



WATERBURY NAUGATUCK RIVER GREENWAY

PHASE 1 EXTENSION PRELIMINARY CONCEPT PLAN

Prepared for City of Waterbury, CT
Prepared by the RBA Group

ACKNOWLEDGEMENTS

This report, commissioned by the City of Waterbury, contains a summary of conceptual design plans developed by The RBA Group for the Tiger Grant Application of 2014. These recommendations are an outgrowth of the initial vision established in Phase 1 of the Waterbury Naugatuck River Greenway plan.

PREPARED FOR
City of Waterbury, CT

PREPARED BY
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TABLE OF CONTENTS

EXECUTIVE SUMMARY	05
EXISTING CONDITIONS	06
TRAIL ROUTE	07
A. Eagle Street to Washington Avenue (Naugatuck River / Mad River Connector)	
B. Washington Avenue to Jackson Street (Anamet Connector Project)	
C. Jackson Street to Freight Street (Waterbury Greenway Riverfront Park)	
D. Freight Street to West Main Street (Freight Street Connector Project)	
E. Jackson Street Extension north of Freight Street	
F. Library Park / Train Station Connection	
APPENDIX	21
1. Routing Plan 00 - Key Plan	
2. Routing Plan 01 - Eagle Street to Glen Street	
3. Routing Plan 02 - Glen Street to Harvester Road	
4. Routing Plan 03 - Harvester Road to Washington Avenue	
5. Routing Plan 04 - Anamet Site at Washington Avenue	
6. Routing Plan 05 - Anamet Site at West Liberty Street	
7. Routing Plan 06 - Jackson Street and Bank Street	
8. Routing Plan 07 - Jackson Street Extension	
9. Routing Plan 08 - Jackson Street Extension and Freight Street	
10. Routing Plan 09 - Freight Street to West Main Street	
11. Routing Plan 10 - West Main Street	
12. Routing Plan 11 - Freight Street	
13. Table of Property Information Along Proposed Trail Route	
14. Tables of Cost Estimates	



- “ Trails often spur opportunities for economic development. In Hamden, CT, proximity to the Farmington Canal Trail has raised property values for most parcels that are within a 15-20 minute walk from trail access. ” - Leslie Creane, Hamden Town Planner
- “ The combined economic impact of the Greenway and other proposed redevelopments along its route will be profound, helping to reshape, remake and revive the Downtown and waterfront areas. ”
- “ The Greenway provides improved access, alternative transportation modes and serves as a catalyst for urban redevelopment. ”
- “ It is a catalyst to reconnecting the residents of Waterbury with their greatest shared natural asset the River. ”

