



Transportation Department

Measure R Mobility Improvement Project (MIP) List – In lieu of California Boulevard Grade Separation

City Council

September 19, 2022

Item 18





Recommendation

Transportation Department

- **It is recommended that City Council**
 1. Find that this proposed action is exempt from review pursuant to the California Environmental Quality Act (CEQA), pursuant to State CEQA Guidelines Section 15061 (b) (3); and
 2. Authorize the Mayor to submit a project list to Metro on behalf of the City of Pasadena requesting Measure R Mobility Improvement Project (MIP) funding for projects within the City of Pasadena in lieu of the Metro L Line Grade Separation at California Boulevard



Municipal Services Committee

Transportation Department

- On September 13, 2022, the Municipal Services Committee unanimously approved a motion to accept the staff recommendation
- Municipal Services Committee also directed staff to
 - > Develop a work plan and identify potential funding sources for an Arroyo Link Feasibility Study
 - > Develop a work plan to identify walkability enhancements and identify potential funding sources for the Metro L Line at-grade crossings of California Blvd, Del Mar Blvd as well as the Metro L Line Fillmore Station and Del Mar Station
 - > DOT will present the work plans and funding options as part of the annual Capital Improvement Program development for FY 2024



Transportation Advisory Commission

Transportation Department

- On August 25, 2022, the Transportation Advisory Commission (TAC) recommended that the City Council approve the attached Measure R Mobility Improvement Project (MIP) list, for potential projects in lieu of the Metro L Line Grade Separation at California Boulevard.



Background

Transportation Department

- **Measure R MIP Funding**
 - > **January 29, 2018** – City Council Approved the Measure R MIP list
 - > **November 2018 and September 2019** – Metro awarded \$230 M Funding for grade separation of California Blvd
- **The Metro L Line Grade Separation at California Boulevard Project**
 - > **October 25, 2021** – City Council action to identify projects in lieu of the grade separation
- **The Caltrans Relinquishment of the SR-710 Northern Stub to the City of Pasadena**



