## Summary of FFYs 2018-22 TIP Programming Scenarios Presented by MPO Staff on March 30, 2017

On March 30, staff presented to the MPO a set of four tables that (1) highlight the known changes to TIP programming necessary to account for cost changes and readiness of currently programmed projects, and (2) identify potential new TIP projects. These tables (attached) are identified as follows: Identification of Problems, Scenario 1, Scenario 1a, and Scenario 2. A description of each one is provided below. The three initial programming scenarios depict possible ways to solve these funding challenges with the currently programmed set of projects.

Staff will present a recommendation for TIP programming at the MPO meeting on April 6.

### **Identification of Problems**

This spreadsheet captures what is known from MassDOT and project proponents about currently programmed projects in terms of their readiness to be advertised for construction and their costs.

After accounting for project cost increases and delays in advertisement dates, the programming status for the federal fiscal years (FFYs) 2018–21 shows:

- a large amount of funding available in FFY 2018
- a large deficit in FFY 2019
- small deficits in FFYs 2020 and 2021

The MPO is faced with the fact that currently programmed projects have to move out of FFY 2018, because of readiness; however, there is no funding available in FFYs 2019–21 with which to accommodate them. This creates a situation in which other currently programmed projects must be moved out to outer years in order to meet financial constraint.

### Approach to Scenario Development

As staff was faced with making decisions about how to address issues of cost and readiness for currently programmed projects, we took the following general approach:

- Minimize impacts to currently programmed projects that are not currently showing a schedule delay or cost increase
- If currently programmed projects do need to be moved to an outer year in the TIP, use the following information to inform those decisions: geographic distribution of TIP funding, year approved by MassDOT's Project Review Committee, and readiness
- Given the overall cost increase in Boston's Rutherford Avenue project, due to currently programmed earmarks being used for design rather than construction, any surplus in FFYs 2020 and 2021 that developed under a scenario was dedicated to that project

### Scenario 1

Baseline Assumption(s)	<ul> <li>Delay Brookline (Gateway East) project until FFY 2019</li> <li>Cost increase for Newton and Needham (Highland Avenue), delay to FFY 2019, and fund over two year construction timeline</li> </ul>
Projects Moved to Later Year	<ul> <li>Everett (Ferry Street) moves from FFY 2019 to FFY 2022</li> <li>Boston (Boylston Street) moves from FFY 2020 to FFY 2021</li> <li>Norwood (Route 1 and University Avenue) moves from FFY 2021 to FFY 2022</li> </ul>
Rutherford Avenue Funding	• \$3.3 million added in FFY 2020 and \$5.5 million added in FFY 2021
New Project Funding	<ul> <li>Hull (Atlantic Avenue) programmed in FFY 2018</li> <li>\$33.7 million remaining for new projects in FFY 2022</li> </ul>

### Scenario 1A

Baseline Assumption(s)	Same as Scenario 1	
Projects Moved to Later Year	<ul> <li>Everett (Ferry Street) moves from FFY 2019 to FFY 2022</li> <li>Lynn (Route 129/Lynnfield Street) moves from FFY 2020 to FFY 2021</li> </ul>	
Rutherford Avenue Funding	None: no additional allocation of funding in FFY 2020 and FFY 2021	
New Project Funding	<ul> <li>Hull (Atlantic Avenue) programmed in FFY 2018</li> <li>\$41.3 million remaining for new projects in FFY 2022</li> </ul>	

### Scenario 2

Baseline Assumption(s)	٠	Same as Scenario 1
Projects Moved to Later Year	•	Everett (Ferry Street) moves from FFY 2019 to FFY 2021 Boston (Boylston Street) moves from FFY 2020 to FFY 2021 Framingham (Union Avenue) moves from FFY 2021 to FFY 2022 Beverly (Intersection Improvements) moves from FFY 2021 to FFY 2022 Norwood (Route 1 and University Avenue) moves from FFY 2021 to FFY 2022
Rutherford Avenue Funding	•	\$3 million added in FFY 2020 and \$1.2 million added in FFY 2021
New Project Funding		Hull (Atlantic Avenue)programmed in FFY 2018\$36.1 million remaining for new projects in FFY 2022

