any of their missions to do so. However, as an improved asset within their community and a pathway to blight remediation, the groups support this effort and show a strong desire to advance the trail.



Steering Committee Development

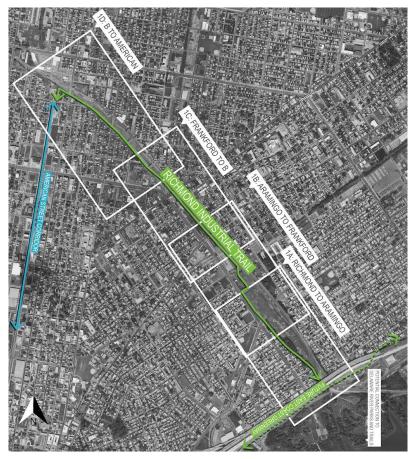
After conducting initial outreach with stakeholders, RTC invited a representative from each organization as well as some additional partners to serve on the Richmond Industrial Trail Steering Committee.

The Steering Committee was composed of representatives from neighborhood community development organizations, city agencies, political representatives, trail advocacy groups and trail system managers. The role of the Steering Committee was to provide input, advice and guidance on the development of this plan and the recommendations within.

The Steering Committee met three times over the course of spring and summer 2018. The first meeting covered the research conducted by RTC up to that point and gathered input on the plan's strategic direction. The second meeting focused on the specific considerations of each segment. The last meeting served to finalize implementation direction and provide input on the draft plan.

Project Phasing

To leverage work that was recently done to stabilize the railroad corridor and clean up the surrounding areas, the Delaware River to Sixth Street research area became the best opportunity for advancement and development of a trail. Engaged partners are in place, adjacent developments would benefit from a trail, and there is an increasing need to have the trail provide opportunities for transportation as well as support area beautification and serve as a recreational amenity.



The Richmond Industrial Trail overview and proposed segmentation approach



Existing Conditions Assessment

This corridor poses a unique set of challenges and opportunities that vary widely along the 1.87-mile proposed trail alignment. The challenges and opportunities are listed below. Given the unique circumstances of each segment, strategies for each had to be defined and vetted in order to develop recommendations that would ultimately connect the segments.

The opioid crisis in Philadelphia has been playing out on and adjacent to the active rail lines of the Richmond Industrial Track for years. As the national crisis grew, so too did the activity on a porous rail line where one could quickly be hidden from view and inaccessible by local law enforcement agencies.

The tipping point between the city and Conrail made headlines across the country as they battled a national epidemic. The adjacent areas have had a history of drugs and related nuisance issues for more than six decades. The drugs have changed, the landscape has changed, but the opportunities that exist along the vacant post-industrial landscape adjacent to the I-95 corridor are systemic and unlikely to change without intentional coordination and joint strategies among all stakeholders.

Philadelphia's Kensington neighborhood is considered the largest open-air drug market in the country. Over the years, for a variety of policy, political and societal reasons, this has become an entrenched issue that will not go away without major local and national reform. Embedded in efforts to address this issue are crime prevention through environmental design (CPTED) strategies, which serve to embrace pride in quality spaces, bring positive activity and eyes to an area, and facilitate new behaviors within the area.

While there are considerable challenges, there continue to be strong communities that have rallied around to address them. The area as a whole may be disjointed in many ways, but there is a growing interest in connection and cooperation among the various stakeholders. Many are coming together to address the opioid epidemic through collaborative planning and coordination. New Kensington Community Development Corporation (NKCDC), Impact Services Corporation and Hispanic Association of Contractors & Enterprises (HACE) have all joined with the Local Initiatives Support Corporation (LISC) to participate in the nationally recognized Sustainable Communities Initiative. All these organizations recognize area beautification

(including trails) as a stabilization, safety and crime prevention strategy that ties in with CPTED principles.

Simultaneously, as higher-income residents have moved into the area to the east, there has been an increased desire for trails, parks and other public amenities to replace the post-industrial infrastructure. Additionally, more residents are commuting by bike and value off-road transportation facilities.

Proposed Trail Alignment

After extensive research and stakeholder input, it was determined that the most viable trail opportunities existed within the easternmost portions of this rail corridor, connecting the American Street corridor to the Delaware River assets and beyond. The trail feasibility study goals and recommendations were then aligned in order to be firmly rooted in the unique goals of the five communities this 1.87 miles of trail intersects. Phasing and strategies were recommended for four segments based on their unique opportunities and constraints.





