

Project Development and Corridor Study Report

59th Street West – Cortez Road to Manatee Avenue

CIP #: 6108360

REVISION 1 - December 1, 2021

Manatee County FLORIDA

Professional Engineer Certification

PROJECT DEVELOPMENT AND CORRIDOR STUDY REPORT

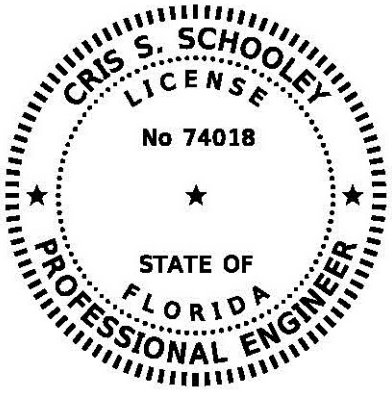
Project: 59th Street West PD&C Study

Limits: From Cortez Road to Manatee Avenue

CIP #: 6108360

This report contains preliminary information that fulfills the purpose and need for the 59th Street West Project Development & Corridor Study from Cortez Road to Manatee Avenue in Manatee County, Florida. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through professional judgment and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with Kimley-Horn and Associates Inc., and that I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice for this project.



Cris S Schooley

Digitally signed by Cris S Schooley
Date: 2021.12.03 13:24:32 -05'00'

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Executive Summary

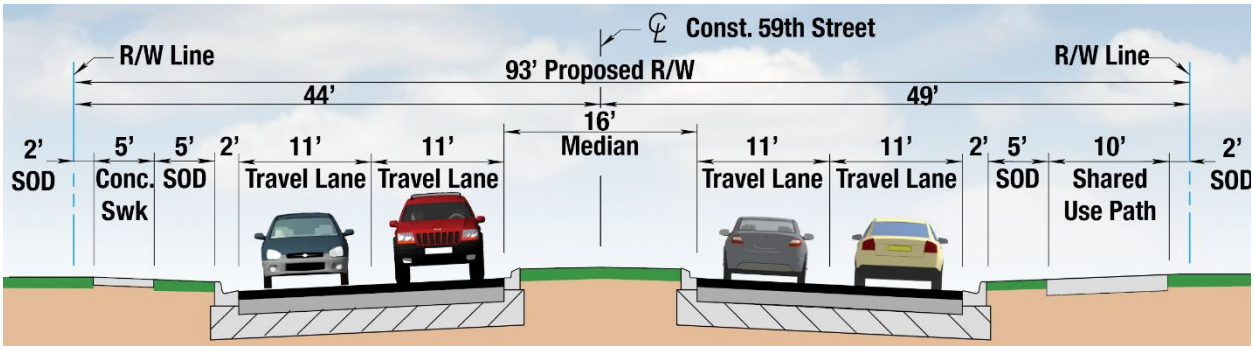
Manatee County conducted a Project Development & Corridor (PD&C) Study to evaluate a 2.3-mile segment of 59th Street West from Cortez Road (SR 684) to Manatee Avenue (SR 64) in the City of Bradenton and Manatee County, Florida. The purpose of this project is to enhance safety, improve traffic operations, provide multimodal access, and meet future transportation demand. The study evaluated options for widening the existing 2-lane roadway to a 4-lane roadway with a center left-turn lane or median, and wider sidewalks or bicycle lanes to provide enhanced mobility options for all users. The Manatee County Comprehensive Plan shows 59th Street West as a future 4-lane roadway with 120 feet of right-of-way (ROW).[1]

The existing typical sections along 59th Street is a divided 2-lane roadway with 12-foot travel lanes, 12-foot two-way left-turn lane (TWLTL), curb and gutter or roadside ditches, and 5-foot sidewalks. The existing corridor has a sidewalk gap on the west side and does not have bicycle lanes. There is an existing shared-use path on the east side between the G.T. Bray Park and the W.D. Sugg Middle School. The ROW varies considerably within the project limits, although most of the corridor has at least 93 feet. There are pinch points along the ROW as narrow as 84 feet.

Based on the engineering and environmental analysis documented in this report, the recommended alternative for 59th Street includes a raised median, four travel lanes, curb and gutter, sidewalk, and a shared use path on one side (**Figure 1**). A new roundabout intersection is proposed at 17th Avenue West. The recommended alternative best meets the project purpose with:

- Sidewalks for pedestrians
- Buffer space between the road and sidewalk for pedestrian comfort
- Shared-use path for cyclists
- Roundabout for traffic calming
- Raised median for safety
- Additional through lanes for rush hour traffic

Figure 1: Recommended Alternative Typical Section



The recommended alternative requires ROW acquisition from 32 parcels, and 7 relocations. The project will require an Environmental Resource Permit for stormwater treatment and a FDOT

[1] Manatee County. 2009. *Map 5-C, Map 5-D.* PA-17-04/ORD-17-18.

connection permit for adding impervious to the adjacent state roadways. There are no properties listed National Register of Historic Places within the boundaries of the study. Two medium risk potential contamination sites are adjacent to the project corridor.

Public involvement was not conducted during this study due to an abbreviated schedule. A public meeting is recommended during the design phase.

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1.0 Project Summary

This section describes the project, the purpose and need, and related projects.

1.1 Project Description

Manatee County is conducting this Project Development & Corridor (PD&C) Study to evaluate a 2.3-mile segment of 59th Street West (59th Street) from Cortez Road (SR 684) to Manatee Avenue (SR 64) in the City of Bradenton and Manatee County, Florida (**Figure 2**). The study will evaluate options for widening the existing 2-lane roadway to a 4-lane roadway with a center two-way left-turn lane (TWLTL) or median, bicycle facilities, and sidewalks to provide an enhanced mobility experience for all users.

1.2 Purpose and Need

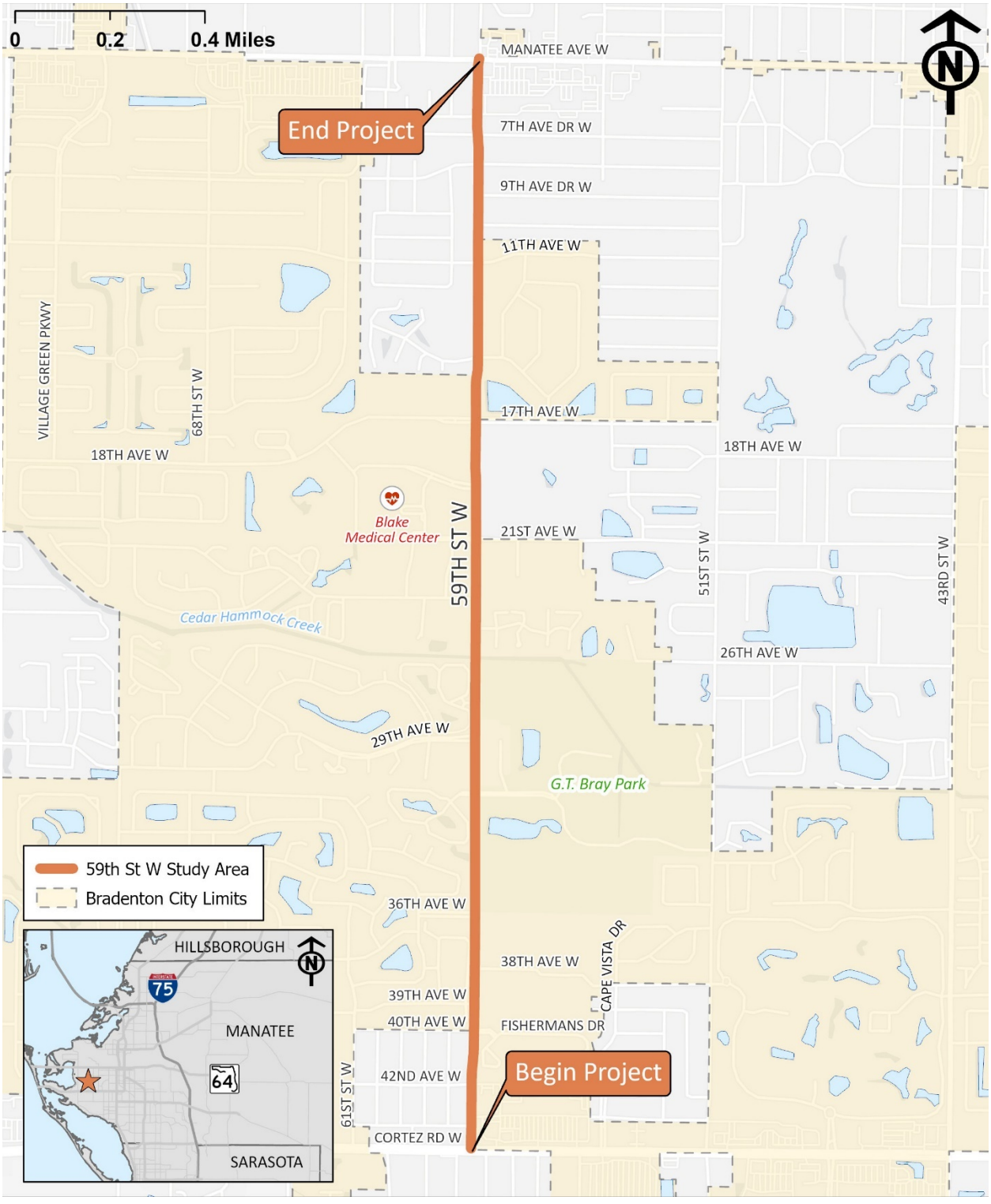
The purpose of this project is to:

- Enhance safety
- Improve traffic operations
- Enhance multimodal access
- Meet future transportation demand

The project is needed because of population growth and the resulting increase in travel demand along the corridor. 59th Street is two lanes within most of the project limits but has four lanes near the intersections of Cortez Road in the south and Manatee Avenue in the north. This segment of 59th Street is a future 4-lane roadway per the Manatee County Comprehensive Plan.[2] The corridor lacks bicycle facilities and has gaps in sidewalk connectivity throughout the project limits.

[2] Manatee County. 2009. Map 5-D. PA-17-04 / ORD 17-18

Figure 2: Project Location Map



1.3 Consistency with Other Plans

The improvements to the corridor should be consistent with local and regional plans guiding future development of the land and transportation network in the study area. The following planning documents were reviewed for consistency:

- Manatee County Comprehensive Plan
- Manatee County Capital Improvement Plan (CIP)
- Sarasota-Manatee Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP), the "Transform 2045" Plan
- Sarasota-Manatee MPO Active Transportation Plan (2019)
- City of Bradenton Comprehensive Plan

Manatee County Comprehensive Plan

The Manatee County Comprehensive Plan was reviewed to determine how its stated goals, objectives, and policies encourage or require multimodal improvements to the study corridor:

- *Policy 2.9.1.9. Require where feasible, pedestrian and bicycle access to community spaces, schools, recreational facilities, adjacent neighborhoods, employment opportunities, professional and commercial uses.*
- *Policy 2.9.3.5. Encourage the development of street scape enhancements within the urban area of Manatee County. Enhancements may include but not be limited to, street furniture, decorative lighting, landscaping, and sidewalks on both sides of the street.*
- *Policy 5.4.1.2. Coordinate provision of bikeways and bicycle facilities with the provision of recreational bike trails within the Manatee County park system, subject to the availability of appropriate revenues, to encourage development and continuity of a safe and convenient bicycle circulation system.*
- *Policy 5.4.1.3. Require, where feasible, the inclusion of either:*
    - *A minimum of five-foot paved shoulders on both sides of rural section roadways;*
    - *A minimum of four-foot wide bicycle lanes on both sides of urban section roadways in all roadway improvement projects involving major widening or new construction of roadways shown on the Major Thoroughfare Map required by Policy 5.1.1.1 for use by bicycles; or*
    - *Wherever bicycle lanes are not feasible, alternative routes shall be provided in accordance with the American Association of State Highway and Transportation Officials (AASHTO) guide for the development of bicycle facilities, and the Florida Department of Transportation (FDOT) bicycle facilities planning and design handbook.*
- *Policy 5.4.2.1. Require the inclusion of pedestrian ways in all typical urban roadway sections developed pursuant to Policy 5.2.2.1 above. Particular attention shall be given to achieving pedestrian/transit intermodal travel.*
- *Policy 5.4.2.4. Coordinate Manatee County School District's safe route(s) to school sidewalk plan(s) for each of its new elementary and middle schools and, elimination-of-hazardous-walking-conditions sidewalk plans for existing schools.*
- *Policy 5.6.1.1. Improve public health and safety, active mobility and environmental quality by creating and maintaining an integrated network of multi-modal roadways for users of all ages and abilities through the Complete Street design, where applicable.*

- *Policy 5.6.1.2. Provide streets for walking, bicycling and public- private transportation to enable convenient and active travel as a part of daily activities for all users, where applicable.*
- *Policy 5.6.1.3. Promote infrastructure that facilities [sic] crossing of the right-of-way, such as accessible curb ramps, crosswalks, refuge islands and pedestrian signals, where applicable.*
- *Policy 5.6.1.4. Promote complete streets that contribute to the slowing down of traffic, reduce pollution and emissions, improve environmental quality and provides for local economic opportunities, where applicable.*
- *Policy 5.6.6.2. Increase the attractiveness of transit as a transportation alternative by providing well designed, safe, and attractive transit stops and transfer stations.*
- *Policy 8.2.2.1. Increase opportunities for Manatee County residents and visitors to use alternate forms of transportation to access public recreational facilities, especially in the WO and CHHA Overlay Districts.*
- *Policy 12.3.2.1. Manatee County shall incorporate bicycle and pedestrian access to public schools into their bicycle and pedestrian plans.*

Manatee County Capital Improvement Plan

Manatee County's CIP for Fiscal Years 2022-2026 includes 59th Street from Cortez Road to Manatee Avenue (CIP number 6108360). The improvements to this segment are to increase capacity due to operation below the County's adopted level of service within the southern section of this segment between Cortez Road and 21st Avenue, and to provide a continuous 4-lane section between Cortez Road and Manatee Avenue. The requested funding totals $23,448,001 over five years from FY2022 to FY2026.

A separate 59th Street project overlaps the study limits, from 33rd Avenue Drive West to Cortez Road (CIP number TR01455). The planned project is scoped to reconstruct the 2-lane 59th Street with standard lane widths, pedestrian and bicycle facilities, and lighting. The requested funding totals $7,783,000 over three years from FY 2024 to FY2026. This is identified as an infrastructure sales tax funded project. Since the limits of these two projects overlap, it is recommended to combine them into one project.

Sarasota-Manatee MPO 2045 Long Range Transportation Plan (Transform 2045)

The Sarasota-Manatee MPO's 2045 LRTP was reviewed to identify any projects related, or adjacent, to the study corridor. This 59th Street project was not listed in the LRTP, but related projects are listed below in Section 1.4.

Sarasota-Manatee MPO Active Transportation Plan (2019)

The Sarasota-Manatee MPO's Active Transportation Plan provides a foundation for the development of a multimodal network of bicycle and pedestrian facilities to connect key destinations, transit services, and the Shared-Use Nonmotorized (SUN) Trail network. The 59th Street project limits are not part of the Active Transportation Plan's Vision Network. However, the project limits do intersect with the planned Palma Sola Trail along Cedar Hammock Creek and the planned SunTrail alignment along Manatee Avenue.

City of Bradenton Comprehensive Plan

The project limits are within the City of Bradenton. The Future Land Use element of the City's Comprehensive Plan was reviewed to determine how its stated goals, objectives, and policies may support potential improvements to the 59th Street West corridor.

- *Future Land Use Policy 1.1.1 supports walkable streets and an interconnected street system that prioritizes pedestrians and bicycle features and links neighborhoods to shopping, civic uses, and recreational features.*
- *Future Land Use Policy 1.14.3 supports multimodal strategies that include improved transit service and/or infrastructure and pedestrian and bicycle facilities.*

1.4 Related Projects

Manatee County's CIP for Fiscal Years 2022-2026 includes 59th Street sidewalk construction between Cortez Road and the Sun Chase Apartments (CIP number TR01552). The project is funded for $99,000 starting in FY 2025. This project was noted as part of the infrastructure sales tax (TRSW038).

The CIP also identifies a 42nd Avenue sidewalk construction project from 63rd Street West to 59th Street West (TR01468). The project is funded for $103,000 starting in FY 2024. This sidewalk was requested by the School District of Manatee County as a safe route to school improvement and included in the infrastructure sales tax (TRSW027). The project does not align with the existing school crossing at 40th Avenue West. Coordination with the School District is recommended to identify the preferred location for the sidewalk and school crossing in the recommended alternative.

The Sarasota-Manatee MPO's 2045 Long Range Transportation Plan identifies two projects that are either adjacent to, or in the vicinity of, the project limits:

- ITS Infrastructure on Cortez Rd. (SR 684) from 75th St. to 14th St W– Construction Year 2030 (Project ID TSMO36)
- Off Road Shared-Use Path on Manatee Avenue (SR 64) from 75th St W to 6th St – Construction Year 2035 (Project ID MM24)

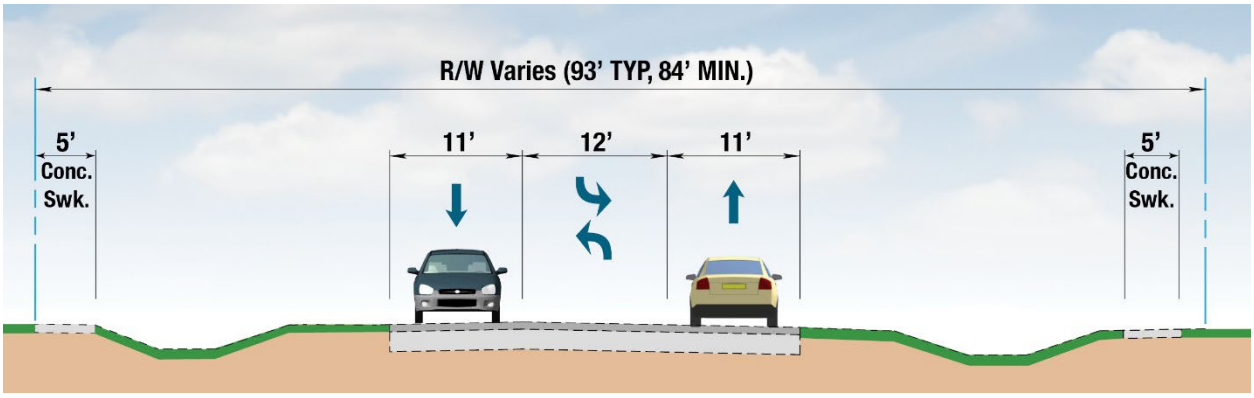
2.0 Existing Roadway Conditions

This section describes the existing roadway characteristics within the project limits based on a review of aerial photography, existing records, and site observations. The constraints, existing deficiencies, and opportunities along the corridor will be considered in the recommended alternative.

2.1 Typical Section

The existing typical section along 59th Street generally consists of two 11-foot to 12-foot travel lanes separated by a 12-foot TWLTL shallow roadside ditches, and 5-foot sidewalks on both sides (**Figure 3**). There is a short segment of shared-use path on the east side from 36th Avenue West to 33rd Avenue Drive West. The project traverses through the City of Bradenton and unincorporated Manatee County. Manatee County is responsible for maintenance of this roadway.

Figure 3: Existing Typical Section



2.2 Right-of-Way

Right-of-way (ROW) along 59th Street varies within the project limits as shown in **Table 1**. Although the ROW pinches down to as little as 84 feet, most of the corridor has at least 93 feet.

Table 1: Right-of-Way Widths

From	To	Min.	Typical	Max.
Cortez Rd	**40th Ave W**	96'	96'	96'
40th Ave W	**33rd Ave Dr W**	98'	98'	114'
33rd Ave Dr W	**21st Ave W**	97'	112'	144'
21st Ave W	**11th Ave W**	84'	84'	97'
11th Ave W	**Manatee Ave**	84'	84'	90'
OVERALL		**84'**	**93'**	**144'**

59th Street is shown to have a 120-foot ROW reservation on *Map 5-C – 2035 Future Traffic Circulation ROW Protection and Reservation* in the Manatee County Comprehensive Plan.

2.3 Adjacent Land Use

The corridor is characterized by a broad range of land uses, consisting of single-family detached housing, multifamily housing, retail, dining, places of worship, healthcare facilities, offices, park and

recreation facilities, and a middle school. **Figure 4** and **Figure 5** depict the Manatee County and City of Bradenton zoning designations adjacent to the project limits.

Table 2 shows the setback standards established by Manatee County. **Table 3** shows the setback standards established by the City of Bradenton.

Figure 6 and **Figure 7** depict both the Manatee County and City of Bradenton future land use (FLU) designations on both sides of the corridor. The designations are primarily Residential, Professional, and public uses. **Table 4** defines the codes found on the FLU maps.

Table 2: Manatee County Minimum Setback Standards

	PR-M	GC	PD-R	PD-O	PD-PI	RSF-4.5	RDD-6
Front Yard	25'	25'	20'/25'*	25'	Determined by PD	20'/25'*	20'/25'*
Side Yard	10'	10'	8'	15'	Determined by PD	20'	8'
Rear Yard	15'	15'	15'	15'	Determined by PD	20'	20'
Min. Lot Area	10,000 sf	7,500 sf	Determined by PD	Determined by PD	Determined by PD	7,000 sf	7,000 sf
Land Development Regulations Reference	Section 401.4 – Table 4-8		Section 402.7.D	Section 402.10.D	Section 402.15.D	Section 401.4 – Table 4-5	Section 401.4 – Table 4-6

** Front-loaded carports and garages, detached or attached to a single-family dwelling, require a 25-foot front yard setback.*

Table 3: City of Bradenton Setback Standards

	R-1	R-2	R-3	Professional	Suburban Commercial Corridor
Front Yard	20'	20'	20'	35'	35'
Side Yard	8'	8'	8'	10'	10'
Back Yard	20'	20'	20'	25'	25'
Min. Lot Area	7,200 sf	6,500 sf	5,000 sf	-	-
Land Development Regulations Reference	Section 3.2 – Schedule 3.2.2.1			Section 3.2 – Schedule 3.2.2.2	

Figure 4: Existing Zoning (Begin Project to Pointe West Blvd W)

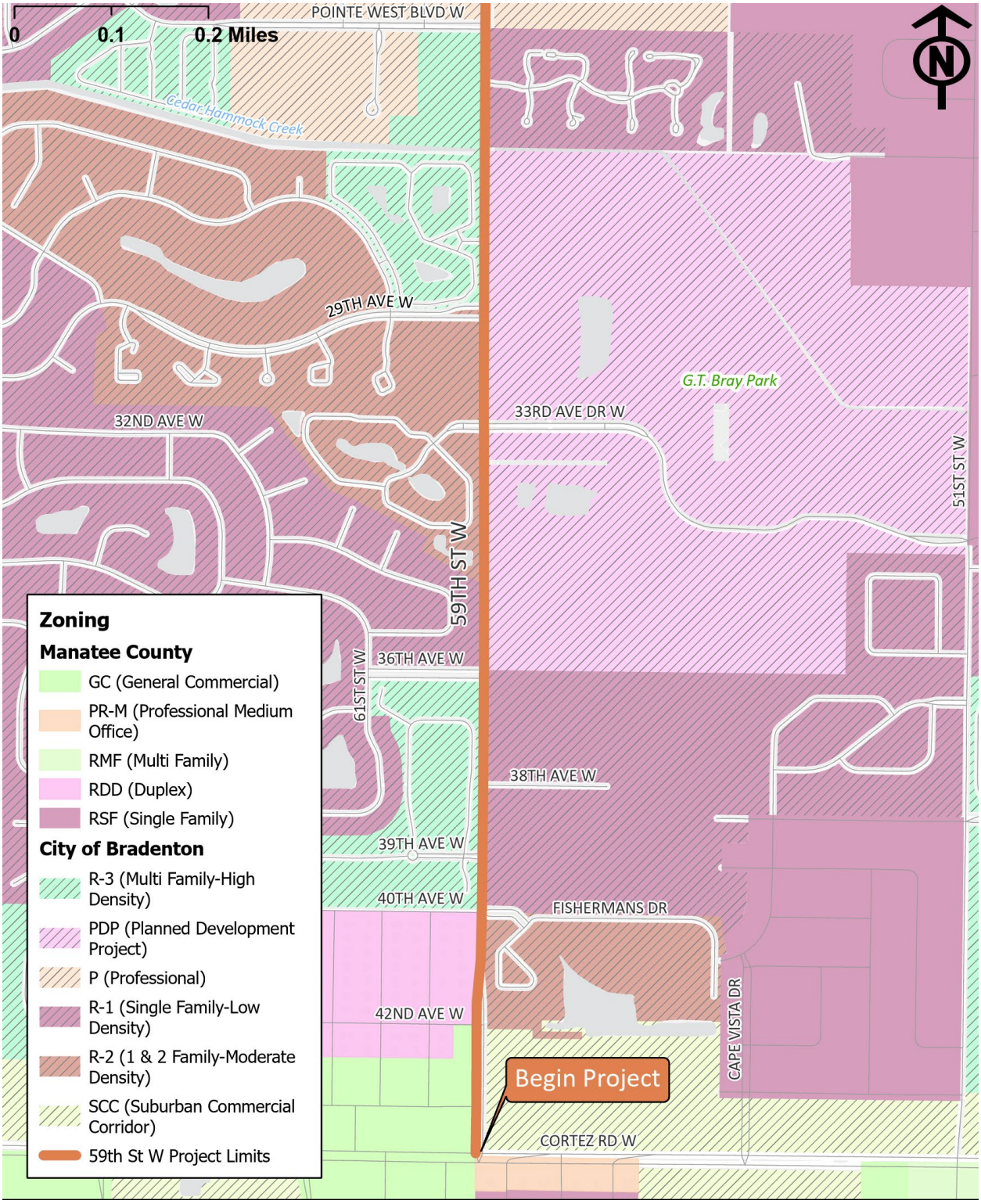


Figure 5: Existing Zoning (Pointe West Blvd W to End Project)

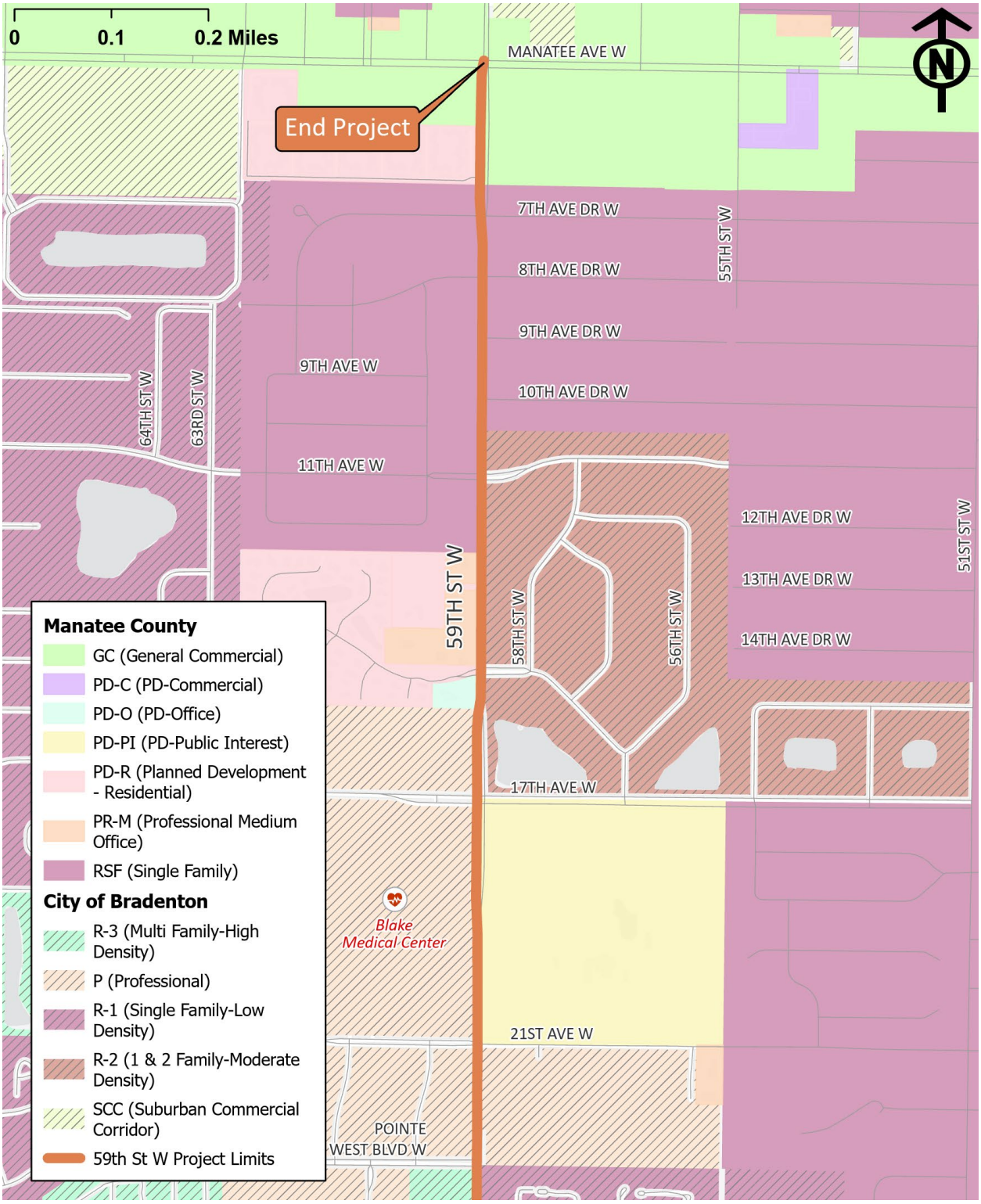


Figure 6: Future Land Use (Begin Project to Pointe West Blvd W)

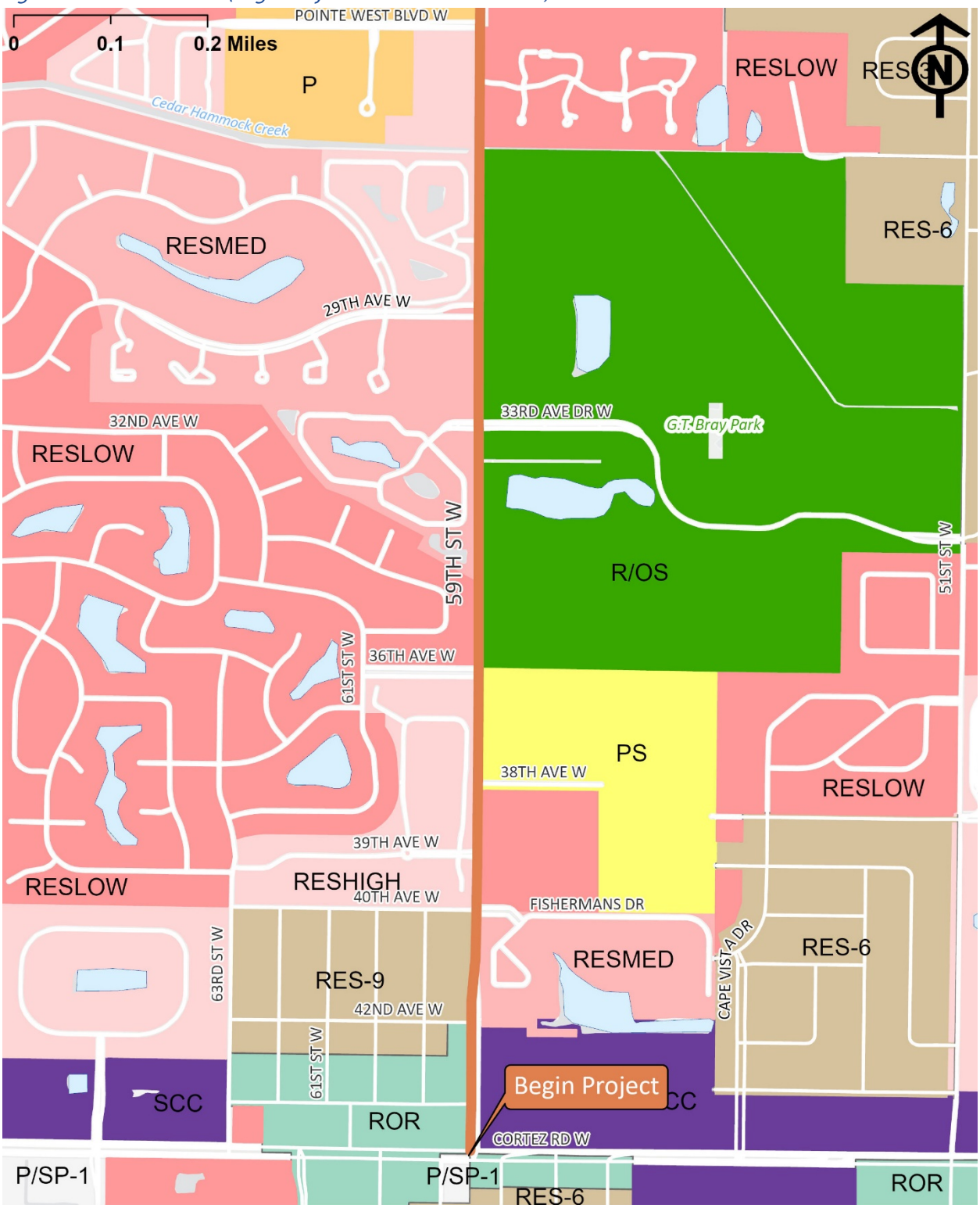


Figure 7: Future Land Use (Pointe West Blvd W to End Project)

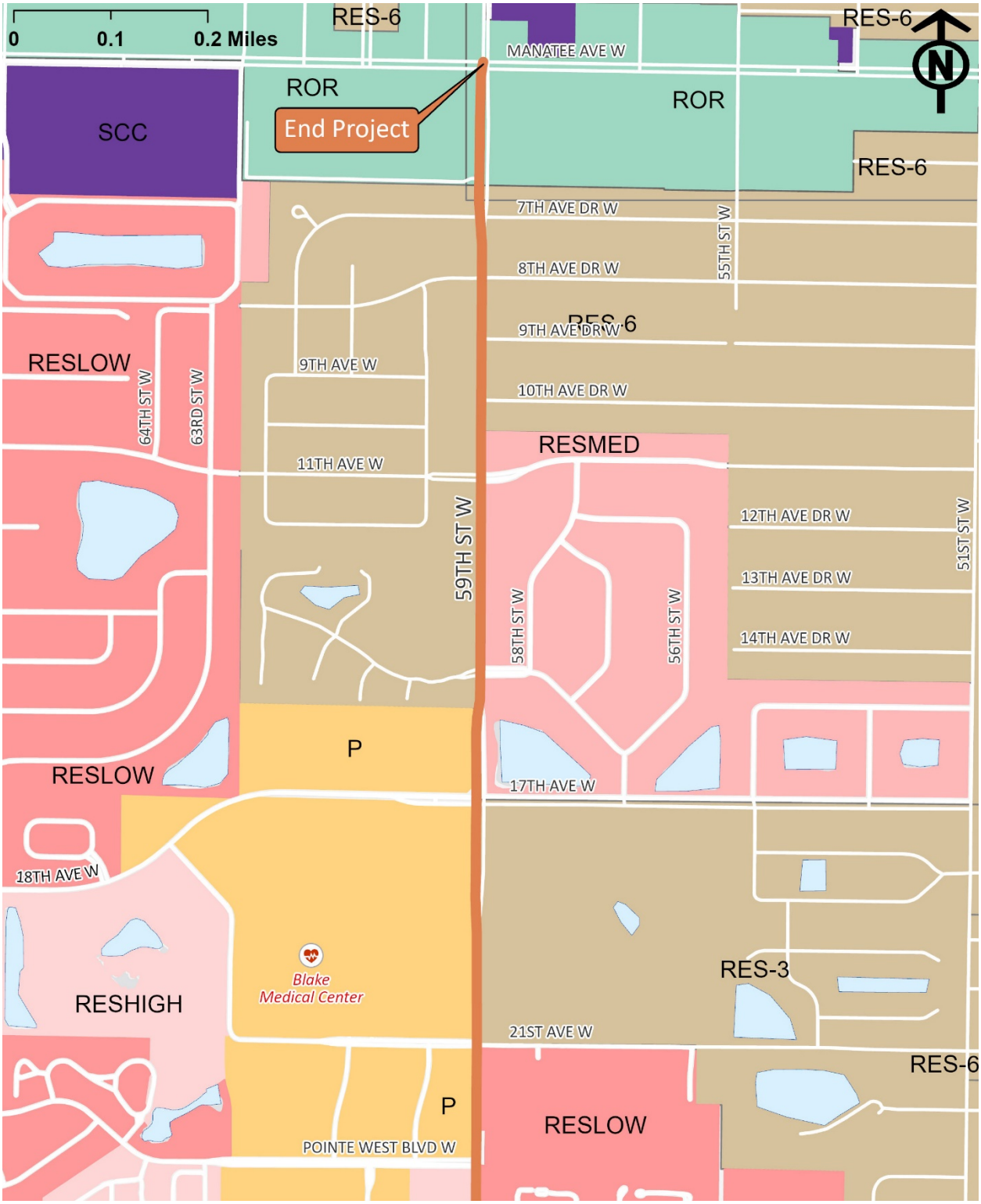


Table 4: Future Land Use Codes

Code	Future Land Use	Jurisdiction
P	Professional	City of Bradenton
P/SP-1	Public/Semi-Public	Manatee County
PS	Public School	City of Bradenton
R/OS	Recreation/Open Space	City of Bradenton
RES-3, RES-6, Res-9	Residential	City of Bradenton
RESLOW	Residential Low	Manatee County
RESMED	Residential Medium	Manatee County
RESHIGH	Residential High	Manatee County
ROR	Retail/Office/Residential	Manatee County
SCC	Suburban Commercial Center	City of Bradenton

2.4 Design and Posted Speed Limit

The existing posted speed limit is 40 miles per hour (MPH) as shown in **Figure 8**. There is a school zone with a speed limit of 20 MPH near the schools when the warning light flashes. The design speed is 40 MPH.

Figure 8: Existing Speed Limit Sign, Looking North (source: Google)



2.5 Horizontal and Vertical Alignment

The horizontal alignment is generally straight, with northerly bearing, minimal deflections, and no horizontal curvature.

The vertical alignment is relatively flat. The profile within the curb and gutter segments appears to be greater than 0.2% to maintain positive drainage. The existing profile will need to be confirmed with Survey Digital Terrain Model during the design phase.

2.6 Multimodal Facilities

The existing 5-foot sidewalks are on both sides of 59th Street for most of the project limits. There is a 3,000-foot gap on the west side from Cortez Road to north of 36th Avenue West. Some utility poles obstruct the sidewalk near Manatee Avenue, leaving only 3 feet of clearance as shown in **Figure 9**. The minimum clearance for new or relocated poles is 4 feet unobstructed sidewalk width.[3] The sidewalks have good connectivity to bus stops, as shown in **Figure 10**.

There is a 9-foot-wide shared-use path from the W.D. Sugg Middle School entrance to the G.T. Bray Park entrance at 33rd Avenue Drive West, a distance of 1,300 feet. There are no designated on-street bike facilities within the project limits. The bicycle and pedestrian facility network maps are shown in **Figure 11** and **Figure 12**.

There are two Manatee County Area Transit (MCAT) routes that operate within the project limits, as shown in **Figure** 11 and Figure 12. Route 4 travels between the Blake Medical Center and Manatee Avenue. Route 6 travels between Cortez Road and the Blake Medical Center. There are 14 northbound bus stops and 10 southbound bus stops, two within the limits of the sidewalk gap. The bus stops offer different facilities including benches (as shown in Figure 10), trash receptacles, and/or shelters.

[3] FDOT. 2018. *Florida Green Book 2018 Edition*. Page 8-2. Accessed on September 13, 2021 from https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/roadway/floridagreenbook/2018-florida-greenbook.pdf?

Figure 9: Utility Pole in Sidewalk (looking north)



Figure 10: Bus Stop at G.T. Bray Park (looking south)



Figure 11: Existing Multimodal Network (Cortez Rd to Pointe West Blvd W)

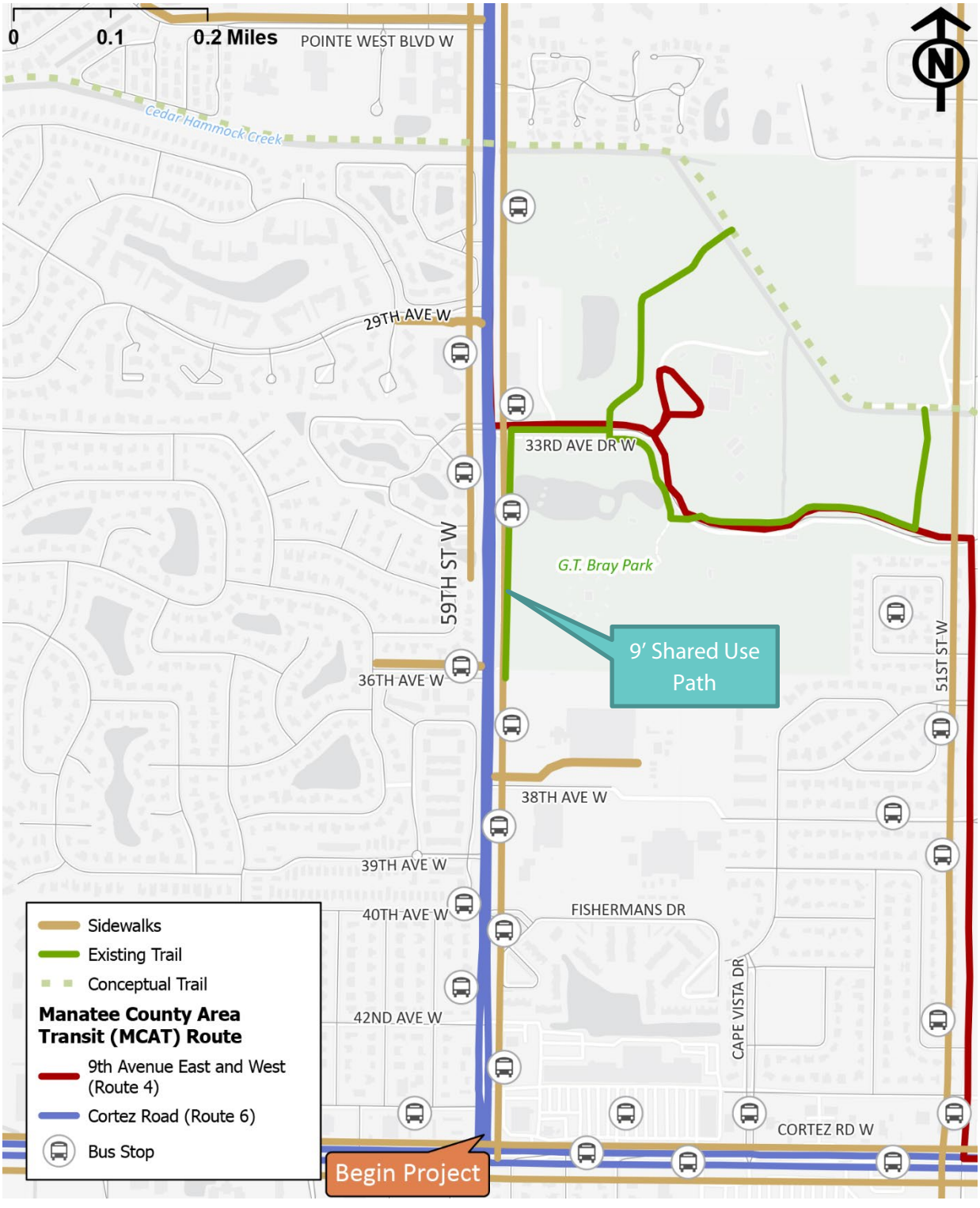


Figure 12: Existing Multimodal Network (Pointe West Blvd W to Manatee Ave W)



2.7 Intersections

The existing intersections are described in **Table 5**. There are 18 intersections within the project limits. Six intersections are signalized. The most common intersection deficiency is a lack of detectable warnings at curb ramps. This should be brought into compliance with the Americans with Disabilities Act (ADA) standards.

Table 5: Existing Intersection Features

59th St E &	Traffic Control	Left-turn Lanes	Right-turn Lanes	Crosswalks	Remarks
Cortez Rd	Signalized	SB (two), EB	SB, WB	N, W	Mast arm signals
43rd Ave W	Minor stop	None	None	None	Lacks sidewalks on west side
42nd Ave W	Minor stop	NB, SB	None	None	Lacks sidewalks on west side
40th Ave W	Minor stop	NB, SB	None	North	School crossing, lacks sidewalk connection and detectable warnings
36th Ave W	Minor stop	NB, SB	WB	North	School crossing, lacks detectable warning
33rd Ave Dr W	Minor stop	NB, SB, WB	NB	None	Lacks detectable warning, park entrance
29th Ave W	Signalized	NB, SB, EB	EB	S, E, W	Fire station on east leg
Tanglewood Dr	Minor stop	NB, SB	None	None	Lacks detectable warnings
Pointe West Blvd W	Minor stop	NB, SB, EB	EB	None	Lacks detectable warning on SW
21st Ave W	Signalized	NB, SB, EB, WB	None	S, E, W	-
17th Ave W	Signalized	NB, SB, EB, WB	NB, SB, EB, WB	S, E, W	-
15th Ave W	Minor stop	NB, SB, WB	None	None	Lacks detectable warnings
11th Ave W	Signalized	NB, SB, WB	None	N, S, E, W	-
10th Ave Dr W	Minor stop	NB, SB	None	None	Lacks detectable warnings
9th Ave Dr W	Minor stop	NB, SB	None	None	Lacks detectable warnings
8th Ave Dr W	Minor stop	NB, SB	None	None	Lacks detectable warnings
7th Ave Dr W	Minor stop	NB, SB	SB	None	Lacks detectable warnings
Manatee Ave	Signalized	NB, SB, WB, EB	NB, WB, EB	N, S, E, W	Mast arm signals, skewed crosswalks

Table 6 summarizes the signalized intersection features. An underground 36-count fiber optic cable runs along the east side of 59th Avenue, from Cortez Road W to Manatee Avenue, with 12 count fiber

optic cable drops provided to the existing traffic signals. **Figure** 13 shows an existing CCTV cabinet near the intersection with 21st Avenue West.

Table 6: Existing Signal Features

Side Street Roadway	Existing Structure	Detection Type	Retroreflective Backplates	59th Street Left-Turn Type	Side Street Left-Turn Type	Pedestrian Crossings
Cortez Rd	Mast Arms	Video	Yes	Protected	Protected/ Permissive	North & West
29th Ave W	Box Span Wire	Loops	Yes	Protected/ Permissive	Permissive	South & West
21st Ave W	Diagonal Span Wire	Loops	No	Protected/ Permissive	Protected/ Permissive	North, South, & West
17th Ave W	Diagonal Span	Loops	Yes	Protected/ Permissive	Permissive	South, East, & West
11th Ave W	Box Span	Loops	Yes	Protected/ Permissive	Permissive	North, South, East, & West
Manatee Ave	Mast Arms	Loops	No	Protected	Protected	North, South, East, & West

Figure 13: Closed Circuit Television Cabinet (looking north)



2.8 Traffic Data

The Annual Average Daily Traffic (AADT) in 2021 is shown in **Table 7**. The 59th Street operates at Level of Service (LOS) D or F, at or below the adopted LOS D target in the Manatee County Comprehensive Plan.[4] The latest traffic signal timings and phasing operations were provided by Manatee County and used in the intersection analysis. **Table 8** summarizes the overall intersection delay and LOS for the signalized intersections. See the Design Traffic Memorandum in **Appendix B** for more information.

Table 7: Existing Year (2021) Segment LOS

Segment		AADT	Adopted Service Volume	LOS
North Limit	South Limit			
Manatee Ave	17th Ave	16,500	16,727	D
17th Ave	21st Ave	16,500	16,727	D
21st Ave	41st Ave	18,000	16,727	F
41st Ave	Cortez Rd	18,000	16,727	F

Table 8: Existing Year (2021) Intersection LOS

Intersection	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
	LOS	Delay (s/veh)	Max v/c	LOS	Delay (s/veh)	Max v/c
Cortez Rd W	B	19.1	0.85 (SBL)	C	28.3	0.92 (SBL)
29th Ave W	B	14.3	0.59 (EBT/R)	B	13.9	0.61 (SBT/R)
21st Ave W	C	21.7	0.83 (WBT/R)	C	24.4	0.84 (EBT/R)
17th Ave W	B	18.1	0.56 (WBT)	B	18.2	0.53 (EBT)
11th Ave W	B	10.9	0.61 (EB)	A	9.7	0.62 (EB)
Manatee Ave W	E	66.7	1.27 (EBR)	F	86.5	1.66 (NBR)

The intersection of 59th Street with Manatee Avenue is below the County LOS target during the peak hours. The other intersections are within capacity and meeting the LOS targets.

2.9 Crash Data

Crash data from the most recent 5-year period (2016-2020) was collected from Signal Four analytics. The distribution of crashes within the project limits is proportional to the traffic volumes and potential conflicts. The most crashes occurred at the Cortez Road intersection and Manatee Avenue intersection, as shown in **Figure 14** and **Figure 15**. There were five bicycle crashes reported, which indicates that vehicle/bicycle conflicts are an issue on this corridor.

[4] Manatee County. 2021. Table 5-1. (PA-21-04) Manatee County Peak Hour Level of Service Standards Right-of-Way Needs / Twenty Year Roadway Requirements. Page 6.

Figure 14: Crash Heat Map (Cortez Rd to 21st Ave W)

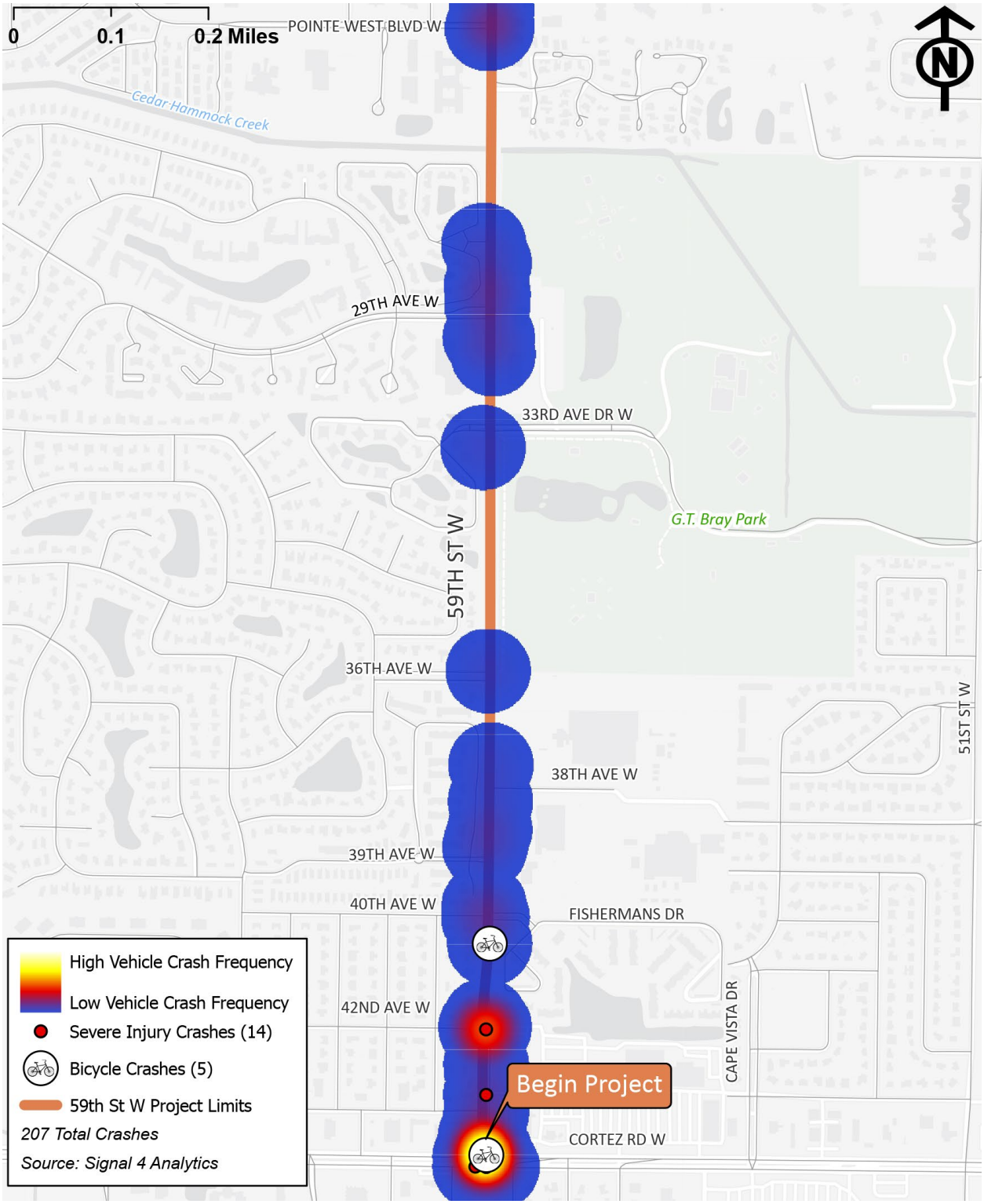


Figure 15: Crash Heat Map (21st Ave W to Manatee Ave W)



2.10 Drainage System

The existing drainage system along 59th Street uses both an open system of ditches with ditch bottom inlets, and closed system with curb inlets. Primarily, the drainage system is a curb inlet system with occasional ditches, ditch bottom inlets, and side drains. There is no existing Environmental Resource Permit (ERP) with Southwest Florida Water Management District (SWFWMD).

The drainage basins were determined using existing permit information, site visits, and 2-foot contours from the Manatee County GIS Data Site. The project limits primarily outfall to the Cedar Hammock Creek. A portion of the north end of the project discharges into the storm sewer system at Manatee Avenue. Additionally, the southern portion of the project discharges to Cortez Road. The project is within the Sarasota Bay Coastal Watershed (WBID 1885A), which is impaired for bacteria. No additional treatment is required due to the bacteria impairment. **Table 9** summarizes the drainage basins.

Table 9: Basin Summary

Basin	Total Area	Begin Station	End Station	Outfall
Basin 1	10.74	103+00	123+00	Cortez Rd W
Basin 2	11.86	123+00	155+00	Cedar Hammock Creek
Basin 3	18.45	155+00	213+50	Cedar Hammock Creek
Basin 4	6.97	213+50	222+00	Manatee Ave

2.11 Floodplain

The corridor is within the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panels 12081C0301F and 12081C0303F (dated 08/10/2021). Most of the project limits are within Zone X (Area of Minimal Flood Hazard) and not within the floodplain, as shown in **Figure 16** and **Figure 17**. The Cedar Hammock Creek is the only floodplain within the project limits, Zone AE elevation 8, so no FEMA floodplain impacts are anticipated.

The City of Bradenton Stormwater Facilities Plan was developed to identify projects that could help alleviate street flooding throughout the city.[5] The Plan shows more flood area for the 100-year event than the FEMA FIRM panels. Based on a review of the GIS, the areas of potential localized flooding improvement along 59th Street are at the Oaks Boulevard/15th Avenue West intersection, the GT Bray ballfields, and from 38th Avenue West to 40th Avenue West.

[5] Boupha. 2017. *City of Bradenton Stormwater Facilities Plan.* Feb. 2017.

Figure 16: FEMA Flood Zones (Cortez Rd W to Pointe West Blvd W)

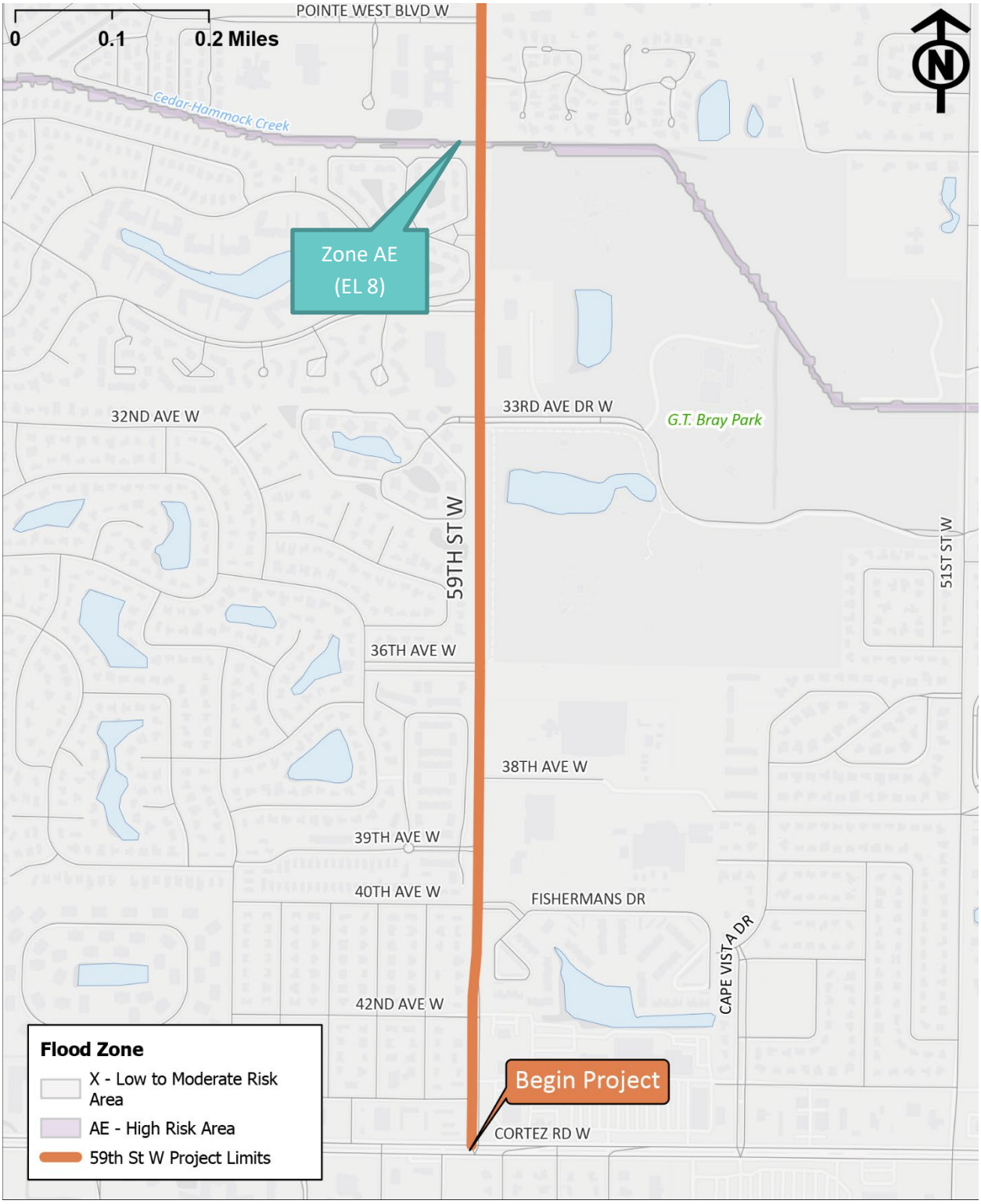
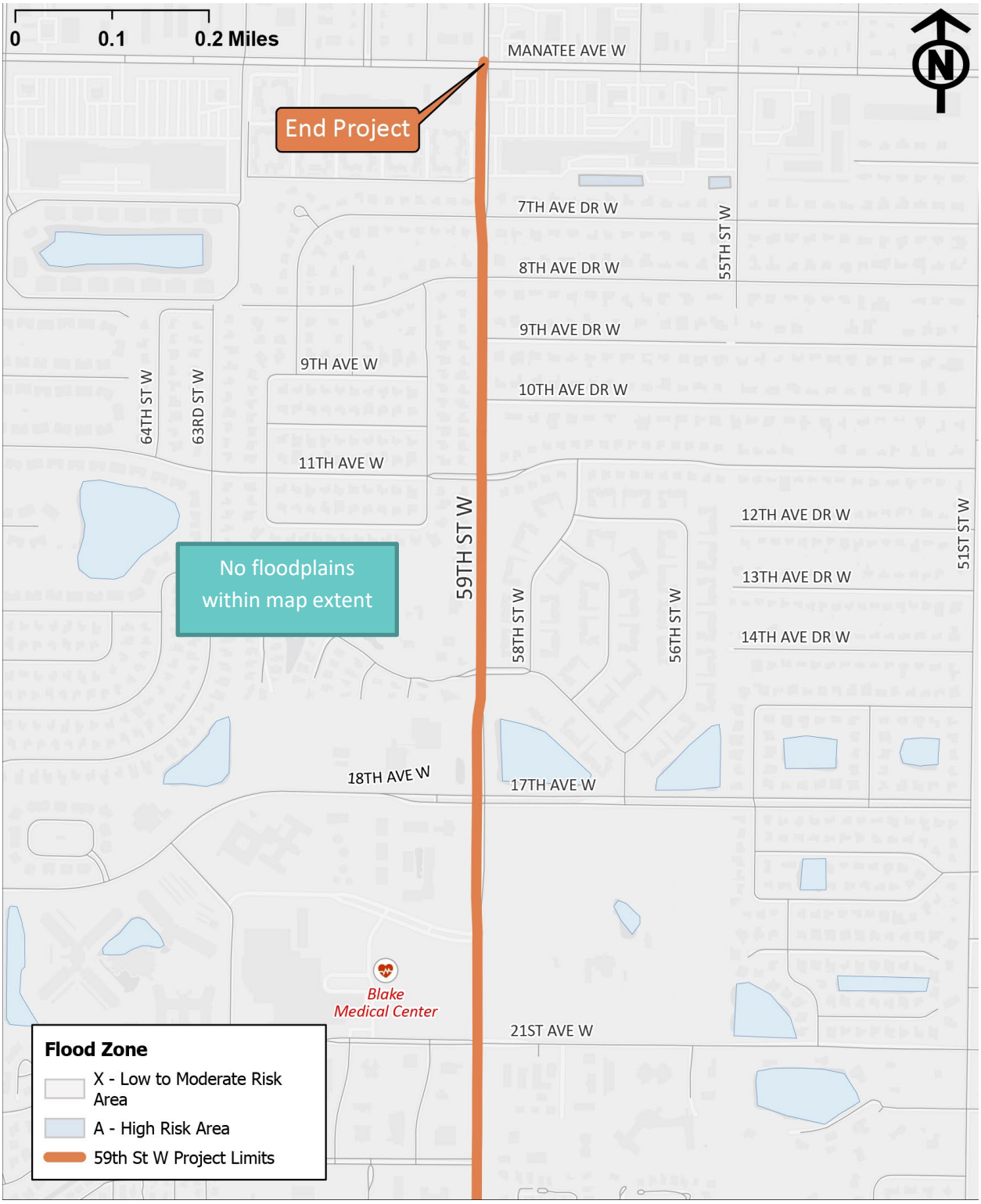


Figure 17: FEMA Flood Zones (Pointe West Blvd W to Manatee Ave W)



2.12 Soils and Geotechnical Data

Soils data was collected from the United States Department of Agriculture National Resources Conservation Service (NRCS),[6] as shown in **Table 10, Figure 18**, and **Figure 19**. Soils in the project limits are mostly sandy. EauGallie soil is described as a poorly-drainage soil with the groundwater table being with 6 to 18 inches from the ground surface. The hydraulic soil group (HSG) is classified as A/D. Pomello Fine Sand classified as a Type A HSG and is considered to be somewhat poorly drained with the groundwater table within 18 to 42 inches from the ground surface.

Table 10: Soils Within Area of Interest

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6	Broward variant fine sand	32.3	5.2%
7	Canova, Anclote, and Okeelanta soils	12.2	1.9%
11	Cassia fine sand, 0 to 2 percent slopes	20.0	3.2%
13	Chobee loamy fine sand, frequently ponded, 0 to 1 percent slopes	7.1	1.1%
16	Delray complex	5.7	0.9%
20	EauGallie-EauGallie wet, fine sand, 0 to 2 percent slopes	405.5	64.8%
22	Felda fine sand, 0 to 2 percent slopes	6.9	1.1%
26	Floridana-Immokalee-Okeelanta association	10.7	1.7%
28	Hallandale fine sand, wet, 0 to 2 percent slopes	11.9	1.9%
38	Palmetto sand	45.1	7.2%
42	Pomello fine sand, 0 to 2 percent slopes	49.8	8.0%
48	Wabasso-Wabasso, wet, fine sand, 0 to 2 percent slopes	18.3	2.9%
Totals for Area of Interest		**625.4**	**100.0%**

[6] NRCS. 2020. National Cooperative Soil Survey. Version 17, Jun. 8, 2020. Accessed on Sept. 8, 2021 from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Figure 18: Soil Map (Cortez Rd to Pointe West Blvd W)

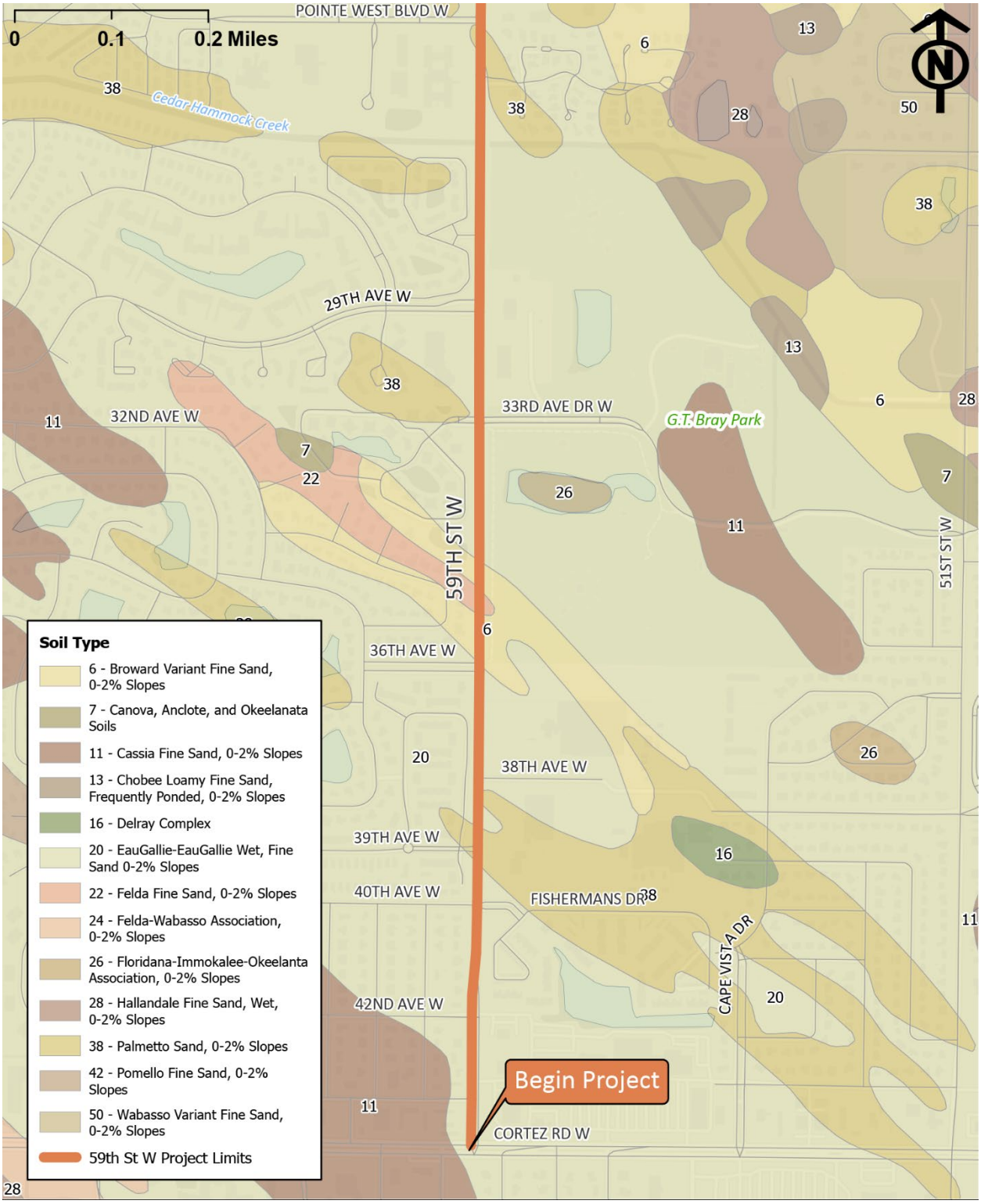
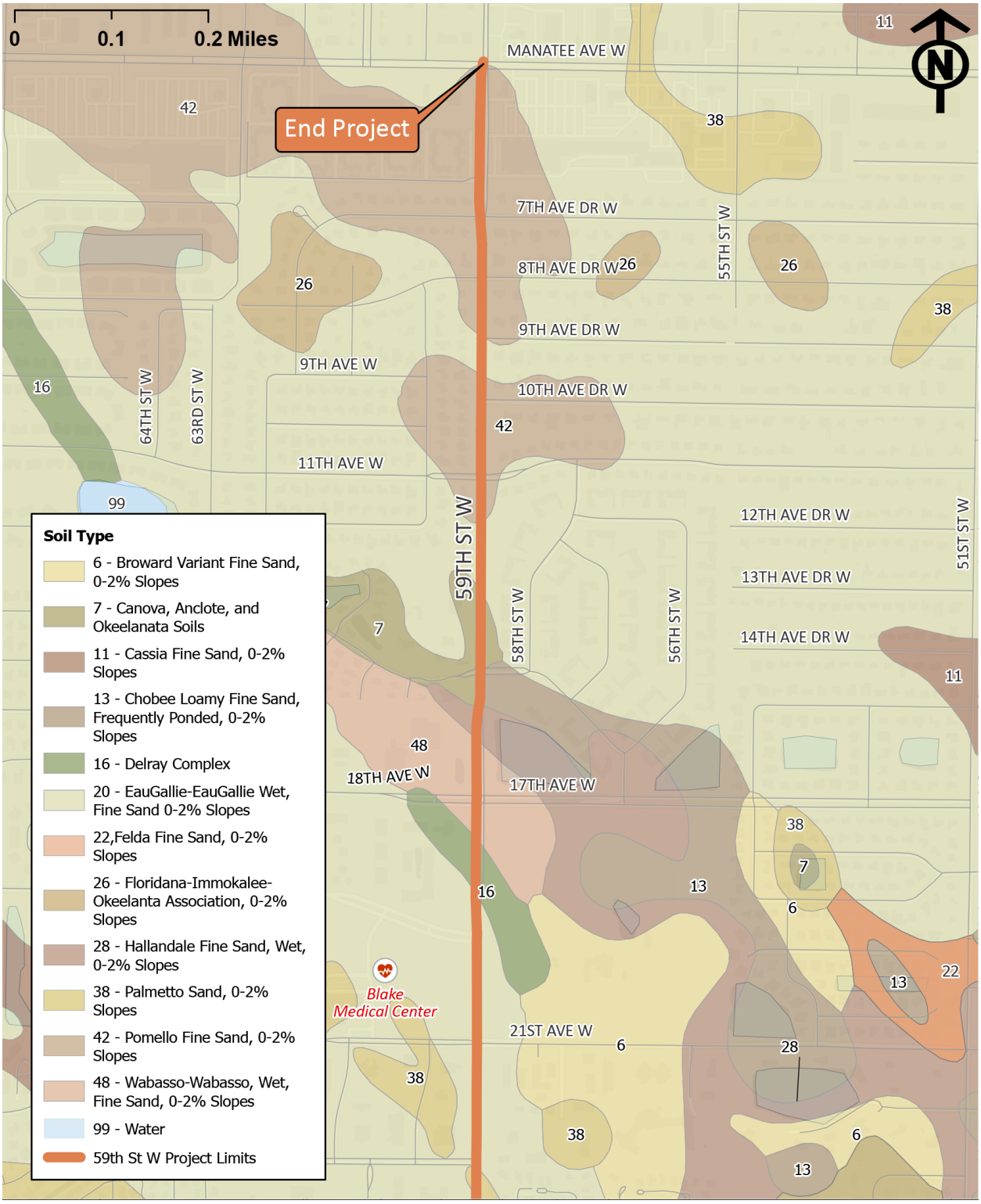


Figure 19: Soil Map (Pointe West Blvd W to Manatee Ave W)

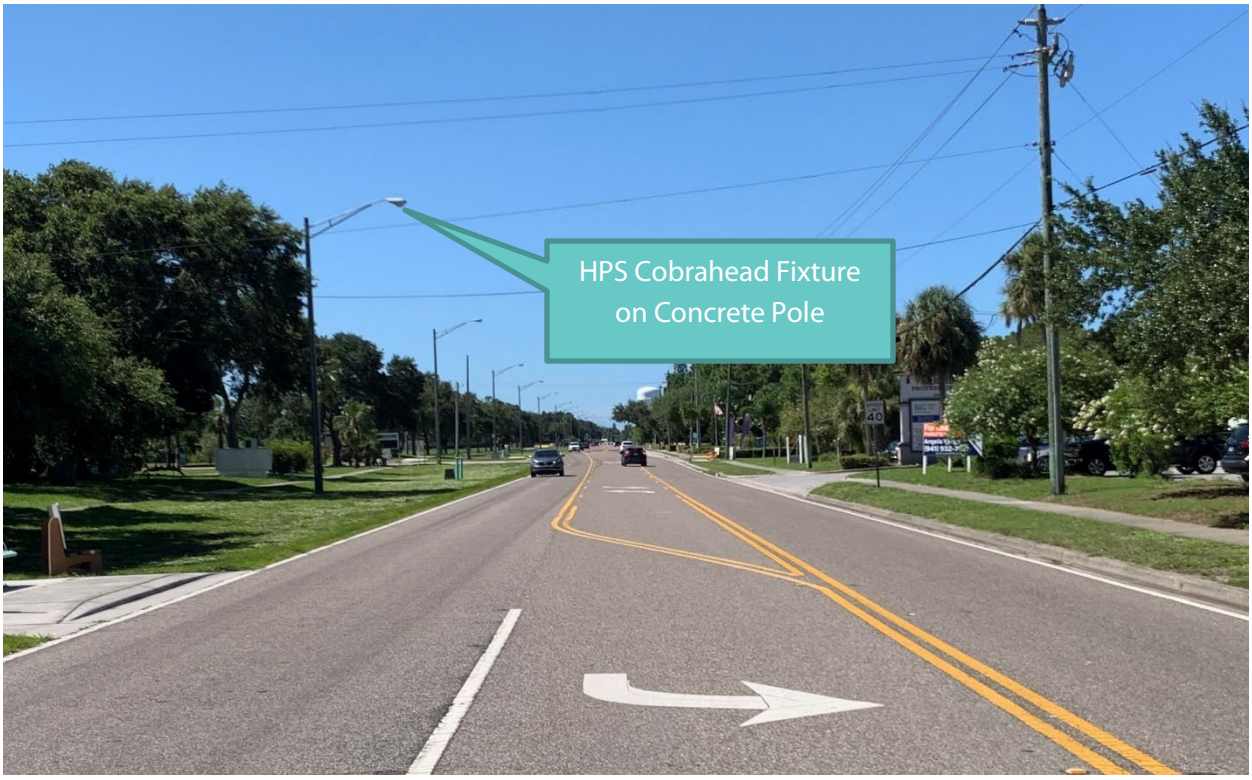


2.13 Lighting

The 59th Street corridor consists of different types of lighting. This lighting ranges from freestanding concrete or aluminum light poles, luminaires mounted to existing power poles, luminaires collocated on strain poles at traffic signals, and luminaries mounted to signal mast arm uprights. The luminaires on freestanding aluminum poles, freestanding concrete poles, and signal mast arms appear to be fed by underground electric lines, while luminaires on strain poles and luminaires collocated to existing power poles are powered by overhead electric lines (**Figure 20**). There are both light-emitting diodes (LEDs) and high-pressure sodium fixtures (HPS) throughout the corridor. The freestanding light poles are predominantly on the east side of the roadway, opposite the overhead power lines. The overhead lines run along the west side of the roadway throughout the entire length of the project. The majority of the corridor is residential in nature with commercial properties scattered throughout. Existing lighting at signalized intersections along the corridor is documented below:

- 59th Street at Cortez Road; Two freestanding aluminum light poles on the northeast and southeast corners, and one freestanding concrete light pole located on the northeast corner.
- 59th Street at 29th Avenue; One freestanding concrete light pole on the northeast corner.
- 59th Street at 21st Avenue; One freestanding concrete light pole on the northeast corner and. one luminaire located on the existing concrete strain pole in the southwest corner.
- 59th Street at 17th Avenue; One luminaire on the existing concrete strain pole in the northwest corner.
- 59th Street at 11th Avenue; Two luminaires on the existing concrete strain poles in the northwest and southeast corners.
- 59th Street at Manatee Avenue; Two luminaires on freestanding aluminum poles in the southeast and southwest corners, and two luminaires located on signal mast arms in the southeast and northeast corners.

Figure 20: Lighting along 59th Street (looking south)



2.14 Utilities

Sunshine 811was contacted to identify utilities along the corridor. **Table 11** identifies the utility providers that noted having facilities with the study area. The Utility Agencies/Owners (UAOs) were contacted to request the types of facilities and approximate locations. **Figure 21** and **Figure 22** show the location of utilities within the corridor. Since utility providers are not required to respond to a design ticket, this list and figures may not include all utilities within the study area. There appears to be a utility bridge over the Cedar Hammock Creek to the west of 59th Street (**Figure 23**). Several cast iron pipes are exposed on the east side of 59th Street as shown in **Figure 24**.

Table 11: UAO Contacts

UOA	Utility Type	Contact	Phone Number
Crown Castle	Fiber	Nick Belinsky	724-426-2449
Florida Power and Light	Electric	Carey McCoy	941-723-4421
Teco People's Gas	Natural Gas	Joan Domning	813-275-3783
Uniti Fiber	Fiber	David Woods	813-539-1180
City of Bradenton	Sewer	Tom Meador	941-708-6300
City of Bradenton	Water	Tom Meador	941-708-6300
Manatee County	Sewer	Kathy McMahon	941-792-8811
Manatee County	Water	Kathy McMahon	941-792-8811
Manatee County	Reclaimed Water	Kathy McMahon	941-792-8811

Figure 21: Utilities Within Project Limits (Cortez Rd to West Pointe Ave W)

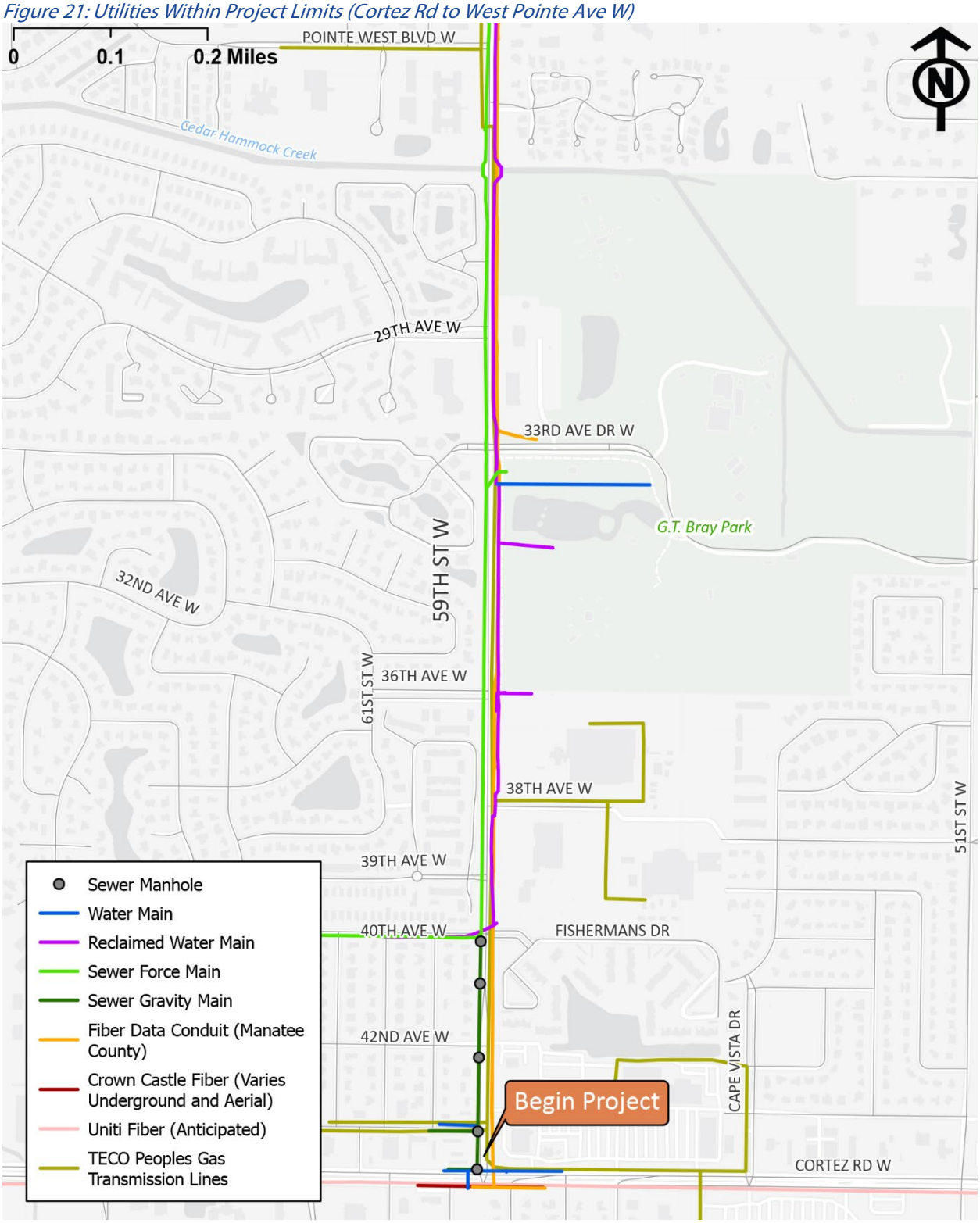


Figure 22: Utilities Within Project Limits (West Pointe Ave W to Manatee Ave W)



Figure 23: Utility Bridge over Cedar Hammock Creek (looking south)



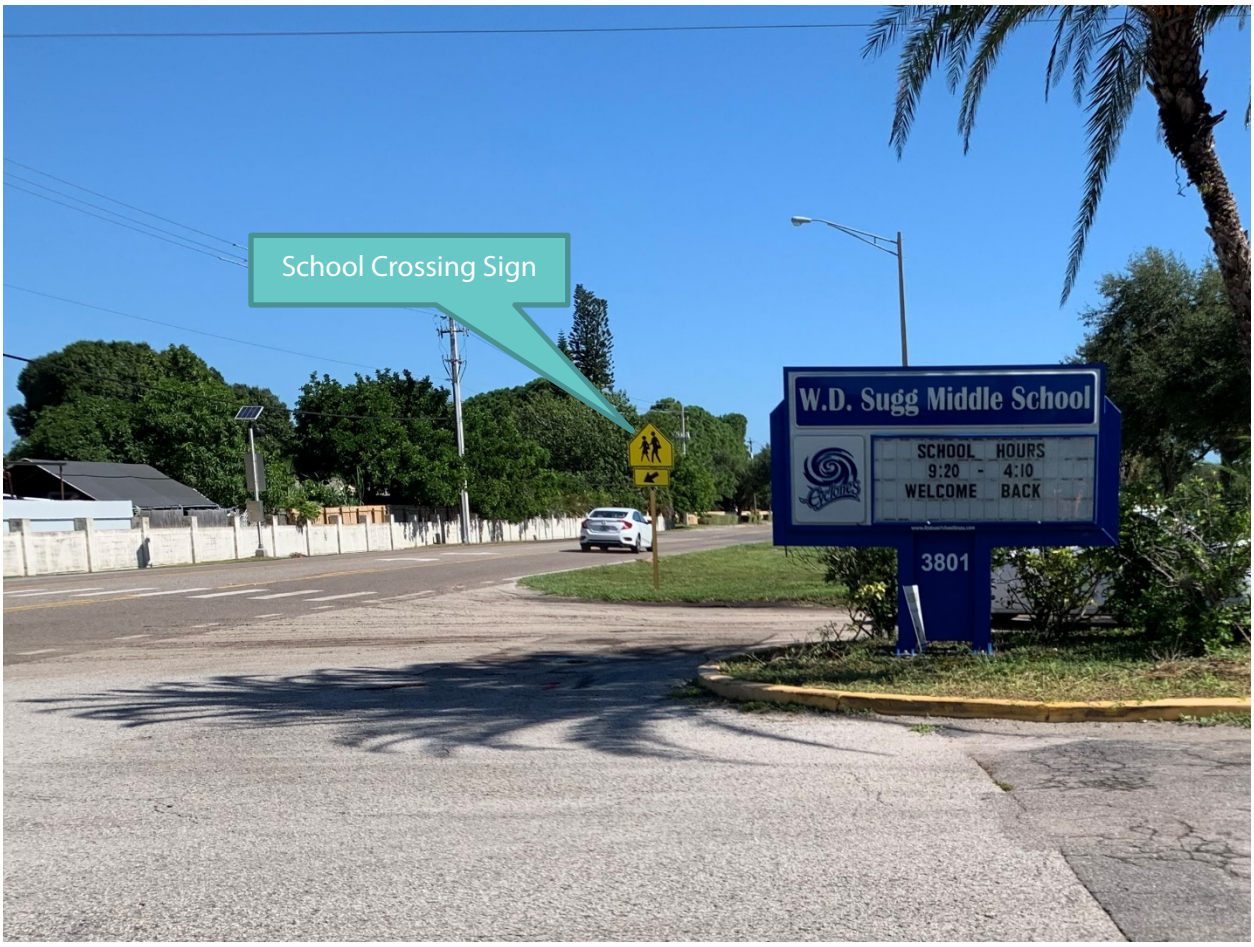
Figure 24: Utilities at Cedar Hammock Creek Culvert (looking north)



2.15 Signs

There are no overhead or multipost signs within the project limits. Other than the standard single post traffic control signage, there are two school crossings with the required advanced warning signs (**Figure 25**). The W.D. Sugg Middle School sign is encroaching on the ROW and will likely need to be relocated.

Figure 25: School Crossing Signs at W.D. Sugg Middle School (looking north)



2.16 Structures

There is a single-barrel concrete box culvert where 59th Street crosses over the Cedar Hammock Creek (NB1016). The span is not long enough to qualify as a bridge-culvert, so it is not included in the FDOT Bridge Information reports. According to the Manatee County Senior Bridge Engineer, the structure appears to be in good condition and could we widened. The top of the headwall is shielded via a concrete barrier wall with guardrail approach terminals (**Figure 26**). Although the barrier is outside the clear zone and shielding is not required, the guardrail should be brought up to standards if it is to remain (Standard Plans 536-001 sheet 15).

Figure 26: Culvert at Cedar Hammock Creek (looking east)



2.17 Existing Maintenance Issues

Several areas requiring near-term maintenance were observed and should be addressed before the widening project. **Figure 27** shows a broken sidewalk near the Cortez Commons on the south end of the project. Roots from the adjacent tree appear to be the cause. **Figure 28** shows slope protection starting to fail at the back of sidewalk near the animal shelter. This is likely caused by water in the adjacent shallow swale overtopping the sidewalk and could eventually lead to a washout.

Per Manatee County maintenance, problem areas are from 7th Avenue Drive West to 11th Avenue West where the catch basins on 7th Avenue Drive, 8th Avenue Drive, 9th Avenue Drive, and 10th Avenue Drive come back to 59th Street and cause flooding at the intersections. Also, there are no catch basin at 11th Avenue West.

Figure 27: Broken Sidewalk near Cortez Commons (looking south)



Figure 28: Erosion behind Sidewalk at Animal Shelter (looking north)



3.0 Existing Environmental Conditions

This PD&C Study considered the existing Natural, Cultural and Physical environment.

3.1 Natural Resources

This section summarizes the Natural Resources Assessment memo in **Appendix C**.

3.1.1 Protected Species and Habitat

The following threatened or endangered species have the potential to occur within the study area:

- Wood stork
- Bald eagle
- Little blue heron
- Roseate spoonbill
- Tricolored heron
- Eastern indigo snake
- Gopher tortoise

These species have a low likelihood of occurrence within the study area based on the habitat for that species found and since no species observations were documented within one mile.

3.1.2 Wetlands and Other Surface Waters

Although the project area is mostly adjacent to developed land, there are some wetlands and surface waters withing the study area (**Figure 29** and **Figure 30**). The Cedar Hammock Creek flows east to west through the study area. Other surface waters appear to function as stormwater retention ponds.

The project area is located within the service areas of the Long Bar Pointe and Manatee Mitigation Banks. These banks have freshwater herbaceous and forested credits available and are within the South Coastal and Manatee River Drainage Basins. There is no essential fish habitat within the project area.

Figure 29: Wetlands and Surface Waters (Cortez Rd to Pointe West Blvd W)

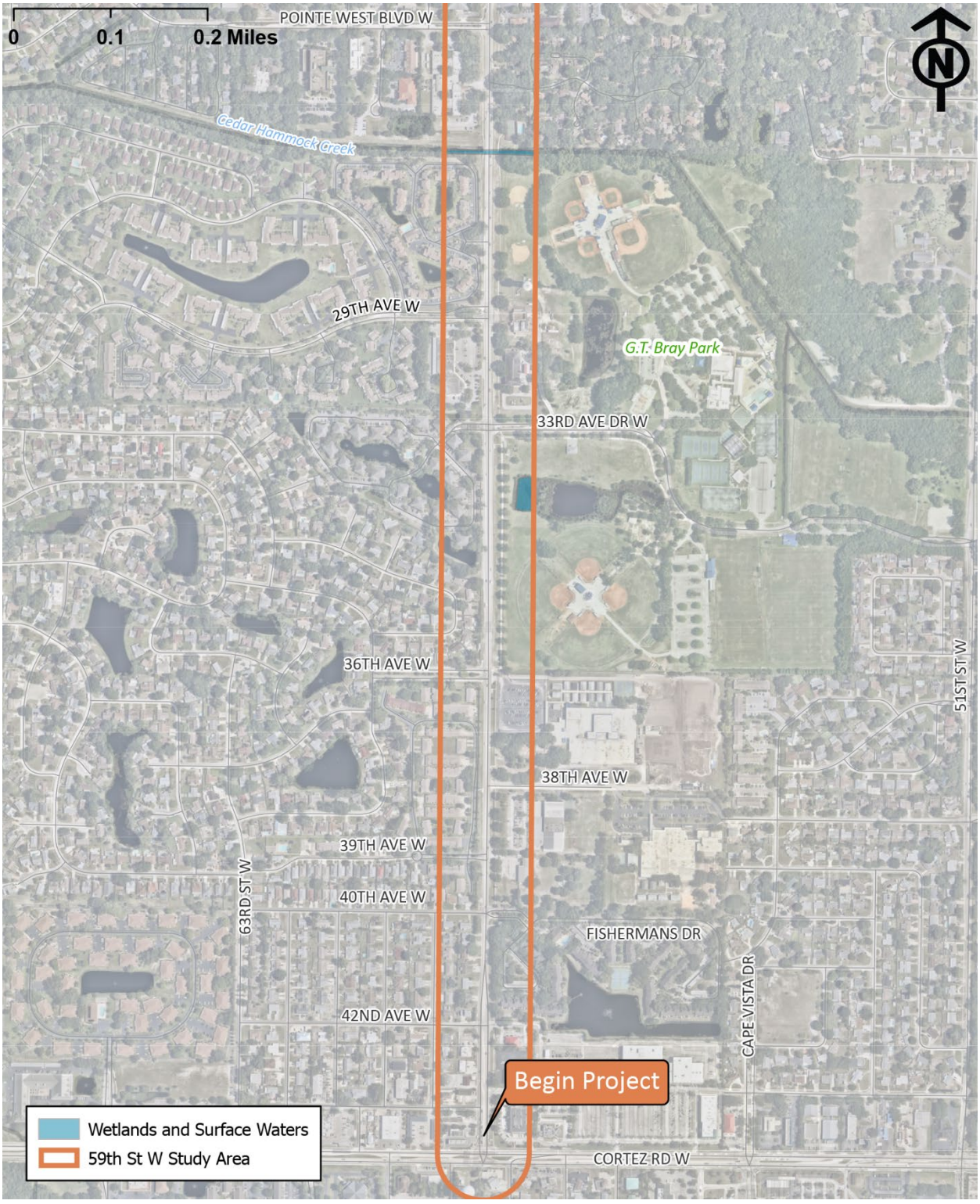
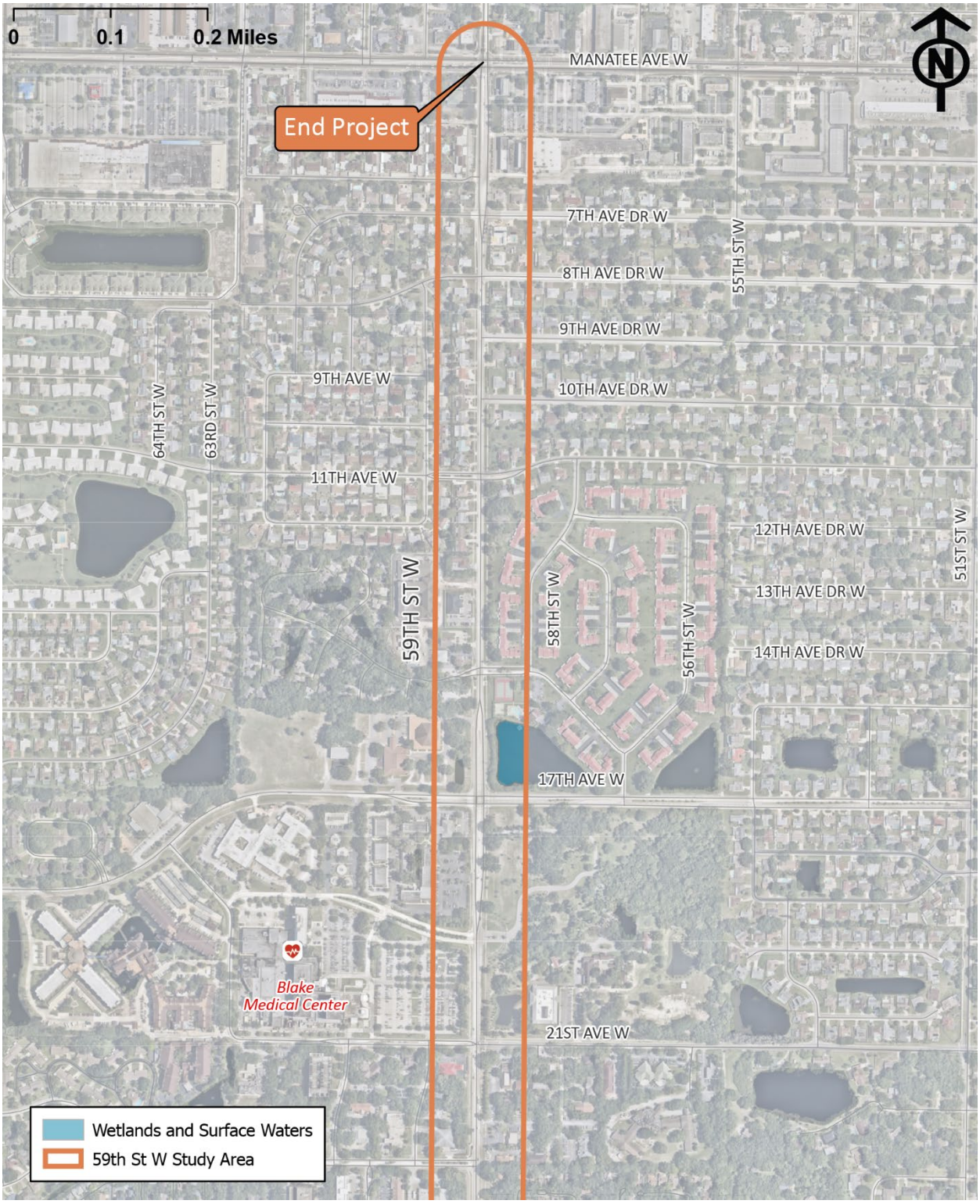


Figure 30: Wetlands and Surface Waters (Pointe West Blvd W to Manatee Ave W)



3.2 Cultural Resources

This section summarizes the Cultural Resources Memo in **Appendix D**. Based on coordination with the State Historic Preservation Office (SHPO), there are no documented resources that are eligible for listing on the National Register of Historic Places (NRHP) within the Area of Potential Effect (APE) of the 59th Street project.

A search of buildings older than 40 years (those 50 years or older are considered historic) resulted in 144 structures within the APE. These structures have not been evaluated for NRHP eligibility.

3.3 Contamination

A Potential Contamination Screening Memo was completed and is available in **Appendix E**. Based on a review of available records, the study area contains two documented sites with a medium risk of contamination and one low risk site. (**Figure 31** and **Figure 32**).

- Map ID 11: Active Underground Storage Tanks (UST) and reported discharges on 12/19/1988 and 03/05/1990
- Map ID 3: Active Above Ground Storage Tanks (AST), inactive UST, and discharge in Oct. 1995
- Map ID 13: Active USTs and reported discharge on 12/15/1998

Figure 31: Potential Contamination Sites (Cortez Rd to Pointe West Blvd W)

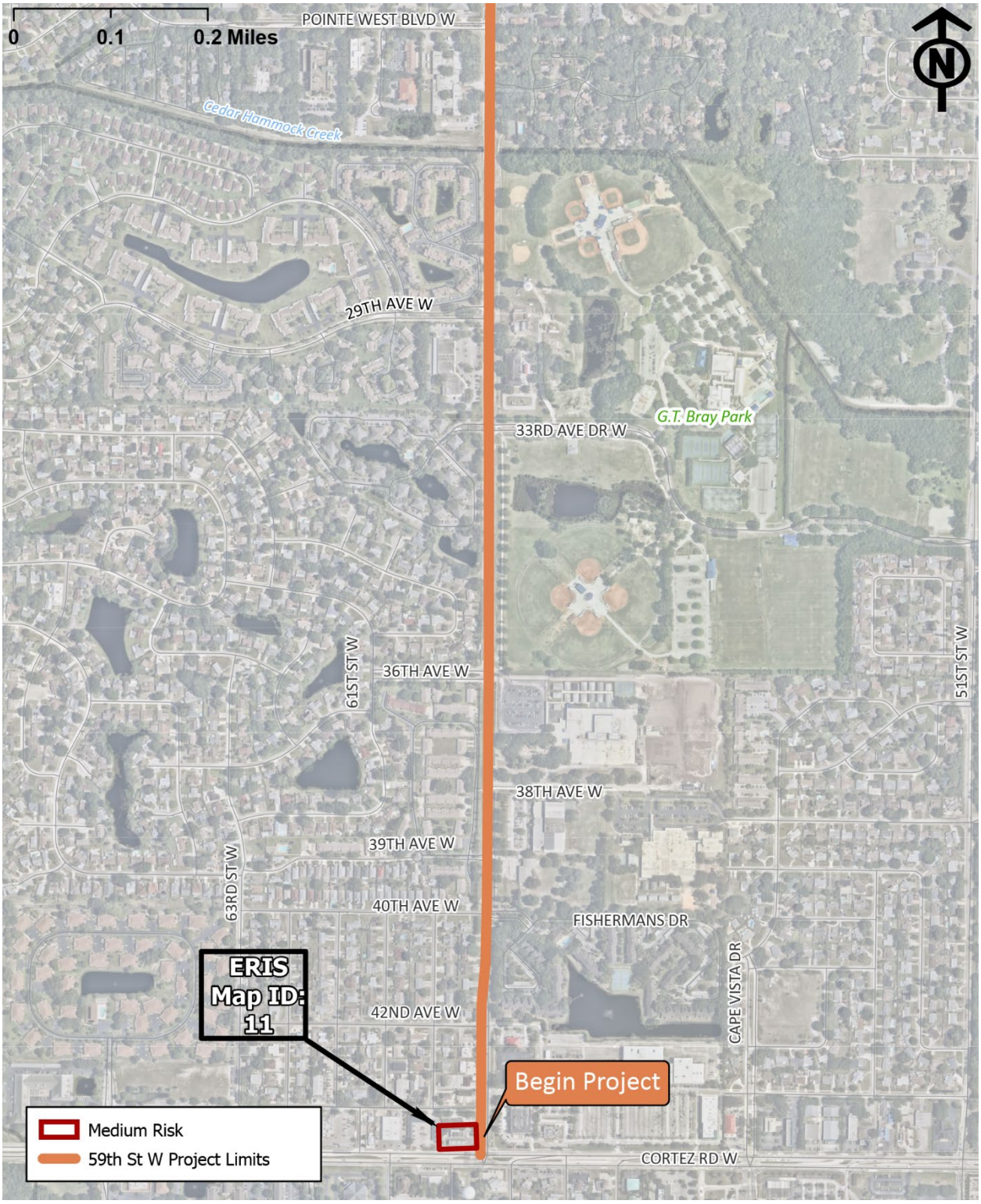
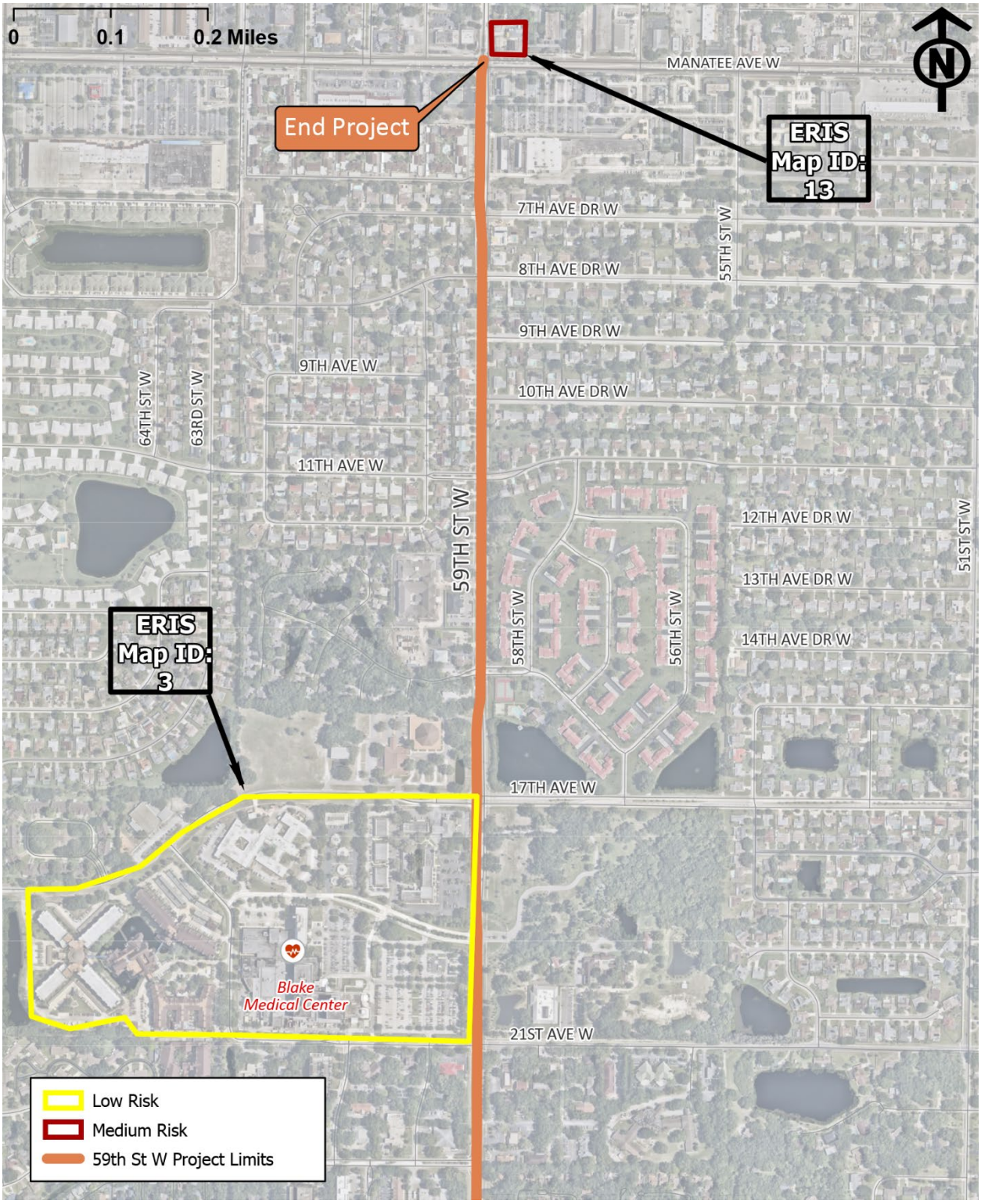


Figure 32: Potential Contamination Sites (Pointe West Blvd W to Manatee Ave W)



4.0 Alternatives Analysis

This section describes the Design Criteria, Alternatives, and Alternatives Evaluation for the study.

4.1 Design Criteria

The project design criteria are summarized in **Table 12**. The following standards were used: Manatee County Public Works Standards (PWS), Part 3. Highway & Traffic Standards Manual, Amended November 2016; Manatee County Comprehensive Plan, Element 5 - Transportation, Table 5-1 (PA-21-04); Florida Greenbook (FGB), Manual of Uniform Minimum Standards for Design, 2018 Edition; and the FDOT Design Manual (FDM), 2021.

Table 12: Design Criteria

	Design Element	59th Street W	Source
General	Access Management Class	N/A	
	Context	Suburban Neighborhoods	PWS Figure T-15
	Level of Service	D	Table 5-1 (PA-21-04)
	Design Period	20 years	FDOT Project Traffic Forecasting Handbook 2019
	Design Speed	40 mph	PWS Table 1, existing posted
	Design Vehicle	CITY-BUS	FGB Chp. 3 C.2
	Roundabout Control Vehicle	WB-40	FDM 201.6.1, FDM 213.7
	Functional Classification	Collector	Table 5-1 (PA-21-04)
	Posted Speed	40 mph	Existing posted
Typical Section	Number of Lanes	4	Table 5-1 (PA-21-04)
	Lane Width	11 ft.	PWS Table 3, FGB Chp. 3 Table 3-20
	Two-Way Left-Turn Lane Width	12 ft. (11 ft. min)	FGB Chp. 3 Table 3-20
	Median Width	18 ft. (15.5 ft. Min)	PWS Table 3, FGB Chp. 3 Table 3-23
	Bicycle Lane Width	7 ft. (5 ft. Min)	PWS Table 3, note e
	Buffer Width	8 ft. (6 ft. Min.)	PWS Table 3
	Clear Zone Width	4 ft.	PWS Detail Sheet 402.1
	Sidewalk Width	5 ft.	PWS Table 3
	ROW Width	120 ft.	Table 5-1 (PA-21-04)
Horizontal	Min. Stopping Sight Distance	305 ft.	FGB Chp. 3 Table 3-4
	Max. Deflection w/o Curve	2°	FGB Chp. 3 C.4.b
	Length of Curve	600 ft. (400 ft. Min)	FGB Chp. 3 Table 3-8
	Max. Curvature (Min. Radius)	10° 45’ (533 ft.)	FGB Chp. 3 Table 3-12
	Max. Superelevation	0.05	FGB Chp. 3 C.4.c.2
Vertical	Max. Grade	9%	FGB Chp. 3 Table 3-16
	Max. Change in Grade w/o VC	0.80%	FGB Chp. 3 Table 3-17
	Base Clearance above BCWE	3 ft.	FDM 210.10.3(2)
	Min. Crest Curve K	44	FGB Chp. 3 Table 3-18
	Min. Sag Curve K	64	FGB Chp. 3 Table 3-18
	Vertical Clearance	16 ft.	FGB Chp. 3 C.7.j.4.(b)

The Bicycle Level of Comfort table is shown in **Table 13.** Based on the speed and traffic volume, it was determined that the ideal bicycle lane width for 59th Street was at least 6 feet wide or a separated path.

Table 13: Bicycle Level of Comfort (Source: Manatee County)

	AADT <10,000			AADT 10,000 - 15,000			AADT >15,000		
Configuration without bicycle facilities	<30mph	35mph	>40mph	<30mph	35mph	>40mph	<30mph	35mph	>40mph
1 x 1	1.1	1.4	1.7	1.1	1.8	2.1	2.0	2.3	2.6
1 x 1 (with median)	1.1	1.4	1.7	1.5	1.8	2.1	2.0	2.3	2.6
1 x 1 (with dual-left)	1.2	1.8	1.8	1.6	1.8	2.1	2.1	2.5	2.7
2 x 2	1.7	2.1	2.3	2.1	2.5	2.7	2.6	3.0	3.2
2 x 2 (with median)	2.4	2.4	2.7	2.5	2.8	3.1	3.0	3.3	3.6
2 x 2 (with dual left)	2.8	2.7	3.0	2.8	3.1	3.4	3	3.6	3.9
3 x 3 or larger	2.7	3.1	3.3	3.1	3.5	3.7	6	4.0	4.2

59th Street criteria range

	General recommendations
1.0 - 1.4	No need
1.4 - 1.9	Shared streets ("sharrow") markings
2.0 - 2.4	Dedicated bike lane (4' - 6')
2.5 - 2.9	Dedicated bike lane (6')
3.0 - 3.4	Buffered bike lane (6' +)
3.5 - 3.9	Buffered bike lane with visual barrier
4.0 +	Physically separated shared path (10' +)

4.2 No-Build Alternative

The No-Build Alternative assumes that 59th Street remains a 2-lane divided facility as it is in the existing condition. No improvements would be constructed other than routine maintenance. The No-Build Alternative provides a benchmark for comparative purposes with the build alternatives.

