

STAFF REPORT

SUBJECT: Resolution in Support of Allocation Request for Regional Measure 2 Funding for the Transit Signal Priority Upgrade and Expansion Project

FROM: Jennifer Yeamans, Senior Grants & Management Specialist

DATE: March 26, 2024

Action Requested

Staff requests the Finance & Administration Committee recommend the Board of Directors approve Resolution 10-2024 in support of an allocation request to the Metropolitan Transportation Commission (MTC) for \$388,000 in Regional Measure 2 (RM2) funds for the design phase of LAVTA’s Transit Signal Priority Upgrade and Expansion Project. This resolution is required to request an allocation of this funding from MTC.

Background

Regional Measure 2 (RM2) funds various traffic relief programs and projects in eligible Bay Area bridge corridors from a portion of bridge tolls collected. RM2 legislation identified the Alameda County Transportation Commission (ACTC) as the project sponsor of \$65 million in anticipated revenues to be allocated for RM2 Project 32, *I-580 (Tri-Valley) Rapid Transit Corridor Improvements in Alameda County*. In late 2020, MTC notified LAVTA staff that a balance remained on the Project available for allocation to eligible transit-related projects in the corridor and requested proposal(s) from LAVTA that could utilize the funds. ACTC expressed willingness to delegate their responsibility as project sponsors to LAVTA as implementing agency for such projects in order to spend down the available RM2 funds.

In September 2021, LAVTA’s Board approved Resolution 26-2021 in support of an allocation request to MTC for \$150,000 in RM2 funds for the design phase of the Shared Autonomous Vehicle (SAV) Phase 2 Deployment Project. At the time, the SAV Project was one of LAVTA’s priority initiatives following a successful Phase 1 testing deployment which launched in 2018 and concluded in late 2020. Funds for design-engineering were requested in anticipation of a subsequent allocation for the construction phase of \$2.545 million (including vehicle acquisitions and construction of a mobility hub near Dublin’s Zeiss Innovation Center and Ross headquarters), for a total RM2-eligible funding plan for the SAV project of \$2.695 million. In October 2021 and with concurrence from ACTC, MTC allocated the initial design-phase funding for the SAV Phase 2 Deployment project, with conditions that future construction-phase allocations would be subject to LAVTA securing additional funding needed to fully support the project’s capital needs, as well as an identified source of funding to operate the Project.

LAVTA staff subsequently worked with project partners to implement Phase 2 of the project, however various feasibility issues emerged that were not previously anticipated, including the delay of market-ready technology available to meet the route's performance specifications, as well as a lack of operating funding that was exacerbated by the persistence of remote work post-pandemic. With a lack of progress in terms of market favorability for the project, in November 2023 the Projects & Services Committee directed staff to close out the SAV project and seek an alternative project that would be eligible to receive RM2 funds and could be implemented in a timely fashion, contingent on concurrence of corresponding funding agencies. No RM2 funds previously allocated for the SAV project were expended by LAVTA.

Discussion

LAVTA staff has identified a need to upgrade the existing Transit Signal Priority (TSP) system utilized by 24 Rapid-branded buses at 67 intersections on Routes 10R and 30R. The current system using GPS technology was procured in 2019 and will no longer be supported by the manufacturer after the initial five-year contract term is complete. TSP functionality helps LAVTA meet On-Time Performance (OTP) goals on our highest-ridership routes by allowing Rapid buses to request a longer green phase when the bus is approaching an intersection more than 3 minutes behind schedule, enabling buses to get back on schedule as quickly as possible. If the bus is not behind schedule, no TSP request is made. This "low-priority" TSP functionality is distinct from the high-priority Emergency Vehicle Preemption (EVP) system that bypasses normal traffic signal operations to prioritize movement of emergency vehicles through intersections.