				Proposed 1st	MAPC	1 1	PRC-	1	<b>I</b> 1				<b>I</b> 1							Target Funds	Other Funds	
Proponent(s)	TIP ID	Project Name	Invest-ment Category	FFY	Community Type	region Score		Project Status	Current FFY 2017	Proposed FFY 2017	Current FFY 2018	Proposed FFY 2018	Current FFY 2019	Proposed FFY 2019	Current FFY 2020	Proposed FFY 2020	Current FFY 2021	Proposed FFY 2021	Proposed FFY 2022		(Non-Target	Total Project Cost (all FYs)
Needham and Wellesley	603711	Rehabilitation/replacement of 6 bridges on I- 95/ Route 128 (add-a-lane - Contract V)	мі	advertised	Турс			advertised	\$24,539,816	\$24,539,816	\$1,988,367	\$1,988,367								\$1,988,367	T unusy	
Bedford, Billerica, and Burlington		Middlesex Turnpike improvements, phase III	мі	advertised		53		advertised	\$6,604,906	\$6,604,906										\$0	\$8,438,700	
Weymouth and	601630	Reconstruction and widening on Route 18 (Main St.)	мі	advertised				advertised	\$12,850,000	\$12,850,000	\$19,591,490	\$19,591,490	\$8,040,268	\$8,040,268						\$27,631,758	\$36,530,510	
Abington Somerville and Medford	N/A	Green Line Extension project (phase 1)	мі	advertised				advertised	\$29,900,000	\$29,900,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$32,000,000	\$32,000,000		\$152,000,000		
Woburn	604935	Reconstruction of Montvale Ave.	мі	FFY17		50			\$4,752,838	\$4,752,838										\$0		
Hingham	607309	Reconstruction and related work on Derby St.	CS	FFY17		28			\$4,927,769	\$6,716,047										\$0		
Marlborough	604810	Reconstruction of Route 85 (Maple St.)	CS	FFY17		58			\$5,613,636	\$5,773,824										\$0		
Southborough	604989	Reconstruction of Main St. (Route 30)	CS	FFY18	MS	MWRC 42	2016	75%			\$7,271,690	\$7,271,690								\$7,271,690		\$7,271,690
Brookline		Intersection and signal improvements at Route 9 and Village Square (Gateway East)	CS	FFY18	IC	ICC 68	2010	Pre 25%; DPH scheduled for 4/26/17			\$5,273,202	\$0		\$6,280,867						\$6,280,867	\$1,000,000	\$7,280,867
Hingham (MassDOT)	600518	Intersection improvements at Derby St., Whiting St. (Route 53) and Gardner St.	INT	FFY18	MS	SSC 28	2010	75%			\$3,057,735	\$2,844,392								\$2,844,392		\$2,844,392
Newton and Needham	606635	Reconstruction of Highland Ave., Needham St. and Charles River bridge	мі	FFY18	IC	ICC 75	2011	75%			\$15,464,292	\$0		\$9,519,900		\$9,519,900				\$19,039,800		\$19,039,800
Hopkinton	606043	Signal and intersection improvements on Route	CS	FFY19	DS	SWAP 65	2010	25%					\$8,501,376	\$8,174,400						\$8,174,400		\$8,174,400
Everett	607652	Reconstruction of Ferry St.	CS	FFY19	IC	ICC 73	2014	PRC Approved					\$7,244,124	\$16,599,002						\$16,599,002		\$16,599,002
Natick	605034	Reconstruction of Route 27 (North Main St.)	CS	FFY19	MS	MWRC 60	2007	25%					\$15,459,553	\$15,459,553						\$15,459,553		\$15,459,553
Milford	607428	Resurfacing and intersection improvements on Route 16 (Main St.)	CS	FFY19	RUC	SWAP 54	2013	25%					\$3,149,619	\$2,727,881						\$2,727,881		\$2,727,881
Salem	608352	Canal St. Rail Trail construction (phase 2)	B/P	FFY19	RUC	NSTF 37	2016	25%				\$2,787,456	\$2,595,840	\$0						\$2,787,456		\$2,787,456
Boston	605789	Reconstruction of Melnea Cass Boulevard	MI	FFY19	IC	ICC NA	2011	PRC Approved					\$7,853,499	\$7,853,499						\$7,853,499	\$17,444,339	\$25,297,839
Boston	606453	Improvements on Boylston St.	CS	FFY20	IC	ICC 58	2011	25%							\$8,214,319	\$8,214,319				\$8,214,319		\$8,214,319
Lynn	602077	Reconstruction on Route 129 (Lynnfield St.)	CS	FFY20	RUC	ICC 38	1997	25%							\$4,953,270	\$4,755,714				\$4,755,714		\$4,755,714
Boston	606226	Reconstruction of Rutherford Ave.	МІ	FFY20	IC	ICC NA	2010	PRC Approved							\$7,000,000	\$7,000,000	\$21,832,529	\$30,411,459		\$37,411,459	\$8,578,930	\$152,000,000
Ashland	604123	Reconstruction on Route 126 (Pond St.)	CS	FFY20	MS	MWRC 54	2003	25%							\$14,658,022	\$14,636,338				\$14,636,338		\$14,636,338
Walpole (MassDOT)	602261	Reconstruction on Route 1A (Main St.)	CS	FFY20	DS	TRIC 51	1997	75%							\$18,584,373	\$17,390,216				\$17,390,216		\$17,390,216
Woburn		Bridge replacement, New Boston St. over MBTA	МІ	FFY21	RUC	NSPC 55	2007	25%									\$17,784,392	<mark>\$17,026,434</mark>		\$17,026,434		\$17,026,434
Framingham	608228	Reconstruction of Union Ave.	CS	FFY21	RUC	MWRC 58	2015	25%									\$10,063,912	<mark>\$10,304,881</mark>		\$10,304,881		\$10,304,881
Holbrook	606501	Reconstruction of Union St. (Route 139)	CS	FFY21	MS	SSC 45	2011	25%								\$1,363,630	\$1,363,630	\$0		\$1,363,630	\$1,527,250	\$2,890,880
Beverly	608347	Intersection improvements at three locations	INT	FFY21	RUC	NSTF 63	2016	PRC Approved									\$3,509,576	\$3,360,000		\$3,360,000		\$3,360,000
Norwood	605857	Intersection improvements at Route 1 and University Ave./Everett St.	INT	FFY21	RUC	TRIC 55	2009	25%									\$6,317,236	<mark>\$9,166,410</mark>		\$9,166,410		\$9,166,410
Regionwide		Community Transportation	СТ	FFY21													\$1,750,000		\$1,750,000	\$3,500,000		\$3,500,000
Note: Projects in <b>bold</b> typeare listed in the current Long-Range Transportation Plan (LRTP), Cha Indicates a change in project cost		rting Progresss	to 2040.	TARGET: 44%				20'	17	20	18	1	9-2022 reflect an a	additional annual 49		over current const	truction cost estimate	2022				
<b>.</b> .	ndicates a project moved in to an earlier TIP element		CS	22.9	33%			gional Highway	\$89,188,965			\$95,038,936		\$98,749,261				\$100,298,110		\$493,655,613		
Indicates a project move	ed out to a la	ater TIP element	B/P	0.6	5%	DRAFT		AMMED Regional	\$89,188,965		\$92,646,776			\$114,655,370		\$102,880,117		\$104,019,184	\$1,750,000			
Indicates a new addition	to the TIP		INT	3.1	16%	Region	ay Target Funds al Highway Tar	get Funds	\$-	-\$1,948,466	\$2,392,160				\$4,619,463		\$5,676,835		\$99,789,859			
Indicates removed from	the TIP		СТ	0.7	2%		hing (UNPROG t Unprogramme	•		-2.2%		21.6%		-16.1%		-4.9%		-3.7%	98.3%			
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## Staff Rec Scenarios\_ID Problems

