

11B. FUTURE AMENDMENTS TO THE 2021-2024 TIP AND 2045 RTP

Summary

- Reprogram \$30.8M of Metropolitan Transit Authority of Harris County (METRO) FY 2021 and FY 2022 Regional Vanpool federal Congestion Mitigation/Air Quality (CMAQ) and Surface Transportation Block Grant (STBG) funds in thirteen (13) projects to support the purchase of twenty (20) electric 40' buses, ten (10) 'cutaway' buses and associated charging station equipment into FY 2022 of the Transportation Improvement Program (TIP) (MPO ID 15243) with 5.8M Transportation Development Credits (TDCs) in lieu of matching funds. (-\$1.6M, Total Cost: \$29.2M)
- Increase the federal CMAQ funding of the City of Houston Parks and Recreation Department (HPARD) Halls Bayou Trail construction project (MPO 16126/CSJ 0912-72-314) by \$1.6M (52%) with an increased local match of \$2.4M. Hurricane Harvey and other weather event bank damage indicated the need for design improvements. Since the originally programmed funds were obligated in FY 2019, the Texas Department of Transportation has assigned a new Control-Section-Job (CSJ) number, 0912-72-619, to the project. (+\$1.6M, Total Cost: \$7.3M)
- Split out the METRO Regional Transit Fare Connectivity Project (MPO ID 18851) using \$5.0M of CMAQ funding from the FY 2025 \$17.7M Regional Transit Fare Collection System placeholder project (MPO ID 18260/CSJ 0912-00-622) and program it in FY 2022 of the TIP with 1.0M TDCs in lieu of matching funds (Total Cost: \$5.0M).
- Convert \$42.0M of federal Category-2 Metropolitan Mobility funds to state funding for the TxDOT Houston District's Fort Bend County FM 723 widening project (MPO ID 981/CSJ 0188-09-040) at TxDOT's request. (Total Cost: \$53.0M)
- Add \$5.0M of local funding from Fort Bend County to the Category-2 Metropolitan Mobility funded TxDOT Houston District FM 723 widening project (MPO ID 18515/CSJ 0188-09-040) per the agreement between TxDOT and the County. (Total Cost: \$62.0M)
- Advance the TxDOT Houston District's SH 105 widening project (MPO ID 10125/CSJ 0338-04-065) in Montgomery County from FY 2023 to FY 2022 to take advantage of its current state of readiness. (Total Cost: \$75.0M)
- Program an additional \$7.5M of TxDOT Maritime Division (Texas Mobility Fund) state funds on the FY 2023 Galveston County Pelican Island Bridge replacement project (MPO ID 18085/CSJ 0912-73-213) at TxDOT's request. (Total Cost: \$115.8M)
- Delay the City of Bellaire Traffic Management System installation project funded with CMAQ (MPO ID 18020/CSJ 0912-72-597) to FY 2023 in anticipation of federal STIP approval. (Total Cost: \$900K)
- Delay the City of Houston Greens Road reconstruction and widening project funded with STBG (MPO ID 5030/CSJ 0912-71-836) to FY 2023 to allow for ROW acquisition. (Total Cost: \$16.0M)

Agenda Item 11B
TAC Meeting Packet - 3/16/22

- Cancel two (2) Fort Bend County Public Transportation Bus and Bus Support purchase projects (MPO IDs 18331 & 18332) funded with FTA Section 5307 at the sponsor's request. (Total Cost: -\$1.0M)
- Delay TxDOT Beaumont District's SH 105 intersection improvements project (MPO ID 18031/CSJ 0593-01-135) funded with CMAQ in Liberty County from FY 2022 to FY 2023 at TxDOT's request. (Total Cost: \$12.2M)
- Delay TxDOT Houston District's IH 69 reconstruction and widening project between IH 45 and SH 288 (MPO ID 7428/CSJ 0027-13-200) funded with Strategic Priority funds in Harris County from FY 2022 to FY 2025 at TxDOT's request. (Total Cost: \$260.7M)
- Delay TxDOT Houston District's IH 69 bridge reconstruction project at McGowen, Tuam and Elgin Streets (MPO ID 16337/CSJ 0027-13-221) funded with Strategic Priority funds in Harris County from FY 2022 to FY 2025 at TxDOT's request. (Total Cost: \$65.5M)
- Delay TxDOT Houston District's FM 1960 Intelligent Transportation System (ITS) equipment installation project (MPO ID 17088/CSJ 1685-01-108) funded with CMAQ in Harris County from FY 2022 to FY 2024 at TxDOT's request. (Total Cost: \$10.9M)

Action Requested

Information and discussion only.



