

5.0 ALTERNATIVES

The California Environmental Quality Act (CEQA) requires that an EIR contain an analysis of a range of reasonable alternatives to a project that could feasibly attain most of the basic objectives of the North Connector Project (Project) while avoiding or substantially lessening any significant impacts. The analysis also evaluates the comparative merits of the alternatives (CEQA Guidelines § 15126.6). Alternatives that avoid or substantially reduce significant impacts are considered, even if these alternatives would not meet the project objectives or would be more costly (CEQA Guidelines § 15126.6(b)). As required by CEQA, this chapter includes an analysis of a No-Project Alternative.

The Project has been described and analyzed in the previous chapters and sections with an emphasis on significant impacts and mitigation measures to avoid these impacts. The alternatives analysis is intended to inform the public and decision-makers of alternatives to the Project and to provide a meaningful evaluation, analysis, and comparison of these alternatives to the Project. An EIR need not consider every conceivable alternative to a project. Among the factors that must be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, and jurisdictional boundaries (CEQA Guidelines § 15126.6(f)(i)).

The reasonable range of alternatives considered in this EIR was constrained by the purpose and need for the Project, which is to address existing and future traffic congestion on both local streets and I-80 in the Project area. Any alternative that would not achieve this purpose and need was not considered to be within the reasonable range of potentially feasible alternatives. A discussion of the alternatives process and the alignments considered but rejected, is as follows.

Alignment Evaluation Process

In developing the Project, the Solano Transportation Authority (STA) considered and evaluated a number of different alignments in both the East End and West End study areas. Below is a summary of the alignments that were considered (see Table 5-1, Screening Matrix for Proposed Alignments).

West End

Overall, eight alignments were considered within the West End (see Appendix D for graphic depicting each alignment). Alignment W4B was chosen for the Project. Seven other alignments were considered, including: W1, W2, W3, W4A, W5, W6 and W7.

Alignment W1 was considered and withdrawn because of its impacts to a future planned development to the north. Alignments W2, W3, W5 and W6 were considered and withdrawn due to their impacts on the North Bay Aqueduct (NBA) and the proximity of the alignments to the future planned development to the north. Alignment W4A was withdrawn because it would impact the existing pond located on the Mangels property in the West End.

Alignment W7 follows a route that would be consistent with alternatives being studied as part of the I-680/I-80/SR12 Interchange project. This alignment would connect with SR12 at an at-grade intersection to the west of Red Top Road. Motorists traveling on the North Connector bound for I-80 west would need to turn left onto SR12 and right

onto Red Top Road. This movement would cause operational inefficiencies on SR12 West since it creates an additional at-grade intersection on SR12 West. Because this would result in two intersections in close proximity to one another, it would contribute to slow truck-climbing speeds. Furthermore, this alignment would require additional grading and as a result could cause visual impacts associated with the anticipated approximately 100-foot-deep embankment slopes that would be constructed. Because the Interchange project is in its early planning stages and may be many years from implementation, and combined with the discontinuous roadway network that would result from the construction of this alignment in absence of the Interchange project, this alignment was withdrawn from further study.

East End

Overall, five alignments were considered within the East End (see Appendix D for a graphic depicting each alignment). Alignment ET3 was chosen for the Project. Four other alignments were considered, including E1, E2, ET1, and ET2.

Alignment ET1 and ET2 were considered and withdrawn because of higher indirect impacts to agricultural resources. These alignments would have greater impacts to agricultural resource than the other alignments because they would be located further north of I-80 than ET3. Alignment E1 and E2 were eliminated from consideration because they would directly conflict with the proposed future location of the I-80 Truck Scales, being studied as part of the Interchange project.

