



DATE: January 22, 2020

TO: Council Infrastructure Committee

FROM: Director of Public Works

SUBJECT: I-880/Winton Avenue/A Street: Review and Comment on Alternatives for the Interchange Improvement Project

RECOMMENDATION

That the Council Infrastructure Committee reviews this report, receives conceptual project alternatives presentations by staff, and provides comments on the alternatives for the I-880/Winton Avenue/A Street Interchange Improvement Project.

SUMMARY

The Winton Avenue and A Street interchanges along the Interstate 880 (I-880) corridor were constructed in 1968 and 1952 respectively and have seen no significant operational and multi-modal access improvements over the years. Since their construction, the City experienced significant growth, and as a result, both interchanges experience traffic operational issues and access issues. In addition, the lack of auxiliary lanes between the closely spaced Winton Avenue and A Street interchanges along I-880, result in mainline back-up due to merge/weave issues. The lack of complete street features across I-880, on both streets, creates a barrier for the safe movement of cyclists and pedestrians.

The City, in partnership with the Alameda County Transportation Commission (ACTC), who is the project sponsor and implementing agency, and Caltrans who owns and operates I-880, propose to provide interchange improvements at the Winton Avenue and A Street interchanges along the I-880 corridor. The I-880 Interchange Improvements (Winton Avenue and A Street) Project (Project) would include:

- Reconfiguring the I-880 interchanges at Winton Avenue and A Street to enhance access to the surrounding residential, retail, and commercial land uses
- Improving pedestrian and bicycle facilities at both interchanges
- Providing northbound and southbound auxiliary lanes along the main line between the A Street interchange and the Winton Avenue interchange

- Providing new signalized intersections at Winton Avenue ramp terminals and modifying ramp terminal intersections at A Street to improve traffic flow, reduce congestion, and make intersections accessible and safer for pedestrians and cyclists

The project team developed a Project Study Report-Project Development Support (PSR-PDS) document, which was approved by Caltrans in October 2019. The PSR-PDS document established the purpose and need of the project and developed several conceptual design alternatives for further evaluation during the Project Approval & Environmental Document (PA&ED) phase. As part of this phase of work, Staff and ACTC are soliciting feedback alternatives under consideration to establish a set of preferred alternatives from the PSR-PDS document. These preferred alternatives will be taken forward through the completion of the technical studies and completion of the PA&ED phase.

The City was a part of the project development and was consulted during the preparation of the PSR-PDS document to ensure that Context Sensitive Solutions have been developed and proposed design solutions are consistent with local community values, character, and contextual setting as envisioned by the City. Multiple stakeholder outreach meetings have been held since the project's inception with local advocacy groups, business owners, and local residents. Furthermore, the Project is consistent with the City's 2040 General Plan.

BACKGROUND

Winton Avenue

The existing Winton Avenue interchange (Attachment II) has a four-quadrant cloverleaf interchange configuration with freeway ramps running freely without intersection controls onto Winton Avenue. The interchange was constructed in 1968 and has seen no significant operational and multi-modal improvements over the past 51 years. The four quadrant configuration experiences merge-weave operational issues for vehicular traffic while the free-running ramps create uncomfortable conditions for bicycle and pedestrian traffic.

The land use at the southwestern quadrant of the interchange is comprised of retail and office commercial while the remaining quadrants are mostly residential. The interchange provides access to major retail centers (Southland Mall and Winton Shopping Center), Chabot College, the Hayward Executive Airport (HEA), office and industrial parks to the west, City and County services and facilities, the Hayward School District Office, and other schools to the east.

Winton Avenue is an existing four-lane minor arterial with a raised median currently designated as a Class III bike route. The existing roadway within the project limits, and immediately beyond, has 4-foot sidewalks with 6-foot landscape areas separating pedestrians from the vehicular traffic. The existing Winton Avenue roadway section between the I-880 ramps is a median separated six-lane facility with no shoulders and 7-foot sidewalks on both sides.

The short weaving distance for traffic entering Southland Drive from southbound off-ramp and westbound Winton Avenue causes congestion along westbound Winton Avenue, resulting

in queuing along the southbound off-ramp which in turn affects freeway operations. The City periodically implements the use of barricades on Winton Avenue to minimize this short weave and the resulting congestion.

