



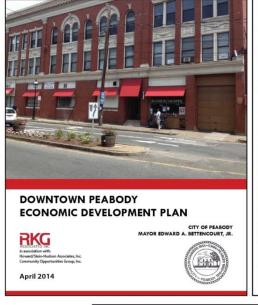
#### NORTH RIVER NEIGHBORHOOD DISTRICT

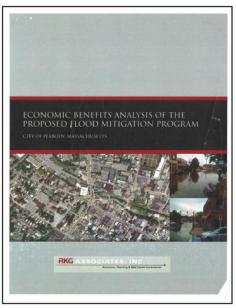
**PROJECT GOALS** 

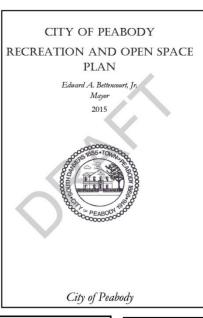
- 1. Incorporate and build upon the rich legacy of planning, design, and engineering, as well as recent investment such as Main Street improvements.
- 2. Develop low impact development (LID) strategies to mitigate downtown flooding; address public perception through "daylighting" of efforts.
- 3. Review and promote the design concept for the downtown portion of the Riverwalk as a means of accommodating flood storage, enhancing ecological values, and providing a community recreation/mobility greenway amenity.
- **4. Develop an urban design vision for Main Street and Walnut Street** that improves the public realm, enhances the pedestrian experience, addresses storm water management through LID practices, and encourages investment in both as the two main commercial streets of downtown.
- **5. Identify pedestrian connections from Main Street to Walnut Street** to enhance mobility and unify the streets and the river as one downtown experience.
- **6. Explore potential for housing and a mix of uses in Downtown** that will transform the District into a live-work-play neighborhood; identify priority redevelopment sites, project-specific investment opportunities for the private sector, and possible zoning adjustments.

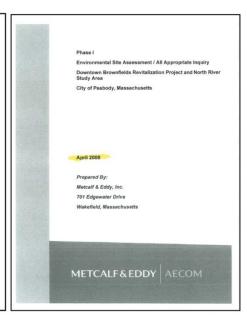
## **LEGACY OF PLANNING, DESIGN, & ENGINEERING**

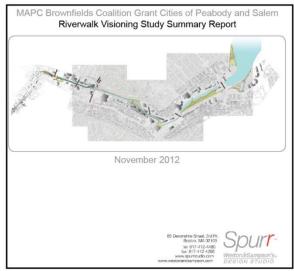
#### A RANGE OF SCALES & RECOMMENDATIONS







