



Conceptual Programmatic Design of Downtown Improvements

February 9, 2010

Framingham, MA





Conceptual Programmatic Design of Downtown Improvements

Introduction:

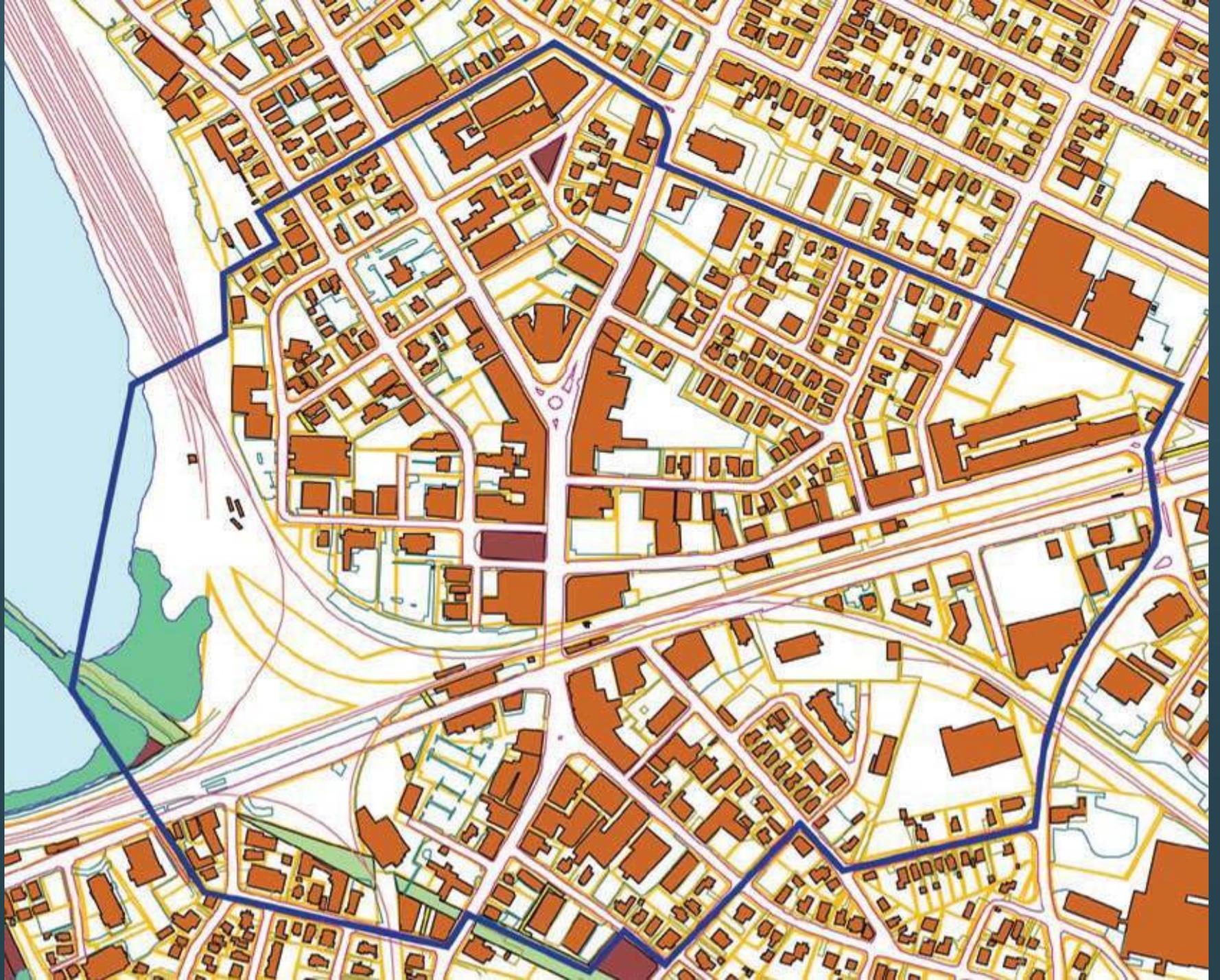
- Opening remarks: Laurie Lee
- About this project – Origin, Goals, and Next Steps: Julian Suso
- Background: Peter Sellers

Presentation:

- Traffic - Ken Petraglia, BETA Group
- Urban Design - David O'Connor, Cecil Group

Questions

Closing Remarks: Julian Suso



About this Project: Origins

- Several events came together:
 - Focus of DPW for several years.
 - 2009 BOS priority to move forward on economic development plan and roadway improvements to Downtown.
 - Town Manager goal 2009 presented to BOS for Traffic and Streetscape improvements to Downtown Double Y corridor.
- Conceptual plan aims to be consistent with:
 - “Big picture” approach.
 - Long term vision for Downtown economic development.
 - Long term vision resulting from DRC Task Force work including initial conditions and final report.

About this Project: Goals

- The goals of this project are to:
 - Integrate and improve traffic flows in Downtown.
 - Improve environment for pedestrians and bicycles.
 - Identify public infrastructure improvements that will leverage private investments.
 - Revitalize our Central Business District within the context of a long term vision/plan.
 - Support the vision for traffic and urban design plans for the Downtown presented by Cecil/Beta.
 - Visual improvement and streetscape designs.

Next Steps

- BOS vote sends “conceptual plan” to design.
- Town Manager and staff will oversee project, including find/seek funding to develop the design and implement the project.
- The process followed will reflect that followed during other traffic and roadway improvements, including abutter notification and public outreach.



BETA Group, Inc.
Engineers • Scientists • Planners

Transportation
Vol. 1 of 3

Transportation Improvements

- Short Term (Completed)
 - Signal Timing Changes
- Intermediate-Term (Completed)
 - New Signal Controller and Lane-use Changes
- Long Term
 - Independent of Longer Term Plans
 - Do Not Preclude Future Work

Study Area



Future No-Build Conditions

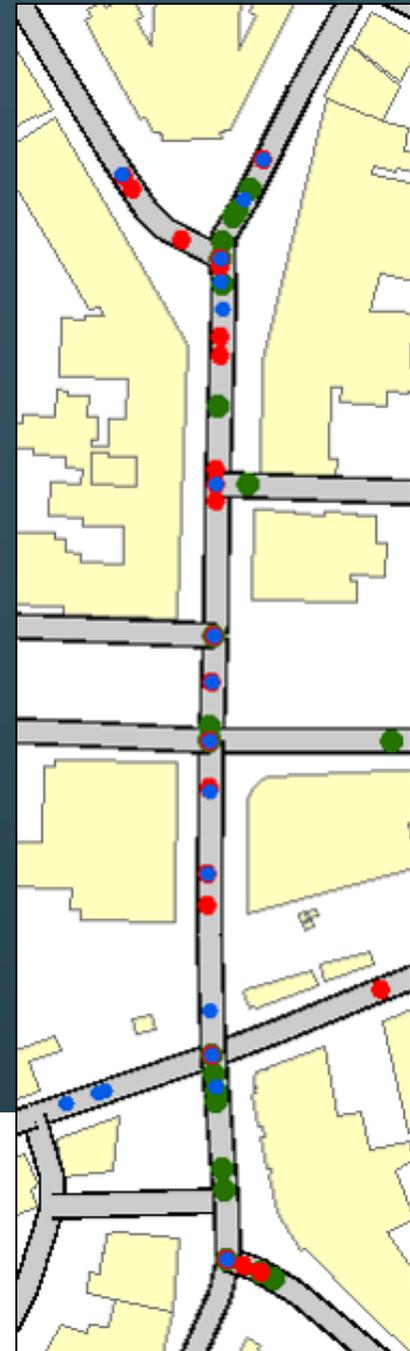
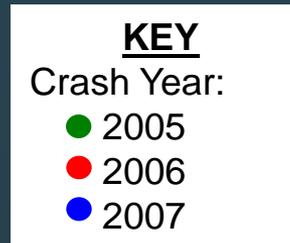


Future Build Conditions



Crash History

- Number of Crashes = **335**
(Irving Street to Lincoln Street,
3 years: Jan-2005 to Dec-2007)
- Corridor Crash Rate = **22.76**
Crashes per Million Vehicle Miles
Traveled (CMVMT)
- Statewide Average
(Urban Area) = **2.77** CMVMT
- Fatalities = **0**



Source: MassDOT Crash Data 2005-2007

Crash History

Intersections:

Crashes Per Million Vehicles Entering

Hollis Street at Irving Street	1.45 (Unsignalized)
Concord Street at Waverly Street	2.42 (Signalized)
Concord Street at Howard Street	1.48 (Signalized)
Concord Street at Union Avenue	1.77 (Roundabout)
Concord Street at Lincoln Street	1.89 (Signalized)

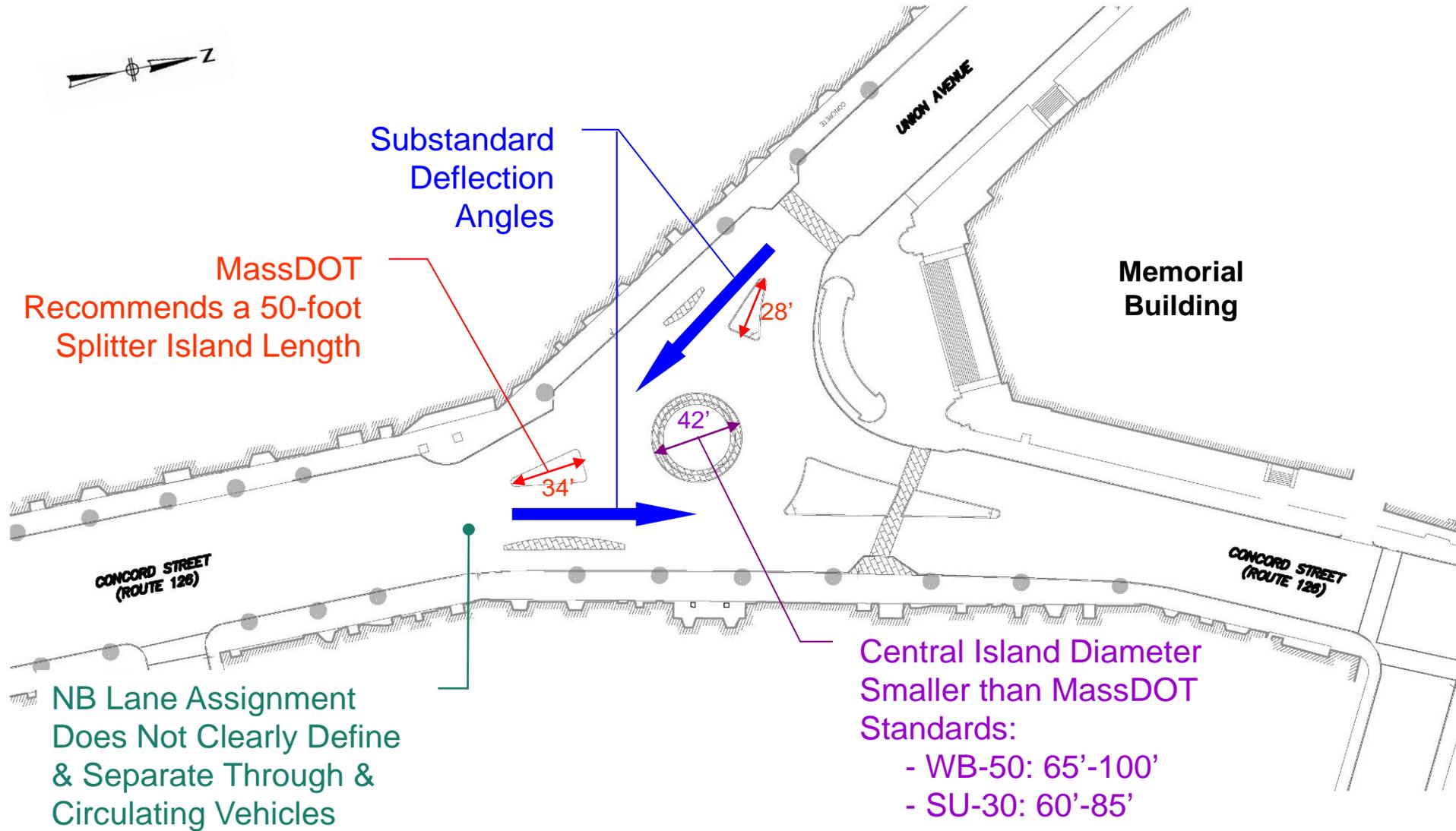
Statewide Average = **0.60** (Unsignalized)
0.80 (Signalized)