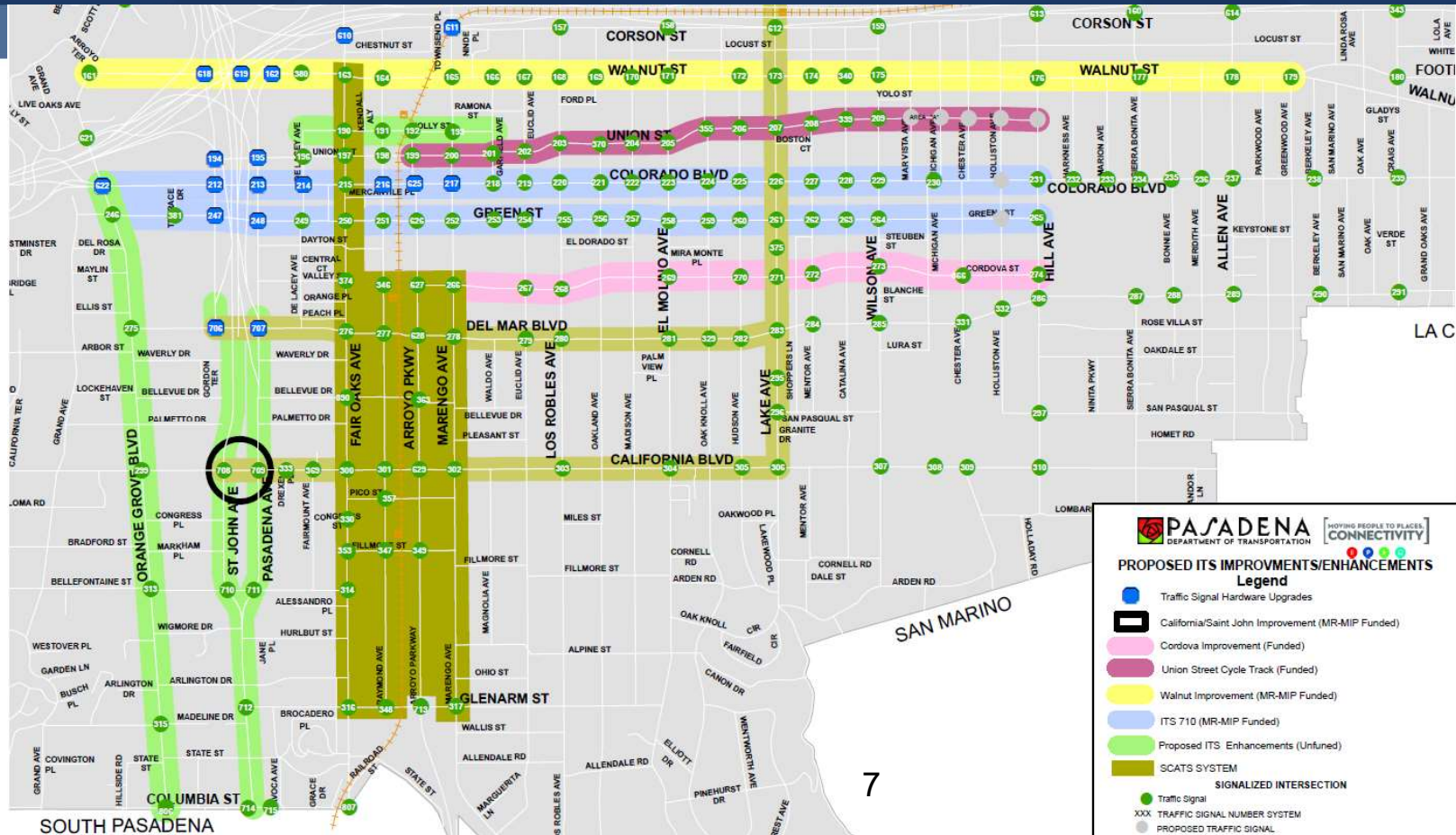
Ongoing Enhancements to California Blvd

Transportation Department

- Advanced train preemption traffic signal control system
- Grid adaptive traffic control system (TCS)
- Upgrading video detection system along corridor
- Expanding the Adaptive TCS east to Lake Ave
- Surrounding Signal Network Improvements
 - > Adaptive TCS on Del Mar Blvd to Lake Ave
 - > Traffic Signal and Intelligent Transportation System Upgrades
 - Walnut St, Colorado Blvd, Green St, Union St, Hill Ave, Cordova St



Ongoing Traffic Signal Enhancements



SOUTH PASADENA



Updated Measure R MIP List

Transportation Department

- **Builds on the City Council approved Early Action Projects list**
 - > Addresses north-south travel demands
 - > Projects updated based on current conditions
- **New set of multimodal projects developed**
 - > Consistent with the initial approved list
 - > Consistent with City's Street Design Guide
 - > Addresses transit infrastructure, bicycle and pedestrian improvements
- **SR 710 Northern Stub Near Term Projects**



Measure R MIP Funding Guidelines

Transportation Department

- Accommodate regional and local north south travel
- Multimodal improvements
 - > Pedestrian
 - > Bicycle
 - > Transit
- Capital infrastructure projects
- Multimodal capacity enhancements
- Connectivity to the regional network



Project Identification

Transportation Department

- **Site Visits**
- **Technical Analysis**
 - > Site Conditions
 - > Transit Analysis
- **Project Prioritization**
 - > Safety
 - > Multimodal connectivity
 - > Project need
 - > Proximity to SR710 Corridor/Regional Connectivity
 - > Project Readiness/Implementation Timeline



Measure R MIP - Updated List

Project	Preliminary Cost Estimate (2022)
Multi Modal Mobility Improvements	
Pasadena Ave and St John Ave Roadway Network (Walnut St to Columbia St)	\$75.1M
Columbia St (from Orange Grove Blvd to Fair Oaks Ave)	\$9.9M
Orange Grove Mobility Improvement Program	\$5.4M
San Rafael Ave (between Linda Vista Ave and Colorado Blvd)	\$4.8M
Avenue 64 Complete Street Program	\$1.5M
Continental Crosswalks	\$6.8M
Traffic Signals and Intelligent Transportation System Projects	
Orange Grove Blvd at Colorado Blvd and Orange Grove Blvd at Holly St	\$4.5M
Metro L Line At-Grade Crossing Enhancements	\$2.5M
Holly St, from Fair Oaks Ave to Marengo Ave	\$1.4M
Pedestrian and Bicyclist Automated Data Collection	\$2.5M
High-Resolution Traffic Signal Data	\$12.5M
I-210 Connected Corridors Expansion	\$5M



