

Appendix A

Project Study Report (PSR) Addendum

Project Study Report

Addendum

Chula Vista Light Rail Corridor Improvements

October 11, 2018

Prepared for:



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This project study report addendum has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.


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October 11, 2018

Date



APPROVALS:


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October 11, 2018

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1. INTRODUCTION

In August 2012, the San Diego Association of Governments (SANDAG), in cooperation with the City of Chula Vista (City), approved a Project Study Report (PSR) for the Chula Vista Light Rail Corridor Improvements. The Study provided the analysis of alternatives to grade separate the three at-grade rail crossings within the City at E Street, H Street and Palomar Street. While the study addressed all three at grade crossings, the Palomar Street grade crossing improvements have independent utility from the other grade crossing improvements. The Palomar Street improvements will be constructed and function independently from the other projects.

Post-completion of the PSR, improvements were implemented in the rail corridor infrastructure and operations. This Addendum provides an update of the alternatives considered for the Palomar Street location and will serve as the bridging document between the Project Study Report and the next phase of the project, the preparation of the Project Report and Environmental Document (PR/ED)

2. PROJECT STUDY REPORT ALTERNATIVES

The following alternatives were considered in the PSR for the Palomar Street crossing.

Viable Alternatives

Alternative P2: This alternative raised the light rail tracks on an elevated viaduct structure over Palomar Street and maintained a single track at grade for freight rail. The trolley station would be relocated onto the viaduct. This was the highest ranked alternative.

Alternative P4: This alternative lowered the tracks in a trench under Palomar Street and maintained a single track at-grade for freight rail. The trolley station would be relocated below grade in the trench.

Rejected Alternatives

Alternative P5: This alternative lowered Palomar Street under the existing tracks. Additionally, it also lowered Industrial Street, which runs parallel to the tracks, to maintain an intersection with Palomar Street. The trolley station was not impacted. This alternative was rejected in the PSR due to the number of conflicts with adjacent driveways on both streets that would have led to considerable right-of-way impacts.

3. RAIL CORRIDOR IMPROVEMENTS

Following the completion of the PSR, SANDAG, in cooperation with the Metropolitan Transit System (MTS), implemented a \$50 million improvement project referred to as the South Line Rail Freight Capacity Project. Construction started in 2014 and was completed in 2016. The South Line is an approximate 11 miles in length, located within the San Diego & Arizona Eastern (SD&AE) railway corridor that provides a vital rail connection between the U.S.-Mexico border at San Ysidro, the Port of San Diego and downtown San Diego. The project was an essential rail improvement for the region as it provides operational efficiency through the corridor and facilitates goods movement by doubling the number of trips possible.

Work along the corridor included the reconfiguration and reconstruction of main line track and siding tracks as well as the installation of additional siding tracks to allow for passing maneuvers. Track realignment was provided at the Palomar Trolley Station and new second mainline track and bridge was provided at Main Street. The existing rail signaling system was completely overhauled with modifications of at-grade crossings.

With its completion, these improvements now allow bi-directional operations and the expansion of freight rail service with improved signaling and continuous two-track mainline operation between the rail yards in San Diego and San Ysidro. The project will divert 31,000 truck trips to rail annually by 2030.

4. IMPACT TO PROJECT STUDY REPORT VIABLE ALTERNATIVES

With the South Line Freight Rail Capacity Project completed, there are additional factors that need to be considered with the alternatives evaluated in the PSR. These considerations support a goal of protecting the operational investments made in the rail corridor, thus requiring two-track freight rail operation through this rail corridor to improve efficiency and throughput.

This was not a consideration at the time the PSR was being prepared for the project as Alternatives P2 and P4 that were raising or lowering the rail, respectively, provided a single-track that remained at-grade for freight rail operations.

There are two potential solutions to provide the necessary two-track freight rail operation in Alternatives P2 and P4, either provide a track profile that accommodates the freight rail or provide two tracks that remain at-grade, described as follows.

Track Profile: The planned track profile in the PSR accommodates only light rail vehicles with an approximate maximum grade of 4.5%. To accommodate freight rail, the track profile would be reduced to a maximum 2% grade.

The structure to support Alternative P2 would also require an increased structure depth due to the heavier loading requirements of a freight rail vehicle. It is anticipated that the depth would increase by two feet, and to maintain the vertical clearance over Palomar Street, the track profile would have to be raised accordingly. The overall length of the elevated track would increase from approximately 2,400 feet to approximately 4,100 feet in length to accommodate the lower 2% maximum grade.

In Alternative P4, the vertical clearances required for freight rail going under a structure is greater than that for light rail. This results in the track profile being lowered an additional five feet as it passes under Palomar Street. The overall length of the lowered track would increase from approximately 2,500 feet to approximately 4,600 feet in length to accommodate the lower 2% maximum grade and additional vertical clearance.

The increased length in both Alternatives P2 and P4 result in the need to raise or lower the at-grade crossing at Naples Street by up to 2 feet and the at-grade crossing at Anita Street by up to 5 feet. This will increase the impacts to right-of-way and access for parcels on Industrial Street, Naples Street and Anita Street.