Table 5-1. Screening Matrix for Proposed Alternatives

Alternative	Design Speed/ LOS	Length	Earthwork 2:1 Side Slope	Remarks
W1	80 kph (50 mph)	1,530 m 5,020 ft.	Fill: 36,970 CM Cut: 36,900 CM	Crosses aqueduct. Impacts housing. Dropped.
W2	80 kph (50 mph)	1,677 m 5,500 ft.	Fill: 27,490 CM Cut: 58,050 CM	Crosses aqueduct. Impacts housing. Requires large cut. Dropped.
W3	80 kph (50 mph)	1,693 m 5,555 ft.	Fill: 33,080 CM Cut: 60,290 CM	Crosses aqueduct. Impacts housing. Reduces I-80 interchange spacing. Dropped.
W4A	80 kph (50 mph)	1,290 m 4,230 ft.	Fill: 42,950 CM Cut: 43,100 CM	Impacts pond area. Dropped.
W4B*	80 kph (50 mph)	1,350 m 4,430 ft.	Fill: 40,250 CM Cut: 40,300 CM	
W5	80 kph (50 mph)	1,418 m 4,650 ft.	Not Calculated	Crosses aqueduct. Impacts housing. Requires large cut. Dropped.
W6	80 kph (50 mph)	1,323 m 4,340 ft.	Not Calculated	Crosses aqueduct. Impacts housing. Requires large cut. Dropped.
W7	56.33 kph (35 mph)	1,280 m 4,200 ft.	Approximately 100 ft deep	Alignment based on an alternative being studied as part of the I-80/680/SR12 Interchange project. Dropped.
E1	80 kph (50 mph)	2,618 m 8,590 ft.	n/a**	Conflicts with planned Truck Scales project. Dropped.
E2	80 kph (50 mph)	2,607 m 8,550 ft.	n/a	Conflicts with planned Truck Scales project. Dropped.
ET1	80 kph (50 mph)	2,539 m 8,330 ft.	n/a	Greater indirect impact on farmlands. Dropped.
ET2	80 kph (50 mph)	2,599 m 8,530 ft.	n/a	Greater indirect impact on farmlands. Dropped.
ET3*	80 kph (50 mph)	2,356 m 7,7730 ft.	n/a	

Note: The volumes listed above do not account for shrinkage.

*W4B and ET3 were the alignments chosen for the North Connector Project.

** Earthwork in the East End is limited for all alternatives evaluated due to the relatively flat topography of the area.

ALTERNATIVES CONSIDERED

The Project would result in significant impacts (before mitigation) in the environmental issue areas of land use and agricultural resources, transportation and traffic, air quality, noise, biological resources, aesthetics, cultural resources, geology and soils, hydrology and water quality, hazards, and public services and recreation. Some of these impacts could either be reduced or avoided by the other alternatives studied, which include the No-Project Alternative, Improvement of Existing Roadways Alternative, and the Enhanced Bus Service Alternative.

No-Project Alternative - Under the No-Project Alternative, the improvements proposed by the Project would not occur. Other planned and approved projects in the area would still be implemented.

Improvement of Existing Roadways Alternative (Existing Roadways Alternative) – Under the Existing Roadways Alternative, the West End would be constructed as proposed in the Project. In the East End, the planned North Connector improvements would not be constructed, but Abernathy Road and Rockville Road would be expanded and improved to accommodate additional traffic from I-80.

Enhanced Bus Service Alternative – Under the Enhanced Bus Service Alternative, none of the planned North Connector improvements would be constructed. However, additional transit service strategies would be implemented. These strategies could include expanded bus services, extended routes, and shorter headways between stops.

A comprehensive discussion of the alternatives is provided below, as well as a discussion of the environmentally superior alternative.

NO-PROJECT ALTERNATIVE

CEQA requires that an EIR evaluate and analyze the impacts of a no-project alternative. Under the No-Project Alternative, no new roadway would be constructed, including the planned multi-use path and the bridge across Suisun Creek. Ongoing maintenance activities associated with I-80 would continue. This alternative would not meet the STA's objective to address existing and future traffic on local streets, nor would it close existing gaps in circulation between downtown Fairfield and Suisun Valley and Green Valley.

Comparative Analysis of No-Project Alternative

Land Use and Agricultural Resources –

Although closely related, impacts to land use and agricultural resources have been analyzed individually and are included as two separate environmental topic areas in Table 5-1.