Measure R MIP - Updated List

Transportation Department

Project	Preliminary Cost Estimate (2022)
Pasadena Transit System Expansion for the SR 710 Corridor	
Transit Operations and Maintenance Facility	\$62.4M
Zero Emission Buses (11) and Charging Infrastructure	\$12M
Bus Stop Enhancements	\$3.6M
Bicycle Transportation Action Plan Projects	
Greenways (Bike Boulevards)	\$12M
Arroyo Link	\$45M-\$65M
SR 710/SR 134/I-210 Ramp Modifications	\$150M +
Mobility Hubs	\$24M



Project Prioritization

Transportation Department

- **Safety**
 - > 8-10 points: Project components address safety through implementation of physical infrastructure with a crash reduction potential or reduction in crash severity
 - > 4-7 points: Project components provide safety benefit as an indirect benefit, such as the ability to utilize data to modify operations to enhance safety
 - > 0-3 points: Project has little to no direct safety benefits
- **Connectivity**
 - > 8-10 points: Project components provide multimodal connectivity where currently missing
 - > 4-7 points: Project components provide greater efficiency to existing connectivity
 - > 0-3 points: Project provides little or no connectivity benefits
- **Project Need**
 - > 8-10 points: Project directly addresses a documented need as identified through an existing plan or program
 - > 4-7 points: Project indirectly addresses a documented need as identified through an existing plan or program
 - > 0-3 points: Project has little or no benefits towards addressing needs
- **Proximity to SR 710 Corridor**
 - > 8-10 points: Project is directly on the SR 710 corridor or provides a direct connection to a Metro L Line station.
 - > 4-7 points: Project is adjacent to the SR710 corridor or feeds into a network that provides a connection to the Metro L Line stations
 - > 0-3 points: Project is not adjacent to the SR 710 corridor, nor does it have any connection to the Metro L Line stations.
- **Project Readiness/Implementation Timeline**
 - > 8-10 points: Project is ready for construction or final design can be completed in a short time frame, due to project size.
 - > 4-7 points: Project is in the conceptual design stage and public outreach has been initiated. Additional outreach and design is required for development of final design. Final design may take longer due to size of the project.
 - > 0-3 points: Project concepts require a significant amount of additional outreach or other factors may affect final design and construction.



Prioritization Matrix

Transportation Department

Project	Safety	Connectivity	Project Need	Proximity to 710 Corridor	Project Readiness/ Implementation Timeline	Total	RANK
Multi Modal Mobility Improvements							
Pasadena Avenue and St John Avenue (Walnut Street to Columbia St)	10	10	10	10	7	47	1
Columbia St (from Orange Grove Boulevard to Fair Oaks Avenue)	9	8	8	10	9	44	4
Orange Grove Mobility Improvement Program	8	7	8	9	9	41	9
San Rafael Avenue (between Linda Vista Avenue and Colorado Boulevard)	8	9	8	9	8	42	6
Avenue 64 Complete Street Program	9	8	9	9	10	45	2
Continental Crosswalk Implementaiton	10	7	8	8	9	42	8
Traffic Signals and Intelligent Transportation System Projects							
Orange Grove Boulevard at Colorado Boulevard and at Holly St	9	9	8	9	8	43	5
Metro L Line At-Grade Crossing Enhancements	8	7	9	9	9	42	7
Holly Street, from Fair Oaks Avenue to Marengo Avenue	6	8	7	8	7	36	15
Pedestrian and Bicyclist Automated Data Collection	6	6	7	9	9	37	14
High-Resolution Traffic Signal Data	6	7	7	8	8	36	16
I-210 Connected Corridors Expansion	7	7	5	6	5	30	18
Pasadena Transit System Expansion for the SR 710 Corridor							
Transit Operations and Maintenance Facility	5	10	10	9	10	44	3
Zero Emission Buses (11) and Charging Infrastructure	5	8	10	9	7	39	12
Bus Stop Enhancements	7	7	8	8	8	38	13
Bicycle Transportation Action Plan Projects							
Greenways (Bike Boulevards)	9	8	8	7	9	41	10
Arroyo Link	8	9	8	8	3	36	17
SR 710/SR134/I-210 Ramp Modifications							
	9	9	9	10	3	40	11
Mobility Hubs							
	6	9	7	8	5	35	19



