ROUND 2
RECOMMENDED MOBILITY IMPROVEMENTS PROJECT DESCRIPTIONS
SAN GABRIEL VALLEY CITIES PROJECTS

PROJECT TYPE 1: Local Street/Road and Freeway Local Interchange Mobility and Operational Improvement Projects

[Project ID# 2-1] Alhambra- Fremont Avenue Traffic Improvements: On Fremont Avenue between Valley Boulevard and Mission Road widen structure over the railroad channel/trench; add northbound lane (starting at Front Street and extending to north of Mission Road to the 1st traffic signal); add southbound lane; close Front and Shorb Streets; and add westbound lane to Mission Road to improve mobility. Also construct sidewalk, upgrade curb and gutter and street lights; realign east side of Front Street; cul-de-sac westside of Front and Shorb Streets; and sign and stripe roadway. Fremont Avenue is a major arterial and commuter route that is heavily travelled. This project will improve mobility.

Cost Estimate: $30,000,000

[Project ID# 2-2] Alhambra- I-10/New Avenue Freeway Interchange Ramp Reconfiguration Project: Reconfigure eastbound and westbound on and off ramps to increase capacity and storage; and improve mobility. Also, close Saxon Street westbound on ramp and convert left turn lane for off ramp; close Saxon Street westbound on ramp and widen ramp for northbound new move onto to ramp; restrict Saxon westbound to new northbound only traffic; signalize Saxon Street; widen the new northbound to westbound on ramp for two lanes; widen infield at new northbound to eastbound on ramp for two lanes; sign and stripe ramp.

Cost Estimate: $10,000,000

[Project ID# 2-3] Alhambra - Railroad Channel Bridge Widening Project (Mission Road and Atlantic Boulevard): Widen structure to add one northbound lane between Mission Road and Atlantic Boulevard to improve mobility.

Cost Estimate: $8,400,000

[Project ID# 2-5] Alhambra- Railroad Channel Bridge Widening Project (Mission Road and Garfield Avenue): Widen structure to add one northbound lane between Mission Road and Garfield Avenue; upgrade traffic signal on structure; and install new traffic signal at the Park Street and Garfield Avenue intersection to improve mobility.

Cost Estimate: $8,400,000

[Project ID# 2-6] Pasadena - Gold Line Grade Separation at California Boulevard (Right-Of-Way Acquisition and Construction): Purchase Right-of-Way for shoe-fly track and construction staging needed to construct the Gold Line Grade Separation Project at California Boulevard Project that was approved for funding at the December 2018 Metro Board meeting.

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The grade separation project includes the segment of the Gold Line that intersects California Boulevard, an east-west arterial street with high traffic volumes, results in substantial delay and congestion. This at-grade crossing also contributes to a lack of pedestrian and bicycle connectivity between neighborhoods east and west of the Gold Line. The Gold Line Grade Separation Project at California Boulevard has a nexus to the I-710 North project since this at-grade crossing is in proximity to the I-710 "Gap" and grade-separating California Boulevard at the Gold Line will greatly improve traffic flow not only in the east-west direction but also in the north-south direction.

Cost Estimate: $125,500,000

[Project ID# 2-7] Pasadena - St. John Capacity Enhancement Project (Southbound I-210 Freeway to Fair Oaks Avenue and California Boulevard to Northbound I-210 Freeway): Modify the intersections of the I-210 eastbound off ramp at California Boulevard, and westbound California Boulevard at the St. John Avenue northbound I-210 on ramp to provide dual southbound left turn movements and dual right turn movements which require roadway striping and reconfiguring lanes; resurface a portion of California Boulevard to accommodate roadway striping changes; and modify traffic signals and associated hardware at the intersection of Pasadena Avenue/California Boulevard, and the southbound I-210 off ramp at Californian Boulevard. This project will optimize traffic operations and improve mobility.

Cost Estimate: $2,600,000

[Project ID# 2-8] Rosemead - I-10/Rosemead Boulevard Freeway [Westbound] Ramp Improvements: Reconfigure the I-10 westbound on and off ramps at Rosemead Boulevard to increase capacity. Also, provide additional lanes to increase capacity; widen the east side of Rosemead Boulevard to add an exclusive right turn lane from northbound Rosemead to easterly westbound I-10; provide an additional lane for the I-10 westbound off-ramp; add an exclusive right turn lane from westbound Glendon Way to northbound Rosemead; eliminate the left turn lane from I-10 westerly westbound off ramp to westbound Glendon Way; widen the west side of Rosemead Boulevard to provide a wider right turn lane and improve the traffic flow; reconfigure the geometrics [alignment] of west approach on Glendon Way west of Rosemead Boulevard, and provide a left turn lane from WB Glendon Way to the westbound I-10 ramp; and widen the southwest corner of Glendon Way and the I-5 westbound on ramp to accommodate right turn traffic onto the ramps.

