



Massachusetts Bay Transportation Authority

Green Line Extension Project

**Approval of Remaining Actions for Close Out of
Existing Construction Contracts**

October 2016



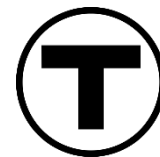
OVERVIEW

- Today's board action will allow the close-out of the five existing construction contracts with GLX and end the use of the CMCG procurement method.
- Consistent with previous board instructions, we have deleted scope from the contracts to minimize our exposure for sunk costs.
- The value of that deleted scope is approximately \$37.4 million.
- The cost to close-out the contracts, including contract close out change orders and ancillary costs that support the close out of the existing IGMP contracts is approximately \$10.2 million.
- Therefore, today's action will result in a final cost **savings** of \$27.2 million.



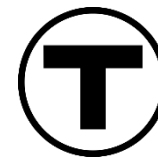
INTRODUCTION

- As part of the re-evaluation of the Green Line Extension project, work associated with the five ongoing GLX early construction contracts was paused and the scope of work for each contract was reassessed in order to limit the Commonwealth's exposure for sunk costs.
- At the February presentation of sunk costs made to the Board, staff projected that approx. \$26.3M in savings could be achieved from scope changes for the five ongoing construction contracts, after accounting for change orders (executed and projected) and ancillary close out costs.
- At the August 8th meeting, the Board approved \$15 million in additional authorizations for the continuing development of the GLX project (not related to ongoing construction) and was informed that additional construction contract authorizations would be needed.



INTRODUCTION (continued)

- Work under each construction contract was made safe and prepared for potential transition under a re-defined procurement.
- Each construction contract includes change orders that have been executed, negotiated and estimates for change orders that are in the process of being negotiated.
- An independent cost estimate has been prepared by the MBTA Project Team for each change order.
- Total GLX sunk cost projections remain at \$695.6 million as recently reported. The original sunk cost estimate was \$701.3 million.



SUMMARY OF BOARD REQUESTS

Staff is requesting that the Board authorize the following actions necessary to closeout the awarded early construction contracts and allow the MBTA to reallocate the associated \$27,244,517 in anticipated savings.

These actions relate to:

- Closeout of the existing GLX early construction contracts
- Certain ancillary costs that support the close out of the existing IGMP contracts

GLX CLOSEOUT SUMMARY

Contract Credits for Deleted Scope of Work	(\$37,444,220)
Contract Close Out Change Orders	\$5,894,703
Ancillary Costs to Support Contract Close Out	\$4,305,000
TOTAL	(\$27,244,517)



SUMMARY OF BOARD REQUESTS (continued)

- These costs were anticipated and previously discussed with the Board, and are consistent with the prior sunk cost analysis.
- These costs, as well as previously authorized extra work orders, represent a contract **savings** of approximately \$27.9 million - slightly more savings than the \$26.3 million that was estimated in February.
- Assuming the Board authorizes the close-out of these contracts, these savings will be rolled into the available funding for the award of the upcoming design/build contract for GLX, as currently planned.
- It is anticipated that no actions beyond those identified will be required to complete the work associated with the five (5) existing early GLX construction contracts.
- All requested authorizations will be subject to regular reporting to and continuing concurrence of the FMCB.



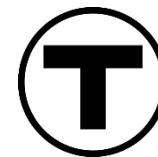
BACKGROUND

- Since the FMCB issued a resolution requiring that all GLX contract actions receive FMCB approval, the GLX Project has submitted a single request dated 1/11/16 to the FMCB concerning the existing GLX construction contracts.
- The 1/11/16 FMCB Vote authorized the General Manager to approve and execute change orders for each of the existing GLX construction contracts in the aggregate amount of \$5,099,258.



REQUESTED BOARD ACTIONS

- This FMCB request relates to contract actions that are beyond the authorizations allowed under the 1/11/16 FMCB Vote.
- This FMCB request will authorize the Chief Administrator and Acting General Manager to approve and execute change orders so that the existing five (5) GLX construction contracts can be closed. These authorizations apply to:
 - Credits associated with deleted scope that was not quantified at the time of the 1/11/16 FMCB Vote
 - Change Orders not previously referenced under the 1/11/16 FMCB Vote
- This FMCB request will authorize the Chief Administrator and Acting General Manager to approve certain ancillary costs that support the close out of the existing IGMP contracts.