Land Use

Land uses would not change as a result of the No-Project Alternative, and therefore there would be no conflicts related to surrounding land uses and no division or disruption of an existing community. Impacts to land use would be less than with the Project.

Agricultural Resources

The No-Project Alternative would avoid the Project's impact to agricultural lands because no prime farmland would be converted to a non-agricultural use. Impacts to agricultural resources would be less than significant with the Project.

Transportation and Traffic – The No Project Alternative would not include any new roadway construction and resulting increase in roadway capacity north of I-80. As a result, it would not address the main objective of the Project which is to address existing and future congestion on both local streets and I-80 within the Project area. Motorists wishing to access areas of Suisun Valley and Green Valley north of I-80 would continue to use I-80 or Rockville Road which is a 2-lane country road with limited capacity. Section 4.2 of the EIR provides a complete analysis of the future year 2020 No-Project alternative and comparison with the proposed Project. Table 4.2-4, in section 4.2, shows that in 2020 under the No-Project alternative seven intersections would operate at unacceptable levels of service (LOS) in either the AM or PM peak hour (or both) compared to four intersections that would operate at unacceptable LOS under the 2020 With Project condition. In addition, the No Project Alternative would not reduce congestion on I-80.

Air Quality – Under the No-Project Alternative, seven study area intersections would operate at unacceptable LOS in the future year 2020 (see discussion above under Section 4.2, Transportation and Traffic) compared to four intersections with the proposed Project. In addition, congestion of I-80 would not be reduced under the No-Project Alternative. The No-Project Alternative would result in increased congestion (more overall delay and slower speeds) at study area intersections and along I-80 when compared to the proposed Project. As discussed in section 4.3 Air Quality, slower average speed would increase the rate of emission of reactive organic gases (ROG). However, the No-Project alternative would avoid both emissions generated by construction equipment and dust generated by construction activities that would be associated with the proposed Project.

Noise – The No-Project Alternative would avoid all noise impacts associated with construction of the Project. Section 4.4, Noise, provides a complete analysis of the future year 2020 No-Project conditions compared to the future year 2020 with the proposed Project. Noise levels in both the West and East Ends of the project area are anticipated to increase in the future under the No-Project conditions as traffic continues to increase on local roadways and Interstate 80 independent of the proposed Project. Local noise levels at most noise-sensitive land uses in the project area are anticipated to exceed the County noise standards under the No-Project conditions in 2020. In the East

End, the proposed Project would not affect future noise levels at noise-sensitive land uses while in the West End, the proposed Project would add 1 dBA to local noise levels. The No-Project Alternative would avoid this 1 dBA increase in the West End, however noise sensitive land uses in this area would still be exposed to noise levels in exceedance of County standards.

Biological Resources – The No-Project Alternative would avoid the vegetation removal and biological impacts associated with the proposed Project. However, other planned transportation and land development projects would continue to have resulting impacts on vegetation and biological resources.

Aesthetics – The No-Project Alternative would avoid the visual changes primarily associated with construction of the West End of the proposed project. However, other planned transportation and land development projects would continue along with their resulting impacts on aesthetics of the surrounding areas.

Cultural Resources – The No-Project Alternative would avoid the potential impacts to unknown buried cultural resources that may be encountered during construction of the proposed Project.

Geology and Soils – As the No-Project Alternative would not construct or remove any roads or buildings, no changes in geology and soils would occur. Exposure of sensitive receptors to seismic events would be the same as existing conditions. Geology and soils impacts would be incrementally less than with the Project.

Hydrology and Water Quality – The No-Project Alternative would not result in any alteration of the existing topography through grading or excavation, and no additional impervious surfaces would be created. Hydrology and water quality impacts would therefore be less than with the Project.

Hazards – The No-Project Alternative would not result in the construction of any roadways that would result in the exposure of sensitive receptors to hazards or hazardous materials. Therefore, hazards and hazardous materials impacts may be less than with the Project.

