ATTACHMENT A

FAST 93 FOURTEEN

• I-93 RAPID BRIDGE REPLACEMENT PROJECT •

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Massachusetts Department of Transportation
Highway Division

ACCELERATED BRIDGE PROGRAM

Project Mission

- Replace 14 deteriorated bridge superstructures
- Minimize impacts to travelers and communities
- Reduce the duration of construction as much as possible
  - Complete the construction ASAP
- Use cutting-edge innovations
- Communicate to the public

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Advanced Deck Deterioration

Isolated failures can result in full span repairs

Delaying commencement or completion of replacements may result in unscheduled emergency repairs

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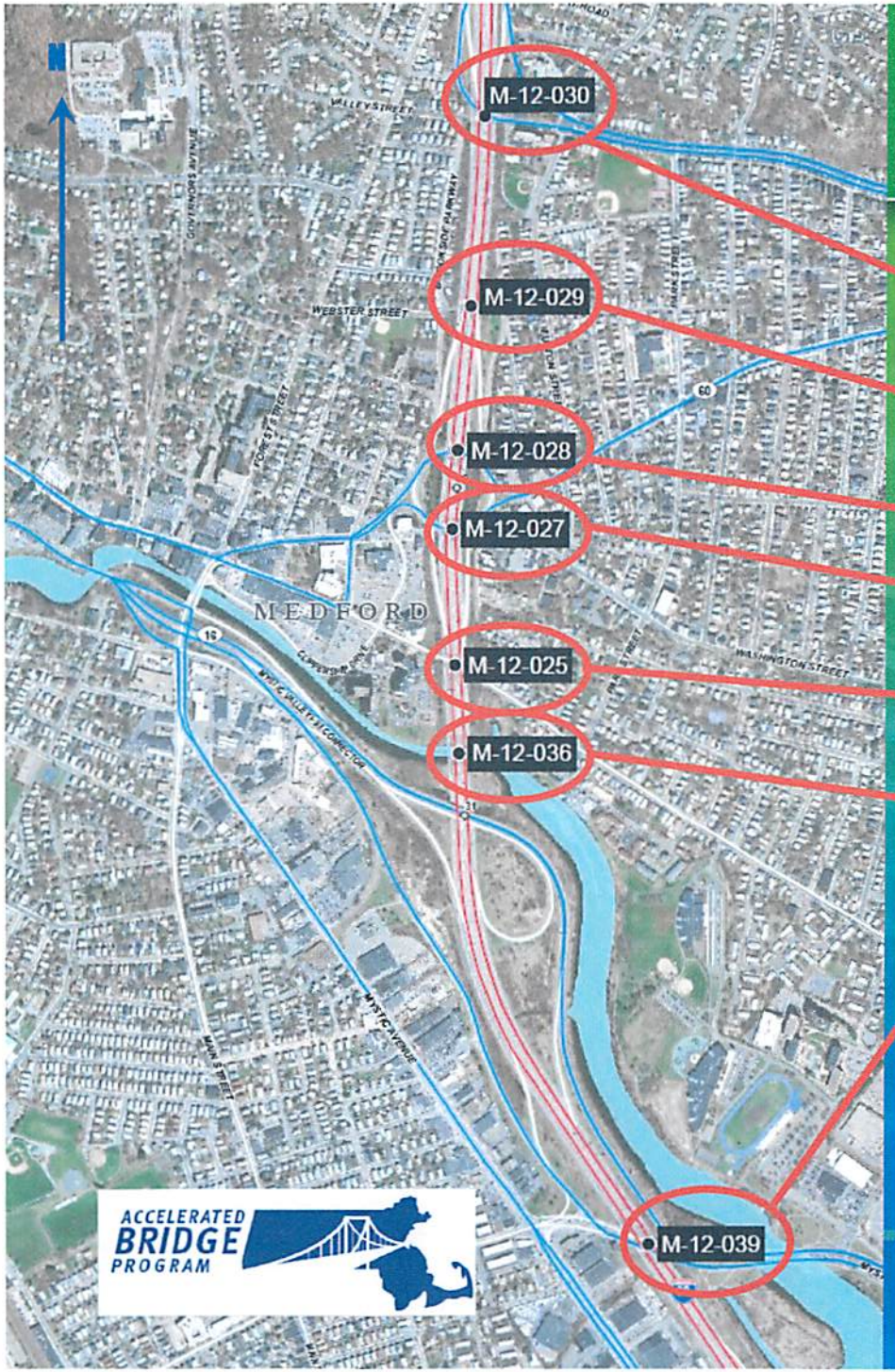

Bridge Locations

Valley Street

Webster Street

Salem Street WB

Salem Street EB

Riverside Avenue

Mystic River

Route 16

These structures carry 200,000 vehicles per day.

