



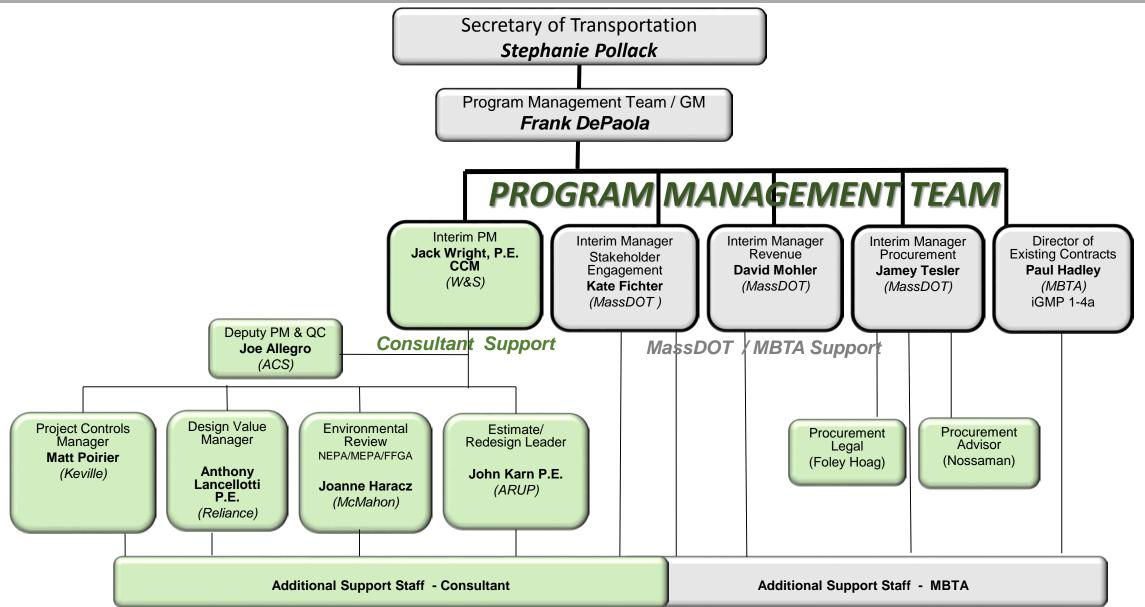


Evaluation



FUNCTIONAL CHART







EVALUATION BUDGET (1/25/16 to 6/30/16)