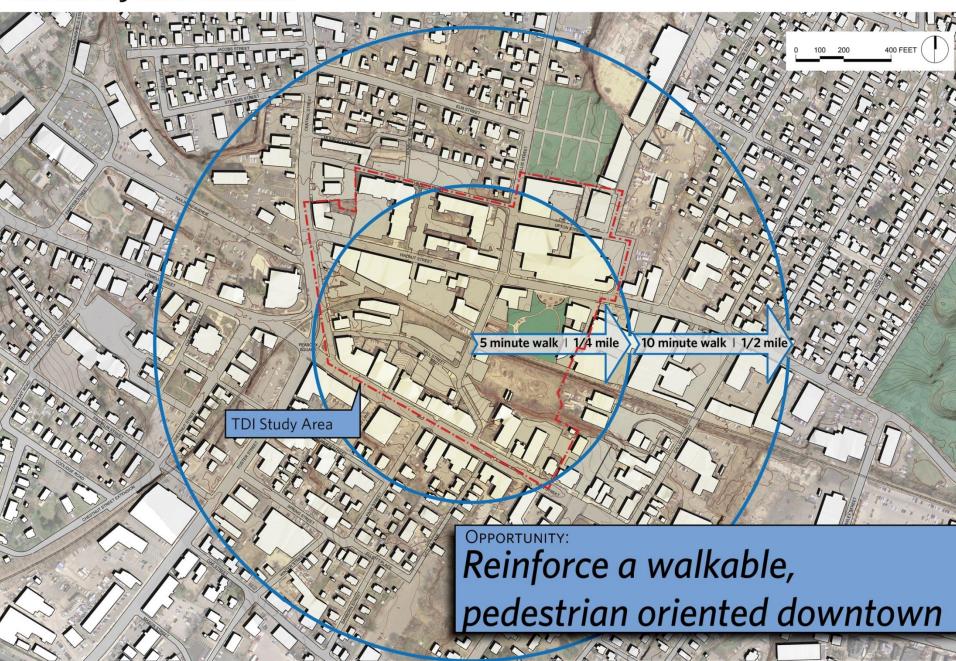




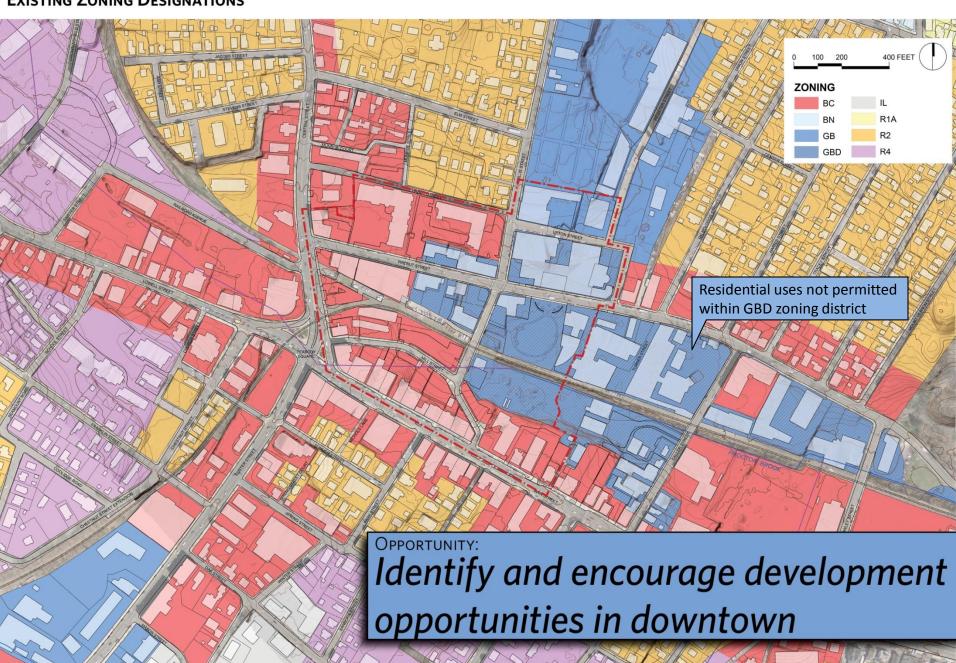


## **DEFINING DOWNTOWN PEABODY STUDY AREA**

**COMFORTABLE 5-MINUTE WALK RADIUS** 

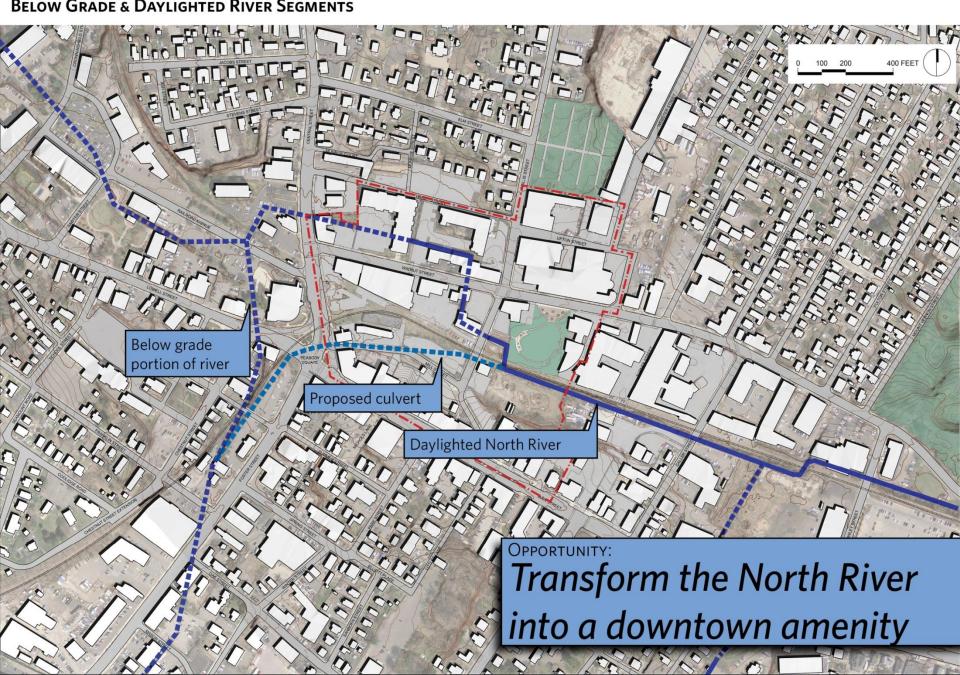


LAND USE
EXISTING ZONING DESIGNATIONS

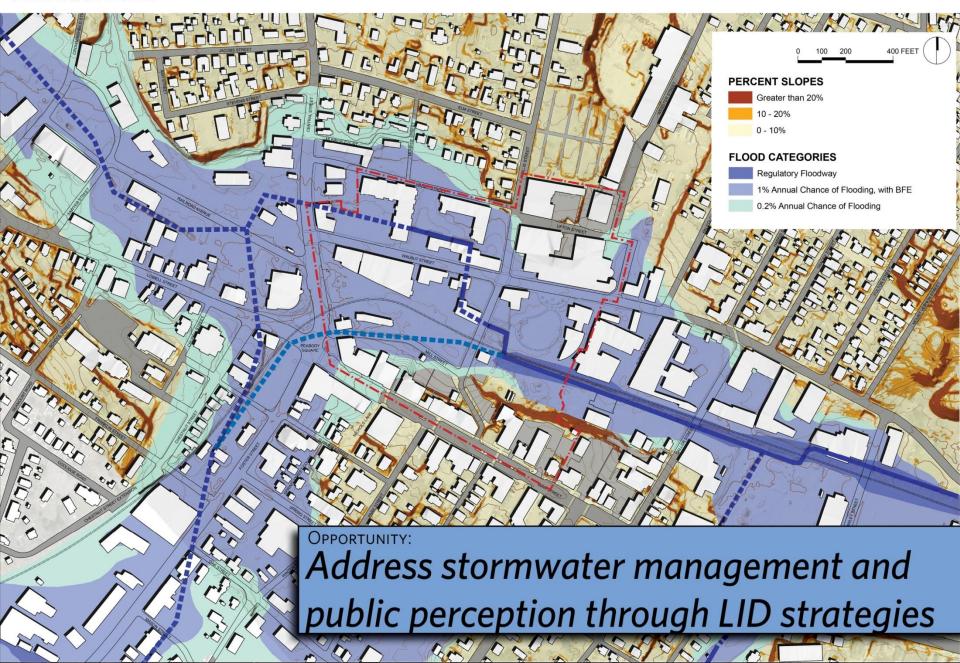


# **NORTH RIVER ALIGNMENT**

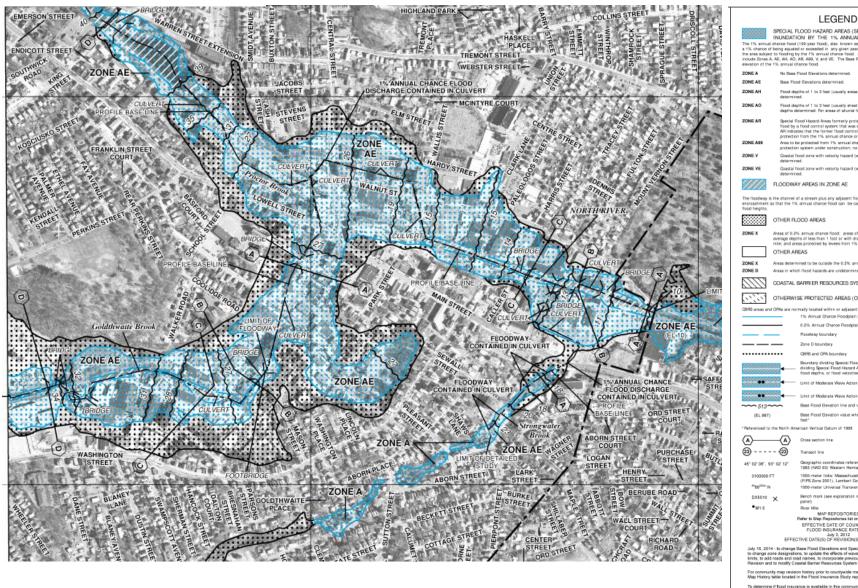
**BELOW GRADE & DAYLIGHTED RIVER SEGMENTS** 

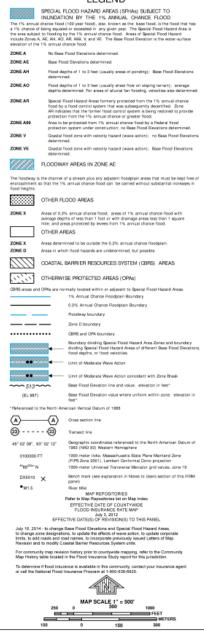


**FEMA FLOOD ZONES** 



#### **FLOOD MAP**





#### **FLOOD STUDIES**

# 2008 ENF issued for flood mitigation – suggested alternative included 3 projects to reduce flooding

- Project 1 Relocate and clean portions of Goldthwaite Brook culvert. Would bypass portion of Proctor Brook.
- Project 2 Widen North River through Peabody
- Project 3 Widen North River through Salem

# MEPA allowed city to proceed with Project 1 and requested that Peabody evaluate LID techniques and BMP's to reduce, infiltrate, and store runoff in upstream areas:

- Strongwater Brook Improvements and Flood Control Master Plan, Bioengineering Group, May 2008 proposed improvements in vicinity of Welch School as well as sluice gate at culverts under Swampscott Road
- Memorandum by Horsley Witten Group, 22 July 2009 re: Perkins Street Drainage/LID Retrofit Assessment studied BMP's in vicinity of Perkins Street and Allens Lane (Goldthwaite Brook)
- North River Watershed Stormwater Retrofit Plan, Peabody, MA, Horsley Witten Group, April 2012 studied sites west and southwest of downtown Peabody in Goldthwaite and Proctor Brook watersheds

#### **Questions:**

- Not clear if improvements identified in the reports have been completed
- Implementation schedule of projects proposed in 2008 ENF is not known
- Potential reductions in flood elevations as a result of projects is not known

#### **FLOOD REGULATIONS**

## MA Building Code (780 CMR Appendix G)

- Lowest floor must be located at or above the base flood elevation (100-year flood elevation)
- Lowest floor for non-residential occupancies may be below the base flood elevation provided it is designed to resist flooding

Location	100-yr Flood Elevation	Existing Ground	Approximate Flood Depth
Howley Street	11.5'	9'	2.5'
Caller Street	14'	12'	2'
Wallis Street	17.5′	15'	2.5'
Walnut Street	22'	14'	8'
Central Street	26.5′	20'	6.5'