Additionally, due to the track profile in both Alternative P2 and P4, a rail industry spur

track would be eliminated along the east side of the rail corridor, north of Anita Street. It is not feasible to connect this industry spur track to the main line tracks due to the difference in the track profile of 17 to 24 feet for Alternatives P2 and P4, respectively.

At-Grade Freight Rail: To accommodate freight rail at-grade, the tracks would be located outside the existing rail corridor right-of-way and encroach into Industrial Street right-of-way. Industrial Street would have to shift further west as well, resulting in the loss of at a landscaped parkway area as well as impacting a combination of over 40 parcels and/or mobile homes that front Industrial Street. The west side of Industrial Blvd has overhead electrical and utility lines located within 10-feet of the face of curb, which would all have to be relocated within the remaining public right-of-way or be undergrounded.

The rail industry spur track would be eliminated along the east side of the rail corridor, north of Anita Street. It is not feasible to connect this industry spur track to the main line freight tracks, located in Industrial Street, as the spur would cross the light rail tracks.

The project would not be considered a grade separation as a two-track at-grade crossing would remain on Palomar Street, a condition that is not favorable to the CPUC and potentially restricts the ability to secure necessary approvals and funding.

The Project Development Team determined that maintaining the freight rail at-grade is not viable due to the significant right-of-way impact that would be incurred along Industrial Street. While deemed viable, the adjustment in the track profile to accommodate freight rail traffic above or below Palomar Street is anticipated to result in a significant project cost increase based on the extended length of the track and impacts to the fronting parcels and adjacent streets.

5. RE-EVALUATION OF PROJECT STUDY REPORT REJECTED ALTERNATIVE

SANDAG and the City determined that Alternative P5 warranted re-evaluation due to the significant impact that maintaining the freight rail operations had on Alternatives P2 and P4, particularly the considerable increase in overall project length that would result in increased costs.

In re-evaluating Alternative P5, the project team looked to specifically address both the freight rail operations as well as the original determination of viability due to the loss of access to adjacent parcels.

Rail Operations: In this alternative, the configuration and operations of the rail corridor remains as it currently does. A bridge will be built to support the two tracks at the same elevation as existing conditions with Palomar Street passing below the bridge.

Access to Adjacent Parcels: The PSR indicated that both Palomar Street and Industrial Street would be lowered to maintain the intersection between the two streets. The Project Development Team determined that this intersection could be eliminated, allowing Industrial Street to pass over the lowered Palomar Street on its own bridge. By taking this approach, there is no loss of access to parcels fronting Industrial Street. It was also determined that through off-site grading and reconfiguration, access could be

maintained to Trenton Avenue, the Palomar Trolley Station and the driveways to the commercial/retail centers on each side of Palomar Street.

The re-evaluation of Alternative P5 resulted in a viable solution that directly addresses the freight rail operations as well as the PSR reasoning for eliminating the alternative from consideration.

6. COMMUNITY INVOLVEMENT

The project alternatives were presented in the following public forums. All City Council and Commission meetings provided public notification. The community open house included notifications via mailers, door hangers, and the City website. All meetings provided opportunity for community input and feedback.

Date	Meeting
November 5, 2014	<p>City of Chula Vista, Safety Commission</p> <p>A PowerPoint presentation was made to the Safety Commission. Commissioners provided comments and staff responded to their questions. Alternative P5 was received favorably by the Commission.</p>
November 12, 2014	<p>Community Open House</p> <p>Display boards were provided for Alternatives P2, P4 and P5. Project staff were located at each board to answer questions from the community. The public was encouraged to place post-it notes with comments or questions on each board as well as submit a comment card.</p> <p>A PowerPoint presentation was made, and public questions were addressed. The meeting was well attended by the community and over 30 comments and/or questions were received.</p> <p>The community expressed concerns over both Alternatives P2 and P4 related to the visual impact, inconvenient access to the station, graffiti, transients and that the station was currently being reconstructed.</p> <p>Alternative P5 was well received for its overall aesthetics, improved pedestrian/bicycle facilities and ease of station access. Concerns included maintaining driveways and the Trenton extension over the vacant parcel.</p>
December 16, 2014	<p>City of Chula Vista, City Council</p> <p>A PowerPoint presentation was made to City Council. Comments were received, and staff responded to questions. City Council direction was to advance Alternative P5 further in the project</p>

development process.

February 5, 2015

City of Chula Vista, City Council Transportation Workshop

Display boards were set up for the community to review, comment and ask questions ahead of the Transportation Workshop. A PowerPoint presentation was made to City Council, providing a project update and reaffirming the decision to proceed with Alternative P5.

7. CONCLUSION

Due to the significant impact on the rail corridor improvements and operations as well as ancillary impacts to the community, Alternatives P2 and P4 that raised or lowered the rail, respectively, were removed from further consideration.

Alternative P5, lowering Palomar Street was selected by the City of Chula Vista City Council as the alternative to advance forward in the project development process due to the following reasons:

- Avoided permanent impact to the rail corridor improvements and operation.
- Mitigated the major factor in its rejection in the PSR by not lowering Industrial Street to match the Palomar Street grade. This solution maintains access to all the adjacent parcels.
- Driveway access along Palomar Street was also maintained through additional grading and offsite improvements that further reduced the impact of this alternative.
- Favorable response to the roadway underpass from the community through the outreach efforts.