TSP is increasingly used in local jurisdictions to enhance operating efficiency of transit vehicles operating in mixed traffic, with numerous existing examples in operation around the Bay Area and nationwide. LAVTA currently has a high OTP over 85% as of January 2024, but with congestion increasing amid post-pandemic and economic recovery, it will be essential to keep the TSP system in optimal working order throughout the service area in order to maintain efficient and reliable travel times for riders using the system now and in the future. LAVTA staff therefore recommends upgrading the obsolescent GPS-based TSP system to a cloud-based system to improve performance and reliability, and expanding the TSP functionality to encompass the entire fleet, in order to maximize the benefits of TSP for riders regardless of vehicle subfleet assignments ("Rapid" vs. "Wheels"-branded buses) on Rapid routes.

To request RM2 funding, project sponsors must submit a governing-board certification of compliance with RM2 provisions ([Attachment 1](#)). Because the RM2 legislation identifies ACTC as the project sponsor, ACTC must also submit a resolution of local support for the project following LAVTA's Board approval, and LAVTA would again request ACTC designate LAVTA as the project's Implementing Agency, delegating responsibility to LAVTA for compliance with all RM2 Policies and Procedures.

RM2 Policies and Procedures require each allocation fund a minimum usable segment and/or deliverable. Thus MTC's initial allocation will fund \$388,000 budgeted for the project's design phase only, which will include professional engineering services provided by LAVTA's on-call engineering consultant, Kimley-Horn and Associates, for the planning, design, and installation oversight and coordination of a new Cloud-Based TSP system to

replace the existing GPS-Based system. Kimley-Horn’s proposed services will consist of project management, vendor coordination, design of field equipment installations, coordination with the local cities, and overall oversight of the installation, testing and commissioning of the new Cloud-Based TSP system as a turnkey solution for LAVTA.

Pending acceptance of 100% plans, specifications, and estimates for the project, MTC may consider allocating an additional \$2.307 million for the construction phase as described in the Initial Project Report (IPR), shown in Attachment 2. A map of current TSP locations to be upgraded is shown in Attachment 3. Of the 67 intersections now equipped with GPS-based TSP, there are 26 in Dublin, 8 in Pleasanton, and 33 in Livermore.

Budget

The project budget is funded 100% by RM2 funds in the design phase and by a combination of RM2 and TDA funds in the construction phase, as shown below (all amounts shown in thousands of dollars). LAVTA staff will seek out other outside grant funding to support the construction phase if available, in lieu of using TDA funds to complete the project.

Phase	RM2	TDA	Total
Design (<i>current allocation</i>)	\$388	--	\$388
Construction (<i>future allocation</i>)	\$2,307	\$95	\$2,402
Total	\$2,695	\$95	\$2,790

Next Steps

Following MTC approval of the RM2 allocation later this spring, LAVTA staff will request Board approval to execute a Task Order with its on-call design-engineering firm, Kimley-Horn, to complete the necessary design-engineering work, and begin seeking additional grant funding to support the project’s construction phase in lieu of using TDA funds.

Recommendation

Staff recommends Finance & Administration Committee refer Resolution 10-2024 to the Board of Directors for approval in support of an allocation request to the Metropolitan Transportation Commission for \$388,000 in RM2 funding for the design phase of the Transit Signal Priority Upgrade & Expansion Project.

Attachments:

1. Resolution 10-2024
2. Initial Project Report: LAVTA Transit Signal Upgrade & Expansion Project
3. IPR Attachment A: Intersections currently equipped with GPS-based TSP

RESOLUTION NO. 10-2024

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE LIVERMORE AMADOR VALLEY TRANSIT AUTHORITY
AS IMPLEMENTING AGENCY FOR REGIONAL MEASURE 2 FUNDING FOR THE
TRANSIT SIGNAL PRIORITY UPGRADE AND EXPANSION PROJECT**

WHEREAS, SB 916 (Chapter 715, Statutes 2004), commonly referred as Regional Measure 2, identified projects eligible to receive funding under the Regional Traffic Relief Plan; and