EXECUTIVE SUMMARY

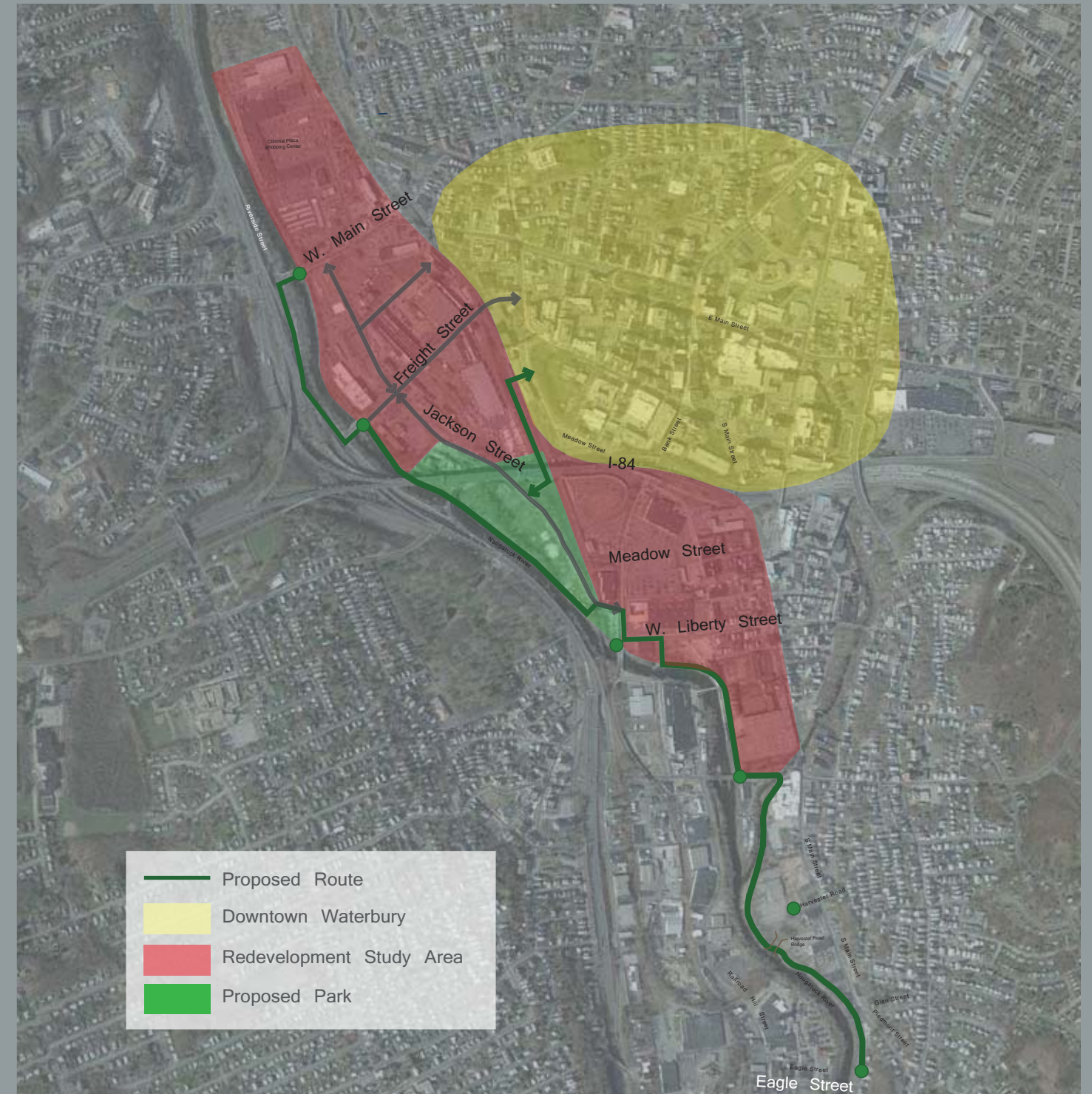
This report is comprised of conceptual plans and design recommendations prepared by the design team for the development of a multi-use bicycle and pedestrian trail along the shoreline of a 2.4 mile stretch of the Naugatuck River which runs for 7.7 miles through the City of Waterbury in Connecticut. This portion of the Greenway is an extension of Phase I of the Waterbury Naugatuck River Greenway that is currently being designed from Platts Mill Road to Eagle Street along the Naugatuck River Shoreline and South Main Street. The combined length of the Phase 1 Trail and this Extension is 4.5 miles and is a key piece of a 44 mile Greenway running along the River from Torrington to Derby.

The conceptual designs provided for the Greenway in this report extend the full length of the project area, and includes connecting trails to and from the downtown area of Waterbury. The trail has a number of different configurations along the river embankment and alternatives have been provided for both on-road separated trails and off-road segments of the trail. On-road separated trails are found adjacent to South Main Street between Eagle and Glenn Streets, a small connecting piece on West Liberty and Bank Streets, and downtown connector trails on the southern edge of Freight Street and a portion of West Main Street. The majority of the trail however, consists of off-road separated and multi-use trails along the length of the Naugatuck River that exist within 60 feet of the river embankment. There is also a proposal for a pedestrian bridge over the Mad River as part of the riverfront Greenway and a pedestrian bridge over Meadow Street which is part of an off-road trail to downtown that connects Library Park, the Railway Station and the Riverfront Park. A 19 acre riverfront Park has been designed as a major destination and an integral part of the overall Greenway route as well as a major upgrade to the City of Waterbury infrastructure.

By all measures, this section of the Waterbury Greenway is remarkable and important particularly as it directly borders the City's downtown area providing improved access, alternative transportation modes and a beautified link to the City. The combined economic impact of the Greenway and other proposed redevelopments along its route would be profound, helping to reshape, remake and revive the Downtown and waterfront areas providing opportunities for sustainable economic redevelopment of abandoned industrial sites along the River's edge and "Transit Orientated Development" along the Freight Street corridor. At a community level the trail facilitates recreation, exploration, connection and improved health. Development of the Greenway Trail not only makes the riverfront navigable by foot or by bike north to south, it is also a catalyst to reconnecting the residents of Waterbury with their greatest shared natural asset – the River. It is an investment in the future of the City of Waterbury.