MassDOT District 3 Average = **0.69** (Unsignalized)
0.87 (Signalized)

Roundabouts

- Roundabout capacity is based on the number of entering, exiting, and circulating lanes.
- Maximum Daily Service Volumes:
 - Urban Single-Lane = 16,000 vpd
- Existing Service Volume = 27,000 vpd
- Future Service Volume = 33,000 vpd
- Compare to Traffic Signal Controlled Intersection

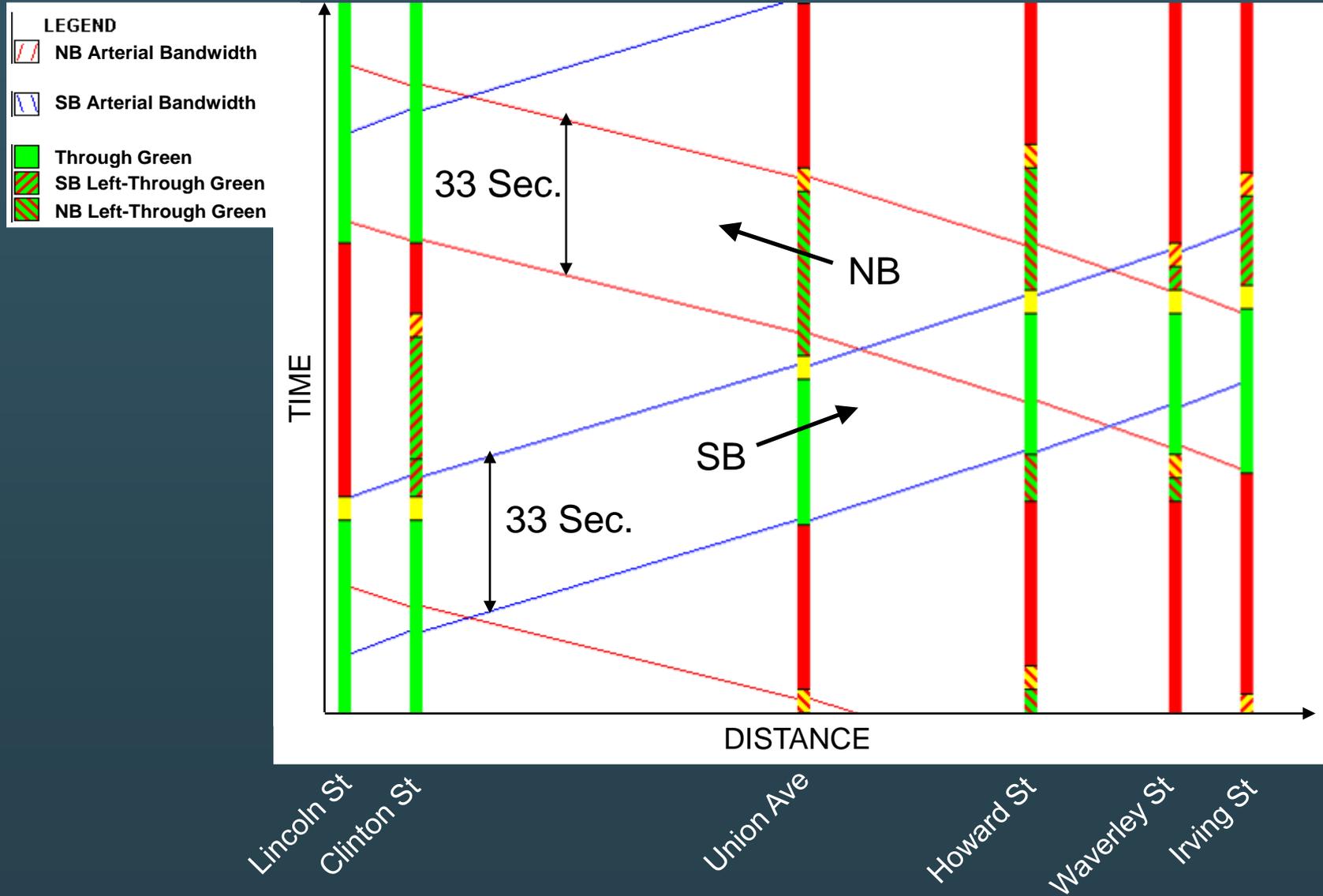
Existing Roundabout Deficiencies



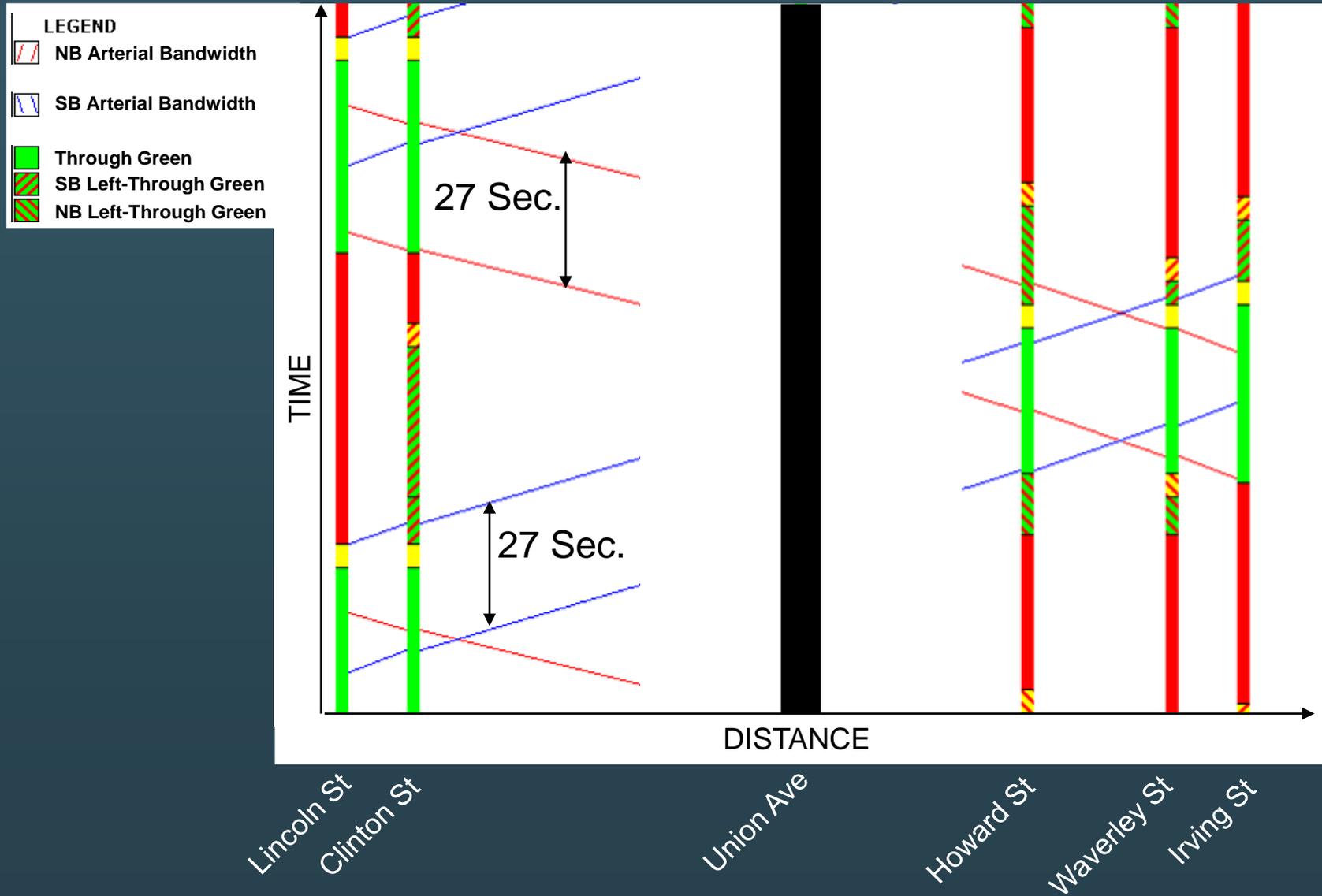
Roundabouts

- Significant issues related to roundabouts:
 - Interference from adjacent intersections
 - Emergency vehicle pre-emption
 - Traffic Signal Coordination

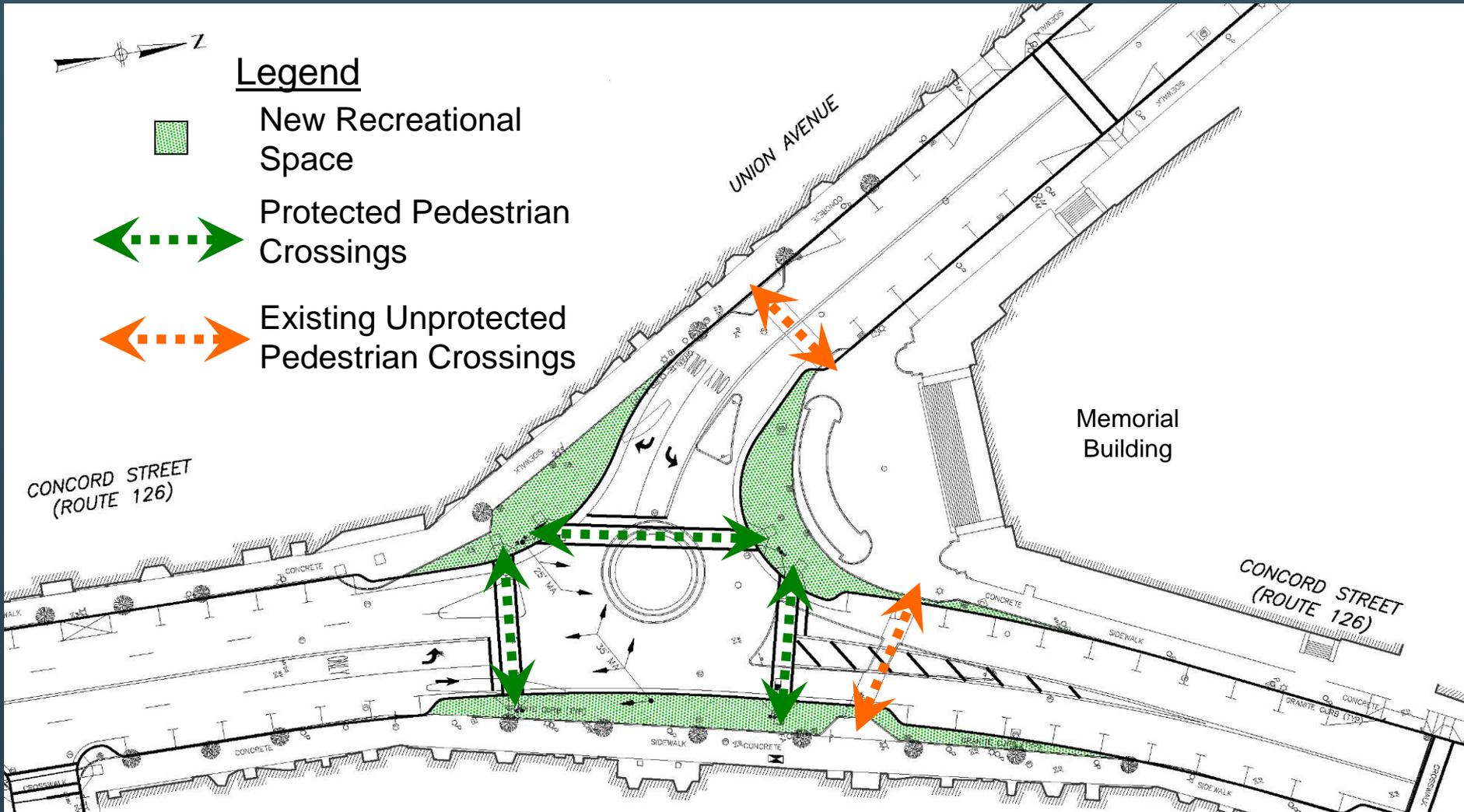
Time Space Diagram – Morning Peak Hour (with Traffic Signal Coordination)



