



Community Meeting October 8, 2009

Presented by:

CITY OF BOSTON

Boston Transportation Department

Tetra Tech Rizzo

The Cecil Group

Brown Richardson & Rowe

Jacobs Engineering Group



CITY OF BOSTON



www.cityofboston.gov/transportation/rutherford/

Meeting Agenda

- Sullivan Square Refined Alternatives
 - At Grade
 - Underpass
- Comparison of Alternatives
- Community Discussion



Project Development Process

- Transportation Study
- Preliminary Design ← Current Step
- 25% Design
- Final Design (100%) and Bid Drawings
- Phased Construction
- Long Term Maintenance



Scope and Work Products

STEP 1: Existing Conditions / Project Goals

- Inventory Transportation, Development and Open Space Projects
- Identify Design Objectives

STEP 2: Alternatives Evaluation

- Develop and Evaluate Conceptual Alternatives
- Identify Potential Development and Open Space Parcels
- Select Preferred Conceptual Design

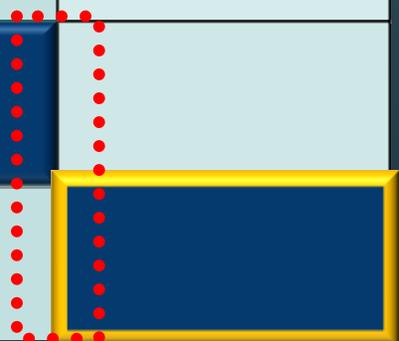
STEP 3: Preliminary Design

- Develop Preliminary Roadway & Parcel Design
- Parking and Access Guidelines Relative to Parcel Use
- Develop Cost Estimates and Phasing Strategies



Project Schedule

	Fall 2008	Spring 2009	Summer/ Fall 2009
Establish Design Principles & Identify Conceptual Alternatives			
Analyze, Review & Select Conceptual Design			
Review of Preliminary Design			



Project Funding

- \$600,000 in City of Boston funding for design to leverage federal dollars
- Initial earmarks for design and early phase construction (\$13 million)
- Accepted as Major Infrastructure Project in State's long range plan (potential \$100 million)
- Potential for public/private partnerships with developers



Project Goals

- Improve pedestrian connections between community and Sullivan Square Station
- Create public/open space
- Provide opportunities for appropriate development
- Decrease congestion by distributing traffic
- Provide bicycle connections
- Increase on-street parking
- Protect Main Street from cut-through traffic



Sullivan Square Layout Options

	Separated Main and Maffa	Combined Main and Maffa
At Grade Road	Option 1	Option 2
Underpass	Option 3	Option 4



Sullivan Square Surface Option (Option 1)

Layout and Circulation



JJ Ryan Jr. Playground

Schraft Center

Teamsters Local 25

Existing alignment edge of pavement



Sullivan Square Underpass Option (Option 3)