Project Ranking

Transportation Department

PROJECT	SCORE	RANK
Pasadena Avenue and St John Avenue (Walnut Street to Columbia St)	47	1
Avenue 64 Complete Street Program	45	2
Transit Operations and Maintenance Facility	44	3
Columbia St (from Orange Grove Boulevard to Fair Oaks Avenue)	44	4
Orange Grove Boulevard at Colorado Boulevard and at Holly St	43	5
San Rafael Avenue (between Linda Vista Avenue and Colorado Boulevard)	42	6
Metro L Line At-Grade Crossing Enhancements	42	7
Continental Crosswalk Implementation	42	8
Orange Grove Mobility Improvement Program	41	9
Greenways (Bike Boulevards)	41	10
SR 710/SR134/I-210 Ramp Modifications	40	11
Zero Emission Buses (11) and Charging Infrastructure	39	12
Bus Stop Enhancements	38	13
Pedestrian and Bicyclist Automated Data Collection	37	14
Holly Street, from Fair Oaks Avenue to Marengo Avenue	36	15
High-Resolution Traffic Signal Data	36	16
Arroyo Link	36	17
Mobility Hubs	35	18
I-210 Connected Corridors Expansion	30	19



Project Priority

Transportation Department

- Pasadena Ave and St John Ave Roadway Network(Walnut St - Columbia St):\$75.1M
- Ave 64 Complete Street Program: \$1.5 M
- Transit Operations and Maintenance Facility: \$62.4 M
- Columbia St (from Orange Grove Blvd to Fair Oaks Ave): \$9.9 M
- Orange Grove Blvd at Colorado Blvd and Orange Grove Blvd at Holly St: \$4.5 M
- San Rafael Ave (between Linda Vista Ave and Colorado Blvd): \$4.8 M
- Metro L Line At-Grade Crossing Enhancements: \$2.5M
- Continental Crosswalks: \$6.8 M
- Orange Grove Mobility Improvement Program: \$5.4 M
- Greenways (Bike Boulevards): \$12.0 M
- SR 710/SR 134/I-210 Ramp Modifications: \$150+ M



Community Engagement – Targeted Outreach

Transportation Department

Stakeholder	Meeting Date	Meeting Type
Arlington Garden	5-23-22	In – person
Sequoyah School	5-24-22	Virtual
The Waverly School	5-25-22	Virtual
710 Ad Hoc Committee	5-26-22	Virtual
Westridge Schools	5-27-22	Virtual
Maranatha High School	6-1-22	Virtual
West Pasadena Residents Association (WPRA)	6-1-22	Virtual
Huntington Hospital	6-2-22	Virtual
Community Open House	8-9-22	In – person
Follow up Resident Briefing	9-2-22	Virtual

- Key themes identified
 - > Traffic safety
 - > Access/Connectivity
 - > Biking and walking
 - > Transit Connectivity
 - > Streetscape



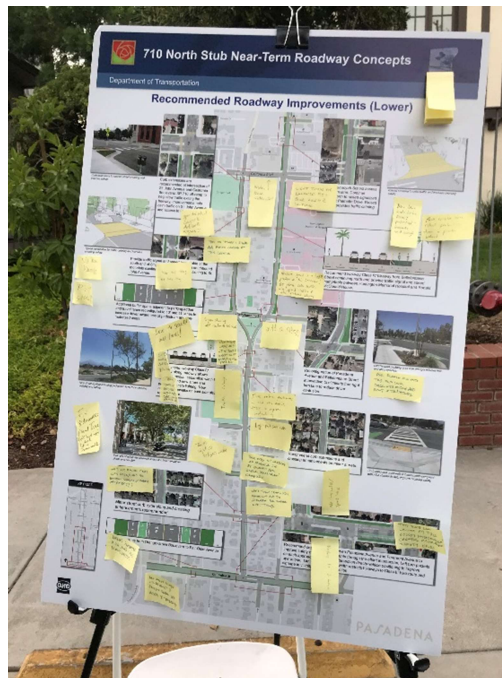


Community Engagement – Open House

Transportation Department

Topics	Count
Bikeways	15
Pedestrian	12
Traffic Signal/Light	7
Traffic Calming	5
Trees/Greening	4
Roadway	3
Transit	2
Wayfinding	2
Development	2

- 75 – 100 people
- Follow-up meeting on 9/2/2022
- Online Survey (bit.ly/710northstub)