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Proponent(s)	TIP ID	Project Name	Invest-ment Category	Proposed 1st FFY Advertised	MAPC Community Type	/ Sub- region	Score	PRC- Approved Project Status Year	Current FFY 2017	Proposed FFY 2017	Current FFY 2018	Proposed FFY 2018	Current FFY 2019	Proposed FFY 2019	Current FFY 2020	Proposed FFY 2020	Current FFY 2021	Proposed FFY 2021	Proposed FFY 2022	-	Other Funds (Non-Target Funds)	Total Project Cost (all FYs)
Needham and Wellesley	603711	Rehabilitation/replacement of 6 bridges on I- 95/ Route 128 (add-a-lane - Contract V)	МІ	advertised				advertised	\$24,539,816	\$24,539,816	\$1,988,367	\$1,988,367								\$1,988,367		
Bedford, Billerica, and Burlington	29492	Middlesex Turnpike improvements, phase III	мі	advertised			53	advertised	\$6,604,906	\$6,604,906										\$0	\$8,438,700	
Weymouth and Abington	601630	Reconstruction and widening on Route 18 (Main St.)	мі	advertised				advertised	\$12,850,000	\$12,850,000	\$19,591,490	\$19,591,490	\$8,040,268	\$8,040,268						\$27,631,758	\$36,530,510	
Somerville and Medford	N/A	Green Line Extension project (phase 1)	мі	advertised				advertised	\$29,900,000	\$29,900,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$32,000,000	\$32,000,000		\$152,000,000		
Woburn	604935	Reconstruction of Montvale Ave.	МІ	FFY17			50		\$4,752,838	\$4,752,838										\$0		
Hingham	607309	Reconstruction and related work on Derby St.	CS	FFY17			28		\$4,927,769	\$6,716,047										\$0		
Marlborough	604810	Reconstruction of Route 85 (Maple St.)	CS	FFY17			58		\$5,613,636	\$5,773,824										\$0		
Southborough	604989	Reconstruction of Main St. (Route 30)	CS	FFY18	MS	MWRC	42	2016 75%			\$7,281,248	\$7,271,690								\$7,271,690		\$7,271,690
Brookline	605110	Intersection and signal improvements at Route 9 and Village Square (Gateway East)	CS	FFY18	IC	ICC	68	2010 Pre 25%; DPH 2010 scheduled for 4/26/17			\$5,273,202	\$0		\$6,280,867						\$6,280,867	\$1,000,000	\$7,280,867
Hingham (MassDOT)	600518	Intersection improvements at Derby St., Whiting St. (Route 53) and Gardner St.	INT	FFY18	MS	SSC	28	2010 75%			\$3,057,735	\$2,844,392								\$2,844,392		\$2,844,392
Newton and Needham	606635	Reconstruction of Highland Ave., Needham St. and Charles River bridge	МІ	FFY18	IC	ICC	75	2011 75%			\$15,464,292	\$0		\$9,519,900		\$9,519,900				\$19,039,800		\$19,039,800
Hopkinton	606043	Signal and intersection improvements on Route 135	CS	FFY19	DS	SWAP	65	2010 25%					\$8,501,376	\$8,174,400						\$8,174,400		\$8,174,400
Everett	607652	Reconstruction of Ferry St.	CS	FFY19	IC	ICC	73	2014 PRC Approved					\$7,244,124	\$0		\$0		\$0	\$18,514,272	\$18,514,272		\$18,514,272
Natick	605034	, ,	CS	FFY19	MS	MWRC	60	2007 25%					\$15,459,553	\$15,459,553						\$15,459,553		\$15,459,553
Milford	607428	Resurfacing and intersection improvements on Route 16 (Main St.)	CS	FFY19	RUC	SWAP	54	2013 25%					\$3,149,619	\$2,727,880						\$2,727,880		\$2,727,880
Salem	608352	Canal St. Rail Trail construction (phase 2)	B/P	FFY19	RUC	NSTF	37	2016 25%				\$2,787,456	\$2,595,840	\$0						\$2,787,456		\$2,787,456
Boston	605789	Reconstruction of Melnea Cass Boulevard	MI	FFY19	IC	ICC	NA	2011 PRC Approved					\$7,853,499	\$7,853,499						\$7,853,499	\$17,444,339	\$25,297,839
Boston	606453	Improvements on Boylston St.	CS	FFY20	IC	ICC	58	2011 25%							\$8,214,319	\$0		\$8,542,892		\$8,542,892		\$8,542,892
Lynn	602077	Reconstruction on Route 129 (Lynnfield St.)	CS	FFY20	RUC	ICC	38	1997 25%							\$4,953,270	\$4,755,714				\$4,755,714		\$4,755,714
