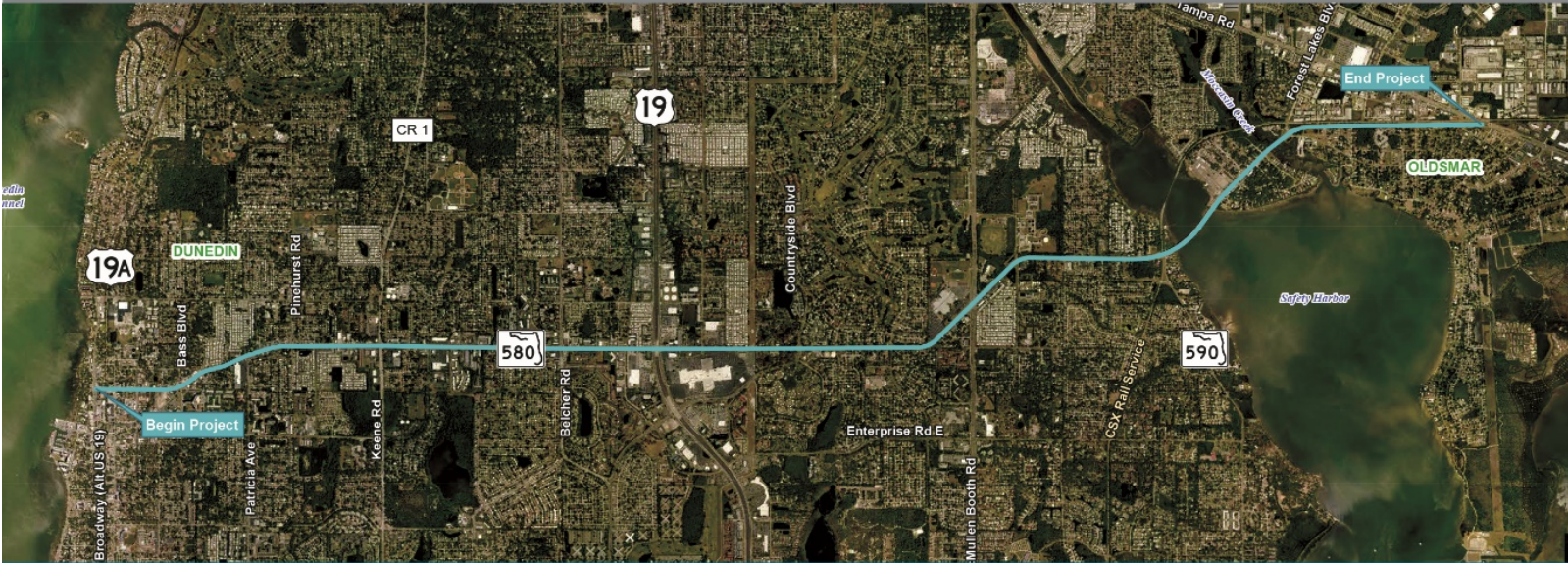




SR580

CORRIDOR PLANNING & CONCEPT DEVELOPMENT STUDY

FROM ALT. US 19/SR 595/BROADWAY TO TAMPA ROAD



PURPOSE AND NEED TECHNICAL MEMORANDUM



Pinellas County
FPID: 259109-1-12-27
November 2021

TECHNICAL MEMORANDUM

MEMORANDUM PURPOSE

The purpose of this *Purpose and Need Technical Memorandum* is to evaluate the existing conditions and identify the potential purpose and need of future transportation improvements. This memorandum assesses the existing conditions, existing issues, as well as potential problems and opportunities that were documented in the *Existing Conditions Report*, prepared under separate cover. The primary goals of the project and need for future improvements are being documented for future use.

PROJECT LOCATION

The SR 580 Corridor Planning and Concept Development Study represents the opportunity to engage local and regional project stakeholders in the identification of issues, establishment of planning goals, and visioning, leading to the identification of potential improvement alternatives.

Beginning at Alternate US 19 in the City of Dunedin, SR 580 is a four-lane divided urban arterial for approximately one mile then transitions to a four-lane undivided urban arterial to Pinehurst Road. East of Pinehurst Road, SR 580 is a six-lane undivided urban arterial that continues east until just west of SR 590/Philippe Parkway. At this location, SR 580 transitions to a four-lane undivided urban arterial and continues to the end of the project at Tampa Road. Daily traffic volumes ranged from 10,800 vehicles per day to 48,500 vehicles per day along the corridor in the year 2018. The total length of the corridor is approximately 8.5 miles. The corridor features sidewalks on both sides of the roadway, with a few exceptions. Bike lanes are present on both sides of SR 580 from Alternate US 19 to Countryside Boulevard. The project study area is shown on **Figure 1**.