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Project Goals

- Fix it fast
  - Use Design Build Contracting to expedite construction
  - Use Accelerated Bridge Construction techniques
- Keep traffic moving
  - Interstate traffic
  - Local traffic
- Quality – 75 year design life
- Minimize Impacts
  - No lane closures for weekday rush hours
  - Only one local road closed each weekend

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Construction Options

- Conventional construction
  - 5 stages
  - 4 years
  - Worker safety issues
  - Traffic splits
  - Concern over durability of the existing decks
- Accelerated Bridge Construction

Project Timeline

- Design/Build procurement
  - Issue Notice-to-Proceed on 2/1/2011
  - Prep work begins in late Winter/Spring
- Crossovers and substructure repairs
  - Superstructure replacements 6/1 – 9/1/2011
  - Weekends only - except 4th of July weekend
- Finish work to occur after 9/1
  - Paving, parapets, lighting, median, etc.
- All bridge replacements complete in 2011

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Work Plan

- No I-93 lane closures during weekday rush hours
- Use crossover to allow bridge replacements on weekends
  - Crossover in place from Friday 10 PM to Monday 5:00 AM Maintain 2 lanes of traffic in each direction on one side of I-93
- Other work to occur during routine weeknight construction hours
  - 8 PM – 5 AM

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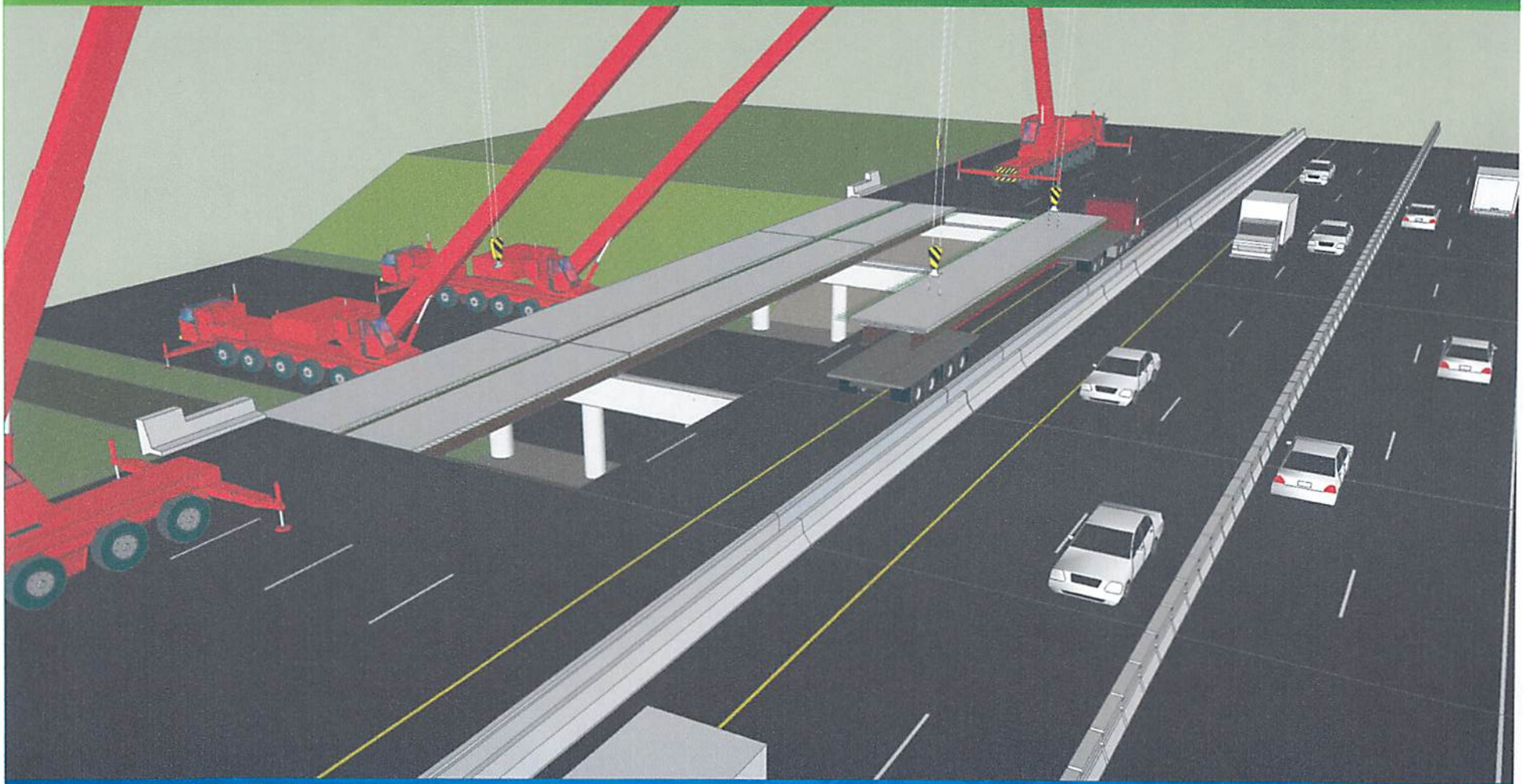
Traffic Management

- Through traffic:
  - Minimize the volume of traffic through the worksite
  - Changeable message signs
  - Intelligent Work Zone System
  - Use alternate routes: Rte 128/95, Rte I-495, Rte 1
- Local traffic:
  - Close no more than one local road each weekend
  - Incident management, mobile command center
  - Traffic working group