Image courtesy Philadelphia City Planning Commission

Segment 1A: Richmond Street to Aramingo Avenue

Segment Goal: Support the Delaware River Waterfront Corporation (DRWC) in championing this trail segment as a connector to Delaware River trails.

DRWC is a trusted and valued city partner in trail development and management along the central Delaware River. The nonprofit corporation had previously identified the Lehigh Viaduct connection as a critical connector to the river in its Master Plan for the Central Delaware. The ability of DRWC to fund, implement and advance projects with broad partnership and community engagement is highly regarded. Their participation would help to ensure project success.



400 |



1A: RICHMOND TO ARAMINGO

NEIGHBORHOOD ASSETS

- 1 St. Anne's Church
- 2 St. Anne's Rectory
- 3 NHS School St. Anne's
- 4 Tezzi-Reitz Veterans Memorial Park
- 5 Cione Playground
- 6 Aramingo Square Park
- 7 Portside Arts Center

- ← Potential trail alignment
- Potential later phase trail alignment
- Possible access points to street
- <--> Through streets
- Existing unused rail bridges
- Active rail corridor
- --- Bike lanes
- ····· Sharrows



Segment view from Aramingo and Lehigh avenues (looking west) depicting trail access/gateway potential



Recommended Alignment

The ideal alignment for this segment would follow a pathway that connects the vacant rail bridges along the southern edge of Conrail's property (along Lehigh Avenue) to eliminate street crossing at Aramingo Avenue. Trail access points are recommended at I-95 and on the west side of Aramingo Avenue initially. Other access points could be explored should the removal of sections of retaining wall be feasible and desirable at the current dead ends at Gaul, Miller, Livingston, Almond, Webb and Edgemont streets.

Opportunities

- There are currently unused rail bridges along the southern edge of the property at Aramingo Avenue, Belgrade Street and East Thompson Street that could be used to eliminate the need for street-level crossings.
- There are two street-level access points at each end of this section.
- Aramingo Avenue provides a nice slope on the eastern side that could be an access ramp.
- Beneath I-95 there is another slope from the southern edge. Because of the I-95 reconstruction, there is an opportunity to collaborate with the Pennsylvania Department of Transportation (PennDOT) for future access.
- Streets that intersect Lehigh Avenue and deadend at the viaduct could be possible access points as well.
- There is widespread political and stakeholder support.

Challenges

- This is an active rail yard with a new tenant who is expected to also be active on the site.
- Movement of trains and heavy machinery in this area could create conflict between bicyclists and pedestrians.
- Security issues and safety are of utmost concern for the railroad.



Existing conditions at Aramingo Avenue and East Lehigh Avenue looking west. Image courtesy Google

Segment Specs

- Length: 0.45 mile; 2,399 linear feet
- Key stakeholders: Olde Richmond Civic Association (ORCA), Port Richmond on Patrol and Civic (PROPAC), Delaware River Waterfront Corporation (DRWC), Riverfront North Partnership, James J. Anderson Construction Co., New Kensington Community Development Corporation (NKCDC), South Port Richmond Civic Association (SOPO)
- Ownership: Conrail has leased a parcel to James J. Anderson Construction Co., which is expected to use this as a construction staging area.





Trail concept as proposed within the RiverWards Group's Kensington Courts proposal. Image courtesy RiverWards Group

Segment 1B: Aramingo Avenue to Frankford Avenue

Segment Goal: Work with private developers to connect trail on future development proposals.

As land ownership changes or new development proposals are presented, neighborhood organizations should work with developers to include trail connections. Discussions should be coordinated with Philadelphia City Planning Commission and city council representatives.



400 | 600 FEET | 1/8 MILE



1B: ARAMINGO TO FRANKFORD

NEIGHBORHOOD ASSETS

- 1 Kensington Community Food Co-op
- 2 Frankford Avenue Arts Corridor
- 3 Trenton & Auburn Playground & Park
- 4 St. Anne's Church
- 5 St. Anne's Rectory
- 6 NHS School St. Anne's
- 7 Tezzi-Reitz Veterans Memorial Park
- 8 Cione Playground
- 9 Aramingo Square Park

- → Potential trail alignment
- Potential later phase trail alignment
- ← Possible access points to street
- <--> Through streets
- Existing unused rail bridges
- Active rail corridor
- --- Bike lanes
- ····· Sharrows



Segment view of Frankford and East Lehigh avenues depicting trail within the forthcoming Kensington Courts residential development property



Recommended Alignment

The ideal alignment for this segment would follow the pathway along the southern portion of East Lehigh Avenue where there are unused rail bridges and along private property as new developments occur. A current proposal by the RiverWards Group for development of 5 acres at Frankford and East Lehigh avenues offers a unique opportunity to work with the project development team to incorporate a trail design to its property. Current site plans include a jogging path adjacent to the railroad corridor, separated by a wall from the rail. Street-level access at Trenton Avenue should be explored as a potential gateway/trail access point.

