Gila Bend Development Study

Phase 1 Conditions

Prepared for

Town of GILA BEND

MARICOPA ASSOCIATION of GOVERNMENTS

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1.0 Introduction

The Maricopa Association of Governments (MAG) is evaluating traffic conditions along Pima Street (also known as State Route Business 8) between Gila Boulevard and Dodson Street. As an ADOT facility, Pima Street serves as the primary arterial for the Town of Gila Bend and is a critical regional connection linking Interstate 8 (I-8) and State Route 85 (SR 85) and Maricopa Road. The corridor faces challenges characterized by high-speed through traffic and challenging southbound left turns out of driveways and streets, contributing to operational and safety concerns for local drivers. During peak demand periods, intersections are susceptible to degraded levels of service and limited gap opportunities. Additionally, a shortage of designated truck parking results in unauthorized parking in areas not designed to accommodate heavy vehicles. The proposed GB Ranch development is expected to exacerbate these existing issues as it will introduce new travel demand within the study area. **Figure 1** shows the study area extends along Pima Street between Gila Boulevard and Dodson Street and the proposed GB Ranch site.

Figure 1 – Study Area

The Existing Conditions Report established a baseline assessment of traffic operations, access limitations, and capacity performance within the study corridor. Peak hour traffic volumes were analyzed at key intersections and driveways along Pima Street using delay-based Level of Service (LOS) metrics. Under current conditions, all access points operate within acceptable thresholds,

with the worst reported LOS being "D" during the PM peak at Gila Boulevard. A sensitivity analysis was conducted to evaluate how the corridor responds to increased traffic volumes typical of regional detours, holidays, or events. This analysis identified the Pima Street intersections with Gila Boulevard and SR 85 as the most susceptible to operational decline under stressed conditions, due in part to limited lane capacity and geometric constraints. These findings confirm that while the corridor currently operates within capacity, it lacks resilience under higher traffic demand. This reinforces the need for targeted improvements to maintain mobility and safety, particularly as phased development activity begins to generate new trips and modify traffic patterns within the study area.

Based on the findings of the Existing Conditions Report, several immediately actionable mitigation strategies were identified to address existing operational and safety challenges along the corridor. Immediate mitigation strategies considered include targeted traffic calming measures to address speeding concerns. These recommendations focus on feasible, lower-cost improvements intended to enhance corridor safety.

Truck parking was identified as a concern in the Existing Conditions Report; however, potential solutions are limited without significant stakeholder coordination. Addressing this issue in a meaningful way would require broader planning effort, such as a dedicated truck study, which falls outside the scope of this project.

2.0 Mitigation Strategies

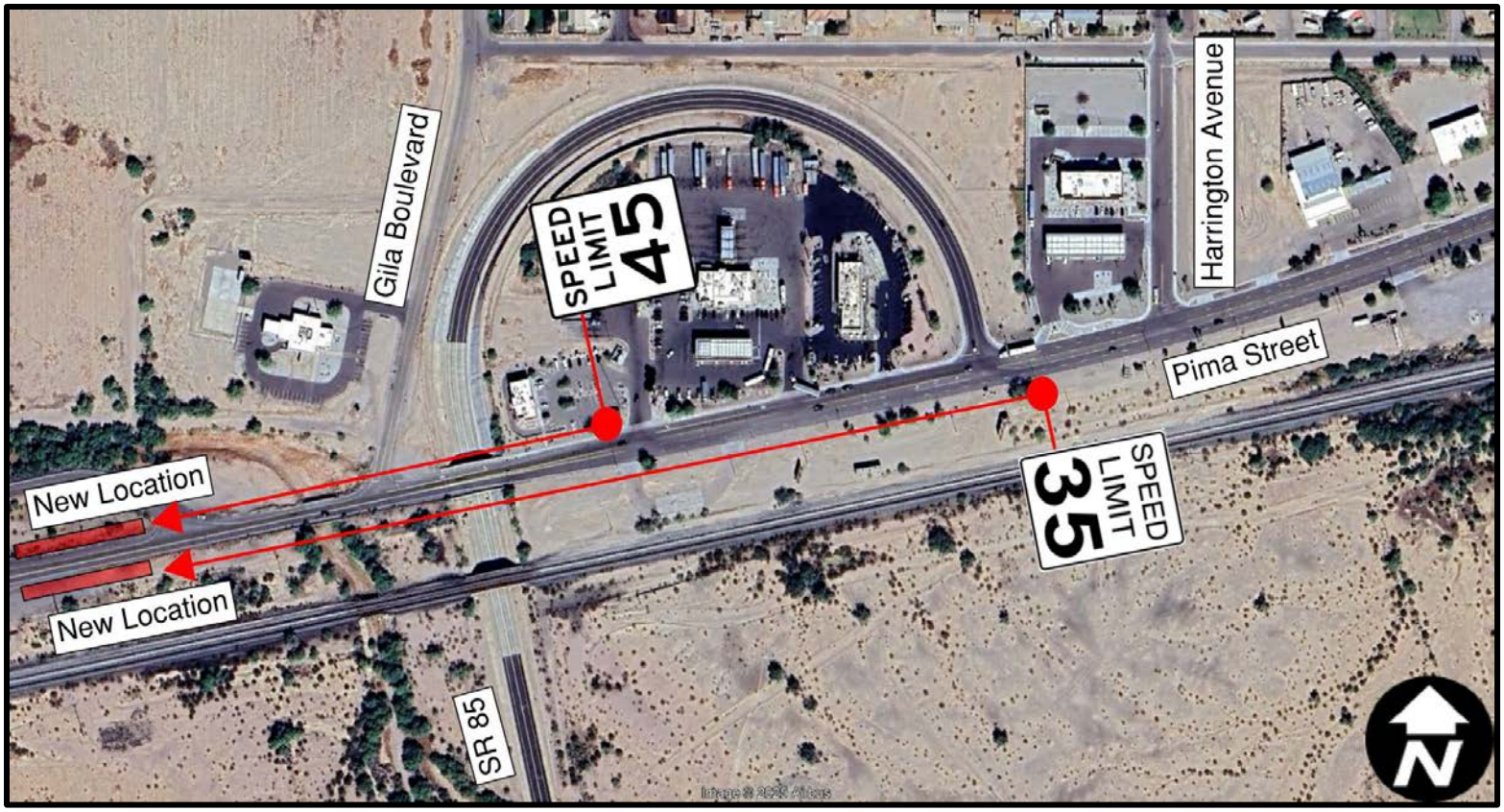
2.1 Speeding

2.1.1 Speed Limit Sign Relocation

The existing location of the 45-mph speed sign is still within the densely developed regions of Gila Bend encouraging traffic upstream to increase their speed amidst business access points. Encouraging higher speeds amidst several business access points contributes to traffic turbulence. Relocating the sign west—closer to the western limit of the study corridor—would align speed limit messaging with roadway context and is anticipated to encourage drivers to maintain lower speeds through the corridor, accelerating after they exit the densely developed areas on their approach to I-8. The recommended speed limit sign relocations are shown in **Figure 2**.

In the eastbound direction, a second speed limit sign could be employed instead of moving the existing sign. The existing sign could also be replaced by a speed feedback sign as discussed in **Section 2.1.3**. While this is a low-cost solution to encourage slower speeds, coordination will be required with ADOT for a potential study to confirm the speed transition relocation.

Figure 2 – Speed Limit Sign Relocation



2.1.2 Welcome Sign Relocation

With the intent of addressing speeding drivers entering the study area from nearby freeways, a simple solution to prompt a speed reduction is the relocation of the existing Welcome Sign closer to the western limit of the study corridor. This visual cue can help reinforce the transition from a high-speed, regional travel context to a lower-speed, community-oriented environment. By signaling the entrance to the Town, the relocated signage may prompt drivers—consciously or subconsciously—to reduce their speed accordingly. The Welcome Sign is currently positioned near Harrington Avenue, visible to drivers only once they have already entered a lower speed area. The recommended Welcome Sign relocation is shown in **Figure 3**.

Figure 3 – Welcome Sign Relocation

2.1.3 Speed Feedback Sign

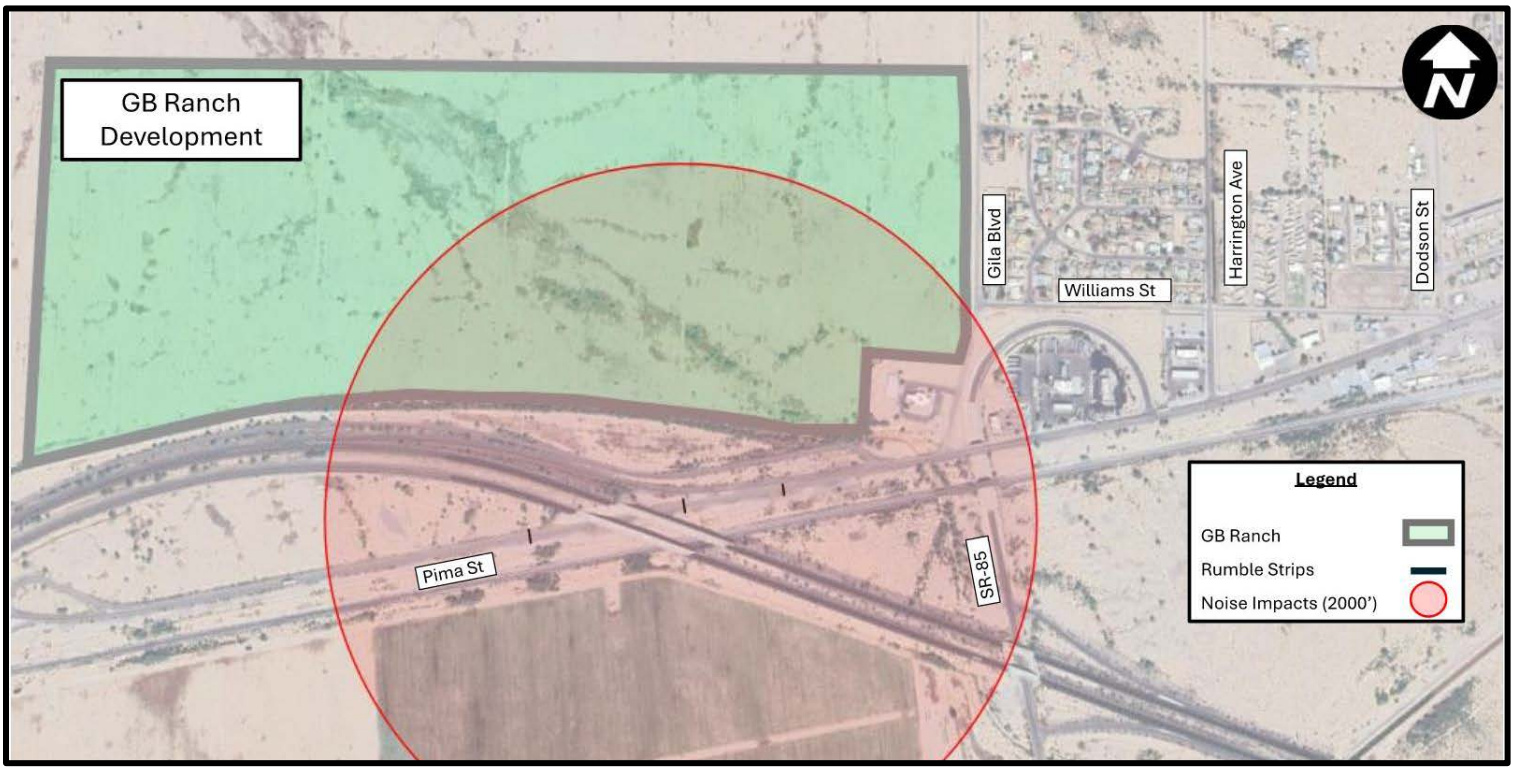
Speed feedback signs represent a low-cost speed mitigation strategy that can be deployed at targeted locations along the corridor where speeding is most prevalent. These signs display real-time vehicle speeds to approaching drivers, increasing awareness and encouraging voluntary compliance with the posted speed limit. They can be strategically positioned and activated during specific times of day when speeding issues are most pronounced, enhancing their effectiveness as a visual enforcement tool. The proposed speed feedback sign placement location is shown in **Figure 4** and would replace the existing speed limit sign in this location.

Figure 4 – Speed Feedback Sign Placement

2.1.4 Rumble Strips

Rumble strips were initially considered as a traffic calming measure; however, further research has determined the proximity of residential land uses along Pima Street makes rumble strips unsuitable. The elevated noise levels generated when vehicles traverse rumble strips would negatively impact nearby residents, rendering them an inappropriate treatment for this corridor. The noise impact radius of the potential rumble strip locations is shown in **Figure 5**.

Figure 5 – Rumble Strip Locations



2.2 Truck Traffic

The Existing Conditions Report identifies truck parking as a recurring issue along Pima Street. Due to the position of Gila Bend along a regional corridor with multiple truck service stations, truck traffic is heavy, and the area has become a common stopping point for drivers. However, the supply of designated truck parking spaces may not be sufficient to meet current demand. Addressing this issue will require strategic planning beyond the scope of this study. In reference to the *MAG Truck Parking Best Practices Review*, Gila Bend could explore the following potential solutions:

- Increasing the supply of legal truck parking through public-private partnerships
- Improving signage and wayfinding
- Enhancing enforcement of existing parking regulations

Considerations of implementing a truck ban on certain local roads will require a separate study to prove that trucks present a safety hazard to residents along that road and a truck ban is the only solution as stated in Senate Bill 1097.