Rosemead Boulevard is one of the busiest north-south regional corridors that extends from the 60 Freeway to the 10 Freeway, and from the 10 Freeway to the 210 Freeway. Due to the current geometric constraints and insufficient lane capacities at the Rosemead Boulevard and I-10 freeway westbound on and off ramps, significant delays are experienced throughout the day. This project will improve the traffic flow and mobility.

Cost Estimate: $6,000,000

[Project ID# 2-9] Rosemead - I-10/Walnut Grove Avenue Freeway [Westbound] Ramp Improvements: Reconfigure the I-10 westbound on and off ramps at Walnut Grove Avenue; realign the southbound right turn lane from Walnut Grove Avenue to the westbound on ramp, and westbound lanes on the

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ramp; modify striping on north and south approaches of Walnut Grove Avenue, and install a traffic signal; and realign the westbound on and off ramps at San Gabriel Boulevard, and install a new traffic signal.

Walnut Grove Avenue is a regional corridor that extends from the 60 Freeway to the 10 Freeway, and from the 10 Freeway north, connecting to three east-west regional corridors [Valley Boulevard, Mission Road and Las Tunas Drive]. Due to current geometric constraints, traffic exiting the westbound off ramp onto Walnut Grove Avenue is required to stop and wait for gaps in the north-south traffic before proceeding, which results in delays. This project will improve the traffic flow and mobility.

Cost Estimate: $6,000,000

[Project ID# 2-14] South Pasadena – SR-110/Fair Oaks Avenue Interchange Modifications (Right-of-Way Acquisition, Design Improvements and Construction): Purchase the necessary Right of Way and make the necessary design refinements to construct the SR-110/Fair Oaks Avenue Interchange Modifications Project that was approved for funding at the December 2018 board meeting.

The SR-110/Fair Oaks Avenue Interchange Modifications Project includes construction of a new southbound SR-110 "hook" on ramp accessible via eastbound State Street, east of Fair Oaks Avenue; restripe northbound Fairs Oaks Avenue between Grevelia Street and State Street to replace northbound left-turn lanes with a right-turn lane continuing onto a new right-turn lane to be built on the south side of State Street; and removal of the existing traffic island at the current SR-110 on-ramp; and on northbound Fair Oaks Avenue [between Hope Street and Grevelia Street] removal of the existing bulb out in order to provide a shared through and right-turn lane, and replacement of the left-turn lane with a through lane. Also, on southbound Fair Oaks Avenue [north of the existing southbound on-ramp] extend the existing right-turn lane to north of Oaklawn Street (this requires removal of the bulb out north of Mound Street); truncate Grevelia Street between Fair Oaks Avenue and Mount Avenue; widen northbound SR-110 off-ramp and restripe for two left-turn lanes, one through lane, and one right-turn lane; add a second right-turn lane on westbound Grevelia Street at Fair Oaks Avenue; construct a new southbound SR-110 "hook" on ramp accessible via eastbound State Street, east of Fair Oaks Avenue; remove bulb out on northbound Fair Oaks Avenue prior to the Orchard Supply Hardware shopping center driveway; and relocate current bus stop to the far side of intersection.

Cost Estimate: $32,000,000

PROJECT TYPE 2: Local Street Intersection Improvement Projects

[Project ID# 2-5] San Gabriel – San Gabriel and Marshall Street Realignment Project (Mission Drive and Las Tunas Drive Intersection Improvements): Modify the existing offset intersection at San Gabriel Boulevard and Marshall Street by realigning the east leg to meet the west leg of Marshall Street. Valley Boulevard is a primary arterial and Marshall Street is a local arterial. The San Gabriel Boulevard and Marshall Street intersection currently operates at LOSC/F and is projected to operate at LOSD/F by 2045

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without improvements. This intersection has experienced 12 accidents in the past three years. This project will improve traffic flow and mobility.

Cost Estimate: $4,900,000

[Project ID# 2-6] San Gabriel – San Gabriel and Valley Boulevard Intersection Improvements Project: Widen the San Gabriel Boulevard and Valley Boulevard intersection to add a southbound right turn pocket, a southbound right turn lane, peak hour parking restrictions; and an eastbound right turn pocket, a northbound right turn lane and extend the third lane approach. San Gabriel Boulevard and Valley Boulevard are primary arterials that carry significant regional and local traffic. The San Gabriel Boulevard and Valley Boulevard intersection currently operates at LOS F and is projected to operate at LOS F by 2045 without improvements. This intersection has experienced 16 accidents in the past three years. This project will improve traffic flow and mobility.