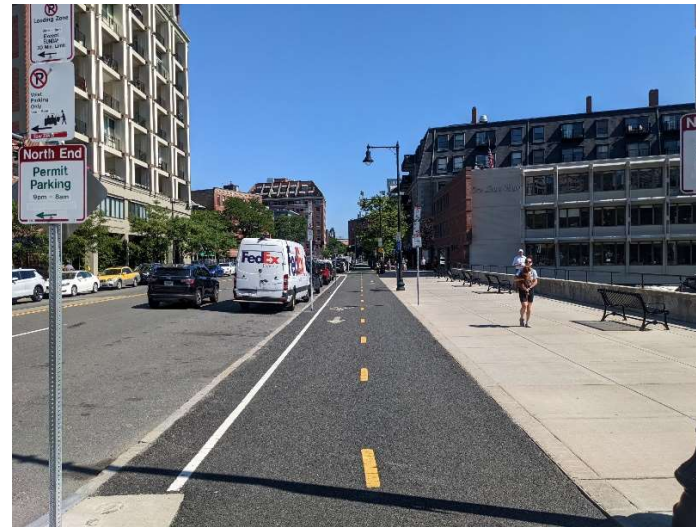
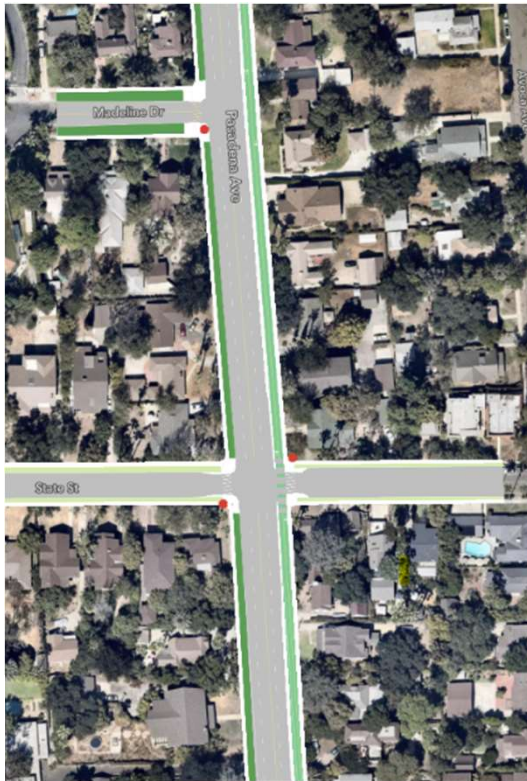
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Potential Improvement Projects

Transportation Department

- > Pasadena Ave (Del Mar Blvd to Columbia St) Class IV Two – Way Bikeway



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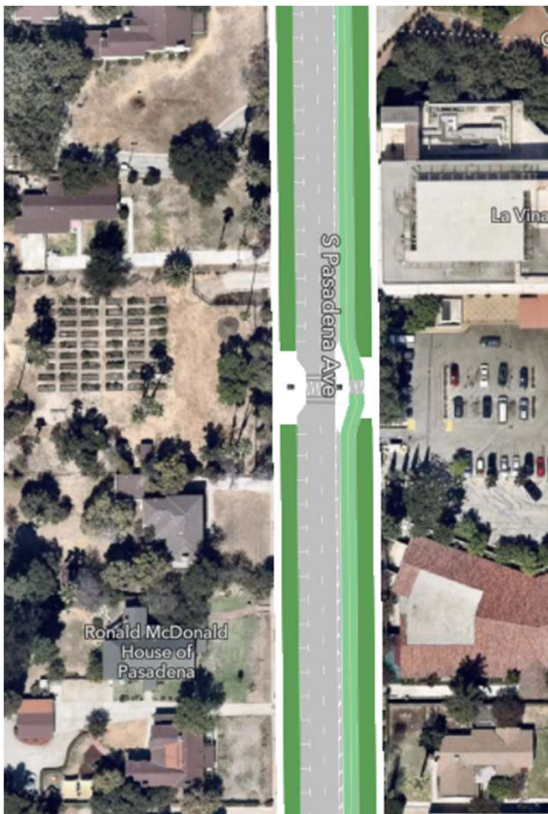
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Potential Improvement Projects