STUDY BACKGROUND

The SR 580 Corridor Planning and Concept Development Study will be conducted in two phases. Phase I focuses on Defining the Problem which includes the collection and assessment of the existing conditions, which leads to defining the Purpose and Need. The Purpose and Need will help to determine which intersections, roadway segments and multimodal transportation facilities must be further analyzed in Phase II. The future traffic volumes and SYNCHRO network will be developed during Phase I.

Phase II involves conducting detailed operational analysis, such as SYNCHRO and Highway Capacity Manual (HCM), on the selected intersections, roadways segments and multimodal facilities. Phase II ultimately focuses on developing alternatives for the transportation facilities, discussed in Phase I. Phase II work activities may be expanded after the locations for further evaluation are selected at the end of Phase I activities.

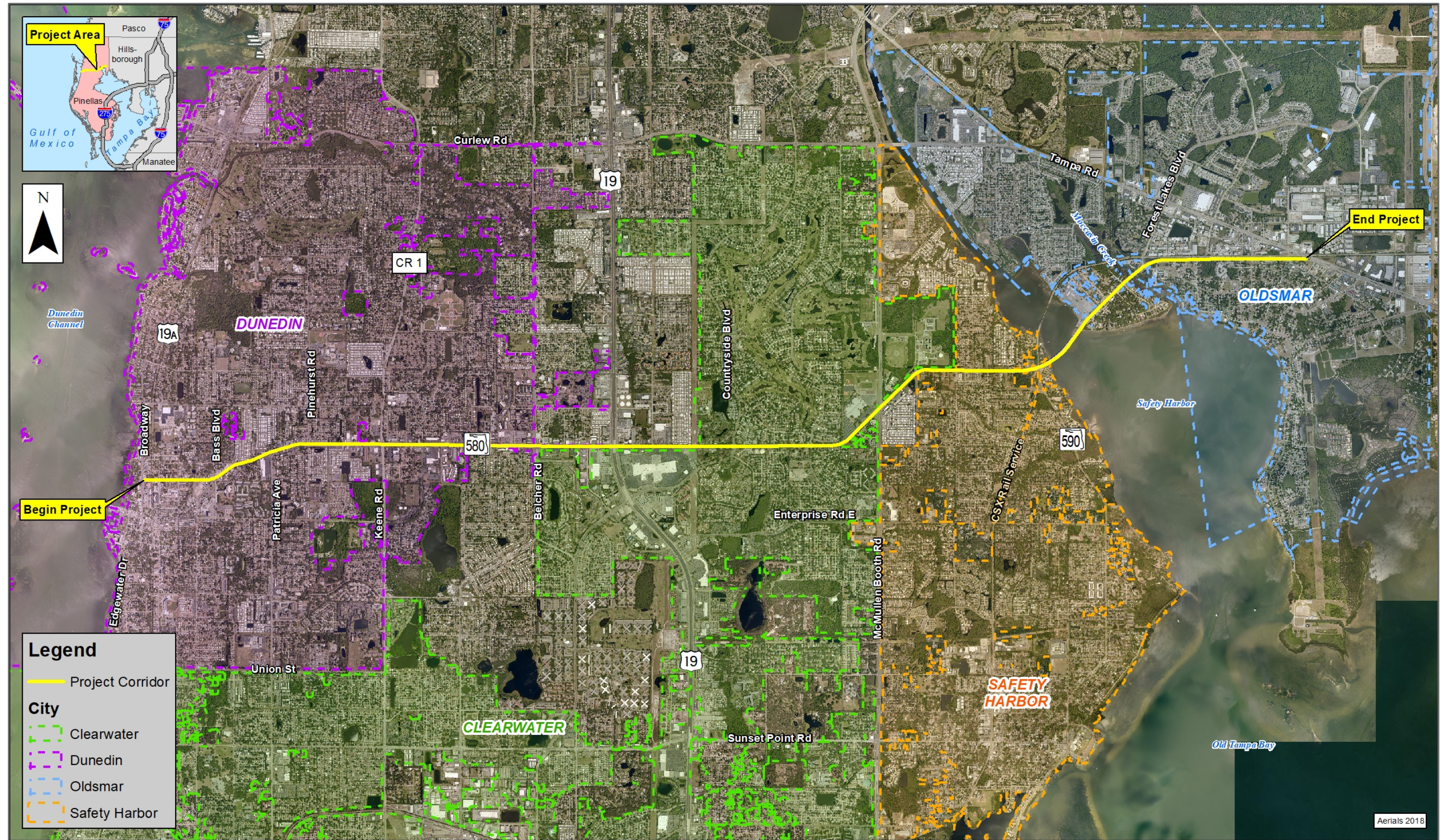


Figure 1 Project Location Map

It is important to note that Pinellas County and Forward Pinellas support Vision Zero. Vision Zero is a policy that establishes a goal of reducing traffic fatalities and serious injuries to zero. Forward Pinellas discusses Vision Zero transportation safety philosophy in their Safe Streets Pinellas effort.