Combined MassDOT and MBTA F&M Control Board Meeting - Feb 10, 2016

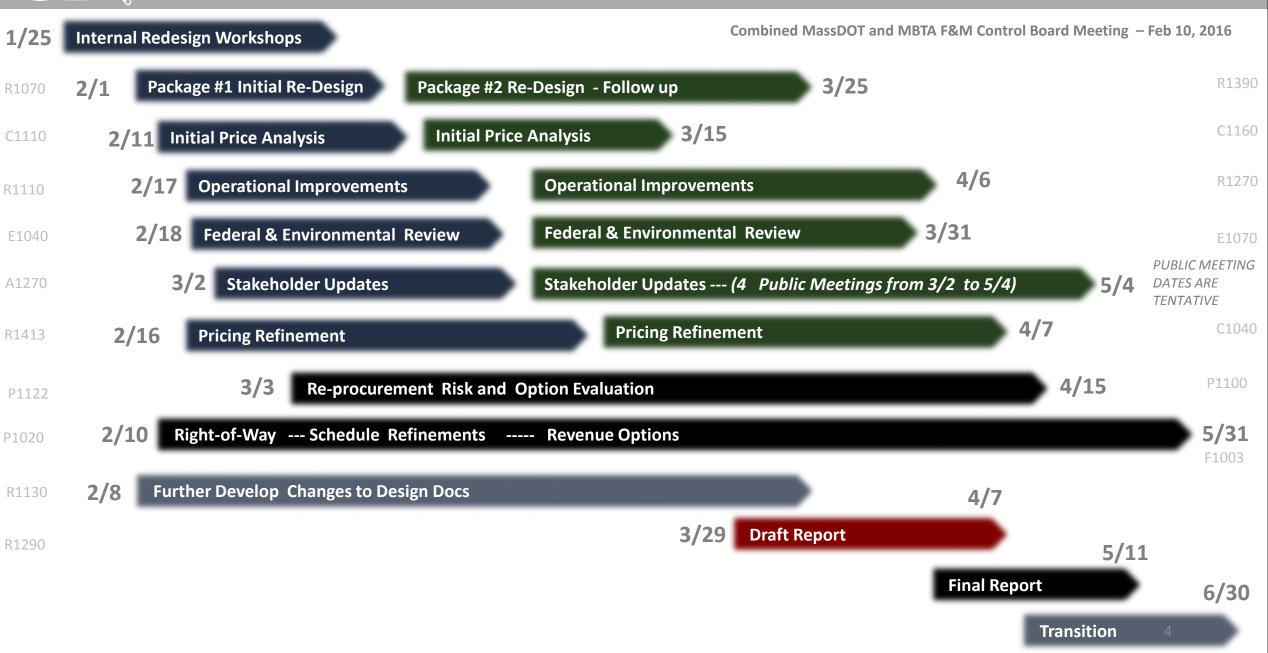
		Combined MassDOT and MBTA F&M Control BO
	Forecasted (Committed) \$	
Weston& Sampson	\$1,500,000	Interim Program Manager - Direct Cost Estimating QA, Indirect Construction Cost QA, Re- Design Concept Controls, Supporting Public Updates, Budget Adjustments, Schedule Adjustments, Re-Procurement Study Support, and Report Development
Arup	\$1,500,000	Re-Design Concepts & Construction Cost Estimating - Evaluation of Options, Conceptual Design Vetting, Documentation of Redesign Basis, and Program Schedule Considerations.
AECOM / HNTB	\$2,000,000	Designer / Engineer - Prepare Concepts and Sketches for Redesign, Option Review, Consolidate and Assemble Design Documents, and Support Estimating Effort.
Nossaman	\$150,000	Procurement Options Evaluation Support: Legal, Risk and Reporting Development
Foley Hoag	\$85,000	Procurement Options Evaluation Support: Legal, Risk and Reporting Development
TOTAL >	\$5,235,000	Current Forecast & Committed Values
	\$6,000,000	Previously Authorized (as of 1/25/16 vote)
	\$765,000	Variance (Authorized - Forecast)

Note: this is not a complete allocation of costs to continue the management of on-going construction. The cost of MBTA employees support costs or Peer Roundtable costs are not included. The Owner's Representative cost is also not included in this evaluation budget. Additionally, there are pending contract actions that are forecasted to be provided to the Board in a few weeks.



SUMMARY EVALUATION BASELINE SCHEDULE







RECENT ACTIVITY (as of 2/5/16)



INITIAL RE-DESIGN WORKSHOPS --- "Package 1"

- 1. Vehicle Maintenance Facility Size and Elements
- **√**2. Viaduct Cross Section *Size, Aesthetics and Elements*
- **√**3. Stations *Size, Aesthetics, and Elements*
- 4. Lowell Line Cross Sections
 - Track
 - Retaining Walls
 - Earthwork
 - Drainage
 - Bridges
 - Noise Walls
 - Pathway



RECENT ACTIVITY (as of 2/5/16)



INITIAL RE-DESIGN WORKSHOPS --- "Package 2"

- 1. Union Square Branch
 - 2. Systems Elements
 - 3. Limitations-of-Operations *Productivity Improvements*

INITIAL KEY MEETINGS

- 1. Meetings (2) with FTA
- 2. Meetings (2) Owner's Representative
- **3.** GLX Working Group
- 4. Meeting with Somerville

GLX **EVALUATION WORK FLOW** massDO7 **Develop Sketches and New Ideas Concept Drawings for Estimate Assumptions Review &** Redo **Prepare** Re-check Create Sketches **Documentation** Collectively **Price Benefit** Concepts and Decide on **Prioritized** for Concept / Or 'Quick Check' Review with Stakeholders, Discuss Redesign **Advancing Sketches** Matrix Drop (Cities, Key Abutters, Past Design Matrix Concept Operations, FTA, etc.) **Proof &** vs. New **Forward Past & New Concepts Validate** Concept Stakeholder Feedback Concept (A/H) (differences) **Update GM & 'Quick** Secretary Vetting' GLX Re-Design Workshop Generate **Pricing Refinement of Concepts** Independent **Concept Assessment Final Report - Present Consider Secondary Findings to Engineering Assessment GM/Secretary/Board** Update the Redesign Matrix {Technically Infeasible)