CITY OF HOUSTON

Parks and Recreation Department
A CAPRA Accredited Agency

Sylvester Turner

Mayor

Kenneth Allen
Director
Parks and Recreation Department
2999 S. Wayside Dr.
Houston, TX 77023

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January 31 2022

Mr. Craig Raborn, Transportation Director
Houston-Galveston Area Council
3555 Timmons Lane, Suite 100
Houston, TX 77027

Sent Via Email: Craig.Raborn@h-gac.com

*Subject: Request for Additional Federal Funds and TIP/STIP Update - Halls Bayou Trail
MPO ID 16126*

Dear Director Raborn:

The City of Houston Parks and Recreation Department (HPARD) respectfully requests an increase in the Federal fund allocation for the subject project and an update to the STIP with the new CSJ number. The amount requested in additional funds is \$1,648,084. The new CSJ number is 0912-72-619.

The project represents a significant effort to provide safe, alternative transportation with pedestrian / bike routes in underserved communities along Halls Bayou. It is currently subject to the attached Congestion Mitigation and Air Quality Program Project Agreement between the City of Houston through HPARD and the State of Texas, through the Texas Department of Transportation (the AFA) dated September 15, 2015.

The total estimated project cost in the AFA was \$5,049,830 with the Federal participation at \$3,182,584 and Local participation at \$1,817,246. Based upon completed design cost estimates in July 2018 the total estimated cost of the project increased to \$6,892,101. However, prior to the start of construction, channel bank slope failures resulting from Hurricane Harvey and other more recent weather events prompted reconsideration of the project's design to better support the trail.

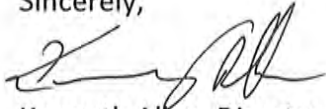
HPARD and project funding partner, Houston Parks Board, will cooperate with TxDOT to mitigate the cost overruns by working with the design engineer to identify cost savings. However, it is critical to strengthen the slopes of the bayou to withstand future flood events and protect the capital investments in the multi-use path. The engineer's estimate for the most

recent redesign increases the total project cost to \$7,274,398 and the Local share to \$4,091,814 or \$3,296.168 over the estimated Local participation in the AFA. **HPARD is requesting 50% Federal match of the estimated increase in Local participation or \$1,648,084 in additional Federal funding under a new AFA. If approved, this increase would result in a split of \$4,830,668 (66%) Federal and \$2,443,730 (34%) Local participation. HPARD and HPB would remain responsible for any project cost overruns.**

Additionally, because this project was previously let to contract but not completed, HPARD also requests an amendment to the TIP and a revision of the STIP to reflect the new CSJ project number assigned by TxDOT – CSJ 0912-72-619.

We would be happy to discuss this matter further with you and greatly appreciate in advance any assistance your office can provide. Please contact Luci Correa at 832-395-7057 or Luci.Correa@houstontx.gov.

Sincerely,



Kenneth Allen, Director
Houston Parks and Recreation Department

CC: Beth White, Houston Parks Board
Mark Patterson, Texas Department of Transportation



**APTA
AWARD WINNER**

**Mission
Statement**

"Provide safe, clean, reliable, accessible and friendly public transportation services to our region."

**Board of
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Chief
Executive
Officer**

Thomas C.
Lambert



February 23, 2022

Mr. Craig Raborn,
Transportation/MPO Director
Houston-Galveston Area Council
P.O. Box 22777
Houston, Texas 77227-2777

RE: Revised Request for Re-programming of FY 21-22 Regional Vanpool Funding in Support of 30 Electric Transit Vehicles and Recharging Equipment

Dear Mr. Raborn:

Public and private support for vanpooling is an important strategy for expanding access to major workplaces across the eight-county region. The vanpool program is an important tool reducing roadway congestion and vehicle emissions. However, vanpool activity in the region has been in decline in recent years. Further, the onset of the Covid pandemic dramatically reduced vanpool participation. As a result, federal funding committed to this activity in the 2021-24 Transportation Improvement Program (TIP) is significantly above the near-term needs of the vanpool program.

