



**UNIFIED PLANNING WORK PROGRAM**  
**FFY 2020**

**Table ES-2**  
**New Discrete Funded Studies in FFY 2020**

<b>Project ID</b>	<b>Study or Program</b>	<b>Proposed FFY 2020 CTPS Budget</b>	<b>Page Number</b>
I3293	Locations with High Bicycle and Pedestrian Crash Rates in the Boston Region MPO Area	\$70,000	4-10
<b>I3301</b>	<b>Review of Vision Zero Policies</b>	<b>\$30,000</b>	<b>4-12</b>
I3420	Addressing Safety, Mobility, and Access on Subregional Priority Roadways	\$115,000	4-14
I3520	Addressing Priority Corridors from the LRTP Needs Assessment	\$120,000	4-16
I3720	Safety and Operations Analysis at Selected Intersections	\$80,000	4-18
I3294	TIP Before and After Studies	\$60,000	4-19
I3295	<b>Innovations in Estimating Trip Generation Rates</b>	<b>\$30,000</b>	<b>4-20</b>
I3296	Operating a Successful Shuttle Program	\$50,000	4-22
I3297	Further Development of the MPO's Community Transportation Program	\$20,000	4-23
I3298	Disparate Impact Metrics Analysis	\$40,000	4-24
I3299	Exploring Resilience in MPO-Funded Corridor and Intersection Studies	\$90,000	4-26
20904	MPO Staff-Generated Research and Technical Assistance	\$40,000	4-27
<b>Total for New Discrete and Ongoing Studies</b>		<b>\$745,000</b>	

NOTE: This information may be updated as the FFY 2020 UPWP budget continues to develop.  
 CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. LRTP = Long-Range Transportation Plan.  
 MPO = Metropolitan Planning Organization. TIP = Transportation Improvement Program.

**Table 2-1**  
**FFY 2020 New Discrete Funded Studies**

<b>Project ID</b>	<b>Study or Program</b>	<b>Proposed FFY 2020 CTPS Budget</b>	<b>Page Number</b>
I3293	Locations with High Bicycle and Pedestrian Crash Rates in the Boston Region MPO Area	\$70,000	4-10
<b>I3301</b>	<b>Review of Vision Zero Policies</b>	<b>\$30,000</b>	<b>4-12</b>
I3420	Addressing Safety, Mobility, and Access on Subregional Priority Roadways	\$115,000	4-14
I3520	Addressing Priority Corridors from the LRTP Needs Assessment	\$120,000	4-16
I3720	Safety and Operations Analysis at Selected Intersections	\$80,000	4-18
I3294	TIP Before and After Studies	\$60,000	4-19
I3295	<b>Innovations in Estimating Trip Generation Rates</b>	<b>\$30,000</b>	<b>4-20</b>
I3296	Operating a Successful Shuttle Program	\$50,000	4-22
I3297	Further Development of the MPO's Community Transportation Program	\$20,000	4-23
I3298	Disparate Impact Metrics Analysis	\$40,000	4-24
I3299	Exploring Resilience in MPO-Funded Corridor and Intersection Studies	\$90,000	4-26
20904	MPO Staff-Generated Research and Technical Assistance	\$40,000	4-27
<b>Total for New Discrete and Ongoing Studies</b>		<b>\$745,000</b>	

CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. LRTP = Long-Range Transportation Plan. MPO = Metropolitan Planning Organization. TIP = Transportation Improvement Program.

**Table 4-4  
UPWP Budget—MPO New Discrete Studies, FFY 2020**

<b>Project ID</b>	<b>Study or Program</b>	<b>Proposed FFY 2020 CTPS Budget</b>	<b>Page Number</b>
I3293	Locations with High Bicycle and Pedestrian Crash Rates in the Boston Region MPO Area	\$70,000	4-10
<b>I3301</b>	<b>Review of Vision Zero Policies</b>	<b>\$30,000</b>	<b>4-12</b>
I3420	Addressing Safety, Mobility, and Access on Subregional Priority Roadways	\$115,000	4-12
I3520	Addressing Priority Corridors from the LRTP Needs Assessment	\$120,000	4-14
I3720	Safety and Operations Analysis at Selected Intersections	\$80,000	4-16
I3294	TIP Before and After Studies	\$60,000	4-17
I3295	<b>Innovations in Estimating Trip Generation Rates</b>	<b>\$30,000</b>	4-
I3296	Operating a Successful Shuttle Program	\$50,000	4-
I3297	Further Development of the MPO's Community Transportation Program	\$20,000	4-
I3298	Disparate Impact Metrics Analysis	\$40,000	4-
I3299	Exploring Resilience in MPO-Funded Corridor and Intersection Studies	\$90,000	4-
20904	MPO Staff-Generated Research and Technical Assistance	\$40,000	4-
<b>Total for New Discrete and Ongoing Studies</b>		<b>\$745,000</b>	

NOTE: This information may be updated as the FFY 2020 UPWP budget continues to develop.