During both phases of the study, collaboration with the public and project stakeholders will be conducted for input into the development of the Corridor Alternatives and Strategies Summary. Collaboration and public involvement are essential parts of this project. A Project Advisory Group (PAG) comprised of public agency stakeholders has been established to help with the planning process. For this project, the PAG includes elected officials and representatives from Forward Pinellas, the Cities of Dunedin, Clearwater, Safety Harbor, Oldsmar, and unincorporated portions of Pinellas County, as well as the Pinellas Community Traffic Safety Team. Public meetings involving local residents, businesses and property owners are being incorporated into the study. Additionally, previous studies, improvement plans, existing vehicular, pedestrian and bicycle traffic, and transit facilities are being assessed, as part of the analysis. This project includes coordination with other ongoing studies such as the *Dunedin Multimodal Plan*.

PROJECT PURPOSE CONSIDERATIONS

The Florida Department of Transportation's (FDOT) *Project Development and Environment (PD&E) Manual*, Part 2 Chapter 1 outlines considerations for a project's purpose. The manual states, "purpose identifies the primary goals of the project and guides the alternatives that will be considered and developed in response to the established need." It is important that the purpose of a project is broad enough to encompass a reasonable range of alternatives, but not so broad that it encompasses every possible alternative. The purpose of the project should be used to evaluate alternatives, and an alternative that does not achieve the primary purpose of the project should be eliminated as unreasonable or not feasible.

NEED STATEMENT CONSIDERATIONS

The FDOT's *PD&E Manual*, Part 2 Chapter 1 outlines considerations for a project's need which will guide future development of the project. The manual states, "the need for the project arises from deficiencies, issues, and/or concerns that currently exist or are expected to occur within the project area. The need serves as the foundation for the proposed project and provides the principal information upon which the "no-build" alternative discussion is based." The need should set the foundation for pursuing a build alternative or improvement and should be a factual, objective description of the specific transportation problem. The need statement should include existing condition analysis and supporting information.

CORRIDOR NEEDS

The considerations for developing the project need statement are based on guidance from the FDOT's *PD&E Manual*. It should be noted that this study is not a PD&E Study but could lead to future PD&E studies. Below is a description of the applicability of each of the items noted as they relate to this SR 580 Corridor Planning and Concept Development Study.

Project Status

This project is located within the jurisdiction of Forward Pinellas, the metropolitan planning organization (MPO) for Pinellas County. The purpose of this SR 580 corridor study is to assist the FDOT and Forward Pinellas in programming future transportation improvements along the study corridor. As specific improvement projects are identified, FDOT and Forward Pinellas will coordinate to determine whether projects meet the goals of the MPO's LRTP and their priority in relation to other improvements considered by the MPO. Currently, SR 580 within the study limits, is not listed in the Forward Pinellas LRTP.

System Linkage

SR 580 within the limits of this project spans from US Alternate 19 at its west terminus to Tampa Road on the east terminus. This portion of SR 580 is identified as part of Florida's National Highway System and a principal arterial highway. Within the study limits, SR 580 intersects US Highway 19, an important highway along Florida's west (gulf) coast spanning from just south of St Petersburg to the Florida-Georgia state line and terminating in Erie, Pennsylvania. Pinellas County maintains other arterial roads that intersect SR 580 including Keene Road, Belcher Road, Countryside Boulevard, McMullen Booth Road and Phillipe Parkway.

SR 580 contributes to the movement of people, good and services throughout northern Pinellas County and linkage to northwestern Hillsborough County within the Tampa Bay region. Pinellas Suncoast Transit Authority (PSTA) runs nine (9) transit routes along or crossing portions of the SR 580 study corridor including Routes 19, 61, 62, 67, 76, 78, 812, 813, and 814. Countryside Mall serves as a transfer bus station connection on eastbound SR 580, with nine (9) bus routes originating from the mall bus stops.

Capacity

The *Existing Conditions Report* evaluated the capacity of the existing SR 580 roadway based on existing traffic conditions in year 2020. Based on the evaluation, there are segments and intersections along SR 580 with traffic volumes that exceeded its existing capacity, and operational congestion occurs in the peak AM and PM periods. The Existing Year 2020 AM peak period level of service (LOS) results for the study intersections and segments are shown in **Figure 2**. Six (6) intersections operate at unacceptable LOS in the AM peak period. Six (6) eastbound segments and three (3) westbound segments operate at unacceptable LOS for Existing Year 2020 in the AM peak period.

The Existing Year 2020 PM peak period LOS results for the study intersections and segments are shown in **Figure 3**. Four (4) intersections operate at unacceptable LOS in the PM peak period. Six (6) eastbound segments and two (2) westbound segments operate at unacceptable LOS for Existing Year 2020 in the PM peak period.

Intersections with failing LOS for Existing Year 2020 (for both the AM and PM peak period) are listed in **Table 1** and segments with failing LOS for Existing Year 2020 (for both the AM and PM peak period) are listed in **Table 2**.