Construction Concept



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Construction Concept

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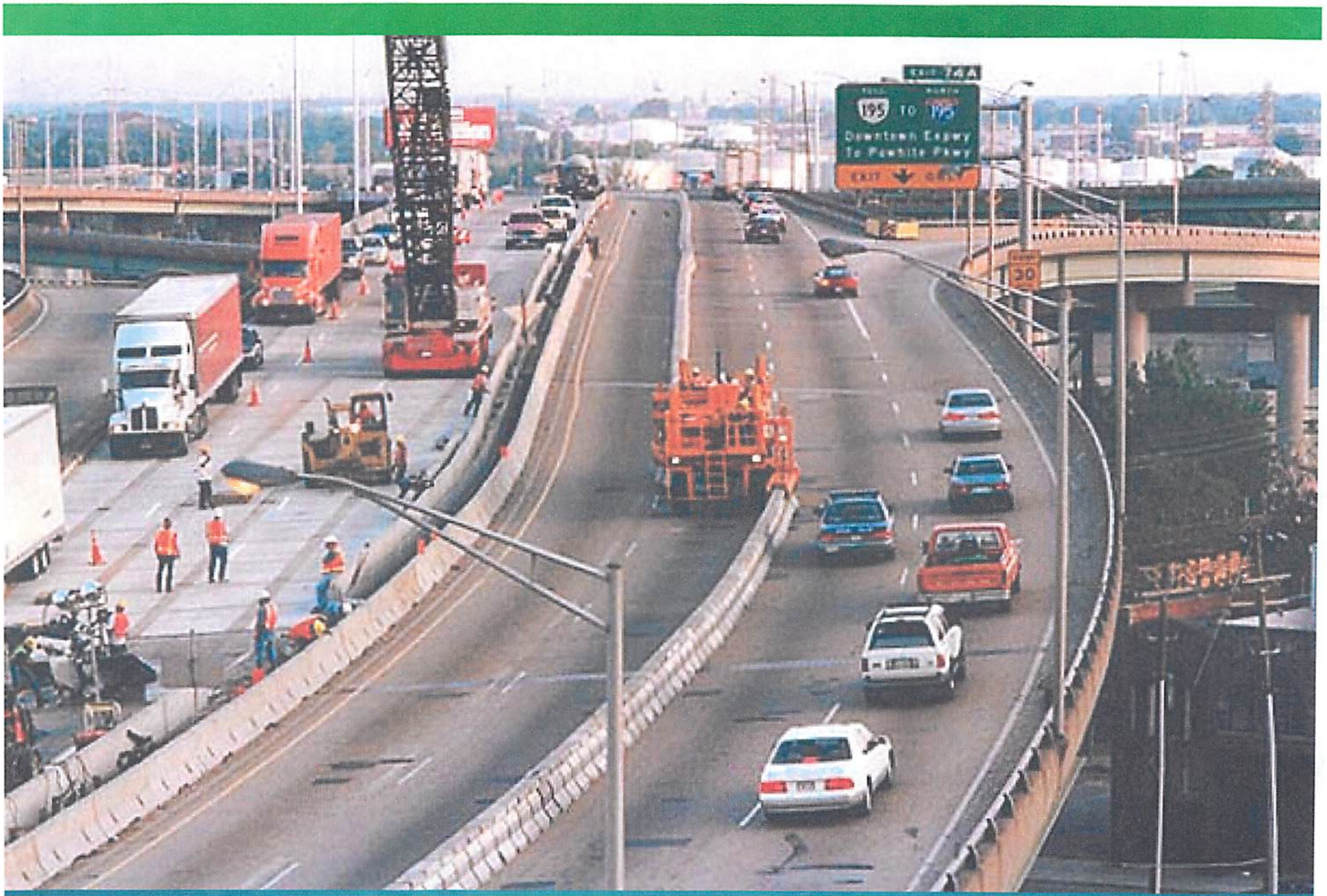

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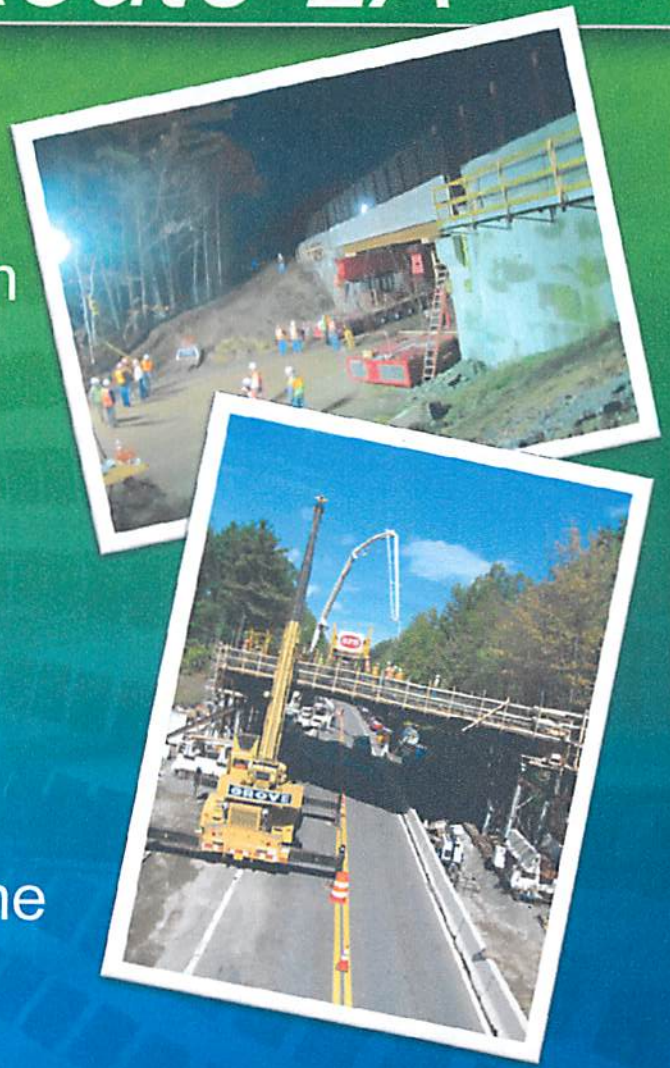
PHILLIPSTON
Route 2 Over Route 2A