Boston	606226	Reconstruction of Rutherford Ave.	мі	FFY20	IC	ICC	NA	2010 PRC Approved							\$7,000,000	\$10,300,000	\$21,832,529	\$27,411,459	\$38,000,000	\$75,711,459		\$152,000,000
Ashland	604123	Reconstruction on Route 126 (Pond St.)	CS	FFY20	MS	MWRC	54	2003 25%							\$14,658,022	\$14,636,338				\$14,636,338		\$14,636,338
Walpole (MassDOT)	602261	Reconstruction on Route 1A (Main St.)	CS	FFY20	DS	TRIC	51	1997 75%							\$18,584,373	\$17,390,216				\$17,390,216		\$17,390,216
Woburn	604996	Bridge replacement, New Boston St. over MBTA	мі	FFY21	RUC	NSPC	55	2007 25%									\$17,784,392	\$17,026,434		\$17,026,434		\$17,026,434
Framingham	608228	Reconstruction of Union Ave.	CS	FFY21	RUC	MWRC	58	2015 25%									\$10,063,912	\$10,304,881		\$10,304,881		\$10,304,881
Holbrook	606501	Reconstruction of Union St. (Route 139)	CS	FFY21	MS	SSC	45	2011 25%								\$1,363,630	\$1,363,630	\$0		\$1,363,630	\$1,527,250	\$2,890,880
Beverly	608347	Intersection improvements at three locations	INT	FFY21	RUC	NSTF	63	2016 PRC Approved									\$3,509,576	\$3,360,000		\$3,360,000		\$3,360,000
Norwood	605857	Intersection improvements at Route 1 and University Ave./Everett St.	INT	FFY21	RUC	TRIC	55	2009 25%									\$6,317,236	\$0	\$9,493,782	\$9,493,782		\$9,493,782
Regionwide		Community Transportation	СТ	FFY21													\$1,750,000	\$1,750,000	\$1,750,000	\$3,500,000		\$3,500,000
Hull	601607	Reconstruction of Atlantic Ave and Related Work	CS	FFY18	MS	SSC	44	1995 75%				\$5,976,768										
Bedford	607738	Minuteman Bikeway Extension	B/P	FFY22	MS	MAGIC	47	2014 PRC Approved											\$4,647,192			
Watertown	607777	Rehabilitation of Mount Auburn St. (Route 16)	CS	FFY22	IC	ICC	75	2014 PRC Approved											\$14,190,425			
Norwood	606130	Intersection Improvements at Route 1A and Upland Rd./Washinton St. and Prospect	INT	FFY22	RUC	TRIC	53	2010 25% Approved											\$3,799,452			
Marblehead	608146	Intersection Improvements to Pleasant St. at Village/Vine/Cross Sts.	INT	FFY22	MS	NSTF	40	2015 25% Submittee											\$959,378			
Marlborough	604231	Intersection and Signal Improvements on Route 20 (east Main St./Boston Post Rd.) at Concord Rd	INT	FFY22	RUC	MWRC	39	2007 25% Submittee											\$1,979,656			
Acton	608229	Intersection Improvements at Massachusetts Avenue (Route 111) and Main Street (Route 27)	INT	FFY22	MS	MAGIC	45	2016 PRC Approved											\$8,671,000			
Note: Projects in <b>bold</b> typeare		current Long-Range Transportation Plan (LRTP), Charting	Progresss to 2	61.0	TARGET: 44%	7			20	17	20'		Costs in FFYs 2019			% inflation increase	e over current const 202		ate. 2022			
Indicates a change in project Indicates a project moved in		er TIP element	CS	27.5	33%			AILABLE Regional Highway			\$95,038,936		\$98,749,261	\$98,749,261	20 <b>\$98,029,447</b>			×100,298,110		\$493,655,613		
Indicates a project moved in Indicates a project moved o			B/P	1.5	5%		1	unds: Total PROGRAMMED	\$89,188,965		\$92,656,334		\$98,749,261		\$93,409,984			\$100,298,110		\$478,883,152		
Indicates a project moved o			INT	6.3		-	<u>Regiona</u> Regiona	l Highway Target Funds: I Highway Target Funds	φυθ, 100,900	-\$1,948,466	\$92,656,334			\$98,056,368 \$692,893	\$93,409,984 \$4,619,463		\$94,621,275 \$5,676,835					
					16%	_	Remaini	ng (UNPROGRAMMED):	φ-		φ2,362,602		<u></u>		J4,019,403					\$14,772,461		
Indicates removed from the	ΠP		СТ	0.7	2%		reicent	Unprogrammed		-2.2%		15.3%		0.7%		0.1%		-0.1%	-0.5%			