The advantages of the No-Build Alternative include:

- No impacts to the natural, physical, social, or cultural environments
- No utility impacts
- No cost for design, ROW acquisition, or construction

The disadvantages of the No-Build Alternative are:

- Not consistent with the Manatee County Comprehensive Plan
- Does not enhance pedestrian and bicycle accommodations
- Does not improve safety conditions
- Does not improve vehicular traffic operations

The No-Build Alternative remains a viable alternative throughout the study.

4.3 Initial Alternatives

The initial alternatives analysis consisted of a corridor analysis to establish the alignment, typical section analysis to determine the viable typical sections, and an Intersection Control Evaluation (ICE).

4.3.1 Corridor Analysis

The initial corridor analysis considered the impacts of widening left (west) only, on center, or right (east) only, utilizing the 120-foot ROW corridor shown on the ROW Protection and Reservation map.[7] **Table 14** summarizes the results. Widening to the right side has similar ROW needs but fewer parcels or relocations.

Table 14: Corridor Impact Comparison

	Left Side Widening			Center Widening			Right Side Widening		
	Parcels (no.)	ROW (ac.)	Relocations (no.)	Parcels (no.)	ROW (ac.)	Relocations (no.)	Parcels (no.)	ROW (ac.)	Relocations (no.)
Begin Project to 21st Ave W	38	4.09	21	53	3.93	17	16	4.30	6
21st Ave W to End Project	39	4.92	30	52	4.14	20	18	4.26	12
Total	77	9.01	51	105	8.07	37	34	8.55	18

4.3.2 Typical Section Analysis

The Manatee County Public Works design standards contain several typical sections that were considered. The first typical section considered was the Index 401.2 Typical 4-Lane Divided Roadway.[8] Through county coordination, the ideal section was determined to have 120 feet of ROW, 18-foot raised median, 12-foot travel lanes, 7-foot bike lanes, 5-foot sidewalks, and an optional 10-foot shared use path (**Figure 33**).

The Boulevard typical section (**Figure 34**) accommodates all users and is more of a complete street concept. Although ideally in a 120-foot corridor, the flexibility of widths means this typical could be as narrow as 102-feet wide.

The Parkway typical section (**Figure 35**) is similar to the Boulevard, but with the option of a shared use path on one side of the roadway. The side without a sidewalk would not fit the urban context of 59th Street.

[7] Manatee County. 2017. Map 5-C. PA-17-04 / ORD 17-18
[8] Manatee County. 2016. *Public Works Standards*. Part 3. Highway & Traffic Standards Manual. 401.2. Pg. T-80.

Figure 33: Ideal 4-Lane Divided Roadway Typical Section

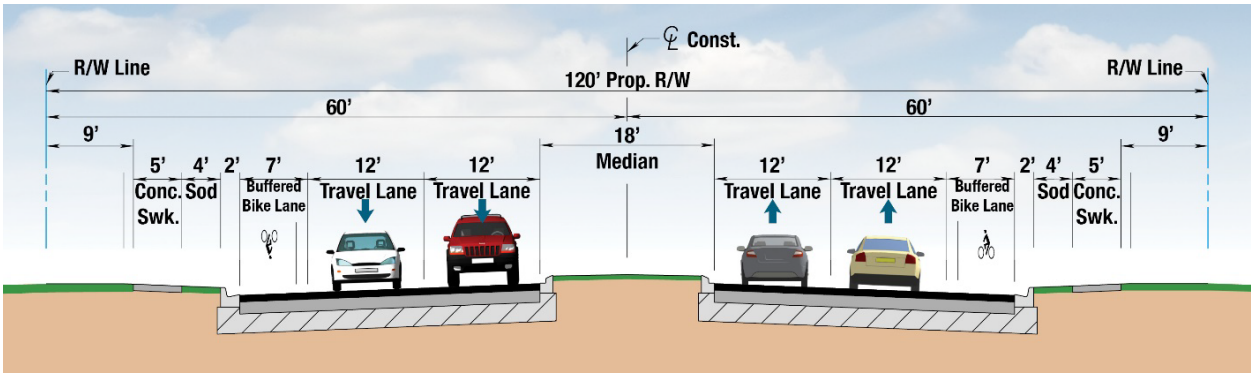


Figure 34: Boulevard Typical Section (Source: Manatee County)

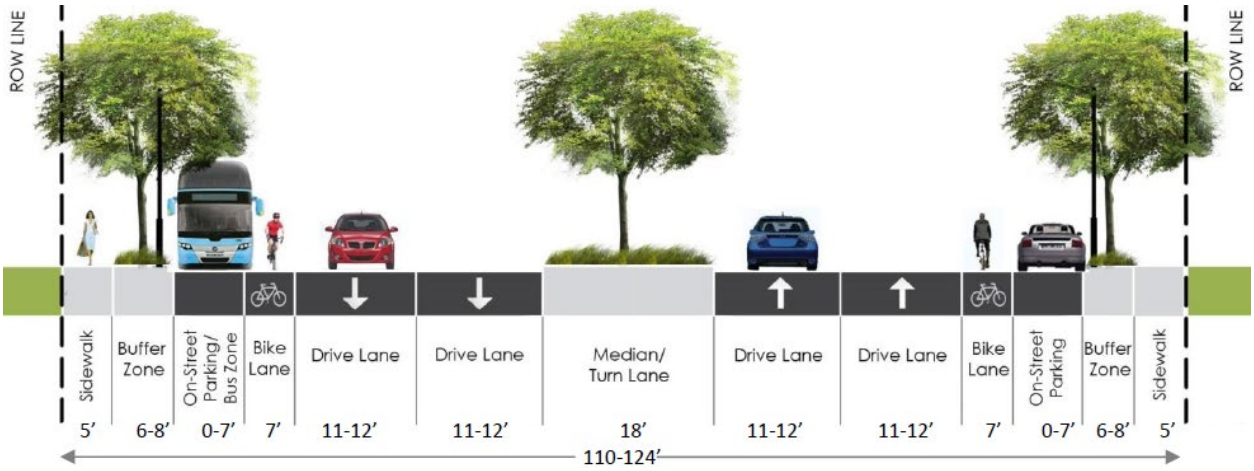
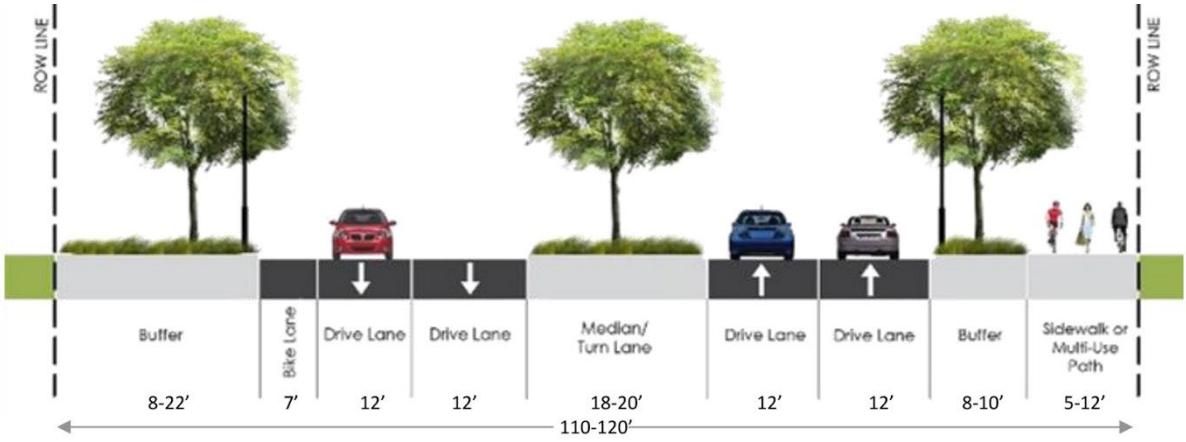
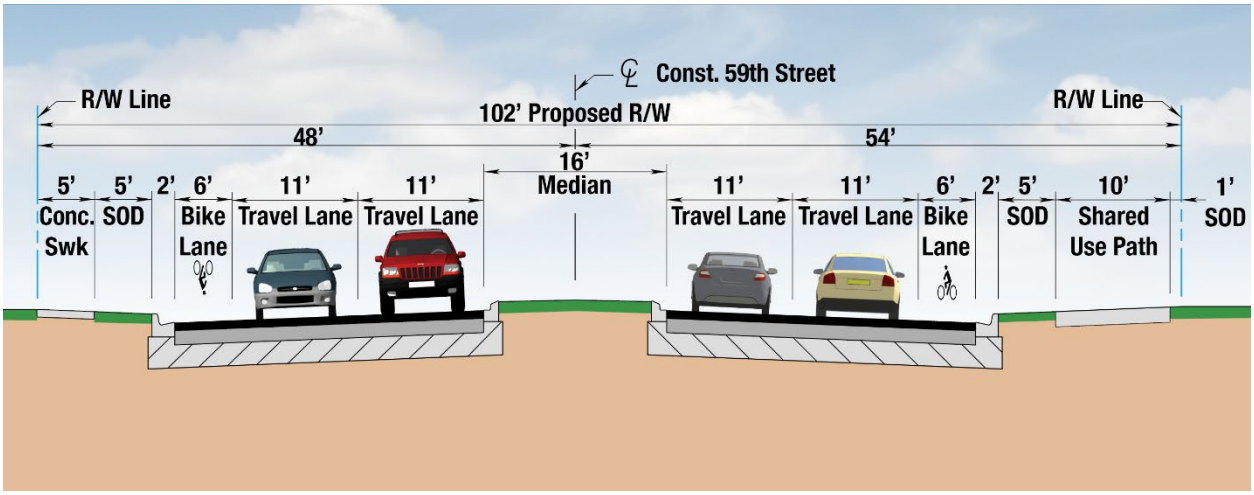


Figure 35: Parkway Urban Typical Section (Source: Manatee County)



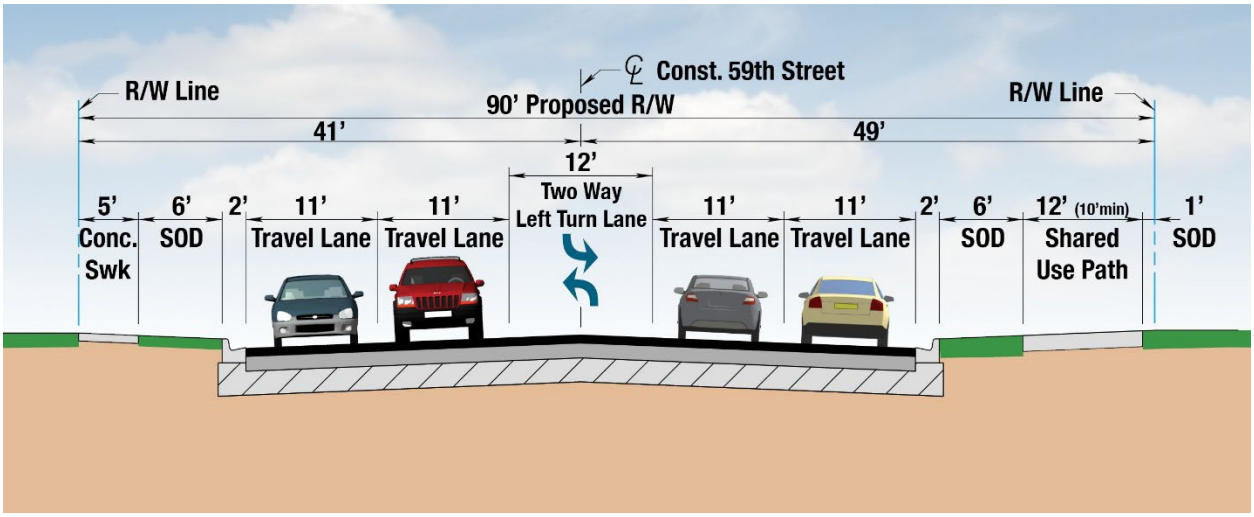
The 102-foot ROW typical section (**Figure 36**) was created to incorporate the complete street elements from the above typical sections, the applicable design criteria, and the project specific needs of the corridor. The typical section utilizes a 102-foot minimum ROW width with a 16-foot raised median, 6-foot buffered bicycle lanes, 5-foot sod buffer between the back of curb and sidewalk, and a 10-foot shared use path on the left right side.

Figure 36: 102-foot ROW Typical Section



As a minimization option, the 90-foot ROW typical section (**Figure 37**) was created to strike a balance between function and impacts. This section utilizes a 90-foot minimum ROW width, 12-foot Two-Way Left-Turn Lane (TWLTL), 6-foot buffered bicycle lanes, 6-foot sod buffer between the back of curb and the sidewalk, and a 12-foot shared use path.

Figure 37: 90-foot ROW Typical Section



A summary of the typical section analysis is shown in **Table 15**.

Table 15: Typical Section Analysis Summary

Typical section	Pros	Cons	Viable?
Standard 401.2	Utility corridor, wide median	Wide lanes, higher speeds	No
Ideal 4-Lane	Utility corridor, buffered bikes	Wide lanes, wide footprint	No
Boulevard	Complete street	Wide footprint	No
Parkway	Landscape opportunities	Wide lanes, higher speeds	No
102-Foot ROW	Complete street	Restricts access	***Yes***
90-Foot ROW	Narrow footprint	Limited landscape areas	***Yes***

4.3.3 Intersection Control Evaluation

The ICE was conducted to determine the benefit-cost ratio (B/C) by type of control (e.g., signal or roundabout, see **Table 16**). The existing fire station at the 29th Avenue West intersection will require a traffic signal for emergency vehicle preemption.

A roundabout is recommended for the 17th Street intersection due to the relatively low ROW impacts and high B/C ratio. Traffic signals are recommended for the other intersections. See the Design Traffic Memorandum (Appendix B) for more information.

Table 16: ICE Results

	Traffic Signal 1 x 1 w/ Signal Improvements			Traffic Signal 2 x 1			Roundabout 2 x 1 (Build)		
	Overall B/C	Delay B/C	Safety B/C	Overall B/C	Delay B/C	Safety B/C	Overall B/C	Delay B/C	Safety B/C
59th St & 29th Ave	Base Case			***Signal Control Recommended due to Fire Station***					
59th St & 21st Ave	Base Case			**8.86**	8.94	-0.08	**8.30**	8.02	0.28
59th St & 17th Ave	Base Case			**3.51**	3.65	-0.14	**10.57**	10.54	0.03
59th St & 11th Ave	Base Case			**1.08**	1.15	-0.07	**1.90**	1.17	0.72

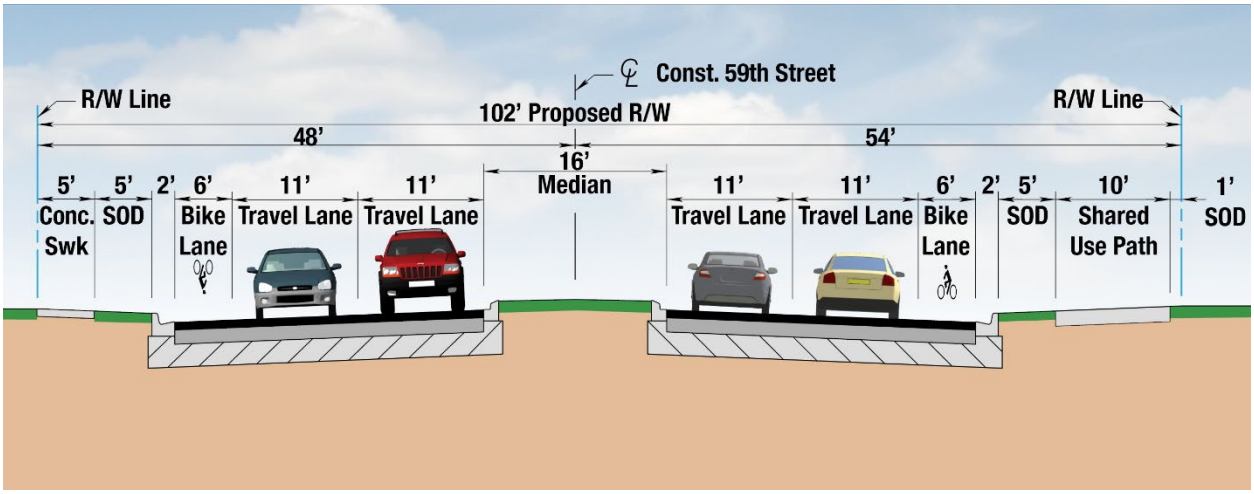
4.4 Viable Alternatives

The viable build alternatives are Alternative 1 and Alternative 2, as described below.

4.4.1 Alternative 1

Alternative 1 utilizes the 102-foot typical section (**Figure 38**) along a right-side widening alignment to minimize parcel impacts or relocations. This alternative includes a roundabout at 17th Avenue West to improve operations, manage speeds, and enhance safety. Additional ROW is required and relocations are anticipated.

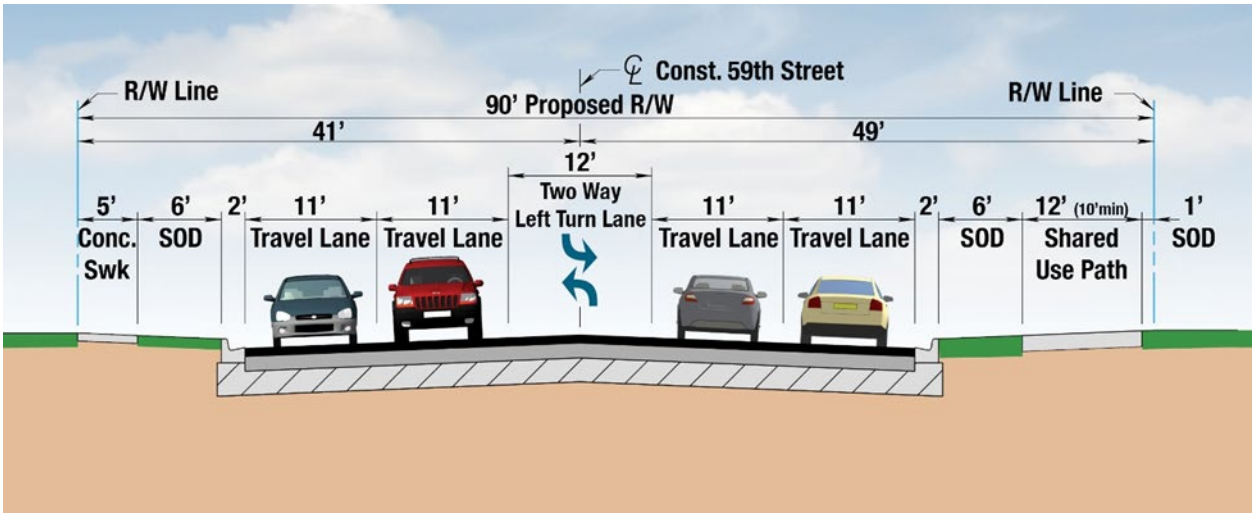
Figure 38: Alternative 1 Typical Section



4.4.2 Alternative 2

Alternative 2 utilizes the 90-foot typical section (**Figure 39**) along a right-side widening alignment to minimize parcel impacts or relocations. This alternative includes a roundabout at 17th Avenue West to improve operations, manage speeds, and enhance safety. Alternative 2 requires less ROW than Alternative 1, but relocations are required with both alternatives. Alternative 2 does not include designated on-street bicycle facilities, rather including a 12-foot shared use path on the right side.

Figure 39: Alternative 2 Typical Section



4.5 Pond Siting

The proposed project is within the jurisdiction of SWFWMD. Following SWFWMD guidelines for open basins, the critical event is the 25-year-24-hour design storm. In this area, the 25-year-24-hour event constitutes a rainfall depth of 8.90 inches.

The stormwater runoff will be attenuated using the 25-year, 24-hour event by the designed detention facility for open basin discharge. The post-development basin areas include all area within the proposed ROW. The detention facility includes a treatment volume of 1 inch over the proposed basin

in addition to the attenuation volume. Off-site runoff affected by the proposed roadway design will be diverted to existing condition low points.

Pond site area calculations considered the following minimal physical criteria:

- Existing elevations and the ability of the proposed basin to drain via stormwater conduit
- Interior pond slopes with a slope ratio of 4:1
- Maximum depth of 10 feet
- Minimum 15-foot level maintenance berm
- Area for back slopes and fencing
- Accessible directly from the road ROW an access easement
- All offsite flows will be bypassed

Pond site locations are shown in **Figure 40** and **Figure 41.**

Basin 1

Basin 1 extends from approximately STA 102+00 to STA 123+00. The basin consists of 0.39 miles of roadway. The proposed stormwater system will convey the runoff by curb and gutter and closed conveyance to a detention facility. This basin discharges to Cortez Road so a FDOT connection permit is required. There are three pond sites and two alternatives for this basin as shown in **Table 17.** The drainage map is shown in the concept plans (Appendix A).

Pond 1A is located north of Cortez Road at STA 102+50 (LT.) on a privately owned parcel. The basin spans from STA 102+00.00 to STA 109+65. The proposed pond dry detention and will be used jointly with Pond 1C.

Pond 1B is north of Fisherman's Drive at STA 115+00 (RT.) on a privately owned parcel. A partial take at the rear of the parcel will be required for this pond site and will require a 60-foot wide, 400-foot long drainage easement as Fishermans Drive is a private road. This pond is a wet detention facility and will work as a standalone pond for Basin 1.

Pond 1C is located south of 38th Avenue West at STA 120+00 (RT.). The pond site required a partial take at the rear of the parcel. The sub-basin spans from STA 109+65 to STA 123+00. This pond is a wet detention pond and will be used jointly with Pond 1A. A 40-foot wide, 500-foot long drainage easement will be required as 38th Avenue West is owned by the school board.

The recommended site for Basin 1 is Pond 1B because it is large enough to be the single pond for the basin and not impact additional parcels.

Figure 40: Pond Options (Cortez Rd to Pointe West Blvd W)

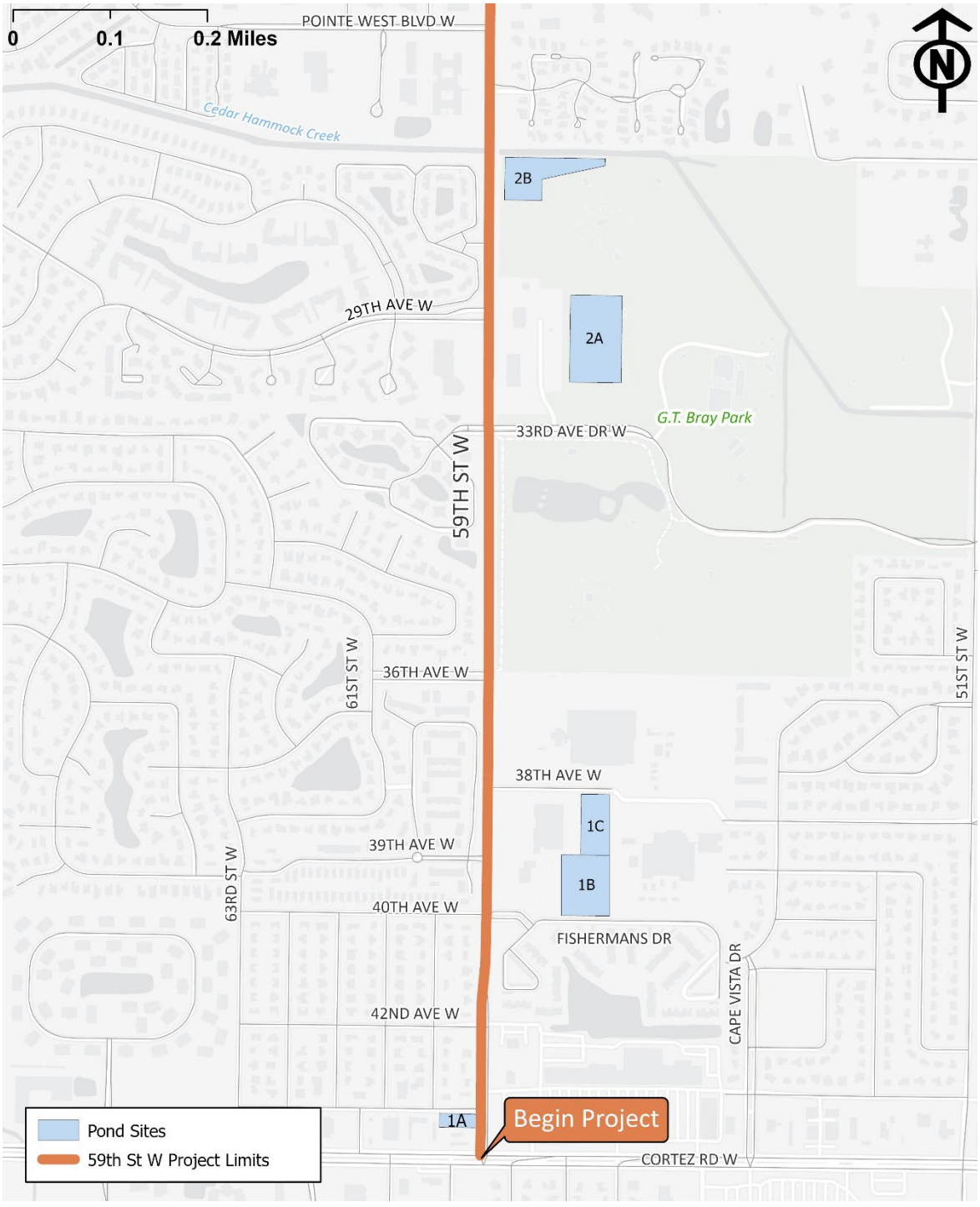


Figure 41: Pond Options (Pointe West Blvd W to Manatee Ave)

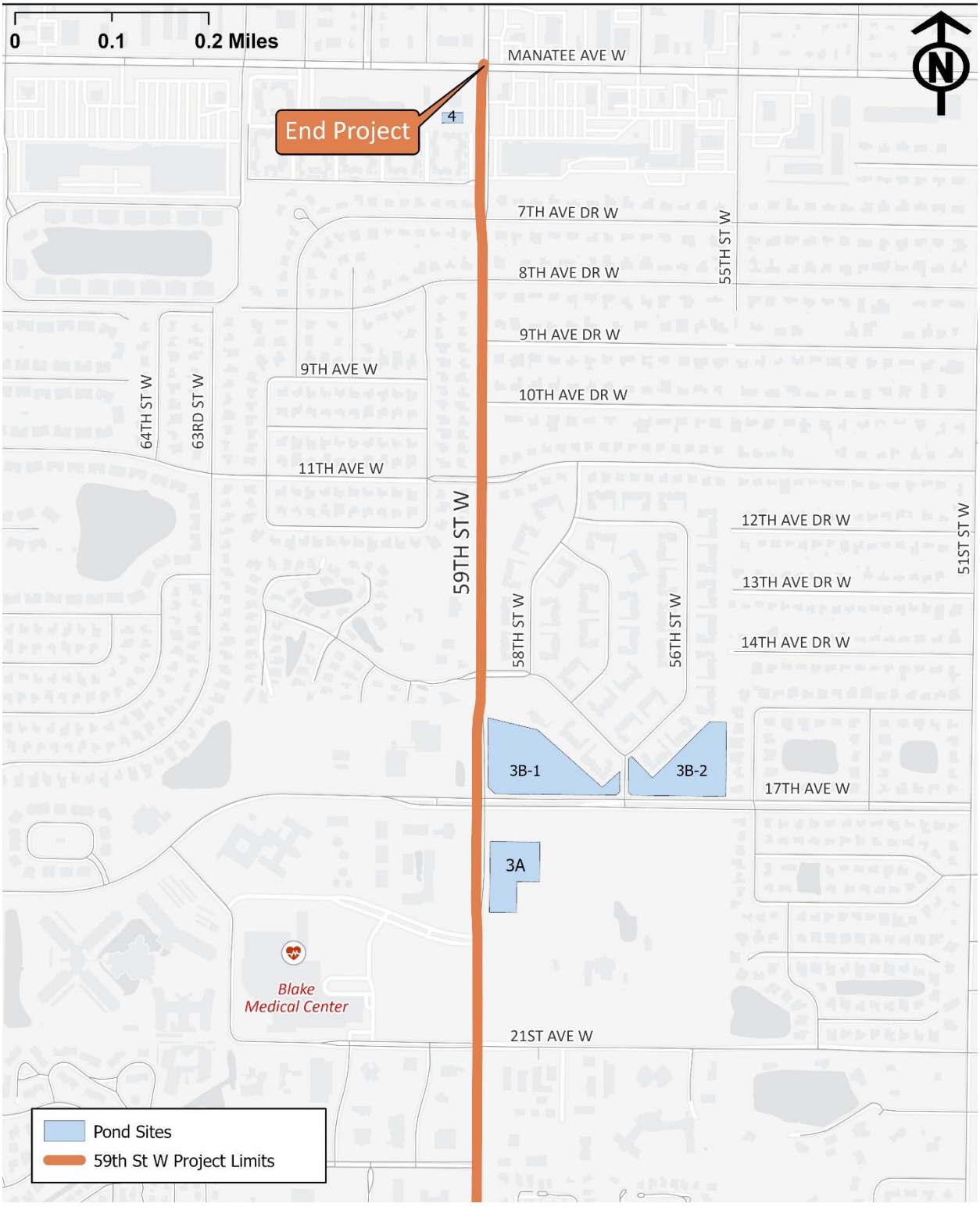


Table 17: Basin 1 Pond Options

Factors	Pond 1A	*Pond 1B	Pond 1C
Location	102+50	115+00	120+00
Side	LT	RT	RT
Distance from Corridor	0’	361’	464’
Total Area	0.34 AC	1.98 AC	1.18 AC
FEMA Flood Zone (Yes/No)	No	No	No
Hydrologic Soil Group	A & A/D	A/D	A/D
Parcel ID	5144210001	5111110010	5110410007
Owner	Privately Owned	Girls Club, Inc.	YMCA, Inc.
Occupied/Vacant	Occupied	Occupied	Occupied
Land Use Description	Car Wash	Orphanage	Clubs, Lodges, Union Hall
Contamination Sites	Yes	None	None
Wetland Impacts	No	No	No
Additional Remarks	Joint Alternative with Pond 1C	-	Joint Alternative with Pond 1A

*Recommended Site

Basin 2

Basin 2 extends from approximately STA 123+00 to STA 155+00. The basin consists of 0.61 miles of roadway and an area of 7.42 acres. The proposed stormwater system will convey the runoff by curb and gutter and closed conveyance to a detention facility. This basin discharges to Cedar Hammock Creek and a tidal outfall, so only treatment will be required. There are two pond site alternatives for this basin.

Pond 2A is located north of 33rd Avenue Drive at approximately station 145+00 (RT.) and is located on City of Bradenton property. The pond is an existing wet detention facility. A permit modification to the existing ERP (#2169.006) would be required if the pond is modified. A 40-foot wide, 650-foot-long drainage easement and a 60-foot wide, 226-foot-long maintenance agreement will be needed. Additional piping will be needed to outfall this pond to the Cedar Hammock Creek.

Pond 2B is located south of Cedar Hammock Creek at STA 154+00 (RT.) and is located on City of Bradenton property. The pond is a wet detention facility and will be the single pond for the basin.

Table 18: Basin 2 Pond Options

Factors	Pond 2A	*Pond 2B
Location	145+00	154+00
Side	RT	RT
Distance from Corridor	493'	0'
Total Area	3.05 AC	1.68 AC
FEMA Flood Zone (Yes/No)	No	No
Hydrologic Soil Group	N/A (Exist. Pond)	A/D
Parcel ID	5110410007	5110200002
Owner	City of Bradenton	City of Bradenton
Occupied/Vacant	Vacant	Occupied
Land Use Description	Gov Owned Vacant Municipal	Municipal
Contamination Sites	None	None
Wetland Impacts	No	No
Additional Remarks	-	-

*Recommended Site

Basin 3

Basin 3 extends from STA 155+00 to STA 213+50. The basin consists of 1.11 miles of roadway. The proposed stormwater system will convey the runoff by curb and gutter and closed conveyance to a detention facility. This basin discharges to Cedar Hammock Creek. There are two pond site alternatives for this basin.

Pond 3A is at STA 177+50 (RT) north of 21st Avenue and is located on a Manatee County parcel. The pond is a wet detention facility. This pond requires additional piping to discharge to the creek.

Pond 3B-1 is located northeast of 59th Street on 17th Avenue West. The parcel is a privately owned unpermitted wet pond that would be modified to treat the additional runoff and will be used jointly with Pond 3B-2. Additional piping will be required to outfall to the creek.

Pond 3B-2 is also located northeast of 59th Street on 17th Avenue West, east of Pond 3B-1. The parcel is a privately owned unpermitted wet pond that would be modified to treat the additional runoff and will be used jointly with Pond 3B-1. Additional piping will be required to outfall to the creek.

The recommended alternative for Basin 3 is Pond 3A due to its location on a Manatee County owned parcel.

Table 19: Basin 3 Pond Options

Factors	*Pond 3A	Pond 3B-1	Pond 3B-2
Location	178+00	185+00	185+00
Side	RT	RT	RT
Distance from Corridor	70’	0’	765’
Total Area	1.92	4.13	3.11
FEMA Flood Zone (Yes/No)	No	No	No
Hydrologic Soil Group	B/D	N/A (Exist. Pond)	N/A (Exist. Pond)
Parcel ID	3947700005	3937400053	3937400004
Owner	Cruelty of Animals of Manatee County	Meadowcroft Condo, Inc.	Meadowcroft Condo, Inc.
Occupied/Vacant	Occupied	Occupied	Occupied
Land Use Description	Orphanage	Improved Condo Common Area	Improved Condo Common Area
Contamination Sites	None	None	None
Wetland Impacts	No	No	No
Additional Remarks	-	Joint Alternative with Pond 3B-2	Joint Alternative with Pond 3B-1

*Recommended Site

Basin 4

Basin 4 extends from STA 213+50 to STA 222+00. The basin consists of 0.14 miles of roadway. The proposed stormwater system will convey the runoff by curb and gutter and closed conveyance to a detention facility. This basin discharges to Manatee Avenue, so a FDOT connection permit is required. Only one pond site alternative is feasible in this small basin. Additional alternatives treatment and storage options are compensatory treatment downstream or exfiltration trench.

Pond 4 is located north of 7th Avenue at STA 219+00 (LT.) and is located on a privately owned parcel. The basin spans from STA 213+50 to STA 221+00. A dry detention facility with perimeter walls is proposed. The pond will be the single pond for the basin. Pond 4 is recommended for this basin due the reduced maintenance requirements compared to an exfiltration pipe system.

Table 20: Basin 4 Pond Site 4

Factors	*Pond 4
Location (STA)	219+00
Side	LT
Distance from Corridor	120’
Total Area	0.15 AC
FEMA Flood Zone (Yes/No)	No
Hydrologic Soil Group	A
Parcel ID	3782800109
Owner	MidFlorida Credit Union
Occupied/Vacant	Occupied
Land Use	Financial Institutions
Contamination Sites	None
Wetland Impacts	No
Additional Remarks	-

*Recommended Site

4.6 Alternatives Evaluation

The project specific evaluation matrix considers the alternatives' benefits and costs as well as the impacts to the environment and property (see **Table 21**).

Table 21: Evaluation Matrix

	Evaluation Factors	No-Build	Alt. 1 - Median	Alt. 2 - TWLTL
Benefits	Pedestrian Accommodations	Sidewalk gap	Sidewalks	Sidewalks
	Bicycle Accommodations	On-road	Buffered bike lanes and shared use path	On-road or shared use path
	Traffic	2-lane	4-lane	4-lane
	Safety	No improvement	Improvement	Improvement
Environmental Impacts	Archaeological/Historical Sites (potential)	None	Low	Low
	Parks/Recreational Areas	None	1	1
	Wetlands (acres)	0	0	0
	Surface Waters (acres)	0	0.1	0
	Floodplain (acres)	0	0	0
	Threatened and Endangered Species (potential)	None	Low	Low
	Contamination Sites Ranked High/Medium Risk (number)	0	2	2
Property Impacts	Utilities Relocated	None	Water, electric	Water, electric
	Right-of-way (acres)	0	8.0	7.0
	Parcels (number)	0	33	25
	Relocations (number)	0	7	7
Cost	Bridge or Culvert Widening	No	Yes	No
	Total Estimated Project Costs* (in present day $ Millions)	$0	$46.4 M	$40.0 M

*Estimated project costs include engineering, right-of-way, and construction but do not include utility relocations, environmental permits, or contamination remediation.

4.7 Recommended Alternative

Based on the engineering and environmental analysis documented in this report, the recommended alternative for 59th Street includes a raised median, four travel lanes, curb and gutter, sidewalk, and a shared use path on one side. The recommended alternative best meets the project purpose with:

- Sidewalks for pedestrians
- Buffer space between the road and sidewalk for pedestrian comfort
- Shared-use path for cyclists
- Roundabout for traffic calming
- Raised median for improved safety
- Landscaping opportunities
- Additional through lanes for rush hour traffic

The recommended alternative provides connectivity to the existing sidewalks and continues the existing shared-use path on the east side of 59th Street. The raised median and proposed roundabout at 17th Avenue provide a traffic calming feature for speed management, safety, efficient operations, and an opportunity for landscaping. The Recommended Alternative Concept Plans are shown in **Appendix A**.

5.0 Details of the Recommended Alternative

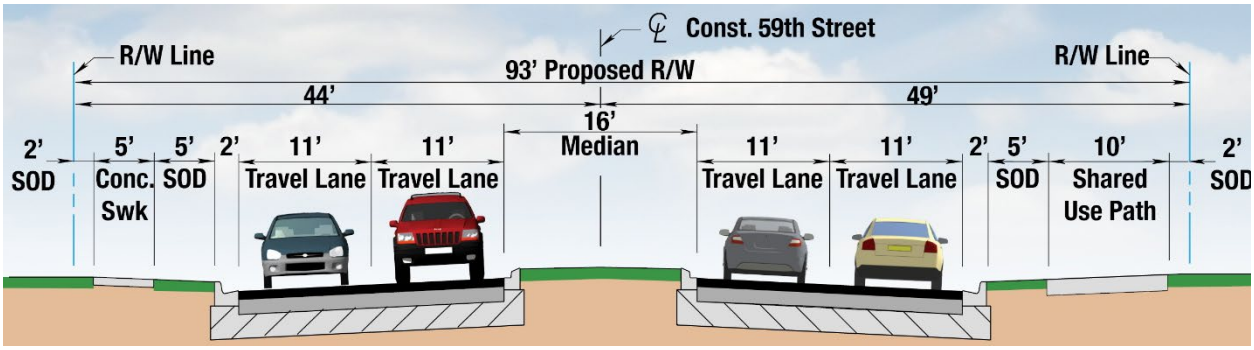
This section contains additional details of the recommended alternative.

5.1 Typical Section

The recommended alternative typical section, shown in **Figure 42,** consists of two 11-foot lanes in each direction, 16-foot raised median, 5-foot sod buffers, 5-foot sidewalk on the east and 10-foot shared use path on the east side. The 2-feet behind the sidewalk/shared use path along both sides is to accommodate utility and light poles.

At constrained locations, the designer can consider reducing the sidewalk buffer, median, or path width. A 6-foot sidewalk at the back of curb could also be considered. The most constrained area is from 7th Avenue Drive West to Manatee Avenue.

Figure 42: Recommended Alternative Typical Section



5.2 Horizontal and Vertical Geometry

Generally, the horizontal alignment consists of series of tangents within 2-degree deflection angle. The alignment is controlled by the ROW on the west side, existing culvert crossing at Cedar Hammock Creek, and tie-ins at the Cortez Road and Manatee Avenue intersections. A roundabout is recommended at 17th Avenue West. To avoid significant impacts to the business at the southwest corner of 17th Avenue West intersection, the designer should evaluate shifting the roundabout east.

A minimum of 35-foot curb return radius is proposed at the signalized intersections. A 25-foot minimum curb return radius is proposed at intersections with local road. For left-turn control radii, 75-foot control radii were used at industrial/commercial locations, and 50-foot control radii were used at residential areas.

To facilitate drainage on a curb and gutter facility, vertical alignment will require a minimum of 0.3% longitudinal slope to be maintained for a minimum 250 feet between high point and low points. Gravity walls or temporary harmonization easements may be needed were back-of-sidewalk elevations differ from existing grade.

5.3 Project Traffic Volumes

Table 22 summarizes the AADT volumes as well as the peak hour factor (K), directional (D) factor, and Truck (T) factor for the 59th Street corridor. Traffic volume projections are rounded to the nearest 500 vehicles per day.

Table 22: Project Traffic Summary

Current Year (2021) AADT	18,000
Opening Year (2025) AADT	19,000
Design Year (2045) AADT	23,500
Standard K	0.09
D Factor	0.55 (SB)
T Daily	3.6%
Design Hour T	1.8%

5.4 Intersection Concepts

The proposed intersection features are shown in **Table 23**. The existing signalized intersections of Manatee Avenue and Cortez Road are not anticipated to be impacted by the recommended alternative. The remaining four existing signalized intersections will require reconstruction. New signals are recommended to have mast arm supports because the project limits are within the mast arm policy area,[9] west of I-75. Additionally, the existing underground fiber optic conduit, splice vaults and pull boxes will need to be relocated. The designer should evaluate adding an Automated Traffic Monitoring Site as part of a smart traffic signal or as a standalone device.

Table 23: Proposed Intersection Features

Side Street Roadway	Impacted by Widening	Future Structure	ROW Needed
Manatee Ave	No	N/A	N/A
11th Ave W	Yes	Mast Arm Signal	Yes (NW Corner)
17th Ave W	Yes	Roundabout	Yes (NW, NE, SE, SW)
21st Ave W	Yes	Mast Arm Signal	Yes (NW, SE, SW)
29th Ave W	Yes	Mast Arm Signal	Yes (NW & SW)
Cortez Rd W	No	N/A	N/A

Features to enhance safety and operations will be considered at all of the existing intersections. The most common intersection deficiency is a lack of pedestrian crossings. Only two of the existing signalized intersections in the project corridor provide pedestrian crosswalks on all approaches. Marked crosswalks are recommended on all approaches at signalized intersections to improve pedestrian connectivity and safety. The four-section flashing yellow arrow (FYA) and retroreflective backplates on signal heads, should be incorporated as best practice. The designer should evaluate

[9] FDOT. 2009. *Mast Arm Structures Boundary Map.* District 1. Accessed August. 31, 2021 from https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/traffic/trafficservices/pdfs/d1.pdf

traffic signals at the 36th Avenue West and 40th Avenue West intersections or a Hybrid Pedestrian Beacons near 38th Avenue West to facilitate the school crossing.

5.5 Access Management Plan

Currently there is unrestricted access to properties on both sides of the existing roadway except between the roadway segments from Cortez Road to 42nd Avenue West and from 7th Avenue West to Manatee Avenue. The proposed raised median will restrict access to existing properties, driveway entrances, and intersections. Median openings are proposed at locations that can provide reasonable and safe access (**Table 24**). Connection spacing for Roadway Class 7 is recommended for new connections.

Table 24: Access Management

Intersection	Access	Remarks
Shopping center	SB Directional	
42nd Ave	Directionals	
40th Ave	Full	
38th Ave	SB Directional	School
36th Ave	Full	School
31st/33rd Ave Dr	Directionals	Park
29th Ave	Full – Signal	Fire Station
Pointe W Blvd W	Directionals	
21st Ave	Full - Signal	ER entrance
Hospital Entrance	Directionals	
17th Ave W	Roundabout	
Oaks Blvd/15th Ave	Directionals	
11th Ave	Full – Signal	
9th Ave Dr	SB Directional	
8th Ave Dr	SB Directional	
Shopping Center/Apts	Directionals	

5.6 Bicycle and Pedestrian Accommodations

In addition to improving overall traffic operations, one of the key drivers of this project is to accommodate bicycle and pedestrian facilities that improve safety. Bicycle and pedestrian facilities are given full consideration in the recommended alternative. A 10-foot shared use is included in the recommended alternative to support bicycle travel and pedestrian activities. The designer should consider supplemental green pavement markings to differentiate shared use path crosswalks.

A 5-foot continuous sidewalk is proposed on the west side of the project. Existing sidewalk segments that comply with ADA standards can remain, but deficient segments will be reconstructed. Pedestrian pipe railing may be needed at drop-offs. Curb ramps will be reconstructed to meet current ADA standards. The existing school crossings are to remain, unless the school district or a Safe Routes to School Study dictates a new crossing location. This also applies to the School Zone reduced speed limit.

5.7 Right-of-Way Requirements

The recommended alternative requires additional ROW at pinch points along 59th Street corridor, at intersections, and for stormwater ponds. An additional 7.4 acres of ROW are required, and 7 relocations are anticipated. Some of the impacted parcels are publicly owned by the County or City of Bradenton.

5.8 Lighting

The existing lighting on the east side of the roadway will likely be impacted by the proposed roadway improvements. The light poles impacted by the roadway widening will need to be replaced with a new lighting system. This new system may consist of freestanding poles on the east side, and luminaires collocated on existing power poles on the west side. There is a potential for cost savings by adding luminaires to existing power poles. Using a 268-watt LED ATB2 fixture from Florida Power and Light (FPL)'s LED Lighting Catalog, a spacing of approximately 200 feet is recommended for the recommended alternative per the Roadway Optimizer tool in AGI32.

Luminaires will likely need to be placed on both sides of the roadway to meet Florida Greenbook and FDOT lighting criteria for the recommended roadway typical section. Due to the existing overhead utilities on the west side, placement of luminaires may be limited to existing power pole locations, however, coordination with FPL will be necessary to discuss different lighting opportunities. These lighting opportunities could include placement of an additional in-line overhead electric pole with a luminaire to properly light the roadway from the west side or verifying the existing structural capacity of power poles to confirm whether they can accommodate a luminaire. In locations where existing lighting is not impacted, it is recommended that any older light fixtures are replaced with new LED fixtures.

Due to the residential nature of the corridor, house shields are recommended on luminaires in the immediate vicinity of homes to prevent light spillback into windows and private residences. Fixture choice, mounting height, bracket arm length, and light pole preferences should be coordinated with FPL and the County to ensure the lighting design meets aesthetic and operational preferences.

The proposed typical section also includes a shared use path along the east side of the roadway. Pedestrian lighting could be included along the shared use path if there proves to be a significant number of nighttime bicycle and pedestrian users.

Pedestrian crosswalks at signalized intersections, roundabouts, or mid-block will be properly illuminated for enhanced safety of vulnerable users. Lighting at these intersections could consist of adding supplemental light poles to ensure that pedestrian crosswalks meet FDOT lighting standards and replacing any older HPS fixtures at intersections with new LED fixtures.

5.9 Utilities

For this study, utilities were located by utility records (quality level D) and were not field verified. Verified vertical and horizontal locations are recommended during the design phase to identify or avoid utility conflicts with the proposed design.

Generally, utilities along the existing ROW will remain but impacts are anticipated where ROW is being acquired. Fire hydrants in conflict with the proposed roadway widening will need to be relocated. Overhead electric poles in conflict with the proposed roundabout at 17th Avenue West will need to be relocated as well.

5.10 Preliminary Drainage Analysis

The recommended alternative will utilize curb and gutter and a closed drainage system to convey runoff to the recommended stormwater management ponds (**Table 25**). Most of the adjacent properties drain towards the 59th Street ROW, so back of sidewalk inlets are anticipated to convey off-site flows and maintain existing drainage patterns. Most of the project area outfalls to Cedar Hammock Creek. The basins that outfall to Cortez Road and Manatee Avenue will need a FDOT connection permit.

Table 25: Recommended Ponds

Basin 1	Pond 1B
Basin 2	Pond 2B
Basin 3	Pond 3A
Basin 4	Pond 4

5.11 Floodplain Analysis

The only portion of the project within the FEMA floodplain is the Cedar Hammock Creek. Floodplain impacts are not anticipated because the recommended alternative utilizes the existing culvert without modifications.

5.12 Structures

The existing culvert at Cedar Hammock Creek (NB1016) does not need to be widened with the recommended alternative. The existing guardrail shielding the drop-off should be brought up to current standards and the concrete barrier evaluated for structural adequacy.

5.13 Cost Estimates

The estimate of probable project costs was based on limited quantity take-offs from the conceptual plans. FDOT historic unit cost averages were used from Area 10, which includes Manatee County. The construction cost estimate is included in **Table 26**. A high percentage of project unknowns is appropriate at this conceptual stage but will be reduced as the concept is further refined in the design phase.

Table 26: Recommended Alternative Construction Cost Estimate

Item		Cost
Structures		-
Roadway and Drainage	$	10,376,364
Signing & Pavement Markings	$	97,686
Lighting	$	1,306,230
Signalization	$	1,500,000
Landscape	$	2,100,000
MOT (10%)	$	1,538,028
Mobilization (10%)	$	1,691,831
Project Unknowns (50%)	$	9,305,069
Initial Contingency	$	84,792
Construction Cost Total (2021 Cost)	**$**	**28,000,000**

The estimated total project costs of the recommended alternative are shown in **Table 27**. Professional Services and ROW costs used in this analysis are approximate. Actual ROW values will be determined during the appraisal phase of the project.

Table 27: Recommended Alternative Cost Estimate

Item		Cost
Professional Services (Engineering, Legal, CEI = 27%)	$	7,600,000
Wetland Mitigation	$	-
ROW costs	$	8,600,000
Construction Costs	$	28,000,000
Estimated Total Project Costs (2021 Cost)	**$**	**44,200,000**

6.0 Summary of Permits and Mitigation

This section summarizes the permits and mitigation needed for this project alternative.

6.1 Stormwater

SWFWMD requires an ERP when construction of any project results in the creation of a new or modification of an existing surface water management system or results in impacts to waters of the state. There is no existing ERP for 59th Street within the project limits. Under current state rules, SWFWMD will require an Individual ERP. Pre-application meeting minutes are included in **Appendix F.** A FDOT drainage connection permit is also anticipated for runoff to Cortez Road and Manatee Avenue. The FDOT permit requires no adverse impacts to the FDOT drainage system.

6.2 Natural Resources

Both the Florida Department of Environmental Protection (FDEP) and SWFWMD regulate impacts to wetlands within the project area. Other agencies, including the United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Environmental Protection Agency (EPA), and the Florida Fish and Wildlife Conservation Commission (FWC), review and comment on wetland permit applications. If needed, wetland mitigation credits are available from the Long Bar Pointe or Manatee Mitigation Banks.

Manatee County will need to perform updated wildlife surveys during the project Design phase to ascertain the involvement, if any, of listed species. If needed, the FWC issues permit for gopher tortoise relocation activities and incidental takes for state protected avian species and the USFWS is the lead agency for eagle nest take permitting or coordination.

6.3 Cultural Resources

Based on a review of the Florida Master Site File, there are no currently listed National Register of Historic Places within the APE boundaries of the study roadway. There are 144 structures within the APE that are at or near historic age and should be evaluated for eligibility during the design phase. These findings should be coordinated with SHPO for concurrence.

6.4 Potential Contamination

Based on available information, there are two medium risk sites adjacent to the project limits with existing groundwater plumes:

- 5904 Cortez Rd West Bradenton, Fl, 34210-2705 – Amoco Gas Station – LST/ UST
- 5818 Manatee Avenue West Bradenton, FL, 34209-2541 – Westway Services LLC – LST/UST

Further assessment/review for contamination may be warranted if underground work is proposed near the above sites. Any dewatering operations must obtain a National Pollutant Discharge Elimination System (NPDES) Generic Permit for Discharge of Groundwater. Dewatering operations in areas identified with contamination issues require treatment of effluent to limits and requirements specified in the NPDES Generic Permit.

Appendices

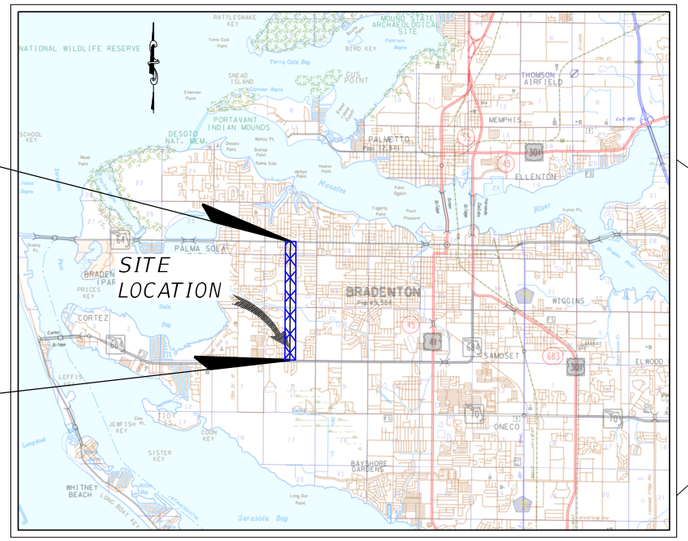
Appendix A –
Recommended Alternative Concept Plans

CONCEPT PLANS
FOR
59TH STREET WEST

FROM CORTEZ ROAD (SR 684) TO MANATEE AVENUE (SR 64)

MANATEE COUNTY PROJECT # 6108360

Manatee County FLORIDA



PROJECT VICINITY MAP
N.T.S.

PROJECT TEAM:

OWNER:
MANATEE COUNTY
1022 26TH AVE. E.
BRADENTON, FL 34206
CONTACT: ERIC SHROYER, P.E.
941-708-7450 ext. 7344

ENGINEER:
KIMLEY-HORN AND ASSOCIATES, INC.
1777 MAIN STREET, SUITE 200
SARASOTA, FL 34236
CONTACT: CRIS SCHOOLEY, P.E.
941-379-7600

INDEX OF CONCEPT PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2 - 6	DRAINAGE MAP
7	TYPICAL SECTION 59TH STREET WEST
8 - 26	RECOMMENDED ALTERNATIVE

OCTOBER 14, 2021
NOT FOR CONSTRUCTION

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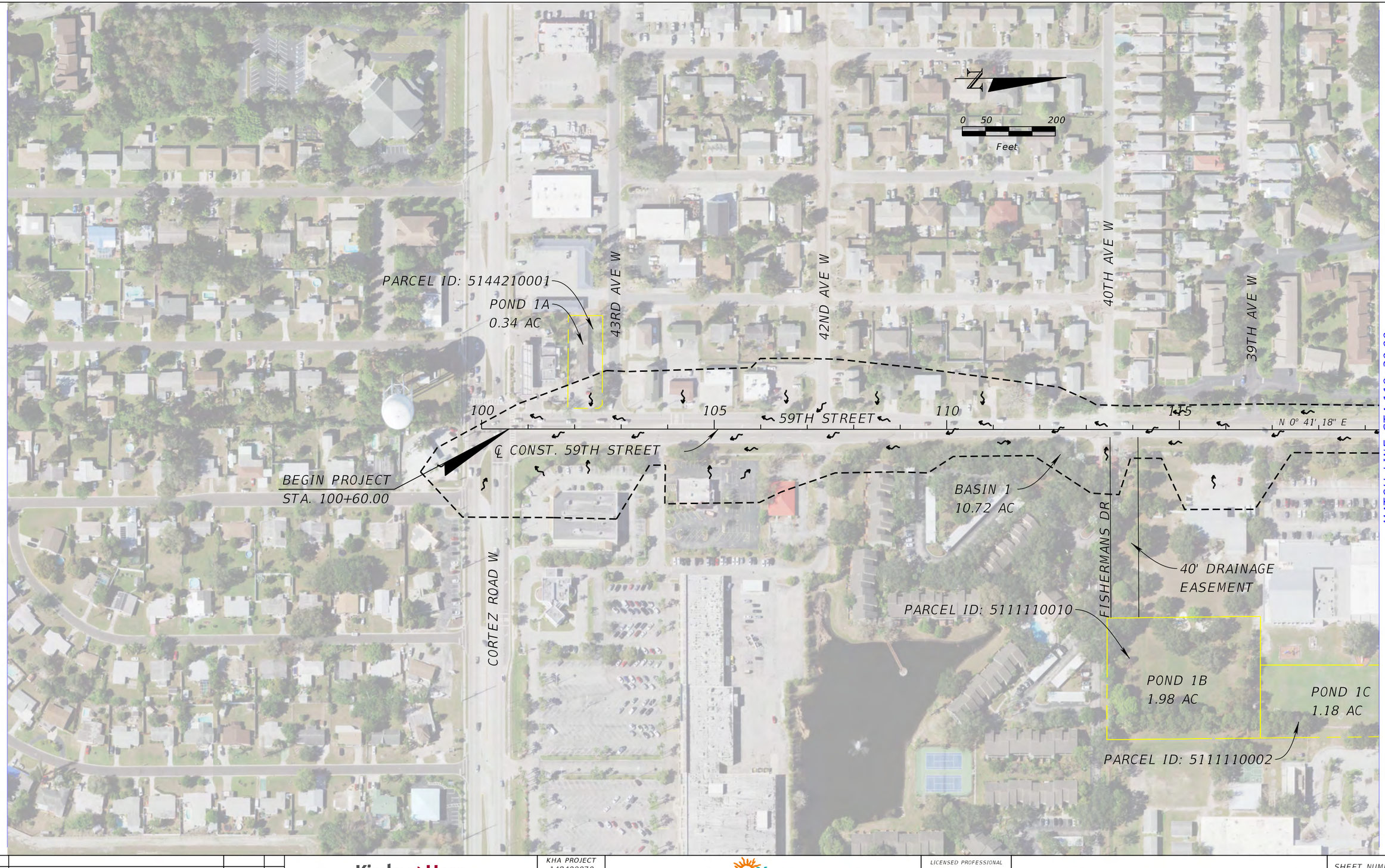
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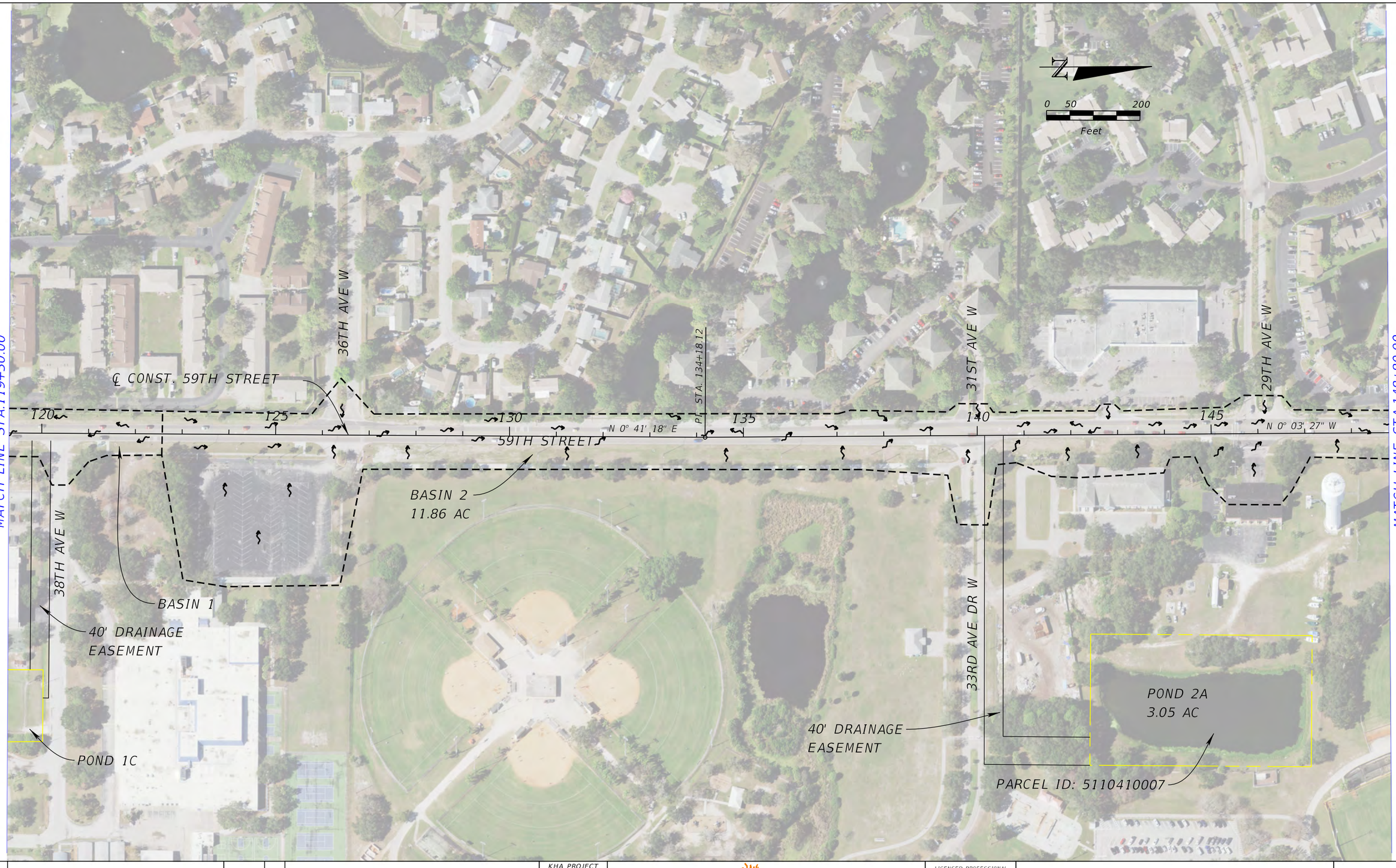
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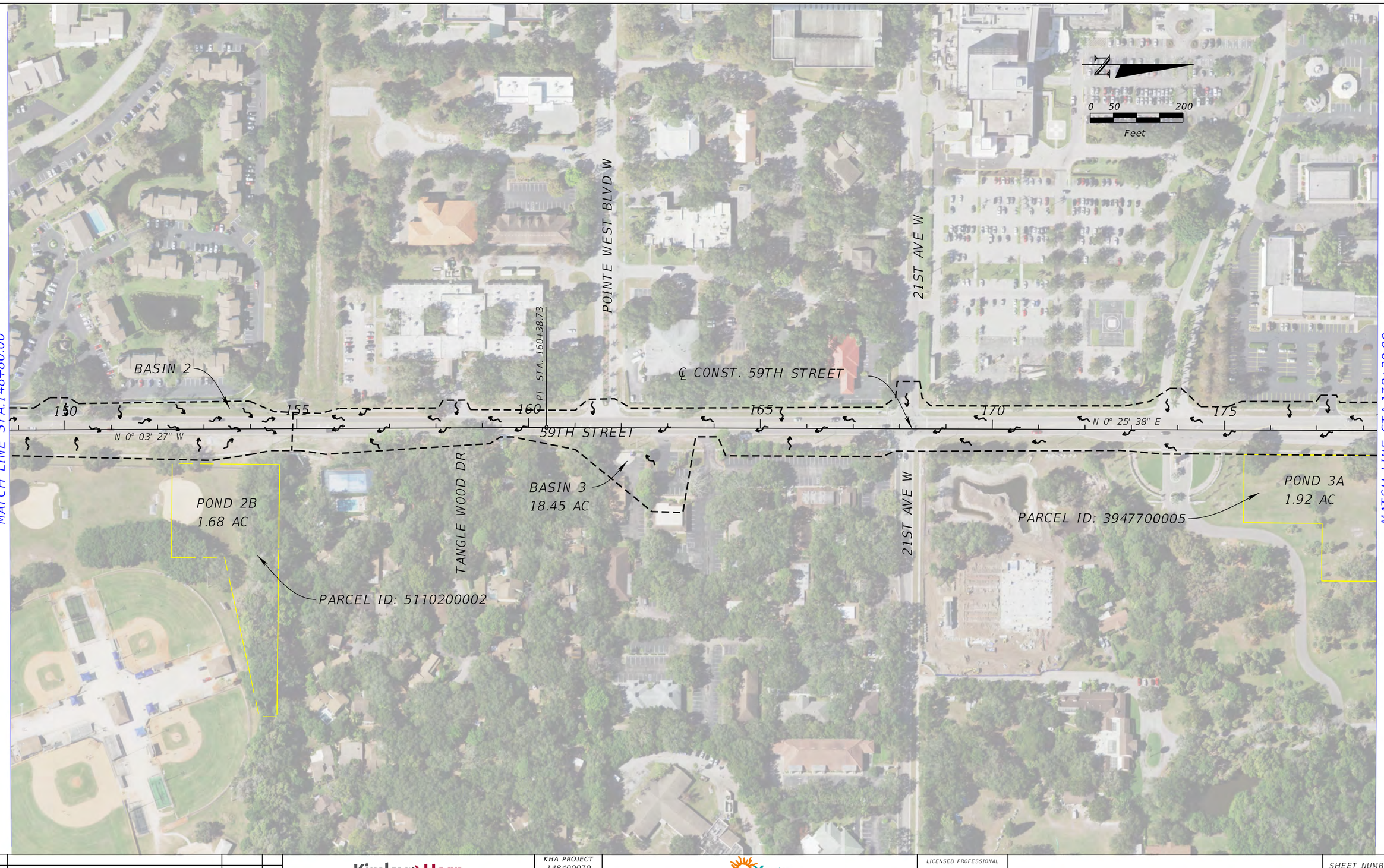
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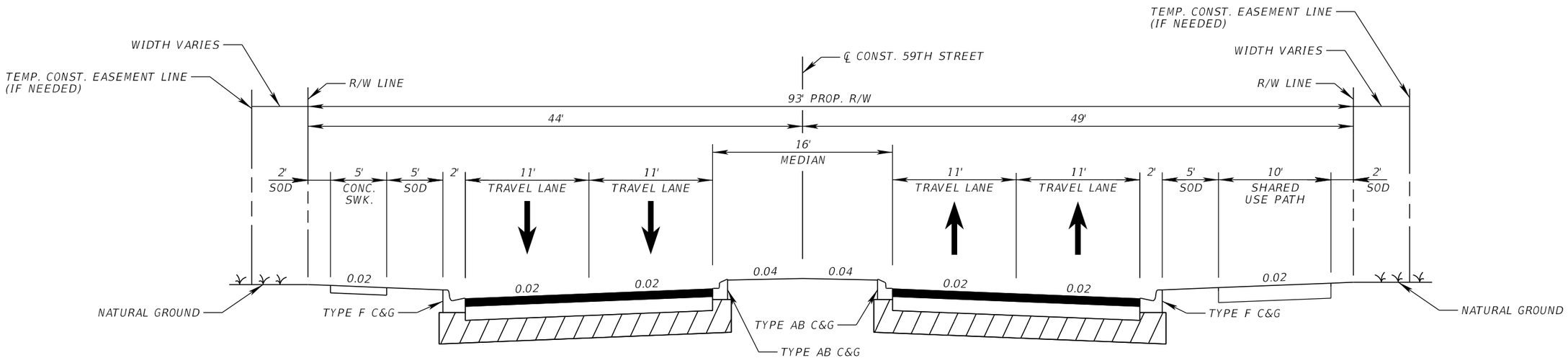
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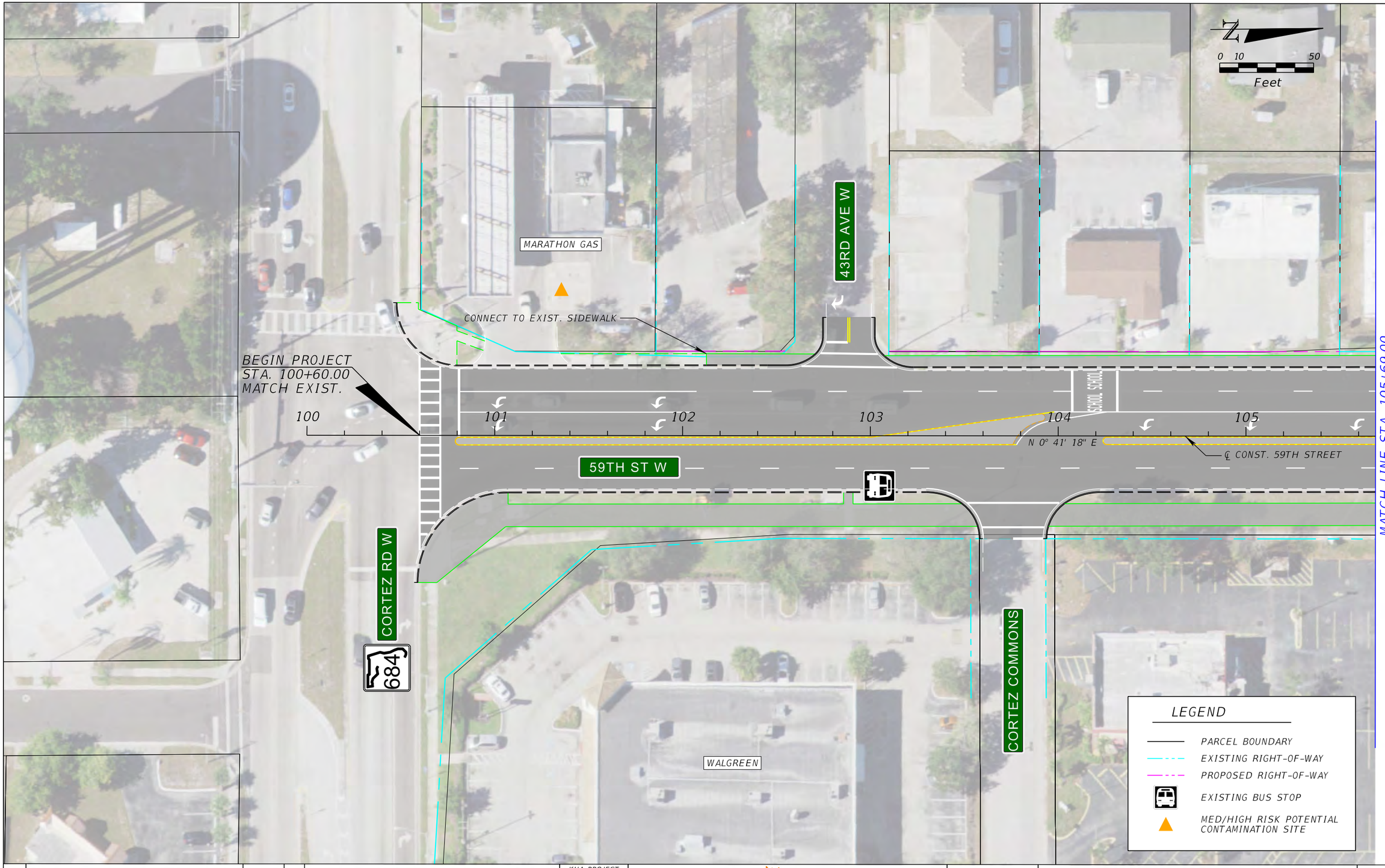
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TYPICAL SECTION 59TH STREET WEST

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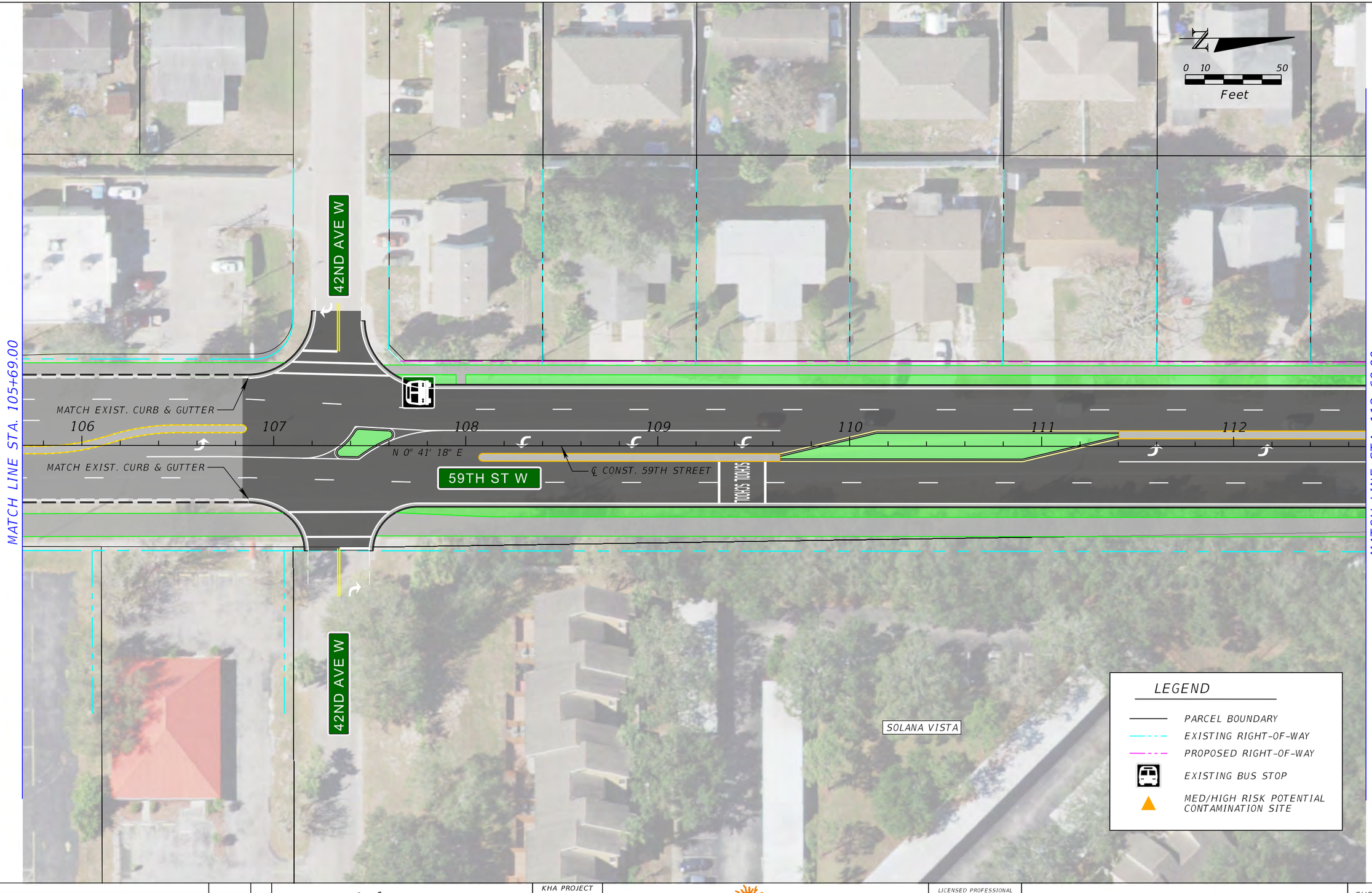
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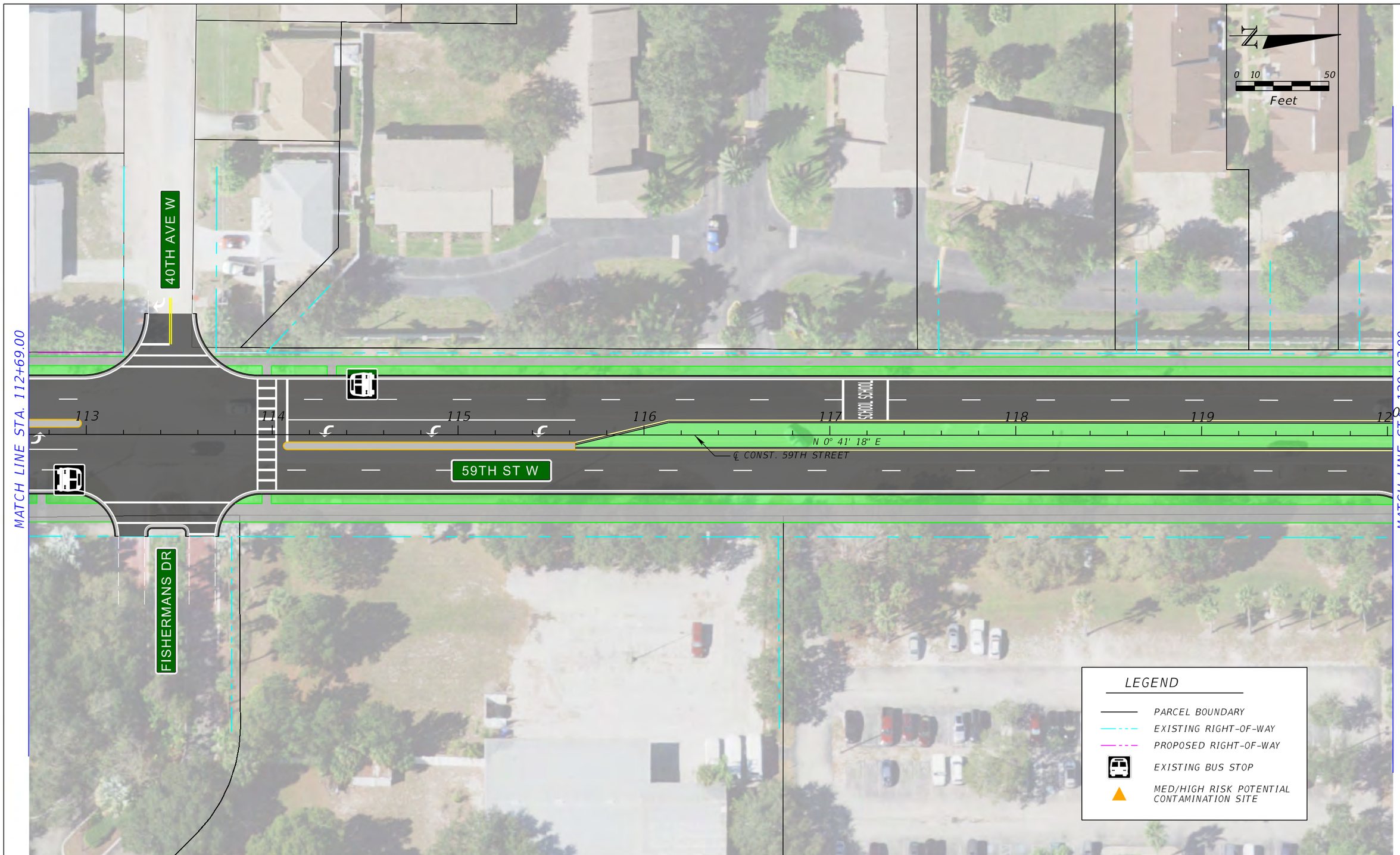
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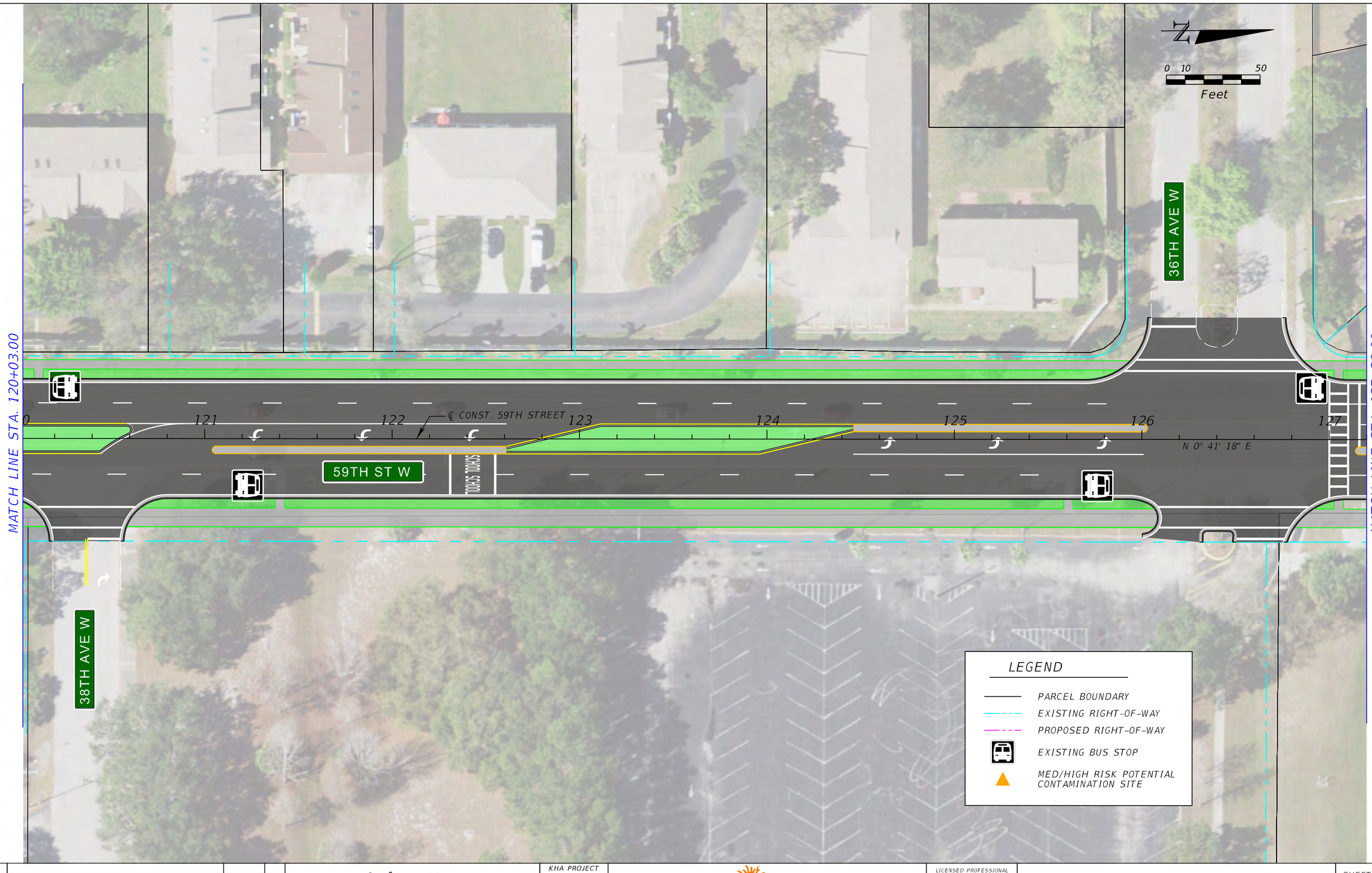
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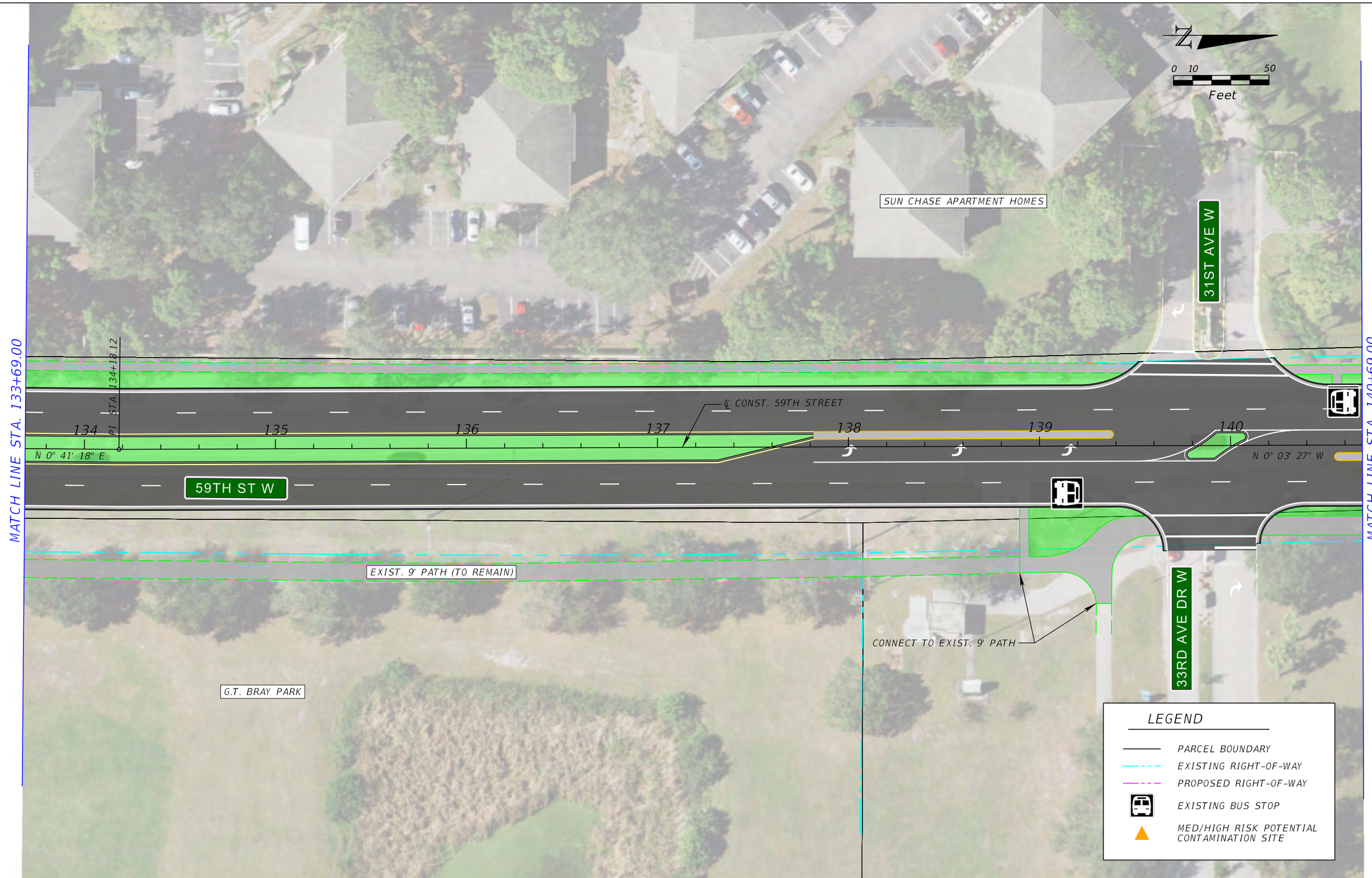
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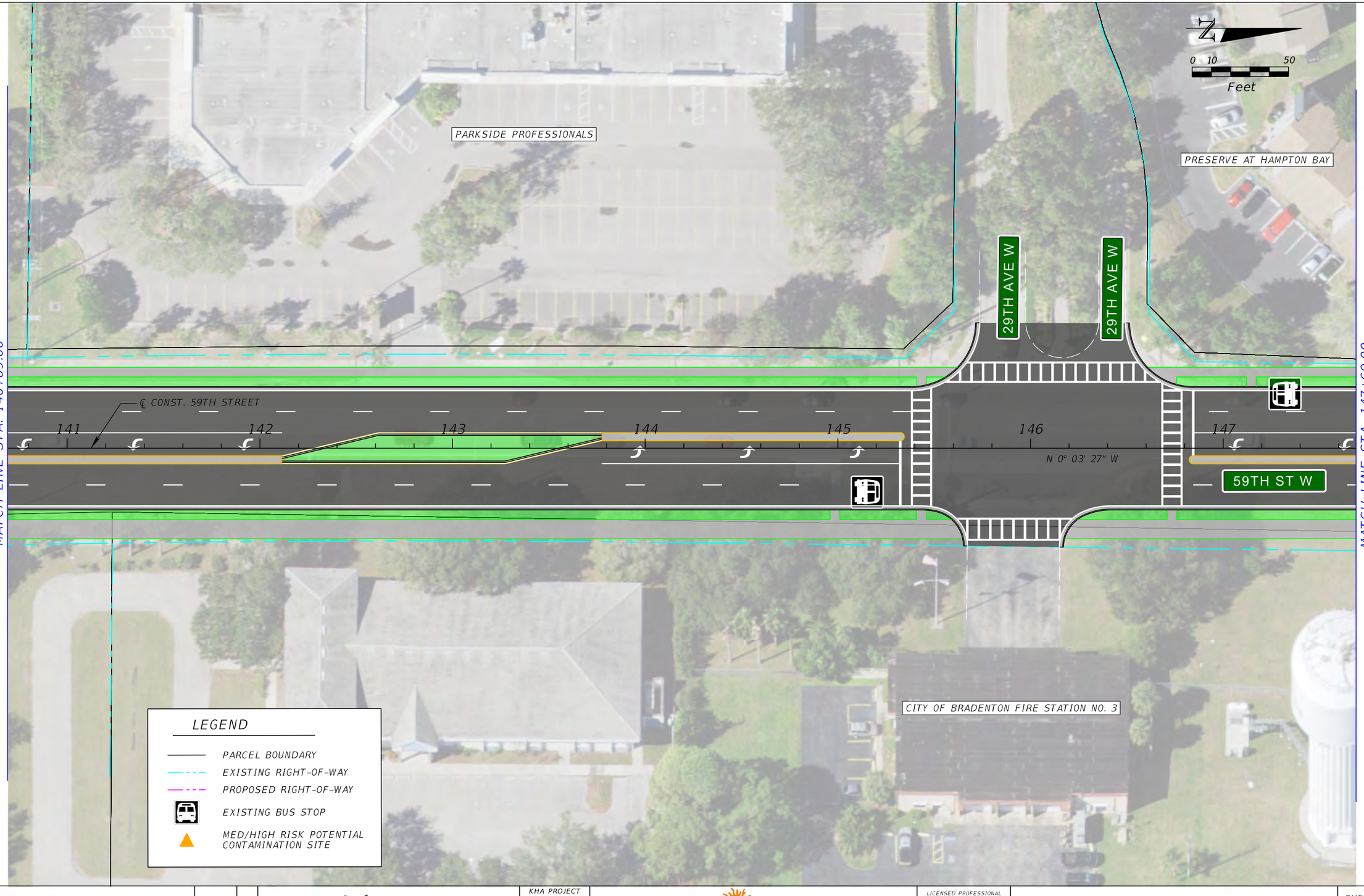
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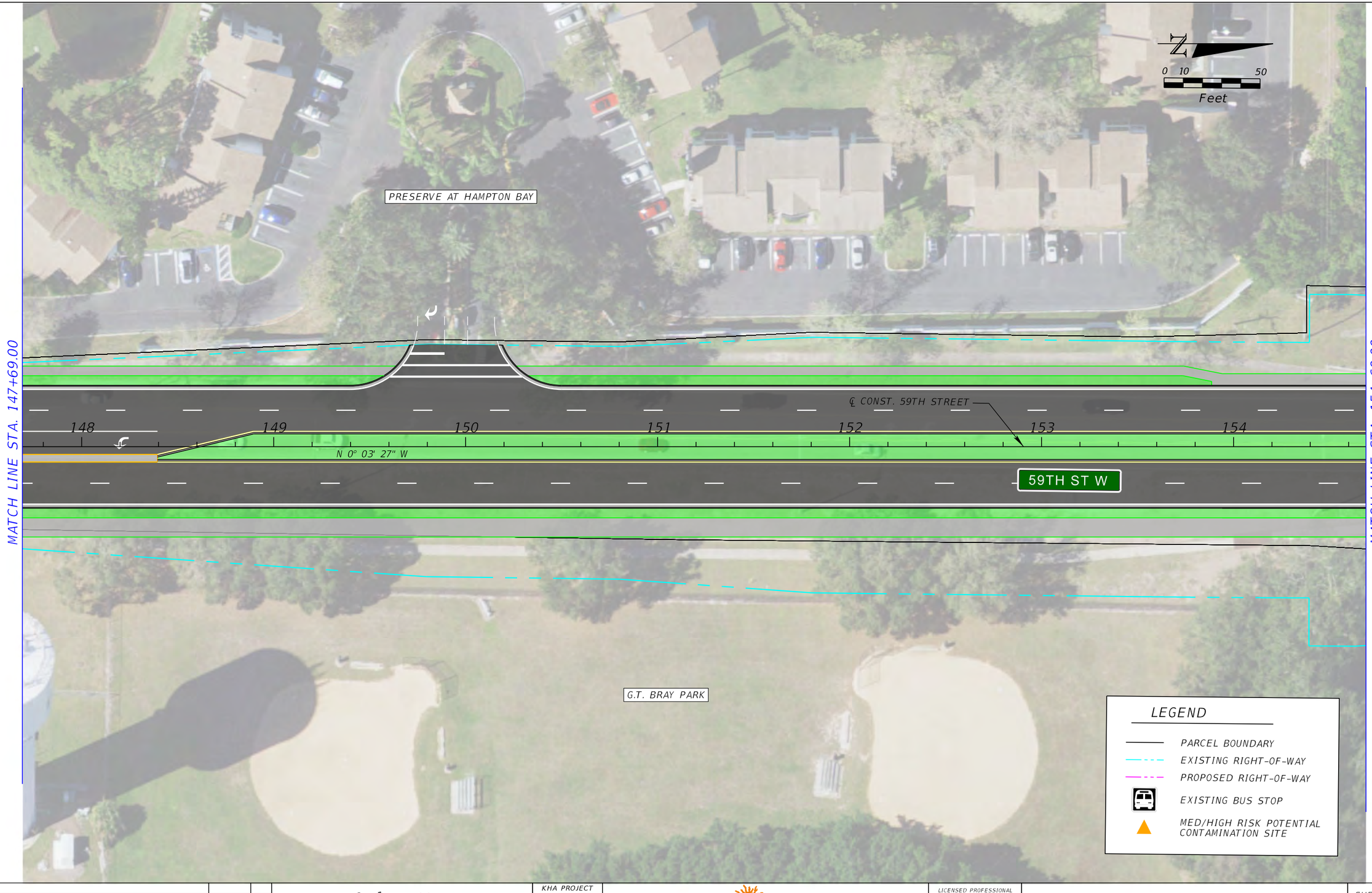
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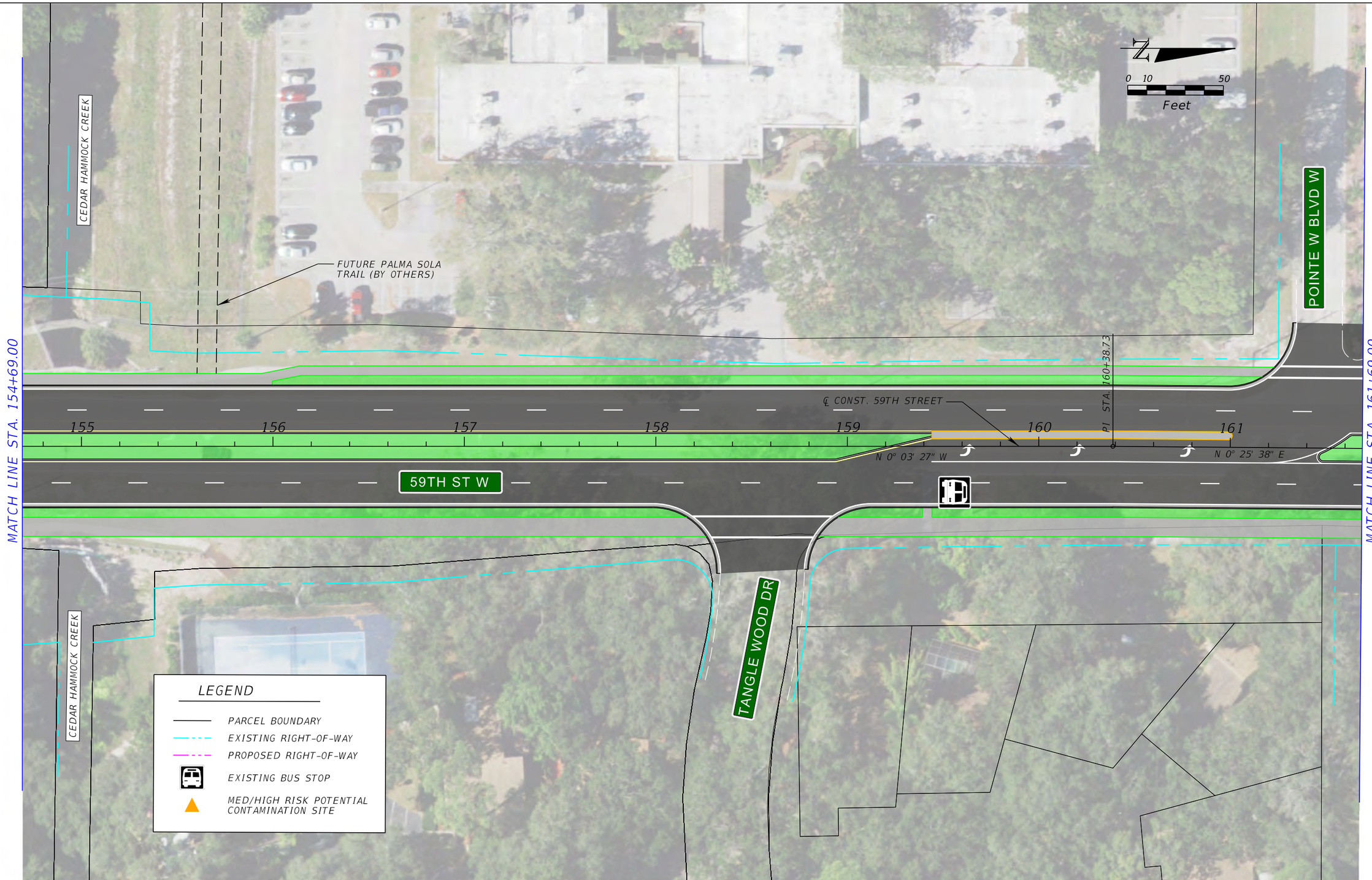
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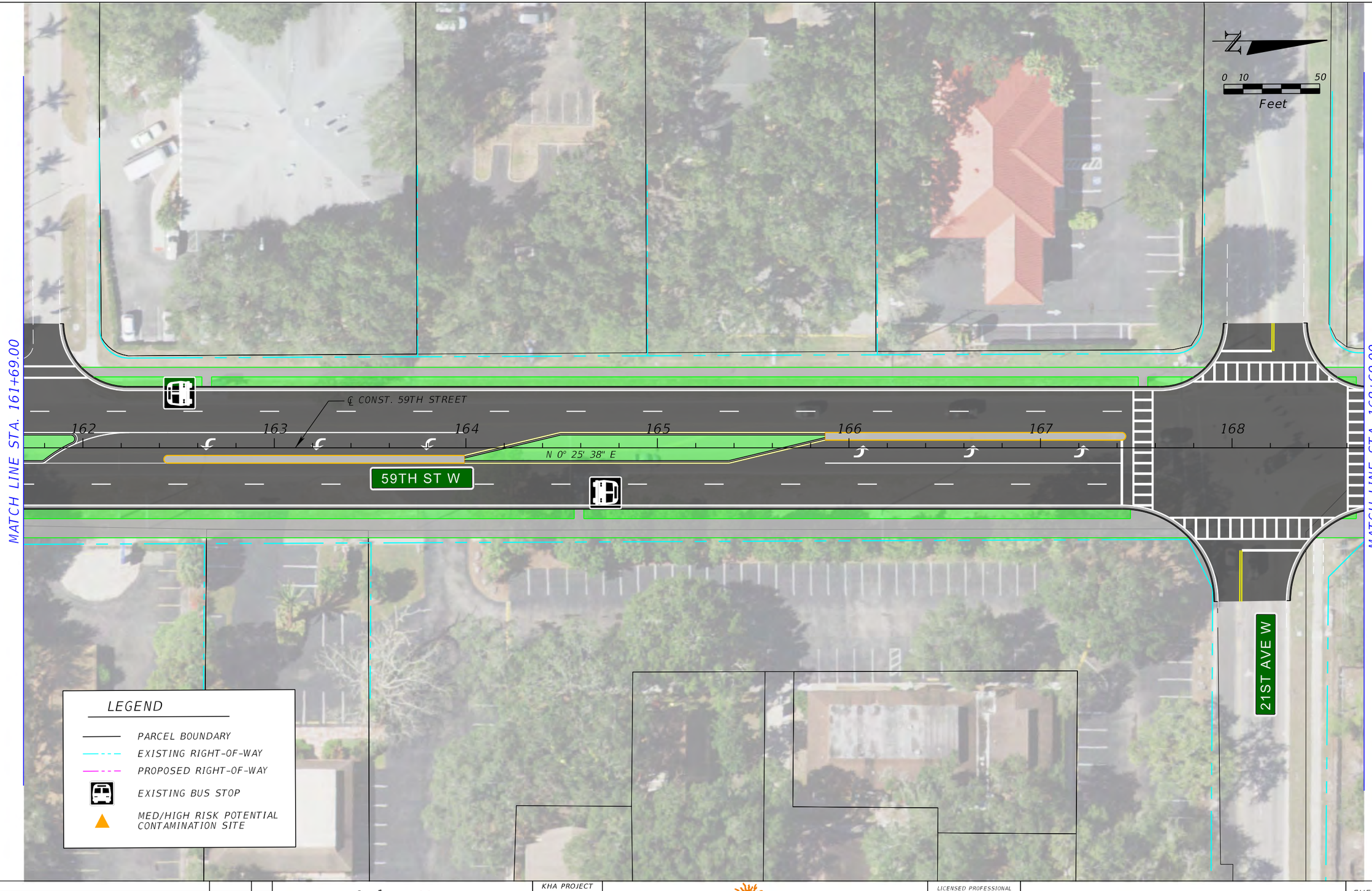
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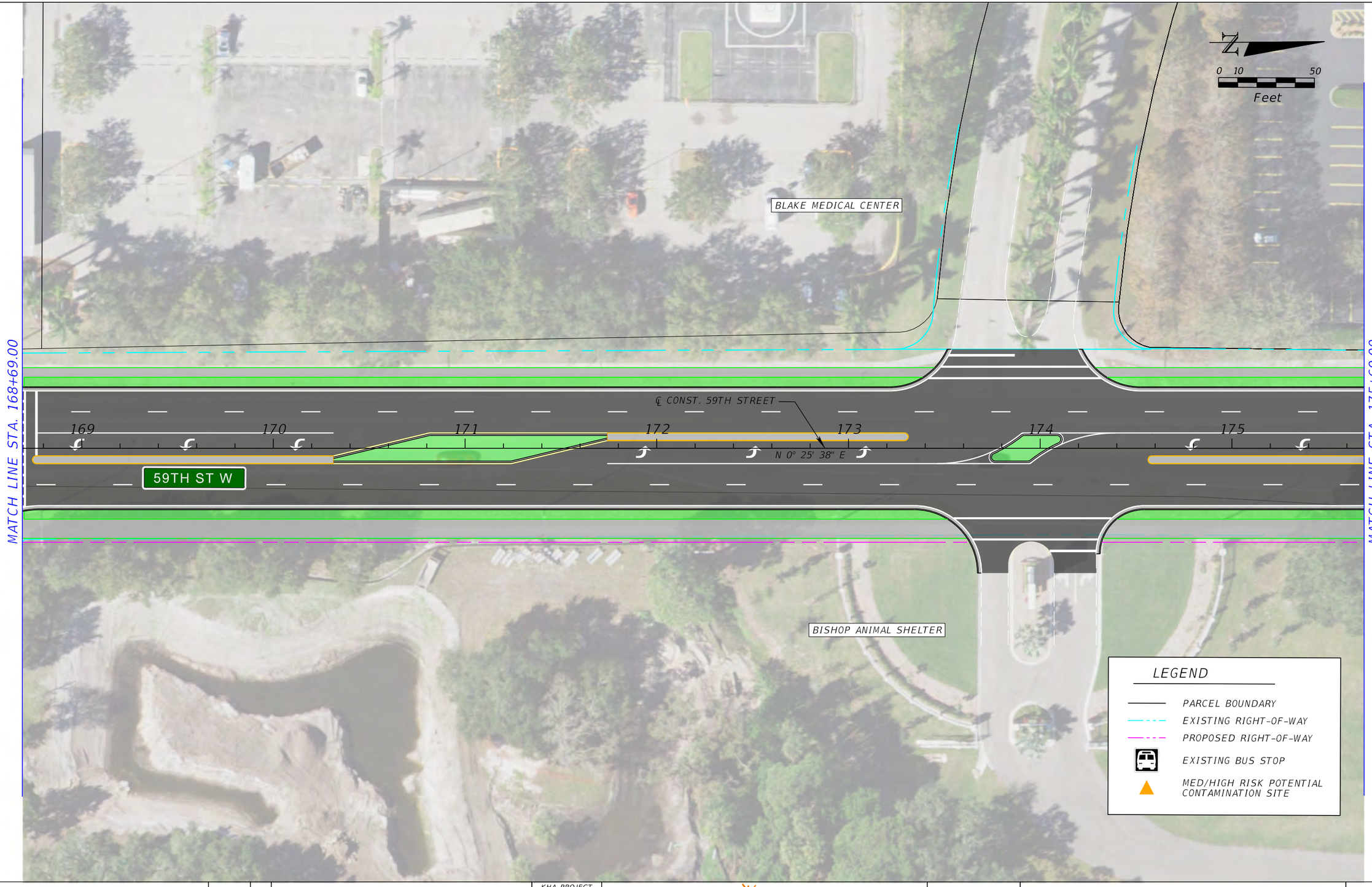
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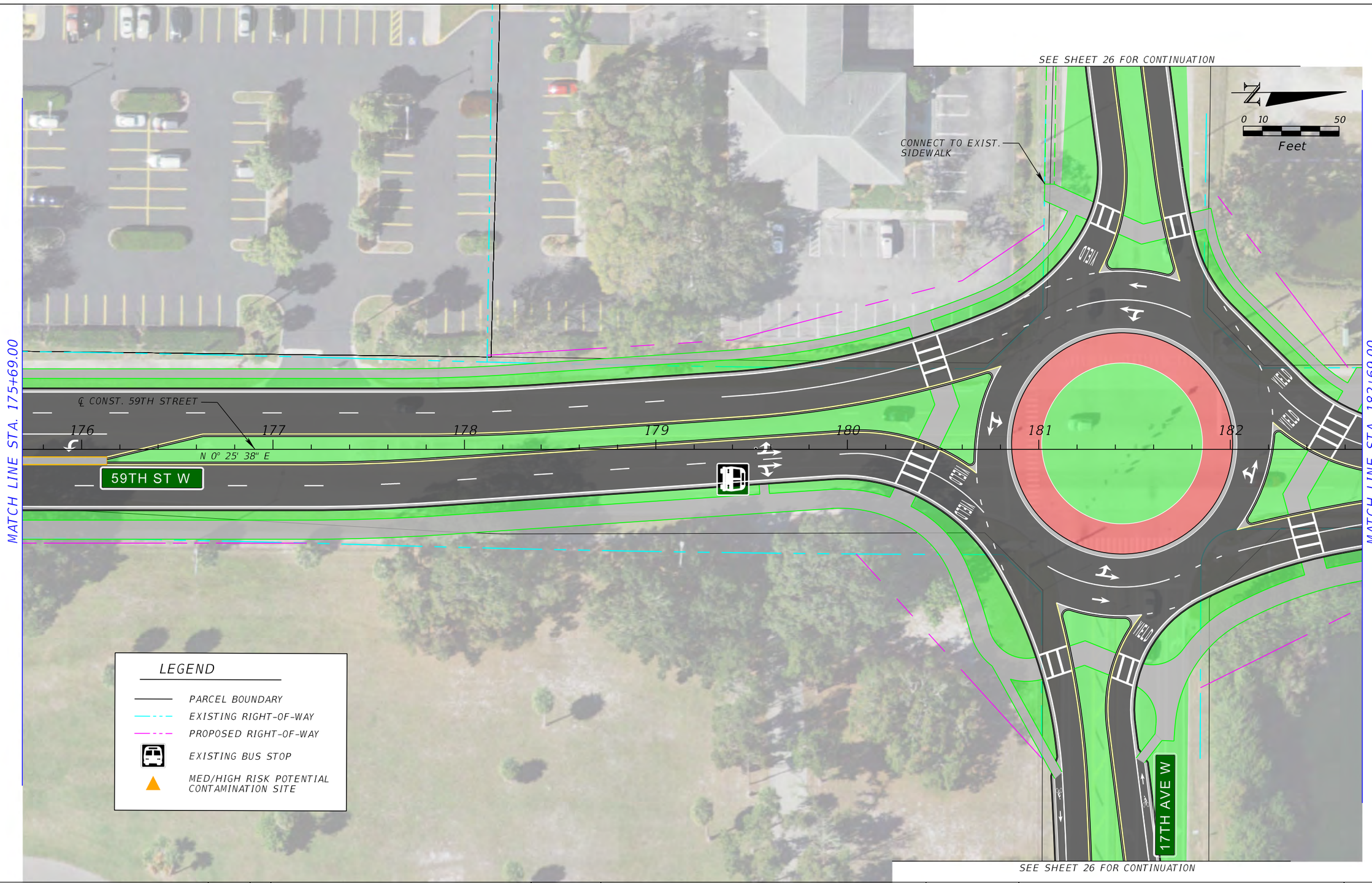
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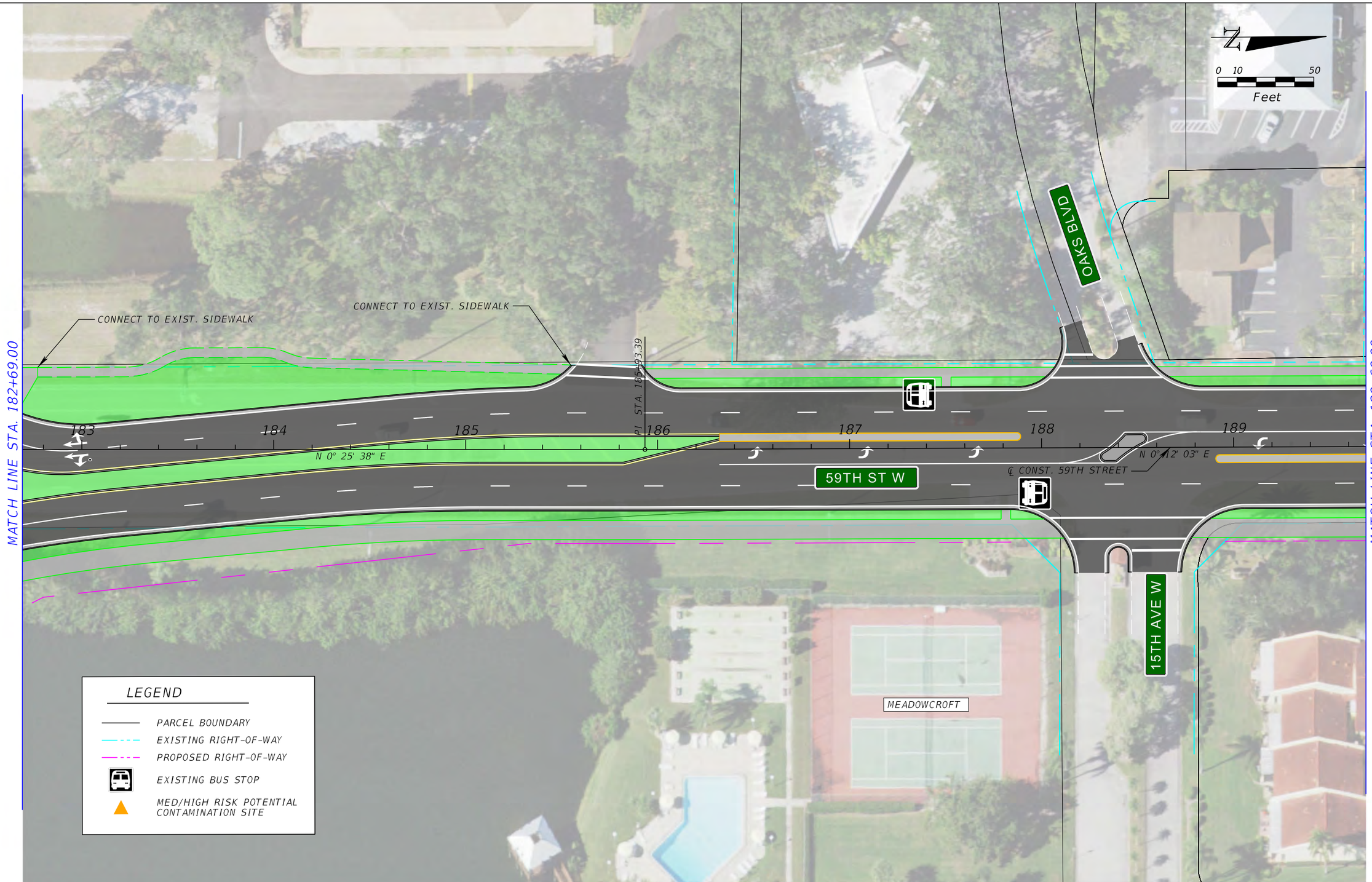
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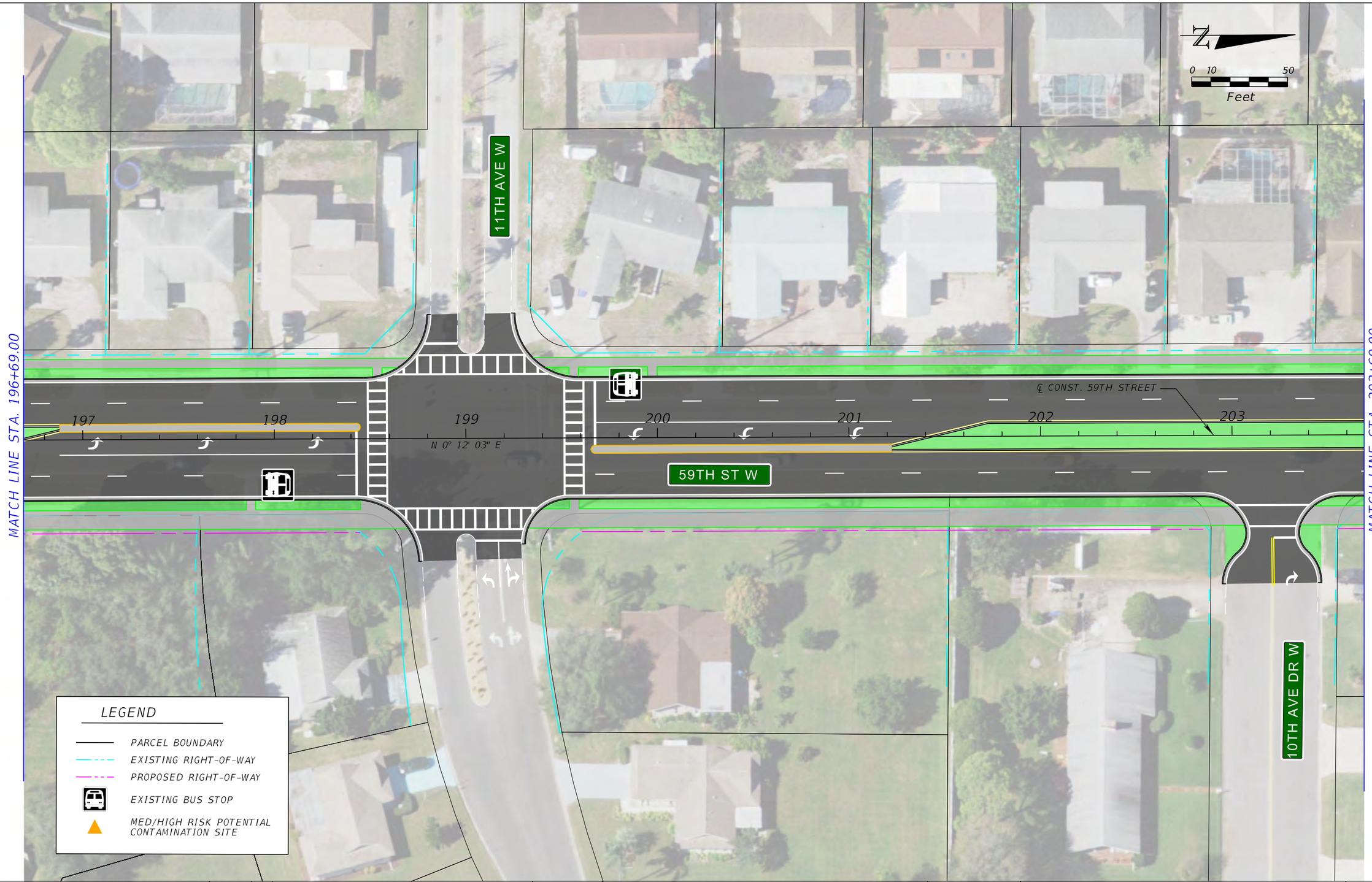
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MATCH LINE STA. 210+69.00