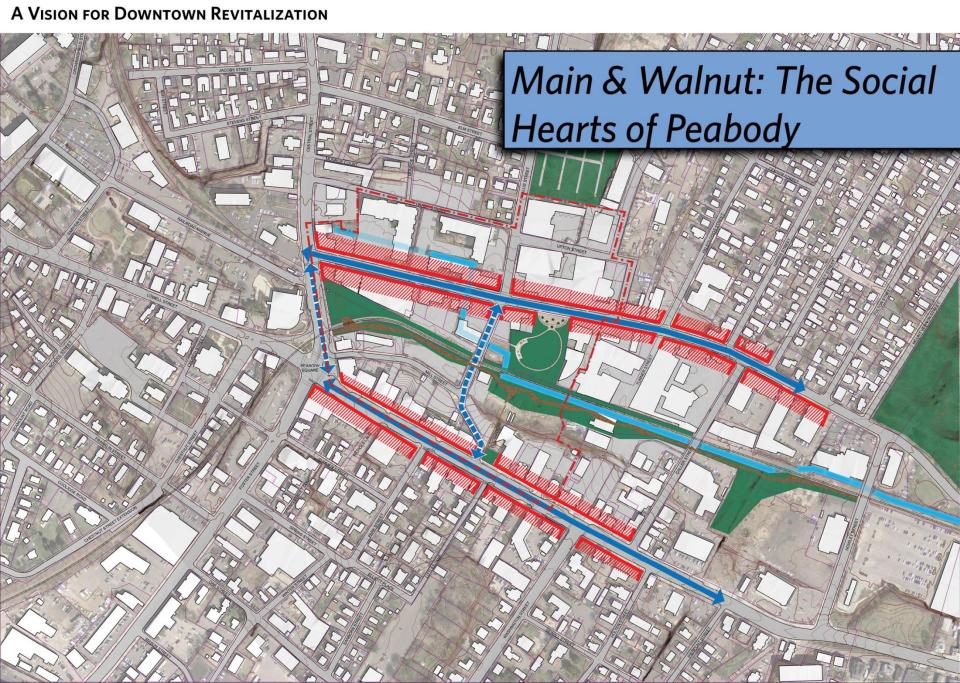


## DISTRICT FRAMEWORK

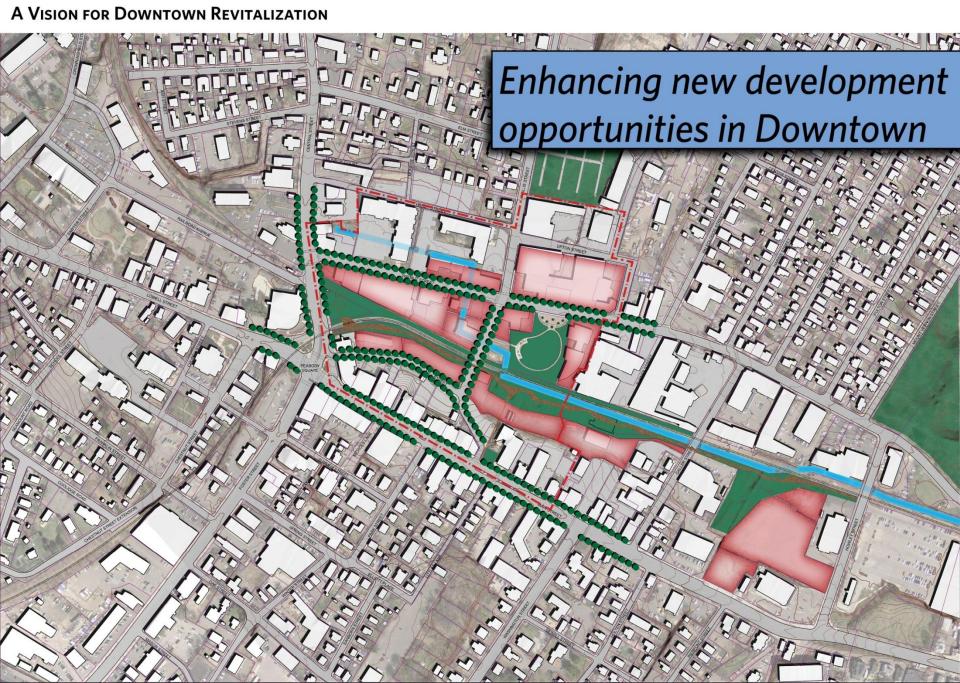
A Vision for Downtown Revitalization



## **DISTRICT FRAMEWORK**

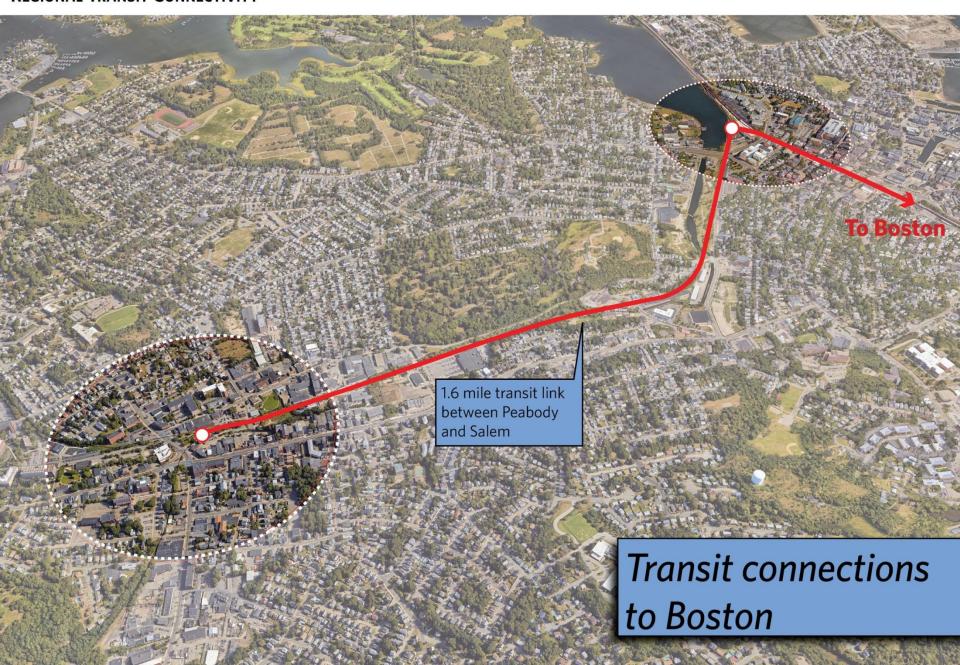


## **DISTRICT FRAMEWORK**

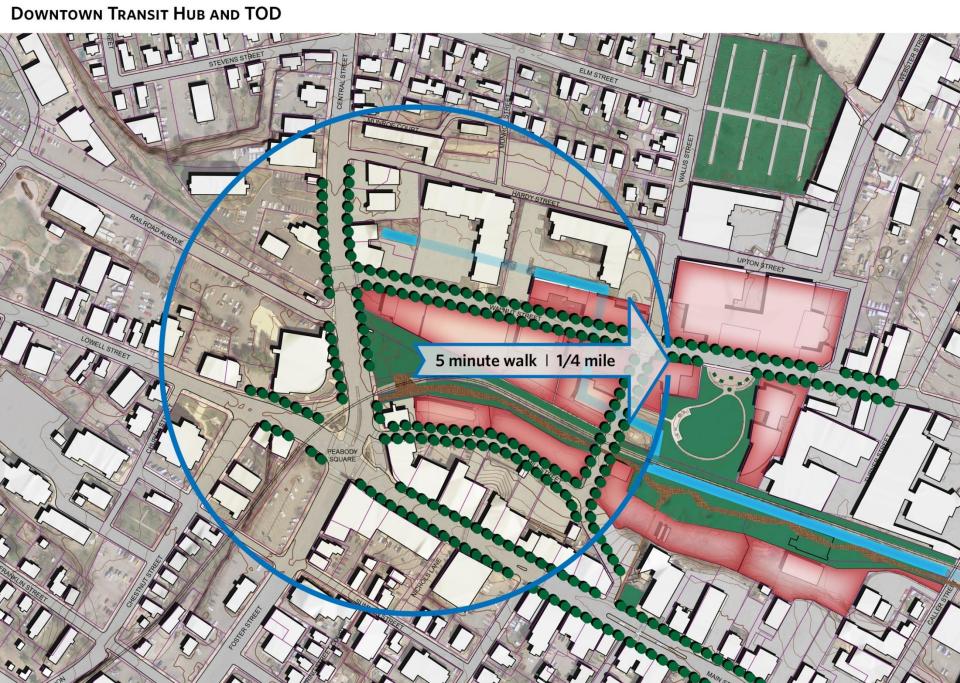


## **PEABODY - SALEM RAIL LINK**

**REGIONAL TRANSIT CONNECTIVITY** 



# **PEABODY - SALEM RAIL LINK**



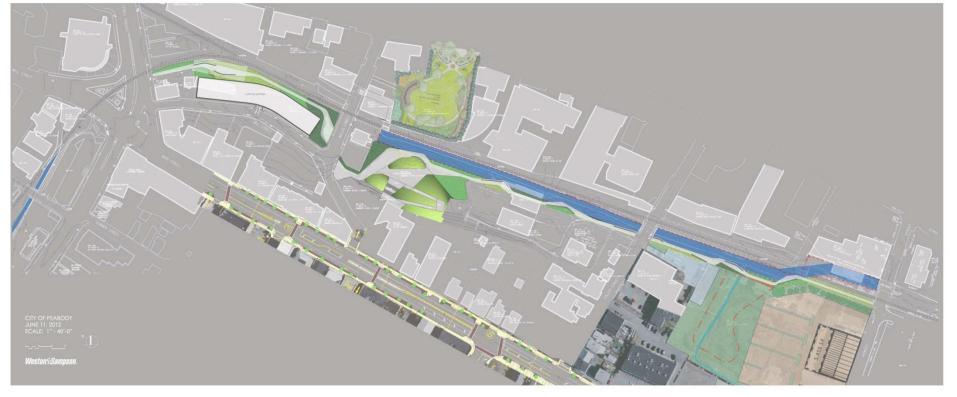


# **RIVERWALK**

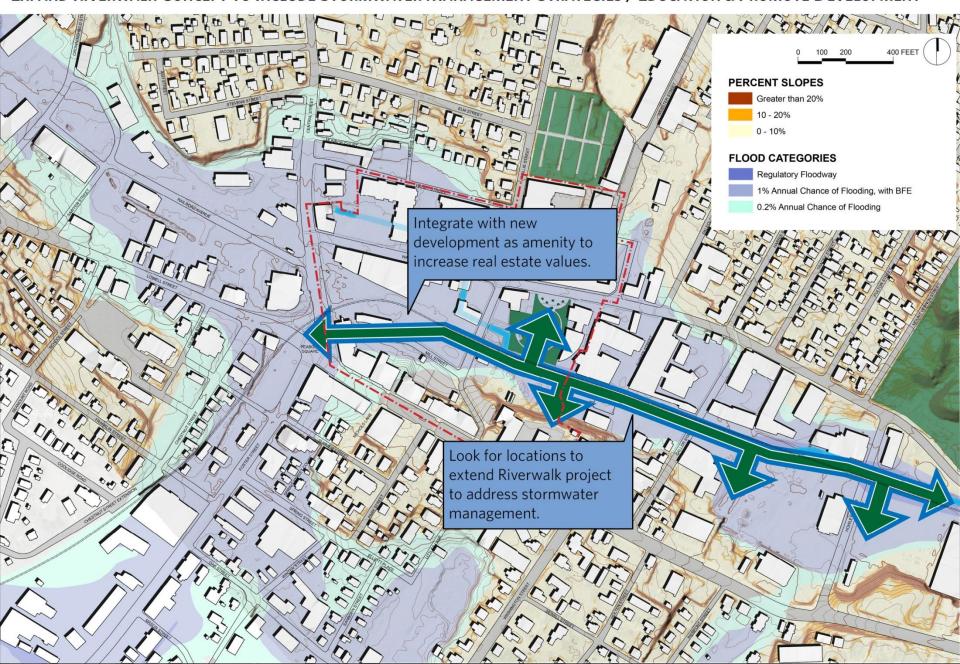