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## ~~Transit Mitigation for New Development Sites~~

<del>Project ID Number</del>	<del>13295</del>
<del>Category</del>	<del>Transit</del>
<del>FHWA 3C PL Funds</del>	<del>\$42,000</del>
<del>FTA Section 5303 Funds</del>	<del>\$18,000</del>
<del>FFY 2020 Total Budget</del>	<del>\$60,000</del>

~~Note: FTA and FHWA funds include the MassDOT local match.~~

### ~~Purpose~~

~~Developers are often required to provide mitigation for increased traffic that will occur as a result of their development. Similar mitigation for increased transit ridership is starting to be explored in the MPO region. This study will explore transit mitigation methodologies from other regions and develop recommendations for transit mitigation in the MPO region. This study follows up on the FFY 2018 UPWP study “Transportation Mitigation of Major Developments,” which was presented to the MPO in December 2018 and can be found at <https://www.ctps.org/comparing-transportation-mitigation>.~~

### ~~Approach~~

~~MPO staff will work with MassDOT and the Massachusetts Bay Transportation Authority (MBTA) to understand the current transit mitigation methodology that they use and to identify areas for which staff research could be beneficial. MPO staff will review literature of transit mitigation methodologies in other regions, focusing on the topics identified as the most important and relevant to MassDOT and the MBTA. MPO staff may potentially study topics such as how to use transit mitigations to fund capital improvements, and how to assess the level of mitigation for capital improvements. MPO staff may also consider how to balance transit mitigation with the desire for development and growth around transit nodes.~~

### ~~FFY 2020 Anticipated Outcomes~~

~~This study will produce a report highlighting current examples of transit mitigation methodologies. The study will also evaluate which strategies are most promising for the MPO region.~~

## Review of Vision Zero Policies

Project ID Number	I3301
Category	Active Transportation
FHWA 3C PL Funds	\$21,000
FTA Section 5303 Funds	\$9,000
FFY 2020 Total Budget	\$30,000

### **Purpose**

Vision Zero is a policy goal in which a city or region aims to reduce its transportation-related fatalities to zero. Over the last few decades, cities around the world have been implementing Vision Zero policies. A number of different strategies can comprise a Vision Zero policy, including

- reducing speed limits;
- implementing road diets or traffic-calming measures;
- investing in bicycle infrastructure, pedestrian infrastructure, or transit services;
- conducting education campaigns; and
- strengthening enforcement efforts.

### **Approach**

Staff will review Vision Zero policies from around the world, identify the major strategies employed in each policy, and document any successes that have been observed. Where possible, staff will determine which strategies have had the greatest affect in the overall success of the policy. Staff will then highlight the strategies that would be most effective for Vision Zero policies in the Boston region.

The primary objectives of this project are as follows:

1. To identify which Vision Zero strategies have been most effective in reducing traffic deaths in other cities, especially those that have achieved zero traffic fatalities for bicyclists and pedestrians
2. To inform ongoing work in the region on this topic

### ***FFY 2020 Anticipated Outcomes***

The primary product of this task will be a technical memorandum documenting the results of the literature review and identifying effective strategies most applicable to our region for reducing transportation-related fatalities.

## Innovations in Estimating Trip Generation Rates

Project ID Number	13295
Category	Multimodal Mobility
FHWA 3C PL Funds	\$21,000
FTA Section 5303 Funds	\$9,000
FFY 2020 Total Budget	\$30,000

### **Purpose**

Planners typically use an estimate of the number of trips that a new development will generate to understand its impact on its surroundings and the transportation network at large.

Traditionally, trip generation rates for different land use types are provided by the Institute of Transportation Engineers' (ITE) Trip Generation Manual. However, the data for this manual is generally collected from suburban, single-use sites, and its rates tend to overestimate vehicle trips and exclude trips by transit, biking, or walking, particularly for mixed-use developments and in urban areas. Efforts are underway across the country to develop trip generation rates by means other than the ITE manual. These methodologies typically involve gathering characteristics about the development, including neighborhood density, household incomes, availability of transit service, and other demographic data. MPO staff believe a more thorough investigation into these methodologies would be beneficial to the Boston region.