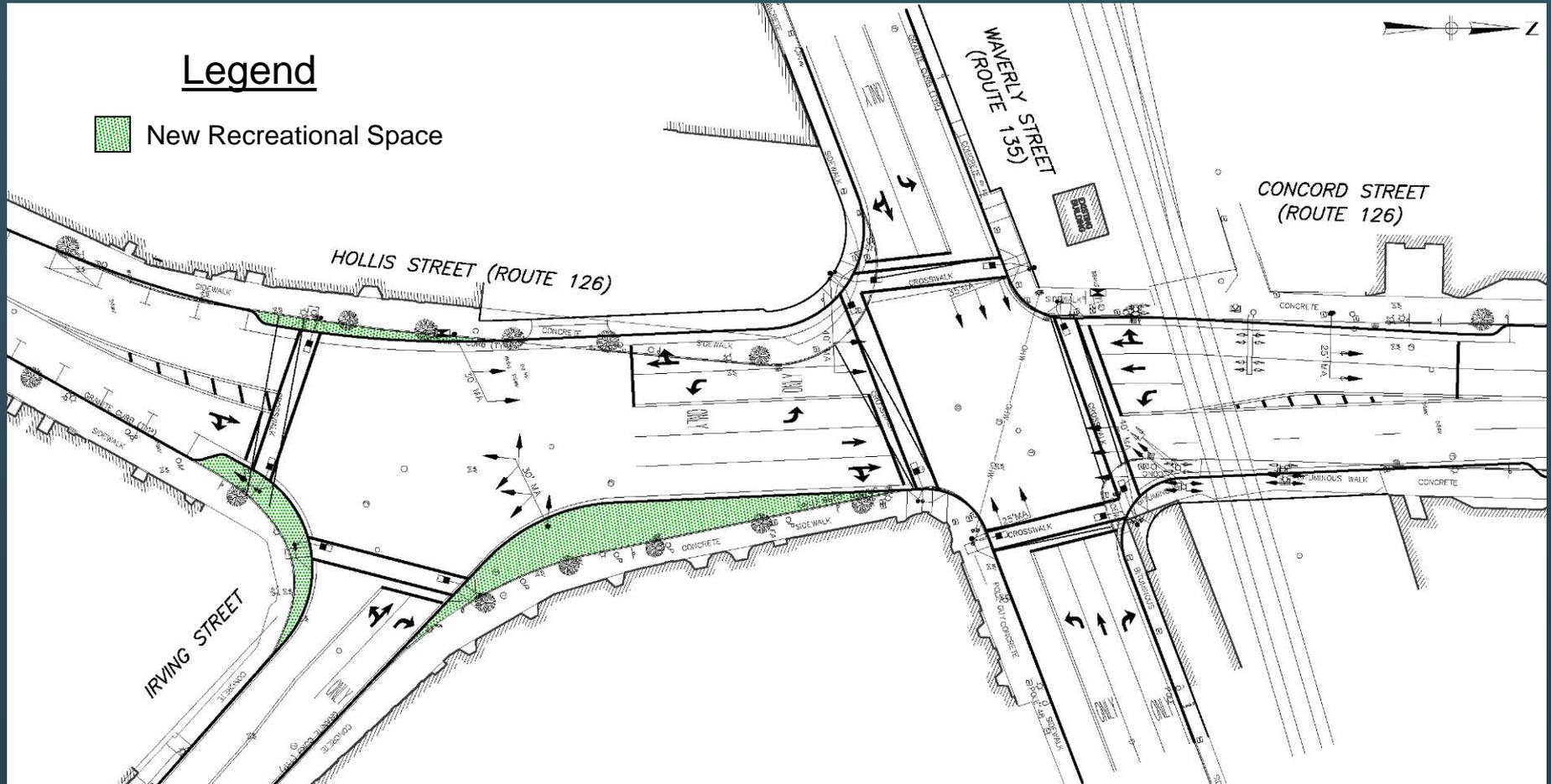
Time Space Diagram – Afternoon Peak Hour (with Traffic Signal Coordination)