### Scenario 1

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Proponent(s)	TIP ID	Project Name	Invest-ment Category	Proposed 1st FFY Advertised	MAPC Community Type	Sub- region	Score	PRC- Approved Year	Project Status	Current FFY 2017	Proposed FFY 2017	Current FFY 2018	Proposed FFY 2018	Current FFY 2019	Proposed FFY 2019	Current FFY 2020	Proposed FFY 2020	Current FFY 2021	Proposed FFY 2021	Proposed FFY 2022	Target Funds Proposed in FFYs 2018-22	Other Funds (Non-Target Funds)	Total Project Cost (all FYs)
Needham and Wellesley	603711	Rehabilitation/replacement of 6 bridges on I-	мі	advertised	Type			i cui	advertised	\$24,539,816	\$24,539,816	\$1,988,367	\$1,988,367								\$1,988,367	i unusj	
Bedford, Billerica, and	29492	95/ Route 128 (add-a-lane - Contract V) Middlesex Turnpike improvements, phase III	мі	advertised			53		advertised	\$6,604,906	\$6,604,906										\$0	\$8,438,700	
Burlington Weymouth and Abington		Reconstruction and widening on Route 18	MI	advertised					advertised	\$12,850,000	\$12,850,000	\$19,591,490	\$19,591,490	\$8,040,268	\$8,040,268						\$27,631,758	\$36,530,510	
		(Main St.)														<b>*</b> 40,000,000	<b>*</b> 40,000,000	<u> </u>	<u> </u>			\$30,330,310	
Somerville and Medford	N/A	Green Line Extension project (phase 1)	MI	advertised					advertised	\$29,900,000	\$29,900,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$32,000,000	\$32,000,000		\$152,000,000		
Woburn	604935	Reconstruction of Montvale Ave.	МІ	FFY17			50			\$4,752,838	\$4,752,838										\$0		
Hingham	607309	Reconstruction and related work on Derby St.	CS	FFY17			28			\$4,927,769	\$6,716,047										\$0		
Marlborough	604810	Reconstruction of Route 85 (Maple St.)	CS	FFY17			58			\$5,613,636	\$5,773,824										\$0		
Southborough	604989	Reconstruction of Main St. (Route 30)	CS	FFY18	MS	MWRC	42	2016	75%			\$7,271,690	\$7,271,690								\$7,271,690		\$7,271,690
Brookline	605110	Intersection and signal improvements at Route 9 and Village Square (Gateway East)	CS	FFY18	IC	ICC	68	2010	Pre 25%; DPH scheduled for 4/26/17			\$5,273,202	\$0		\$6,280,867						\$6,280,867	\$1,000,000	\$7,280,867
Hingham (MassDOT)	600518	Intersection improvements at Derby St., Whiting St. (Route 53) and Gardner St.	INT	FFY18	MS	SSC	28	2010	75%			\$3,057,735	\$2,844,392								\$2,844,392		\$2,844,392
Newton and Needham	606635	Reconstruction of Highland Ave., Needham St. and Charles River bridge	м	FFY18	IC	ICC	75	2011	75%			\$15,464,292	\$0		\$9,519,900		\$9,519,900				\$19,039,800		\$19,039,800
Hopkinton	606043	Signal and intersection improvements on Route	CS	FFY19	DS	SWAP	65	2010	25%					\$8,501,376	\$8,174,400						\$8,174,400		\$8,174,400
Everett	607652	Reconstruction of Ferry St.	CS	FFY19	IC	ICC	73	2014	PRC					\$7,244,124	\$0		\$0		\$0	\$18,514,272	\$18,514,272		\$18,514,272
Natick	605034	Reconstruction of Route 27 (North Main St.)	CS	FFY19	MS	MWRC	60	2007	Approved 25%					\$15,459,553	\$15,459,553					. , ,	\$15,459,553		\$15,459,553
Milford	607428	Resurfacing and intersection improvements on	20	FFY19	_	SWAP	54	2013	25%						\$2,727,881						\$2,727,881		\$2,727,881
Calam		Route 16 (Main St.)		FFY19			37						¢0 707 450										
Salem		Canal St. Rail Trail construction (phase 2)	B/P		RUC	NSTF		2016	25% PRC				\$2,787,456	\$2,595,840							\$2,787,456	<b>•</b> / <b>-</b> / / / • • • •	\$2,787,456
Boston		Reconstruction of Melnea Cass Boulevard	MI	FFY19	IC	ICC	NA	2011	Approved					\$7,853,499	\$7,853,499						\$7,853,499	\$17,444,339	\$25,297,839
Boston		Improvements on Boylston St.	CS	FFY20	IC	ICC	58	2011	25%							\$8,214,319	\$8,214,319				\$8,214,319		\$8,214,319
Lynn	602077	Reconstruction on Route 129 (Lynnfield St.)	CS	FFY20	RUC	ICC	38	1997	25%							\$4,953,270	\$0		\$4,931,852		\$4,931,852		\$4,931,852
Boston	606226	Reconstruction of Rutherford Ave.	МІ	FFY20	IC	ICC	NA	2010	Approved							\$7,000,000	\$7,000,000	\$21,832,529	\$21,832,529	\$40,000,000	\$68,832,529	\$8,578,930	\$152,000,000