Cost Estimate: $4,400,000

[Project ID# 2-8] San Gabriel – Valley Boulevard and Del Mar Avenue Intersection Improvements Project: At the Valley Boulevard and Del Mar Avenue intersection, widen eastbound Valley Boulevard to add a thru lane and a right turn lane with peak hour parking restrictions. The Valley Boulevard and Del Mar Avenue intersection currently operates at LOS E and is projected to operate at LOS F by 2045 without improvements. This intersection has experienced 19 accidents in the past three years. This project will improve traffic flow and mobility.

Cost Estimate: $5,500,000

PROJECT TYPE 3: Intelligent Transportation Systems [ITS] Projects

[Project ID# 2-2] Alhambra – Fremont Avenue Traffic Signal Synchronization Project – Adaptive Upgrade [North City Limit to Montezuma/I-10 Freeway]: Upgrade traffic signals and other hardware on Fremont Avenue at 11 intersections (from the northerly city limits to Montezuma/I-10 Freeway) to optimize traffic signals during peak hours to improve the peak directional flow of traffic based on the arrival of vehicles at an intersection and real-time traffic demand and congested conditions. Fremont Avenue is a major arterial and commuter route. This project will improve mobility along the corridor.

Cost Estimate: $1,400,000

[Project ID# 2-3] Alhambra – Garfield Avenue Traffic Signal Synchronization Project – Adaptive Upgrade [Huntington Drive to I-10 Freeway]: Upgrade traffic signals and other hardware on Garfield Avenue at 18 intersections (from Huntington Drive to the I-10 Freeway) to optimize traffic signals during peak hours to improve the peak directional flow of traffic based on the arrival of vehicles at an

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intersection and real-time traffic demand and congested conditions. Garfield Avenue is a major arterial and commuter route. This project will improve mobility along the corridor.

Cost Estimate: $2,600,000

[Project ID# 2-1] Alhambra – Atlantic Boulevard Traffic Signal Synchronization Project - Adaptive Upgrade [Huntington Drive to I-10 Freeway]: Upgrade traffic signals and other hardware on Atlantic Boulevard at 14 intersections (from Huntington Drive to the I-10 Freeway) to optimize traffic signals during peak hours to improve the peak directional flow of traffic based on the arrival of vehicles at an intersection and real-time traffic demand and congested conditions. Atlantic Boulevard is a major arterial and commuter route. This project will improve mobility along the corridor

Cost Estimate: $3,600,000

[Project ID# 2-4] Alhambra – Main Street Traffic Signal Synchronization Project - Adaptive Upgrade [West City Limit to East City Limit]: Upgrade traffic signals and other hardware on Main Street at 21 intersections (from the westerly city limits to the easterly city limits) to optimize traffic signals during peak hours to improve the peak directional flow of traffic based on the arrival of vehicles at an intersection and real-time traffic demand and congested conditions. Main Street is a heavily travelled corridor. This project will improve mobility along the corridor

Cost Estimate: $5,400,000

[Project ID# 2-5] Alhambra – Mission Road Traffic Signal Synchronization Project - Adaptive Upgrade (West City Limit to East City Limit): Upgrade traffic signals and other hardware on Mission Road at 9 intersections (from the westerly city limits to the easterly city limits) to optimize traffic signals during peak hours to improve the peak directional flow of traffic based on the arrival of vehicles at an intersection and real-time traffic demand and congested conditions. Mission Road is a major arterial that is heavily travelled. This project will improve mobility along the corridor

Cost Estimate: $3,000,000

[Project ID# 2-6] Alhambra – Valley Boulevard Traffic Signal Synchronization Project (West City Limit to East City Limit): Upgrade traffic signals and other hardware on Valley Boulevard at 21 intersections (from the westerly city limits to the easterly city limits) to optimize traffic signals during peak hours to improve the peak directional flow of traffic based on the arrival of vehicles at an intersection and real-time traffic demand and congested conditions. Valley Boulevard is a major regional corridor that is heavily traveled. This project will improve mobility along the corridor

Cost Estimate: $4,600,000

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[Project ID# 2-13] Monterey Park- Adaptive Traffic/Traffic Responsive Control Project:
Install adaptive traffic/traffic responsive signal control at 34 traffic signal locations throughout Monterey on Atlantic Boulevard [17 intersections], Garfield Avenue [8 intersections] and Garvey Avenue [9 intersections] to optimize traffic signal during peak hours to improve the peak directional flow of traffic based on the arrival of vehicles at an intersection and real-time traffic demand and congested conditions. Atlantic Boulevard and Garfield and Garvey Avenues are major corridors used to bypass heavy freeway traffic on Routes 10, 710 and 60. This project will optimize traffic operations and improve mobility along these regional corridors.

