Executive Summary

The Florida Department of Transportation (FDOT) District Seven prepared an Interchange Modification Report (IMR) to identify safety, operational, and geometric improvements to mitigate the existing safety and operational deficiencies for the I-75 and Gibsonton Drive interchange, within Hillsborough County.

The objective of this IMR is to improve access from I-75 to Gibsonton Drive through interchange level improvements and improving ramp merge/diverge conditions. The area of influence (AOI) includes the I-75 merge/diverge areas at the Gibsonton Drive interchange and Gibsonton Drive from west of New East Bay Road to east of Fern Hill Drive. The existing operational and safety issues of greatest concern within the AOI are as follows:

- Significant AM congestion is present along Gibsonton Drive with vehicles attempting to access the northbound I-75 on-ramp from both the eastbound and westbound directions. Thereby, causing competition between both sides of Gibsonton Drive to use the on-ramp.
- In the PM peak hour, the drop lane condition at the southbound I-75 off-ramp to Gibsonton Drive is combined with significant southbound left turning demand at the ramp terminal, which leads to significant I-75 mainline queuing. Under typical conditions, congestion experienced due to the operation of the southbound off-ramp can begin to be observed nearly 3.0 miles upstream of the diverge, at the start of the auxiliary lane. This poses not only an operational concern, but also a significant safety problem during the PM peak as the speed differential between the auxiliary lane and general-purpose lanes can contribute to erratic driving behavior and resulting collisions.
- I-75 and Gibsonton Drive are prioritized hurricane evacuation routes, causing concern for the safety of motorists during an evacuation event; and
- The poor Level of Service (LOS) at the subject interchange during peak travel periods does not support the economic development and prosperity of the rapidly growing study area. This shortcoming will be further exacerbated with the onset of new developments planned in the area.

The following summarizes the results of the evaluation of existing and future traffic operations with and without proposed improvements.

A. Existing Traffic Conditions

Traffic Software Integrated System – Corridor Simulation (CORSIM), version 6.3, was used to evaluate the existing year (2020) operational characteristics of the I-75 and Gibsonton Drive interchange study area. Peak hour results of the CORSIM calibration analyses are as follows:

- AM and PM Peak Level of Service (LOS) indicate that southbound I-75 (north of Gibsonton Drive) and the southbound off-ramp failed to meet target LOS D.
- The I-75 ramps are not capacity constrained, however there are operational deficiencies causing congestion and queueing.
- Gibsonton Drive fails to operate at target LOS D eastbound to the west of New East Bay Road (during the AM and PM Peak hours), eastbound between New East Bay Road and the southbound I-75 ramp terminal, eastbound between the ramp terminals (during the AM peak hour), and westbound from east of Fern Hill Drive to Fern Hill Drive (during the AM and PM peak hours). On average through the study area, both directions of Gibsonton Drive operate at LOS C or D based on the speed threshold.

- There are several locations along Gibsonton Drive which have queues longer than the storage lengths. Through a visual audit of the CORSIM simulation, the unsignalized eastbound left turn at the northbound I-75 ramp terminal was identified as a primary contributor to congestion and queue spill backs in the study area.

Historical crash data, during the five-year period from 2016-2020, included a total of 557 crashes within the project study area. Of the 557 total crashes, there were three fatal crashes, 254 crashes involving personal injury, and 300 crashes that were property damage only. Crashes in the study area resulted in an estimated economic loss of approximately $105.4 million. Multiple high crash roadway segments and intersections were identified within the AOI, segment and intersection crash rates were detailed as follows:

- The segment crash rates range from 0.255 crashes per million vehicle miles traveled (MVMT) (on the southbound I-75 roadway segment, north of the off-ramp to Gibsonton Drive) to a high of 4.462 crashes per MVMT (along the Gibsonton Drive roadway segment, between the I-75 northbound ramps and Fern Hill Drive).
- The intersection crash rates range from a low of 1.006 crashes per million entering vehicles (MEV) at the Gibsonton Drive and southbound I-75 ramp terminal to a high of 3.551 crashes per MEV at the Gibsonton Drive and Fern Hill Drive intersection.