Table 1 Intersections with Failing LOS in Existing Year 2020

Time Period	Intersection
AM	Keene Rd
	Belcher Rd
	US 19 Frontage Rd
	Countryside Blvd
	McMullen Booth Rd
	Forest Lakes Blvd/St Petersburg Dr
PM	Keene Rd
	US 19 Frontage Rd
	Countryside Blvd
	McMullen Booth Rd

Table 2 Segments with Failing LOS in Existing Year 2020

Time Period	SR 580 Segment		
	Direction	From	To
AM	EB	Lake Haven Rd	Keene Rd
	EB	Pinewood Dr	Belcher Rd
	EB	Belcher Rd	Enterprise Rd
	EB	Enterprise Rd	US 19 Frontage Rd
	EB	Charles Ave	McMullen Booth Rd
	WB	Bayview Blvd	St Petersburg Dr
	WB	Summerdale	US 19 Frontage Rd
	WB	Achieva Way	Keene Rd
PM	EB	Lake Haven Rd	Keene Rd
	EB	Pinewood Dr	Belcher Rd
	EB	Belcher Rd	Enterprise Rd
	EB	Enterprise Rd	US 19 Frontage Rd
	EB	Charles Ave	McMullen Booth Rd
	WB	Summerdale Dr	US 19 Frontage Rd
	WB	Achieva Way	Keene Rd