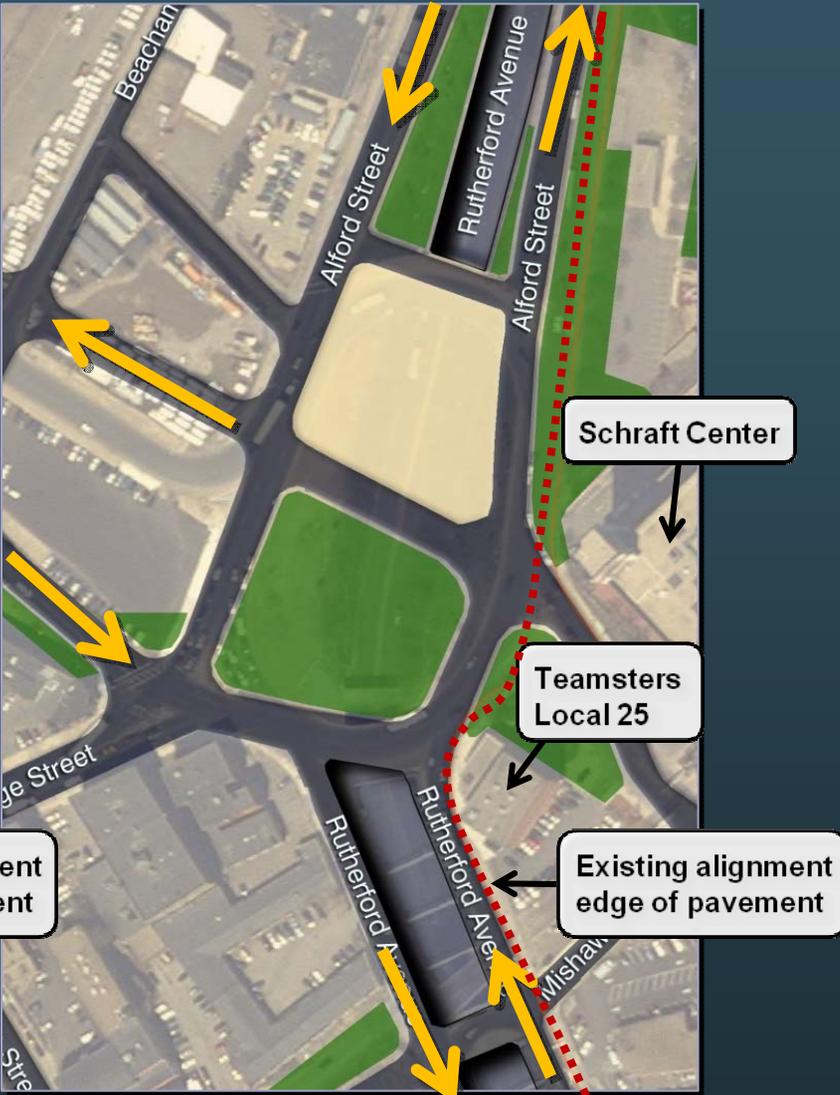
Layout and Circulation



Sullivan Square: Layout and Circulation



Surface Option

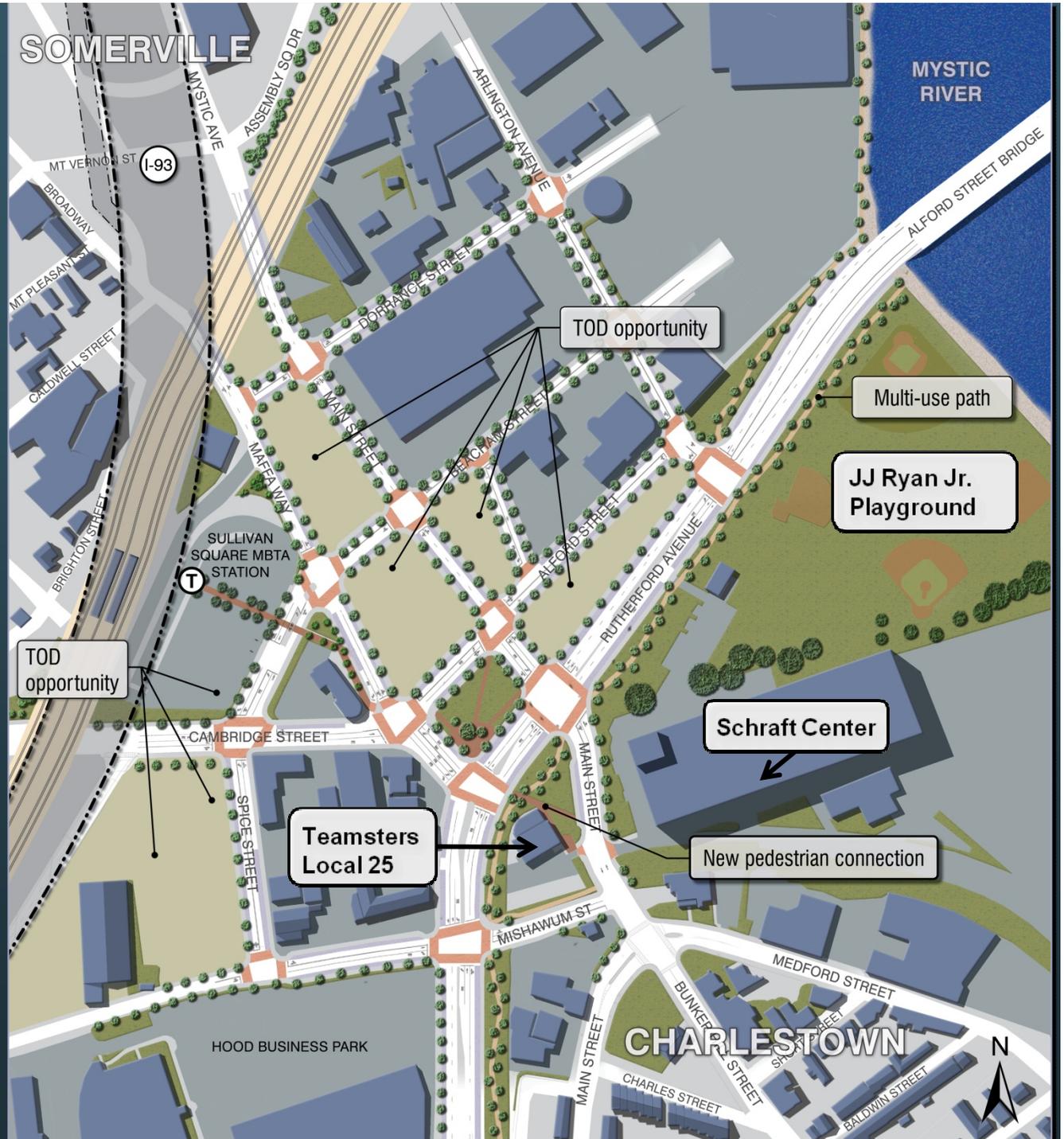


Underpass Option



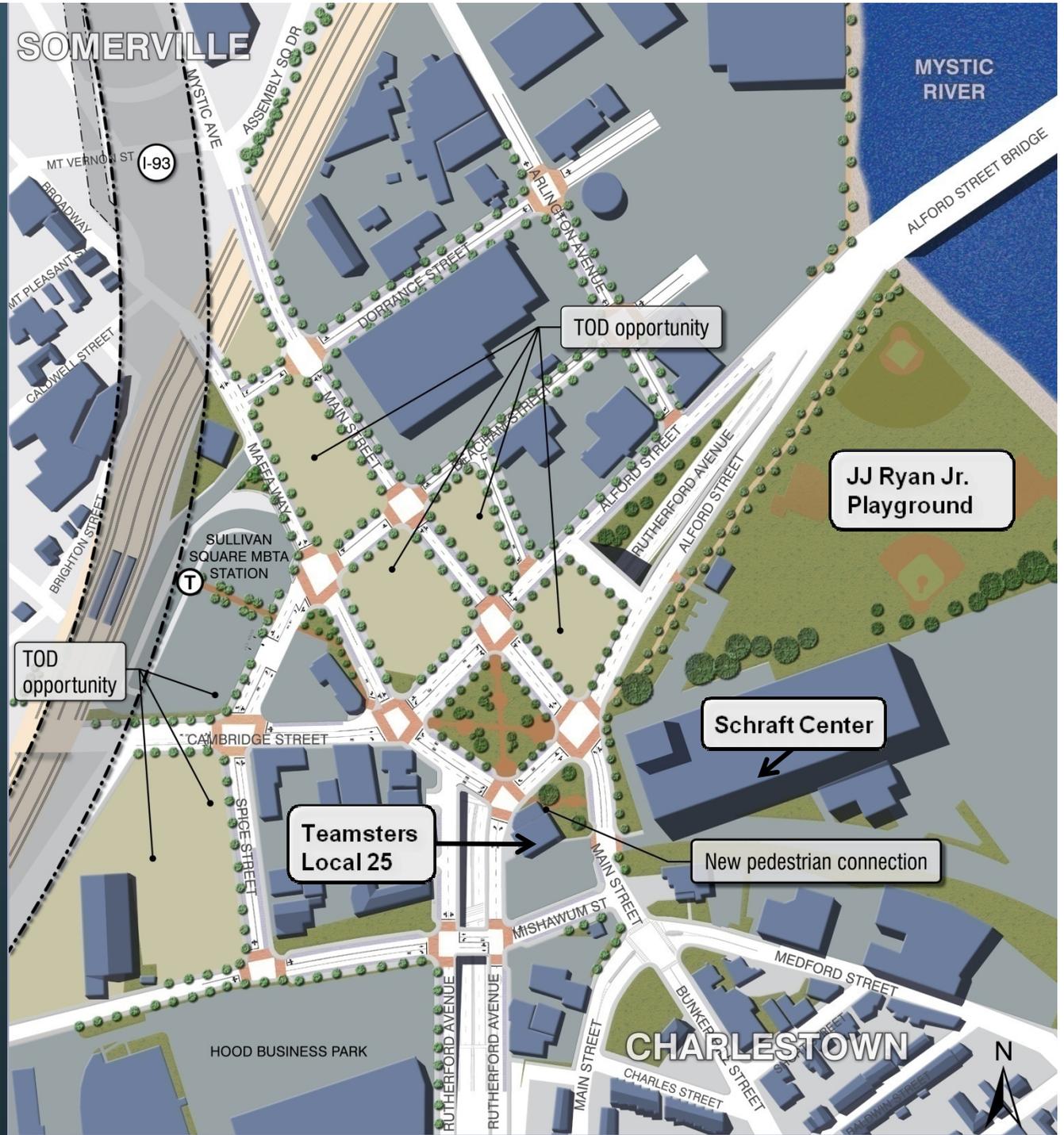
Sullivan Square Surface Option

Rendered Site Plan



Sullivan Square Underpass Option

Rendered Site Plan



Sullivan Square Surface Option

Urban Design Elements



- Smaller-scaled street frontage
- Larger scale street frontage



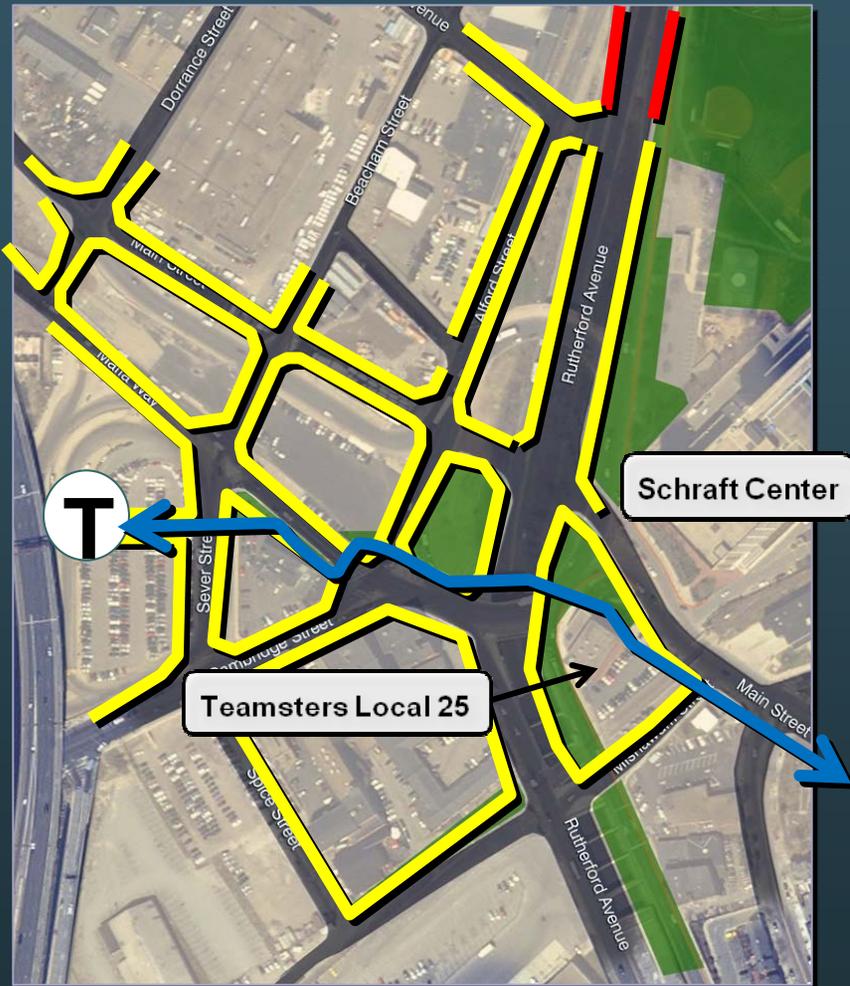
Sullivan Square Underpass Option

Urban Design Elements

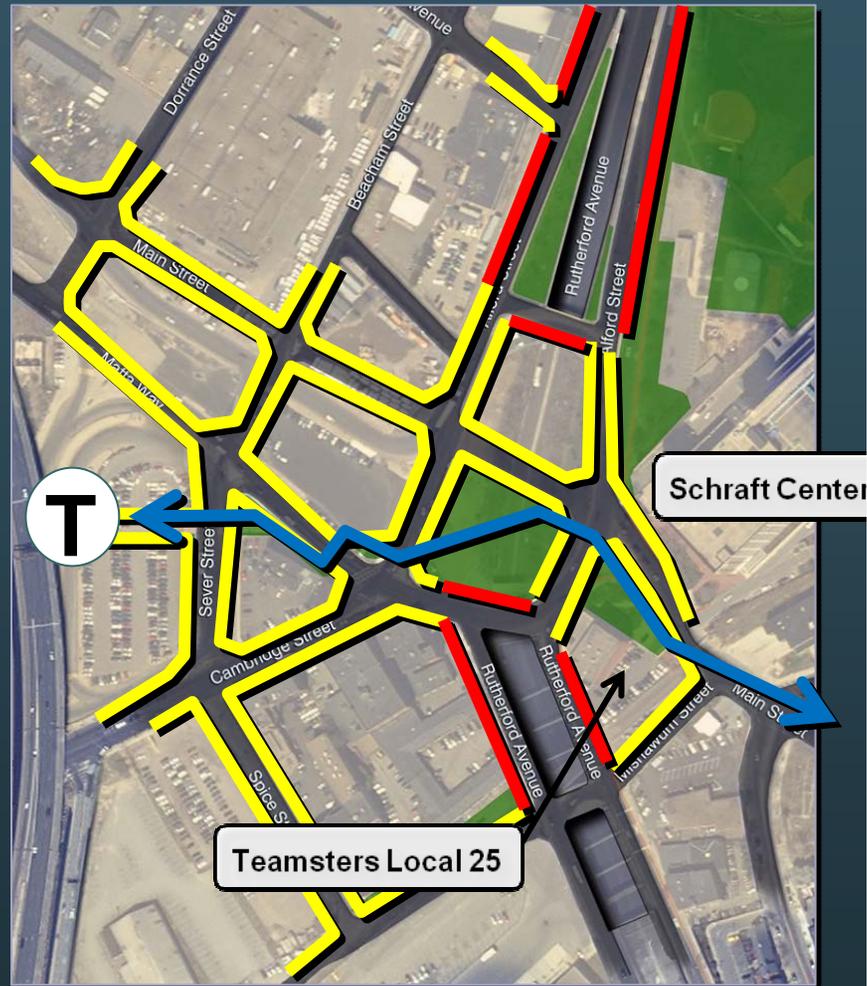


- Smaller-scaled street frontage
- Larger scale street frontage

Sullivan Square: Urban Design Elements



Surface Option



Underpass Option