B. Future Traffic Conditions

To address the existing safety and operational concerns at the Gibsonton Interchange, several short-term/low-cost safety and operational improvements (e.g., widening the southbound I-75 off ramp to two lanes, new signalization and construction of dual eastbound left turn lanes and dual westbound right turn lanes at the northbound I-75 ramp terminal intersection) were proposed by FDOT District 7. Through an in-depth evaluation of regional travel demand forecasts and thorough review of area development plans, it was concluded that the short-term improvements would not provide the necessary roadway capacity to meet future travel demands within the interchange area. To minimize throw away costs, the District made the decision to forego implementation of the proposed short-term improvements and secured funding for the reconstruction of the I-75 at Gibsonton Drive interchange to form a new Diverging Diamond Interchange (DDI). The DDI interchange was selected as the preferred interchange configuration during the I-75 PD&E Study's alternatives analysis process and was found to minimize costs, reduce environmental impacts, and provide the greatest level of safety and mobility among the interchange alternatives that were analyzed. The traffic control features and geometric layout of the DDI, and the manner by which the interchange ramps transition into the I-75 mainline, were further refined during the interchange access request process. Below summarizes the improvements considered for No-Build and Build Alternatives.

No-Build Alternative:

Opening Year (2025):

- No-Build Alternative maintains the current I-75 and Gibsonton Drive Diamond Interchange configuration, existing year (2020) lane configuration and traffic control at the study intersections within the AOI.
- Additional transportation improvement includes three exclusive left turn lanes, one through and one exclusive right turn lane at the south leg of the Gibsonton Drive and Fern Hill Drive/Old Gibsonton Drive intersection.

Design Year (2045):

- No-Build Alternative is based on Opening Year No-Build Alternative.
- The construction of express lanes on I-75 from Moccasin Wallow Road to S of US 301.

Build Alternative:

Opening Year (2025):

- The Opening year (2025) Build Alternative includes of the current Diamond Interchange to a Diverging Diamond Interchange (DDI).
- Construction of a new 1,500-foot-long deceleration lane on I-75 northbound that becomes an exit lane to Gibsonton Drive, allowing the existing single lane exit to be converted to a two-lane exit. The two-lane off-ramp widens to four lanes, providing dual left and right turn lanes onto Gibsonton Drive.
- Reconfiguring the Gibsonton Drive access to I-75 northbound by separating the eastbound traffic from the westbound traffic. Eastbound Gibsonton Drive traffic has dual left turn lanes onto the northbound I-75 on-ramp which merges in a single lane on-ramp and enters I-75 northbound as an add lane south of the Alafia River. Westbound Gibsonton Drive traffic has dual right turn lanes onto the northbound I-75 on-ramp carried by a new bridge over the Alafia River and merges with I-75 north of the Riverview Drive overpass.
- Providing additional capacity for the Gibsonton Drive westbound to I-75 northbound on-ramp by extending the existing lane and constructing an additional lane, prior to the Gibsonton Drive and Fern Hill Drive intersection, resulting in three westbound through lanes, one left turn lane to Fern Hill Drive, and two auxiliary lanes that become the dual right turn lanes onto I-75 northbound.
- Converting the existing I-75 southbound off-ramp from a single exit to a two-lane exit. The two-lane exit widens to six-lanes, providing three right turn lane and three left turn lanes.
- Reconfiguring the I-75 southbound on-ramp to merge exclusive turn lanes from eastbound and westbound Gibsonton Drive.
- Widening Gibsonton Drive from a four-lane divided arterial typical section to a six-lane divided arterial between New East Bay Road and east of Fern Hill Drive.
- Providing a third eastbound Gibsonton Drive thru lane at the New East Bay Road intersection.
- Installing new traffic signals at the two crossovers of the DDI.
- Modifying the traffic signal timings at New East Bay Road and Fern Hill Drive and coordinating with the new traffic signals at the DDI crossovers.
- Providing pedestrian accommodations including 6-foot-wide sidewalks and high emphasis crosswalks on both sides of Gibsonton Drive between New East Bay Road and Fern Hill Drive. A single 10-foot-wide sidewalk is provided in the median within the DDI limits while ensuring continuity through the corridor.
- Providing bicyclist accommodations including dedicated bicycle lanes along Gibsonton Drive eastbound and westbound between New East Bay Road and Fern Hill Drive. Bicycle bailouts have been proposed approaching the DDI crossovers to provide an option for the bike to utilize the 10-foot-wide sidewalk.