3.0 Phase 1 Forecast

3.1 Trip Generation

Traffic volumes associated with the Phase 1 condition of the GB Ranch development were estimated using trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. These rates were applied based on the proposed land uses identified in the GB Ranch construction and development plans for Phase 1, which include an RV park, a shopping plaza, and a supermarket. The generated traffic volumes account for new external trips, internal capture between land uses, reductions for alternative modes, and pass-by traffic associated with commercial activity. Estimated inbound and outbound vehicle movements during the AM and PM peak hours were added to the existing traffic volumes derived from traffic counts, as documented in the Existing Conditions Report. **Table 1** summarizes the new trips generated by the Phase 1 developments. **Appendix A** provides further details of the trip generation assumptions.

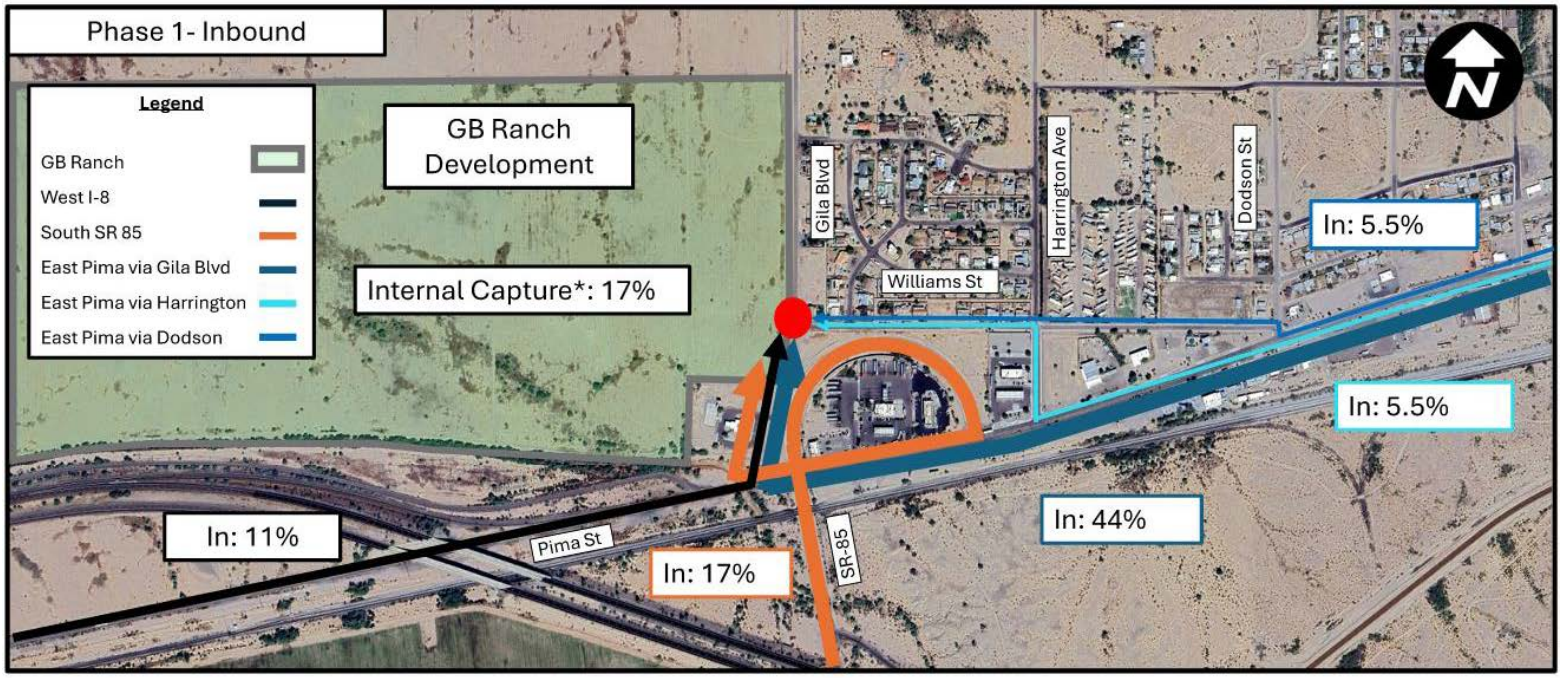
Table 1 – Trip Generation Phase 1 Summary Table

Phase 1			
Land Use	Recreational	Retail	Super Market
Land Use Code	416	821	850
ITE Land Use Title	Campground/ RV Park	Shopping Plaza (40-150k) w/o Supermarket	Super Market
Land Use Unit of Measurement (X)	Occupied Sites	1000 SF GLA	1000 SF GLA
Variable Amount	300	18	22
New Trips (AM)	60	29	48
New Trips (PM)	77	58	150

3.2 Distribution

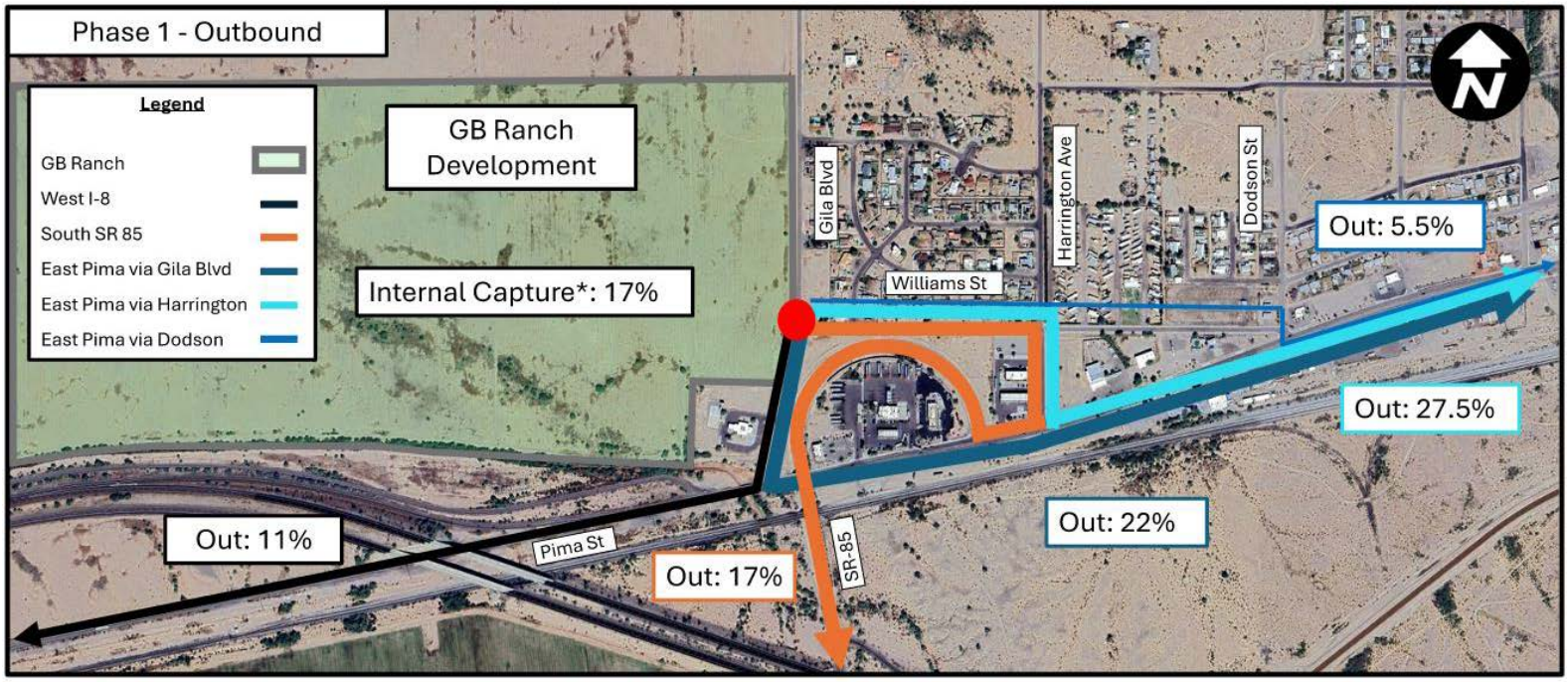
Trip distribution throughout the network was developed using a combination of shortest-path analysis and engineering judgment. Initial assignments were based on the most direct routes between origin and destination points. These base assumptions were then refined to reflect anticipated driver behavior under varying traffic conditions, including a tendency to avoid left turns onto Pima Street during peak periods due to limited gap availability at unsignalized access points and favoring routing utilizing right turns where feasible. This approach allowed for a more realistic representation of travel patterns and operational constraints within the corridor, resulting in a more accurate assignment of projected development-related trips. **Figure 6** shows the distribution of inbound traffic to the GB Ranch development, and **Figure 7** shows the distribution of outbound traffic from GB Ranch.

Figure 6 – Phase 1 Inbound Distribution Makeup



* Internal capture refers to trips starting and ending within GB Ranch Development

Figure 7 – Phase 1 Outbound Distribution Makeup

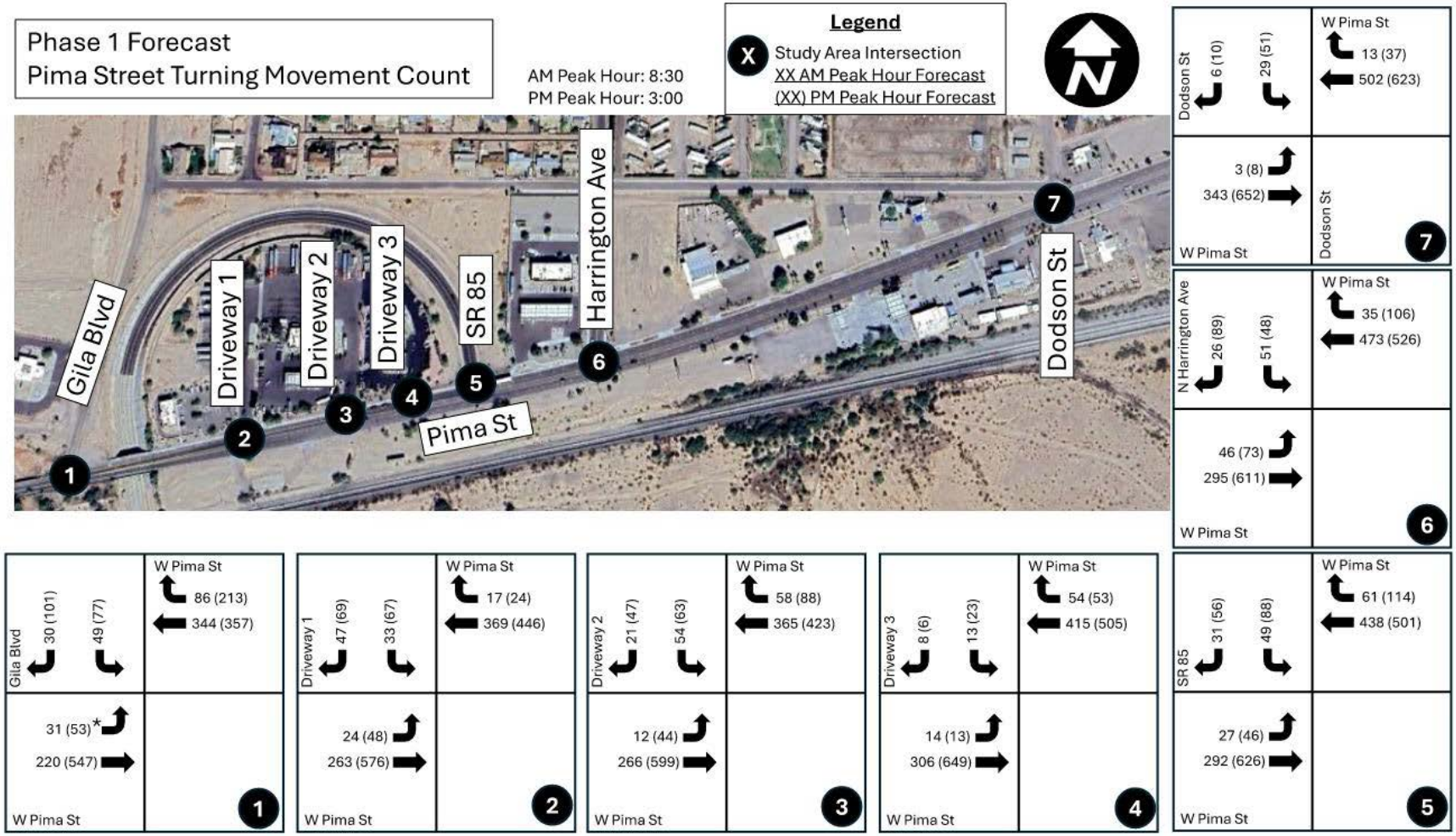


* Internal capture refers to trips starting and ending within GB Ranch Development

3.3 Volumes

Forecast volumes were established by combining existing traffic count data collected in November 2024 with the trip generation and distribution methodology discussed in Sections 3.1 and 3.2. These forecasted volumes serve as the basis for evaluating intersection performance under future conditions. This baseline scenario, referred to as the "No Build" scenario, represents projected network operations following the completion of GB Ranch Phase 1 development, assuming no intersection improvements are implemented within the study area. Forecasted turning movement volumes are depicted in **Figure 8** showing expected traffic demand after GB Ranch Phase 1 is complete.