Population and Housing – The No-Project Alternative would avoid the removal of one business that would occur with the proposed Project.

Public Services, Utilities and Recreation – The No-Project Alternative would not result in any changes to local services, utilities or recreation facilities. It would not result in the construction of a new multi-use path between Abernathy Road and Suisun Creek as would occur with the proposed Project. It would also not result in reduced congestion and additional local roadway infrastructure that could improve emergency service access to areas north of I-80 and reduce response times which would occur with the proposed Project.

IMPROVEMENT OF EXISTING ROADWAYS ALTERNATIVE (EXISTING ROADWAY ALTERNATIVE)

The Existing Roadways Alternative is focused on improvements to existing roadways, rather than constructing an entirely new roadway alignment, to address the demand for improved roadway capacity between Abernathy Road and the Suisun Valley and Green Valley areas. In this area the local roadways that would need to be improved/widened include Abernathy Road, Rockville Road and a portion of Suisun Valley Road. This alternative includes the extension of Business Center Drive to the west to connect to SR12 West/Red Top Road as shown in the proposed Project. This alternative would consist of the following improvements.

- 1) Widen Abernathy Road from I-80 to Rockville Road from 2 to 4 lanes.
- 2) Widen Rockville Road from Abernathy Road to Suisun Valley Road from 2 to 4 lanes. Includes widening of the existing bridge across Suisun Creek.
- 3) Widen Suisun Valley Road from Rockville Road to the north entrance to Solano Community College.
- 4) Intersection improvements at Abernathy/Rockville Road and Rockville/Suisun Valley Roads.

The limits of these improvements are depicted in Figure 5-1.

Comparative Analysis of Improvement of Existing Roadway Alternative

Impacts resulting from the construction of the West End would be the same as those discussed in Chapter 4 of this EIR. The following analysis therefore focuses on the potential impact of development in the eastern portion of the Project site, comparing the East End alignment (in the Project) with the Existing Roadway Alternative.

Land Use and Agricultural Resources –

Land Use

The Existing Roadway Alternative would result in potential displacement of approximately 4 residences, 1 shed along Rockville Road, and the majority of a commercial businesses parking lot at the intersection of Rockville and Suisun Valley Roads. In addition, widening Rockville Road to 4-lanes would require land to be acquirements from many residential properties that front Rockville Road impacting their access driveways and front yards. As a result, the Existing Roadway Alternative would result in more significant land use impacts when compared to the proposed Project.

Agricultural Resources

The Existing Roadway Alternative would result in the conversion of Prime Farmland that abuts Abernathy and Rockville Roads. The Existing Roadway Alternative would also have limited to no indirect effect on Prime Farmland as there would be little potential for the creation of non-farmable portions of existing parcels. As a result, the amount of Prime Farmland that would be converted would be less than under the proposed Project.

Transportation and Traffic – The Existing Roadway Alternative would create additional roadway capacity north of I-80. However, because of the location of these roads, and primarily Rockville Road, motorists would travel a greater distance to connect to the lower Suisun Valley and Green Valley areas when compared to the proposed Project. At

the intersection of Suisun Valley Road, Rockville Road is over a mile north of I-80. In comparison, the Project is approximately ¼ mile north of I-80. As a result, this alternative would be less attractive to motorists wanting to access the Suisun Valley and Green Valley areas than the proposed Project, and could result in more cars choosing to stay on I-80 as a preferred route for local trips. As a result, the effectiveness of the Existing Roadway Alternative at addressing local traffic congestion would be somewhat better than the No-Project Alternative but worse than the proposed Project.

Air Quality – Under the Existing Roadway Alternative, construction and operation period air quality emissions would be similar in quantity to those under the proposed Project. However, a greater number of sensitive receptors (residences along Rockville, Abernathy and Suisun Valley Roads) would be exposed to construction-period (temporary) and operation (permanent) emissions when compared to the proposed Project. As a result, air quality impacts would therefore be incrementally greater than with the Project.