#### PROMOTE THE DESIGN CONCEPT FOR THE DOWNTOWN PORTION OF THE RIVERWALK







EXPAND RIVERWALK CONCEPT TO INCLUDE STORMWATER MANAGEMENT STRATEGIES / EDUCATION & PROMOTE DEVELOPMENT



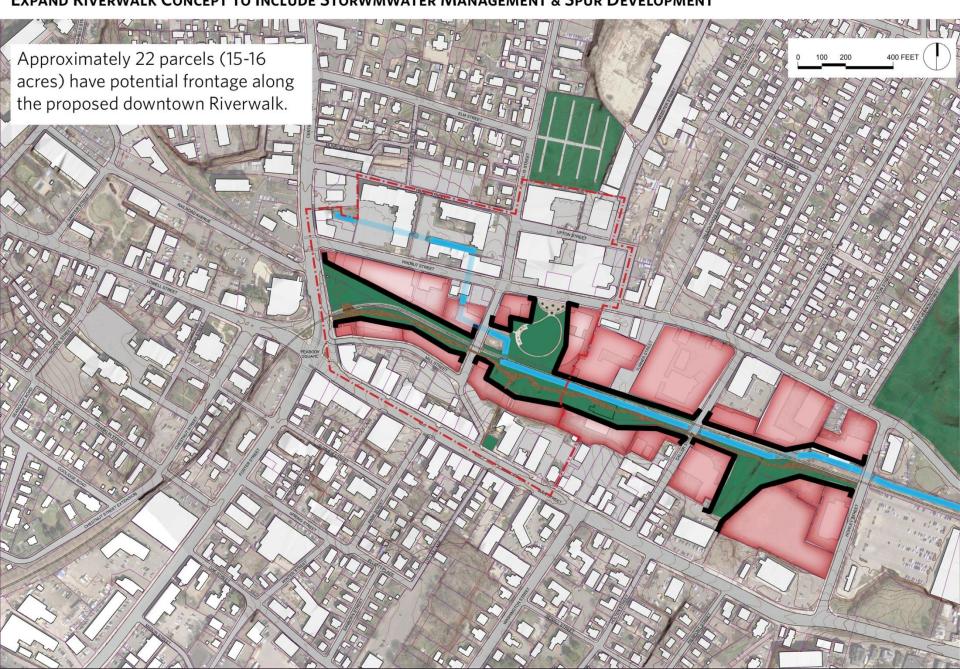
EXPAND RIVERWALK CONCEPT TO INCLUDE STORMWATER MANAGEMENT STRATEGIES / EDUCATION & PROMOTE DEVELOPMENT



EXPAND RIVERWALK CONCEPT TO INCLUDE STORMWATER MANAGEMENT STRATEGIES / EDUCATION & PROMOTE DEVELOPMENT



**EXPAND RIVERWALK CONCEPT TO INCLUDE STORWMWATER MANAGEMENT & SPUR DEVELOPMENT** 



#### **DEVELOPMENT OPPORTUNITIES**

PRECEDENT: DOCKSIDE GREEN, VITORIA, BRITISH COLUMBIA



- 15 acre brownfield site on Victoria's Inner Harbor
- LEED for Neighborhood Development
- 1.3 million gross square feet (3/4 residential)
- Central greenway includes a system of stormwater treatment ponds:
  - visual amenity public open space on-site stormwater storage wildlife habitat
- Most paved surfaces are permeable to infiltrate stormwater; most flat roof surfaces are vegetated to slow rain runoff and help insulate buildings.