8TH AVE DR W

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Feet

FULL PARCEL TAKE
DUE TO SUBSTANDARD SETBACK
5818 10TH AVENUE DR W
BRADENTON FL 34209-3623
PARCEL NO. 3818800009

FULL PARCEL TAKE
DUE TO SUBSTANDARD SETBACK
5817 9TH AVENUE DR W
BRADENTON FL 34209-3614
PARCEL NO. 3816100006

9TH AVE DR W

FULL PARCEL TAKE
DUE TO SUBSTANDARD SETBACK
5818 9TH AVENUE DR W
BRADENTON FL 34209-3615
PARCEL NO. 3816000008

FULL PARCEL TAKE
DUE TO SUBSTANDARD SETBACK
5817 8TH AVENUE DR W
BRADENTON FL 34209-3607
PARCEL NO. 3813600008

8TH AVE DR W

LEGEND

- PARCEL BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- EXISTING BUS STOP
- MED/HIGH RISK POTENTIAL CONTAMINATION SITE

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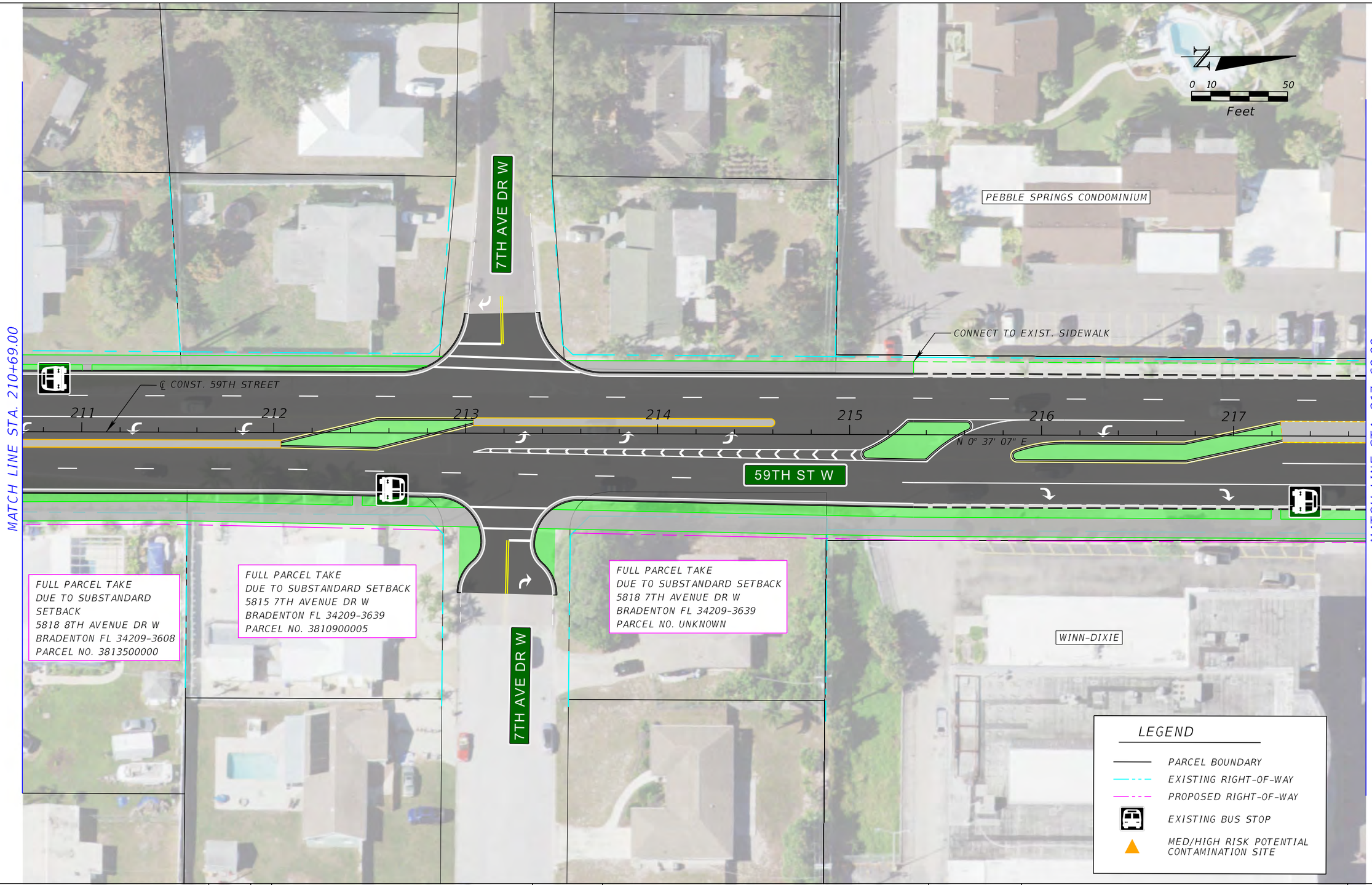
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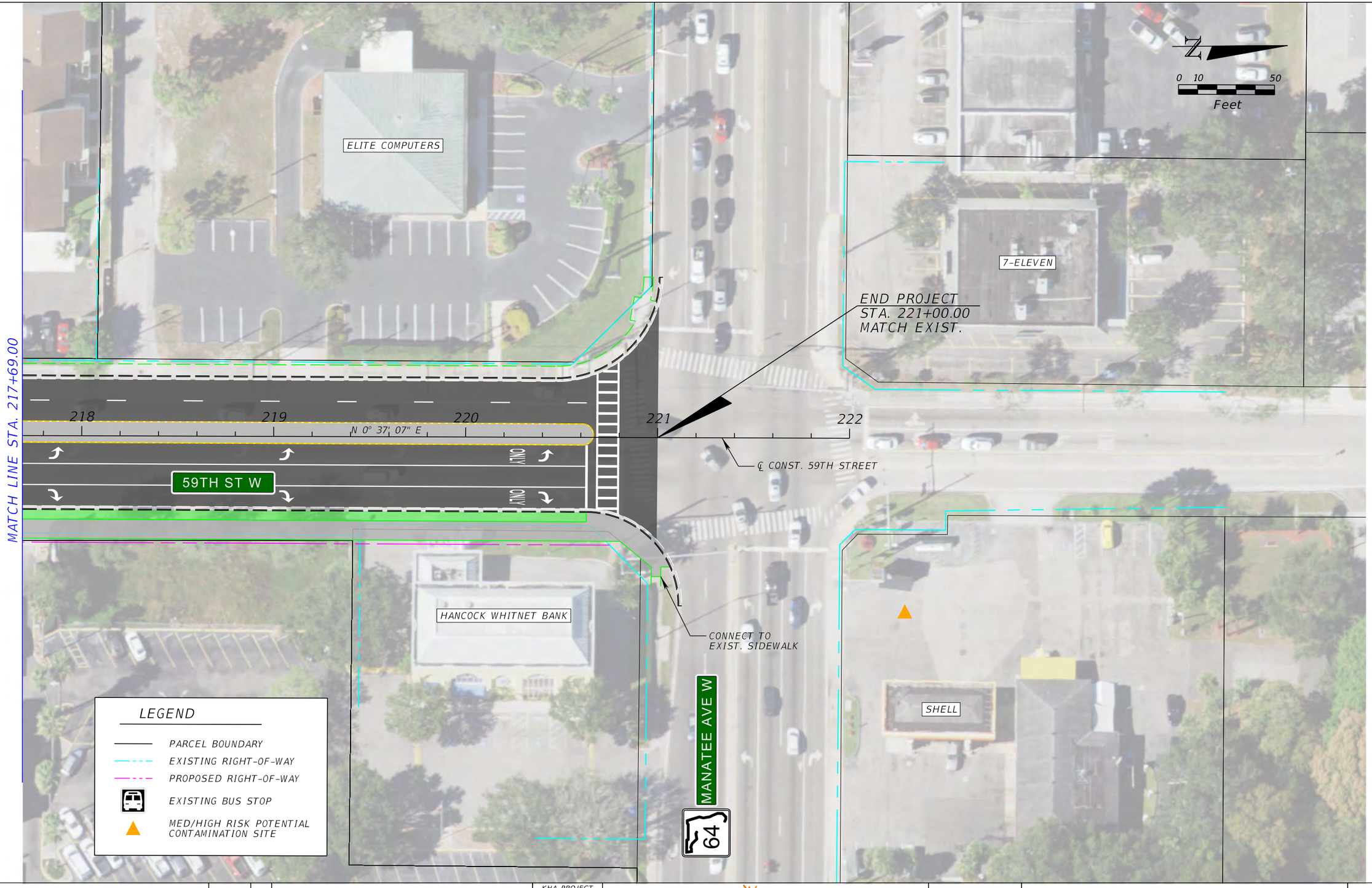
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17TH AVENUE W

17TH AVE W

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17TH AVENUE W

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59TH ST W

℄ CONST. 59TH STREET

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Feet

LEGEND

PARCEL BOUNDARY

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

EXISTING BUS STOP

MED/HIGH RISK POTENTIAL CONTAMINATION SITE

17TH AVE W DETAIL SHEET

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Appendix B –
Design Traffic Memorandum



Design Traffic Memorandum

59th Street West – Cortez Rd to Manatee Avenue

CIP #: 6108360

REVISION ONE December 1, 2021

Manatee County FLORIDA

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1.0 Introduction

Manatee County is conducting a Project Development & Corridor Study to evaluate a 2.3-mile segment of 59th Street West (59th Street) from Cortez Road/State Road (SR) 684 to Manatee Avenue/SR 64. The project limits are partially within the City of Bradenton and unincorporated Manatee County, Florida, as shown in **Figure 1**. The study will evaluate options for widening the existing 2-lane roadway to a 4-lane roadway with a center left turn lane and/or median in addition to providing an enhanced mobility experience for all users.

As a part of the Project Development and Corridor Study, this Design Traffic Memorandum (DTM) is provided to describe the existing corridor characteristics and existing traffic level of service (LOS) as well as to detail the methodologies employed to forecast future traffic demand, report the results of traffic projections, and evaluate the anticipated performance of the 59th Street corridor in the future. The DTM includes an analysis of the anticipated operational performance of the 59th Street Corridor under future No Build (no improvements to the study corridor) and future Build scenarios for Opening Year 2025 and Design Year 2045.

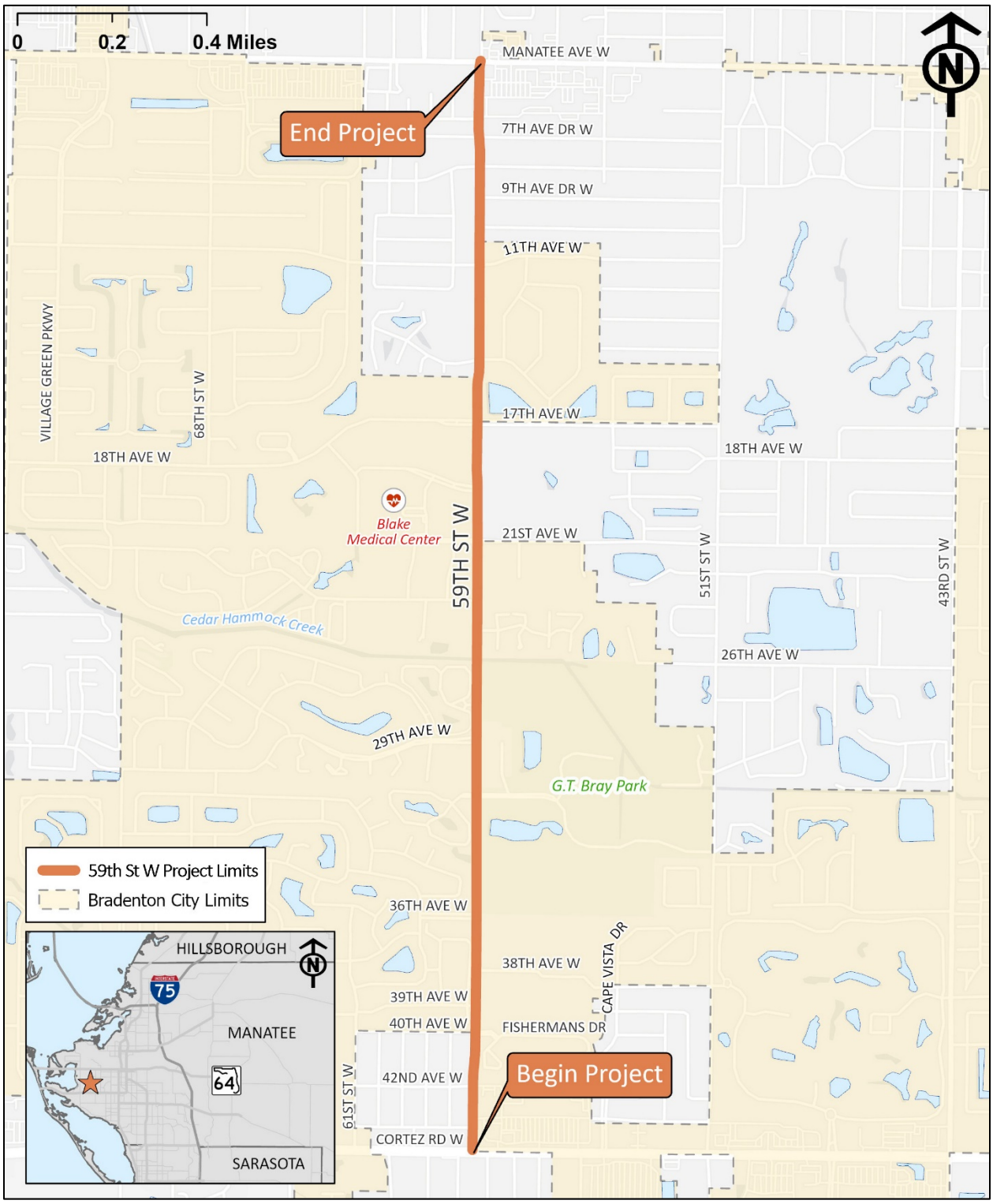
1.1 Memo Purpose

The purpose of this Design Traffic Memo is to document the existing traffic data, safety evaluation, future traffic analysis, and the recommended intersection control and geometry.

Based on anticipated deficiencies in the No Build scenario, potential corridor improvements are needed to improve safety and increase capacity along the corridor. In addition to the roadway segment capacity analysis, six major intersections along the corridor (Cortez Road, 29th Avenue, 21st Avenue, 17th Avenue, 11th Avenue, Manatee Avenue) were evaluated based on their crash history and operational performance. Operational analyses for the 59th Street study corridor are conducted for the following scenarios:

- Existing Conditions (2021): 2021 traffic volumes on the existing roadway network.
- Future No Build (2025): Projected future traffic volumes on the existing roadway network.
- Future Build (2025): Projected future traffic volumes on an improved roadway network. Improvements consist of widening 59th Street to a four-lane divided facility with two northbound lanes and two southbound lanes.
- Future No Build (2045): Projected future traffic volumes on the existing roadway network.
- Future Build (2045): Projected future traffic volumes on an improved roadway network. Improvements consist of widening 59th Street to a four-lane divided facility with two northbound lanes and two southbound lanes.

Figure 1: Project Location Map



2.0 Existing Traffic

2.1 Corridor Characteristics Roadway Geometry

2.1.1 Cross Section Elements

The majority of the 59th Street study corridor features two vehicular travel lanes and a two-way left-turn (TWLT) lane median. The corridor features four vehicular travel lanes (two in each direction) and raised medians from Cortez Road to 42nd Avenue West (approximately 700 feet), from approximately 600 feet south of 17th Avenue to approximately 600 feet north of 17th Avenue, and from 7th Avenue Drive West to Manatee Avenue (approximately 700 feet). The typical section does not feature paved shoulders.

Approximately 20% of the study corridor features curb and gutter on both sides of 59th Street, 40% features curb and gutter on one side, and 40% does not feature curb and gutter on either side of 59th Street.

2.1.2 Horizontal and Vertical Elements

The 59th Street study corridor does not feature any significant horizontal or vertical curves within the study limits.

2.1.3 Intersection Configurations

Figure 2 and **Figure 3** illustrate the existing lane configurations for the six signalized intersections along the 59th Street study corridor.

2.1.4 Speed Limit

The posted speed limit along the 59th Street study corridor is 40 miles per hour (MPH).

The marked and signed school zone for H.S. Moody Elementary School and W.D. Sugg Middle School on 59th Street starts approximately 390 feet south of 36th Avenue and terminates north of 39th Avenue. The school zone has a posted speed limit of 20 MPH and is active from 7:20 AM to 9:50 AM and from 2:45 PM to 4:40 PM.

Figure 2: Intersection Configuration (Cortez Rd W to Pointe West Blvd W)

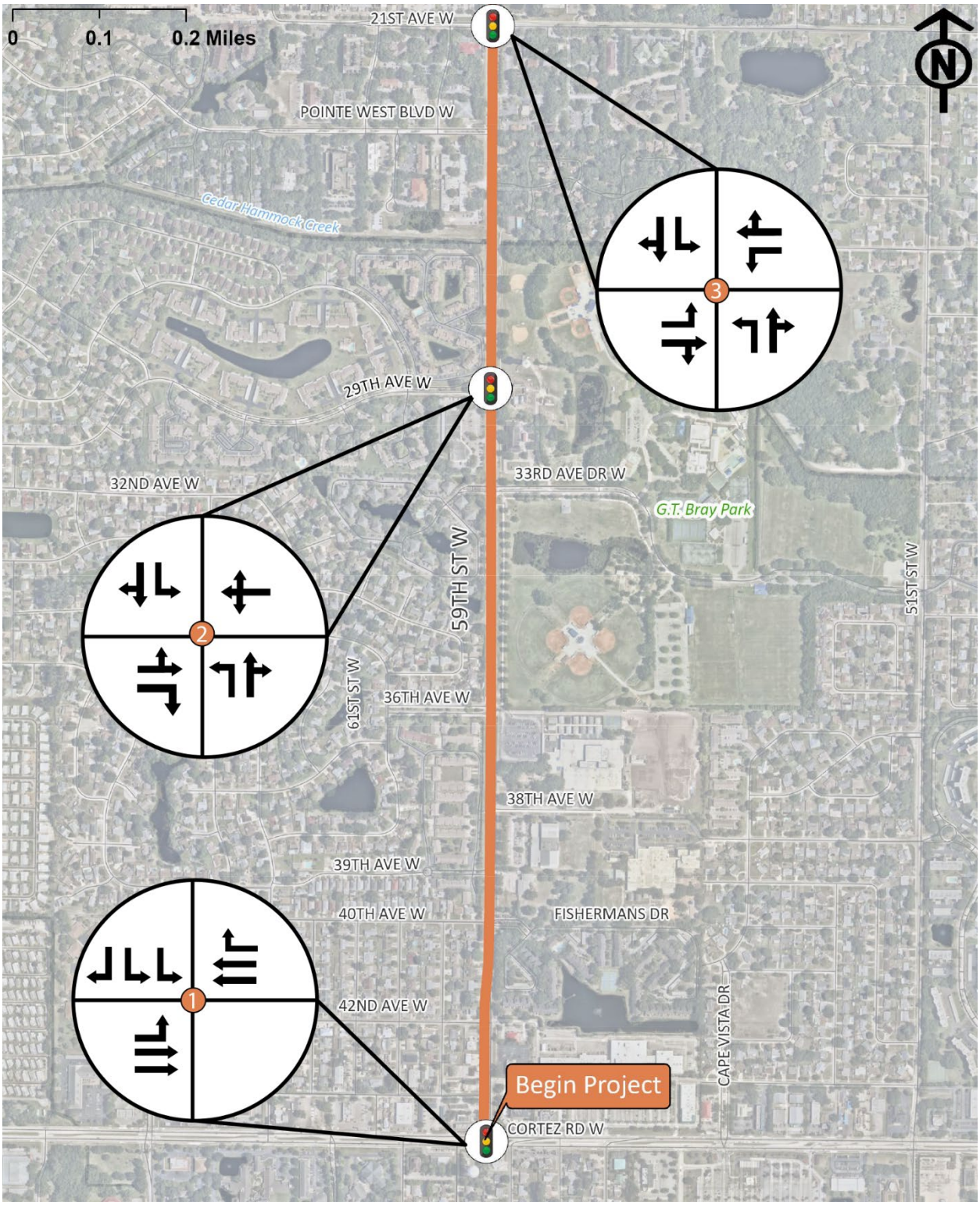
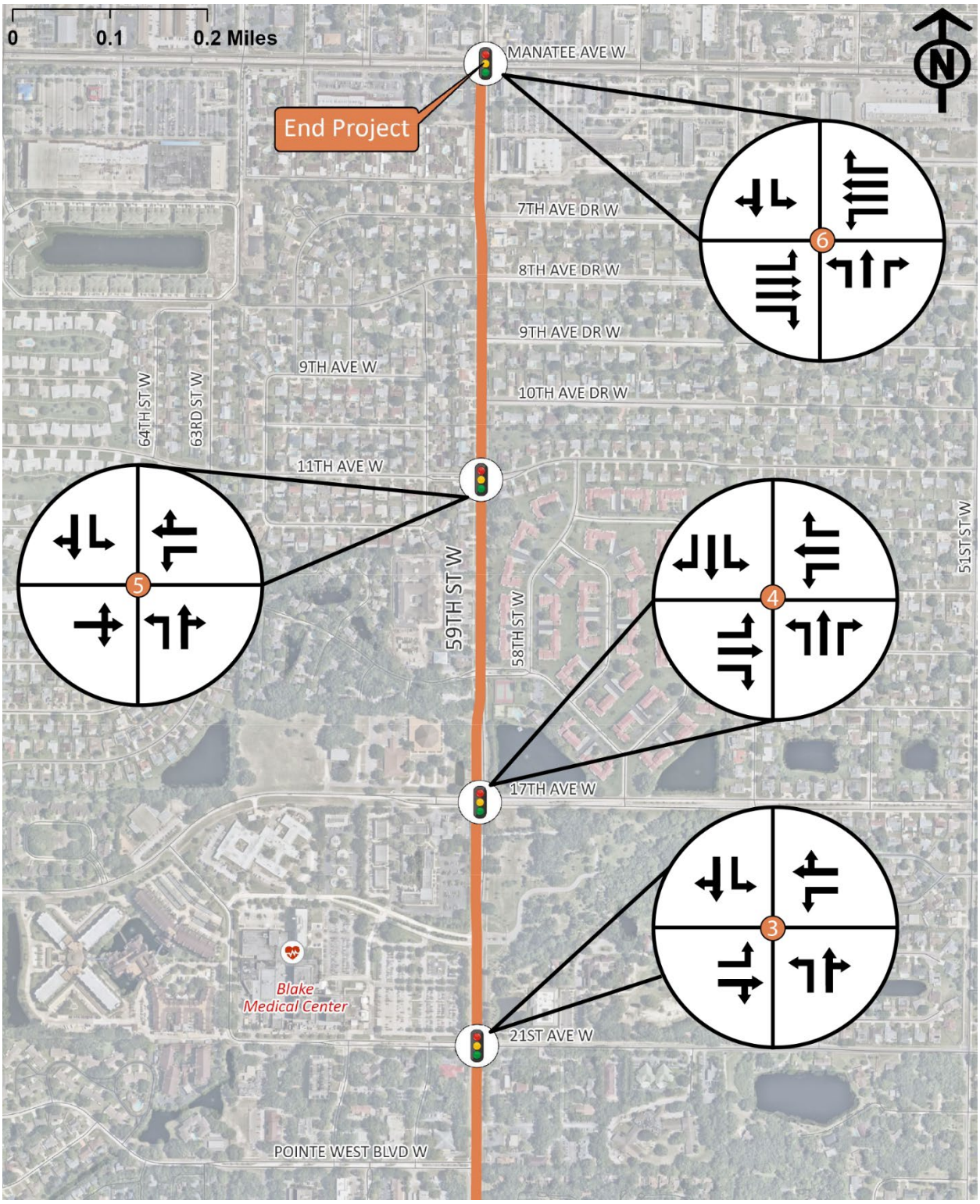


Figure 3: Intersection Configurations (Pointe West Blvd W to Manatee Ave)



2.2 Existing Traffic Analysis

2.2.1 Manatee County LOS Standards

The Manatee County adopted LOS for 59th Street study corridor is LOS D.

2.2.2 Segment Volumes

Annual Average Daily Traffic (AADT) volumes for the study corridor were gathered from Manatee County's online Traffic Counts Geographic Information System (GIS) application. A historical growth rate of 1.04%, based on historical AADT volumes, was used to grow 2019 AADT volumes to the existing year (2021) for existing conditions analyses. Year 2020 AADT volumes were significantly less than the previous year due to the COVID-19 pandemic causing abnormal traffic patterns on roadways and were therefore disregarded from historical growth calculations. The AADT volumes for 59th Street are summarized in **Table 1.**

Table 1: Existing AADT Volumes and 2021 Estimates

Count Station No.	Location	2019 AADT	2020 AADT	2021 AADT (Estimate)
MCTE 01-09	200 ft North of Cortez Rd	17,663	14,851	18,000
MCTE 01-43	200 ft South of 17th Ave	16,222	14,884	16,500
MCTE 01-11	200 ft South of Manatee Ave	16,224	14,991	16,500

2.2.3 Turning Movement Counts

Historical turning movement counts (TMCs) were provided by Manatee County for the signalized intersections along the 59th Street study corridor. TMC data is provided in **Attachment A**. The data collected was adjusted using seasonal factors from the FDOT 2019 Peak Season Category Factor Report for Manatee County. The application of seasonal factors is illustrated in the volume development worksheets provided in **Attachment B**

2.2.4 Segment Analysis

The 59th Street study corridor is comprised of four study segments based on Table 5-1 in Manatee County's latest Comprehensive Plan. Segment performance was analyzed using service capacities from the FDOT Quality/Level of Service (Q/LOS) Handbook (2020).

The LOS results of the existing (2021) daily conditions segment analysis are shown in **Table 2**. The southern segment of 59th Street from Cortez Road to 21st Avenue exceed their adopted LOS service capacity under existing (2021) daily conditions. The northern segments of 59th Street from 21st Avenue to Manatee Avenue operate within their adopted LOS service capacities; however, the northern segments are within 3% of the adopted LOS service capacity.

Table 2: Existing (2021) Annual Average Daily Segment LOS

Segment	AADT		LOS

North Limit	South Limit		Adopted Service Volume	
41st Avenue	Cortez Road	18,000	16,727	F
21st Avenue	41st Avenue	18,000		F
17th Avenue	21st Avenue	16,500		D
Manatee Avenue	17th Avenue	16,500		D

2.2.5 Intersection Analysis

The *Synchro 11* software package was utilized to evaluate existing conditions at the signalized intersections on the 59th Street corridor during the AM and PM peak hours. The latest traffic signal timings and phasing operations were provided by Manatee County (**Attachment C**) and used in the analysis. **Table 3** summarizes the overall delay, LOS, and max volume-to-capacity (v/c) ratios for the signalized intersections in the 59th Street study corridor. *Synchro* output reports are included in **Attachment D**.

Table 3: Existing (2021) Intersection LOS and Delay

Intersection	Weekday AM Peak Hour			Weekday PM Peak Hour		
	LOS	Delay (s/veh)	Max v/c	LOS	Delay (s/veh)	Max v/c
Cortez Road W	B	19.1	0.85 (SBL)	C	28.3	0.92 (SBL)
29th Avenue W	B	14.3	0.59 (EBT/R)	B	13.9	0.61 (SBT/R)
21st Avenue W	C	21.7	0.83 (WBT/R)	C	24.4	0.84 (EBT/R)
17th Avenue W	B	18.1	0.56 (WBT)	B	18.2	0.53 (EBT)
11th Avenue W	B	10.9	0.61 (EB)	A	9.7	0.62 (EB)
Manatee Avenue W	E	66.7	1.27 (EBR)	F	86.5	1.66 (NBR)

Under existing (2021) conditions, all study intersections operate with LOS C or better during the AM and PM peak hours except the intersection of 59th Street and Manatee Avenue. The intersection of 59th Street and Manatee Avenue operates with LOS E during the AM peak hour and LOS F during the PM peak hour. The analysis indicates that several minor street approaches operate at LOS E or F and several movements have peak hour volumes exceeding their capacities (v/c ratios exceed 1.00) by significant margins.

During the AM peak hour, the northbound right-turn movement exceeds its capacity. During the PM peak hour, the westbound left-turn, northbound left-turn, and northbound right-turn movements exceed their respective capacities. More detailed performance measures for the intersection of Manatee Avenue and 59th Street are shown in **Table 4.**

Table 4: Performance Measures - 59th Street and Manatee Avenue

	AM Peak Hour	PM Peak Hour

	Delay (s/veh)	LOS	v/c	95th Percentile Queue	Delay (s/veh)	LOS	v/c	95th Percentile Queue
Overall Intersection	**66.7**	**E**	**-**	**-**	**86.5**	**F**	**-**	**-**
Eastbound	51.9	D	-	-	44.5	D	-	-
EBL	*96.1*	*F*	*0.51*	*1.0*	*108.1*	*F*	*0.78*	*3.1*
EBT	*53.4*	*D*	*0.80*	*25.0*	*45.3*	*D*	*0.81*	*31.9*
EBR	*41.3*	*D*	*0.34*	*9.5*	*31.7*	*C*	*0.33*	*10.8*
Westbound	41.4	D	-	-	47.3	D	-	-
WBL	*93.9*	*F*	*0.95*	*23.4*	*154.1*	*F*	*1.09*	*25.3*
WBT	*26.2*	*C*	*0.57*	*19.5*	*26.6*	*C*	*0.66*	*25.7*
WBR	*18.6*	*B*	*0.10*	*2.9*	*16.8*	*B*	*0.11*	*3.4*
Northbound	140.9	F	-	-	232.4	F	-	-
NBL	*95.1*	*F*	*0.92*	*17.2*	*144.6*	*F*	*1.08*	*26.0*
NBT	*70.6*	*E*	*0.56*	*8.1*	*81.3*	*F*	*0.75*	*13.4*
NBR	*227.0*	*F*	*1.27*	*22.9*	*388.9*	*F*	*1.66*	*44.0*
Southbound	97.2	F	-	-	106.8	F	-	-
SBL	*93.3*	*F*	*0.91*	*16.3*	*97.8*	*F*	*0.90*	*14.7*
SBT/R	*102.9*	*F*	*0.88*	*12.7*	*118.6*	*F*	*0.90*	*12.9*

3.0 Crash and Safety Analysis

Crash data for years 2016 to 2020 were obtained from the University of Florida's *Signal Four Analytics* web application within the 2.3-mile extents of the 59th Street study corridor. Crash details including crash location, crash type, time of crash, lighting conditions, surface conditions, and other contributing factors were assessed to identify potential high-crash locations and trends.

A total of 207 crashes including 58 injury crashes and 149 property damage only (PDO) crashes were reported over the five-year period from January 1, 2016 to December 31, 2020. The annual crash frequency generally fell during the study period, with 54 crashes reported in 2016 and 27 crashes reported in 2020. **Figure 5** and **Figure 6** illustrate the crashes locations along the 59th Street study corridor during the five-year analysis period.

3.1 Crash Severity

Crashes resulting in an injury accounted for 28% of total crashes during the analysis period. **Table 5** summarizes the crashes that occurred in the study area by severity.

Table 5: Five Year Crash Severity Summary

Crash Severity	Year					Total
	2016	2017	2018	2019	2020	
Injury	14	12	15	10	7	**58**
PDO	40	39	30	20	20	**149**
Total	**54**	**51**	**45**	**30**	**27**	**207**

Figure 4: Crash History, 2016-2020 (Cortez Rd to Pointe West Blvd W)

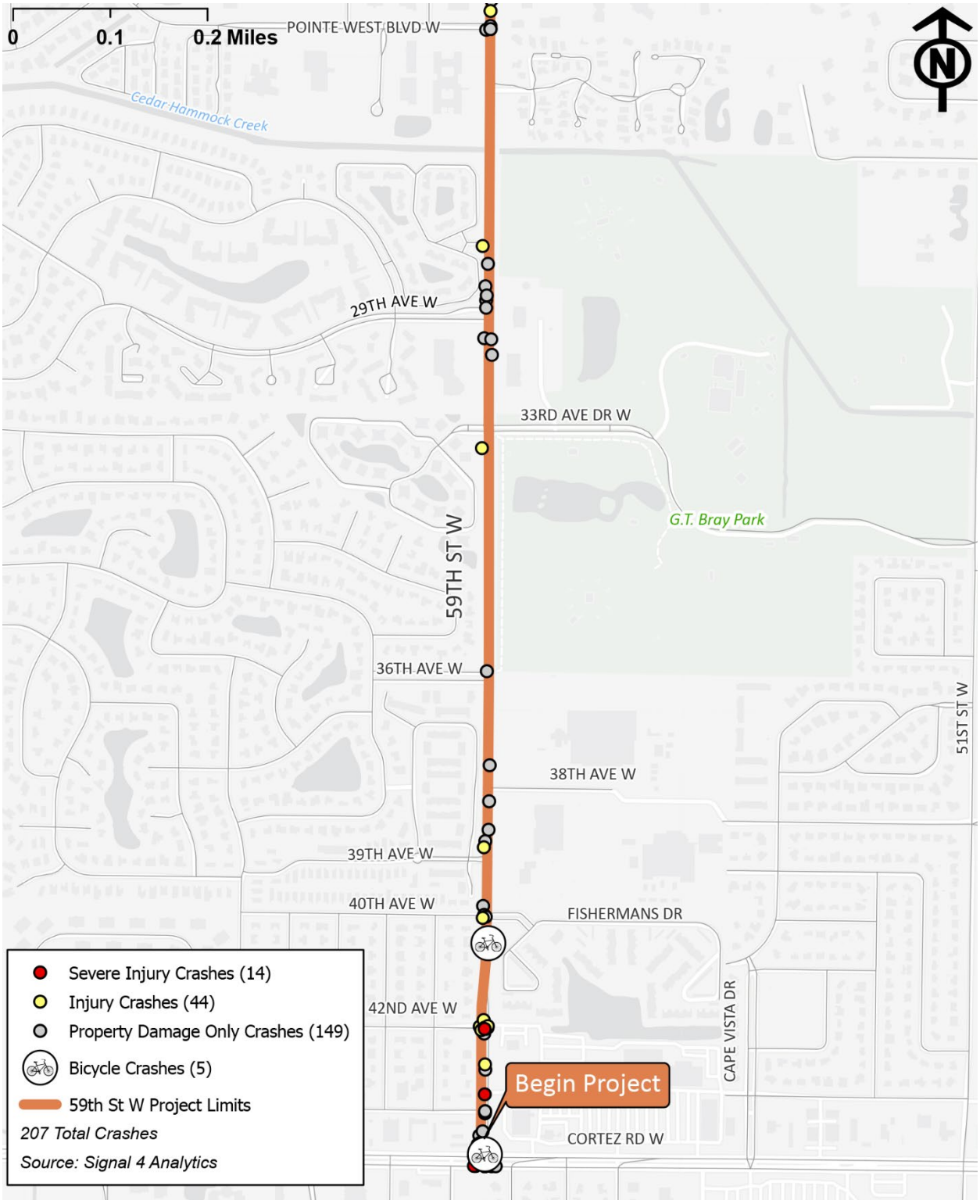


Figure 5: Crash History, 2016-2020 (Pointe West Blvd W to Manatee Ave W)



3.2 Crash Rate Analysis – Intersections

Crash data were summarized at prominent intersections along the corridor. The criterion used to define a high crash intersection was an intersection experiencing more than 20 crashes over the analysis period. The limits of the area of influence for each intersection were extended 250 feet in each direction along 59th Street to include crashes that were likely related to the intersection.

Table 6 summarizes the results of the crash rate analysis for signalized intersections on 59th Street. Intersection crash rates were calculated as the number of crashes per million entering vehicles (MEV). High crash intersections are denoted in **bold**.

Table 6: Intersection Crash Rates, 2016 - 2020

Intersection	Intersection Type		2016	2017	2018	2019	2020	Total
Cortez Road	Signal	Total Crashes	13	11	10	10	4	**48**
		Crash Rate	0.74	0.66	0.60	0.60	0.26	**0.58**
29th Avenue W	Signal	Total Crashes	2	1	2	0	2	7
		Crash Rate	0.30	0.15	0.30	0.00	0.30	0.21
21st Avenue W	Signal	Total Crashes	5	6	6	2	4	**23**
		Crash Rate	0.56	0.65	0.69	0.24	0.55	**0.54**
17th Avenue W	Signal	Total Crashes	2	3	1	2	0	8
		Crash Rate	0.28	0.43	0.14	0.28	0.00	0.23
11th Avenue W	Signal	Total Crashes	2	2	2	1	2	9
		Crash Rate	0.38	0.38	0.38	0.19	0.38	0.34
Manatee Avenue W	Signal	Total Crashes	14	8	9	2	7	**40**
		Crash Rate	0.79	0.40	0.49	0.11	0.39	**0.44**

The highest quantity of crashes at any one intersection over the five-year period occurred at the intersection of 59th Street and Cortez Road. Approximately 23% (48 crashes) of all study area crashes occurred at this intersection. This intersection also had the highest crash rate among all intersections in the study area at 0.58 crashes per MEV.

The intersection of 59th Street and 47th Avenue was the only unsignalized intersection to meet the criterion for a high crash intersection with 22 (10.6% of total) crashes occurring over the analysis period.

Crash histories at high-crash intersections were analyzed further to determine any trends or prominent crash types that may warrant safety improvements. **Table 7** summarizes the most common crash types at each high-crash intersection.

Table 7: High-Crash Intersection Summary

Intersection	Total Crashes	Crash Types			
		Type	Number	Percent of Intersection	Notes
Cortez Road	40	Rear End	22	46%	SB = 59% EB/WB = 41%
		Left Turn	13	27%	EBL = 92% WBU = 8%
		Other	13	27%	Sideswipe = 13% Right Turn = 10%
42nd Avenue West	23	Left Turn	9	41%	NBL = 67% EBL = 33%
		Angle	6	27%	NE/NW = 50% SE/SW = 50%
		Other	7	32%	Off Road = 23% Rear End = 9%
21st Avenue West	22	Rear End	14	61%	NB/SB = 93% EB/WB = 7%
		Left Turn	4	17%	SBL = 75% EBL = 25%
		Other	5	22%	Angle = 13% Right Turn = 9%
Manatee Avenue	48	Rear End	13	33%	NB/SB = 62% EB/WB = 38%
		Left Turn	9	22%	WBL = 56% EBL = 22% SBL = 22%
		Other	18	45%	Sideswipe = 18% Right Turn = 13%

At the intersection of Cortez Road and 59th Street, rear-end crashes were the most common crash type, accounting for approximately 46% of crashes at the intersection. Nearly 60% of those crashes occurred on the southbound 59th Street approach. The second most common collision type was left-turn crashes, which accounted for 27% of crashes at the intersection. Twelve of the 13 left-turn crashes involved an eastbound left-turning vehicle.

At the intersection of 42nd Avenue West and 59th Street, left-turn crashes were the most common crash type, accounting for approximately 41% of total crashes at the intersection. Two-thirds of the left-turn crashes involved a northbound left-turning vehicle. The second most common crash type at the intersection was angle crashes, which comprised 27% of crashes at the intersection.

At the intersection of 21st Avenue West and 59th Street, rear-end crashes were the most common crash type, accounting for approximately 61% of total crashes at the intersection. Thirteen of 14 rear-end crashes at the intersection occurred on the northbound and southbound approaches. The second most common crash type was left-turns crashes, accounting for 17% of total crashes at the intersection.

At the intersection of Manatee Avenue and 59th Street, rear-end crashes were the most common crash type, accounting for approximately 33% of total crashes at the intersection. Of these crashes,

62% occurred on 59th Street on the northbound and southbound approaches. The second most common crash type was left-turn crashes, which accounted for approximately 23% of total crashes at the intersection; the majority of left-turn crashes involved a westbound left-turning vehicle.

3.3 Crash Conditions

Crashes that occurred during dark conditions (including dawn and dusk conditions) accounted for 15% of crashes, crashes that occurred on wet surface conditions accounted for 10% of crashes, and alcohol was involved in 2% of all crashes. **Table 8** summarizes these crash conditions in the study area.

Table 8: Contributing Factors to Crashes Summary

Year	Total Crashes	Dark	Wet	Alcohol
2016	54	8	6	0
2017	51	6	5	2
2018	45	5	4	0
2019	30	6	5	1
2020	27	6	1	1
Total	**207**	**31**	**21**	**4**
Percent of Total		**15%**	**10%**	**2%**

3.4 Crash Types

Rear end crashes were the most common crash type on 59th Street, accounting for 80 crashes (38.6%) during the analysis period. The frequency of rear end crashes dropped significantly within the five-year period, most noticeably on the eastbound and westbound approaches of Cortez Road and Manatee Avenue.

Left-turn crashes were the second most common crash type, with 50 crashes (24.2%). Of the crashes resulting in injuries, 35% were left-turn crashes and 31% were rear-end crashes. **Table 9** details the crash data for each year by crash type.

Table 9: Crash Summary by Crash Type

Crash Type	Year					Total	Percentage
	2016	2017	2018	2019	2020		
Rear End	29	20	15	8	9	80	39%
Left Turn	11	12	12	10	5	50	24 %
Sideswipe	4	7	5	3	3	22	11%
Right Turn	3	1	4	2	5	15	7%
Angle	5	4	1	3	2	15	7%
Off Road	2	3	5	2	2	14	7%
Bicycle	0	1	2	1	1	5	2%
Other	1	1	0	1	0	3	1%
Head On	0	2	0	0	0	2	<1%
Rollover	0	0	1	0	0	1	<1%

Of the five bicycle crashes reported in the study corridor, all resulted in the in injury to the bicyclist, with one classified as an incapacitating injury. Two crashes occurred while the bicyclist was within a crosswalk and three crashes occurred while the bicyclist occupied a travel lane on 59th Street. No two bicycle crashes occurred in the same location. The incapacitating crash was a result of a bicyclist attempting to cross 59th Street from west to east approximately 150 feet south of the intersection of 59th Street and 40th Avenue during dark unlighted conditions and being struck by a northbound vehicle.

4.0 Traffic Forecasting Methodology

This section describes the methodologies employed to forecast future traffic demand.

Consistent with the FDOT *2019 Project Traffic Forecasting Handbook*, several tools were utilized to forecast future traffic projections. Historical trends, Manatee County population projections, and travel demand modeling were each reviewed to determine the most appropriate growth rates for forecasting future traffic projections.

4.1 Historical Growth

Historical AADT volumes on 59th Street were utilized to calculate a historical growth rate. Manatee County collects traffic data in several locations along 59th Street. Three count stations exist along 59th Street W: one 200 feet south of Manatee Avenue, one 200 feet south of 17th Avenue, and one 200 feet north of Cortez Road. Daily traffic volumes were collected each year from 2010 to 2020. Historical AADT volumes for a five-year period (2015 – 2019) and a ten-year period (2010-2019) were input into the FDOT *Trend* worksheet to calculate trend growth rates through the Design Year (2045). Traffic data from the year 2020 was not used due to COVID-19 causing abnormal traffic patterns throughout the year.

The ten-year historical traffic trend yielded a higher R-squared value than the five-year historical traffic trend, indicating that the ten-year traffic trend analysis annual growth rate estimate more closely fits the data; therefore, the ten-year historical traffic growth of 1.04% was assumed on 59th Street.

4.2 BEBR Population Projections

The University of Florida's Bureau of Economic and Business Research (BEBR) analyzes the population growth in every county throughout Florida. Annually, BEBR publishes a range of projected county populations for each fifth year from 2025 to 2045. The growth rate implied by the BEBR projections for Manatee County through the Design Year (2045) were considered in determining growth rates for the study corridor.

Table 10 depicts the low, medium, and high population predictions for Manatee County, as well as the associated annual growth rates. For the purposes of this DTM, the BEBR low and high population growth rates are treated as bounds within which the selected growth rates should fall.

Table 10: BEBR Population Projections

2020	Projection	Year					Annual Percentages
		2025	2030	2035	2040	2045	
398,503	Low	401,400	419,000	431,900	442,600	449,600	0.46%
	Medium	437,600	470,000	498,000	522,600	522,600	1.21%
	High	470,200	520,600	566,100	611,400	611,400	1.92%

4.3 Model Growth Rates

The most recently adopted version of the District 1 Regional Planning Model (D1RPM) was utilized to determine model growth rates based on the anticipated future roadway network and planned developments through the Design Year (2045). Socioeconomic data provided by Manatee County was input into the future year (2045) ZDATA to reflect planned development within the county, and both a No Build (two-lane) and Build (four-lane) scenario were modeled for the 59th Street study corridor. Model AADT volumes for future year 2045 were compared to those of the model base year (2015) to calculate the implied growth rate of 59th Street for each scenario.

The average annual growth rate based on the No Build model scenario was 0.42% and the average annual growth rate based on the Build model scenario was 1.13%. The difference in growth rates indicates unmet demand on the 59th Street study corridor when its capacity is constrained to the existing two-lane capacity in the Design Year (2045).

4.4 Applied Growth Rate

Upon reviewing historical trends, Manatee County population projections, and the travel demand model with and without the widening of the 59th Street study corridor, the model growth rate of 1.13% was selected for the forecasting of future traffic demand. The 1.13% growth rate is within the bounds of the BEBR low and high population growth rates and is relatively consistent with the historical traffic growth trend of the study corridor.

5.0 Future Traffic Projections

Future traffic projections were developed as detailed in the following sections.

5.1 Forecasted AADT Volumes

Existing (2021) AADT volumes were grown from 2019 AADT volumes collected by Manatee County Traffic Engineering. 2021 AADT volumes were then used to forecast 2025 and 2045 AADT volume projections.

Table 11 summarizes the 2021 AADT volumes as well as the Opening Year 2025 and Design Year 2045 forecasted AADT volumes for the 59th Street study corridor. These volume projections are rounded to the nearest five hundred vehicles per day.

Table 11: AADT Volume Summary

Segment		2021 AADT	2025 AADT	2045 AADT
North	**South**			
D1RPM Build Growth Rate: 1.13%				
41st Avenue	Cortez Road	18,000	19,000	23,500
21st Avenue	41st Avenue	18,000	19,000	23,500
17th Avenue	21st Avenue	16,500	17,500	21,500
Manatee Avenue	17th Avenue	16,500	17,500	21,500

5.2 Traffic Factors

The Standard K factor was applied to the projected AADT to calculate design hour volumes (DHV) per the FDOT *2019 Project Traffic Forecasting Handbook*. The Standard K for urban major collectors, 9.0, will be used for the forecasting of the DHVs.

For comparison, the existing K factor was determined by calculating the proportion of daily traffic that occurs during the peak hour of the day. Using continuous 24-hour counts, existing K factors for the 59th Street study corridor were calculated and are summarized in **Table 12**. The existing K factors were found to generally be lower than the 9.0 Standard K, indicating that daily traffic volumes on 59th Street are less concentrated during the PM peak hour than might typically be expected on an urban major collector. In the future design hour analysis, the Standard K is applied, based on the assumption that traffic patterns will shift slightly to make the peak hour more consistent with other urban major collectors.

Table 12: Calculated K-factors

Intersecting Street	NB Approach	SB Approach	Combined Approaches
Cortez Road	N/A	N/A	N/A
29th Avenue W	7.7%	N/A	N/A
21st Avenue W	9.0%	8.2%	8.4%
17th Avenue W	9.5%	7.6%	8.5%
11th Avenue W	9.2%	N/A	N/A
Manatee Avenue	N/A	N/A	N/A

N/A: 24-hour traffic counts were not available

The D-factor applied to future volumes is representative of the peak directional distribution of traffic during the peak hour on a given roadway segment. D-factors were calculated for the 59th Street study corridor using the peak hour TMCs and are summarized in **Table 13**.

Table 13: Calculated D-Factors

Intersecting Street	Peak Direction	Calculated D-Factor
Cortez Road	SB	0.55
29th Avenue	SB	0.56
21st Avenue	SB	0.51
17th Avenue	NB	0.52
17th Avenue	NB	0.52
Manatee Avenue	NB	0.53

The percentage of trucks using a corridor during the peak hour is the design hour truck (DHT) factor and the percentage of trucks using a corridor during a 24-hour period is the T-factor. DHT factors and T-factors were calculated from the TMC data provided by Manatee County Traffic Engineering. The calculated DHT factors and T-factors at each signalized intersection along the 59th Street study corridor can be found in **Table 14**.

Table 14: Calculated DHT and T-Factor

Intersecting Street	DHT	T-Factor
Cortez Road	1.2%	2.3%
29th Avenue W	1.1%	2.2%
21st Avenue W	1.1%	2.2%
17th Avenue W	1.8%	3.6%
11th Avenue W	0.7%	1.5%
Manatee Avenue	1.1%	2.1%

5.3 Design Hour Volume

For future year forecasts, DHVs are calculated based on the forecasted AADT volumes multiplied by the Standard K factor (0.09). DHVs for the Opening Year 2025 and Design Year 2045 conditions are summarized in **Table 15**. Volumes are rounded to the nearest 50 vehicles per hour.

Table 15: DHV Summary

Limits		2021 DHV	2025 DHV	2045 DHV
North	**South**			
D1RPM Build Growth Rate: 1.13%				
41st Avenue	Cortez Road	1,600	1,700	2,050
21st Avenue	41st Avenue	1,600	1,700	2,050
17th Avenue	21st Avenue	1,500	1,550	1,900
Manatee Avenue	17th Avenue	1,500	1,550	1,900

5.4 Design Turning Movement Volumes

The turning movement counts provided by Manatee County Traffic Engineering were grown to Existing (2021) year turning movement volumes using seasonal factors and the average historical growth rate of 1.04%. The Opening Year (2025) and Design Year (2045) turning movement volumes were then forecasted using the growth rate of 1.13%. Forecasted turning movement volumes are provided in **Attachment B**.

6.0 Future Traffic Analysis

The future traffic analyses were performed initially with the existing roadway facility (No Build condition) as a baseline for comparison of corridor improvement alternatives and to illustrate the impact of the anticipated background traffic growth. Corridor improvement alternatives to address deficiencies were then evaluated. In addition to the 59th Street segment capacity, signalized intersections along the corridor were evaluated for operational performance, and improvements are recommended for the intersections where necessary.

The FDOT Generalized Level of Service Tables were used to evaluate the capacity of the roadway and TrafficWare's *Synchro 11* software was used to evaluate the intersection operations of projected Opening Year 2025 and Design Year 2045 scenarios. Operational analyses were performed for a future No Build and a future four-lane Build scenario.

6.1 Future No Build

For the future No Build scenario, all intersection geometry and timing characteristics were considered consistent with existing conditions. The results of the segment analysis for the Opening Year and Design Year No Build scenario are shown in **Table 16**. The entirety of the study corridor is expected to operate at LOS F through the Design Year (2045) if no capacity improvements are implemented. The service volume threshold is based on the daily LOS D service volume from the FDOT Q/LOS Handbook of 16,727 vehicles per day for an urban two-lane, interrupted flow, non-state facility with left-turn lanes.

Table 16: No Build Scenario Segment LOS

Segment		Opening Year, 2025		Design Year, 2045	
South Limit	**North Limit**	**AADT**	**LOS**	**AADT**	**LOS**
41st Avenue	Cortez Road	19,000	F	23,500	F
21st Avenue	41st Avenue	19,000	F	23,500	F
17th Avenue	21st Avenue	17,500	F	21,500	F
Manatee Avenue	17th Avenue	17,500	F	21,500	F

The results of the Synchro intersection analyses for the Opening Year and Design Year No Build scenario are shown in **Table 17**. Detailed Synchro reports for each intersection are included in **Attachment D**.

Table 17: No Build Scenario Intersection LOS and Delay

Intersection	Opening Year 2025 Design Hour			Design Year 2045 Design Hour		
	LOS	Delay (s)	Max v/c	LOS	Delay (s)	Max v/c
Cortez Road W	C	29.5	0.93 (SBL)	D	40.0	1.10 (SBL)
29th Avenue W	B	14.6	0.64 (SBT/R)	B	17.7	0.84 (SBT/R)
21st Avenue W	C	24.7	0.84 (EBT/R)	C	29.2	0.85 (EBT/R)
17th Avenue W	B	18.2	0.54 (EBT)	B	17.7	0.60 (NBT)
11th Avenue W	B	10.1	0.63 (EB)	B	14.1	0.66 (EB)
Manatee Avenue W	F	97.8	1.84 (NBR)	F	167.1	2.85 (NBR)

The intersection of Manatee Avenue and 59th Street is anticipated to perform at LOS F during the Design Hour in the Opening Year 2025 and Design Year 2045 No Build scenarios. The northbound left-turn, northbound right-turn, and westbound left-turn movements are expected to exceed their respective capacities under Opening Year 2025 Design Hour conditions. The westbound left-turn, all northbound movements, southbound through, and southbound right-turn movements are expected to exceed their respective capacities under Design Year 2045 Design Hour conditions.

6.2 Intersection Control Evaluation

An Intersection Control Evaluation (ICE) was undertaken at each of the signalized intersections along the 59th Street corridor except the termini at Manatee Avenue and Cortez Road, which are FDOT-maintained. Alternative intersection controls were eliminated at the intersection of 59th Street and 29th Avenue because the east leg serves Fire Station 3 and roundabouts were not considered to be a context sensitive solution. The ICE process considers the safety and capacity benefits of various alternative intersection control types for comparison with the existing conditions on the study corridor and provides a mechanism for evaluating the associated benefit-to-cost (B/C) ratio. The ICE worksheets available from FDOT were utilized to analyze the viability and potential benefit of signal improvements and roundabouts along the study corridor.

A comparison of the safety and delay benefit-to-cost ratios for each alternative is summarized in **Table 18**. Within the ICE framework monetary costs are assigned to aspects such as construction and design, right-of-way acquisition, vehicle delay, and crashes. Benefits are calculated in terms of reduced costs of delay and crashes relative to the base case. Costs are calculated in a similar manner in terms of the difference in design, construction, and right-of-way costs of the alternative as compared to the base case. The B/C ratio is then calculated by comparing the monetary benefits of delay reduction and crash reduction to the cost of construction and right-of-way acquisition of implementing that alternative.

Three alternatives were compared at each intersection within the ICE framework: the existing signal as no build scenario and base comparison case, a two by one roundabout, and a signalized intersection with an additional through lane in each direction.

Based on the Safety Performance Intersection Control Evaluation (SPICE) analysis, the improved signalized intersection alternatives are not anticipated to have significant safety benefits at any of the intersections. However, all alternatives are expected to reduce delay experienced at the intersections.

Table 18: ICE Benefit-Cost Summary

Intersection	Alternative	Delay B/C	Safety B/C	Total B/C
21st Avenue	No Build	Base	Base	Base
	2 x 1 Roundabout	8.02	0.28	8.30
	2 x 1 Signal	8.94	-0.08	8.86
17th Avenue	No Build	Base	Base	Base
	2 x 1 Roundabout	10.54	0.03	10.57
	2 x 1 Signal	3.65	-0.14	3.51
11th Avenue	No Build	Base	Base	Base
	2 x 1 Roundabout	1.17	0.72	1.90
	2 x 1 Signal	1.15	-0.07	1.08

Although the roundabout alternative at 11th Avenue has a slightly higher B/C ratio than the improved signal alternative, the right-of-way costs are considered cost-prohibitive since the two alternatives provide similar reductions in delay. The recommended improvements are an improved signal at 59th Street and 11th Avenue, a two-by-one roundabout at 59th Street and 17th Avenue, and an improved signal at 59th Street and 21st Avenue. The ICE forms and supporting documentation are provided in **Attachment E**.

6.3 Build Scenario

For the future four-lane Build scenario, intersection geometries along the study corridor were modified to reflect the widening of 59th Street to include two through lanes in both the northbound and southbound directions for all intersections and the results the ICE recommendations above. The results of the segment analysis for the 59th Street study corridor segments are shown below in **Table 19**.

Table 19: Build Scenario Segment LOS

Segment		Opening Year, 2025		Design Year, 2045	
South Limit	**North Limit**	**AADT**	**LOS**	**AADT**	**LOS**
41st Avenue	Cortez Road	19,000	C	23,500	C
21st Avenue	41st Avenue	19,000	C	23,500	C
17th Avenue	21st Avenue	17,500	C	21,500	C
Manatee Avenue	17th Avenue	17,500	C	21,500	C

The results of the Synchro intersection analysis for the 59th Street study corridor intersections in the four-lane future Build scenario are shown in Table 20: Build Scenario Intersection LOS and Delay**Table 20**.

Table 20: Build Scenario Intersection LOS and Delay

Intersection	Opening Year 2025 Peak Hour			Design Year 2045 Peak Hour		
	LOS	**Delay (s)**	**Max v/c**	**LOS**	**Delay (s)**	**Max v/c**
Cortez Road W	C	30.2	0.93 (SBL)	D	42.0	1.10 (SBL)
29th Avenue W	B	11.7	0.60 (EBL)	B	11.8	0.62 (EBL)
21st Avenue W	C	23.2	0.84 (EBT/R)	C	22.5	0.85 (EBT/R)
17th Avenue W	A	6.6	0.34 (NBT/R)	A	7.9	0.43 (NBT/R)
11th Avenue W	B	11.3	0.63 (EB)	B	11.6	0.66 (EB)
Manatee Avenue W	F	98.2	1.84 (NBR)	F	167.7	2.85 (NBR)

Operational analyses of the Four-Lane Build scenario indicate that all intersections except for the intersection of Manatee Avenue with 59th Street are expected to operate at an acceptable LOS with only the movements at the Manatee Avenue and Cortez Road intersections exceeding capacity.

No changes were made at the intersections of 59th Street with Manatee Avenue or Cortez Road, since 59th Street already has two lanes per direction at those intersections. Significant improvements along the Manatee Avenue corridor mainline or Cortez Road mainline would be required to improve operations to LOS D or better and reduce v/c ratios to less than 1.00 through Design Year 2045. Since Manatee Avenue and Cortez Road are FDOT roadways, these improvements are considered outside the scope of this Manatee County study. Intersection geometry and signal timings at the intersections of 59th Street with Manatee Avenue and Cortez Road are assumed to be consistent with existing conditions throughout this analysis.

7.0 Recommendations

Due to congestion on Manatee Avenue, the intersection of Manatee Avenue and 59th Street is anticipated to operate at LOS F under Opening Year 2025 and Design Year 2045 conditions, even if 59th Street is widened. Addressing the intersection congestion would require FDOT to design and construct major capacity improvements to Manatee Avenue, which are beyond the scope of this Manatee County study. All other intersections along 59th Street are anticipated to operate at LOS D or better.

South of Manatee Avenue, future congestion justifies widening the corridor to a four-lane facility. The corridor is anticipated to operate acceptably under this Build scenario, which includes converting the intersection of 59th Street and 17th Avenue to a two-by-one roundabout. The existing dedicated turn lane lengths at each of the signalized intersections along the 59th Street corridor are sufficient to accommodate Design Year 2045 queues and should be replicated under the Build scenario.

Attachments

Attachment A: Turning Movement Count Data

FDOT D1
TWO #18 - SR684
Int Name: SR 684
Weekday TMC

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Orlando, Florida, United States 32801
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Count Name: 16t - SR 684 at 59th Street W /Weekday
Site Code:
Start Date: 01/18/2018

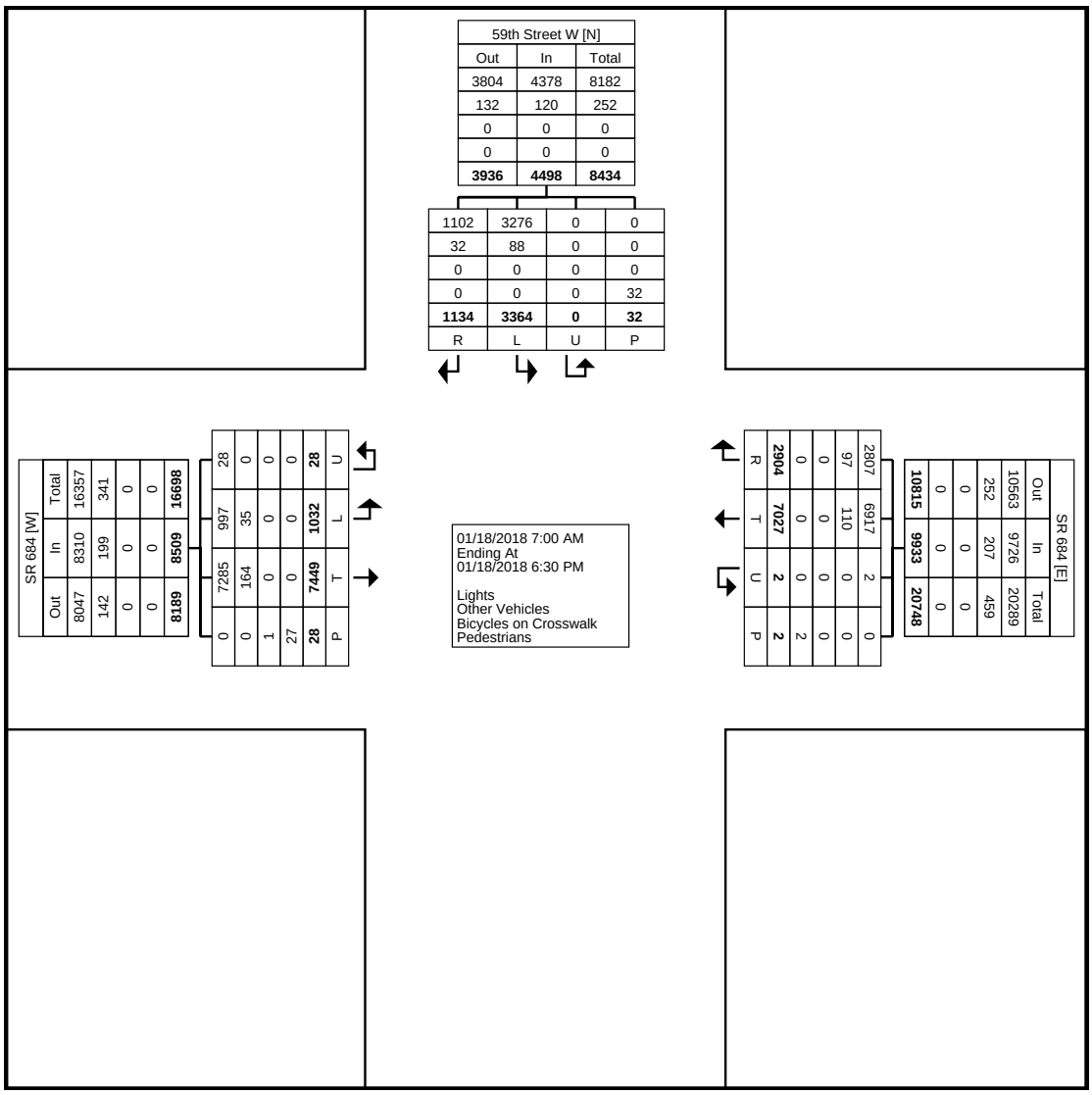
Turning Movement Data

Start Time	SR 684 Eastbound					SR 684 Westbound					59th Street W Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	20	127	0	147	0	94	62	0	156	0	79	24	0	103	406
7:15 AM	1	14	155	0	170	0	129	68	0	197	0	89	29	0	118	485
7:30 AM	2	26	171	0	199	0	164	68	0	232	0	97	32	0	129	560
7:45 AM	0	24	177	2	201	0	221	121	0	342	0	94	18	2	112	655
Hourly Total	3	84	630	2	717	0	608	319	0	927	0	359	103	2	462	2106
8:00 AM	0	28	178	0	206	0	200	92	0	292	0	69	18	0	87	585
8:15 AM	1	30	185	3	216	0	197	102	0	299	0	98	28	3	126	641
8:30 AM	0	36	198	1	234	0	182	107	0	289	0	82	37	1	119	642
8:45 AM	0	33	202	1	235	0	151	110	0	261	0	87	21	0	108	604
Hourly Total	1	127	763	5	891	0	730	411	0	1141	0	336	104	4	440	2472
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	0	32	237	0	269	0	228	76	0	304	0	130	54	0	184	757
11:45 AM	1	28	293	0	322	0	260	79	1	339	0	97	32	0	129	790
Hourly Total	1	60	530	0	591	0	488	155	1	643	0	227	86	0	313	1547
12:00 PM	0	35	270	0	305	0	223	75	0	298	0	112	51	0	163	766
12:15 PM	2	43	276	0	321	0	241	96	0	337	0	114	34	0	148	806
12:30 PM	0	36	275	0	311	0	206	85	0	291	0	100	34	0	134	736
12:45 PM	0	33	274	0	307	0	236	113	0	349	0	102	43	0	145	801
Hourly Total	2	147	1095	0	1244	0	906	369	0	1275	0	428	162	0	590	3109
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	27	276	0	303	0	262	99	0	361	0	114	36	0	150	814
2:15 PM	1	38	263	0	302	0	235	87	0	322	0	108	35	1	143	767
2:30 PM	1	33	261	0	295	2	261	87	0	350	0	101	41	2	142	787
2:45 PM	3	34	280	3	317	0	269	92	1	361	0	103	38	1	141	819
Hourly Total	5	132	1080	3	1217	2	1027	365	1	1394	0	426	150	4	576	3187
3:00 PM	1	32	306	0	339	0	257	90	0	347	0	134	46	3	180	866
3:15 PM	1	32	262	0	295	0	265	93	0	358	0	123	40	0	163	816
3:30 PM	0	53	325	0	378	0	281	97	0	378	0	110	39	2	149	905
3:45 PM	5	40	263	7	308	0	263	106	0	369	0	125	46	7	171	848
Hourly Total	7	157	1156	7	1320	0	1066	386	0	1452	0	492	171	12	663	3435
4:00 PM	0	40	244	6	284	0	220	71	0	291	0	126	41	1	167	742
4:15 PM	0	30	234	4	264	0	240	96	0	336	0	98	41	1	139	739
4:30 PM	1	25	232	0	258	0	247	87	0	334	0	108	40	0	148	740
4:45 PM	1	39	222	0	262	0	215	74	0	289	0	110	40	0	150	701
Hourly Total	2	134	932	10	1068	0	922	328	0	1250	0	442	162	2	604	2922
5:00 PM	0	35	231	0	266	0	203	101	0	304	0	126	43	1	169	739
5:15 PM	1	37	230	0	268	0	237	110	0	347	0	112	37	2	149	764
5:30 PM	1	29	215	0	245	0	223	93	0	316	0	117	35	4	152	713
5:45 PM	2	37	212	0	251	0	192	94	0	286	0	108	31	0	139	676
Hourly Total	4	138	888	0	1030	0	855	398	0	1253	0	463	146	7	609	2892
6:00 PM	2	21	184	1	207	0	226	90	0	316	0	107	30	1	137	660
6:15 PM	1	32	191	0	224	0	199	83	0	282	0	84	20	0	104	610
Grand Total	28	1032	7449	28	8509	2	7027	2904	2	9933	0	3364	1134	32	4498	22940
Approach %	0.3	12.1	87.5	-	-	0.0	70.7	29.2	-	-	0.0	74.8	25.2	-	-	-
Total %	0.1	4.5	32.5	-	37.1	0.0	30.6	12.7	-	43.3	0.0	14.7	4.9	-	19.6	-
Lights	28	997	7285	-	8310	2	6917	2807	-	9726	0	3276	1102	-	4378	22414
% Lights	100.0	96.6	97.8	-	97.7	100.0	98.4	96.7	-	97.9	-	97.4	97.2	-	97.3	97.7
Other Vehicles	0	35	164	-	199	0	110	97	-	207	0	88	32	-	120	526
% Other Vehicles	0.0	3.4	2.2	-	2.3	0.0	1.6	3.3	-	2.1	-	2.6	2.8	-	2.7	2.3
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	3.6	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	27	-	-	-	-	2	-	-	-	-	32	-	-
% Pedestrians	-	-	-	96.4	-	-	-	-	100.0	-	-	-	-	100.0	-	-

FDOT D1
TWO #18 - SR684
Int Name: SR 684
Weekday TMC

Vanasse Hangen Brustlin, Inc.
225 East Robinson Street, Suite 300
Landmark Center Two
Orlando, Florida, United States 32801
407-839-4006 gbroadfoot@vhb.com

Count Name: 16t - SR 684 at 59th Street W /Weekday
Site Code:
Start Date: 01/18/2018



Turning Movement Data Plot

FDOT D1
TWO #18 - SR684
Int Name: SR 684
Weekday TMC

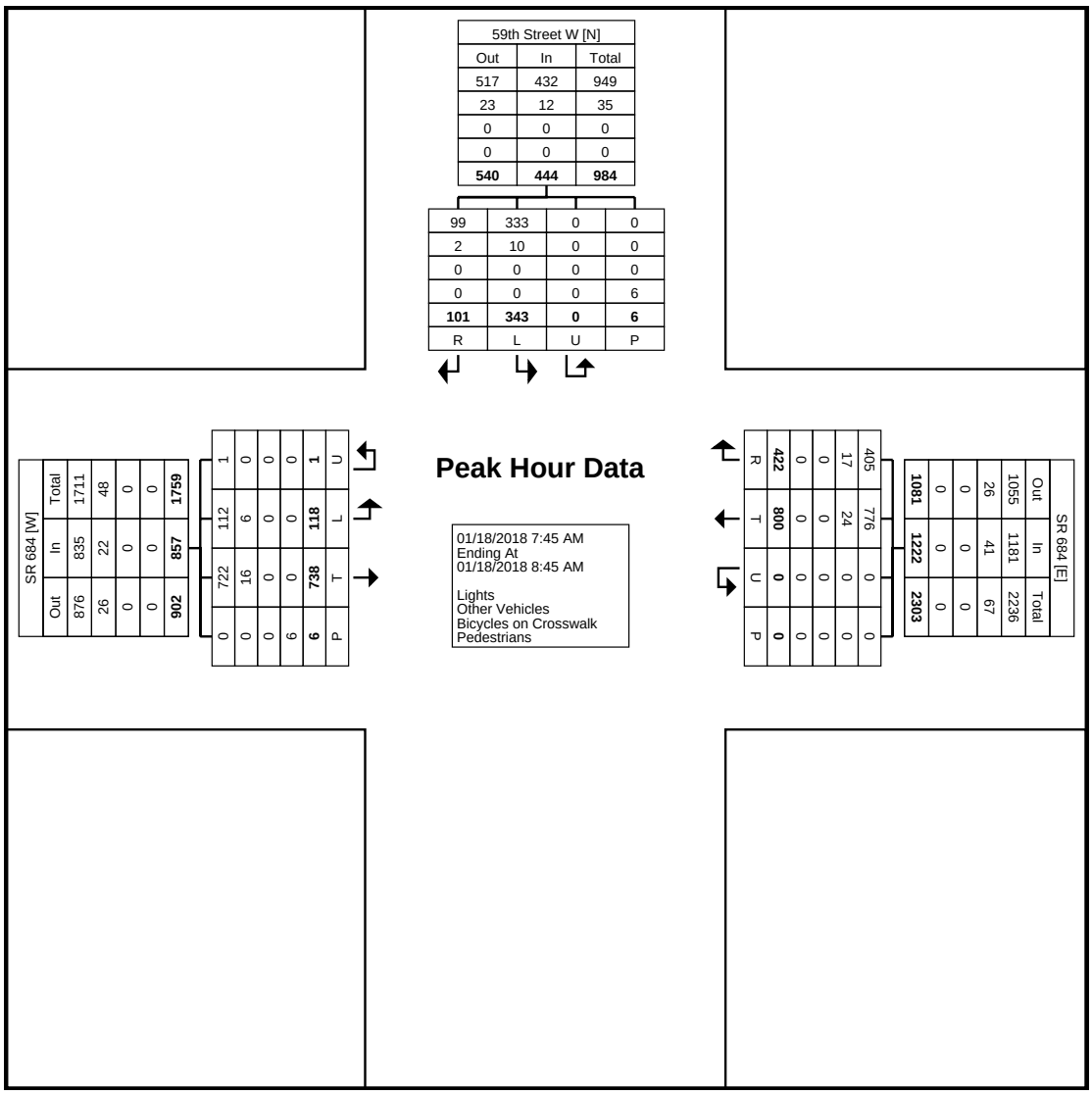
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Count Name: 16t - SR 684 at 59th Street W /Weekday
Site Code:
Start Date: 01/18/2018

Turning Movement Peak Hour Data (7:45 AM)

Start Time	SR 684 Eastbound					SR 684 Westbound					59th Street W Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:45 AM	0	24	177	2	201	0	221	121	0	342	0	94	18	2	112	655
8:00 AM	0	28	178	0	206	0	200	92	0	292	0	69	18	0	87	585
8:15 AM	1	30	185	3	216	0	197	102	0	299	0	98	28	3	126	641
8:30 AM	0	36	198	1	234	0	182	107	0	289	0	82	37	1	119	642
Total	1	118	738	6	857	0	800	422	0	1222	0	343	101	6	444	2523
Approach %	0.1	13.8	86.1	-	-	0.0	65.5	34.5	-	-	0.0	77.3	22.7	-	-	-
Total %	0.0	4.7	29.3	-	34.0	0.0	31.7	16.7	-	48.4	0.0	13.6	4.0	-	17.6	-
PHF	0.250	0.819	0.932	-	0.916	0.000	0.905	0.872	-	0.893	0.000	0.875	0.682	-	0.881	0.963
Lights	1	112	722	-	835	0	776	405	-	1181	0	333	99	-	432	2448
% Lights	100.0	94.9	97.8	-	97.4	-	97.0	96.0	-	96.6	-	97.1	98.0	-	97.3	97.0
Other Vehicles	0	6	16	-	22	0	24	17	-	41	0	10	2	-	12	75
% Other Vehicles	0.0	5.1	2.2	-	2.6	-	3.0	4.0	-	3.4	-	2.9	2.0	-	2.7	3.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	6	-	-	-	-	0	-	-	-	-	6	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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Turning Movement Peak Hour Data Plot (7:45 AM)

FDOT D1
TWO #18 - SR684
Int Name: SR 684
Weekday TMC

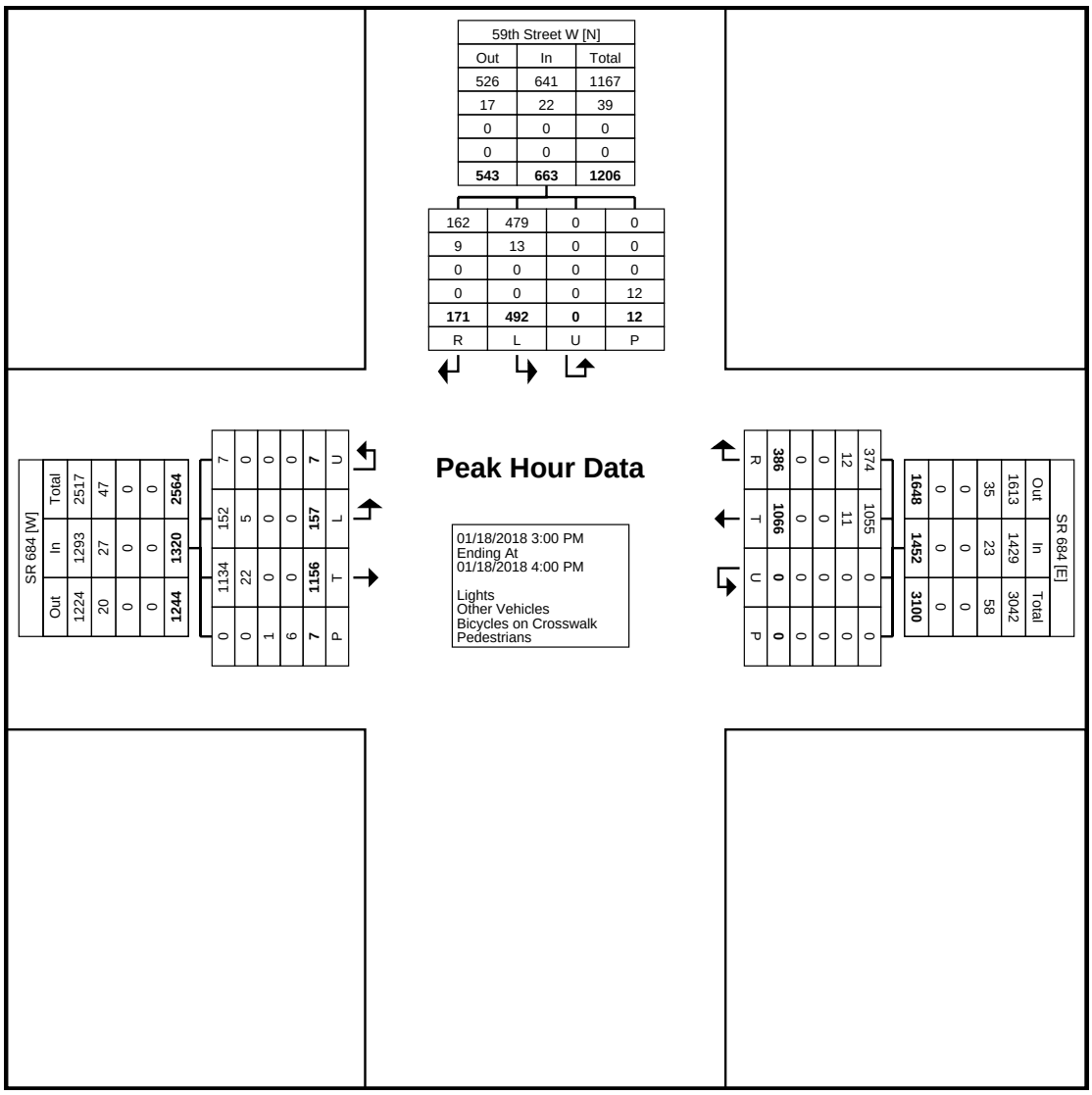
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Orlando, Florida, United States 32801
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Count Name: 16t - SR 684 at 59th Street W /Weekday
Site Code:
Start Date: 01/18/2018

Turning Movement Peak Hour Data (3:00 PM)

Start Time	SR 684 Eastbound					SR 684 Westbound					59th Street W Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
3:00 PM	1	32	306	0	339	0	257	90	0	347	0	134	46	3	180	866
3:15 PM	1	32	262	0	295	0	265	93	0	358	0	123	40	0	163	816
3:30 PM	0	53	325	0	378	0	281	97	0	378	0	110	39	2	149	905
3:45 PM	5	40	263	7	308	0	263	106	0	369	0	125	46	7	171	848
Total	7	157	1156	7	1320	0	1066	386	0	1452	0	492	171	12	663	3435
Approach %	0.5	11.9	87.6	-	-	0.0	73.4	26.6	-	-	0.0	74.2	25.8	-	-	-
Total %	0.2	4.6	33.7	-	38.4	0.0	31.0	11.2	-	42.3	0.0	14.3	5.0	-	19.3	-
PHF	0.350	0.741	0.889	-	0.873	0.000	0.948	0.910	-	0.960	0.000	0.918	0.929	-	0.921	0.949
Lights	7	152	1134	-	1293	0	1055	374	-	1429	0	479	162	-	641	3363
% Lights	100.0	96.8	98.1	-	98.0	-	99.0	96.9	-	98.4	-	97.4	94.7	-	96.7	97.9
Other Vehicles	0	5	22	-	27	0	11	12	-	23	0	13	9	-	22	72
% Other Vehicles	0.0	3.2	1.9	-	2.0	-	1.0	3.1	-	1.6	-	2.6	5.3	-	3.3	2.1
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	14.3	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	6	-	-	-	-	0	-	-	-	-	12	-	-
% Pedestrians	-	-	-	85.7	-	-	-	-	-	-	-	-	-	100.0	-	-

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Turning Movement Peak Hour Data Plot (3:00 PM)

Intersection Turning Movement Count

59th St W @ 29th Ave W
Manatee County, FL

File Name : 21003-17 Thu
Site Code : 21003-17
Start Date : 3/25/2021
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	59th St W Southbound					Private Driveway Westbound					59th St W Northbound					29th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
07:00	0	74	6	0	80	0	0	0	0	0	1	94	0	0	95	16	0	9	1	26	201
07:15	0	75	8	0	83	0	0	0	0	0	5	117	0	0	122	22	0	15	0	37	242
07:30	0	127	21	0	148	0	0	0	0	0	6	117	0	0	123	27	0	18	0	45	316
07:45	0	91	23	0	114	0	0	0	0	0	10	125	0	0	135	41	0	23	1	65	314
Total	0	367	58	0	425	0	0	0	0	0	22	453	0	0	475	106	0	65	2	173	1073
08:00	0	94	18	0	112	0	0	0	0	0	14	124	0	0	138	20	0	22	0	42	292
08:15	0	109	13	0	122	0	0	0	0	0	11	134	0	0	145	35	0	20	0	55	322
08:30	0	128	10	0	138	0	0	0	0	0	7	100	0	0	107	16	0	17	0	33	278
08:45	0	101	14	0	115	0	0	0	0	0	14	107	0	0	121	23	0	20	0	43	279
Total	0	432	55	0	487	0	0	0	0	0	46	465	0	0	511	94	0	79	0	173	1171
Break																					
11:30	2	131	20	0	153	0	0	0	0	0	16	131	0	0	147	26	0	16	0	42	342
11:45	1	130	22	0	153	0	0	0	0	0	18	121	0	0	139	19	0	16	0	35	327
Total	3	261	42	0	306	0	0	0	0	0	34	252	0	0	286	45	0	32	0	77	669
12:00	0	163	18	0	181	0	0	1	0	1	14	125	1	0	140	21	0	15	0	36	358
12:15	1	129	16	0	146	0	0	0	0	0	15	124	0	0	139	22	0	18	0	40	325
12:30	4	124	17	0	145	0	0	0	0	0	12	132	0	0	144	12	0	14	2	28	317
12:45	1	123	27	0	151	0	0	0	0	0	10	127	0	0	137	26	0	19	1	46	334
Total	6	539	78	0	623	0	0	1	0	1	51	508	1	0	560	81	0	66	3	150	1334
13:00	5	118	17	0	140	0	0	0	0	0	20	117	0	0	137	19	0	15	1	35	312
13:15	2	133	15	0	150	0	0	0	0	0	12	140	0	0	152	31	0	10	0	41	343
Break																					
Total	7	251	32	0	290	0	0	0	0	0	32	257	0	0	289	50	0	25	1	76	655
Break																					
14:30	0	153	19	0	172	0	0	0	0	0	27	118	0	0	145	23	0	12	0	35	352
14:45	0	132	22	0	154	0	0	0	0	0	21	137	1	1	160	16	0	18	0	34	348
Total	0	285	41	0	326	0	0	0	0	0	48	255	1	1	305	39	0	30	0	69	700
15:00	0	142	31	0	173	0	0	0	0	0	15	114	0	0	129	17	0	11	1	29	331
15:15	0	170	21	0	191	0	0	0	0	0	16	113	0	0	129	27	0	15	0	42	362
15:30	0	170	22	0	192	0	0	0	0	0	7	120	0	0	127	27	0	20	0	47	366
15:45	1	151	23	0	175	0	0	1	0	1	17	116	0	0	133	30	0	14	0	44	353
Total	1	633	97	0	731	0	0	1	0	1	55	463	0	0	518	101	0	60	1	162	1412
16:00	0	147	17	0	164	0	0	0	0	0	14	118	0	0	132	19	0	15	0	34	330
16:15	0	131	21	0	152	0	0	0	0	0	22	141	0	0	163	20	0	13	0	33	348
16:30	0	178	24	0	202	0	0	0	0	0	19	118	0	0	137	18	0	16	0	34	373
16:45	0	139	26	0	165	0	0	0	0	0	15	101	0	0	116	23	0	8	1	32	313
Total	0	595	88	0	683	0	0	0	0	0	70	478	0	0	548	80	0	52	1	133	1364
17:00	0	178	28	1	207	0	0	1	0	1	25	121	0	0	146	30	0	8	3	41	395
17:15	0	164	22	0	186	0	0	0	0	0	13	96	0	0	109	15	0	26	0	41	336
17:30	0	151	22	0	173	0	0	0	0	0	16	132	0	0	148	17	0	26	0	43	364
17:45	0	154	26	0	180	0	0	0	0	0	18	83	0	0	101	17	0	18	0	35	316
Total	0	647	98	1	746	0	0	1	0	1	72	432	0	0	504	79	0	78	3	160	1411
18:00	0	134	18	0	152	0	0	0	0	0	8	114	0	0	122	16	0	15	0	31	305
18:15	0	98	10	0	108	0	0	0	0	0	14	93	0	0	107	17	0	18	0	35	250
Grand Total	17	4242	617	1	4877	0	0	3	0	3	452	3770	2	1	4225	708	0	520	11	1239	10344
Apprch %	0.3	87	12.7	0		0	0	100	0		10.7	89.2	0	0		57.1	0	42	0.9		
Total %	0.2	41	6	0	47.1	0	0	0	0	0	4.4	36.4	0	0	40.8	6.8	0	5	0.1	12	

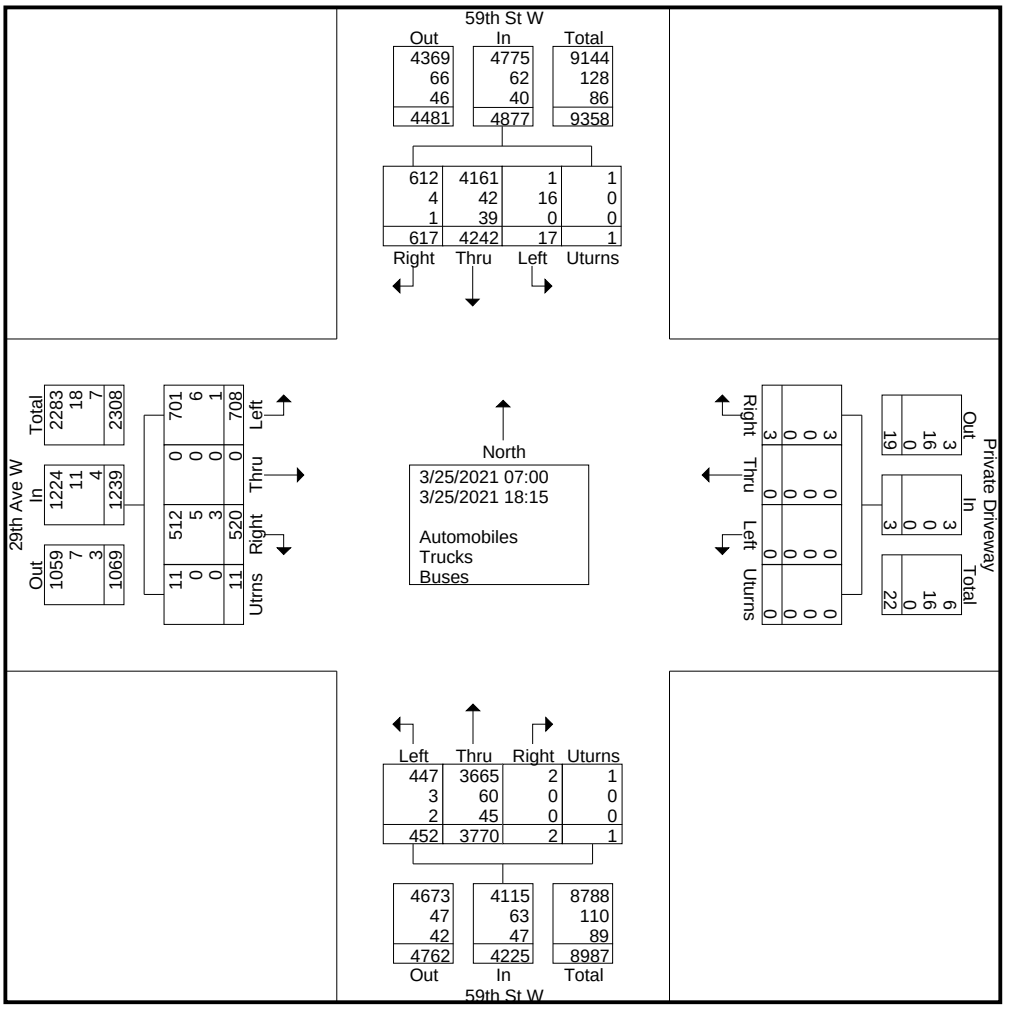
Intersection Turning Movement Count

59th St W @ 29th Ave W
Manatee County, FL

File Name : 21003-17 Thu
Site Code : 21003-17
Start Date : 3/25/2021
Page No : 2

Groups Printed- Automobiles - Trucks - Buses

	59th St W Southbound					Private Driveway Westbound					59th St W Northbound					29th Ave W Eastbound					
	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Automobiles	1	4161	612	1	4775	0	0	3	0	3	447	3665	2	1	4115	701	0	512	11	1224	10117
% Automobiles	5.9	98.1	99.2	100	97.9	0	0	100	0	100	98.9	97.2	100	100	97.4	99	0	98.5	100	98.8	97.8
Trucks	16	42	4	0	62	0	0	0	0	0	3	60	0	0	63	6	0	5	0	11	136
% Trucks	94.1	1	0.6	0	1.3	0	0	0	0	0	0.7	1.6	0	0	1.5	0.8	0	1	0	0.9	1.3
Buses	0	39	1	0	40	0	0	0	0	0	2	45	0	0	47	1	0	3	0	4	91
% Buses	0	0.9	0.2	0	0.8	0	0	0	0	0	0.4	1.2	0	0	1.1	0.1	0	0.6	0	0.3	0.9



Intersection Turning Movement Count

59th St W @ 29th Ave W
Manatee County, FL

File Name : 21003-17 Thu
Site Code : 21003-17
Start Date : 3/25/2021
Page No : 3

	59th St W Southbound					Private Driveway Westbound					59th St W Northbound					29th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	**127**	21	0	**148**	0	0	0	0	0	6	117	0	0	123	27	0	18	0	45	316
07:45	0	91	**23**	0	114	0	0	0	0	0	10	125	0	0	135	**41**	0	**23**	**1**	**65**	314
08:00	0	94	18	0	112	0	0	0	0	0	**14**	124	0	0	138	20	0	22	0	42	292
08:15	0	109	13	0	122	0	0	0	0	0	11	**134**	0	0	**145**	35	0	20	0	55	**322**
Total Volume	0	421	75	0	496	0	0	0	0	0	41	500	0	0	541	123	0	83	1	207	1244
% App. Total	0	84.9	15.1	0		0	0	0	0		7.6	92.4	0	0		59.4	0	40.1	0.5		
PHF	.000	.829	.815	.000	.838	.000	.000	.000	.000	.000	.732	.933	.000	.000	.933	.750	.000	.902	.250	.796	.966
Automobiles	0	411	74	0	485	0	0	0	0	0	41	484	0	0	525	122	0	81	1	204	1214
% Automobiles	0	97.6	98.7	0	97.8	0	0	0	0	0	100	96.8	0	0	97.0	99.2	0	97.6	100	98.6	97.6
Trucks	0	6	1	0	7	0	0	0	0	0	0	8	0	0	8	0	0	2	0	2	17
% Trucks	0	1.4	1.3	0	1.4	0	0	0	0	0	0	1.6	0	0	1.5	0	0	2.4	0	1.0	1.4
Buses	0	4	0	0	4	0	0	0	0	0	0	8	0	0	8	1	0	0	0	1	13
% Buses	0	1.0	0	0	0.8	0	0	0	0	0	0	1.6	0	0	1.5	0.8	0	0	0	0.5	1.0

Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30					07:00					07:30					07:30					
+0 mins.	0	**127**	21	0	**148**	0	0	0	0	0	6	117	0	0	123	27	0	18	0	45	
+15 mins.	0	91	**23**	0	114	0	0	0	0	0	10	125	0	0	135	**41**	0	**23**	**1**	**65**	
+30 mins.	0	94	18	0	112	0	0	0	0	0	**14**	124	0	0	138	20	0	22	0	42	
+45 mins.	0	109	13	0	122	0	0	0	0	0	11	**134**	0	0	**145**	35	0	20	0	55	
Total Volume	0	421	75	0	496	0	0	0	0	0	41	500	0	0	541	123	0	83	1	207	
% App. Total	0	84.9	15.1	0		0	0	0	0		7.6	92.4	0	0		59.4	0	40.1	0.5		
PHF	.000	.829	.815	.000	.838	.000	.000	.000	.000	.000	.732	.933	.000	.000	.933	.750	.000	.902	.250	.796	
Automobiles	0	411	74	0	485	0	0	0	0	0	41	484	0	0	525	122	0	81	1	204	
% Automobiles	0	97.6	98.7	0	97.8	0	0	0	0	0	100	96.8	0	0	97	99.2	0	97.6	100	98.6	
Trucks	0	6	1	0	7	0	0	0	0	0	0	8	0	0	8	0	0	2	0	2	
% Trucks	0	1.4	1.3	0	1.4	0	0	0	0	0	0	1.6	0	0	1.5	0	0	2.4	0	1	
Buses	0	4	0	0	4	0	0	0	0	0	0	8	0	0	8	1	0	0	0	1	
% Buses	0	1	0	0	0.8	0	0	0	0	0	0	1.6	0	0	1.5	0.8	0	0	0	0.5	

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:30

11:30	**2**	131	20	0	153	0	0	0	0	0	16	**131**	0	0	**147**	**26**	0	16	0	**42**	342
11:45	1	130	**22**	0	153	0	0	0	0	0	**18**	121	0	0	139	19	0	16	0	35	327
12:00	0	**163**	18	0	**181**	0	0	**1**	0	**1**	14	125	**1**	0	140	21	0	15	0	36	**358**
12:15	1	129	16	0	146	0	0	0	0	0	15	124	0	0	139	22	0	**18**	0	40	325
Total Volume	4	553	76	0	633	0	0	1	0	1	63	501	1	0	565	88	0	65	0	153	1352
% App. Total	0.6	87.4	12	0		0	0	100	0		11.2	88.7	0.2	0		57.5	0	42.5	0		
PHF	.500	.848	.864	.000	.874	.000	.000	.250	.000	.250	.875	.956	.250	.000	.961	.846	.000	.903	.000	.911	.944
Automobiles	0	549	76	0	625	0	0	1	0	1	62	480	1	0	543	87	0	64	0	151	1320
% Automobiles	0	99.3	100	0	98.7	0	0	100	0	100	98.4	95.8	100	0	96.1	98.9	0	98.5	0	98.7	97.6
Trucks	4	1	0	0	5	0	0	0	0	0	1	17	0	0	18	1	0	1	0	2	25
% Trucks	100	0.2	0	0	0.8	0	0	0	0	0	1.6	3.4	0	0	3.2	1.1	0	1.5	0	1.3	1.8
Buses	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
% Buses	0	0.5	0	0	0.5	0	0	0	0	0	0	0.8	0	0	0.7	0	0	0	0	0	0.5

Intersection Turning Movement Count

59th St W @ 29th Ave W
Manatee County, FL

File Name : 21003-17 Thu
Site Code : 21003-17
Start Date : 3/25/2021
Page No : 1

Groups Printed- Trucks - Buses

	59th St W Southbound					Private Driveway Westbound					59th St W Northbound					29th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
07:00	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
07:15	0	5	1	0	6	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	13
07:30	0	4	1	0	5	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	9
07:45	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	8
Total	0	13	2	0	15	0	0	0	0	0	0	16	0	0	16	1	0	1	0	2	33
08:00	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	7
08:15	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	6
08:30	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
08:45	0	3	0	0	3	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	6
Total	0	11	0	0	11	0	0	0	0	0	2	11	0	0	13	1	0	1	0	2	26
Break																					
11:30	2	1	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	9
11:45	1	2	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
Total	3	3	0	0	6	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	15
12:00	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	1	0	1	0	2	8
12:15	1	1	0	0	2	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	9
12:30	4	2	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	12
12:45	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
Total	6	4	0	0	10	0	0	0	0	0	1	20	0	0	21	1	0	1	0	2	33
13:00	5	0	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
13:15	2	0	0	0	2	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	8
Break																					
Total	7	0	0	0	7	0	0	0	0	0	0	6	0	0	6	1	0	0	0	1	14
Break																					
14:30	0	5	0	0	5	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	8
14:45	0	2	1	0	3	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	7
Total	0	7	1	0	8	0	0	0	0	0	1	5	0	0	6	0	0	1	0	1	15
15:00	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	6
15:15	0	6	2	0	8	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	12
15:30	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	9
15:45	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	10
Total	0	17	2	0	19	0	0	0	0	0	0	15	0	0	15	1	0	2	0	3	37
16:00	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	12
16:15	0	1	0	0	1	0	0	0	0	0	1	8	0	0	9	1	0	0	0	1	11
16:30	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
16:45	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
Total	0	19	0	0	19	0	0	0	0	0	1	14	0	0	15	1	0	1	0	2	36
17:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
17:15	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
17:30	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
17:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Total	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	13
18:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
18:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Grand Total	16	81	5	0	102	0	0	0	0	0	5	105	0	0	110	7	0	8	0	15	227
Apprch %	15.7	79.4	4.9	0		0	0	0	0		4.5	95.5	0	0		46.7	0	53.3	0		
Total %	7	35.7	2.2	0	44.9	0	0	0	0	0	2.2	46.3	0	0	48.5	3.1	0	3.5	0	6.6	
Trucks	16	42	4	0	62	0	0	0	0	0	3	60	0	0	63	6	0	5	0	11	136
% Trucks	100	51.9	80	0	60.8	0	0	0	0	0	60	57.1	0	0	57.3	85.7	0	62.5	0	73.3	59.9
Buses	0	39	1	0	40	0	0	0	0	0	2	45	0	0	47	1	0	3	0	4	91
% Buses	0	48.1	20	0	39.2	0	0	0	0	0	40	42.9	0	0	42.7	14.3	0	37.5	0	26.7	40.1

Intersection Turning Movement Count

59th St W @ 29th Ave W
Manatee County, FL

File Name : 21003-17 Thu peds
Site Code : 21003-17
Start Date : 3/25/2021
Page No : 1

Groups Printed- Peds - Bikes

	59th St W Southbound	Private Driveway Westbound	59th St W Northbound	29th Ave W Eastbound	
Start Time	Peds	Peds	Peds	Peds	Int. Total
07:00	0	0	1	0	1
07:15	0	0	1	2	3
07:30	0	0	3	1	4
07:45	0	0	0	1	1
Total	0	0	5	4	9
08:00	0	1	3	0	4
08:15	0	0	2	2	4
08:30	0	2	5	4	11
08:45	0	0	6	2	8
Total	0	3	16	8	27
09:00	0	0	0	0	0
09:15	0	0	0	0	0
09:30	0	0	0	0	0
09:45	0	0	0	0	0
Total	0	0	0	0	0
10:00	0	0	0	0	0
10:15	0	0	0	0	0
10:30	0	0	0	0	0
10:45	0	0	0	0	0
Total	0	0	0	0	0
11:00	0	0	0	0	0
11:15	0	0	0	0	0
11:30	0	0	4	2	6
11:45	0	0	1	0	1
Total	0	0	5	2	7
12:00	0	0	7	1	8
12:15	1	0	0	0	1
12:30	0	0	4	0	4
12:45	0	0	1	0	1
Total	1	0	12	1	14
13:00	0	0	1	0	1
13:15	0	0	1	0	1
13:30	0	0	0	0	0
13:45	0	0	0	0	0
Total	0	0	2	0	2
14:00	0	0	0	0	0
14:15	0	0	0	0	0
14:30	1	1	0	1	3
14:45	0	0	2	2	4
Total	1	1	2	3	7
15:00	0	0	0	1	1
15:15	0	0	1	0	1
15:30	1	0	0	1	2
15:45	0	0	0	1	1
Total	1	0	1	3	5

Intersection Turning Movement Count

59th St W @ 29th Ave W
Manatee County, FL

File Name : 21003-17 Thu peds
Site Code : 21003-17
Start Date : 3/25/2021

Groups Printed- Peds - Bikes

	59th St W Southbound	Private Driveway Westbound	59th St W Northbound	29th Ave W Eastbound	
Start Time	Peds	Peds	Peds	Peds	Int. Total
16:00	0	0	2	3	5
16:15	0	0	3	0	3
16:30	0	0	2	2	4
16:45	1	0	1	0	2
Total	1	0	8	5	14
17:00	0	0	0	0	0
17:15	0	0	0	1	1
17:30	0	0	0	0	0
17:45	0	0	0	0	0
Total	0	0	0	1	1
18:00	0	0	3	1	4
18:15	0	0	0	1	1
Grand Total	4	4	54	29	91
Apprch %	100	100	100	100	
Total %	4.4	4.4	59.3	31.9	
Peds	3	4	32	15	54
% Peds	75	100	59.3	51.7	59.3
Bikes	1	0	22	14	37
% Bikes	25	0	40.7	48.3	40.7