Opportunities

- There are currently unused rail bridges along the southern edge of the property at Tulip Street and Frankford Avenue.
- Much of the south side along East Lehigh Avenue is likely to be developed in the next 10 years.
- There is an opportunity to work with developers to incorporate paths through their properties.

Challenges

- This is an active rail yard with a new industrial tenant (James J. Anderson Construction Co.).
 Jacquin's is also an active tenant and has an underground pipe connection that surfaces at the rail at Trenton Avenue.
- There are no street-level access points on the southern edge except the current right-of-way Conrail uses at Trenton Avenue (south side).
- The north side has a number of active scrap metal yards.
- There is currently a large population of people facing homelessness and addiction who live under the adjacent bridges and in vacant lots.



Existing conditions at Frankford and East Lehigh avenues looking east. The proposed Kensington Courts development is shown in the lower right between the rail corridor and the bridge. Pathway opportunities on the active rail corridor are not possible here; trail development may be possible through private developers. Image courtesy Google

Segment Specs

- Length: 0.54 mile; 2,856 linear feet
- Key stakeholders: Olde Richmond Civic Association (ORCA), New Kensington Community Development Corporation (NKCDC), Somerset Neighbors for Better Living (SNBL), Port Richmond on Patrol and Civic (PROPAC), South Port Richmond Civic Association (SOPO), East Kensington Neighborhood Association (EKNA), property owners along Lehigh
- Ownership: Conrail with other possible alignments through development sites as they advance, including the RiverWards Group, Jacquin's and James J. Anderson Construction Co. (tenant).





Rail-with-Trail concept rendering

Segment 1C: Frankford Avenue to B Street

Segment Goal: Continue to explore connection opportunities as other sections develop.

This segment is currently expected to be the last piece to be completed. It is close to the rails and is a safety concern in the immediate future to both trail users and the railroad. It is recommended that discussions with Conrail continue on whether a maintenance road might be tested in future years to make this connection as the neighborhood stabilizes and future developments occur.



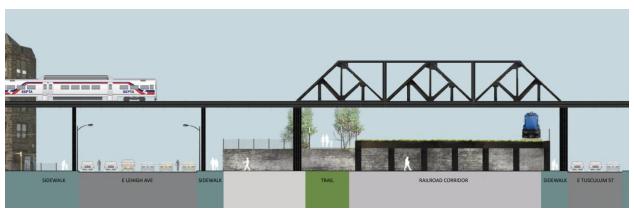


1C: FRANKFORD TO B STREET

NEIGHBORHOOD ASSETS

- 1 Somerset Villas
- 2 Philadelphia County Assistance Office & Public Nursing Home
- 3 Temple University Hospital
- 4 Visitation BVM Catholic School
- 5 The Rock Calvary Chapel
- 6 Orinoka Civic House
- 7 Mt Zion Church of Kensington
- 8 Kensington Community Food Co-op
- 9 Frankford Avenue Arts Corridor

- ← Potential trail alignment
- Potential later phase trail alignment
- Possible access points to street
- <--> Through streets
- Existing unused rail bridges
- Active rail corridor
 - Bike lanes
- SEPTA Market-Frankford Line Station



Segment view of Kensington and East Lehigh avenues (looking west) with proposed trail alignment



Recommended Alignment

The ideal alignment for this segment would follow the southern edge of Conrail's property line, where there are concrete walls along one side. The trail would then return to street level at B Street and East Gurney Street.

Opportunities

- New Kensington Community Development Corporation (NKCDC) has done extensive work to stabilize the north side of the rail in the eastern part of this segment.
- Much of the south side along East Lehigh Avenue is likely to be redeveloped in the next 10 years due to development pressures from the south.
- Conrail completed a massive cleanup in the area in 2017.
- There is a slope just east of B Street that could be conducive to an access point in the future.

Challenges

- Access to the elevated rail from the south is limited in the eastern part of the segment.
- The rail transitions from above/at-grade level to below grade at Kensington Avenue.
- Because of the adjacent issues with people facing homelessness and addiction who were taking up residence here, there's unlikely to be an immediate interest in reopening the rail area for use without strong monitoring.