# **DEVELOPMENT OPPORTUNITIES**

**INCORPORATING WATER AS A DEVELOPMENT AMENITY** 









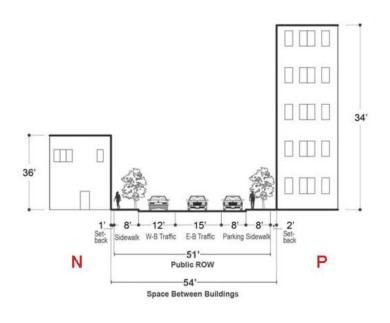
A NEW RETAIL CORRIDOR AND PEDESTRIAN FRIENDLY ENVIRONMENT

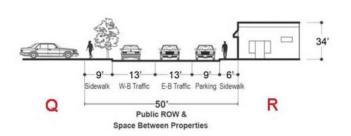


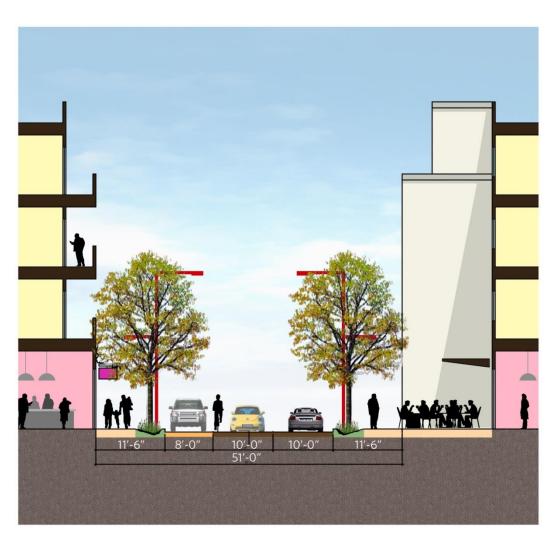




#### A NEW RETAIL CORRIDOR AND PEDESTRIAN FRIENDLY ENVIRONMENT







A NEW RETAIL CORRIDOR AND PEDESTRIAN FRIENDLY ENVIRONMENT







Outdoor dining and street furniture to create a vibrant street environment.

Stormwater management landscape integrated into street design with bio-swales, planting, and permeable paving.



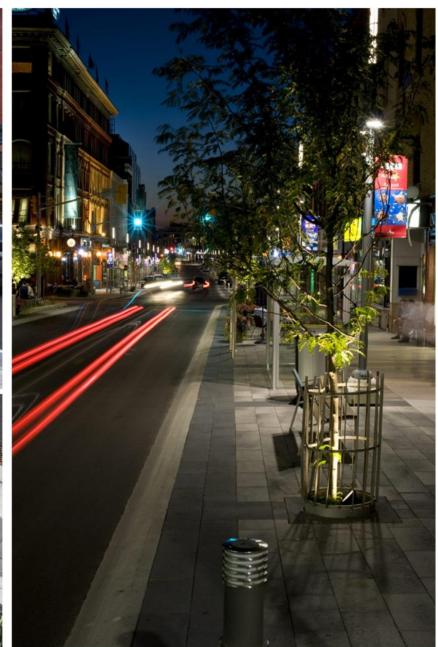


KING STREET - KITCHENER, ONTARIO, CANADA









TRANSFORMATION OF CLEMATIS STREET, WEST PALM BEACH, FLORIDA





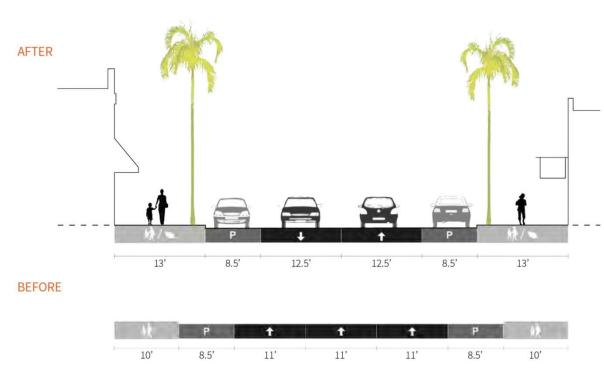


Downtown West Palm Beach was once only for commuters, but now attracts shoppers, families, and tourists.

The project improved the pedestrian experience through widened sidewalks, landscaping, trees, and street furniture and improved market viability through conversion from a one-way through-street to a two-way street.

From: Rethinking Streets - An Evidence-Based Guide to 25 Complete Street Transformations © 2013 Marc Schlossberg, John Rowell, Dave Amos, and Kelly Sanford

#### TRANSFORMATION OF CLEMATIS STREET, WEST PALM BEACH, FLORIDA





The City rehabilitated Centennial Square with Clematis Street. The park sits at the east end of Clematis Street and once again serves as the center of civic life.

#### **KEY OUTCOMES**

#### **Major Private Investment**

The city investment of \$10 million in the public realm resulted in \$300 million in private investment along the street.