Figure 8 – Phase 1 Forecast Volumes



*Movement restricted but drivers still use

4.0 Traffic Analysis Methodology

Intersections and driveways along Pima Street were evaluated using AM and PM peak-hour volumes to assess control delay, queue lengths, and level of service (LOS). The analysis considered key factors influencing operational performance at each access point, including driver gap acceptance, prevailing vehicle speeds, and the number of through lanes that must be crossed to access Pima Street. LOS was determined based on delay thresholds defined in the Highway Capacity Manual (HCM) for unsignalized intersections, as shown in **Table 2**. For the purposes of this study, a LOS of "D" or better is considered acceptable. Reported performance measures reflect the operations of stopped minor street approaches and driveway movements.

Table 2 – Unsignalized Intersection Capacity Analysis

Level of Service	Control Delay (s)
A	≤10
B	10 to 15
C	15 to 25
D	25 to 35
E	35 to 50
F	> 50

5.0 Traffic Analysis

5.1 Overview

The intersections of Gila Boulevard at Pima Street and SR 85 at Pima Street were identified as the most critical locations for potential near-term improvements based on their operational sensitivity and strategic importance within the corridor. Analysis was conducted for both the No Build scenario and a set of geometric intersection improvement alternatives to evaluate their effectiveness in mitigating queueing and delay, therefore improving intersection performance. To assess the effectiveness of early mitigation, LILO (Left-In/ Left-Out) configurations were evaluated under projected Phase 1 traffic conditions. **Appendix B** includes the detailed Synchro reports of the analysis. The construction of the raised medians inherent to LILOs converts the adjacent access points to RIROs (Right-In/Right-Out) when the raised median prohibits their left-turn movements. A RIRO is not considered an alternative in this study but a change of access impact due to raised medians associated with a LILO.

Table 3 summarizes the analysis results of improvement alternatives that were evaluated: a Partial LILO configuration at the intersection of Pima Street and Gila Boulevard (partial because the eastbound left is closed), and a Full LILO configuration at Pima Street and SR 85, Pima Street and Harrington Street, and Pima Street and Dodson Street (full because all movements are allowed). While the Phase 1 No Build scenario does not indicate an immediate need for operational improvements based on level of service thresholds, the analysis suggests that as traffic volumes increase, intersection performance will begin to deteriorate. The proposed near-term improvements provide an easily phaseable solution that can be further expanded upon during later phases of the GB Ranch development. The Full Buildout Report provides further information about how these near-term improvements could be implemented and expanded upon in the context of the greater study corridor.

Table 3 – Phase 1 Traffic Analysis Results Summary

Phase 1 PM		No Build			LILO Configuration		
		EB L	SB L	SB R	EB L	SB L	SB R
Pima Street & Gila Boulevard	**LOS**	A	D	D	-*	B	B
Pima Street & SR 85	**LOS**	A	E	E	A	C	C
Pima Street & Harrington Street	**LOS**	A	D	D	A	C	C
Pima Street & Dodson Street	**LOS**	A	D	D	A	C	C

*Movement Restricted

5.2 No Build

The Phase 1 analysis, based on the No Build traffic volumes developed through forecasting, produced the results summarized in **Table 4**.

Table 4 – Phase 1 No Build Analysis Results

Phase 1 No Build		AM			PM		
		EB L	SB L	SB R	EB L	SB L	SB R
Gila Blvd and Pima St	Max Queue (ft)	2.5	17.5	17.5	5.0*	85.0	85.0
	Delay (s)	8.4	14.3	14.3	9.0*	29.0	29.0
	LOS	A	B	B	A*	D	D
Driveway 1 and Pima St	Max Queue (ft)	2.5	15	15	5.0	47.5	47.5
	Delay (s)	8.7	13.4	13.4	9.2	20.9	20.9
	LOS	A	B	B	A	C	C
Driveway 2 and Pima St	Max Queue (ft)	0.0	15.0	15.0	5.0	30.0	30.0
	Delay (s)	8.9	13.5	13.5	9.5	17.2	17.2
	LOS	A	B	B	A	C	C
Driveway 3 and Pima St	Max Queue (ft)	0.0	2.5	2.5	0.0	5.0	5.0
	Delay (s)	8.4	11.9	11.9	8.8	14.1	14.1
	LOS	A	B	B	A	B	B
SR 85 and Pima St	Max Queue (ft)	2.5	20.0	20.0	5.0	90.0	90.0
	Delay (s)	9.0	16.4	16.4	9.6	37.9	37.9
	LOS	A	C	C	A	E	E
Harrington Ave and Pima St	Max Queue (ft)	5.0	22.5	22.5	7.5	62.5	62.5
	Delay (s)	9.1	18.4	18.4	9.9	26.8	26.8
	LOS	A	C	C	A	D	D
Dodson St and Pima St	Max Queue (ft)	0	7.5	7.5	0.0	27.5	27.5
	Delay (s)	8.6	15.5	15.5	9.1	25.6	25.6
	LOS	A	C	C	A	D	D

*Movement Restricted but Drivers Still Use

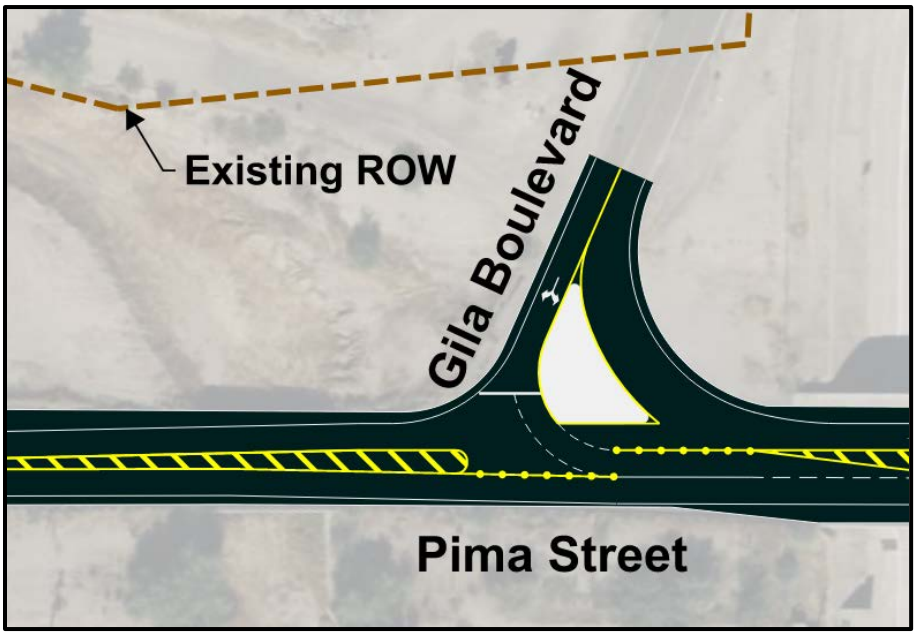
5.3 Gila Boulevard Partial LILO

The proposed Partial LILO configuration shown in **Figure 9**, at the Gila Boulevard and Pima Street intersection is designed to convert the southbound left-turn movement into a two-stage maneuver. Under this configuration, drivers turning left from Gila Boulevard will first identify a gap in westbound traffic and enter a directional median opening that includes an eastbound acceleration lane. From this position, drivers can then merge into eastbound traffic when a suitable gap becomes available. This design allows drivers to complete the turning movement in two separate phases, reducing delay and improving safety by eliminating the need to find gaps in both directions simultaneously.

An additional benefit of this alternative is the restriction of the eastbound left-turn movement into Gila Boulevard. In the existing condition, this movement is restricted by pavement striping, which is frequently disregarded by drivers. When drivers ignore the striping, it creates an

unexpected conflict point for westbound traffic, where opposing vehicles do not anticipate an eastbound left-turn maneuver.

Figure 9 – Gila Boulevard and Pima Street Partial LILO



The proposed LILO geometry introduces a raised median that physically prohibits this movement, redirecting eastbound drivers to Harrington Street. Full access to the Gila Boulevard intersection can be restored through the Full Build scenario which will be detailed in the Full Build Conditions Report. **Table 5** details the Phase 1 alternative analysis results. Under the Partial LILO, the minor-street southbound left becomes a two-stage maneuver. Drivers accept one gap to enter the median and a second gap to complete the turn. This configuration improves intersection performance by removing the high-risk, multi-lane direct left, consolidating conflict points, shortening exposure, and providing a median refuge. Mainline operations benefit from fewer blockage events and more predictable flow during the PM peak, results are consistent; delay is comparable to No-Build while queues are much lower.

Table 5 – Gila Boulevard Alternative Analysis Results

Phase 1 Gila Boulevard & Pima Street		AM			PM		
		EB L	SB L	SB R	EB L	SB L	SB R
No Build	**Max Queue (ft)**	2.5	17.5	17.5	5.0	85.0	85.0
	Delay (s)	8.4	14.3	14.3	9.0	29.0	29.0
	LOS	A	B	B	A	D	D
Partial LILO	**Max Queue (ft)**	-	12.5	12.5	-	32.5	32.5
	Delay (s)	-	11.5	11.5	-	13.0	13.0
	LOS	-	B	B	-	B	B

5.4 SR 85 LILO

The intersection of SR 85 and Pima Street is a suitable location for the implementation of a LILO configuration, shown in **Figure 10**. Unlike the proposed design at Gila Boulevard, the LILO at SR 85 would not restrict the eastbound left-turn movement but rather channel it to allow a two-stage maneuver. A LILO would facilitate southbound left turns by enabling drivers to complete the turn in two phases, first crossing one direction of traffic and then merging with the other, thereby improving safety and reducing delays in a high-volume environment. Given the SR 85 intersection's sensitivity to increased traffic volumes generated by Phase 1 of the GB Ranch development, this geometric modification is intended to enhance operational efficiency and provide greater resilience under future traffic demand.

Figure 10 – SR 85 and Pima Street LILO

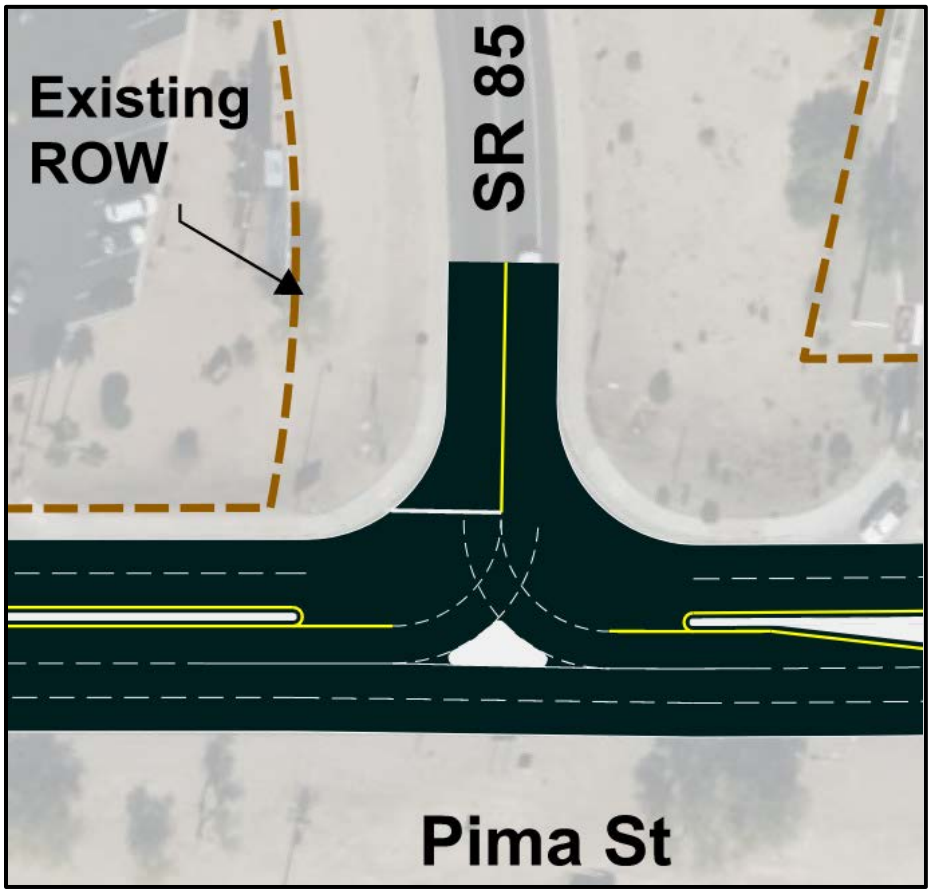


Table 6 details the alternative analysis results of the SR 85 and Pima Street intersection. At SR 85 and Pima Street, the Phase 1 LILO reduces southbound queues during both peaks. PM delay improves to an acceptable LOS C. The two-stage configuration allows vehicles to find more gaps as they deal with each traffic stream one at a time. Eastbound and westbound operations are essentially unchanged and remain within acceptable thresholds. Overall, the concept addresses the southbound queuing, improves safety by consolidating conflicts, and improves intersection performance.