BASELINE CRITICAL PATH



Activity ID		Activity Description		Projected	Planned	Critical		701/2														
				Finish	Duration (Days)				Feb		_	Mar			2016 Apr			May			Jun	
	PMT B	aseline Schedule - Greenline Extension - Implementation Plan			IDaysi						_					Ψ.	_			_	-	
		TONES & GOALS																				
FOTO	M1000	Notice to Proceed - for the W&S (IPMTeam)	25-Jan-16		0	D.	No	ice t	to Pro	ceed - for t	ne W&S	(IPM	Team)									
,	MS01	MILESTONE - Complete DRAFT report for Internal Review (target April 7th)		08-Apr-16*	0	P P									MII	ESTON	E - Cor	mplete	DRAFT rep	ort fo	r Internal Review	(targ
						M	1										İ		District Const.		C	T-1
20		Print Final Report (Target May 9th - To F&MC Board)		09-May-16*	0	V	<u> </u>	<u> </u>						<u>.</u>			<u>l</u>	11		· 1	(Target May 9th	
20	MS02	MILESTONE - FINAL REPORT - (Target May 11th - Send to F&M Control Board - May 9th)		11-May-16*	0	P												1	MILESTO	NE - I	INAL REPORT -	(Tar
	REDES	IGN EFFORT															İ					
	R1020	Initial Presentation (from ARUP) to IPMT	25-Jan-16	25-Jan-16	1	V	Init	al P	reser	tation (fron	ARUP)	to IPI	ИT		\top		i					
2	R1040	Develop DRAFT Redesign Matrix (format only)	25-Jan-16	29-Jan-16	5	V	Ħ	Dev	elop (RAFT Red	esign M	latrix (f	ormat o	nly)								
D B D D D D D D D D D D D D D D D D D D		Develop Initial Redesign Listing (Grouped) for Larger Cost Avoidance Benefit Items (from Arup study)	26-Jan-16	08-Feb-16	10	M	+		D	evelop Initia	Redes	ign Lis	sting (G	ouped	for Larg	er Cost /	Avoidar	nce Be	enefit Items	(from	Arup study)	
	R1070	Redesign Work-Shops (other) for Package 1 items)	01-Feb-16	05-Feb-16	5	V	t =	Ħ	Red	esign Work	-Shops	(other) for Pa	ckage	1 items)		$\overline{}$	#-		Ť		
	R1120	Finalize Initial Redesign Matrix Listing for Package 1 (no prices yet)	08-Feb-16	10-Feb-16	3	V		۱ ا		Finalize Init	a Rede	sign N	Matrix Li	sting fo	r Packa	ge 1 (no	prices	yet)		İ		
<u>≥</u>	R1290	Prepare DRAFT Redesign Section of the Report	29-Mar-16	08-Apr-16	8	Ø								-	Pre	pare DR/	AFT R	edesig	n Section of	f the l	Report	
	COST	ESTIMATING & BUDGET																		K	//	.
	C1060	Gather All Estimate Related Documents (for remaining construction scope only)	26-Jan-16	08-Feb-16	10	Ø		1	G	ather All Es	timate F	Related	Docum	nents (for remai	ning con	structio	on sco	1)			
2 2	C1070	Full Cost and Program Budget 'Down-Load' Briefing (from PM/CM to IPMT)	05-Feb-16	08-Feb-16	2	Ø		4	-	II Cost and	Hrogran	m Bud	get Do	vn-Lloa	Briefin	g from F	•имсим	TED IP	MT)			
2	C1090	Organize Existing Construction Cost Estimate Data	09-Feb-16	17-Feb-16	6	V			-	Organ	ze Exis	ting C	onstruc	ion Co	st Estim	ate Data	1					
	R1412	Prepare Basis for Fare Collection & Elevator Alternative Study (order-of-magnitude cost avoidance)	09-Feb-16	12-Feb-16	4	Ø			┡	Prepare B	asis for	Fare (Collectio	n & El	evator Al	temative	Study	(order	-of-magnitud	de do	st avoidance)	
	C1100	Distribute ICE documents to QA and ARUP	11-Feb-16	18-Feb-16	5	V			-	- Distri	bute ICI	E de cu	ments 1	o QA a	and ARU	P	+	1				
	C1110	Develop / Refine Initial Quantities for Pricing (by Arup) Package 1	11-Feb-16	26-Feb-16	11	V			-		Develo	p/Re	fine Init	al Qua	ntities fo	r Pricing	(by An	up)Pa	ckage 1			
	R1413	Refine Initial Order-of-Magnitude Cost Estimates – for initial Public Updates	16-Feb-16	29-Feb-16*	10	V				-	Refir	ne Initi	al Orde	-of-Ma	gnitude (Cost Esti	imates	-fori	nitial Public	Upda	ites	
	C1150	Prepare Estimating Pricing & Documentation (package 1)	19-Feb-16	14-Mar-16	17	P				-	+	#	repare	Estim	ating Pri	cing & D	ocume	entation	n (package 1	1)	8	