Bird's-eye view looking west shows the Kensington Avenue SEPTA bridge. This is also where the viaduct portion of the rail corridor transitions from at/above grade level to a below grade cut. Image courtesy Google

Segment Specs

- Length: 0.25 mile; 1,297 linear feet
- Key stakeholders: East Kensington Neighbors Association (EKNA), NKCDC, Somerset Neighbors for Better Living (SNBL), Hispanic Association of Contractors & Enterprises (HACE), Impact Services Corporation, Councilwoman Maria Quiñones-Sánchez, state Rep. Angel Cruz, property owners along East Lehigh Avenue
- Ownership: Conrail





Segment 1D: B Street to American Street

Segment Goal: Support the Hispanic Association of Contractors & Enterprises (HACE) and Impact Services Corporation in neighborhood stabilization goals that align with trail development.

Completion of this segment block by block will require supporting the efforts of HACE and Impact Services Corporation around acquisition strategies and infrastructure improvements. It is recommended to align trail development to support stormwater management and incorporate green stormwater infrastructure (GSI) where feasible.





1D: B STREET TO AMERICAN

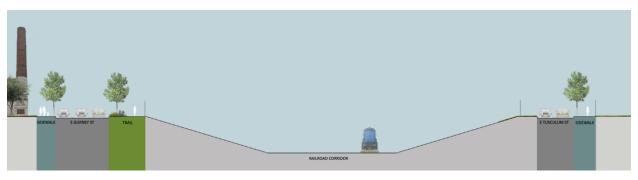
NEIGHBORHOOD ASSETS

- 1 HACE, Casa Caribe, & Villa Caribe
- 2 Salvation Army
- 3 Lighthouse Police Athletic League
- 4 Casa Indiana
- 5 Congreso, Brightside Academy & Pan American Academy Charter
- 6 Energy Coordinating Agency
- 7 Isaac A Sheppard School
- 8 Hope Park
- 9 Impact Services Corporation & Veteran Housing

- 10 Iglesia Del Barrio
- 11 Somerset Villas
- 12 Philadelphia County Assistance Office & Public Nursing Home
- 13 Temple University Hospital
- Potential trail alignment
- Potential later phase trail alignment
- Possible access points to street
- <-> Through streets
- Existing unused rail bridges
- Active rail corridor
- Bike lanes
- ····· Sharrows

HACE NEIGHBORHOOD PLAN STORMWATER INFRASTRUCTURE OPPORTUNITY SITES

- Stormwater tree trench
- Swale
- Rain garden



Segment view at B Street with recommended trail alignment at street level along East Gurney Street, outside of below-grade railroad right-of-way.

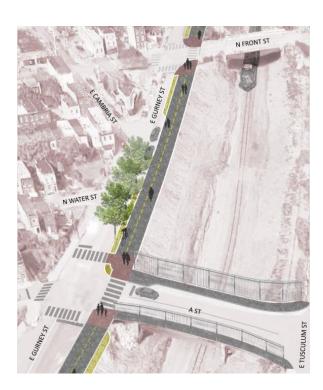


Recommended Alignment

The ideal alignment for this segment would follow (and extend via trail) Gurney Street through the entire length from B to American streets, hugging the newly installed rail fence.

Opportunities

- Conrail's 2017 corridor cleanup opened the door to a new approach in this corridor.
- There are engaged partners who have assets along this segment. Hispanic Association of Contractors & Enterprises (HACE) included a trail concept as part of its community plan for this area.
- Philadelphia City Planning Commission (PCPC) included a trail concept as part of its district plan.
- HACE developed a one-block trail on land it leases from Conrail on East Gurney Street between B and A streets.
- American Street has infrastructure investments that include on-street facilities and a greenway.



Recommended alignment for trail between A and North Front streets along East Gurney Street. Green stormwater infrastructure and improved pedestrian safety features are pictured. The trail is proposed within an existing public right-of-way on this block.

Challenges

- The rail is below grade.
- Because of the adjacent issues with people facing homelessness and addiction in the area, there's unlikely to be an immediate interest in opening the non-street-level rail corridor.
- Should the alignment be at street level, more street crossings will be required.

Segment Specs

- Length: 0.59 miles; 3,134 linear feet
- Key stakeholders: HACE, Impact Services Corporation, Councilwoman Maria Quiñones-Sánchez, state Rep. Angel Cruz
- Ownership: Conrail (below grade); city, Conrail and private landowners (street level). Conrail has provided a lease to HACE for street-level property.