Noise – Under the Existing Roadway Alternative, an increased number of sensitive receptors (residences) would be exposed to noise during both the construction period (temporary) and operation (permanent) when compared to the proposed Project. Furthermore, increases in traffic on Rockville Road, Abernathy Road, and Suisun Valley Road could result in increases in traffic noise levels for these receptors and the construction of noise walls to mitigate this increase would be difficult because of the requirement to provide access (driveways) to each of the potentially affected residences. As a result, noise impacts are considered to be greater than with the Project.

Biological Resources – The Existing Roadway Alternative would primarily involve construction in areas already disturbed by residential, agricultural or commercial development. The Existing Roadway Alternative would result in the removal of trees and other vegetation along the existing roadways as well as substantial tree and vegetation removal along Suisun Creek to widen the existing Rockville Road bridge. Although the actual impacts to biological resources would require detailed biological studies, it is likely that potential impacts of the Existing Roadway Alternative would be comparable to those of the proposed Project because both primarily involve construction in areas that have been previously disturbed by residential, agricultural and/or commercial development and both the widening the Rockville Road crossing at Suisun Creek and construction of a new crossing as proposed with the Project would most likely have similar impacts to biological resources.

Aesthetics – The Existing Roadway Alternative would change the aesthetic character of these rural country roads (adjacent to farmhouses and agricultural fields). Because many residences are located along these roads, this visual change would affect a larger number of people when compared to the proposed Project which has limited residences along the East End. Given that the visual effects of the West End would be the same under this Alternative, the Existing Roadway Alternative is considered to have a greater impact on aesthetics when compared to the proposed Project.

Cultural Resources – Both the Project and the Existing Roadway Alternative could result in excavation of previously undisturbed archaeological resources. There are existing residential and commercial buildings located along Rockville Road and Abernathy Road. Many of these buildings are over 50 years in age and would need to be evaluated as to their potential historical significance. Given the presence of older structures and that

Rockville Road has been in place since the early 1900's, there is a higher potential to encounter historic resources under this alternative when compared to the proposed Project.

Geology and Soils – The Existing Roadway Alternative would likely have similar geology and soils impacts as the proposed Project.

Hydrology and Water Quality – Under the Existing Roadway Alternative, potential earthwork and/or grading could alter existing topography and would great additional impervious surfaces. Both the Existing Roadway Alternative and the proposed Project would be required to treat increased runoff generated by new impervious surfaces. Therefore, hydrology and water quality impacts would be similar to the Project.

Hazards – The Existing Roadway Alternative would result in the demolition of 4 residences and 1 shed. Given the age of these structures there is the potential to encounter asbestos and lead paint. Exposure during construction to contaminated soils and groundwater would be similar to that of the proposed Project. The risk of accidental upset or release of contaminants from vehicles while they are traveling on the improved roadway would be similar to that generated by the proposed Project. As a result, impacts associated with hazards would be similar when compared to the proposed Project.

Population and Housing – The Existing Roadway Alternative could result in the removal of 4 residences, 1 metal shed, and the parking lot of a commercial building along Rockville Road for the roadway right-of-way compared to one business that would be displaced under the proposed Project. As a result, the Existing Roadway Alternative would have a greater impact on local population than the proposed Project.

Public Services and Recreation – Both the Existing Roadway Alternative and the proposed Project would provide improved access for public service and emergency service providers. Neither the proposed Project nor the Existing Roadway Alternative would result in the need for additional public services. Although the Existing Roadway Alternative would not include the multi-use path that is proposed by the Project, public services and recreation impacts would be similar to the Project.

Utilities and Service Systems – The Existing Roadway Alternative would not result in the need for additional utilities or service systems such as water, sewer, and electricity. As a result, the demand for utilities and service systems would be similar to the proposed Project.

ENHANCED BUS SERVICE ALTERNATIVE

The Enhanced Bus Service Alternative is defined as more frequent service during peak times on the existing line that currently serves the Project area.