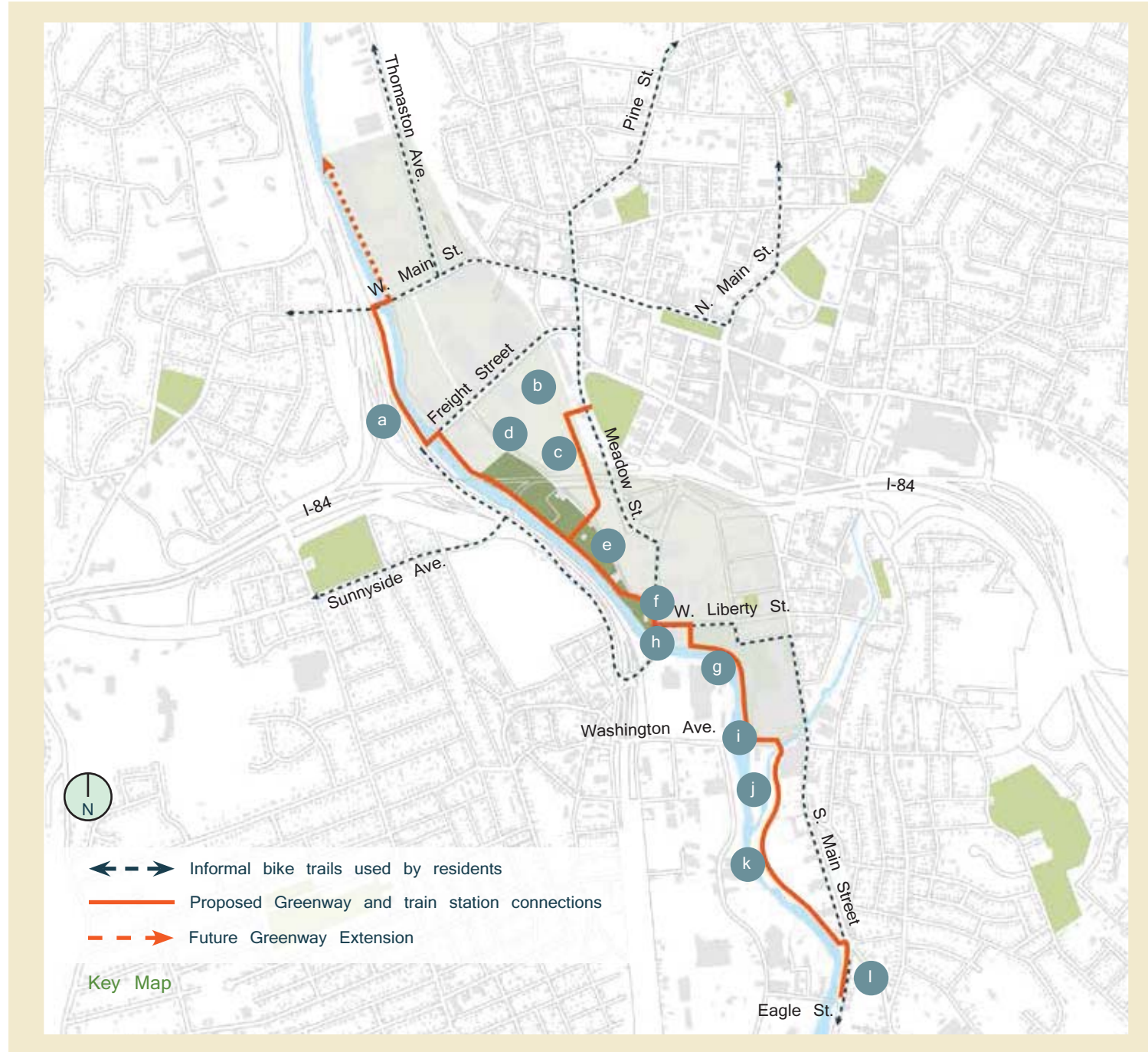
Conceptual Estimate of Probable Construction Costs

Task 1 Primary Greenway Route - Trail Construction	\$10,879,700
Task 2 Waterbury Greenway Riverfront Park	\$13,034,150
Task 3 Jackson Street Reconstruction from Bank Street to Freight Street	\$ 2,620,505
Task 4 Freight Street "Complete Street" Downtown Connector Reconstruction Project	\$ 3,199,714
Task 5 Jackson Street Extension and Pre Development Street Construction	\$ 2,219,000
Task 6 Library Park to Train Station to Riverfront Park Connector	\$ 1,756,250
Total Construction Cost	\$33,709,319