METRO proposes to repurpose vanpool funding commitments for Fiscal Years 2021 and 2022 in the current TIP to reduce the likelihood of losing additional federal funds due to State or Federal actions such as the periodic recession of unobligated federal monies.

The proposed action, if approved, will support the regional goal of reduced on-road vehicle emissions through the purchase of 20 full sized, 40 ft. electric buses and ten smaller multipurpose electric buses (commonly called "cutaways") used in METRO's Community Connector and METROLift programs. The acquisition of these electric vehicles is substantially complete and will allow METRO to seek obligation of the at-risk federal funds this fiscal year.

METRO requests TPC approval to cancel and re-program approximately \$30 million in federal funds for the Vanpool projects listed in Attachment A. These funds, with a TDC commitment of 5,838,600 credits, will allow the purchases of the buses and ancillary re-charging equipment as shown in Attachment B.



In addition to reducing emissions of carbon dioxide and other hydrocarbons, the 20 full sized and 10 smaller sized buses will eliminate in excess of 9.7 tons of Nitrogen Oxides over the expected life of the vehicles as shown in Attachment C.

To ensure these at-risk funds become available for federal obligation this year, METRO requests consideration by the Transportation Advisory Committee and Transportation Policy Council at your earliest convenience. METRO would be pleased to allow the replacement of federal Surface Transportation Block Group Funds with Congestion Mitigation/Air Quality funds if that would further reduce the risk of future loss of federal funding to the region.

Thank you for your assistance. Please contact me or Alan Clark, Chief Strategy Officer, should you have further questions or need additional information.

Sincerely,



Mr. Clint Harbert, AICP
Vice President
Systems and Capital Planning

Cc:

Mr. Thomas Lambert, METRO
Mr. Thomas Jasien, METRO
Mr. Alberto Lyne, METRO
Mr. Alan Clark, METRO
Mr. Andrew Skabowski, METRO
Mr. Edward Petry, METRO
Mr. Patrick Mandapaka, H-GAC
Mr. Adam Beckom, H-GAC
Ms. Catherine McCreight, TxDOT
Ms. Ana Ramirez, TxDOT

ATTACHMENT A. FY '21 AND '21 VANPOOL PROJECTS TO BE CANCELED

Unobligated Vanpool Funding FY 21-22				
December 13, 2021				
MPOID	CSJ NUMBER	FISCAL YEAR	FUND CAT	FEDERAL
11718	0912-00-548	2021	7	\$ 3,000,000
17134	0912-00-562	2021	7	\$ 3,000,000
17140	0912-00-569	2021	7	\$ 3,000,000
11760	0912-00-600	2021	5	\$ 2,400,000
11762	0912-00-601	2021	5	\$ 2,400,000
11808	0912-00-603	2021	7	\$ 3,000,000
18361	0912-00-629	2021	5	\$ 1,250,000
18365	0912-00-638	2021	7	\$ 3,750,000
17141	0912-00-568	2022	5	\$ 1,250,000
11763	0912-00-602	2022	5	\$ 1,200,000
11809	0912-00-604	2022	7	\$ 1,500,000
18362	0912-00-630	2022	5	\$ 1,250,000
18366	0912-00-639	2022	7	\$ 3,750,000
	Totals			\$ 30,750,000

**ATTACHMENT B. REQUESTED AMENDMENT OF MPO ID 15243
REPLACEMENT BUSES**

Original TIP Project

General Project Information		Funding Information (YOE)	
Project Sponsor	METRO	Federal funding cat.	
MPO Project ID	15243 Location: METRO Service Area	Local	\$ 60,335,736
Fiscal Year	2022		
Project Phase		Total Project Cost	\$ 60,335,736
Brief Project Description	Replacement Buses (FY 2022).	Trans. Dev. Credits Requested	none

Revised TIP Project

General Project Information		Funding Information (YOE)	
Project Sponsor	METRO	Federal funding cat.	
MPO Project ID	15243 Location: METRO Service Area	Cat 5 Cat 7	\$ 8,193,000 \$ 21,000,000
Fiscal Year	2022		
Project Phase	N/A	Total Project Cost	\$ 29,193,000
Brief Project Description	Replace 20 40' Heavy Duty Diesel Buses or Diesel/Electric Hybrids with 20 all Electric Buses; Purchase 10 all Electric "Cutaway" Buses; purchase necessary recharging stations.	Trans. Dev. Credits Requested	5,838,600