Transportation Department

- > Pasadena Ave and St John Ave Mid-block Pedestrian Crossings





Potential Improvement Projects

Transportation Department



- > Pasadena Ave (Walnut St to Union St) Class IV Two-way Bikeway

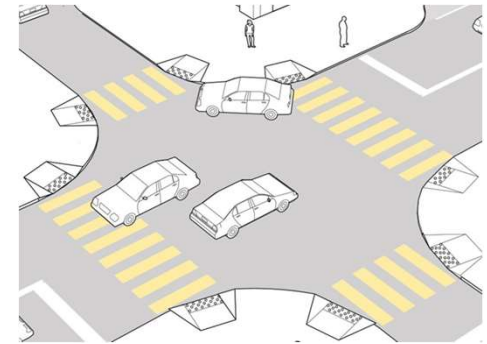




Potential Improvement Options

Transportation Department

- > Curb Extensions
- > High Visibility Crosswalks
- > Landscaping
- > New Sidewalk
- > Traffic Signal Upgrades

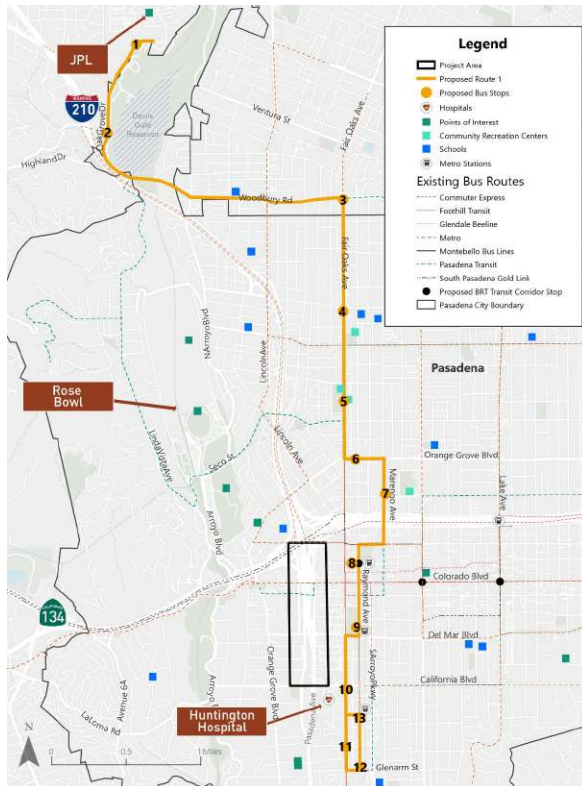




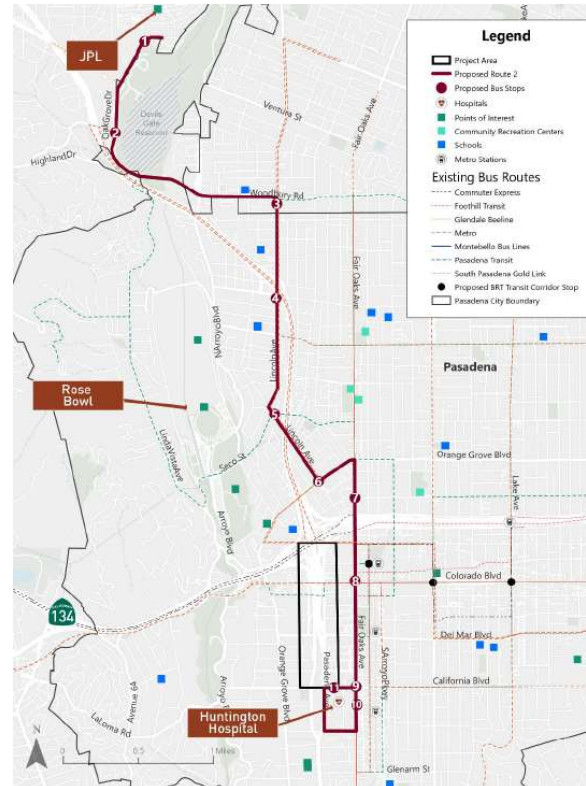
Transit Expansion

Transportation Department

Potential Route 1



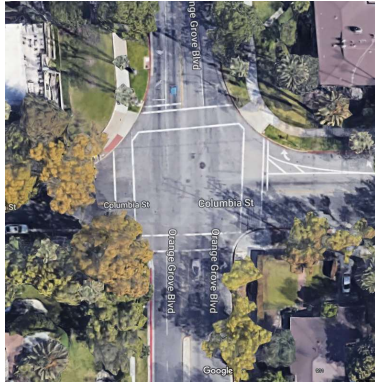
Potential Route 2





Potential Improvement Projects

Transportation Department



- > Columbia St
(Orange Grove Blvd to Fair Oaks Ave)