Intersection Turning Movement Count

59th St W @ 21st Ave W
Manatee County, FL

File Name : 21003-18 Thu
Site Code : 21003-18
Start Date : 3/25/2021
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	59th St W Southbound					21st Ave W Westbound					59th St W Northbound					21st Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
07:00	6	67	15	0	88	10	10	7	0	27	13	58	25	0	96	8	1	9	0	18	229
07:15	7	65	16	0	88	18	12	12	0	42	16	76	27	0	119	6	7	5	0	18	267
07:30	21	99	16	0	136	30	22	18	0	70	14	72	23	0	109	14	21	15	0	50	365
07:45	27	119	21	0	167	22	24	21	0	67	20	88	30	0	138	4	15	3	0	22	394
Total	61	350	68	0	479	80	68	58	0	206	63	294	105	0	462	32	44	32	0	108	1255
08:00	13	85	10	0	108	40	22	20	0	82	10	79	12	0	101	10	11	11	0	32	323
08:15	11	117	13	0	141	20	11	13	0	44	19	108	22	0	149	9	6	6	0	21	355
08:30	7	103	11	0	121	27	11	24	0	62	20	70	9	0	99	3	14	17	0	34	316
08:45	17	102	12	0	131	28	11	16	0	55	12	96	16	0	124	6	4	5	0	15	325
Total	48	407	46	0	501	115	55	73	0	243	61	353	59	0	473	28	35	39	0	102	1319
Break																					
11:30	13	96	6	0	115	24	12	14	0	50	16	109	32	0	157	15	15	12	0	42	364
11:45	17	107	12	0	136	27	14	21	0	62	16	121	11	0	148	20	10	10	0	40	386
Total	30	203	18	0	251	51	26	35	0	112	32	230	43	0	305	35	25	22	0	82	750
12:00	20	110	9	0	139	23	16	13	0	52	8	136	15	0	159	18	18	11	0	47	397
12:15	19	112	2	0	133	10	11	13	0	34	11	115	17	0	143	8	11	14	0	33	343
12:30	13	106	4	0	123	21	5	14	0	40	14	94	18	0	126	20	10	12	0	42	331
12:45	25	121	12	0	158	18	18	13	0	49	15	105	16	0	136	11	14	20	0	45	388
Total	77	449	27	0	553	72	50	53	0	175	48	450	66	0	564	57	53	57	0	167	1459
13:00	23	108	8	0	139	20	6	19	0	45	11	87	22	0	120	16	16	9	0	41	345
13:15	24	113	8	0	145	24	12	12	0	48	14	107	16	0	137	9	14	7	0	30	360
Break																					
Total	47	221	16	0	284	44	18	31	0	93	25	194	38	0	257	25	30	16	0	71	705
Break																					
14:30	19	112	5	0	136	34	8	8	0	50	18	102	20	0	140	24	11	7	0	42	368
14:45	21	86	3	0	110	46	6	14	0	66	20	103	22	0	145	21	15	22	0	58	379
Total	40	198	8	0	246	80	14	22	0	116	38	205	42	0	285	45	26	29	0	100	747
15:00	33	119	6	0	158	27	9	24	0	60	17	97	20	0	134	25	22	16	0	63	415
15:15	14	141	2	0	157	27	10	22	0	59	9	106	26	0	141	19	24	17	0	60	417
15:30	31	116	2	0	149	36	12	19	0	67	14	93	31	0	138	22	27	17	0	66	420
15:45	24	122	2	0	148	35	11	15	0	61	7	110	34	0	151	24	18	13	0	55	415
Total	102	498	12	0	612	125	42	80	0	247	47	406	111	0	564	90	91	63	0	244	1667
16:00	18	100	0	0	118	36	13	13	0	62	9	88	27	0	124	35	32	16	0	83	387
16:15	17	124	1	0	142	22	11	8	0	41	12	113	50	0	175	14	24	9	0	47	405
16:30	27	110	4	0	141	32	11	17	0	60	11	108	29	0	148	31	29	10	0	70	419
16:45	14	102	4	0	120	32	10	6	0	48	7	104	24	0	135	15	21	9	0	45	348
Total	76	436	9	0	521	122	45	44	0	211	39	413	130	0	582	95	106	44	0	245	1559
17:00	33	122	5	0	160	37	9	9	0	55	5	120	34	0	159	28	37	8	0	73	447
17:15	15	121	4	0	140	37	15	9	0	61	11	84	28	0	123	20	29	18	0	67	391
17:30	12	135	4	0	151	23	6	15	0	44	10	116	23	0	149	13	14	9	0	36	380
17:45	14	126	3	0	143	36	7	11	0	54	4	85	10	0	99	11	9	10	0	30	326
Total	74	504	16	0	594	133	37	44	0	214	30	405	95	0	530	72	89	45	0	206	1544
18:00	15	120	2	0	137	18	5	11	0	34	5	99	17	0	121	13	5	11	0	29	321
18:15	9	86	4	0	99	10	2	5	0	17	5	84	14	0	103	8	9	5	0	22	241
Grand Total	579	3472	226	0	4277	850	362	456	0	1668	393	3133	720	0	4246	500	513	363	0	1376	11567
Apprch %	13.5	81.2	5.3	0		51	21.7	27.3	0		9.3	73.8	17	0		36.3	37.3	26.4	0		
Total %	5	30	2	0	37	7.3	3.1	3.9	0	14.4	3.4	27.1	6.2	0	36.7	4.3	4.4	3.1	0	11.9	

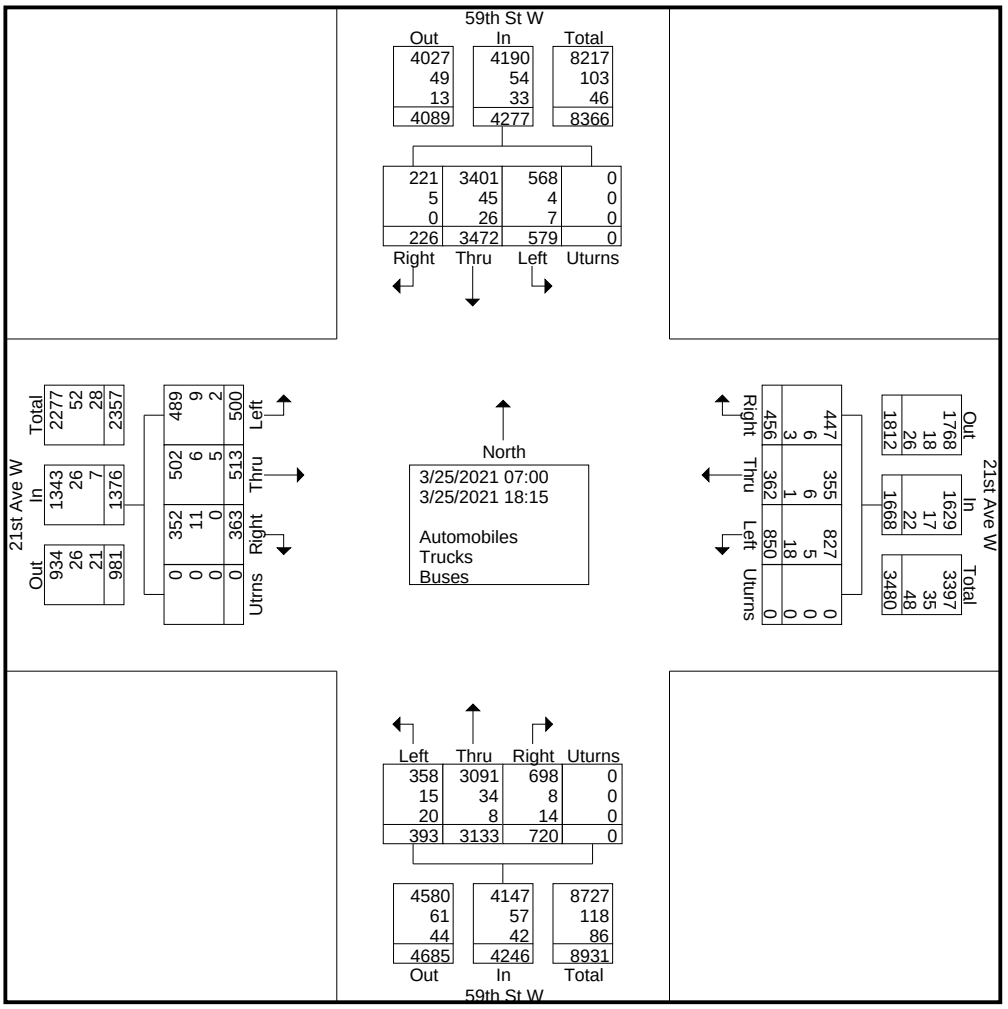
Intersection Turning Movement Count

59th St W @ 21st Ave W
Manatee County, FL

File Name : 21003-18 Thu
Site Code : 21003-18
Start Date : 3/25/2021
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Groups Printed- Automobiles - Trucks - Buses

	59th St W Southbound					21st Ave W Westbound					59th St W Northbound					21st Ave W Eastbound					
	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Automobiles	568	3401	221	0	4190	827	355	447	0	1629	358	3091	698	0	4147	489	502	352	0	1343	11309
% Automobiles	98.1	98	97.8	0	98	97.3	98.1	98	0	97.7	91.1	98.7	96.9	0	97.7	97.8	97.9	97	0	97.6	97.8
Trucks	4	45	5	0	54	5	6	6	0	17	15	34	8	0	57	9	6	11	0	26	154
% Trucks	0.7	1.3	2.2	0	1.3	0.6	1.7	1.3	0	1	3.8	1.1	1.1	0	1.3	1.8	1.2	3	0	1.9	1.3
Buses	7	26	0	0	33	18	1	3	0	22	20	8	14	0	42	2	5	0	0	7	104
% Buses	1.2	0.7	0	0	0.8	2.1	0.3	0.7	0	1.3	5.1	0.3	1.9	0	1	0.4	1	0	0	0.5	0.9



Intersection Turning Movement Count

59th St W @ 21st Ave W
Manatee County, FL

File Name : 21003-18 Thu
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	59th St W Southbound					21st Ave W Westbound					59th St W Northbound					21st Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	21	99	16	0	136	30	22	18	0	70	14	72	23	0	109	**14**	**21**	**15**	0	**50**	365
07:45	**27**	**119**	**21**	0	**167**	22	**24**	**21**	0	67	**20**	88	**30**	0	138	4	15	3	0	22	**394**
08:00	13	85	10	0	108	**40**	22	20	0	**82**	10	79	12	0	101	10	11	11	0	32	323
08:15	11	117	13	0	141	20	11	13	0	44	19	**108**	22	0	**149**	9	6	6	0	21	355
Total Volume	72	420	60	0	552	112	79	72	0	263	63	347	87	0	497	37	53	35	0	125	1437
% App. Total	13	76.1	10.9	0		42.6	30	27.4	0		12.7	69.8	17.5	0		29.6	42.4	28	0		
PHF	.667	.882	.714	.000	.826	.700	.823	.857	.000	.802	.788	.803	.725	.000	.834	.661	.631	.583	.000	.625	.912
Automobiles	71	412	60	0	543	107	79	71	0	257	60	341	82	0	483	36	50	33	0	119	1402
% Automobiles	98.6	98.1	100	0	98.4	95.5	100	98.6	0	97.7	95.2	98.3	94.3	0	97.2	97.3	94.3	94.3	0	95.2	97.6
Trucks	0	5	0	0	5	3	0	0	0	3	2	4	2	0	8	1	1	2	0	4	20
% Trucks	0	1.2	0	0	0.9	2.7	0	0	0	1.1	3.2	1.2	2.3	0	1.6	2.7	1.9	5.7	0	3.2	1.4
Buses	1	3	0	0	4	2	0	1	0	3	1	2	3	0	6	0	2	0	0	2	15
% Buses	1.4	0.7	0	0	0.7	1.8	0	1.4	0	1.1	1.6	0.6	3.4	0	1.2	0	3.8	0	0	1.6	1.0

Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30					07:30					07:30					07:30				
+0 mins.	21	99	16	0	136	30	22	18	0	70	14	72	23	0	109	**14**	**21**	**15**	0	**50**
+15 mins.	**27**	**119**	**21**	0	**167**	22	**24**	**21**	0	67	**20**	88	**30**	0	138	4	15	3	0	22
+30 mins.	13	85	10	0	108	**40**	22	20	0	**82**	10	79	12	0	101	10	11	11	0	32
+45 mins.	11	117	13	0	141	20	11	13	0	44	19	**108**	22	0	**149**	9	6	6	0	21
Total Volume	72	420	60	0	552	112	79	72	0	263	63	347	87	0	497	37	53	35	0	125
% App. Total	13	76.1	10.9	0		42.6	30	27.4	0		12.7	69.8	17.5	0		29.6	42.4	28	0	
PHF	.667	.882	.714	.000	.826	.700	.823	.857	.000	.802	.788	.803	.725	.000	.834	.661	.631	.583	.000	.625
Automobiles	71	412	60	0	543	107	79	71	0	257	60	341	82	0	483	36	50	33	0	119
% Automobiles	98.6	98.1	100	0	98.4	95.5	100	98.6	0	97.7	95.2	98.3	94.3	0	97.2	97.3	94.3	94.3	0	95.2
Trucks	0	5	0	0	5	3	0	0	0	3	2	4	2	0	8	1	1	2	0	4
% Trucks	0	1.2	0	0	0.9	2.7	0	0	0	1.1	3.2	1.2	2.3	0	1.6	2.7	1.9	5.7	0	3.2
Buses	1	3	0	0	4	2	0	1	0	3	1	2	3	0	6	0	2	0	0	2
% Buses	1.4	0.7	0	0	0.7	1.8	0	1.4	0	1.1	1.6	0.6	3.4	0	1.2	0	3.8	0	0	1.6

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:30

11:30	13	96	6	0	115	24	12	14	0	50	**16**	109	**32**	0	157	15	15	12	0	42	364
11:45	17	107	**12**	0	136	**27**	14	**21**	0	**62**	16	121	11	0	148	**20**	10	10	0	40	386
12:00	**20**	110	9	0	**139**	23	**16**	13	0	52	8	**136**	15	0	**159**	18	**18**	11	0	**47**	**397**
12:15	19	**112**	2	0	133	10	11	13	0	34	11	115	17	0	143	8	11	**14**	0	33	343
Total Volume	69	425	29	0	523	84	53	61	0	198	51	481	75	0	607	61	54	47	0	162	1490
% App. Total	13.2	81.3	5.5	0		42.4	26.8	30.8	0		8.4	79.2	12.4	0		37.7	33.3	29	0		
PHF	.863	.949	.604	.000	.941	.778	.828	.726	.000	.798	.797	.884	.586	.000	.954	.763	.750	.839	.000	.862	.938
Automobiles	67	420	29	0	516	84	53	60	0	197	45	467	75	0	587	58	54	46	0	158	1458
% Automobiles	97.1	98.8	100	0	98.7	100	100	98.4	0	99.5	88.2	97.1	100	0	96.7	95.1	100	97.9	0	97.5	97.9
Trucks	1	3	0	0	4	0	0	1	0	1	3	14	0	0	17	1	0	1	0	2	24
% Trucks	1.4	0.7	0	0	0.8	0	0	1.6	0	0.5	5.9	2.9	0	0	2.8	1.6	0	2.1	0	1.2	1.6
Buses	1	2	0	0	3	0	0	0	0	0	3	0	0	0	3	2	0	0	0	2	8
% Buses	1.4	0.5	0	0	0.6	0	0	0	0	0	5.9	0	0	0	0.5	3.3	0	0	0	1.2	0.5

Intersection Turning Movement Count

59th St W @ 21st Ave W
Manatee County, FL

File Name : 21003-18 Thu
Site Code : 21003-18
Start Date : 3/25/2021
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	59th St W Southbound					21st Ave W Westbound					59th St W Northbound					21st Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	12:30					11:30					11:30					12:00					
+0 mins.	13	106	4	0	123	24	12	14	0	50	**16**	109	**32**	0	157	18	**18**	11	0	**47**	
+15 mins.	**25**	**121**	**12**	0	**158**	**27**	14	**21**	0	**62**	16	121	11	0	148	8	11	14	0	33	
+30 mins.	23	108	8	0	139	23	**16**	13	0	52	8	**136**	15	0	**159**	**20**	10	12	0	42	
+45 mins.	24	113	8	0	145	10	11	13	0	34	11	115	17	0	143	11	14	**20**	0	45	
Total Volume	85	448	32	0	565	84	53	61	0	198	51	481	75	0	607	57	53	57	0	167	
% App. Total	15	79.3	5.7	0		42.4	26.8	30.8	0		8.4	79.2	12.4	0		34.1	31.7	34.1	0		
PHF	.850	.926	.667	.000	.894	.778	.828	.726	.000	.798	.797	.884	.586	.000	.954	.713	.736	.713	.000	.888	
Automobiles	84	434	31	0	549	84	53	60	0	197	45	467	75	0	587	56	50	56	0	162	
% Automobiles	98.8	96.9	96.9	0	97.2	100	100	98.4	0	99.5	88.2	97.1	100	0	96.7	98.2	94.3	98.2	0	97	
Trucks	1	11	1	0	13	0	0	1	0	1	3	14	0	0	17	1	1	1	0	3	
% Trucks	1.2	2.5	3.1	0	2.3	0	0	1.6	0	0.5	5.9	2.9	0	0	2.8	1.8	1.9	1.8	0	1.8	
Buses	0	3	0	0	3	0	0	0	0	0	3	0	0	0	3	0	2	0	0	2	
% Buses	0	0.7	0	0	0.5	0	0	0	0	0	5.9	0	0	0	0.5	0	3.8	0	0	1.2	
Peak Hour Analysis From 14:00 to 18:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 15:00																					
15:00	**33**	119	**6**	0	**158**	27	9	**24**	0	60	**17**	97	20	0	134	**25**	22	16	0	63	415
15:15	14	**141**	2	0	157	27	10	22	0	59	9	106	26	0	141	19	24	**17**	0	60	417
15:30	31	116	2	0	149	**36**	**12**	19	0	**67**	14	93	31	0	138	22	**27**	17	0	**66**	**420**
15:45	24	122	2	0	148	35	11	15	0	61	7	**110**	**34**	0	**151**	24	18	13	0	55	415
Total Volume	102	498	12	0	612	125	42	80	0	247	47	406	111	0	564	90	91	63	0	244	1667
% App. Total	16.7	81.4	2	0		50.6	17	32.4	0		8.3	72	19.7	0		36.9	37.3	25.8	0		
PHF	.773	.883	.500	.000	.968	.868	.875	.833	.000	.922	.691	.923	.816	.000	.934	.900	.843	.926	.000	.924	.992
Automobiles	100	489	11	0	600	117	39	80	0	236	42	399	107	0	548	88	89	60	0	237	1621
% Automobiles	98.0	98.2	91.7	0	98.0	93.6	92.9	100	0	95.5	89.4	98.3	96.4	0	97.2	97.8	97.8	95.2	0	97.1	97.2
Trucks	0	6	1	0	7	1	2	0	0	3	3	7	3	0	13	2	1	3	0	6	29
% Trucks	0	1.2	8.3	0	1.1	0.8	4.8	0	0	1.2	6.4	1.7	2.7	0	2.3	2.2	1.1	4.8	0	2.5	1.7
Buses	2	3	0	0	5	7	1	0	0	8	2	0	1	0	3	0	1	0	0	1	17
% Buses	2.0	0.6	0	0	0.8	5.6	2.4	0	0	3.2	4.3	0	0.9	0	0.5	0	1.1	0	0	0.4	1.0
Peak Hour Analysis From 14:00 to 18:15 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	15:00					14:45					16:15					15:15					
+0 mins.	**33**	119	**6**	0	**158**	**46**	6	14	0	66	**12**	113	**50**	0	**175**	19	24	**17**	0	60	
+15 mins.	14	**141**	2	0	157	27	9	**24**	0	60	11	108	29	0	148	22	27	17	0	66	
+30 mins.	31	116	2	0	149	27	10	22	0	59	7	104	24	0	135	24	18	13	0	55	
+45 mins.	24	122	2	0	148	36	**12**	19	0	**67**	5	**120**	34	0	159	**35**	**32**	16	0	**83**	
Total Volume	102	498	12	0	612	136	37	79	0	252	35	445	137	0	617	100	101	63	0	264	
% App. Total	16.7	81.4	2	0		54	14.7	31.3	0		5.7	72.1	22.2	0		37.9	38.3	23.9	0		
PHF	.773	.883	.500	.000	.968	.739	.771	.823	.000	.940	.729	.927	.685	.000	.881	.714	.789	.926	.000	.795	
Automobiles	100	489	11	0	600	130	34	78	0	242	31	442	132	0	605	98	99	59	0	256	
% Automobiles	98	98.2	91.7	0	98	95.6	91.9	98.7	0	96	88.6	99.3	96.4	0	98.1	98	98	93.7	0	97	
Trucks	0	6	1	0	7	1	2	1	0	4	1	1	1	0	3	2	1	4	0	7	
% Trucks	0	1.2	8.3	0	1.1	0.7	5.4	1.3	0	1.6	2.9	0.2	0.7	0	0.5	2	1	6.3	0	2.7	
Buses	2	3	0	0	5	5	1	0	0	6	3	2	4	0	9	0	1	0	0	1	
% Buses	2	0.6	0	0	0.8	3.7	2.7	0	0	2.4	8.6	0.4	2.9	0	1.5	0	1	0	0	0.4	

Intersection Turning Movement Count

59th St W @ 21st Ave W
Manatee County, FL

File Name : 21003-18 Thu
Site Code : 21003-18
Start Date : 3/25/2021
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Groups Printed- Trucks - Buses

	59th St W Southbound					21st Ave W Westbound					59th St W Northbound					21st Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
07:00	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	4
07:15	0	2	0	0	2	2	0	0	0	2	4	0	1	0	5	0	0	0	0	0	9
07:30	1	3	0	0	4	0	0	0	0	0	1	2	2	0	5	0	0	1	0	1	10
07:45	0	3	0	0	3	0	0	1	0	1	1	0	2	0	3	0	0	0	0	0	7
Total	1	9	0	0	10	2	1	1	0	4	6	2	6	0	14	0	0	2	0	2	30
08:00	0	1	0	0	1	4	0	0	0	4	0	2	1	0	3	0	1	1	0	2	10
08:15	0	1	0	0	1	1	0	0	0	1	1	2	0	0	3	1	2	0	0	3	8
08:30	0	7	0	0	7	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	9
08:45	0	2	0	0	2	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
Total	0	11	0	0	11	8	0	0	0	8	2	5	1	0	8	1	3	1	0	5	32
Break																					
11:30	1	2	0	0	3	0	0	0	0	0	1	3	0	0	4	1	0	0	0	1	8
11:45	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	2	0	1	0	3	8
Total	1	4	0	0	5	0	0	1	0	1	2	4	0	0	6	3	0	1	0	4	16
12:00	1	1	0	0	2	0	0	0	0	0	2	5	0	0	7	0	0	0	0	0	9
12:15	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	0	0	0	0	0	7
12:30	0	7	0	0	7	0	1	1	0	2	0	2	1	0	3	0	2	0	0	2	14
12:45	0	2	0	0	2	1	1	1	0	3	0	1	1	0	2	1	1	1	0	3	10
Total	1	10	0	0	11	1	2	2	0	5	4	13	2	0	19	1	3	1	0	5	40
13:00	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
13:15	1	2	1	0	4	0	0	0	0	0	2	4	0	0	6	0	0	0	0	0	10
Break																					
Total	1	5	1	0	7	0	0	0	0	0	2	4	0	0	6	0	0	1	0	1	14
Break																					
14:30	1	5	0	0	6	1	0	0	0	1	2	0	0	0	2	2	2	0	0	4	13
14:45	0	2	0	0	2	0	0	1	0	1	1	1	1	0	3	1	0	0	0	1	7
Total	1	7	0	0	8	1	0	1	0	2	3	1	1	0	5	3	2	0	0	5	20
15:00	0	2	1	0	3	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0	7
15:15	1	4	0	0	5	5	2	0	0	7	2	0	2	0	4	0	1	0	0	1	17
15:30	1	2	0	0	3	0	0	0	0	0	2	1	1	0	4	0	0	2	0	2	9
15:45	0	1	0	0	1	2	0	0	0	2	0	5	1	0	6	2	1	1	0	4	13
Total	2	9	1	0	12	8	3	0	0	11	5	7	4	0	16	2	2	3	0	7	46
16:00	0	3	0	0	3	1	1	1	0	3	1	2	1	0	4	0	0	1	0	1	11
16:15	0	1	0	0	1	0	0	2	0	2	2	2	4	0	8	0	0	0	0	0	11
16:30	1	4	0	0	5	1	0	0	0	1	1	0	0	0	1	0	1	0	0	1	8
16:45	0	2	1	0	3	1	0	1	0	2	1	1	0	0	2	0	0	1	0	1	8
Total	1	10	1	0	12	3	1	4	0	8	5	5	5	0	15	0	1	2	0	3	38
17:00	1	1	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3
17:15	1	3	0	0	4	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	6
17:30	1	2	1	0	4	0	0	0	0	0	2	0	1	0	3	0	0	0	0	0	7
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	3	6	1	0	10	0	0	0	0	0	4	0	2	0	6	1	0	0	0	1	17
18:00	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
18:15	0	0	1	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3
Grand Total	11	71	5	0	87	23	7	9	0	39	35	42	22	0	99	11	11	11	0	33	258
Apprch %	12.6	81.6	5.7	0		59	17.9	23.1	0		35.4	42.4	22.2	0		33.3	33.3	33.3	0		
Total %	4.3	27.5	1.9	0	33.7	8.9	2.7	3.5	0	15.1	13.6	16.3	8.5	0	38.4	4.3	4.3	4.3	0	12.8	
Trucks	4	45	5	0	54	5	6	6	0	17	15	34	8	0	57	9	6	11	0	26	154
% Trucks	36.4	63.4	100	0	62.1	21.7	85.7	66.7	0	43.6	42.9	81	36.4	0	57.6	81.8	54.5	100	0	78.8	59.7
Buses	7	26	0	0	33	18	1	3	0	22	20	8	14	0	42	2	5	0	0	7	104
% Buses	63.6	36.6	0	0	37.9	78.3	14.3	33.3	0	56.4	57.1	19	63.6	0	42.4	18.2	45.5	0	0	21.2	40.3

Intersection Turning Movement Count

59th St W @ 21st Ave W
Manatee County, FL

File Name : 21003-18 Thu peds
Site Code : 21003-18
Start Date : 3/25/2021
Page No : 1

Groups Printed- Peds - Bikes

	59th St W Southbound	21st Ave W Westbound	59th St W Northbound	21st Ave W Eastbound	
Start Time	Peds	Peds	Peds	Peds	Int. Total
07:00	0	0	0	0	0
07:15	0	5	0	2	7
07:30	0	2	1	1	4
07:45	0	4	0	3	7
Total	0	11	1	6	18
08:00	0	0	0	1	1
08:15	0	2	0	1	3
08:30	0	2	0	0	2
08:45	0	1	0	0	1
Total	0	5	0	2	7
09:00	0	0	0	0	0
09:15	0	0	0	0	0
09:30	0	0	0	0	0
09:45	0	0	0	0	0
Total	0	0	0	0	0
10:00	0	0	0	0	0
10:15	0	0	0	0	0
10:30	0	0	0	0	0
10:45	0	0	0	0	0
Total	0	0	0	0	0
11:00	0	0	0	0	0
11:15	0	0	0	0	0
11:30	0	1	0	0	1
11:45	0	1	1	1	3
Total	0	2	1	1	4
12:00	0	1	1	0	2
12:15	0	0	0	1	1
12:30	0	1	0	1	2
12:45	0	1	0	0	1
Total	0	3	1	2	6
13:00	0	1	1	0	2
13:15	0	1	0	0	1
13:30	0	0	0	0	0
13:45	0	0	0	0	0
Total	0	2	1	0	3
14:00	0	0	0	1	1
14:15	0	0	0	1	1
14:30	0	2	0	1	3
14:45	0	2	0	0	2
Total	0	4	0	3	7
15:00	0	1	0	0	1
15:15	0	0	0	0	0
15:30	0	0	2	4	6
15:45	0	0	0	4	4
Total	0	1	2	8	11

Intersection Turning Movement Count

59th St W @ 21st Ave W
Manatee County, FL

File Name : 21003-18 Thu peds
Site Code : 21003-18
Start Date : 3/25/2021

Groups Printed- Peds - Bikes

	59th St W Southbound	21st Ave W Westbound	59th St W Northbound	21st Ave W Eastbound	
Start Time	Peds	Peds	Peds	Peds	Int. Total
16:00	0	0	0	2	2
16:15	0	2	0	1	3
16:30	0	0	0	0	0
16:45	0	0	0	1	1
Total	0	2	0	4	6
17:00	0	1	0	1	2
17:15	0	1	1	3	5
17:30	0	2	1	0	3
17:45	0	2	0	1	3
Total	0	6	2	5	13
18:00	0	0	0	0	0
18:15	0	3	0	1	4
Grand Total	0	39	8	32	79
Apprch %	0	100	100	100	
Total %	0	49.4	10.1	40.5	
Peds	0	25	3	19	47
% Peds	0	64.1	37.5	59.4	59.5
Bikes	0	14	5	13	32
% Bikes	0	35.9	62.5	40.6	40.5

Intersection Turning Movement Count

59th St W @ 17th Ave W
Manatee County, FL

File Name : 21003-19 Thu
Site Code : 21003-19
Start Date : 4/8/2021
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	59th St W Southbound					17th Ave W Westbound					59th St W Northbound					17th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
07:00	4	94	15	0	113	3	11	1	0	15	3	61	8	0	72	6	10	7	0	23	223
07:15	5	103	22	0	130	2	16	7	0	25	4	86	10	0	100	3	8	8	0	19	274
07:30	5	118	22	0	145	8	16	13	0	37	4	85	3	0	92	3	9	15	0	27	301
07:45	14	153	18	0	185	8	23	23	0	54	13	89	2	0	104	5	17	19	0	41	384
Total	28	468	77	0	573	21	66	44	0	131	24	321	23	0	368	17	44	49	0	110	1182
08:00	5	107	14	0	126	14	26	21	0	61	8	93	6	0	107	6	7	9	0	22	316
08:15	6	145	20	0	171	10	22	18	0	50	16	90	6	1	113	7	14	16	0	37	371
08:30	6	129	12	1	148	7	27	12	0	46	8	92	6	0	106	14	14	16	0	44	344
08:45	7	110	17	0	134	6	22	9	0	37	8	97	7	0	112	5	11	13	0	29	312
Total	24	491	63	1	579	37	97	60	0	194	40	372	25	1	438	32	46	54	0	132	1343
Break																					
11:30	4	92	13	0	109	6	13	11	0	30	18	147	9	2	176	7	15	14	0	36	351
11:45	11	108	21	0	140	9	13	3	0	25	14	133	9	0	156	13	11	12	0	36	357
Total	15	200	34	0	249	15	26	14	0	55	32	280	18	2	332	20	26	26	0	72	708
12:00	8	133	20	0	161	6	11	6	0	23	8	164	11	0	183	11	12	10	0	33	400
12:15	6	126	13	0	145	8	15	13	0	36	15	125	8	0	148	19	13	4	0	36	365
12:30	15	131	18	1	165	8	11	9	0	28	8	132	7	0	147	9	15	15	0	39	379
12:45	8	137	11	0	156	8	20	15	0	43	11	95	12	0	118	16	18	10	0	44	361
Total	37	527	62	1	627	30	57	43	0	130	42	516	38	0	596	55	58	39	0	152	1505
13:00	7	140	19	0	166	4	11	6	0	21	16	116	7	0	139	8	12	7	0	27	353
13:15	11	100	9	0	120	6	16	14	0	36	12	108	6	0	126	7	17	10	0	34	316
Break																					
Total	18	240	28	0	286	10	27	20	0	57	28	224	13	0	265	15	29	17	0	61	669
Break																					
14:30	13	115	20	0	148	7	25	7	0	39	8	142	9	0	159	9	11	15	0	35	381
14:45	9	104	19	1	133	5	9	12	0	26	6	121	6	0	133	13	12	10	0	35	327
Total	22	219	39	1	281	12	34	19	0	65	14	263	15	0	292	22	23	25	0	70	708
15:00	14	116	16	0	146	6	17	3	0	26	10	134	12	0	156	14	32	14	0	60	388
15:15	5	114	20	0	139	8	19	13	0	40	17	147	9	0	173	19	23	10	0	52	404
15:30	9	119	17	0	145	3	30	11	0	44	9	148	15	0	172	13	30	14	0	57	418
15:45	10	131	4	1	146	7	26	10	1	44	14	126	10	0	150	20	29	14	0	63	403
Total	38	480	57	1	576	24	92	37	1	154	50	555	46	0	651	66	114	52	0	232	1613
16:00	11	115	14	0	140	7	19	7	0	33	9	108	10	0	127	10	17	11	0	38	338
16:15	11	98	10	0	119	4	18	5	0	27	13	128	12	0	153	11	27	11	0	49	348
16:30	16	100	9	0	125	3	11	7	0	21	11	151	23	0	185	10	21	13	0	44	375
16:45	11	82	3	0	96	5	21	6	0	32	9	118	16	0	143	5	21	12	0	38	309
Total	49	395	36	0	480	19	69	25	0	113	42	505	61	0	608	36	86	47	0	169	1370
17:00	14	104	8	0	126	3	16	5	0	24	5	139	16	0	160	15	28	8	0	51	361
17:15	13	98	8	0	119	8	16	10	0	34	17	125	10	0	152	12	19	12	0	43	348
17:30	13	136	6	0	155	6	15	9	0	30	8	113	18	0	139	4	19	17	0	40	364
17:45	11	125	6	0	142	3	26	8	0	37	12	113	11	0	136	8	10	11	0	29	344
Total	51	463	28	0	542	20	73	32	0	125	42	490	55	0	587	39	76	48	0	163	1417
18:00	6	119	9	0	134	2	11	5	0	18	5	109	7	0	121	5	20	6	0	31	304
18:15	5	116	7	0	128	2	13	8	0	23	5	85	8	0	98	2	4	12	0	18	267
Grand Total	293	3718	440	4	4455	192	565	307	1	1065	324	3720	309	3	4356	309	526	375	0	1210	11086
Apprch %	6.6	83.5	9.9	0.1		18	53.1	28.8	0.1		7.4	85.4	7.1	0.1		25.5	43.5	31	0		
Total %	2.6	33.5	4	0	40.2	1.7	5.1	2.8	0	9.6	2.9	33.6	2.8	0	39.3	2.8	4.7	3.4	0	10.9	

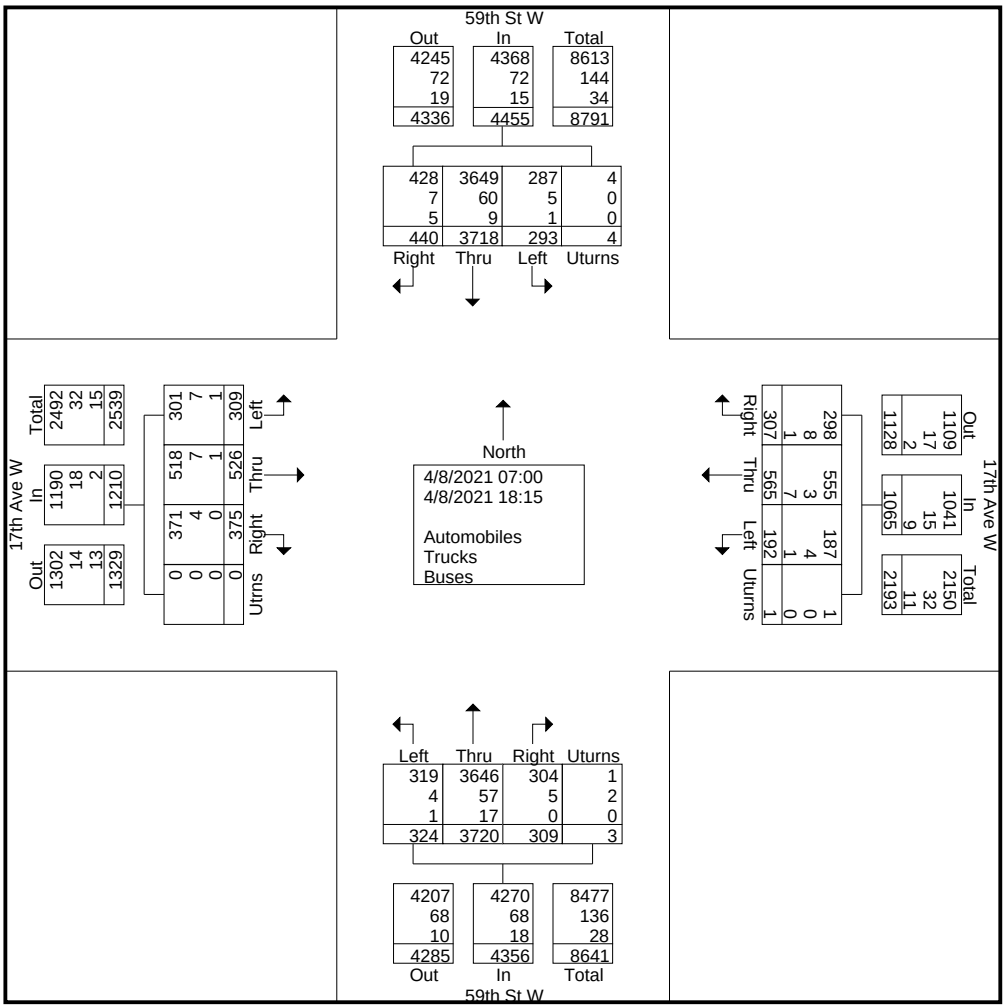
Intersection Turning Movement Count

59th St W @ 17th Ave W
Manatee County, FL

File Name : 21003-19 Thu
Site Code : 21003-19
Start Date : 4/8/2021
Page No : 2

Groups Printed- Automobiles - Trucks - Buses

	59th St W Southbound					17th Ave W Westbound					59th St W Northbound					17th Ave W Eastbound					
	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Automobiles	287	3649	428	4	4368	187	555	298	1	1041	319	3646	304	1	4270	301	518	371	0	1190	10869
% Automobiles	98	98.1	97.3	100	98	97.4	98.2	97.1	100	97.7	98.5	98	98.4	33.3	98	97.4	98.5	98.9	0	98.3	98
Trucks	5	60	7	0	72	4	3	8	0	15	4	57	5	2	68	7	7	4	0	18	173
% Trucks	1.7	1.6	1.6	0	1.6	2.1	0.5	2.6	0	1.4	1.2	1.5	1.6	66.7	1.6	2.3	1.3	1.1	0	1.5	1.6
Buses	1	9	5	0	15	1	7	1	0	9	1	17	0	0	18	1	1	0	0	2	44
% Buses	0.3	0.2	1.1	0	0.3	0.5	1.2	0.3	0	0.8	0.3	0.5	0	0	0.4	0.3	0.2	0	0	0.2	0.4



Intersection Turning Movement Count

59th St W @ 17th Ave W
Manatee County, FL

File Name : 21003-19 Thu
Site Code : 21003-19
Start Date : 4/8/2021
Page No : 3

	59th St W Southbound					17th Ave W Westbound					59th St W Northbound					17th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	**14**	**153**	18	0	**185**	8	23	**23**	0	54	13	89	2	0	104	5	**17**	**19**	0	41	**384**
08:00	5	107	14	0	126	**14**	26	21	0	**61**	8	**93**	**6**	0	107	6	7	9	0	22	316
08:15	6	145	**20**	0	171	10	22	18	0	50	**16**	90	6	**1**	**113**	7	14	16	0	37	371
08:30	6	129	12	**1**	148	7	**27**	12	0	46	8	92	6	0	106	**14**	14	16	0	**44**	344
Total Volume	31	534	64	1	630	39	98	74	0	211	45	364	20	1	430	32	52	60	0	144	1415
% App. Total	4.9	84.8	10.2	0.2		18.5	46.4	35.1	0		10.5	84.7	4.7	0.2		22.2	36.1	41.7	0		
PHF	.554	.873	.800	.250	.851	.696	.907	.804	.000	.865	.703	.978	.833	.250	.951	.571	.765	.789	.000	.818	.921
Automobiles	30	525	62	1	618	38	97	74	0	209	45	350	20	1	416	32	52	60	0	144	1387
% Automobiles	96.8	98.3	96.9	100	98.1	97.4	99.0	100	0	99.1	100	96.2	100	100	96.7	100	100	100	0	100	98.0
Trucks	0	9	1	0	10	1	1	0	0	2	0	10	0	0	10	0	0	0	0	0	22
% Trucks	0	1.7	1.6	0	1.6	2.6	1.0	0	0	0.9	0	2.7	0	0	2.3	0	0	0	0	0	1.6
Buses	1	0	1	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
% Buses	3.2	0	1.6	0	0.3	0	0	0	0	0	0	1.1	0	0	0.9	0	0	0	0	0	0.4

Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45					07:45					08:00					07:45					
+0 mins.	**14**	**153**	18	0	**185**	8	23	**23**	0	54	8	93	6	0	107	5	**17**	**19**	0	41	
+15 mins.	5	107	14	0	126	**14**	26	21	0	**61**	**16**	90	6	**1**	**113**	6	7	9	0	22	
+30 mins.	6	145	**20**	0	171	10	22	18	0	50	8	92	6	0	106	7	14	16	0	37	
+45 mins.	6	129	12	**1**	148	7	**27**	12	0	46	8	**97**	**7**	0	112	**14**	14	16	0	**44**	
Total Volume	31	534	64	1	630	39	98	74	0	211	40	372	25	1	438	32	52	60	0	144	
% App. Total	4.9	84.8	10.2	0.2		18.5	46.4	35.1	0		9.1	84.9	5.7	0.2		22.2	36.1	41.7	0		
PHF	.554	.873	.800	.250	.851	.696	.907	.804	.000	.865	.625	.959	.893	.250	.969	.571	.765	.789	.000	.818	
Automobiles	30	525	62	1	618	38	97	74	0	209	40	361	25	1	427	32	52	60	0	144	
% Automobiles	96.8	98.3	96.9	100	98.1	97.4	99	100	0	99.1	100	97	100	100	97.5	100	100	100	0	100	
Trucks	0	9	1	0	10	1	1	0	0	2	0	8	0	0	8	0	0	0	0	0	
% Trucks	0	1.7	1.6	0	1.6	2.6	1	0	0	0.9	0	2.2	0	0	1.8	0	0	0	0	0	
Buses	1	0	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	
% Buses	3.2	0	1.6	0	0.3	0	0	0	0	0	0	0.8	0	0	0.7	0	0	0	0	0	
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00																					
12:00	8	133	**20**	0	161	6	11	6	0	23	8	**164**	11	0	**183**	11	12	10	0	33	**400**
12:15	6	126	13	0	145	**8**	15	13	0	36	**15**	125	8	0	148	**19**	13	4	0	36	365
12:30	**15**	131	18	**1**	**165**	8	11	9	0	28	8	132	7	0	147	9	15	**15**	0	39	379
12:45	8	**137**	11	0	156	8	**20**	**15**	0	**43**	11	95	**12**	0	118	16	**18**	10	0	**44**	361
Total Volume	37	527	62	1	627	30	57	43	0	130	42	516	38	0	596	55	58	39	0	152	1505
% App. Total	5.9	84.1	9.9	0.2		23.1	43.8	33.1	0		7	86.6	6.4	0		36.2	38.2	25.7	0		
PHF	.617	.962	.775	.250	.950	.938	.713	.717	.000	.756	.700	.787	.792	.000	.814	.724	.806	.650	.000	.864	.941
Automobiles	35	517	59	1	612	28	54	40	0	122	42	506	36	0	584	53	57	38	0	148	1466
% Automobiles	94.6	98.1	95.2	100	97.6	93.3	94.7	93.0	0	93.8	100	98.1	94.7	0	98.0	96.4	98.3	97.4	0	97.4	97.4
Trucks	2	9	2	0	13	2	1	3	0	6	0	9	2	0	11	2	1	1	0	4	34
% Trucks	5.4	1.7	3.2	0	2.1	6.7	1.8	7.0	0	4.6	0	1.7	5.3	0	1.8	3.6	1.7	2.6	0	2.6	2.3
Buses	0	1	1	0	2	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	5
% Buses	0	0.2	1.6	0	0.3	0	3.5	0	0	1.5	0	0.2	0	0	0.2	0	0	0	0	0	0.3

Intersection Turning Movement Count

59th St W @ 17th Ave W
Manatee County, FL

File Name : 21003-19 Thu
Site Code : 21003-19
Start Date : 4/8/2021
Page No : 4

	59th St W Southbound					17th Ave W Westbound					59th St W Northbound					17th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	12:15					12:00					11:30					12:00					
+0 mins.	6	126	13	0	145	6	11	6	0	23	**18**	147	9	**2**	176	11	12	10	0	33	
+15 mins.	**15**	131	18	**1**	165	**8**	15	13	0	36	14	133	9	0	156	**19**	13	4	0	36	
+30 mins.	8	137	11	0	156	8	11	9	0	28	8	**164**	**11**	0	**183**	9	15	**15**	0	39	
+45 mins.	7	**140**	**19**	0	**166**	8	**20**	**15**	0	**43**	15	125	8	0	148	16	**18**	10	0	**44**	
Total Volume	36	534	61	1	632	30	57	43	0	130	55	569	37	2	663	55	58	39	0	152	
% App. Total	5.7	84.5	9.7	0.2		23.1	43.8	33.1	0		8.3	85.8	5.6	0.3		36.2	38.2	25.7	0		
PHF	.600	.954	.803	.250	.952	.938	.713	.717	.000	.756	.764	.867	.841	.250	.906	.724	.806	.650	.000	.864	
Automobiles	34	524	59	1	618	28	54	40	0	122	52	559	35	0	646	53	57	38	0	148	
% Automobiles	94.4	98.1	96.7	100	97.8	93.3	94.7	93	0	93.8	94.5	98.2	94.6	0	97.4	96.4	98.3	97.4	0	97.4	
Trucks	2	9	1	0	12	2	1	3	0	6	3	8	2	2	15	2	1	1	0	4	
% Trucks	5.6	1.7	1.6	0	1.9	6.7	1.8	7	0	4.6	5.5	1.4	5.4	100	2.3	3.6	1.7	2.6	0	2.6	
Buses	0	1	1	0	2	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	
% Buses	0	0.2	1.6	0	0.3	0	3.5	0	0	1.5	0	0.4	0	0	0.3	0	0	0	0	0	
Peak Hour Analysis From 14:00 to 18:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 15:00																					
15:00	**14**	116	16	0	**146**	6	17	3	0	26	10	134	12	0	156	14	**32**	**14**	0	60	388
15:15	5	114	**20**	0	139	**8**	19	**13**	0	40	**17**	147	9	0	**173**	19	23	10	0	52	404
15:30	9	119	17	0	145	3	**30**	11	0	**44**	9	**148**	**15**	0	172	13	30	14	0	57	**418**
15:45	10	**131**	4	**1**	146	7	26	10	**1**	44	14	126	10	0	150	**20**	29	14	0	**63**	403
Total Volume	38	480	57	1	576	24	92	37	1	154	50	555	46	0	651	66	114	52	0	232	1613
% App. Total	6.6	83.3	9.9	0.2		15.6	59.7	24	0.6		7.7	85.3	7.1	0		28.4	49.1	22.4	0		
PHF	.679	.916	.713	.250	.986	.750	.767	.712	.250	.875	.735	.938	.767	.000	.941	.825	.891	.929	.000	.921	.965
Automobiles	38	463	55	1	557	23	91	35	1	150	50	541	43	0	634	62	111	52	0	225	1566
% Automobiles	100	96.5	96.5	100	96.7	95.8	98.9	94.6	100	97.4	100	97.5	93.5	0	97.4	93.9	97.4	100	0	97.0	97.1
Trucks	0	15	2	0	17	0	0	1	0	1	0	9	3	0	12	3	2	0	0	5	35
% Trucks	0	3.1	3.5	0	3.0	0	0	2.7	0	0.6	0	1.6	6.5	0	1.8	4.5	1.8	0	0	2.2	2.2
Buses	0	2	0	0	2	1	1	1	0	3	0	5	0	0	5	1	1	0	0	2	12
% Buses	0	0.4	0	0	0.3	4.2	1.1	2.7	0	1.9	0	0.9	0	0	0.8	1.5	0.9	0	0	0.9	0.7
Peak Hour Analysis From 14:00 to 18:15 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	15:00					15:15					15:00					15:00					
+0 mins.	**14**	116	16	0	**146**	**8**	19	**13**	0	40	10	134	12	0	156	14	**32**	**14**	0	60	
+15 mins.	5	114	**20**	0	139	3	**30**	11	0	**44**	**17**	147	9	0	**173**	19	23	10	0	52	
+30 mins.	9	119	17	0	145	7	26	10	**1**	44	9	**148**	**15**	0	172	13	30	14	0	57	
+45 mins.	10	**131**	4	**1**	146	7	19	7	0	33	14	126	10	0	150	**20**	29	14	0	**63**	
Total Volume	38	480	57	1	576	25	94	41	1	161	50	555	46	0	651	66	114	52	0	232	
% App. Total	6.6	83.3	9.9	0.2		15.5	58.4	25.5	0.6		7.7	85.3	7.1	0		28.4	49.1	22.4	0		
PHF	.679	.916	.713	.250	.986	.781	.783	.788	.250	.915	.735	.938	.767	.000	.941	.825	.891	.929	.000	.921	
Automobiles	38	463	55	1	557	24	93	40	1	158	50	541	43	0	634	62	111	52	0	225	
% Automobiles	100	96.5	96.5	100	96.7	96	98.9	97.6	100	98.1	100	97.5	93.5	0	97.4	93.9	97.4	100	0	97	
Trucks	0	15	2	0	17	0	0	0	0	0	0	9	3	0	12	3	2	0	0	5	
% Trucks	0	3.1	3.5	0	3	0	0	0	0	0	0	1.6	6.5	0	1.8	4.5	1.8	0	0	2.2	
Buses	0	2	0	0	2	1	1	1	0	3	0	5	0	0	5	1	1	0	0	2	
% Buses	0	0.4	0	0	0.3	4	1.1	2.4	0	1.9	0	0.9	0	0	0.8	1.5	0.9	0	0	0.9	

Intersection Turning Movement Count

59th St W @ 17th Ave W
Manatee County, FL

File Name : 21003-19 Thu
Site Code : 21003-19
Start Date : 4/8/2021

Groups Printed- Trucks - Buses

	59th St W Southbound					17th Ave W Westbound					59th St W Northbound					17th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
07:00	0	3	0	0	3	0	0	1	0	1	0	2	0	0	2	0	0	1	0	1	7
07:15	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:30	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	1	0	0	0	1	5
07:45	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	6
Total	0	6	0	0	6	0	1	1	0	2	0	11	0	0	11	1	0	1	0	2	21
08:00	0	3	0	0	3	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	6
08:15	0	3	2	0	5	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	9
08:30	1	3	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
08:45	0	2	1	0	3	0	1	0	0	1	0	3	0	0	3	0	0	1	0	1	8
Total	1	11	3	0	15	1	2	0	0	3	0	11	0	0	11	0	0	1	0	1	30
Break																					
11:30	1	1	0	0	2	0	2	2	0	4	2	4	0	2	8	0	1	0	0	1	15
11:45	0	3	0	0	3	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	6
Total	1	4	0	0	5	0	2	2	0	4	3	6	0	2	11	0	1	0	0	1	21
12:00	0	2	1	0	3	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	8
12:15	2	3	2	0	7	1	0	2	0	3	0	0	2	0	2	1	0	0	0	1	13
12:30	0	1	0	0	1	1	0	0	0	1	0	4	0	0	4	1	0	0	0	1	7
12:45	0	4	0	0	4	0	3	1	0	4	0	2	0	0	2	0	1	0	0	1	11
Total	2	10	3	0	15	2	3	3	0	8	0	10	2	0	12	2	1	1	0	4	39
13:00	0	2	0	0	2	1	0	0	0	1	1	7	0	0	8	0	0	0	0	0	11
13:15	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	8
Break																					
Total	0	6	0	0	6	1	0	0	0	1	1	10	0	0	11	0	0	1	0	1	19
Break																					
14:30	2	5	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
14:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	3
Total	2	5	0	0	7	0	0	0	0	0	0	4	0	0	4	1	1	0	0	2	13
15:00	0	5	1	0	6	0	0	1	0	1	0	2	2	0	4	1	2	0	0	3	14
15:15	0	4	1	0	5	1	0	0	0	1	0	3	0	0	3	1	1	0	0	2	11
15:30	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	10
15:45	0	4	0	0	4	0	1	1	0	2	0	4	1	0	5	1	0	0	0	1	12
Total	0	17	2	0	19	1	1	2	0	4	0	14	3	0	17	4	3	0	0	7	47
16:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
16:15	0	2	1	0	3	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	6
16:30	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	6	1	0	7	0	0	1	0	1	0	2	0	0	2	0	1	0	0	1	11
17:00	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
17:15	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
17:30	0	0	1	0	1	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	3
17:45	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	3	2	0	5	0	1	0	0	1	0	5	0	0	5	0	1	0	0	1	12
18:00	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
18:15	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
Grand Total	6	69	12	0	87	5	10	9	0	24	5	74	5	2	86	8	8	4	0	20	217
Apprch %	6.9	79.3	13.8	0		20.8	41.7	37.5	0		5.8	86	5.8	2.3		40	40	20	0		
Total %	2.8	31.8	5.5	0	40.1	2.3	4.6	4.1	0	11.1	2.3	34.1	2.3	0.9	39.6	3.7	3.7	1.8	0	9.2	
Trucks	5	60	7	0	72	4	3	8	0	15	4	57	5	2	68	7	7	4	0	18	173
% Trucks	83.3	87	58.3	0	82.8	80	30	88.9	0	62.5	80	77	100	100	79.1	87.5	87.5	100	0	90	79.7
Buses	1	9	5	0	15	1	7	1	0	9	1	17	0	0	18	1	1	0	0	2	44
% Buses	16.7	13	41.7	0	17.2	20	70	11.1	0	37.5	20	23	0	0	20.9	12.5	12.5	0	0	10	20.3

Intersection Turning Movement Count

59th St W @ 17th Ave W
Manatee County, FL

File Name : 21003-19 Thu peds
Site Code : 21003-19
Start Date : 4/8/2021
Page No : 1

Groups Printed- Peds - Bikes

	59th St W Southbound	17th Ave W Westbound	59th St W Northbound	17th Ave W Eastbound	
Start Time	Peds	Peds	Peds	Peds	Int. Total
07:00	0	1	0	0	1
07:15	0	1	0	0	1
07:30	0	3	0	1	4
07:45	0	0	0	1	1
Total	0	5	0	2	7
08:00	0	3	1	0	4
08:15	1	0	1	0	2
08:30	0	2	0	1	3
08:45	1	6	0	0	7
Total	2	11	2	1	16
09:00	0	0	0	0	0
09:15	0	0	0	0	0
09:30	0	0	0	0	0
09:45	0	0	0	0	0
Total	0	0	0	0	0
10:00	0	0	0	0	0
10:15	0	0	0	0	0
10:30	0	0	0	0	0
10:45	0	0	0	0	0
Total	0	0	0	0	0
11:00	0	0	0	0	0
11:15	0	0	0	0	0
11:30	0	1	0	1	2
11:45	0	0	1	1	2
Total	0	1	1	2	4
12:00	0	1	0	1	2
12:15	0	0	0	0	0
12:30	0	1	0	1	2
12:45	0	1	0	0	1
Total	0	3	0	2	5
13:00	0	0	0	0	0
13:15	0	3	1	0	4
13:30	0	0	0	0	0
13:45	0	0	0	0	0
Total	0	3	1	0	4
14:00	0	0	0	0	0
14:15	0	0	0	0	0
14:30	0	0	0	0	0
14:45	0	0	1	0	1
Total	0	0	1	0	1
15:00	0	1	0	0	1
15:15	0	3	0	0	3
15:30	0	0	0	0	0
15:45	0	0	0	0	0
Total	0	4	0	0	4

Intersection Turning Movement Count

59th St W @ 17th Ave W
Manatee County, FL

File Name : 21003-19 Thu peds
Site Code : 21003-19
Start Date : 4/8/2021

Groups Printed- Peds - Bikes

	59th St W Southbound	17th Ave W Westbound	59th St W Northbound	17th Ave W Eastbound	
Start Time	Peds	Peds	Peds	Peds	Int. Total
16:00	0	1	0	0	1
16:15	0	0	0	0	0
16:30	0	3	0	1	4
16:45	0	2	0	1	3
Total	0	6	0	2	8
17:00	0	0	0	1	1
17:15	0	0	0	1	1
17:30	0	3	1	1	5
17:45	0	3	0	0	3
Total	0	6	1	3	10
18:00	0	2	0	0	2
18:15	0	0	1	1	2
Grand Total	2	41	7	13	63
Apprch %	100	100	100	100	
Total %	3.2	65.1	11.1	20.6	
Peds	0	20	3	8	31
% Peds	0	48.8	42.9	61.5	49.2
Bikes	2	21	4	5	32
% Bikes	100	51.2	57.1	38.5	50.8

Intersection Turning Movement Count

59th St W @ 11th Ave W
Manatee County, FL

File Name : 21003-20 Thu
Site Code : 21003-20
Start Date : 3/25/2021
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	59th St W Southbound					11th Ave W Westbound					59th St W Northbound					11th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
07:00	0	107	0	0	107	1	0	3	0	4	4	53	2	0	59	5	7	9	0	21	191
07:15	1	122	1	0	124	1	3	2	0	6	4	77	0	0	81	6	7	5	0	18	229
07:30	1	142	1	0	144	1	1	3	0	5	3	83	2	0	88	4	3	3	0	10	247
07:45	1	165	1	0	167	1	2	10	0	13	7	111	1	0	119	7	9	11	0	27	326
Total	3	536	3	0	542	4	6	18	0	28	18	324	5	0	347	22	26	28	0	76	993
08:00	2	133	6	0	141	0	3	2	0	5	8	100	0	0	108	6	1	4	0	11	265
08:15	2	168	5	0	175	4	5	3	0	12	8	104	1	0	113	9	4	6	0	19	319
08:30	2	124	5	0	131	2	4	0	0	6	7	94	0	0	101	8	5	5	0	18	256
08:45	0	120	6	0	126	3	5	1	0	9	8	117	0	0	125	7	5	8	0	20	280
Total	6	545	22	0	573	9	17	6	0	32	31	415	1	0	447	30	15	23	0	68	1120
Break																					
11:30	4	109	7	0	120	0	4	2	0	6	1	143	3	0	147	5	10	4	0	19	292
11:45	5	147	9	0	161	2	6	6	0	14	9	154	3	0	166	10	4	3	0	17	358
Total	9	256	16	0	281	2	10	8	0	20	10	297	6	0	313	15	14	7	0	36	650
12:00	6	132	12	0	150	1	7	2	0	10	7	169	3	0	179	10	8	3	0	21	360
12:15	4	130	8	0	142	2	4	4	0	10	8	144	4	0	156	17	6	13	0	36	344
12:30	2	129	7	0	138	1	7	3	0	11	5	118	3	0	126	5	5	5	0	15	290
12:45	6	155	8	0	169	1	8	4	0	13	6	115	0	0	121	8	3	4	0	15	318
Total	18	546	35	0	599	5	26	13	0	44	26	546	10	0	582	40	22	25	0	87	1312
13:00	4	129	8	0	141	0	9	5	0	14	6	120	3	0	129	5	12	7	0	24	308
13:15	4	137	6	0	147	1	4	0	0	5	5	102	1	0	108	10	7	6	0	23	283
Break																					
Total	8	266	14	0	288	1	13	5	0	19	11	222	4	0	237	15	19	13	0	47	591
Break																					
14:30	6	116	7	0	129	3	9	5	0	17	8	134	0	0	142	4	5	6	0	15	303
14:45	4	124	4	0	132	2	4	5	1	12	6	123	3	0	132	9	7	4	0	20	296
Total	10	240	11	0	261	5	13	10	1	29	14	257	3	0	274	13	12	10	0	35	599
15:00	2	132	10	0	144	1	5	1	0	7	5	158	2	0	165	8	7	10	0	25	341
15:15	3	126	14	0	143	1	4	3	0	8	6	159	4	0	169	6	5	8	0	19	339
15:30	7	131	11	0	149	2	10	3	0	15	8	134	3	0	145	5	9	10	0	24	333
15:45	6	135	10	0	151	2	4	2	0	8	6	126	2	0	134	6	7	10	0	23	316
Total	18	524	45	0	587	6	23	9	0	38	25	577	11	0	613	25	28	38	0	91	1329
16:00	5	117	13	0	135	1	5	4	0	10	11	136	1	0	148	8	4	8	0	20	313
16:15	8	118	9	0	135	1	11	3	0	15	10	138	1	0	149	8	3	4	0	15	314
16:30	7	98	12	0	117	1	8	3	0	12	6	153	2	0	161	6	13	7	0	26	316
16:45	3	109	6	0	118	1	5	4	0	10	9	118	2	0	129	9	6	9	0	24	281
Total	23	442	40	0	505	4	29	14	0	47	36	545	6	0	587	31	26	28	0	85	1224
17:00	4	131	3	0	138	0	3	1	0	4	7	150	6	0	163	6	4	6	0	16	321
17:15	2	136	14	0	152	0	5	0	0	5	5	120	6	0	131	8	5	3	0	16	304
17:30	7	134	7	0	148	0	7	2	0	9	6	113	2	0	121	6	8	9	0	23	301
17:45	2	142	10	0	154	0	4	4	0	8	6	99	1	0	106	6	8	6	0	20	288
Total	15	543	34	0	592	0	19	7	0	26	24	482	15	0	521	26	25	24	0	75	1214
18:00	6	136	6	0	148	0	8	5	0	13	10	109	0	0	119	4	7	6	0	17	297
18:15	4	108	9	0	121	1	5	2	0	8	6	94	2	0	102	3	7	3	0	13	244
Grand Total	120	4142	235	0	4497	37	169	97	1	304	211	3868	63	0	4142	224	201	205	0	630	9573
Apprch %	2.7	92.1	5.2	0		12.2	55.6	31.9	0.3		5.1	93.4	1.5	0		35.6	31.9	32.5	0		
Total %	1.3	43.3	2.5	0	47	0.4	1.8	1	0	3.2	2.2	40.4	0.7	0	43.3	2.3	2.1	2.1	0	6.6	

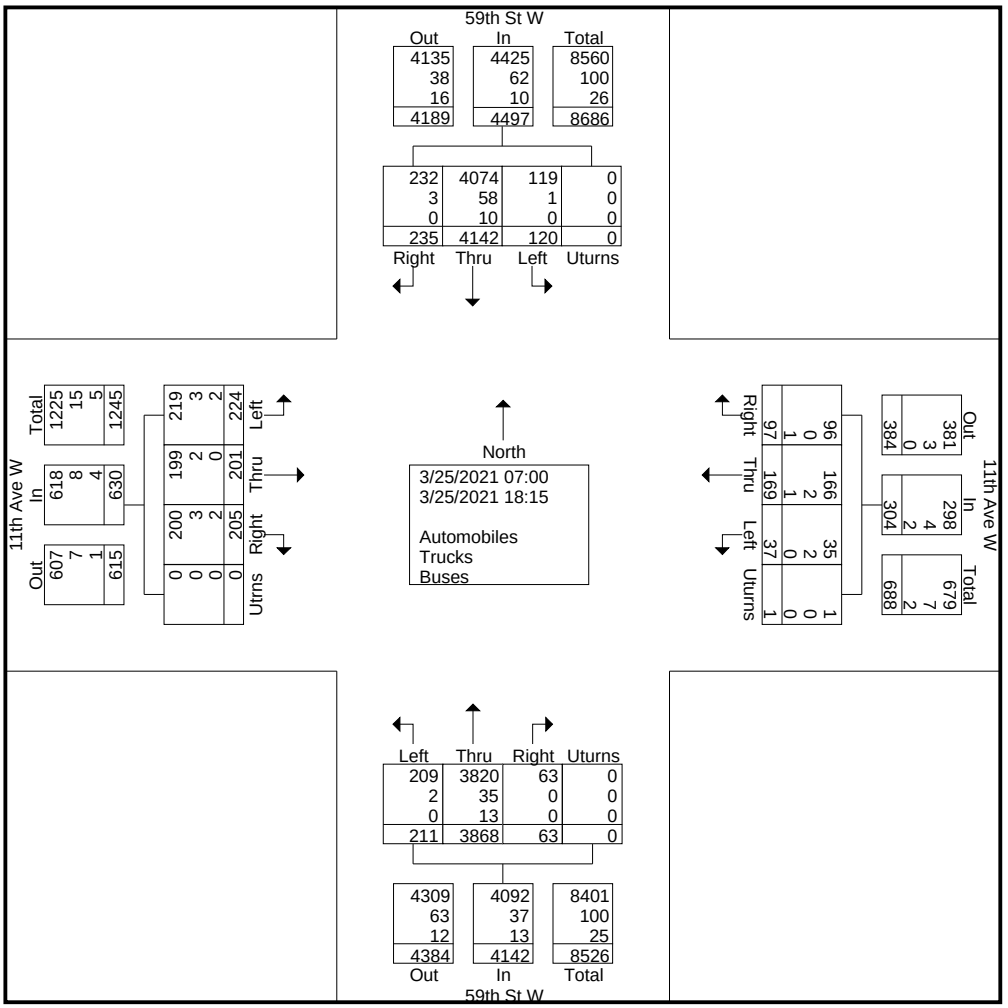
Intersection Turning Movement Count

59th St W @ 11th Ave W
Manatee County, FL

File Name : 21003-20 Thu
Site Code : 21003-20
Start Date : 3/25/2021
Page No : 2

Groups Printed- Automobiles - Trucks - Buses

	59th St W Southbound					11th Ave W Westbound					59th St W Northbound					11th Ave W Eastbound					
	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Automobiles	119	4074	232	0	4425	35	166	96	1	298	209	3820	63	0	4092	219	199	200	0	618	9433
% Automobiles	99.2	98.4	98.7	0	98.4	94.6	98.2	99	100	98	99.1	98.8	100	0	98.8	97.8	99	97.6	0	98.1	98.5
Trucks	1	58	3	0	62	2	2	0	0	4	2	35	0	0	37	3	2	3	0	8	111
% Trucks	0.8	1.4	1.3	0	1.4	5.4	1.2	0	0	1.3	0.9	0.9	0	0	0.9	1.3	1	1.5	0	1.3	1.2
Buses	0	10	0	0	10	0	1	1	0	2	0	13	0	0	13	2	0	2	0	4	29
% Buses	0	0.2	0	0	0.2	0	0.6	1	0	0.7	0	0.3	0	0	0.3	0.9	0	1	0	0.6	0.3



Intersection Turning Movement Count

59th St W @ 11th Ave W
Manatee County, FL

File Name : 21003-20 Thu
Site Code : 21003-20
Start Date : 3/25/2021
Page No : 3

	59th St W Southbound					11th Ave W Westbound					59th St W Northbound					11th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	1	165	1	0	167	1	2	**10**	0	**13**	7	**111**	**1**	0	**119**	7	**9**	**11**	0	**27**	**326**
08:00	**2**	133	**6**	0	141	0	3	2	0	5	**8**	100	0	0	108	6	1	4	0	11	265
08:15	2	**168**	5	0	**175**	**4**	**5**	3	0	12	8	104	1	0	113	**9**	4	6	0	19	319
08:30	2	124	5	0	131	2	4	0	0	6	7	94	0	0	101	8	5	5	0	18	256
Total Volume	7	590	17	0	614	7	14	15	0	36	30	409	2	0	441	30	19	26	0	75	1166
% App. Total	1.1	96.1	2.8	0		19.4	38.9	41.7	0		6.8	92.7	0.5	0		40	25.3	34.7	0		
PHF	.875	.878	.708	.000	.877	.438	.700	.375	.000	.692	.938	.921	.500	.000	.926	.833	.528	.591	.000	.694	.894
Automobiles	7	578	16	0	601	7	13	15	0	35	28	404	2	0	434	30	19	24	0	73	1143
% Automobiles	100	98.0	94.1	0	97.9	100	92.9	100	0	97.2	93.3	98.8	100	0	98.4	100	100	92.3	0	97.3	98.0
Trucks	0	10	1	0	11	0	1	0	0	1	2	2	0	0	4	0	0	1	0	1	17
% Trucks	0	1.7	5.9	0	1.8	0	7.1	0	0	2.8	6.7	0.5	0	0	0.9	0	0	3.8	0	1.3	1.5
Buses	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	6
% Buses	0	0.3	0	0	0.3	0	0	0	0	0	0	0.7	0	0	0.7	0	0	3.8	0	1.3	0.5

Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30					07:45					08:00					07:00					
+0 mins.	1	142	1	0	144	1	2	**10**	0	**13**	**8**	100	0	0	108	5	7	9	0	21	
+15 mins.	1	165	1	0	167	0	3	2	0	5	8	104	**1**	0	113	6	7	5	0	18	
+30 mins.	**2**	133	**6**	0	141	**4**	**5**	3	0	12	7	94	0	0	101	4	3	3	0	10	
+45 mins.	2	**168**	5	0	**175**	2	4	0	0	6	8	**117**	0	0	**125**	**7**	**9**	**11**	0	**27**	
Total Volume	6	608	13	0	627	7	14	15	0	36	31	415	1	0	447	22	26	28	0	76	
% App. Total	1	97	2.1	0		19.4	38.9	41.7	0		6.9	92.8	0.2	0		28.9	34.2	36.8	0		
PHF	.750	.905	.542	.000	.896	.438	.700	.375	.000	.692	.969	.887	.250	.000	.894	.786	.722	.636	.000	.704	
Automobiles	6	599	12	0	617	7	13	15	0	35	29	411	1	0	441	22	26	27	0	75	
% Automobiles	100	98.5	92.3	0	98.4	100	92.9	100	0	97.2	93.5	99	100	0	98.7	100	100	96.4	0	98.7	
Trucks	0	7	1	0	8	0	1	0	0	1	2	2	0	0	4	0	0	0	0	0	
% Trucks	0	1.2	7.7	0	1.3	0	7.1	0	0	2.8	6.5	0.5	0	0	0.9	0	0	0	0	0	
Buses	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	
% Buses	0	0.3	0	0	0.3	0	0	0	0	0	0	0.5	0	0	0.4	0	0	3.6	0	1.3	
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30																					
11:30	4	109	7	0	120	0	4	2	0	6	1	143	3	0	147	5	**10**	4	0	19	292
11:45	5	**147**	9	0	**161**	**2**	6	**6**	0	**14**	**9**	154	3	0	166	10	4	3	0	17	358
12:00	**6**	132	**12**	0	150	1	**7**	2	0	10	7	**169**	3	0	**179**	10	8	3	0	21	**360**
12:15	4	130	8	0	142	2	4	4	0	10	8	144	**4**	0	156	**17**	6	**13**	0	**36**	344
Total Volume	19	518	36	0	573	5	21	14	0	40	25	610	13	0	648	42	28	23	0	93	1354
% App. Total	3.3	90.4	6.3	0		12.5	52.5	35	0		3.9	94.1	2	0		45.2	30.1	24.7	0		
PHF	.792	.881	.750	.000	.890	.625	.750	.583	.000	.714	.694	.902	.813	.000	.905	.618	.700	.442	.000	.646	.940
Automobiles	19	509	35	0	563	5	21	14	0	40	25	593	13	0	631	40	28	23	0	91	1325
% Automobiles	100	98.3	97.2	0	98.3	100	100	100	0	100	100	97.2	100	0	97.4	95.2	100	100	0	97.8	97.9
Trucks	0	7	1	0	8	0	0	0	0	0	0	14	0	0	14	2	0	0	0	2	24
% Trucks	0	1.4	2.8	0	1.4	0	0	0	0	0	0	2.3	0	0	2.2	4.8	0	0	0	2.2	1.8
Buses	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
% Buses	0	0.4	0	0	0.3	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0.4

Intersection Turning Movement Count

59th St W @ 11th Ave W
Manatee County, FL

File Name : 21003-20 Thu
Site Code : 21003-20
Start Date : 3/25/2021
Page No : 4

	59th St W Southbound					11th Ave W Westbound					59th St W Northbound					11th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	12:00					12:15					11:30					11:30					
+0 mins.	**6**	132	**12**	0	150	**2**	4	4	0	10	1	143	3	0	147	5	**10**	4	0	19	
+15 mins.	4	130	8	0	142	1	7	3	0	11	**9**	154	3	0	166	10	4	3	0	17	
+30 mins.	2	129	7	0	138	1	8	4	0	13	7	**169**	3	0	**179**	10	8	3	0	21	
+45 mins.	6	**155**	8	0	**169**	0	**9**	**5**	0	**14**	8	144	**4**	0	156	**17**	6	**13**	0	**36**	
Total Volume	18	546	35	0	599	4	28	16	0	48	25	610	13	0	648	42	28	23	0	93	
% App. Total	3	91.2	5.8	0		8.3	58.3	33.3	0		3.9	94.1	2	0		45.2	30.1	24.7	0		
PHF	.750	.881	.729	.000	.886	.500	.778	.800	.000	.857	.694	.902	.813	.000	.905	.618	.700	.442	.000	.646	
Automobiles	18	534	35	0	587	4	27	16	0	47	25	593	13	0	631	40	28	23	0	91	
% Automobiles	100	97.8	100	0	98	100	96.4	100	0	97.9	100	97.2	100	0	97.4	95.2	100	100	0	97.8	
Trucks	0	10	0	0	10	0	1	0	0	1	0	14	0	0	14	2	0	0	0	2	
% Trucks	0	1.8	0	0	1.7	0	3.6	0	0	2.1	0	2.3	0	0	2.2	4.8	0	0	0	2.2	
Buses	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	
% Buses	0	0.4	0	0	0.3	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	
Peak Hour Analysis From 14:00 to 18:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 15:00																					
15:00	2	132	10	0	144	1	5	1	0	7	5	158	2	0	165	**8**	7	**10**	0	**25**	**341**
15:15	3	126	**14**	0	143	1	4	**3**	0	8	6	**159**	**4**	0	**169**	6	5	8	0	19	339
15:30	**7**	131	11	0	149	**2**	**10**	3	0	**15**	**8**	134	3	0	145	5	**9**	10	0	24	333
15:45	6	**135**	10	0	**151**	2	4	2	0	8	6	126	2	0	134	6	7	10	0	23	316
Total Volume	18	524	45	0	587	6	23	9	0	38	25	577	11	0	613	25	28	38	0	91	1329
% App. Total	3.1	89.3	7.7	0		15.8	60.5	23.7	0		4.1	94.1	1.8	0		27.5	30.8	41.8	0		
PHF	.643	.970	.804	.000	.972	.750	.575	.750	.000	.633	.781	.907	.688	.000	.907	.781	.778	.950	.000	.910	.974
Automobiles	18	516	45	0	579	6	23	9	0	38	25	571	11	0	607	23	27	38	0	88	1312
% Automobiles	100	98.5	100	0	98.6	100	100	100	0	100	100	99.0	100	0	99.0	92.0	96.4	100	0	96.7	98.7
Trucks	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	1	1	0	0	2	13
% Trucks	0	1.1	0	0	1.0	0	0	0	0	0	0	0.9	0	0	0.8	4.0	3.6	0	0	2.2	1.0
Buses	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	4
% Buses	0	0.4	0	0	0.3	0	0	0	0	0	0	0.2	0	0	0.2	4.0	0	0	0	1.1	0.3
Peak Hour Analysis From 14:00 to 18:15 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	17:15					15:30					15:00					15:00					
+0 mins.	2	136	**14**	0	152	**2**	10	3	0	**15**	5	158	2	0	165	**8**	7	**10**	0	**25**	
+15 mins.	**7**	134	7	0	148	2	4	2	0	8	6	**159**	**4**	0	**169**	6	5	8	0	19	
+30 mins.	2	**142**	10	0	**154**	1	5	**4**	0	10	**8**	134	3	0	145	5	**9**	10	0	24	
+45 mins.	6	136	6	0	148	1	**11**	3	0	15	6	126	2	0	134	6	7	10	0	23	
Total Volume	17	548	37	0	602	6	30	12	0	48	25	577	11	0	613	25	28	38	0	91	
% App. Total	2.8	91	6.1	0		12.5	62.5	25	0		4.1	94.1	1.8	0		27.5	30.8	41.8	0		
PHF	.607	.965	.661	.000	.977	.750	.682	.750	.000	.800	.781	.907	.688	.000	.907	.781	.778	.950	.000	.910	
Automobiles	17	542	37	0	596	6	30	12	0	48	25	571	11	0	607	23	27	38	0	88	
% Automobiles	100	98.9	100	0	99	100	100	100	0	100	100	99	100	0	99	92	96.4	100	0	96.7	
Trucks	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	1	1	0	0	2	
% Trucks	0	1.1	0	0	1	0	0	0	0	0	0	0.9	0	0	0.8	4	3.6	0	0	2.2	
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.2	4	0	0	0	1.1	

Intersection Turning Movement Count

59th St W @ 11th Ave W
Manatee County, FL

File Name : 21003-20 Thu
Site Code : 21003-20
Start Date : 3/25/2021
Page No : 1

Groups Printed- Trucks - Buses

	59th St W Southbound					11th Ave W Westbound					59th St W Northbound					11th Ave W Eastbound					
Start Time	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Uturns	App. Total	Left	Thru	Right	Utrns	App. Total	Int. Total
07:00	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	2
07:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	4
07:45	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
Total	0	5	0	0	5	1	0	1	0	2	0	3	0	0	3	0	0	1	0	1	11
08:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15	0	4	1	0	5	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	10
08:30	0	4	0	0	4	0	1	0	0	1	0	1	0	0	1	0	0	2	0	2	8
08:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Total	0	10	1	0	11	0	1	0	0	1	2	4	0	0	6	1	0	2	0	3	21
Break																					
11:30	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
11:45	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
Total	0	2	1	0	3	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	10
12:00	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	12
12:15	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	7
12:30	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
12:45	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	6
Total	0	12	0	0	12	0	1	0	0	1	0	13	0	0	13	2	1	0	0	3	29
13:00	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	5
13:15	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
Break																					
Total	0	8	0	0	8	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	11
Break																					
14:30	0	1	1	0	2	1	1	0	0	2	0	3	0	0	3	0	0	0	0	0	7
14:45	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	6
Total	0	5	1	0	6	1	1	0	0	2	0	4	0	0	4	0	0	1	0	1	13
15:00	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
15:15	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
15:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
15:45	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	7
Total	0	8	0	0	8	0	0	0	0	0	0	6	0	0	6	2	1	0	0	3	17
16:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
16:15	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
16:30	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16:45	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	6	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	12
17:00	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
17:15	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
17:30	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
17:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	9	0	0	9	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	11
18:00	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
18:15	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Grand Total	1	68	3	0	72	2	3	1	0	6	2	48	0	0	50	5	2	5	0	12	140
Apprch %	1.4	94.4	4.2	0		33.3	50	16.7	0		4	96	0	0		41.7	16.7	41.7	0		
Total %	0.7	48.6	2.1	0	51.4	1.4	2.1	0.7	0	4.3	1.4	34.3	0	0	35.7	3.6	1.4	3.6	0	8.6	
Trucks	1	58	3	0	62	2	2	0	0	4	2	35	0	0	37	3	2	3	0	8	111
% Trucks	100	85.3	100	0	86.1	100	66.7	0	0	66.7	100	72.9	0	0	74	60	100	60	0	66.7	79.3
Buses	0	10	0	0	10	0	1	1	0	2	0	13	0	0	13	2	0	2	0	4	29
% Buses	0	14.7	0	0	13.9	0	33.3	100	0	33.3	0	27.1	0	0	26	40	0	40	0	33.3	20.7

Intersection Turning Movement Count

59th St W @ 11th Ave W
Manatee County, FL

File Name : 21003-20 Thu peds
Site Code : 21003-20
Start Date : 3/25/2021
Page No : 1

Groups Printed- Peds - Bikes

	59th St W Southbound	11th Ave W Westbound	59th St W Northbound	11th Ave W Eastbound	
Start Time	Peds	Peds	Peds	Peds	Int. Total
07:00	0	0	0	0	0
07:15	0	0	1	0	1
07:30	0	0	1	2	3
07:45	0	1	0	1	2
Total	0	1	2	3	6
08:00	0	3	0	2	5
08:15	0	2	0	0	2
08:30	0	0	0	0	0
08:45	1	1	0	1	3
Total	1	6	0	3	10
09:00	0	0	0	0	0
09:15	0	0	0	0	0
09:30	0	0	0	0	0
09:45	0	0	0	0	0
Total	0	0	0	0	0
10:00	0	0	0	0	0
10:15	0	0	0	0	0
10:30	0	0	0	0	0
10:45	0	0	0	0	0
Total	0	0	0	0	0
11:00	0	0	0	0	0
11:15	0	0	0	0	0
11:30	0	2	0	0	2
11:45	1	4	1	0	6
Total	1	6	1	0	8
12:00	0	0	0	1	1
12:15	0	0	1	2	3
12:30	0	0	1	1	2
12:45	0	0	0	0	0
Total	0	0	2	4	6
13:00	0	0	0	1	1
13:15	0	1	0	0	1
13:30	0	0	0	0	0
13:45	0	0	0	0	0
Total	0	1	0	1	2
14:00	0	0	0	0	0
14:15	0	0	0	0	0
14:30	0	1	0	1	2
14:45	0	1	0	0	1
Total	0	2	0	1	3
15:00	0	2	0	2	4
15:15	0	0	0	0	0
15:30	0	0	0	2	2
15:45	0	1	0	0	1
Total	0	3	0	4	7

Intersection Turning Movement Count

59th St W @ 11th Ave W
Manatee County, FL

File Name : 21003-20 Thu peds
Site Code : 21003-20
Start Date : 3/25/2021

Groups Printed- Peds - Bikes

	59th St W Southbound	11th Ave W Westbound	59th St W Northbound	11th Ave W Eastbound	
Start Time	Peds	Peds	Peds	Peds	Int. Total
16:00	0	0	0	1	1
16:15	0	0	0	1	1
16:30	0	4	0	0	4
16:45	0	1	1	0	2
Total	0	5	1	2	8
17:00	0	1	0	1	2
17:15	0	3	0	0	3
17:30	2	0	0	2	4
17:45	0	0	0	1	1
Total	2	4	0	4	10
18:00	0	0	2	0	2
18:15	0	0	0	1	1
Grand Total	4	28	8	23	63
Apprch %	100	100	100	100	
Total %	6.3	44.4	12.7	36.5	
Peds	3	12	4	12	31
% Peds	75	42.9	50	52.2	49.2
Bikes	1	16	4	11	32
% Bikes	25	57.1	50	47.8	50.8

FDOT D1
TWO 11 Manatee Ave W (SR 64)
Manatee Ave (SR 64) & 59th St W
Weekday TMC

Albeck Gerken, Inc.
1911 N US Hwy 301
Suite 410
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 508_Manatee Ave (SR 64) & 59th St W_WD
Site Code: 508
Start Date: 01/10/2017

Turning Movement Data

Start Time	Manatee Ave (SR 64) Eastbound						Manatee Ave (SR 64) Westbound						59th St W Northbound						59th St W Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00	0	1	232	22	0	255	0	64	155	7	0	226	0	19	8	52	1	79	0	73	16	2	0	91	651
7:15	1	4	261	29	0	295	0	81	217	12	0	310	0	40	10	61	0	111	0	61	9	4	1	74	790
7:30	0	2	224	33	0	259	0	78	198	14	0	290	0	43	11	55	0	109	0	52	34	3	0	89	747
7:45	1	3	259	44	0	307	1	81	228	8	0	318	0	51	24	58	0	133	0	55	50	2	1	107	865
Hourly Total	2	10	976	128	0	1116	1	304	798	41	0	1144	0	153	53	226	1	432	0	241	109	11	2	361	3053
8:00	0	0	193	39	0	232	2	91	279	35	0	407	0	64	37	44	0	145	0	51	22	8	0	81	865
8:15	1	0	224	48	0	273	0	56	249	15	0	320	1	67	29	48	0	145	1	61	37	3	2	102	840
8:30	1	5	226	41	0	273	1	88	235	23	0	347	0	46	18	59	0	123	0	46	23	5	0	74	817
8:45	1	3	216	51	0	271	2	59	258	13	0	332	2	60	19	50	0	131	0	55	27	9	0	91	825
Hourly Total	3	8	859	179	0	1049	5	294	1021	86	0	1406	3	237	103	201	0	544	1	213	109	25	2	348	3347
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30	2	3	276	77	0	358	2	61	286	19	0	368	1	69	25	74	0	169	0	22	21	8	0	51	946
11:45	4	9	242	69	0	324	4	51	261	20	0	336	1	83	23	69	0	176	0	46	27	10	1	83	919
Hourly Total	6	12	518	146	0	682	6	112	547	39	0	704	2	152	48	143	0	345	0	68	48	18	1	134	1865
12:00	2	9	279	54	2	344	2	57	317	22	0	398	0	70	36	77	2	183	0	29	22	12	1	63	988
12:15	5	13	263	55	1	336	1	71	295	20	0	387	1	73	18	68	0	160	0	39	21	6	2	66	949
12:30	4	13	255	62	2	334	2	64	255	23	1	344	0	73	30	60	0	163	0	32	32	15	1	79	920
12:45	3	8	284	79	1	374	4	76	274	10	0	364	0	63	25	55	2	143	0	42	20	14	1	76	957
Hourly Total	14	43	1081	250	6	1388	9	268	1141	75	1	1493	1	279	109	260	4	649	0	142	95	47	5	284	3814
13:00	0	6	251	57	0	314	1	71	271	14	0	357	0	71	32	68	0	171	0	38	25	13	0	76	918
13:15	2	4	275	63	0	344	1	78	305	21	0	405	0	69	25	60	0	154	0	30	22	6	1	58	961
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	2	10	526	120	0	658	2	149	576	35	0	762	0	140	57	128	0	325	0	68	47	19	1	134	1879
14:30	1	9	243	73	1	326	1	72	286	21	1	380	1	73	46	83	0	203	0	45	25	10	2	80	989
14:45	1	5	292	63	1	361	1	65	269	25	0	360	0	61	39	93	2	193	0	41	30	9	1	80	994
Hourly Total	2	14	535	136	2	687	2	137	555	46	1	740	1	134	85	176	2	396	0	86	55	19	3	160	1983
15:00	5	1	278	83	1	367	2	71	293	20	2	386	0	65	36	78	1	179	1	43	36	6	2	86	1018
15:15	1	7	290	86	1	384	2	47	288	31	1	368	1	58	33	75	0	167	1	49	40	15	1	105	1024
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	6	8	568	169	2	751	4	118	581	51	3	754	1	123	69	153	1	346	2	92	76	21	3	191	2042
16:00	2	5	283	68	3	358	0	49	302	30	1	381	0	64	45	96	0	205	0	45	24	8	0	77	1021
16:15	0	5	293	67	2	365	0	56	264	27	2	347	1	66	53	70	2	190	0	34	21	8	0	63	965
16:30	5	5	279	49	0	338	0	66	297	32	1	395	1	69	36	90	1	196	0	41	21	3	1	65	994
16:45	1	6	300	53	1	360	0	67	259	20	0	346	0	73	44	87	0	204	0	54	26	8	1	88	998
Hourly Total	8	21	1155	237	6	1421	0	238	1122	109	4	1469	2	272	178	343	3	795	0	174	92	27	2	293	3978
17:00	0	9	301	56	0	366	4	60	338	16	0	418	1	70	46	77	1	194	0	49	30	6	1	85	1063
17:15	3	2	300	60	0	365	2	66	340	25	0	433	1	72	51	78	0	202	0	32	32	8	1	72	1072
17:30	3	8	254	66	1	331	2	62	295	30	0	389	0	62	32	71	0	165	0	46	36	6	1	88	973
17:45	2	8	259	57	0	326	2	53	285	28	0	368	0	55	39	48	0	142	0	52	28	7	1	87	923
Hourly Total	8	27	1114	239	1	1388	10	241	1258	99	0	1608	2	259	168	274	1	703	0	179	126	27	4	332	4031
18:00	3	6	242	59	7	310	2	59	230	35	1	326	0	71	47	76	0	194	0	37	25	9	0	71	901
18:15	0	8	243	49	0	300	2	64	271	25	0	362	0	60	31	46	0	137	0	35	18	3	0	56	855
18:30	2	9	189	49	1	249	4	52	185	24	0	265	0	66	26	51	0	143	0	26	15	4	1	45	702
18:45	0	3	183	55	0	241	1	67	231	25	0	324	2	44	20	37	1	103	0	27	14	10	0	51	719
Hourly Total	5	26	857	212	8	1100	9	242	917	109	1	1277	2	241	124	210	1	577	0	125	72	26	1	223	3177
Lights	55	174	7988	1784	-	10001	48	2056	8302	685	-	11091	14	1961	981	2071	-	5027	3	1372	820	231	-	2426	28545
% Lights	98.2	97.2	97.5	98.2	-	97.7	100.0	97.8	97.5	99.3	-	97.7	100.0	98.5	98.7	98.0	-	98.3	100.0	98.8	98.9	96.3	-	98.6	97.9
Other Vehicles	1	5	201	32	-	239	0	47	212	5	-	264	0	29	13	43	-	85	0	16	8	9	-	33	621
% Other Vehicles	1.8	2.8	2.5	1.8	-	2.3	0.0	2.2	2.5	0.7	-	2.3	0.0	1.5	1.3	2.0	-	1.7	0.0	1.2	1.0	3.8	-	1.3	2.1
Bicycles on Road	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	1	0	-	1	3
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.1	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	8	-	-
% Bicycles on Crosswalk	-	-	-	-	4.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	33.3	-	-
Pedestrians	-	-	-	-	24	-	-	-	-	-	10	-	-	-	-	-	13	-	-	-	-	-	16	-	-
% Pedestrians	-	-	-	-	96.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	66.7	-	-

FDOT D1
TWO 11 Manatee Ave W (SR 64)
Manatee Ave (SR 64) & 59th St W
Weekday TMC

Albeck Gerken, Inc.
1911 N US Hwy 301
Suite 410
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 508_Manatee Ave (SR 64) & 59th St W_WD
Site Code: 508
Start Date: 01/10/2017

Turning Movement Peak Hour Data (7:45)

Start Time	Manatee Ave (SR 64) Eastbound						Manatee Ave (SR 64) Westbound						59th St W Northbound						59th St W Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:45	1	3	259	44	0	307	1	81	228	8	0	318	0	51	24	58	0	133	0	55	50	2	1	107	865
8:00	0	0	193	39	0	232	2	91	279	35	0	407	0	64	37	44	0	145	0	51	22	8	0	81	865
8:15	1	0	224	48	0	273	0	56	249	15	0	320	1	67	29	48	0	145	1	61	37	3	2	102	840
8:30	1	5	226	41	0	273	1	88	235	23	0	347	0	46	18	59	0	123	0	46	23	5	0	74	817
PHF	0.750	0.400	0.871	0.896	-	0.884	0.500	0.868	0.888	0.579	-	0.855	0.250	0.851	0.730	0.886	-	0.941	0.250	0.873	0.660	0.563	-	0.850	0.979
Lights	3	8	882	166	-	1059	4	305	939	79	-	1327	1	224	105	205	-	535	1	213	132	17	-	363	3284
% Lights	100.0	100.0	97.8	96.5	-	97.6	100.0	96.5	94.8	97.5	-	95.3	100.0	98.2	97.2	98.1	-	98.0	100.0	100.0	100.0	94.4	-	99.7	97.0
Other Vehicles	0	0	20	6	-	26	0	11	52	2	-	65	0	4	3	4	-	11	0	0	0	1	-	1	103
% Other Vehicles	0.0	0.0	2.2	3.5	-	2.4	0.0	3.5	5.2	2.5	-	4.7	0.0	1.8	2.8	1.9	-	2.0	0.0	0.0	0.0	5.6	-	0.3	3.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-

FDOT D1
TWO 11 Manatee Ave W (SR 64)
Manatee Ave (SR 64) & 59th St W
Weekday TMC

Albeck Gerken, Inc.
1911 N US Hwy 301
Suite 410
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 508_Manatee Ave (SR 64) & 59th St W_WD
Site Code: 508
Start Date: 01/10/2017

Turning Movement Peak Hour Data (16:30)

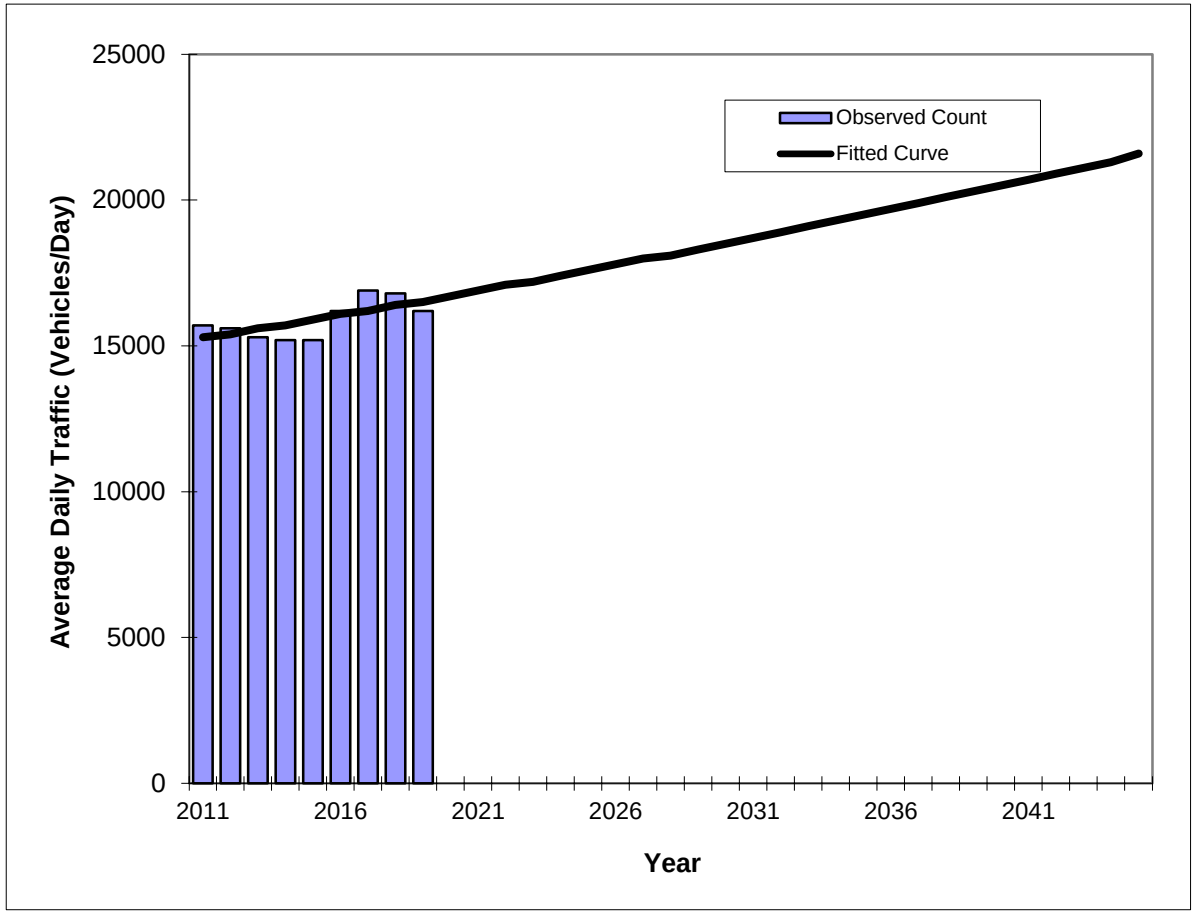
Start Time	Manatee Ave (SR 64) Eastbound						Manatee Ave (SR 64) Westbound						59th St W Northbound						59th St W Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
16:30	5	5	279	49	0	338	0	66	297	32	1	395	1	69	36	90	1	196	0	41	21	3	1	65	994
16:45	1	6	300	53	1	360	0	67	259	20	0	346	0	73	44	87	0	204	0	54	26	8	1	88	998
17:00	0	9	301	56	0	366	4	60	338	16	0	418	1	70	46	77	1	194	0	49	30	6	1	85	1063
17:15	3	2	300	60	0	365	2	66	340	25	0	433	1	72	51	78	0	202	0	32	32	8	1	72	1072
PHF	0.450	0.611	0.980	0.908	-	0.976	0.375	0.966	0.907	0.727	-	0.919	0.750	0.973	0.868	0.922	-	0.975	0.000	0.815	0.852	0.781	-	0.881	0.962
Lights	9	22	1160	216	-	1407	6	254	1223	93	-	1576	3	284	176	328	-	791	0	176	107	24	-	307	4081
% Lights	100.0	100.0	98.3	99.1	-	98.5	100.0	98.1	99.1	100.0	-	99.0	100.0	100.0	99.4	98.8	-	99.4	-	100.0	98.2	96.0	-	99.0	98.9
Other Vehicles	0	0	20	2	-	22	0	5	11	0	-	16	0	0	1	4	-	5	0	0	2	1	-	3	46
% Other Vehicles	0.0	0.0	1.7	0.9	-	1.5	0.0	1.9	0.9	0.0	-	1.0	0.0	0.0	0.6	1.2	-	0.6	-	0.0	1.8	4.0	-	1.0	1.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	50.0	-	-

Traffic Trends - V03.a

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FIN#	**1234**
Location	**1**

County:	Manatee (13)
Station #:	01-43
Highway:	59th Street W

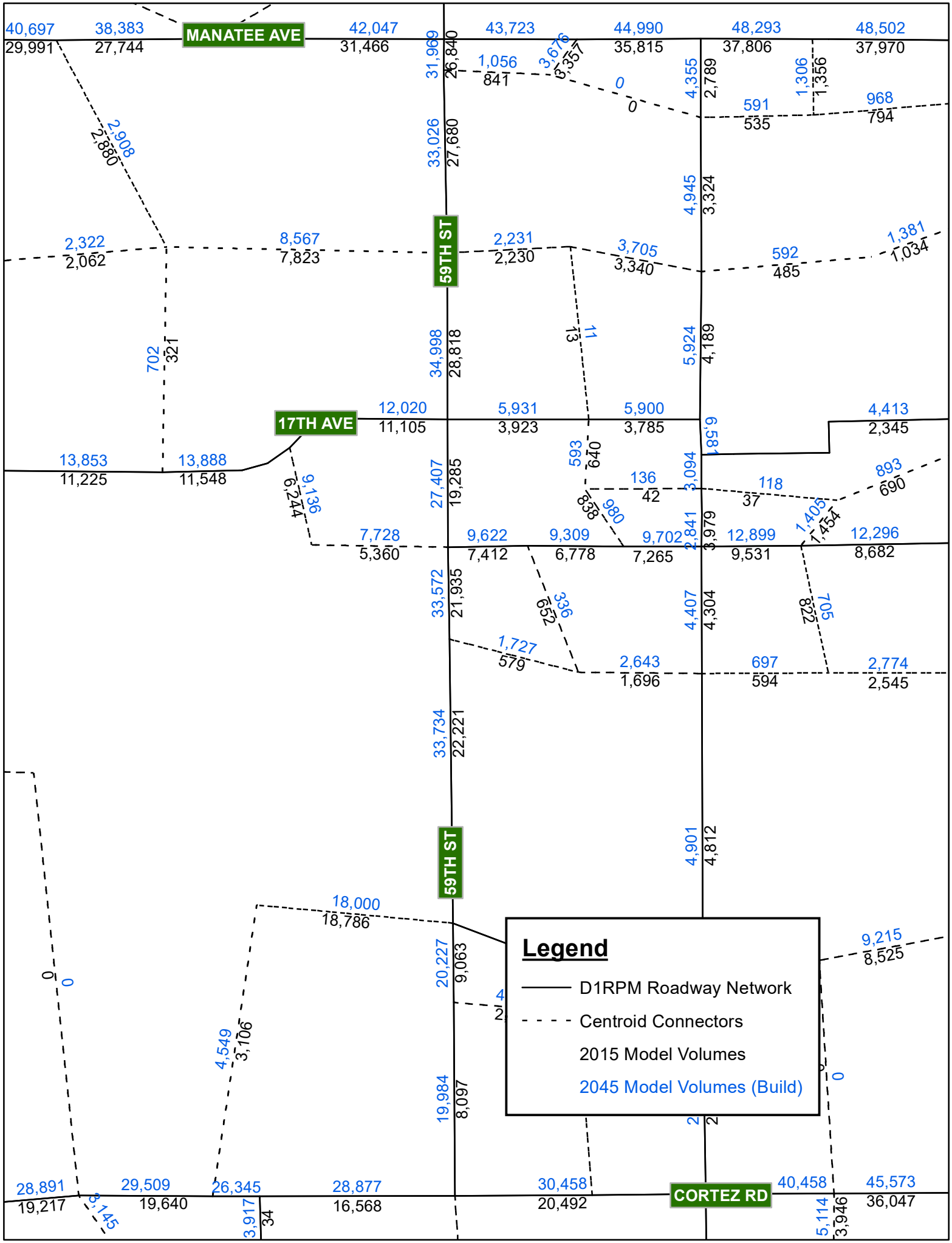


Year	Traffic (ADT/AADT) Count*	Trend**
2011	15700	15300
2012	15600	15400
2013	15300	15600
2014	15200	15700
2015	15200	15900
2016	16200	16100
2017	16900	16200
2018	16800	16400
2019	16200	16500
2025 Opening Year Trend		
2025	N/A	17600
2035 Mid-Year Trend		
2035	N/A	19500
2045 Design Year Trend		
2045	N/A	21600
TRANPLAN Forecasts/Trends		

Trend R-squared:	45.98%
Compounded Annual Historic Growth Rate:	0.95%
Compounded Growth Rate (2019 to Design Year):	1.04%
Printed:	8-Nov-21

Exponential Growth Option

*Axle-Adjusted


MANATEE AVE
59TH ST
17TH AVE
59TH ST
CORTEZ RD
40,697
29,991
38,383
27,744
42,047
31,466
43,723
44,990
35,815
48,293
37,806
48,502
37,970
31,969
26,840
1,056
841
3,676
3,357
0
0
4,355
2,789
1,306
1,356
591
535
968
794
2,908
2,880
33,026
27,680
4,945
3,324
2,322
2,062
8,567
7,823
2,231
2,230
3,705
3,340
592
485
1,381
1,034
702
321
11
13
34,998
28,818
5,924
4,189
12,020
11,105
5,931
3,923
5,900
3,785
4,413
2,345
6,581
13,853
11,225
13,888
11,548
9,136
9,244
593
640
27,407
19,285
136
42
3,094
118
37
893
690
838
980
7,728
5,360
9,622
7,412
9,309
6,778
9,702
7,265
2,841
3,979
12,899
9,531
1,405
1,454
12,296
8,682
33,572
21,935
652
636
4,407
4,304
1,727
579
2,643
1,696
697
594
705
822
2,774
2,545
33,734
22,221
4,901
4,812
18,000
18,786
20,227
9,063
9,215
8,525
0
0
4,549
3,106
19,984
8,097
28,891
19,217
29,509
19,640
26,345
28,877
16,568
30,458
20,492
40,458
45,573
36,047
8,145
3,917
34
5,114
3,946
Legend
D1RPM Roadway Network
Centroid Connectors
2015 Model Volumes
2045 Model Volumes (Build)

Attachment B: Intersection Volume Development Worksheets

EXISTING (2021) VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: Manatee Ave & 59th St W
COUNT DATE: January 10, 2017
AM PEAK HOUR FACTOR: 0.98
PM PEAK HOUR FACTOR: 0.96

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	11	902	172	320	991	81	226	108	209	214	132	18
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**11**	**902**	**172**	**320**	**991**	**81**	**226**	**108**	**209**	**214**	**132**	**18**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	31	1,180	218	265	1,234	93	287	177	332	176	109	25
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**31**	**1,180**	**218**	**265**	**1,234**	**93**	**287**	**177**	**332**	**176**	**109**	**25**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
AM BACKGROUND TRAFFIC GROWTH	0	38	7	14	42	3	10	5	9	9	6	1
AM NON-PROJECT TRAFFIC	**11**	**940**	**179**	**334**	**1,033**	**84**	**236**	**113**	**218**	**223**	**138**	**19**

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
PM BACKGROUND TRAFFIC GROWTH	1	50	9	11	52	4	12	7	14	7	5	1
PM NON-PROJECT TRAFFIC	**32**	**1,230**	**227**	**276**	**1,286**	**97**	**299**	**184**	**346**	**183**	**114**	**26**

EXISTING (2021) VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 11th Ave W
COUNT DATE: March 25, 2021
AM PEAK HOUR FACTOR: 0.89
PM PEAK HOUR FACTOR: 0.97

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	30	29	36	7	14	15	30	409	2	7	590	17
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**30**	**29**	**36**	**7**	**14**	**15**	**30**	**409**	**2**	**7**	**590**	**17**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	25	28	38	6	23	9	25	577	11	18	524	45
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**25**	**28**	**38**	**6**	**23**	**9**	**25**	**577**	**11**	**18**	**524**	**45**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
AM BACKGROUND TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0
AM NON-PROJECT TRAFFIC	**30**	**29**	**36**	**7**	**14**	**15**	**30**	**409**	**2**	**7**	**590**	**17**

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
PM BACKGROUND TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0
PM NON-PROJECT TRAFFIC	**25**	**28**	**38**	**6**	**23**	**9**	**25**	**577**	**11**	**18**	**524**	**45**

EXISTING (2021) VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 17th Ave W
COUNT DATE: April 8, 2021
AM PEAK HOUR FACTOR: 0.92
PM PEAK HOUR FACTOR: 0.97

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	32	52	60	39	98	74	46	364	20	32	534	64
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**32**	**52**	**60**	**39**	**98**	**74**	**46**	**364**	**20**	**32**	**534**	**64**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	66	114	52	25	92	37	50	555	46	39	480	57
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**66**	**114**	**52**	**25**	**92**	**37**	**50**	**555**	**46**	**39**	**480**	**57**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
AM BACKGROUND TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0
AM NON-PROJECT TRAFFIC	**32**	**52**	**60**	**39**	**98**	**74**	**46**	**364**	**20**	**32**	**534**	**64**

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
PM BACKGROUND TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0
PM NON-PROJECT TRAFFIC	**66**	**114**	**52**	**25**	**92**	**37**	**50**	**555**	**46**	**39**	**480**	**57**

EXISTING (2021) VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 21st Ave W
COUNT DATE: March 25, 2021
AM PEAK HOUR FACTOR: 0.91
PM PEAK HOUR FACTOR: 0.99

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	37	53	35	112	79	72	63	347	87	72	420	60
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**37**	**53**	**35**	**112**	**79**	**72**	**63**	**347**	**87**	**72**	**420**	**60**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	90	91	63	125	42	80	47	406	111	102	498	12
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**90**	**91**	**63**	**125**	**42**	**80**	**47**	**406**	**111**	**102**	**498**	**12**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
AM BACKGROUND TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0
AM NON-PROJECT TRAFFIC	**37**	**53**	**35**	**112**	**79**	**72**	**63**	**347**	**87**	**72**	**420**	**60**

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
PM BACKGROUND TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0
PM NON-PROJECT TRAFFIC	**90**	**91**	**63**	**125**	**42**	**80**	**47**	**406**	**111**	**102**	**498**	**12**

EXISTING (2021) VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 29th Ave W
COUNT DATE: March 25, 2021
AM PEAK HOUR FACTOR: 0.97
PM PEAK HOUR FACTOR: 0.9

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	124	0	83	0	0	0	41	500	0	0	421	75
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**124**	**0**	**83**	**0**	**0**	**0**	**41**	**500**	**0**	**0**	**421**	**75**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	95	0	45	0	0	1	81	481	0	1	626	99
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**95**	**0**	**45**	**0**	**0**	**1**	**81**	**481**	**0**	**1**	**626**	**99**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
AM BACKGROUND TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0
AM NON-PROJECT TRAFFIC	**124**	**0**	**83**	**0**	**0**	**0**	**41**	**500**	**0**	**0**	**421**	**75**

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
PM BACKGROUND TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0
PM NON-PROJECT TRAFFIC	**95**	**0**	**45**	**0**	**0**	**1**	**81**	**481**	**0**	**1**	**626**	**99**

EXISTING (2021) VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: Cortez Rd & 59th St W
COUNT DATE: January 18, 2018
AM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.95

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	119	738	0	0	800	422	0	0	0	343	0	101
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**119**	**738**	**0**	**0**	**800**	**422**	**0**	**0**	**0**	**343**	**0**	**101**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	164	1,156	0	0	1,066	386	0	0	0	492	0	171
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**164**	**1,156**	**0**	**0**	**1,066**	**386**	**0**	**0**	**0**	**492**	**0**	**171**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
AM BACKGROUND TRAFFIC GROWTH	4	23	0	0	25	13	0	0	0	11	0	3
AM NON-PROJECT TRAFFIC	**123**	**761**	**0**	**0**	**825**	**435**	**0**	**0**	**0**	**354**	**0**	**104**

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
PM BACKGROUND TRAFFIC GROWTH	5	36	0	0	34	12	0	0	0	16	0	5
PM NON-PROJECT TRAFFIC	**169**	**1,192**	**0**	**0**	**1,100**	**398**	**0**	**0**	**0**	**508**	**0**	**176**

OY 2025 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: Manatee Ave & 59th St W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.98
PM PEAK HOUR FACTOR: 0.96

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	11	940	179	334	1,033	84	236	113	218	223	138	19
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**11**	**940**	**179**	**334**	**1,033**	**84**	**236**	**113**	**218**	**223**	**138**	**19**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	32	1,230	227	276	1,286	97	299	184	346	183	114	26
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**32**	**1,230**	**227**	**276**	**1,286**	**97**	**299**	**184**	**346**	**183**	**114**	**26**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	0	18	3	6	20	2	11	5	10	10	6	1
AM NON-PROJECT TRAFFIC	**11**	**958**	**182**	**340**	**1,053**	**86**	**247**	**118**	**228**	**233**	**144**	**20**
	15	*960*	*185*	*340*	*1055*	*90*	*250*	*120*	*230*	*235*	*145*	*20*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	1	24	4	5	25	2	14	8	16	8	5	1
PM NON-PROJECT TRAFFIC	**33**	**1,254**	**231**	**281**	**1,311**	**99**	**313**	**192**	**362**	**191**	**119**	**27**
	35	*1255*	*235*	*285*	*1315*	*100*	*315*	*195*	*365*	*195*	*120*	*30*

OY 2025 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 11th Ave W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.89
PM PEAK HOUR FACTOR: 0.97