Cost Estimate: $9,000,000

[Project ID# 2-15] Pasadena- Fair Oaks Avenue/Bellevue Drive Signalized Intersections Project: Install a new traffic signal at Fair Oaks Avenue and Bellevue Drive and synchronize signals to facilitate platooning of traffic through the intersection. Also, this project includes adjusting adaptive traffic control signals to accommodate the new traffic signal installation and installing requisite ADA compliant curb ramps. This project will improve traffic operations and reduce the potential for pedestrian and vehicular platooning conflicts.

Cost Estimate: $850,000

[Project ID# 2-18] Pasadena – Walnut Street Corridor Signal Improvements Project: Replace old traffic signal controller infrastructure and communication equipment along Walnut Street to reduce delay, manage speeds and collect data. Install up to 15 new signal cabinets, traffic signal controllers, video detection equipment, two CCTV cameras and 3 miles of fiber optic communication, associated hardware and software and requisite ADA compliant curb ramps. Walnut Street is used to bypass heavy traffic on the 210 freeway and on Colorado Boulevard. This project will improve traffic operations and mobility throughout the corridor.

Cost Estimate: $4,100,000

[Project ID# 2-16] Pasadena - ITS Projects and Traffic Flow Improvements Project (Within Affected SR-710 Corridors]) Upgrade traffic signal controllers and cabinets; install fiber optics communication, dedicated short range communication and signal preemption technology at up to 55 signalized intersections along segments of Orange Grove and Colorado Boulevards, Green and Holly Streets and Hill Avenue. This project will improve traffic operations and complement the corridors in the City of Pasadena that are being updated with adaptive traffic/traffic responsive control system signal technology.

Cost Estimate: $3,800,000

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[Project ID# 2-19] Rosemead – Adaptive Traffic/Traffic Responsive Control Project- Install adaptive traffic/traffic responsive signal control throughout Rosemead on Garvey Avenue [9 intersections], Valley Boulevard [7 intersections], San Gabriel Boulevard [6 intersections], Walnut Grove Avenue [16 intersections] and Rosemead Boulevard [5 intersection] to optimize traffic signal timing during peak hours to improve the directional flow of traffic based on the arrival of vehicles at an intersection and real-time traffic demand and congested conditions. Garvey Avenue and Valley Boulevard are major east-west arterials used to bypass freeway traffic. This project will optimize traffic operations and improve mobility along these regional corridors.

Cost Estimate: $9,000,000

[Project ID# 2-20] Rosemead – Traffic Signal Improvements (San Gabriel Boulevard, Walnut Grove Avenue, Rosemead Boulevard and Valley Boulevard): Implement traffic signal improvements to optimize traffic operations and improve mobility on east-west and north-south major arterials that are used to bypass freeway traffic.

San Gabriel Boulevard at four intersections: [$3,300,000]

1. Hellman Avenue [Location 1.1]- Install eastbound/westbound protective left turn phasing and upgrade the existing traffic signal system. (approximately $800,000)
2. Garvey Avenue [Location 1.2]- Install south bound/westbound right turn overlap phasing and upgrade the existing traffic signal system. (approximately $1,500,000)
3. Graves Avenue [Location 1.3]- Install protected/permitted left turn phasing and upgrade the existing traffic signal system. (approximately $500,000)
4. Rush Street [Location 1.4]- Install northbound/southbound protective left turn phasing; and eastbound/westbound protected/permitted left turn phasing; and upgrade the existing traffic signal system. (approximately $500,000)

Walnut Grove Avenue at Mission [Location 2.1]: [$500,000]

1. Install protected/permitted left turn phasing in all directions and upgrade the existing traffic signal system. (approximately $500,000)

Rosemead Boulevard [Location 3.2]: [$700,000]

2. Valley Boulevard [Location 3.2]- Install northbound/southbound right turn overlap phasing. (approximately $700,000)

Valley Boulevard at three intersections: [$1,500,000]

1. Muscatel Avenue [Location 4.1] - Install eastbound/westbound protected left turn phasing and upgrade the existing traffic signal system. (approximately $500,000)
2. Ivar Avenue [Location 4.2]- Install eastbound/westbound protected left turn phasing and upgrade the existing traffic signal system. (approximately $500,000)

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3. Mission Drive [Location4.3]- Install eastbound/westbound protected left turn phasing and upgrade the existing traffic signal system. (approximately $500,000)

Cost Estimate: $6,000,000

[Project ID# 2-21] San Gabriel – San Gabriel Traffic Signal Improvements -Various Corridors (Del Mar Avenue, Las Tunas Drive, San Gabriel Boulevard, Valley Boulevard and Walnut Grove Avenue): Implement traffic signal improvements to optimize traffic flow along major arterials at 30 intersections within the City of San Gabriel that are adversely impacted by the absences of a portion of the SR 710 freeway. The proposed improvements would include installing video detection, wireless traffic signal communication equipment and battery backup to various existing traffic signals. This project will improve mobility and traffic operations on regional corridors.

Cost Estimate: $700,000

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