### **Approach**

Staff will research innovative approaches to estimating trip generation and best practices for developing trip generation rates for urban areas that better account for non-auto (transit, bicycle, and pedestrian) trips. This research will inform and support a number of ongoing and upcoming efforts in the region to improve the trip generation rates used to project travel by all modes. Some examples of such efforts include the following:

1. MPO staff will undertake a UPWP study in FFY 2021 to examine the applicability of ITE rates to the Boston region based on recently completed development impact studies for different types of developments in the area and household survey data.
2. The Metropolitan Area Planning Council (MAPC) has been collecting and analyzing before-and-after data from recently completed projects to assess the ITE rates.
3. MAPC has been working with the Massachusetts Department of Transportation to submit Massachusetts data to ITE.



4. The University of Massachusetts Lowell is proposing a study of technology to monitor person-trip activity at developments and create custom trip generation rates specific to certain land uses in Massachusetts.

***FFY 2020 Anticipated Outcomes***

Staff will document their findings about approaches to improving trip generation estimates in a memorandum or other technical document, which will then inform further work on this topic in the Boston region.

**Table 7-3  
UPWP Budget—MPO New Discrete Studies for FFY 2020**

Universe ID	Project ID	Study or Program	CTPS PL Funds	CTPS Section 5303 Funds	Proposed FFY 2020 CTPS Budget
A-1	I3293	Locations with High Bicycle and Pedestrian Crash Rates in the Boston Region MPO Area	\$49,000	\$21,000	\$70,000
n/a	I3301	Review of Vision Zero Policies	\$21,000	\$9,000	\$30,000
M-2	I3420	Addressing Safety, Mobility, and Access on Subregional Priority Roadways	\$80,500	\$34,500	\$115,000
M-3	I3520	Addressing Priority Corridors from the LRTP Needs Assessment	\$84,000	\$36,000	\$120,000
M-4	I3720	Safety and Operations Analysis at Selected Intersections	\$56,000	\$24,000	\$80,000
M-6	I3294	TIP Before and After Studies	\$42,000	\$18,000	\$60,000
n/a	I3295	Innovations in Estimating Trip Generation Rates	\$21,000	\$9,000	\$30,000
T-3	I3296	Operating a Successful Shuttle Program	\$35,000	\$15,000	\$50,000
T-4	I3297	Further Development of the MPO's Community Transportation Program	\$14,000	\$6,000	\$20,000
E-1	I3298	Disparate Impact Metrics Analysis	\$28,000	\$12,000	\$40,000
R-1	I3299	Exploring Resilience in MPO-Funded Corridor and Intersection Studies	\$63,000	\$27,000	\$90,000
O-1	20904	MPO Staff-Generated Research and Technical Assistance	\$28,000	\$12,000	\$40,000
<b>Total for New Discrete and Recurring Studies</b>			<b>\$521,500</b>	<b>\$223,500</b>	<b>\$745,000</b>

CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. LRTP = Long-Range Transportation Plan. MPO = Metropolitan Planning Organization. PL = Planning. TIP = Transportation Improvement Program.

(Table 7-11 cont.)

			FTA Funding by Agency with Local Match						
Projects by Element and Task		FFY 2020 UPWP Project ID	FTA \$5303 Total Funds	CTPS		MAPC		MassDOT	
				Federal Funds	Local Funds	Federal Funds	Local Funds	Federal Funds	Local Funds
	Disparate Impact Metrics Analysis	13298	\$12,000	\$9,600	\$2,400	\$-	\$-	\$-	\$-
44.22.00	General Development and Comprehensive Planning		\$284,439	\$156,376	\$39,094	\$71,175	\$17,794	\$-	\$-
	Computer Resource Management	varies	\$97,780	\$78,224	\$19,556	\$-	\$-	\$-	\$-
	Data Resource Management	varies	\$84,000	\$67,200	\$16,800	\$-	\$-	\$-	\$-
	Air Quality Conformity Determinations and Support	8420	\$9,370	\$7,496	\$1,874	\$-	\$-	\$-	\$-
	Land Use Development Project Reviews	MAPC 5	\$29,420	\$-	\$-	\$23,536	\$5,884	\$-	\$-
	Land Use Data to Support Transportation Modeling	MAPC 10	\$28,949	\$-	\$-	\$23,159	\$5,790	\$-	\$-
	MetroCommon x 2050	MAPC 6	\$30,600	\$-	\$-	\$24,480	\$6,120	\$-	\$-
	New and Emerging Metrics for Roadway Usage	13290	\$1,710	\$1,368	\$342	\$-	\$-	\$-	\$-
	Pedestrian Report Card Assessment Dashboard	13292	\$2,610	\$2,088	\$522	\$-	\$-	\$-	\$-
44.23.00	Long-Range Transportation Planning		\$716,210	\$463,288	\$115,822	\$109,680	\$27,420	\$-	\$-
23.01	Systems-Level Planning								
	Regional Model Enhancement	7120	\$248,290	\$198,632	\$49,658	\$-	\$-	\$-	\$-
	LRTP	8120	\$99,270	\$79,416	\$19,854	\$-	\$-	\$-	\$-
	Congestion Management Process	2120	\$33,610	\$26,888	\$6,722	\$-	\$-	\$-	\$-
23.02	Project-Level Planning								
	Review of Vision Zero Policies	13301	\$9,000	\$-	\$-	\$-	\$-	\$-	\$-
	Addressing Safety, Mobility, and Access on Subregional Priority Roadways FFY 2020	13420	\$34,500	\$27,600	\$6,900	\$-	\$-	\$-	\$-
	Addressing Priority Corridors from the LRTP Needs Assessment FFY 2020	13520	\$36,000	\$28,800	\$7,200	\$-	\$-	\$-	\$-
	Safety and Operations Analysis at Selected Intersections FFY 2020	13720	\$24,000	\$19,200	\$4,800	\$-	\$-	\$-	\$-