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	30	29	36	7	14	15	30	409	2	7	590	17
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**30**	**29**	**36**	**7**	**14**	**15**	**30**	**409**	**2**	**7**	**590**	**17**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	25	28	38	6	23	9	25	577	11	18	524	45
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**25**	**28**	**38**	**6**	**23**	**9**	**25**	**577**	**11**	**18**	**524**	**45**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	1	1	1	0	0	0	1	19	0	0	27	1
AM NON-PROJECT TRAFFIC	**31**	**30**	**37**	**7**	**14**	**15**	**31**	**428**	**2**	**7**	**617**	**18**
	35	*30*	*40*	*10*	*15*	*15*	*35*	*430*	*5*	*10*	*620*	*20*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	0	1	1	0	0	0	1	27	1	1	24	2
PM NON-PROJECT TRAFFIC	**25**	**29**	**39**	**6**	**23**	**9**	**26**	**604**	**12**	**19**	**548**	**47**
	25	*30*	*40*	*10*	*25*	*10*	*30*	*605*	*15*	*20*	*550*	*50*

OY 2025 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 17th Ave W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.92
PM PEAK HOUR FACTOR: 0.97

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	32	52	60	39	98	74	46	364	20	32	534	64
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**32**	**52**	**60**	**39**	**98**	**74**	**46**	**364**	**20**	**32**	**534**	**64**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	66	114	52	25	92	37	50	555	46	39	480	57
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**66**	**114**	**52**	**25**	**92**	**37**	**50**	**555**	**46**	**39**	**480**	**57**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	1	1	1	1	2	1	2	17	1	1	25	3
AM NON-PROJECT TRAFFIC	**33**	**53**	**61**	**40**	**100**	**75**	**48**	**381**	**21**	**33**	**559**	**67**
	35	*55*	*65*	*40*	*100*	*75*	*50*	*385*	*25*	*35*	*560*	*70*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	1	2	1	0	2	1	2	26	2	2	22	3
PM NON-PROJECT TRAFFIC	**67**	**116**	**53**	**25**	**94**	**38**	**52**	**581**	**48**	**41**	**502**	**60**
	70	*120*	*55*	*25*	*95*	*40*	*55*	*585*	*50*	*45*	*505*	*60*

OY 2025 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 21st Ave W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.91
PM PEAK HOUR FACTOR: 0.99

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	37	53	35	112	79	72	63	347	87	72	420	60
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**37**	**53**	**35**	**112**	**79**	**72**	**63**	**347**	**87**	**72**	**420**	**60**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	90	91	63	125	42	80	47	406	111	102	498	12
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**90**	**91**	**63**	**125**	**42**	**80**	**47**	**406**	**111**	**102**	**498**	**12**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	1	1	1	2	2	1	3	16	4	3	19	3
AM NON-PROJECT TRAFFIC	**38**	**54**	**36**	**114**	**81**	**73**	**66**	**363**	**91**	**75**	**439**	**63**
	40	*55*	*40*	*115*	*85*	*75*	*70*	*365*	*95*	*75*	*440*	*65*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	2	2	1	2	1	2	2	19	5	5	23	1
PM NON-PROJECT TRAFFIC	**92**	**93**	**64**	**127**	**43**	**82**	**49**	**425**	**116**	**107**	**521**	**13**
	95	*95*	*65*	*130*	*45*	*85*	*50*	*425*	*120*	*110*	*525*	*15*

OY 2025 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 29th Ave W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.97
PM PEAK HOUR FACTOR: 0.9

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	124	0	83	0	0	0	41	500	0	0	421	75
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**124**	**0**	**83**	**0**	**0**	**0**	**41**	**500**	**0**	**0**	**421**	**75**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	95	0	45	0	0	1	81	481	0	1	626	99
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**95**	**0**	**45**	**0**	**0**	**1**	**81**	**481**	**0**	**1**	**626**	**99**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	2	0	2	0	0	0	2	23	0	0	19	3
AM NON-PROJECT TRAFFIC	**126**	**0**	**85**	**0**	**0**	**0**	**43**	**523**	**0**	**0**	**440**	**78**
	130	*0*	*85*	*0*	*0*	*0*	*45*	*525*	*0*	*0*	*440*	*80*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	2	0	1	0	0	0	4	22	0	0	29	5
PM NON-PROJECT TRAFFIC	**97**	**0**	**46**	**0**	**0**	**1**	**85**	**503**	**0**	**1**	**655**	**104**
	100	*0*	*50*	*0*	*0*	*1*	*85*	*505*	*0*	*1*	*655*	*105*

OY 2025 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: Cortez Rd & 59th St W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.95

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	123	761	0	0	825	435	0	0	0	354	0	104
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**123**	**761**	**0**	**0**	**825**	**435**	**0**	**0**	**0**	**354**	**0**	**104**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	169	1,192	0	0	1,100	398	0	0	0	508	0	176
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**169**	**1,192**	**0**	**0**	**1,100**	**398**	**0**	**0**	**0**	**508**	**0**	**176**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	2	15	0	0	16	8	0	0	0	16	0	5
AM NON-PROJECT TRAFFIC	**125**	**776**	**0**	**0**	**841**	**443**	**0**	**0**	**0**	**370**	**0**	**109**
	125	*780*	*0*	*0*	*845*	*445*	*0*	*0*	*0*	*370*	*0*	*110*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	3	23	0	0	21	8	0	0	0	23	0	8
PM NON-PROJECT TRAFFIC	**172**	**1,215**	**0**	**0**	**1,121**	**406**	**0**	**0**	**0**	**531**	**0**	**184**
	175	*1215*	*0*	*0*	*1125*	*410*	*0*	*0*	*0*	*535*	*0*	*185*

DY 2045 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: Manatee Ave & 59th St W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.98
PM PEAK HOUR FACTOR: 0.96

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	11	940	179	334	1,033	84	236	113	218	223	138	19
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**11**	**940**	**179**	**334**	**1,033**	**84**	**236**	**113**	**218**	**223**	**138**	**19**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	32	1,230	227	276	1,286	97	299	184	346	183	114	26
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**32**	**1,230**	**227**	**276**	**1,286**	**97**	**299**	**184**	**346**	**183**	**114**	**26**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	1	114	22	41	126	10	73	35	67	69	43	6
AM NON-PROJECT TRAFFIC	**12**	**1,054**	**201**	**375**	**1,159**	**94**	**309**	**148**	**285**	**292**	**181**	**25**
	15	*1055*	*205*	*375*	*1160*	*95*	*310*	*150*	*285*	*295*	*185*	*25*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	4	150	28	34	157	12	93	57	107	57	35	8
PM NON-PROJECT TRAFFIC	**36**	**1,380**	**255**	**310**	**1,443**	**109**	**392**	**241**	**453**	**240**	**149**	**34**
	40	*1380*	*255*	*310*	*1445*	*110*	*395*	*245*	*455*	*240*	*150*	*35*

DY 2045 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 11th Ave W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.89
PM PEAK HOUR FACTOR: 0.97

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	30	29	36	7	14	15	30	409	2	7	590	17
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**30**	**29**	**36**	**7**	**14**	**15**	**30**	**409**	**2**	**7**	**590**	**17**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	25	28	38	6	23	9	25	577	11	18	524	45
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**25**	**28**	**38**	**6**	**23**	**9**	**25**	**577**	**11**	**18**	**524**	**45**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	4	4	4	1	2	2	9	127	1	2	183	5
AM NON-PROJECT TRAFFIC	**34**	**33**	**40**	**8**	**16**	**17**	**39**	**536**	**3**	**9**	**773**	**22**
	35	*35*	*40*	*10*	*20*	*20*	*40*	*540*	*5*	*10*	*775*	*25*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	3	3	5	1	3	1	8	179	3	6	162	14
PM NON-PROJECT TRAFFIC	**28**	**31**	**43**	**7**	**26**	**10**	**33**	**756**	**14**	**24**	**686**	**59**
	30	*35*	*45*	*10*	*30*	*10*	*35*	*760*	*15*	*25*	*690*	*60*

DY 2045 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 17th Ave W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.92
PM PEAK HOUR FACTOR: 0.97

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	32	52	60	39	98	74	46	364	20	32	534	64
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**32**	**52**	**60**	**39**	**98**	**74**	**46**	**364**	**20**	**32**	**534**	**64**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	66	114	52	25	92	37	50	555	46	39	480	57
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**66**	**114**	**52**	**25**	**92**	**37**	**50**	**555**	**46**	**39**	**480**	**57**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	4	6	7	5	12	9	14	113	6	10	165	20
AM NON-PROJECT TRAFFIC	**36**	**58**	**67**	**44**	**110**	**83**	**60**	**477**	**26**	**42**	**699**	**84**
	40	*60*	*70*	*45*	*110*	*85*	*60*	*480*	*30*	*45*	*700*	*85*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	8	14	6	3	11	5	15	172	14	12	149	18
PM NON-PROJECT TRAFFIC	**74**	**128**	**58**	**28**	**103**	**42**	**65**	**727**	**60**	**51**	**629**	**75**
	75	*130*	*60*	*30*	*105*	*45*	*65*	*730*	*60*	*55*	*630*	*75*

DY 2045 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 21st Ave W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.91
PM PEAK HOUR FACTOR: 0.99

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	37	53	35	112	79	72	63	347	87	72	420	60
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**37**	**53**	**35**	**112**	**79**	**72**	**63**	**347**	**87**	**72**	**420**	**60**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	90	91	63	125	42	80	47	406	111	102	498	12
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**90**	**91**	**63**	**125**	**42**	**80**	**47**	**406**	**111**	**102**	**498**	**12**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	5	6	4	14	10	9	20	107	27	22	130	19
AM NON-PROJECT TRAFFIC	**42**	**59**	**39**	**126**	**89**	**81**	**83**	**454**	**114**	**94**	**550**	**79**
	45	*60*	*40*	*130*	*90*	*85*	*85*	*455*	*115*	*95*	*550*	*80*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	11	11	8	15	5	10	15	126	34	32	154	4
PM NON-PROJECT TRAFFIC	**101**	**102**	**71**	**140**	**47**	**90**	**62**	**532**	**145**	**134**	**652**	**16**
	105	*105*	*75*	*140*	*50*	*90*	*65*	*535*	*145*	*135*	*655*	*20*

DY 2045 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: 59th St W & 29th Ave W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.97
PM PEAK HOUR FACTOR: 0.9

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	124	0	83	0	0	0	41	500	0	0	421	75
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**124**	**0**	**83**	**0**	**0**	**0**	**41**	**500**	**0**	**0**	**421**	**75**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	95	0	45	0	0	1	81	481	0	1	626	99
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**95**	**0**	**45**	**0**	**0**	**1**	**81**	**481**	**0**	**1**	**626**	**99**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	15	0	10	0	0	0	13	155	0	0	130	23
AM NON-PROJECT TRAFFIC	**139**	**0**	**93**	**0**	**0**	**0**	**54**	**655**	**0**	**0**	**551**	**98**
	140	*0*	*95*	*0*	*0*	*0*	*55*	*655*	*0*	*0*	*555*	*100*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	12	0	5	0	0	0	25	149	0	0	194	31
PM NON-PROJECT TRAFFIC	**107**	**0**	**50**	**0**	**0**	**1**	**106**	**630**	**0**	**1**	**820**	**130**
	110	*0*	*50*	*0*	*0*	*1*	*110*	*630*	*0*	*1*	*820*	*130*

DY 2045 VOLUME DEVELOPMENT
AT STUDY INTERSECTIONS

INTERSECTION: Cortez Rd & 59th St W
COUNT DATE: January 1, 2021
AM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.95

"AM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Raw Turning Movements	123	761	0	0	825	435	0	0	0	354	0	104
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AM EXISTING CONDITIONS	**123**	**761**	**0**	**0**	**825**	**435**	**0**	**0**	**0**	**354**	**0**	**104**

"PM EXISTING TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM Raw Turning Movements	169	1,192	0	0	1,100	398	0	0	0	508	0	176
Seasonal Factor (Min. 1.00)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PM EXISTING CONDITIONS	**169**	**1,192**	**0**	**0**	**1,100**	**398**	**0**	**0**	**0**	**508**	**0**	**176**

"AM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
AM BACKGROUND TRAFFIC GROWTH	15	93	0	0	100	53	0	0	0	110	0	32
AM NON-PROJECT TRAFFIC	**138**	**854**	**0**	**0**	**925**	**488**	**0**	**0**	**0**	**464**	**0**	**136**
	140	*855*	*0*	*0*	*925*	*490*	*0*	*0*	*0*	*465*	*0*	*140*

"PM BACKGROUND TRAFFIC"	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Years To Buildout	24	24	24	24	24	24	24	24	24	24	24	24
Yearly Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
PM BACKGROUND TRAFFIC GROWTH	21	145	0	0	134	48	0	0	0	157	0	54
PM NON-PROJECT TRAFFIC	**190**	**1,337**	**0**	**0**	**1,234**	**446**	**0**	**0**	**0**	**665**	**0**	**230**
	190	*1340*	*0*	*0*	*1235*	*450*	*0*	*0*	*0*	*665*	*0*	*230*

Attachment C: Signal Timing Worksheets

Sarasota-Manatee RTMC | Timing Sheet | 6/25/2021 2:32:15 PM

Station : 3124 - Cortez Rd @ 59th St W (Upload File)

Phase [1.1.1]

	1 (EL)	2 (WT)	3	4	5	6 (ET)	7	8 (ST)	9	10	11	12	13	14	15	16
Walk	0	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	27	0	0	0	0	0	23	0	0	0	0	0	0	0	0
Min Green	5	15	0	0	0	15	0	7	0	0	0	0	0	0	0	0
Passage	3	5	0	0	0	5	0	3	0	0	0	0	0	0	0	0
Max1	15	30	0	0	0	30	0	20	0	0	0	0	0	0	0	0
Max2	25	125	0	0	0	150	0	45	0	0	0	0	0	0	0	0
Yellow	4.8	4.8	0	0	0	4.8	0	4.4	0	0	0	0	0	0	0	0
Red	2.5	2.5	0	0	0	2.5	0	2	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Exit		ON				ON										
Rest In Walk		ON														

Phase Option [1.1.2]

	1 (EL)	2 (WT)	3	4	5	6 (ET)	7	8 (ST)	9	10	11	12	13	14	15	16
Enable	ON	ON				ON		ON								
Auto Entry								ON								
Non Act1																
Non Act2																
Lock Call																
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON				ON										
Sim Gap Enable																
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	7	24	7	3	20	45	4.4	2	8	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

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Station : 3124 - Cortez Rd @ 59th St W (Upload File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Backup Time	Red Revert	Console Timeout	Tone Disable	Feature Profile	Phase Mode	Diamond Mode	SDLC Retry Time	TS2 Det Faults	Cycle Fault Action	Max Cycle Time	Max Seek Track Time	Max Seek Dwell Time	Enable Run	Local Flash Start	Start Red Time	Disable Init Ped	Yellow 3 Second Disable	Omit Yellow Enable	Free Ring Sequence
	OFF		3	10	OFF		STD8	4PH		OFF	ALARM				ON	OFF		OFF	OFF	OFF	1

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
3124			OFF					

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	ON	OFF

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds									
Overlap 1																									OFF	OFF
Overlap 2																									OFF	OFF
Overlap 3																									OFF	OFF
Overlap 4																									OFF	OFF
Overlap 5																									OFF	OFF
Overlap 6																									OFF	OFF
Overlap 7																									OFF	OFF
Overlap 8																									OFF	OFF

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	1	2	3	4	5	6	7	8	0	0	0	0	0	0	0	0
Switch Phase	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Station : 3124 - Cortez Rd @ 59th St W (Upload File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Alt Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT	TX2_V14	ON	AUTO	EXT

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1											1				
2				1							1				
3															
4															
5															
6				1											
7															
8	1														
9															
10															
11															
12															
13															
14															
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac		Detector														MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Present	ON	ON							ON								ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

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Station : 3124 - Cortez Rd @ 59th St W (Upload File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	ON
25	ON
26	ON
27	ON
28	
29	ON
30	ON
31	ON
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	ON
48	
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	
56	
57	
58	
59	ON
60	
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	
22	ON
23	ON
24	ON
25	ON
26	
27	
28	
29	
30	ON
31	ON
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	ON
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash						
Override Higher	ON					
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1						
Dwell P2						
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	10	VOT_MON	D-CONN

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
ON	ON

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

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Station : 3124 - Cortez Rd @ 59th St W (Upload File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Return Min/Max						
Delay Inh						
Exit Time						
All Red B4						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FLOAT

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
FRC	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	OFF	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	160	200	200	140	140	200	140	200								
Offset Time	7	160	165	5	5	184	5	184								
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23									
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

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Station : 3124 - Cortez Rd @ 59th St W (Upload File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	98		42		118		42								
Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	27	129		44		156		44								
Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	131		44		156		44								
Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	18	92		30		110		30								
Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	18	92		30		110		30								
Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	131		44		156		44								
Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	18	92		30		110		30								
Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	131		44		156		44								
Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

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Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 27	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 28	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 29	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 30	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 31	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 32	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

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TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	1
5																																																	1
6																																																	1
7																																																	1
8																																																	1
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27																																																	1
28																																																	1
29																																																	1
30																																																	1
31																																																	1
32																																																	1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	10	14	18	22										
Minute					30											
Action	99	1	2	3	4	99										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	18	23											
Minute			30													
Action	99	5	6	5	99											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	18	21											
Minute			30													
Action	99	7	8	7	99											

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

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Day Plan Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

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Station : 3124 - Cortez Rd @ 59th St W (Upload File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25	25											
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
99	254											
100	255											

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Station : 3237 - 59th St W @ 29th Ave W (Upload File)

Phase [1.1.1]

	1	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	0	0	19	0	31	0	0	0	0	0	0	0	0	0	0
Min Green	0	20	0	7	7	20	0	7	0	0	0	0	0	0	0	0
Gap Ext	0	3	0	4	3	3	0	4	0	0	0	0	0	0	0	0
Max1	0	60	0	25	15	55	0	25	0	0	0	0	0	0	0	0
Max2	0	110	0	30	20	100	0	30	0	0	0	0	0	0	0	0
Yellow Clr	0	4.9	0	3.8	4	4.9	0	3.8	0	0	0	0	0	0	0	0
Red Clr	0	2	0	2	2.6	2	0	2	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Rest In Walk																

Phase Option [1.1.2]

	1	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Enable		ON		ON	ON	ON		ON								
Lock Call		ON				ON										
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON		ON		ON		ON								
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

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Station : 3237 - 59th St W @ 29th Ave W (Upload File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	3	OFF	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF	

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
3237								

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	2	5	4	4	6	8	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	3	0	8	0	3	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2		1									1	1			
3															
4			1						1						
5															
6		1													
7															
8			1												
9															
10															
11															
12															
13															
14															
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac		Detector														MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present	ON	ON							ON								ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

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Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	ON
25	ON
26	ON
27	ON
28	
29	ON
30	ON
31	ON
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	ON
48	
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	
56	
57	
58	
59	ON
60	
61	ON
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	
22	ON
23	ON
24	ON
25	ON
26	
27	
28	
29	
30	ON
31	ON
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	ON
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt	ON					
Flash in Dwell						
Link to Preempt						
Delay	8					
Min Duration						
Min Green	20					
Min Walk						
Ped Clear	31					
Track Green						
Min Dwell	30					
Max Presence	99					
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	8					
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	2					
Exit 2	6					
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	10		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	ON

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

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Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON					
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow						
Red						
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX 2	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	100	110		120	120	120		130		140						
Offset Time	90	89		65	88	34		125		131						
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23									
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

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Coordination, Splits [2.7.1]

Split Table 1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time		78		22	18	60		22								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 2	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time		83		27	18	65		27								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 3	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 4	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time		90		30	18	72		30								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 5	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time		93		27	18	75		27								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 6	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time		93		27	20	73		27								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time		101		29	19	82		29								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time		110		30	18	92		30								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

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Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 27	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 31	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

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TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	1
5																																																		1
6																																																		1
7																																																		1
8																																																		1
9																																																		1
10																																																		1
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26																																																		1
27																																																		1
28																																																		1
29																																																		1
30																																																		1
31																																																		1
32																																																		1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	10	13	18	19										
Minute				30												
Action	99	4	5	10	1	99										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		9	10	15	17											
Minute																
Action	99	2	8	6	99											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action	99															

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

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Day Plan Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

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TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

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Phase [1.1.1]

	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk	0	7	0	7	0	7	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	13	0	15	0	14	0	0	0	0	0	0	0	0	0	0
Min Green	7	20	7	7	7	20	7	7	0	0	0	0	0	0	0	0
Gap Ext	3	3	4	4	3	3	4	4	0	0	0	0	0	0	0	0
Max1	15	55	15	20	15	55	15	25	0	0	0	0	0	0	0	0
Max2	20	75	20	40	20	75	20	40	0	0	0	0	0	0	0	0
Yellow Clr	4	5	3.4	4.2	4.1	5	3.4	4.2	0	0	0	0	0	0	0	0
Red Clr	2.1	2	2.3	2	2	2	2	2	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Rest In Walk																

Phase Option [1.1.2]

	1 (SL)	2 (NT)	3 (WL)	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Lock Call		ON				ON										
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable				ON				ON								
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

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Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	3	OFF	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF	

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
3235								

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	2	5	4	7	6	1	8	3	0	0	0	0	0	0	0	0
Switch Phase	0	2	0	4	0	6	0	8	0	0	0	0	0	0	0	0
Delay Time	0	0	8	3	0	0	8	3	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1		1									1	1			
2		1		1							1	1			
3									1	1					
4			1						1	1					
5				1											
6		1		1											
7			1												
8			1												
9															
10															
11															
12															
13		1													
14															
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac		Detector														MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present	ON	ON							ON								ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

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Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	ON
25	ON
26	ON
27	ON
28	
29	ON
30	ON
31	ON
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	ON
48	
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	
56	
57	
58	
59	ON
60	
61	ON
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	
22	ON
23	ON
24	ON
25	ON
26	
27	
28	
29	
30	ON
31	ON
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	ON
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt	ON					
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	10		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	ON

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

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Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow						
Red						
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX 2	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	100	110		120	120	120		130		140						
Offset Time	22	70		44	64	18		97		91						
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23									
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

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Coordination, Splits [2.7.1]

Split Table 1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	18	41	17	24	17	42	17	24								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 2	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	18	51	17	24	17	52	17	24								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 3	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 4	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	18	56	17	29	17	57	17	29								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 5	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	18	56	20	26	17	57	17	29								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 6	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	18	63	17	22	17	64	17	22								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	18	71	17	24	17	72	17	24								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	18	66	20	36	17	67	17	39								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

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Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 27	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 31	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

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TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	1
5																																																		1
6																																																		1
7																																																		1
8																																																		1
9																																																		1
10																																																		1
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27																																																		1
28																																																		1
29																																																		1
30																																																		1
31																																																		1
32																																																		1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	10	13	18	19										
Minute				30												
Action	99	4	5	10	1	99										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		9	10	15	17											
Minute																
Action	99	2	8	6	99											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action	99															

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

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Day Plan Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

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TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

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Station : 3233 - 59th St W @ 17th Ave W (Upload File)

Phase [1.1.1]

	1 (SL)	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk	0	7	0	7	0	7	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	28	0	28	0	29	0	0	0	0	0	0	0	0	0	0
Min Green	7	20	0	7	7	20	0	7	0	0	0	0	0	0	0	0
Gap Ext	3	3	0	3	3	3	0	3	0	0	0	0	0	0	0	0
Max1	15	50	0	20	15	50	0	20	0	0	0	0	0	0	0	0
Max2	25	90	0	40	25	90	0	40	0	0	0	0	0	0	0	0
Yellow Clr	4.1	5	0	4.2	4.1	5	0	4.2	0	0	0	0	0	0	0	0
Red Clr	2.6	2	0	2	2.5	2	0	2	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Rest In Walk																

Phase Option [1.1.2]

	1 (SL)	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Enable	ON	ON		ON	ON	ON		ON								
Lock Call		ON				ON										
Min Recall																
Max Recall		ON				ON										
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable																
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

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Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	3	OFF	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF	

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
3233								

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	1	8	8	5	4	4	0	0	0	0	0	0	0	0	0	0
Switch Phase	6	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1		1									1	1			
2		1		1							1	1			
3															
4			1						1						
5				1											
6		1		1											
7															
8			1												
9															
10															
11															
12															
13		1													
14															
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac		Detector														MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present	ON	ON							ON								ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

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Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	ON
25	ON
26	ON
27	ON
28	
29	ON
30	ON
31	ON
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	ON
48	
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	
56	
57	
58	
59	ON
60	
61	ON
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	
22	ON
23	ON
24	ON
25	ON
26	
27	
28	
29	
30	ON
31	ON
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	ON
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt	ON					
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	10		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	ON

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

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Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow						
Red						
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX 2	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	100	110		120	120	120		130		140						
Offset Time	26	20		8	84	30		35		112						
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23									
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

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Coordination, Splits [2.7.1]

Split Table 1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	19	58		23	20	57		23								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 2	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	20	61		29	20	61		29								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 3	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 4	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	18	78		24	19	77		24								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 5	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	15	80		25	15	80		25								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 6	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	20	68		32	20	68		32								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	22	80		28	22	80		28								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	20	90		30	20	90		30								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

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Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 27	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 31	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

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TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	1
5																																																	1
6																																																	1
7																																																	1
8																																																	1
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27																																																	1
28																																																	1
29																																																	1
30																																																	1
31																																																	1
32																																																	1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	10	13	18	19										
Minute				30												
Action	99	4	5	10	1	99										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		9	10	15	17											
Minute																
Action	99	2	8	6	99											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action	99															

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

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Day Plan Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action	24															

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

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TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

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Phase [1.1.1]

	1 (SL)	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk	0	10	0	10	0	10	0	10	0	0	0	0	0	0	0	0
Ped Clearance	0	21	0	20	0	18	0	18	0	0	0	0	0	0	0	0
Min Green	7	20	0	7	7	20	0	7	0	0	0	0	0	0	0	0
Gap Ext	3	3	0	5	4	3	0	5	0	0	0	0	0	0	0	0
Max1	20	55	0	35	25	55	0	35	0	0	0	0	0	0	0	0
Max2	20	90	0	35	20	90	0	35	0	0	0	0	0	0	0	0
Yellow Clr	4	4.9	0	4.2	4	4.9	0	4.2	0	0	0	0	0	0	0	0
Red Clr	2	2	0	2	2	2	0	2	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Rest In Walk																

Phase Option [1.1.2]

	1 (SL)	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Enable	ON	ON		ON	ON	ON		ON								
Lock Call		ON				ON										
Min Recall																
Max Recall		ON				ON										
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON		ON		ON		ON								
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

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Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	3	OFF	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF	

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
3232								

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	8	8	1	4	5	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	8	3	8	3	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1		1									1	1			
2		1		1							1	1			
3															
4	1		1						1						
5				1											
6		1		1											
7															
8	1		1												
9															
10															
11															
12															
13		1													
14	1														
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present	ON	ON							ON								ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

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Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	ON
25	ON
26	ON
27	ON
28	
29	ON
30	ON
31	ON
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	ON
48	
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	
56	
57	
58	
59	ON
60	
61	ON
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	
2	ON
3	ON
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	
22	ON
23	ON
24	ON
25	ON
26	
27	
28	
29	
30	ON
31	ON
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	ON
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt	ON					
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	10		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	ON

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

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Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow						
Red						
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX 2	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	100	110		120	120	120		130		140						
Offset Time	90	32		21	50	107		52		79						
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23									
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

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Coordination, Splits [2.7.1]

Split Table 1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	19	51		30	19	51		30								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 2	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	19	65		26	19	65		26								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 3	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 4	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	17	73		30	17	73		30								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 5	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	17	73		30	17	73		30								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 6	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	19	71		30	19	71		30								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	19	78		33	19	78		33								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	17	90		33	17	90		33								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

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Station : 3232 - 59th St W @ 11th Ave W (Upload File)

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 27	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 31	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

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Station : 3232 - 59th St W @ 11th Ave W (Upload File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	1
5																																																	1
6																																																	1
7																																																	1
8																																																	1
9																																																	1
10																																																	1
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26																																																	1
27																																																	1
28																																																	1
29																																																	1
30																																																	1
31																																																	1
32																																																	1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	7	10	13	18	19									
Minute					30											
Action	99	44	4	5	10	1	99									

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	9	10	15	17	18									
Minute																
Action	99	44	2	8	6	44	99									

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	18													
Minute																
Action	99	44	99													

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

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Station : 3232 - 59th St W @ 11th Ave W (Upload File)

Day Plan Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

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Station : 3232 - 59th St W @ 11th Ave W (Upload File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2	ON			0	0						
3	3	ON			0	0						
4	4	ON			0	0						
5	5	ON			0	0						
6	6	ON			0	0						
7	7	ON			0	0						
8	8	ON			0	0						
9	9	ON			0	0						
10	10	ON			0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44	254	ON			0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

Station : 4029 - Manatee Ave @ 59th St W (Upload File)

Phase [1.1.1]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk	0	10	0	10	0	10	0	10	0	0	0	0	0	0	0	0
Ped Clearance	0	26	0	36	0	34	0	35	0	0	0	0	0	0	0	0
Min Green	5	10	5	7	5	10	5	7	0	0	0	0	0	0	0	0
Passage	3	5	3	3	3	5	3	3	0	0	0	0	0	0	0	0
Max1	15	90	35	35	40	65	35	35	0	0	0	0	0	0	0	0
Max2	20	100	35	30	45	75	40	25	0	0	0	0	0	0	0	0
Yellow	4.8	4.8	3.7	4.5	4.8	4.8	4.5	3.7	0	0	0	0	0	0	0	0
Red	2	2	2.1	2	2	2	2	2	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Exit		ON				ON										
Rest In Walk																

Phase Option [1.1.2]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Entry				ON				ON								
Non Act1																
Non Act2																
Lock Call																
Min Recall																
Max Recall		ON				ON										
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable																
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

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Unit Parameters [1.2.1]

StartUp Flash		Backup Time	Red Revert	Console Timeout	Tone Disable	Feature Profile	Phase Mode	Diamond Mode					Max Seek Track Time	Max Seek Dwell Time	Enable Run				Yellow 3		

	Auto Ped Clear								SDLC Retry Time	TS2 Det Faults	Cycle Fault Action	Max Cycle Time				Local Flash Start	Start Red Time	Disable Init Ped	Second Disable	Omit Yellow Enable	Free Ring Sequence
	OFF		3	20	OFF		STD8	4PH		OFF	ALARM				ON	OFF		OFF	OFF	OFF	1

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
4029			OFF					

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	ON	OFF

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds									
Overlap 1																									OFF	OFF
Overlap 2																									OFF	OFF
Overlap 3																									OFF	OFF
Overlap 4																									OFF	OFF
Overlap 5																									OFF	OFF
Overlap 6																									OFF	OFF
Overlap 7																									OFF	OFF
Overlap 8																									OFF	OFF

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	1	3	4	5	7	8	0	0	0	0	8	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 4029 - Manatee Ave @ 59th St W (Upload File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Alt Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT	TX2_V14	OFF	AUTO	EXT

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1		1									1	1			
2		1		1							1	1			
3	1								1	1					
4	1		1						1	1					
5				1											
6		1		1											
7			1												
8	1		1												
9															
10															
11															
12															
13		1													
14	1														
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Present	ON	ON							ON								ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Station : 4029 - Manatee Ave @ 59th St W (Upload File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	ON
25	ON
26	ON
27	ON
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	ON
56	ON
57	ON
58	ON
59	
60	
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	ON
25	ON
26	ON
27	ON
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	ON
56	ON
57	ON
58	ON
59	
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash						
Override Higher	ON					
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1						
Dwell P2						
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	10	VOT_MON	D-CONN

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
ON	ON

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

Station : 4029 - Manatee Ave @ 59th St W (Upload File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Return Min/Max						
Delay Inh						
Exit Time						
All Red B4						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX 2	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
FRC	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	OFF	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	160	160	170	120	110	150	110									
Offset Time	100	147	130	33	44	1	2									
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	3	3	1	3	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23									
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

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Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	88	34	23	42	61	34	23								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph						ON										

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	89	30	26	34	70	35	21								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph						ON										

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	16	99	33	22	32	83	34	21								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph						ON										

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	62	19	24	25	52	27	16								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	61	17	17	19	57	17	17								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	19	77	29	25	29	67	36	18								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph						ON										

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	56	18	21	20	51	22	17								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	29	117		34	29	117		34								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph			ON													

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	76	35	24	44	47	35	24								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	14	104	31	31	46	72	36	26								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph			ON													

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Station : 4029 - Manatee Ave @ 59th St W (Upload File)

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	75	25	25	30	60	32	18								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph						ON										

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	23	104	30	23	36	91	30	23								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph																

Station : 4029 - Manatee Ave @ 59th St W (Upload File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	1
5																																																	1
6																																																	1
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29																																																	1
30																																																	1
31																																																	1
32																																																	1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	9	13	18	22										
Minute		30	30	30												
Action	99	1	2	3	4	99										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	8	18	22											
Minute		30	30	30												
Action	99	5	6	7	99											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		8	9	18	21											
Minute			30	30												
Action	99	5	6	7	99											

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Sarasota-Manatee RTMC Timing Sheet 6/28/2021 10:57:29 AM

Station : 4029 - Manatee Ave @ 59th St W (Upload File)

Day Plan Table 7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Station : 4029 - Manatee Ave @ 59th St W (Upload File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25	25											
26	26											
27	27											
28	28											
29	29											
30	30											
31	31											
32	32											
33	33											
34	34											
35	35											
36	36											
37	37											
38	38											
39	39											
40	40											
41	41											
42	42											
43	43											
44	44											
45	45											
46	46											
47	47											
48	48											
49												
50												
51												
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53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
99	254											
100	255											

Attachment D: Synchro Outputs

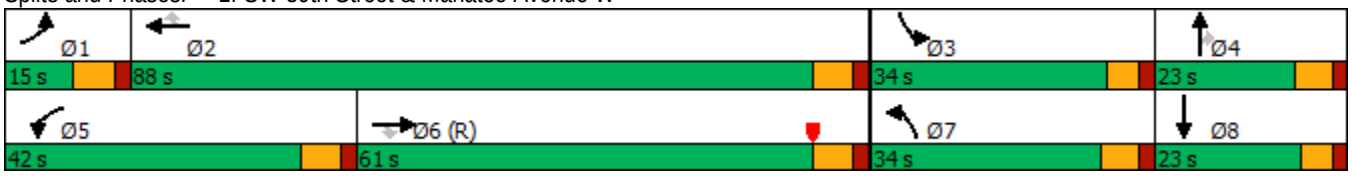
D-1: Existing Conditions (2021)

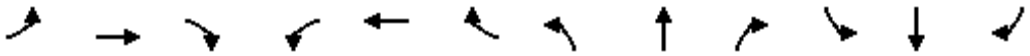
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	940	179	334	1033	84	236	113	218	223	138	19
Future Volume (vph)	11	940	179	334	1033	84	236	113	218	223	138	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	430		800	700		470	380		750	340		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		2898			3163			2258			2195	
Travel Time (s)		49.4			53.9			38.5			37.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0	7.0	5.0	10.0	10.0	5.0	10.0	
Minimum Split (s)	11.8	50.8	50.8	11.9	42.8	42.8	11.6	52.8	52.8	11.8	51.8	
Total Split (s)	15.0	61.0	61.0	42.0	88.0	88.0	34.0	23.0	23.0	34.0	23.0	
Total Split (%)	9.4%	38.1%	38.1%	26.3%	55.0%	55.0%	21.3%	14.4%	14.4%	21.3%	14.4%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.5	4.5	4.5	3.7	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.5	6.5	6.5	5.8	5.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 98.9 (62%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 1: SW 59th Street & Manatee Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	940	179	334	1033	84	236	113	218	223	138	19
Future Volume (veh/h)	11	940	179	334	1033	84	236	113	218	223	138	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1826	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	959	183	341	1054	86	241	115	222	228	141	19
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	5	5	5	2	2	2	2	2	2
Cap, veh/h	22	1204	537	361	1853	826	263	207	175	250	160	22
Arrive On Green	0.01	0.34	0.34	0.21	0.53	0.53	0.15	0.11	0.11	0.14	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1739	3469	1547	1781	1870	1585	1781	1614	217
Grp Volume(v), veh/h	11	959	183	341	1054	86	241	115	222	228	0	160
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1739	1735	1547	1781	1870	1585	1781	0	1831
Q Serve(g_s), s	1.0	39.1	13.8	30.9	32.5	4.4	21.3	9.3	17.7	20.2	0.0	13.8
Cycle Q Clear(g_c), s	1.0	39.1	13.8	30.9	32.5	4.4	21.3	9.3	17.7	20.2	0.0	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	22	1204	537	361	1853	826	263	207	175	250	0	182
V/C Ratio(X)	0.51	0.80	0.34	0.95	0.57	0.10	0.92	0.56	1.27	0.91	0.00	0.88
Avail Cap(c_a), veh/h	91	1204	537	383	1853	826	306	207	175	314	0	198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	0.00	1.00
Uniform Delay (d), s/veh	78.6	47.9	39.5	62.5	24.9	18.4	67.2	67.4	71.2	67.8	0.0	71.1
Incr Delay (d2), s/veh	17.5	5.5	1.7	31.4	1.3	0.3	27.8	3.1	155.9	25.5	0.0	31.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	25.0	9.5	23.4	19.5	2.9	17.2	8.1	22.9	16.3	0.0	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.1	53.4	41.3	93.9	26.2	18.6	95.1	70.6	227.0	93.3	0.0	102.9
LnGrp LOS	F	D	D	F	C	B	F	E	F	F	A	F
Approach Vol, veh/h		1153			1481			578			388	
Approach Delay, s/veh		51.9			41.4			140.9			97.2	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	92.3	28.3	24.2	40.0	61.0	30.1	22.4
Change Period (Y+Rc), s	6.8	6.8	* 5.8	6.5	6.8	6.8	6.5	* 6.5
Max Green Setting (Gmax), s	8.2	81.2	* 28	16.5	35.2	54.2	27.5	* 17
Max Q Clear Time (g_c+I1), s	3.0	34.5	22.2	19.7	32.9	41.1	23.3	15.8
Green Ext Time (p_c), s	0.0	9.5	0.3	0.0	0.3	5.7	0.3	0.1

Intersection Summary	
HCM 6th Ctrl Delay	66.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

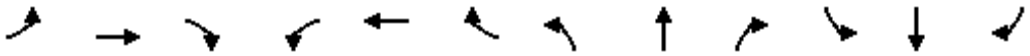
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	29	36	7	14	15	30	409	2	7	590	17
Future Volume (vph)	30	29	36	7	14	15	30	409	2	7	590	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	170		0	120		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		276			328			1746			2258	
Travel Time (s)		6.3			7.5			29.8			38.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	24.2	24.2		23.8	23.8		13.0	26.9		13.1	26.9	
Total Split (s)	30.0	30.0		30.0	30.0		17.0	73.0		17.0	73.0	
Total Split (%)	25.0%	25.0%		25.0%	25.0%		14.2%	60.8%		14.2%	60.8%	
Yellow Time (s)	4.2	4.2		4.2	4.2		4.0	4.9		4.0	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2		6.2	6.2		6.0	6.9		6.0	6.9	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 21 (18%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: SW 59th Street & 11th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	29	36	7	14	15	30	409	2	7	590	17
Future Volume (veh/h)	30	29	36	7	14	15	30	409	2	7	590	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	33	40	8	16	17	34	460	2	8	663	19
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	2	2	2
Cap, veh/h	73	51	51	154	70	75	549	1380	6	750	1295	37
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.08	1.00	1.00	0.01	0.72	0.72
Sat Flow, veh/h	393	599	592	1316	823	875	1781	1861	8	1781	1809	52
Grp Volume(v), veh/h	107	0	0	8	0	33	34	0	462	8	0	682
Grp Sat Flow(s),veh/h/ln	1584	0	0	1316	0	1698	1781	0	1869	1781	0	1861
Q Serve(g_s), s	5.8	0.0	0.0	0.0	0.0	2.2	0.6	0.0	0.0	0.1	0.0	19.7
Cycle Q Clear(g_c), s	7.9	0.0	0.0	0.9	0.0	2.2	0.6	0.0	0.0	0.1	0.0	19.7
Prop In Lane	0.32		0.37	1.00		0.52	1.00		0.00	1.00		0.03
Lane Grp Cap(c), veh/h	175	0	0	154	0	145	549	0	1386	750	0	1332
V/C Ratio(X)	0.61	0.00	0.00	0.05	0.00	0.23	0.06	0.00	0.33	0.01	0.00	0.51
Avail Cap(c_a), veh/h	352	0	0	303	0	337	642	0	1386	889	0	1332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.96	0.00	0.96	0.60	0.00	0.60
Uniform Delay (d), s/veh	53.8	0.0	0.0	50.6	0.0	51.2	5.1	0.0	0.0	4.4	0.0	7.6
Incr Delay (d2), s/veh	3.4	0.0	0.0	0.1	0.0	0.8	0.0	0.0	0.6	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	0.0	0.0	0.4	0.0	1.7	0.3	0.0	0.4	0.1	0.0	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	0.0	0.0	50.7	0.0	52.0	5.2	0.0	0.6	4.4	0.0	8.5
LnGrp LOS	E	A	A	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		107			41			496			690	
Approach Delay, s/veh		57.2			51.7			0.9			8.4	
Approach LOS		E			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	95.9		16.5	10.7	92.8		16.5				
Change Period (Y+Rc), s	6.0	6.9		6.2	6.0	6.9		6.2				
Max Green Setting (Gmax), s	11.0	66.1		23.8	11.0	66.1		23.8				
Max Q Clear Time (g_c+I1), s	2.1	2.0		9.9	2.6	21.7		4.2				
Green Ext Time (p_c), s	0.0	3.0		0.4	0.0	5.1		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		10.9	
HCM 6th LOS		B	

Notes

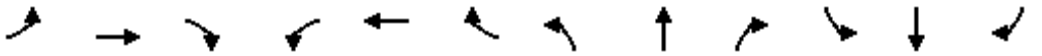
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	52	60	39	98	74	46	364	20	32	534	64
Future Volume (vph)	32	52	60	39	98	74	46	364	20	32	534	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		300	330		330	250		330	280		470
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		839			905			1359			1746	
Travel Time (s)		19.1			20.6			23.2			29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	24.2	24.2	24.2	23.8	23.8	23.8	13.6	27.0	27.0	13.7	27.0	27.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	19.0	78.0	78.0	18.0	77.0	77.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	15.8%	65.0%	65.0%	15.0%	64.2%	64.2%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	4.1	5.0	5.0	4.1	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.0	2.6	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	6.6	7.0	7.0	6.7	7.0	7.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 8 (7%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: SW 59th Street & 17th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	52	60	39	98	74	46	364	20	32	534	64
Future Volume (veh/h)	32	52	60	39	98	74	46	364	20	32	534	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	35	57	65	42	107	80	50	396	22	35	580	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	117	191	162	154	191	162	566	1284	1088	779	1283	1087
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.06	0.92	0.92	0.04	0.69	0.69
Sat Flow, veh/h	1196	1870	1585	1269	1870	1585	1767	1856	1572	1781	1870	1585
Grp Volume(v), veh/h	35	57	65	42	107	80	50	396	22	35	580	70
Grp Sat Flow(s),veh/h/ln	1196	1870	1585	1269	1870	1585	1767	1856	1572	1781	1870	1585
Q Serve(g_s), s	3.4	3.4	4.6	3.8	6.5	5.7	0.9	2.8	0.1	0.7	17.0	1.7
Cycle Q Clear(g_c), s	10.0	3.4	4.6	7.2	6.5	5.7	0.9	2.8	0.1	0.7	17.0	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	117	191	162	154	191	162	566	1284	1088	779	1283	1087
V/C Ratio(X)	0.30	0.30	0.40	0.27	0.56	0.49	0.09	0.31	0.02	0.04	0.45	0.06
Avail Cap(c_a), veh/h	172	277	235	212	277	235	665	1284	1088	875	1283	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	0.86	0.86	0.86
Uniform Delay (d), s/veh	56.1	49.9	50.5	53.2	51.3	51.0	5.6	1.6	1.5	4.6	8.6	6.2
Incr Delay (d2), s/veh	1.4	0.9	1.6	0.9	2.6	2.3	0.1	0.6	0.0	0.0	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	2.9	3.4	2.3	5.8	4.3	0.5	1.7	0.1	0.4	10.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	50.8	52.1	54.2	53.9	53.3	5.6	2.1	1.5	4.6	9.6	6.3
LnGrp LOS	E	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		157			229			468			685	
Approach Delay, s/veh		52.8			53.7			2.5			9.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	90.0		18.4	12.3	89.3		18.4				
Change Period (Y+Rc), s	6.7	7.0		6.2	6.6	7.0		6.2				
Max Green Setting (Gmax), s	11.3	71.0		17.8	12.4	70.0		17.8				
Max Q Clear Time (g_c+I1), s	2.7	4.8		12.0	2.9	19.0		9.2				
Green Ext Time (p_c), s	0.0	2.6		0.3	0.0	4.3		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		18.1	
HCM 6th LOS		B	

Notes

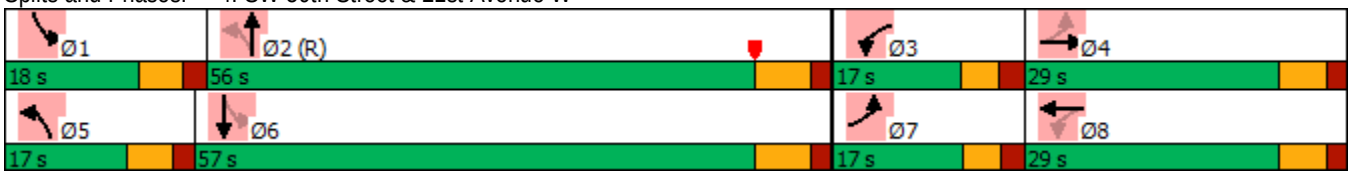
User approved pedestrian interval to be less than phase max green.

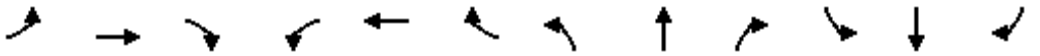
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	53	35	112	79	72	63	347	87	72	420	60
Future Volume (vph)	37	53	35	112	79	72	63	347	87	72	420	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	300		0	210		0	235		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		571			628			2227			1359	
Travel Time (s)		15.6			14.3			38.0			23.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	12.4	24.2		12.7	23.8		13.1	27.0		13.1	27.0	
Total Split (s)	17.0	29.0		17.0	29.0		17.0	56.0		18.0	57.0	
Total Split (%)	14.2%	24.2%		14.2%	24.2%		14.2%	46.7%		15.0%	47.5%	
Yellow Time (s)	3.4	4.2		3.4	4.2		4.1	5.0		4.0	5.0	
All-Red Time (s)	2.0	2.0		2.3	2.0		2.0	2.0		2.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	6.2		5.7	6.2		6.1	7.0		6.1	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 43.9 (37%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: SW 59th Street & 21st Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	53	35	112	79	72	63	347	87	72	420	60
Future Volume (veh/h)	37	53	35	112	79	72	63	347	87	72	420	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	41	58	38	123	87	79	69	381	96	79	462	66
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	5	5	5	2	2	2	3	3	3	2	2	2
Cap, veh/h	161	81	53	230	104	95	511	831	209	689	932	133
Arrive On Green	0.04	0.08	0.08	0.08	0.12	0.12	0.10	1.00	1.00	0.05	0.58	0.58
Sat Flow, veh/h	1739	1030	675	1781	903	820	1767	1430	360	1781	1601	229
Grp Volume(v), veh/h	41	0	96	123	0	166	69	0	477	79	0	528
Grp Sat Flow(s),veh/h/ln	1739	0	1704	1781	0	1723	1767	0	1791	1781	0	1829
Q Serve(g_s), s	2.5	0.0	6.6	7.5	0.0	11.3	1.8	0.0	0.0	2.0	0.0	20.3
Cycle Q Clear(g_c), s	2.5	0.0	6.6	7.5	0.0	11.3	1.8	0.0	0.0	2.0	0.0	20.3
Prop In Lane	1.00		0.40	1.00		0.48	1.00		0.20	1.00		0.13
Lane Grp Cap(c), veh/h	161	0	134	230	0	199	511	0	1040	689	0	1066
V/C Ratio(X)	0.25	0.00	0.72	0.54	0.00	0.83	0.13	0.00	0.46	0.11	0.00	0.50
Avail Cap(c_a), veh/h	254	0	324	259	0	327	579	0	1040	770	0	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.00	0.91	0.91	0.00	0.91
Uniform Delay (d), s/veh	47.6	0.0	54.0	45.4	0.0	51.9	9.6	0.0	0.0	8.4	0.0	14.7
Incr Delay (d2), s/veh	0.8	0.0	6.9	1.9	0.0	9.1	0.1	0.0	1.3	0.1	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	5.6	6.2	0.0	9.2	1.1	0.0	0.7	1.3	0.0	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	0.0	60.9	47.4	0.0	61.1	9.8	0.0	1.3	8.4	0.0	16.2
LnGrp LOS	D	A	E	D	A	E	A	A	A	A	A	B
Approach Vol, veh/h		137			289			546			607	
Approach Delay, s/veh		57.1			55.2			2.4			15.2	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	76.7	15.0	15.7	12.4	76.9	10.6	20.1
Change Period (Y+Rc), s	6.1	7.0	* 5.7	6.2	6.1	7.0	5.4	6.2
Max Green Setting (Gmax), s	11.9	49.0	* 11	22.8	10.9	50.0	11.6	22.8
Max Q Clear Time (g_c+I1), s	4.0	2.0	9.5	8.6	3.8	22.3	4.5	13.3
Green Ext Time (p_c), s	0.1	3.2	0.0	0.4	0.1	3.4	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Notes

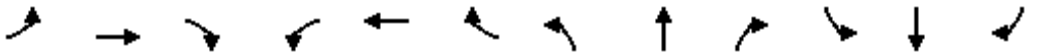
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	0	83	0	0	0	41	500	0	0	421	75
Future Volume (vph)	124	0	83	0	0	0	41	500	0	0	421	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	137		0	0		0	108		0	120		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		329			179			4591			2227	
Travel Time (s)		9.0			4.1			78.3			38.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	Perm	NA					pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		20.0	20.0	
Minimum Split (s)	23.8	23.8		23.8	23.8		13.6	26.9		26.9	26.9	
Total Split (s)	30.0	30.0		30.0	30.0		18.0	90.0		72.0	72.0	
Total Split (%)	25.0%	25.0%		25.0%	25.0%		15.0%	75.0%		60.0%	60.0%	
Yellow Time (s)	3.8	3.8		3.8	3.8		4.0	4.9		4.9	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8			5.8		6.6	6.9		6.9	6.9	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 65 (54%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: SW 59th Street & 29th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	0	83	0	0	0	41	500	0	0	421	75
Future Volume (veh/h)	124	0	83	0	0	0	41	500	0	0	421	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	128	0	86	0	0	0	42	515	0	0	434	77
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	3	3	3
Cap, veh/h	225	0	147	0	173	0	654	1487	0	60	1078	191
Arrive On Green	0.09	0.00	0.09	0.00	0.00	0.00	0.04	0.80	0.00	0.00	0.70	0.70
Sat Flow, veh/h	1781	0	1585	0	1870	0	1767	1856	0	879	1534	272
Grp Volume(v), veh/h	128	0	86	0	0	0	42	515	0	0	0	511
Grp Sat Flow(s),veh/h/ln	1781	0	1585	0	1870	0	1767	1856	0	879	0	1807
Q Serve(g_s), s	8.4	0.0	6.2	0.0	0.0	0.0	0.7	9.1	0.0	0.0	0.0	14.1
Cycle Q Clear(g_c), s	8.4	0.0	6.2	0.0	0.0	0.0	0.7	9.1	0.0	0.0	0.0	14.1
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		0.15
Lane Grp Cap(c), veh/h	225	0	147	0	173	0	654	1487	0	60	0	1269
V/C Ratio(X)	0.57	0.00	0.59	0.00	0.00	0.00	0.06	0.35	0.00	0.00	0.00	0.40
Avail Cap(c_a), veh/h	419	0	320	0	377	0	744	1487	0	60	0	1269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.94	0.94	0.00	0.00	0.00	0.86
Uniform Delay (d), s/veh	53.2	0.0	52.2	0.0	0.0	0.0	4.6	3.3	0.0	0.0	0.0	7.4
Incr Delay (d2), s/veh	2.3	0.0	3.7	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.1	0.0	4.8	0.0	0.0	0.0	0.4	4.6	0.0	0.0	0.0	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	0.0	55.9	0.0	0.0	0.0	4.6	3.9	0.0	0.0	0.0	8.2
LnGrp LOS	E	A	E	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		214			0			557			511	
Approach Delay, s/veh		55.7			0.0			3.9			8.2	
Approach LOS		E						A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		103.1		16.9	11.9	91.2		16.9				
Change Period (Y+Rc), s		6.9		* 5.8	6.6	6.9		* 5.8				
Max Green Setting (Gmax), s		83.1		* 24	11.4	65.1		* 24				
Max Q Clear Time (g_c+I1), s		11.1		10.4	2.7	16.1		0.0				
Green Ext Time (p_c), s		3.5		0.7	0.0	3.5		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

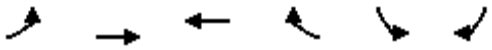
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	123	761	825	435	354	104
Future Volume (vph)	123	761	825	435	354	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	320			470	210	826
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		40	
Link Distance (ft)		2142	2590		4591	
Travel Time (s)		32.5	39.2		78.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	7.0	7.0
Minimum Split (s)	12.3	25.3	25.3	25.3	24.4	24.4
Total Split (s)	20.0	118.0	98.0	98.0	42.0	42.0
Total Split (%)	12.5%	73.8%	61.3%	61.3%	26.3%	26.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.4	4.4
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	6.4	6.4
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Max	C-Max	C-Max	None	None

Intersection Summary

Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 7 (4%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 6: Cortez Road W & SW 59th Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	123	761	825	435	354	104
Future Volume (veh/h)	123	761	825	435	354	104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	128	793	859	453	369	108
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	358	2775	2500	1115	436	200
Arrive On Green	0.03	0.79	0.71	0.71	0.13	0.13
Sat Flow, veh/h	1767	3618	3618	1572	3428	1572
Grp Volume(v), veh/h	128	793	859	453	369	108
Grp Sat Flow(s),veh/h/ln	1767	1763	1763	1572	1714	1572
Q Serve(g_s), s	3.1	9.9	15.0	18.8	16.8	10.3
Cycle Q Clear(g_c), s	3.1	9.9	15.0	18.8	16.8	10.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	358	2775	2500	1115	436	200
V/C Ratio(X)	0.36	0.29	0.34	0.41	0.85	0.54
Avail Cap(c_a), veh/h	441	2775	2500	1115	763	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.91	0.91
Uniform Delay (d), s/veh	6.5	4.7	9.0	9.5	68.3	65.4
Incr Delay (d2), s/veh	0.6	0.3	0.4	1.1	4.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	5.6	9.3	10.4	11.9	7.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.1	4.9	9.3	10.6	72.5	67.5
LnGrp LOS	A	A	A	B	E	E
Approach Vol, veh/h		921	1312		477	
Approach Delay, s/veh		5.2	9.8		71.4	
Approach LOS		A	A		E	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.5	120.7			133.3	26.7
Change Period (Y+Rc), s	7.3	7.3			7.3	6.4
Max Green Setting (Gmax), s	12.7	90.7			110.7	35.6
Max Q Clear Time (g_c+I1), s	5.1	20.8			11.9	18.8
Green Ext Time (p_c), s	0.2	9.1			5.9	1.5

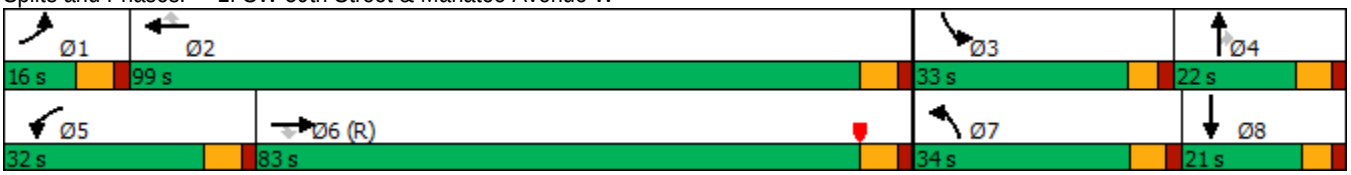
Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

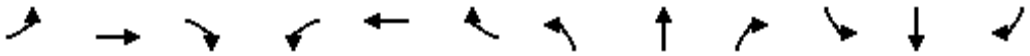
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	1230	227	276	1286	97	299	184	346	183	114	26
Future Volume (vph)	32	1230	227	276	1286	97	299	184	346	183	114	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	430		800	700		470	380		750	340		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		2898			3163			2258			2195	
Travel Time (s)		49.4			53.9			38.5			37.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	7.0	5.0	7.0	
Minimum Split (s)	11.8	49.7	49.7	11.9	42.5	42.5	11.6	52.0	52.0	11.8	51.8	
Total Split (s)	16.0	83.0	83.0	32.0	99.0	99.0	34.0	22.0	22.0	33.0	21.0	
Total Split (%)	9.4%	48.8%	48.8%	18.8%	58.2%	58.2%	20.0%	12.9%	12.9%	19.4%	12.4%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.5	4.5	4.5	3.7	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.5	6.5	6.5	5.8	5.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Area Type: Other
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 130 (76%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 1: SW 59th Street & Manatee Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1230	227	276	1286	97	299	184	346	183	114	26
Future Volume (veh/h)	32	1230	227	276	1286	97	299	184	346	183	114	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	1281	236	288	1340	101	311	192	360	191	119	27
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	1580	705	264	2034	907	288	256	217	212	133	30
Arrive On Green	0.02	0.45	0.45	0.15	0.57	0.57	0.16	0.14	0.14	0.12	0.09	0.09
Sat Flow, veh/h	1767	3526	1572	1781	3554	1585	1781	1870	1585	1781	1475	335
Grp Volume(v), veh/h	33	1281	236	288	1340	101	311	192	360	191	0	146
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1781	1777	1585	1781	1870	1585	1781	0	1810
Q Serve(g_s), s	3.2	53.5	16.6	25.2	44.0	4.9	27.5	16.8	23.2	18.0	0.0	13.6
Cycle Q Clear(g_c), s	3.2	53.5	16.6	25.2	44.0	4.9	27.5	16.8	23.2	18.0	0.0	13.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	42	1580	705	264	2034	907	288	256	217	212	0	163
V/C Ratio(X)	0.78	0.81	0.33	1.09	0.66	0.11	1.08	0.75	1.66	0.90	0.00	0.90
Avail Cap(c_a), veh/h	96	1580	705	264	2034	907	288	256	217	285	0	163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	82.5	40.6	30.4	72.4	24.9	16.6	71.3	70.6	73.4	73.9	0.0	76.6
Incr Delay (d2), s/veh	25.6	4.6	1.3	81.7	1.7	0.2	73.3	10.7	315.6	24.0	0.0	42.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	31.9	10.8	25.3	25.7	3.4	26.0	13.4	44.0	14.7	0.0	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.1	45.3	31.7	154.1	26.6	16.8	144.6	81.3	388.9	97.8	0.0	118.6
LnGrp LOS	F	D	C	F	C	B	F	F	F	F	A	F
Approach Vol, veh/h		1550			1729			863			337	
Approach Delay, s/veh		44.5			47.3			232.4			106.8	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	104.1	26.1	29.7	32.0	83.0	34.0	21.8
Change Period (Y+Rc), s	6.8	6.8	* 5.8	6.5	6.8	6.8	6.5	* 6.5
Max Green Setting (Gmax), s	9.2	92.2	* 27	15.5	25.2	76.2	27.5	* 15
Max Q Clear Time (g_c+I1), s	5.2	46.0	20.0	25.2	27.2	55.5	29.5	15.6
Green Ext Time (p_c), s	0.0	13.8	0.3	0.0	0.0	10.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	86.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

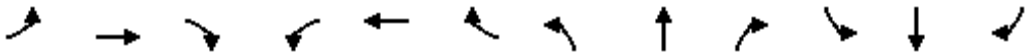
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	28	38	6	23	9	25	577	11	18	524	45
Future Volume (vph)	25	28	38	6	23	9	25	577	11	18	524	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	170		0	120		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		276			328			1746			2258	
Travel Time (s)		6.3			7.5			29.8			38.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	24.2	24.2		23.8	23.8		13.6	26.9		13.0	26.9	
Total Split (s)	33.0	33.0		33.0	33.0		17.0	90.0		17.0	90.0	
Total Split (%)	23.6%	23.6%		23.6%	23.6%		12.1%	64.3%		12.1%	64.3%	
Yellow Time (s)	4.2	4.2		4.2	4.2		4.0	4.9		4.0	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2		6.2	6.2		6.0	6.9		6.0	6.9	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 79 (56%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: SW 59th Street & 11th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	28	38	6	23	9	25	577	11	18	524	45
Future Volume (veh/h)	25	28	38	6	23	9	25	577	11	18	524	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	29	39	6	24	9	26	595	11	19	540	46
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	45	49	131	96	36	643	1397	26	715	1288	110
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	0.04	1.00	1.00	0.03	0.76	0.76
Sat Flow, veh/h	334	603	664	1333	1297	486	1781	1830	34	1781	1700	145
Grp Volume(v), veh/h	94	0	0	6	0	33	26	0	606	19	0	586
Grp Sat Flow(s),veh/h/ln	1601	0	0	1333	0	1783	1781	0	1864	1781	0	1844
Q Serve(g_s), s	5.6	0.0	0.0	0.0	0.0	2.4	0.4	0.0	0.0	0.3	0.0	15.8
Cycle Q Clear(g_c), s	8.1	0.0	0.0	0.8	0.0	2.4	0.4	0.0	0.0	0.3	0.0	15.8
Prop In Lane	0.28		0.41	1.00		0.27	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	151	0	0	131	0	132	643	0	1423	715	0	1397
V/C Ratio(X)	0.62	0.00	0.00	0.05	0.00	0.25	0.04	0.00	0.43	0.03	0.00	0.42
Avail Cap(c_a), veh/h	337	0	0	288	0	341	726	0	1423	808	0	1397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.91	0.00	0.91	0.56	0.00	0.56
Uniform Delay (d), s/veh	63.7	0.0	0.0	60.4	0.0	61.1	4.0	0.0	0.0	3.3	0.0	6.0
Incr Delay (d2), s/veh	4.1	0.0	0.0	0.1	0.0	1.0	0.0	0.0	0.9	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.3	0.0	0.0	0.4	0.0	2.1	0.2	0.0	0.6	0.2	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	0.0	0.0	60.5	0.0	62.1	4.0	0.0	0.9	3.3	0.0	6.5
LnGrp LOS	E	A	A	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		94			39			632			605	
Approach Delay, s/veh		67.8			61.9			1.0			6.4	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	113.8		16.6	10.5	113.0		16.6				
Change Period (Y+Rc), s	6.0	6.9		6.2	6.0	6.9		6.2				
Max Green Setting (Gmax), s	11.0	83.1		26.8	11.0	83.1		26.8				
Max Q Clear Time (g_c+I1), s	2.3	2.0		10.1	2.4	17.8		4.4				
Green Ext Time (p_c), s	0.0	4.3		0.4	0.0	4.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		9.7
HCM 6th LOS		A

Notes

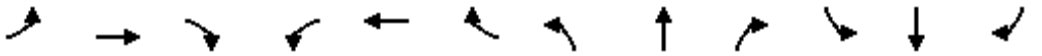
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	114	52	25	92	37	50	555	46	39	480	57
Future Volume (vph)	66	114	52	25	92	37	50	555	46	39	480	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		300	330		330	250		330	280		470
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		839			905			1359			1746	
Travel Time (s)		19.1			20.6			23.2			29.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	24.2	24.2	24.2	23.8	23.8	23.8	13.7	27.0	27.0	13.7	27.0	27.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	20.0	90.0	90.0	20.0	90.0	90.0
Total Split (%)	21.4%	21.4%	21.4%	21.4%	21.4%	21.4%	14.3%	64.3%	64.3%	14.3%	64.3%	64.3%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	4.1	5.0	5.0	4.1	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.0	2.6	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	6.6	7.0	7.0	6.7	7.0	7.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 112 (80%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: SW 59th Street & 17th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	114	52	25	92	37	50	555	46	39	480	57
Future Volume (veh/h)	66	114	52	25	92	37	50	555	46	39	480	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	68	118	54	26	95	38	52	572	47	40	495	59
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	141	222	188	123	222	188	624	1297	1099	676	1291	1094
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.09	1.00	1.00	0.04	0.70	0.70
Sat Flow, veh/h	1247	1856	1572	1203	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	68	118	54	26	95	38	52	572	47	40	495	59
Grp Sat Flow(s),veh/h/ln	1247	1856	1572	1203	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	7.5	8.4	4.4	2.9	6.7	3.1	1.1	0.0	0.0	0.9	15.5	1.7
Cycle Q Clear(g_c), s	14.1	8.4	4.4	11.3	6.7	3.1	1.1	0.0	0.0	0.9	15.5	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	222	188	123	222	188	624	1297	1099	676	1291	1094
V/C Ratio(X)	0.48	0.53	0.29	0.21	0.43	0.20	0.08	0.44	0.04	0.06	0.38	0.05
Avail Cap(c_a), veh/h	204	315	267	184	315	267	716	1297	1099	775	1291	1094
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	0.92	0.92	0.92
Uniform Delay (d), s/veh	63.8	58.0	56.2	63.3	57.2	55.6	5.6	0.0	0.0	5.0	8.8	6.7
Incr Delay (d2), s/veh	2.5	2.0	0.8	0.8	1.3	0.5	0.0	0.9	0.1	0.0	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	7.3	3.2	1.7	5.8	2.2	0.6	0.6	0.0	0.5	9.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	59.9	57.0	64.1	58.5	56.1	5.6	0.9	0.1	5.1	9.6	6.8
LnGrp LOS	E	E	E	E	E	E	A	A	A	A	A	A
Approach Vol, veh/h		240			159			671			594	
Approach Delay, s/veh		61.1			58.9			1.2			9.0	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	104.8		22.9	12.7	104.4		22.9				
Change Period (Y+Rc), s	6.7	7.0		6.2	6.6	7.0		6.2				
Max Green Setting (Gmax), s	13.3	83.0		23.8	13.4	83.0		23.8				
Max Q Clear Time (g_c+I1), s	2.9	2.0		16.1	3.1	17.5		13.3				
Green Ext Time (p_c), s	0.0	4.1		0.6	0.1	3.5		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		18.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	91	63	125	42	80	47	406	111	102	498	12
Future Volume (vph)	90	91	63	125	42	80	47	406	111	102	498	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	300		0	210		0	235		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		571			628			2227			1359	
Travel Time (s)		15.6			14.3			38.0			23.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	12.4	24.2		12.7	23.8		13.7	27.0		13.1	27.0	
Total Split (s)	17.0	36.0		20.0	39.0		17.0	66.0		18.0	67.0	
Total Split (%)	12.1%	25.7%		14.3%	27.9%		12.1%	47.1%		12.9%	47.9%	
Yellow Time (s)	3.4	4.2		3.4	4.2		4.1	5.0		4.0	5.0	
All-Red Time (s)	2.0	2.0		2.3	2.0		2.0	2.0		2.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	6.2		5.7	6.2		6.1	7.0		6.1	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 91 (65%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: SW 59th Street & 21st Avenue W



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	91	63	125	42	80	47	406	111	102	498	12
Future Volume (veh/h)	90	91	63	125	42	80	47	406	111	102	498	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	91	92	64	126	42	81	47	410	112	103	503	12
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	4	4	4	3	3	3	2	2	2
Cap, veh/h	229	110	77	211	73	140	511	824	225	655	1081	26
Arrive On Green	0.06	0.11	0.11	0.08	0.13	0.13	0.08	1.00	1.00	0.05	0.59	0.59
Sat Flow, veh/h	1767	1019	709	1753	562	1084	1767	1403	383	1781	1819	43
Grp Volume(v), veh/h	91	0	156	126	0	123	47	0	522	103	0	515
Grp Sat Flow(s),veh/h/ln	1767	0	1728	1753	0	1646	1767	0	1787	1781	0	1863
Q Serve(g_s), s	6.3	0.0	12.4	8.8	0.0	9.8	1.4	0.0	0.0	3.1	0.0	21.7
Cycle Q Clear(g_c), s	6.3	0.0	12.4	8.8	0.0	9.8	1.4	0.0	0.0	3.1	0.0	21.7
Prop In Lane	1.00		0.41	1.00		0.66	1.00		0.21	1.00		0.02
Lane Grp Cap(c), veh/h	229	0	187	211	0	213	511	0	1048	655	0	1106
V/C Ratio(X)	0.40	0.00	0.84	0.60	0.00	0.58	0.09	0.00	0.50	0.16	0.00	0.47
Avail Cap(c_a), veh/h	272	0	368	254	0	386	575	0	1048	719	0	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.00	0.91	0.94	0.00	0.94
Uniform Delay (d), s/veh	51.5	0.0	61.2	50.7	0.0	57.3	11.0	0.0	0.0	9.8	0.0	15.9
Incr Delay (d2), s/veh	1.1	0.0	9.4	2.7	0.0	2.5	0.1	0.0	1.5	0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.3	0.0	10.0	7.3	0.0	7.6	0.9	0.0	0.8	2.2	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.6	0.0	70.6	53.4	0.0	59.8	11.1	0.0	1.5	9.9	0.0	17.3
LnGrp LOS	D	A	E	D	A	E	B	A	A	A	A	B
Approach Vol, veh/h		247			249			569			618	
Approach Delay, s/veh		64.0			56.5			2.3			16.1	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	89.2	16.5	21.3	12.0	90.2	13.5	24.3
Change Period (Y+Rc), s	6.1	7.0	* 5.7	6.2	6.1	7.0	5.4	6.2
Max Green Setting (Gmax), s	11.9	59.0	* 14	29.8	10.9	60.0	11.6	32.8
Max Q Clear Time (g_c+I1), s	5.1	2.0	10.8	14.4	3.4	23.7	8.3	11.8
Green Ext Time (p_c), s	0.1	3.6	0.1	0.7	0.0	3.4	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

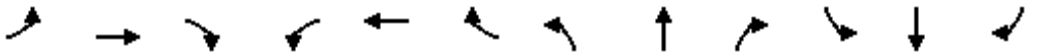
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	0	45	0	0	1	81	481	0	1	626	99
Future Volume (vph)	95	0	45	0	0	1	81	481	0	1	626	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	137		0	0		0	108		0	120		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		329			179			4591			2227	
Travel Time (s)		9.0			4.1			78.3			38.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		20.0	20.0	
Minimum Split (s)	23.8	23.8		23.8	23.8		13.6	26.9		26.9	26.9	
Total Split (s)	30.0	30.0		30.0	30.0		18.0	110.0		92.0	92.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		12.9%	78.6%		65.7%	65.7%	
Yellow Time (s)	3.8	3.8		3.8	3.8		4.0	4.9		4.9	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8			5.8		6.6	6.9		6.9	6.9	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 131 (94%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: SW 59th Street & 29th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	0	45	0	0	1	81	481	0	1	626	99
Future Volume (veh/h)	95	0	45	0	0	1	81	481	0	1	626	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	106	0	50	0	0	1	90	534	0	1	696	110
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	180	0	144	0	0	144	475	1518	0	680	1139	180
Arrive On Green	0.09	0.00	0.09	0.00	0.00	0.09	0.05	0.82	0.00	0.72	0.72	0.72
Sat Flow, veh/h	1416	0	1585	0	0	1585	1767	1856	0	870	1576	249
Grp Volume(v), veh/h	106	0	50	0	0	1	90	534	0	1	0	806
Grp Sat Flow(s),veh/h/ln	1416	0	1585	0	0	1585	1767	1856	0	870	0	1826
Q Serve(g_s), s	10.3	0.0	4.1	0.0	0.0	0.1	1.6	10.3	0.0	0.0	0.0	30.7
Cycle Q Clear(g_c), s	10.4	0.0	4.1	0.0	0.0	0.1	1.6	10.3	0.0	0.0	0.0	30.7
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		0.14
Lane Grp Cap(c), veh/h	180	0	144	0	0	144	475	1518	0	680	0	1319
V/C Ratio(X)	0.59	0.00	0.35	0.00	0.00	0.01	0.19	0.35	0.00	0.00	0.00	0.61
Avail Cap(c_a), veh/h	295	0	274	0	0	274	533	1518	0	680	0	1319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.92	0.92	0.00	0.87	0.00	0.87
Uniform Delay (d), s/veh	62.6	0.0	59.7	0.0	0.0	57.9	7.8	3.2	0.0	5.4	0.0	9.6
Incr Delay (d2), s/veh	3.1	0.0	1.4	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.0	0.0	3.1	0.0	0.0	0.1	1.1	5.5	0.0	0.0	0.0	16.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	0.0	61.1	0.0	0.0	57.9	8.0	3.8	0.0	5.4	0.0	11.5
LnGrp LOS	E	A	E	A	A	E	A	A	A	A	A	B
Approach Vol, veh/h		156			1			624			807	
Approach Delay, s/veh		64.2			57.9			4.4			11.5	
Approach LOS		E			E			A			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		121.4		18.6	13.4	108.1		18.6				
Change Period (Y+Rc), s		6.9		* 5.8	6.6	6.9		* 5.8				
Max Green Setting (Gmax), s		103.1		* 24	11.4	85.1		* 24				
Max Q Clear Time (g_c+I1), s		12.3		12.4	3.6	32.7		2.1				
Green Ext Time (p_c), s		3.6		0.4	0.1	6.9		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		13.9
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

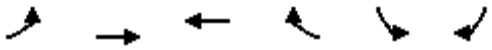
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	169	1192	1100	398	508	176
Future Volume (vph)	169	1192	1100	398	508	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	320			470	210	826
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		40	
Link Distance (ft)		2142	2590		4591	
Travel Time (s)		32.5	39.2		78.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	7.0	7.0
Minimum Split (s)	12.3	25.3	25.3	25.3	25.3	25.3
Total Split (s)	25.0	156.0	131.0	131.0	44.0	44.0
Total Split (%)	12.5%	78.0%	65.5%	65.5%	22.0%	22.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Max	C-Max	C-Max	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 200	
Actuated Cycle Length: 200	
Offset: 165 (83%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Cortez Road W & SW 59th Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	169	1192	1100	398	508	176
Future Volume (veh/h)	169	1192	1100	398	508	176
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856
Adj Flow Rate, veh/h	178	1255	1158	419	535	185
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	3	3
Cap, veh/h	281	2700	2425	1081	581	267
Arrive On Green	0.04	0.76	0.68	0.68	0.17	0.17
Sat Flow, veh/h	1781	3647	3647	1585	3428	1572
Grp Volume(v), veh/h	178	1255	1158	419	535	185
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1714	1572
Q Serve(g_s), s	5.9	26.2	30.7	22.8	30.7	22.1
Cycle Q Clear(g_c), s	5.9	26.2	30.7	22.8	30.7	22.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	281	2700	2425	1081	581	267
V/C Ratio(X)	0.63	0.46	0.48	0.39	0.92	0.69
Avail Cap(c_a), veh/h	365	2700	2425	1081	638	292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.73	0.73
Uniform Delay (d), s/veh	13.8	8.9	15.0	13.7	81.7	78.2
Incr Delay (d2), s/veh	2.4	0.6	0.7	1.0	14.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.3	14.8	18.1	13.1	20.1	13.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.2	9.5	15.6	14.8	95.7	82.7
LnGrp LOS	B	A	B	B	F	F
Approach Vol, veh/h		1433	1577		720	
Approach Delay, s/veh		10.3	15.4		92.4	
Approach LOS		B	B		F	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.5	143.8			159.3	40.7
Change Period (Y+Rc), s	7.3	7.3			7.3	6.8
Max Green Setting (Gmax), s	17.7	123.7			148.7	37.2
Max Q Clear Time (g_c+I1), s	7.9	32.7			28.2	32.7
Green Ext Time (p_c), s	0.3	13.5			11.9	1.2

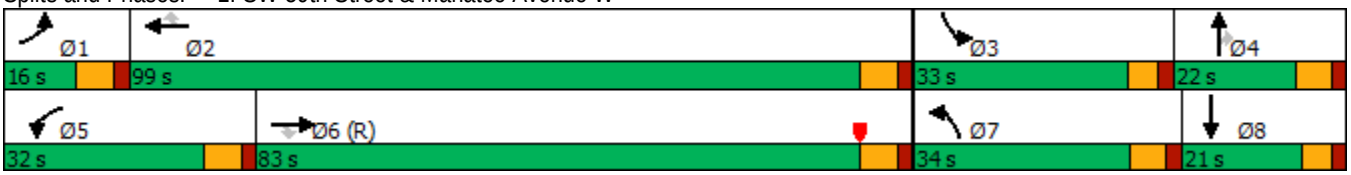
Intersection Summary	
HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

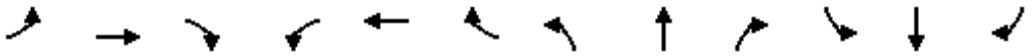
D-2: No Build Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1255	235	285	1315	100	315	195	365	195	120	30
Future Volume (vph)	35	1255	235	285	1315	100	315	195	365	195	120	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	430		800	700		470	380		750	340		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		2898			3163			2258			2195	
Travel Time (s)		49.4			53.9			38.5			37.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	7.0	5.0	7.0	
Minimum Split (s)	11.8	49.7	49.7	11.9	42.5	42.5	11.6	26.5	26.5	11.8	25.7	
Total Split (s)	16.0	83.0	83.0	32.0	99.0	99.0	34.0	22.0	22.0	33.0	21.0	
Total Split (%)	9.4%	48.8%	48.8%	18.8%	58.2%	58.2%	20.0%	12.9%	12.9%	19.4%	12.4%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.5	4.5	4.5	3.7	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.5	6.5	6.5	5.8	5.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary	
Area Type:	Other
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 130 (76%), Referenced to phase 6:EBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: SW 59th Street & Manatee Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1255	235	285	1315	100	315	195	365	195	120	30
Future Volume (veh/h)	35	1255	235	285	1315	100	315	195	365	195	120	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1307	245	297	1370	104	328	203	380	203	125	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1580	705	264	2026	904	288	243	206	224	130	32
Arrive On Green	0.03	0.45	0.45	0.15	0.57	0.57	0.16	0.13	0.13	0.13	0.09	0.09
Sat Flow, veh/h	1767	3526	1572	1781	3554	1585	1781	1870	1585	1781	1447	359
Grp Volume(v), veh/h	36	1307	245	297	1370	104	328	203	380	203	0	156
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1781	1777	1585	1781	1870	1585	1781	0	1806
Q Serve(g_s), s	3.4	55.3	17.3	25.2	45.8	5.1	27.5	18.0	22.1	19.1	0.0	14.6
Cycle Q Clear(g_c), s	3.4	55.3	17.3	25.2	45.8	5.1	27.5	18.0	22.1	19.1	0.0	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	46	1580	705	264	2026	904	288	243	206	224	0	163
V/C Ratio(X)	0.78	0.83	0.35	1.12	0.68	0.12	1.14	0.83	1.84	0.91	0.00	0.96
Avail Cap(c_a), veh/h	96	1580	705	264	2026	904	288	243	206	285	0	163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	82.3	41.1	30.7	72.4	25.5	16.8	71.3	72.2	73.9	73.3	0.0	77.0
Incr Delay (d2), s/veh	23.6	5.1	1.4	93.2	1.8	0.3	92.9	19.5	395.5	26.2	0.0	58.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	24.7	6.9	18.3	19.4	1.9	19.9	9.9	31.6	10.3	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.9	46.2	32.0	165.6	27.4	17.1	164.1	91.6	469.5	99.6	0.0	135.6
LnGrp LOS	F	D	C	F	C	B	F	F	F	F	A	F
Approach Vol, veh/h		1588			1771			911			359	
Approach Delay, s/veh		45.4			49.9			275.3			115.2	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	103.7	27.2	28.6	32.0	83.0	34.0	21.8
Change Period (Y+Rc), s	6.8	6.8	* 5.8	6.5	6.8	6.8	6.5	* 6.5
Max Green Setting (Gmax), s	9.2	92.2	* 27	15.5	25.2	76.2	27.5	* 15
Max Q Clear Time (g_c+I1), s	5.4	47.8	21.1	24.1	27.2	57.3	29.5	16.6
Green Ext Time (p_c), s	0.0	14.2	0.3	0.0	0.0	9.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	97.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

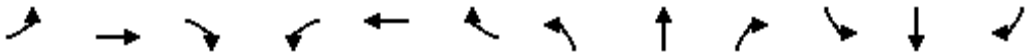
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	30	40	10	25	10	30	605	15	20	550	50
Future Volume (vph)	25	30	40	10	25	10	30	605	15	20	550	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	170		0	120		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		276			328			1746			2258	
Travel Time (s)		6.3			7.5			29.8			38.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	24.2	24.2		23.8	23.8		13.6	26.9		13.0	26.9	
Total Split (s)	33.0	33.0		33.0	33.0		17.0	90.0		17.0	90.0	
Total Split (%)	23.6%	23.6%		23.6%	23.6%		12.1%	64.3%		12.1%	64.3%	
Yellow Time (s)	4.2	4.2		4.2	4.2		4.0	4.9		4.0	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2		6.2	6.2		6.0	6.9		6.0	6.9	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 79 (56%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: SW 59th Street & 11th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	30	40	10	25	10	30	605	15	20	550	50
Future Volume (veh/h)	25	30	40	10	25	10	30	605	15	20	550	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	31	41	10	26	10	31	624	15	21	567	52
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	47	51	132	99	38	617	1380	33	695	1268	116
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.05	1.00	1.00	0.03	0.75	0.75
Sat Flow, veh/h	316	613	668	1328	1286	495	1781	1819	44	1781	1688	155
Grp Volume(v), veh/h	98	0	0	10	0	36	31	0	639	21	0	619
Grp Sat Flow(s),veh/h/ln	1598	0	0	1328	0	1781	1781	0	1862	1781	0	1842
Q Serve(g_s), s	5.8	0.0	0.0	0.0	0.0	2.7	0.5	0.0	0.0	0.4	0.0	17.6
Cycle Q Clear(g_c), s	8.4	0.0	0.0	1.4	0.0	2.7	0.5	0.0	0.0	0.4	0.0	17.6
Prop In Lane	0.27		0.42	1.00		0.28	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	156	0	0	132	0	137	617	0	1413	695	0	1385
V/C Ratio(X)	0.63	0.00	0.00	0.08	0.00	0.26	0.05	0.00	0.45	0.03	0.00	0.45
Avail Cap(c_a), veh/h	337	0	0	284	0	341	695	0	1413	785	0	1385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.89	0.00	0.89	0.51	0.00	0.51
Uniform Delay (d), s/veh	63.5	0.0	0.0	60.3	0.0	60.9	4.3	0.0	0.0	3.4	0.0	6.5
Incr Delay (d2), s/veh	4.2	0.0	0.0	0.2	0.0	1.0	0.0	0.0	0.9	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.0	0.3	0.0	1.3	0.2	0.0	0.4	0.1	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	0.0	0.0	60.5	0.0	61.9	4.4	0.0	0.9	3.5	0.0	7.0
LnGrp LOS	E	A	A	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		98			46			670			640	
Approach Delay, s/veh		67.6			61.6			1.1			6.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	113.1		17.0	10.9	112.1		17.0				
Change Period (Y+Rc), s	6.0	6.9		6.2	6.0	6.9		6.2				
Max Green Setting (Gmax), s	11.0	83.1		26.8	11.0	83.1		26.8				
Max Q Clear Time (g_c+I1), s	2.4	2.0		10.4	2.5	19.6		4.7				
Green Ext Time (p_c), s	0.0	4.7		0.4	0.0	4.5		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

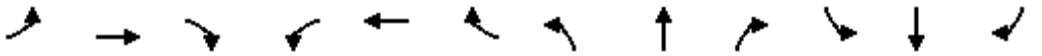
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	120	55	25	95	40	55	585	50	45	505	60
Future Volume (vph)	70	120	55	25	95	40	55	585	50	45	505	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		300	330		330	250		330	280		470
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		839			905			1359			1746	
Travel Time (s)		19.1			20.6			23.2			29.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	24.2	24.2	24.2	23.8	23.8	23.8	13.7	27.0	27.0	13.7	27.0	27.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	20.0	90.0	90.0	20.0	90.0	90.0
Total Split (%)	21.4%	21.4%	21.4%	21.4%	21.4%	21.4%	14.3%	64.3%	64.3%	14.3%	64.3%	64.3%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	4.1	5.0	5.0	4.1	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.0	2.6	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	6.6	7.0	7.0	6.7	7.0	7.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 112 (80%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: SW 59th Street & 17th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	120	55	25	95	40	55	585	50	45	505	60
Future Volume (veh/h)	70	120	55	25	95	40	55	585	50	45	505	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	72	124	57	26	98	41	57	603	52	46	521	62
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	145	231	195	125	231	195	599	1284	1088	657	1280	1085
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.09	1.00	1.00	0.04	0.69	0.69
Sat Flow, veh/h	1240	1856	1572	1194	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	72	124	57	26	98	41	57	603	52	46	521	62
Grp Sat Flow(s),veh/h/ln	1240	1856	1572	1194	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	8.0	8.8	4.6	2.9	6.8	3.3	1.2	0.0	0.0	1.0	17.0	1.8
Cycle Q Clear(g_c), s	14.8	8.8	4.6	11.7	6.8	3.3	1.2	0.0	0.0	1.0	17.0	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	231	195	125	231	195	599	1284	1088	657	1280	1085
V/C Ratio(X)	0.50	0.54	0.29	0.21	0.42	0.21	0.10	0.47	0.05	0.07	0.41	0.06
Avail Cap(c_a), veh/h	202	315	267	179	315	267	690	1284	1088	752	1280	1085
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83	0.90	0.90	0.90
Uniform Delay (d), s/veh	63.5	57.5	55.7	63.0	56.7	55.1	5.9	0.0	0.0	5.2	9.4	7.0
Incr Delay (d2), s/veh	2.6	1.9	0.8	0.8	1.2	0.5	0.1	1.0	0.1	0.0	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	4.3	1.9	0.9	3.3	1.3	0.4	0.4	0.0	0.3	6.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.1	59.5	56.5	63.8	57.9	55.6	6.0	1.0	0.1	5.2	10.2	7.1
LnGrp LOS	E	E	E	E	E	E	A	A	A	A	B	A
Approach Vol, veh/h		253			165			712			629	
Approach Delay, s/veh		60.7			58.3			1.4			9.6	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	103.9		23.6	12.8	103.6		23.6				
Change Period (Y+Rc), s	6.7	7.0		6.2	6.6	7.0		6.2				
Max Green Setting (Gmax), s	13.3	83.0		23.8	13.4	83.0		23.8				
Max Q Clear Time (g_c+I1), s	3.0	2.0		16.8	3.2	19.0		13.7				
Green Ext Time (p_c), s	0.0	4.5		0.6	0.1	3.7		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		18.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

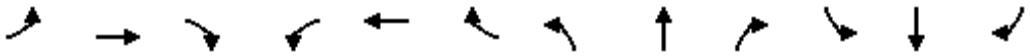
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	95	65	130	45	85	50	425	120	110	525	15
Future Volume (vph)	95	95	65	130	45	85	50	425	120	110	525	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	300		0	210		0	235		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		571			628			2227			1359	
Travel Time (s)		15.6			14.3			38.0			23.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	12.4	24.2		12.7	23.8		13.7	27.0		13.1	27.0	
Total Split (s)	17.0	36.0		20.0	39.0		17.0	66.0		18.0	67.0	
Total Split (%)	12.1%	25.7%		14.3%	27.9%		12.1%	47.1%		12.9%	47.9%	
Yellow Time (s)	3.4	4.2		3.4	4.2		4.1	5.0		4.0	5.0	
All-Red Time (s)	2.0	2.0		2.3	2.0		2.0	2.0		2.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	6.2		5.7	6.2		6.1	7.0		6.1	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 91 (65%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: SW 59th Street & 21st Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	95	65	130	45	85	50	425	120	110	525	15
Future Volume (veh/h)	95	95	65	130	45	85	50	425	120	110	525	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	96	96	66	131	45	86	51	429	121	111	530	15
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	4	4	4	3	3	3	2	2	2
Cap, veh/h	231	114	79	215	75	143	483	809	228	637	1062	30
Arrive On Green	0.06	0.11	0.11	0.08	0.13	0.13	0.09	1.00	1.00	0.05	0.59	0.59
Sat Flow, veh/h	1767	1024	704	1753	565	1081	1767	1392	393	1781	1810	51
Grp Volume(v), veh/h	96	0	162	131	0	131	51	0	550	111	0	545
Grp Sat Flow(s),veh/h/ln	1767	0	1729	1753	0	1646	1767	0	1785	1781	0	1861
Q Serve(g_s), s	6.7	0.0	12.9	9.1	0.0	10.5	1.5	0.0	0.0	3.4	0.0	23.9
Cycle Q Clear(g_c), s	6.7	0.0	12.9	9.1	0.0	10.5	1.5	0.0	0.0	3.4	0.0	23.9
Prop In Lane	1.00		0.41	1.00		0.66	1.00		0.22	1.00		0.03
Lane Grp Cap(c), veh/h	231	0	193	215	0	218	483	0	1037	637	0	1093
V/C Ratio(X)	0.42	0.00	0.84	0.61	0.00	0.60	0.11	0.00	0.53	0.17	0.00	0.50
Avail Cap(c_a), veh/h	270	0	368	254	0	386	545	0	1037	701	0	1093
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.00	0.90	0.94	0.00	0.94
Uniform Delay (d), s/veh	50.9	0.0	61.0	50.1	0.0	57.2	11.7	0.0	0.0	10.2	0.0	16.9
Incr Delay (d2), s/veh	1.2	0.0	9.4	3.1	0.0	2.6	0.1	0.0	1.8	0.1	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	6.2	4.2	0.0	4.6	0.6	0.0	0.5	1.3	0.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	0.0	70.3	53.2	0.0	59.8	11.7	0.0	1.8	10.3	0.0	18.4
LnGrp LOS	D	A	E	D	A	E	B	A	A	B	A	B
Approach Vol, veh/h		258			262			601			656	
Approach Delay, s/veh		63.6			56.5			2.6			17.0	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	88.3	16.9	21.8	12.1	89.2	13.9	24.8
Change Period (Y+Rc), s	6.1	7.0	* 5.7	6.2	6.1	7.0	5.4	6.2
Max Green Setting (Gmax), s	11.9	59.0	* 14	29.8	10.9	60.0	11.6	32.8
Max Q Clear Time (g_c+I1), s	5.4	2.0	11.1	14.9	3.5	25.9	8.7	12.5
Green Ext Time (p_c), s	0.1	3.9	0.1	0.8	0.0	3.6	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

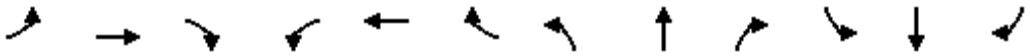
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	0	50	0	0	1	85	505	0	1	655	105
Future Volume (vph)	100	0	50	0	0	1	85	505	0	1	655	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	137		0	0		0	108		0	120		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		329			179			4591			2227	
Travel Time (s)		9.0			4.1			78.3			38.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		20.0	20.0	
Minimum Split (s)	23.8	23.8		23.8	23.8		13.6	26.9		26.9	26.9	
Total Split (s)	30.0	30.0		30.0	30.0		18.0	110.0		92.0	92.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		12.9%	78.6%		65.7%	65.7%	
Yellow Time (s)	3.8	3.8		3.8	3.8		4.0	4.9		4.9	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8			5.8		6.6	6.9		6.9	6.9	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 131 (94%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: SW 59th Street & 29th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	0	50	0	0	1	85	505	0	1	655	105
Future Volume (veh/h)	100	0	50	0	0	1	85	505	0	1	655	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	111	0	56	0	0	1	94	561	0	1	728	117
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	185	0	150	0	0	150	445	1511	0	661	1130	182
Arrive On Green	0.09	0.00	0.09	0.00	0.00	0.09	0.05	0.81	0.00	0.72	0.72	0.72
Sat Flow, veh/h	1416	0	1585	0	0	1585	1767	1856	0	849	1572	253
Grp Volume(v), veh/h	111	0	56	0	0	1	94	561	0	1	0	845
Grp Sat Flow(s),veh/h/ln	1416	0	1585	0	0	1585	1767	1856	0	849	0	1825
Q Serve(g_s), s	10.8	0.0	4.6	0.0	0.0	0.1	1.7	11.3	0.0	0.0	0.0	34.0
Cycle Q Clear(g_c), s	10.9	0.0	4.6	0.0	0.0	0.1	1.7	11.3	0.0	0.0	0.0	34.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		0.14
Lane Grp Cap(c), veh/h	185	0	150	0	0	150	445	1511	0	661	0	1311
V/C Ratio(X)	0.60	0.00	0.37	0.00	0.00	0.01	0.21	0.37	0.00	0.00	0.00	0.64
Avail Cap(c_a), veh/h	295	0	274	0	0	274	503	1511	0	661	0	1311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.91	0.91	0.00	0.85	0.00	0.85
Uniform Delay (d), s/veh	62.3	0.0	59.5	0.0	0.0	57.4	8.9	3.5	0.0	5.5	0.0	10.3
Incr Delay (d2), s/veh	3.1	0.0	1.5	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	2.0	0.0	0.0	0.0	0.8	3.4	0.0	0.0	0.0	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	0.0	61.0	0.0	0.0	57.4	9.1	4.1	0.0	5.6	0.0	12.4
LnGrp LOS	E	A	E	A	A	E	A	A	A	A	A	B
Approach Vol, veh/h		167			1			655			846	
Approach Delay, s/veh		63.9			57.4			4.8			12.4	
Approach LOS		E			E			A			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		120.9		19.1	13.4	107.5		19.1				
Change Period (Y+Rc), s		6.9		* 5.8	6.6	6.9		* 5.8				
Max Green Setting (Gmax), s		103.1		* 24	11.4	85.1		* 24				
Max Q Clear Time (g_c+I1), s		13.3		12.9	3.7	36.0		2.1				
Green Ext Time (p_c), s		3.9		0.4	0.1	7.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		14.6
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

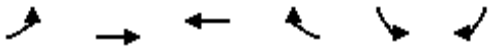
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	175	1215	1125	410	535	185
Future Volume (vph)	175	1215	1125	410	535	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	320			470	210	826
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		40	
Link Distance (ft)		2142	2590		4591	
Travel Time (s)		32.5	39.2		78.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	7.0	7.0
Minimum Split (s)	12.3	25.3	25.3	25.3	25.3	25.3
Total Split (s)	25.0	156.0	131.0	131.0	44.0	44.0
Total Split (%)	12.5%	78.0%	65.5%	65.5%	22.0%	22.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Max	C-Max	C-Max	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 200	
Actuated Cycle Length: 200	
Offset: 165 (83%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Cortez Road W & SW 59th Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	175	1215	1125	410	535	185
Future Volume (veh/h)	175	1215	1125	410	535	185
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856
Adj Flow Rate, veh/h	184	1279	1184	432	563	195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	3	3
Cap, veh/h	272	2677	2394	1068	604	277
Arrive On Green	0.04	0.75	0.67	0.67	0.18	0.18
Sat Flow, veh/h	1781	3647	3647	1585	3428	1572
Grp Volume(v), veh/h	184	1279	1184	432	563	195
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1714	1572
Q Serve(g_s), s	6.3	27.8	32.6	24.5	32.4	23.3
Cycle Q Clear(g_c), s	6.3	27.8	32.6	24.5	32.4	23.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	272	2677	2394	1068	604	277
V/C Ratio(X)	0.68	0.48	0.49	0.40	0.93	0.70
Avail Cap(c_a), veh/h	353	2677	2394	1068	638	292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.69	0.69
Uniform Delay (d), s/veh	15.6	9.5	16.0	14.6	81.2	77.4
Incr Delay (d2), s/veh	3.3	0.6	0.7	1.1	15.2	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	10.4	13.2	9.0	15.6	9.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	10.1	16.7	15.8	96.4	82.3
LnGrp LOS	B	B	B	B	F	F
Approach Vol, veh/h		1463	1616		758	
Approach Delay, s/veh		11.2	16.5		92.8	
Approach LOS		B	B		F	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.9	142.0			157.9	42.1
Change Period (Y+Rc), s	7.3	7.3			7.3	6.8
Max Green Setting (Gmax), s	17.7	123.7			148.7	37.2
Max Q Clear Time (g_c+I1), s	8.3	34.6			29.8	34.4
Green Ext Time (p_c), s	0.3	14.1			12.3	0.9

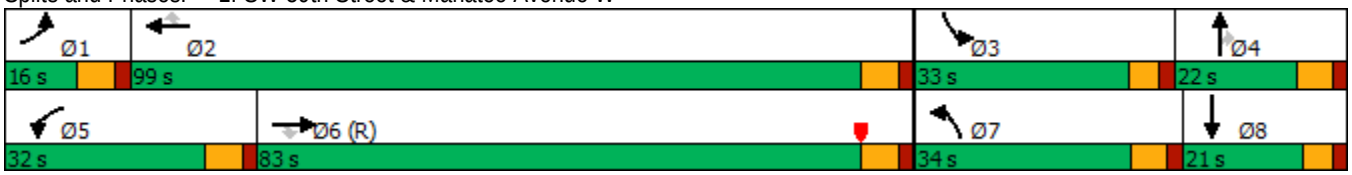
Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

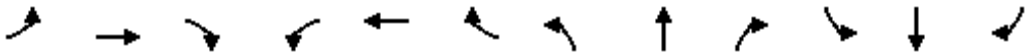
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1380	255	310	1445	110	395	245	455	240	150	35
Future Volume (vph)	40	1380	255	310	1445	110	395	245	455	240	150	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	430		800	700		470	380		750	340		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		2898			3163			2258			2195	
Travel Time (s)		49.4			53.9			38.5			37.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	7.0	5.0	7.0	
Minimum Split (s)	11.8	49.7	49.7	11.9	42.5	42.5	11.6	52.0	52.0	11.8	51.8	
Total Split (s)	16.0	83.0	83.0	32.0	99.0	99.0	34.0	22.0	22.0	33.0	21.0	
Total Split (%)	9.4%	48.8%	48.8%	18.8%	58.2%	58.2%	20.0%	12.9%	12.9%	19.4%	12.4%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.5	4.5	4.5	3.7	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.5	6.5	6.5	5.8	5.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Area Type: Other
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 130 (76%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 1: SW 59th Street & Manatee Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1380	255	310	1445	110	395	245	455	240	150	35
Future Volume (veh/h)	40	1380	255	310	1445	110	395	245	455	240	150	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	1438	266	323	1505	115	411	255	474	250	156	36
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	54	1580	705	264	2011	897	288	196	166	269	132	31
Arrive On Green	0.03	0.45	0.45	0.15	0.57	0.57	0.16	0.10	0.10	0.15	0.09	0.09
Sat Flow, veh/h	1767	3526	1572	1781	3554	1585	1781	1870	1585	1781	1470	339
Grp Volume(v), veh/h	42	1438	266	323	1505	115	411	255	474	250	0	192
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1781	1777	1585	1781	1870	1585	1781	0	1809
Q Serve(g_s), s	4.0	64.6	19.1	25.2	54.2	5.8	27.5	17.8	17.8	23.6	0.0	15.3
Cycle Q Clear(g_c), s	4.0	64.6	19.1	25.2	54.2	5.8	27.5	17.8	17.8	23.6	0.0	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	54	1580	705	264	2011	897	288	196	166	269	0	163
V/C Ratio(X)	0.78	0.91	0.38	1.22	0.75	0.13	1.43	1.30	2.85	0.93	0.00	1.18
Avail Cap(c_a), veh/h	96	1580	705	264	2011	897	288	196	166	285	0	163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80	1.00	0.00	1.00
Uniform Delay (d), s/veh	81.8	43.7	31.1	72.4	27.8	17.3	71.3	76.1	76.1	71.3	0.0	77.4
Incr Delay (d2), s/veh	20.8	9.4	1.5	129.4	2.6	0.3	207.3	161.9	847.1	34.1	0.0	126.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	38.5	12.1	31.1	31.0	4.0	43.1	26.0	70.8	19.2	0.0	19.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.7	53.1	32.7	201.8	30.4	17.6	278.6	238.0	923.2	105.4	0.0	204.2
LnGrp LOS	F	D	C	F	C	B	F	F	F	F	A	F
Approach Vol, veh/h		1746			1943			1140			442	
Approach Delay, s/veh		51.1			58.1			537.5			148.3	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	103.0	31.5	24.3	32.0	83.0	34.0	21.8
Change Period (Y+Rc), s	6.8	6.8	* 5.8	6.5	6.8	6.8	6.5	* 6.5
Max Green Setting (Gmax), s	9.2	92.2	* 27	15.5	25.2	76.2	27.5	* 15
Max Q Clear Time (g_c+I1), s	6.0	56.2	25.6	19.8	27.2	66.6	29.5	17.3
Green Ext Time (p_c), s	0.0	15.4	0.1	0.0	0.0	6.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	167.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	35	45	10	30	10	35	760	15	25	690	60
Future Volume (vph)	30	35	45	10	30	10	35	760	15	25	690	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	170		0	120		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		276			328			1746			2258	
Travel Time (s)		6.3			7.5			29.8			38.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	24.2	24.2		23.8	23.8		13.6	26.9		13.0	26.9	
Total Split (s)	33.0	33.0		33.0	33.0		17.0	90.0		17.0	90.0	
Total Split (%)	23.6%	23.6%		23.6%	23.6%		12.1%	64.3%		12.1%	64.3%	
Yellow Time (s)	4.2	4.2		4.2	4.2		4.0	4.9		4.0	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2		6.2	6.2		6.0	6.9		6.0	6.9	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 79 (56%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: SW 59th Street & 11th Avenue W



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	35	45	10	30	10	35	760	15	25	690	60
Future Volume (veh/h)	30	35	45	10	30	10	35	760	15	25	690	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	36	46	10	31	10	36	784	15	26	711	62
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	53	56	136	119	38	501	1360	26	483	1251	109
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.74	0.74	0.03	0.74	0.74
Sat Flow, veh/h	328	604	640	1316	1355	437	1781	1829	35	1781	1696	148
Grp Volume(v), veh/h	113	0	0	10	0	41	36	0	799	26	0	773
Grp Sat Flow(s),veh/h/ln	1573	0	0	1316	0	1792	1781	0	1864	1781	0	1844
Q Serve(g_s), s	6.9	0.0	0.0	0.0	0.0	3.0	0.6	0.0	26.9	0.5	0.0	26.5
Cycle Q Clear(g_c), s	9.9	0.0	0.0	1.5	0.0	3.0	0.6	0.0	26.9	0.5	0.0	26.5
Prop In Lane	0.27		0.41	1.00		0.24	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	171	0	0	136	0	158	501	0	1386	483	0	1360
V/C Ratio(X)	0.66	0.00	0.00	0.07	0.00	0.26	0.07	0.00	0.58	0.05	0.00	0.57
Avail Cap(c_a), veh/h	335	0	0	272	0	343	574	0	1386	567	0	1360
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.81	0.00	0.81	0.32	0.00	0.32
Uniform Delay (d), s/veh	62.7	0.0	0.0	58.9	0.0	59.6	6.2	0.0	8.0	6.3	0.0	8.3
Incr Delay (d2), s/veh	4.3	0.0	0.0	0.2	0.0	0.9	0.0	0.0	1.4	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.5	0.0	0.0	0.6	0.0	2.5	0.4	0.0	14.4	0.3	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	0.0	0.0	59.1	0.0	60.4	6.3	0.0	9.5	6.3	0.0	8.8
LnGrp LOS	E	A	A	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		113			51			835			799	
Approach Delay, s/veh		67.0			60.2			9.3			8.8	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	111.0		18.5	11.3	110.2		18.5				
Change Period (Y+Rc), s	6.0	6.9		6.2	6.0	6.9		6.2				
Max Green Setting (Gmax), s	11.0	83.1		26.8	11.0	83.1		26.8				
Max Q Clear Time (g_c+I1), s	2.5	28.9		11.9	2.6	28.5		5.0				
Green Ext Time (p_c), s	0.0	6.7		0.4	0.0	6.4		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		14.1	
HCM 6th LOS		B	

Notes

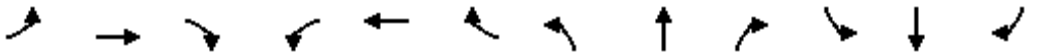
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	130	60	30	105	45	65	730	60	55	630	75
Future Volume (vph)	75	130	60	30	105	45	65	730	60	55	630	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		300	330		330	250		330	280		470
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		839			905			1359			1746	
Travel Time (s)		19.1			20.6			23.2			29.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	24.2	24.2	24.2	23.8	23.8	23.8	13.7	27.0	27.0	13.7	27.0	27.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	20.0	90.0	90.0	20.0	90.0	90.0
Total Split (%)	21.4%	21.4%	21.4%	21.4%	21.4%	21.4%	14.3%	64.3%	64.3%	14.3%	64.3%	64.3%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	4.1	5.0	5.0	4.1	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.0	2.6	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	6.6	7.0	7.0	6.7	7.0	7.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 112 (80%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: SW 59th Street & 17th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	130	60	30	105	45	65	730	60	55	630	75
Future Volume (veh/h)	75	130	60	30	105	45	65	730	60	55	630	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	77	134	62	31	108	46	67	753	62	57	649	77
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	248	210	129	248	210	499	1261	1069	581	1259	1067
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.09	1.00	1.00	0.04	0.68	0.68
Sat Flow, veh/h	1223	1856	1572	1177	1856	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	77	134	62	31	108	46	67	753	62	57	649	77
Grp Sat Flow(s),veh/h/ln	1223	1856	1572	1177	1856	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	8.7	9.4	5.0	3.5	7.5	3.7	1.5	0.0	0.0	1.3	24.2	2.3
Cycle Q Clear(g_c), s	16.1	9.4	5.0	13.0	7.5	3.7	1.5	0.0	0.0	1.3	24.2	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	248	210	129	248	210	499	1261	1069	581	1259	1067
V/C Ratio(X)	0.52	0.54	0.30	0.24	0.44	0.22	0.13	0.60	0.06	0.10	0.52	0.07
Avail Cap(c_a), veh/h	194	315	267	172	315	267	586	1261	1069	671	1259	1067
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	0.80	0.80	0.80
Uniform Delay (d), s/veh	63.2	56.6	54.7	62.7	55.8	54.1	7.4	0.0	0.0	5.5	11.1	7.6
Incr Delay (d2), s/veh	2.7	1.8	0.8	0.9	1.2	0.5	0.1	1.4	0.1	0.1	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.1	8.1	3.7	2.0	6.5	2.7	0.9	0.9	0.0	0.8	14.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	58.5	55.5	63.6	57.0	54.6	7.5	1.4	0.1	5.6	12.3	7.7
LnGrp LOS	E	E	E	E	E	D	A	A	A	A	B	A
Approach Vol, veh/h		273			185			882			783	
Approach Delay, s/veh		59.9			57.5			1.8			11.4	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.9	102.2		24.9	13.1	102.0		24.9				
Change Period (Y+Rc), s	6.7	7.0		6.2	6.6	7.0		6.2				
Max Green Setting (Gmax), s	13.3	83.0		23.8	13.4	83.0		23.8				
Max Q Clear Time (g_c+I1), s	3.3	2.0		18.1	3.5	26.2		15.0				
Green Ext Time (p_c), s	0.1	6.3		0.6	0.1	5.0		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		17.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	105	75	140	50	90	65	535	145	135	655	20
Future Volume (vph)	105	105	75	140	50	90	65	535	145	135	655	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	300		0	210		0	235		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		571			628			2227			1359	
Travel Time (s)		15.6			14.3			38.0			23.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	12.4	28.2		12.7	23.8		13.7	27.0		13.1	28.0	
Total Split (s)	17.0	36.0		20.0	39.0		17.0	66.0		18.0	67.0	
Total Split (%)	12.1%	25.7%		14.3%	27.9%		12.1%	47.1%		12.9%	47.9%	
Yellow Time (s)	3.4	4.2		3.4	4.2		4.1	5.0		4.0	5.0	
All-Red Time (s)	2.0	2.0		2.3	2.0		2.0	2.0		2.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	6.2		5.7	6.2		6.1	7.0		6.1	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 91 (65%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 4: SW 59th Street & 21st Avenue W