INNOVATION DRIVERS

•Due to high traffic volumes, extended bridge closure would result in significant impacts to public.

APPLIED INNOVATION

•Design-Build project delivery method
•Heavy Lift Technology using SPMT
•Utilized 2 Incentive/Disincentive Clauses:
•Reduce Duration of Total Contract Time
•Reduce Duration of Road Closure



Construction Project Highlights

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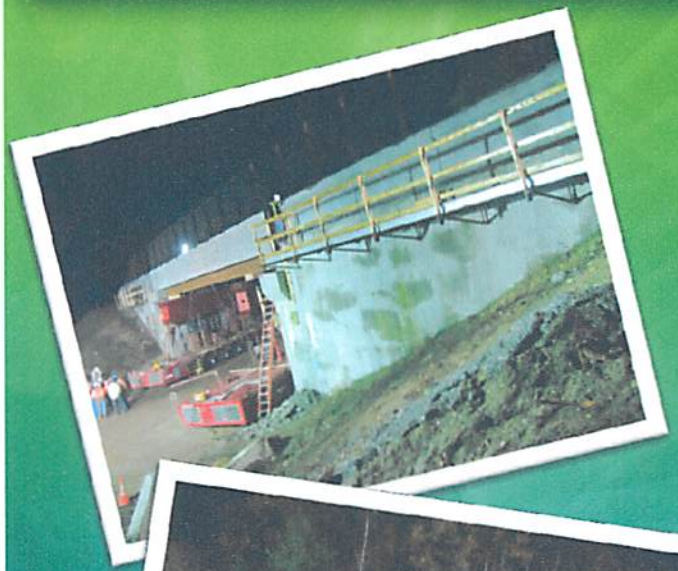
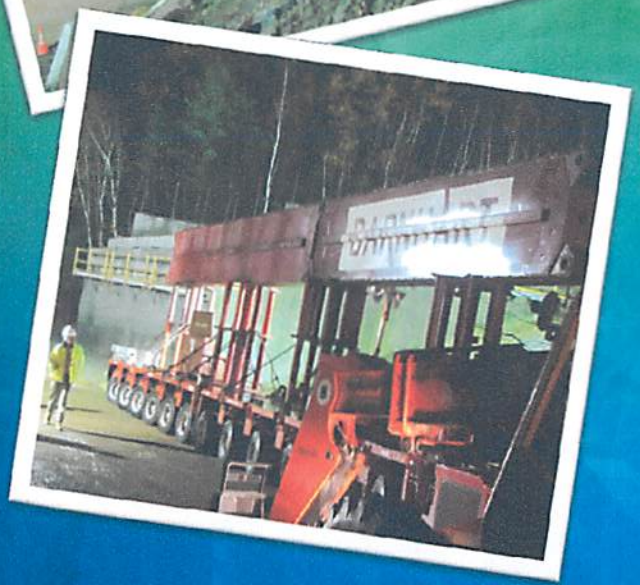
PHILLIPSTON

Route 2 Over Route 2A





IMPACT OF INNO

Time Savings: 14 months

§COST

- Indirect Cost Avoidance : $172k
- Agency Cost Avoidance : $100k
- Increased Road User Benefit Value: $3.5M
- Net Cost Avoidance : $2.5M (inc. road users benefit)

§SCHEDULE

- Innovative techniques dramatically reduced the project duration by 14 months.
- Reduced roadway impact by 14 months (15 months to 9 days).
- Savings to project duration by DB delivery.

Construction Project Highlights

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FUTURE INNOVATIONS

Heavy Lift Projects

UPCOMING PROJECTS	FORECASTED SAVINGS
§Wellesley	9 months in Contract Time; 14 months in Traffic Impact
§Morton Street	19 months in Contract Time; 32 months in Traffic Impact
§River Street	18 months in Contract Time; 32 months in Traffic Impact
§Taunton-Holloway	6 months in Contract Time; 6 months in Traffic Impact

Future Innovation Highlights

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OUTREACH & COMMUNICATIONS

Eliza Partington
Technical Coordinator, ABP

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- A widespread impact necessitates widespread outreach
- Deter through traffic during crossover periods
- Encourage commerce and tourism
- Empower people to make informed travel and business decisions

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How?