Future Build Conditions



Future Build Conditions



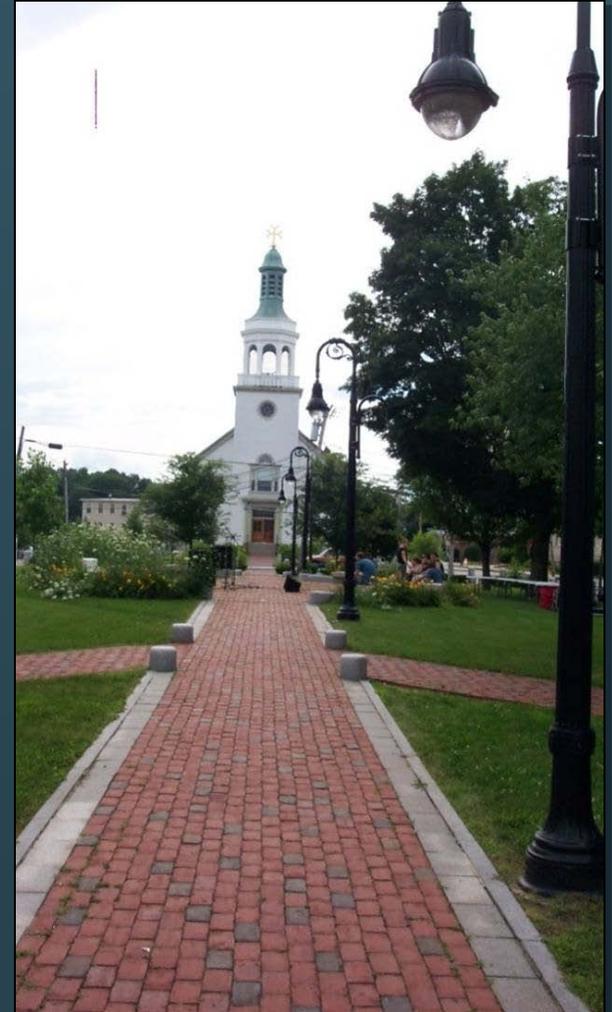


Streetscape Improvements

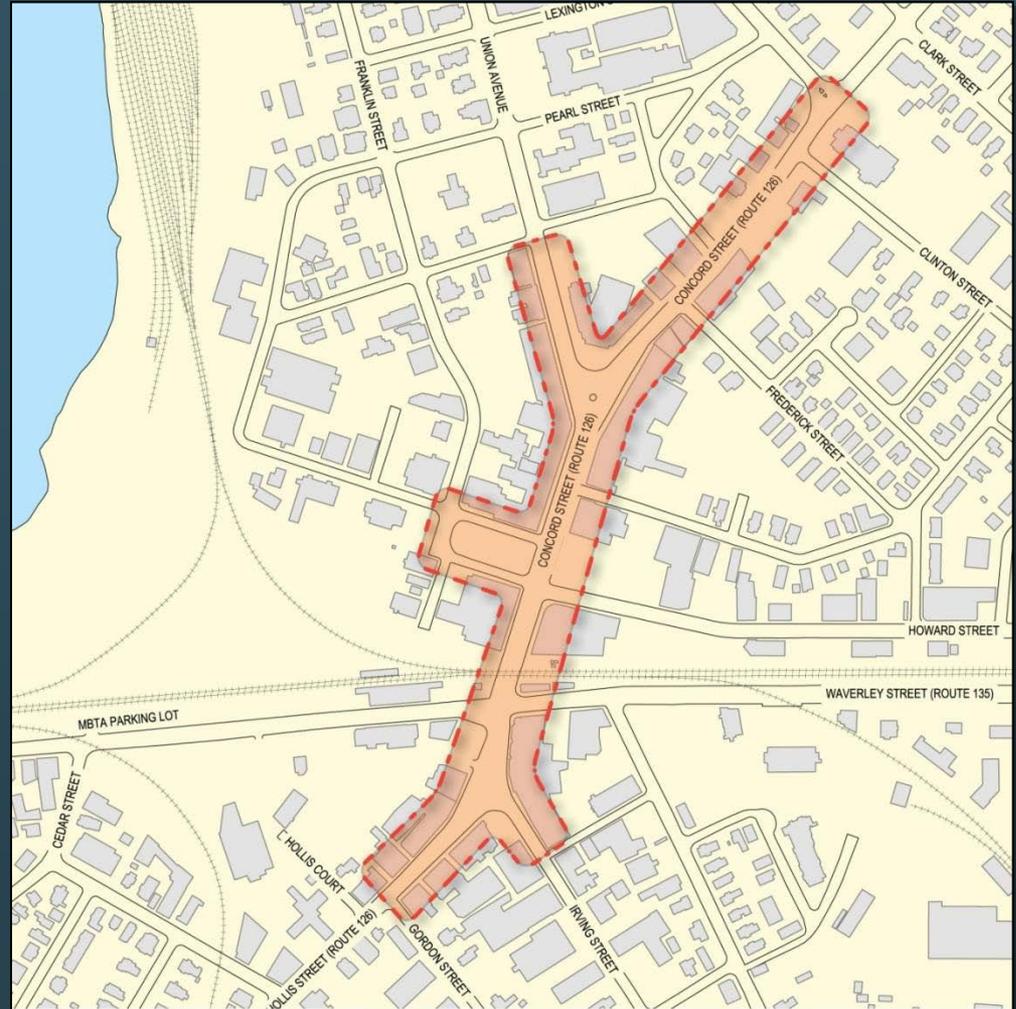


Streetscape Opportunities Presented by Traffic Improvements

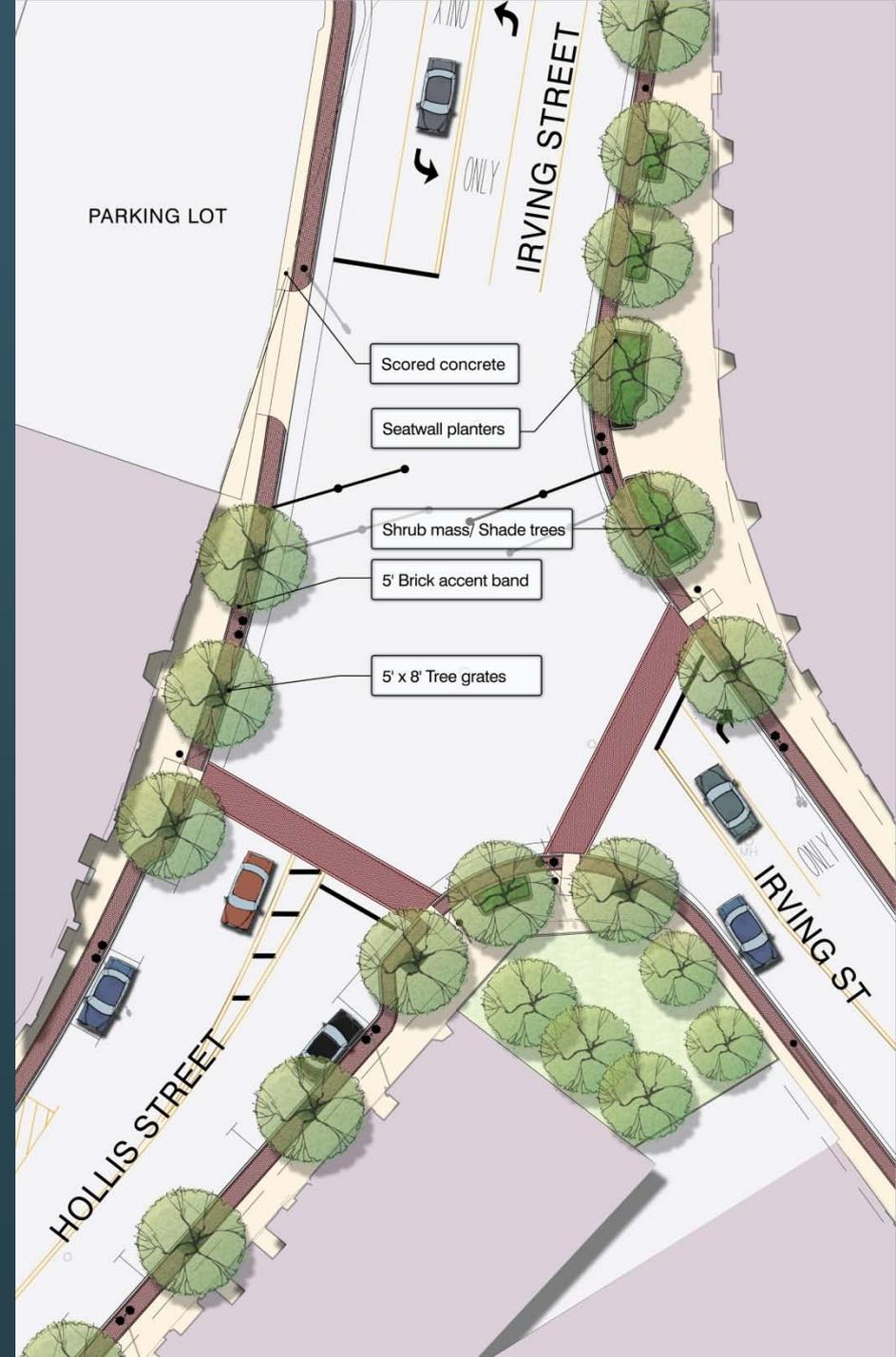
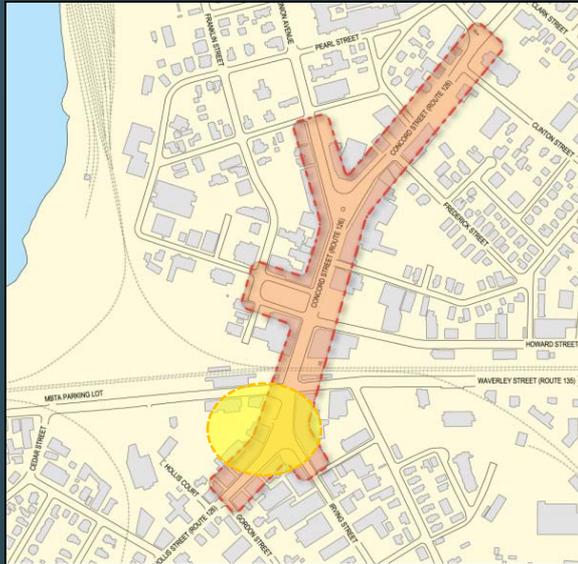
- Create Comprehensive Palette of Streetscape Improvements
- Increase Useable Pedestrian Space
- Provide Sense of Arrival in Downtown Area
- Create Visually Cohesive Streets
- Enhance Attractiveness of Central Business District



Streetscape Project Area

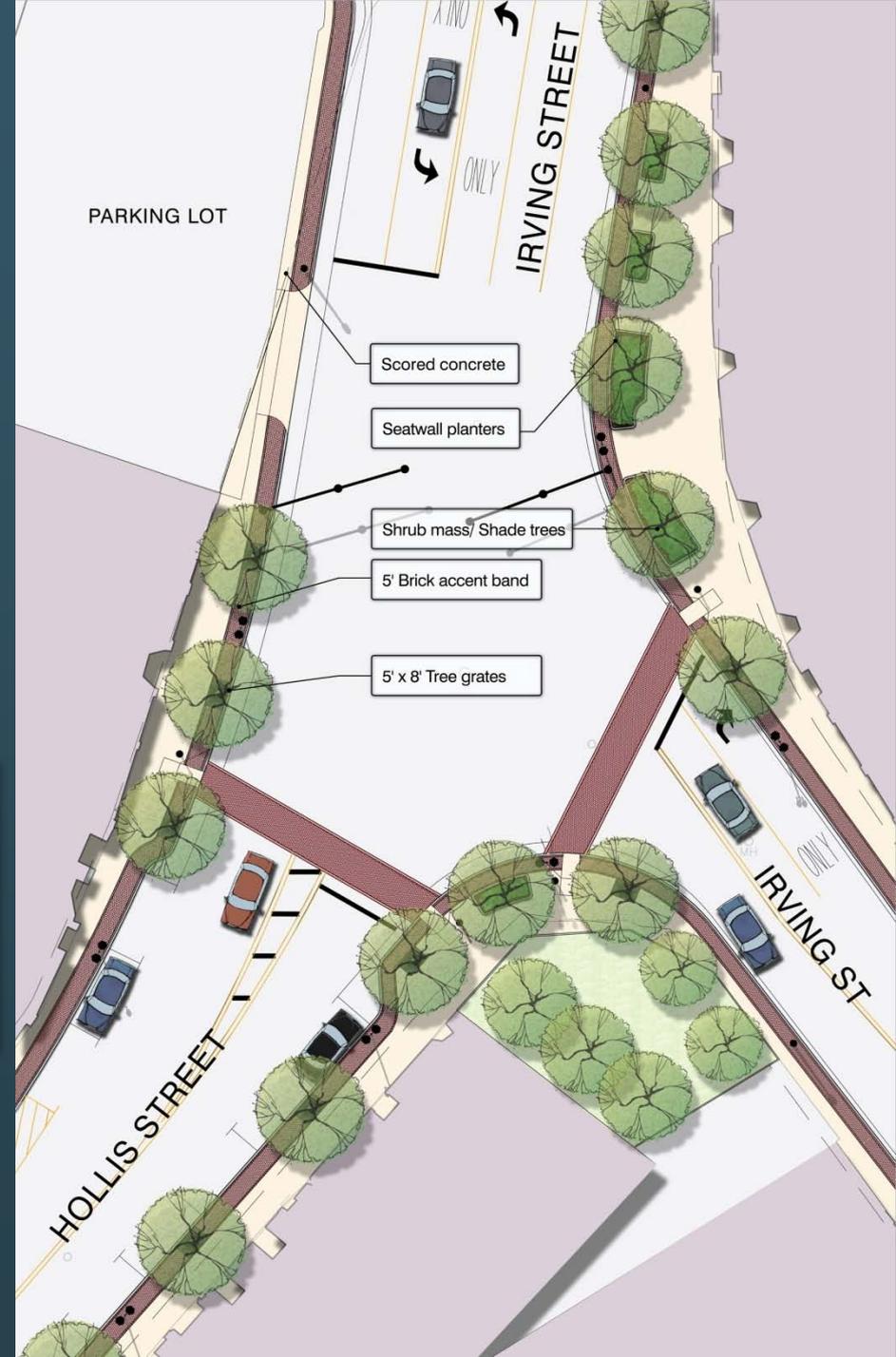
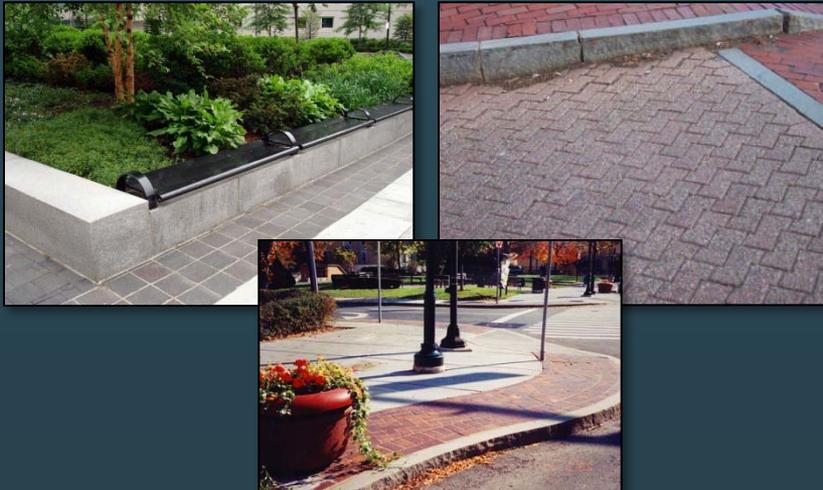