WHEREAS, the Metropolitan Transportation Commission (MTC) is responsible for funding projects eligible for Regional Measure 2 funds, pursuant to Streets and Highways Code Section 30914(c) and (d); and

WHEREAS, MTC has established a process whereby eligible transportation project sponsors may submit allocation requests for Regional Measure 2 funding; and

WHEREAS, allocations to MTC must be submitted consistent with procedures and conditions as outlined in Regional Measure 2 Policy and Procedures; and

WHEREAS, Streets and Highways Code Section 30914(c) and (d) identifies the Alameda County Transportation Commission as Project Sponsor for RM2 Project 32, I-580 (Tri-Valley) Rapid Transit Corridor Improvements in Alameda County; and

WHEREAS, in September 2021 the Alameda County Transportation Commission approved Resolution 21-014 designating the Livermore Amador Valley Transit Authority (LAVTA) as implementing agency for the design and construction of the Shared Autonomous Vehicle Phase 2 Deployment Project, an eligible project under RM2 Project 32, I-580 (Tri-Valley) Rapid Transit Corridor Improvements; and

WHEREAS, LAVTA is an eligible implementing agency for transportation project(s) in Regional Measure 2, Regional Traffic Relief Plan funds; and

WHEREAS, in October 2021 MTC approved MTC Resolution 3664, Revised, allocating one hundred fifty thousand dollars (\$150,000) in RM2 funds to LAVTA for design-engineering for the Shared Autonomous Vehicle Phase 2 Deployment project as an eligible project under RM2 Project 32, I-580 (Tri-Valley) Rapid Transit Corridor Improvements; and

WHEREAS, despite LAVTA's sustained efforts to implement the SAV Phase 2 Deployment project as originally planned, LAVTA was unable to procure equipment and vehicles meeting the specifications necessary to complete the project's construction phase in a timely fashion due to lack of market availability and therefore terminated the Project; and

WHEREAS, LAVTA did not expend any RM2 funds allocated for the SAV Phase 2 Deployment Project and therefore desires to request an allocation of RM2 funds for a different eligible Project; and

WHEREAS, LAVTA has identified the Transit Signal Priority Upgrade and Expansion Project as an eligible project meeting all the requirements of RM2 Project 32, I-580 (Tri-Valley) Rapid Transit Corridor Improvements and which is ready to be implemented; and

WHEREAS, the Alameda County Transportation Commission intends to designate the Livermore Amador Valley Transit Authority (LAVTA) as implementing agency for the design and construction of the Transit Signal Priority Project Upgrade and Expansion Project, an eligible project under RM2 Project 32, I-580 (Tri-Valley) Rapid Transit Corridor Improvements; and

WHEREAS, the Transit Signal Priority Upgrade and Expansion Project is eligible for consideration in the Regional Traffic Relief Plan of Regional Measure 2, as identified in California Streets and Highways Code Section 30914(c) or (d); and

WHEREAS, the Regional Measure 2 allocation request, attached hereto in the Initial Project Report and incorporated herein as though set forth at length, lists the project, purpose, schedule, budget, expenditure and cash flow plan for which LAVTA is requesting that MTC allocate Regional Measure 2 funds; now, therefore, be it

RESOLVED, that LAVTA, and its agents shall comply with the provisions of the Metropolitan Transportation Commission's Regional Measure 2 Policy Guidance (MTC Resolution No. 3636); and be it further

RESOLVED, that LAVTA certifies that the project is consistent with the Regional Transportation Plan (RTP); and be it further

RESOLVED, that the year of funding for any design, right-of-way and/or construction phases has taken into consideration the time necessary to obtain environmental clearance and permitting approval for the project; and be it further

RESOLVED, that the Regional Measure 2 phase or segment is fully funded, and results in an operable and useable segment; and be it further

RESOLVED, that LAVTA approves the updated Initial Project Report, attached to this resolution; and be it further

RESOLVED, that LAVTA approves the cash flow plan, attached to this resolution; and be it further