Phase 1 Development Framework Work Plan

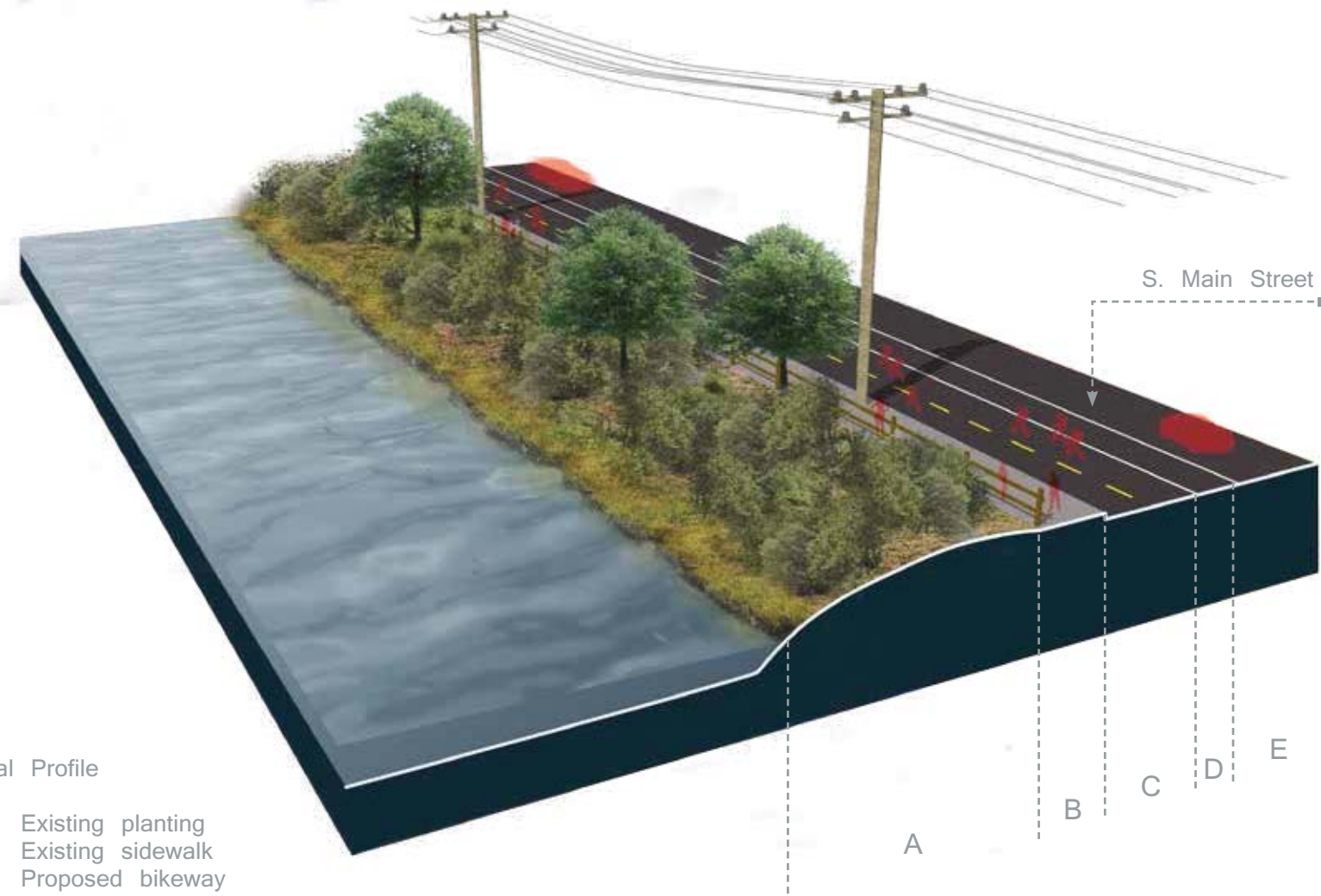
EXISTING CONDITIONS



PROPOSED GREENWAY ROUTE



Note: 1. Trail continues to Waterbury City Line at Platts Mill Road
 2. Future phase of Greenway



Typical Profile

- A Existing planting
- B Existing sidewalk
- C Proposed bikeway
- D Proposed shoulder
- E Existing roadway

A. Eagle Street to Washington Avenue (Naugatuck River / Mad River Connector)

This 3327 foot long portion of the Greenway includes a series of pathway designs that respond to the changing site conditions next to the River. It consists of an on-street separated trail where South Main Street runs close to the Naugatuck River between Eagle Street and Glenn Street, and a narrow separated trail behind businesses that abut the steep Naugatuck River embankment. There is also a portion that runs adjacent to parking lot of the Roller Rink that allows direct access to the river, and a scenic path through the forested area on the east side of the Mad River. This section is connected by a pedestrian bridge crossing of the Mad River to Washington Avenue and a pedestrian crossing to the southern end of the Anamet site.