Ashland	604123	Reconstruction on Route 126 (Pond St.)	CS	FFY20	MS	MWRC	54	2003	25%							\$14,658,022	\$14,636,338				\$14,636,338		\$14,636,338
Walpole (MassDOT)	602261	Reconstruction on Route 1A (Main St.)	CS	FFY20	DS	TRIC	51	1997	75%							\$18,584,373	\$17,390,216				\$17,390,216		\$17,390,216
Woburn	604996	Bridge replacement, New Boston St. over MBTA	мі	FFY21	RUC	NSPC	55	2007	25%									\$17,784,392	\$17,026,434		\$17,026,434		\$17,026,434
Framingham	608228	Reconstruction of Union Ave.	CS	FFY21	RUC	MWRC	58	2015	25%									\$10,063,912	\$10,304,881		\$10,304,881		\$10,304,881
Holbrook	606501	Reconstruction of Union St. (Route 139)	CS	FFY21	MS	SSC	45	2011	25%								\$1,363,630	\$1,363,630	\$0		\$1,363,630	\$1,527,250	\$2,890,880
Beverly	608347	Intersection improvements at three locations	INT	FFY21	RUC	NSTF	63	2016	PRC Approved									\$3,509,576	\$3,360,000		\$3,360,000		\$3,360,000
Norwood	605857	Intersection improvements at Route 1 and	INT	FFY21	RUC	TRIC	55	2009	25%									\$6,317,236	\$9,166,410		\$9,166,410		\$9,166,410
Regionwide		University Ave./Everett St. Community Transportation	СТ	FFY21														\$1,750,000	\$1,750,000		\$3,500,000		\$3,500,000
Hull	601607	Reconstruction of Atlantic Ave and Related Work	CS	FFY18	MS	SSC	44	1995	75%				\$5,976,768						. , ,	. , ,			
Bedford		Minuteman Bikeway Extension	B/P	FFY22		MAGIC	47	2014	PRC				\$0,010,100							\$4,647,192			
									Approved PRC														
Watertown		Rehabilitation of Mount Auburn St. (Route 16)Intersection Improvements at Route 1A and	CS	FFY22		ICC	75	2014	Approved											\$14,190,425			
Norwood	606130	Upland Rd./Washinton St. and Prospect Intersection Improvements to Pleasant St. at	INT	FFY22	RUC	TRIC	53		25% Approved											\$3,799,452			
Marblehead	608146	Village/Vine/Cross Sts. Intersection and Signal Improvements on Route	INT	FFY22	MS	NSTF	40		25% Submitted											\$959,378			
Marlborough	604231	20 (east Main St./Boston Post Rd.) at Concord Rd Intersection Signalization at Route 28 and		FFY22		MWRC	39		25% Submitted PRC											\$1,979,656			
Reading	607305	Hopkins St.	INT	FFY22	MS	NSPC	34	2012	Approved											\$1,240,084			
Beverly	608348	Rehabilitation of Bridge St.	CS	FFY20	RUC	NSTF	59	2016	PRC Approved											\$6,124,800			
Malden	608275	Complete Streets Improvements on Exchange St. (Lighting and Sidewalk Improvements on	CS	FFY22	IC	ICC	54	2016	PRC Approved											\$1,497,081			
Sudbury	607249	Intersection Improvements at Route 20 and Landham Road	INT	FFY19	MAGIC	MS	37	2013	25% Approved											\$1,919,858			
Duxbury	606002	Signal installation at Route 3 (NB and SB) ramps and Route 3A (Tremont St.)	INT	FFY22	SSC	MS	33	2010	PRC Approved											\$2,784,000			
	Note: Projects in <b>bold</b> typeare listed in the current Long-Range Transportation Plan (LRTP), Chartin				TARGET:					'		'	I				1	over current constr				<b>I</b>	
Indicates a change in project	ct cost		МІ	59.6	44%		Total AV		gional Highway	202		201		201		202		202		2022	<b>]</b>		
Indicates a project moved in	n to an earli	er TIP element	CS	29.0	33%		Target F	unds:		\$89,188,965	\$89,188,965	\$95,038,936	\$95,038,936	\$98,749,261	\$98,749,261	\$98,029,447	\$98,029,447	\$100,298,110	\$100,298,110	\$101,539,859	\$493,655,613		
Indicates a project moved o	out to a later	TIP element	B/P	1.5	5%		Regional	Total PROGR	get Funds:	\$89,188,965	\$91,137,431	\$92,646,776	\$80,460,163	\$92,844,279	\$98,056,368	\$93,409,984	\$98,124,403	\$94,621,275	\$100,372,106	\$99,406,198	\$476,419,239		
Indicates a new addition to	the TIP		INT	5.7	16%		-	Highway Tar ng (UNPROGI	-	\$ -	-\$1,948,466	\$2,392,160	\$14,578,773	\$5,904,982	\$692,893	\$4,619,463	-\$94,956	\$5,676,835	-\$73,996	\$2,133,661	\$17,236,374		
Indicates removed from the	TIP		СТ	0.7	2%			Jnprogramme			-2.2%		15.3%		0.7%		-0.1%		-0.1%	2.1%			
			<u>i</u>							• I	I												