RESOLVED, that LAVTA has reviewed the project needs and has adequate staffing resources to deliver and complete the project within the schedule set forth in the updated Initial Project Report, attached to this resolution; and, be it further

RESOLVED, that LAVTA is an eligible sponsor of projects in the Regional Measure 2 Regional Traffic Relief Plan, Capital Program, in accordance with California Streets and Highways Code 30914(c); and be it further

RESOLVED, that LAVTA is authorized to submit an application for Regional Measure 2 funds for the Transit Signal Priority Upgrade and Expansion Project in accordance with California Streets and Highways Code 30914(c); and be it further

RESOLVED, that LAVTA certifies that the projects and purposes for which RM2 funds are being requested is in compliance with the requirements of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), and with the State Environmental Impact Report Guidelines (14 California Code of Regulations Section 15000 et seq.) and if relevant the National Environmental Policy Act (NEPA), 42 USC Section 4-1 et. seq. and the applicable regulations thereunder; and be it further

RESOLVED, that there is no legal impediment to LAVTA making allocation requests for Regional Measure 2 funds; and be it further

RESOLVED, that there is no pending or threatened litigation which might in any way adversely affect the proposed project, or the ability of LAVTA to deliver such project; and be it further

RESOLVED, that LAVTA agrees to comply with the requirements of MTC's Transit Coordination Implementation Plan as set forth in MTC Resolution 3866; and be it further

RESOLVED, that LAVTA indemnifies and holds harmless MTC, its Commissioners, representatives, agents, and employees from and against all claims, injury, suits, demands, liability, losses, damages, and expenses, whether direct or indirect (including any and all costs and expenses in connection therewith), incurred by reason of any act or failure to act of LAVTA, its officers, employees or agents, or subcontractors or any of them in connection with its performance of services under this allocation of RM2 funds. In addition to any other remedy authorized by law, so much of the funding due under this allocation of RM2 funds as shall reasonably be considered necessary by MTC may be retained until disposition has been made of any claim for damages, and be it further

RESOLVED, that LAVTA shall, if any revenues or profits from any non-governmental use of property (or project) that those revenues or profits shall be used exclusively for the public transportation services for which the project was initially approved, either for capital improvements or maintenance and operational costs, otherwise the Metropolitan Transportation Commission is entitled to a proportionate share equal to MTC's percentage participation in the projects(s); and be it further

RESOLVED, that assets purchased with RM2 funds including facilities and equipment shall be used for the public transportation uses intended, and should said facilities and equipment cease to be operated or maintained for their intended public transportation purposes for its useful

life, that the Metropolitan Transportation Commission (MTC) shall be entitled to a present day value refund or credit (at MTC's option) based on MTC's share of the Fair Market Value of the said facilities and equipment at the time the public transportation uses ceased, which shall be paid back to MTC in the same proportion that Regional Measure 2 funds were originally used; and be it further

RESOLVED, that LAVTA shall post on both ends of the construction site(s) at least two signs visible to the public stating that the Project is funded with Regional Measure 2 Toll Revenues; and be it further

RESOLVED, that LAVTA authorizes its Executive Director or his/her designee to execute and submit an allocation request for the design phase with MTC for Regional Measure 2 funds in the amount of three hundred eighty-eight thousand dollars (\$388,000), for the project, purposes and amounts included in the project application attached to this resolution; and be it further

RESOLVED, that the Executive Director or his/her designee is hereby delegated the authority to make non-substantive changes or minor amendments to the IPR as he/she deems appropriate; and be it further

RESOLVED, that a copy of this resolution shall be transmitted to MTC in conjunction with the filing of the LAVTA application referenced herein; and be it further

RESOLVED, that allocation of Regional Measure 2 funding for the Transit Signal Priority Upgrade & Expansion Project is contingent upon action by the Alameda County Transportation Commission designating LAVTA as implementing agency for the Project and the Metropolitan Transportation Commission's approval of this designation with the allocation request.

PASSED AND ADOPTED BY the governing board of the Livermore Amador Valley Transit Authority on this 1st day of April 2024.