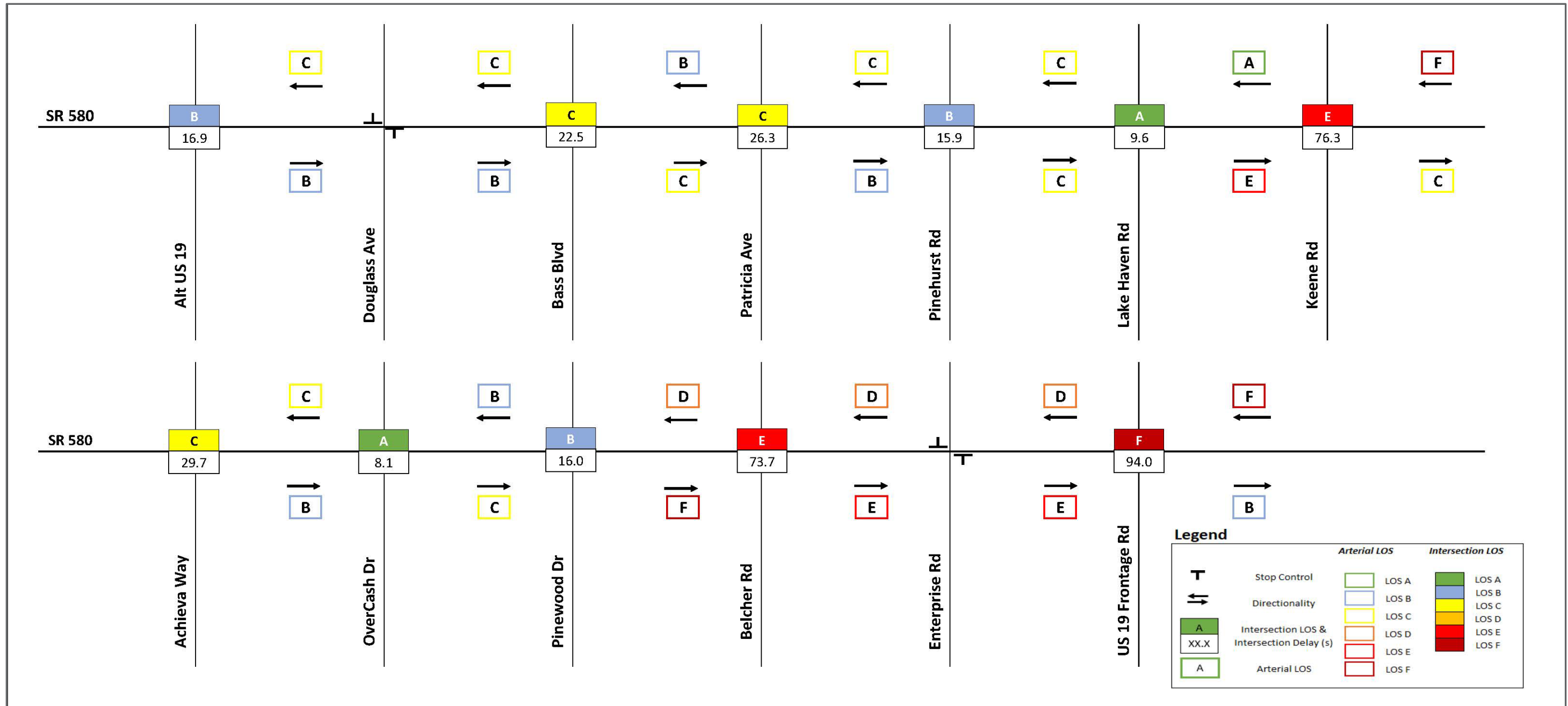


Figure 2 Existing Year (2020) AM Peak Period LOS Results

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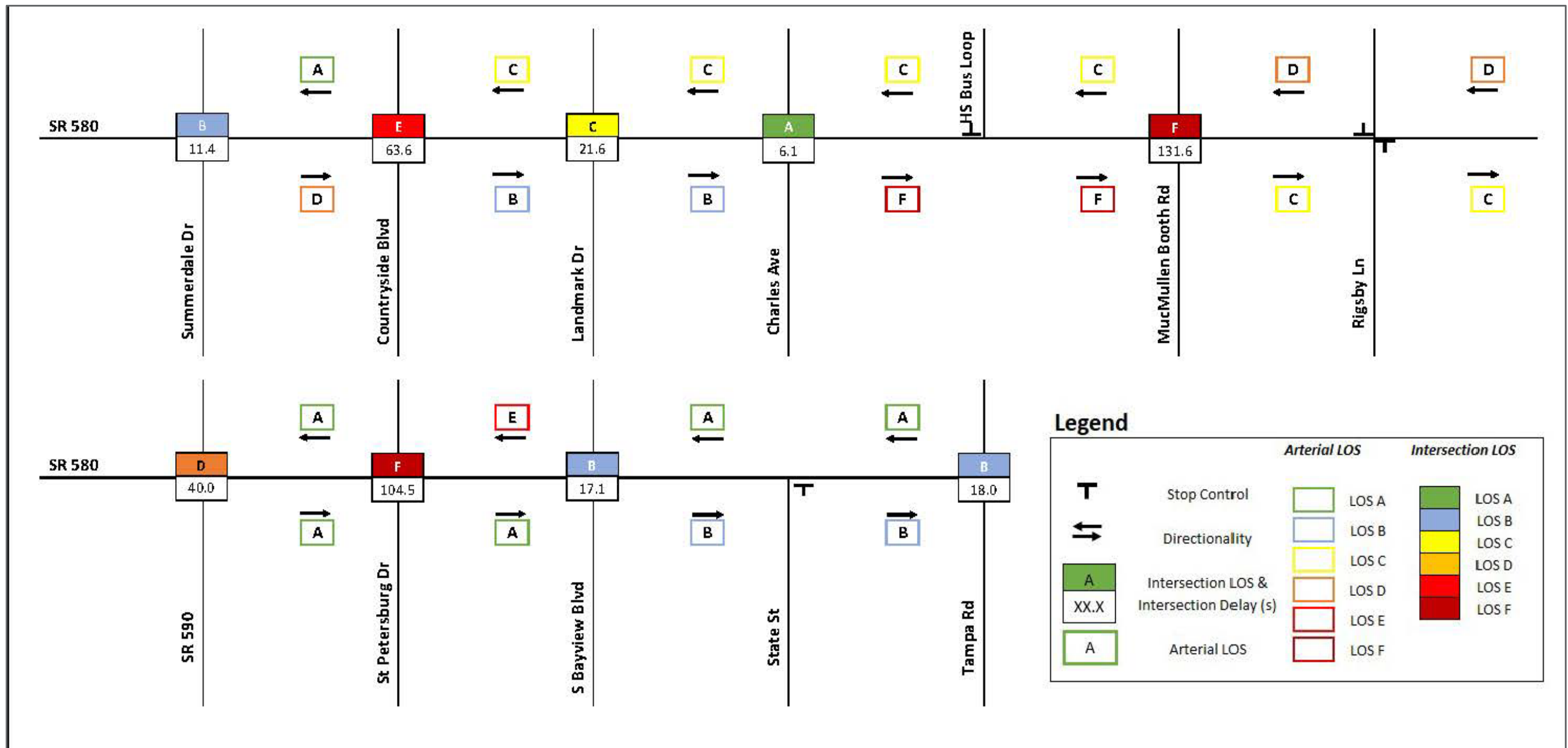