## Scenario 1a

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Proponent(s)	TIP ID	Project Name	Invest-ment Category	Proposed 1st FFY Advertised	MAPC Community Type	Sub- region	Score	PRC- Approved Year	Project Status	Current FFY 2017	Proposed FFY 2017	Current FFY 2018	Proposed FFY 2018	Current FFY 2019	Proposed FFY 2019	Current FFY 2020	Proposed FFY 2020	Current FFY 2021	Proposed FFY 2021	Proposed FFY 2022	-	(Non-Larget )	Total Project Cost (all FYs)
Needham and Wellesley	603711	Rehabilitation/replacement of 6 bridges on I- 95/ Route 128 (add-a-lane - Contract V)	МІ	advertised					advertised	\$24,539,816	\$24,539,816	\$1,988,367	\$1,988,367								\$1,988,367		
Bedford, Billerica, and	29492	Middlesex Turnpike improvements, phase III	МІ	advertised			53		advertised	\$6,604,906	\$6,604,906										\$0	\$8,438,700	
Burlington Weymouth and Abington	601630	Reconstruction and widening on Route 18	м	advertised					advertised	\$12,850,000	\$12,850,000	\$19,591,490	\$19,591,490	\$8,040,268	\$8,040,268						\$27,631,758	\$36,530,510	
Somerville and Medford	N/A	(Main St.) Green Line Extension project (phase 1)	мі	advertised					advertised	\$29,900,000	\$29,900,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$40,000,000	\$32,000,000	\$32,000,000		\$152,000,000		
Woburn	604935	Reconstruction of Montvale Ave.	м	FFY17			50			\$4,752,838	\$4,752,838										\$0		
Hingham	607309	Reconstruction and related work on Derby St.	CS	FFY17			28			\$4,927,769	\$6,716,047										\$0		
Marlborough	604810	Reconstruction of Route 85 (Maple St.)	CS	FFY17			58			\$5,613,636	\$5,773,824										\$0		
Southborough	604989	Reconstruction of Main St. (Route 30)	CS	FFY18	MS	MWRC	42	2016	75%			\$7,281,248	\$7,271,690								\$7,271,690		\$7,271,690
Brookline	605110	Intersection and signal improvements at Route 9 and Village Square (Gateway East)	CS	FFY18	IC	ICC	68	2010	Pre 25%; DPH scheduled for 4/26/17			\$5,273,202	\$0		\$6,280,867						\$6,280,867	\$1,000,000	\$7,280,867
Hingham (MassDOT)	600518	Intersection improvements at Derby St., Whiting St. (Route 53) and Gardner St.	INT	FFY18	MS	SSC	28	2010	75%			\$3,057,735	\$2,844,392								\$2,844,392		\$2,844,392
Newton and Needham	606635	Reconstruction of Highland Ave., Needham St. and Charles River bridge	. мі	FFY18	IC	ICC	75	2011	75%			\$15,464,292	\$0		\$9,519,900		\$9,519,900				\$19,039,800		\$19,039,800
Hopkinton	606043	Signal and intersection improvements on Route 135	CS	FFY19	DS	SWAP	65	2010	25%					\$8,501,376	\$8,174,400						\$8,174,400		\$8,174,400
Everett	607652	Reconstruction of Ferry St.	CS	FFY19	IC	ICC	73	2014	PRC Approved					\$7,244,124	\$0		\$0		\$17,875,848		\$17,875,848		\$17,875,848
Natick	605034	Reconstruction of Route 27 (North Main St.)	CS	FFY19	MS	MWRC	60	2007	25%					\$15,459,553	\$15,459,553						\$15,459,553		\$15,459,553
Milford	607428	Resurfacing and intersection improvements on Route 16 (Main St.)	CS	FFY19	RUC	SWAP	54	2013	25%					\$3,149,619	\$2,727,880						\$2,727,880		\$2,727,880
Salem	608352	Canal St. Rail Trail construction (phase 2)	B/P	FFY19	RUC	NSTF	37	2016	25%				\$2,787,456	\$2,595,840	\$0						\$2,787,456		\$2,787,456
Boston	605789	Reconstruction of Melnea Cass Boulevard	МІ	FFY19	IC	ICC	NA	2011	PRC Approved					\$7,853,499	\$7,853,499						\$7,853,499	\$17,444,339	\$25,297,839
Boston	606453	Improvements on Boylston St.	CS	FFY20	IC	ICC	58	2011	25%							\$8,214,319	\$0		\$8,542,892		\$8,542,892		\$8,542,892