Table 6 – SR 85 and Pima Street Alternative Analysis Results

Phase 1 SR 85 & Pima Street		AM			PM		
		EB L	SB L	SB R	EB L	SB L	SB R
No Build	**Max Queue (ft)**	2.5	20.0	20.0	5.0	90.0	90.0
	Delay (s)	9.0	16.4	16.4	9.6	37.9	37.9
	LOS	A	C	C	A	E	E
LILO	**Max Queue (ft)**	2.5	15	15	5.0	40.0	40.0
	Delay (s)	8.6	13.3	13.3	9.2	18.2	18.2
	LOS	A	B	B	A	C	C

5.5 Harrington Street LILO

The No Build and LILO configurations were evaluated at Harrington Avenue and Pima Street intersection applying traffic volumes associated with Phase 1 of GB Ranch. **Figure 11** depicts the LILO configuration of Harrington Avenue and Pima Street. **Table 7** summarizes the alternative analysis results with Phase 1 GB Ranch volumes during the AM and PM peak hours. The LILO alternative improves the southbound movements from LOS C to LOS B in the AM peak hour, and LOS D to LOS C in the PM peak hour.

Figure 11 – Harrington Avenue and Pima Street LILO

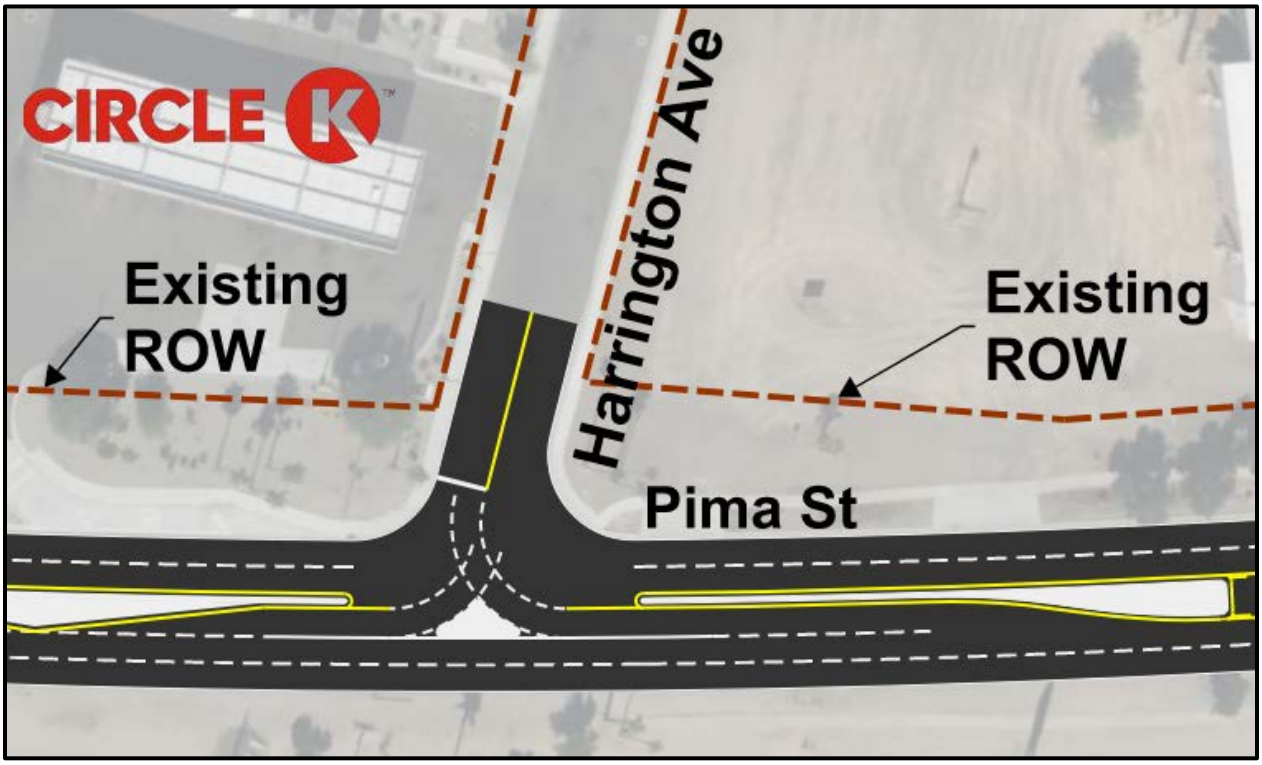


Table 7 – Harrington Avenue and Pima Street Analysis Results

Phase 1 Harrington Avenue & Pima Street		AM			PM		
		EB L	SB L	SB R	EB L	SB L	SB R
No Build	Max Queue (ft)	4	23	23	8	61	61
	Delay (s)	9.1	18.4	18.4	9.9	26.7	26.7
	LOS	A	C	C	A	D	D
LILO	Max Queue (ft)	4	13	13	7	34	34
	Delay (s)	8.7	12.5	12.5	9.4	16.4	16.4
	LOS	A	B	B	A	C	C

5.6 Dodson Street LILO

The No Build and LILO configurations were evaluated at Harrington Avenue and Pima Street intersection applying traffic volumes associated with Phase 1 of GB Ranch. **Figure 12** depicts the LILO configuration of Harrington Avenue and Pima Street. **Table 8** summarizes the alternative analysis results with Phase 1 GB Ranch volumes during the AM and PM peak hours. The LILO alternative improves the southbound movements from LOS C to LOS B in the AM peak hour, and LOS D to LOS C in the PM peak hour. The LILO alternative at Dodson Street will impact business access, particularly the direct lefts into the NAPA Auto Parts store. Left-in access, however, is still open to the Chevron Gas Station whose parking lot directly connects with NAPA Auto Parts. Sofia's Mexican food will lose left out access from one driveway but will maintain full access to Pima Street via Dodson Street.

Figure 12 – Dodson Street and Pima Street LILO

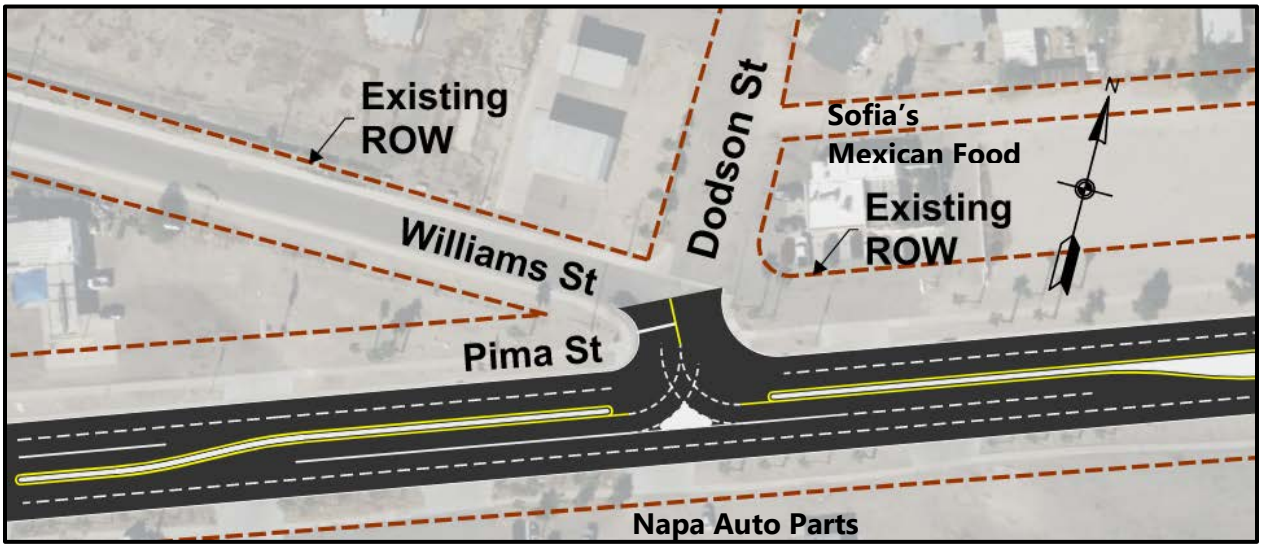


Table 8 – Dodson Street and Pima Street Alternative Analysis Results

Phase 1 Dodson Street & Pima Street		AM			PM		
		EB L	SB L	SB R	EB L	SB L	SB R
No Build	Max Queue (ft)	0	8	8	1	27	27
	Delay (s)	8.6	15.4	15.4	9.1	25.5	25.5
	LOS	A	C	C	A	D	D
LILO	Max Queue (ft)	0	6	6	1	15	15
	Delay (s)	8.6	13.0	13.0	9.1	16.1	16.1
	LOS	A	B	B	A	C	C

6.0 Cost Estimate

The improvements discussed in **Section 2.0** provide cost-effective solutions to address some of the speeding issues identified in the Existing Conditions Report.

- Speed Limit Sign Relocation
  - $2,000
- Welcome Sign Relocation
  - $5,000
- Speed Feedback Sign
  - $10,000

Cost estimates for the Partial LILO at Gila Boulevard and Pima Street and the Full LILO at SR 85 and Pima Street assume preservation of all existing structures. The Partial LILO at Gila Boulevard requires the widening of existing pavement to add the new turn-lane geometry but avoids any structure relocation or demolition. By contrast, the Full LILO at SR 85 fits entirely within the existing edge of pavement, meaning its scope is limited to pavement restriping and installation of a raised median. **Table 9** summarizes the estimated costs of these improvements, and detailed cost estimates for all the alternatives are included in **Appendix C**.

Table 9 – Cost Estimate Summary

Intersection	Alternative	Cost in 2025 Dollars		Comment
Gila Boulevard & Pima Street	Partial LILO	Construction Cost	$ 125,000.00	- Preserves existing structures. - No impacts to adjacent parcels. - No full depth replacement. - Some New Pavement and a new pork chop.
		ROW Cost	$ -	
		Other Costs*	$ 125,000.00	
		Project Cost**	**$ 250,000.00**	
SR 85 & Pima Street	LILO	Construction Cost	$ 100,000.00	- No impacts to right of way. - New striping and raised median. - No full depth replacement.
		ROW Cost	$ -	
		Other Costs*	$ 100,000.00	
		Project Cost**	**$ 200,000.00**	
Harrington Avenue & Pima Street	LILO	Construction Cost	$ 154,800.00	- No impacts to right of way. - New striping and raised median. - No full depth replacement.
		ROW Cost	$ -	
		Other Costs*	$ 45,200.00	
		Project Cost**	**$ 200,000.00**	
Dodson Street & Pima Street	LILO	Construction Cost	$ 150,000.00	- No impacts to right of way. - New striping and raised median. - No full depth replacement.
		ROW Cost	$ -	
		Other Costs*	$ 150,000.00	
		Project Cost**	**$ 300,000.00**	

* Other Costs include scoping, design, post design, construction contingencies, construction engineering and other items.
** Smaller scale projects assume project is completed in isolation and also assumes higher unit cost due to no scaling cost advantage

7.0 Conclusion

The Phase 1 Conditions report builds upon the Existing Conditions report by identifying targeted improvements to address both existing operational challenges and anticipated impacts from the initial phase of the GB Ranch development.

A set of immediate mitigation strategies were developed to address current safety and operational issues along the corridor. These include low-cost speed management measures such as relocating the 45-mph speed limit sign, repositioning the Welcome Sign, and deploying speed feedback signage to promote safer driver behavior. Rumble strips were excluded due to noise impacts on adjacent residential areas, and while truck parking deficiencies were noted, they fall outside the scope of this study and are recommended for future planning efforts.

To evaluate future conditions associated with Phase 1 of the GB Ranch development, traffic volumes were forecasted using ITE trip generation rates and distributed through shortest-path routing refined by engineering judgment. These volumes were applied to the existing network to establish a No Build baseline scenario. Synchro analysis using HCM delay-based methodology was conducted to assess intersection performance under this projected demand.

The analysis identified the intersections along Pima Street at Gila Boulevard and SR 85 as the most critical locations for near-term improvements. To support corridor operations under Phase 1 volumes, geometric enhancements were evaluated at both locations. A Partial LILO configuration is proposed at Gila Boulevard to improve the southbound left-turn movement and eliminate the conflicting eastbound left turn. Implementing a Partial LILO at Gila Boulevard and Pima Street significantly reduces southbound queue lengths and delays while maintaining free eastbound and westbound flow. At SR 85, a full LILO design is recommended to facilitate two-stage eastbound and southbound left-turn movements, enhancing intersection performance and safety in a higher-volume environment. The construction of the raised medians inherent to LILOs converts the adjacent access points to RIROs when the raised median prohibits their left-turn movements.

The intersections at Harrington Avenue and Dodson Street will perform acceptably with Phase 1 traffic volumes in their current configuration. LILO improvements, however, will provide safer operations, especially for Gila Bend residents. LILO improvements will provide operational flexibility to locals especially during holiday weekends when traffic volumes along Pima Street surge as travelers from Phoenix travel to holiday destinations such as San Diego.

This report recommends the implementation of the Partial LILO at Gila Boulevard and the Full LILO at SR 85, Harrington Avenue, and Dodson Street. The total cost of all these improvements is estimated to be $950,000. If funding cannot be fully secured, then it is recommended to prioritize improvements at Gila Boulevard and SR 85; the combined improvements are estimated to be $450,000.