Melissa Hernandez, Chair

Attest:

Christy Wegener, Executive Director

Regional Measure 2 – INITIAL PROJECT REPORT

Regional Measure 2 Initial Project Report (IPR)

Project Title:

LAVTA Transit Signal Priority Upgrade and Expansion

RM2 Project No.32.5
(deallocation and reprogramming of SAV Phase 2 Project)**Allocation History:**

	MTC Approval Date	Amount	Phase
#1:			
#2			
#3			

Total: \$**Current Allocation Request:**

IPR Date	Amount Being Requested	Phase Requested
4/2/2024	\$388,000	PSE

Regional Measure 2 – INITIAL PROJECT REPORT**I. OVERALL PROJECT INFORMATION****A. Project Sponsor / Co-sponsor(s) / Implementing Agency**

Alameda County Transportation Commission / Livermore Amador Valley Transit Authority

B. Project Purpose

LAVTA will alleviate congestion in the I-580 Corridor by upgrading the obsolete and unsupported GPS-based Transit Signal Priority (TSP) technology on its two Rapid routes (30R between West Dublin/Pleasanton BART and Lawrence Livermore/Sandia National Laboratories, and 10R between East Dublin/Pleasanton BART and the Livermore Transit Center/ACE Station) to a modern, cloud-based system, and expanding TSP functionality from 20 buses currently to the entire fleet of 68 buses.

C. Project Description (Attach graphics to your submittal as appropriate)

LAVTA will replace its existing GPS-Based Transit Signal Priority (TSP) system encompassing 67 intersections located within its service area in Dublin (26 intersections), Pleasanton (8 intersections), and Livermore (33 intersections) to a Cloud-Based TSP system. LAVTA will also expand deployment of the vehicle-side TSP equipment from the current TSP-enabled subfleet of 20 buses to encompass LAVTA's entire fleet of 68 buses in order to optimize flexibility of vehicle assignments to TSP-equipped routes and maximize benefits of travel time reduction, congestion relief, and improved on-time performance in the I-580 corridor. A map of Tri Valley intersections in the I-580 corridor currently equipped with GPS-based TSP is included as **Attachment A**.

D. Impediments to Project Completion

Funding currently programmed and allocated for Project 32.5 will need to be deprogrammed and deallocated in order to be made available for programming and allocation of funds for this project.

E. Operability

Once construction is complete, the system is expected to remain in continuous use over the life of the master service agreement for a minimum of 10 years. LAVTA will be responsible for O&M in accordance with existing encroachment/maintenance agreements with the cities of Dublin, Pleasanton, and Livermore.

Regional Measure 2 – INITIAL PROJECT REPORT

II. PROJECT PHASE DESCRIPTION and STATUS

F. Environmental –

Does NEPA Apply: Yes No

N/A – project is statutorily exempt from CEQA (PRC 21080.25) The proposed project meets the definition of a transit prioritization project as defined in PRC Section 21080.25 (a)(11)(B) for the installation of wayside technology and onboard technology for transit prioritization projects in the public right-of-way. NEPA does not apply.

G. Design –

LAVTA has solicited a proposal for design-engineering services for the project from its on-call engineering consultant, Kimley-Horn and Associates, who also supported the deployment of the initial infrared-based TSP system launched in 2010, as well as the GPS-based successor system. The proposed work to be performed is described in Attachment B.

H. Right-of-Way Activities / Acquisition –

Any ROW issues are to be addressed and specified during PS&E phase in consultation with the jurisdiction – see attached proposed Scope of Work from Kimley-Horn for details. All work is expected to be within existing City/public ROW and no new ROW will need to be acquired as part of this project.

I. Construction / Vehicle Acquisition -

The construction phase will include acquisition and installation of both vehicle-based and intersection-based TSP equipment and software licensing fees for up to 10 years of cloud-based software operation.