Detail of proposed trail connection at North 2nd and Gurney streets. A gateway park is also proposed for the top of the new American Street Greenway. The trail is proposed in the public road within Gurney Street and would establish a trail connection between the existing buildings and the rail below North 2nd Street.



Implementation Recommendations









Images by Marta Sanchez

Reflecting the unique heritage and culture in this community was a key factor in the recent build of a one-block segment of the Gurney Street trail by the Hispanic Association of Contractors & Enterprises (HACE). While largely done on a shoestring budget, the installation was a signal of hope within the community, setting the tone for what's to come and signaling the intention of extending the trail through to American Street.

Funded in part through HACE's tax credit partnership with Conrail, artist Marta Sanchez used poetry by David Acosta, a Philadelphian poet, and created a permanent art installation along the one-block segment of the Gurney Street trail developed in 2018.



Design Recommendations

As a multiuse trail, the Richmond Industrial Trail must accommodate a wide range of users, including pedestrians, bicyclists and people in wheelchairs. In addition to traditional upright bicyclists, tandem bicyclists, recumbent bicyclists and bicyclists pulling trailers should all be accommodated in the trail design. It is anticipated that motorized use on the trail will be prohibited with the exception of motorized wheelchairs and security or maintenance vehicles. Due to the urban setting and active freight lines, trail design must include, at minimum:

- Pavement width: minimum 10 feet
- **Shoulder width:** 5 feet
- Grade: should average less than 5 percent (10 to 12 percent grades acceptable only for very short distances)
- **Cross slope:** 1 percent to allow for drainage
- Vertical clearance: 10 feet
- **Setback:** average setback from railroad centerline is 60 feet, with a narrow pinch point of 15 feet (adequate separation should be determined through discussions with the railroad)
- Barrier: 6-foot fence between trail and rail line (location and type to be determined through discussions with the railroad)
- Special considerations: coordination with Philadelphia Water Department (PWD) on stormwater goals where noted in order to capture resources for full engineering

Design recommendations made in this report draw from the guidance summarized above. Before construction begins on any trail segment, a design and engineering firm should be engaged to expand on these minimum guidelines and draw up more specific designs based on community input.



Concept for trail at A and East Gurney streets looking west toward American Street. Trail alignment is on a currently blocked-off city street. Trail in Segment 1D is grade separated from the active rail and separated from rail activity by a 6-foot-tall iron fence the railroad installed. Each intersection in this segment should have clear markings for safe crossing. As North 2nd Street is a major thruway, a stoplight should be considered.



Pre-cleanup conditions at North 2nd and Gurney streets.

Aligning design and trail segments with areas that pose difficulties for city agencies to monitor and patrol provides an opportunity to create wins for all and reduce expenses in other areas such as policing, licenses and inspections, streets and sanitation. Image courtesy Google



Unique Design Opportunities

The Philadelphia Water Department (PWD) developed the Green City, Clean Waters program to meet the City of Philadelphia's Clean Water Act obligations to reduce combined sewer overflows. Under agreements with the Environmental Protection Agency and the Pennsylvania Department of Environmental Protection, PWD has pledged to reduce the volume of stormwater pollution entering local waterways by about 8 billion gallons per year by 2036. Through Green City, Clean Waters, Philadelphia is using green stormwater infrastructure (GSI) to manage stormwater runoff from about 35 percent of the impervious surfaces in the area of Philadelphia served by the combined sewer system (approximately 10,000 acres).

The development of concept designs that include (but are not limited to) proposed curbline changes, land and right-of-way acquisition (as necessary), and the assignment of implementation responsibility will help PWD engage resources to explore. Concept designs will also help PWD evaluate and potentially develop GSI along Gurney Street and the Lehigh Viaduct in support of RTC's efforts.



Concept rendering demonstrating how stormwater infrastructure could be incorporated to trail design (at A Street and East Gurney Street, looking west). Combining infrastructure can reduce costs by layering various needs.



Creation of a stormwater system such as the one above advances citywide goals while creating much-needed infrastructure for trail, particularly at crossings where the stormwater system acts as a bump-out to reduce crossing widths. Image courtesy PWD



Example of a GSI project that incorporates landscaping, parking and pedestrian/bike paths.