- Traditional Media
  - –Press releases, workshop, events
- Web, Social Media & Email
- Comprehensive, interactive website
- Changeable Message Signs
- MassRIDES, MassPort, Mass MotorTrans, 511
- 311, "Reverse 911", Connect CTY
- Face-to-face

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Feedback & Questions

fast14.info@dot.state.ma.us

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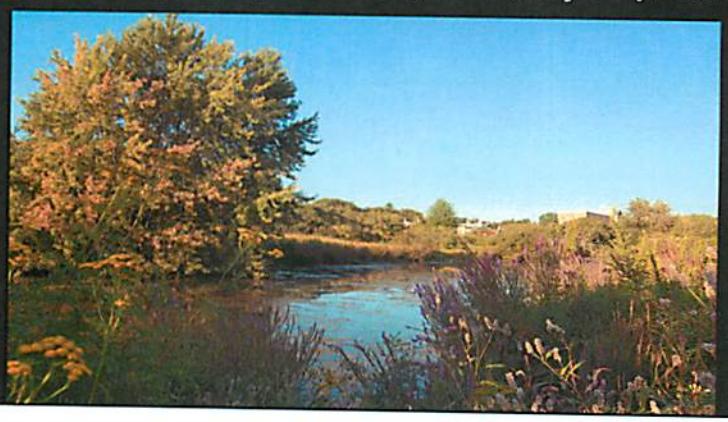
ATTACHMENT B

Alewife Sewer/Stormwater & Infrastructure Program —Huron/Concord Ave Neighborhood

Cambridge City Council, January 3rd, 2011

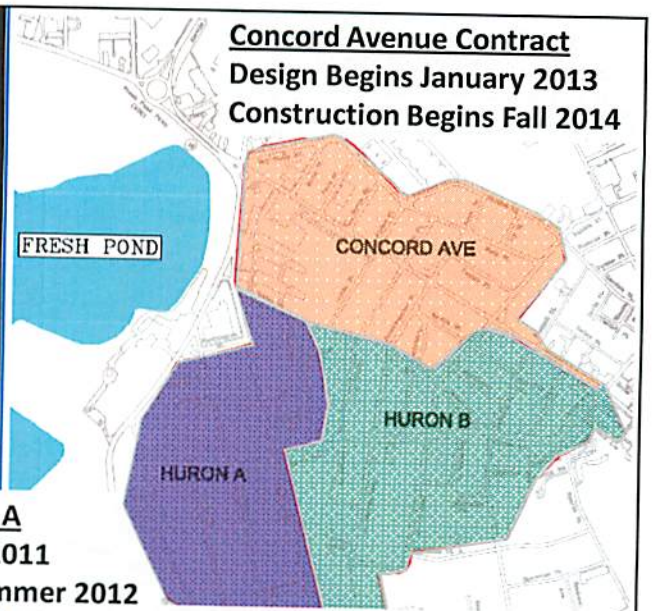


Project Area

Schedule

Sewer improvements on all 3 contracts – completed by end of 2015.

Overall construction completed 2016.



Concord Avenue Contract
Design Begins January 2013
Construction Begins Fall 2014

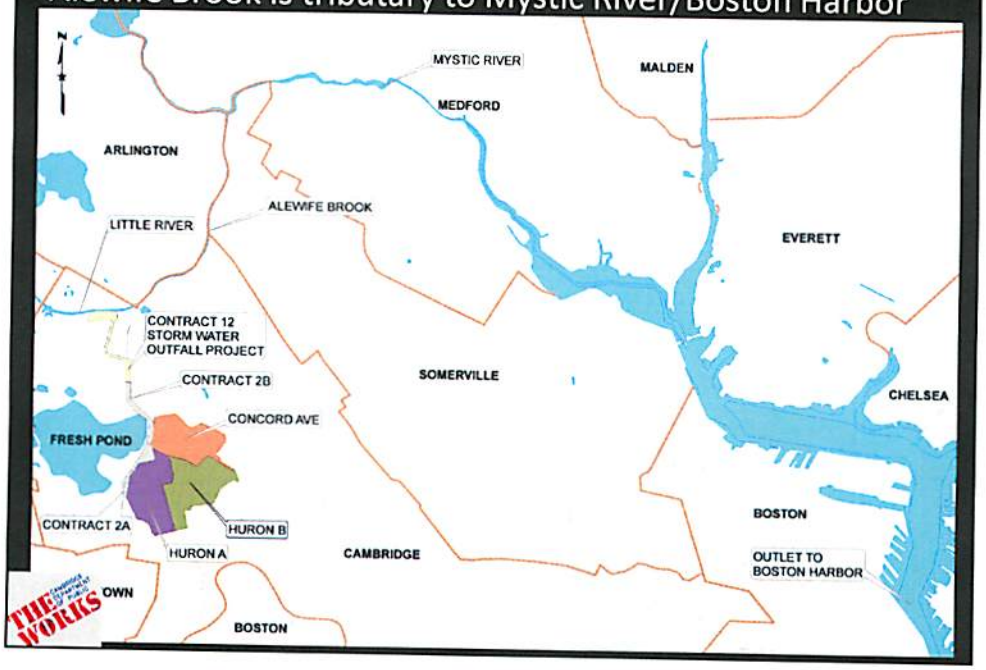
Huron Avenue Contract A
Design Begins January 2011
Construction Begins Summer 2012

Huron Avenue Contract B
Design Begins – January 2012
Construction Begins Summer 2013

