

Alternative 2: Alternative Connections to the
City of Guadalupe Memorandum



MEMORANDUM

SANTA MARIA RIVER LEVEE TRAIL Wallace Group Project No: 1105-0003



Date: October 8, 2024
To: Stuart Poulter, EMC Planning Group Inc.
From: Matt Wilkins, PLA
Subject: SMRLT Alternative Connections to the City of Guadalupe - **DRAFT**

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This memorandum evaluates two connection alternatives for the west end of the Santa Maria River Levee Trail (SMRLT) to the City of Guadalupe:

- A. Connection via an extension of the trail over a weir area for the levee with a railroad undercrossing to 12th Street via Guadalupe Street
- B. Street level connection via Peralta Street to 11th Street

The general alignments are shown in Figure 1, and evaluation of the pros and cons of both alternatives are included in the following sections.



Figure 1: Connections to Guadalupe

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Alternative A: Railroad Undercrossing

A preliminary alignment for a connection to 12th Street via Guadalupe Street requires an undercrossing of the Union Pacific Railroad (UPRR) Bridge as shown in Figure 1. This alternative would begin at a trailhead at Guadalupe Street near 12th Street and climb to the top of the existing levee where it would continue eastward and descend into the river corridor to pass under the UPRR bridge. An approximately 5% grade is envisioned for the trail to the drop from and then rise to the top of the levee respectively downstream and upstream of the railroad bridge. East of the railroad a very rough concrete encased rock revetment overflow caps the levee as a drainage crossing.

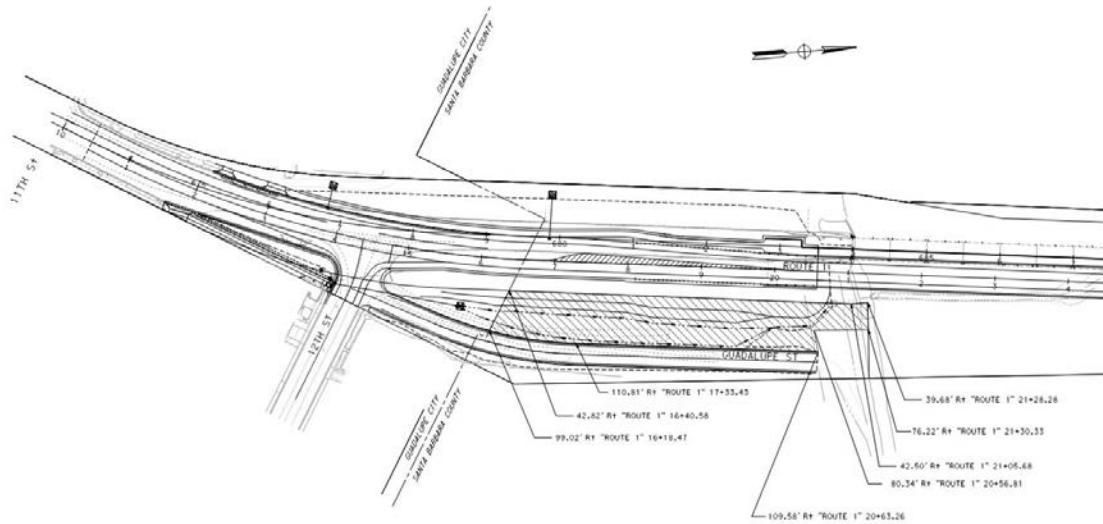


Figure 2: Alternative A

Although this alignment provides the most direct connection to the City of Guadalupe, it presents a number of challenges which will be described in further detail starting from the westernmost constraint.

As called out in Figure 2 and per the map shown in Figure 3, Caltrans has a bridge replacement project proposed for Highway 1 over Santa Maria River that will include shifting the alignment of Highway 1 slightly to the east and expansion of their right of way to the existing western edge of Guadalupe Street. Alternative A initially included a formal trailhead on the west side of Guadalupe Street; however, this area will be within Caltrans right of way part of the fill for the highway realignment. Without a trailhead, connecting to the trail at this location could be a challenge, as there are no bicycle or pedestrian facilities along Guadalupe Street, and the crossing and

connection at 12th Street could be a safety concern with no marked crossings and the closely spaced high-speed Highway 1 intersection.