Note: application for TDC request filed electronically

Attachment C. Documentation of Project Emissions Reductions (Nitrogen Oxides)

Emissions Data Source for Heavy Duty Diesel Buses Replaced

Texas Commission on Environmental Quality (TCEQ) Texas Emissions Reduction Plan (TERP). Emission Reduction Incentive Grants Program Technical Supplement No. 1 On-Road Heavy Duty Vehicles, Revised – May 15, 2018

Baseline NOx Emission Rate (2010+):	0.2	(g/bhp-hr)
Appendix A		
TxLED Correction Factor:	0.943	All
HDD		
Vehicle Class Heavy Duty Diesel Bus Transit (HDDBT)		
Conversion Factor:	4.03	(bhp-hr/mi)
Appendix B		

Calculations

Grams per mile per bus: $0.2 \times 0.943 \times 4.03 =$ 0.760058 g/mi

Average Miles per Year per Bus: 40,000 miles

Grams per Bus per Year: $40,000 \text{ mi/yr} \times 0.760058 \text{ g/mi} =$ 30,402 g/yr

Grams per Pound: 453.59 g/lbs

Pounds per Year: $30,402 \text{ g/yr} / 453.59 \text{ g/lbs} =$ 67.036 lbs/yr per bus

Total Annual Reduction: $67.036 \text{ lbs/yr/bus} \times 20 \text{ Buses} =$ **1,341**

lbs/year

Total Lifetime NOx Reductions: $1,341 \text{ lbs/yr} \times 12 \text{ Years} =$ **16,089 lbs or 8.04 tons**

Emissions Data for Heavy Duty Gasoline Vehicles Replaced

Source: US Bureau of Transportation Statistics. Estimated U.S. Average Vehicle Emissions Rates per Vehicle by Vehicle Type Using Gasoline and Diesel, Table 4-43

NOx Emissions Rate (2021) HDD Gasoline Engine: 0.772 g/mi

Calculations

Grams Reduced per mile per bus: 0.772 g/mi

Average Miles per Year per Bus: 50,000 miles

Grams per Bus per Year: $50,000 \text{ mi/yr} \times 0.772 \text{ g/mi} =$ 38,600 g/yr

Attachment C. Continued

Grams per Pound:	453.59 g/lbs
Pounds per Year: $38,600 \text{ g/yr} / 453.59 \text{ g/lbs} =$	85.10 lbs/yr
per bus	
Total Annual Reduction: $85.1 \text{ lbs/yr/bus} \times 10 \text{ Buses} =$	851 lbs/yr or
0.43 tons/yr	
Total Lifetime NOx Reductions: $851 \text{ lbs/yr} \times 4 \text{ Years} =$	3,404 lbs or
1.7 tons	

Grand Total Emissions Reductions

Annual NOx Reductions: $1,341 \text{ lbs/yr} + 851 \text{ lbs/yr} =$	2,192 lbs/yr
(1.1 tons/yr)	
Lifetime NOx Reductions: $16,089 + 3,404 \text{ lbs} =$	19,493 lbs or
9.74 tons	

H-GAC Transportation Development Credits Application

Contact Information

Name	Phone Number	E-Mail Address
Alan Clark	713-615-6340	alan.clark@ridemetro.org

Project Information

MPOID	Sponsor Name
15243	Metropolitan Transit Authority of Harris County

TIP Project Description

Purchase 20 40ft electric buses and 10 smaller "cutaway" electric buses plus necessary recharging equipment.

Federal Cost	TDC Request
\$29,193,000	5,838,600

Is this project currently in the TIP?	TIP Year
Yes	2022

Priority Use of TDCs

TDC Priority

Support of Federal Transit Funding

Please explain how the use of TDCs will help meet the priority established for this project.

The proposed project will reduce over 9.7 tons in Nitrogen Oxide emissions supporting the regional goal of attaining federal clean air standards.

Maintenance of Local Investment

Roadway, Transit, or Other Project?

Transit Project

Explain and document the effect the TDC's will have on local and non-federal funding support for existing transit services.

Substantial TDCs were previously programmed for the unused FY 21/22 Regional Vanpool funding which this project will replace. the use of TDCs will not reduce METRO's planned expenditure for its implementation of METRO Next projects.