Design Year (2045):

- Design Year (2045) Build Alternative is based on Opening Year Build Alternative.
- Optimizing the traffic signal timings at New East Bay Road and Fern Hill Drive and coordinating with the new traffic signals at the DDI crossovers for the design Year (2045) demand traffic. During the design year (2045), the opening year (2025)'s timing no longer works as the network reaches saturation and so the cycle length of 150 seconds (to equal the DDI signals) is more appropriate and services the design year (2045) vehicles more efficiently with less flow breakdown, particularly on the westbound approach to New East Bay Road.
- The construction of express lanes on I-75 from Moccasin Wallow Road to S of US 301.

To quantify the benefit of the Build Alternative or eliminate improvements from further considerations, a No-Build Alternative was also assessed and assumes that the current geometric configuration and traffic control operations of the I-75 and Gibsonton Drive interchange will remain unchanged. The anticipated opening year for proposed interchange improvements for the I-75 interchange at Gibsonton Drive is 2025.

Opening Year (2025)

During the opening year (2025), when comparing the No-Build and Build Alternatives, there are improvements throughout the network with serviced vehicles increasing at nearly every movement as congestion is relieved. During both the AM and PM peak hours there are improvements to delay and LOS, particularly at the I-75 ramp terminals which are no longer experiencing a failing LOS. Some increase in delay at specific locations can be expected as upstream bottlenecks are alleviated and vehicle throughput is improved. No movements are expected to fail during the AM and PM peak hours under the Build Alternative. Volume-to-capacity ratios were checked for each ramp of the I-75 at Gibsonton Drive interchange in the AM and PM time periods for the No-Build and Build Alternatives in the opening year (2025). This check indicated that the on-ramp to northbound I-75 during the AM peak hour and the off-ramp to Gibsonton Drive from southbound I-75 during the PM peak hour exceed the capacity of the ramp under the No-Build Alternative. Under the Build Alternative, the ramps will operate under capacity during the opening year (2025).

Design Year (2045)

During the design year (2045), when comparing the No-Build and Build Alternatives, there are improvements throughout the network with serviced vehicles increasing at nearly every movement as congestion is relieved. During both the AM and PM peak hours there are improvements to delay and LOS, particularly at the I-75 ramp terminals which are no longer experiencing a failing LOS. Some increase in delay at specific locations can be expected as upstream bottlenecks are alleviated and vehicle throughput is improved, such as the westbound left movement from Gibsonton Drive to southbound East Bay Road. No additional approaches or intersections fail during the AM or PM peak hour. Throughout the network, nearly any increase in delay from the No-Build Alternative, is accompanied by an increase in serviced volume and nearly any decrease in serviced volume is accompanied by a decrease in delay. These changes are due to either alleviating upstream or downstream bottlenecks, or by changes in signal timings to prioritize clearance of the DDI to avoid any impacts to the I-75 mainline. The only locations that have both an increase in delay and a decrease in serviced volume include the northbound left and northbound through movement at New East Bay Road which does already fail during the PM peak hour and the northbound through movement at Fern Hill Drive during the PM peak hour which only services three vehicles. Nearly, or all, of the vehicles at these locations are being serviced still, and improvements to these locations will adversely affect operations elsewhere in the network. Additionally, during the design year (2045), compared to the No-Build Alternative, queue lengths under the Build Alternative are improved and no queues exceed the available storage lengths. Volume-to-capacity ratios were checked for each ramp

of the I-75 at Gibsonton Drive interchange in the AM and PM time periods for the No-Build and Build Alternatives in the design year (2045). This check indicated that compared to the opening year (2025) No-Build Alternative, congestion is expected to increase, particularly on the northbound on-ramp from Gibsonton Drive, and the southbound off-ramp to Gibsonton Drive which will both fail during both peak periods in the design year (2045). Under the Build Alternative, the ramps will continue to operate under capacity during the design year (2045).

C. Comparison of Alternatives

The modifications to the existing access of the I-75 and Gibsonton Drive interchange under the Build Alternative are expected to enhance traffic safety. Impacts on traffic safety will result from recommended enhancements aimed to reduce the crash frequency of several intersections in the AOI.

A comparison of the overall intersection delays associated with the Existing, No-Build, and Build Alternatives in the AM and PM peak hours can be found in **Table E.1** and **Table E.2**, respectively.

Table E.1: AM Intersection Analysis

Intersection	Existing		No-Build 2025		Build 2025		No-Build 2045		Build 2045	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
New East Bay Road	32.5	C	96.0	F	12.6	B	100.5	F	22.5	C
Southbound I-75 Ramp Terminal	58.8	E	86.4	F	23.8[2]	C	99.3	F	19.9[2]	B
Northbound I-75 Ramp Terminal	38.7*	E	58.8*	F	18.0	B	32.8*[1]	D	20.2	C
Fern Hill Drive	12.0[3]	B	9.4[3]	A	12.2	B	13.7	B	13.3	B

Red highlight indicates that the delay does not meet the LOS target, D

*Average intersection delay was used as overall delay for unsignalized intersections.