Regional Measure 2 – INITIAL PROJECT REPORT**III. PROJECT BUDGET****J. Project Budget (Escalated to year of expenditure)**

Phase	Total Amount - Escalated - (Thousands)
Environmental Studies & Preliminary Eng (ENV / PE / PA&ED)	\$ --
Design - Plans, Specifications and Estimates (PS&E)	\$388
Right-of-Way Activities /Acquisition (R/W)	\$ --
Construction / Rolling Stock Acquisition (CON)	\$2,402
Total Project Budget (in thousands)	\$2,790

L. Project Budget – Deliverable Segment (Escalated to year of expenditure)

Phase	Total Amount - Escalated - (Thousands)
Environmental Studies & Preliminary Eng (ENV / PE / PA&ED)	
Design - Plans, Specifications and Estimates (PS&E)	\$388
Right-of-Way Activities /Acquisition (R/W)	
Construction / Rolling Stock Acquisition (CON)	
Total Project Budget (in thousands)	\$388

IV. OVERALL PROJECT SCHEDULE

Phase-Milestone	Planned (Update as needed)	
	Start Date	Completion Date
Environmental Document	N/A	N/A
Environmental Studies, Preliminary Eng. (ENV / PE / PA&ED)	N/A	N/A
Final Design - Plans, Specs. & Estimates (PS&E)	7/1/24	3/31/25
Right-of-Way Activities /Acquisition (R/W)	N/A	N/A
Construction (Begin – Open for Use) / Acquisition / Operating Service (CON)	7/1/25	3/31/26

Regional Measure 2 – INITIAL PROJECT REPORT

V. ALLOCATION REQUEST INFORMATION

N. Detailed Description of Allocation Request

Describe the scope of the allocation request. Provide background and other details as necessary.

This allocation request will provide for professional engineering, project management and implementation oversight and coordination services to assist LAVTA in the design and delivery of a new Cloud-Based TSP system. This new TSP system includes the field equipment elements, field modifications at traffic signals, equipment installation on LAVTA buses, new central management systems and traffic operating parameters necessary for the new TSP system to operate at the signalized intersections.

Funds for equipment acquisition and construction phase will be requested upon completion of the PS&E phase.

Amount being requested (in escalated dollars)	\$388,000
Project Phase being requested	PS&E
Are there other fund sources involved in this phase?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of anticipated Implementing Agency Board approval the RM2 IPR Resolution for the allocation being requested	4/1/2024
Month/year being requested for MTC Commission approval of allocation	May 2024

O. Status of Previous Allocations (if any)

\$150,000 in RM2 funds for PS&E was allocated by MTC in October 2021 for work on LAVTA's Shared Autonomous Vehicle Phase 2 Deployment project (RM2 project #32.5). Despite LAVTA's ongoing efforts alongside the City of Dublin to implement the project in the face of challenges related to pandemic-impacted demand and technology readiness, in November 2023, LAVTA's Projects & Services Committee directed staff to discontinue the SAV project and seek reprogramming of existing funds dedicated to the project to another eligible project. The SAV project was then discontinued due to a lack of availability of vehicles meeting specifications for operations on arterial roadways (speed minimums) and lack of operating funding given the new post-pandemic use case relative to previous project plans assuming workers were commuting to and from East Dublin/Pleasanton BART five days per week. LAVTA in consultation with ACTC staff and pending approval of Alameda CTC is now requesting deallocation of the \$150,000 in funds previously allocated to Project 32.5 and reallocation to a different project scope consistent with RM2 funding principles.

Q. Impediments to Allocation Implementation

None. LAVTA's existing but obsolete TSP system is already operational at 67 intersections in all 3 cities. LAVTA's on-call engineering consultant is available and capable of completing the design-engineering

Regional Measure 2 – INITIAL PROJECT REPORT

work. LAVTA has received quotes from prospective vendors who can furnish the necessary equipment and software in the construction phase.