Focus area



Focus Area Enlargement
(See appendix for detail routing plans)



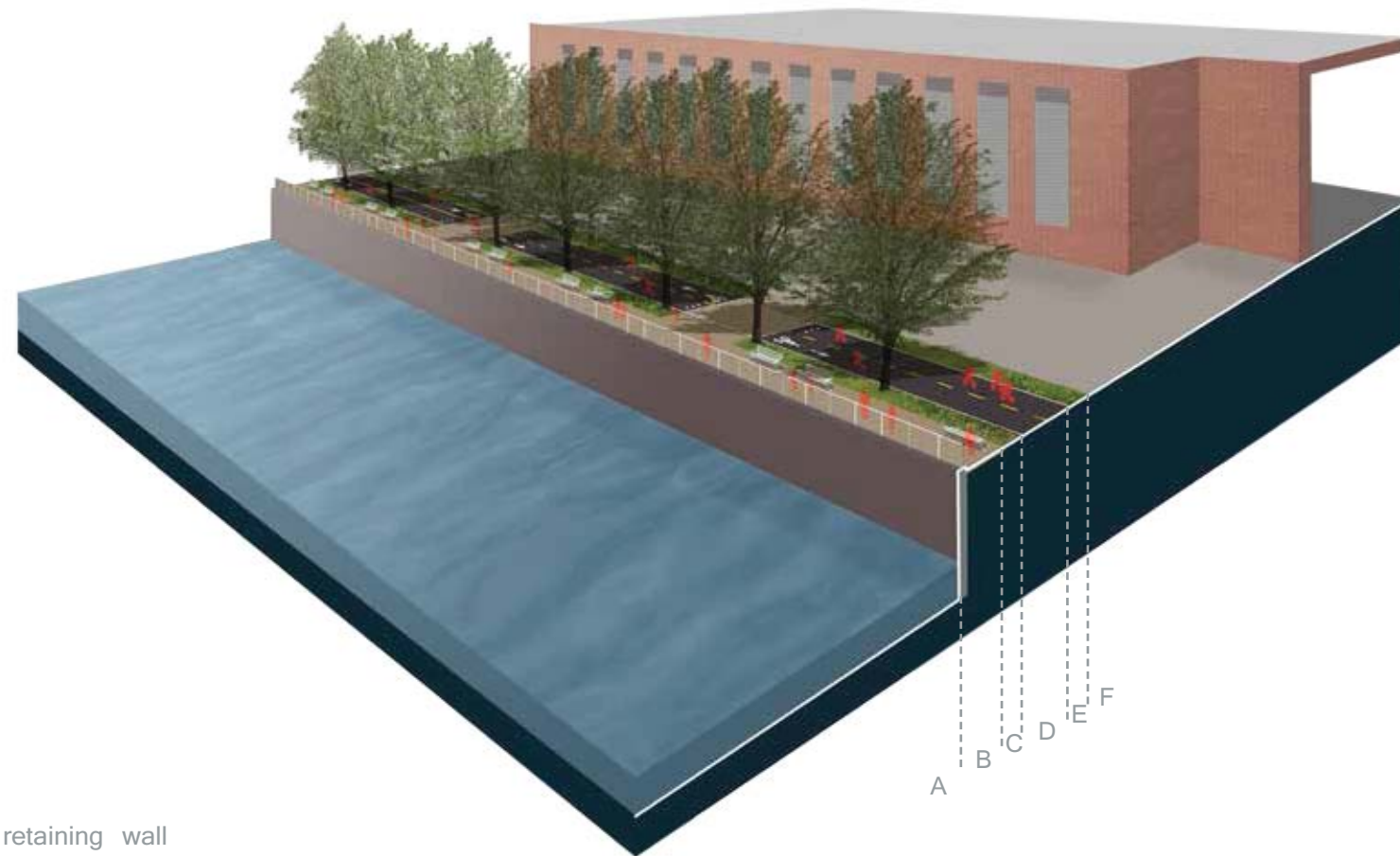
Typical condition of narrow spaces that abut the steep river embankment



Example of pedestrian bridge over the Mad River



Proposed shared use trail along Naugatuck River / Mad River



Typical Profile

- A Existing retaining wall
- B Pedestrian trail and seating area
- C 5ft Amenity strip
- D 12ft Bikeway
- E 5ft Amenity strip
- F Space for community events

B. Washington Avenue to Jackson Street (Anamet Connector Project)

This 2000 foot section of Greenway consists mainly of a wide tree lined riverfront esplanade. This allows for a leisurely walk for pedestrians along the river's edge with uninterrupted views of the river and sites beyond, while cyclists can ride unhindered in the bicycle lanes, stopping as necessary to take in the view or visit facilities in the proposed redeveloped Anamet site. The flat riverbank area behind the proposed parking lot on West Liberty Street offers an opportunity for public access to the river and kayak launch. As the Greenway approaches West Liberty Street, it continues on the south side of the street as an on street bike path then connects to Jackson Street as a separated trail on West Liberty and Bank Street where it connects with, and traverses, the proposed Waterbury Greenway Riverfront Park.