Figure 2 Existing Year (2020) AM Peak Period LOS Results

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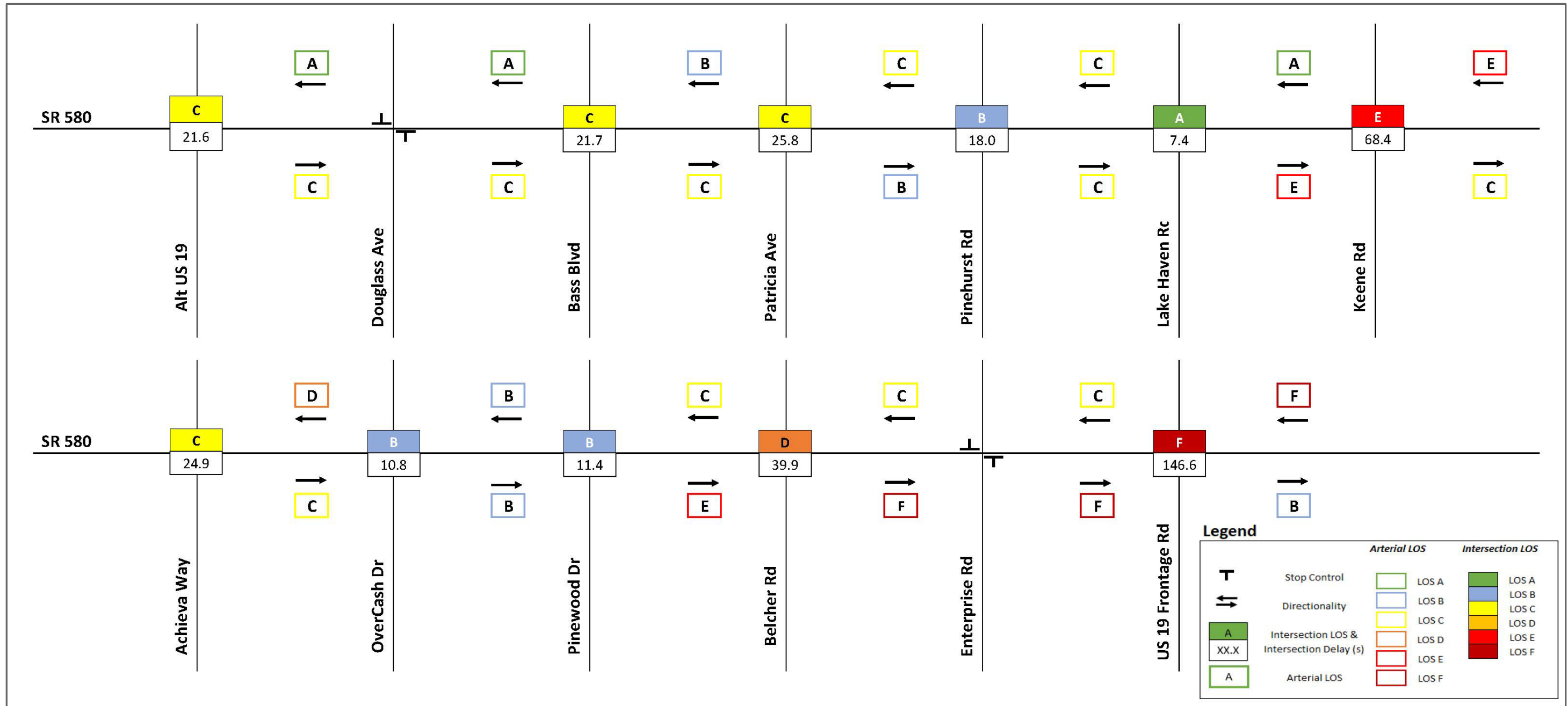


Figure 3 Existing Year (2020) PM Peak Period LOS Results

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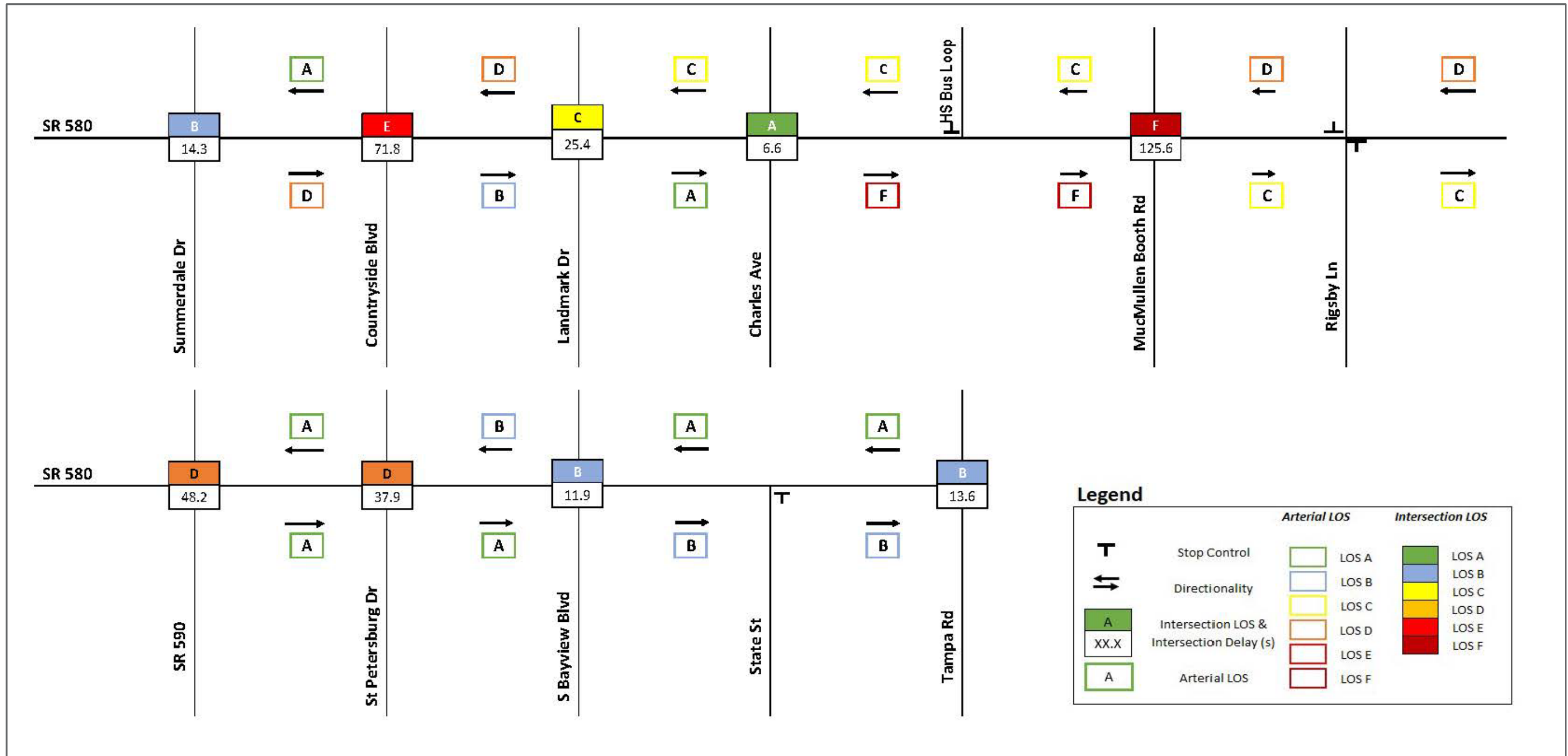