A Street

The existing A Street interchange is a Compact Diamond configuration with two closely spaced signalized intersections at the crossing of the I-880 ramp terminals. The interchange was constructed in 1952 and the undercrossing bridge structure was widened in 1991, to accommodate widening of I-880. The interchange provides access to HEA, office and industrial parks to the west, City and County services and facilities, businesses, residences, and a school to the east. The interchange is surrounded by a mix of land uses including parcels designated as general commercial and residential. A Street currently is a four-lane principal arterial with narrow lane widths and no shoulders and has Class II bike lanes outside of the I-880 ramp intersections. A Street between the I-880 ramp intersections lacks a bike lane and shoulders. Within the project limits, A Street has a 5-foot sidewalk on both sides of the road. The ramp intersections along A Street are closely spaced with Arbor Avenue and Happyland Avenue intersections to the east and the South Garden intersection to the west.

The A Street interchange currently experiences high traffic volumes with heavy truck movements. These high volumes combined with tightly spaced ramp intersections and the Arbor Avenue, Happyland Avenue, and South Garden Avenue intersections cause congestion during peak periods in both directions. Vehicular queues in the two adjacent left turn lanes (one in each direction) between the ramp intersections cause operational issues due to lack of storage.

I-880 Mainline

I-880, within the project limits, is currently a ten-lane freeway with four general purpose lanes and one High Occupancy Vehicle (HOV) lane in each direction. The I-880 Express Lanes project is currently in construction and converts the HOV lane into an express lane. The configuration of I-880 within the project limits after completion of the Express Lanes project includes 4-foot inside shoulders, an 11- to 12-foot express lane, a 4- to 8-foot striped buffer, four general purpose lanes with 11- to 12-foot lane widths, and 18 feet wide outside shoulders. The Winton Avenue and A Street interchanges are spaced about 0.8 miles apart along I-880 and do not have auxiliary lanes between the on and off-ramps, resulting in merge-weave issues in this section.

The Central Alameda County Local Alternative Transportation Improvement Program (LATIP) was approved by the California Transportation Commission in May 2010. The subject Project is included in LATIP as “Project M: I-880 /West A Street Interchange, Project N: I-880 /West Winton Avenue Interchange” and “Project D: I-880 Auxiliary lanes between Paseo Grande to Winton Avenue”. The Project is also recognized in ACTC’s 2014 Transportation Expenditure Plan under I-880 Local Access and Safety program. ACTC initiated project scoping and environmental clearance for the project to enable the project to pursue funding for subsequent phases as part of the project delivery.

Transit Routes

Currently, there are five Alameda County Transit (AC Transit) routes that utilize Winton Avenue and A Street within the Project limits. Routes numbered 60, 86, and M currently run on Winton Avenue; however, there are no existing stops within the project limits. There are two AC Transit routes currently running along A Street. Route number 83 has three stops within the Project limits as listed below:

1. Westbound side of A Street between Arbor Avenue and Happyland Avenue;
2. Eastbound side of A Street between Happyland Avenue and Fuller Avenue; and
3. Southeast corner of Victory Drive/A Street intersection.

Route number 93 has no existing stops within the project limits. The proposed improvements under all viable alternatives would maintain the existing transit facilities. The proposed pedestrian and bicycle facilities would provide improved accessibility and connectivity to the AC Transit routes currently operating within the project limits.

DISCUSSION

The conceptual alternatives under consideration in the PA&ED phase are presented below. There are two alternatives at the I-880/Winton Avenue interchange, two alternatives at the I-880/A Street interchange, and one mainline auxiliary lanes alternative along I-880 between the Winton Ave and A Street interchanges under consideration. Plans for the conceptual alternatives are attached to this report (Attachment III) and described as follows:

I-880/Winton Avenue:

- 1) Direct Access to La Playa Drive: Converts full cloverleaf interchange to partial cloverleaf interchange; constructs two traffic signals at the I-880 ramp intersections; provides direct access to La Playa Drive from Winton Avenue; reconstructs sidewalks and bridge railing; and provides buffered Class IV bikeways within the project area. This alternative would require conversion of La Playa drive to a public street from Southland Drive to Hesperian Boulevard.
- 2) Double Left to Southland Drive: Converts full cloverleaf interchange to partial cloverleaf interchange; constructs two traffic signals at the I-880 ramp intersections; provides two left turn lanes at Southland Drive; reconstructs sidewalks and bridge railing; and provides buffered Class IV bikeways within the project area.

I-880/A Street:

- 1) A Street-Roundabouts: Converts intersection control from traffic signals to two-lane double roundabouts at the I-880 ramp intersections. Outside bays of the existing undercrossing structure convert into a combined bicycle and pedestrian facility.

This alternative requires the closure of Arbor Avenue and the conversion of Garden Avenue to right-in/right-out movement.