1. The overall average un-signalized intersection delay decreases because of unserviced EBL volumes in 2045. It is anticipated that this intersection will continue to deteriorate from 2025 No-Build condition, and operate at LOS F with greater delay.

2. 2045 Build condition delay results being reported are better than 2025 Build condition for the following reasons:
- More efficient eastbound-westbound thru-traffic movement along the corridor in 2045, due to optimized cycle length and off-set at adjacent intersections, as compared to 2025, and
- Slightly different turning movement percentages between 2025 and 2045

3. 2025 No-Build condition delay decreases from existing condition because of lane geometry improvements

Table E.2: PM Intersection Analysis

Intersection	Existing		No-Build 2025		Build 2025		No-Build 2045		Build 2045	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
New East Bay Road	23.8	C	30.9	C	19.1	B	72.9	E	47.7	D
Southbound I-75 Ramp Terminal	37.9	D	39.5	D	16.4[1]	B	102.0	F	12.1[1]	B
Northbound I-75 Ramp Terminal	3.1*	A	5.2*	A	16.3	B	20.3*	C	19.6	B
Fern Hill Drive	10.4[2]	B	9.6[2]	A	8.6	A	16.0	B	13.4	B

Red highlight indicates that the delay does not meet the LOS target, D

*Average intersection delay was used as overall delay for unsignalized intersections.

1. 2045 Build condition delay results being reported are better than 2025 Build condition for the following reasons:
- More efficient eastbound-westbound thru-traffic movment along the corridor in 2045 because of using different optimized cycle length and off-set at adjacent intersections from 2025 model, and
- Slightly different turning movement percentages between 2025 and 2045

2. 2025 No-Build condition delay decreases from existing condition because of lane geometry improvements

Table E.3 provides a comparison of maximum queue lengths compared to available storage lengths for the No-Build and Build Alternative in the design year (2045). In the table, the available storage represents the left or right turn storage bay measured from the stop bar to the taper. The available storage for the Off-ramp is measured from the stop bar to the gore point, with adjustment for deceleration length where applicable. Queue spillback is reduced, while vehicle throughput is increased through the AOI. No queues exceed the available storage lengths under the Build Alternative in the design year (2045).

Table E.3: Design Year (2045) Queue Analysis

Gibsonton Drive Intersection	Movement	No-Build Alternative			Build Alternative		
		Available Storage (Feet)	Maximum Vehicle Queue Length (Feet)		Available Storage (Feet)	Maximum Vehicle Queue Length (Feet)	
			AM Peak	PM Peak		AM Peak	PM Peak
New East Bay Road	EBL	190	50	50	190	75	100
	EBT	1,100	**1,325**	**1,375**	1,100	475	925
	EBR	250	100	225	250	50	250
	WBL	530	300	**725**	1,300	375	800
	WBT	730	600	375	1,780	375	275
	WBR	730	100	50	1,780	75	50
	NBTL	410	**550**	**500**	410	250	300
	NBR	390	**575**	**500**	390	325	200
	SBLTR	430	325	375	430	200	350
Southbound I-75 Ramp Terminal	EBT	730	**1,625**	**1,600**	1,780	525	350
	EBR	520	75	75	530	25	25
	WBL	640	**850**	**850**	900	150	150
	WBT	1,950	**2,325**	**2,400**	900	700	725
	SBL	1370	**1,650**	**1,650**	1,550	550	550
	SBR	1420	525	525	1,530	600	600
Northbound I-75 Ramp Terminal	EBL	640	**875**	**875**	900	475	75
	EBT	1,950	**2,325**	**2,250**	900	900	550
	WBT	730	550	**1,225**	1,810	475	625
	WBR	730	575	**850**	1,810	0	50
	NBL	375	275	325	1,700	150	125
	NBR	2,500	25	25	1,680	275	250
Fern Hill Drive	EBL	250	225	**250**	420	175	150
	EBT	730	600	650	1,810	225	950
	EBR	215	150	150	420	75	75
	WBL	330	200	175	350	175	150
	WBTR	1,170	**1,375**	**1,475**	580	500	400
	NBL	580	125	75	200	125	75
	NBT	580	25	50	580	25	25
	NBR	580	150	175	240	150	150
	SBTL	410	200	300	410	100	200
	SBR	200	50	50	200	75	75