The Full Buildout Report focuses on long-term network resilience as the GB Ranch development advances through all its phases. Building on the analysis and recommendations presented here, the next phase will explore more substantial geometric alternatives and refine the intersection strategies to accommodate the full impact of anticipated traffic growth.

Appendix A
Trip Generation

		Phase 1		
Description	Land Use/ Designation Area	4	1	1.1
	Land Use	Recreational	Retail	Super Market
	Land Use Code	416	821	850
	ITE Land Use Title	Campground/ RV Park	Shopping Plaza (40-150k) w/ Supermarket	Super Market
	Land Use Unit of Measurement (X)	Occupied Sites	1000 SF GLA	1000 SF GLA
	Variable Amount	282	18	22
Trip Rates	Weekday Curve	N/A	T= 76.96(X)+1412.79	T=83.39(X)+593.33
	Weekday Average	N/A	T=94.49(X)	T=93.84(X)
	AM Peak Hour Curve	T= 0.16(X)+2.93	N/A	N/A
	AM Peak Hour Average	T=0.21(X)	T=3.53(X)	T=2.86(X)
	PM Peak Hour Curve	T=e^(0.71*Ln(X)-0.06)	T= 7.67(X)+118.86	T=e^(0.81*Ln(X)+2.92)
	PM Peak Hour Average	T=0.27(X)	T=9.03(X)	T=8.95(X)
Inboud Percentage	Weekday	N/A	50%	50%
	AM Peak Hour	36%	62%	59%
	PM Peak Hour	65%	48%	50%
Applied Rates	Weekday Curve	N/A	2798	2428
	Weekday Average	N/A	1701	2064
	AM Peak Hour Curve	48	N/A	N/A
	AM Peak Hour Average	59	64	63
	PM Peak Hour Curve	52	257	227
	PM Peak Hour Average	76	163	197
Total Trip Ends	Weekday	N/A	1701	2064
	AM Peak Hour Inbound	21	39	37
	AM Peak Hour Outbound	38	24	26
	PM Peak Hour Inbound	49	123	113
	PM Peak Hour Outbound	27	134	113
Internal Site Interaction Reduction Percent	Daily	2%	2%	2%
	AM	2%	2%	2%
	PM	2%	2%	2%
External Trip	Weekday	N/A	1667	2023
	AM Peak Hour Inbound	21	39	36
	Am Peak Hour Outbound	37	24	25
	Pm Peak Hour Inbound	49	121	111
	PM Peak Hour Outbound	26	131	111
Alternative Travel Mode Trip Reduction Percent	Daily	3%	3%	3%
	AM	3%	3%	3%
	PM	3%	3%	3%
Vehicle Trip Ends	Weekday	N/A	1617	1962
	AM Peak Hour Inbound	20	37	35
	AM Peak Hour Outbound	36	23	25
	PM Peak Hour Inbound	47	117	108
	PM Peak Hour Outbound	25	127	108
Pass-By Traffic	AM Peak Hour Pass-By Percentage	0%	0%	20%
	PM Peak Hour Pass-By Percentage	0%	34%	30%
	AM Peak Hour Trip Ends	0	0	12
	PM Peak Hours Trip Ends	0	83	65
New Trip Ends	Weekday	N/A	1342	1472
	AM Peak Hour Inbound	20	37	28
	AM Peak Hour Outbound	36	23	20
	PM Peak Hour Inbound	47	77	75
	PM Peak Hour Outbound	25	84	75

Appendix B
Synchro Reports

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	220	344	86	49	30
Future Vol, veh/h	31	220	344	86	49	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	34	34	2	2	2
Mvmt Flow	34	239	374	93	53	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	680	374
Stage 1	-	-	-	-	374	-
Stage 2	-	-	-	-	307	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	416	672
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	746	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	402	672
Mov Cap-2 Maneuver	-	-	-	-	402	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	746	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.04	0	14.27
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	222	-	-	-	474
HCM Lane V/C Ratio	0.031	-	-	-	0.181
HCM Ctrl Dly (s/v)	8.4	0	-	-	14.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	547	357	213	77	101
Future Vol, veh/h	53	547	357	213	77	101
Conflicting Peds, #/hr	0	0	0	0	30	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	34	34	2	2	2
Mvmt Flow	58	595	388	232	84	110

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	620	0	-	0	1128	388
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	740	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	961	-	-	-	226	660
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	472	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	961	-	-	-	206	660
Mov Cap-2 Maneuver	-	-	-	-	206	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	472	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.79	0	29.05
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	159	-	-	-	338
HCM Lane V/C Ratio	0.06	-	-	-	0.573
HCM Ctrl Dly (s/v)	9	0	-	-	29
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	3.4

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	344	86	49	30
Future Vol, veh/h	0	0	344	86	49	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	200	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	374	93	53	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	374	374
Stage 1	-	-	-	-	374	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	627	672
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	627	672
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	11.45
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1094	-	-	-	644
HCM Lane V/C Ratio	-	-	-	-	0.133
HCM Ctrl Dly (s/v)	0	-	-	-	11.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱	↰	
Traffic Vol, veh/h	0	0	357	213	77	101
Future Vol, veh/h	0	0	357	213	77	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	200	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	388	232	84	110

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	388	388
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	-	615	660
Stage 1	0	-	-	-	686	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	615	660
Mov Cap-2 Maneuver	-	-	-	-	615	-
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	13.04
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	640
HCM Lane V/C Ratio	-	-	-	0.302
HCM Ctrl Dly (s/v)	-	-	-	13
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	1.3

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	245	369	17	33	47
Future Vol, veh/h	24	245	369	17	33	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	200	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	34	34	34	34	34	34
Mvmt Flow	26	266	401	18	36	51

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	420	0	-	0	720	401
Stage 1	-	-	-	-	401	-
Stage 2	-	-	-	-	318	-
Critical Hdwy	4.44	-	-	-	6.74	6.54
Critical Hdwy Stg 1	-	-	-	-	5.74	-
Critical Hdwy Stg 2	-	-	-	-	5.74	-
Follow-up Hdwy	2.506	-	-	-	3.806	3.606
Pot Cap-1 Maneuver	987	-	-	-	351	585
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	987	-	-	-	342	585
Mov Cap-2 Maneuver	-	-	-	-	443	-
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	670	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.78	0	13.37
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	987	-	-	-	517
HCM Lane V/C Ratio	0.026	-	-	-	0.168
HCM Ctrl Dly (s/v)	8.7	-	-	-	13.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	576	446	24	67	69
Future Vol, veh/h	48	576	446	24	67	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	200	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	34	34	34	34	34	34
Mvmt Flow	52	626	485	26	73	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	511	0	-	0	1215	485
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	730	-
Critical Hdwy	4.44	-	-	-	6.74	6.54
Critical Hdwy Stg 1	-	-	-	-	5.74	-
Critical Hdwy Stg 2	-	-	-	-	5.74	-
Follow-up Hdwy	2.506	-	-	-	3.806	3.606
Pot Cap-1 Maneuver	909	-	-	-	173	522
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	909	-	-	-	163	522
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	424	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.71	0	20.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	909	-	-	-	372
HCM Lane V/C Ratio	0.057	-	-	-	0.397
HCM Ctrl Dly (s/v)	9.2	-	-	-	20.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.9

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	266	365	58	54	21
Future Vol, veh/h	12	266	365	58	54	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	34	34	34	34	34	34
Mvmt Flow	13	289	397	63	59	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	460	0	-	0	567	397
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	171	-
Critical Hdwy	4.61	-	-	-	7.11	6.71
Critical Hdwy Stg 1	-	-	-	-	5.91	-
Critical Hdwy Stg 2	-	-	-	-	6.31	-
Follow-up Hdwy	2.523	-	-	-	3.823	3.623
Pot Cap-1 Maneuver	926	-	-	-	409	575
Stage 1	-	-	-	-	602	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	926	-	-	-	403	575
Mov Cap-2 Maneuver	-	-	-	-	481	-
Stage 1	-	-	-	-	593	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.39	0	13.51
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	926	-	-	-	505
HCM Lane V/C Ratio	0.014	-	-	-	0.162
HCM Ctrl Dly (s/v)	8.9	-	-	-	13.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	599	423	88	63	47
Future Vol, veh/h	44	599	423	88	63	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	34	34	34	34	34	34
Mvmt Flow	48	651	460	96	68	51

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	555	0	-	0	881	460
Stage 1	-	-	-	-	460	-
Stage 2	-	-	-	-	421	-
Critical Hdwy	4.61	-	-	-	7.11	6.71
Critical Hdwy Stg 1	-	-	-	-	5.91	-
Critical Hdwy Stg 2	-	-	-	-	6.31	-
Follow-up Hdwy	2.523	-	-	-	3.823	3.623
Pot Cap-1 Maneuver	846	-	-	-	254	527
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	558	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	846	-	-	-	240	527
Mov Cap-2 Maneuver	-	-	-	-	357	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	558	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.65	0	17.19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	846	-	-	-	414
HCM Lane V/C Ratio	0.057	-	-	-	0.289
HCM Ctrl Dly (s/v)	9.5	-	-	-	17.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	306	415	54	13	8
Future Vol, veh/h	14	306	415	54	13	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	34	0	34	0	0
Mvmt Flow	15	333	451	59	14	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	510	0	-	0	648	451
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	197	-
Critical Hdwy	4.1	-	-	-	6.6	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1066	-	-	-	423	612
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	823	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1066	-	-	-	417	612
Mov Cap-2 Maneuver	-	-	-	-	511	-
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.37	0	11.89
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1066	-	-	-	545
HCM Lane V/C Ratio	0.014	-	-	-	0.042
HCM Ctrl Dly (s/v)	8.4	-	-	-	11.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	649	505	53	23	6
Future Vol, veh/h	13	649	505	53	23	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	34	34	2	2	2
Mvmt Flow	14	705	549	58	25	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	607	0	-	0	930	549
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	381	-
Critical Hdwy	4.13	-	-	-	6.63	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.83	-
Follow-up Hdwy	2.219	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	970	-	-	-	281	535
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	661	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	970	-	-	-	277	535
Mov Cap-2 Maneuver	-	-	-	-	404	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	661	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.17	0	14.13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	970	-	-	-	426
HCM Lane V/C Ratio	0.015	-	-	-	0.074
HCM Ctrl Dly (s/v)	8.8	-	-	-	14.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	292	438	61	49	31
Future Vol, veh/h	27	292	438	61	49	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	16	34	34	16	16	16
Mvmt Flow	29	317	476	66	53	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	542	0	-	0	727	271
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	217	-
Critical Hdwy	4.42	-	-	-	7.12	7.22
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	2.36	-	-	-	3.66	3.46
Pot Cap-1 Maneuver	931	-	-	-	331	686
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	758	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	931	-	-	-	320	686
Mov Cap-2 Maneuver	-	-	-	-	320	-
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	758	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.76	0	16.35
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	931	-	-	-	404
HCM Lane V/C Ratio	0.032	-	-	-	0.215
HCM Ctrl Dly (s/v)	9	-	-	-	16.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	626	501	114	88	56
Future Vol, veh/h	46	626	501	114	88	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	16	34	34	16	16	16
Mvmt Flow	50	680	545	124	96	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	668	0	-	0	1047	334
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	440	-
Critical Hdwy	4.42	-	-	-	7.12	7.22
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	2.36	-	-	-	3.66	3.46
Pot Cap-1 Maneuver	829	-	-	-	202	622
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	829	-	-	-	189	622
Mov Cap-2 Maneuver	-	-	-	-	189	-
Stage 1	-	-	-	-	442	-
Stage 2	-	-	-	-	577	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.66	0	37.87
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	829	-	-	-	260
HCM Lane V/C Ratio	0.06	-	-	-	0.603
HCM Ctrl Dly (s/v)	9.6	-	-	-	37.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	3.6

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	0	438	61	49	31
Future Vol, veh/h	27	0	438	61	49	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	0	476	66	53	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	542	0	-	0	568	271
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	59	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1023	-	-	-	453	727
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1023	-	-	-	440	727
Mov Cap-2 Maneuver	-	-	-	-	440	-
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	957	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	8.62	0	13.32
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1023	-	-	-	519
HCM Lane V/C Ratio	0.029	-	-	-	0.167
HCM Ctrl Dly (s/v)	8.6	-	-	-	13.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	0	501	114	88	56
Future Vol, veh/h	46	0	501	114	88	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	0	545	124	96	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	668	0	-	0	707	334
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	917	-	-	-	370	662
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	917	-	-	-	350	662
Mov Cap-2 Maneuver	-	-	-	-	350	-
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	913	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	9.15	0	18.17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	917	-	-	-	428
HCM Lane V/C Ratio	0.055	-	-	-	0.365
HCM Ctrl Dly (s/v)	9.2	-	-	-	18.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.6

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	295	473	35	51	26
Future Vol, veh/h	46	295	473	35	51	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	16	34	34	16	16	16
Mvmt Flow	50	321	514	38	55	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	552	0	-	0	793	276
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	260	-
Critical Hdwy	4.42	-	-	-	7.12	7.22
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	2.36	-	-	-	3.66	3.46
Pot Cap-1 Maneuver	923	-	-	-	298	681
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	923	-	-	-	282	681
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	719	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.23	0	18.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	923	-	-	-	352
HCM Lane V/C Ratio	0.054	-	-	-	0.238
HCM Ctrl Dly (s/v)	9.1	-	-	-	18.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	73	611	526	106	48	89
Future Vol, veh/h	73	611	526	106	48	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	16	34	34	16	16	16
Mvmt Flow	79	664	572	115	52	97