REQUESTED BOARD ACTIONS (continued)

	Description	Authorizations for Deleted Work	Authorizations to Support Contract Close Out
Existing Construction Contracts	E22CN01 - Phase 1 Harvard and Medford Street Bridges	(\$452,899)	\$349,282
	E22CN02 - IGMP1 Procurement of Long Lead Items	(\$1,697,036)	\$906,542
	E22CN03 - IGMP2 Early Utility Work Phase 2/2A & 4	(\$3,198,007)	\$322,351
	E22CN04 - IGMP3 FML and Millers River Drainage Improvements	(\$14,318,407)	\$3,201,418
	E22CN06 - IGMP4A Viaduct Steel Procurement and Fabrication	(\$17,777,871)	\$1,115,110
	Subtotal	(\$37,444,220)	\$5,894,703
	Ancillary Costs	Eversource PNU26 Transformer Force Account	
Additional 14 Months of Steel Storage (Jan '17 - Feb '18)			\$1,710,000
Additional Professional Services (beyond Dec '16)			\$450,000
21 Water Street PCB Remediation			\$500,000
Rent for GLX Project Office			\$500,000
Additional Collective Funding			\$1,000,000
Subtotal		(\$37,444,220)	\$4,305,000
TOTALS		(\$37,444,220)	10,199,703

NET TOTAL VALUE OF AUTHORIZATION REQUESTS (\$27,244,517)



REQUESTED BOARD ACTIONS

QUESTIONS



GLX Program Cost Estimate Summary (As Presented to the Boards on May 9, 2016)

Figure 4.2 provides a summary of the major cost centers, compared to the FFGA estimates. This chart also shows the variation on the IPMT's estimate ranges.

Figure 4.0 – GLX NEW PROGRAM COST ESTIMATE SUMMARY

Line Item #	PROGRAM BUDGET COST CENTER DESCRIPTION	New Program Estimate IPMT	Sunk-Cost Included in Estimate
1	CONSTRUCTION (<i>D-B Value</i>)	\$ 1,192,400,000	\$0
2	REAL ESTATE	\$ 112,500,000	\$93,000,000
3	VEHICLES	\$ 182,700,000	\$182,700,000
4	PROFESSIONAL SERVICES	\$ 414,900,000	\$221,000,000
5	UNALLOCATED CONTINGENCY	\$ 182,200,000	\$0
6	<i>CURRENT CM/GC CONSTRUCTION CONTRACTS</i>	\$ 203,900,000	\$203,900,000
7	TOTAL (with no Additional Funding Considerations)	\$ 2,288,600,000	\$700,600,000

Inc. Force Account



GLX: SUNK COST UPDATE – AS OF AUGUST 2016

GLX: Latest Sunk Cost Analysis

All Costs in \$(Millions)

	Activity Description	Sunk Costs' 2-26-16 (as was reported to the Board)	Current Forecast to Discontinue (as of 8/26)	Delta
Item No.	Professional Services	\$215.94	\$212.99	(\$2.95)
	Vehicles	\$183.51	\$183.51	\$0.00
	Real Estate	\$93.35	\$93.35	\$0.00
	Construction Contracts, Make-Safe and Close-out	\$202.15	\$199.47	(\$2.68)
	Force Accounts <small>(excludes Vehicle Force Accounts, which are carried in Vehicle category above)</small>	\$6.32	\$6.32	\$0.00
	Subtotals	\$701.27	\$695.64	(\$5.63)

- (1) Costs for Construction Contracts are based on July 31, 2016 Estimate at Discontinuance (EAD)
- (2) Costs for Professional Services are based on Current Committed Amounts carried in CMS (Capital Management System)
- (3) Costs for Railroad Operators and Utility Force Accounts are based on Current Committed Amounts carried in CMS
- (4) Costs for MBTA Project Personnel are based on Current Committed Amounts carried in CMS
- (5) Costs add Line Item associated with 200 Inner Belt Lease (\$3 million)
- (6) Contingency Associated with Vehicle Procurement Remains Included (approximately \$24.8 million)



Massachusetts Bay Transportation Authority

Green Line Extension Project

APPENDIX

Approval of Remaining Actions for Close Out of Existing Construction Contracts

October 2016



Existing Early GLX Construction Contracts

- E22CN01 - Phase 1 Harvard and Medford Street Bridges
- E22CN02 - IGMP1 Procurement of Long Lead Items
- E22CN03 - IGMP2 Early Utility Work Phase 2/2A & 4
- E22CN04 - IGMP3 FML and Millers River Drainage Improvements
- E22CN06 - IGMP4A Viaduct Steel Procurement and Fabrication



E22CN01 - Phase 1 Harvard and Medford Street Bridges

Original Scope:

- Reconstruction and widening of the Harvard Street Railroad Bridge (New Hampshire Line), retaining wall/noise barrier construction, track relocation, ancillary utility and roadway improvements in Medford; the widening of the Medford Street Railroad Bridge (Fitchburg Line) in Somerville; and the demolition of the MBTA-owned tire facility building at 21 Water Street in Cambridge.