Note: Red highlight indicates that maximum vehicle queue length exceeds available storage length

Based on the analyses documented in this IMR, the Build Alternative is expected to improve the operation and overall safety of the study intersections. The results of the CORSIM microsimulation analysis, as presented in **Table E.4**, provide evidence of substantial benefits associated with implementing the Build Alternative. Operational benefits under the Build Alternative were demonstrated by an increase in vehicle miles traveled and average speed. The increased vehicle miles traveled and average speeds for the opening year (2025) and design year (2045) were documented as follows:

- During the opening year (2025) the average speed increases by 80.5 percent during the AM peak period and by 23.5 percent during the PM peak period. The vehicle miles traveled (under static demand volumes) increases by 21.9 percent during the AM peak period and 3.9 percent during the PM peak period. Latent demand will decrease by 91.4 percent during the AM peak period and by 95.3 percent during the PM peak period.
- During the design year (2045), the average speed increases by 37.1 percent during the AM peak period and by 44.8 percent during the PM peak period. The benefits of vehicles serviced is significant with an increase in vehicle miles traveled (under static demand volumes) of 31.3 percent during the AM peak period and 23.8 percent during the PM peak period. Latent demand will decrease by 80.0 percent during the AM peak period and by 91.5 percent during the PM peak period.

Table E.4: Comparison of Network-Wide CORSIM MOEs for Opening Year (2025) and Design Year (2045) during AM and PM Peak Hour Periods

Network-Wide MOE	Analysis Time Period	Opening Year (2025)			Design Year (2045)		
		No-Build Alternative	Build Alternative	% Difference	No-Build Alternative	Build Alternative	% Difference
Vehicle Miles Traveled (veh-miles)	AM	338,022	412,070	21.9%	411,013	539,661	31.3%
	PM	399,953	415,387	3.9%	429,142	531,071	23.8%
Travel Time Total (hours)	AM	9,643	6,500	-32.6%	9,774	9,340	-4.4%
	PM	9,665	8,130	-15.9%	12,961	11,085	-14.5%
Speed Average (mph)	AM	35.1	63.4	80.5%	42.1	57.8	37.1%
	PM	41.4	51.1	23.5%	33.1	47.9	44.8%
Total Travel Delay (hours)	AM	4,802	576	-88.0%	3,719	1,420	-61.8%
	PM	3,916	2,162	-44.8%	6,683	3,286	-50.8%
Latent Demand (veh)	AM	12,090	1,036	-91.4%	16,889	3,385	-80.0%
	PM	10,990	518	-95.3%	19,942	1,692	-91.5%

*Latent demand at some of entry nodes exceeds maximum value reported by CORSIM of 9,999. 9,999 is assumed for these nodes, however the latent demand exceeds this value.

The quantitative safety analysis provided additional safety benefits to the operational benefits for implementing the Build Alternative. Using procedures from the Highway Safety Manual (HSM), all collisions associated with the ramp terminals and ramps are expected to be reduced by up to 14.2 percent and provide a 3.2 crash reduction per year.

Improvements to this interchange have local government support and are included in the Hillsborough County Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP), as it indicates the I-75 at Gibsonton Drive interchange as being a top regional priority for future funding.

The proposed improvements under Build Alternative will not require the acquisition of any ROW. Therefore, it is anticipated there will be minimal to no natural, cultural, or socio-economic impacts associated with implementing the proposed improvements.

There are no anticipated design exceptions or variations to FDOT or FHWA policies, rules, or standards anticipated for this project, but if any exception/variation should arise it will be processed per FHWA and FDOT standards.

The access management within the AOI of the I-75 and Gibsonton Drive interchange will not be changed by the proposed improvements to be implemented as part of the Build Alternative.

Based upon this analysis, the proposed modifications under Build Alternative provide significant improvements to corridor operation, mitigate congestion, and enhance safety within the study AOI.