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	687	0	-	0	1120	343
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	491	-
Critical Hdwy	4.42	-	-	-	7.12	7.22
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	2.36	-	-	-	3.66	3.46
Pot Cap-1 Maneuver	815	-	-	-	180	613
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	815	-	-	-	162	613
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	542	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.06	0	26.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	815	-	-	-	311
HCM Lane V/C Ratio	0.097	-	-	-	0.479
HCM Ctrl Dly (s/v)	9.9	-	-	-	26.8
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	2.5

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	0	473	35	26	51
Future Vol, veh/h	46	0	473	35	26	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	0	514	38	28	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	552	0	-	0	633	276
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1014	-	-	-	412	721
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1014	-	-	-	392	721
Mov Cap-2 Maneuver	-	-	-	-	392	-
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	913	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	8.73	0	12.53
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1014	-	-	-	562
HCM Lane V/C Ratio	0.049	-	-	-	0.149
HCM Ctrl Dly (s/v)	8.7	-	-	-	12.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	73	0	526	106	48	89
Future Vol, veh/h	73	0	526	106	48	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	0	572	115	52	97

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	687	0	-	0	788	343
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	159	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	903	-	-	-	328	652
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	903	-	-	-	299	652
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	854	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	9.37	0	16.47
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	903	-	-	-	462
HCM Lane V/C Ratio	0.088	-	-	-	0.323
HCM Ctrl Dly (s/v)	9.4	-	-	-	16.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	1.4

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	343	502	13	29	6
Future Vol, veh/h	3	343	502	13	29	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	373	546	14	32	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	560	0	-	0	746	280
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	193	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1007	-	-	-	349	717
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	821	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1007	-	-	-	348	717
Mov Cap-2 Maneuver	-	-	-	-	348	-
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	821	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.07	0	15.47
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1007	-	-	-	382
HCM Lane V/C Ratio	0.003	-	-	-	0.1
HCM Ctrl Dly (s/v)	8.6	-	-	-	15.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	652	623	37	51	10
Future Vol, veh/h	8	652	623	37	51	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	34	34	2	2	2
Mvmt Flow	9	709	677	40	55	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	717	0	-	0	1069	359
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	372	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	879	-	-	-	216	638
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	667	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	879	-	-	-	214	638
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	667	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.11	0	25.59
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	879	-	-	-	240
HCM Lane V/C Ratio	0.01	-	-	-	0.276
HCM Ctrl Dly (s/v)	9.1	-	-	-	25.6
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	1.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	0	502	13	29	6
Future Vol, veh/h	3	0	502	13	29	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	0	546	14	32	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	560	0	-	0	559	280
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	7	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1007	-	-	-	459	717
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	1015	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1007	-	-	-	457	717
Mov Cap-2 Maneuver	-	-	-	-	457	-
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	1015	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	8.59	0	13.01
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1007	-	-	-	488
HCM Lane V/C Ratio	0.003	-	-	-	0.078
HCM Ctrl Dly (s/v)	8.6	-	-	-	13
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	0	623	37	51	10
Future Vol, veh/h	8	0	623	37	51	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	0	677	40	55	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	717	0	-	0	715	359
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	17	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	879	-	-	-	366	638
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	879	-	-	-	362	638
Mov Cap-2 Maneuver	-	-	-	-	362	-
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	1003	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	9.13	0	16.13
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	879	-	-	-	390
HCM Lane V/C Ratio	0.01	-	-	-	0.17
HCM Ctrl Dly (s/v)	9.1	-	-	-	16.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Appendix C
Cost Estimates

ARIZONA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION COST ESTIMATE SUMMARY

PROJECT NAME: GILA BEND DEVELOPMENT ANALYSIS
PROJECT DESCRIPTION: Gila Blvd Partial LILO Exst Bridge
ROUTE: Pima St and Gila Blvd
ESTIMATE LEVEL: Stage I
PROJECT LIMITS: Gila Blvd
BASE YEAR: FY2026
LENGTH: 0.25 Miles
DATE: 7/3/2025

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	**EARTHWORK**				
	CLEARING & REMOVALS	L.SUM	1	$ 7,500.00	7,500
	ROADWAY EXCAVATION	CU.YD.	0	$ 60.00	0
	DRAINAGE EXCAVATION	CU.YD.	0	$ 39.00	0
	BORROW	CU.YD.	0	$ 39.00	0
	SUBGRADE TREATMENT	SQ.YD.	0	$ 15.00	0
	FURNISH WATER	L.SUM			
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 200				7,500
300 & 400	**BASE AND SURFACE TREATMENT**				
	AGGREGATE BASE	SQ.YD.	64	$ 35.00	2,230
	CONCRETE PAVEMENT	SQ.YD.	233	$ 135.00	31,500
	ASPHALT PAVEMENT	SQ.YD.	64	$ 55.00	3,500
	DIAMOND GRIND	SQ.YD.		$ 6.20	
	MILLING & OVERLAY	SQ.YD.		$ 24.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 300 & 400				37,230
500	**DRAINAGE**				
	DRAINAGE SYSTEM (CLOSED)	L.FT.		$ 510.00	
	DRAINAGE SYSTEM (CONVEYANCE CHANNEL)	L.FT.		$ 1,190.00	
	PUMP STATION (NEW)	EACH		$ 3,150,000.00	
	PIPE CULVERTS	L.FT.		$ 1,020.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 500				0
600	**STRUCTURES**				
	STEEL GIRDER BRIDGE	SQ.FT.		$ 562.00	
	FLYOVER HOV OR FLYOVER SYSTEM RAMP	SQ.FT.		$ 331.00	
	OVERPASS TI BRIDGE	SQ.FT.		$ 320.00	
	RIVER CROSSING BRIDGE	SQ.FT.	0	$ 274.00	0
	PEDESTRIAN BRIDGE	SQ.FT.		$ 401.00	
	BRIDGE WIDENING	SQ.FT.		$ 339.00	
	BRIDGE REHABILITATION	SQ.FT.		$ 232.00	
	BOX CULVERT	L.FT./CELL		$ 1,940.00	
	SIGN STRUCTURES (CANTILEVER) (3C OR 4C)	EACH		$ 102,000.00	
	BRIDGE SIGN STRUCTURE (3F OR 4F) AND ITS STRUCTURE & PANEL	EACH		$ 222,600.00	
	O&M CROSSING	EACH		$ 357,000.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 600				0
700	**TRAFFIC ENGINEERING**				
	SIGNING (FREEWAY)	MILE/DIR		$ 55,550.00	
	SIGNING (STREET)	MILE	0.25	$ 95,700.00	23,930
	PAVEMENT MARKING (FREEWAY)	LANE-MILE		$ 12,400.00	
	PAVEMENT MARKING (STREET)	LANE-MILE	0.75	$ 5,000.00	3,750
	LIGHTING	MILE		$ 797,500.00	
	TRAFFIC SIGNAL	EACH		$ 470,750.00	
	INTELLIGENT TRANSPORTATION SYSTEM (ITS)	MILE		$ 966,000.00	
	MISCELLANEOUS ITEMS	L.SUM	1	$ 20,000.00	20,000
	TOTAL ITEM 700				47,680
800	**ROADSIDE DEVELOPMENT**				
	LANDSCAPING AND TOPSOIL	SQ.YD.		$ 15.00	
	UTILITY RELOCATION	L.SUM	0	$ -	0
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 800				0
900	**INCIDENTALS**				
	RETAINING WALLS	SQ.FT.		$ 135.00	
	SOUND WALLS	SQ.FT.		$ 91.00	
	ROADWAY APPURTENANCES	L.SUM			
	ADA IMPROVEMENTS	EACH		$ 6,300.00	
	TRANSIT APPURTENANCES	L.SUM			
	RAILROAD ACCOMMODATIONS	L.SUM			
	MISCELLANEOUS ITEMS	L.SUM	1		
	TOTAL ITEM 900				0
UN	**UNIDENTIFIED ITEMS (20% OF MAJOR ITEMS)**			20%	$18,500
	SUBTOTAL A (ITEM SUBTOTAL)				**$110,900**

ARIZONA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION COST ESTIMATE SUMMARY

PROJECT NAME: GILA BEND DEVELOPMENT ANALYSIS
PROJECT DESCRIPTION: Gila Blvd Partial LILO Exst Bridge
ROUTE: Pima St and Gila Blvd
ESTIMATE LEVEL: Stage I
PROJECT LIMITS: Gila Blvd
BASE YEAR: FY2026
LENGTH: 0.25 Miles
DATE: 7/3/2025

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
PW	**PROJECT WIDE**				
	TRAFFIC CONTROL (10% OF SUBTOTAL A)			10.0%	11,100
	DUST PALLIATIVE (0% OF SUBTOTAL A) (INCLUDED IN FURNISH WATER)			0.0%	0
	QUALITY CONTROL (1% OF SUBTOTAL A)			1.0%	1,100
	CONSTRUCTION SURVEYING (1.5% OF SUBTOTAL A)			1.5%	1,700
	EROSION CONTROL (1% OF SUBTOTAL A)			1.0%	1,100
	MOBILIZATION (10% OF SUBTOTAL A)			10.0%	11,100
	SUBTOTAL B (SUBTOTAL A + PROJECT WIDE)				**$137,000**
OTHER PROJ	**OTHER PROJECT COSTS**				
	JOINT PROJECT AGREEMENT ITEMS				0
	CONTRACTOR INCENTIVES				0
	TERO TAX AND OTHER PROJECT EXPENSES				0
	ENVIRONMENTAL MITIGATION				0
	BASE YEAR CONSTRUCTION COST (EXCLUDING BELOW THE LINE ITEMS, UTILITIES & R/W)				**$137,000**
INFL	**INFLATION AND BELOW THE LINE ITEMS**				
	POST DESIGN SERVICES (1% OF BASE YEAR CONSTRUCTION COST)			1.0%	1,400
	CONSTRUCTION CONTINGENCIES (5% OF BASE YEAR CONSTRUCTION COST)			5.0%	6,900
	CONSTRUCTION ENGINEERING (20% OF BASE YEAR CONSTRUCTION COST)			20.0%	27,400
	SUBTOTAL BASE YEAR CONSTRUCTION				**172,700**
	INDIRECT COST ALLOCATION (7.9% OF BASE YEAR CONSTRUCTION COST+BELOW THE LINE ITEMS)			7.90%	13,600
	LABOR AND MATERIAL INFLATION TO FISCAL YEAR 2025			1.0250	4,700
	TOTAL ESTIMATED CONSTRUCTION COST (EXCLUDING UTILITIES & R/W)				**$191,000**
DES	**PREDESIGN AND FINAL DESIGN**				
	PREDESIGN/NEPA/PI SERVICES (3% OF BASE YEAR CONSTRUCTION COST)			3.0%	4,100
	AIR QUALITY HOTSPOT ANALYSIS		0	$ 75,000.00	0
	INDIRECT COST ALLOCATION (7.9% OF ALL PREDESIGN COSTS)			7.90%	300
	PREDESIGN COST INFLATION TO FISCAL YEAR 2025			1.0250	100
	SUBTOTAL PREDESIGN				**4,500**
	FINAL DESIGN SERVICES (INCLUDES ADOT COSTS) (6% OF BASE YEAR CONSTRUCTION COST)			6.0%	8,200
	INDIRECT COST ALLOCATION (7.9% OF ALL FINAL DESIGN COSTS)			7.90%	600
	FINAL DESIGN COST INFLATION TO FISCAL YEAR 2025			1.0250	200
	SUBTOTAL FINAL DESIGN				**9,000**
	TOTAL ESTIMATED DESIGN COST				**$13,500**
UTIL	**UTILITY RELOCATION**				
	PRIOR RIGHT UTILITY RELOCATIONS & SERVICE AGREEMENTS				0
	INDIRECT COST ALLOCATION (7.9% OF ALL UTILITY COSTS)			7.90%	0
	UTILITY RELOCATION COST INFLATION TO FISCAL YEAR 2025			1.0250	0
	TOTAL ESTIMATED UTILITY COST				**$0**
R/W	**RIGHT-OF-WAY**				
	RIGHT-OF-WAY				0
	INDIRECT COST ALLOCATION (7.9% OF ALL RIGHT-OF-WAY COSTS)			7.90%	0
	RIGHT-OF-WAY PRICE ESCALATION TO FISCAL YEAR 2025			1.0250	0
	TOTAL ESTIMATED RIGHT-OF-WAY COSTS				**$0**
	TOTAL ESTIMATED PROJECT COST				**$205,000**
	Recommended Construction Budget				**$125,000**
	Recommended Other Costs Budget				**$125,000**
	RECOMMENDED BUDGET				**$250,000**

ARIZONA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION COST ESTIMATE SUMMARY

PROJECT NAME: GILA BEND DEVELOPMENT ANALYSIS
PROJECT DESCRIPTION: SR 85 LILO
ROUTE: Pima St and SR 85
ESTIMATE LEVEL: Stage I
PROJECT LIMITS: SR 85
BASE YEAR: FY2026
LENGTH: 0.1 Miles
DATE: 7/3/2025