BASELINE CRITICAL PATH (continued)



Activity ID		Activity Description		Projected	Planned	Critical											
				Finish	Duration (Days)			2016 Yeb Mar Apr May Jun									
2016	C1160	Develop Initial Quantities for Pricing (by Arup) Package 2	29-Feb-16	15-Mar-16	12	R		Develop Initial Quantities for Prioring (by Arup) Package 2									
10,	C1170	Review Initial ARUP Estimate Adjustments (package 1)	15-Mar-16	28-Mar-16	10	V		Review Initial ARUP Estimate Adjustments (package 1)									
– Feb 10,	C1180	Prepare Estimate Pricing & Documentation (package 2)	16-Mar-16	01-Apr-16	13	Ø		→ Prepare Estimate Philing & Documentation (package 2)									
Combined MassDOT and MBTA F&M Control Board Meeting	C1190	Prepare Initial Outline of Likely Budget Adjustments – Rescoping, Limitations, and Indirect Cost Review	29-Mar-16	05-Apr-16	6	Ø		Prepare Initial Outline of Likely Budget Adjustments – Rescoping,									
oard N	C1040	Prepare Initial DRAFT Outline (only) of Cost Section of the DRAFT Report	04-Apr-16	07-Apr-16	4	M		► Prepare Initial DRAFT Outline (only) of Clost Section of the DRAI									
trol Bo	C1210	Review QA Initial ARUP Estimate Adjustments (package 2)	04-Apr-16	11-Apr-16	6	M		Review QA Initial ARUP Estimate Adjustments (package 2)									
M Cont	C1050	Outline Impacts of Escalation & Program Contingency (within the remaining scope and budget)	12-Apr-16	19-Apr-16	5	Ø		Outline Impacts of Escalation & Program Contingency									
TA F&I	C1250	Estimating Adjustments and Reply to Comments	12-Apr-16	19-Apr-16	5	P		Estimating Adjustments and Reply to Comments									
d MB	C1341	Prepare Initial Cost Benefit Study of New Improved Limitations of Operations	12-Apr-16	19-Apr-16	5	M		Prepare Triffia Cost Benefit Study of New Improved Lin									
Tan	C1280	*** Prepare Partial DRAFT Cost Section of the Final Report	20-Apr-16	26-Apr-16	5	V		Prepare Partial DRAFT Cost Section of the Fi									
SDO	C1020	Refine Limitations of Operations issue & potential COST opportunities	20-Apr-16	25-Apr-16	4	V	1	Refine Limitations of Operations issue & potential									
Mas	C1270	Follow Up to Secretary / GM on Improved Limitations of Operations outcome	26-Apr-16	26-Apr-16	1	M		Follow Up to Secretary / GM on Improved Limitati									
ined	C1290	Finalize Cost QA Section of the Final Report	27-Apr-16	03-May-16	5	M		Finalize Cost QA Section of the Final Repo									
omp	KEY M	EETINGS & ADMINISTRATION															
Ŭ	QAF12	Quality Assurance Check Final Report (print version)	04-May-16	09-May-16	4	V		Quality Assurance Check Final Report									
	QAF12	Refinements of Final Report and Preparation for Presentation to Board	04-May-16	11-May-16	6	P		Refinements of Final Report and Prep									



UPCOMING



MEETINGS

- 1. Key Developers
- 2. Tufts
- 3. Cambridge
- 4. Medford
- 5. Operations

TASKS

- 1. Advance with Redesign Workshops Package 2
- 2. Finalize Initial Redesign Matrix Listing (DRAFT)
- 3. Refine Concepts and Develop Sketches
- 4. Refine Order-of-Magnitude Quantity Adjustment
- 5. Continue to Review FFGA Requirements
- 6. Submit Updated DB Manual to Office of Inspector General