Lynn	602077	Reconstruction on Route 129 (Lynnfield St.)	CS	FFY20	RUC	ICC	38	1997	25%							\$4,953,270	\$4,755,714				\$4,755,714		\$4,755,714
Boston	606226	Reconstruction of Rutherford Ave.	МІ	FFY20	IC	ICC	NA	2010	PRC Approved							\$7,000,000	\$10,000,000	\$21,832,529	\$23,032,529	\$40,000,000	\$73,032,529		\$152,000,000
Ashland	604123	Reconstruction on Route 126 (Pond St.)	CS	FFY20	MS	MWRC	54	2003	25%							\$14,658,022	\$14,636,338				\$14,636,338		\$14,636,338
Walpole (MassDOT)	602261	Reconstruction on Route 1A (Main St.)	CS	FFY20	DS	TRIC	51	1997	75%							\$18,584,373	\$17,390,216				\$17,390,216		\$17,390,216
Woburn	604996	Bridge replacement, New Boston St. over MBTA	МІ	FFY21	RUC	NSPC	55	2007	25%									\$17,784,392	\$17,026,434		\$17,026,434		\$17,026,434
Framingham	608228	Reconstruction of Union Ave.	CS	FFY21	RUC	MWRC	58	2015	25%									\$10,063,912	\$0	\$10,672,913	\$10,672,913		\$10,672,913
Holbrook	606501	Reconstruction of Union St. (Route 139)	CS	FFY21	MS	SSC	45	2011	25%								\$1,363,630	\$1,363,630	\$0		\$1,363,630	\$1,527,250	\$2,890,880
Beverly	608347	Intersection improvements at three locations	INT	FFY21	RUC	NSTF	63	2016	PRC Approved									\$3,509,576	\$0	\$3,480,000	\$3,480,000		\$7,019,151
Norwood	605857	Intersection improvements at Route 1 and University Ave./Everett St.	INT	FFY21	RUC	TRIC	55	2009	25%									\$6,317,236	\$0	\$9,493,782	\$9,493,782		\$9,493,782
Regionwide		Community Transportation	СТ	FFY21														\$1,750,000	\$1,750,000	\$1,750,000	\$3,500,000		\$3,500,000
Hull	601607	Reconstruction of Atlantic Ave and Related Work	CS	FFY18	MS	SSC	44	1995	75%				\$5,976,768										
Bedford	607738	Minuteman Bikeway Extension	B/P	FFY22	MS	MAGIC	47	2014	PRC Approved											\$4,647,192			
Sudbury	608164	Bruce Freeman Rail Trail, Phase 2D	B/P	FFY22	MS	MAGIC	40	2015	PRC Approved											\$8,004,000			
Watertown		Rehabilitation of Mount Auburn St. (Route 16)	CS	FFY22	IC	ICC	75	2014	25% Approved											\$14,190,425			
Norwood	606130	Upland Rd./Washinton St. and Prospect	INT	FFY22	RUC	TRIC	53	2010	25% Approved											\$3,799,452			
Marblehead	608146	Intersection Improvements to Pleasant St. at Village/Vine/Cross Sts.	INT	FFY22	MS	NSTF	40	2015	25% Submitted											\$959,378			
Marlborough	604231	Intersection and Signal Improvements on Route 20 (east Main St./Boston Post Rd.) at Concord Ro	TNI	FFY22	RUC	MWRC	39	2007	PRC Approved											\$1,979,656			
Malden	608275	Complete Streets Improvements along Exchange St	03	FFY22	IC	ICC	54	2016	PRC Approved								( · ( · · ·			\$1,497,081			
Note: Projects in <b>bold</b> typeare		current Long-Range Transportation Plan (LRTP), Chartin	g Progresss to 2	60.5	TARGET: 44%	1				20	17	20'	1	Costs in FFYs 2019 201		additional annual 4%		e over current const		ate. 2022			
Indicates a project moved in		er TIP element	CS	27.7	33%				gional Highway			\$95,038,936		\$98,749,261	\$98,749,261	\$98,029,447	\$98,029,447		<sup>2</sup> 1 \$100,298,110	\$101,539,859	\$493,655,613		
Indicates a project moved o			B/P	3.1	5%			Funds: Total PROGR		\$89,188,965		\$92,656,334		\$92,844,279					\$100,227,703	\$100,473,879			
Indicates a new addition to			INT	4.6	16%	1	Regiona	<u>l Highway Tar</u> l Highway Tar	get Funds	\$ -	-\$1,948,466	\$2,382,602		\$5,904,982		\$4,619,463		\$5,676,835		\$1,065,980			
Indicates removed from the			СТ	0.7	2%			<u>ng (UNPROG</u> Unprogramme		*	-\$1,348,400	Ψ2,002,002	15.3%	ΨΟ,ΟΟΤ,ΟΟΖ	0.7%	ψησισ,του	0.4%		0.1%				
				0.7	2 /0	l			~~		-2.2/0		10.070		0.770		0.470		0.170	1.0 /0			

## Scenario 2