Intersection Character

4-way intersection, 4 lanes

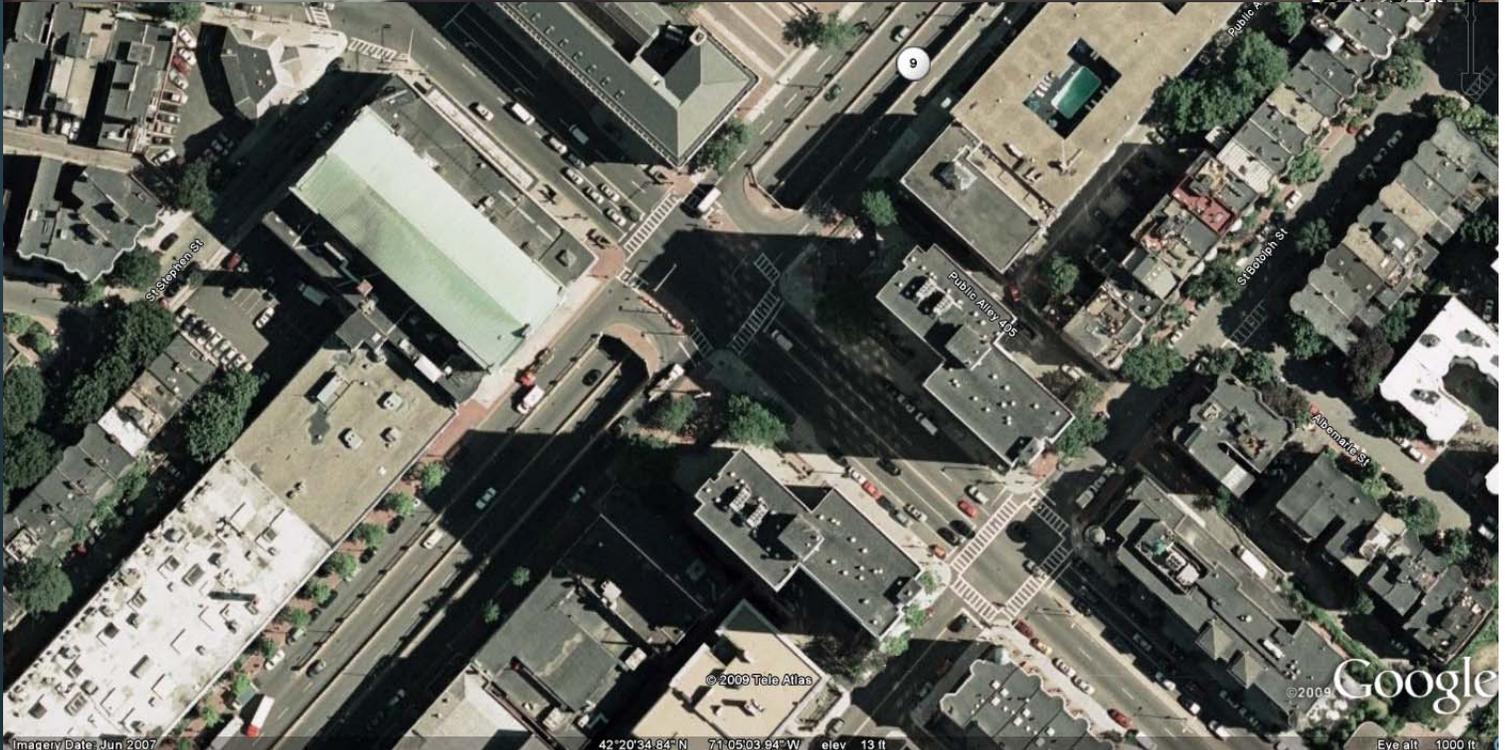
Newbury at Exeter St, Boston



Intersection Character

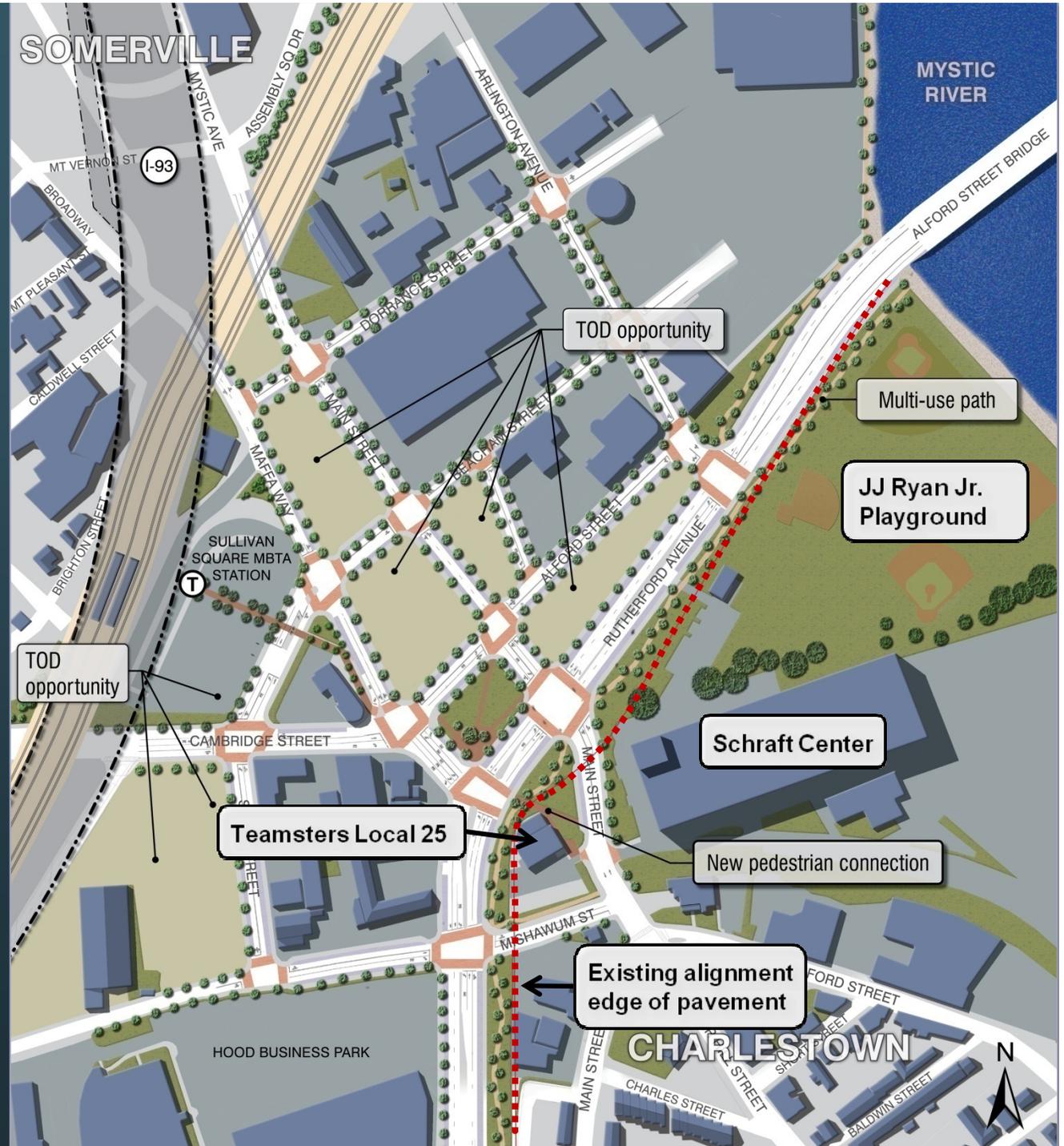
Boat Section,
9 lanes

Huntington Ave
at Mass Ave



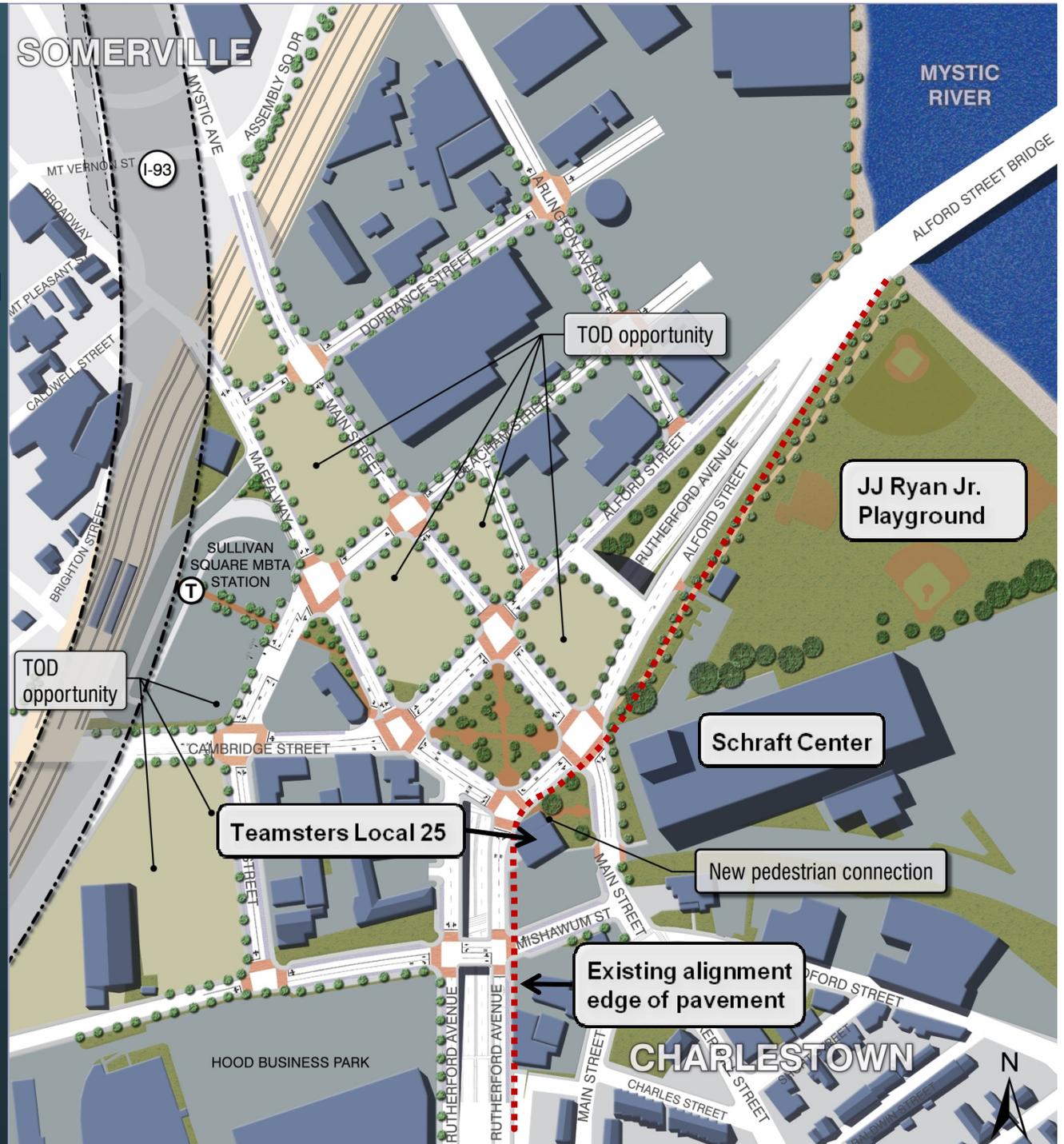
Sullivan Square Surface Option

Open Space Opportunities

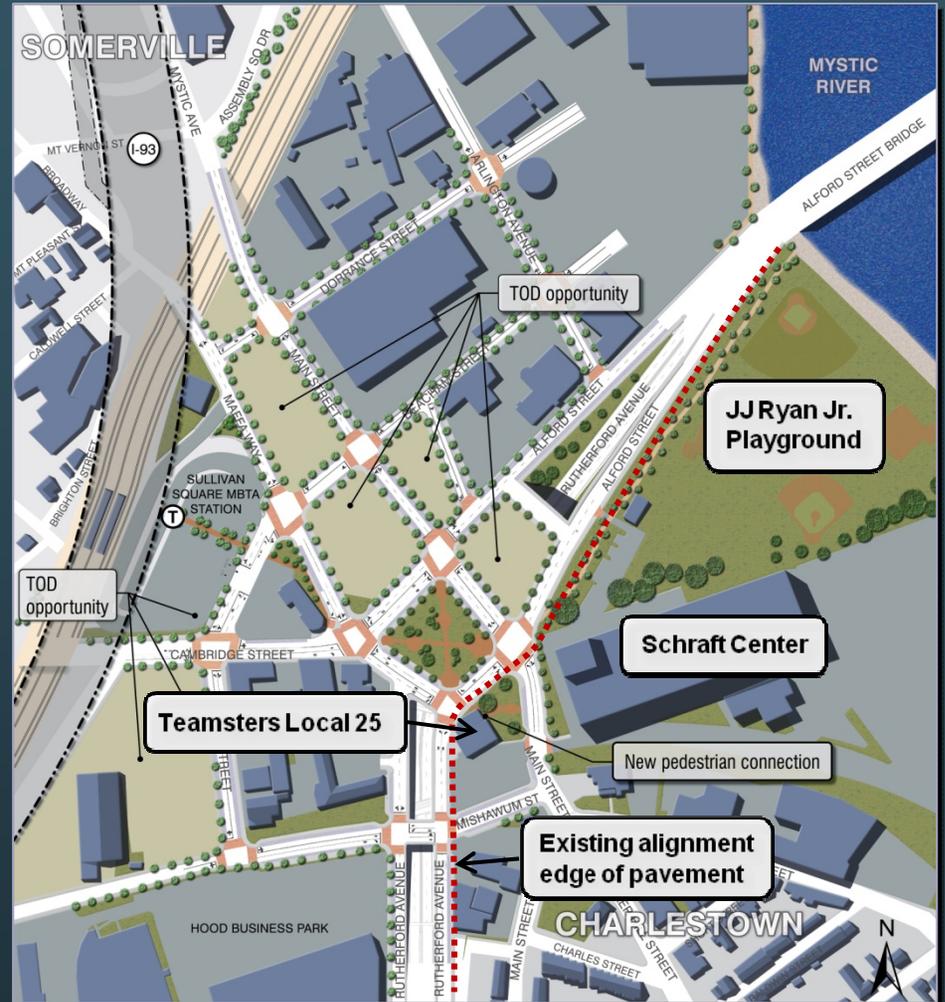
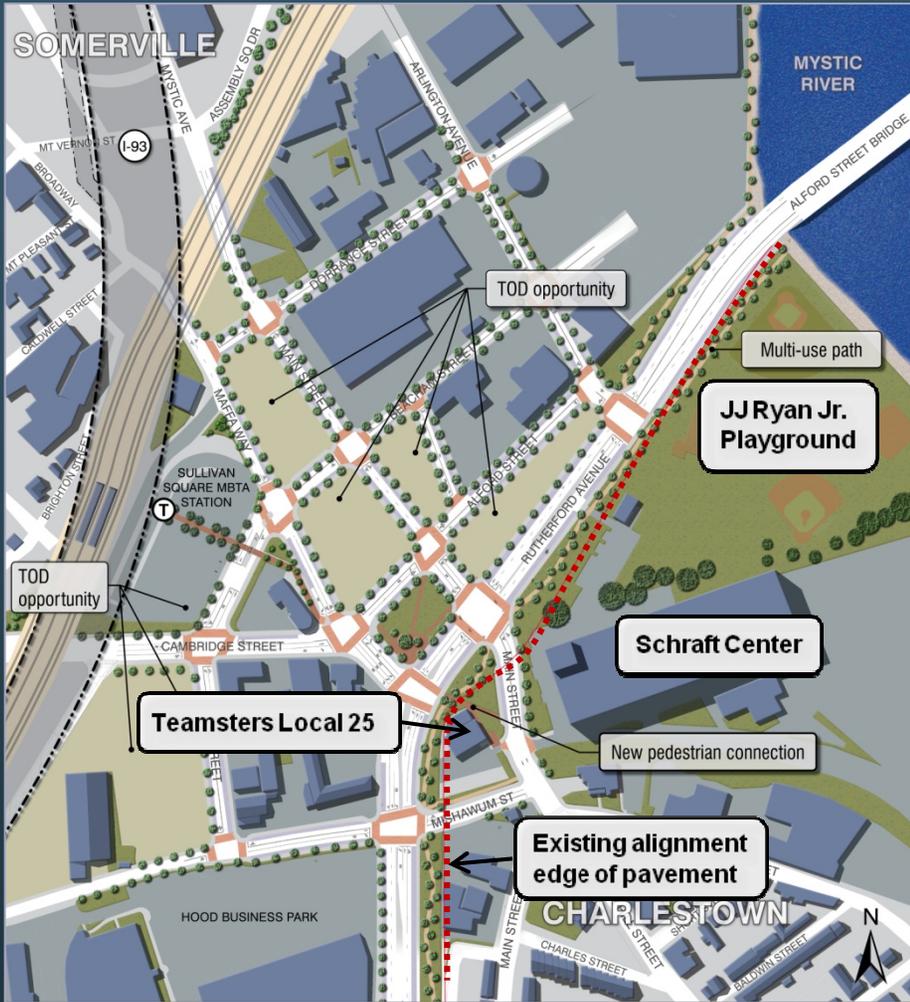


Sullivan Square Underpass Option

Open Space Opportunities



Sullivan Square: Open Space Opportunities



Surface Option

Underpass Option



Open Space Opportunities

Tot lots, community gardens,
public art, seating areas,
multiuse path



Open Space Opportunities

Pedestrian and bicycle paths



(Example: Southwest Corridor)