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	105	75	140	50	90	65	535	145	135	655	20
Future Volume (veh/h)	105	105	75	140	50	90	65	535	145	135	655	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	106	106	76	141	51	91	66	540	146	136	662	20
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	4	4	4	3	3	3	2	2	2
Cap, veh/h	246	124	89	222	85	152	372	794	215	419	1026	31
Arrive On Green	0.07	0.12	0.12	0.08	0.14	0.14	0.06	0.75	0.75	0.05	0.57	0.57
Sat Flow, veh/h	1767	1005	721	1753	593	1058	1767	1407	380	1781	1806	55
Grp Volume(v), veh/h	106	0	182	141	0	142	66	0	686	136	0	682
Grp Sat Flow(s),veh/h/ln	1767	0	1726	1753	0	1650	1767	0	1787	1781	0	1861
Q Serve(g_s), s	7.2	0.0	14.5	9.7	0.0	11.3	2.1	0.0	27.4	4.5	0.0	35.0
Cycle Q Clear(g_c), s	7.2	0.0	14.5	9.7	0.0	11.3	2.1	0.0	27.4	4.5	0.0	35.0
Prop In Lane	1.00		0.42	1.00		0.64	1.00		0.21	1.00		0.03
Lane Grp Cap(c), veh/h	246	0	213	222	0	238	372	0	1008	419	0	1057
V/C Ratio(X)	0.43	0.00	0.85	0.63	0.00	0.60	0.18	0.00	0.68	0.32	0.00	0.65
Avail Cap(c_a), veh/h	277	0	367	254	0	387	428	0	1008	482	0	1057
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.85	0.00	0.85	0.88	0.00	0.88
Uniform Delay (d), s/veh	49.3	0.0	60.1	48.7	0.0	56.1	15.4	0.0	11.0	14.6	0.0	20.6
Incr Delay (d2), s/veh	1.2	0.0	9.3	4.1	0.0	2.4	0.2	0.0	3.2	0.4	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	0.0	11.3	8.0	0.0	8.5	1.5	0.0	12.6	3.2	0.0	21.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	0.0	69.4	52.8	0.0	58.5	15.6	0.0	14.2	14.9	0.0	23.3
LnGrp LOS	D	A	E	D	A	E	B	A	B	B	A	C
Approach Vol, veh/h		288			283			752			818	
Approach Delay, s/veh		62.5			55.7			14.3			21.9	
Approach LOS		E			E			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	86.0	17.4	23.5	12.6	86.5	14.5	26.4
Change Period (Y+Rc), s	6.1	7.0	* 5.7	6.2	6.1	7.0	5.4	6.2
Max Green Setting (Gmax), s	11.9	59.0	* 14	29.8	10.9	60.0	11.6	32.8
Max Q Clear Time (g_c+I1), s	6.5	29.4	11.7	16.5	4.1	37.0	9.2	13.3
Green Ext Time (p_c), s	0.1	5.0	0.1	0.8	0.1	4.6	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

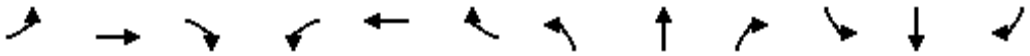
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	0	50	0	0	1	110	630	0	1	820	130
Future Volume (vph)	110	0	50	0	0	1	110	630	0	1	820	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	137		0	0		0	108		0	120		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		329			179			4591			2227	
Travel Time (s)		9.0			4.1			78.3			38.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		20.0	20.0	
Minimum Split (s)	23.8	23.8		23.8	23.8		13.6	26.9		26.9	26.9	
Total Split (s)	30.0	30.0		30.0	30.0		18.0	110.0		92.0	92.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		12.9%	78.6%		65.7%	65.7%	
Yellow Time (s)	3.8	3.8		3.8	3.8		4.0	4.9		4.9	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8			5.8		6.6	6.9		6.9	6.9	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 131 (94%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: SW 59th Street & 29th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	0	50	0	0	1	110	630	0	1	820	130
Future Volume (veh/h)	110	0	50	0	0	1	110	630	0	1	820	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	122	0	56	0	0	1	122	700	0	1	911	144
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	196	0	162	0	0	162	305	1497	0	566	1119	177
Arrive On Green	0.10	0.00	0.10	0.00	0.00	0.10	0.05	0.81	0.00	0.71	0.71	0.71
Sat Flow, veh/h	1416	0	1585	0	0	1585	1767	1856	0	746	1576	249
Grp Volume(v), veh/h	122	0	56	0	0	1	122	700	0	1	0	1055
Grp Sat Flow(s),veh/h/ln	1416	0	1585	0	0	1585	1767	1856	0	746	0	1826
Q Serve(g_s), s	11.9	0.0	4.6	0.0	0.0	0.1	2.3	16.4	0.0	0.1	0.0	55.6
Cycle Q Clear(g_c), s	11.9	0.0	4.6	0.0	0.0	0.1	2.3	16.4	0.0	2.9	0.0	55.6
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		0.14
Lane Grp Cap(c), veh/h	196	0	162	0	0	162	305	1497	0	566	0	1296
V/C Ratio(X)	0.62	0.00	0.34	0.00	0.00	0.01	0.40	0.47	0.00	0.00	0.00	0.81
Avail Cap(c_a), veh/h	295	0	274	0	0	274	361	1497	0	566	0	1296
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.87	0.87	0.00	0.73	0.00	0.73
Uniform Delay (d), s/veh	61.8	0.0	58.4	0.0	0.0	56.4	19.2	4.2	0.0	6.7	0.0	13.9
Incr Delay (d2), s/veh	3.2	0.0	1.3	0.0	0.0	0.0	0.7	0.9	0.0	0.0	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	0.0	3.5	0.0	0.0	0.1	3.7	8.5	0.0	0.0	0.0	27.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	0.0	59.7	0.0	0.0	56.4	20.0	5.1	0.0	6.8	0.0	18.2
LnGrp LOS	E	A	E	A	A	E	B	A	A	A	A	B
Approach Vol, veh/h		178			1			822			1056	
Approach Delay, s/veh		63.3			56.4			7.3			18.2	
Approach LOS		E			E			A			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		119.8		20.2	13.5	106.3		20.2				
Change Period (Y+Rc), s		6.9		* 5.8	6.6	6.9		* 5.8				
Max Green Setting (Gmax), s		103.1		* 24	11.4	85.1		* 24				
Max Q Clear Time (g_c+I1), s		18.4		13.9	4.3	57.6		2.1				
Green Ext Time (p_c), s		5.4		0.4	0.1	9.9		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

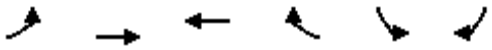
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	190	1340	1235	450	665	230
Future Volume (vph)	190	1340	1235	450	665	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	320			470	210	826
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		40	
Link Distance (ft)		2142	2590		4591	
Travel Time (s)		32.5	39.2		78.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	7.0	7.0
Minimum Split (s)	12.3	25.3	25.3	25.3	25.3	25.3
Total Split (s)	25.0	156.0	131.0	131.0	44.0	44.0
Total Split (%)	12.5%	78.0%	65.5%	65.5%	22.0%	22.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Max	C-Max	C-Max	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 200	
Actuated Cycle Length: 200	
Offset: 165 (83%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Cortez Road W & SW 59th Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	190	1340	1235	450	665	230
Future Volume (veh/h)	190	1340	1235	450	665	230
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856
Adj Flow Rate, veh/h	200	1411	1300	474	700	242
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	3	3
Cap, veh/h	245	2642	2344	1045	638	292
Arrive On Green	0.05	0.74	0.66	0.66	0.19	0.19
Sat Flow, veh/h	1781	3647	3647	1585	3428	1572
Grp Volume(v), veh/h	200	1411	1300	474	700	242
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1714	1572
Q Serve(g_s), s	7.2	33.8	39.3	29.0	37.2	29.6
Cycle Q Clear(g_c), s	7.2	33.8	39.3	29.0	37.2	29.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	245	2642	2344	1045	638	292
V/C Ratio(X)	0.82	0.53	0.55	0.45	1.10	0.83
Avail Cap(c_a), veh/h	318	2642	2344	1045	638	292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.39	0.39
Uniform Delay (d), s/veh	25.1	10.9	18.3	16.5	81.4	78.3
Incr Delay (d2), s/veh	12.0	0.8	1.0	1.4	54.0	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.4	18.7	22.6	16.2	27.4	16.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.0	11.7	19.2	18.0	135.4	86.0
LnGrp LOS	D	B	B	B	F	F
Approach Vol, veh/h		1611	1774		942	
Approach Delay, s/veh		14.8	18.9		122.7	
Approach LOS		B	B		F	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	16.8	139.2			156.0	44.0
Change Period (Y+Rc), s	7.3	7.3			7.3	6.8
Max Green Setting (Gmax), s	17.7	123.7			148.7	37.2
Max Q Clear Time (g_c+I1), s	9.2	41.3			35.8	39.2
Green Ext Time (p_c), s	0.3	16.9			14.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

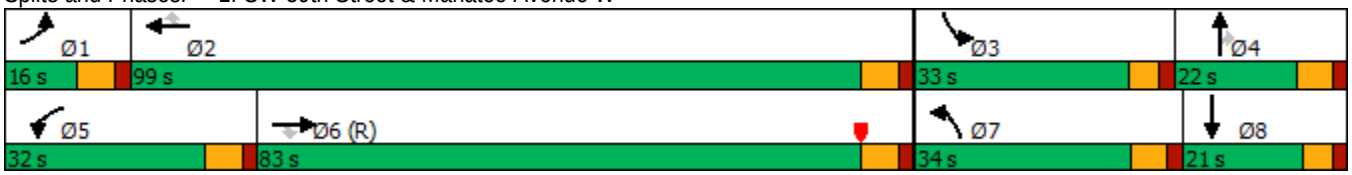
D-3: Build Conditions

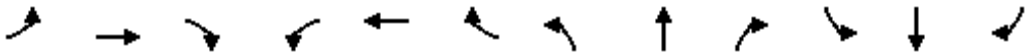
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1255	235	285	1315	100	315	195	365	195	120	30
Future Volume (vph)	35	1255	235	285	1315	100	315	195	365	195	120	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	430		800	700		470	380		0	340		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		2898			3163			2258			2195	
Travel Time (s)		49.4			53.9			38.5			37.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	7.0	5.0	7.0	
Minimum Split (s)	11.8	49.7	49.7	11.9	42.5	42.5	11.6	26.5	26.5	11.8	25.7	
Total Split (s)	16.0	83.0	83.0	32.0	99.0	99.0	34.0	22.0	22.0	33.0	21.0	
Total Split (%)	9.4%	48.8%	48.8%	18.8%	58.2%	58.2%	20.0%	12.9%	12.9%	19.4%	12.4%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.5	4.5	4.5	3.7	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.5	6.5	6.5	5.8	5.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Area Type: Other
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 130 (76%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 1: SW 59th Street & Manatee Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1255	235	285	1315	100	315	195	365	195	120	30
Future Volume (veh/h)	35	1255	235	285	1315	100	315	195	365	195	120	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1307	245	297	1370	104	328	203	380	203	125	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1580	705	264	2026	904	288	243	206	224	130	32
Arrive On Green	0.03	0.45	0.45	0.15	0.57	0.57	0.16	0.13	0.13	0.13	0.09	0.09
Sat Flow, veh/h	1767	3526	1572	1781	3554	1585	1781	1870	1585	1781	1447	359
Grp Volume(v), veh/h	36	1307	245	297	1370	104	328	203	380	203	0	156
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1781	1777	1585	1781	1870	1585	1781	0	1806
Q Serve(g_s), s	3.4	55.3	17.3	25.2	45.8	5.1	27.5	18.0	22.1	19.1	0.0	14.6
Cycle Q Clear(g_c), s	3.4	55.3	17.3	25.2	45.8	5.1	27.5	18.0	22.1	19.1	0.0	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	46	1580	705	264	2026	904	288	243	206	224	0	163
V/C Ratio(X)	0.78	0.83	0.35	1.12	0.68	0.12	1.14	0.83	1.84	0.91	0.00	0.96
Avail Cap(c_a), veh/h	96	1580	705	264	2026	904	288	243	206	285	0	163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	82.3	41.1	30.7	72.4	25.5	16.8	71.3	72.2	73.9	73.3	0.0	77.0
Incr Delay (d2), s/veh	23.6	5.1	1.4	93.2	1.8	0.3	95.2	21.1	397.1	26.2	0.0	58.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	24.7	6.9	18.3	19.4	1.9	20.1	10.0	31.7	10.3	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.9	46.2	32.0	165.6	27.4	17.1	166.4	93.2	471.0	99.6	0.0	135.6
LnGrp LOS	F	D	C	F	C	B	F	F	F	F	A	F
Approach Vol, veh/h		1588			1771			911			359	
Approach Delay, s/veh		45.4			49.9			277.2			115.2	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	103.7	27.2	28.6	32.0	83.0	34.0	21.8
Change Period (Y+Rc), s	6.8	6.8	* 5.8	6.5	6.8	6.8	6.5	* 6.5
Max Green Setting (Gmax), s	9.2	92.2	* 27	15.5	25.2	76.2	27.5	* 15
Max Q Clear Time (g_c+I1), s	5.4	47.8	21.1	24.1	27.2	57.3	29.5	16.6
Green Ext Time (p_c), s	0.0	14.2	0.3	0.0	0.0	9.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	98.2
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

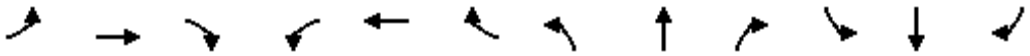
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	30	40	10	25	10	30	605	15	20	550	50
Future Volume (vph)	25	30	40	10	25	10	30	605	15	20	550	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	170		0	120		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		276			328			1746			2258	
Travel Time (s)		6.3			7.5			29.8			38.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	24.2	24.2		23.8	23.8		13.6	26.9		13.0	26.9	
Total Split (s)	33.0	33.0		33.0	33.0		17.0	90.0		17.0	90.0	
Total Split (%)	23.6%	23.6%		23.6%	23.6%		12.1%	64.3%		12.1%	64.3%	
Yellow Time (s)	4.2	4.2		4.2	4.2		4.0	4.9		4.0	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2		6.2	6.2		6.0	6.9		6.0	6.9	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 79 (56%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: SW 59th Street & 11th Avenue W





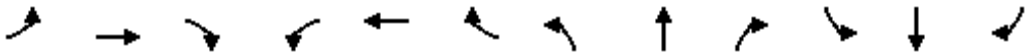
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	30	40	10	25	10	30	605	15	20	550	50
Future Volume (veh/h)	25	30	40	10	25	10	30	605	15	20	550	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	31	41	10	26	10	31	624	15	21	567	52
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	47	51	132	99	38	677	2691	65	660	2474	226
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.04	0.76	0.76	0.03	0.75	0.75
Sat Flow, veh/h	316	613	668	1328	1286	495	1781	3547	85	1781	3292	301
Grp Volume(v), veh/h	98	0	0	10	0	36	31	312	327	21	306	313
Grp Sat Flow(s),veh/h/ln	1598	0	0	1328	0	1781	1781	1777	1855	1781	1777	1816
Q Serve(g_s), s	5.8	0.0	0.0	0.0	0.0	2.7	0.5	7.2	7.2	0.4	7.2	7.3
Cycle Q Clear(g_c), s	8.4	0.0	0.0	1.4	0.0	2.7	0.5	7.2	7.2	0.4	7.2	7.3
Prop In Lane	0.27		0.42	1.00		0.28	1.00		0.05	1.00		0.17
Lane Grp Cap(c), veh/h	156	0	0	132	0	137	677	1348	1407	660	1335	1365
V/C Ratio(X)	0.63	0.00	0.00	0.08	0.00	0.26	0.05	0.23	0.23	0.03	0.23	0.23
Avail Cap(c_a), veh/h	337	0	0	284	0	341	754	1348	1407	750	1335	1365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.51	0.51	0.51
Uniform Delay (d), s/veh	63.5	0.0	0.0	60.3	0.0	60.9	3.4	4.9	4.9	3.6	5.2	5.2
Incr Delay (d2), s/veh	4.2	0.0	0.0	0.2	0.0	1.0	0.0	0.4	0.4	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.0	0.3	0.0	1.3	0.2	2.4	2.5	0.1	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	0.0	0.0	60.5	0.0	61.9	3.5	5.3	5.3	3.6	5.4	5.4
LnGrp LOS	E	A	A	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		98			46			670			640	
Approach Delay, s/veh		67.6			61.6			5.3			5.4	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	113.1		17.0	10.9	112.1		17.0				
Change Period (Y+Rc), s	6.0	6.9		6.2	6.0	6.9		6.2				
Max Green Setting (Gmax), s	11.0	83.1		26.8	11.0	83.1		26.8				
Max Q Clear Time (g_c+I1), s	2.4	9.2		10.4	2.5	9.3		4.7				
Green Ext Time (p_c), s	0.0	4.0		0.4	0.0	3.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		11.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	120	55	25	95	40	55	585	50	45	505	60
Future Volume (vph)	70	120	55	25	95	40	55	585	50	45	505	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		300	330		330	250		330	280		470
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		839			905			1359			1746	
Travel Time (s)		19.1			20.6			23.2			29.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	6.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	253	165	712	629
Demand Flow Rate, veh/h	261	170	734	648
Vehicles Circulating, veh/h	611	754	249	187
Vehicles Exiting, veh/h	224	229	623	737
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.9	7.5	6.6	5.7
Approach LOS	A	A	A	A

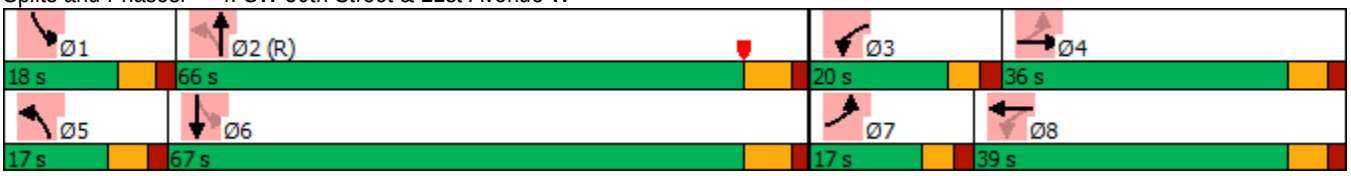
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	261	170	345	389	305	343
Cap Entry Lane, veh/h	845	748	1074	1149	1137	1211
Entry HV Adj Factor	0.970	0.971	0.970	0.970	0.970	0.972
Flow Entry, veh/h	253	165	335	377	296	334
Cap Entry, veh/h	820	726	1041	1115	1102	1178
V/C Ratio	0.309	0.227	0.321	0.338	0.268	0.283
Control Delay, s/veh	7.9	7.5	6.7	6.6	5.8	5.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	2	1	1

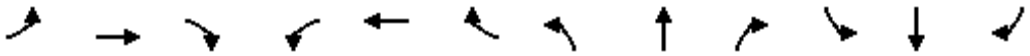
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	95	65	130	45	85	50	425	120	110	525	15
Future Volume (vph)	95	95	65	130	45	85	50	425	120	110	525	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	300		0	210		0	235		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		571			628			2227			1359	
Travel Time (s)		15.6			14.3			38.0			23.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	12.4	24.2		12.7	23.8		13.7	27.0		13.1	27.0	
Total Split (s)	17.0	36.0		20.0	39.0		17.0	66.0		18.0	67.0	
Total Split (%)	12.1%	25.7%		14.3%	27.9%		12.1%	47.1%		12.9%	47.9%	
Yellow Time (s)	3.4	4.2		3.4	4.2		4.1	5.0		4.0	5.0	
All-Red Time (s)	2.0	2.0		2.3	2.0		2.0	2.0		2.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	6.2		5.7	6.2		6.1	7.0		6.1	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 91 (65%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: SW 59th Street & 21st Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	95	65	130	45	85	50	425	120	110	525	15
Future Volume (veh/h)	95	95	65	130	45	85	50	425	120	110	525	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	96	96	66	131	45	86	51	429	121	111	530	15
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	4	4	4	3	3	3	2	2	2
Cap, veh/h	231	114	79	215	75	143	567	1580	442	637	2072	59
Arrive On Green	0.06	0.11	0.11	0.08	0.13	0.13	0.09	1.00	1.00	0.05	0.59	0.59
Sat Flow, veh/h	1767	1024	704	1753	565	1081	1767	2721	761	1781	3529	100
Grp Volume(v), veh/h	96	0	162	131	0	131	51	277	273	111	267	278
Grp Sat Flow(s),veh/h/ln	1767	0	1729	1753	0	1646	1767	1763	1719	1781	1777	1852
Q Serve(g_s), s	6.7	0.0	12.9	9.1	0.0	10.5	1.5	0.0	0.0	3.4	10.2	10.2
Cycle Q Clear(g_c), s	6.7	0.0	12.9	9.1	0.0	10.5	1.5	0.0	0.0	3.4	10.2	10.2
Prop In Lane	1.00		0.41	1.00		0.66	1.00		0.44	1.00		0.05
Lane Grp Cap(c), veh/h	231	0	193	215	0	218	567	1024	998	637	1043	1087
V/C Ratio(X)	0.42	0.00	0.84	0.61	0.00	0.60	0.09	0.27	0.27	0.17	0.26	0.26
Avail Cap(c_a), veh/h	270	0	368	254	0	386	628	1024	998	701	1043	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	0.0	61.0	50.1	0.0	57.2	10.0	0.0	0.0	10.2	14.0	14.0
Incr Delay (d2), s/veh	1.2	0.0	9.4	3.1	0.0	2.6	0.1	0.6	0.7	0.1	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	6.2	4.2	0.0	4.6	0.6	0.2	0.2	1.3	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	0.0	70.3	53.2	0.0	59.8	10.1	0.6	0.7	10.3	14.6	14.6
LnGrp LOS	D	A	E	D	A	E	B	A	A	B	B	B
Approach Vol, veh/h		258			262			601			656	
Approach Delay, s/veh		63.6			56.5			1.4			13.9	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	88.3	16.9	21.8	12.1	89.2	13.9	24.8
Change Period (Y+Rc), s	6.1	7.0	* 5.7	6.2	6.1	7.0	5.4	6.2
Max Green Setting (Gmax), s	11.9	59.0	* 14	29.8	10.9	60.0	11.6	32.8
Max Q Clear Time (g_c+I1), s	5.4	2.0	11.1	14.9	3.5	12.2	8.7	12.5
Green Ext Time (p_c), s	0.1	3.5	0.1	0.8	0.0	3.3	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

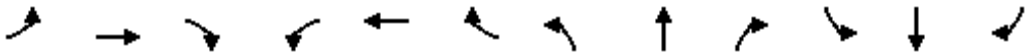
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	0	50	0	0	1	85	505	0	1	655	105
Future Volume (vph)	100	0	50	0	0	1	85	505	0	1	655	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	137		0	0		0	108		0	120		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		329			179			4591			2227	
Travel Time (s)		9.0			4.1			78.3			38.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		20.0	20.0	
Minimum Split (s)	23.8	23.8		23.8	23.8		13.6	26.9		26.9	26.9	
Total Split (s)	30.0	30.0		30.0	30.0		18.0	110.0		92.0	92.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		12.9%	78.6%		65.7%	65.7%	
Yellow Time (s)	3.8	3.8		3.8	3.8		4.0	4.9		4.9	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8			5.8		6.6	6.9		6.9	6.9	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 131 (94%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: SW 59th Street & 29th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	0	50	0	0	1	85	505	0	1	655	105
Future Volume (veh/h)	100	0	50	0	0	1	85	505	0	1	655	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	111	0	56	0	0	1	94	561	0	1	728	117
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	185	0	150	0	0	150	545	2871	0	661	2203	354
Arrive On Green	0.09	0.00	0.09	0.00	0.00	0.09	0.05	0.81	0.00	0.72	0.72	0.72
Sat Flow, veh/h	1416	0	1585	0	0	1585	1767	3618	0	849	3066	493
Grp Volume(v), veh/h	111	0	56	0	0	1	94	561	0	1	422	423
Grp Sat Flow(s),veh/h/ln	1416	0	1585	0	0	1585	1767	1763	0	849	1777	1782
Q Serve(g_s), s	10.8	0.0	4.6	0.0	0.0	0.1	1.7	4.9	0.0	0.0	12.3	12.3
Cycle Q Clear(g_c), s	10.9	0.0	4.6	0.0	0.0	0.1	1.7	4.9	0.0	0.0	12.3	12.3
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		0.28
Lane Grp Cap(c), veh/h	185	0	150	0	0	150	545	2871	0	661	1277	1280
V/C Ratio(X)	0.60	0.00	0.37	0.00	0.00	0.01	0.17	0.20	0.00	0.00	0.33	0.33
Avail Cap(c_a), veh/h	295	0	274	0	0	274	603	2871	0	661	1277	1280
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.91	0.91	0.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	62.3	0.0	59.5	0.0	0.0	57.4	4.4	2.9	0.0	5.5	7.3	7.3
Incr Delay (d2), s/veh	3.1	0.0	1.5	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	2.0	0.0	0.0	0.0	0.5	1.3	0.0	0.0	4.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	0.0	61.0	0.0	0.0	57.4	4.5	3.0	0.0	5.6	7.9	7.9
LnGrp LOS	E	A	E	A	A	E	A	A	A	A	A	A
Approach Vol, veh/h		167			1			655			846	
Approach Delay, s/veh		63.9			57.4			3.2			7.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		120.9		19.1	13.4	107.5		19.1				
Change Period (Y+Rc), s		6.9		* 5.8	6.6	6.9		* 5.8				
Max Green Setting (Gmax), s		103.1		* 24	11.4	85.1		* 24				
Max Q Clear Time (g_c+I1), s		6.9		12.9	3.7	14.3		2.1				
Green Ext Time (p_c), s		4.0		0.4	0.1	5.9		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	11.7	
HCM 6th LOS	B	

Notes

User approved pedestrian interval to be less than phase max green.

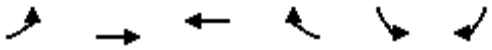
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	175	1215	1125	410	535	185
Future Volume (vph)	175	1215	1125	410	535	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	320			470	0	826
Storage Lanes	1			1	2	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		40	
Link Distance (ft)		2142	2590		4591	
Travel Time (s)		32.5	39.2		78.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	7.0	7.0
Minimum Split (s)	12.3	25.3	25.3	25.3	25.3	25.3
Total Split (s)	25.0	156.0	131.0	131.0	44.0	44.0
Total Split (%)	12.5%	78.0%	65.5%	65.5%	22.0%	22.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Max	C-Max	C-Max	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 200	
Actuated Cycle Length: 200	
Offset: 165 (83%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Cortez Road W & SW 59th Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	175	1215	1125	410	535	185
Future Volume (veh/h)	175	1215	1125	410	535	185
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856
Adj Flow Rate, veh/h	184	1279	1184	432	563	195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	3	3
Cap, veh/h	272	2677	2394	1068	604	277
Arrive On Green	0.04	0.75	0.67	0.67	0.18	0.18
Sat Flow, veh/h	1781	3647	3647	1585	3428	1572
Grp Volume(v), veh/h	184	1279	1184	432	563	195
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1714	1572
Q Serve(g_s), s	6.3	27.8	32.6	24.5	32.4	23.3
Cycle Q Clear(g_c), s	6.3	27.8	32.6	24.5	32.4	23.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	272	2677	2394	1068	604	277
V/C Ratio(X)	0.68	0.48	0.49	0.40	0.93	0.70
Avail Cap(c_a), veh/h	353	2677	2394	1068	638	292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	15.6	9.5	16.0	14.6	81.2	77.4
Incr Delay (d2), s/veh	3.3	0.6	0.7	1.1	19.1	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	10.4	13.2	9.0	15.9	10.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	10.1	16.7	15.8	100.3	84.0
LnGrp LOS	B	B	B	B	F	F
Approach Vol, veh/h		1463	1616		758	
Approach Delay, s/veh		11.2	16.5		96.1	
Approach LOS		B	B		F	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.9	142.0			157.9	42.1
Change Period (Y+Rc), s	7.3	7.3			7.3	6.8
Max Green Setting (Gmax), s	17.7	123.7			148.7	37.2
Max Q Clear Time (g_c+I1), s	8.3	34.6			29.8	34.4
Green Ext Time (p_c), s	0.3	14.1			12.3	0.9

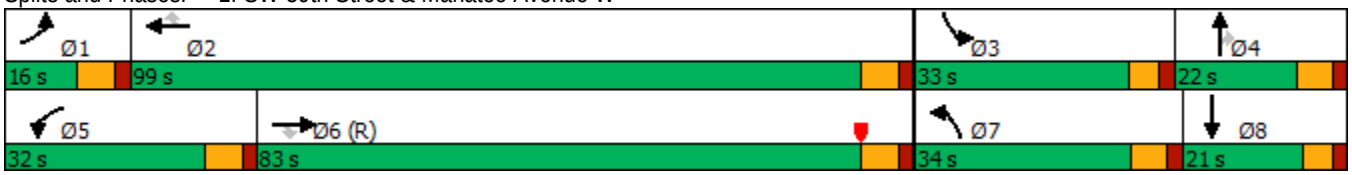
Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

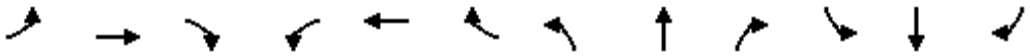
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1380	255	310	1445	110	395	245	455	240	150	35
Future Volume (vph)	40	1380	255	310	1445	110	395	245	455	240	150	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	430		800	700		470	380		0	340		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		2898			3163			2258			2195	
Travel Time (s)		49.4			53.9			38.5			37.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	7.0	5.0	7.0	
Minimum Split (s)	11.8	49.7	49.7	11.9	42.5	42.5	11.6	52.0	52.0	11.8	51.8	
Total Split (s)	16.0	83.0	83.0	32.0	99.0	99.0	34.0	22.0	22.0	33.0	21.0	
Total Split (%)	9.4%	48.8%	48.8%	18.8%	58.2%	58.2%	20.0%	12.9%	12.9%	19.4%	12.4%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.5	4.5	4.5	3.7	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8	6.5	6.5	6.5	5.8	5.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Area Type: Other
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 130 (76%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 1: SW 59th Street & Manatee Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1380	255	310	1445	110	395	245	455	240	150	35
Future Volume (veh/h)	40	1380	255	310	1445	110	395	245	455	240	150	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	1438	266	323	1505	115	411	255	474	250	156	36
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	54	1580	705	264	2011	897	288	196	166	269	132	31
Arrive On Green	0.03	0.45	0.45	0.15	0.57	0.57	0.16	0.10	0.10	0.15	0.09	0.09
Sat Flow, veh/h	1767	3526	1572	1781	3554	1585	1781	1870	1585	1781	1470	339
Grp Volume(v), veh/h	42	1438	266	323	1505	115	411	255	474	250	0	192
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1781	1777	1585	1781	1870	1585	1781	0	1809
Q Serve(g_s), s	4.0	64.6	19.1	25.2	54.2	5.8	27.5	17.8	17.8	23.6	0.0	15.3
Cycle Q Clear(g_c), s	4.0	64.6	19.1	25.2	54.2	5.8	27.5	17.8	17.8	23.6	0.0	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	54	1580	705	264	2011	897	288	196	166	269	0	163
V/C Ratio(X)	0.78	0.91	0.38	1.22	0.75	0.13	1.43	1.30	2.85	0.93	0.00	1.18
Avail Cap(c_a), veh/h	96	1580	705	264	2011	897	288	196	166	285	0	163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	0.00	1.00
Uniform Delay (d), s/veh	81.8	43.7	31.1	72.4	27.8	17.3	71.3	76.1	76.1	71.3	0.0	77.4
Incr Delay (d2), s/veh	20.8	9.4	1.5	129.4	2.6	0.3	210.2	166.4	849.7	34.1	0.0	126.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	38.5	12.1	31.1	31.0	4.0	44.2	26.9	71.9	19.2	0.0	19.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.7	53.1	32.7	201.8	30.4	17.6	281.4	242.5	925.8	105.4	0.0	204.2
LnGrp LOS	F	D	C	F	C	B	F	F	F	F	A	F
Approach Vol, veh/h		1746			1943			1140			442	
Approach Delay, s/veh		51.1			58.1			540.6			148.3	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	103.0	31.5	24.3	32.0	83.0	34.0	21.8
Change Period (Y+Rc), s	6.8	6.8	* 5.8	6.5	6.8	6.8	6.5	* 6.5
Max Green Setting (Gmax), s	9.2	92.2	* 27	15.5	25.2	76.2	27.5	* 15
Max Q Clear Time (g_c+I1), s	6.0	56.2	25.6	19.8	27.2	66.6	29.5	17.3
Green Ext Time (p_c), s	0.0	15.4	0.1	0.0	0.0	6.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	167.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

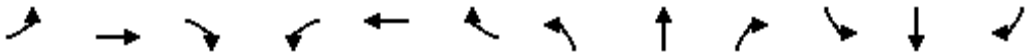
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	35	45	10	30	10	35	760	15	25	690	60
Future Volume (vph)	30	35	45	10	30	10	35	760	15	25	690	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	170		0	120		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		276			328			1746			2258	
Travel Time (s)		6.3			7.5			29.8			38.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	24.2	24.2		23.8	23.8		13.6	26.9		13.0	26.9	
Total Split (s)	33.0	33.0		33.0	33.0		17.0	90.0		17.0	90.0	
Total Split (%)	23.6%	23.6%		23.6%	23.6%		12.1%	64.3%		12.1%	64.3%	
Yellow Time (s)	4.2	4.2		4.2	4.2		4.0	4.9		4.0	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2		6.2	6.2		6.0	6.9		6.0	6.9	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 79 (56%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: SW 59th Street & 11th Avenue W





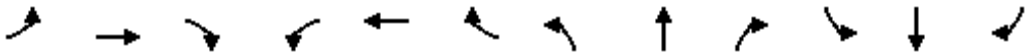
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	35	45	10	30	10	35	760	15	25	690	60
Future Volume (veh/h)	30	35	45	10	30	10	35	760	15	25	690	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	36	46	10	31	10	36	784	15	26	711	62
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	53	56	136	119	38	583	2653	51	565	2440	213
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.74	0.74	0.03	0.74	0.74
Sat Flow, veh/h	328	604	640	1316	1355	437	1781	3567	68	1781	3307	288
Grp Volume(v), veh/h	113	0	0	10	0	41	36	391	408	26	382	391
Grp Sat Flow(s),veh/h/ln	1573	0	0	1316	0	1792	1781	1777	1858	1781	1777	1818
Q Serve(g_s), s	6.9	0.0	0.0	0.0	0.0	3.0	0.6	10.1	10.1	0.5	10.0	10.1
Cycle Q Clear(g_c), s	9.9	0.0	0.0	1.5	0.0	3.0	0.6	10.1	10.1	0.5	10.0	10.1
Prop In Lane	0.27		0.41	1.00		0.24	1.00		0.04	1.00		0.16
Lane Grp Cap(c), veh/h	171	0	0	136	0	158	583	1322	1382	565	1311	1342
V/C Ratio(X)	0.66	0.00	0.00	0.07	0.00	0.26	0.06	0.30	0.30	0.05	0.29	0.29
Avail Cap(c_a), veh/h	335	0	0	272	0	343	656	1322	1382	648	1311	1342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.32	0.32	0.32
Uniform Delay (d), s/veh	62.7	0.0	0.0	58.9	0.0	59.6	4.0	5.9	5.9	4.1	6.1	6.1
Incr Delay (d2), s/veh	4.3	0.0	0.0	0.2	0.0	0.9	0.0	0.6	0.5	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.5	0.0	0.0	0.6	0.0	2.5	0.4	6.3	6.6	0.3	5.1	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	0.0	0.0	59.1	0.0	60.4	4.0	6.5	6.4	4.1	6.3	6.3
LnGrp LOS	E	A	A	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		113			51			835			799	
Approach Delay, s/veh		67.0			60.2			6.3			6.2	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	111.0		18.5	11.3	110.2		18.5				
Change Period (Y+Rc), s	6.0	6.9		6.2	6.0	6.9		6.2				
Max Green Setting (Gmax), s	11.0	83.1		26.8	11.0	83.1		26.8				
Max Q Clear Time (g_c+I1), s	2.5	12.1		11.9	2.6	12.1		5.0				
Green Ext Time (p_c), s	0.0	5.4		0.4	0.0	5.2		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		11.6	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	130	60	30	105	45	65	730	60	55	630	75
Future Volume (vph)	75	130	60	30	105	45	65	730	60	55	630	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		300	330		330	250		330	280		470
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		839			905			1359			1746	
Travel Time (s)		19.1			20.6			23.2			29.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	273	185	882	783
Demand Flow Rate, veh/h	281	190	909	806
Vehicles Circulating, veh/h	759	924	276	212
Vehicles Exiting, veh/h	259	261	764	902
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.8	9.5	7.9	6.7
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	281	190	427	482	379	427
Cap Entry Lane, veh/h	745	647	1047	1123	1111	1186
Entry HV Adj Factor	0.971	0.972	0.971	0.970	0.970	0.971
Flow Entry, veh/h	273	185	415	468	368	415
Cap Entry, veh/h	724	630	1017	1090	1078	1152
V/C Ratio	0.377	0.293	0.408	0.429	0.341	0.360
Control Delay, s/veh	9.8	9.5	8.0	7.9	6.8	6.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	2	1	2	2	2	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	105	75	140	50	90	65	535	145	135	655	20
Future Volume (vph)	105	105	75	140	50	90	65	535	145	135	655	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	300		0	210		0	235		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		571			628			2227			1359	
Travel Time (s)		15.6			14.3			38.0			23.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	12.4	24.2		12.7	23.8		13.7	27.0		13.1	27.0	
Total Split (s)	17.0	36.0		20.0	39.0		17.0	66.0		18.0	67.0	
Total Split (%)	12.1%	25.7%		14.3%	27.9%		12.1%	47.1%		12.9%	47.9%	
Yellow Time (s)	3.4	4.2		3.4	4.2		4.1	5.0		4.0	5.0	
All-Red Time (s)	2.0	2.0		2.3	2.0		2.0	2.0		2.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.4	6.2		5.7	6.2		6.1	7.0		6.1	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 91 (65%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: SW 59th Street & 21st Avenue W



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	105	75	140	50	90	65	535	145	135	655	20
Future Volume (veh/h)	105	105	75	140	50	90	65	535	145	135	655	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	106	106	76	141	51	91	66	540	146	136	662	20
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	4	4	4	3	3	3	2	2	2
Cap, veh/h	246	124	89	222	85	152	485	1550	417	567	2000	60
Arrive On Green	0.07	0.12	0.12	0.08	0.14	0.14	0.09	1.00	1.00	0.05	0.57	0.57
Sat Flow, veh/h	1767	1005	721	1753	593	1058	1767	2746	739	1781	3522	106
Grp Volume(v), veh/h	106	0	182	141	0	142	66	346	340	136	334	348
Grp Sat Flow(s),veh/h/ln	1767	0	1726	1753	0	1650	1767	1763	1722	1781	1777	1851
Q Serve(g_s), s	7.2	0.0	14.5	9.7	0.0	11.3	2.1	0.0	0.0	4.5	14.0	14.0
Cycle Q Clear(g_c), s	7.2	0.0	14.5	9.7	0.0	11.3	2.1	0.0	0.0	4.5	14.0	14.0
Prop In Lane	1.00		0.42	1.00		0.64	1.00		0.43	1.00		0.06
Lane Grp Cap(c), veh/h	246	0	213	222	0	238	485	995	972	567	1009	1051
V/C Ratio(X)	0.43	0.00	0.85	0.63	0.00	0.60	0.14	0.35	0.35	0.24	0.33	0.33
Avail Cap(c_a), veh/h	277	0	367	254	0	387	541	995	972	629	1009	1051
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	0.0	60.1	48.7	0.0	56.1	11.2	0.0	0.0	11.3	16.1	16.1
Incr Delay (d2), s/veh	1.2	0.0	9.3	4.1	0.0	2.4	0.1	0.9	1.0	0.2	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	0.0	11.3	8.0	0.0	8.5	1.4	0.5	0.5	3.1	9.7	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	0.0	69.4	52.8	0.0	58.5	11.3	0.9	1.0	11.5	17.0	16.9
LnGrp LOS	D	A	E	D	A	E	B	A	A	B	B	B
Approach Vol, veh/h		288			283			752			818	
Approach Delay, s/veh		62.5			55.7			1.8			16.1	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	86.0	17.4	23.5	12.6	86.5	14.5	26.4
Change Period (Y+Rc), s	6.1	7.0	* 5.7	6.2	6.1	7.0	5.4	6.2
Max Green Setting (Gmax), s	11.9	59.0	* 14	29.8	10.9	60.0	11.6	32.8
Max Q Clear Time (g_c+I1), s	6.5	2.0	11.7	16.5	4.1	16.0	9.2	13.3
Green Ext Time (p_c), s	0.1	4.5	0.1	0.8	0.1	4.3	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

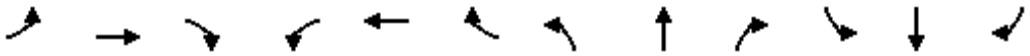
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	0	50	0	0	1	110	630	0	1	820	130
Future Volume (vph)	110	0	50	0	0	1	110	630	0	1	820	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	137		0	0		0	108		0	120		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		329			179			4591			2227	
Travel Time (s)		9.0			4.1			78.3			38.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	20.0		20.0	20.0	
Minimum Split (s)	23.8	23.8		23.8	23.8		13.6	26.9		26.9	26.9	
Total Split (s)	30.0	30.0		30.0	30.0		18.0	110.0		92.0	92.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		12.9%	78.6%		65.7%	65.7%	
Yellow Time (s)	3.8	3.8		3.8	3.8		4.0	4.9		4.9	4.9	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8			5.8		6.6	6.9		6.9	6.9	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 131 (94%), Referenced to phase 2:NBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: SW 59th Street & 29th Avenue W





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	0	50	0	0	1	110	630	0	1	820	130
Future Volume (veh/h)	110	0	50	0	0	1	110	630	0	1	820	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	122	0	56	0	0	1	122	700	0	1	911	144
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	196	0	162	0	0	162	451	2844	0	581	2183	345
Arrive On Green	0.10	0.00	0.10	0.00	0.00	0.10	0.05	0.81	0.00	0.71	0.71	0.71
Sat Flow, veh/h	1416	0	1585	0	0	1585	1767	3618	0	746	3074	486
Grp Volume(v), veh/h	122	0	56	0	0	1	122	700	0	1	527	528
Grp Sat Flow(s),veh/h/ln	1416	0	1585	0	0	1585	1767	1763	0	746	1777	1783
Q Serve(g_s), s	11.9	0.0	4.6	0.0	0.0	0.1	2.3	6.7	0.0	0.1	17.1	17.1
Cycle Q Clear(g_c), s	11.9	0.0	4.6	0.0	0.0	0.1	2.3	6.7	0.0	0.1	17.1	17.1
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		0.27
Lane Grp Cap(c), veh/h	196	0	162	0	0	162	451	2844	0	581	1262	1266
V/C Ratio(X)	0.62	0.00	0.34	0.00	0.00	0.01	0.27	0.25	0.00	0.00	0.42	0.42
Avail Cap(c_a), veh/h	295	0	274	0	0	274	507	2844	0	581	1262	1266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.87	0.87	0.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	61.8	0.0	58.4	0.0	0.0	56.4	5.5	3.3	0.0	5.9	8.4	8.4
Incr Delay (d2), s/veh	3.2	0.0	1.3	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	0.0	3.5	0.0	0.0	0.1	1.3	3.4	0.0	0.0	10.2	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	0.0	59.7	0.0	0.0	56.4	5.8	3.4	0.0	5.9	9.3	9.3
LnGrp LOS	E	A	E	A	A	E	A	A	A	A	A	A
Approach Vol, veh/h		178			1			822			1056	
Approach Delay, s/veh		63.3			56.4			3.8			9.3	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		119.8		20.2	13.5	106.3		20.2				
Change Period (Y+Rc), s		6.9		* 5.8	6.6	6.9		* 5.8				
Max Green Setting (Gmax), s		103.1		* 24	11.4	85.1		* 24				
Max Q Clear Time (g_c+I1), s		8.7		13.9	4.3	19.1		2.1				
Green Ext Time (p_c), s		5.3		0.4	0.1	8.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	11.8	
HCM 6th LOS	B	

Notes

User approved pedestrian interval to be less than phase max green.

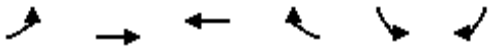
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	190	1340	1235	450	665	230
Future Volume (vph)	190	1340	1235	450	665	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	320			470	0	826
Storage Lanes	1			1	2	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		40	
Link Distance (ft)		2142	2590		4591	
Travel Time (s)		32.5	39.2		78.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	7.0	7.0
Minimum Split (s)	12.3	25.3	25.3	25.3	25.3	25.3
Total Split (s)	25.0	156.0	131.0	131.0	44.0	44.0
Total Split (%)	12.5%	78.0%	65.5%	65.5%	22.0%	22.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Max	C-Max	C-Max	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 200	
Actuated Cycle Length: 200	
Offset: 165 (83%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Cortez Road W & SW 59th Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	190	1340	1235	450	665	230
Future Volume (veh/h)	190	1340	1235	450	665	230
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856
Adj Flow Rate, veh/h	200	1411	1300	474	700	242
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	3	3
Cap, veh/h	245	2642	2344	1045	638	292
Arrive On Green	0.05	0.74	0.66	0.66	0.19	0.19
Sat Flow, veh/h	1781	3647	3647	1585	3428	1572
Grp Volume(v), veh/h	200	1411	1300	474	700	242
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1714	1572
Q Serve(g_s), s	7.2	33.8	39.3	29.0	37.2	29.6
Cycle Q Clear(g_c), s	7.2	33.8	39.3	29.0	37.2	29.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	245	2642	2344	1045	638	292
V/C Ratio(X)	0.82	0.53	0.55	0.45	1.10	0.83
Avail Cap(c_a), veh/h	318	2642	2344	1045	638	292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.90	0.90
Uniform Delay (d), s/veh	25.1	10.9	18.3	16.5	81.4	78.3
Incr Delay (d2), s/veh	12.0	0.8	1.0	1.4	63.7	16.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.4	18.7	22.6	16.2	30.9	19.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.0	11.7	19.2	18.0	145.1	94.4
LnGrp LOS	D	B	B	B	F	F
Approach Vol, veh/h		1611	1774		942	
Approach Delay, s/veh		14.8	18.9		132.1	
Approach LOS		B	B		F	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	16.8	139.2			156.0	44.0
Change Period (Y+Rc), s	7.3	7.3			7.3	6.8
Max Green Setting (Gmax), s	17.7	123.7			148.7	37.2
Max Q Clear Time (g_c+I1), s	9.2	41.3			35.8	39.2
Green Ext Time (p_c), s	0.3	16.9			14.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Attachment E: Intersection Control Evaluation

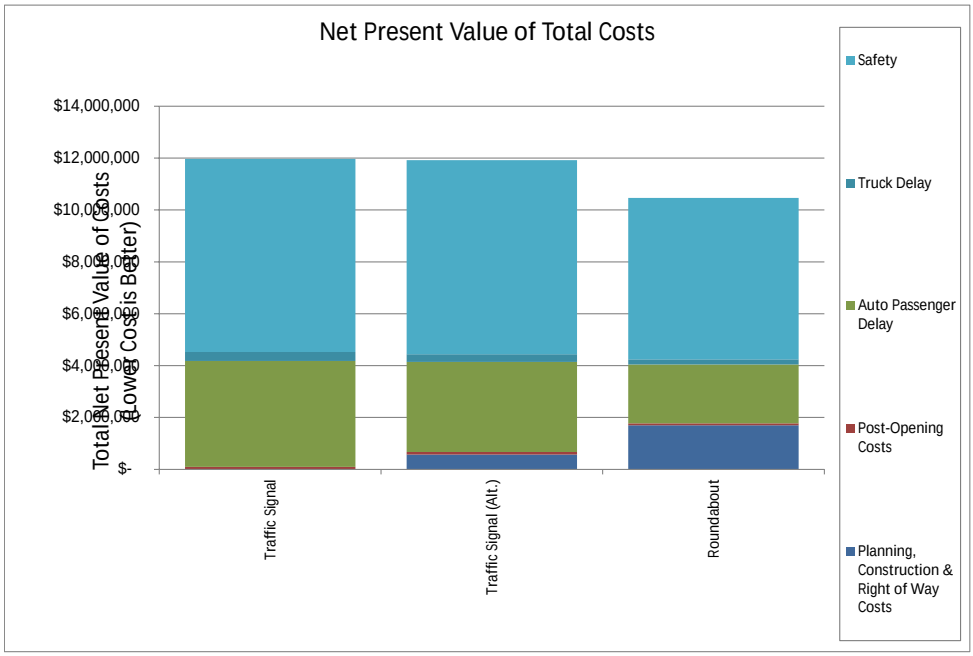
Agency:	Manatee County
Project Name:	59th Street W Project Development and Study Corridor
Project Reference:	-
Intersection:	59th and 11th
City:	Manatee County
State:	FL
Performing Department or Organization:	-
Date:	8/31/2021
Analyst:	KHA
Analysis Type	At-Grade Intersection

Analysis Summary

Cost Categories	Net Present Value of Costs		
	Traffic Signal	Traffic Signal (Alt.)	Roundabout
Planning, Construction & Right of Way Costs	$ -	$ 575,000	$ 1,701,929
Post-Opening Costs	$ 98,229	$ 98,229	$ 72,952
Auto Passenger Delay	$ 4,079,279	$ 3,468,164	$ 2,270,189
Truck Delay	$ 348,619	$ 296,393	$ 194,031
Safety	$ 7,441,546	$ 7,482,920	$ 6,226,405
Total cost	$11,967,674	$11,920,704	$10,465,506

Select Base Case for Benefit-Cost Comparison: (Choose from list)	Traffic Signal

Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Traffic Signal	Traffic Signal (Alt.)	Roundabout
Auto Passenger Delay		$ 611,116	$ 1,809,091
Truck Delay		$ 52,227	$ 154,588
Safety		$ (41,373)	$ 1,215,141
Net Present Value of Benefits		$ 621,969	$ 3,178,820
Net Present Value of Costs		$ 575,000	$ 1,676,652
Net Present Value of Improvement		$ 46,969	$ 1,502,168
Benefit-Cost (B/C) Ratio		1.08	1.90
Delay B/C		1.15	1.17
Safety B/C		preferred. Benefits are less than base case and cost is greater than base	0.72

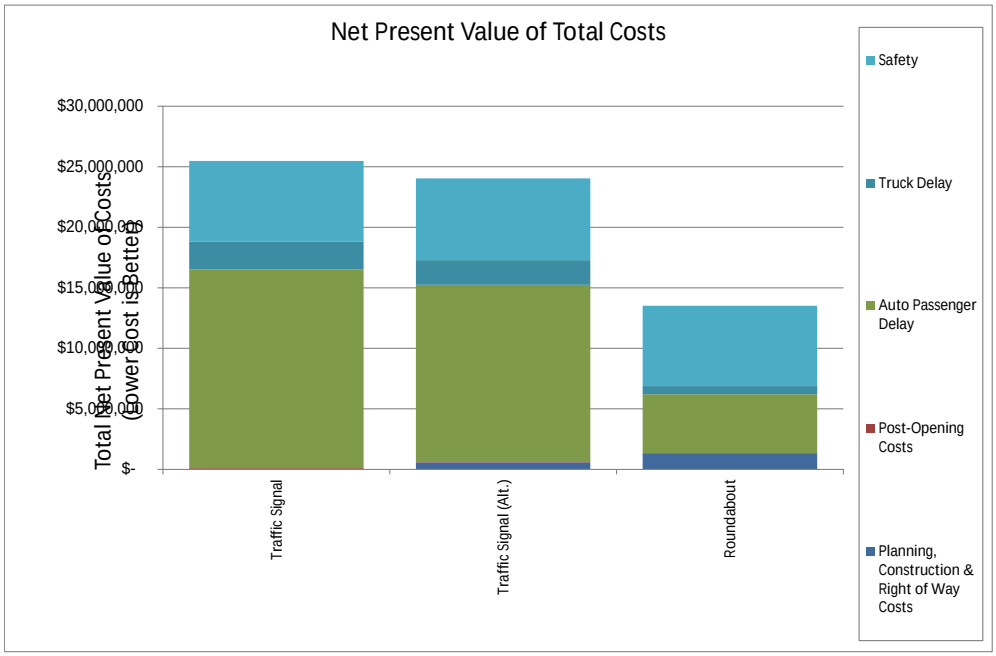


Agency:	Manatee County
Project Name:	59th Street W Project Development and Study Corridor
Project Reference:	
Intersection:	59th and 17th
City:	-
State:	FL
Performing Department or Organization:	
Date:	8/31/2021
Analyst:	KHA
Analysis Type	At-Grade Intersection

Analysis Summary

Cost Categories	Net Present Value of Costs		
	Traffic Signal	Traffic Signal (Alt.)	Roundabout
Planning, Construction & Right of Way Costs	$ -	$ 575,000	$ 1,276,571
Post-Opening Costs	$ 98,229	$ 98,229	$ 72,952
Auto Passenger Delay	$ 16,425,168	$ 14,580,759	$ 4,853,056
Truck Delay	$ 2,290,147	$ 2,032,982	$ 676,584
Safety	$ 6,670,628	$ 6,753,330	$ 6,636,206
Total cost	$25,484,171	$24,040,300	$13,515,368

Select Base Case for Benefit-Cost Comparison: (Choose from list)	Traffic Signal		
Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Traffic Signal	Traffic Signal (Alt.)	Roundabout
Auto Passenger Delay		$ 1,844,409	$ 11,572,112
Truck Delay		$ 257,164	$ 1,613,563
Safety		$ (82,702)	$ 34,422
Net Present Value of Benefits		$ 2,018,871	$ 13,220,097
Net Present Value of Costs		$ 575,000	$ 1,251,294
Net Present Value of Improvement		$ 1,443,871	$ 11,968,803
Benefit-Cost (B/C) Ratio		3.51	10.57
Delay B/C		3.65	10.54
Safety B/C		preferred. Benefits are less than base case and cost is greater than base	0.03

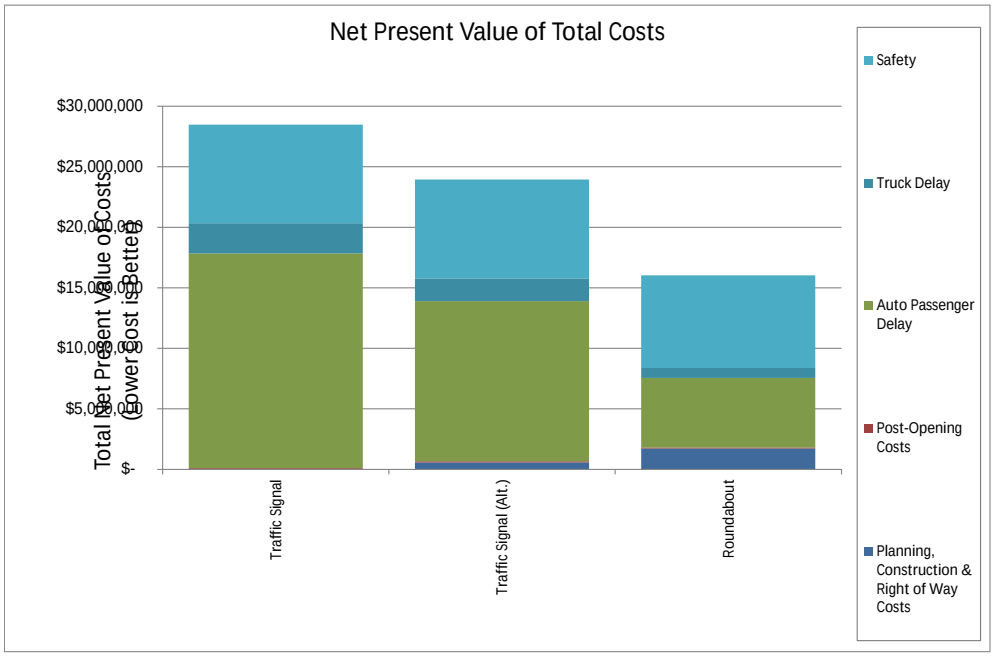


Agency:	Manatee County
Project Name:	59th Street W Project Development and Study Corridor
Project Reference:	
Intersection:	59th and 21st
City:	-
State:	FL
Performing Department or Organization:	
Date:	8/31/2021
Analyst:	KHA
Analysis Type	At-Grade Intersection

Analysis Summary

Cost Categories	Net Present Value of Costs		
	Traffic Signal	Traffic Signal (Alt.)	Roundabout
Planning, Construction & Right of Way Costs	$ -	$ 575,000	$ 1,730,593
Post-Opening Costs	$ 98,229	$ 98,229	$ 72,952
Auto Passenger Delay	$ 17,735,879	$ 13,233,411	$ 5,756,620
Truck Delay	$ 2,504,598	$ 1,869,021	$ 812,873
Safety	$ 8,135,291	$ 8,176,661	$ 7,658,214
Total cost	$28,473,997	$23,952,322	$16,031,251

Select Base Case for Benefit-Cost Comparison: (Choose from list)	Traffic Signal		
Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Traffic Signal	Traffic Signal (Alt.)	Roundabout
Auto Passenger Delay		$ 4,502,468	$ 11,979,259
Truck Delay		$ 635,577	$ 1,691,726
Safety		$ (41,370)	$ 477,078
Net Present Value of Benefits		$ 5,096,675	$ 14,148,063
Net Present Value of Costs		$ 575,000	$ 1,705,316
Net Present Value of Improvement		$ 4,521,675	$ 12,442,746
Benefit-Cost (B/C) Ratio		8.86	8.30
Delay B/C		8.94	8.02
Safety B/C		preferred. Benefits are less than base case and cost is greater than base	0.28



Federal Highway Administration (FHWA)

Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	59th Street West Project Development & Study Corridor	Intersection Type	At-Grade Intersections
Intersection:	59th & 11th	Opening Year	2025
Agency:	Manatee County	Design Year	2045
Project Reference:	-	Facility Type	On Urban and Suburban Arterial
City:	Manatee County	Number of Legs	4-leg
State:	FL	1-Way/2-Way	2-way Intersecting 2-way
Date:	8/31/2021	# of Major Street Lanes (both directions)	5 or fewer
Analyst:	KHA	Major Street Approach Speed	Less than 55 mph

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Rank	AADT Within Prediction Range?	Source of Prediction
Traffic Signal	Total	3.15	3.99	74.94	2	Yes	Calibrated SPF
	Fatal & Injury	1.58	2.02	37.79			
Traffic Signal (Alt)	Total	3.16	4.00	75.18	3	Yes	Calibrated SPF
	Fatal & Injury	1.59	2.03	38.02			
2-lane Roundabout	Total	6.88	8.66	163.09	1	Yes	Uncalibrated SPF
	Fatal & Injury	1.20	1.55	28.82			

Federal Highway Administration (FHWA)

Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	59th Project Development& Study Corridor	Intersection Type	At-Grade Intersections
Intersection:	59th & 17th	Opening Year	2025
Agency:	Manatee County	Design Year	2045
Project Reference:	-	Facility Type	On Urban and Suburban Arterial
City:	Manatee County	Number of Legs	4-leg
State:	FL	1-Way/2-Way	2-way Intersecting 2-way
Date:	8/31/2021	# of Major Street Lanes (both directions)	5 or fewer
Analyst:	KHA	Major Street Approach Speed	Less than 55 mph

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Rank	AADT Within Prediction Range?	Source of Prediction
Traffic Signal	Total	3.03	3.80	71.70	2	Yes	Calibrated SPF
	Fatal & Injury	1.42	1.79	33.73			
Traffic Signal (Alt)	Total	3.05	3.82	71.99	3	Yes	Calibrated SPF
	Fatal & Injury	1.44	1.81	34.02			
2-lane Roundabout	Total	7.31	9.08	171.99	1	Yes	Uncalibrated SPF
	Fatal & Injury	1.29	1.64	30.75			

Federal Highway Administration (FHWA)

Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	59th Project Development & Study Corridor	Intersection Type	At-Grade Intersections
Intersection:	59th & 21st	Opening Year	2025
Agency:	Manatee County	Design Year	2045
Project Reference:	-	Facility Type	On Urban and Suburban Arterial
City:	Manatee County	Number of Legs	4-leg
State:	FL	1-Way/2-Way	2-way Intersecting 2-way
Date:	8/31/2021	# of Major Street Lanes (both directions)	5 or fewer
Analyst:	KHA	Major Street Approach Speed	Less than 55 mph

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Rank	AADT Within Prediction Range?	Source of Prediction
Traffic Signal	Total	5.58	7.09	132.87	2	Yes	Calibrated SPF
	Fatal & Injury	1.67	2.13	39.86			
Traffic Signal (Alt)	Total	5.59	7.10	133.08	3	Yes	Calibrated SPF
	Fatal & Injury	1.68	2.14	40.08			
2-lane Roundabout	Total	8.31	10.33	195.60	1	Yes	Uncalibrated SPF
	Fatal & Injury	1.49	1.90	35.55			



Design Traffic Memorandum

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1777 Main Street, Suite 800
Sarasota, FL 34236

Manatee County
FLORIDA

Appendix C –
Natural Resources Assessment Memo



Natural Resources Assessment Memo

59th Street West – Cortez Rd to Manatee Avenue

CIP #: 6108360

FINAL October 14, 2021

Manatee County FLORIDA

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Introduction

Manatee County is conducting a Project Development & Corridor Study to evaluate a 2.3-mile segment of 59th Street West (59th Street) from Cortez Road/State Road (SR) 684 to Manatee Avenue/SR 64. The project limits are partially within the City of Bradenton and unincorporated Manatee County, Florida, as shown in **Figure 1**. The study will evaluate options for widening the existing 2-lane roadway to a 4-lane roadway with a center left turn lane and/or median in addition to providing an enhanced mobility experience for all users.

For the purpose of this memorandum, the study area is considered the 2.3-mile segment of 59th Street and an additional 250-foot buffer from the roadway centerline totaling approximately 643 acres. The study area is located in Sections 29 and 32 of Township 34 South and Range 17 East and Section 5 of Township 35 South and Range 17 East. A portion of the U.S. Geological Service (USGS) 7.5-Minute Bradenton, Florida quadrangle map depicting the location of the study area is attached as **Figure 2**.

Figure 1: Project Location Map

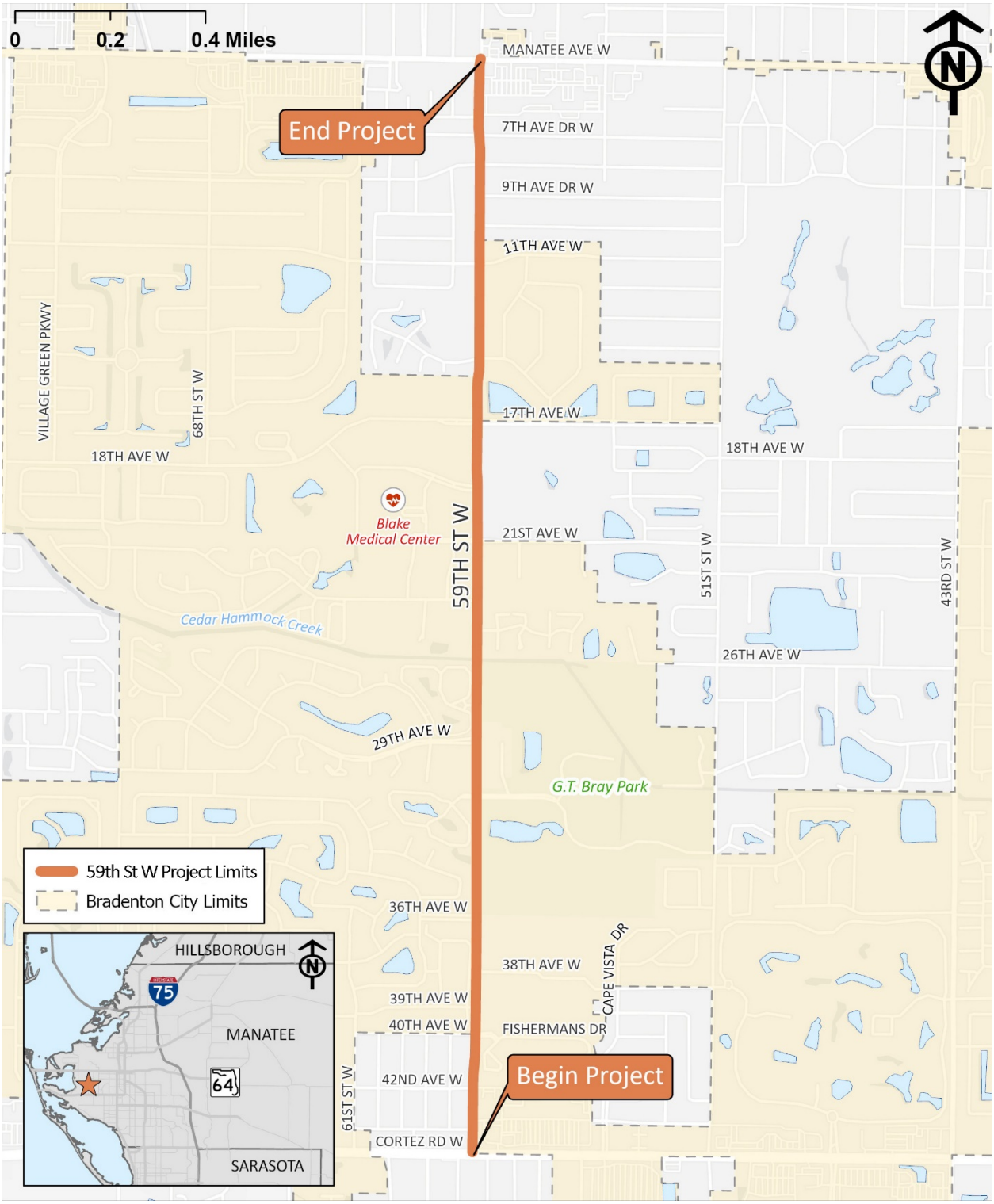
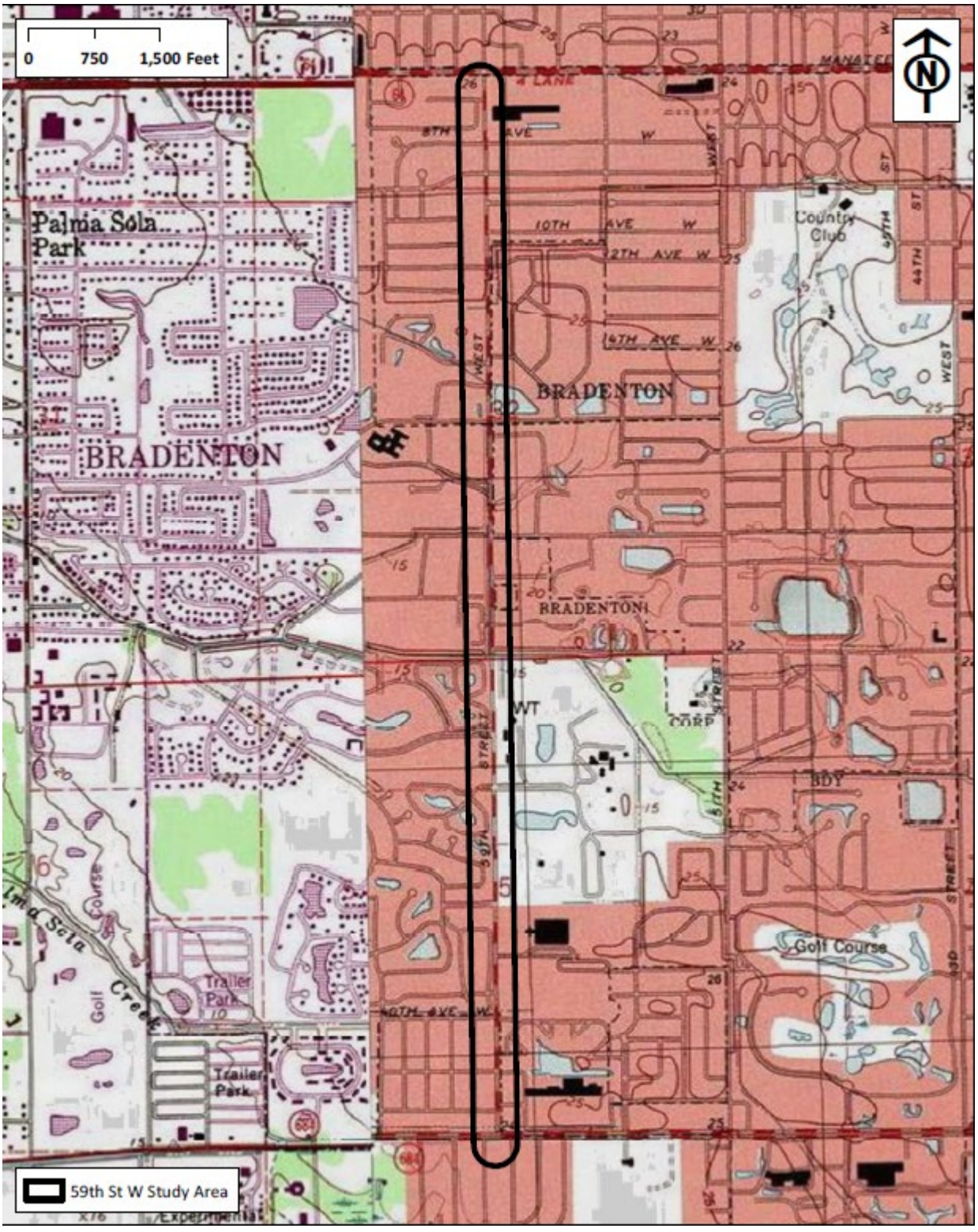


Figure 2: USGS Quad Map



Methodology

To determine the approximate locations and boundaries of existing upland and wetland communities and protected species within the study area, available site-specific data was collected and reviewed. The information reviewed included:

- *Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (http://www.fnai.org/biointro.cfm)*
- *Various Geographic Information System (GIS) data layers from the U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), Florida Fish and Wildlife Conservation Commission (FWC) (http://legacy.myfwc.com/bba/data/default.asp)*
- *USFWS IPaC data [(https://ecos.fws.gov/ipac/)]*
- *U.S. Department of Agriculture (USDA) / Natural Resources Conservation Service (NRCS) Soil Survey of Manatee County, Florida (Web Soil Survey) (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx)*
- *USFWS National Wetlands Inventory (NWI) Maps (Web-based maps available from http://www.fws.gov/wetlands/Data/mapper.html)*
- *USGS Quadrangle Maps, Land Boundary Information System (LABINS; http://www.labins.org)*
- *Audubon Florida EagleWatch Nest Map (Web-based maps available from https://www.arcgis.com/apps/SimpleViewer/index.html?appid=75ea06f653f847658c908634ffc6f640)*
- *Florida Water Permitting Portal, Southwest Florida Water Management District (SWFWMD) E-Permitting (http://flwaterpermits.org and https://www.swfwmd.state.fl.us/business/epermitting)*
- *Florida Department of Environmental Protection (FDEP) MapDirect GIS (https://ca.dep.state.fl.us/mapdirect/)*
- *Chapter 62-340, Florida Administrative Code (FAC) and the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual*
- *State Historic Preservation Officer (SHPO), Florida Master Site File (FMSF) (http://www.flheritage.com)*
- *Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Maps (FIRM; Web-based maps available from http://msc.fema.gov/)*
- *University of Florida Digital Collections. Aerial Photography: Florida Collection (https://ufdc.ufl.edu/aerials/map)*

Historic Review

A review of historic aerials of the study area is included as a part of this investigation. Historic aerials from 1940 show the study area as primarily upland pasture. 59th Street and Cortez Road are visible as dirt roads and Manatee Avenue is visible as a paved 2-lane roadway. In the 1951 historic aerials, 59th Street remains a dirt road; however, it has been widened. The 1957 historic aerials show the north end of the study area as transitioning to residential development. Manatee Avenue has been widened to four lanes with turn lanes and medians. The majority of the study area remains as agriculture or

pasture. Beginning in the 1970s, the general study vicinity transitions to residential and/or commercial development. The 1984 historic aerials show the study area as primarily being developed and no pasture remains in the study area. A drainage canal has been constructed between 21st Avenue West and 29th Avenue West. With exception to small use changes, the study area appears to have remained unchanged from 1984 to present.

Soils

The USDA / NRCS Soil Survey of Manatee County, Florida, maps the following soil within the study area: (6) Broward variant fine sand, (7) Canova, Anclote, and Okeelanta soils, (11) Cassia fine sand, 0 to 2 percent slopes, (13) Chobee loamy fine sand, frequently ponded, 0 to 1 percent slopes, (16) Delray complex, (20) Eaugallie fine sand, 0 to 2 percent slopes, (22) Felda fine sand, 0 to 2 percent slopes, (26) Floridana-Immokalee-Okeelanta association, (28) Hallandale fine sand, wet, 0 to 2 percent slopes, (38) Palmetto sand, (42) Pomello fine sand, 0 to 2 percent slopes, and (48) Wabasso fine sand. **Figure 3** and **Figure 4** show the mapped soils within the study area and **Table 1** provides details of each soil type.

Figure 3: NRCS Soils Map (Begin Project to Pointe West Blvd W)

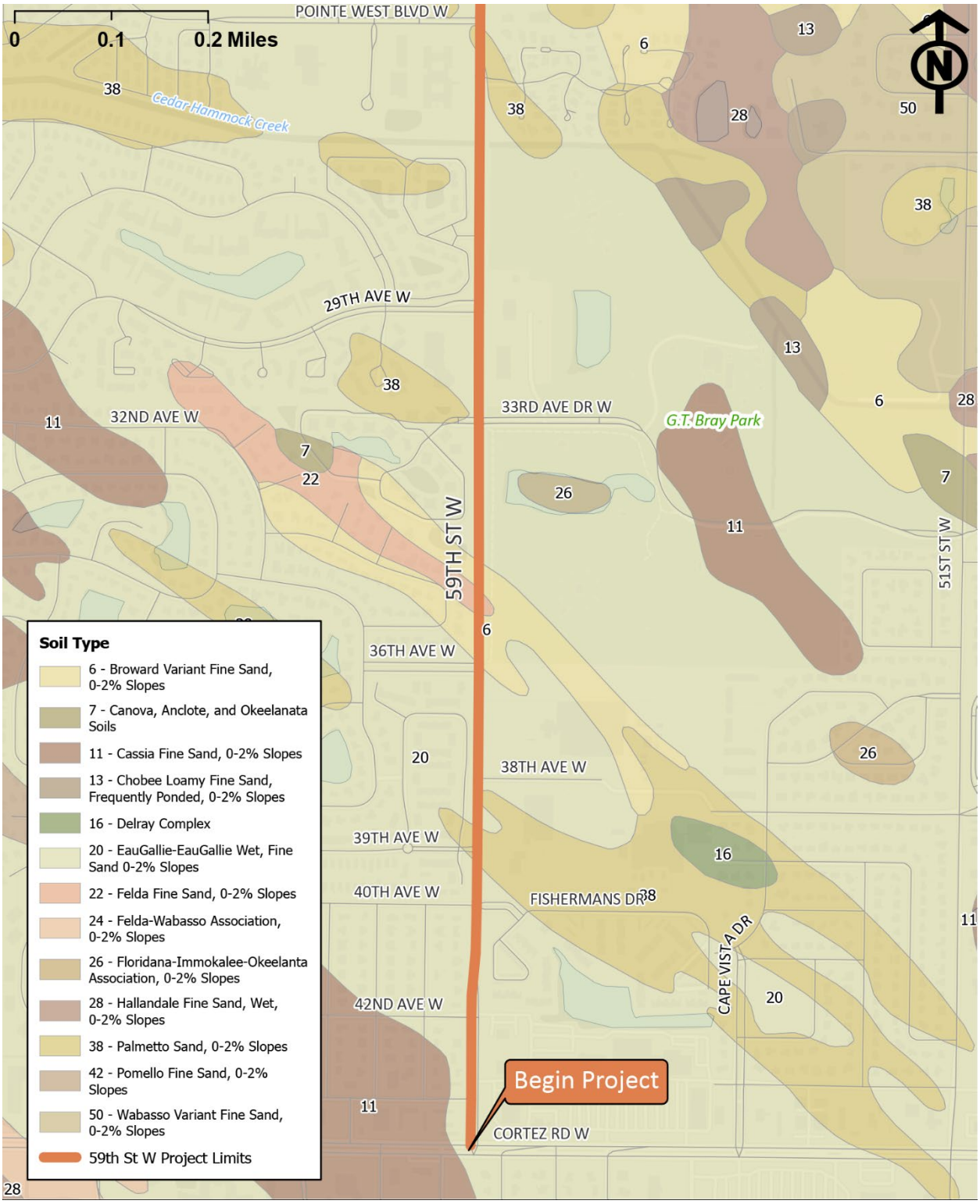


Figure 4: NRCS Soils Map (Pointe West Blvd W to Manatee Ave W)

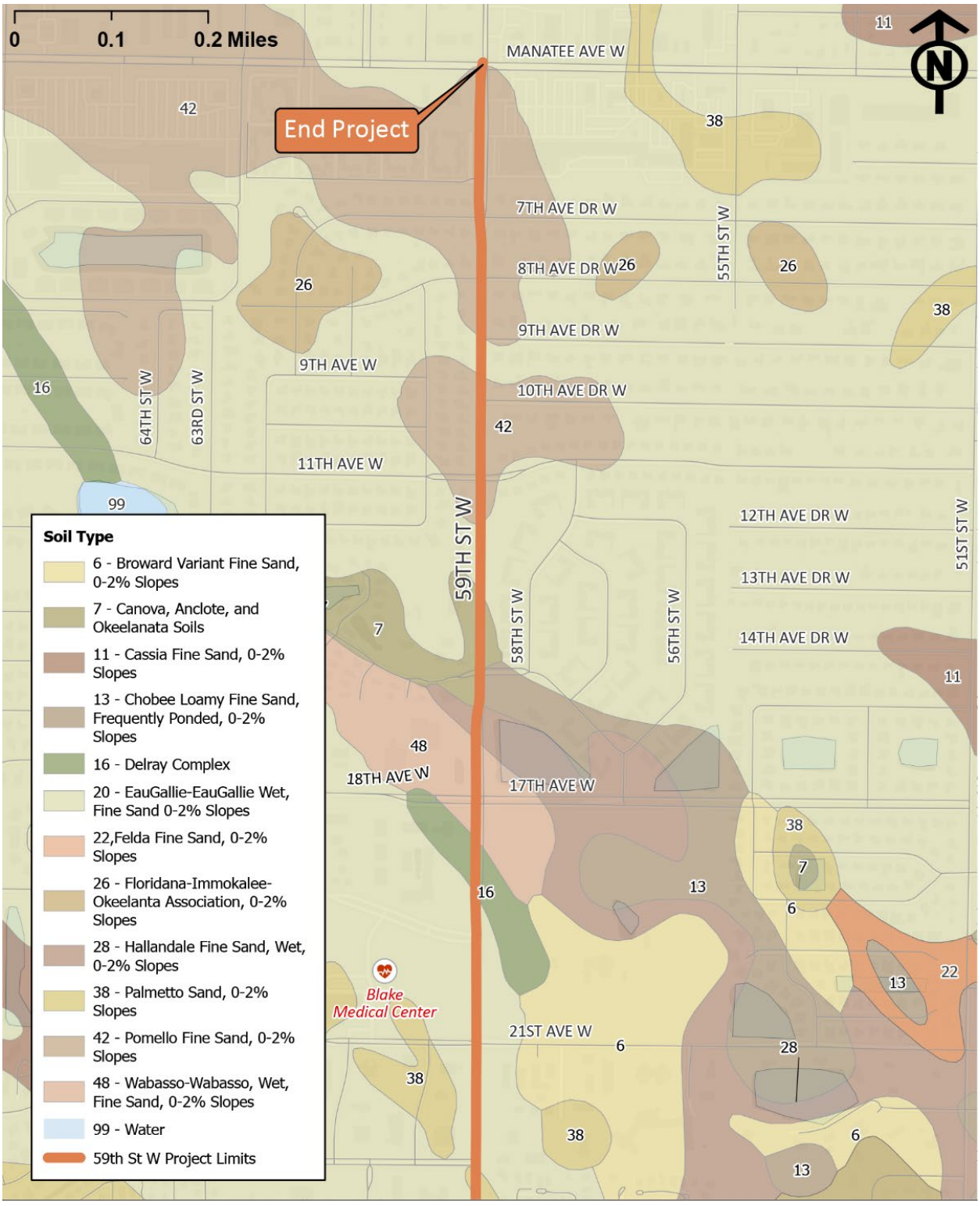


Table 1: NRCS Soils Within the Study Area

Soil ID No.[1]	Soil Name	Occurrence	Characteristics	Drainage Class	Groundwater Depth	Hydric, Hydric Inclusions, or Non-Hydric[2]
6	Broward variant fine sand	Flatwoods on marine terraces, rises on marine terraces, flats on marine terraces	Rapid permeability	Somewhat poorly drained	About 0 to 12 inches	Hydric Inclusions
7	Canova, Anclote, and Okeelanta soils	Depressions on marine terraces				
11	and drainageways on marine terraces	Rapid permeability and internal drainage	Very poorly drained	About 0 inches	Hydric	
13	Cassia fine sand, 0 to 2 percent slopes	Low ridges and knolls on scrubby flatwoods	Rapid permeability in the A and E horizons and moderate to moderately rapid permeability in the Bh horizon	Somewhat poorly drained	About 18 to 42 inches	Non-Hydric
16	Chobee loamy fine sand, frequently ponded, 0 to 1 percent slopes	Flatwoods in depressions, drainageways, low broad flats, and flood plains on marine terraces	Slow to very slow permeability	Very poorly drained	About 0 to 12 inches	Hydric
20	Delray complex	Broad flats, flood plains, and depressions	Moderately permeable	Very poorly drained	About 0 to 12 inches	Hydric
22	Eaugallie fine sand, 0 to 2 percent slopes	Flats, sloughs and depressional areas	Slow permeability	Very poorly or poorly drained	About 6 to 40 inches	Non-hydric
26	Felda fine sand, 0 to 2 percent slopes	Flatwoods, low broad flats, drainageways, sloughs, depressions, and flood plains	Rapid permeability in the A and E horizons and very slow or slow permeability in the Btg horizon	Very poorly and poorly drained	About 0 to 24 inches	Hydric
28	Floridana-Immokalee-Okeelanta association	Low broad flats, flood plains, and in depressional areas	Very slow permeability	Very poorly drained	About 0 to 10 inches	Hydric
38	Hallandale fine sand, wet, 0 to 2 percent slopes	Low broad flats, sloughs, flatwoods, and in depressions on marine terraces	Rapid permeability	Very poorly to poorly drained	About 0 to 20 inches	Hydric
42	Palmetto sand	Sloughs, depressions, and poorly defined drainageways in the flatwoods	Moderately slow permeability	Poorly drained	About 0 to 10 inches	Hydric
48	Pomello fine sand, 0 to 2 percent slopes	Ridges, hills, and knolls in the flatwoods on marine terraces	Moderately rapid permeability throughout	Moderately well to somewhat poorly drained	18 to 48 inches	Non-Hydric

1: Reference: Soil Survey of Manatee County (Web Soil Survey) - http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
2: Reference: Hydric Soils of Florida Handbook, 4th Edition, March 2007

Land Cover and Natural Communities

Field reconnaissance was conducted on July 21, 2021 and vegetative communities within the proposed study area were identified through pedestrian transects and aerial photograph interpretation. Vegetative communities were classified using the Florida Land Use, Cover, and Forms Classification System (FLUCFCS, Florida Department of Transportation, 1999). A FLUCFCS map of the study area is attached as **Figure 5** and **Figure 6**.

Upland Land Cover Types

A description of the upland land cover types included below characterizes the dominant vegetation observed along random pedestrian transects and does not represent an all-inclusive vegetative inventory. The acreage provided for each land cover is approximate based on aerial mapping.

FLUCFCS 120 – Residential Medium Density (2 to 5 Dwelling Units per Acre) (+/- 10.92 Acres)
This classification comprises the majority of residential development within the study area. Approximately three to four houses per acre exists in these single-family home neighborhoods. No remaining natural habitat exists in these areas.

FLUCFCS 130 – Residential High Density (6 or more Dwelling Units per Acre) (+/- 28.01 Acres)
This classification represents all of the condominiums, apartments, or multi-family development within the study area. No remaining natural habitat exists in these areas.

FLUCFCS 140 – Commercial and Services (+/- 17.60 Acres)
This classification comprises the gas stations, shopping centers, grocery stores, etc. within the study area. These areas consist of commercial buildings and associated infrastructure such as parking lots and utilities. No remaining natural habitat exists in these areas.

FLUCFCS 143 – Professional Services (+/- 16.43 Acres)
This classification comprises the professional services, such as law offices, consulting firms, medical offices, and dental offices within the study area. These areas consist of commercial buildings and associated infrastructure such as parking lots and utilities. No remaining natural habitat exists in these areas.

FLUCFCS 170s – Institutional Facilities (+/- 13.78 Acres)
This classification comprises the institutional facilities within the study area. This consists of Educational Facilities (schools) (FLUCFCS 171), Religious Facilities (churches) (FLUCFCS 172), Medical and Healthcare Facilities (hospital) (FLUCFCS 174), and Governmental Facilities (government buildings, police, fire, etc.) (FLUCFCS 175) and the associated infrastructure such as parking lots and utilities. No remaining natural habitat exists in these areas.

FLUCFCS 185 – Parks and Zoos (+/- 10.32 Acres)
This classification comprises the Manatee County Activity Center baseball fields located on the east side of 59th Street. Bahiagrass (*Paspalum notatum*), planted laurel oaks (*Quercus laurifolia*), and

planted live oaks (*Quercus virginiana*) are located within this portion of the study area. No remaining natural habitat exists in this area.

FLUCFCS 253 – Kennels (+/- 6.64 Acres)

This classification comprises the Bishop Animal Shelter located at the southeast corner of 59th Street and 17th Avenue. The majority of this area remains cleared pasture consisting of bahiagrass, cabbage palms (Sabal palmetto), laurel oaks, and live oaks.

FLUCFCS 422 – Brazilian Pepper (+/- 0.94 Acres)

This classification consists of one stand of Brazilian pepper (*Schinus terebinthifolia*) located at the northeast corner of 59th Street and 17th Avenue along the banks of a stormwater pond. Small amounts of Carolina willow (*Salix caroliniana*) and wax myrtle (*Morella cerifera*) were also observed.

FLUCFCS 810 – Transportation (+/- 16.99 Acres)

This classification consists of paved roadway, turn lanes, and medians within the study area. Roadside ditches were also located throughout this portion of the study area.

FLUCFCS 830 – Utilities (+/- 0.68 Acres)

This classification consists of the Manatee County water tower located at the southwest corner of Cortez Road and 59th Street.

Wetland/Surface Water Land Cover Types

The presence of wetlands was evaluated based on the Florida unified wetland delineation methodologies in accordance with Chapter 62-340, Florida Administrative Code (FAC) and the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual. These methods consider prevalence of wetland vegetation, hydric soil indicators, and wetland hydrology. Surface waters include both natural and manmade bodies of water, such as streams, lakes, ponds, canals, and ditches. One drainage canal which flows east to west through the study area near Pointe West Boulevard West (FLUCFCS 510) would be considered wetland due to the presence of wetland vegetation and hydrologic indicators such as flow lines and flowing water. Two surface waters which appear to be flood compensation ponds exist within the study area.

FLUCFCS 510 – Streams and Waterways (+/- 0.26 Acres)

This classification comprises a drainage canal which runs east to west through the study area approximately 600 feet south of Pointe West Boulevard West. During the July 2021 visit, flowing water was observed in the canal. Vegetation within the flow way consisted of chain fern (*Woodwardia virginica*), cinnamon fern (*Osmunda cinnamomea*), smartweed (*Polygonum hydropiperoides*), and Peruvian primrose-willow (*Ludwigia peruviana*). Vegetation observed along the banks of the waterway consisted of cabbage palm, live oak, Chinese tallow (*Triadica sebifera*), beggarticks (*Bidens alba*), air potato (*Dioscorea bulbifera*) and ragweed (*Ambrosia* spp.). Based on the current design, no impacts are proposed to this system.

FLUCFCS 530 – Reservoirs (+/- 1.40 Acres)

This classification comprises two stormwater ponds. One is located within the Manatee County Activity Center property and the other is located at the northeast corner of 59th Street and 17th Avenue. Vegetation noted within the pond located at the activity center included Peruvian primrose-willow, Brazilian pepper, and cattail (*Typha* sp.). Vegetation noted within the pond at the northeast corner of 59th Street and 17th Avenue consisted of pennywort (*Hydrocotyle ranunculoides*), torpedograss (*Panicum repens*), Peruvian primrose-willow, and Carolina willow. Based on the current design, no impacts are proposed to these systems.

Figure 5: FLUCFCS Map (Begin Project to Pointe West Blvd W)

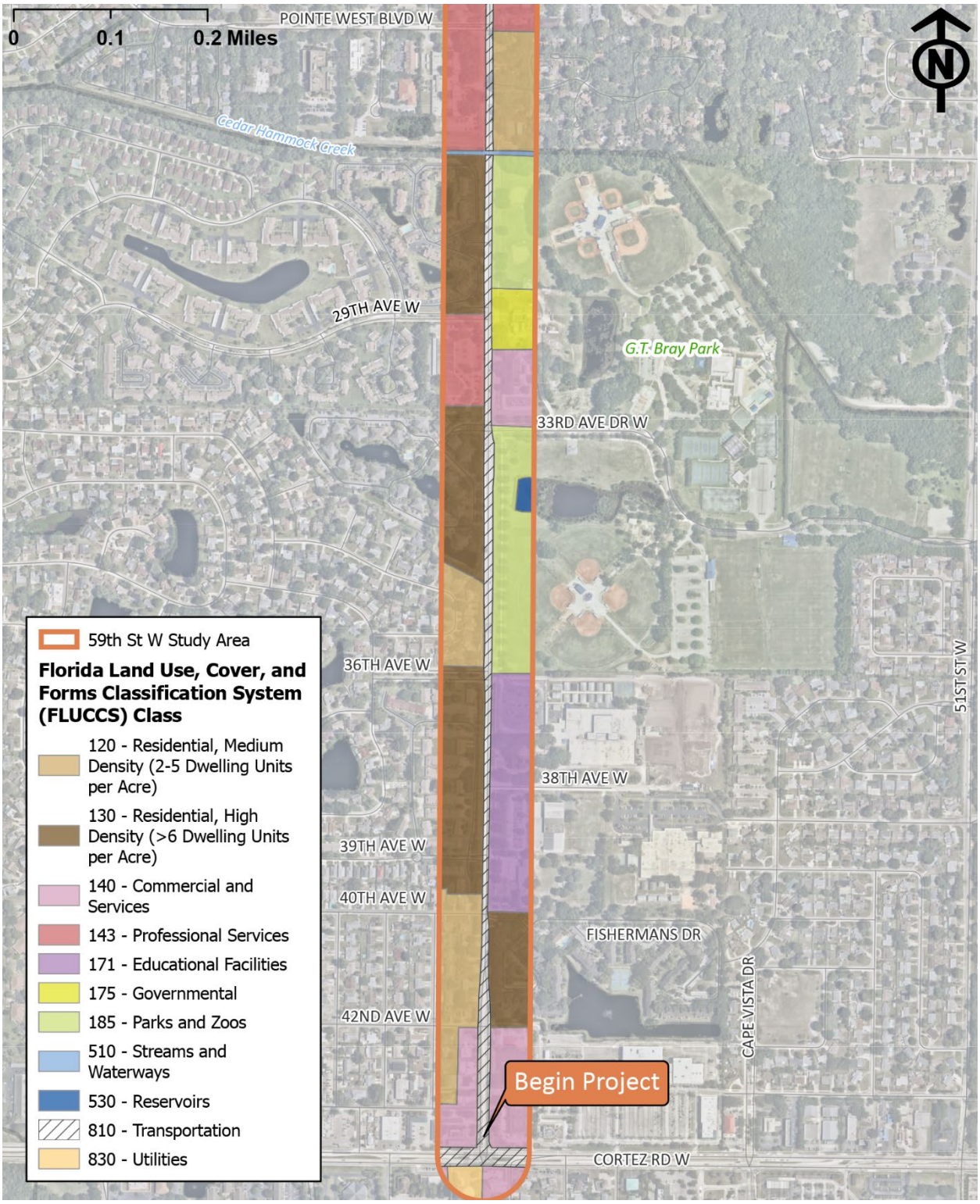
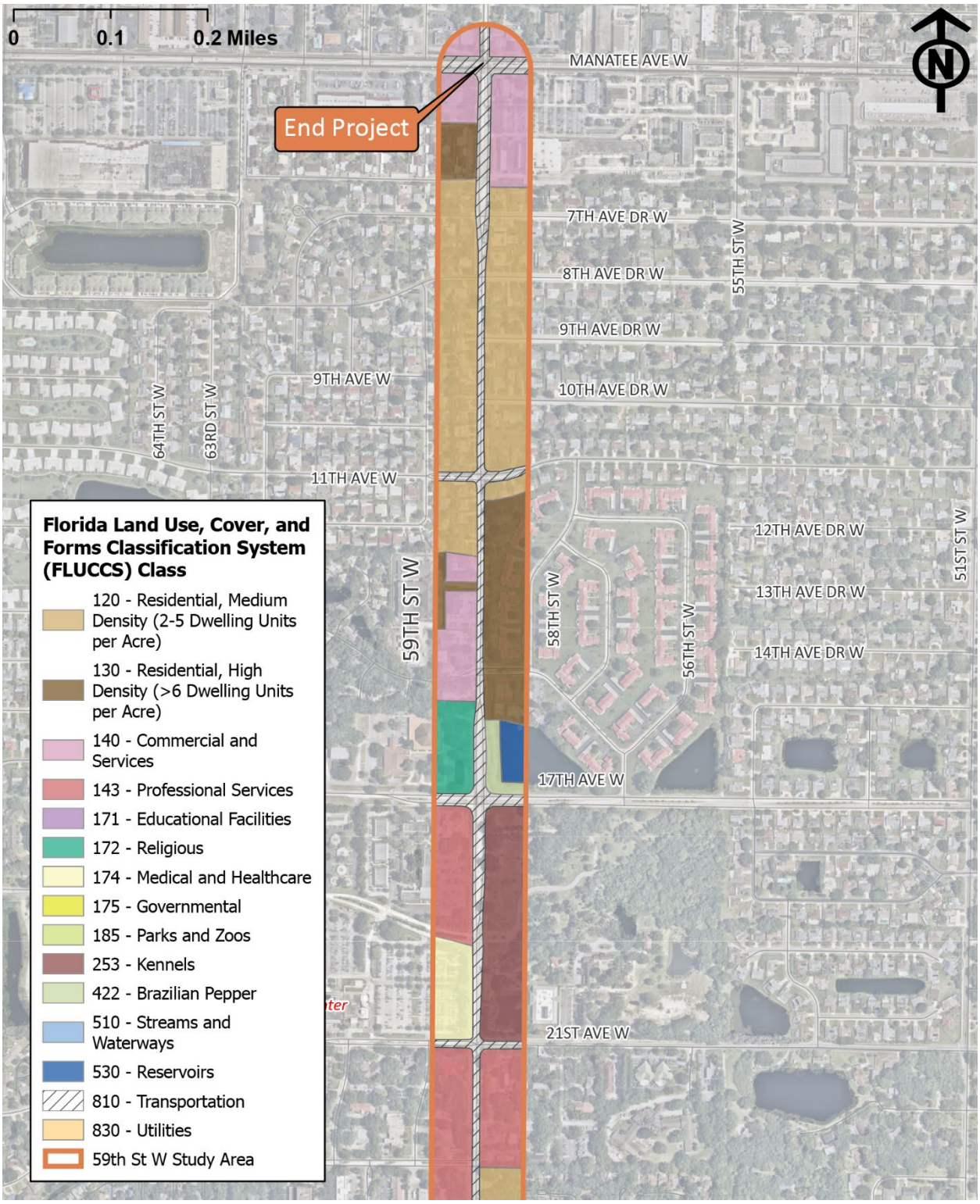


Figure 6: FLUCFCS Map (Pointe West Blvd W to End Project)



Threatened and Endangered Species

In order to determine federal and state listed protected plant and animal species that have potential to occur within the study area, available site-specific data was collected and evaluated by a Kimley-Horn environmental scientist. In addition, a field review of the study area was conducted on July 21, 2021 to assess the potential for occurrence of protected species and to identify any critical habitat that might be located within or adjacent to the study area.

During this survey, the study area was reviewed for direct observations of listed species or signs of their presence including trails, tracks, scats, nests (cavity or stick), burrows, or calls. No listed species or signs of listed species were observed during the survey. Mourning dove (*Zenaida macroura*) was the only wildlife observed during the survey.

The FWC wading bird rookery database was searched for active wading bird rookeries within one (1) mile of the study area. According to this FWC database, there are no active wading bird rookeries within one (1) mile of the study area.

The FWC Wildlife Observations database and Florida Natural Area Inventory (FNAI) Biodiversity Matrix Map server were reviewed for documented occurrences of listed species within one (1) mile of the study area. Two (2) bald eagles' nests have been documented within the study area; no other documented wildlife observations were noted from the database.

The study area lies within the USFWS consultation area for piping plover (*Charadrius melodus*) and Florida scrub-jay (*Aphelocoma coerulescens*). However, habitat for the piping plover and scrub-jay does not exist within the study area.

Listed Species with the Potential to Occur Within the Study Area

Based on field reconnaissance and database reviews, a listing of the state and federally listed species potentially occurring within the immediate vicinity of the study area has been compiled. **Table 2** lists species that may occur and their likelihood of occurrence. Likelihood of occurrence is based on actual observation of the species, signs of the species (burrows, tracks, scat, etc.), observance of suitable habitat, or documented occurrences of the species within various databases. A Low ranking indicates that preferred habitat for that species was found within the study area, but the species has not been documented within one (1) mile of the study area. A Moderate ranking indicates that suitable habitat exists, and the species has been documented within one (1) mile of the study area. A High ranking indicates that suitable habitat exists, and the species was observed during field reconnaissance.

Table 2: Listed Species with the Potential to Occur Within the Study Area

Common Name	Scientific Name	Status	Documented (<1 mile)	Habitat Present	Likelihood of Occurrence
Avian					
Wood stork	*Mycteria americana*	FT	No	Yes; foraging	Low
Bald eagle	*Haliaeetus leucocephalus*	NL*	Yes	Yes; foraging	Low
Little blue heron	*Egretta caerulea*	ST	No	Yes; foraging	Low
Roseate spoonbill	*Platalea ajaja*	ST	No	Yes; foraging	Low
Tricolored heron	*Egretta tricolor*	ST	No	Yes; foraging	Low
Reptilian					
Eastern indigo snake	*Drymarchon corais couperi*	FT	No	Yes, foraging and nesting	Low
Gopher tortoise	*Gopherus polyphemus*	C	No	Yes; foraging and burrowing	Low

Legend:
FE - Federally Endangered; FT - Federally Threatened; FT(S/A) – Threatened due to Similarity of Appearance; C - Candidate for Listing
SE - State Endangered; ST - State Threatened
NL - Not Listed, but have other regulatory protections
* The Bald eagle is still protected under the Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act and FWC Management Plan regulations.
Note: Coordination is not required with FWC for federally listed species
Species in **bold** were observed on-site during field reconnaissance

All habitat types within the study area were evaluated to determine the presence or potential for occurrence of federal and/or state protected species. No signs or evidence of protected species were observed within the study area. While the proposed project has taken all practicable measures to avoid and minimize impacts to potentially occurring protected species habitats, unavoidable impacts may occur as a result of construction. A determination of the anticipated project "effect" on protected species was made based on their probability of occurrence within the study area, anticipated changes to their habitat quality, quantity and availability as a result of project construction, and how each species is expected to respond to anticipated habitat changes. Listed below are the "effect" determinations for each species.

Wood stork (*Mycteria americana*)

This large, white, wading bird is listed as *threatened* by the USFWS. The wood stork is opportunistic and utilizes various habitat types, including freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures, and ditches. Water that is relatively calm, uncluttered by dense aquatic vegetation, and with a permanent or seasonal water depth between 2 and 15 inches deep is considered suitable foraging habitat for this species. Suitable foraging habitat is present within the study area for this species. The USFWS wood stork colony website was reviewed for active wood stork colonies located within 15 miles of the study area. This 15-mile distance corresponds to the core foraging area (CFA) established by the USFWS for the wood stork in the region. According to the USFWS wood stork colony website, the study area is located within the 15-mile CFA of the Ayers Point – Dot Dash wood stork nesting colony; however, there have been no documented sightings of the wood stork within

one (1) mile of the study area, and it was not observed during the field review. As a result, the probability of occurrence of the wood stork within the study area has been determined to be *low.* Wetland impacts resulting from construction of this project will be minimal and under the threshold for required mitigation. Based on the assessment of the project utilizing the Effect Determination Key for the Wood Stork in South Florida (USFWS 2008), it is anticipated that the project will "not likely to adversely affect" the wood stork. The path to this determination followed the key steps A →B→C→NLAA.

Eastern indigo snake (*Drymarchon corais couperi*)

This large, glossy black snake is listed as *threatened* by the USFWS. The eastern indigo snake can be found in a variety of habitat types, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, as well as human-altered habitats. It may also utilize gopher tortoise burrows for shelter to escape hot or cold ambient temperatures within its range. Suitable habitat is present within the study area for this species; however, there have been no documented sightings of the eastern indigo snake within one (1) mile of the study area, and it was not observed during field reviews. As a result, the probability of occurrence of the eastern indigo snake within the study area has been determined to be *low.* However, it is possible that this species could utilize suitable habitat within the study area. Because there is suitable habitat for this species to occur, Standard Protection Measures for the Eastern Indigo Snake (USFWS, 2017) will be utilized during site preparation and construction of the project. Based upon assessment of the project utilizing the Eastern Indigo Snake Programmatic Effect Determination Key (USFWS 2013), it is anticipated that the project is "not likely to adversely affect" the eastern indigo snake. The path to this determination followed the key steps A →B→C→ D→ E→NLAA.

Gopher tortoise (*Gopherus polyphemus*)

This medium-sized land tortoise is listed as *threatened* by the FWC. The gopher tortoise prefers areas of well-drained loose soils that support adequate low-growing herbs and grasses for food. Gopher tortoises are most often found in xeric oak, sandhills, dry pine flatwoods, scrub habitats as well as old fields, pastures and roadsides. Gopher tortoise burrows also provide refuge and home to numerous species (burrow commensals), including listed species, which are either partially or wholly reliant upon the burrow. Suitable habitat is present within the study area for this species; however, there have been no documented sightings of the gopher tortoise within one (1) mile of the study area, and it was not observed during field reviews. As a result, the probability of occurrence for the gopher tortoise within the study area has been determined to be *low.* Avoidance or relocation of gopher tortoises and their commensal species in accordance with FWC regulations will be conducted if a burrow is located within 25 ft of the limits of work. Due to the limited amount of suitable habitat and lack of occurrences during field reviews, and the commitment to avoid/relocate any gopher tortoises that may be impacted by the project, it has been determined that "no adverse effect is anticipated" for the gopher tortoise as a result of the project.

Little blue heron (*Egretta caerulea*)

The little blue heron is a medium-sized, slate-blue, wading bird listed as *threatened* by the FWC. The little blue heron forages in shallow marine, brackish, or freshwater areas, including tidal ponds, sloughs, marshes, and human-created impoundments. It nests in colonies in woody shrubs that are separated from land by open water. Suitable habitat is present within the study area for this species; however, there have been no documented sightings of the little blue heron within one (1) mile of the study area, and it was not observed during field reviews. As a result, the probability of occurrence of the little blue heron within the study area has been determined to be *low.*

Roseate spoonbill (*Platalea ajaia*)

The roseate spoonbill is a bright pink bird with a spoon-like bill. This bird is listed as *threatened* by the FWC. Habitats such as freshwater mudflats and marshes, saltwater marshes, coastal flats, mangrove swamps, lagoons, wet prairies, and ditches are preferred by the roseate spoonbill for feeding. Suitable habitat is present within the study area for this species; however, there have been no documented sightings of the roseate spoonbill within one (1) mile of the study area, and it was not observed during field reviews. As a result, the probability of occurrence of the roseate spoonbill within the study area has been determined to be *low.*

Tricolored heron (*Egretta tricolor*)

The tricolored heron is a medium-sized, two-toned, wading bird listed as *threatened* by the FWC. The tricolored heron prefers both fresh- and saltwater habitats such as fresh- and saltwater marshes and mudflats, brackish marshes, coastal beaches, mangrove swamps, hardwood and cypress swamps, and wet prairies. Suitable habitat is present within the study area for this species; however, there have been no documented sightings of the tricolored heron within one (1) mile of the study area, and it was not observed during field reviews. As a result, the probability of occurrence of the tricolored heron within the study area has been determined to be *low.* It is reasonable to expect that these species could utilize suitable habitat within the study area.

The primary concern for impacts to these wading bird species is the loss of foraging habitat. Wetland impacts resulting from construction of this project will be minimal and under the threshold for required mitigation. It has been determined that "no adverse effect" is anticipated for the little blue heron, roseate spoonbill, or tricolored heron as a result of the project.

Bald eagle (*Haliaeetus leucocephalus*)

The bald eagle is a large raptor with a distinctive white head and yellow bill. The bald eagle has been de-listed by both the USFWS and FWC. However, it is still federally protected under the Bald and Golden Eagle Protection Act (BGEPA) in accordance with 16 United States Code 668 and the Migratory Bird Treaty Act of 1918. The bald eagle tends to utilize riparian habitat associated with coastal areas, lake shorelines, and riverbanks. Nests are generally located near water bodies that provide a dependable food source. The Audubon Florida Eagle Watch nest locator website was reviewed for bald eagle nests within one (1) mile of the study area. According to the database, there are two (2) bald eagle nests located within one (1) mile of the study area (MN050 and MN050a). According to

Audubon, nest MN050 was active during the 2021 season and nest MN050a was inactive during the 2021 season. Both nests were observed during the July 2021 visit; however, no activity was observed. The nests are located approximately 0.25 and 0.29 miles from the study area, respectively. As a result, the probability of occurrence of the bald eagle within the study area has been determined to be *low.* If any active nests are located within 660 ft of the project limits, coordination with the USFWS will be initiated. Based on this commitment, it has been determined that the project "may affect, not likely to adversely affect" the bald eagle.

Critical Habitat

The study area was also evaluated for the presence of Critical Habitat as defined by the Endangered Species Act of 1973, as amended and 50 CFR part 424. The USFWS is the authority, as a federal agency, to protect from destruction or adverse modification the biological or physical constituent elements essential to the conservation of listed species. Critical Habitat is defined as the specific areas within the geographical area occupied by a species on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection. No Critical Habitat or Proposed Critical Habitat for any federally listed species was identified within the study area.

Permitting Requirements and Coordination

Both the FDEP and SWFWMD regulate impacts to wetlands within the project area. Other agencies, including the USFWS, NMFS, EPA, and FWC, review and comment on wetland permit applications. The FWC also issues permit for gopher tortoise relocation activities and incidental takes for state protected avian species, and the USFWS is the lead agency for eagle nest take permitting or coordination. In addition, the FDEP regulates stormwater discharges from construction sites. The complexity of the permitting process will depend on the degree of the impact to jurisdictional areas. It is anticipated that the following permits will be required for this project:

Permit	**Issuing Agency**
Environmental Resource Permit (ERP)	SWFWMD
Section 404 State Assumption	FDEP
National Pollutant Discharge Elimination System (NPDES)	FDEP
Gopher Tortoise Relocation Permit, if needed	FWC

SWFWMD Environmental Resource Permit

SWFWMD requires an ERP when construction of any project results in the creation of a new or modification of an existing surface water management system or results in impacts to waters of the state. As with FDEP permits, the complexity associated with the ERP permitting process will depend on the size of the project and/or the extent of wetland impacts. Under current state rules, the SWFWMD will likely require a standard or individual permit for this project.

FDEP State 404 Program

In 2018, FDEP was given the authority to begin the rulemaking process to assume the federal dredge and fill permitting program under section 404 of the Clean Water Act within state-assumed waters. This process was completed in July 2020 and created the State 404 Program within Chapter 62-330 and 62-331, F.A.C. to facilitate this assumption. This State 404 Program is responsible for overseeing permitting for any project proposing dredge or fill activities within state-assumed waters. The State 404 Program is a separate program from the existing SWFWMD ERP program, and projects within the state-assumed waters require both an ERP and a State 404 Program authorization. The wetlands and surface waters associated with this project would fall under the state-assumed waters definition and therefore would require a permit through this program.

NPDES

40 CFR Part 122 prohibits point source discharges of stormwater to waters of the U.S. without a NPDES permit. Under the State of Florida's delegated authority to administer the NPDES program, construction sites that will result in greater than one acre of disturbance must file for and obtain either coverage under an appropriate generic permit contained in Chapter 62-621, F.A.C., or an individual permit issued pursuant to Chapter 62-620, F.A.C. A major component of the NPDES permit is the development of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP identifies potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the site and discusses good engineering practices (i.e., best management practices) that will be used to reduce the pollutants.

FWC Gopher Tortoise Relocation Program

At the time of the site reviews, no gopher tortoise burrows were observed within or adjacent to the project limits. However, if gopher tortoises or burrows are found within the project area, Manatee County will coordinate with the FWC to secure all permits needed to relocate the tortoises and associated commensal species prior to construction. FWC requires the excavation and relocation of any gopher tortoise burrows and individuals within the project limits prior to construction. Permits to excavate and relocate tortoises are issued through FWC and would be completed as either a 10 or Fewer Burrows permit or a Conservation permit.