The existing Fairfield/Suisun City Transit (FST) System provides bus services to locations within the County, and to locations as far as the Walnut Creek and Cerrito Del Norte Bart stations, Sacramento, and Vacaville.¹ Only FST Route 7 (Cordelia Villages) provides bus service to the Project area.² Route 7 provides service from the Fairfield Transit Center in downtown Fairfield to the Solano Community College and other points along Suisun Valley Road. The route uses local roadways to serve the area and within the immediate project area the Route 7 traverses Abernathy Road, Rockville Road and Suisun Valley Road. Route 7 operates on one hour headways and currently has an average total daily ridership of approximately 335 riders/day. Ridership on this route is higher while schools are in session.³ Typical FST buses can accommodate 32 passengers per trip, for a total daily capacity of 832 passengers assuming one hour headways.

In addition to FST Transit, the Vallejo Transit Route 85 bus line includes stops at Green Valley Road/Business Center Drive and at Solano Community College and provides hourly bus service.

This alternative assumes the following:

- 1) Reduced bus headways to 30 minutes during AM and PM peak periods
- 2) No change in route location

Comparative Analysis of Enhanced Bus Service Alternative

Impacts resulting from the Enhanced Bus Service Alternative would be similar in nature to the No-Project Alternative, in that it would not involve construction of the new roadway and would avoid the impacts to agricultural resources, biological resources and displacement of one business that would occur with the proposed Project. However, it would result in slight differences in transportation and traffic (and therefore, could affect air quality and noise impacts) and therefore the evaluation of this alternative is focused on these topic areas.

Transportation and Traffic – While the Enhanced Bus Service Alternative would not construct new roadway capacity it would provide additional transportation capacity through the provision of additional bus service during peak hours. Reduced headways during peak commute hours could encourage motorists to ride transit and thereby reduce the traffic demand on local roadways and I-80. However, the extent to which motorists would choose transit service is greatly reduced in the project area due to the nature of the types of destinations and land use patterns. Many of the destinations in

¹ Route 7 operates daily from 7:00 AM to 8:00 PM. A total of 13 buses travel in each direction in a single day for a total of 26 trips a day. For information on specific routes and their schedule, refer to <http://www.ci.fairfield.ca.us/busroutes.htm>

² Route 7 (Cordelia Villages) provides service to nine stops, including Green Valley Middle School, Rodriguez High School, and Solano College.

³ FST Transit information (route, ridership, and bus capacity information) provided by Mike Duncan, City of Fairfield, 2007.

the immediate Green Valley and Suisun Valley area are commercial/retail in nature. While employees may use transit service to and from their jobs, customers of retail stores would be less likely because retail trips are often combined with other trips. In addition, due to the land use pattern which is a combination of commercial, retail, office, agricultural and residential uses scattered throughout the area at relatively low densities, efficient transit service is more difficult. These factors have combined to result in a relative low ridership on the existing Route 7 (operates at approximately 40% capacity). Much of this current ridership is school oriented with students attending local public schools and Solano Community College. As a result, the ability to obtain significant increases in ridership by reducing headways is severely limited.

Another factor hindering the ridership on Route 7 is the circuitous route the bus travels to access the Suisun Valley area. Route 7 utilizes Abernathy, Rockville and Suisun Valley Roads which takes the bus through rural areas. In fact the Transit Study prepared by STA included recommendations for the future bus route to utilize the proposed Project as a way to improve the efficiency and effectiveness of this route in serving the Suisun Valley area.⁴

Based on this assessment, the Enhanced Bus Service Alternative would have a limited effect on addressing future congestion in the project area and would be less effective than the proposed Project.

Air Quality – The Enhanced Bus Alternative would avoid construction period air quality impacts when compared to the proposed Project. While the Enhanced Bus Alternative would reduce congestion compared to the No-Project Alternative, the extent to which the congestion would be reduced would be minimal and therefore the resulting air quality benefits would be minimal.⁵ However, as stated in the Transportation and Traffic section above, there is no guarantee that additional buses and enhanced transit options would result in a substantial reduction in traffic on I-80 and the Project area.