Focus area



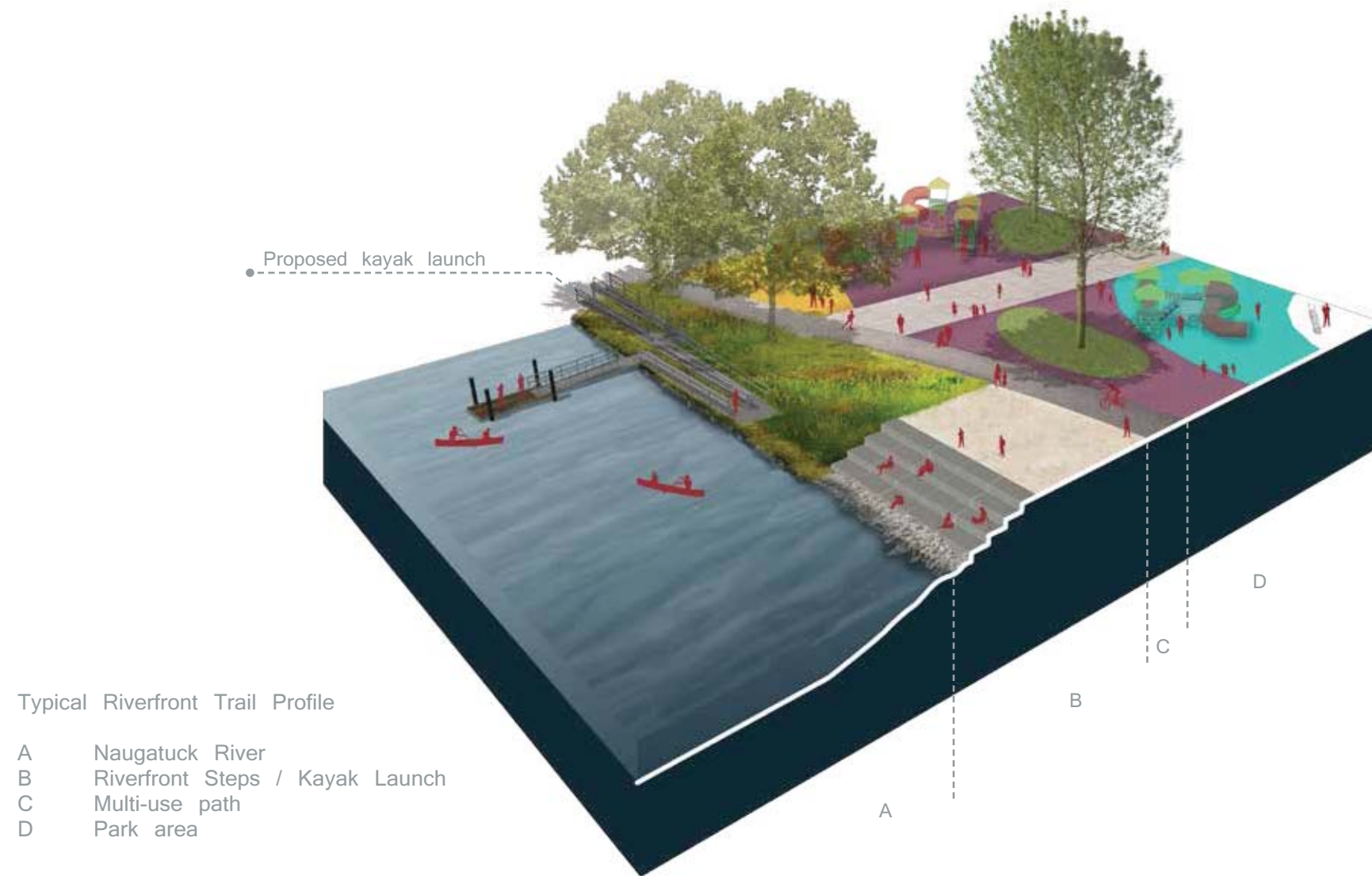
Focus Area Enlargement
(See appendix for detail routing plans)



Existing conditions at the Anamet site



Proposed Esplanade
at the Anamet Site



C. Jackson Street to Freight Street (Waterbury Greenway Riverfront Park)

An approximately 19 acre riverfront Park with both active and passive park facilities will be constructed to revitalize an abandoned and disused waterfront area within ½ mile of Downtown Waterbury. This Park will enhance the quality of life and livability of the Downtown area by providing both residents and workers convenient access to large green open spaces and the Naugatuck River. It will also benefit the wider community by providing much needed sports and active recreational facilities such as soccer fields, little league field, basketball, children's playgrounds, kayak launch as well as vegetated picnic areas. The proposed large lawn area for soccer could also be utilized for major public events where the slope of the grade up to Interstate 84 abutments would act as a raised terrace and viewing area to activities on the lawns below. Parking would be available under I-84 as well as along a reconstructed Jackson Street. The allure of such an iconic Park would ensure its long term success due to the many different constituents attracted to the wide variety of amenities which in turn would act as a catalyst to economic development in the surrounding area.