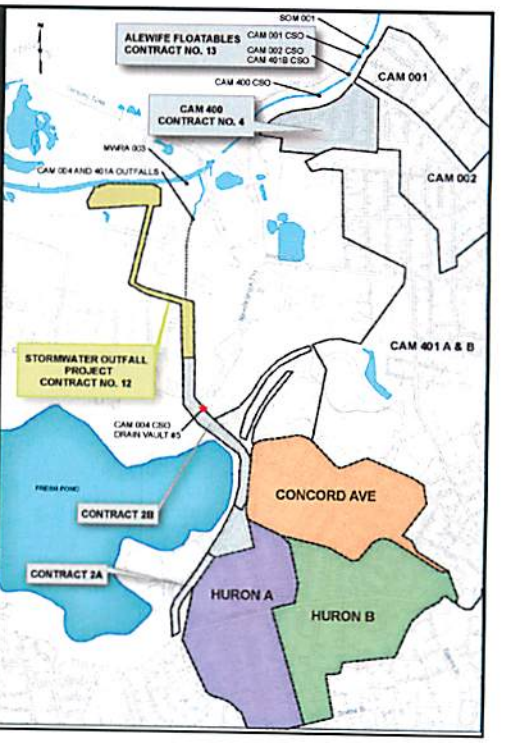
Background:

- MWRA responsible for CSO Control & Boston Harbor cleanup.
- Sewer Separation in Alewife Watershed is one element in MWRA program.
- MWRA & City have executed an MOU to have City complete the sewer separation in Cambridge.
- Program Value is in excess of $100m of which the MWRA is responsible for approx. 60%.

Alewife Brook is tributary to Mystic River/Boston Harbor



MWRA CSO Control Program in Alewife



Completed Work

- Fresh Pond Parkway

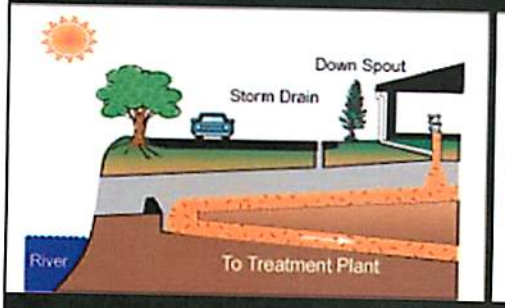
Ongoing Work

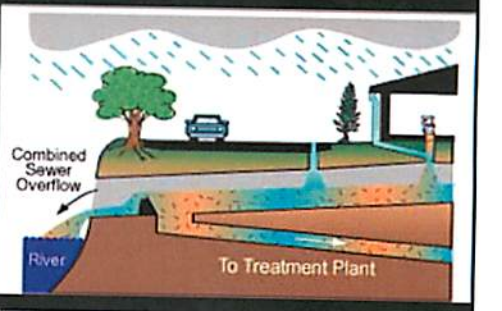
- Whittemore Ave

Upcoming Work

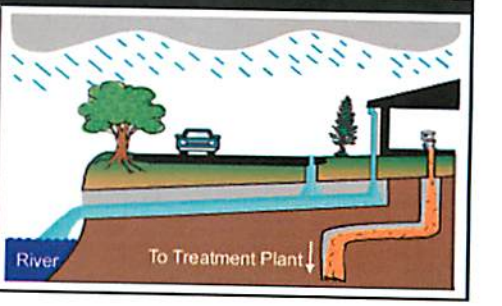
- Stormwater Wetland
- Huron/Concord area

What is Sewer Separation and what will it Achieve?





Elimination of 50m Gallons of Combined Sewer Overflows to the Alewife Brook on an annual basis.

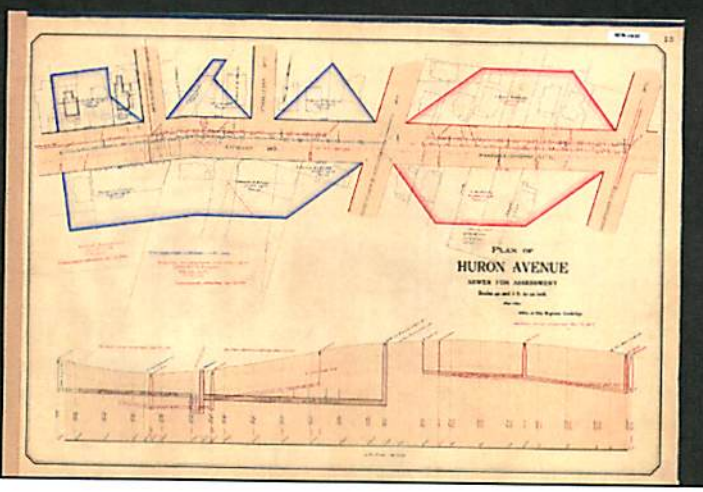


Alewife Stormwater Wetland and Outfall

Alewife Stormwater Wetland

Utility Improvements

- Existing systems constructed between 1880 and 1940
- Sewer/Stormwater/Water & Gas systems are scheduled to be upgraded.



Sewer /Stormwater Projects will include :

- Cleaning lines,
- Eliminating illicit connections & removing inflow,
- New Pipes, catchbasins, grit pits & manholes
- Lining & Rehabilitating of existing pipes

Water Main Construction

Will include:

- Installation of mainline pipes, hydrants and services.
- Removing Lead water services.

This will result in:

- Even better quality drinking water.
- Greater discharge/pressure .
- Increased redundancy in the overall system.