Deleted Scope:

- Limited road work on Harvard Street

Current Status:

- All work complete less miscellaneous sign installation
- Administrative close out in process



E22CN02 - IGMP1 Procurement of Long Lead Items

Original Scope:

- Procurement of materials that must be available early in the construction process in order to meet construction schedules for later work packages. The materials involved are (1) Washington Street Rail Bridge structural steel, (2) select commuter rail signal material, (3) traction power equipment for the Red Bridge Traction Power Substation, and (4) special trackwork material for the commuter rail system relocations.

Suspended Scope:

- Fabrication of Washington Street bridge steel

Current Status:

- All work complete except for testing of traction power substation equipment
- Administrative close out in process



E22CN03 - IGMP2 Early Utility Work Phase 2/2A & 4

Original Scope:

- The decommissioning, relocation, and replacement of a wide variety of utility system elements including: (1) wastewater pipelines and manholes, (2) stormwater pipelines and manholes, (3) domestic water lines and fire water lines, and MWRA System water pipelines, (4) telephone ductbanks and manholes, (5) electric ductbanks and manholes, (6) underground fiber optic lines, and (7) utility poles, light poles, and all types of OH poles.

Deleted Scope:

- Relocation of the Broadway Bridge electric utilities and the Lechmere Station utility scope

Current Status:

- Substantially complete; all physical work complete
- Administrative close out in process



E22CN04 - IGMP3 FML and Millers River Drainage Improvements

Original Scope:

- The removal of the former railroad bridge and approach embankments; relocation of utilities; relocation of signal infrastructure; construction of earthwork, stormwater and utility systems, retaining walls and noise barriers, several future viaduct piers, FML commuter rail tracks, and signals, two (2) new stormwater pump stations, and a detention basin.

Deleted Scope:

- FML track and signal work
- Remaining viaduct shafts and piers
- Infrastructure within pump stations

Current Status:

- Substantially complete; punchlist ongoing
- Administrative close out in process



E22CN06 - IGMP4A Viaduct Steel Procurement and Fabrication

Original Scope:

- The procurement, fabrication, and delivery of long lead viaduct structural steel

Suspended Scope:

- Remaining procurement and fabrication of viaduct steel

Deleted Scope

- Certain viaduct sections deleted

Current Status:

- Approx. 70% of steel has been procured
- Approx. 15% of steel has been fabricated



ANCILLARY COSTS TO SUPPORT CONTRACT CLOSE OUT

- Eversource PNU26 Transformer Force Account
- Additional 14 Month of Steel Storage (Jan `17 – Feb `18)
- Additional Professional Services (beyond Dec `16)
- 21 Water Street PCB Remediation
- Rent for GLX Project Office
- Additional Delegated Authority to GM for GLX



ANCILLARY COSTS TO SUPPORT CONTRACT CLOSE OUT

Authorize the Chief Administrator and Acting General Manager to approve and execute authorizations for the following ancillary costs:

- Eversource PNU26 Transformer Force Account - An external force account in the amount of \$145,000 for the removal of the existing transformer in Somerville known as PNU26 necessary to facilitate future GLX construction.
- Additional 14 Months of Steel Storage (Jan '17 – Feb '18) – Agreements in the amount of approximately \$1,710,000 for continued storage of steel plate and fabricated steel materials procured under E22CN02 and E22CN06 at the fabricators' yards for fourteen (14) additional months (from January 2017 through February 2018). The MBTA is proposing to contract directly with the fabricators for the extended steel storage period to allow the closeout of E22CN02 and E22CN06.



ANCILLARY COSTS TO SUPPORT CONTRACT CLOSE OUT (continued)

- Additional Professional Services (beyond Dec `16) – Extend task orders in the collective amount of up to \$450,000 for the current management team (Kennedy/Jenks, PMA Consultants, City Point Partners) supporting the MBTA and closeout of the five (5) existing early GLX construction contracts.
- 21 Water Street PCB Remediation – Issue professional services and construction for environmental abatement contracts in amounts up to \$500,000 for PCB remediation in soil of the demolished MBTA tire facility located at the 21 Water Street parcel in Cambridge.
- Rent for GLX Project Office – Authorize up to \$500,000 in lease payments for the GLX Project Office at 200 Inner Belt Road in Somerville until a decision is made to either terminate the lease or reassign the space.



ANCILLARY COSTS TO SUPPORT CONTRACT CLOSE OUT (continued)

- Additional Delegated Authority to GM for GLX – Authorize up to \$1,000,000 in additional collective funding for any and all unforeseen or unanticipated work. This additional funding is similar to that approved by the FMCB on 1/11/16 in which the General Manager was authorized to approve and execute up to \$1,000,000 in collective funding for GLX actions