To help facilitate both pedestrian and vehicle circulation in and around the site, Jackson Street which presently terminates at I-84, would be extended through to Freight Street to provide a two way connection from areas both North and South of the park. Bicyclists and pedestrians could also utilize the Greenway trail that would run along the top of the river embankment on the west side of the park, and a spur on the east side that would connect the park with the train station and town center.

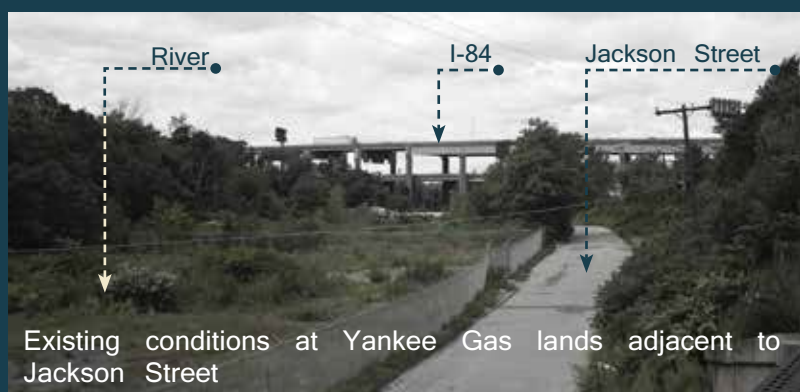


Focus area



Focus Area Enlargement
(See appendix for detail routing plans)

- Connect with the River
Visually & Physically
- The Great Lawn
Multipurpose space for community gathering
- Recreational Opportunity
Kayak launch and grand steps seating
- Children's Playground
Safe play area for children to be active
- Terraced seating
Working with Existing Topography
- Improved road safety
Safe Pedestrian and Vehicular Access





Typical Streetscape Profile

- A Proposed concrete sidewalk
- B 4ft Amenity strip
- C 10ft Bikeway
- D 11ft Stormwater planter
- E Roadway
- F Curb with scuppers
- G Gravel inlet and trench

D. Freight Street to West Main Street (Freight Street Connector Project)

This section consists of the Waterbury Naugatuck River Greenway Trail from the northern limit of the Park to West Main Street and the Freight Street Connector to Downtown Waterbury. The river portion of the Greenway is characterized by a restricted ROW corridor as it crosses private property along the east side of the river to Freight Street, then crossing the Freight Street bridge to continue along the east side of Riverside Street (adjacent to the west bank of the river). The Freight Street complete streets reconstruction provides an opportunity to connect the river and the Greenway to the town center. The south side of the street consists of a tree lined two way separated bicycle path and sidewalk with a large 11'-0" bio-swale buffer that accepts surface runoff from the street and separates vehicles and cyclists. The north side of the street is characterized by a vegetated sidewalk apron with street trees and a parking lane.



Focus area



Focus Area Enlargement
(See appendix for detail routing plans)



Existing conditions at Freight Street



Freight Street Complete Street Downtown Connector
(With proposed stormwater planter and bikeway)