Open Space Opportunities

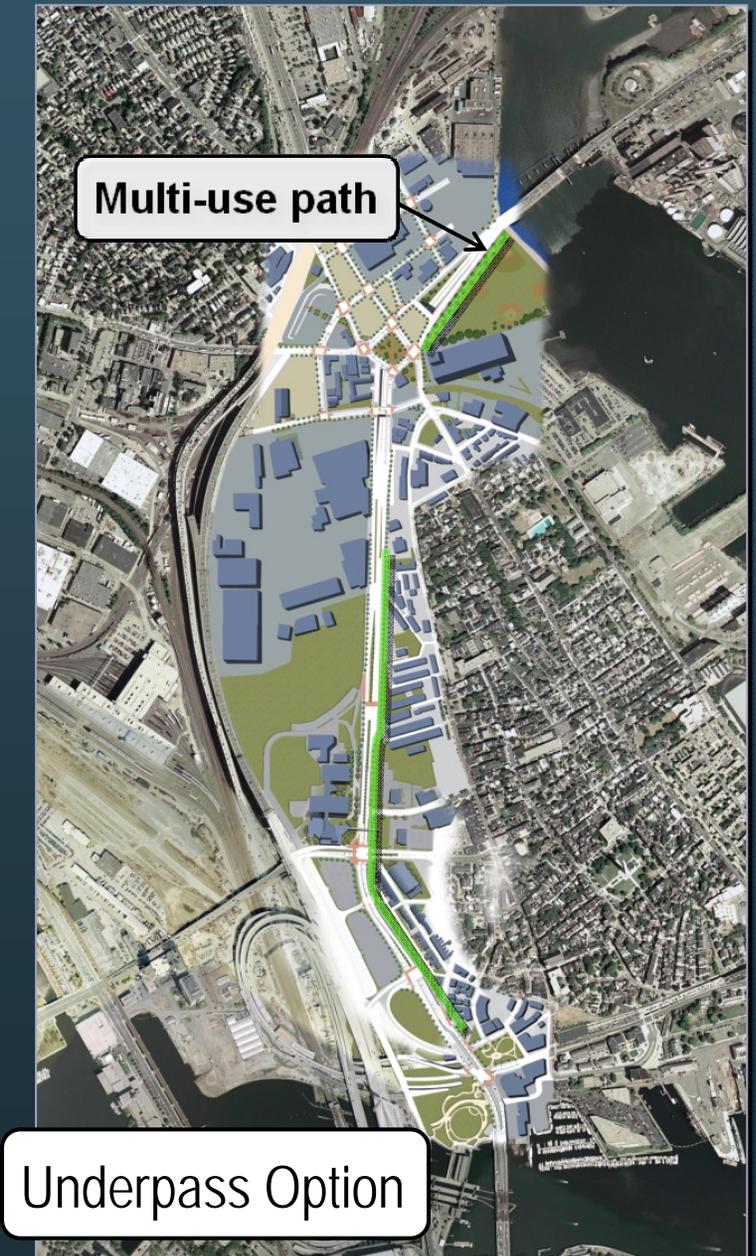
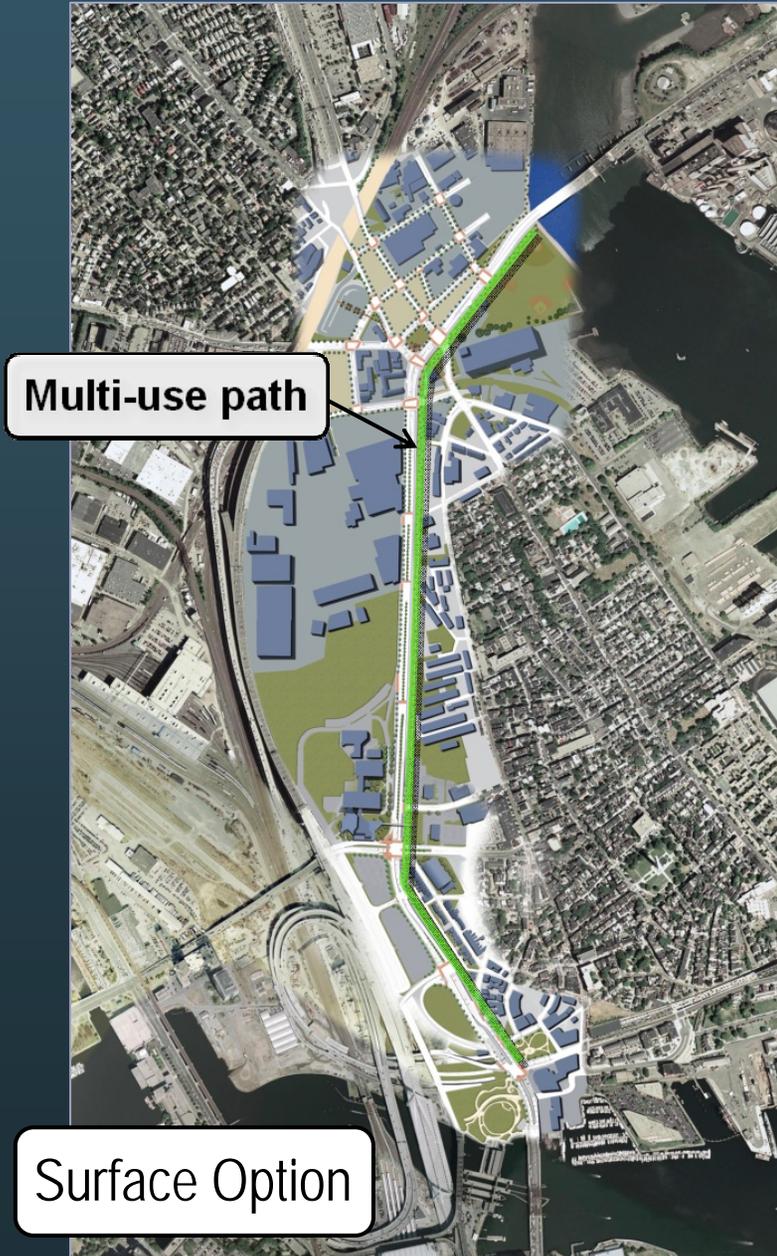
Bicycle connections to other streets



(Example: Portland, Oregon)



7 Entire Corridor Relationship



Entire Corridor Relationship



Surface option adds ± 550 on-street parking spaces

Surface Option

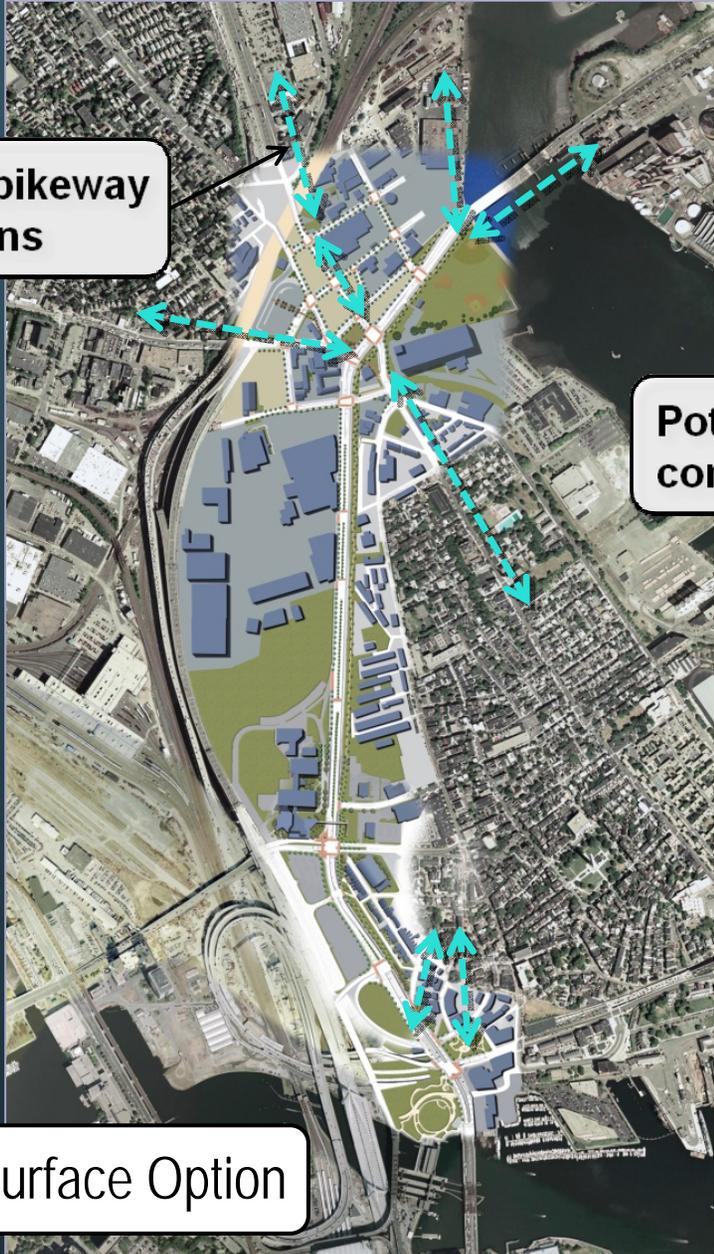


Underpass Option



9 Entire Corridor Relationship

Potential bikeway connections



Surface Option

Potential bikeway connections



Underpass Option



2030 Traffic Projections

- 2008 Traffic Counts
- Increase by 5% to account for regional growth and redevelopment in the Rutherford Avenue corridor
- Add in traffic from proposed Assembly Square Project in Somerville (including IKEA)
- Re-assign traffic based on likely travel paths through new roadway network