VI. RM-2 FUNDING INFORMATION**R. RM-2 Funding Expenditures for funds being allocated**

The companion Microsoft Excel Project Funding Spreadsheet to this IPR is included

S. Next Anticipated RM2 Allocation Request, if any

April 2025 (CON)

VII. GOVERNING BOARD ACTION

Check the box that applies:

Governing Board Resolution attached

Governing Board Resolution to be provided on or before: May 7, 2024

VIII. CONTACT / PREPARATION INFORMATION**Contact for Applicant's Agency**

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Information on Person Preparing IPR

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Title: Senior Grants & Management Specialist

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Address: 1362 Rutan Court, Suite 100, Livermore, CA 94551

Applicant Agency's Accounting Contact

Name: Tamara Edwards

Phone: (925) 455-7566

Title: Director of Finance

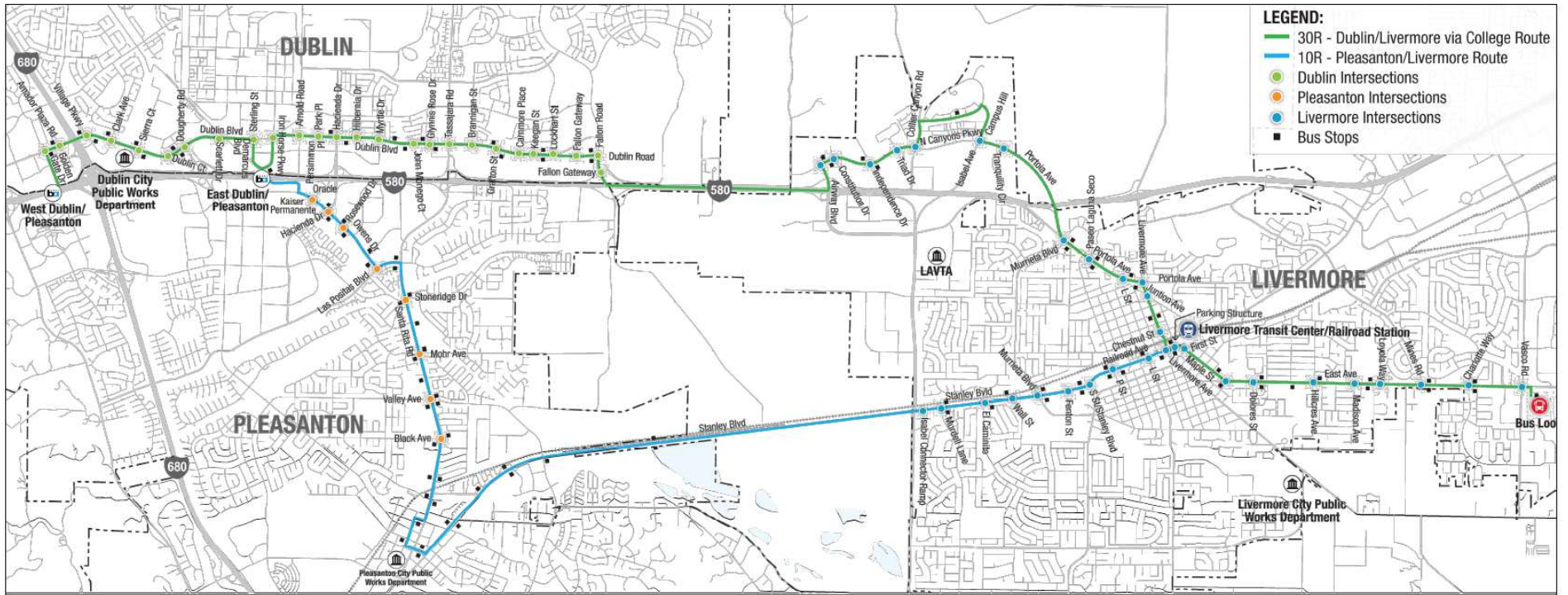
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LAVTA TSP Upgrade and Expansion Project Locations

May 2019



*Locations for reference only;
map not to scale*