Figure 3 Existing Year (2020) PM Peak Period LOS Results

(2 of 2)

Transportation Demand

Roadway improvements for the SR 580 corridor are not in the currently adopted *Forward Pinellas 2045 Long Range Transportation Plan (LRTP)* which is call “Advantage Pinellas” adopted November 2019. This is not to say that multimodal improvements are not needed for the corridor, but Pinellas County has many other transportation projects that were ranked higher than the SR 580 corridor as determined by the MPO board and general public. Advantage Pinellas has identified 60,000 new jobs and 93,000 more people in the county over the next 25 years. Traffic volumes for the study corridor will be determined using the Tampa Bay Regional Planning Model version 2.1 (TBRPM V9.0).

Legislation

At this time, there is no federal, state, or local governmental mandate for action along this corridor, so this element will be not applicable.

Social Demands or Economic Development

When the existing and future land uses are compared, a general picture of the corridor emerges that indicate a reasonably stable environment. The comparison between the existing and future scenarios shows a similar stability in the shared dominance of residential and commercial uses, while the emergence of mixed-use areas from within existing residential areas is also shown. The future land use did allow for some differentiation of densities of residential areas, with a general pattern of greater density east of US 19, in Dunedin and Clearwater, and less density east of there, in communities such as Safety Harbor and Oldsmar. These minor future land use changes will have little impact of the SR 580 transportation system.

A number of traffic generators and attractors in the corridor include the Pinellas Trail, Downtown Dunedin, Mease Dunedin Hospital complex, Countryside Mall, and the medical facilities on McMullen-Booth Road north of the corridor. These traffic generators and attractors will most likely remain constant in future years, that is, the amount of traffic and the travel patterns to and from them will remain similar to current traffic volumes and patterns. There is limited potential for redevelopment throughout the study area. Currently, within Dunedin there is ongoing redevelopment along Main Street, and outward from the corridor mostly along the Douglas Street, Main Street, and to greater extent on Skinner Road. The ongoing Skinner Boulevard Complete Street Study from Alternative US 19 to Bass Street is looing at reducing a lane in each direction and proposing two (2) traffic circles at Douglas Avenue and Martin Luther King Jr. Avenue.

Modal Interrelationships

There are no airports, freight facilities, rail or port facilities along or near the SR 580 corridor. SR 580 does provide linkage to PSTA transit routes. In addition to serving vehicular traffic, SR 580 provides pedestrian and bicycle connectivity with intermittent sidewalks and bike lanes. Enhancing mobility for transit vehicles, its ridership and connectivity for pedestrians and other non-motorized uses would be a project need in areas within the SR 580 corridor. There is a proposed Golf Cart crossing at SR 580

and Bass Boulevard, but as long as SR 580 is under jurisdiction of the Florida Department of Transportation, Golf Cart crossings are not allowed.

Safety

The *Existing Conditions Report* provides a detailed summation of crash history and areas of safety issues for drivers of vehicles and pedestrians/bicyclists.