Mitigation

In 2008, the USACE and the EPA issued regulations governing compensatory mitigation for activities authorized by the Department of the Army (Federal Register, 2008). These regulations, as promulgated in 33 Code of Federal Regulations (CFR) Part 332, establish a hierarchy for determining the type and location of compensatory mitigation. To briefly summarize, the rule establishes a preference for the use of mitigation bank credits if a mitigation bank has the appropriate number and resource type of credits available. If the permitted impacts are not in the service area of an approved mitigation bank, or if the appropriate number and resource type of credits are otherwise unavailable, then the rule establishes a preference for in-lieu fee program credits. If an approved mitigation bank or in-lieu fee program cannot be used to provide the required compensatory mitigation, the rule establishes a preference for permittee responsible mitigation conducted under a watershed approach.

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. §1344. Compensatory mitigation for this project will be completed through the use of mitigation banks and any other mitigation options that satisfy state and federal requirements.

Presently, the study area is located within the service areas of the Long Bar Pointe and Manatee Mitigation Banks. These banks have freshwater herbaceous and forested credits available and are within the South Coastal and Manatee River Drainage Basins. They service Charlotte, Hillsborough, Manatee, and Sarasota Counties. Should the purchase of credits from the Long Bar Pointe or Manatee Mitigation Banks be pursued as a mitigation option for this project, this option would be available to offset all direct impacts for the project.

Implementation Measures

Based on the field and literature reviews outlined in this report, federal- or state-listed protected species have the potential to occur within the project study area. To assure that the proposed project will not adversely impacts these species, Manatee County will adhere to the following:

- Manatee County will perform updated wildlife surveys for the species discussed in this report, and other wildlife species, during the project Design phase to ascertain the involvement, if any, of listed species.
- If gopher tortoises or burrows are found within the project area, Manatee County will coordinate with the FWC to secure all permits needed to relocate the tortoises and associated commensal species prior to construction.
- If a bald eagle nest is observed within 660 feet of the project area, Manatee County will coordinate with the USFWS to secure necessary approvals prior to constructing the project



Natural Resources Assessment Memo

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Manatee County
FLORIDA

Appendix D –
Cultural Resources Memo



Cultural Resources Memo

59th Street West – Cortez Rd to Manatee Ave

CIP #: 6108360

FINAL October 14, 2021

Manatee County FLORIDA

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ATTACHMENTS

Attachment A - Structures in the APE Build In or Before 1981

Introduction

Manatee County is conducting a Project Development & Corridor Study to evaluate a 2.3-mile segment of 59th Street West (59th Street) from Cortez Road/State Road (SR) 684 to Manatee Avenue/SR 64. The project limits are partially within the City of Bradenton and unincorporated Manatee County, Florida, as shown in **Figure 1**. The study will evaluate options for widening the existing 2-lane roadway to a 4-lane roadway with a center left turn lane and/or median in addition to providing an enhanced mobility experience for all users.

Memorandum Purpose

The purpose of this Cultural Resource Assessment Memorandum (CRAM) is to evaluate and summarize the cultural resources within the 59th Street study corridor's Area of Potential Effects (APE) and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). As defined in Section 1.1 of the Florida Department of Transportation (FDOT) Cultural Resource Management Handbook, cultural resources are "archaeological sites, historic structures, objects, and districts, which are typically 50 or more years old".

For additional guidance on the analysis of cultural resources, this assessment referred to the National Historic Preservation Act of 1966, as amended, Chapter 267, FS, Chapter 1A-46, FAC (revised August 2002), and FDHR's Cultural Resources Standards and Operational Manual (FDHR 2003). It was also conducted with guidance from with Part 2, Chapter 8 (Archaeological and Historical Resources) of the FDOT PD&E Manual (FDOT, 2020).

Resource Identification Methodology

In order to evaluate potential impacts on cultural resources near the 59th Street project, an Area of Potential Effect (APE) was established. The APE serves as the geographic limits of the area surrounding the project limits that have potential to be affected by the project. Within the APE, data was collected from Manatee County Property Appraiser, the Florida State Historic Preservation Office, and field analysis.

Area of Potential Impact Identification

As defined in 36 CFR Part § 800.16(d), and recognized by Chapter 267, FS, the APE is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." Based on the scale and nature of the proposed improvements, the project has a limited potential for any indirect (visual or audible) or cumulative effects outside the right-of-way footprint. Therefore, the archaeological and historic/architectural APE was defined as 0.25 mile from the centerline of the 59th Street corridor as shown in **Figure 2**.

Figure 1: Project Location Map

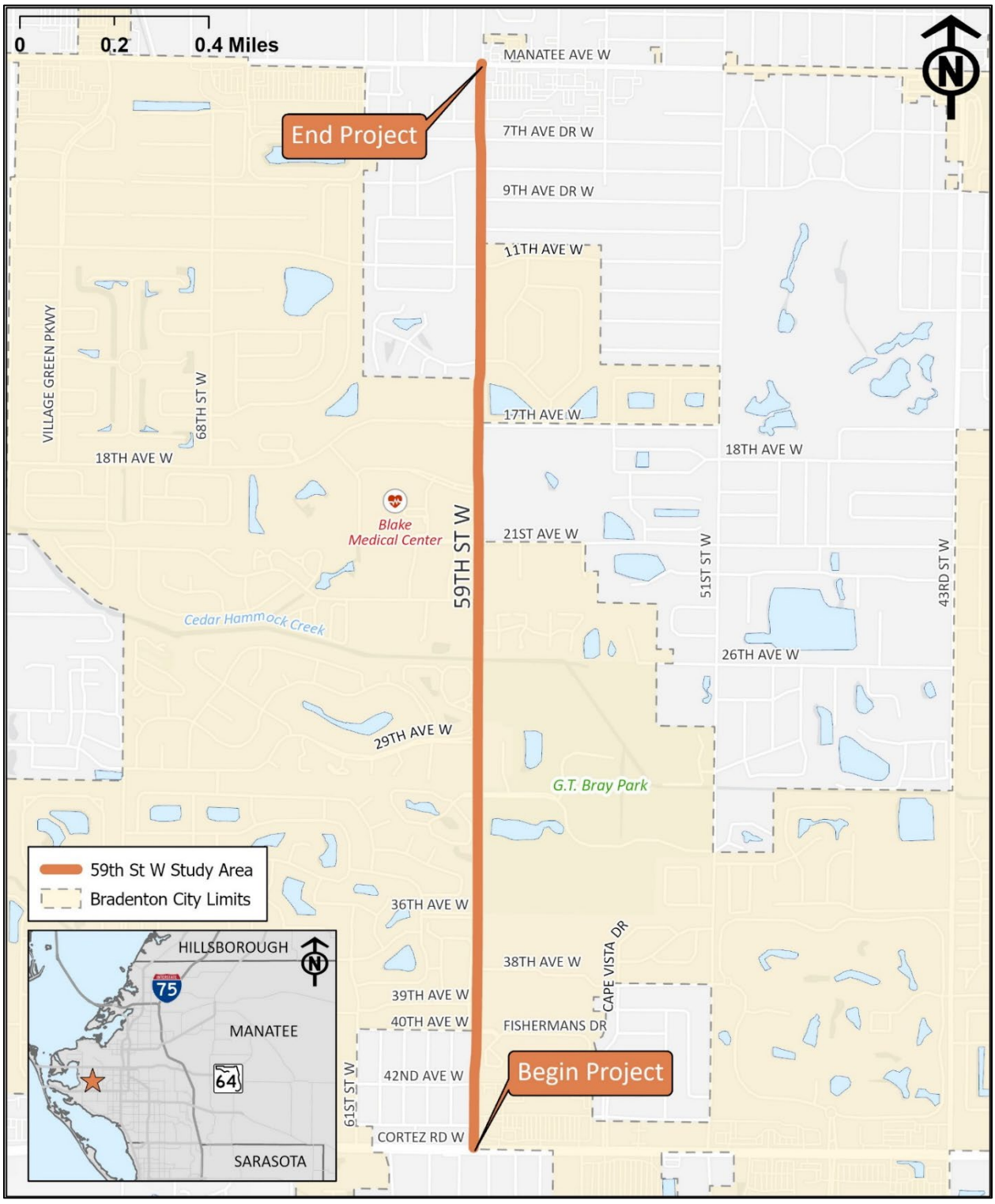
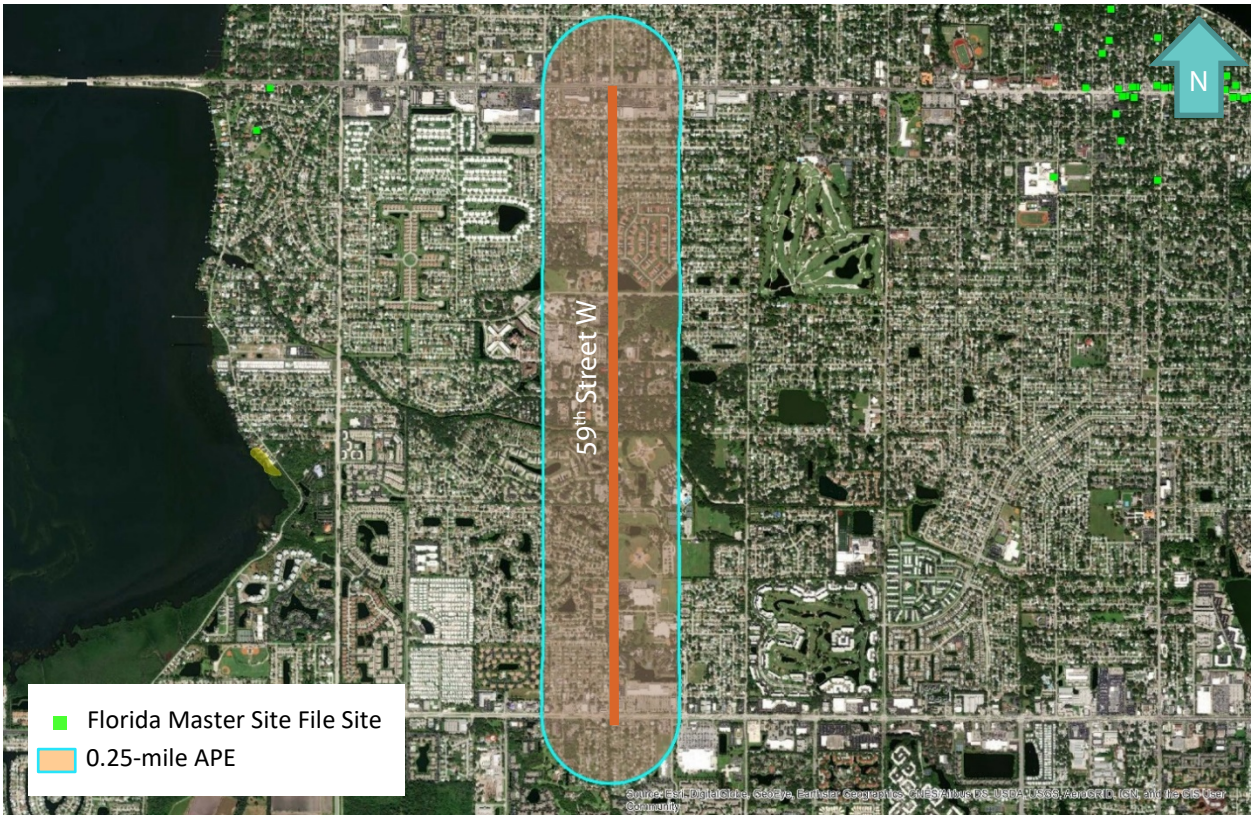

0
0.2
0.4 Miles
N
End Project
MANATEE AVE W
7TH AVE DR W
9TH AVE DR W
11TH AVE W
17TH AVE W
18TH AVE W
18TH AVE W
VILLAGE GREEN PKWY
68TH ST W
Blake
Medical Center
59TH ST W
21ST AVE W
51ST ST W
43RD ST W
Cedar Hammock Creek
26TH AVE W
29TH AVE W
G.T. Bray Park
59th St W Study Area
Bradenton City Limits
36TH AVE W
38TH AVE W
CAPE VISTA DR
39TH AVE W
40TH AVE W
FISHERMANS DR
Begin Project
42ND AVE W
61ST ST W
CORTEZ RD W
HILLSBOROUGH
75
MANATEE
64
SARASOTA

Figure 2: 59th St W Area of Potential Effect (APE)



Methodology and Process

Background research was conducted to gather available information about the cultural resources that have been identified within the APE of the 59th Street corridor. The Florida State Historic Preservation Office (SHPO) was contacted for initial consideration of identifying cultural resources in the Florida Master Site File (FMSF) database, an inventory of significant historical and cultural resources throughout the state.

An inventory of potential eligible resources was developed using additional resources such as the Manatee County Open Data Portal, Manatee County Property Appraiser data, and field visits. Parcel information from the Manatee County Property Appraiser was utilized in order to identify buildings that may be 50 years of age or older by the buildout of this project. Geographic Information Systems (GIS) was used to add geographic data to the inventory and to spatially confirm the cultural resources located within the APE.

To be sure all structures at least 50 years when the project is complete are analyzed, structures built between 1971-1981 were included in the query as they may be over 50 years of age by the anticipated completion of the project. The historical buildings identified by the initial parcel query were then cross-referenced with satellite imagery to confirm the location and architectural style of each property.

The Manatee County Open Data Portal was accessed to collect GIS information about potential cultural resources within the APE of the 59th Street corridor. This portal provided shapefiles that contained the location and details of topics such as the National Register of Historic Places (NHRP), Historical and Archaeological (HA) Overlay Districts, Cemeteries, Parks, and Preserves.

Resource Identification Results

It was determined by SHPO that were no cultural resources currently identified in the Florida Master Site File within the APE boundaries of the 59th Street project. (*See Figure 2 above.*) Additional sources were used to confirm that there are no culturally significant resources within the APE. These sources included the NRHP GIS shapefile maintained by Manatee County and the NRHP database maintained by the U.S. National Park Service.

Based on the GIS information available through the Manatee County Open Data Portal, no officially designated and protected Historical and Archaeological Overlay Districts fall within the APE of the 59th Street corridor.

According to Section 6.1.3 of the FDOT *Cultural Resource Management Handbook*, cemeteries can contain important cultural and historic significance due to "graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events".[1] However, none of the 27 cemeteries located within Manatee County are located within the study corridor's APE boundary.

Attachment A includes a list of the buildings adjacent to the project corridor that are identified per Manatee County Property Appraiser as having been built in 1981 or prior. These properties are at least or nearing 50 years old and have not been evaluated for NRHP eligibility. None of the items included on this inventory are currently NRHP-recognized or included in the FMSF. Impacted properties should be evaluated during the design phase, and coordination should occur with SHPO. As such, there are no effects anticipated to culturally significant resources throughout the 59th Street improvements.

The APE does include two mature neighborhoods that were initially built in the late 1970's and have not been evaluated. The Tanglewood Homes community features single family homes built in a ranch architectural style with angled and asymmetrical rooflines indicative of shed style (**Figure 3**). The MeadowCroft Condominiums features multifamily homes built in a mission revival style.

[1] FDOT. 2013. Cultural Resources Handbook. Page 149. Accessed on July 29, 2021 from https://www.fdot.gov/docs/default-source/environment/pubs/cultmgmt/SEMO-CRM-Handbook_2013.pdf

Figure 3: Tanglewood Homes (Source: Google)



Figure 4: MeadowCroft Condominiums (Source: Google)



Recommendations

Manatee County's unique cultural and historical richness need to continue to be preserved to allow for reflection and education of the local community and beyond. One of the goals of this evaluation is to limit and ultimately not impact cultural resources along the 59th Street corridor.

It should be noted that the adjacent neighborhoods built in the 1970s have no individual buildings currently eligible for National Register listing and lack distinct and unique features that would make them an exceptional example of neighborhoods planned in that timeframe.

Although there are no existing cultural resources within the APE, potential historic properties should be evaluated by an architectural historian during the design phase. The NRHP eligibility finding can then be coordinated with the SHPO for concurrence.

Attachment A

Structures in the APE Build In or Before 1981

Table 1 – Structures in the APE Built in or Before 1981

	Parcel ID	Address	Year Built
1	3818900007	5811 10TH AVENUE DR W	1967
2	3818800009	5818 10TH AVENUE DR W	1969
3	3937414757	5817 11TH AVE W	1978
4	3937413957	5818 11TH AVE W	1977
5	5110810602	5902 34TH AVE W	1981
6	5110810354	5901 35TH AVE W	1980
7	5141300003	5903 40TH AVE W	1977
8	5141900000	5904 42ND AVE W	1981
9	5141900000	5906 42ND AVE W	1981
10	5142000008	5910 42ND AVE W	1981
11	3937420556	1218 58TH ST W	1979
12	3937420606	1220 58TH ST W	1979
13	3937420655	1222 58TH ST W	1979
14	3937420705	1224 58TH ST W	1979
15	3937420754	1226 58TH ST W	1979
16	3937420804	1228 58TH ST W	1979
17	3937420853	1230 58TH ST W	1979
18	3937420903	1232 58TH ST W	1979
19	3937418659	1234 58TH ST W	1978
20	3937418709	1236 58TH ST W	1978
21	3937418758	1238 58TH ST W	1978
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24	3937418907	1244 58TH ST W	1978
25	3937418956	1246 58TH ST W	1978
26	3937419004	1248 58TH ST W	1978
27	3937416406	1302 58TH ST W	1977
28	3937416455	1304 58TH ST W	1977
29	3937416505	1306 58TH ST W	1977
30	3937416554	1308 58TH ST W	1977
31	3937416604	1310 58TH ST W	1977
32	3937416653	1312 58TH ST W	1977
33	3937416703	1314 58TH ST W	1977
34	3937416752	1316 58TH ST W	1977
35	3937412900	1403 58TH ST W	1975
36	3937412959	1404 58TH ST W	1975
37	3937413007	1405 58TH ST W	1975
38	3937413056	1406 58TH ST W	1975
39	3937413106	1407 58TH ST W	1975
40	3937413155	1408 58TH ST W	1975
41	3937413205	1409 58TH ST W	1975
42	3937413254	1410 58TH ST W	1975
43	3937413304	1411 58TH ST W	1975
44	3937413353	1412 58TH ST W	1975
45	3937413403	1413 58TH ST W	1975

	Parcel ID	Address	Year Built
46	3937413452	1414 58TH ST W	1975
47	3937413502	1415 58TH ST W	1975
48	3937413551	1416 58TH ST W	1975
49	3937413601	1417 58TH ST W	1975
50	3937413650	1418 58TH ST W	1975
51	3780700005	908 59TH ST W	1973
52	3780800003	912 59TH ST W	1973
53	3937800500	916 59TH ST W	1973
54	3937800450	920 59TH ST W	1973
55	3937800401	924 59TH ST W	1973
56	3937800351	928 59TH ST W	1973
57	3937800302	1004 59TH ST W	1973
58	3937800252	1008 59TH ST W	1973
59	3937800203	1012 59TH ST W	1974
60	3937800153	1016 59TH ST W	1974
61	3937800104	1020 59TH ST W	1974
62	3937800708	1108 59TH ST W	1974
63	3937800658	1204 59TH ST W	1974
64	3937800609	1208 59TH ST W	1974
65	3937800559	1212 59TH ST W	1973
66	5141400001	4012 59TH ST W	1977
67	5141400001	4014 59TH ST W	1977
68	5141500008	4020 59TH ST W	1961
69	5141600006	4028 59TH ST W	1970
70	5141600006	4030 59TH ST W	1970
71	5141700004	4108 59TH ST W	1971
72	5141700004	4110 59TH ST W	1971
73	5141800002	4116 59TH ST W	1971
74	5141800002	4118 59TH ST W	1971
75	5130200008	4230 59TH ST W	1968
76	5110810552	3401 60TH ST W	1981
77	5110810503	3405 60TH ST W	1981
78	5110810453	3501 60TH ST W	1980
79	5110810404	3505 60TH ST W	1981
80	3782816205	5902 7TH AVE W	1979
81	3782816254	5904 7TH AVE W	1979
82	3782816304	5906 7TH AVE W	1979
83	3782816353	5908 7TH AVE W	1979
84	3782816403	5910 7TH AVE W	1979
85	3782816452	5912 7TH AVE W	1979
86	3782816502	5914 7TH AVE W	1979
87	3782816551	5916 7TH AVE W	1979
88	3782816601	5918 7TH AVE W	1979
89	3782816650	5920 7TH AVE W	1979
90	3782816700	5922 7TH AVE W	1979
91	3782816759	5924 7TH AVE W	1979

	Parcel ID	Address	Year Built
92	3782816809	5926 7TH AVE W	1979
93	3782816858	5928 7TH AVE W	1979
94	3782816908	5930 7TH AVE W	1979
95	3782816957	5932 7TH AVE W	1979
96	3782817005	5934 7TH AVE W	1979
97	3782817054	5936 7TH AVE W	1979
98	3782817104	5938 7TH AVE W	1979
99	3782817153	5940 7TH AVE W	1979
100	3782817203	5942 7TH AVE W	1979
101	3782817252	5944 7TH AVE W	1979
102	3782817302	5946 7TH AVE W	1979
103	3782817351	5948 7TH AVE W	1979
104	3782817401	5950 7TH AVE W	1979
105	3782817450	5952 7TH AVE W	1979
106	3782817500	5954 7TH AVE W	1979
107	3782817559	5956 7TH AVE W	1979
108	3782817609	5958 7TH AVE W	1979
109	3782817658	5960 7TH AVE W	1979
110	3782817708	5962 7TH AVE W	1979
111	3782817757	5964 7TH AVE W	1979
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126	3816000008	5818 9TH AVENUE DR W	1977
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128	3947712406	2402 FALCON CT	1979
129	3947712455	2406 FALCON CT	1979
130	3947712505	2410 FALCON CT	1979
131	3947712604	2502 SONGBIRD LN	1979
132	3947712653	2506 SONGBIRD LN	1979
133	3782800109	600 59TH ST W	1979
134	3801610509	615 59TH ST W	1977
135	3938210154	1410 59TH ST W	1978
136	3938400052	1700 59TH ST W	1981
137	3948010008	2103 59TH ST W	1979

	Parcel ID	Address	Year Built
138	3948010008	2105 59TH ST W	1979
139	3948030006	2109 59TH ST W	1977
140	5130100000	4220 59TH ST W	1978
141	5130300006	4236 59TH ST W	1979
142	5144210001	4300 59TH ST W	1979
143	5166300003	5861 CORTEZ RD W	1960
144	3782800109	5905 MANATEE AVE W	1979



Cultural Resources Memo

Prepared by Marc Ispass, AICP
Kimley Horn and Associates, Inc.
1777 Main Street, Suite 800
Sarasota, FL 34236

Manatee County
FLORIDA

Appendix E –
Potential Contamination Screening Memo



Potential Contamination Screening Memo

59th Street West – Cortez Road to Manatee Avenue

CIP #: 6108360

FINAL October 14, 2021

Manatee County FLORIDA

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ATTACHMENTS

Attachment A – Historic Aerials & City Directories

Attachment B – ERIS Database Report

Attachment C - FDEP's Map Direct Database

Introduction

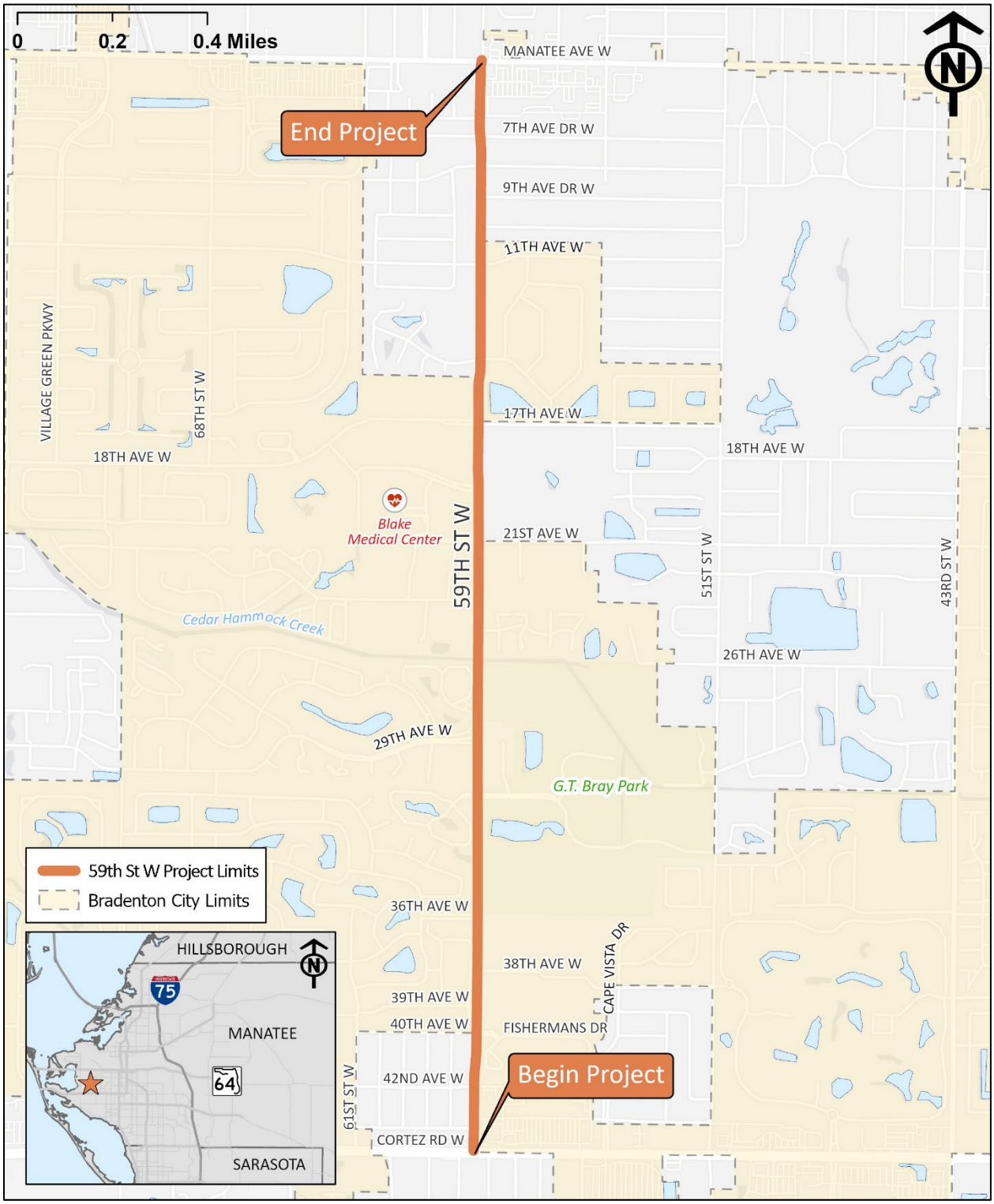
Manatee County is conducting a Project Development & Corridor Study to evaluate a 2.3-mile segment of 59th Street West (59th Street) from Cortez Road/State Road (SR 684) to Manatee Avenue/SR 64. The project limits are partially within the City of Bradenton and unincorporated Manatee County, Florida, as shown in **Figure 1**. The study will evaluate options for widening the existing 2-lane roadway to a 4-lane roadway with a center left turn lane and/or median in addition to providing an enhanced mobility experience for all users

Memorandum Purpose

The purpose of this Potential Contamination Screening Memo is to document historical and environmental regulatory information that would be indicative of potential environmental hazards in connection with the project corridor. This is particularly important in areas where excavation activities would be most likely to occur (e.g., storm drainage modifications and traffic signal improvements). The scope of the evaluation consisted of the following tasks:

- Review of historical aerial photographs (1940, 1951, 1957, 1962, 1970, 1979, 1984, 1994, 1998, 2005, 2006, 2010, 2013, 2015, 2017 and 2019).
- Review of historical city reverse directories.
- Review of local, state, and federal records of known potentially hazardous waste sites or landfills, and sites currently under investigation for environmental violations, including any underground storage tanks (ERIS database report dated July 1, 2021)
- Review of Florida Department of Environmental Protection (FDEP) databases (Map Direct: https://ca.dep.state.fl.us/mapdirect/)
- Review other pertinent and readily available environmental records for adjacent properties.
- Conduct a site inspection.

Figure 1: Project Location Map



Findings and Summary

Aerial Photograph and City Directory Review

Kimley-Horn reviewed aerial photographs and city directories provided by Environmental Resource Information Services (ERIS) for the project corridor. Prior to 1970, the project corridor was primarily undeveloped land both east and west of 59th Street. Since the 1970s, the project corridor has been developed as roadway with adjacent commercial and residential use. Development along 59th Street was heavily commercial and residential use in the 1980's and continued to steadily develop until the 2010's. Prior to the 1980's, the commercial space was primarily owned by individuals. By the late 1990's, the commercial space began to be used by religious organizations, medical offices, financial business and general consumer stores. City directories reviewed did not identify any occupants that are of an environmental concern. The aerial photographs and city directories are provided in **Attachment A**.

Environmental Database Review

The environmental database (**Attachment B**) provided by ERIS was reviewed for facilities with identified contamination, within 500 feet of the project corridor, that could impact the planned project corridor activities. Facilities identified in the database report are described below:

- 2020 59th Street West Bradenton, FL, 34209-4604 – Blake Medical Center – Leaking Tank (LST)/ Above Ground Storage Tank (AST)/ Underground Storage Tank (UST)

  According to the ERIS database, Blake Medical Center (Fac. ID No. 9046028) reported discharge of fuel oil for onsite heating in October 1995. Cleanup of this discharge has been completed and the facility was issued a Site Rehabilitation Completion Order (SRCO) on 03/19/2019. This facility contains five tanks, one UST (Tank ID: 1) and four ASTs (Tank ID: 2, 3, 4 and 5). Tank 1 consists of a 10,000-gallon tank installed on 07/01/1973 that is currently not in service and remains at the site. Tanks 2, 3, 4 and 5 are 1,500, 2,000, 8,000, and 2,000-gallon diesel fuel tanks, respectively. Tank 2 was installed on 07/01/1973 and has been removed from the site. Tanks 3, 4, and 5 were installed on 12/01/1995, and are made of double-walled steel that are currently in service. Based on the regulatory status of this facility, it is considered a Low Risk. (Map Key – 3, Facility ID: 9046028)

- 5904 Cortez Rd West Bradenton, Fl, 34210-2705 – Amoco Gas Station – LST/ UST

  According to the ERIS database, an Amoco gas station is located on the northwest corner of Cortez Road and 59th Street. This facility had two reported discharges occurring on 12/19/1988 and 3/05/1990. The 1988 discharge was eligible for State cleanup funding through the Early Detection Incentive (EDI) Program, and cleanup activities begun. A second discharge occurred in 1990; however, this discharge was not eligible for cleanup funding, but is listed as complete in June 2010. Historically, this facility contained four other USTs (Tank ID: 1, 2, 3 and 4), 10,000, 8,000, 8,000, and 4,000-gallons, respectively. Tanks 1, 2, 3, and 4 are no longer in use and have been removed from the site. Currently there are two, 12,000 gallon underground storage tanks

(Tank ID: 1R and 2R) that were installed on 5/01/2009. Tank 1R is used to store unleaded gas and Tank 2R is used to store diesel gas. Contaminants of concern are naphthalene, 1-methylnaphthalene and 2-methylnaphthalene, and appear to be migrating toward the south on that property. Based on the current regulatory status and location from the project corridor, this facility is considered a Medium Risk. (Map Key – 11) (Facility ID: 8510822)

- 5818 Manatee Avenue West Bradenton, FL, 34209-2541 – Westway Services LLC – LST/UST

  According to the ERIS database, Westway Services LLC, located on the northeast corner of Manatee Avenue and 59th Street, reported an unleaded gasoline discharge on 12/15/1998. The facility was found eligible for State Cleanup funding through the Petroleum Liability and Restoration Insurance Program (PLIRP) with a cleanup priority score of 6. Cleanup activities are currently ongoing. Currently, this facility contains one 20,000-gallon unleaded gas tank (Tank ID: 5) that was installed on 3/01/2010. Historically, this facility contained four USTs (Tank ID: 1, 2, 3 and 4) that were 10,000, 6,000, 8,000, and 1,000-gallons in size, respectively. Tanks 1, 2, and 3 stored gas for vehicles and Tank 4 stored waste oil. These tanks have been removed from the site. Groundwater flow at this facility is toward the northwest, and the groundwater plume appears to be limited to within the property boundary of this facility. Contaminants of concern are volatile organic aromatics (VOAs) and naphthalene. Based on the regulatory status of this facility, documented contaminant plume, and location from the project corridor, this facility is considered a Medium Risk. (Map Key – 13, Facility ID: 8510863)

Current Conditions

Kimley-Horn visited the project corridor on August 17, 2021 and no environmental concerns were identified during the site visit.

Review of Readily Available Environmental Reports

Kimley-Horn performed a desktop review of FDEP's Map Direct Database (**Attachment C**). Results of the review identified the same facilities that the ERIS database provided.

Depth to Shallow Groundwater for the Project Corridor

Based on the topographic relief and location within Manatee County, groundwater is anticipated to be encountered 3-7 feet below land surface.

Conclusions

Based on available information, the following facilities are considered a Medium Risk due to existing groundwater plumes:

- 5904 Cortez Rd West Bradenton, Fl, 34210-2705 – Amoco Gas Station – LST/ UST
- 5818 Manatee Avenue West Bradenton, FL, 34209-2541 – Westway Services LLC – LST/UST

Recommendations

Should dewatering be required for the proposed changes in the area of the two identified regulated facilities, dewatering operations must obtain a NPDES Generic Permit for Discharge of Groundwater. Dewatering operations in areas identified with contamination issues require treatment of effluent to limits and requirements specified in the NPDES Generic Permit.

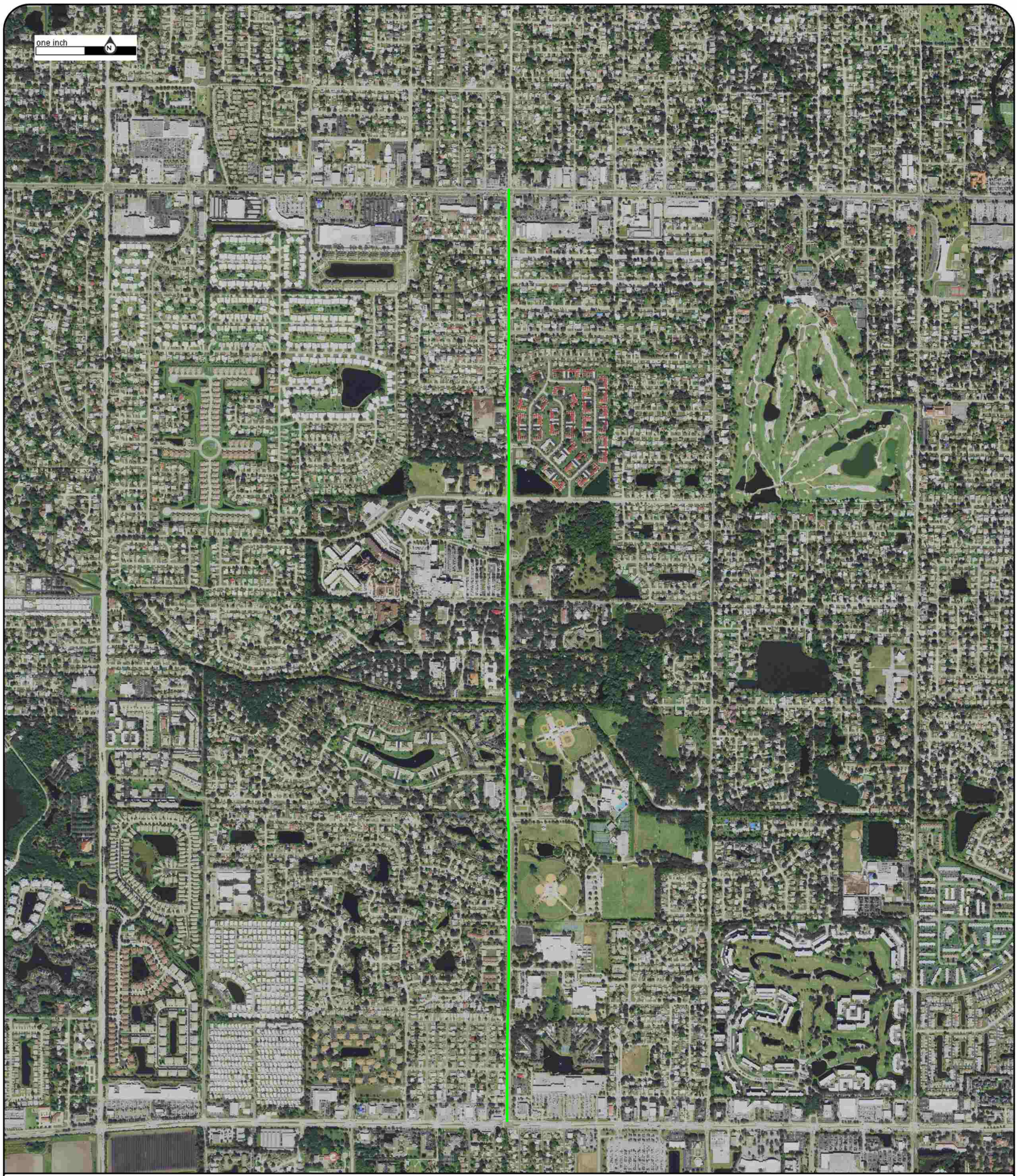
Attachment A – Historic Aerials & City Directories

HISTORICAL AERIALS

Project Property:	59th St. Corridor 59th St W Bradenton FL 34209
Requested By:	Kimley-Horn & Associates, Inc
Order No:	21062500523
Data Completed:	June 28,2021

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Date	Source	Scale	Comments
2019	National Agriculture Information Program	1" to 1400'	
2017	National Agriculture Information Program	1" to 1400'	
2015	National Agriculture Information Program	1" to 1400'	
2013	National Agriculture Information Program	1" to 1400'	
2010	National Agriculture Information Program	1" to 1400'	
2006	National Agriculture Information Program	1" to 1400'	
2005	National Agriculture Information Program	1" to 1400'	
1998	US Geological Survey	1" to 1400'	
1994	US Geological Survey	1" to 1400'	
1984	National High Altitude Photography	1" to 1400'	
1979	US Geological Survey	1" to 1400'	Best Copy Available
1970	Agriculture and Soil Conservation Service	1" to 1400'	
1962	US Geological Survey	1" to 1400'	Best Copy Available
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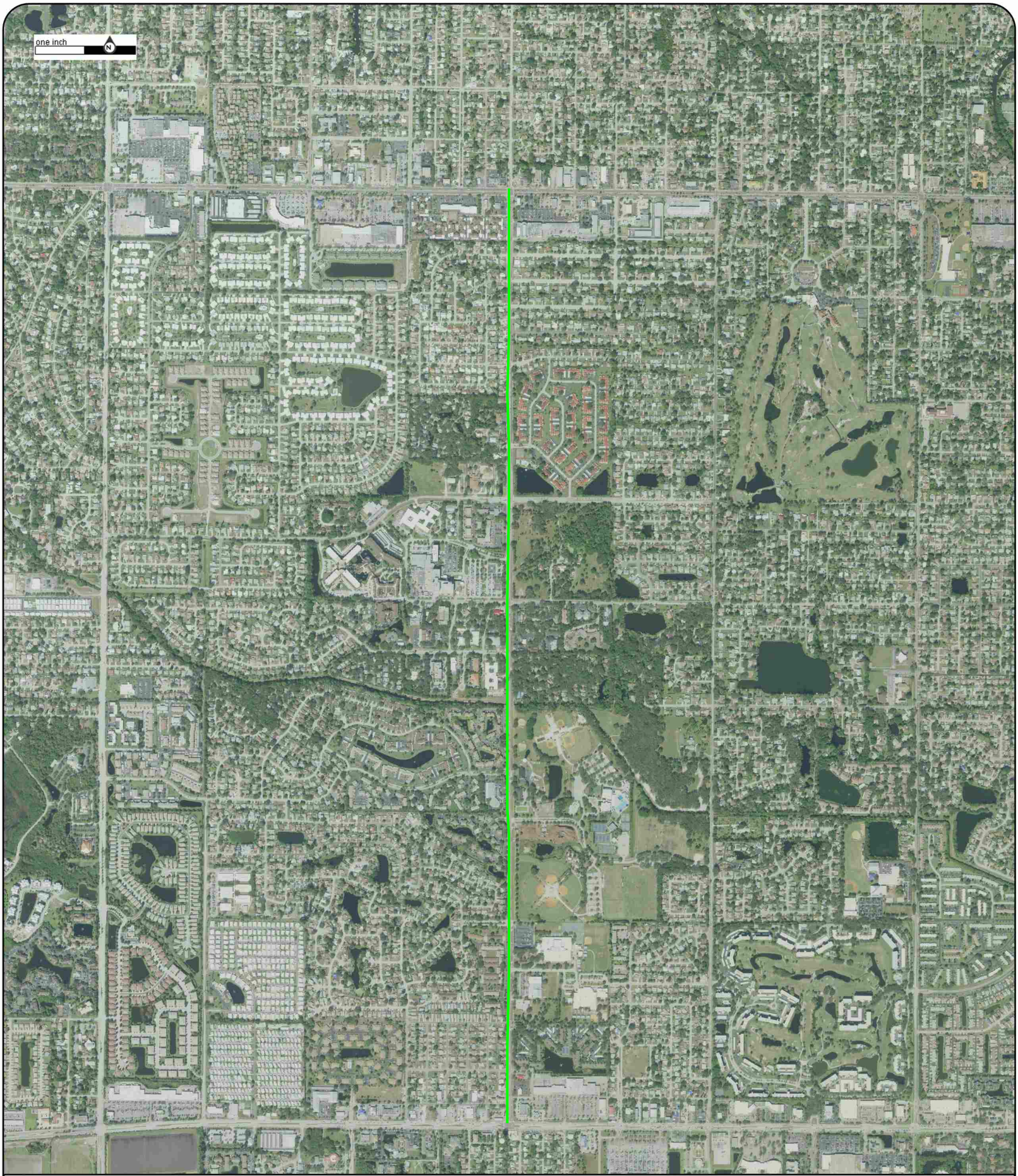


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Approx Center: -82.62045915,27.47926867

Order No: 21062500523

ERIS

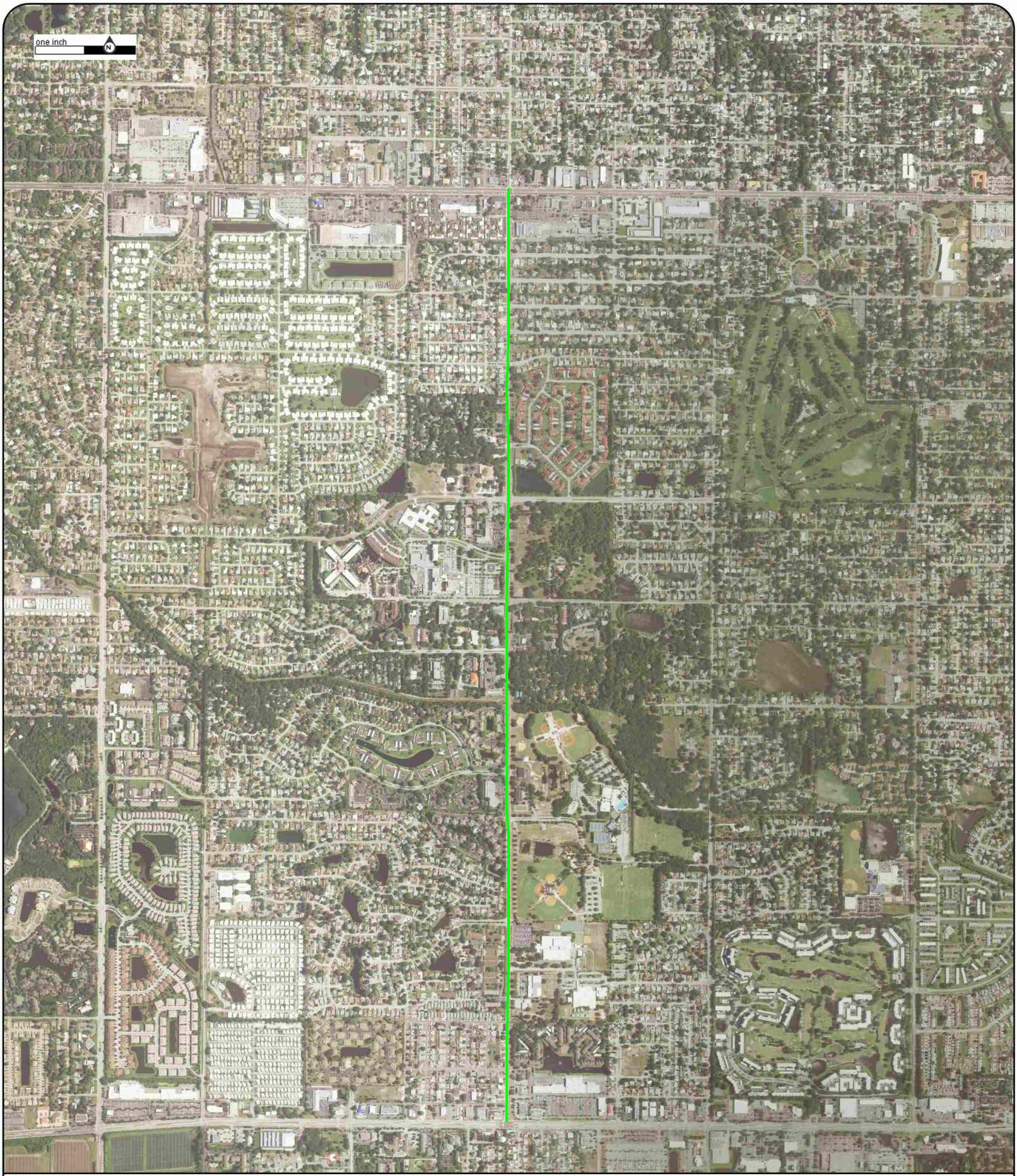


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Order No: 21062500523

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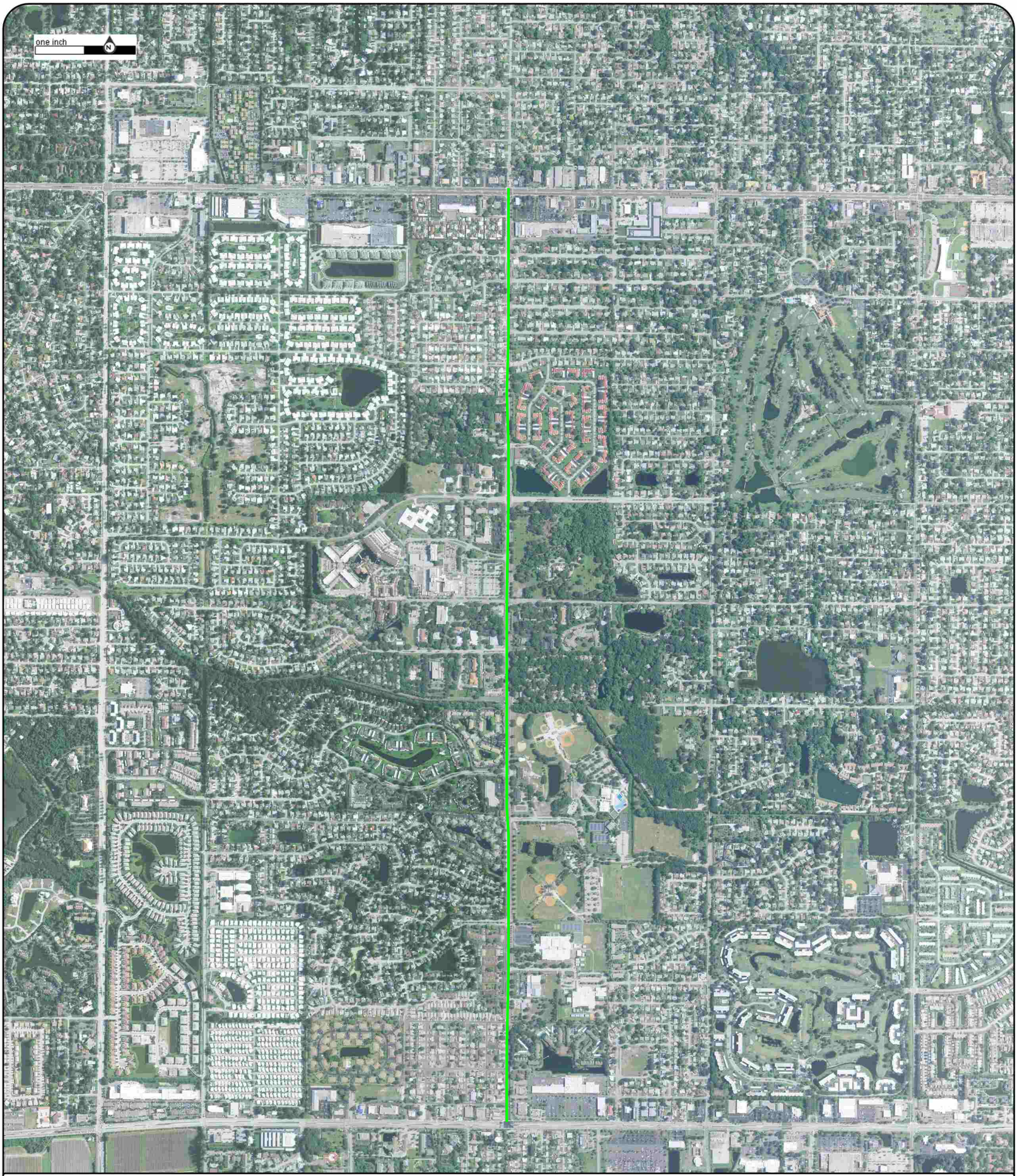


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Order No: 21062500523

ERIS

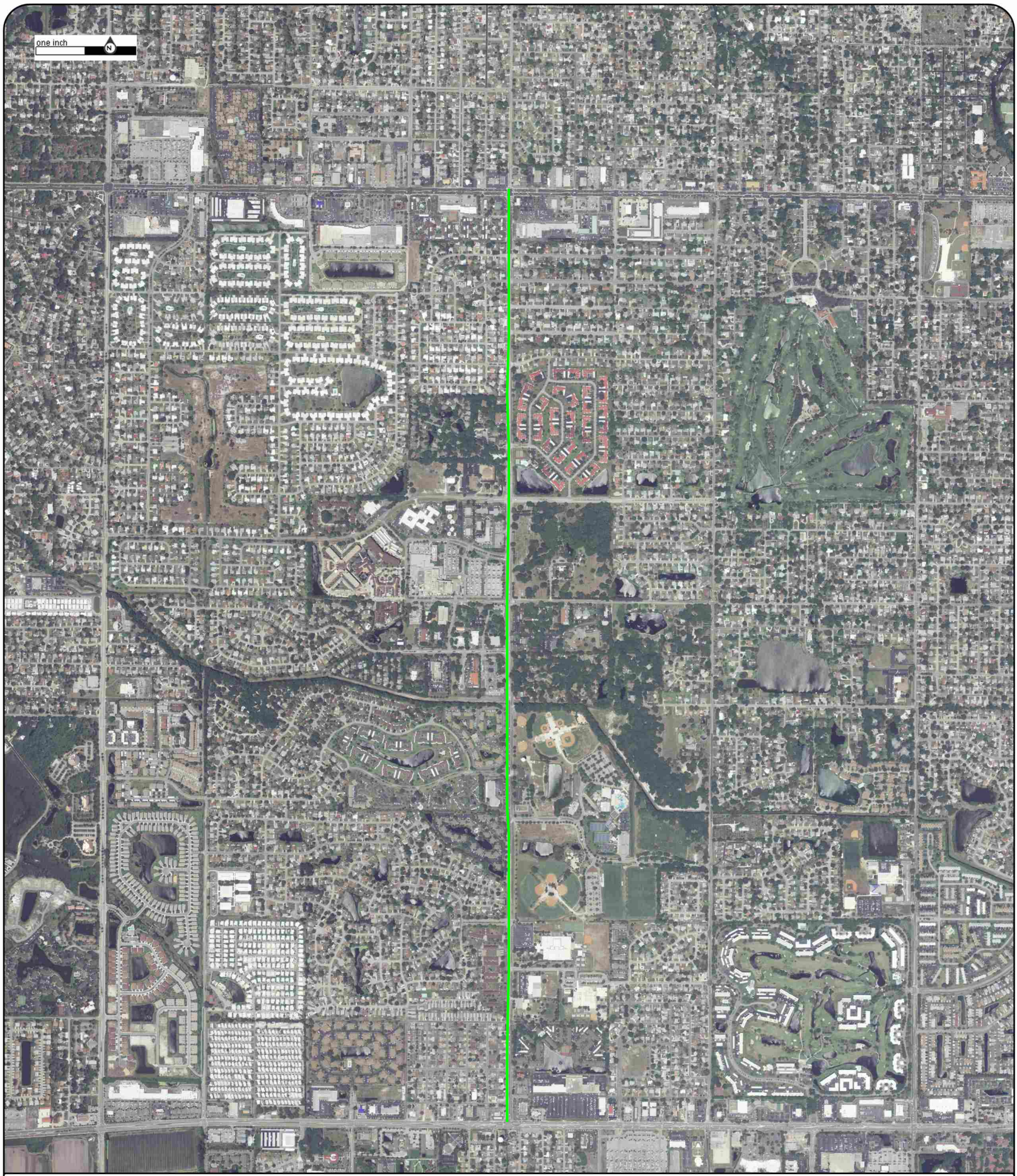


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Order No: 21062500523

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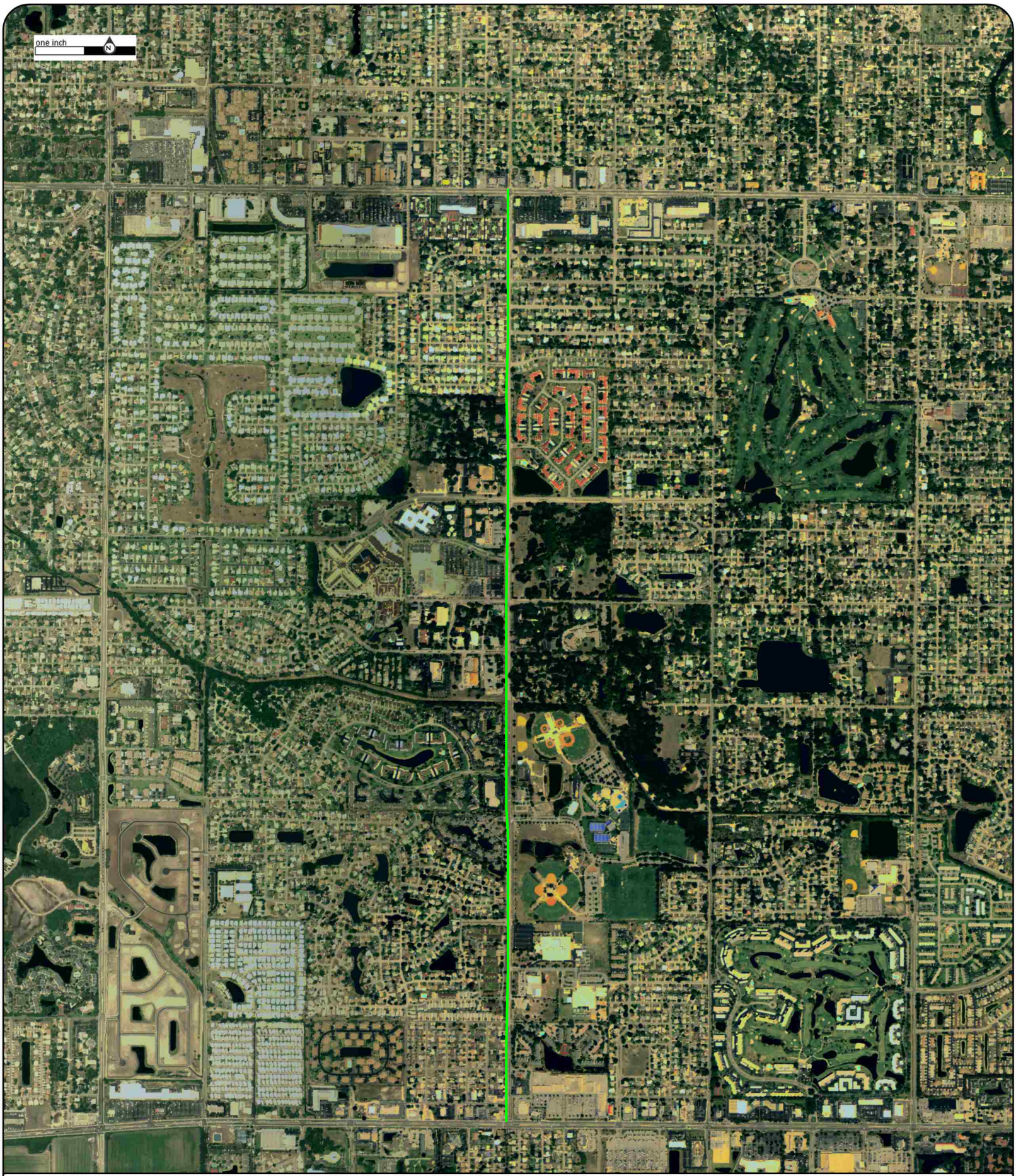


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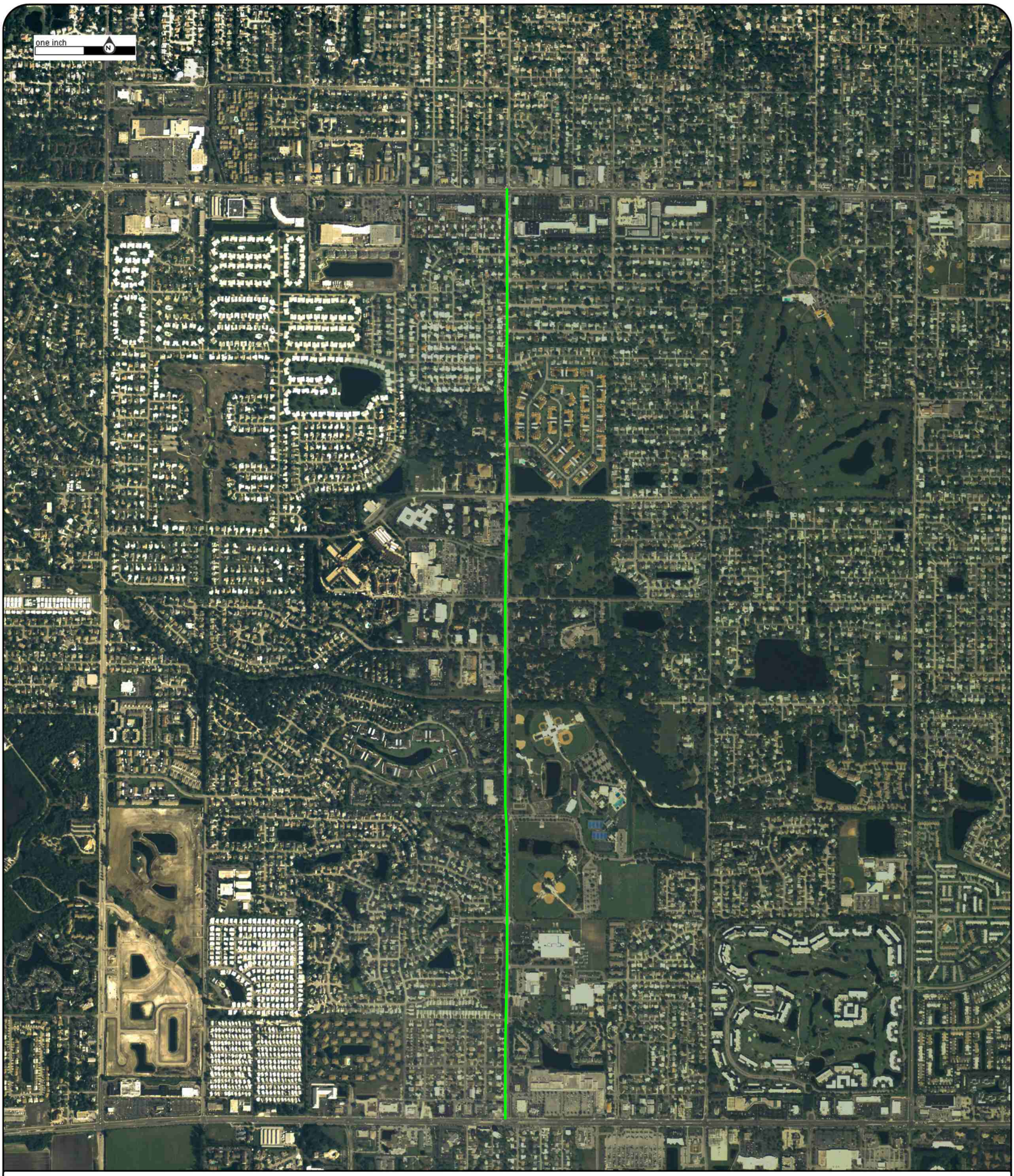


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Order No: 21062500523

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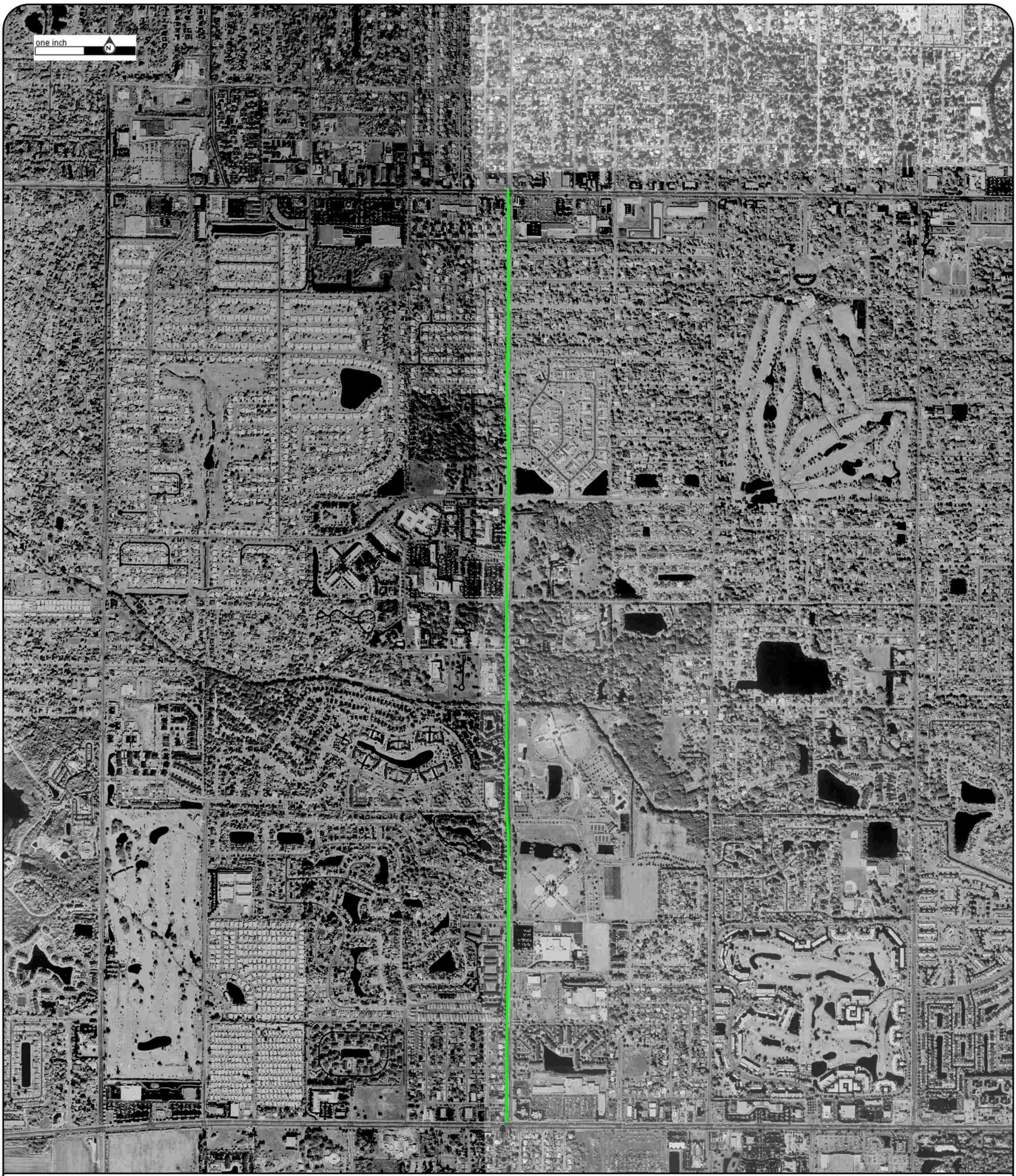


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Order No: 21062500523

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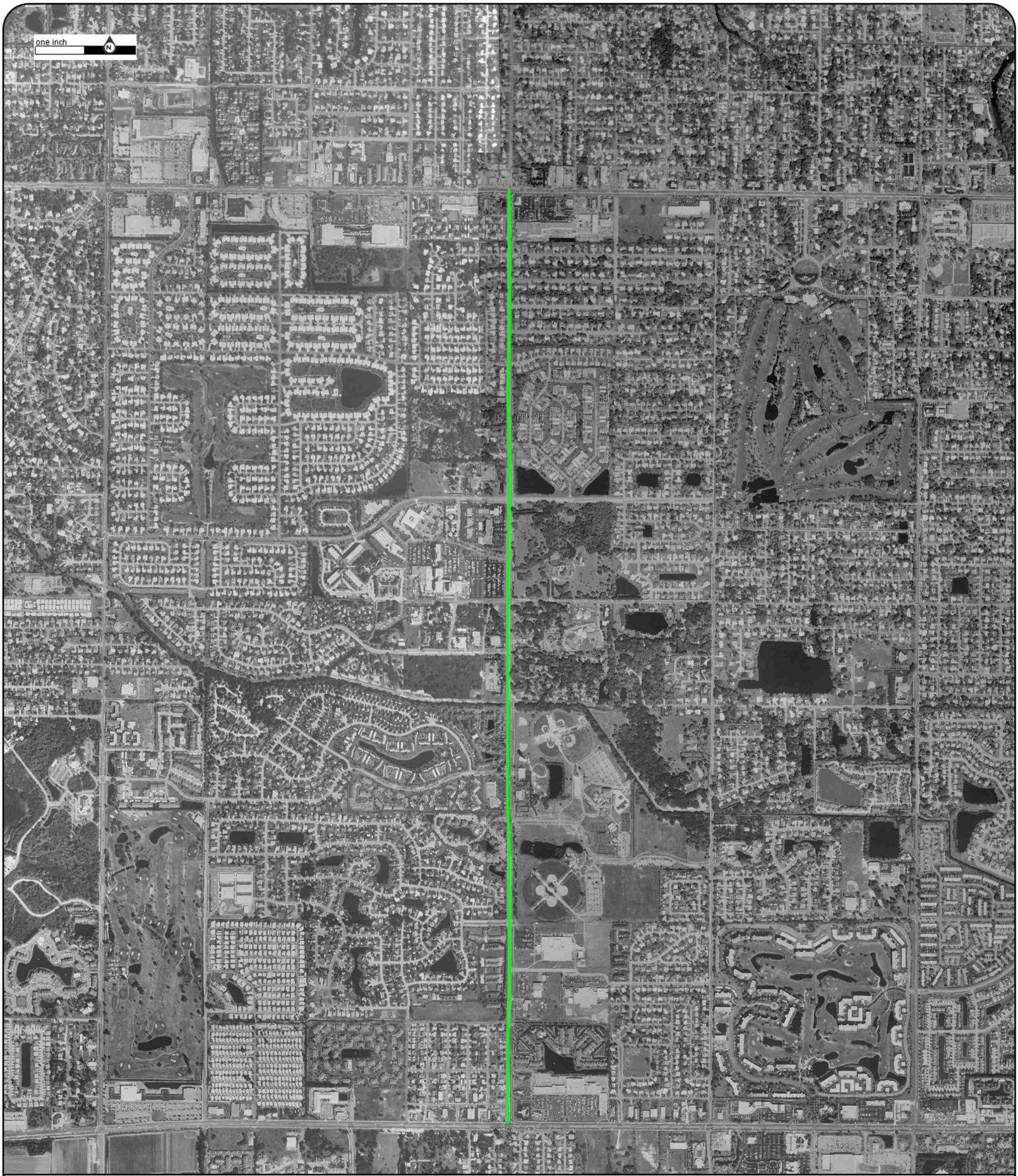


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Approx Center: -82.62045915,27.47926867

Order No: 21062500523

ERIS

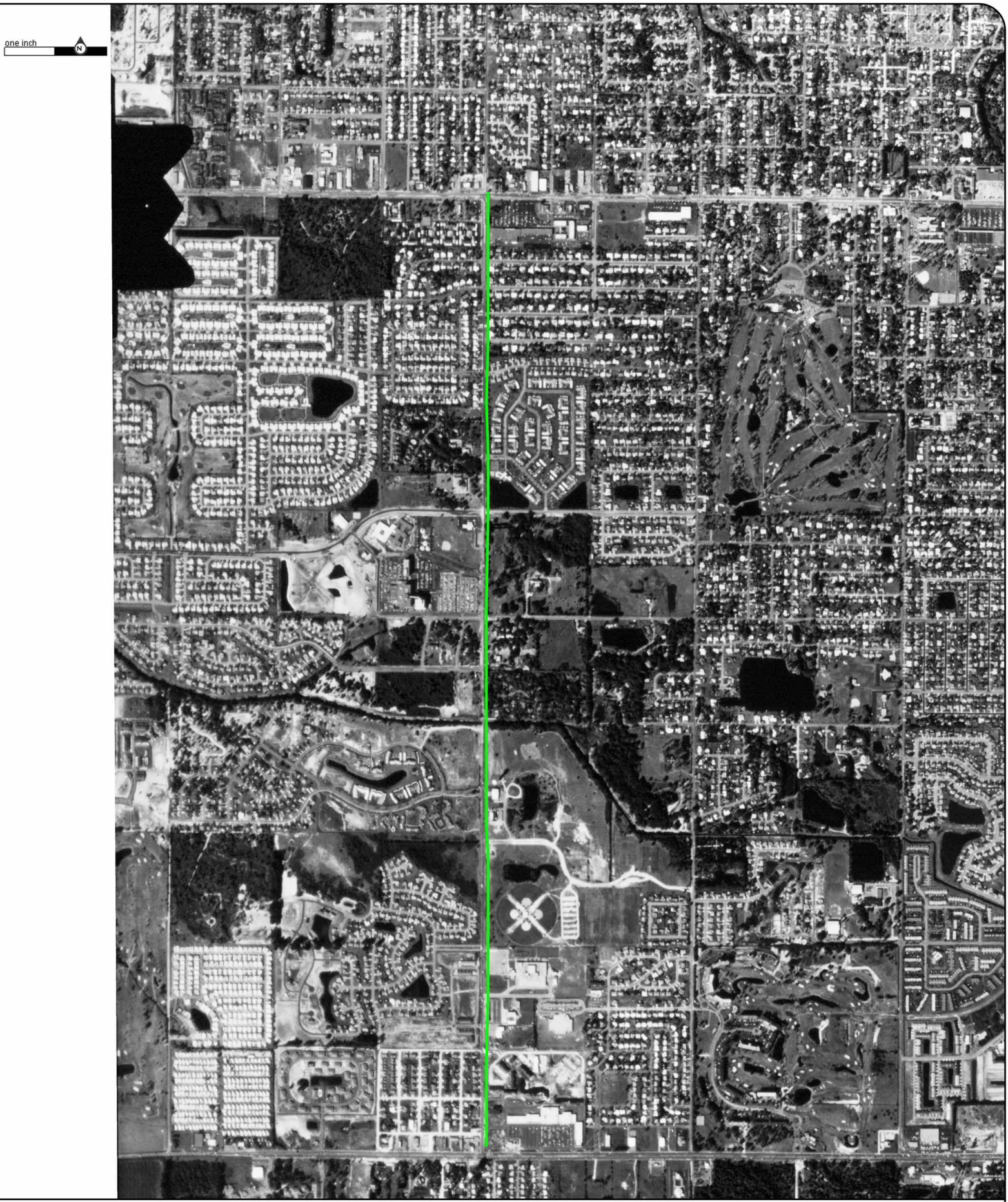


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Comment:

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Approx Center: -82.62045915,27.47926867

Order No: 21062500523

ERIS



Year: 1984
Source: NHAP
Scale: 1" to 1400'
Comment:

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Approx Center: -82.62045915,27.47926867

Order No: 21062500523

ERIS

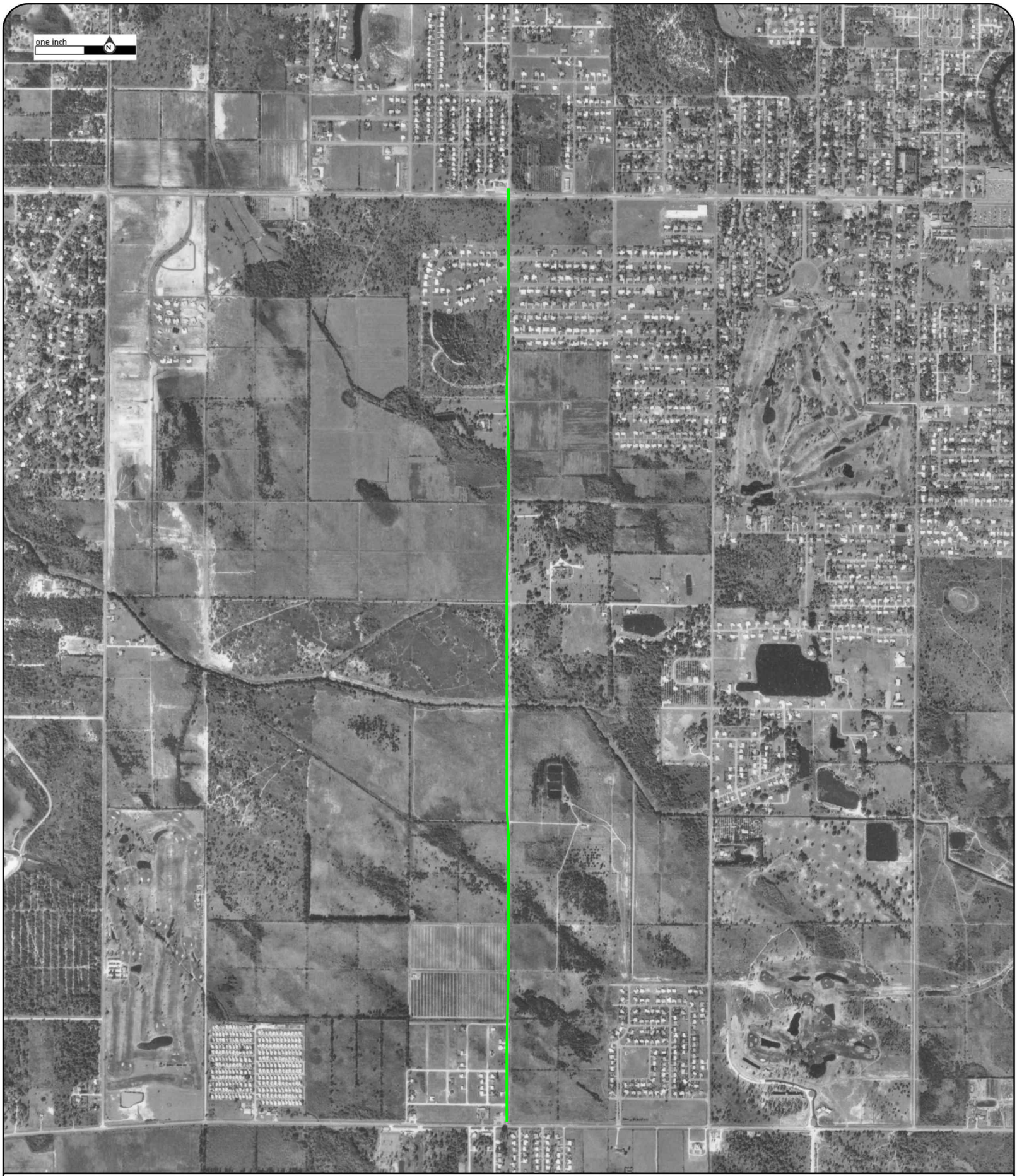


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Approx Center: -82.62045915,27.47926867

Order No: 21062500523

ERIS



Year: 1970
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Scale: 1" to 1400'
Comment:

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Approx Center: -82.62045915,27.47926867

Order No: 21062500523

ERIS

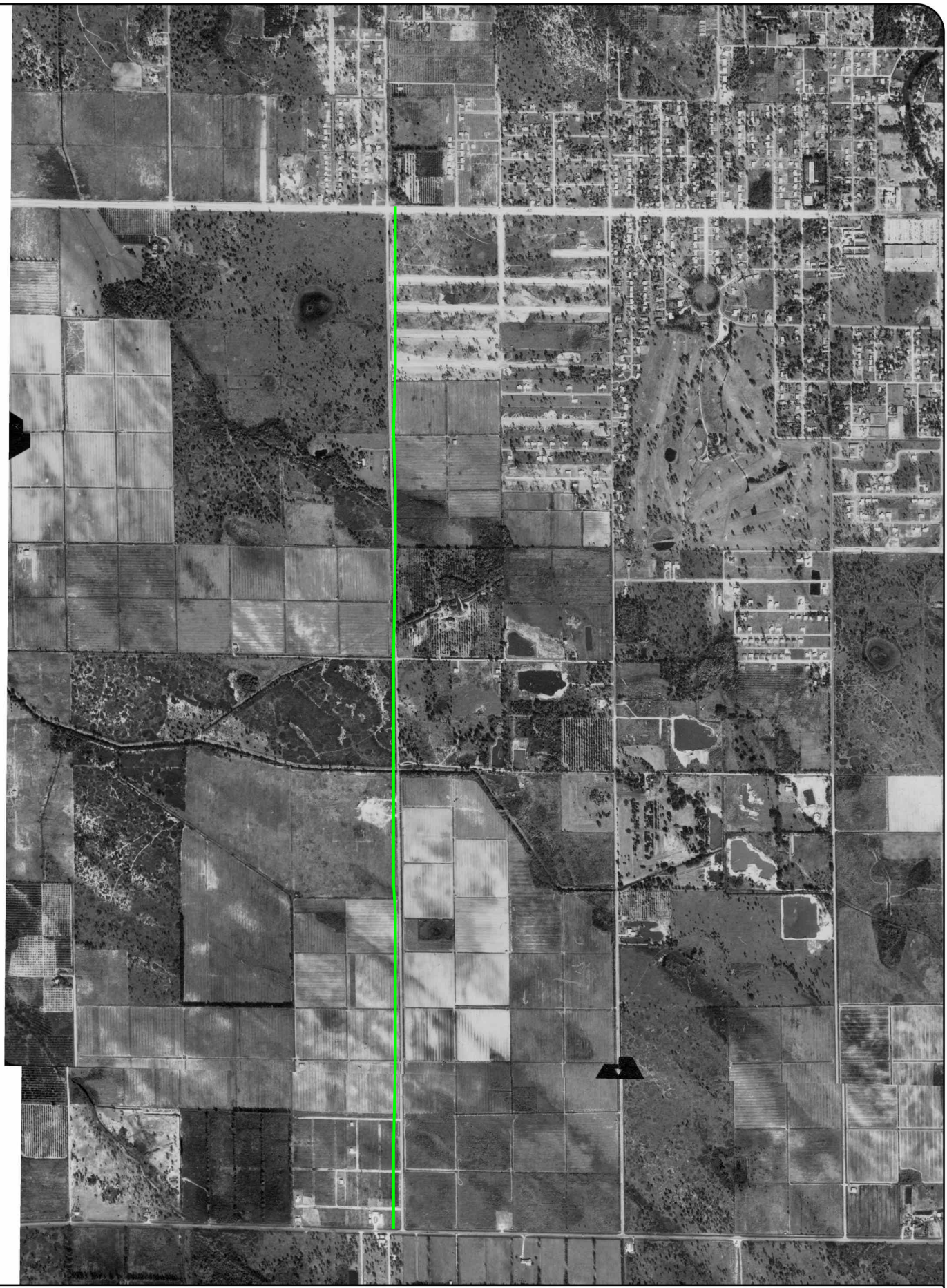


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Approx Center: -82.62045915,27.47926867

Order No: 21062500523

ERIS

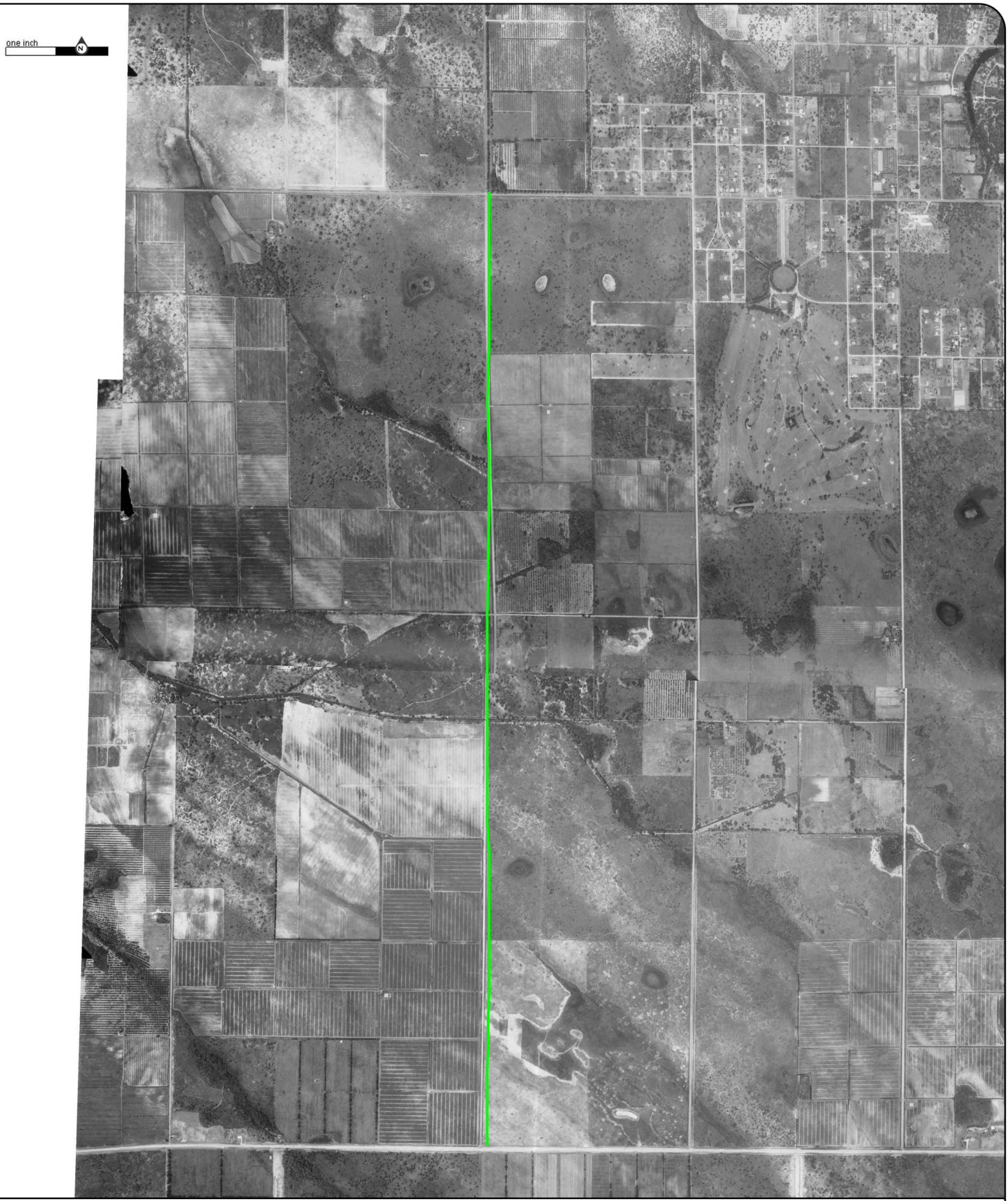


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Order No: 21062500523

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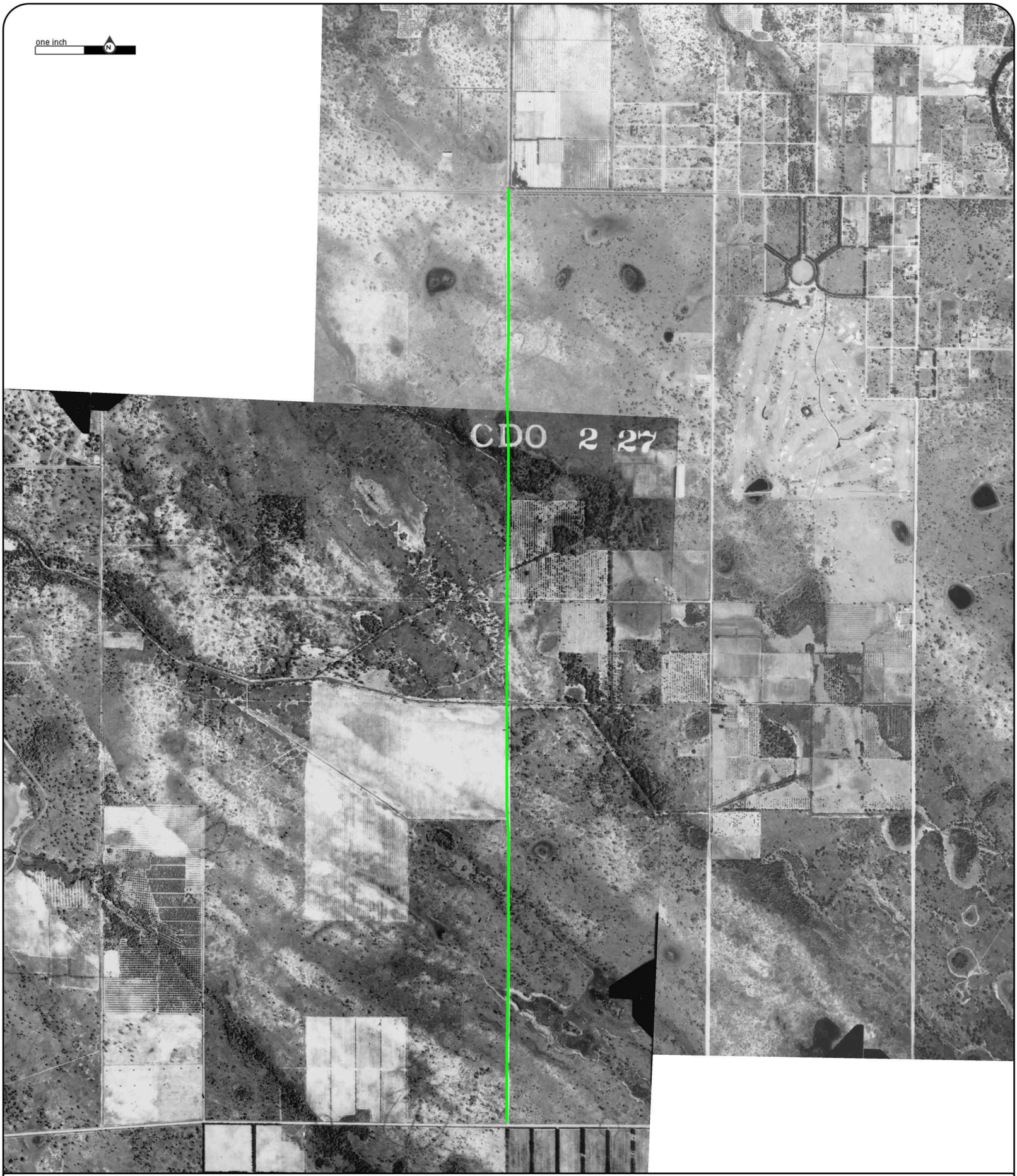


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Order No: 21062500523

ERIS



Year: 1940
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Scale: 1" to 1400'
Comment:

Address: 59th St W, Bradenton, FL
Approx Center: -82.62045915,27.47926867

Order No: 21062500523

ERIS

CITY DIRECTORY

Project Property:	*59th St. Corridor* *59th St W* *Bradenton, FL 34209*
Project No:	*148400073*
Requested By:	*Kimley-Horn & Associates, Inc*
Order No:	*21062500523*
Date Completed:	*June 30, 2021*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

June 30, 2021
RE: CITY DIRECTORY RESEARCH
59th St. Corridor
59th St W Bradenton, FL

Thank you for contacting ERIS for an City Directory Search for the site described above. Our staff has conducted a reverse listing City Directory search to determine prior occupants of the subject site and adjacent properties. We have provided the nearest addresses(s) when adjacent addresses are not listed. If we have searched a range of addresses, all addresses in that range found in the Directory are included.

Note: Reverse Listing Directories generally are focused on more highly developed areas. Newly developed areas may be covered in the more recent years, but the older directories will tend to cover only the "central" parts of the city. To complete the search, we have either utilized the ACPL, Library of Congress, State Archives, and/or a regional library or history center as well as multiple digitized directories. These do not claim to be a complete collection of all reverse listing city directories produced.

ERIS has made every effort to provide accurate and complete information but shall not be held liable for missing, incomplete or inaccurate information. To complete this search we used the general range(s) below to search for relevant findings. If you believe there are additional addresses or streets that require searching please contact us at 866-517-5204.

Search Criteria:
400-End of 59th Street West

Search Results Summary

Date	Source	Comment
2020	DIGITAL BUSINESS DIRECTORY	
2016	DIGITAL BUSINESS DIRECTORY	
2012	DIGITAL BUSINESS DIRECTORY	
2008	DIGITAL BUSINESS DIRECTORY	
2003	DIGITAL BUSINESS DIRECTORY	
1998	DIGITAL BUSINESS DIRECTORY	
1992	POLKS	
1987	POLKS	
1981-1982	POLKS	
1977	POLKS	
1972	POLKS	
1967	POLKS	
1964	POLKS	
1960	POLKS	
1955	POLKS	
1950	POLKS	
1945	POLKS	
1939	POLKS	
1936	POLKS	
1931	POLKS	
1927	POLKS	

237 total records. *Part 1 of 5*

400 **SCHOLFIELD REALTY INC**...*Real Estate*
400 **SCHOLFIELD REALTY INC**...*Real Estate Management*
400 **SCHOLFIELD REALTY INC**...*Real Estate Consultants*
615 **BLESSED DISTRESSED VINTAGE**...*Antiques-dealers*
623 **NEW AGE TECH SOLUTIONS INC**...*Computer & Equipment Dealers*
623 **NEW AGE TECH SOLUTIONS INC**...*Computer Software*
1220 **BRADENTON PLASTIC SURGERY**...*Medical & Surgical Svc Organizations*
1220 **BRADENTON PLASTIC SURGERY**...*Physicians & Surgeons*
1220 **UNIVERSAL WELLN ESS GROUP**...*Physicians & Surgeons*
1400 **DE GROAT THOMAS S MD**...*Physicians & Surgeons*
1410 **ORAL MAXILLOFACIAL SURGERY**...*Physicians & Surgeons*
1410 **POLIS JR CHARLES T MD**...*Physicians & Surgeons*
1414 **CHARLES-LOGAN CONSTANCE MD**...*Dentists*
1416 **BEARD JEFFREY S MD**...*Physicians & Surgeons*
1416 **BEARD MARGITA V MD**...*Physicians & Surgeons*
1416 **CATALANO & FUGHUM PA**...*Physicians & Surgeons*
1416 **CATALANO PHILIP M MD**...*Physicians & Surgeons*
1450 **BELLINO ROBERT J MD**...*Physicians & Surgeons*
1450 **BENDER ALBERT ALAN**...*Counselors*
1450 **BENDER ALBERT ALAN**...*Counselorscouples*
1450 **GRUBBS INSURANCE**...*Insurance-homeowners*
1450 **GRUBBS DARA**...*Insurance-automobile*
1450 **LIFECARE MANAGEMENT INC**...*Business Management Consultants*
1500 **TINSWORTH ORTHODONTICS**...*Dentists*
1500 **TINSWORTH ORTHODONTICS**...*Federal Government Contractors*
1500 **TINSWORTH STEVEN DDS**...*Dentists*
1616 **CHURCH OF THE NAZARENE**...*Missions*
1616 **CHURCH OF THE NAZARENE**...*Churches*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Schoolsuniversities & Colleges Academic*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Child Care Service*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Religious Schools*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Schools*
1700 **WELLS FARGO BANK**...*Real Estate Loans*
1700 **WELLS FARGO BANK**...*Banks*
1700 **WELLS FARGO BANK**...*Savings & Loan Associations*
1700 **WELLS FARGO BANK**...*Credit Unions*
1802 **EYE DEPOT**...*Nonclassified Establishments*
1802 **FLORIDA HOME HEALTH**...*Health Care Alternatives*
1802 **FLORIDA HOME HEALTH**...*Home Health Service*
1802 **FLORIDA HOME HEALTH**...*Nurses & Nurses` Registries*
1804 **EMERGENCY INNOVATIVE SVC LLC**...*Services Nec*
1810 **LAUKHUF EVA MD**...*Physicians & Surgeons*
1810 **LAUKHUF EVA MD**...*Medical & Surgical Svc Organizations*
1814 **BRADENTON WOMEN`S CARE**...*Physicians & Surgeons*
1814 **MANATEE ORAL & FACIAL CTR**...*Dentists*
1824 **DAVID M WILLIAMS ENTERPRISES**...*Grocerswholesale*
1824 **DAVID M WILLIAMS ENTERPRISES**...*Pharmacies*
1826 **EDWARD JONES**...*Financial Advisory Services*
1828 **PIONEER GREEN USA**...*Pharmacies*
1830 **NICKI`S WEST 59TH RESTAURANT**...*Restaurants*
1830 **NICKI`S WEST 59TH RESTAURANT**...*Foodscarry Out*
1838 **EDWARD JONES**...*Financial Advisory Services*
1838 **EDWARD JONES**...*Financial Planning Consultants*

2020 59TH STREET WEST
SOURCE: DIGITAL BUSINESS DIRECTORY

Part 2 of 5

1838 **GREENBRIER MASTECTOMY**...*Artificial Breasts*
1850 **DESAI, KINNARI P MD**...*Medical & Surgical Svc Organizations*
1850 **DESAI, KINNARI P MD**...*Physicians & Surgeons*
1850 **GRATHWOHL, TRACY LYNN NP**...*Nurses-practitioners*
1880 **LEGACY PHYSICAL THRPY & SPORTS**...*Physical Therapists*
1882 **ALL ABOUT KIDS PEDIATRIC**...*Physicians & Surgeons*
1882 **THOMPSON, LESLIE DDS**...*Dentists*
1884 **ADDICTION TREATMENT CTR-MED**...*Substance Abuse Centers*
1884 **PERRONE, MARIA RN**...*Nurses & Nurses' Registries*
1884 **PERRONE, VINCENZO MD**...*Physicians & Surgeons*
1884 **PERRONE, VINCENZO MD**...*Medical & Surgical Svc Organizations*
1884 **PROTEIN FIT DIET WEIGHT LOSS**...*Weight Control Services*
1886 **BELSITO, ALPHONSO A MD**...*Physicians & Surgeons*
1886 **FEDOR, BRITNEY M PA**...*Physicians Assistants*
1886 **GASTROENTEROLOGY ASSOCIATES**...*Physicians & Surgeons*
1886 **GASTROENTEROLOGY ASSOCIATES**...*Medical & Surgical Svc Organizations*
1886 **HILLESHEIM, ANGELA C**...*Nurses-practitioners*
1886 **HYDE, TAMMIE NP**...*Nurses-practitioners*
1886 **JEFFREYS, CHANTIL D NP**...*Nurses-practitioners*
1886 **LAPRADE, MARY ELLEN**...*Nurses-practitioners*
1894 **BLAKE MEDICAL CTR OUTPATIENT**...*X-ray Laboratories Medical & Dental*
1894 **BLAKE MEDICAL CTR OUTPATIENT**...*Physicians & Surgeons*
1894 **BLAKE MEDICAL CTR OUTPATIENT**...*Physical Therapists*
1894 **BLAKE MEDICAL CTR OUTPATIENT**...*Exercise & Physical Fitness Programs*
1902 **CASA MORA REHAB EXTENDED CR**...*Convalescent Homes*
1902 **CASA MORA REHAB EXTENDED CR**...*Skilled Nursing Care Facilities*
1902 **CASA MORA REHABILITATION**...*Rehabilitation Services*
1902 **CASA MORA REHABILITATION**...*Crisis Intervention Service*
1902 **EXTENDICARE HEALTH NETWORK**...*Residential Care Homes*
1902 **EXTENDICARE HEALTH NETWORK**...*Health Services*
1906 **BAYVIEW DENTAL ASSOC**...*Dentists*
1906 **BAYVIEW DENTAL ASSOC**...*Federal Government Contractors*
1906 **BLAKE DENTAL/PROFESSIONAL PARK**...*Dentists*
1906 **BURGESS, GEORGE H DDS**...*Cosmetic Dentistry*
1906 **BURGESS, GEORGE H DDS**...*Dentists*
1906 **BURGESS, GEORGE H DDS**...*Federal Government Contractors*
1906 **ELFERVIG, MARK T DDS**...*Dentists*
1906 **MUNOZ LATORRE, SONJA DDS**...*Dentists*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Dentists*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Federal Government Contractors*
1906 **PERIODONTAL SPECIALISTS**...*Dentists*
1906 **PLACHERIL, LILLIBET M MD**...*Physicians & Surgeons*
1906 **RICHMOND, H JOHN DDS**...*Dentists*
1906 **SABLE, RICHARD P DDS**...*Dentists*
1906 **THOMAS G RUBINO PA**...*Dentists*
1906 **THOMAS G RUBINO PA**...*Federal Government Contractors*
1906 **VOGT, MISSY**...*Dental Hygienists*
1906 **WAITE, CYNTHIA**...*Dental Hygienists*
2010 **AMERICAN HEALTH ASSOC**...*Social Service & Welfare Organizations*
2010 **BELLA VIVA MEDSPA**...*Spas-beauty & Day*
2010 **BLAKE MEDICAL CTR BREAST CARE**...*Physicians & Surgeons*
2010 **BLAKE MEDICAL CTR BREAST CARE**...*Medical Centers*

Part 3 of 5

2010 **BLAKE MEDICAL CTR BREAST CARE**...*General Medical & Surgical Hospitals*
2010 **BLAKE MEDICAL CTR THE HEART**...*General Medical & Surgical Hospitals*
2010 **BOSE, ANGELA ANN**...*Nurses-licensed-anesthetist*
2010 **BRADENTON HEART CTR**...*Physicians & Surgeons*
2010 **BRADENTON HEART CTR**...*Medical & Surgical Svc Organizations*
2010 **BRADENTON TRAUMA & SURGERY CTR**...*Physicians & Surgeons*
2010 **DISH NETWORK**...*Television-cable & Catv*
2010 **DOW, AMY**...*Nurses-practitioners*
2010 **GIBSON, TOBIAS Q MD**...*Physicians & Surgeons*
2010 **H C A BRADENTON HEART CTR**...*Physicians & Surgeons*
2010 **HALL, AIMEE S**...*Nurses-practitioners*
2010 **HARDWICKE, SAMANTHA**...*Physicians Assistants*
2010 **LIEBERMAN, L J MD**...*Physicians & Surgeons*
2010 **MCWI**...*Nonclassified Establishments*
2010 **NOVA CLINICAL RESEARCH LLC**...*Marketing Research & Public Opinion Polling*
2010 **RIVERA, ENRIQUE MD**...*Physicians & Surgeons*
2010 **RIVERA, ENRIQUE MD**...*Medical & Surgical Svc Organizations*
2020 **BLAKE MEDICAL CTR**...*Hospitals*
2020 **BLAKE MEDICAL CTR**...*Nursing & Convalescent Homes*
2020 **BLAKE MEDICAL CTR**...*Drug Abuse & Addiction Info & Treatment*
2020 **BLAKE MEDICAL CTR**...*Nonprofit Organizations*
2020 **BULLEY, DAVID A MD**...*Physicians & Surgeons*
2020 **BULLOCK, CHRISTINA A**...*Nurses-licensed-anesthetist*
2020 **DEVRIES, JENNIFER M**...*Nurses-licensed-anesthetist*
2020 **EKG PANEL OF BLAKE**...*Offices Of Physicians (exc Mental Health Specs)*
2020 **EKG PANEL OF BLAKE**...*Medical & Surgical Svc Organizations*
2020 **GIBSON, TOBIAS Q MD**...*Physicians & Surgeons*
2020 **HERNANDEZ, JUAN C MD**...*Physicians & Surgeons*
2020 **HERNANDEZ, JUAN C MD**...*Medical & Surgical Svc Organizations*
2020 **HIERHOLZER, DANNY M DO**...*Physicians & Surgeons*
2020 **HIERHOLZER, DANNY M DO**...*Medical & Surgical Svc Organizations*
2020 **JOINT CARE CTR**...*Clinics*
2020 **KANAPATHIPPILL, NARRANI MD**...*Physicians & Surgeons*
2020 **KHAN, AYESHA F MD**...*Physicians & Surgeons*
2020 **KHAN, AYESHA F MD**...*Medical & Surgical Svc Organizations*
2020 **MANDERSCHEID, RITA M**...*Nurses-practitioners*
2020 **MANDERSCHEID, RITA M**...*Nurses-practitioners*
2020 **MATHEW, JERRY MD**...*Physicians & Surgeons*
2020 **NAJJAR, BRYAN A PA**...*Physicians Assistants*
2020 **NEILANDS, PAMELA S MD**...*Physicians & Surgeons*
2020 **PACE, JOSEPH N MD**...*Physicians & Surgeons*
2020 **PENICO III, PETER MD**...*Physicians & Surgeons*
2020 **RASHID, TARIQ MD**...*Physicians & Surgeons*
2020 **RASMUSSEN, HEATHER M**...*Nurses-licensed-anesthetist*
2020 **RUPERTO-SWALLS, JASHIRA**...*Physicians Assistants*
2020 **SINGH, DILPREET MD**...*Medical & Surgical Svc Organizations*
2020 **SINGH, DILPREET MD**...*Physicians & Surgeons*
2020 **SNYDER, ASHLEY**...*Physicians Assistants*
2020 **SNYDER, ASHLEY**...*Physicians & Surgeons*
2020 **VAN VLIET, MICHAEL M MD**...*Physicians & Surgeons*
2020 **WARNER, TRACEY G**...*Nurses-practitioners*
2020 **WHELAN, BLANNIE M NP**...*Nurses-practitioners*

2020 59TH STREET WEST
SOURCE: DIGITAL BUSINESS DIRECTORY

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2020 **WILLIAMS, KARIN ANN**...*Speech Pathologists*
2020 **ZIMMERMAN, WESTON B DO**...*Physicians & Surgeons*
2102 **BANK OF THE OZARKS**...*Real Estate Loans*
2102 **BANK OF THE OZARKS**...*Commercial Banking*
2103 **DIAZ, LYDIA**...*Dental Hygienists*
2103 **JUNGMAN, DOUGLAS C DDS**...*Dentists*
2104 **BENZER PHARMACY**...*Pharmacies*
2105 **INTERNATIONAL MEDICAL LAB INC**...*Laboratories-medical*
2107 **FAMILY MEDICAL CARE LLC**...*Medical & Surgical Svc Organizations*
2107 **FAMILY MEDICAL CARE LLC**...*Physicians & Surgeons*
2107 **TANGLEWOOD FAMILY DENTAL**...*Dentists*
2107 **TANGLEWOOD FAMILY DENTAL**...*Federal Government Contractors*
2107 **WARNKEN, REBECCA L DDS**...*Dentists*
2109 **ARROJO, GUSTAVO B MD**...*Physicians & Surgeons*
2111 **FABRE, DAVID D DDS**...*Dentists*
2215 **ACUPUNCTURE HERBAL SOLUTIONS**...*Dentists*
2215 **ACUPUNCTURE HERBAL SOLUTIONS**...*Freestanding Ambulatory Surgical & Emergency Ctrs*
2215 **AULL, SUSAN MD**...*Physicians & Surgeons*
2215 **AULL, SUSAN MD**...*Medical & Surgical Svc Organizations*
2215 **NATURAL HEALING ARTS MED CTR**...*Chiropractors Dc*
2215 **NATURAL HEALING ARTS MED CTR**...*Massage Therapists*
2221 **CATASTROPHE TRAINING CTR**...*Attorneys*
2221 **CATASTROPHE TRAINING CTR**...*Insurance Adjusters*
2221 **IMS CLAIM SVC INC**...*Insurance Adjusters*
2221 **IMS CLAIM SVC INC**...*Attorneys*
2225 **HASARA, LAWRENCE C MD**...*Physicians & Surgeons*
2225 **HYNTON, J ROBERT DDS**...*Dentists*
2227 **BURKHART, YVONNE**...*Nurses & Nurses' Registries*
2227 **PALMA SOLA MEDICAL ASSOC**...*Physicians & Surgeons*
2227 **PALMA SOLA MEDICAL ASSOC**...*Medical & Surgical Svc Organizations*
2227 **STRANJAC, ADISA DPT**...*Physical Therapists*
2302 **HERITAGE PARK CARE & REHAB**...*Nursing & Convalescent Homes*
2302 **HERITAGE PARK CARE & REHAB**...*Nonprofit Organizations*
2902 **ADVANCED DERMATOLOGY-COSMETIC**...*Physicians & Surgeons*
2902 **ADVANCED DERMATOLOGY-COSMETIC**...*Offices Of Physicians (exc Mental Health Specs)*
2902 **BRADENTON ENDOSCOPY CTR**...*Physicians & Surgeons*
2902 **CHRISTIAN, DAVID J DDS**...*Dentists*
2902 **DAVID, CHRISTIAN DDS**...*Dentists*
2902 **DAVID, CHRISTIAN J DDS**...*Offices Of Dentists*
2902 **FAMILY MEDICAL CARE LLC**...*Health Care Facilities*
2902 **GHAFFHAICHI & PETROSINO**...*Physicians & Surgeons*
2902 **HANUSA, JAMES J MD**...*Physicians & Surgeons*
2902 **HCA HEALTHCARE**...*Health Care Management*
2902 **HCA HOLDINGS INC**...*Holding Companies (non-bank)*
2902 **HELP AT HOME HOMECARE LLC**...*Home Health Service*
2902 **KIRKLAND, MARGARET DDS**...*Dentists*
2902 **LEAVITT MEDICAL ASSOC OF FL**...*Dermatologists*
2902 **LEAVITT MEDICAL ASSOC OF FL**...*Physicians & Surgeons*
2902 **LEVITT, STEPHAN MD**...*Physicians & Surgeons*
2902 **LUCAS GROUP INSURANCE**...*Insurance-automobile*
2902 **LUCAS GROUP INSURANCE**...*Insurance-automobile*
2902 **ROSE, GAIL DC**...*Acupuncture*

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2902 **WOOSLEY, KERRY DC**...*Chiropractors Dc*
2902 **YATHIRAJ, SANJAY MD**...*Physicians & Surgeons*
3801 **W D SUGG MIDDLE SCHOOL**...*Schools*
3801 **W D SUGG MIDDLE SCHOOL**...*Schoolsuniversities & Colleges Academic*
3805 **HARBOUR COMMUNITY CHURCH**...*Religious Organizations*
3805 **MANATEE COUNTY YMCA**...*Restaurants*
3805 **MANATEE COUNTY YMCA**...*Youth Organizations & Centers*
3805 **MANATEE COUNTY YMCA**...*Clubs*
3805 **YMCA**...*Federal Government Contractors*
3805 **YMCA**...*Youth Organizations & Centers*
3805 **YMCA**...*Associations*
3805 **YMCA**...*Clubs*
3805 **YMCA**...*Social Service & Welfare Organizations*
3809 **JUST FOR GIRLS**...*Federal Government Contractors*
3809 **JUST FOR GIRLS**...*Community Action Agencies*
4207 **BRADENTON PODIATRIST**...*Podiatrists*
4208 **7-ELEVEN**...*Convenience Stores*
4208 **7-ELEVEN**...*Grocers-retail*
4211 **HUNGRY HOWIE'S PIZZA**...*Pizza*
4230 **BARB SLAVIK LMT**...*Other Personal Care Services*
4230 **NU COMPLEXIONS NEW OWNERS LLC**...*Beauty Salons*
4230 **PAMPERED HAIR**...*Beauty Salons*
4236 **A ACCREDITED COUNSELING SVC**...*Counseling Services*
4236 **DEVELOPMENTAL PSYC CTR**...*Psychiatric Treatment Facilities*
4236 **JAMES, RICHARD L MD**...*Physicians & Surgeons*
4236 **STACHO, DAVE**...*Other Individual & Family Services*
4236 **WILLEY, BRIE-ANNA**...*Counselors*
4236 **WILLEY, BRIE-ANNA**...*Counselorscouples*