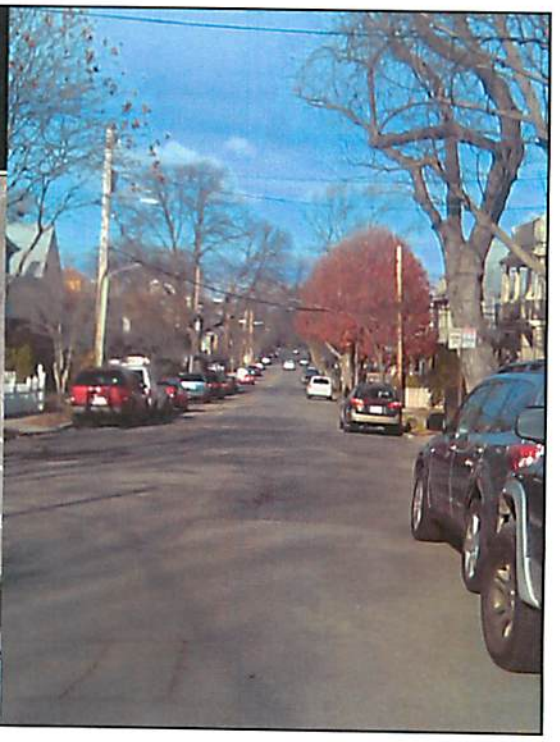
Benefits of Sewer Separation in Alewife Area

- Protect Fresh Pond.
- Improve sewer & stormwater levels of service.
- Improve water quality in Alewife Brook.
- Renew Infrastructure in large residential area .
- Opportunity to further enhance neighborhood.

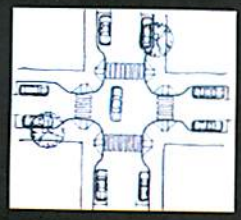
Opportunity to reconstruct streets per the City's Complete Streets initiative *

* City 5 year street & Sidewalk Program.

Existing Conditions



Working with Neighborhood to Design Streets



Sidewalk Access – Tree Inventory

Plantings Beyond Street Trees

Rain Gardens

Improvements

- Cleaner Alewife Brook
- Complete Streets
- Smooth Pavement
- Accessible Sidewalks
- Healthy Tree Canopy

Opportunity to work with neighborhood.

Community Relations

- December Community Meeting
  - On-line survey
  - Feedback from community
- Data Collection / Survey
  - Over the winter
- Detailed design of Huron Avenue Contract A
  - 12 month design phase
  - Next meeting February 2011
  - Construction begins summer 2012

ATTACHMENT C

November 24, 2010

NOTICE OF INFRASTRUCTURE IMPROVEMENT PROJECT

Alewife Sewer Separation Project — Huron/Concord Ave Neighborhood

Dear Resident,

The City of Cambridge will begin the design of new sewer and stormwater utilities in the Huron/Concord Ave neighborhood in the spring of 2011. These utilities were constructed over 100 years ago and do not adequately protect the receiving water, the Alewife Brook, from contamination. The projects will construct new separate sewer and stormwater systems, which will lead to cleaner stormwater being discharged to the Brook and better stormwater and sanitary system levels of service.

Please attend the kickoff meeting to learn more about the project and design process:

Community Meeting
Thursday, December 9, 6:30 to 8:00 PM
Tobin School Cafeteria, 197 Vassal Lane

The projects will also upgrade other utilities including drinking water and gas lines. Given the extensive construction associated with these improvements, roadways and sidewalks will have to be reconstructed which provides opportunities to improve sidewalks, address pedestrian safety issues, implement traffic calming elements, increase green space, and plant more trees.

There will be a total of three contracts associated with this effort. Each contract will take approximately 2 years to complete. Please see the attached map for more details.

- **Huron Avenue Contract A**, between Larch Road and Standish Street; construction begins summer 2012.
- **Huron Avenue Contract B**, between Chilton and Huron at Concord Avenue; construction begins summer 2013.
- **Concord Avenue Contract**, around Concord Avenue as far north as Bay State Road; construction begins fall 2014.