Intersection at Irving Street and Hollis Street

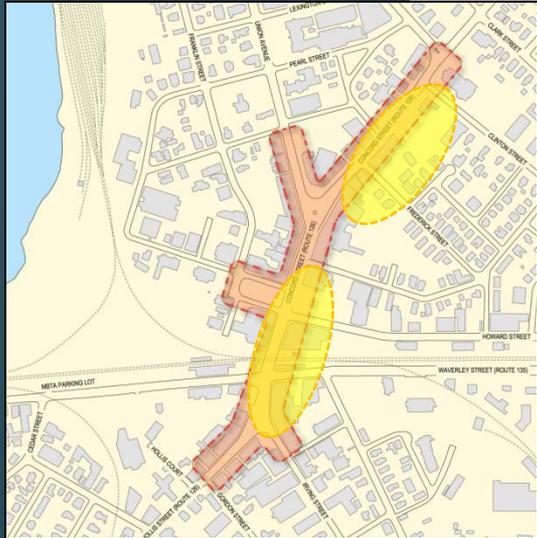


Intersection at Irving Street and Hollis Street

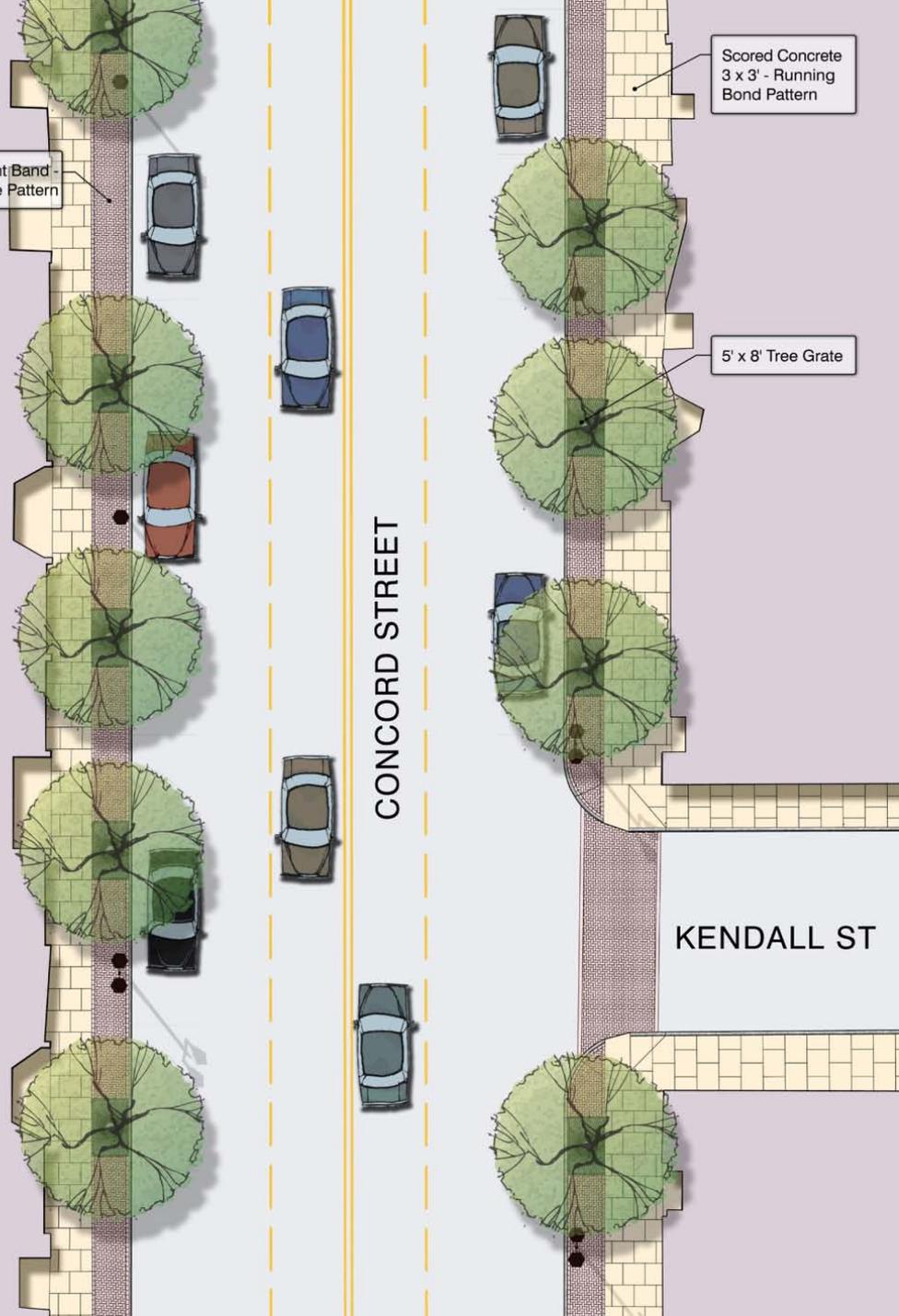
- Curb Extensions at Crosswalks
- Accent Band at Curb Line
- Tree Planters with Seat Walls



Concord Street Typical Condition



5' wide Brick Accent Band -
Herringbone Pattern



Scored Concrete
3 x 3' - Running
Bond Pattern

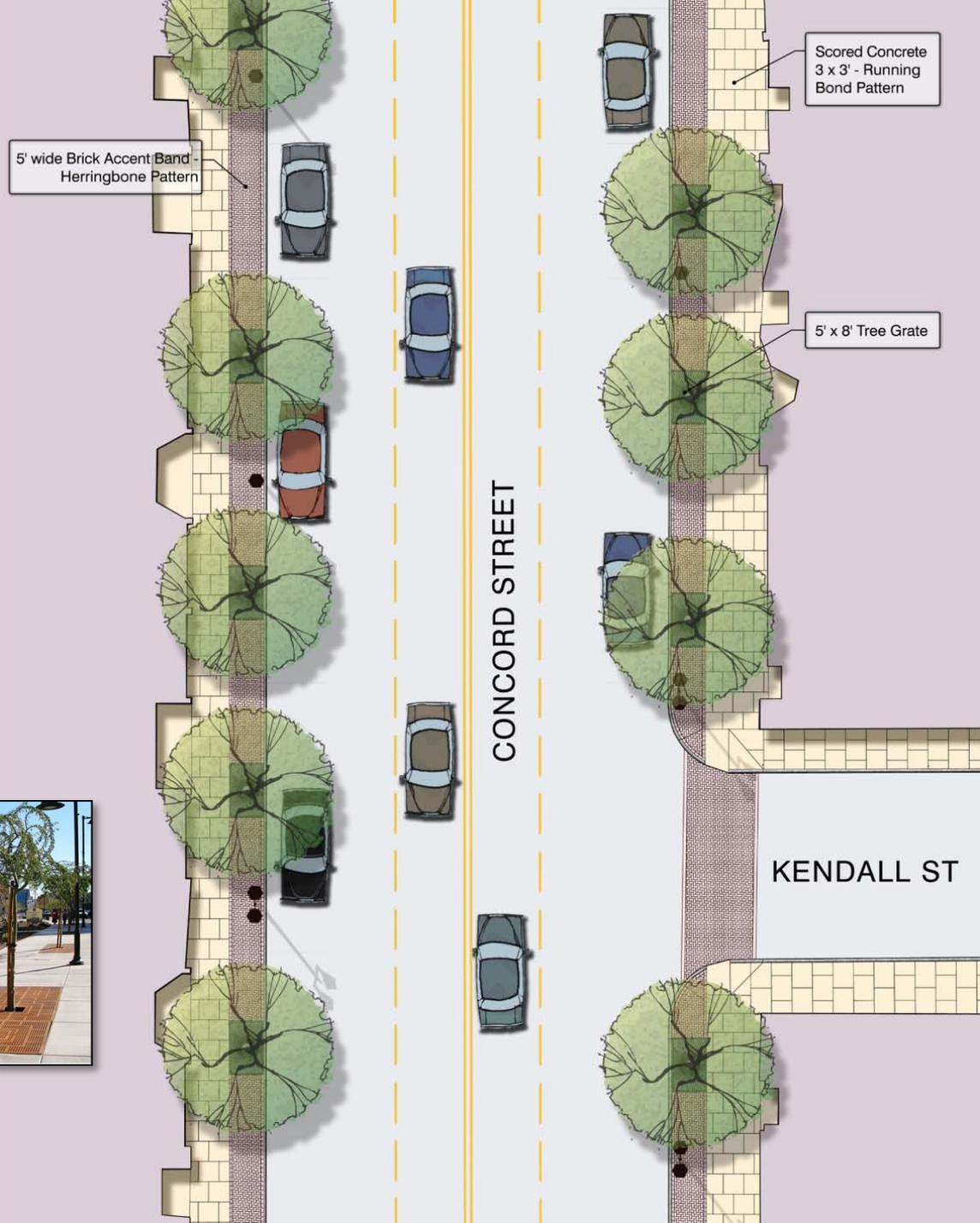
5' x 8' Tree Grate

CONCORD STREET

KENDALL ST

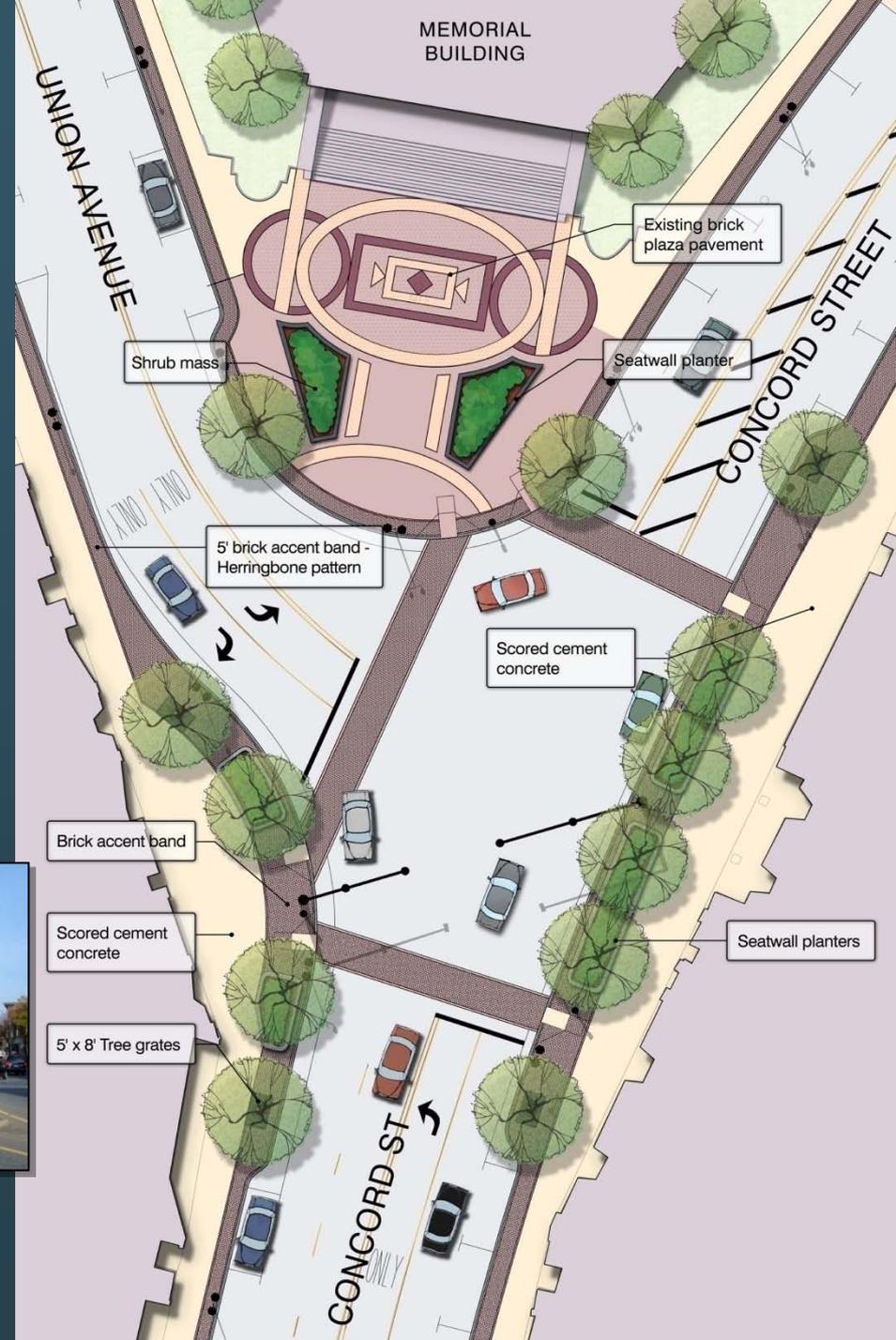
Concord Street Typical Condition

- Cement Concrete Sidewalks with Ornamental Scoring Pattern
- Accent Band at Curb Line
- Cast Iron Tree Grates