Noise – The Enhanced Bus Service Alternative would avoid construction-period noise impacts. However, operation of this alternative would result in increased bus service along local roadways such as Abernathy, Rockville and Suisun Valley Roads which could result in increased noise levels at local residences. Because the number of potentially affected residences along these roadways is substantially larger than the number of residences along the proposed Project, the potential noise impacts from operation of the Enhanced Bus Service Alternative are considered slightly higher than the proposed Project.

Cultural Resources – The Enhanced Bus Service Alternative would avoid potential impacts to unknown buried archaeological resources because it would not involve any construction activities.

Geology and Soils – As the Enhanced Bus Service Alternative would not construct or remove any roads or buildings, no changes in geology and soils would occur. Exposure

⁴ Final SR12 West Transit Corridor Study, January 2006.
<http://www.solanolinks.com/studies.html#sr12transit>

⁵ This could be further improved by the use of low-emission or electric buses.

of sensitive receptors to seismic events would be the same as existing conditions. Geology and soils impacts would be incrementally less than with the Project.

Hydrology and Water Quality – The Enhanced Bus Service Alternative would avoid the creation of additional impervious surfaces and potential degradation of stormwater runoff during both construction and operation when compared to the proposed Project.

Population and Housing – The Enhanced Bus Service Alternative would not result in the construction or removal of any structures, including residential housing. Population and housing impacts would be less than with the Project.

Public Services and Recreation – The Enhanced Bus Service Alternative would not provide improved local roadway capacity that would be associated with the proposed Project or the Existing Roadway Alternative which would benefit local emergency service providers.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 5-1 provides a summary of the comparative environmental impacts from the Project and the No-Project Alternative, Existing Roadway Alternative, and the Enhanced Bus Service Alternative. Based on an analysis of the environmental impacts, although the table indicates that the No Project and Enhanced Bus Service alternatives have a similar number of positive and negative impacts, the Enhanced Bus Service Alternative, due to the potential reduction in transportation and traffic impacts, is environmentally superior, in that the use of alternative transit and implementation of transit strategies would reduce existing and future transportation and traffic impacts, and could result in more improved air quality. Therefore, the environmentally superior alternative to the Project is the Enhanced Bus Service Alternative.

However, the Enhanced Bus Service Alternative does not fully serve the purpose and need of the Project in that it does not improve/increase existing east-west capacity or reduce congestion on both local streets and I-80.

Table 5-2 Alternative Impact Analysis

Environmental Topic Area	Alternative			
	North Connector Project	No-Project Alternative	Existing Roadway Alternative	Enhanced Bus Alternative
<i>Land Use</i>	LTS	-	+	-
<i>Agricultural Resources</i>	LTS/M	-	-	-
<i>Transportation and Traffic</i>	LTS/M	+	+	+
<i>Air Quality</i>	LTS/M	+	+	+
<i>Noise</i>	LTS/M	-	+	+
<i>Biological Resources</i>	LTS/M	-	=	-
<i>Aesthetics</i>	LTS/M	-	+	-
<i>Cultural Resources</i>	LTS/M	-	+	-
<i>Geology and Soils</i>	LTS/M	-	=	-
<i>Hydrology and Water Quality</i>	LTS/M	-	=	-
<i>Hazards</i>	LTS/M	-	=	-
<i>Population and Housing</i>	LTS	-	+	-
<i>Public Services and Recreation</i>	LTS/M	+	=	-
<i>Utilities and Service Systems</i>	LTS	-	=	-
<p>S – Significant impact SU – Significant and unavoidable impact LTS – Less than significant impact LTS/M – Less than significant impact with mitigation measure = - equal level of impact to North Connector Project + - greater level of impact compared to North Connector Project - - lesser level of impact compared to North Connector Project</p>				

Source: CirclePoint.



LEGEND

-  Existing Roadway Alternative (widened to 4-lanes)
-  Planned Roadway to be Constructed by Others
-  Existing Roadway
-  West End of North Connector Project

Figure 5-1. Improvement of Existing Roadways Alternative



Map not to scale

CONNECTOR



Source: Solano Transportation Authority