Image courtesy PWD



Existing conditions at A and East Gurney streets looking west. This unique area currently has little to no sidewalk space. It is proposed that a trail be built incorporating a stormwater management system in the right-of-way with green stormwater systems at the corner that would transition to a parking lane farther down the block. Image courtesy Google



Feasibility and Acquisition

Securing portions of the railroad right-of-way is one of the critical first steps to trail development within the proposed alignment. Conrail, which owns two-thirds of the corridor, has been engaged in conversations relevant to possible easement or acquisition scenarios. Since specific segments (1B and 1C) of this rail line are at risk of nuisance activities, Conrail and the city are not willing to invite people to the tracks. However, they acknowledge that this might change over the next five to 10 years, and where there are tracks wide enough to accommodate both rails and a trail, they will consider the question at a future date.

There are several methods used to acquire property for trail development. Rails-with-trails that are located within the railroad right-of-way often obtain an easement or license agreement from the railroad. Additionally, access to a few privately-owned parcels within the desired alignment will need to be considered and negotiated; other legal instruments like fee simple title may be more appropriate in these instances.

Although the city has identified this corridor as a desired location for trail development, discussion and negotiation by city agencies for use of adjacent railroad right-of-way have not begun; however, the public support generated by this study and future outreach will hopefully elevate the city's support of the project. Successful trail programs in Philadelphia frequently have the support of a quasi-governmental development agency or a business improvement district advancing the project.

If the city adopts this project, evaluation of acquisition and use options and transfer conditions will involve negotiations among the railroads (Conrail, regional public transportation authority SEPTA and CSX), their attorneys and real estate representatives, as well as city leaders, city attorneys and transportation officials.

As part of the acquisition process, there are a variety of voluntary arrangements that address liability concerns. Conrail, like many rail companies, requires trail managers to indemnify the railroad or owner of the corridor, releasing it from liability. It is likely that SEPTA and CSX will require the same. Similarly, trail managers will likely be required to carry supplemental insurance policies for the trail. But in general, the trail management agency's municipal or state insurance policy satisfies the trail and railroad's insurance requirement. The City of Philadelphia is self-insured, limiting any complications.

Trail Development Cost

	Low Estimate	High Estimate
Segment 1A	\$589,770	\$1,520,000
Segment 1B	\$320,821	\$928,451
Segment 1C	\$400,271	\$493,964
Segment 1D	\$312,733	\$726,588
Total	\$1,623,595	\$3,669,003

Cost estimate developed by Rails-to-Trails Conservancy's cost calculation tool. Calculations are based on actual costs found in Baltimore, MD.

Comparable urban trails with similar design characteristics, such as the K&T Trail and the Schuylkill River Trail, have an average cost of approximately \$2 million per mile. The initial preliminary cost estimate for this project is approximately \$1.62 million to \$3.67 million, or \$171 to \$380 per linear foot of trail, depending on the type of facility built. This estimate includes design and engineering, environmental work, construction documents, constructing the actual trail, excavation, creation of stormwater facilities, erosion and sediment control, vegetation management, traffic management and mobilization. Predevelopment costs include community engagement, planning, design, engineering, and construction documents and are estimated at \$300,000 per segment. These expenses are typically broken up into separate phases as outlined in the trail development process graphic. More accurate cost estimates will be developed by licensed engineers as part of the engineering stage.



Funding Recommendations

Trail management and maintenance in Philadelphia is most often accomplished through a combination of resources and funding by nonprofit trail managers, the Philadelphia Streets Department or Philadelphia Parks & Recreation. Further negotiations with the city will help determine what the options are. While the Richmond Industrial Trail is currently on the city's prioritization list of trails to pursue, it is ranked as a third-tier trail priority. However, efforts to prioritize the trail should continue to be pursued.

The Philadelphia Trail Committee is the implementing body of the Philadelphia Trail Master Plan. The committee includes representatives of city agencies with direct roles in trail implementation, such as design, construction, permitting and project review. The committee meets biannually and makes decisions on funding priorities for each major trailfunding program with the goal of presenting one voice on trail priorities within the city of Philadelphia. Ongoing advocacy among this group will help gain support for trail development.

In addition to traditional trail and recreational funding, development partners should also consider layering neighborhood stabilization, crime reduction/safety and health funding to advance community priority goals along or adjacent to the corridor. The following S-Line Urban Greenway case study outlines how one trail in Jacksonville, Florida, targeted diverse funding streams to address multiple community needs. The Trail Impact chart on the next page gives a brief outline of various funding areas to target.

Gaining inclusion in the Circuit Trails network would open up broader approvals for planning through the Delaware Valley Regional Planning Commission (DVRPC) and the William Penn Foundation. Pursuing inclusion within this network would also increase funding competitiveness greatly.