Existing Traffic Volumes / Operations

LEGEND

- LOS A-D
- LOS E
- LOS F
- S Signal

AM PM

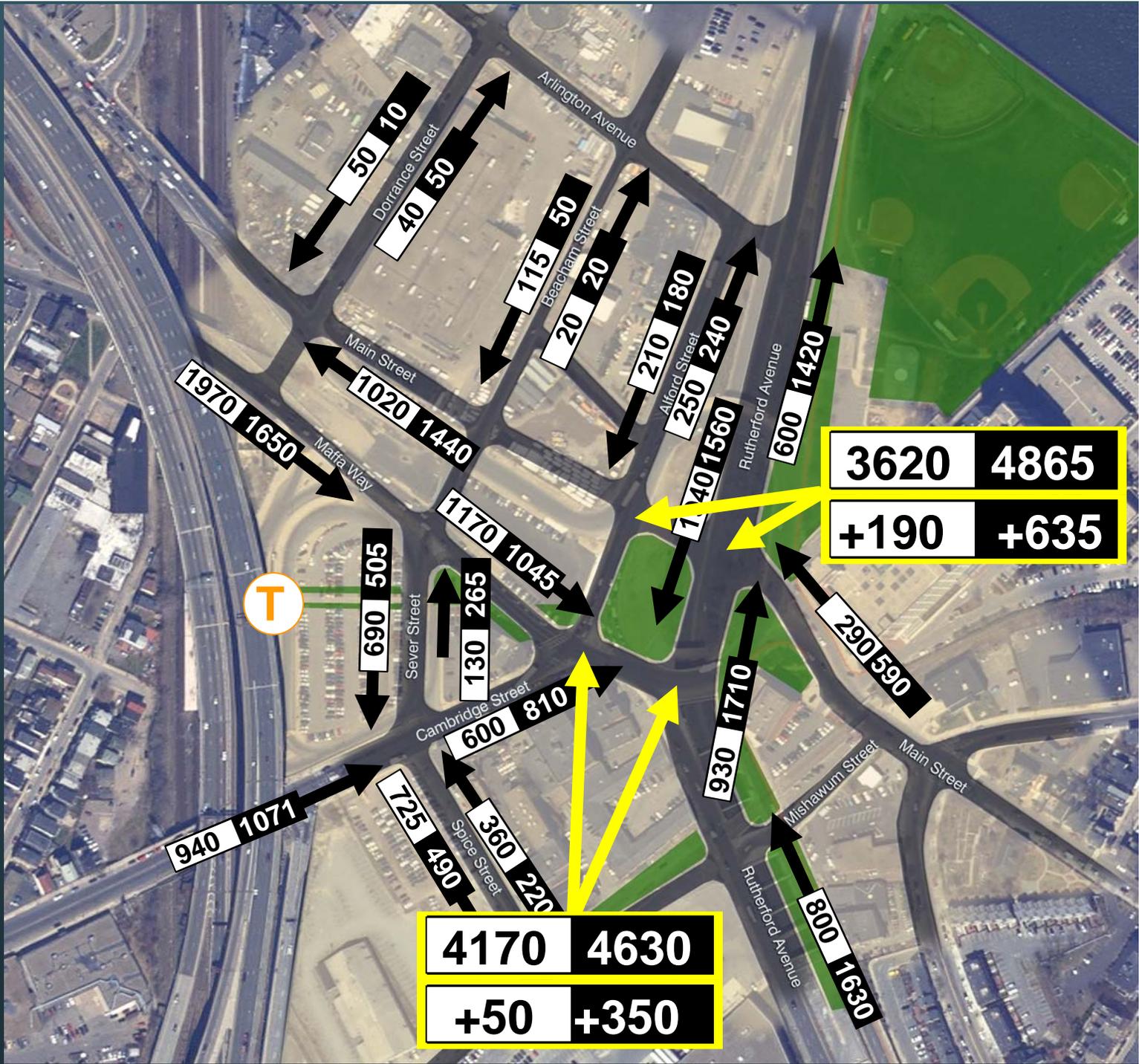


Sullivan Square Surface Option

2030 Traffic Volumes

LEGEND

AM	PM
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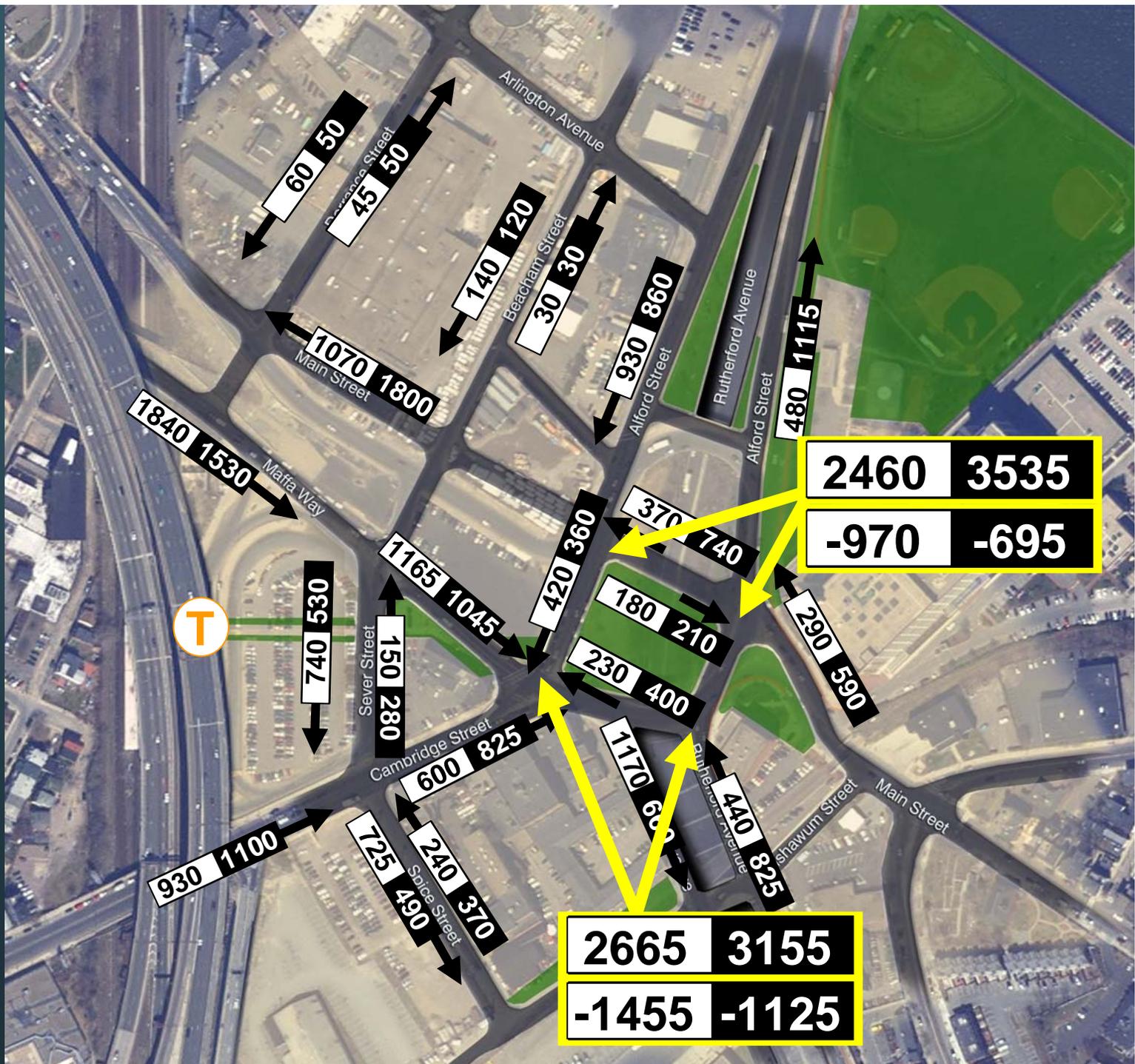


Sullivan Square Underpass Option

2030 Traffic Volumes

LEGEND

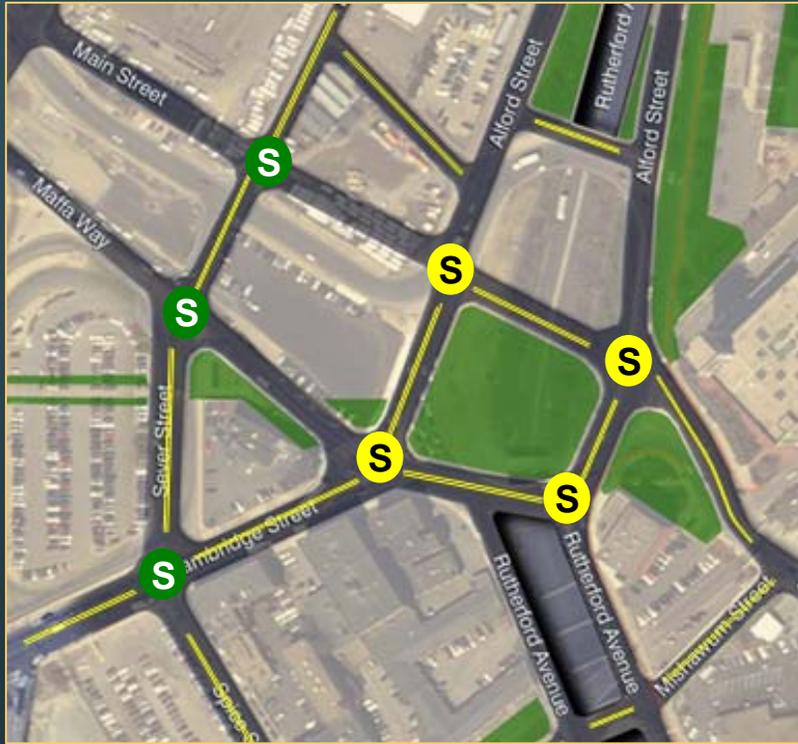
AM	PM
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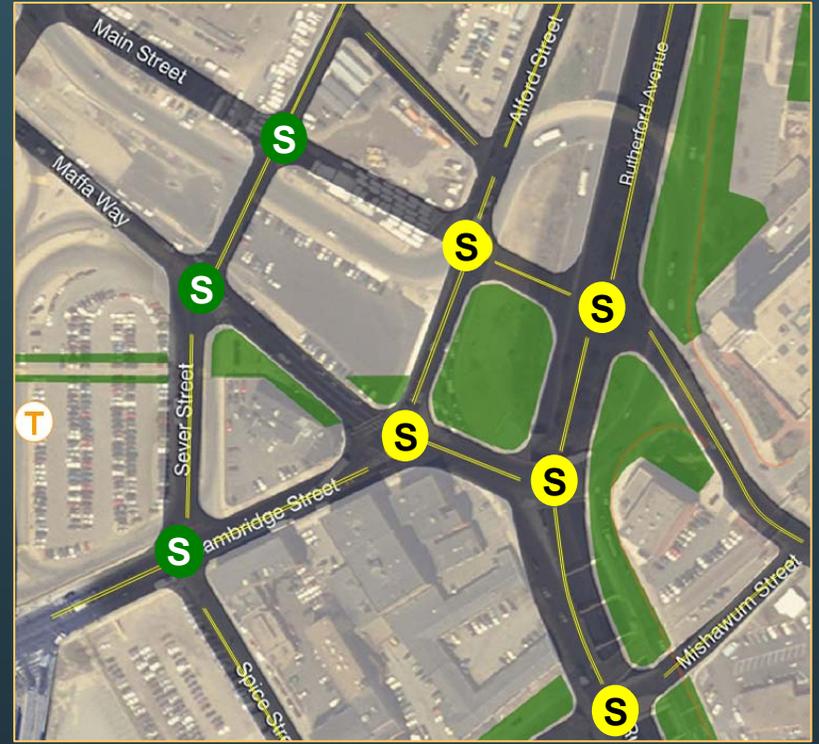
Sullivan Square: 2030 PM Peak Hour Traffic Operations

LEGEND

- LOS A-D
- LOS E
- LOS F
- S Signal



Surface Option



Underpass Option



Sullivan Square Surface Option Cost Summary

Construction Period -
Approx: 4 ½ years

Sullivan Square Area Project Elements	At-Grade Option Estimated Cost
<u>Construction Items</u>	
Roadway Pavement	\$9,090,000
Sidewalks	\$4,060,000
Curbing	\$1,140,000
Demolition (bridges, structures)	\$3,480,000
Embankment	\$4,770,000
Decking	\$0
Drainage	\$5,770,000
Structures (walls)	\$1,420,000
Traffic Signals	\$3,300,000
Landscaping (Parks, Multi-Use Path, Lighting)	\$7,060,000
Utility Relocations	\$6,550,000
Construction Staging	\$4,650,000
Maintenance of Traffic / Police	\$5,130,000
<i>Subtotal</i>	\$56,420,000
Contingency (25%)	\$14,110,000
<i>TOTAL CONSTRUCTION COST</i>	\$70,530,000
say	\$71,000,000



Sullivan Square Underpass Option Cost Summary

Construction Period -
Approx: 5 years

Sullivan Square Area Project Elements	Underpass Option Estimated Cost
<u>Construction Items</u>	
Roadway Pavement	\$7,470,000
Sidewalks	\$4,200,000
Curbing	\$970,000
Demolition (bridges, structures)	\$2,450,000
Embankment	\$0
Decking	\$17,000,000
Drainage	\$6,030,000
Structures (walls)	\$2,170,000
Traffic Signals	\$2,700,000
Landscaping (Parks, Multi-Use Path, Lighting)	\$5,640,000
Utility Relocations	\$6,750,000
Construction Staging	\$4,980,000
Maintenance of Traffic / Police	\$6,040,000
<i>Subtotal</i>	\$66,400,000
Contingency (25%)	\$16,600,000
<i>TOTAL CONSTRUCTION COST</i>	\$83,000,000
say	\$83,000,000

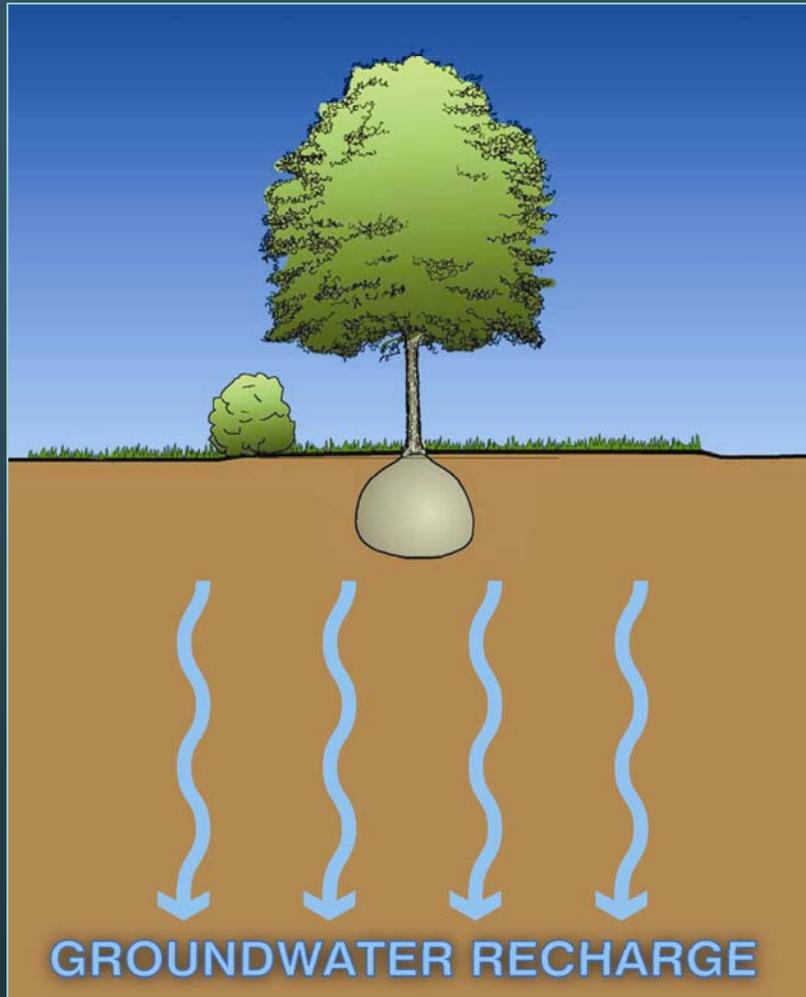


Cost Summary Comparison

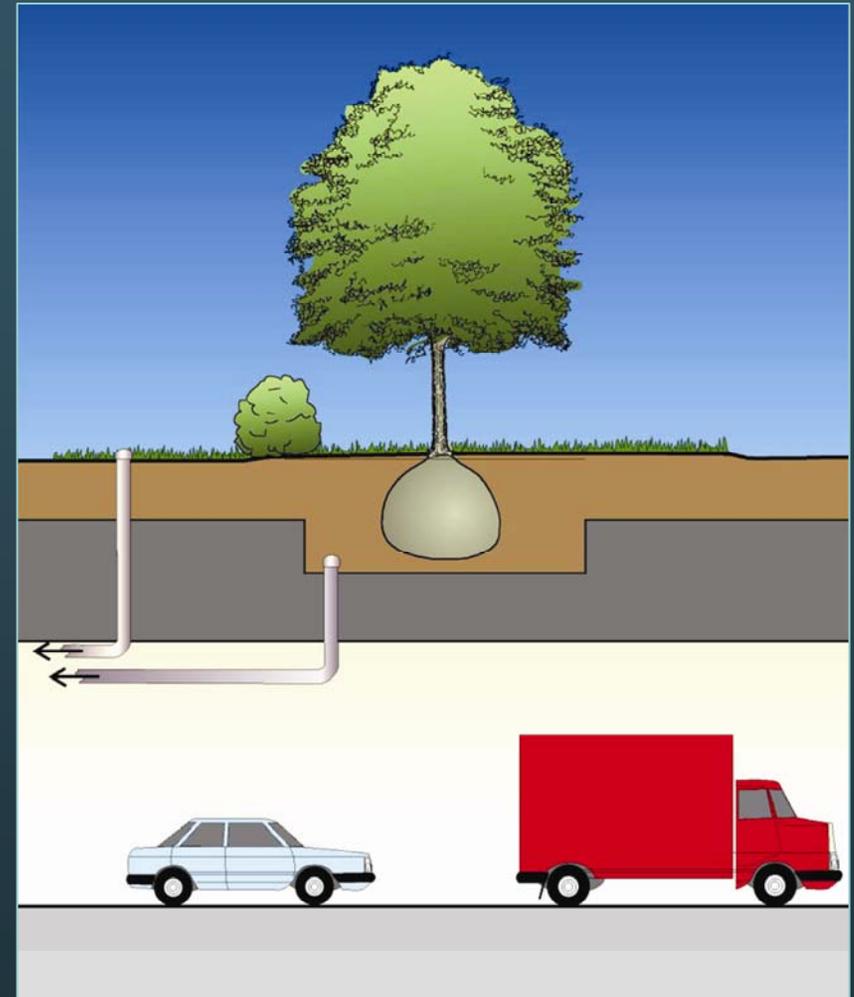
Sullivan Square Area	At-Grade Option	Underpass Option
Project Elements	Estimated Cost	Estimated Cost
<u>Construction Items</u>		
Roadway Pavement	\$9,090,000	\$7,470,000
Sidewalks	\$4,060,000	\$4,200,000
Curbing	\$1,140,000	\$970,000
Demolition (bridges, structures)	\$3,480,000	\$2,450,000
Embankment	\$4,770,000	\$0
Decking	\$0	\$17,000,000
Drainage	\$5,770,000	\$6,030,000
Structures (walls)	\$1,420,000	\$2,170,000
Traffic Signals	\$3,300,000	\$2,700,000
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<i>Subtotal</i>	\$56,420,000	\$66,400,000
Contingency (25%)	\$14,110,000	\$16,600,000
TOTAL CONSTRUCTION COST	\$70,530,000	\$83,000,000
say	\$71,000,000	\$83,000,000