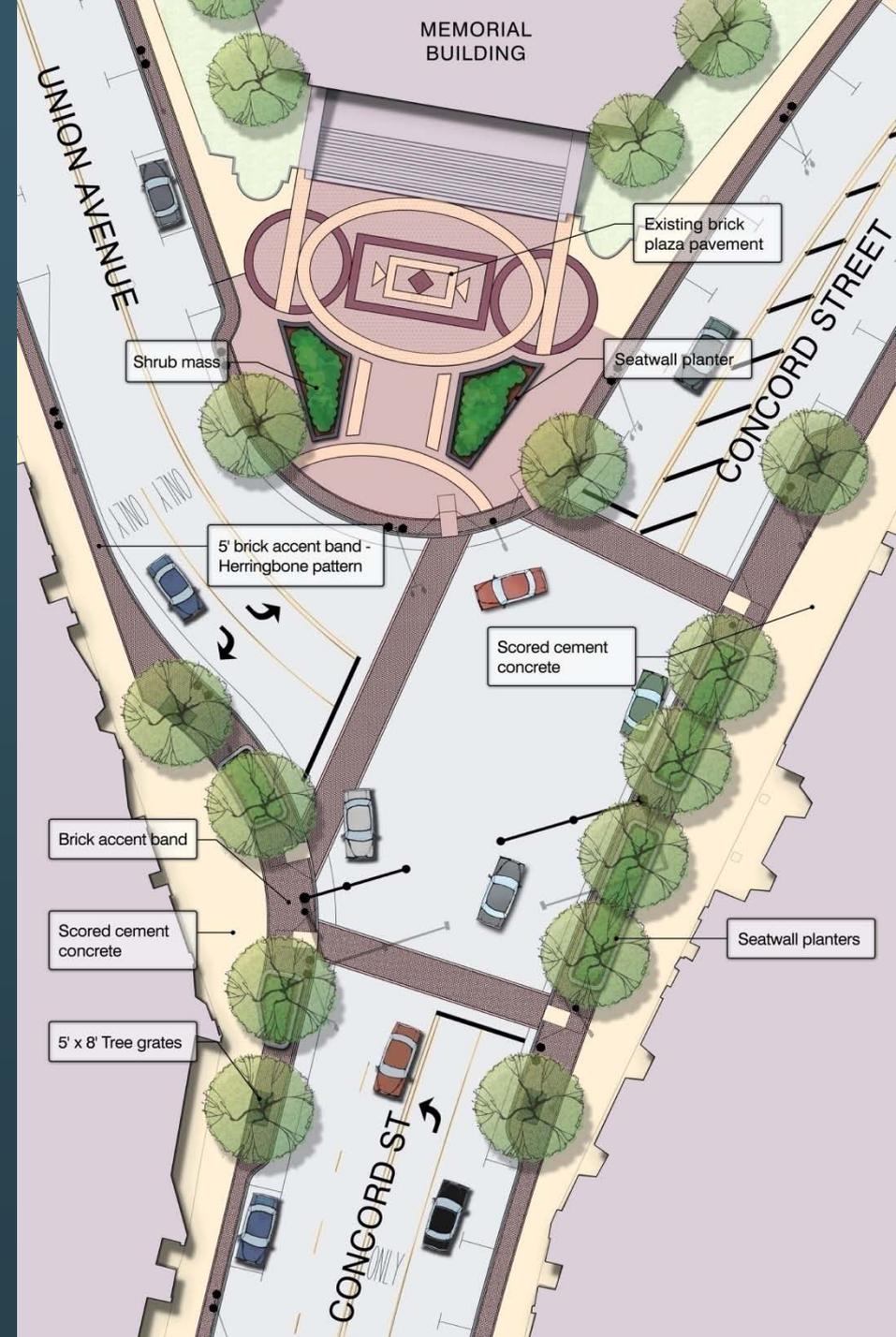
Intersection at Concord Street and Union Avenue

- Brick pattern at Memorial Building is preserved
- Curb realignment creates traffic buffer
- Street trees frame views of Memorial Building



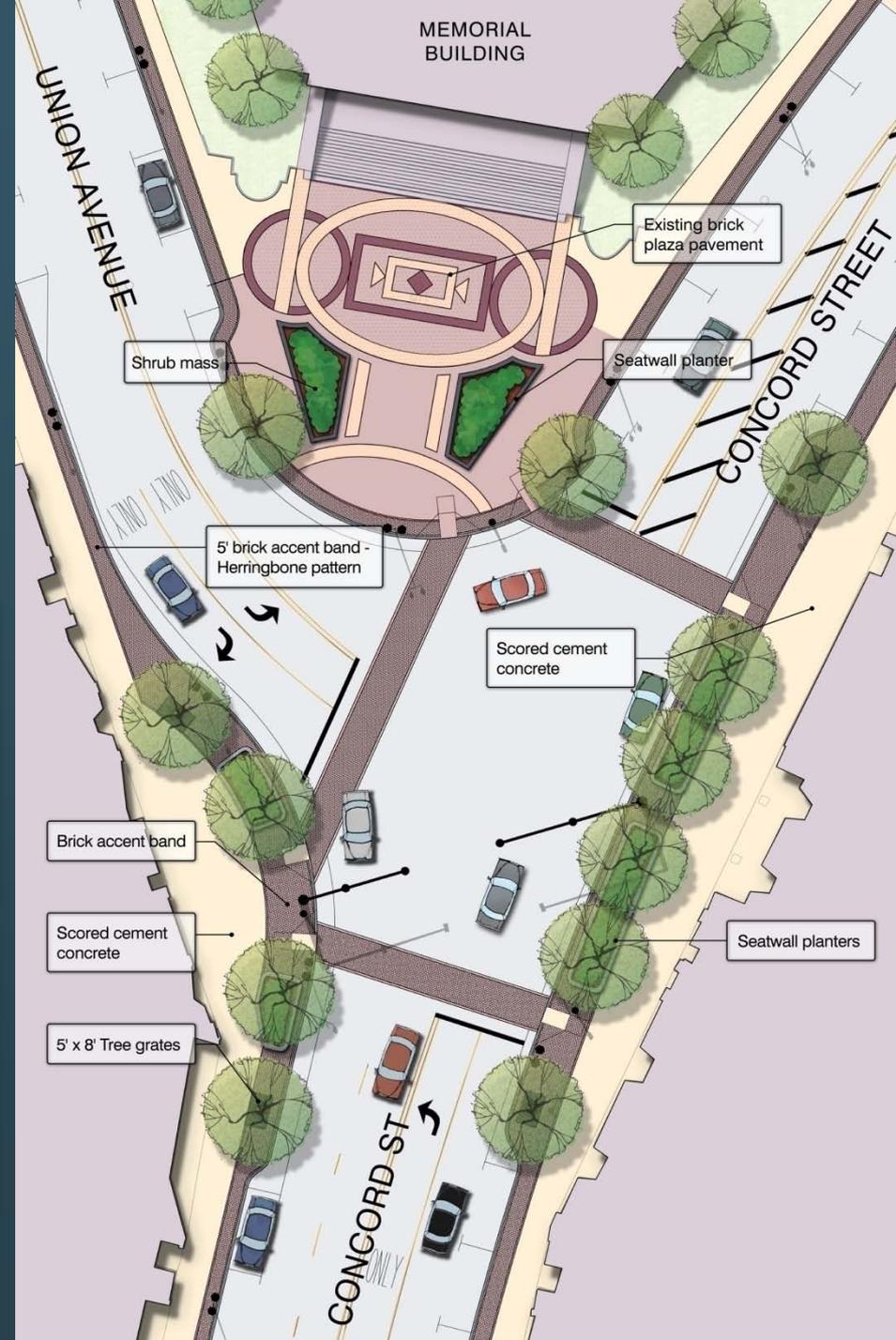
Intersection at Concord Street and Union Avenue

- Traffic calming provided by curb extensions
- Curb realignment does not reduce parking capacity in square



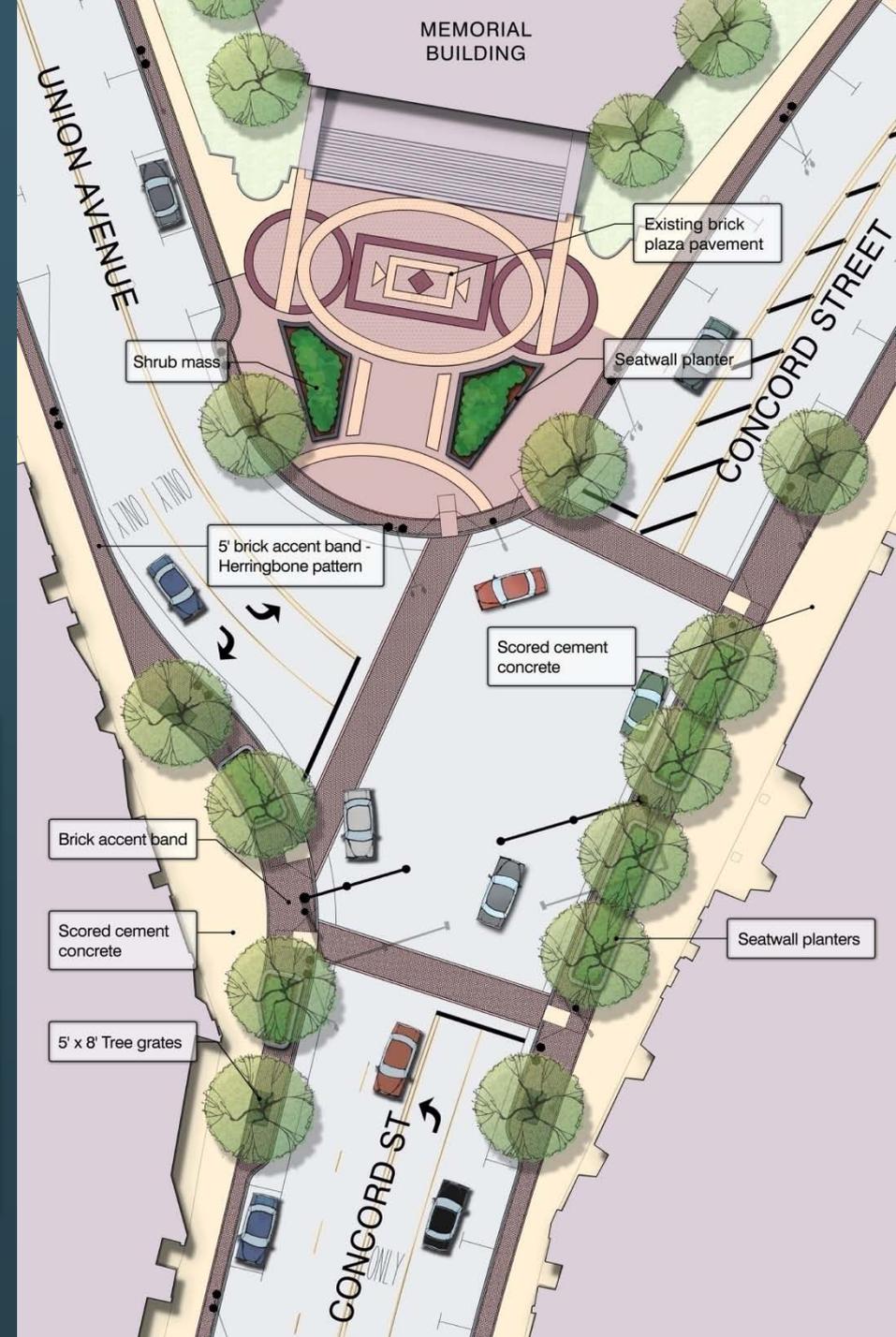
Intersection at Concord Street and Union Avenue