Date Submitted

02/22/2022



U.S. Department
of Transportation
**Federal Transit
Administration**

Federal Transit Administration
Region VI

Arkansas, Louisiana,
New Mexico, Oklahoma,
Texas

819 Taylor St. Suite 14A02
Fort Worth, TX 76102
(817) 978-0550
(817) 978-0575 (fax)

January 31, 2022

Clint Harbert, AICP
Vice President - System and Capital Planning
Metropolitan Transit Authority of Harris County
1900 Main Street, Houston, Texas 77002

Re: Approval of Authority to Incur Costs Prior to Grant Approval – Houston METRO: Purchase of twenty (20) battery electric buses, ten (10) battery electric cutaway buses and related charging equipment.

Dear Mr. Harbert:

The Federal Transit Administration (FTA) has completed its review of the January 26, 2022 letter and supporting documentation from Houston METRO requesting a Letter of No Prejudice (LONP) to allow it to incur costs for the purchase of twenty (20) battery electric heavy-duty buses, ten (10) battery electric cutaway buses, and related charging equipment in Houston, Texas. The LONP request is for an amount not to exceed \$29,193,000. This project is currently listed in the Houston-Galveston Area Council Transportation Improvement Program and the State Transportation Improvement Program. Based on the supporting documentation provided by Houston METRO, FTA has determined that this project qualifies for a Categorical Exclusion under NEPA per 23 CFR 771.118(c).

FTA approves Houston Metro's request. This approval allows Houston METRO to incur costs for the project described above and retains the project's eligibility for future FTA grant assistance. As with any pre-award authority, all Federal requirements must be met prior to incurring costs in order to retain eligibility of the costs for future FTA grant assistance. The authority to incur costs provided in this letter does not constitute a FTA commitment that future Federal dollars will be approved for this project. This LONP expires five years from the date of this approval. Any request to extend this LONP must be received by FTA in advance of its expiration.

Please contact Ronisha Hodge, FTA Region 6 Community Planner at 817-978-0576 or Ronisha.Hodge@dot.gov, with any questions you may have about proceeding under the authority to incur costs provided in this letter.

Sincerely,

Gail Lyssy
Regional Administrator

H-GAC Transportation Development Credits Application

Contact Information

Name	Phone Number	E-Mail Address
Jamila Owens	832-681-2522	jamila.owens@h-gac.com

Project Information

MPOID	Sponsor Name
18851	Metropolitan Transit Authority of Harris County

TIP Project Description

The Regional Transit Connectivity (Fares) Project will continue the work of establishing a seamless fare system and implementing supporting project elements to benefit the Houston-Galveston TMA. This includes a data management system, fare system and mobile ticketing app, and related equipment, also development of a fare policy.

Federal Cost	TDC Request
\$5,000,000	1,000,000
Is this project currently in the TIP?	TIP Year
Yes	2022

Priority Use of TDCs

TDC Priority
Other Regionally Significant Project

Please explain how the use of TDCs will help meet the priority established for this project.

The Regional Transit Connectivity Project will help reduce congestion in the region by increasing ridership on the transit network in the Houston - Galveston TMA. As riders are more easily able to move from one part of the region to another through a regional fare implementation, studies have shown that ridership is likely to increase. This increased ridership leads to reduced Vehicle Miles Traveled and improvements in air quality.

Maintenance of Local Investment

Roadway, Transit, or Other Project?
Other Project

Explain and document how TDCs will advance the regional goals established in the Regional Transportation Plan, i.e. Improve Safety, Move People and Goods efficiently, Achieve/Maintain State of Good Repair, Strengthen regional Economic Competitiveness, and Conserve and Protect Natural and Cultural Resources.

Establishing a regional fare system was a recommendation of the 2017 Regionally Coordinated Transportation Plan that is included in the 2045 Regional Transportation Plan. This project is also included in the 2022 Regionally Coordinated Transportation Plan that will be part of the update of the RTP. Establishing a seamless fare for transit riders across the region will assist with moving people and goods more efficiently by causing less friction for the rider and increasing ridership, making better use of our existing transportation networks. Both a slight reduction in bus idling and an increase in ridership should also help conserve and protect natural and cultural resources by improving air quality.

Date Submitted

03/08/2022