Cross Section Implications



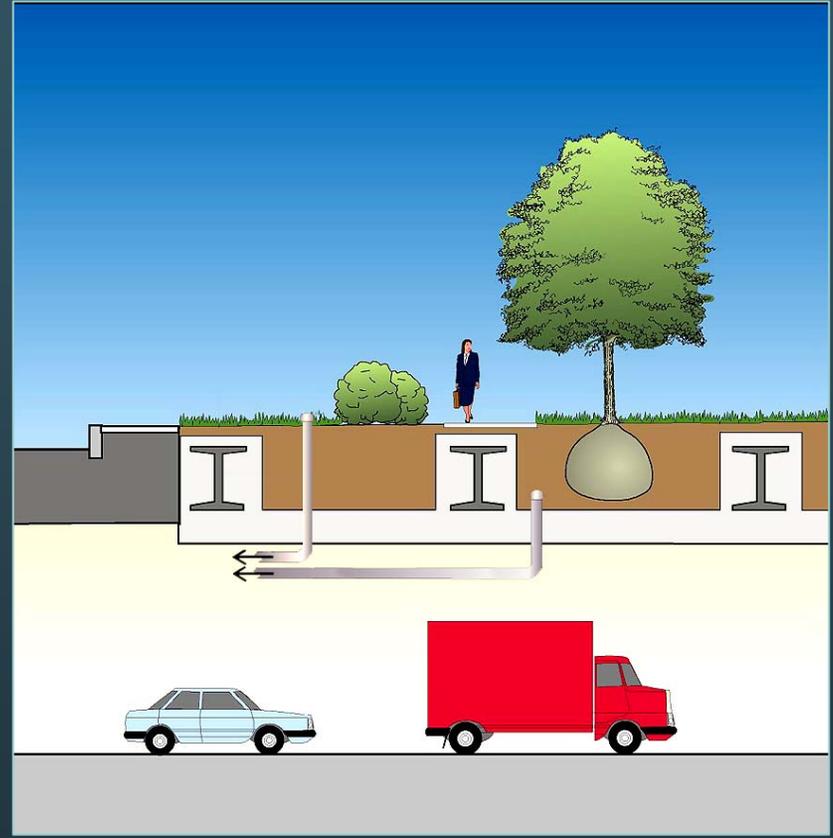
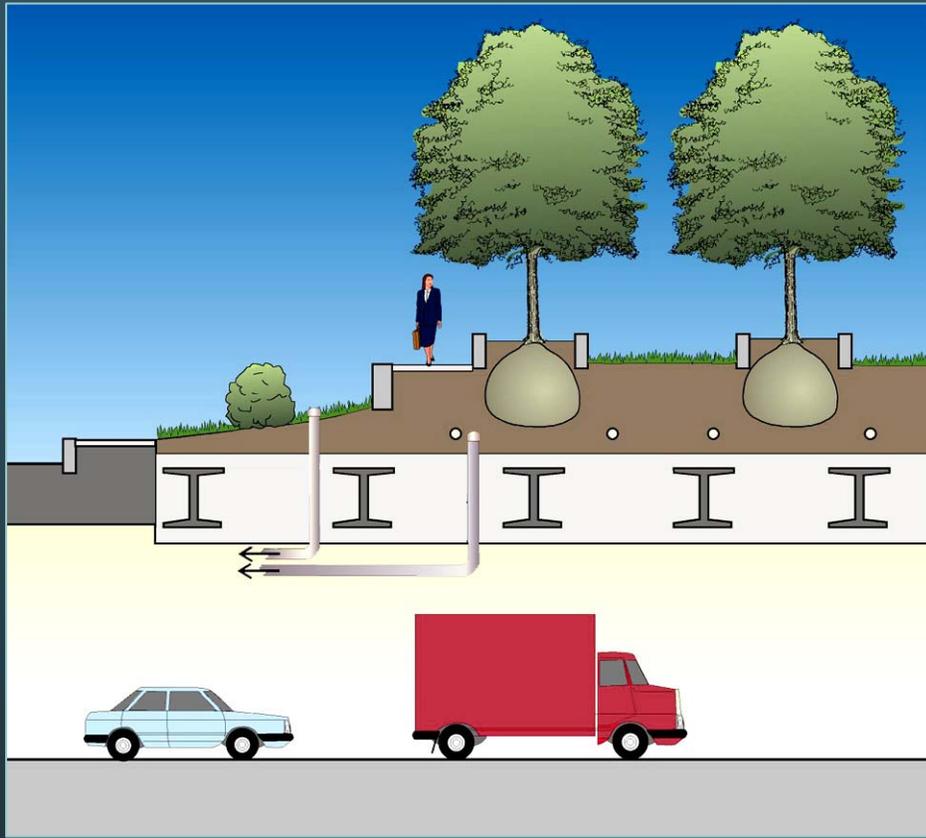
Planting at grade



Planting on a deck



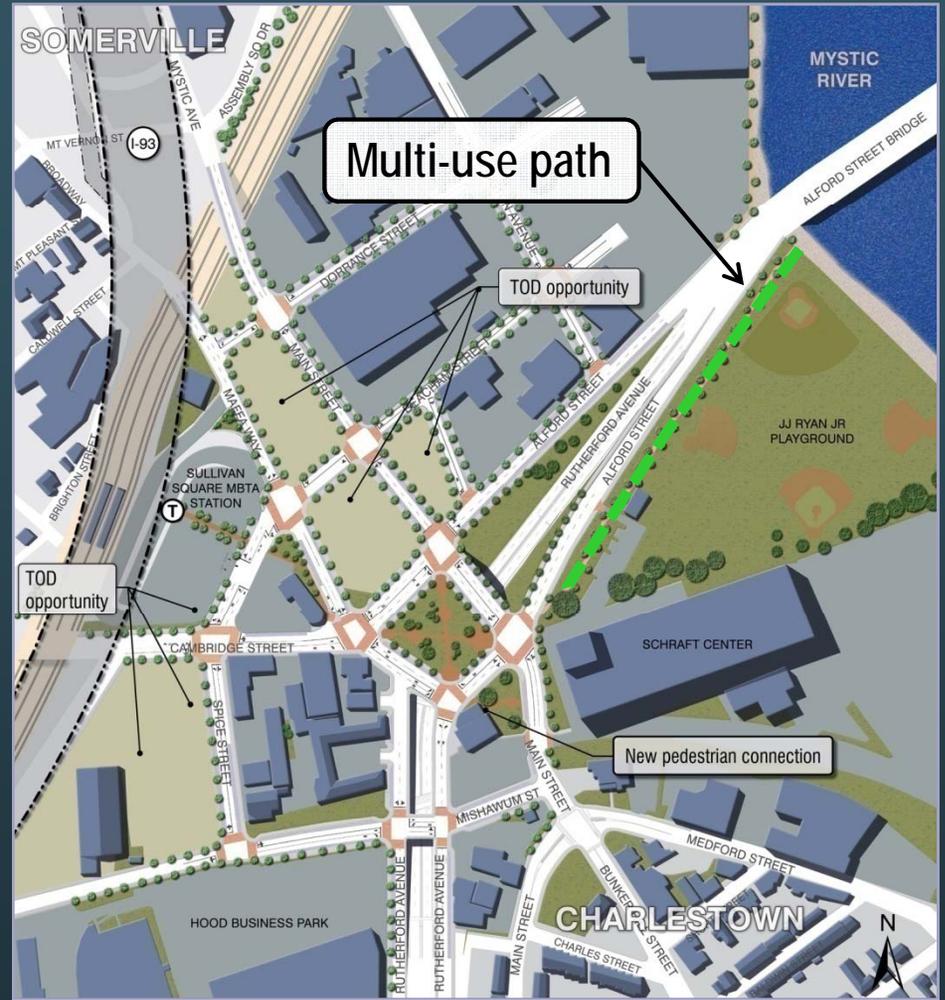
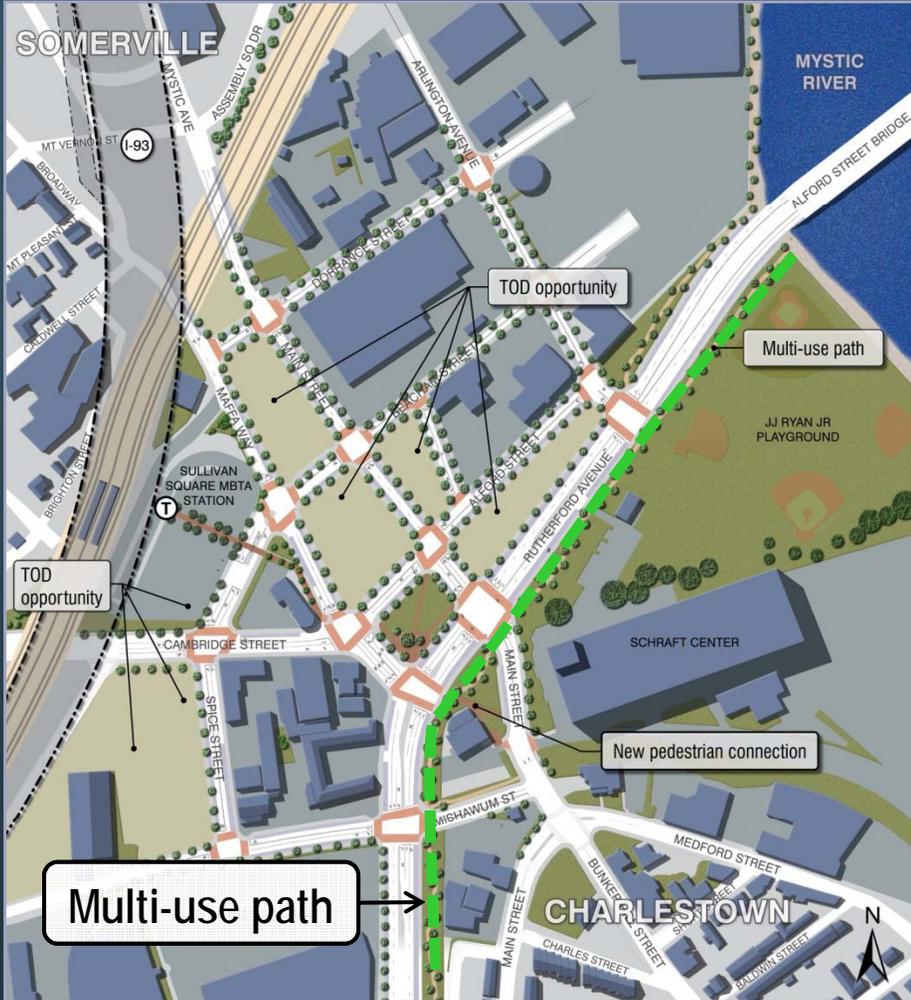
Cross Section Implications