Approaching Meadow Street



On Freight Street



Jackson Street extension approaching Freight Street

-  Sidewalk
-  Amenity Strip
-  Bikeway
-  Roadway
-  Street Parking

Lack of Sidewalk
Lack of sidewalks
discourages people
from walking regularly

Water Pooling
Standing water
caused by
improper drainage

Utility Conflict
Utility lines run along
the north side of
Freight Street

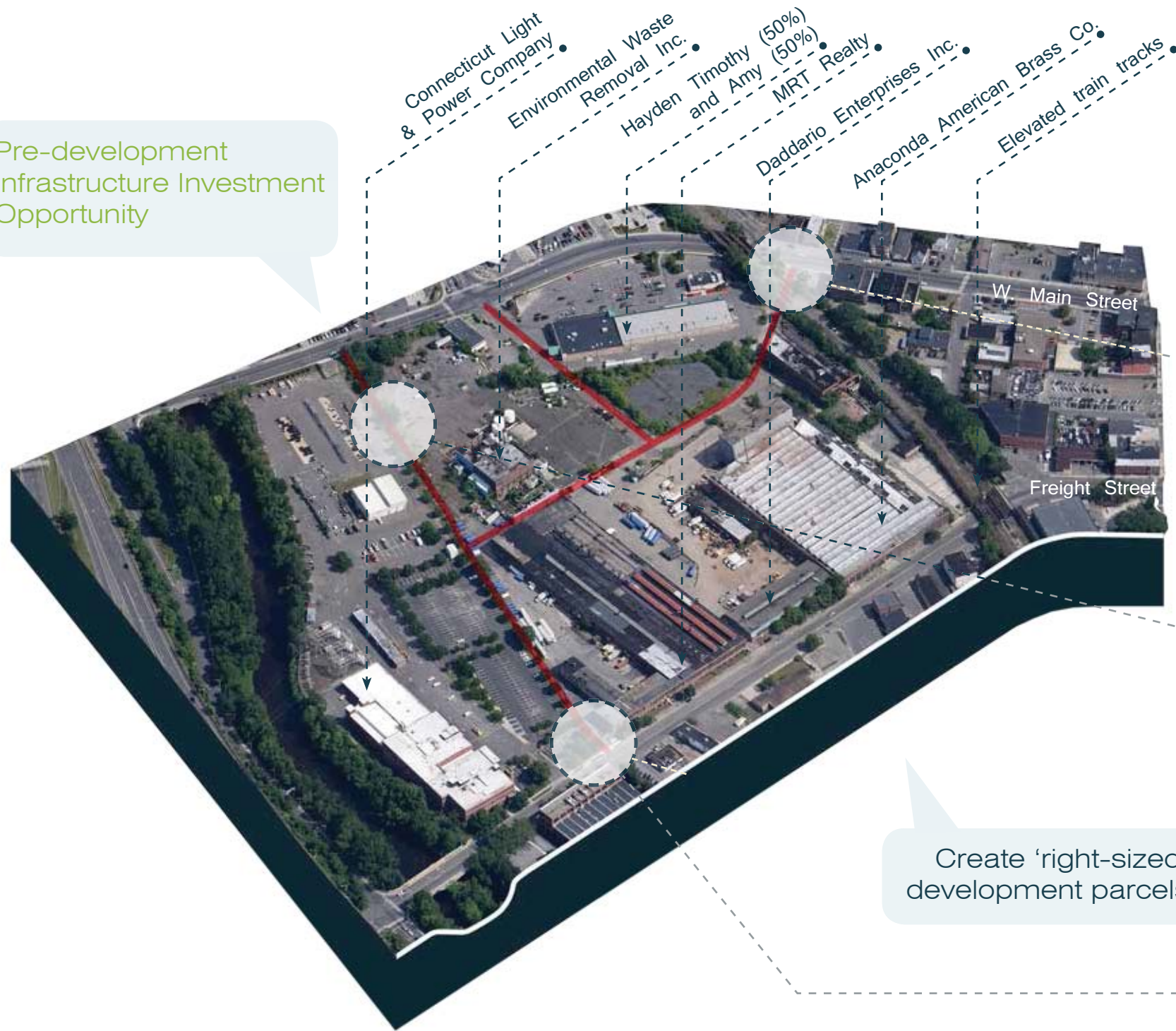


Existing conditions on Freight Street



Proposed Freight Street Complete Street Connector

Pre-development Infrastructure Investment Opportunity



Existing conditions at West Main Street



Existing conditions at the Connecticut Light & Power Co.



Existing conditions at Freight Street

E. Jackson Street Extension north of Freight Street

Jackson Street would extend north of Freight Street through this large self-contained block of commercial and industrial buildings creating a direct link to West Main Street. Crane Street would also extend down to connect with the Jackson Street extension allowing further access to other parts of this large block. This new street grid will create smaller developable parcels and improve accessibility and traffic circulation. The addition of these streets to the road network is expected to help catalyze development of the area and occur at the same time as this area is to be rezoned for higher density mixed use development. This rezoning, along with the development of the nearby riverfront park, and proximity to the train station and the downtown, make this an ideal location for transit-oriented development.

Existing conditions at Meadow Street (View north)



F. Library Park & Train Station Connector

This connection is designed to create a direct unimpeded link between downtown and the proposed riverfront Park and Greenway. It would require the construction of a new signature footbridge from the top of Library Park over Meadow Street and then ramp down to the railway ROW. The trail would then cross at an at-grade crossing of the active commuter rail line and continue on to intersect with a new multi-use path that runs between the train station and park. This multi-use trail would be constructed on abandoned rail tracks and run on the west side of the active rail lines and be separated from it by a fence, green space and trees. It will also connect directly with the revitalized train station by way of an at-grade pedestrian crossing of the active tracks.



Proposed shared use trail
Proposed Library Park and Train Station Connector Trail



Pedestrian Crossing



Rail Trail



Pedestrian Bridge



Pedestrian Crossing