- Unit Paver Crosswalks
- Seatwall Planters



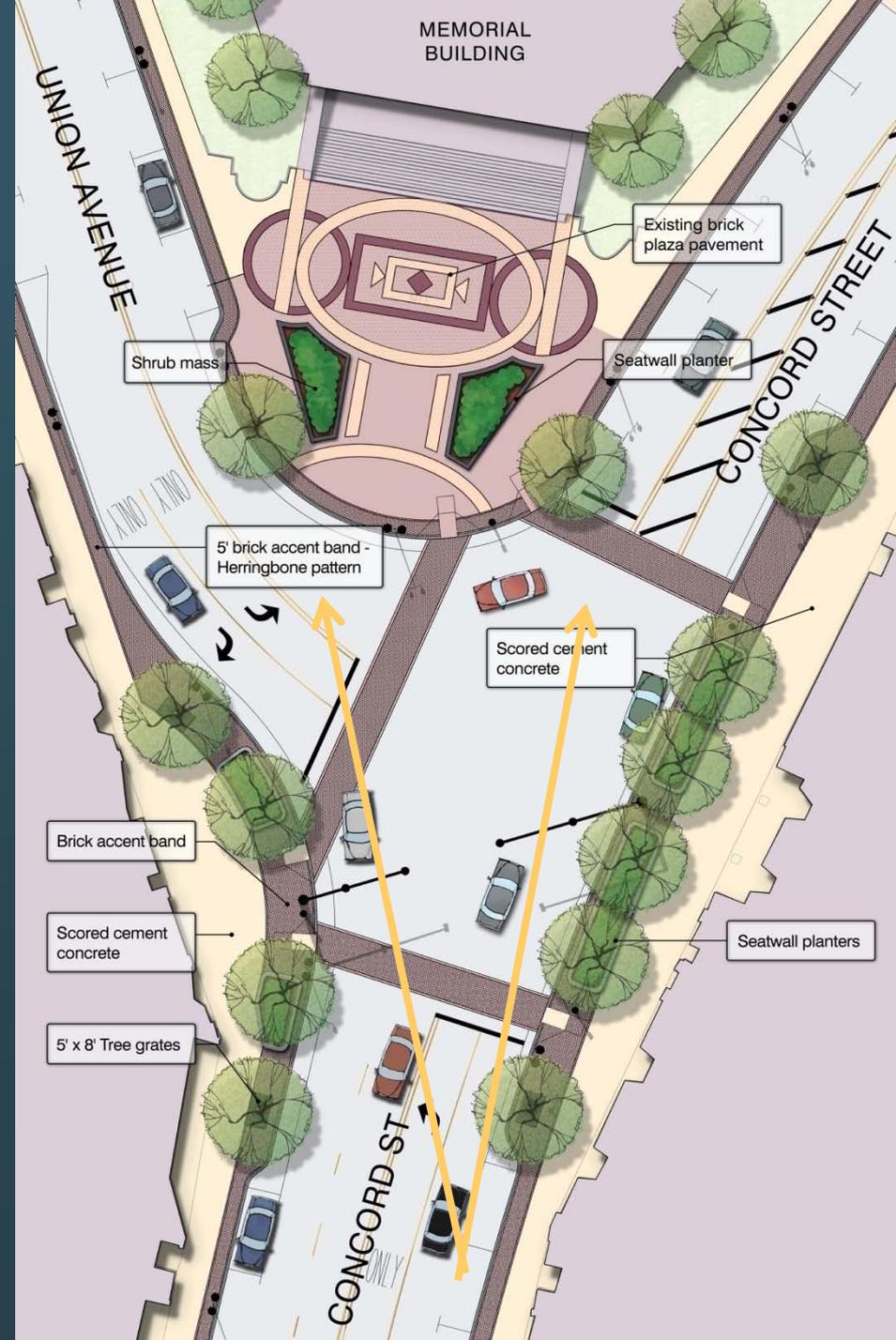
Intersection at Concord Street and Union Avenue

- Ornamental Street Lights
- Single luminaries along street
- Double luminaries at intersection



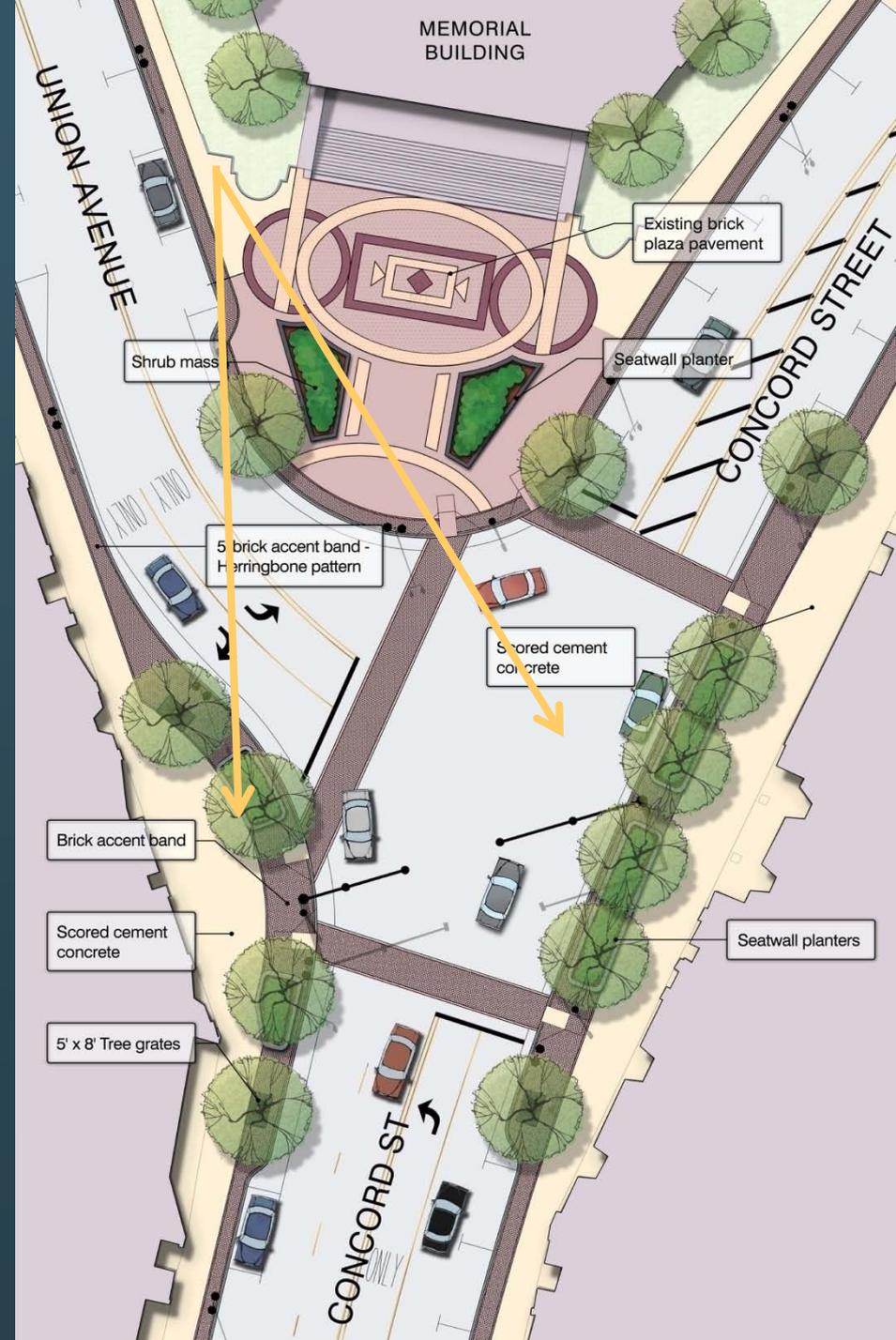
Intersection at Concord Street and Union Avenue