Potential Improvement Projects

Transportation Department

- > San Rafael Ave (Linda Vista Ave to Colorado Blvd)
- > Orange Grove Blvd (at Colorado Blvd and Holly St)

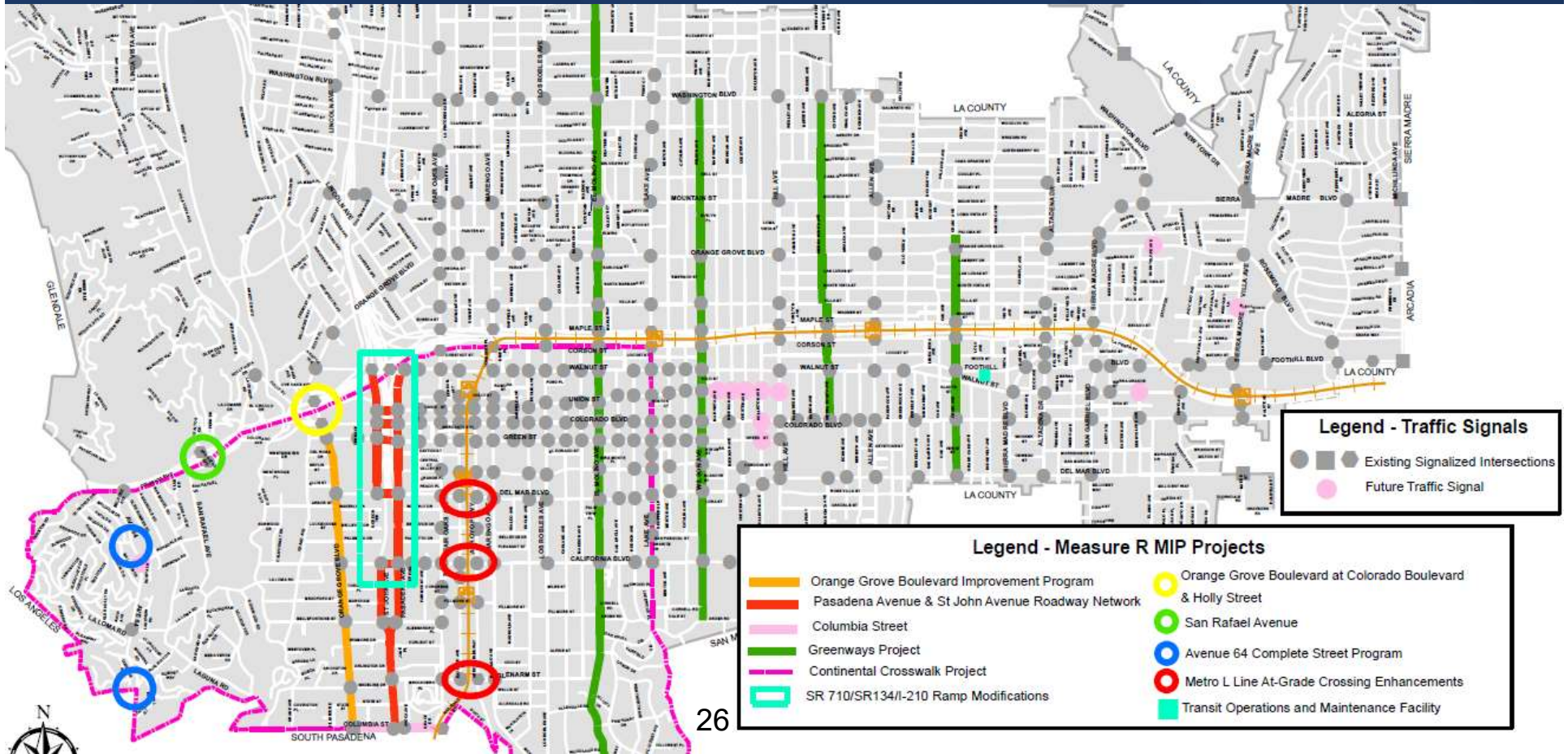


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Measure R MIP High Priority Projects





Next Steps

Transportation Department

- Upon City Council approval, submit the project list to Metro for consideration of funding in lieu of the California Blvd Grade Separation