#### **Reduced Retail Vacancy**

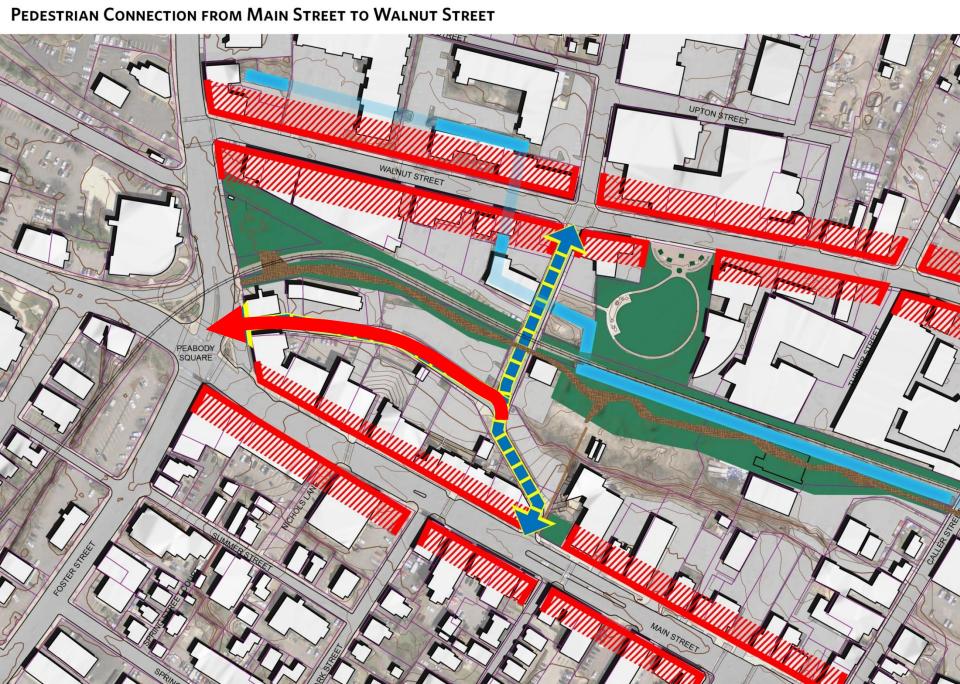
In the early 1990s, up to 80% of the storefronts were vacant due to blight and crime. After the redesign businesses came back and the street is now more than 80% occupied. Rents have jumped from around \$6 per square foot to over \$30.

#### **Reduced Crime Rates**

Clematis Street was a destination for drug dealing and prostitution prior to the redesign. That has now disappeared and it is a family-friendly destination with a weekly block party, "Clematis by Night" that has been happening since 1995.



## MILL STREET & WALLIS CONNECTORS



# MILL STREET REDEVELOPMENT CONCEPT

#### PEDESTRIAN ORIENTED STREETSCAPE





**Proposed Street Section** 

# MILL STREET REDEVELOPMENT CONCEPT

#### PEDESTRIAN ORIENTED STREETSCAPE



Special paving No curbs Slow traffic speeds



Residential on Street Pedestrian scale Varied drive aisle

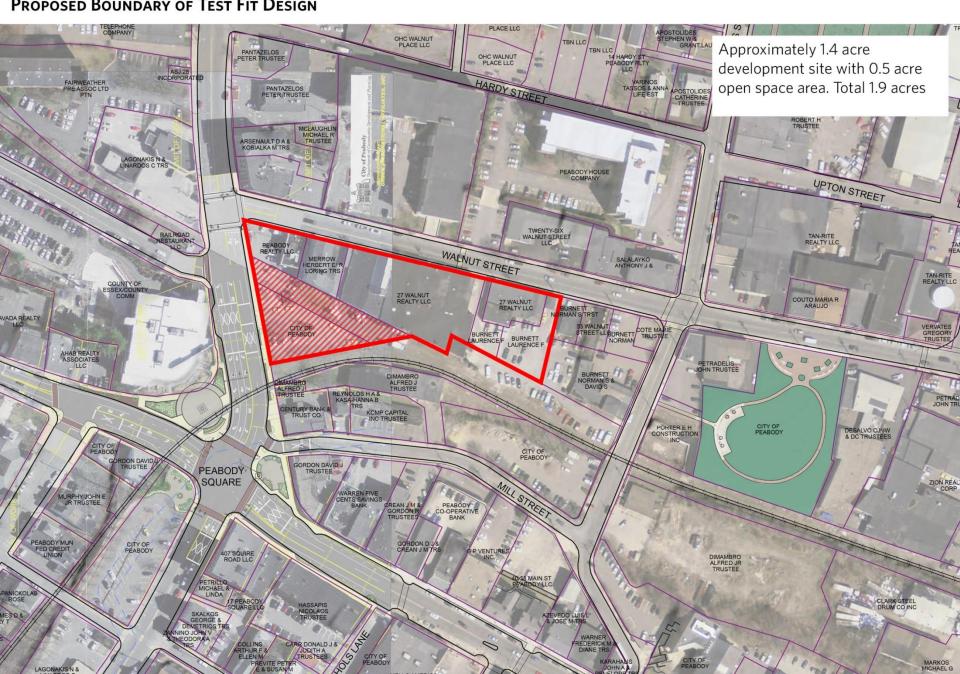


Street furniture Indoor-Outdoor spaces





PROPOSED BOUNDARY OF TEST FIT DESIGN



**GROUND FLOOR PLAN** 