- Perspective View at Memorial Square - north

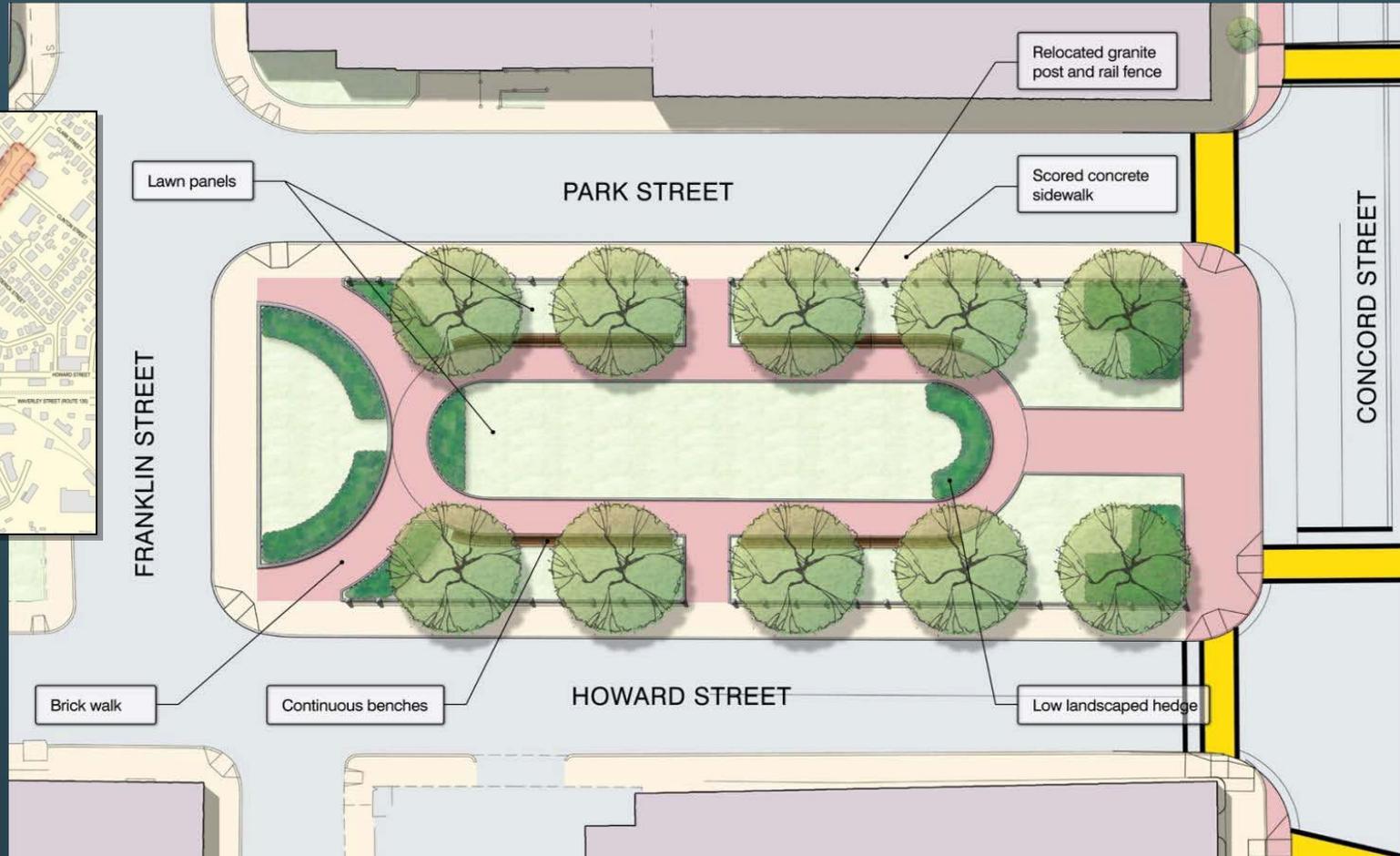


Intersection at Concord Street and Union Avenue

- Perspective View at Memorial Square - south

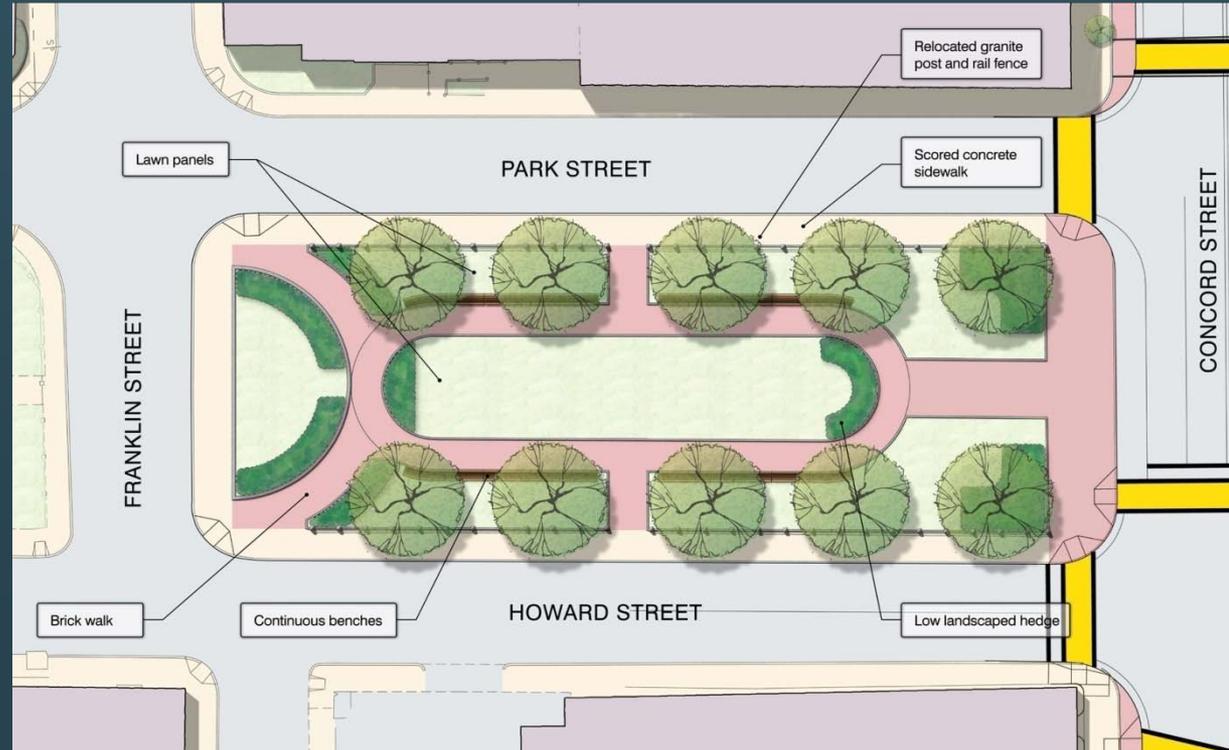


Park Street Common



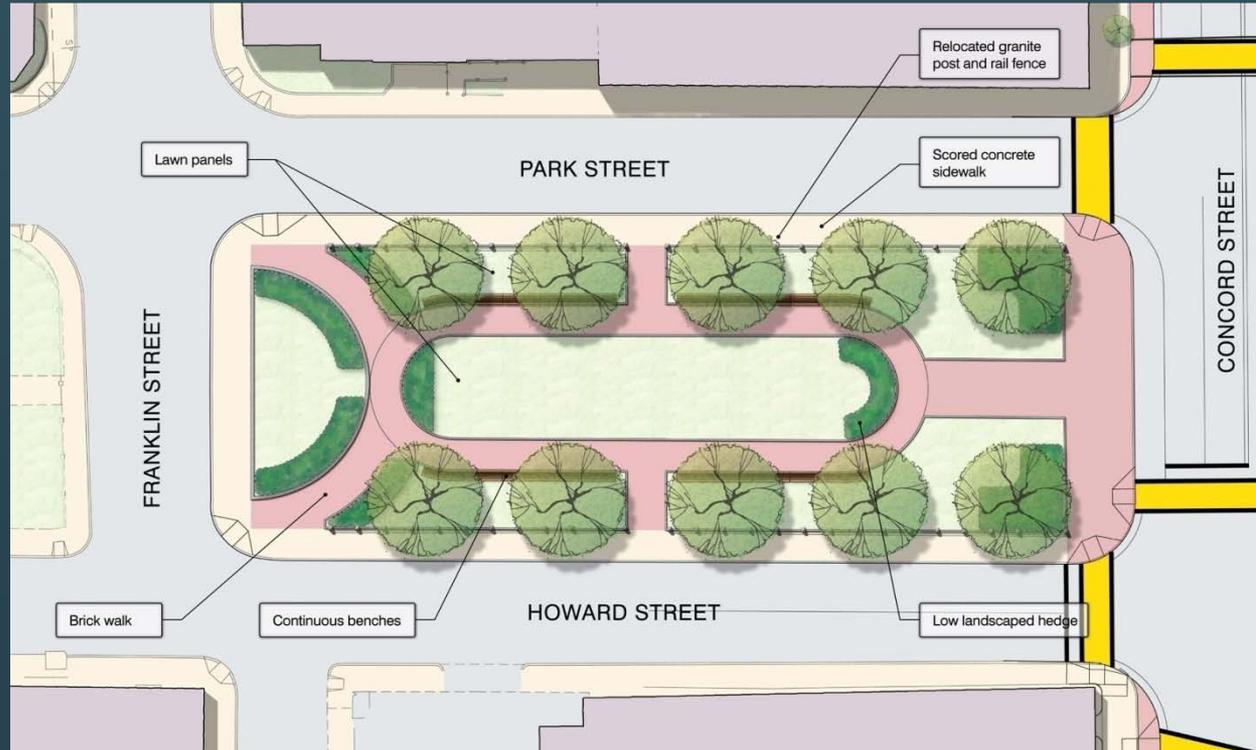
Park Street Common

- Simple, formal layout with lawn panels and shrub masses
- Park axis aligned with church steeple

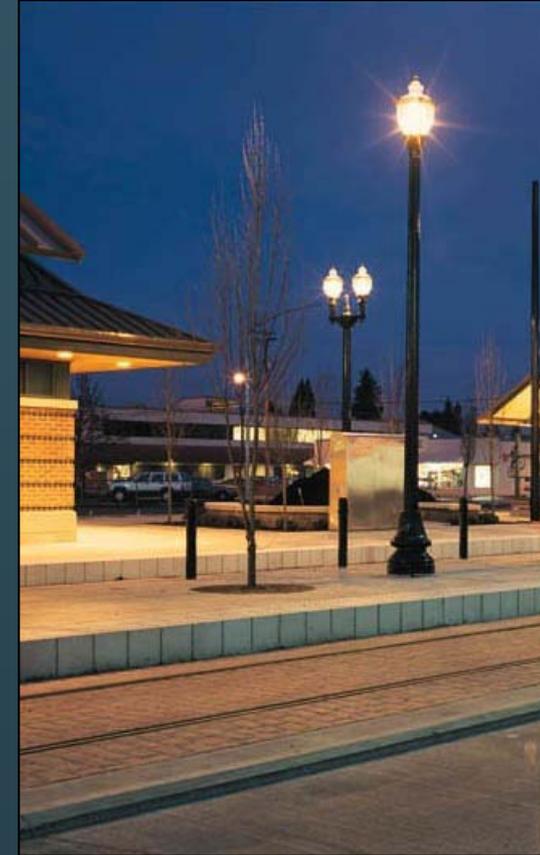


Park Street Common

- Sidewalks added along Park and Howard Streets
- Park walks realigned to provide a choice of routes
- Generous seating



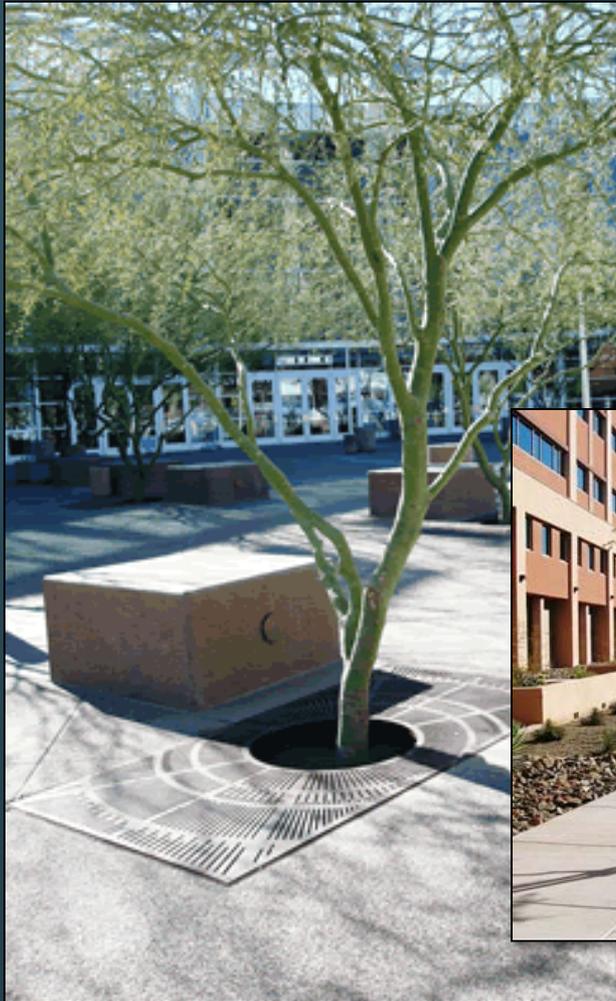
Street Lights



Sidewalk Accent Bands/Crosswalks



Tree Planters/Grates



Street Furniture





Questions?



Existing Conditions