RIGHT OF WAY SHEET

Figure 3: Highway 1 Right of Way and Bridge Expansion

Secondly, crossing under the existing UPRR bridge, shown in Figure 4, would require that the path pass between the southern abutment and the first pier, which would place it within the Santa Maria River channel. According to Chapter 1000 of the Caltrans Highway Design Manual, a trail requires 8' minimum vertical clearance; however, 10' is desirable. The clearance under the existing bridge has not been measured, but grading within the channel would likely be required to provide adequate vertical clearance which would result in additional Army Corp of Engineer permitting. Additionally, this crossing would likely need to be closed during storm events when the trail would be submerged under flood water.



Figure 4: UPRR Bridge

Lastly, another major challenge of Alternative A is constructing the trail on the levee overflow revetment structure, which is immediately east of the UPRR bridge. This area is approximately 580 feet long paved with a rough gunite material that is not a rideable surface as shown in Figure 5. This portion of the levee would need to be



Figure 5: Rock Revetment

modified to accommodate the trail without affecting the hydraulic characteristics of the structure. This portion of the levee falls under the jurisdiction of the United States Army Corps of Engineers (USACE) and would therefore trigger environmental review and permitting. This coupled with the trail's encroachment into the riverbed and riparian area makes this alternative environmentally challenging.

Alternative B: Peralta Street Connection

A preliminary alignment of a trail connection at Peralta Street is shown in Figure 6. This alternative would divert the trail from the top of the levee approximately 1,200 feet east of the UPRR bridge. From there it would follow the alignment of an existing private access road to the end of Peralta Street. This alignment requires the acquisition of property from two landowners, totaling approximately 0.5 acres. If negotiations are unsuccessful, eminent domain may be required.

A trailhead could be constructed at the end of Peralta Street, as shown in Figure 7. This alternative avoids impacts to the Santa Maria River channel and coordination with the UPRR, USACE, and Caltrans. Due to the use of an existing unpaved roadway for this alignment, this alternative would have significantly lower construction costs than Alternative A. Since it avoids the undercrossing and riverbed encroachment, this alternative does not have the same flooding concerns



Figure 6: Alternative B

discussed under Alternative A. Peralta Street is a low speed, low stress roadway to connect to and has a sidewalk on the west side. The roadway width is sufficient to accommodate Class II bike lanes or Class IV bikeways. This would provide a safe and low stress connection from the SMRLT to the City's core, including homes, schools, and parks.

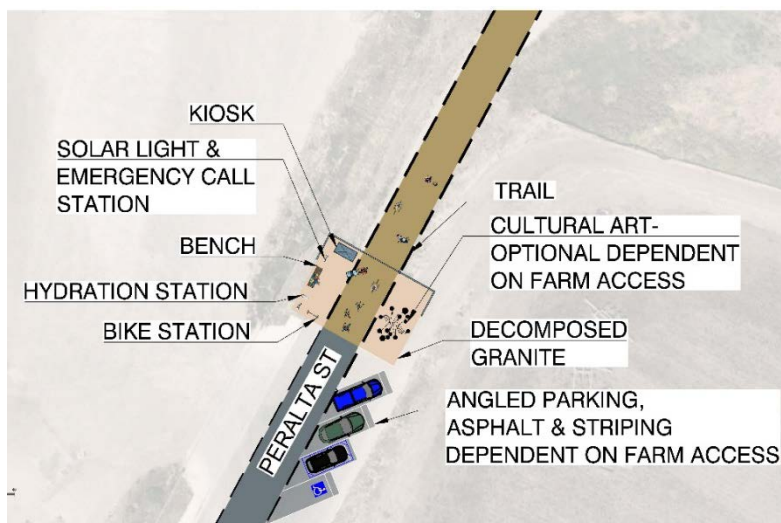


Figure 3: Peralta Street Trailhead

Conclusion

Both alternatives present unique challenges. Due to coordination with UPRR, USACE, and Caltrans, significantly higher costs, and trail access closures during storms, Alternative A presents the most challenges that could render it infeasible. The main challenge with Alternative B is the private property acquisition. Aside from the property considerations, Alternative B would be significantly less expensive, would have a much simpler project development process, and would provide better connectivity to the City core compared to Alternative A. For these reasons, Alternative B is the recommended connection.