Given the investment Conrail has made to neighborhood-based efforts along this corridor, the Richmond Industrial Trail Steering Committee recommended that a Special Services District model (described below) be explored to consolidate and streamline maintenance and security efforts through the various trail segments and nearby neighborhoods.

About Special Services Districts

A Special Services District can take the form of one of many legal structures. However, in Philadelphia, there are several instances where such a district has been formed as a 501(c)(3) nonprofit that receives both public and private funding to serve the unique interests of a specific project or geographic area. Examples include the Sports Complex Special Services District, which receives funding from sports teams and owners to mitigate the impact of the sports stadium area, and the Penn Treaty Special Services District, which is funded through the SugarHouse Casino and distributes funding to address impacts of the casino on the adjacent neighborhoods. A Special Services District could be created to support the Richmond Industrial Trail, aligning with the goals of neighborhood-based organizations, the city and the railroad. Annual commitments of funding might serve as the mechanism for ongoing support to help resolve maintenance and security needs. In this scenario, Conrail and the City of Philadelphia could submit to a fund that would promote efficient operation of maintenance and security along the trail, advance and protect community interests, and improve neighborhood quality of life.



TRAIL IMPACT

Infrastructure investments along the Richmond Industrial Trail will produce multiple benefits.



Development and maintenance of a trail has the added benefits of addressing community and neighborhood blight, replacing areas targeted by short dumping and other vandalism with quality infrastructure that will encourage respectful behaviors and pride of place.

HEALTHY COMMUNITIES

Building safe infrastructure for people to walk or bike increases physical activity, which positively impacts health outcomes.



EQUITABLE INVESTMENT

Equitable investment in infrastructure has a higher impact return in low-income neighborhoods. Investment improves quality of life for underserved communities and ultimately leads to significant cost savings in policing, health, insurance and other public costs.

SAFE CORRIDORS

The creation of safe corridors increases positive activity, and use by people and families. This provides natural surveillance that deters nuisance activities and reduces crime and burden on policing.

ACCESS TO GREEN SPACES

Access to green space and high-value recreational assets decreases rates of trauma and improves mental health outcomes. It also increases social interaction and relationships among neighbors.



Funding Case Study: The S-Line Urban Greenway

The S-Line Urban Greenway is a 4.8-mile multiuse trail built on a former CSX railroad corridor in Jacksonville, Florida. The trail connects four of the city's underserved residential neighborhoods to recreational facilities, schools, a day care center, a trauma center and public housing. It also creates a safe passage under I-95. Parts of the trail run through current and former industrial sites with brownfields nearby. The trail traverses an infamous area that was singled out in the media for a high prevalence of violent crime. Built in the early 2000s by the City of Jacksonville, the project was funded by the Blue Foundation for a Healthy Florida and The Kresge Foundation. The city owns and maintains the trail.

Since the trail was built, some investments in the surrounding communities have been made, including improvements in affordable housing. The MaliVai Washington Youth Foundation has established its youth-serving tennis facilities adjacent to the trail. Participants use the trail for their training runs. Notably, in addition to the overall positive impact the trail has provided for the community, displacement of residents has not occurred.

In 2010, Rails-to-Trails Conservancy (RTC) collaborated with community partners to identify connections to the neighborhood, improve existing street crossings, and assess the community's perception of the trail and interest in walking and biking. In 2014, Groundwork Jacksonville was formed to complete the century-old vision to create a trail loop serving the entire city. Groundwork is partnering with the City of Jacksonville to revitalize the S-Line and incorporate it into the citywide loop, which would bring S-Line users downtown and to the St. Johns River. Groundwork hosts monthly rides on the S-Line to engage local residents. The organization also has worked with the community to identify ongoing projects, including creating a maintenance program, planting trees, reusing brownfields as green space, constructing bioswales to reduce pollution from stormwater runoff and implementing an open-air market.



S-Line Urban Greenway. Image courtesy TrailLink, G.B. Johnston Jr.