A total of 1,761 vehicle crashes were reported during the five-year time frame. The predominant crash types reported for the study corridor were rear end crashes (50%), angle crashes (17%) and sideswipe crashes (11%). The crash types summarized by year are shown in the table below.

Table 3 Crashes by Year and Type

Crash Type	Year					Total	Percentage
	2015	2016	2017	2018	2019		
Angle	61	75	66	48	50	300	17%
Rear End	187	176	215	165	140	883	50%
Sideswipe	45	44	38	42	30	199	11%
Left-Turn	29	25	29	18	32	133	8%
Right-Turn	3	6	1	2	3	15	1%
Head-On	8	7	6	4	4	29	2%
Bicycle	12	4	1	9	1	27	2%
Pedestrian	4	5	6	10	9	34	2%
Single Vehicle	3	1	3	5	0	12	1%
Run Off-Road	1	1	0	0	0	2	0%
Hit Fixed Object	28	11	8	19	15	81	5%
Hit Non-Fixed Object	1	1	1	1	1	5	0%
Unknown	7	10	6	4	3	30	2%
U-turn	4	1	2	2	2	11	1%
Total	393	367	382	329	290	1761	

There were six (6) crashes involving a fatality and 719 crashes resulting in injury. From the five-year crash data (2015 - 2019) there were three intersections identified along the study corridor as “hot spot” crash locations due to the number of crashes reported. These specific locations are listed below:

- At the intersection of SR 580 and Keene Road.
- At the intersection of SR 580 and Belcher Road.
- In the vicinity of SR 580 and Alt US 19.

The only roadway segment on SR 580 where the calculated crash rate exceeds the state of Florida statewide averages for similar facilities was between Alt US 19 and Main Street. There were three (3) reported fatalities caused by pedestrian crashes. The historic crash analysis does show distinct patterns of spatial clustering of pedestrian and bicycle crashes. The intersection with the Pinellas Trail represents a cluster of multiple crashes for both pedestrians and bicyclists, as does the intersection with Countryside Boulevard and the central portion of the corridor, from just west of Keene Road to just east of US 19. The historic crash data supports the need for safety improvements along the corridor for all users.

Roadway Deficiencies

The *Existing Conditions Report* provides an evaluation of potential roadway deficiencies. Documented deficiencies of the corridor include gaps in sidewalks, bike lanes and lighting. There is a break in sidewalk from Bayview Boulevard to Tampa Road. No bike lanes are provided on the SR 580 segments from Countryside Blvd to East of Rigby Lane and from St. Claire Avenue to Tampa Road. There is no roadway lighting provided on SR 580 from east of McMullen Booth to Forest Lakes Boulevard.

There are two existing bridge crossings along the SR 580 corridor. The bridge over the Old Tampa Bay (#150202 westbound; and #150203 eastbound) is a set of twin, four-lane bridges that also span a CSX Railroad line and were built in 1988. The smaller Moccasin Creek Bridge (#150219) was built in 1997, immediately adjacent to the Forest Lakes Boulevard intersection. The Old Tampa Bay Bridge structures, have a Sufficiency Rating of 97 and 98, and a Health Index of 93.57 and 94.81, respectively. The Moccasin Creek Bridge has a Sufficiency Rating of 85 and a Health Index of 97.0. The bridge data shown is from the *Florida Bridge Information Report*, FDOT, July 2020. None of the three bridges are in need of repair or replacement.

PURPOSE AND NEED STATEMENT

Purpose

The purpose of this study is to identify multimodal improvements along the SR 580 corridor. SR 580 is a major east-west corridor in Pinellas County that traverses through and connects the cities of Dunedin, Clearwater, Safety Harbor and Oldsmar and provides access over Old Tampa Bay. The existing corridor is heavily developed and serves adjacent retail, commercial and residential land uses as well as local and tourist populations.

Need

Changing land use, population, and employment growth, increased multimodal users, safety and LOS concerns has led to the need of multimodal solutions to address mobility and safety needs to develop context sensitive improvements to help transform SR 580 into a multimodal urban corridor in keeping with the community context it traverses.

PROJECT CORRIDOR AND FUTURE POTENTIAL SEGMENTATION

Due to the length of this corridor, it is likely that considerations for future transportation improvements will differ along the overall 8.5-mile distance. There may be segments where no issues are evident that warrant further evaluation. Likewise, at various locations, differing needs may exist for considering future improvements. For instance, safety concerns may be focused on specific segments or intersections, while operational issues may be more prevalent at other locations. Future projects may not encompass the entire study corridor and rather there may be several different improvements proposed with later project evaluations. This document attempts to outline all potential project needs based on the Existing Conditions Report. For each individual sub-project, the project need may be more specific, or some elements identified along the entire corridor may not be applicable.

Many of the proposed improvements for the SR 580 corridor will include, roadway segment, intersection, pedestrian and bicycle improvements that will address both safety and LOS issues and concerns.