- 2) Six Lanes Under Existing Bridge Structure: Updates traffic signals and reconstructs A Street under the existing bridge structure to accommodate three lanes in each direction; provides additional left-turn storage to I-880 on-ramps; and converts the outside bays of the existing undercrossing structure into a combined bicycle and pedestrian facility. This alternative requires the closure of Arbor Avenue and the conversion of Garden Avenue to right-in/right-out.

I-880 Mainline:

- 1) Auxiliary Lanes on I-880: Construct one auxiliary lane each in northbound and southbound directions, between the on-ramps and off-ramps of the A Street and Winton Avenue interchanges to improve weaving operations.

The preferred alternative at the I-880/Winton Avenue interchange will be paired with the preferred one from the I-880/A Street interchange, and together with the mainline auxiliary lanes, will be approved as a single project. It may be determined that the I-880/Winton Avenue interchange improvements and the I-880/A Street interchange improvements be separated into standalone projects depending on funding availability and timing.

ECONOMIC IMPACT

Both interchanges serve vital commercial and retail areas of the City. The Project(s) would improve access and reduce congestion-related delays both on I-880 and local streets, and address on-going concerns related to access to Southland Mall. By improving access and reducing delay, the Project is expected to have positive impacts on local businesses and retail areas.

FISCAL IMPACT

The Project is its initial stage and cost estimates are preliminary. The Project is currently not expected to have a direct fiscal impact on the City. The project utilizes Measure BB funding through ACTC's Transportation Expenditure Plan.

Preliminary cost estimates for the project as a whole are as follows:

1) Planning/Scoping	\$1.808 million
2) Preliminary Engineering/Environmental	\$3.5 million
3) Final Design	\$11 million
4) Right of Way	\$8 million
5) Construction	\$90 million
Total Project Cost	\$114,308 million

The ACTC Transportation Expenditure Plan shows in Measure BB funding as a line item for these projects. Approximately \$5.308 million in Measure BB funds were allocated for the pre-scoping, Project Initiation Document (PID), Project Approval, and the Environmental Document (PA&ED) phase. Depending on the preferred alternative(s), there may be a shortfall in funding. Funding sources to cover the shortfall have not been identified and will need to be determined before starting the detailed design and right-of-way acquisition process.

STRATEGIC INITIATIVES

This agenda item supports the Complete Streets Strategic Initiative. The purpose of the Complete Streets Initiative is to build streets that are safe, comfortable, and convenient for travel for everyone, regardless of age or ability, including motorists, pedestrians, bicyclists, and public transportation riders. This item supports the following goals and objectives:

Goal 1: Prioritize safety for all modes of travel.

Objective 3: Ensure that roadway construction and retrofit programs and projects include complete streets elements.

Goal 2: Provide Complete Streets that balance the diverse needs of users of the public right-of-way.

Objective 1: Increase walking biking, transit usage, carpooling, and other sustainable modes of transportation by designing and retrofitting streets to accommodate all modes.

SUSTAINABILITY FEATURES

The Project will reduce regional traffic diversions to City streets, and therefore reduce carbon and greenhouse gas emissions and vehicle miles travelled within the City. The Project will also improve bicycle and pedestrian facilities and connections through both interchanges and is consistent with the City's 2019 Bicycle Master Plan.

The City is currently in the process of updating its Bicycle and Pedestrian Master Plan (BPMP). A primary goal of the update is to close gaps in the existing bicycle and pedestrian network. Due to the lack of bike lanes and incomplete sidewalks, gaps currently exist along both Winton Avenue and A Street at I-880. The project will fill these gaps by improving bicycle facilities and sidewalks along both sides of the freeway at both interchanges and connect them to existing bicycle and pedestrian facilities. These improvements will be consistent with the goals and objectives of the BPMP update, including any design guidelines that are developed as part of the update process.

PUBLIC CONTACT

ACTC and City staff have held multiple stakeholder meetings comprised of business owners, Southland Mall management, residents, interested community members, and bicycle advocates throughout the year long process of developing the PSR-PDS document.

NEXT STEPS

The Project is currently in the early stages of the Project Approval & Environmental Document (PA&ED) phase. As part of this phase, ACTC is soliciting feedback and identifying preferred alternatives from stakeholders, including the City, as well as conducting technical studies. The Project Report & Environmental Document will be developed once preferred alternatives are selected and technical studies completed. The tentative project schedule is as follows:

Final PSR-PDS (Approved)	October 2019
Council Infrastructure Committee Presentation	January 2020
Traffic Operations Analysis Report	June 2020
Environmental Technical Studies	June 2020
Engineering Technical Studies	July 2020
Draft Project Report	January 2021
Draft Environmental Document	February 2021
Final Environmental Document & Project Report	August 2021

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