Structural concept alternatives



Sullivan Square: Rendered Site Plan

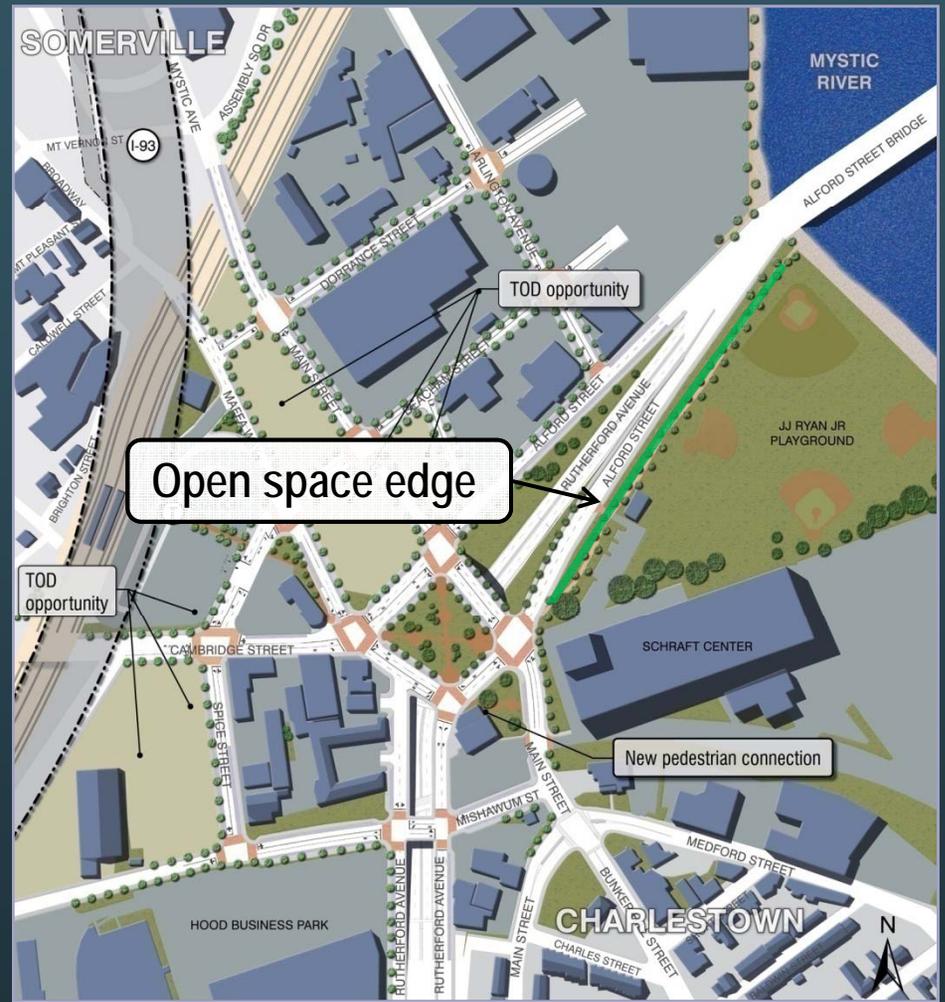
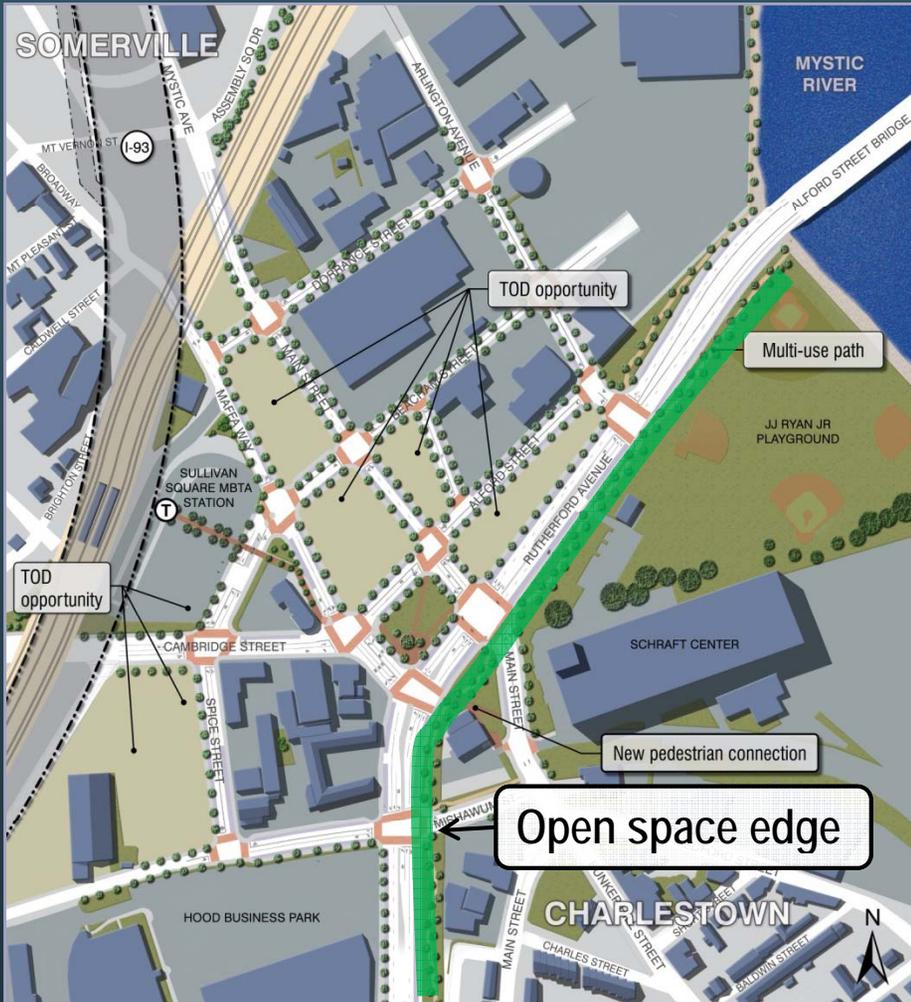


Surface Option

Underpass Option



Sullivan Square: Rendered Site Plan



Surface Option

Underpass Option



3 Sullivan Square: Rendered Site Plan



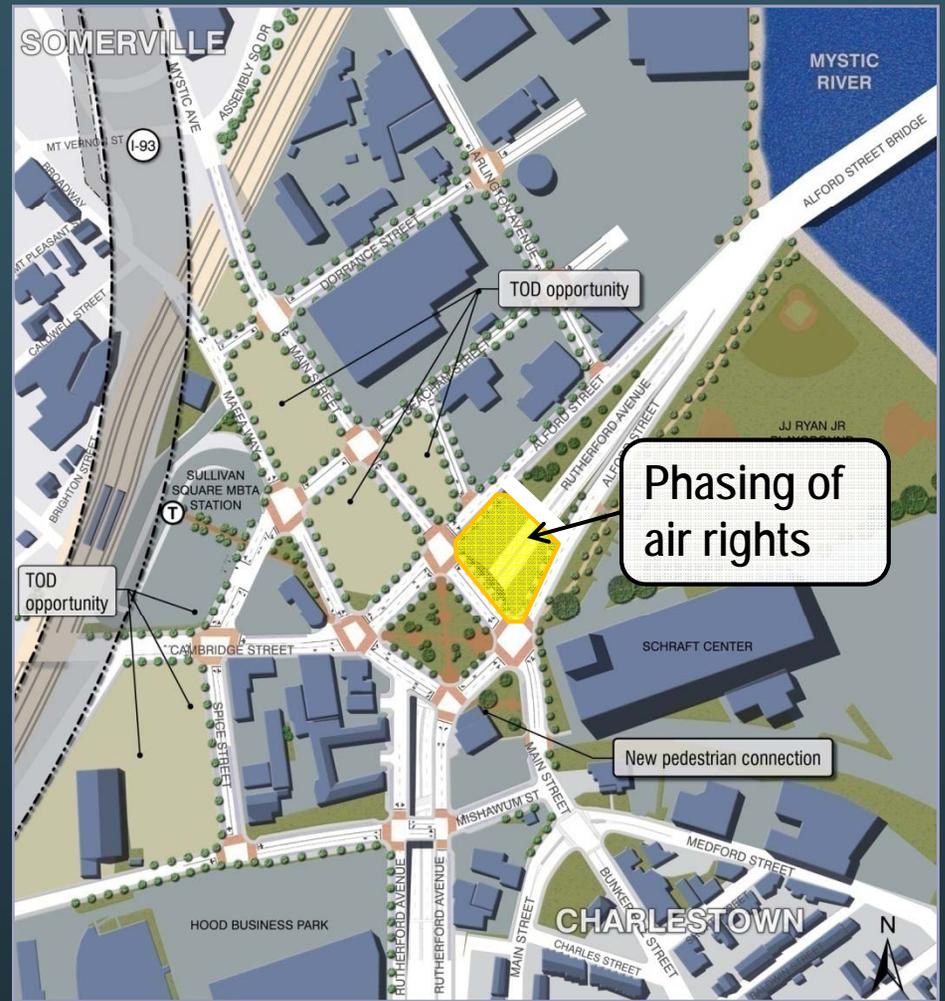
Surface Option



Underpass Option



Sullivan Square: Rendered Site Plan



Surface Option

Underpass Option



Sullivan Square: Rendered Site Plan



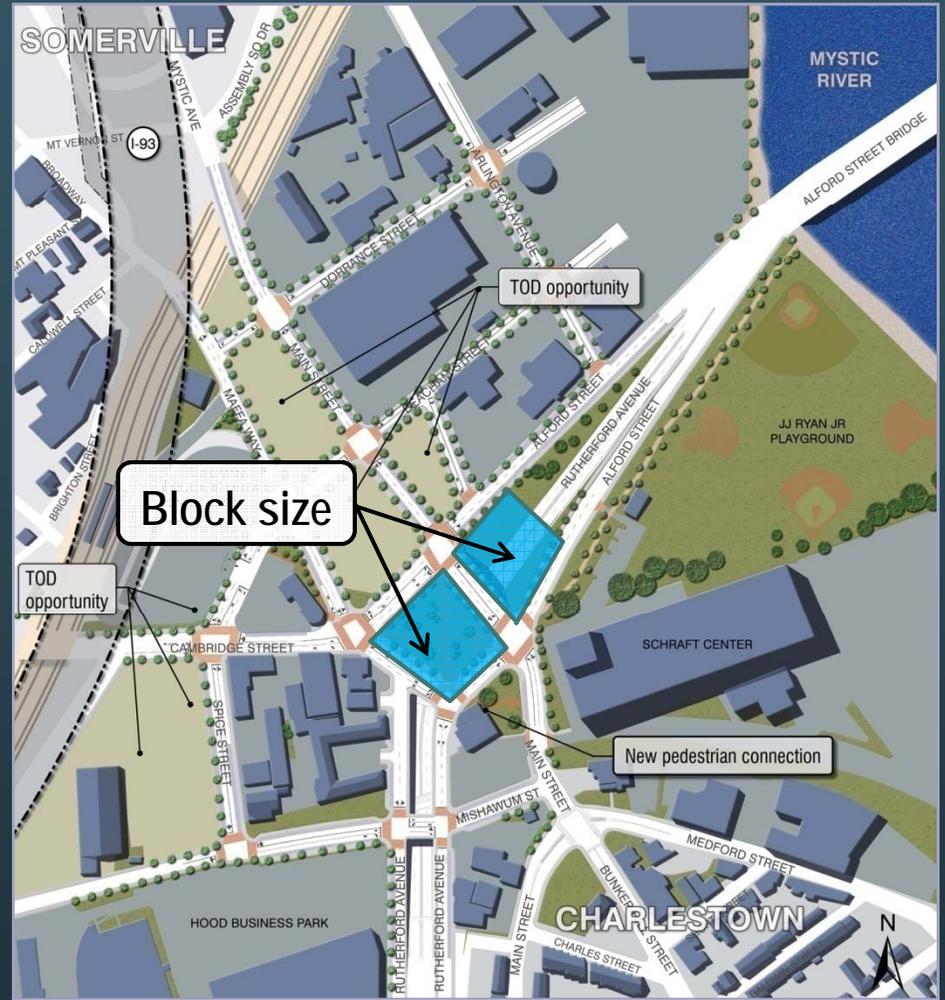
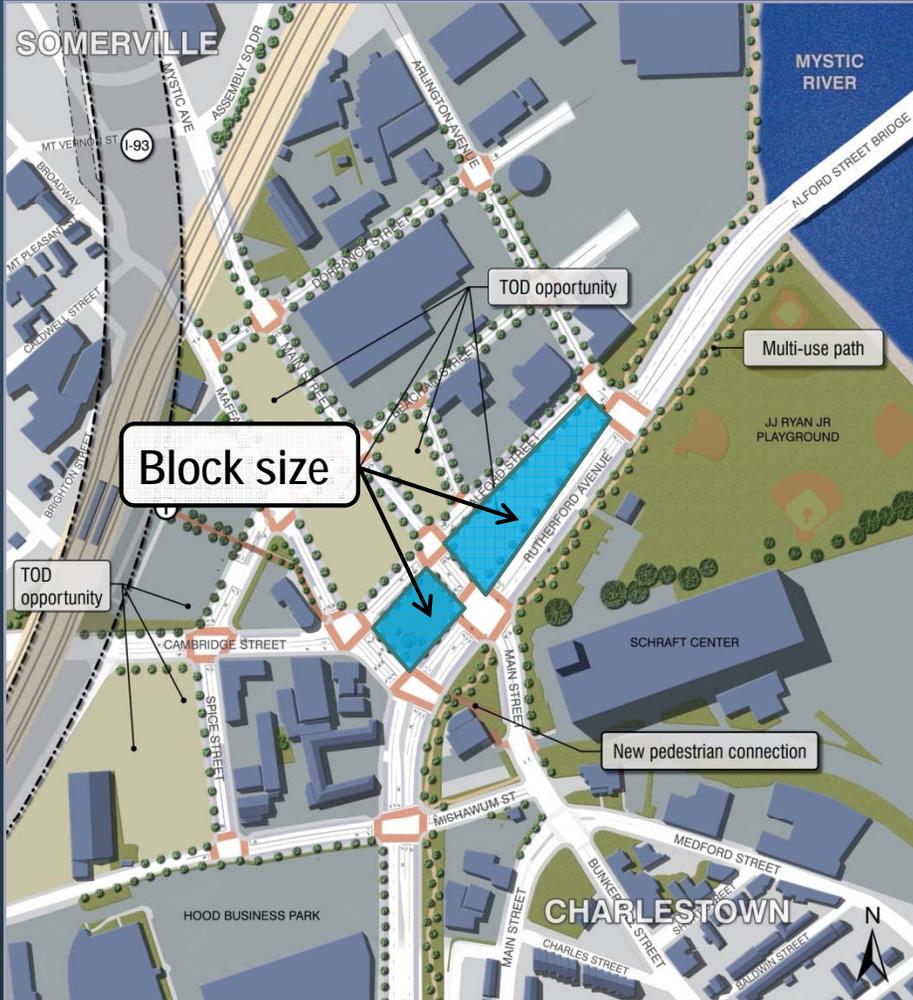
Surface Option