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	**EARTHWORK**				
	CLEARING & REMOVALS	L.SUM	1	$ 10,000.00	10,000
	ROADWAY EXCAVATION	CU.YD.		$ 60.00	
	DRAINAGE EXCAVATION	CU.YD.		$ 39.00	
	BORROW	CU.YD.		$ 39.00	
	SUBGRADE TREATMENT	SQ.YD.		$ 15.00	
	FURNISH WATER	L.SUM			
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 200				10,000
300 & 400	**BASE AND SURFACE TREATMENT**				
	AGGREGATE BASE	SQ.YD.	180	$ 35.00	6,300
	CONCRETE PAVEMENT	SQ.YD.	172	$ 135.00	23,160
	ASPHALT PAVEMENT	SQ.YD.	180	$ 55.00	9,900
	DIAMOND GRIND	SQ.YD.		$ 6.20	
	MILLING & OVERLAY	SQ.YD.		$ 24.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 300 & 400				39,360
500	**DRAINAGE**				
	DRAINAGE SYSTEM (CLOSED)	L.FT.		$ 510.00	
	DRAINAGE SYSTEM (CONVEYANCE CHANNEL)	L.FT.		$ 1,190.00	
	PUMP STATION (NEW)	EACH		$ 3,150,000.00	
	PIPE CULVERTS	L.FT.		$ 1,020.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 500				0
600	**STRUCTURES**				
	STEEL GIRDER BRIDGE	SQ.FT.		$ 562.00	
	FLYOVER HOV OR FLYOVER SYSTEM RAMP	SQ.FT.		$ 331.00	
	OVERPASS TI BRIDGE	SQ.FT.		$ 320.00	
	RIVER CROSSING BRIDGE	SQ.FT.		$ 274.00	
	PEDESTRIAN BRIDGE	SQ.FT.		$ 401.00	
	BRIDGE WIDENING	SQ.FT.		$ 339.00	
	BRIDGE REHABILITATION	SQ.FT.		$ 232.00	
	BOX CULVERT	L.FT./CELL		$ 1,940.00	
	SIGN STRUCTURES (CANTILEVER) (3C OR 4C)	EACH		$ 102,000.00	
	BRIDGE SIGN STRUCTURE (3F OR 4F) AND ITS STRUCTURE & PANEL	EACH		$ 222,600.00	
	O&M CROSSING	EACH		$ 357,000.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 600				0
700	**TRAFFIC ENGINEERING**				
	SIGNING (FREEWAY)	MILE/DIR	0.0	$ 55,550.00	0
	SIGNING (STREET)	MILE	0.10	$ 95,700.00	9,570
	PAVEMENT MARKING (FREEWAY)	LANE-MILE	0.00	$ 12,400.00	0
	PAVEMENT MARKING (STREET)	LANE-MILE	0.50	$ 5,000.00	2,500
	LIGHTING	MILE		$ 797,500.00	
	TRAFFIC SIGNAL	EACH		$ 470,750.00	
	INTELLIGENT TRANSPORTATION SYSTEM (ITS)	MILE		$ 966,000.00	
	MISCELLANEOUS ITEMS	L.SUM		$ 20,000.00	
	TOTAL ITEM 700				12,070
800	**ROADSIDE DEVELOPMENT**				
	LANDSCAPING AND TOPSOIL	SQ.YD.		$ 15.00	
	UTILITY RELOCATION	L.SUM	1	$ 5,000.00	5,000
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 800				5,000
900	**INCIDENTALS**				
	RETAINING WALLS	SQ.FT.		$ 135.00	
	SOUND WALLS	SQ.FT.		$ 91.00	
	ROADWAY APPURTENANCES	L.SUM			
	ADA IMPROVEMENTS	EACH		$ 6,300.00	
	TRANSIT APPURTENANCES	L.SUM			
	RAILROAD ACCOMMODATIONS	L.SUM			
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 900				0
UN	**UNIDENTIFIED ITEMS (20% OF MAJOR ITEMS)**			20%	$13,300
	SUBTOTAL A (ITEM SUBTOTAL)				**$79,700**

ARIZONA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION COST ESTIMATE SUMMARY

PROJECT NAME: GILA BEND DEVELOPMENT ANALYSIS
ROUTE: Pima St and SR 85
PROJECT LIMITS: SR 85
LENGTH: 0.1 Miles

PROJECT DESCRIPTION: SR 85 LILO
ESTIMATE LEVEL: Stage I
BASE YEAR: FY2026
DATE: 7/3/2025

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
PW	**PROJECT WIDE**				
	TRAFFIC CONTROL (10% OF SUBTOTAL A)			10.0%	8,000
	DUST PALLIATIVE (0% OF SUBTOTAL A) (INCLUDED IN FURNISH WATER)			0.0%	0
	QUALITY CONTROL (1% OF SUBTOTAL A)			1.0%	800
	CONSTRUCTION SURVEYING (1.5% OF SUBTOTAL A)			1.5%	1,200
	EROSION CONTROL (1% OF SUBTOTAL A)			1.0%	800
	MOBILIZATION (10% OF SUBTOTAL A)			10.0%	8,000
	SUBTOTAL B (SUBTOTAL A + PROJECT WIDE)				**$98,500**
OTHER PROJ	**OTHER PROJECT COSTS**				
	JOINT PROJECT AGREEMENT ITEMS				0
	CONTRACTOR INCENTIVES				0
	TERO TAX AND OTHER PROJECT EXPENSES				0
	ENVIRONMENTAL MITIGATION				0
	BASE YEAR CONSTRUCTION COST (EXCLUDING BELOW THE LINE ITEMS, UTILITIES & R/W)				**$98,500**
INFL	**INFLATION AND BELOW THE LINE ITEMS**				
	POST DESIGN SERVICES (1% OF BASE YEAR CONSTRUCTION COST)			1.0%	1,000
	CONSTRUCTION CONTINGENCIES (5% OF BASE YEAR CONSTRUCTION COST)			5.0%	4,900
	CONSTRUCTION ENGINEERING (20% OF BASE YEAR CONSTRUCTION COST)			20.0%	19,700
	SUBTOTAL BASE YEAR CONSTRUCTION				**124,100**
	INDIRECT COST ALLOCATION (7.9% OF BASE YEAR CONSTRUCTION COST+BELOW THE LINE ITEMS)			7.90%	9,800
	LABOR AND MATERIAL INFLATION TO FISCAL YEAR 2025			1.0250	3,300
	TOTAL ESTIMATED CONSTRUCTION COST (EXCLUDING UTILITIES & R/W)				**$137,200**
DES	**PREDESIGN AND FINAL DESIGN**				
	PREDESIGN/NEPA/PI SERVICES (3% OF BASE YEAR CONSTRUCTION COST)			3.0%	3,000
	AIR QUALITY HOTSPOT ANALYSIS			$ 75,000.00	0
	INDIRECT COST ALLOCATION (7.9% OF ALL PREDESIGN COSTS)			7.90%	200
	PREDESIGN COST INFLATION TO FISCAL YEAR 2025			1.0250	100
	SUBTOTAL PREDESIGN				**3,300**
	FINAL DESIGN SERVICES (INCLUDES ADOT COSTS) (6% OF BASE YEAR CONSTRUCTION COST)			6.0%	5,900
	INDIRECT COST ALLOCATION (7.9% OF ALL FINAL DESIGN COSTS)			7.90%	500
	FINAL DESIGN COST INFLATION TO FISCAL YEAR 2025			1.0250	200
	SUBTOTAL FINAL DESIGN				**6,600**
	TOTAL ESTIMATED DESIGN COST				**$9,900**
UTIL	**UTILITY RELOCATION**				
	PRIOR RIGHT UTILITY RELOCATIONS & SERVICE AGREEMENTS				0
	INDIRECT COST ALLOCATION (7.9% OF ALL UTILITY COSTS)			7.90%	0
	UTILITY RELOCATION COST INFLATION TO FISCAL YEAR 2025			1.0250	0
	TOTAL ESTIMATED UTILITY COST				**$0**
R/W	**RIGHT-OF-WAY**				
	RIGHT-OF-WAY				0
	INDIRECT COST ALLOCATION (7.9% OF ALL RIGHT-OF-WAY COSTS)			7.90%	0
	RIGHT-OF-WAY PRICE ESCALATION TO FISCAL YEAR 2025			1.0250	0
	TOTAL ESTIMATED RIGHT-OF-WAY COSTS				**$0**
	TOTAL ESTIMATED PROJECT COST				$147,000
	Recommended Construction Budget				**$100,000**
	Recommended Other Costs Budget				**$100,000**
	RECOMMENDED BUDGET				**$200,000**

ARIZONA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION COST ESTIMATE SUMMARY

PROJECT NAME: GILA BEND DEVELOPMENT ANALYSIS
ROUTE: Pima St and Harrington Ave
PROJECT LIMITS: Harrington Ave
LENGTH: 0.2 Miles

PROJECT DESCRIPTION: Harington Ave LILO
ESTIMATE LEVEL: Stage I
BASE YEAR: FY2026
DATE: 7/3/2025

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	**EARTHWORK**				
	CLEARING & REMOVALS	L.SUM	1	$ 10,000.00	10,000
	ROADWAY EXCAVATION	CU.YD.		$ 60.00	
	DRAINAGE EXCAVATION	CU.YD.		$ 39.00	
	BORROW	CU.YD.		$ 39.00	
	SUBGRADE TREATMENT	SQ.YD.		$ 15.00	
	FURNISH WATER	L.SUM	0	$ -	0
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 200				10,000
300 & 400	**BASE AND SURFACE TREATMENT**				
	AGGREGATE BASE	SQ.YD.	192	$ 35.00	6,730
	CONCRETE PAVEMENT	SQ.YD.	263	$ 135.00	35,480
	ASPHALT PAVEMENT	SQ.YD.	192	$ 55.00	10,580
	DIAMOND GRIND	SQ.YD.		$ 6.20	
	MILLING & OVERLAY	SQ.YD.		$ 24.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 300 & 400				52,790
500	**DRAINAGE**				
	DRAINAGE SYSTEM (CLOSED)	L.FT.		$ 510.00	
	DRAINAGE SYSTEM (CONVEYANCE CHANNEL)	L.FT.		$ 1,190.00	
	PUMP STATION (NEW)	EACH		$ 3,150,000.00	
	PIPE CULVERTS	L.FT.		$ 1,020.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 500				0
600	**STRUCTURES**				
	STEEL GIRDER BRIDGE	SQ.FT.		$ 562.00	
	FLYOVER HOV OR FLYOVER SYSTEM RAMP	SQ.FT.		$ 331.00	
	OVERPASS TI BRIDGE	SQ.FT.		$ 320.00	
	RIVER CROSSING BRIDGE	SQ.FT.		$ 274.00	
	PEDESTRIAN BRIDGE	SQ.FT.		$ 401.00	
	BRIDGE WIDENING	SQ.FT.		$ 339.00	
	BRIDGE REHABILITATION	SQ.FT.		$ 232.00	
	BOX CULVERT	L.FT./CELL		$ 1,940.00	
	SIGN STRUCTURES (CANTILEVER) (3C OR 4C)	EACH		$ 102,000.00	
	BRIDGE SIGN STRUCTURE (3F OR 4F) AND ITS STRUCTURE & PANEL	EACH		$ 222,600.00	
	O&M CROSSING	EACH		$ 357,000.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 600				0
700	**TRAFFIC ENGINEERING**				
	SIGNING (FREEWAY)	MILE/DIR	0.0	$ 55,550.00	0
	SIGNING (STREET)	MILE	0.10	$ 95,700.00	9,570
	PAVEMENT MARKING (FREEWAY)	LANE-MILE		$ 12,400.00	
	PAVEMENT MARKING (STREET)	LANE-MILE	0.50	$ 5,000.00	2,500
	LIGHTING	MILE		$ 797,500.00	
	TRAFFIC SIGNAL	EACH		$ 470,750.00	
	INTELLIGENT TRANSPORTATION SYSTEM (ITS)	MILE		$ 966,000.00	
	MISCELLANEOUS ITEMS	L.SUM		$ 20,000.00	
	TOTAL ITEM 700				12,070
800	**ROADSIDE DEVELOPMENT**				
	LANDSCAPING AND TOPSOIL	SQ.YD.		$ 15.00	
	UTILITY RELOCATION	L.SUM		$ -	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 800				0
900	**INCIDENTALS**				
	RETAINING WALLS	SQ.FT.		$ 135.00	
	SOUND WALLS	SQ.FT.		$ 91.00	
	ROADWAY APPURTENANCES	L.SUM			
	ADA IMPROVEMENTS	EACH		$ 6,300.00	
	TRANSIT APPURTENANCES	L.SUM			
	RAILROAD ACCOMMODATIONS	L.SUM			
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 900				0
UN	**UNIDENTIFIED ITEMS (20% OF MAJOR ITEMS)**			20%	$15,000
	SUBTOTAL A (ITEM SUBTOTAL)				**$89,900**

ARIZONA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION COST ESTIMATE SUMMARY

PROJECT NAME: GILA BEND DEVELOPMENT ANALYSIS
PROJECT DESCRIPTION: Harington Ave LILO
ROUTE: Pima St and Harrington Ave
ESTIMATE LEVEL: Stage I
PROJECT LIMITS: Harrington Ave
BASE YEAR: FY2026
LENGTH: 0.2 Miles
DATE: 7/3/2025