(Table 7-11 cont.)

Projects by Element and Task		FFY 2020 UPWP Project ID	FTA Funding by Agency with Local Match						
			FTA \$5303 Total Funds	CTPS		MAPC		MassDOT	
				Federal Funds	Local Funds	Federal Funds	Local Funds	Federal Funds	Local Funds
	Locations with High Bicycle and Pedestrian Crash Rates in the Boston Region MPO Area	13293	\$21,000	\$16,800	\$4,200	\$-	\$-	\$-	\$-
	TIP Before and After Studies	13294	\$18,000	\$14,400	\$3,600	\$-	\$-	\$-	\$-
	Innovations in Estimating Trip Generation Rates	13295	\$18,000	\$14,400	\$3,600	\$-	\$-	\$-	\$-
	Operating a Successful Shuttle Program	13296	\$15,000	\$12,000	\$3,000	\$-	\$-	\$-	\$-
	Exploring Resilience in MPO-funded Corridor and Intersection Studies	13299	\$27,000	\$21,600	\$5,400	\$-	\$-	\$-	\$-
	Corridor/Subarea Planning Studies	MAPC 4	\$70,523	\$-	\$-	\$56,418	\$14,105	\$-	\$-
	Alternative Mode Planning and Coordination	MAPC 7	\$66,577	\$-	\$-	\$53,262	\$13,315	\$-	\$-
	Addressing Safety, Mobility, and Access on Subregional Priority Roadways FFY 2019	13419	\$2,160	\$1,728	\$432	\$-	\$-	\$-	\$-
	Addressing Priority Corridors from the Long Range Transportation Plan Needs Assessment FFY 2019	13519	\$2,280	\$1,824	\$456	\$-	\$-	\$-	\$-
<b>44.24.00</b>	<b>Short-Range Transportation Planning</b>		<b>\$389,290</b>	<b>\$12,616</b>	<b>\$3,154</b>	<b>\$-</b>	<b>\$-</b>	<b>\$298,816</b>	<b>\$74,704</b>
	MassDOT Transit Planning Assistance	Varies	\$373,520	\$-	\$-	\$-	\$-	\$298,816	\$74,704
	Traffic Data Support	2720	\$4,600	\$3,680	\$920	\$-	\$-	\$-	\$-
	Transit Data Support	4220	\$11,170	\$8,936	\$2,234	\$-	\$-	\$-	\$-
<b>44.25.00</b>	<b>Transportation Improvement Program</b>		<b>\$78,790</b>	<b>\$63,032</b>	<b>\$15,758</b>	<b>\$-</b>	<b>\$-</b>	<b>\$-</b>	<b>\$-</b>
	Transportation Improvement Program	8220	\$78,790	\$63,032	\$15,758	\$-	\$-	\$-	\$-
<b>44.27.00</b>	<b>Other Activities</b>		<b>\$12,000</b>	<b>\$9,600</b>	<b>\$2,400</b>	<b>\$-</b>	<b>\$-</b>	<b>\$-</b>	<b>\$-</b>
	MPO Staff-Generated Research and Technical Assistance	20904	\$12,000	\$9,600	\$2,400	\$-	\$-	\$-	\$-
<b>Total Boston Region MPO 5303 Funds Programmed</b>			<b>\$2,197,502</b>	<b>\$1,180,606</b>	<b>\$295,151</b>	<b>\$278,580</b>	<b>\$69,645</b>	<b>\$303,616</b>	<b>\$75,904</b>

CTPS = Central Transportation Planning Staff. FFY = Federal fiscal year. FTA = Federal Transit Administration. LRTP = Long-Range Transportation Plan MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MPO = Metropolitan Planning Organization. TIP = Transportation Improvement Program. UPWP = Unified Planning Work Program.