Implementation

Segment Goals

	Segment 1A: Support DRWC in championing this trail segment as a connector to Delaware River trails.				
1	Pursue funding for advanced planning and engineering stages for connection	Delaware River Waterfront			
	to the Lehigh Viaduct/Richmond Industrial Trail	Corporation (DRWC)			
2	Engage planning/design firm	DRWC			
3	Conduct community engagement for next level concept planning and design	DRWC			
4	Support community outreach and engagement for planning process	Stakeholders			
5	Grow partnerships to support the fiscal and operational needs of trail development and maintenance	Rails-to-Trails Conservancy (RTC)			

Se	Segment 1B: Work with private developers to connect trail on future development proposals.				
1	Meet with private landowners individually to understand how to advance trail on private land	RTC			
2	Work with the RiverWards Group to further explore trail alignment within the Kensington Courts development	RTC, Conrail			
3	Explore whether Trenton Avenue could legally become a gateway/point of entry	RTC			
4	As ownership changes or new real estate development occurs along Lehigh, work to include trail development	New Kensington Community Development Corporation (NKCDC), Registered Community Organizations (RCOs)			
5	Explore whether an overlay might be possible, which would include future trail along new private developments	Council Representative, NKCDC			

Segment 1C: Continue to explore connection opportunities as other sections develop.			
1	Work with Conrail to understand if a maintenance path is feasible to test for positive security needs	RTC	
2	Work with private developers as properties change hands to educate them and encourage participation in a trail	NKCDC, RTC, PCPC, RCOs	

	Segment 1D: Support HACE and Impact Services Corporation in neighborhood stabilization goals that align with trail development.				
1	Work with the Philadelphia Water Department (PWD) to advance and align trail goals with stormwater needs	PWD, Hispanic Association of Contractors & Enterprises (HACE), Impact Services Corporation			
2	Work with city on acquisition of Richard Walsh properties	HACE, Council Representative			
3	Begin meeting with Philadelphia Streets Department, PWD, Office of Transportation, Infrastructure, and Sustainability (OTIS), Philadelphia Parks & Recreation (PPR), and PCPC on stormwater improvements from B to Front streets	HACE, PWD, PPR, Council Representative			
4	Meet with city to support goals for "little Gurney Street" between North 2nd and American streets	HACE, Philadelphia Managing Director's Office (MDO), Council Representative, Philadelphia Streets Department, Philadelphia Land Bank (PLB)			
5	Explore funding and apply for three grants that support trail development	HACE, RTC			
6	Identify and connect two to three bicycle programs to the area to support programming needs and engage community in positive uses along the corridor	RTC, Impact Services Corporation, HACE, Bicycle Coalition of Greater Philadelphia			



General Corridor Goals

Co	Continue building momentum and support for trail development.				
1	Conduct five to six tours with various funders and partners	RTC			
2	Continue communications with partners every two months about pertinent issues	RTC			
3	Develop relationships with and gain support of private property owners in Segments 1B and 1C	RTC			
4	Work towards inclusion in the Circuit Trails network	RTC			
5	Pursue funding to advance trail planning or development	RTC			

Explore a maintenance and operational structure.				
1	Develop a model to advance and fund a Special Services District (SSD) or other maintenance and support model that would connect the needs among all segments	RTC		
2	Meet with expanded group of stakeholders to grow participation and engagement in trail development and management	RTC		
3	Engage Philadelphia's American Street Empowerment Zone/Commerce Department	RTC		
4	Meet with three other SSDs to understand pros and cons of an operational model	RTC		
5	Submit a funding package to advance and explore this model further	RTC		



Conclusion

Transportation networks that prioritize development of bicycle and pedestrian facilities provide safe, accessible and affordable mobility for people of all ages and abilities. Cities across the country employ trails as a fundamental solution to the challenge of connecting people to popular network destinations like transit hubs, schools, employment centers and parks. Rails-with-trails are becoming increasingly popular as communities strive to fill in network gaps with limited available space.

The Richmond Industrial Trail is poised to become a key link in Philadelphia's trail network, providing a much-needed connection from the Delaware River to the Schuylkill River. The path would both advance goals of connection through Philadelphia for the regional Circuit Trails and connect planned or already developed trail systems, including the East Coast Greenway. Given limited trail development resources, it is critical that trail goals align with the goals of adjacent communities, neighborhood-based organizations, the City of Philadelphia and various other stakeholders (including the railroads) in order to recruit funding for trail development.

This study provides a vision for the development of a rail-with-trail that advances the goals of increased and improved mobility options, enhanced connectivity between and through North Philadelphia neighborhoods, and creation of dynamic public space through co-use of underused historic infrastructure. Further exploration of concepts presented in this study will suggest strategies for advancing and implementing this vision from concept to reality.

Like many cities in the United States, the location of rail lines in Philadelphia has helped shape its commercial, neighborhood and industrial contours. Creative, shared use of these linear transportation passageways can be a transformative factor in neighborhood improvement, blight remediation and public health.



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