Underpass Option



Sullivan Square: Rendered Site Plan



Surface Option

Underpass Option



Project Goals

- Improve pedestrian connections between community and Sullivan Square Station
- Create public/open space
- Provide opportunities for appropriate development
- Decrease congestion by distributing traffic
- Provide bicycle connections
- Increase on-street parking
- Protect Main Street from cut-through traffic

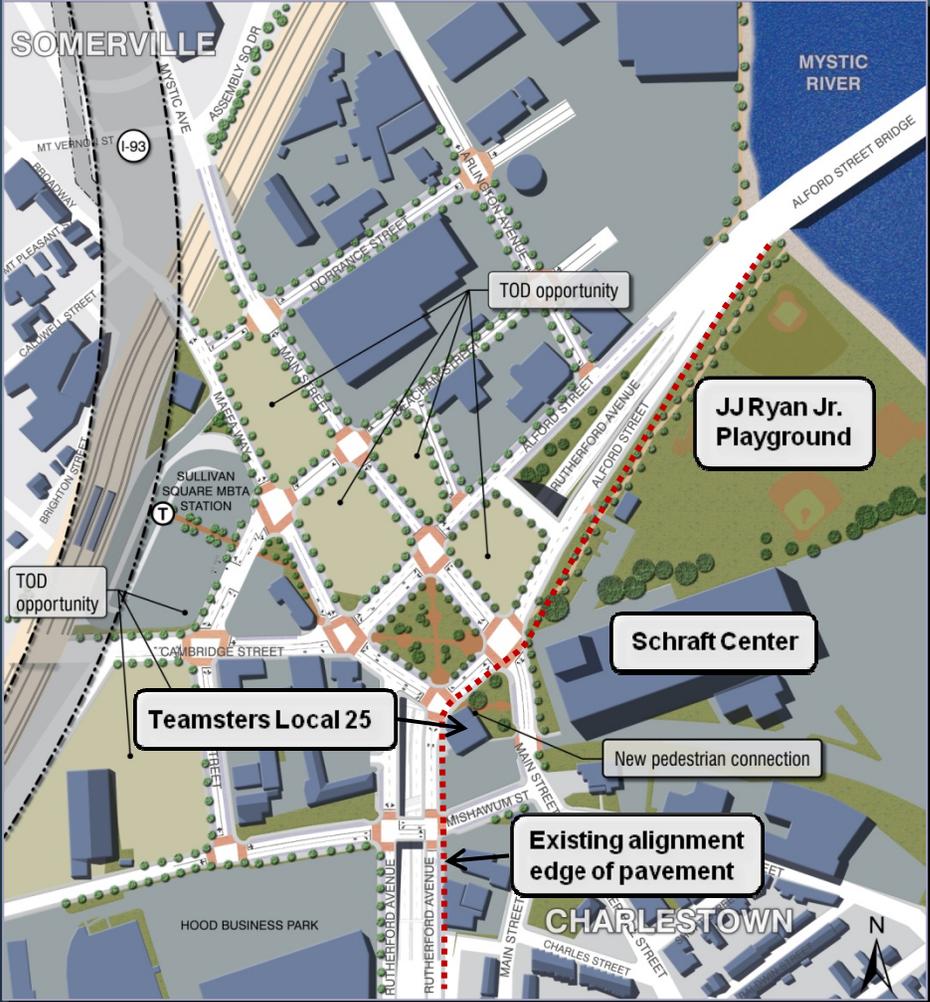
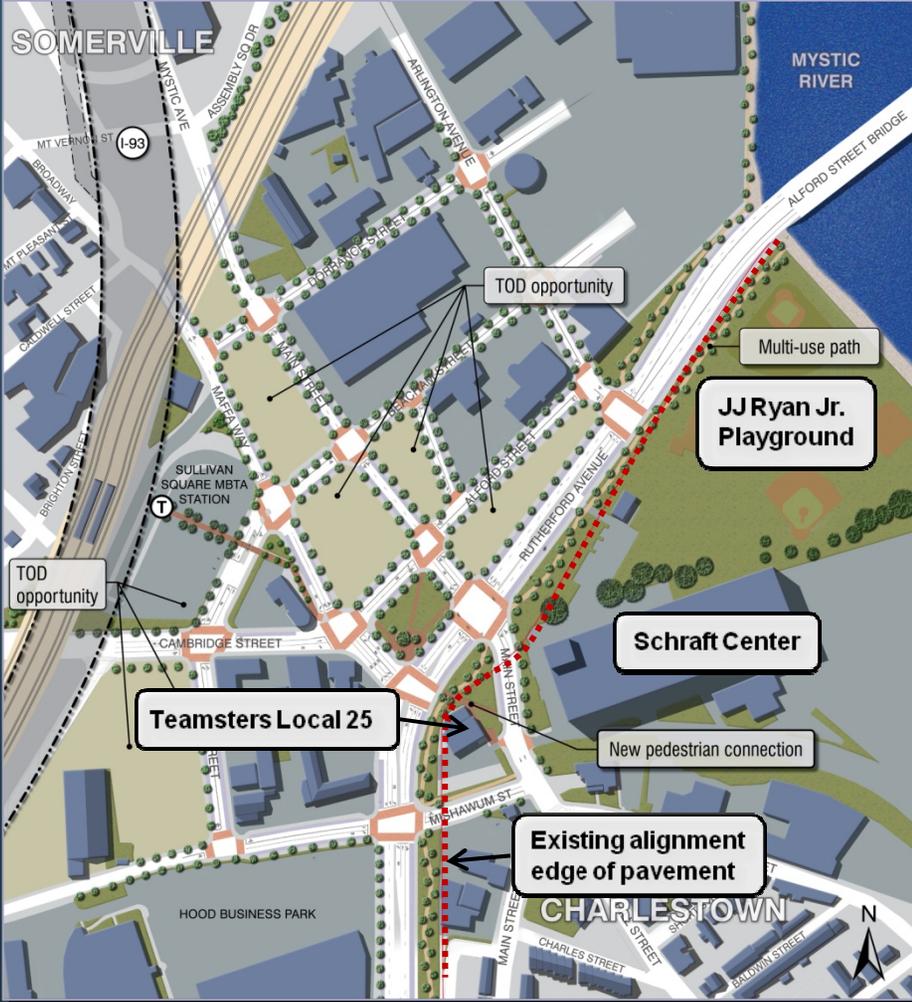


Option Comparison Based on Response to Goals

GOALS	SURFACE OPTION	UNDERPASS OPTION
Pedestrian Connections	<ul style="list-style-type: none"> • Good pedestrian connections • Enhanced access to Ryan playground 	<ul style="list-style-type: none"> • Some constrained pedestrian connections • Improved Ryan playground access depends on air rights development
Open Space	<ul style="list-style-type: none"> • Continuous and wide open space corridor for community use 	<ul style="list-style-type: none"> • Underpass does not allow for a wide and continuous open space corridor
Development Opportunities	<ul style="list-style-type: none"> • Good opportunities for appropriate development parcels • Easier to build and plant on terra-firma 	<ul style="list-style-type: none"> • Good opportunities for appropriate development parcels • Air rights more costly (deck premium)
Traffic Distribution	<ul style="list-style-type: none"> • Circulation disperses traffic • Effectively calming speed down 	<ul style="list-style-type: none"> • Circulation disperses traffic • Encourages regional through traffic
Main Street	<ul style="list-style-type: none"> • Alignment and signals timing to prevent cut-through traffic 	<ul style="list-style-type: none"> • Alignment and signals timing to prevent cut-through traffic
On-Street Parking	<ul style="list-style-type: none"> • Sullivan Square: 450 • Rutherford Ave corridor : 675 	<ul style="list-style-type: none"> • Sullivan Square: 330 • Rutherford Ave corridor : 400
Construction Cost/Time	<ul style="list-style-type: none"> • \$ 71m • approx. 4 ½ years to construct 	<ul style="list-style-type: none"> • \$ 83m • approx. 5 years to construct



Sullivan Square: Community Discussion



Surface Option

Underpass Option



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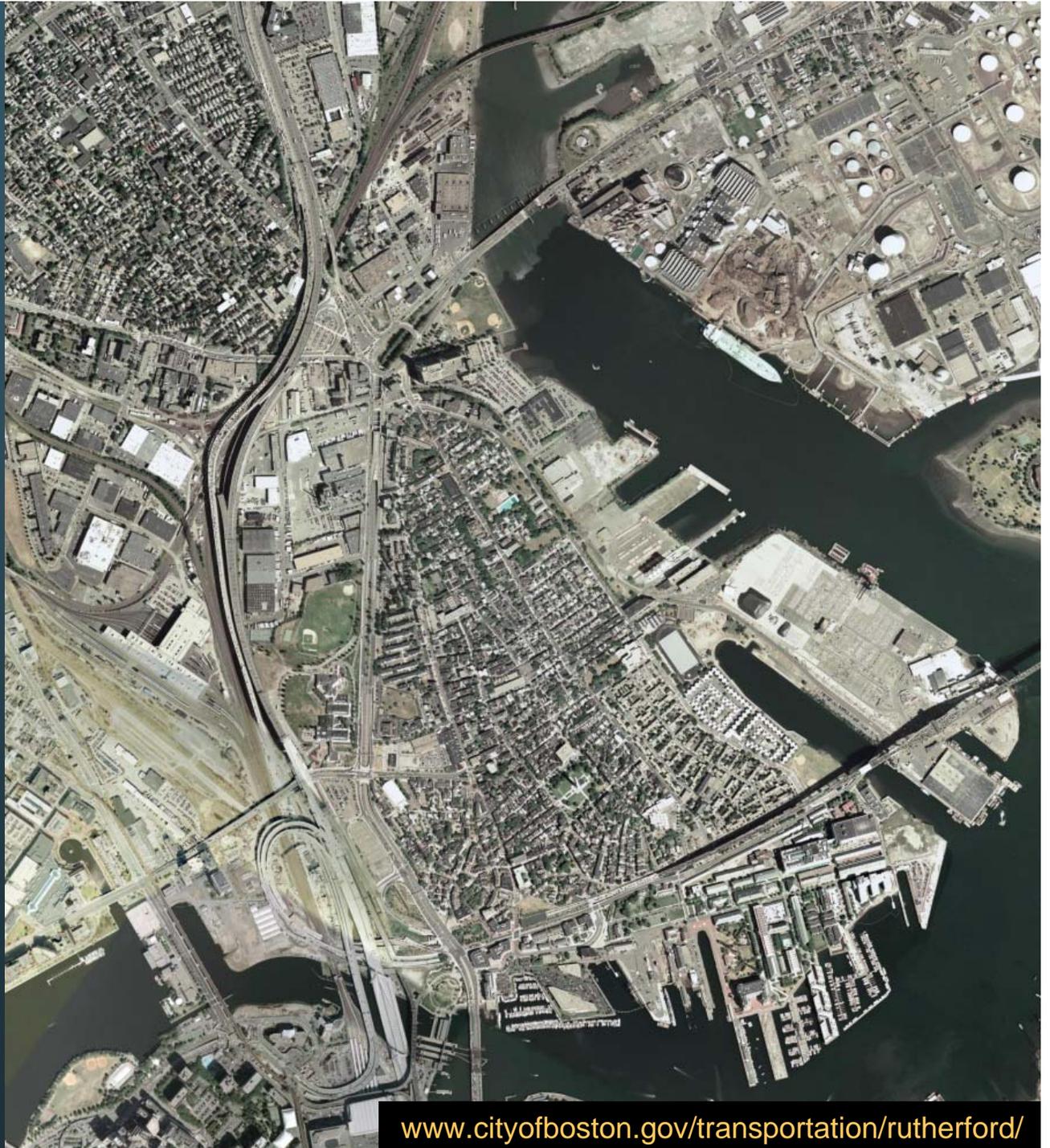
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