D. FHWA Policy Points

This IMR follows the FHWA's Policy on Access to the Interstate System requirements for the justification and documentation needed to substantiate any proposed changes in access to the Interstate System. The Interstate System provides a key role in facilitating the distribution of goods and services sustaining the economic health, mobility and safety of a region and state. As part of the United States transportation system that provides access to local highways using a network of limited access freeways, it is important to invest in the preservation and enhancement of the Interstate System to meet the needs of the 21st century. All new or modified points of access must be approved by FHWA and developed in accordance with federal laws and regulations (as specified in 23 U.S.C. 109 and 111, 23 C.F.R. 625.4, and 49 C.F.R. 1.48(b)(1)). The following sections document the adherence of the proposed improvements to the two FHWA Policy Criteria (effective as of May 22, 2017).

Policy Point 1

An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, and ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis should, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (Title 23, Code of Federal Regulations (CFR), paragraphs 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, should be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access should include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute, and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request should also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).

Satisfaction of Policy Point 1

An operational and safety analysis was conducted to evaluate the Build and No-Build Alternatives. The Build Alternative consists primarily of reconstructing the current Diamond Interchange to a Diverging Diamond Interchange along with improvements at New East Bay Road and Fern Hill Drive while the No-Build Alternative maintains the current I-75 and Gibsonton Drive Diamond Interchange configuration,

existing year (2020) lane configuration and traffic control, with the committed improvements at south leg of Fern Hill at the study intersections within the AOI.

The CORSIM microsimulation results of the I-75 basic freeway segments and ramp merge/diverge areas for the Build Alternative indicate that during the design year (2045), serviced vehicles on southbound I-75 increase during both the AM and PM peak hours compared to the No-Build Alternative. No new segments of southbound I-75 fail due to the improvements made on Gibsonton Drive. Additionally, the segment of southbound I-75 north of Gibsonton Drive and the diverge segment at the southbound I-75 off-ramp to Gibsonton Drive show increases in speed and decreases in density under the Build Alternative.

Volume-to-capacity ratios were checked for each ramp of the I-75 at Gibsonton Drive interchange in the AM and PM time periods for the No-Build and Build Alternatives in the design year (2045). This check indicated that compared to the opening year (2025) No-Build Alternative, congestion is expected to increase, particularly on the northbound on-ramp from Gibsonton Drive, and the southbound off-ramp to Gibsonton Drive which will both fail during both peak periods in the design year (2045). Under the Build Alternative, the ramps will continue to operate under capacity during the design year (2045).

The CORSIM microsimulation results of the I-75 ramp terminals and cross-streets at Gibsonton Drive for the design year (2045) indicate that during the design year (2045), when comparing the No-Build and Build Alternatives, there are improvements throughout the network with serviced vehicles increasing at nearly every movement as congestion is relieved. In the Build Alternative, during the AM and PM peak hours, all four study intersections have an LOS of D or better. The reduction of maximum queue spillbacks under the Build Alternative is also largely mitigated with no queues exceeding the available storage lengths in the design year (2045).

During the design year (2045), the average speed increases by 37.1 percent during the AM peak period and by 44.8 percent during the PM peak period. The benefits of vehicles serviced is significant with an increase in vehicle miles traveled (under static demand volumes) of 31.3 percent during the AM peak period and 23.8 percent during the PM peak period. Latent demand will decrease by 80.0 percent during the AM peak period and by 91.5 percent during the PM peak period.

When examining FDOT crash modification factors between the No-Build and Build Alternatives, the proposed improvements are expected to improve safety along the corridor. With the proposed improvements under the Build Alternative, all collisions associated with the ramp terminals and ramps are expected to be reduced by up to 14.2 percent and provide a 3.2 crash reduction per year.

Based upon this analysis, the Build Alternative provides significant improvements to the network configuration that improve corridor operation, mitigate congestion, and enhance safety within the study AOI.

Policy Point 2

The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access, such as managed lanes (e.g., transit or high occupancy vehicle and high occupancy toll lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)). In rare instances where all basic movements are not provided by the proposed design, the report should include a full-interchange option with a comparison of the operational and safety analyses to the partial interchange option. The report should also include the mitigation proposed to compensate for the missing movements, including wayfinding signage, impacts on local intersections, mitigation of driver expectation leading to wrong-way movements on ramps, etc. The report should describe whether future provision of a full interchange is precluded by the proposed design.

Satisfaction of Policy Point 2

The proposed Build Alternative will maintain full access to all traffic movements on Gibsonton Drive to and from I-75. The design will meet current standards for the projects on the interstate system and comply with the American Association of State Highway and Transportation Officials (AASHTO) and FDOT design standards. There are no design exceptions or variations to FDOT or FHWA policies, rules, or standards anticipated with the Build Alternative.