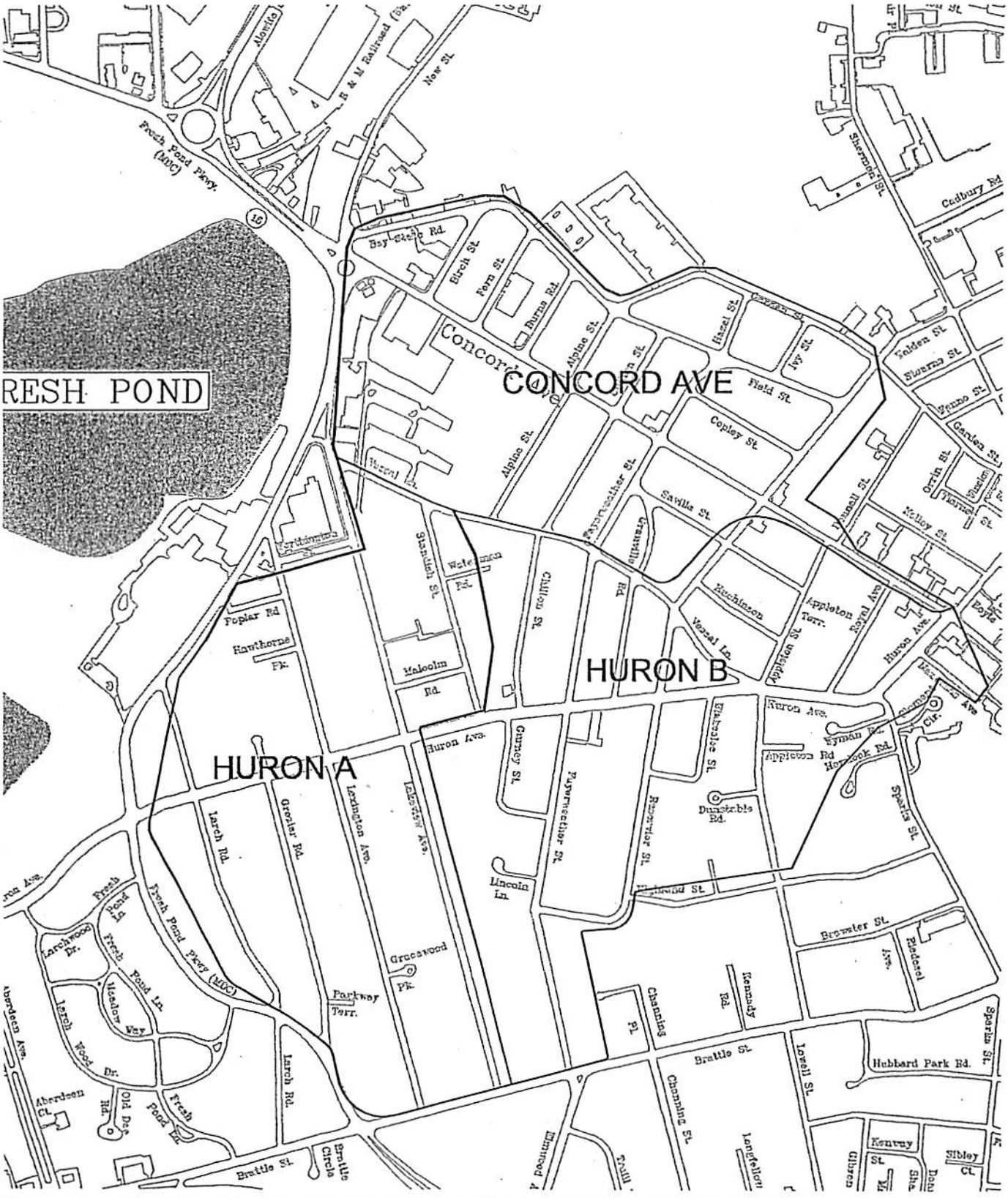
During the coming months, a number of preliminary activities will take place related to the project design.

- *Questionnaire:* Please complete the attached survey to let us know the best way to keep in touch as this project moves forward, and to give us your opinions to help inform the project design.
- *Data collection:* The City's consultant engineers, Kleinfelder/S E A and MWH, will collect data needed to design this project. They will be performing topographic surveys, cleaning and inspection of pipes and structures, soil borings, and building inspections, for which property owners will receive a separate notice.

Please contact me with any questions at kdunn@cambridgema.gov/ 617-349-4870. We have also posted a project website at www.cambridgema.gov/theworks/cityprojects.aspx, under *Alewife Sewer Separation Project.*

Sincerely,

Kelly Dunn
Community Relations Manager
Cambridge Department of Public Works



CITY OF CAMBRIDGE, MA EPARTMENT OF PUBLIC WORKS	HURON / CONCORD AVE PROJECT	Figure 2-4
INFELDER · SEA SEA CONSULTANTS INC. · MWH	SECOND SUPPLEMENT TO THE PRELIMINARY DESIGN REPORT FOR THE CAM 002/004 AREAS	

HURON/CONCORD AVE NEIGHBORHOOD QUESTIONNAIRE

For quick and convenient completion, this survey will be posted online at www.cambridgema.gov/theworks/cityprojects.aspx under *Alewife Sewer Separation Project* by December 8. It can also be completed and mailed to the address below.

1. CONTACT INFO

Name _____

Address of property in project area _____

Mailing Address (if different) Address 1 _____

Address 2 _____

Phone # _____ E-Mail _____

(*E-mail is the best way to receive project/ construction updates. Your e-mail will only be used for that purpose*)

2. TELL US ABOUT YOU OBSERVATIONS OF THE NEIGHBORHOOD

Have you had sewer problems at your property?

Have you noticed any drainage/ ponding problems in the street?

Do you have particular concerns about the conditions of the sidewalks or roadway?

What have been your experiences as a pedestrian? Where do you frequently walk to?

Questionnaire continues on the reverse →

What have been your experiences as a cyclist?

What have been your experiences as a driver? What are your thoughts about the one-way streets in the neighborhood?

Are there locations you think need more trees?

Any other feedback for the engineering and design team?

Do you have particular concerns about construction?

Other questions or comments?

For quick and convenient completion, this survey will be posted online at www.cambridgema.gov/theworks/cityprojects.aspx under *Alewife Sewer Separation Project* by December 8. You can also e-mail this information to kdunn@cambridgema.gov or mail to Kelly Dunn, 147 Hampshire Street, Cambridge, MA 02139.