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
PW	**PROJECT WIDE**				
	TRAFFIC CONTROL (10% OF SUBTOTAL A)			10.0%	9,000
	DUST PALLIATIVE (0% OF SUBTOTAL A) (INCLUDED IN FURNISH WATER)			0.0%	0
	QUALITY CONTROL (1% OF SUBTOTAL A)			1.0%	900
	CONSTRUCTION SURVEYING (1.5% OF SUBTOTAL A)			1.5%	1,300
	EROSION CONTROL (1% OF SUBTOTAL A)			1.0%	900
	MOBILIZATION (10% OF SUBTOTAL A)			10.0%	9,000
	SUBTOTAL B (SUBTOTAL A + PROJECT WIDE)				**$111,000**
OTHER PROJ	**OTHER PROJECT COSTS**				
	JOINT PROJECT AGREEMENT ITEMS				0
	CONTRACTOR INCENTIVES				0
	TERO TAX AND OTHER PROJECT EXPENSES				0
	ENVIRONMENTAL MITIGATION				0
	BASE YEAR CONSTRUCTION COST (EXCLUDING BELOW THE LINE ITEMS, UTILITIES & R/W)				**$111,000**
INFL	**INFLATION AND BELOW THE LINE ITEMS**				
	POST DESIGN SERVICES (1% OF BASE YEAR CONSTRUCTION COST)			1.0%	1,100
	CONSTRUCTION CONTINGENCIES (5% OF BASE YEAR CONSTRUCTION COST)			5.0%	5,600
	CONSTRUCTION ENGINEERING (20% OF BASE YEAR CONSTRUCTION COST)			20.0%	22,200
	SUBTOTAL BASE YEAR CONSTRUCTION				**139,900**
	INDIRECT COST ALLOCATION (7.9% OF BASE YEAR CONSTRUCTION COST+BELOW THE LINE ITEMS)			7.90%	11,100
	LABOR AND MATERIAL INFLATION TO FISCAL YEAR 2025			1.0250	3,800
	TOTAL ESTIMATED CONSTRUCTION COST (EXCLUDING UTILITIES & R/W)				**$154,800**
DES	**PREDESIGN AND FINAL DESIGN**				
	PREDESIGN/NEPA/PI SERVICES (3% OF BASE YEAR CONSTRUCTION COST)			3.0%	3,300
	AIR QUALITY HOTSPOT ANALYSIS			$ 75,000.00	0
	INDIRECT COST ALLOCATION (7.9% OF ALL PREDESIGN COSTS)			7.90%	300
	PREDESIGN COST INFLATION TO FISCAL YEAR 2025			1.0250	100
	SUBTOTAL PREDESIGN				**3,700**
	FINAL DESIGN SERVICES (INCLUDES ADOT COSTS) (6% OF BASE YEAR CONSTRUCTION COST)			6.0%	6,700
	INDIRECT COST ALLOCATION (7.9% OF ALL FINAL DESIGN COSTS)			7.90%	500
	FINAL DESIGN COST INFLATION TO FISCAL YEAR 2025			1.0250	200
	SUBTOTAL FINAL DESIGN				**7,400**
	TOTAL ESTIMATED DESIGN COST				**$11,100**
UTIL	**UTILITY RELOCATION**				
	PRIOR RIGHT UTILITY RELOCATIONS & SERVICE AGREEMENTS				0
	INDIRECT COST ALLOCATION (7.9% OF ALL UTILITY COSTS)			7.90%	0
	UTILITY RELOCATION COST INFLATION TO FISCAL YEAR 2025			1.0250	0
	TOTAL ESTIMATED UTILITY COST				**$0**
R/W	**RIGHT-OF-WAY**				
	RIGHT-OF-WAY				0
	INDIRECT COST ALLOCATION (7.9% OF ALL RIGHT-OF-WAY COSTS)			7.90%	0
	RIGHT-OF-WAY PRICE ESCALATION TO FISCAL YEAR 2025			1.0250	0
	TOTAL ESTIMATED RIGHT-OF-WAY COSTS				**$0**
	TOTAL ESTIMATED PROJECT COST				$166,000
	Total Estimated Cost Rounded Up to Nearest $50,000 Increment				**$200,000**

ARIZONA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION COST ESTIMATE SUMMARY

PROJECT NAME: GILA BEND DEVELOPMENT ANALYSIS
ROUTE: Pima St and Dodson St
PROJECT LIMITS: Dodson St
LENGTH: 0.2 Miles

PROJECT DESCRIPTION: Dodson St LILO
ESTIMATE LEVEL: Stage I
BASE YEAR: FY2026
DATE: 7/3/2025

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	**EARTHWORK**				
	CLEARING & REMOVALS	L.SUM	1	$ 15,000.00	15,000
	ROADWAY EXCAVATION	CU.YD.		$ 60.00	
	DRAINAGE EXCAVATION	CU.YD.		$ 39.00	
	BORROW	CU.YD.		$ 39.00	
	SUBGRADE TREATMENT	SQ.YD.		$ 15.00	
	FURNISH WATER	L.SUM	0	$ -	0
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 200				15,000
300 & 400	**BASE AND SURFACE TREATMENT**				
	AGGREGATE BASE	SQ.YD.	354	$ 35.00	12,400
	CONCRETE PAVEMENT	SQ.YD.	338	$ 135.00	45,640
	ASPHALT PAVEMENT	SQ.YD.	354	$ 55.00	19,490
	DIAMOND GRIND	SQ.YD.		$ 6.20	
	MILLING & OVERLAY	SQ.YD.		$ 24.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 300 & 400				77,530
500	**DRAINAGE**				
	DRAINAGE SYSTEM (CLOSED)	L.FT.		$ 510.00	
	DRAINAGE SYSTEM (CONVEYANCE CHANNEL)	L.FT.		$ 1,190.00	
	PUMP STATION (NEW)	EACH		$ 3,150,000.00	
	PIPE CULVERTS	L.FT.		$ 1,020.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 500				0
600	**STRUCTURES**				
	STEEL GIRDER BRIDGE	SQ.FT.		$ 562.00	
	FLYOVER HOV OR FLYOVER SYSTEM RAMP	SQ.FT.		$ 331.00	
	OVERPASS TI BRIDGE	SQ.FT.		$ 320.00	
	RIVER CROSSING BRIDGE	SQ.FT.		$ 274.00	
	PEDESTRIAN BRIDGE	SQ.FT.		$ 401.00	
	BRIDGE WIDENING	SQ.FT.		$ 339.00	
	BRIDGE REHABILITATION	SQ.FT.		$ 232.00	
	BOX CULVERT	L.FT./CELL		$ 1,940.00	
	SIGN STRUCTURES (CANTILEVER) (3C OR 4C)	EACH		$ 102,000.00	
	BRIDGE SIGN STRUCTURE (3F OR 4F) AND ITS STRUCTURE & PANEL	EACH		$ 222,600.00	
	O&M CROSSING	EACH		$ 357,000.00	
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 600				0
700	**TRAFFIC ENGINEERING**				
	SIGNING (FREEWAY)	MILE/DIR		$ 55,550.00	
	SIGNING (STREET)	MILE	0.20	$ 95,700.00	19,140
	PAVEMENT MARKING (FREEWAY)	LANE-MILE		$ 12,400.00	
	PAVEMENT MARKING (STREET)	LANE-MILE	1.00	$ 5,000.00	5,000
	LIGHTING	MILE		$ 797,500.00	
	TRAFFIC SIGNAL	EACH		$ 470,750.00	
	INTELLIGENT TRANSPORTATION SYSTEM (ITS)	MILE		$ 966,000.00	
	MISCELLANEOUS ITEMS	L.SUM		$ 20,000.00	
	TOTAL ITEM 700				24,140
800	**ROADSIDE DEVELOPMENT**				
	LANDSCAPING AND TOPSOIL	SQ.YD.		$ 15.00	
	UTILITY RELOCATION	L.SUM	1	$ 5,000.00	5,000
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 800				5,000
900	**INCIDENTALS**				
	RETAINING WALLS	SQ.FT.		$ 135.00	
	SOUND WALLS	SQ.FT.		$ 91.00	
	ROADWAY APPURTENANCES	L.SUM			
	ADA IMPROVEMENTS	EACH		$ 6,300.00	
	TRANSIT APPURTENANCES	L.SUM			
	RAILROAD ACCOMMODATIONS	L.SUM			
	MISCELLANEOUS ITEMS	L.SUM			
	TOTAL ITEM 900				0
UN	**UNIDENTIFIED ITEMS (20% OF MAJOR ITEMS)**			20%	$24,300
	SUBTOTAL A (ITEM SUBTOTAL)				**$146,000**

ARIZONA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION COST ESTIMATE SUMMARY

PROJECT NAME: GILA BEND DEVELOPMENT ANALYSIS
PROJECT DESCRIPTION: Dodson St LILO
ROUTE: Pima St and Dodson St
ESTIMATE LEVEL: Stage I
PROJECT LIMITS: Dodson St
BASE YEAR: FY2026
LENGTH: 0.2 Miles
DATE: 7/3/2025

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
PW	**PROJECT WIDE**				
	TRAFFIC CONTROL (10% OF SUBTOTAL A)			10.0%	14,600
	DUST PALLIATIVE (0% OF SUBTOTAL A) (INCLUDED IN FURNISH WATER)			0.0%	0
	QUALITY CONTROL (1% OF SUBTOTAL A)			1.0%	1,500
	CONSTRUCTION SURVEYING (1.5% OF SUBTOTAL A)			1.5%	2,200
	EROSION CONTROL (1% OF SUBTOTAL A)			1.0%	1,500
	MOBILIZATION (10% OF SUBTOTAL A)			10.0%	14,600
	SUBTOTAL B (SUBTOTAL A + PROJECT WIDE)				**$180,400**
OTHER PROJ	**OTHER PROJECT COSTS**				
	JOINT PROJECT AGREEMENT ITEMS				0
	CONTRACTOR INCENTIVES				0
	TERO TAX AND OTHER PROJECT EXPENSES				0
	ENVIRONMENTAL MITIGATION				0
	BASE YEAR CONSTRUCTION COST (EXCLUDING BELOW THE LINE ITEMS, UTILITIES & R/W)				**$180,400**
INFL	**INFLATION AND BELOW THE LINE ITEMS**				
	POST DESIGN SERVICES (1% OF BASE YEAR CONSTRUCTION COST)			1.0%	1,800
	CONSTRUCTION CONTINGENCIES (5% OF BASE YEAR CONSTRUCTION COST)			5.0%	9,000
	CONSTRUCTION ENGINEERING (20% OF BASE YEAR CONSTRUCTION COST)			20.0%	36,100
	SUBTOTAL BASE YEAR CONSTRUCTION				**227,300**
	INDIRECT COST ALLOCATION (7.9% OF BASE YEAR CONSTRUCTION COST+BELOW THE LINE ITEMS)			7.90%	18,000
	LABOR AND MATERIAL INFLATION TO FISCAL YEAR 2025			1.0250	6,100
	TOTAL ESTIMATED CONSTRUCTION COST (EXCLUDING UTILITIES & R/W)				**$251,400**
DES	**PREDESIGN AND FINAL DESIGN**				
	PREDESIGN/NEPA/PI SERVICES (3% OF BASE YEAR CONSTRUCTION COST)			3.0%	5,400
	AIR QUALITY HOTSPOT ANALYSIS		0	$ 75,000.00	0
	INDIRECT COST ALLOCATION (7.9% OF ALL PREDESIGN COSTS)			7.90%	400
	PREDESIGN COST INFLATION TO FISCAL YEAR 2025			1.0250	100
	SUBTOTAL PREDESIGN				**5,900**
	FINAL DESIGN SERVICES (INCLUDES ADOT COSTS) (6% OF BASE YEAR CONSTRUCTION COST)			6.0%	10,800
	INDIRECT COST ALLOCATION (7.9% OF ALL FINAL DESIGN COSTS)			7.90%	900
	FINAL DESIGN COST INFLATION TO FISCAL YEAR 2025			1.0250	300
	SUBTOTAL FINAL DESIGN				**12,000**
	TOTAL ESTIMATED DESIGN COST				**$17,900**
UTIL	**UTILITY RELOCATION**				
	PRIOR RIGHT UTILITY RELOCATIONS & SERVICE AGREEMENTS				0
	INDIRECT COST ALLOCATION (7.9% OF ALL UTILITY COSTS)			7.90%	0
	UTILITY RELOCATION COST INFLATION TO FISCAL YEAR 2025			1.0250	0
	TOTAL ESTIMATED UTILITY COST				**$0**
R/W	**RIGHT-OF-WAY**				
	RIGHT-OF-WAY				0
	INDIRECT COST ALLOCATION (7.9% OF ALL RIGHT-OF-WAY COSTS)			7.90%	0
	RIGHT-OF-WAY PRICE ESCALATION TO FISCAL YEAR 2025			1.0250	0
	TOTAL ESTIMATED RIGHT-OF-WAY COSTS				**$0**
	TOTAL ESTIMATED PROJECT COST				$269,000
	Recommended Construction Budget				**$150,000**
	Recommended Other Costs Budget				**$150,000**
	RECOMMENDED BUDGET				**$300,000**