169 total records. *Part 1 of 4*

400 **SCHOLFIELD REALTY INC**...*Real Estate*
400 **SCHOLFIELD REALTY INC**...*Real Estate Management*
615 **PREZTIGE**...*Nonclassified Establishments*
623 **NEW AGE TECH SOLUTIONS INC**...*Computer & Equipment Dealers*
916 **ADVANCED COPY SVC LLC**...*Copying Machines-service & Repair*
1220 **BRADENTON PLASTIC SURGERY**...*Physicians & Surgeons*
1400 **DE GROAT THOMAS S MD**...*Physicians & Surgeons*
1410 **POLIS JR CHARLES T MD**...*Physicians & Surgeons*
1414 **CHARLES-LOGAN CONSTANCE MD**...*Dentists*
1416 **BEARD JEFFREY S MD**...*Physicians & Surgeons*
1416 **BEARD MARGITA V MD**...*Physicians & Surgeons*
1416 **CATALANO & FUGHUM PA**...*Physicians & Surgeons*
1416 **CATALANO PHILIP M MD**...*Physicians & Surgeons*
1450 **BELLINO ROBERT J MD**...*Physicians & Surgeons*
1450 **BENDER ALBERT ALAN**...*Counselors*
1450 **GRUBBS INSURANCE**...*Insurance-homeowners*
1450 **GRUBBS DARA**...*Insurance-automobile*
1450 **LIFECARE MANAGEMENT INC**...*Business Management Consultants*
1500 **TINSWORTH ORTHODONTICS**...*Dentists*
1500 **TINSWORTH STEVEN DDS**...*Dentists*
1616 **CHURCH OF THE NAZARENE**...*Churches*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Religious Schools*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Schools*
1700 **WELLS FARGO BANK**...*Savings & Loan Associations*
1700 **WELLS FARGO BANK**...*Banks*
1700 **WELLS FARGO BANK ATM**...*Automated Teller Machines*
1802 **FLORIDA HOME HEALTH**...*Home Health Service*
1802 **FLORIDA HOME HEALTH**...*Nurses & Nurses` Registries*
1810 **LAUKHUF EVA MD**...*Physicians & Surgeons*
1810 **SINGH SATNAM MD**...*Physicians & Surgeons*
1810 **WESTSIDE MEDICAL CARE**...*Physicians & Surgeons*
1814 **MANATEE ORAL & FACIAL CTR**...*Dentists*
1824 **BLAKE PARK PHARMACY**...*Pharmacies & Drug Stores*
1824 **DAVID M WILLIAMS ENTERPRISES**...*Pharmacies*
1824 **SOOTHE PHARMACY COMPOUNDING**...*Pharmacies*
1830 **NICKI`S WEST 59TH RESTAURANT**...*Restaurants*
1838 **EDWARD JONES**...*Financial Planning Consultants*
1838 **EDWARD JONES**...*Financial Advisory Services*
1838 **GREENBRIER MASTECTOMY**...*Artificial Breasts*
1840 **SAME DAY STD TESTING**...*Laboratories-medical*
1850 **DESAI KINNARI P MD**...*Physicians & Surgeons*
1850 **GRATHWOHL TRACY LYNN NP**...*Nurses-practitioners*
1850 **LIEBERT KAREN F MD**...*Physicians & Surgeons*
1850 **PANDISCIO MARION M MD**...*Physicians & Surgeons*
1850 **SOCAS VERONICA MD**...*Physicians & Surgeons*
1880 **LEGACY PHYSICAL THRPY & SPORTS**...*Physical Therapists*
1882 **THOMPSON LESLIE DDS**...*Dentists*
1884 **PERRONE VINCENZO MD**...*Physicians & Surgeons*
1886 **GASTROENTEROLOGY ASSOCIATES**...*Physicians & Surgeons*
1886 **LEIGH JENNIFER H MD**...*Physicians & Surgeons*
1886 **PESONO SHARON L**...*Offices Of All Other Misc Health Practitioners*
1886 **RASCON-AGUILAR IVAN MD**...*Physicians & Surgeons*
1886 **RODDENBERRY JOHN MD**...*Physicians & Surgeons*

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1886 **RODRIGUEZ, MANUEL E MD**...*Physicians & Surgeons*
1894 **BLAKE MEDICAL CTR OUTPATIENT**...*X-ray Laboratories Medical & Dental*
1894 **BLAKE MEDICAL CTR OUTPATIENT**...*Physical Therapists*
1902 **CASA MORA REHABILITATION**...*Rehabilitation Services*
1902 **EXTENDICARE HEALTH NETWORK**...*Residential Care Homes*
1902 **EXTENDICARE HEALTH NETWORK**...*Health Care Instruction*
1906 **BAYVIEW DENTAL ASSOC**...*Dentists*
1906 **BLAKE DENTAL/PROFESSIONAL PARK**...*Dentists*
1906 **BURGESS, GEORGE H DDS**...*Cosmetic Dentistry*
1906 **ELFERVIG, MARK T DDS**...*Dentists*
1906 **MINT DENTAL**...*Offices Of Dentists*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Dentists*
1906 **PERIODONTAL SPECIALISTS**...*Dentists*
1906 **PLACHERIL, LILLIBET M MD**...*Physicians & Surgeons*
1906 **RICHMOND, H JOHN DDS**...*Dentists*
1906 **SABLE, RICHARD P DDS**...*Dentists*
1906 **THOMAS G RUBINO PA**...*Dentists*
1906 **VOGT, MISSY**...*Dental Hygienists*
1906 **WAITE, CYNTHIA**...*Dental Hygienists*
2010 **AMERICAN HEALTH ASSOC**...*Social Service & Welfare Organizations*
2010 **BLAKE IMAGING**...*Diagnostic Imaging Centers*
2010 **BLAKE MEDICAL CTR BREAST CARE**...*General Medical & Surgical Hospitals*
2010 **BLAKE MEDICAL CTR THE HEART**...*General Medical & Surgical Hospitals*
2010 **BRADENTON HEART CTR**...*Physicians & Surgeons*
2010 **BRADENTON TRAUMA & SURGERY CTR**...*Physicians & Surgeons*
2010 **DISH NETWORK**...*Satellite Equipment & Systems-retail*
2010 **GIBSON, TOBIAS Q MD**...*Physicians & Surgeons*
2010 **H C A BRADENTON HEART CTR**...*Physicians & Surgeons*
2010 **MCWI**...*Unclassified Establishments*
2010 **NOVA CLINICAL RESEARCH LLC**...*Marketing Research & Public Opinion Polling*
2010 **PINNACLE CARDIOVASCULAR**...*Physicians & Surgeons*
2010 **PINNACLE PULMONARY CONSULTANTS**...*Physicians & Surgeons*
2010 **RADIOLOGY-OUTPATIENT AT BLAKE**...*Outpatient Services*
2010 **RIVERA, ENRIQUE MD**...*Physicians & Surgeons*
2020 **AUCAR, ALFRED S MD**...*Physicians & Surgeons*
2020 **BLAKE HOSPITAL LW REGISTERED**...*Hospitals*
2020 **BLAKE MEDICAL CTR**...*Nursing & Convalescent Homes*
2020 **EKG PANEL OF BLAKE**...*Offices Of Physicians (exc Mental Health Specs)*
2020 **GIBSON, TOBIAS Q MD**...*Physicians & Surgeons*
2020 **HIERHOLZER, DANNY M DO**...*Physicians & Surgeons*
2020 **JOINT CARE CTR**...*Clinics*
2020 **KHAN, AYESHA F MD**...*Physicians & Surgeons*
2020 **LYSSY, DOUGLAS A MD**...*Physicians & Surgeons*
2020 **MANDERSCHEID, RITA M**...*Nurses-practitioners*
2020 **MAYER, ZOLTAN MD**...*Physicians & Surgeons*
2020 **NEILANDS, PAMELA S MD**...*Physicians & Surgeons*
2020 **PACE, JOSEPH N MD**...*Physicians & Surgeons*
2020 **PENICO III, PETER MD**...*Physicians & Surgeons*
2020 **RASHID, TARIQ MD**...*Physicians & Surgeons*
2020 **VANVLIET, MICHAEL M MD**...*Physicians & Surgeons*
2020 **VELCU, LAURA MD**...*Physicians & Surgeons*
2020 **WILLIAMS, KARIN ANN**...*Speech Pathologists*

2016
SOURCE: DIGITAL BUSINESS DIRECTORY
59TH STREET WEST

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2020 **ZAHARCU, ALEXANDRU MD**...*Physicians & Surgeons*
2102 **BANK OF THE OZARKS**...*Commercial Banking*
2103 **DIAZ, LYDIA**...*Dental Hygienists*
2103 **DUBE, FAITH**...*Dental Hygienists*
2103 **JUNGMAN, DOUGLAS C DDS**...*Dentists*
2103 **KLEMENT, ROBERT J DDS**...*Dentists*
2103 **VARGA, ANDREW I DDS**...*Dentists*
2103 **ZAMIKOFF, IRVING DDS**...*Dentists*
2105 **INTERNATIONAL MEDICAL LAB INC**...*Laboratories-medical*
2107 **TANGLEWOOD FAMILY DENTAL**...*Dentists*
2109 **ARROJO, GUSTAVO B MD**...*Physicians & Surgeons*
2111 **FABRE, DAVID D DDS**...*Dentists*
2215 **ACUPUNCTURE HERBAL SOLUTIONS**...*Freestanding Ambulatory Surgical & Emergency Ctrs*
2215 **LIPO X**...*Physicians & Surgeons*
2215 **NATURAL HEALING ARTS MED CTR**...*Chiropractors Dc*
2221 **CATASTROPHE TRAINING CTR**...*Insurance Adjusters*
2221 **IMS CLAIM SVC INC**...*Insurance Adjusters*
2225 **HASARA, LAWRENCE C MD**...*Physicians & Surgeons*
2225 **HYNTON, J ROBERT DDS**...*Dentists*
2225 **PECORARO, JOSEPH P MD**...*Physicians & Surgeons*
2227 **BURKHART, YVONNE**...*Nurses & Nurses' Registries*
2227 **WEST FLORIDA LIPIDOLOGY**...*Health Care Instruction*
2302 **HERITAGE PARK CARE & REHAB**...*Nursing & Convalescent Homes*
2902 **ADVANCED DERMATOLOGY-COSMETIC**...*Offices Of Physicians (exc Mental Health Specs)*
2902 **ADVANCED DERMATOLOGY-COSMETIC**...*Physicians & Surgeons*
2902 **AMERICAN VAN LINES OF BRADENTO**...*Movers*
2902 **BELSITO, ALPHONSO A MD**...*Physicians & Surgeons*
2902 **BRADENTON ENDOSCOPY CTR**...*Physicians & Surgeons*
2902 **BRADENTON ORAL SURGERY CTR**...*Dentists*
2902 **CHRISTIAN, DAVID J DDS**...*Dentists*
2902 **DAVID, CHRISTIAN DDS**...*Dentists*
2902 **DAVID, CHRISTIAN J DDS**...*Offices Of Dentists*
2902 **FAMILY MEDICAL CARE LLC**...*Health Care Facilities*
2902 **GHAFFHAICHI & PETROSINO**...*Physicians & Surgeons*
2902 **HANUSA, JAMES J MD**...*Physicians & Surgeons*
2902 **HCA HOLDINGS INC**...*Holding Companies (non-bank)*
2902 **HELP AT HOME HOMECARE LLC**...*Home Health Service*
2902 **KIRKLAND, MARGARET DDS**...*Dentists*
2902 **LUCAS GROUP INSURANCE**...*Insurance-automobile*
2902 **ROSE, GAIL DC**...*Acupuncture*
2902 **WOOSLEY, KERRY DC**...*Chiropractors Dc*
3701 **MANATEE WEST LITTLE LEAGUE**...*Youth Organizations & Centers*
3701 **MANATEE WILDCATS FOOTBALL INC**...*Youth Organizations & Centers*
3801 **W D SUGG MIDDLE SCHOOL**...*Schools*
3805 **HARBOUR COMMUNITY CHURCH**...*Religious Organizations*
3805 **MANATEE COUNTY YMCA**...*Clubs*
3805 **YMCA**...*Social Service & Welfare Organizations*
3805 **YMCA**...*Associations*
3809 **JUST FOR GIRLS**...*Community Action Agencies*
4207 **BRADENTON PODIATRIST**...*Podiatrists*
4208 **7-ELEVEN**...*Convenience Stores*
4208 **7-ELEVEN**...*Grocers-retail*

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4208 **CITIBANK ATM**...*Automated Teller Machines*
4211 **HUNGRY HOWIE'S PIZZA**...*Restaurants*
4211 **HUNGRY HOWIE'S PIZZA**...*Pizza*
4230 **AUTOMOTIVE PERSONAL**...*Automobile Repairing & Service*
4230 **BARB SLAVIK LMT**...*Other Personal Care Services*
4230 **NU COMPLEXIONS NEW OWNERS LLC**...*Beauty Salons*
4230 **PAMPERED HAIR**...*Beauty Salons*
4236 **A ACCREDITED COUNSELING SVC**...*Counseling Services*
4236 **JAMES, RICHARD L MD**...*Physicians & Surgeons*
4236 **RICHARD, L JAMES MD**...*Physicians & Surgeons*
4236 **STACHO, DAVE**...*Other Individual & Family Services*
4236 **WILLEY, BRIE-ANNA**...*Counselors*

552 total records. *Part 1 of 11*

320 **OGGIES LAWN SERVICE**...*Lawn/garden Services*
400 **SCHOLFIELD REALTY INC**...*Real Estate*
400 **SCHOLFIELD REALTY INC**...*Offices Of Real Estate Agents & Brokers*
400 **SCHOLFIELD REALTY INC**...*Real Estate Agt mgr*
627 **BAY WEST LAUNDRY MAT**...*Laundries-self Service*
627 **BAY WEST LAUNDRY MAT**...*Coin-oper Laundries*
916 **ADVANCED COPY SVC LLC**...*Copying & Duplicating Service*
1220 **BRADENTON PLASTIC SURGERY**...*Physicians & Surgeons*
1220 **BRADENTON PLASTIC SURGERY**...*Dermatology*
1220 **FERNANDEZ ENRIQUE J MD**...*Physicians & Surgeons*
1400 **BARON FLYERS INC**...*Unclassified*
1400 **CARDIOLOGY ASSOCIATES**...*Physicians & Surgeons*
1400 **CARDIOLOGY ASSOCIATES**...*Offices Of Physicians Except Mental Health*
1400 **CARDIOLOGY ASSOCIATES**...*Medical Grps &clncs*
1400 **DAY MICHAEL MD**...*Physicians & Surgeons*
1400 **DE GROAT THOMAS S MD**...*Physicians & Surgeons*
1400 **DAY MICHAEL MD**...*Offices Of Physicians Except Mental Health*
1400 **DE GROAT THOMAS S MD**...*Offices Of Physicians Except Mental Health*
1400 **LIEBERT HUGH P MD**...*Physicians & Surgeons*
1400 **LIEBERT HUGH P**...*Medical Doctor`s Office*
1400 **LIEBERT HUGH P MD**...*Offices Of Physicians Except Mental Health*
1410 **GULF UROLOGY ASSOCIATES**...*Medical Doctor`s Office*
1410 **HERMAN EDWARD MD**...*Medical Doctor`s Office*
1410 **POLIS JR CHARLES T MD**...*Physicians & Surgeons*
1410 **POLIS JR CHARLES T MD**...*Offices Of Physicians Except Mental Health*
1410 **UROLOGY ASSOCIATES**...*Physicians & Surgeons*
1410 **UROLOGY ASSOCIATES**...*Offices Of Physicians Except Mental Health*
1410 **UROLOGY ASSOCIATES**...*Surgery - Urological*
1414 **CHARLES-LOGAN CONSTANCE MD**...*Physicians & Surgeons*
1414 **CHORMAN CANDY**...*Nurses & Nurses` Registries*
1414 **CHARLES LOGAN CONSTANCE MD**...*Offices Of Physicians Except Mental Health*
1414 **J R KENNEDY MD**...*Medical Doctors Off*
1414 **J R KENNEDY MD**...*Physicians & Surgeons*
1414 **KENNEDY J R MD**...*Physicians & Surgeons*
1414 **KENNEDY J R MD**...*Offices Of Physicians Except Mental Health*
1414 **STEWART HEATHER**...*Nurses & Nurses` Registries*
1414 **SWILLEY TRESTA**...*Nurses & Nurses` Registries*
1414 **WEST COAST PEDIATRICS**...*Physicians & Surgeons*
1414 **WEST COAST PEDIATRICS**...*Physicians Office Specializing In Pediatrics*
1414 **WEST COAST PEDIATRICS**...*Pediatrics*
1414 **WEST COAST PEDIATRICS**...*Offices Of Physicians Except Mental Health*
1416 **BEARD JEFFREY S MD**...*Physicians & Surgeons*
1416 **BEARD MARGITA V MD**...*Physicians & Surgeons*
1416 **BEARD JEFFREY MD PA**...*Medical Doctor`s Office*
1416 **BEARD JEFFREY S MD**...*Offices Of Physicians Except Mental Health*
1416 **BEARD MARGITA V MD**...*Offices Of Physicians Except Mental Health*
1416 **CATALANO PHILIP M MD**...*Physicians & Surgeons*
1416 **CATALANO PHILIP M MD**...*Offices Of Physicians Except Mental Health*
1416 **JEFFREY S BEARD PA**...*Physicians & Surgeons*
1416 **JEFFREY S BEARD PA**...*Medical Doctors Off*
1416 **MARGITA V BEARD MD**...*Medical Doctors Off*
1416 **MARGITA V BEARD MD**...*Physicians & Surgeons*
1416 **PHILIP CATALANO MD PA**...*Medical Doctor`s Office*

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1416 **PHILIP M CATALANO MD**...*Physicians & Surgeons*
1416 **PHILIP M CATALANO MD**...*Medical Doctors Off*
1450 **BELLINO, ROBERT J MD**...*Physicians & Surgeons*
1450 **BELLINO, ROBERT J MD**...*Offices Of Physicians Except Mental Health*
1450 **CHASE HOME FINANCE**...*Real Estate Credit*
1450 **CHASE HOME FINANCE**...*Mortgage Bankers*
1450 **CHASE MANHATTAN**...*Mortgage Banker/correspondent*
1450 **CHASE MANHATTAN MORTGAGE CORP**...*Real Estate Loans*
1450 **DARA GRUBBS**...*Insurance Agents,brkr*
1450 **GRUBBS INSURANCE**...*Insurance-automobile*
1450 **GRUBBS, DARA**...*Insurance-automobile*
1450 **GRUBBS INSURANCE**...*Insurance Agencies & Brokerages*
1450 **GRUBBS INSURANCE**...*Insurance-homeowners*
1450 **GRUBBS INSURANCE AGENCY**...*Insurance Agent/broker*
1450 **GRUBBS, DARA**...*Insurance Agencies & Brokerages*
1450 **LIFECARE MANAGEMENT INC**...*Business Management Consultants*
1450 **LIFECARE MANAGEMENT INC**...*Process & Logistics Consulting Svcs*
1450 **LIFECARE MANAGEMENT INC**...*Mgmt Consulting*
1450 **ROBERT J BELLINO MD**...*Medical Doctors Off*
1450 **ROBERT J BELLINO MD**...*Physicians & Surgeons*
1500 **ORTHO LAB ONE**...*Dental Laboratories*
1500 **QUEST DIAGNOSTICS**...*Medical Laboratories*
1500 **STEVEN H TINSWORTH DMD PA**...*Dentist's Office*
1500 **STEVEN TINSWORTH ORTHODONTICS**...*Dentists*
1500 **STEVEN TINSWORTH ORTHODONTICS**...*Dentists Off,clinic*
1500 **TINSWORTH ORTHODONTICS**...*Dentists*
1500 **TINSWORTH, STEVEN H DDS**...*Dentists*
1500 **TINSWORTH ORTHODONTICS**...*Offices Of Dentists*
1500 **TINSWORTH, STEVEN H DDS**...*Offices Of Dentists*
1616 **CHURCH OF THE NAZARENE**...*Churches*
1616 **CHURCH OF NAZARENE**...*Church Of The Nazarene*
1616 **CHURCH OF NAZARENE**...*Churches*
1616 **CHURCH OF NAZARENE**...*Religious Organization*
1616 **CHURCH OF THE NAZARENE**...*Religious Organization*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Religious Schools*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Elementary & Secondary Schools*
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Cath Elem,second Schs*
1700 **WACHOVIA BANK**...*Banks*
1700 **WACHOVIA BANK**...*Banks*
1700 **WACHOVIA BANK**...*National Coml Banks*
1700 **WACHOVIA BANK**...*National Coml Banks*
1700 **WACHOVIA BANK**...*Commercial Banking*
1700 **WORLD SAVINGS BANK**...*Federal Savings & Loan Association*
1802 **COMPOUNDING CENTER**...*Pharmacies & Drug Stores*
1802 **EYE DEPOT**...*Physicians & Surgeons*
1802 **FLORIDA HOME HEALTH**...*Home Health Service*
1802 **TUTEN CORP**...*Opticians*
1804 **MEDICAL ARTS PHARMACY**...*Drug,proprietary Str*
1804 **MEDICAL ARTS PHARMACY**...*Pharmacies & Drug Stores*
1810 **DEAN R LAUKHUF DDS**...*Dentists*
1810 **EVA S LAUKHUF MD PA**...*Medical Doctor's Office*
1810 **LAUKHUF, EVA MD**...*Physicians & Surgeons*

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1810 **LAUKHUF, EVA MD**...*Offices Of Physicians Except Mental Health*
1810 **MARTIN, LYNN**...*Nurses' Registries*
1810 **POLAVARAPU, PADMAJA MD**...*Physicians & Surgeons*
1810 **SINGH, SATNAM MD**...*Physicians & Surgeons*
1810 **SINGH, SATNAM MD**...*Offices Of Physicians Except Mental Health*
1810 **SWEET TIERS**...*Retail Bakery*
1810 **WESTSIDE MEDICAL CARE**...*Physicians & Surgeons*
1810 **WESTSIDE MEDICAL CARE**...*Offices Of Physicians Except Mental Health*
1810 **WESTSIDE MEDICAL CARE**...*Family Practice*
1810 **WESTSIDE MEDICAL CARE**...*Medical Grps &clncs*
1810 **WESTSIDE MEDICAL CARE INC**...*Medical Doctor's Office*
1812 **ALL PRO THERAPY**...*Physical Therapists*
1812 **MEDICAL ARTS REHABILITATION**...*Offices Of Specialty Therapists*
1812 **MEDICAL ARTS REHABILITATION**...*Medical Grps &clncs*
1812 **NORRIS, GREG**...*Offices Of Specialty Therapists*
1812 **RICHARDSON, TIMOTHY**...*Offices Of Specialty Therapists*
1812 **SOLEUS HEALTHCARE SERVICES**...*Help Supply Services*
1816 **BON BONE MEDICAL IMAGING INC**...*X Ray Scanning*
1822 **TANGLES SALON OF BRADENTON INC**...*Beauty Salons*
1822 **TANGLES**...*Beauty Shop*
1822 **TANGLES**...*Beauty Salons*
1822 **TANGLES**...*Hairdressers*
1824 **DAVID M WILLIAMS ENTERPRISES**...*Pharmacies*
1830 **NICKI'S WEST 59TH RESTAURANT**...*Restaurants*
1830 **NICKIS WEST 59TH RESTAURANT**...*Restaurants*
1830 **NICKIS WEST 59TH RESTAURANT**...*Eating Places*
1830 **NICKIS WEST 59TH RESTAURANT**...*Eating Place*
1830 **NICKIS WEST 59TH RESTAURANT**...*Full-service Restaurants*
1838 **EDWARD JONES**...*Financial Advisory Services*
1838 **EDWARD JONES**...*Invest Firm General*
1838 **EDWARD JONES 03061**...*Security Brokers And Dealers*
1838 **EDWARD JONES CO**...*Investment Securities*
1838 **GREENBRIER MASTECTOMY**...*Artificial Breasts*
1838 **INFINITY HOME CARE**...*Home Health Care Svcs*
1838 **POST MASTECTOMY BOUTIQUE**...*Ret Misc Merchandise*
1840 **QUEST DIAGNOSTICS**...*Laboratories-medical*
1840 **QUEST DIAGNOSTICS**...*Medical Laboratory*
1840 **QUEST DIAGNOSTICS INC**...*Laboratories-medical*
1850 **ALBON NEUROMUSCULAR THRPY INC**...*Physical Therapists*
1850 **ALBON NEUROMUSCULAR THRPY INC**...*Misc Personal Svs*
1850 **ALBON NEUROMUSCULAR THRPY INC**...*Other Personal Care Svcs*
1878 **SUNCOAST BRACE & LIMB INC**...*Orthopedic Appliances*
1878 **SUNCOAST BRACE & LIMB INC**...*All Other Health & Personal Care Stores*
1878 **SUNCOAST BRACE & LIMB INC**...*Misc Retail Stores*
1878 **SUNCOAST BRACE & LIMB INC**...*Prosthetics*
1882 **LESLIE THOMPSON DDS**...*Dentists Off,clinic*
1882 **LESLIE THOMPSON DDS**...*Dentists*
1882 **THOMPSON, LESLIE DDS**...*Dentists*
1882 **THOMPSON, LESLIE DDS**...*Offices Of Dentists*
1884 **HALL ROGER W MD PA**...*Medical Doctor's Office*
1884 **PERRONE, VINCENZO MD**...*Physicians & Surgeons*
1886 **GASTROENTEROLOGY ASSOCIATES**...*Physicians & Surgeons*

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1886 **GASTROENTEROLOGY ASSOCIATES**...*Gastroenterology*
1886 **GASTROENTEROLOGY ASSOCIATES**...*Offices Of Physicians Except Mental Health*
1886 **MONTERO, CARLOS MD**...*Physicians & Surgeons*
1886 **MONTERO, CARLOS MD**...*Offices Of Physicians Except Mental Health*
1886 **RODDENBERRY, JOHN MD**...*Physicians & Surgeons*
1886 **RODRIGUEZ, MANUEL E MD**...*Physicians & Surgeons*
1886 **RODDENBERRY, JOHN MD**...*Offices Of Physicians Except Mental Health*
1886 **RODRIGUEZ, MANUEL E MD**...*Offices Of Physicians Except Mental Health*
1886 **THOMPSON, STACI R**...*Nurses-practitioners*
1894 **BLAKE MEDICAL CTR OUTPATIENT**...*Physical Therapists*
1894 **BLAKE MEDICAL CTR**...*Job Training,rel Sv*
1894 **BLAKE MEDICAL CTR**...*Offices Of Specialty Therapists*
1894 **BLAKE MEDICAL CTR**...*Rehabilitation Services*
1902 **CASA MORA REHABILITATION**...*Rehabilitation Services*
1902 **CASA MORA REHABILITATION**...*Job Training,rel Sv*
1902 **CASA MORA REHABILITATION**...*Rehabilitation Services*
1902 **CASA MORA REHABILITATION**...*Vocational Rehabilitiation Svcs*
1902 **EXTENDICARE**...*Health Care Instruction*
1906 **BAYVIEW DENTAL ASSOC**...*Dentists*
1906 **BLAKE DENTAL/PROFESSIONAL PARK**...*Dentists*
1906 **BROOKS, TERRY**...*Dental Hygienists*
1906 **BURGESS, GEORGE H DDS**...*Dentists*
1906 **BAYVIEW DENTAL ASSOC**...*Dentists Off,clinic*
1906 **BRADENTON ENDOCRINOLOGY**...*Physicians & Surgeons*
1906 **BRADENTON ENDOCRINOLOGY**...*Medical Doctor's Office*
1906 **BURGESS, GEORGE H DDS**...*Offices Of Dentists*
1906 **CUMMINGS, DONALD B DDS**...*Dentists*
1906 **CUMMINGS, DONALD B DDS**...*Offices Of Dentists*
1906 **DONALD B CUMMINGS PA**...*Dentists*
1906 **DONALD B CUMMINGS DDS**...*Dentists*
1906 **DONALD B CUMMINGS DDS**...*Dentists Off,clinic*
1906 **DONALD CUMMINGS DDS**...*Dentist's Office*
1906 **EASTMAN, LINDSAY B DDS**...*Dentists*
1906 **ELFERVIG, MARK T DDS**...*Dentists*
1906 **EASTMAN & RUBINO**...*Dentists Off,clinic*
1906 **EASTMAN, LINDSAY B DDS**...*Offices Of Dentists*
1906 **ELFERVIG, MARK T DDS**...*Offices Of Dentists*
1906 **GARY L LAUKHUF DDS**...*Dentist's Office*
1906 **GEORGE H BURGESS DDS**...*Dentists*
1906 **GEORGE H BURGESS DDS**...*Dentists Off,clinic*
1906 **H JOHN RICHMOND DDS**...*Dentists*
1906 **H JOHN RICHMOND DDS**...*Dentists Off,clinic*
1906 **LINDSAY B EASTMAN PA**...*Dentists*
1906 **LISZEWSKI, KENNETH DDS**...*Dentists*
1906 **MARK ELFERVIG DDS**...*Dentist's Office*
1906 **MARK T ELFERVIG DDS**...*Dentists*
1906 **MARK T ELFERVIG DDS**...*Dentists Off,clinic*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Dentists*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Offices Of Dentists*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Dentists*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Oral & Maxillofacial Surger*
1906 **PLACHERIL, LILLIBET M MD**...*Physicians & Surgeons*

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1906 **PERIDONTAL SPECIALISTS**...*Dentist's Office*
1906 **RICHMOND, H JOHN DDS**...*Dentists*
1906 **RUBINO, THOMAS G DDS**...*Dentists*
1906 **RICHMOND H JOHN DMD PA**...*Dentist's Office*
1906 **RICHMOND, H JOHN DDS**...*Offices Of Dentists*
1906 **RUBINO, THOMAS G DDS**...*Offices Of Dentists*
1906 **SCOVANNER, JANE**...*Dental Hygienists*
1906 **THOMAS G RUBINO PA**...*Dentists*
1906 **TOMEO, CHARLES A DDS**...*Dentists*
1906 **TOMEO, CHARLES C DDS**...*Dentists*
1906 **THOMAS G RUBINO DDS MS PA**...*Dentist's Office*
1906 **THOMAS G RUBINO PA**...*Dentists*
1906 **THOMAS G RUBINO PA**...*Offices Of Dentists*
1906 **THOMAS G RUBINO PA**...*Dentists Off,clinic*
1906 **TOMEO, CHARLES C DDS**...*Offices Of Dentists*
1906 **TOMEO, CHARLES A DDS**...*Offices Of Dentists*
1906 **VOGT, MISSY**...*Dental Hygienists*
1906 **WAITE, CYNTHIA**...*Dental Hygienists*
1906 **WILDCATS AVIATORS INC**...*Flying Service*
2010 **AMERICAN HEALTH ASSOC**...*Social Service & Welfare Organizations*
2010 **ALLEN W BOYCE MD**...*Medical Doctor's Office*
2010 **ALLERGY CARE CTR**...*Physicians & Surgeons*
2010 **BERMAN, ERIC E MD**...*Physicians & Surgeons*
2010 **BLAKE IMAGING**...*Physicians & Surgeons*
2010 **BRADENTON HEART CTR**...*Physicians & Surgeons*
2010 **BERMAN, ERIC E MD**...*Offices Of Physicians Except Mental Health*
2010 **BLAKE IMAGING**...*Diagnostic Imaging Centers*
2010 **BLAKE IMAGING**...*Medical Grps &clncs*
2010 **BLAKE MEDICAL CTR**...*Priv Elem,second Schs*
2010 **BLAKE MEDICAL CTR**...*General Medical & Surgical Hospitals*
2010 **BRADENTON HEART CTR**...*Medical Grps &clncs*
2010 **BRADENTON HEART CTR**...*Physicians & Surgeons*
2010 **BRADENTON HEART CTR**...*Offices Of Physicians Except Mental Health*
2010 **BROWN, RICHARD L MD**...*Offices Of Physicians Except Mental Health*
2010 **CALLAHAN, CLAIBORNE H MD**...*Offices Of Physicians Except Mental Health*
2010 **CHIN WARREN DO**...*Medical Doctor's Office*
2010 **COMPOUNDING CENTER**...*Pharmacies*
2010 **CRAGER KENNETH H MD**...*Medical Doctor's Office*
2010 **DAROLD, PETER E MD**...*Physicians & Surgeons*
2010 **DEFREITAS, EDWARD A MD**...*Physicians & Surgeons*
2010 **DAROLD, PETER E MD**...*Offices Of Physicians Except Mental Health*
2010 **DEFREITAS, EDWARD A MD**...*Offices Of Physicians Except Mental Health*
2010 **DIMINO, JOSEPH M MD**...*Offices Of Physicians Except Mental Health*
2010 **EDELMAN, ROBERT E MD**...*Physicians & Surgeons*
2010 **EDELMAN, ROBERT E MD**...*Offices Of Physicians Except Mental Health*
2010 **EDWARD A DEFREITAS MD**...*Medical Doctors Off*
2010 **FLECK, MELISSA J MD**...*Physicians & Surgeons*
2010 **FRIEDBERG, MURRAY L MD**...*Physicians & Surgeons*
2010 **FLECK, MELISSA J MD**...*Offices Of Physicians Except Mental Health*
2010 **FRIEDBERG, MURRAY L MD**...*Offices Of Physicians Except Mental Health*
2010 **GIBSON, TOBIAS Q MD**...*Physicians & Surgeons*
2010 **HUCKABY, TIMOTHY MD**...*Physicians & Surgeons*

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2010 **HEART & VASCULAR CENTER FLA**...*Medical Doctor's Office*
2010 **HEART & VASCULAR CTR**...*Cardiovascular Disease*
2010 **HOBBS DAVID J PHD**...*Medical Doctor's Office*
2010 **HUCKABY, TIMOTHY MD**...*Offices Of Physicians Except Mental Health*
2010 **JAMES M PSYD MCGOVERN**...*Health Practitioner's Office*
2010 **JOSEPH M DIMINO MD**...*Medical Doctor's Office*
2010 **KHATOR, POOJA MD**...*Physicians & Surgeons*
2010 **KOSELAK, DENNIS E MD**...*Physicians & Surgeons*
2010 **KHATOR, POOJA MD**...*Offices Of Physicians Except Mental Health*
2010 **KOSELAK, DENNIS E MD**...*Offices Of Physicians Except Mental Health*
2010 **MALLARI, IRENA C MD**...*Physicians & Surgeons*
2010 **MANATEE EYE CLINIC**...*Physicians & Surgeons*
2010 **MOSCOSO, WALTER E MD**...*Physicians & Surgeons*
2010 **MALLARI, IRENA C MD**...*Offices Of Physicians Except Mental Health*
2010 **MANATEE EYE CLINIC**...*Optometrists Office*
2010 **MANATEE EYE CLINIC**...*Physicians & Surgeons*
2010 **MANATEE EYE CLINIC**...*Offices Of Physicians Except Mental Health*
2010 **MOSCOSO, WALTER E MD**...*Offices Of Physicians Except Mental Health*
2010 **OLSON, SUZANNE M MD**...*Physicians & Surgeons*
2010 **OLSON, SUZANNE M MD**...*Offices Of Physicians Except Mental Health*
2010 **PERRONE, VINCENZO MD**...*Offices Of Physicians Except Mental Health*
2010 **QUICKSCREEN FOR WOMEN**...*Nclassifiable Estab*
2010 **QUICKSCREEN FOR WOMEN**...*Nonclassified Establishments*
2010 **RADIOLOGY-OUTPATIENT AT BLAKE**...*Outpatient Services*
2010 **RAVVIN, MIKHAIL MD**...*Physicians & Surgeons*
2010 **RADIOLOGY OUTPATIENT AT BLAKE**...*Offices Of Physicians Except Mental Health*
2010 **RADIOLOGY SERVICES**...*Radiologists*
2010 **RAJAN, RAJ MD**...*Offices Of Physicians Except Mental Health*
2010 **RAVVIN, MIKHAIL MD**...*Offices Of Physicians Except Mental Health*
2010 **SAMBURSKY, ROBERT MD**...*Physicians & Surgeons*
2010 **SILVERMAN, SCOTT E MD**...*Physicians & Surgeons*
2010 **SAMBURSKY, ROBERT MD**...*Offices Of Physicians Except Mental Health*
2010 **SILVERMAN, SCOTT E MD**...*Offices Of Physicians Except Mental Health*
2010 **VINCENZO PERRONE MD**...*Medical Doctors Off*
2010 **VINCENZO PERRONE MD**...*Physicians & Surgeons*
2010 **W FLORIDA ANESTHESIA**...*Physicians & Surgeons*
2010 **W FLORIDA ANESTHESIA**...*Offices Of Physicians Except Mental Health*
2010 **W FLORIDA ANESTHESIA**...*Physicians & Surgeons*
2010 **W FLORIDA ANESTHESIA**...*Anesthesiology*
2020 **BLAKE HOSPITAL LW REGISTERED**...*Hospitals*
2020 **BLAKE MEDICAL CTR**...*Hospitals*
2020 **BRADENTON PATHOLOGY**...*Physicians & Surgeons*
2020 **BLAKE HOSPITAL**...*Hospitals*
2020 **BLAKE HOSPITAL**...*Medical Doctors Off*
2020 **BLAKE HOSPITAL LW REGISTERED**...*Gen Med, Surg Hosp*
2020 **BLAKE HOSPITAL LW REGISTERED**...*General Medical & Surgical Hospitals*
2020 **BLAKE HOSPITAL LW REGISTERED**...*Hospitals*
2020 **BRADENTON PATHOLOGY**...*Offices Of Physicians Except Mental Health*
2020 **BRADENTON PATHOLOGY**...*Pathology*
2020 **BRADENTON PATHOLOGY**...*Physicians & Surgeons*
2020 **COASTAL MECHANICAL SVC**...*Mechanical Contractors*
2020 **FARMER, JEFFREY WIL MD**...*Offices Of Physicians Except Mental Health*

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SOURCE: DIGITAL BUSINESS DIRECTORY

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2020 **GESSNER, ROBERT C MD**...*Offices Of Physicians Except Mental Health*
2020 **JOINT CARE CTR**...*Clinics*
2020 **JEFFREY WIL FARMER MD**...*Pathology*
2020 **JOINT CARE CTR**...*Offices Of Physicians Except Mental Health*
2020 **JOTOGO COFFEE & ESPRESSO**...*Coffee Shop*
2020 **KIMBRELL, BRIAN J MD**...*Physicians & Surgeons*
2020 **LISKIEWICZ, ANDREW Z MD**...*Offices Of Physicians Except Mental Health*
2020 **MAYER, ZOLTAN MD**...*Physicians & Surgeons*
2020 **MANATEE COMMUNITY BLOOD CENTER**...*Health/allied Services*
2020 **PENICO III, PETER MD**...*Physicians & Surgeons*
2020 **PUPELLO BESSONE & LOPEZ**...*Medical Doctor's Office*
2020 **R R SIMMONS CONSTRUCTION**...*General Contractors*
2020 **ROBERT C GESSNER MD**...*Emergency Medicine*
2020 **SENTENEY, GARY MD**...*Physicians & Surgeons*
2020 **SENTENEY, GARY MD**...*Offices Of Physicians Except Mental Health*
2020 **WEIGHT LOSS SOLUTIONS**...*Physicians & Surgeons*
2020 **WEIGHT LOSS SOLUTIONS**...*Offices Of Physicians Except Mental Health*
2020 **YOUMANS, GARY MD**...*Physicians & Surgeons*
2020 **YOUMANS, GARY MD**...*Offices Of Physicians Except Mental Health*
2102 **BANK OF THE OZARKS**...*Banks*
2102 **HORIZON BANK**...*Commercial Banking*
2102 **HORIZON BANK**...*National Coml Banks*
2102 **HORIZON BANK**...*State Bank*
2103 **DIAZ, LYDIA**...*Dental Hygienists*
2103 **DUBE, FAITH**...*Dental Hygienists*
2103 **JUNGMAN, DOUGLAS C DDS**...*Dentists*
2103 **JUNGMAN, DOUGLAS C DDS**...*Offices Of Dentists*
2103 **KLEMENT, ROBERT J DDS**...*Dentists*
2103 **KLEMENT, ROBERT J DDS**...*Offices Of Dentists*
2103 **POTTER, LISA**...*Dental Hygienists*
2103 **VARGA, ANDREW I DDS**...*Dentists*
2103 **VARGA, ANDREW I DDS**...*Offices Of Dentists*
2103 **ZAMIKOFF, IRVING DDS**...*Dentists*
2103 **ZAMKOFF KLEMENT & JUNGMAN**...*Dentists*
2103 **ZAMIKOFF IRVING DDS MS PA**...*Dentist's Office*
2103 **ZAMIKOFF, IRVING DDS**...*Offices Of Dentists*
2103 **ZAMKOFF KLEMENT & JUNGMAN**...*Dentists*
2103 **ZAMKOFF KLEMENT & JUNGMAN**...*Specialty Unknown*
2103 **ZAMKOFF KLEMENT & JUNGMAN**...*Offices Of Dentists*
2107 **COHEN, DANIEL C DDS**...*Dentists*
2107 **COHEN, DANIEL C DDS**...*Offices Of Dentists*
2107 **DANIEL C COHEN PA**...*Dentists Off,clinic*
2107 **DANIEL C COHEN PA**...*Dentists*
2107 **TANGLEWOOD FAMILY DENTAL**...*Dentists*
2109 **ARROJO, GUSTAVO B MD**...*Physicians & Surgeons*
2109 **ARROJO, GUSTAVO B MD**...*Offices Of Physicians Except Mental Health*
2109 **B ARROJO GUSTAVO MD**...*Medical Doctors Off*
2109 **GUSTAVO, B ARROJO MD**...*Offices Of Physicians Except Mental Health*
2109 **PREMIER INTERNAL MEDICINE**...*Family Practice*
2109 **PREMIER INTERNAL MEDICINE**...*Offices Of Physicians Except Mental Health*
2109 **TANGLEWOOD PERIODONTICS**...*Dentist's Office*
2111 **DE JONGH, JOSEPH DDS**...*Dentists*

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2111 **DE JONGH, L CARL DDS**...*Dentists*
2111 **DE JONGH, L CARL DDS**...*Offices Of Dentists*
2111 **FABRE, DAVID D DDS**...*Dentists*
2111 **FABRE, DAVID D DDS**...*Offices Of Dentists*
2111 **MANATEE ENDODONTICS**...*Dentists*
2111 **MANATEE ENDODONTICS**...*Dentists*
2111 **MANATEE ENDODONTICS**...*Endodontists (root Canals)*
2111 **MANATEE ENDODONTICS**...*Offices Of Dentists*
2111 **MANITEE ENDODONICS**...*Dentist's Office*
2111 **STRIMER, ADAM P DDS**...*Dentists*
2111 **STRIMER, ADAM P DDS**...*Offices Of Dentists*
2215 **ACCIDENT & INJURY CTR**...*Chiropractors Dc*
2215 **AULL, SUSAN DC**...*Chiropractors Dc*
2215 **ELLIOTT, SCOTT DC**...*Offices Of Chiropractors*
2215 **HOUSE, J MICHAEL DC**...*Chiropractors Dc*
2215 **HART, MARY**...*Offices Of Specialty Therapists*
2215 **JASCH, KIM DC**...*Chiropractors Dc*
2215 **LANNING, JOHN A MD**...*Physicians & Surgeons*
2215 **MAXIMUM REHABILITATION CENTER**...*Health Practitioner`s Office*
2215 **NATURAL HEALING ARTS MEDICAL**...*Chiropractors Dc*
2215 **NATURAL HEALING ARTS MED CTR**...*Chiropractor's Office*
2215 **NATURAL HEALING ARTS MEDICAL**...*Chiropractors Dc*
2215 **NATURAL HEALING ARTS MEDICAL**...*Chiropractors Off*
2215 **NATURAL HEALING ARTS MEDICAL**...*Offices Of Chiropractors*
2215 **PILLEGI, AMANDA DC**...*Chiropractors Dc*
2215 **ROSENKRANS, JEREMIAH DC**...*Chiropractors Dc*
2215 **SANCHEZ, DANILLO DC**...*Chiropractors Dc*
2215 **YAFFE, MICHAEL DC**...*Offices Of Chiropractors*
2215 **ZAMIKOFF CHIROPRATIC LIFE CTR**...*Chiropractor's Office*
2221 **CATASTROPHE TRAINING CTR**...*Insurance Adjusters*
2221 **EVA LAUKHUF MD**...*Physicians & Surgeons*
2221 **IMS CLAIM SVC INC**...*Insurance Adjusters*
2221 **IMSCS INC**...*Nclassifiable Estab*
2221 **JAP PA**...*Operates As A Medical Doctor*
2221 **STEPHANIE MUFF MD**...*Medical Doctor's Office*
2225 **AUSTIN HILL MD**...*Physicians & Surgeons*
2225 **BATEY CARDIOLOGY CTR**...*Medical Doctors Off*
2225 **COSMETIC VEIN CLINIC**...*Physicians & Surgeons*
2225 **COSMETIC VEIN CLINIC FLORIDA**...*Vein Clinic*
2225 **COSMETIC VEIN CLINIC OF FL**...*Surgery - General*
2225 **HASARA, LAWRENCE C MD**...*Physicians & Surgeons*
2225 **HYNTON, J ROBERT DDS**...*Dentists*
2225 **HASARA, LAWRENCE C MD**...*Offices Of Physicians Except Mental Health*
2225 **HYNTON, J ROBERT DDS**...*Offices Of Dentists*
2225 **J ROBERT HYNTON DDS**...*Dentists Off,clinic*
2225 **J ROBERT HYNTON DDS**...*Dentists*
2225 **LAWRENCE C HASARA MD**...*Physicians & Surgeons*
2225 **LEGACY PHYSICAL THERAPY**...*Health Practitioner's Office*
2225 **LEGACY PHYSICAL THRPY & SPORTS**...*Medical Grps &clncs*
2225 **LEGACY PHYSICAL THRPY & SPORTS**...*Physical Therapists*
2225 **PECORARO, JOSEPH P MD**...*Physicians & Surgeons*
2225 **PREMIER INTERNAL MEDICINE**...*Physicians & Surgeons*

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2225 **PREMIERE INTERNAL MEDICINE**...*Medical Doctor's Office*
2227 **BURKHART, YVONNE**...*Nurses & Nurses' Registries*
2227 **PALMA SOLA MEDICAL ASSOC**...*Physicians & Surgeons*
2227 **PALMA SOLA MEDICAL ASSOC**...*Internal Medicine*
2227 **SAMMOUR, ADNAN MD**...*Physicians & Surgeons*
2227 **WAGNER, BARBARA MD**...*Physicians & Surgeons*
2227 **WEST FLORIDA LIPIDOLOGY**...*Nurses-practitioners*
2302 **HERITAGE PARK CARE & REHAB**...*Nursing & Convalescent Homes*
2302 **HERITAGE PARK CARE & REHAB**...*Nursing Homes*
2302 **HERITAGE PARK CARE & REHAB**...*Nursing Care Facilities*
2302 **I H S OF BRADENTON**...*Nursing Home*
2902 **AMERICAN VAN LINES OF BRADENTO**...*Movers*
2902 **ANDERSON, THOMAS A DDS**...*Dentists*
2902 **ANDERSON, THOMAS A DDS**...*Offices Of Dentists*
2902 **BELSITO, ALPHONSO A MD**...*Physicians & Surgeons*
2902 **BRADENTON ORAL SURGERY CTR**...*Physicians & Surgeons*
2902 **BELSITO, ALPHONSO A MD**...*Offices Of Physicians Except Mental Health*
2902 **BRADENTON ENDOSCOPY CENTER**...*Medical Doctor's Office*
2902 **BRADENTON GASTROENTEROLOGY**...*Gastroenterology*
2902 **BRADENTON GASTROENTEROLOGY**...*Physicians & Surgeons*
2902 **BRADENTON GASTROENTEROLOGY**...*Offices Of Physicians Except Mental Health*
2902 **BRADENTON ORAL SURGERY CTR**...*Dentists Off,clinic*
2902 **BRADENTON ORAL SURGERY CTR**...*Dentists*
2902 **BRADENTON ORAL SURGERY CTR**...*Offices Of Dentists*
2902 **BRADENTON PLASTIC SURGERY**...*Offices Of Physicians Except Mental Health*
2902 **BRADENTON SURGERY CTR**...*Offices Of Physicians Except Mental Health*
2902 **BRADENTON SURGERY CTR**...*Medical Grps &clncs*
2902 **COSMETIC VEIN CLINIC OF FL**...*Offices Of Physicians Except Mental Health*
2902 **FAMILY MEDICAL CARE LLC**...*Health Care Facilities*
2902 **FAMILY MEDICAL CARE LLC**...*Skilled Nursing*
2902 **FAMILY MEDICAL CARE LLC**...*Health Care Facilities*
2902 **FAMILY MEDICAL CARE LLC**...*Nursing Care Facilities*
2902 **FERNANDEZ, ENRIQUE J MD**...*Offices Of Physicians Except Mental Health*
2902 **GHAFFHAICHI & PETROSINO**...*Physicians & Surgeons*
2902 **GHAFGHAICHI, MEHRZAD MD**...*Physicians & Surgeons*
2902 **GAIL R ROSE DC**...*Chiropractor's Office*
2902 **GAIL ROSE DC**...*Chiropractors Off*
2902 **GHAFFHAICHI & PETROSINO**...*Offices Of Physicians Except Mental Health*
2902 **GHAFFHAICHI & PETROSINO**...*Physicians & Surgeons*
2902 **GHAFGHAICHI, MEHRZAD MD**...*Offices Of Physicians Except Mental Health*
2902 **GUSTAVO B ARROJO MD**...*Physicians & Surgeons*
2902 **HELP AT HOME HOMECARE LLC**...*Home Health Service*
2902 **INTERNATIONAL MEDICAL LAB INC**...*Laboratories-medical*
2902 **INTERNATIONAL MEDICAL LAB INC**...*Medical Laboratories*
2902 **INTERNATIONAL MEDICAL LAB INC**...*Medical Laboratory*
2902 **INTREPID USA**...*Nurses & Nurses' Registries*
2902 **INTREPID USA HEALTHCARE SVC**...*Home Health Care Svcs*
2902 **INTREPID USA HEALTHCARE SVC**...*Home Health Care Sv*
2902 **K J WOOSLEY DC**...*Chiropractors Dc*
2902 **KIRKLAND, MARGARET DDS**...*Dentists*
2902 **KIRKLAND DENTAL ARTS**...*Dentists*
2902 **KIRKLAND DENTAL ARTS**...*Dentists Off,clinic*

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2902 **KIRKLAND, BARCLAY DDS**...*Offices Of Dentists*
2902 **KIRKLAND, MARGARET DDS**...*Offices Of Dentists*
2902 **LEVITT, STEPHAN MD**...*Physicians & Surgeons*
2902 **LUCAS GROUP INSURANCE**...*Insurance-automobile*
2902 **LUCAS GROUP INSURANCE**...*Insurance Agencies & Brokerages*
2902 **MANJU SINGH MD**...*Medical Doctors Off*
2902 **PETROSINO, ALBERT T MD**...*Physicians & Surgeons*
2902 **PECORARO, JOSEPH P MD**...*Offices Of Physicians Except Mental Health*
2902 **PERFECT PURCHASE INC**...*Business Services Nec*
2902 **PERFECT PURCHASE INC**...*Business Svs Nec*
2902 **PETROSINO & GHAFGHAICHI MD**...*Medical Doctor's Office*
2902 **PETROSINO, ALBERT T MD**...*Offices Of Physicians Except Mental Health*
2902 **ROSE, GAIL DC**...*Chiropractors Dc*
2902 **RIDDELL & LUZIER**...*Attorneys*
2902 **RIDDELL LAW GROUP**...*Legal Services*
2902 **ROSE, GAIL DC**...*Offices Of Chiropractors*
2902 **RUBEN B HERNANDEZ MD**...*Physicians & Surgeons*
2902 **SINGH, MANJU MD**...*Physicians & Surgeons*
2902 **SINGH, MANJU MD**...*Offices Of Physicians Except Mental Health*
2902 **TANGLEWOOD PERIODONTICS**...*Dentists Off,clinic*
2902 **U S 1031 EXCHANGE SVC INC**...*Misc Services Nec*
2902 **WOOSLEY, KERRY DC**...*Chiropractors Dc*
2902 **WOOSLEY K J DC**...*Chiropractor's Office*
2902 **WOOSLEY, KERRY DC**...*Offices Of Chiropractors*
2905 **AMERICAN RED CROSS**...*Social Service & Welfare Organizations*
2905 **AMERICAN RED CROSS**...*Social Services*
2905 **AMERICAN RED CROSS**...*Other Individual & Family Svcs*
3701 **MANATEE WEST LITTLE LEAGUE**...*Youth Organizations & Centers*
3701 **MANATEE WILDCATS FOOTBALL INC**...*Youth Organizations & Centers*
3801 **W D SUGG MIDDLE SCHOOL**...*Schools*
3801 **W D SUGG MIDDLE SCHOOL**...*Elementary/secondary School*
3801 **W D SUGG MIDDLE SCHOOL**...*Element, Secon Schl*
3801 **W D SUGG MIDDLE SCHOOL**...*Elementary & Secondary Schools*
3805 **MANATEE COUNTY FAMILY YOUNG**...*Clubs*
3805 **MANATEE CTY FMY YMCA INC**...*Social Services Individual/family Services Members*
3805 **MANATEE FAMILY YMCA**...*Social Services Individual/family Services Members*
3805 **YMCA**...*Youth Organizations & Centers*
3805 **YMCA**...*Other Individual & Family Svcs*
3805 **YMCA**...*Social Services*
3809 **JUST FOR GIRLS**...*Clubs*
3809 **JUST FOR GIRLS**...*Civil & Social Organizations*
3809 **JUST FOR GIRLS**...*Civic & Social Assn*
3809 **JUST FOR GIRLS**...*Membership Sport/recreation Club*
4207 **CHIROPRACTIC CENTRE PA**...*Chiropractor's Office*
4207 **TOTAL FAMILY FOOT CARE**...*Podiatrists*
4207 **TOTAL FAMILY FOOT CARE**...*Offices Of Podiatrists*
4207 **TOTAL FAMILY FOOT CARE**...*Podiatrists Office*
4208 **7 ELEVEN**...*Convenience Stores*
4208 **7 ELEVEN**...*Ret Groceries*
4208 **7-ELEVEN**...*Convenience Stores*
4208 **CITIBANK ATM**...*Automated Teller Machines*
4208 **REDBOX**...*Video Rental Kiosks*

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4208 **SEVEN ELEVEN FOOD STORES**...*Conven Stores Chain*
4211 **HUNGRY HOWIE'S PIZZA**...*Pizza*
4211 **HUNGRY HOWIES PIZZA**...*Full-service Restaurants*
4211 **HUNGRY HOWIES PIZZA**...*Eating Place*
4211 **HUNGRY HOWIES PIZZA & SUBS**...*Restaurants*
4211 **HUNGRY HOWIES PIZZA & SUBS**...*Quick Serv Pizza Parlor*
4230 **MAKE IT COUNT ACCOUNTING**...*Offices Of Certified Public Accountants*
4230 **NAILS N SUCH**...*Beauty Salons*
4230 **NU COMPLEXIONS**...*Permanent Make-up*
4230 **NU COMPLEXIONS**...*Other Personal Care Svcs*
4230 **NU COMPLEXIONS**...*Misc Personal Svs*
4230 **PAMPERED HAIR**...*Beauty Salons*
4230 **PAMPERED HAIR**...*Hairdressers*
4230 **PAMPERED HAIR**...*Beauty Salons*
4230 **SOCIAL NETWORK CONSULTANTS**...*Consultants-business Nec*
4236 **A ACCREDITED COUNSELING SVC**...*Counseling Services*
4236 **A ACCREDITED COUNSELING SVC**...*Offices Of Mental Health Practitioners*
4236 **A ACCREDITED COUNSELING SVC**...*Psychologists*
4236 **A ACCREDITED COUNSELING SVC**...*Medical Doctors Off*
4236 **A BETTER SOLUTION COUNSELING**...*Other Individual & Family Svcs*
4236 **DEVELOPMENTAL PSYC CTR**...*Physicians & Surgeons*
4236 **DEVELOPMENTAL PSYC CTR**...*Psychiatry*
4236 **DEVELOPMENTAL PSYC CTR**...*Offices Of Physicians Except Mental Health*
4236 **DEVELOPMENTAL PSYC CTR**...*Physicians & Surgeons*
4236 **JAMES, RICHARD L MD**...*Physicians & Surgeons*
4236 **JAMES, RICHARD L MD**...*Offices Of Physicians Except Mental Health*
4236 **NEW PINNACLE PERFORMANCE**...*Process & Logistics Consulting Svcs*
4236 **NEW PINNACLE PERFORMANCE CNSL**...*Mgmt Consulting*
4236 **NEW PINNACLE PERFORMANCE CNSL**...*Business Management Consultants*
4236 **RICHARD, L JAMES MD**...*Physicians & Surgeons*
4236 **STACHO, DAVE**...*Marriage & Family Counselors*

248 total records. *Part 1 of 5*

320 **OGGIES LAWN SERVICE**...*Lawn/garden Services*
400 **ADVANCE SKIN & BODY CARE**...*Beauty Salons*
400 **SCHOLFIELD REALTY INC**...*Real Estate Agt mgr*
627 **BAY WEST LAUNDRY MAT**...*Laundries-self Service*
627 **BAY WEST LAUNDRY MAT**...*Coin-oper Laundries*
1220 **BRUCE W HUDSON MD**...*Physicians & Surgeons*
1220 **HUDSON BRUCE W**...*Medical Doctor`s Office*
1400 **BARON FLYERS INC**...*Unclassified*
1400 **CARDIOLOGY ASSOCIATES**...*Physicians & Surgeons*
1400 **CARDIOLOGY ASSOCIATES**...*Medical Grps &clncs*
1400 **LIEBERT HUGH P**...*Medical Doctor`s Office*
1410 **GULF UROLOGY ASSOCIATES**...*Medical Doctor`s Office*
1410 **HERMAN EDWARD MD**...*Medical Doctor`s Office*
1410 **UROLOGY ASSOCIATES**...*Physicians & Surgeons*
1410 **UROLOGY ASSOCIATES**...*Surgery - Urological*
1414 **J R KENNEDY MD**...*Medical Doctors Off*
1414 **J R KENNEDY MD**...*Physicians & Surgeons*
1414 **WEST COAST PEDIATRICS**...*Physicians Office Specializing In Pediatrics*
1414 **WEST COAST PEDIATRICS**...*Pediatrics*
1416 **BEARD JEFFREY MD PA**...*Medical Doctor`s Office*
1416 **JEFFREY S BEARD PA**...*Medical Doctors Off*
1416 **JEFFREY S BEARD PA**...*Physicians & Surgeons*
1416 **MARGITA V BEARD MD**...*Medical Doctors Off*
1416 **MARGITA V BEARD MD**...*Physicians & Surgeons*
1416 **PHILIP CATALANO MD PA**...*Medical Doctor`s Office*
1416 **PHILIP M CATALANO MD**...*Medical Doctors Off*
1416 **PHILIP M CATALANO MD**...*Physicians & Surgeons*
1450 **CHASE HOME FINANCE**...*Mortgage Bankers*
1450 **CHASE MANHATTAN**...*Mortgage Banker/correspondent*
1450 **CHASE MANHATTAN MORTGAGE CORP**...*Real Estate Loans*
1450 **DARA GRUBBS**...*Insurance Agents brkr*
1450 **GRUBBS INSURANCE**...*Insurance-homeowners*
1450 **GRUBBS INSURANCE AGENCY**...*Insurance Agent/broker*
1450 **LIFECARE MANAGEMENT INC**...*Mgmt Consulting*
1450 **LIFECARE MANAGEMENT INC**...*Manages Adult Congregate Living Fac*
1450 **ROBERT J BELLINO MD**...*Medical Doctors Off*
1450 **ROBERT J BELLINO MD**...*Physicians & Surgeons*
1500 **ORTHO LAB ONE**...*Dental Laboratories*
1500 **ORTHO LAB ONE**...*Dental Laboratory*
1500 **STEVEN H TINSWORTH DMD PA**...*Dentist`s Office*
1500 **STEVEN TINSWORTH ORTHODONTICS**...*Dentists*
1500 **STEVEN TINSWORTH ORTHODONTICS**...*Dentists Off clinic*
1616 **CHURCH OF NAZARENE**...*Church Of The Nazarene*
1616 **CHURCH OF THE NAZARENE**...*Churches*
1616 **FIRST CHURCH OF THE NAZARENE**...*Religious Organization*
1700 **WACHOVIA BANK**...*National Coml Banks*
1700 **WACHOVIA BANK**...*Banks*
1700 **WACHOVIA BANK**...*National Coml Banks*
1700 **WORLD SAVINGS BANK**...*Federal Savings & Loan Association*
1802 **COMPOUNDING CENTER**...*Drug proprietary Str*
1802 **EYE DEPOT**...*Physicians & Surgeons*
1802 **TUTEN CORP**...*Opticians*
1804 **MEDICAL ARTS PHARMACY**...*Drug proprietary Str*

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1810 **DEAN R LAUKHUF DDS**...*Dentists*
1810 **EVA S LAUKHUF MD PA**...*Medical Doctor's Office*
1810 **SWEET TIERS**...*Retail Bakery*
1810 **WESTSIDE MEDICAL CARE**...*Medical Grps &clncs*
1810 **WESTSIDE MEDICAL CARE**...*Family Practice*
1810 **WESTSIDE MEDICAL CARE INC**...*Medical Doctor's Office*
1812 **MEDICAL ARTS REHABILITATION**...*Medical Grps &clncs*
1812 **SOLEUS HEALTHCARE SERVICES**...*Help Supply Services*
1816 **BON-BONE MEDICAL IMAGING INC**...*X Ray Scanning*
1820 **SYLVAN LEARNING CENTERS**...*School/educational Services*
1820 **SYLVAN LEARNING CTR**...*Sch,eductl Sv Nec*
1820 **SYLVAN LEARNING CTR**...*Tutoring*
1822 **TANGLES**...*Beauty Shop*
1822 **TANGLES**...*Hairdressers*
1828 **AKM TYPING SERVICE**...*Typing Medical & School Papers Etc*
1828 **AKM TYPING SVC**...*Secretarial,typing Sv*
1828 **AKM TYPING SVC**...*Typing Service*
1830 **NICKIS WEST 59TH RESTAURANT**...*Restaurants*
1830 **NICKIS WEST 59TH RESTAURANT**...*Eating Place*
1830 **NICKIS WEST 59TH RESTAURANT**...*Eating Places*
1838 **POST MASTECTOMY BOUTIQUE**...*Ret Misc Merchandise*
1840 **QUEST DIAGNOSTICS**...*Medical Laboratory*
1840 **QUEST DIAGNOSTICS INC**...*Laboratories-medical*
1850 **ALBON NEUROMUSCULAR THRPY INC**...*Misc Personal Svs*
1878 **SUNCOAST BRACE & LIMB INC**...*Misc Retail Stores*
1878 **SUNCOAST BRACE & LIMB INC**...*Prosthetics*
1882 **LESLIE THOMPSON DDS**...*Dentists*
1882 **LESLIE THOMPSON DDS**...*Dentists Off,clinic*
1884 **HALL ROGER W MD PA**...*Medical Doctor's Office*
1886 **GASTROENTEROLOGY ASSOCIATES**...*Gastroenterology*
1894 **BLAKE MEDICAL CTR**...*Job Training,rel Sv*
1894 **BLAKE MEDICAL CTR**...*Rehabilitation Services*
1894 **BLAKE MEDICAL CTR OUTPATIENT**...*Job Training,rel Sv*
1902 **CASA MORA REHABILITATION**...*Job Training,rel Sv*
1902 **CASA MORA REHABILITATION**...*Rehabilitation Services*
1906 **BAYVIEW DENTAL ASSOC**...*Dentists Off,clinic*
1906 **BRADENTON ENDOCRINOLOGY**...*Medical Doctor's Office*
1906 **BRADENTON ENDOCRINOLOGY**...*Physicians & Surgeons*
1906 **DONALD B CUMMINGS DDS**...*Dentists Off,clinic*
1906 **DONALD B CUMMINGS DDS**...*Dentists*
1906 **DONALD CUMMINGS DDS**...*Dentist's Office*
1906 **EASTMAN & RUBINO**...*Dentists Off,clinic*
1906 **GARY L LAUKHUF DDS**...*Dentist's Office*
1906 **GEORGE H BURGESS DDS**...*Dentists Off,clinic*
1906 **GEORGE H BURGESS DDS**...*Dentists*
1906 **H JOHN RICHMOND DDS**...*Dentists*
1906 **H JOHN RICHMOND DDS**...*Dentists Off,clinic*
1906 **MARK ELFERVIG DDS**...*Dentist's Office*
1906 **MARK T ELFERVIG DDS**...*Dentists*
1906 **MARK T ELFERVIG DDS**...*Dentists Off,clinic*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Dentists*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Oral & Maxillofacial Surger*

Part 3 of 5

1906 **PERIDONTAL SPECIALISTS**...*Dentist's Office*
1906 **RICHMOND H JOHN DMD PA**...*Dentist's Office*
1906 **THOMAS G RUBINO DDS MS PA**...*Dentist's Office*
1906 **THOMAS G RUBINO PA**...*Dentists Off,clinic*
1906 **THOMAS G RUBINO PA**...*Dentists*
1906 **WILDCATS AVIATORS INC**...*Flying Service*
2010 **ALLEN W BOYCE MD**...*Medical Doctor's Office*
2010 **ALLERGY CARE CTR**...*Physicians & Surgeons*
2010 **BLAKE IMAGING**...*Medical Grps &clncs*
2010 **BLAKE MED CTR/OUTPATIENT RDLGY**...*Mammograph*
2010 **BLAKE MEDICAL CTR**...*Priv Elem,second Schs*
2010 **BRADENTON HEART CTR**...*Medical Grps &clncs*
2010 **BRADENTON HEART CTR**...*Physicians & Surgeons*
2010 **CHIN WARREN DO**...*Medical Doctor's Office*
2010 **COMPOUNDING CENTER**...*Pharmacies*
2010 **CRAGER KENNETH H MD**...*Medical Doctor's Office*
2010 **EDWARD A DEFREITAS MD**...*Medical Doctors Off*
2010 **HEART & VASCULAR CENTER FLA**...*Medical Doctor's Office*
2010 **HEART & VASCULAR CTR**...*Cardiovascular Disease*
2010 **HOBBS DAVID J PHD**...*Medical Doctor's Office*
2010 **JAMES M PSYD MCGOVERN**...*Health Practitioner's Office*
2010 **JOHN RODDENBERRY MD**...*Medical Doctor's Office*
2010 **JOSEPH M DIMINO MD**...*Medical Doctor's Office*
2010 **MANATEE EYE CLINIC**...*Optometrists Office*
2010 **MANATEE EYE CLINIC**...*Physicians & Surgeons*
2010 **PENINSULA ARTHRITIS ASSOC**...*Physicians & Surgeons*
2010 **QUEST DIAGNOSTICS**...*Medical Laboratory*
2010 **QUICKSCREEN FOR WOMEN**...*Nclassifiable Estab*
2010 **QUICKSCREEN FOR WOMEN**...*Nonclassified Establishments*
2010 **RADIOLOGY SERVICES**...*Radiologists*
2010 **VINCENZO PERRONE MD**...*Physicians & Surgeons*
2010 **VINCENZO PERRONE MD**...*Medical Doctors Off*
2010 **W FLORIDA ANESTHESIA**...*Physicians & Surgeons*
2010 **W FLORIDA ANESTHESIA**...*Anesthesiology*
2020 **BLAKE HOSPITAL LW REGISTERED**...*Gen Med, Surg Hosp*
2020 **BLAKE HOSPITAL LW REGISTERED**...*Hospitals*
2020 **BLAKE MEDICAL CENTER**...*Medical Doctors Off*
2020 **BRADENTON PATHOLOGY**...*Physicians & Surgeons*
2020 **BRADENTON PATHOLOGY**...*Pathology*
2020 **COASTAL MECHANICAL SVC**...*Mechanical Contractors*
2020 **JEFFREY WIL FARMER MD**...*Pathology*
2020 **JOTOGO COFFEE & ESPRESSO**...*Coffee Shop*
2020 **L W BLAKE HOSPITAL**...*Hospitals*
2020 **MANATEE COMMUNITY BLOOD CENTER**...*Health/allied Services*
2020 **PUPELLO BESSONE & LOPEZ**...*Medical Doctor's Office*
2020 **R R SIMMONS CONSTRUCTION**...*General Contractors*
2020 **ROBERT C GESSNER MD**...*Emergency Medicine*
2102 **HORIZON BANK**...*State Bank*
2102 **HORIZON BANK**...*National Coml Banks*
2103 **ZAMIKOFF IRVING DDS MS PA**...*Dentist's Office*
2103 **ZAMKOFF KLEMENT & JUNGMAN**...*Specialty Unknown*
2103 **ZAMKOFF KLEMENT & JUNGMAN**...*Dentists*

2008
SOURCE: DIGITAL BUSINESS DIRECTORY
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2105 **INTERNATIONAL MEDICAL LAB INC**...*Medical Laboratory*
2107 **DANIEL C COHEN PA**...*Dentists Off,clinic*
2107 **DANIEL C COHEN PA**...*Dentists*
2109 **B ARROJO GUSTAVO MD**...*Medical Doctors Off*
2109 **PREMIER INTERNAL MEDICINE**...*Family Practice*
2109 **TANGLEWOOD PERIODONTICS**...*Dentist's Office*
2111 **MANATEE ENDODONTICS**...*Endodontists (root Canals)*
2111 **MANATEE ENDODONTICS**...*Dentists*
2111 **MANITEE ENDODONICS**...*Dentist's Office*
2215 **CORTEZ WELLNESS CTR**...*Health Services Nec*
2215 **MAXIMUM REHABILITATION CENTER**...*Health Practitioner`s Office*
2215 **NATURAL HEALING ARTS MED CTR**...*Chiropractor's Office*
2215 **NATURAL HEALING ARTS MEDICAL**...*Chiropractors Off*
2215 **NATURAL HEALING ARTS MEDICAL**...*Chiropractors Dc*
2215 **ZAMIKOFF CHIROPRATIC LIFE CTR**...*Chiropractor's Office*
2221 **EVA LAUKHUF MD**...*Physicians & Surgeons*
2221 **IMSCS INC**...*Nclassifiable Estab*
2221 **JAP PA**...*Operates As A Medical Doctor*
2221 **STEPHANIE MUFF MD**...*Medical Doctor's Office*
2225 **AUSTIN HILL MD**...*Physicians & Surgeons*
2225 **BATEY CARDIOLOGY CTR**...*Medical Doctors Off*
2225 **J ROBERT HYNTON DDS**...*Dentists*
2225 **J ROBERT HYNTON DDS**...*Dentists Off,clinic*
2225 **LAWRENCE C HASARA MD**...*Physicians & Surgeons*
2225 **PREMIER INTERNAL MEDICINE**...*Physicians & Surgeons*
2225 **PREMIERE INTERNAL MEDICINE**...*Medical Doctor's Office*
2227 **PALMA SOLA MEDICAL ASSOC**...*Internal Medicine*
2302 **HERITAGE PARK CARE & REHAB**...*Nursing & Convalescent Homes*
2302 **HERITAGE PARK CARE & REHAB**...*Nursing Homes*
2302 **I H S OF BRADENTON**...*Nursing Home*
2902 **BRADENTON ENDOSCOPY CENTER**...*Medical Doctor's Office*
2902 **BRADENTON GASTROENTEROLOGY**...*Physicians & Surgeons*
2902 **BRADENTON GASTROENTEROLOGY**...*Gastroenterology*
2902 **BRADENTON ORAL SURGERY CTR**...*Dentists*
2902 **BRADENTON ORAL SURGERY CTR**...*Dentists Off,clinic*
2902 **BRADENTON PLASTIC SURGERY**...*Dermatology*
2902 **BRADENTON SURGERY CTR**...*Medical Grps &clncs*
2902 **COSMETIC VEIN CLINIC FLORIDA**...*Vein Clinic*
2902 **COSMETIC VEIN CLINIC OF FL**...*Surgery - General*
2902 **FAMILY MEDICAL CARE LLC**...*Skilled Nursing*
2902 **FAMILY MEDICAL CARE LLC**...*Health Care Facilities*
2902 **GAIL R ROSE DC**...*Chiropractor's Office*
2902 **GAIL ROSE DC**...*Chiropractors Off*
2902 **GHAFFHAICHI & PETROSINO**...*Physicians & Surgeons*
2902 **GUSTAVO B ARROJO MD**...*Physicians & Surgeons*
2902 **INTERNATIONAL MEDICAL LAB INC**...*Medical Laboratory*
2902 **INTERNATIONAL MEDICAL LAB INC**...*Laboratories-medical*
2902 **INTREPID USA**...*Nurses & Nurses' Registries*
2902 **INTREPID USA HEALTHCARE SVC**...*Home Health Care Sv*
2902 **K J WOOSLEY DC**...*Chiropractors Dc*
2902 **KIRKLAND DENTAL ARTS**...*Dentists*
2902 **KIRKLAND DENTAL ARTS**...*Dentists Off,clinic*

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2902 **MANJU SINGH MD**...*Medical Doctors Off*
2902 **PERFECT PURCHASE INC**...*Business Services Nec*
2902 **PERFECT PURCHASE INC**...*Business Svs Nec*
2902 **PETROSINO & GHAFGHAICHI MD**...*Medical Doctor's Office*
2902 **RIDDELL & LUZIER**...*Attorneys*
2902 **RIDDELL LAW GROUP**...*Legal Services*
2902 **RUBEN B HERNANDEZ MD**...*Physicians & Surgeons*
2902 **STATE FARM INSURANCE**...*Insurance Agent/broker*
2902 **TANGLEWOOD PERIODONTICS**...*Dentists Off,clinic*
2902 **U S 1031 EXCHANGE SVC INC**...*Misc Services Nec*
2902 **WOOSLEY K J DC**...*Chiropractor's Office*
2905 **AMERICAN RED CROSS**...*Social Services*
3801 **W D SUGG MIDDLE SCHOOL**...*Element, Secon Schl*
3801 **W D SUGG MIDDLE SCHOOL**...*Elementary/secondary School*
3805 **MANATEE CTY FMY YMCA INC**...*Social Services Individual/family Services Membership S*
3805 **MANATEE FAMILY YMCA**...*Social Services Individual/family Services Membership S*
3805 **YMCA**...*Social Services*
3809 **JUST FOR GIRLS**...*Membership Sport/recreation Club*
3809 **JUST FOR GIRLS**...*Civic & Social Assn*
4207 **CHIROPRACTIC CENTRE PA**...*Chiropractor's Office*
4207 **TOTAL FAMILY FOOT CARE**...*Podiatrists Office*
4207 **TOTAL FAMILY FOOT CARE**...*Podiatrist's Office*
4208 **7-ELEVEN**...*Ret Groceries*
4208 **SEVEN-ELEVEN FOOD STORES**...*Conven Stores Chain*
4211 **HUNGRY HOWIES PIZZA**...*Eating Place*
4211 **HUNGRY HOWIES PIZZA & SUBS**...*Quick Serv Pizza Parlor*
4211 **HUNGRY HOWIES PIZZA & SUBS**...*Restaurants*
4230 **MAKE IT COUNT ACCOUNTING**...*Acctg,audit,bkkeep*
4230 **NAILS N SUCH**...*Hairdressers*
4230 **NU COMPLEXIONS**...*Misc Personal Svs*
4230 **NU COMPLEXIONS**...*Permanent Make-up*
4230 **PAMPERED HAIR**...*Hairdressers*
4230 **PAMPERED HAIR**...*Beauty Salons*
4236 **A ACCREDITED COUNSELING SVC**...*Medical Doctors Off*
4236 **A ACCREDITED COUNSELING SVC**...*Psychologists*
4236 **DEVELOPMENTAL PSYC CTR**...*Physicians & Surgeons*
4236 **DEVELOPMENTAL PSYC CTR**...*Psychiatry*
4236 **NEW PINNACLE PERFORMANCE CNSL**...*Mgmt Consulting*
4236 **NEW PINNACLE PERFORMANCE CNSL**...*Business Management Consultants*

232 total records. *Part 1 of 5*

400 **ADVANCE SKIN & BODY CARE-DEBRA**...*Cosmetology And Personal Hygiene Salons*
615 **D`VINE TOUCH**...*Beauty Schools*
615 **GRATITUDE ROOM**...
616 **FAMILY LIFE COMMUNITY SCHOOL**...*Public Elementary And Secondary Schools*
1220 **HUDSON BRUCE W MD**...*Internal Medicine Practitioners*
1400 **CARDIOLOGY ASSOCIATES**...*Internal Medicine Practitioners*
1400 **DAY MICHAEL MD**...*Internal Medicine Practitioners*
1400 **DE GROAT THOMAS S MD**...*Internal Medicine Practitioners*
1400 **DEGROAT THOMAS MD**...*Internal Medicine Practitioners*
1400 **LIEBERT HUGH P MD**...*Internal Medicine Practitioners*
1400 **LOURIE JOHN K MD**...*Internal Medicine Practitioners*
1410 **FISCELLA KENNETH R MD**...*Internal Medicine Practitioners*
1410 **HERRMAN EDWARD MD**...*Internal Medicine Practitioners*
1410 **POLIS JR CHARLES T MD**...*Internal Medicine Practitioners*
1410 **UROLOGY ASSOCIATES**...*Internal Medicine Practitioners*
1414 **KENNEDY J R MD**...*Internal Medicine Practitioners*
1416 **BEARD JEFFREY S MD**...*Internal Medicine Practitioners*
1416 **CATALANO PHILIP M MD**...*Internal Medicine Practitioners*
1450 **BELLINO ROBERT J MD**...*Internal Medicine Practitioners*
1450 **CHASE MANHATTAN MORTGAGE CORP**...*Automobile And Consumer Finance Companies*
1450 **GRUBBS DARA**...
1450 **GRUBBS INSURANCE**...
1450 **GRUBBS JOSHUA**...
1450 **LIFECARE MANAGEMENT INC**...*Industrial And Labor Consulting Services*
1500 **ORTHO LAB ONE**...
1500 **TINSWORTH STEVEN H DDS**...*Specialized Dental Practitioners*
1616 **CHURCH OF THE NAZARENE**...
1616 **FAMILY LIFE COMMUNITY SCHOOL**...*Public Elementary And Secondary Schools*
1700 **FIRST UNION NATIONAL BANK**...
1802 **CUSTOM EYEWEAR**...
1802 **LANCE SCOT MD**...*Internal Medicine Practitioners*
1802 **SUNCOAST HEARING SVC CTR**...
1802 **TUTEN CORP**...
1810 **COMMUNITY MORTGAGE**...
1810 **PREFERRED FLORIDA MORTGAGE**...
1816 **BON-BONE MEDICAL IMAGING**...*Internal Medicine Practitioners*
1820 **SYLVAN LEARNING CTR**...
1822 **TANGLES**...
1824 **FIRST AMERICAN TITLE INS CO**...
1828 **AKM TYPING SVC**...
1830 **NICKI`S WEST 59TH RESTAURANT**...*Steak And Barbecue Restaurants*
1838 **GREENBRIER MASTECTOMY**...
1840 **ACCULAB**...*Testing Laboratories*
1850 **BRAMEISTER FINANCIAL GROUP**...
1850 **GULFCOAST UROLOGY**...*Internal Medicine Practitioners*
1850 **MODERN BUSINESS ASSOC**...
1850 **TOOLIN EILEEN A MD**...*Internal Medicine Practitioners*
1850 **WEINTRAUB MARK MD**...*Internal Medicine Practitioners*
1850 **YADVEN MITCHELL W MD**...*Internal Medicine Practitioners*
1878 **SUNCOAST BRACE & LIMB INC**...*Miscellaneous Retail Stores Nec Nec*
1880 **CHEN MELVIN C MD**...*Internal Medicine Practitioners*
1880 **JOHNSTON RICHARD H MD**...*Internal Medicine Practitioners*
1880 **LEVY MARC H MD**...*Internal Medicine Practitioners*

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1880 **SARASOTA RETINA INSTITUTE**...*Internal Medicine Practitioners*
1880 **WONG KEYE L MD**...*Internal Medicine Practitioners*
1882 **THOMPSON LESLIE DDS**...*Specialized Dental Practitioners*
1884 **PEURIFOY TOM MD**...*Internal Medicine Practitioners*
1884 **WEST SURGICAL**...*Internal Medicine Practitioners*
1886 **GENTIVA HEALTH SVC**...
1894 **BLAKE MEDICAL CTR**...
1902 **CASA MORA**...
1906 **BRADENTON ENDOCRINOLOGY**...*Internal Medicine Practitioners*
1906 **BURGESS GEORGE H DDS**...*Specialized Dental Practitioners*
1906 **CUMMINGS DONALD B DDS**...*Specialized Dental Practitioners*
1906 **DE VITA RICHARD N DDS**...*Specialized Dental Practitioners*
1906 **EASTMAN & RUBINO**...*Specialized Dental Practitioners*
1906 **EASTMAN LINDSAY B DDS**...*Specialized Dental Practitioners*
1906 **ELFERVIG MARK T DDS**...*Specialized Dental Practitioners*
1906 **LAUKHUF GARY L DDS**...*Specialized Dental Practitioners*
1906 **ORAL & MAXILLOFACIAL SURGERY**...*Specialized Dental Practitioners*
1906 **PLACHERIL LILLIBET M MD**...*Internal Medicine Practitioners*
1906 **RICHMOND H JOHN DDS**...*Specialized Dental Practitioners*
1906 **RUBINO THOMAS DDS**...*Specialized Dental Practitioners*
1906 **TOMEO CHARLES A DDS**...*Specialized Dental Practitioners*
2010 **ADLER JONATHAN A MD**...*Internal Medicine Practitioners*
2010 **AIDEYAN OSA A MD**...*Internal Medicine Practitioners*
2010 **AINBINDER MARTIN B MD**...*Internal Medicine Practitioners*
2010 **ALEXANDER JACK M MD**...*Internal Medicine Practitioners*
2010 **ALLERGY AFFILIATES**...*Internal Medicine Practitioners*
2010 **BERMAN ERIC E MD**...*Internal Medicine Practitioners*
2010 **BLACKWOOD ROBERT MD**...*Internal Medicine Practitioners*
2010 **BLAUSTEIN PHILIP A MD**...*Internal Medicine Practitioners*
2010 **BOYCE W ALLEN MD**...*Internal Medicine Practitioners*
2010 **BRADENTON BREAST EVALUTION CTR**...*Internal Medicine Practitioners*
2010 **BROWN RICHARD MD**...*Internal Medicine Practitioners*
2010 **BULLEY DAVID A MD**...*Internal Medicine Practitioners*
2010 **CELLA JOHN P MD**...*Internal Medicine Practitioners*
2010 **CHIN WARREN DO**...*Internal Medicine Practitioners*
2010 **CLASS STEVEN MD**...*Internal Medicine Practitioners*
2010 **COMPOUNDING CENTER**...
2010 **CRAGER KENNETH H MD**...*Internal Medicine Practitioners*
2010 **DIMINO JOSEPH M MD**...*Internal Medicine Practitioners*
2010 **EAR NOSE & THROAT ASSOC**...*Internal Medicine Practitioners*
2010 **EDELMAN ROBERT E MD**...*Internal Medicine Practitioners*
2010 **EYE CONSULTANTS**...*Internal Medicine Practitioners*
2010 **FRIEDBERG MURRAY L MD**...*Internal Medicine Practitioners*
2010 **GASTROENTEROLOGY ASSOCIATES**...*Internal Medicine Practitioners*
2010 **GRACE DAVID MD**...*Internal Medicine Practitioners*
2010 **GRENIER MARC P MD**...*Internal Medicine Practitioners*
2010 **GURUCHARRI MICHAEL J MD**...*Internal Medicine Practitioners*
2010 **HEIMBERG FLORENCE J MD**...*Internal Medicine Practitioners*
2010 **HILLSTROM ROBERT P MD**...*Internal Medicine Practitioners*
2010 **HISKES STEPHANIE K MD**...*Internal Medicine Practitioners*
2010 **HOBAN BRIAN K MD**...*Internal Medicine Practitioners*
2010 **HOBBS DAVID PHD**...*Internal Medicine Practitioners*

2003
SOURCE: DIGITAL BUSINESS DIRECTORY
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2010 **HOLSWORTH MICHAEL MD**...*Internal Medicine Practitioners*
2010 **JENKINS RICHARD MD**...*Internal Medicine Practitioners*
2010 **KALATHIA AXAY S MD**...*Internal Medicine Practitioners*
2010 **L L & B ELECTROCARDIOGRAMS**...
2010 **LE VELLE J P MD**...*Internal Medicine Practitioners*
2010 **LIEBERMAN L J MD**...*Internal Medicine Practitioners*
2010 **LOH FRANK MD**...*Internal Medicine Practitioners*
2010 **MAGNON WEST B MD**...*Internal Medicine Practitioners*
2010 **MANATEE EYE CLINIC**...*Internal Medicine Practitioners*
2010 **MANATEE FAMILY PHYSICIANS**...*Internal Medicine Practitioners*
2010 **MANATEE HEARING-SPEECH CTR**...
2010 **MARDONES OSVALDO F MD**...*Internal Medicine Practitioners*
2010 **MC GOVERN JAMES M MD**...*Internal Medicine Practitioners*
2010 **MEDICAL ARTS PHARMACY**...
2010 **MEDICAL ARTS REHABILITATION**...*Medical Centers*
2010 **MONTERO CARLOS MD**...*Internal Medicine Practitioners*
2010 **MORRISH THOMAS N MD**...*Internal Medicine Practitioners*
2010 **MOSCOSO WALTER E MD**...*Internal Medicine Practitioners*
2010 **NALL AGNES V MD**...*Internal Medicine Practitioners*
2010 **PENINSULA ARTHRITIS ASSOC**...*Internal Medicine Practitioners*
2010 **PENINSULA BEHAVIORAL MEDICINE**...*Internal Medicine Practitioners*
2010 **PENINSULA ORTHOPAEDIC ASSOC**...*Internal Medicine Practitioners*
2010 **PERRONE VINCENZO MD**...*Internal Medicine Practitioners*
2010 **PINNACLE CARDIOVASCULAR**...*Internal Medicine Practitioners*
2010 **QUEST DIAGNOSTICS INC**...*Testing Laboratories*
2010 **RICHARDSON TIMOTHY**...
2010 **RIZZO ANTHONY J MD**...*Internal Medicine Practitioners*
2010 **RODDENBERRY JOHN MD**...*Internal Medicine Practitioners*
2010 **RODRIGUEZ CARLOS M MD**...*Internal Medicine Practitioners*
2010 **RODRIGUEZ MANUEL E MD**...*Internal Medicine Practitioners*
2010 **SCHROEDER KEVIN S MD**...*Internal Medicine Practitioners*
2010 **SHEK ROSABELLA MD**...*Internal Medicine Practitioners*
2010 **SILVERMAN SCOTT E MD**...*Internal Medicine Practitioners*
2010 **STOUTAMYER STRATOS SCHROEDER**...*Internal Medicine Practitioners*
2010 **STRATOS MILTON S MD**...*Internal Medicine Practitioners*
2010 **W FLORIDA ANESTHESIA**...*Internal Medicine Practitioners*
2010 **WATERS ELAINE F MD**...*Internal Medicine Practitioners*
2010 **WENDEL NANETTE K MD**...*Internal Medicine Practitioners*
2010 **WESTSIDE INTERNAL MEDICINE**...*Internal Medicine Practitioners*
2020 **BLAKE HOSPITAL LW REGISTERED**...
2020 **BLAKE MEDICAL CTR**...*Colleges And Universities*
2020 **BRADENTON PATHOLOGY**...*Internal Medicine Practitioners*
2020 **L W BLAKE HOSPITAL**...
2020 **LISKIEWICZ ANDREW Z MD**...*Internal Medicine Practitioners*
2020 **MANATEE COMMUNITY SATELLITE**...
2020 **SENTENEY GARY MD**...*Internal Medicine Practitioners*
2020 **SOLER JOSEPH M MD**...*Internal Medicine Practitioners*
2020 **YOUMANS GARY MD**...*Internal Medicine Practitioners*
2102 **HORIZON BANK**...
2103 **CRAIG'S CROWNS INC**...
2103 **FELICIANO WENDELL A DDS**...*Specialized Dental Practitioners*
2103 **JUNGMAN DOUGLAS C DDS**...*Specialized Dental Practitioners*

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2103 **KLEMENT ROBERT J DDS**...*Specialized Dental Practitioners*
2103 **NGUYEN KIM HAI DDS**...*Specialized Dental Practitioners*
2103 **ROGER'S DENTAL LAB**...
2103 **ZAMIKOFF IRVING DDS**...*Specialized Dental Practitioners*
2103 **ZAMKOFF KLEMENT & JUNGMAN**...*Specialized Dental Practitioners*
2105 **INTERNATIONAL MEDICAL LAB INC**...*Testing Laboratories*
2107 **COHEN DANIEL C DDS**...*Specialized Dental Practitioners*
2107 **RENEE'S PORCELAIN STUDIO**...
2109 **KIRKLAND BARCLAY DDS**...*Specialized Dental Practitioners*
2109 **TANGLEWOOD PERIODONTICS**...*Specialized Dental Practitioners*
2111 **DE JONGH L CARL DDS**...*Specialized Dental Practitioners*
2111 **FABRE DAVID D DDS**...*Specialized Dental Practitioners*
2111 **MANATEE ENDODONTICS**...*Specialized Dental Practitioners*
2111 **STARLING ROBERT F DDS**...*Specialized Dental Practitioners*
2215 **JOINT WORKS**...
2215 **ZAMIKOFF CHIROPRACTIC LIFE CTR**...
2221 **GORDON ROGER DREW MD**...*Internal Medicine Practitioners*
2221 **LAUKHUF DEAN R DDS**...*Specialized Dental Practitioners*
2221 **LAUKHUF EVA MD**...*Internal Medicine Practitioners*
2221 **PFEILSTICKER JOHN A MD**...*Internal Medicine Practitioners*
2221 **WAGNER BARBARA MD**...*Internal Medicine Practitioners*
2225 **ARROJO GUSTAVO B MD**...*Internal Medicine Practitioners*
2225 **EL MASRY WAGUIH MD**...*Internal Medicine Practitioners*
2225 **HERNANDEZ JORGE L MD**...*Internal Medicine Practitioners*
2225 **HYNTON J ROBERT DDS**...*Specialized Dental Practitioners*
2225 **PREMIER INTERNAL MEDICINE**...*Internal Medicine Practitioners*
2225 **RUCKER G BINO MD**...*Internal Medicine Practitioners*
2227 **PALMA SOLA MEDICAL ASSOC**...*Internal Medicine Practitioners*
2227 **SAMMOUR ADNAN MD**...*Internal Medicine Practitioners*
2302 **INTEGRATED HEALTH SVC**...
2302 **NHLI**...
2902 **ANDERSON THOMAS A DDS**...*Specialized Dental Practitioners*
2902 **BELSITO ALPHONSO A MD**...*Internal Medicine Practitioners*
2902 **BRADENTON GASTROENTEROLOGY**...*Internal Medicine Practitioners*
2902 **BRADENTON ORAL SURGERY CTR**...*Specialized Dental Practitioners*
2902 **BRADENTON PLASTIC SURGERY**...*Internal Medicine Practitioners*
2902 **BRADENTON SURGERY CTR**...*Internal Medicine Practitioners*
2902 **COSMETIC VEIN CLINIC OF FL**...*Internal Medicine Practitioners*
2902 **DRUCKER YOEL MD**...*Internal Medicine Practitioners*
2902 **FERNANDEZ ENRIQUE J MD**...*Internal Medicine Practitioners*
2902 **GHAFFHAICHI & PETROSINO**...*Internal Medicine Practitioners*
2902 **GHAFFHAUCHI MEHRZAD MD**...*Internal Medicine Practitioners*
2902 **HERNANDEZ RUBEN B MD**...*Internal Medicine Practitioners*
2902 **IKEMAN ROBERT L MD**...*Internal Medicine Practitioners*
2902 **KAINE JEFFREY L MD**...*Internal Medicine Practitioners*
2902 **KIRKLAND MARGARET DDS**...*Specialized Dental Practitioners*
2902 **PECORARO JOSEPH P MD**...*Internal Medicine Practitioners*
2902 **PETROSINO ALBERT T MD**...*Internal Medicine Practitioners*
2902 **REJUVEN SKIN HEALTH & BEAUTY**...*Internal Medicine Practitioners*
2902 **ROSE GAIL DC**...
2902 **SMALL DANIEL MD**...*Internal Medicine Practitioners*
2902 **SOLEUS HEALTHCARE SVC**...

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SOURCE: DIGITAL BUSINESS DIRECTORY

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2902 **WAYNE SCROGGINS INSURANCE**...
2902 **WEITZNER RONALD I MD**...*Internal Medicine Practitioners*
2902 **WEST BRADENTON ARTHRITIS CTR**...*Internal Medicine Practitioners*
2902 **WOOSLEY K J DC**...
2902 **YONKER RICHARD A MD**...*Internal Medicine Practitioners*
2905 **AMERICAN RED CROSS**...*Growers' Associations*
3701 **MANATEE WILDCATS FOOTBALL INC**...
3801 **W D SUGG MIDDLE SCHOOL**...*Public Elementary And Secondary Schools*
3805 **YMCA**...*Growers' Associations*
3809 **JUST FOR GIRLS**...
4207 **TOTAL FAMILY FOOT CARE**...
4207 **WELCH MONA DPM**...
4208 **7-ELEVEN FOOD STORE**...
4211 **HUNGRY HOWIE'S PIZZA & SUBS**...
4220 **PEACOCK PRINTING**...*Promotional Printing, Lithographic*
4230 **A ALTERATIONS & TAILORING**...
4230 **ADULT HAIR DESIGNERS**...
4236 **A BETTER SOLUTION COUNSELING**...*Geriatric Social Service*
4236 **GLOVER & ASSOC COUNSELING**...
4236 **HAMILTON MICHAEL W**...*Geriatric Social Service*
4236 **JAMES RICHARD L MD**...*Internal Medicine Practitioners*
4236 **NPG RESOURCES**...*Industrial And Labor Consulting Services*
4236 **STACHO DAVID A**...

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202 **COLUMBIA BLAKE MEDICAL CENTER SUBACUTE CARE CENTER**...
400 **STORYTELLER**...*Costume Jewelry*
400 **WORMWOOD NANCY MASSAGE THERAPY**...*Miscellaneous Personal Services*
615 **PERFECT IMPRESSION**...*Beauty Shops*
1020 **CARIBBEAN DINE AROUND**...
1400 **CARDIOLOGY ASSOCIATES OF BRADENTON**...*Offices And Clinics Of Medical Doctors*
1410 **UROLOGY ASSOCIATES**...*Offices And Clinics Of Medical Doctors*
1414 **KENNEDY J R MD PA OFC PEDIATRICS**...*Offices And Clinics Of Medical Doctors*
1416 **CATALANO PHILIP M MD PA OFC**...*Offices And Clinics Of Medical Doctors*
1450 **JACKSON ROY D OFFICE**...*Management Consulting Services*
1450 **LIFECARE MANAGEMENT INC**...*Management Consulting Services*
1450 **US MED TECH INC**...*Drugs Proprietaries And Sundries*
1500 **TINSWORTH STEVEN H DMD PA ORTHODONTICS**...*Offices And Clinics Of Dentists*
1616 **CHURCH OF THE NAZARENE FIRST BRADENTON**...*Religious Organizations*
1616 **FIRST CHURCH OF THE NAZARENE BRADENTON**...*Religious Organizations*
1616 **NAZARENE FIRST CHURCH OF THE**...*Religious Organizations*
1802 **CUSTOM EYEWEAR**...*Optical Goods Stores*
1802 **MARK & LARRYS CUSTOM EYEWEAR**...*Optical Goods Stores*
1802 **MARK & LARRYS CUSTOM EYEWEAR BLAKE PARK OFC**...*Offices And Clinics Of Optometrists*
1810 **COMMUNITY MORTGAGE**...*Mortgage Bankers And Correspondents*
1810 **PRUDENTIAL FLORIDA REALTY RESIDENTIAL SALES OFFICES BRADENTON O**...*Real Estate Agents And Managers*
1812 **SYMPHONY HOME CARE SERVICES INC**...*Employment Agencies*
1816 **BON BONE MEDICAL IMAGING**...*Offices And Clinics Of Medical Doctors*
1818 **SYLVAN LEARNING CENTER**...*Schools And Educational Services*
1820 **PARENT WILLIAM H CPA**...*Accounting Auditing And Bookkeeping*
1820 **PARENT WILLIAM M CPA**...*Accounting Auditing And Bookkeeping*
1822 **WHO CUT YOUR HAIR**...*Beauty Shops*
1824 **FIRST AMERICAN TITLE INSURANCE COMPANY BRADENTON OFFICE**...*Title Abstract Offices*
1828 **A K M TYPING SERVICE**...*Telegraph And Other Communications*
1830 **NICKIS WEST 59TH RESTAURANT**...*Eating Places*
1838 **UNIGLOBE EXECUTIVE TRAVEL**...*Passenger Transportation Arrangement*
1850 **BRADENTON PHYSICIANS DIALYSIS CENTER**...*Offices And Clinics Of Medical Doctors*
1850 **INFECTIOUS DISEASES CONSULTANTS**...*Offices And Clinics Of Medical Doctors*
1878 **SUNCOAST BRACE & LIMB INC**...*Miscellaneous Retail Stores Nec*
1880 **CHEN MELVIN C MD**...*Offices And Clinics Of Medical Doctors*
1880 **LEVY MARC H MD**...*Offices And Clinics Of Medical Doctors*
1880 **SARASOTA RETINA INSTITUTE PA**...*Offices And Clinics Of Medical Doctors*
1880 **SARASOTA RETINAINSTITUTE**...*Offices And Clinics Of Medical Doctors*
1886 **BLAKE HOME HEALTH WEST**...*General Medical And Surgical Hospitals*
1886 **COLUMBIA HOMECARE WEST**...*General Medical And Surgical Hospitals*
1894 **BLAKE HCA L W HOSPITAL HEALTH CENTER AMERICA**...*General Medical And Surgical Hospitals*
1902 **FREEDOM CARE PAVILION**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION ACTIVITIES**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION ADMISSIONS**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION BEAUTY SHOP**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION BUSINESS OFFICE**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION DIETARY**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION FLEX STAFF NURSING POOL**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION HARMONY WING**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION HOUSEKEEPING**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION MAINTENANCE**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION PHYSICAL THERAPY**...*Nursing And Personal Care Nec*
1902 **FREEDOM CARE PAVILION SOCIAL SERVICES**...*Nursing And Personal Care Nec*

1998 59TH STREET WEST
SOURCE: DIGITAL BUSINESS DIRECTORY

Part 2 of 4

1906 **BURGESS GEO H DDS PA OFC**...*Offices And Clinics Of Dentists*
1906 **LAUKHUF GARY L DDS OFC**...*Offices And Clinics Of Dentists*
1906 **LAUKHUF GARY L DDS OFC ANSWER 24 HOURS A DAY**...*Offices And Clinics Of Dentists*
1906 **ORAL SURGERY ASSOCIATES**...*Offices And Clinics Of Dentists*
2010 **ADLER JONATHAN A MD MEDICAL ARTS BLDG OFC**...*Offices And Clinics Of Medical Doctors*
2010 **ALLERGY AFFILIATES**...*Offices And Clinics Of Medical Doctors*
2010 **ALLERGY CARE CENTER**...*Offices And Clinics Of Medical Doctors*
2010 **BRADENTON BREAST EVALUATION CENTER**...*Offices And Clinics Of Medical Doctors*
2010 **BRADENTON ORTHOPAEDIC ASSOCIATES**...*Offices And Clinics Of Medical Doctors*
2010 **BRADENTON ORTHOPEDIC ASSOCIATES**...*Offices And Clinics Of Medical Doctors*
2010 **CHAPMAN DAVID W MD OFC**...*Offices And Clinics Of Medical Doctors*
2010 **CORNING CLINICAL LABORATORIES**...*Medical Laboratories*
2010 **DICKERSON E P MD OFC**...*Offices And Clinics Of Medical Doctors*
2010 **EAR NOSE & THROAT ASSOCIATES OF MANATEE PA**...*Offices And Clinics Of Medical Doctors*
2010 **EDELMAN ROBERT E MD MEDICAL ARTS BLDG OFC**...*Offices And Clinics Of Medical Doctors*
2010 **FACIAL PLASTIC SURGERY CENTER**...*Offices And Clinics Of Medical Doctors*
2010 **FLORIDA DRUG RESEARCH**...
2010 **FRENCH ERIC L PT**...*Offices Of Health Practitioner*
2010 **FRIEDBERG MURRAY L MD MEDICAL ARTS BLDG OFC**...*Offices And Clinics Of Medical Doctors*
2010 **HOLSWORTH MICHAEL C MD OFC**...*Offices And Clinics Of Medical Doctors*
2010 **L L & B ELECTROCARDIOGRAMS**...
2010 **LASSEN KEITH J MD OFC**...*Offices And Clinics Of Medical Doctors*
2010 **LIEBERMAN L J MD OFC**...*Offices And Clinics Of Medical Doctors*
2010 **MANATEE EYE CLINIC MEDICAL ARTS BLDG OFC**...*Offices And Clinics Of Medical Doctors*
2010 **MANATEE FAMILY PHYSICIANS**...*Offices And Clinics Of Medical Doctors*
2010 **MANATEE HEARING SPEECH CENTER INC**...*Offices Of Health Practitioner*
2010 **MEDICAL ARTS PHARMACY**...*Medical And Hospital Equipment*
2010 **MEDICAL ARTS REHABILITATION INC**...*Offices Of Health Practitioner*
2010 **MOSCOSO WALTER E MD MEDICAL ARTS BUILDING**...*Offices And Clinics Of Medical Doctors*
2010 **MOSCOSO WALTER E MD MEDICAL ARTS BUILDING OFC**...*Offices And Clinics Of Medical Doctors*
2010 **PHARMACEUTICAL CONSULTING SERVICES**...*Business Consulting, Nec*
2010 **QUICKSCREEN FOR WOMEN MOBILE SCREENING MAMMOGRAPHY**...*Medical Laboratories*
2010 **ROGERS JAMES T MD OFC**...*Offices And Clinics Of Medical Doctors*
2010 **SILVERMAN SCOTT E MD MEDICAL ARTS BLDG OFC**...*Offices And Clinics Of Medical Doctors*
2010 **SUNCOAST CIRCULATORY CENTER**...*Health And Allied Services Nec*
2010 **TOWNSEND HORACE D MD OFC**...*Offices And Clinics Of Medical Doctors*
2010 **VAN FLEET ROBERT H MD**...*Offices And Clinics Of Medical Doctors*
2010 **WEST FLORIDA ANESTHESIA CONSULTANTS PA**...*Offices And Clinics Of Medical Doctors*
2010 **WESTSIDE MEDICAL ASSOCIATES**...*Offices And Clinics Of Medical Doctors*
2020 **BIRTHCARE FAMILY RESOURCE CENTER**...*Specialty Outpatient Clinics Nec*
2020 **BLAKE L W HOSPITAL**...*General Medical And Surgical Hospitals*
2020 **BLAKE L W HOSPITAL**...*General Medical And Surgical Hospitals*
2020 **BLAKE L W HOSPITAL**...*General Medical And Surgical Hospitals*
2020 **BLAKE L W HOSPITAL**...*General Medical And Surgical Hospitals*
2020 **BLAKE MEDICAL CENTER REGISTERED DIETICIANS**...*Offices Of Health Practitioner*
2020 **COLUMBIA BLAKE MEDICAL CENTER**...*General Medical And Surgical Hospitals*
2020 **COLUMBIA BLAKE MEDICAL CENTER**...*General Medical And Surgical Hospitals*
2020 **COLUMBIA BLAKE MEDICAL CENTER BLAKE PHYSICIANS ANSWERING**...*Business Services, Nec*
2020 **COLUMBIA BLAKE MEDICAL CENTER BUSINESS OFFICE PATIENT ACCOUNTIN**...*General Medical And Surgical Hospitals*
2020 **COLUMBIA BLAKE MEDICAL CENTER CATERING**...*Offices Of Health Practitioner*
2020 **COLUMBIA BLAKE MEDICAL CENTER CHEST PAIN CENTER**...*General Medical And Surgical Hospitals*
2020 **COLUMBIA BLAKE MEDICAL CENTER COMPANY CARE**...

Part 3 of 4

2020 **COLUMBIA BLAKE MEDICAL CENTER DIABETES EDUCATION PROGRAM**...*Offices Of Health Practitioner*
2020 **COLUMBIA BLAKE MEDICAL CENTER EAP**...
2020 **COLUMBIA BLAKE MEDICAL CENTER EMERGENCY CENTER 24 HRS**...*General Medical And Surgical Hospitals*
2020 **COLUMBIA BLAKE MEDICAL CENTER THE BABY PLACE**...*General Medical And Surgical Hospitals*
2020 **COLUMBIA BLAKE MEDICAL CENTER THE BABY PLACE BIRTHCARE FAMILY R**...*Specialty Outpatient Clinics Nec*
2020 **HCA L W BLAKE HOSPITAL**...*General Medical And Surgical Hospitals*
2020 **HOSPITAL BLAKE HCA L W**...*General Medical And Surgical Hospitals*
2020 **L W BLAKE HOSPITAL**...*General Medical And Surgical Hospitals*
2020 **MANATEE COMMUNITY BLOOD CENTER BLAKE SATELLITE**...
2020 **PHYSICIAN REFERRAL AT L W BLAKE HOSPITAL SARASOTA**...*General Medical And Surgical Hospitals*
2020 **THE BABY PLACE FAMILY RESOURCE CENTER**...*Specialty Outpatient Clinics Nec*
2103 **CRAIGS CROWNS INC**...*Dental Laboratories*
2103 **ROGERS DENTAL LAB**...*Dental Laboratories*
2105 **BRADENTON ARTHRITIS CENTER**...*Offices And Clinics Of Medical Doctors*
2105 **INTERNATIONAL MEDICAL LABORATORY INC**...*Medical Laboratories*
2105 **WEST BRADENTON ARTHRITIS CENTER**...*Offices And Clinics Of Medical Doctors*
2107 **RENEES PORCELAIN STUDIO**...*Dental Laboratories*
2109 **KIRKLAND BARCLAY DDS MSD OFC**...*Offices And Clinics Of Dentists*
2111 **DE JONGH L CARL DDS MS OFC**...*Offices And Clinics Of Dentists*
2215 **MAXIMUM REHABILITATION INC**...*Offices Of Health Practitioner*
2215 **MEDICINE SHOPPE**...*Drug Stores And Proprietary Stores*
2225 **TANGLEWOOD OPTICAL**...*Optical Goods Stores*
2302 **IHS OF BRADENTON**...*Nursing And Personal Care, Nec*
2302 **INTEGRATED HEALTH SERVICES OF BRADENTON**...*Nursing And Personal Care Nec*
2302 **NHLI**...
2302 **NOVA CARE INC**...
2902 **ANDERSON THOMAS A DDS BRADENTON ORAL SURGERY CENTER**...*Offices And Clinics Of Dentists*
2902 **ARM/MANATEE MEDICAL LABORATORIES**...*Medical Laboratories*
2902 **BRADENTON ENDOSCOPY CENTER**...*Offices And Clinics Of Medical Doctors*
2902 **BRADENTON GASTROENTEROLOGY PA**...*Offices And Clinics Of Medical Doctors*
2902 **BRADENTON PLASTIC SURGERY**...*Offices And Clinics Of Medical Doctors*
2902 **BRADENTON PSYCHIATRY ASSOCIATES**...*Offices And Clinics Of Medical Doctors*
2902 **CLEARWATER CLINICAL LABORATORY INC**...*Medical Laboratories*
2902 **KIRKLAND MARGARET DDS OFC**...*Offices And Clinics Of Dentists*
2902 **MANATEE MEDICAL LABORATORIES INC**...*Medical Laboratories*
2902 **MENS HEALTH INSTITUTE**...*Offices And Clinics Of Medical Doctors*
2902 **SCROGGINS WAYNE INSURANCE**...*Insurance Agents Brokers And Service*
2902 **STATE FARM INSURANCE COMPANIES AGENTS**...*Insurance Agents Brokers And Service*
2902 **TGC HOME HEALTH CARE**...*Employment Agencies*
2905 **AMERICAN RED CROSS MANATEE COUNTY CHAPTER**...*Civic And Social Associations*
2905 **AMERICAN RED CROSS MANATEE COUNTY CHAPTER EMERGENCY CALLS ANYTI**...*Civic And Social Associations*
2905 **RED CROSS**...*Civic And Social Associations*
3801 **SCHOOL BOARD OF MANATEE COUNTY CONTINUED MIDDLE SCHOOLS SUGG W**...*Elementary And Secondary Schools*
3805 **Y M C A MANATEE COUNTY FAMILY**...*Civic And Social Associations*
3809 **JUST FOR GIRLS WEST BRADENTON BRANCH**...*Membership Sports And Recreation Clubs*
3809 **MANATEE COUNTY GIRLS CLUB INC JUST FOR GIRLS**...*Membership Sports And Recreation Clubs*
3809 **MANATEE COUNTY GIRLS CLUB INC WEST BRADENTON BRANCH**...*Membership Sports And Recreation Clubs*
4207 **CHIROPRACTIC CENTRE PA THE**...*Offices And Clinics Of Chiropractors*
4207 **FAMILY FOOT CARE**...*Offices And Clinics Of Podiatrists*
4208 **7 ELEVEN FOOD STORES CONTINUED STORE NO 26065**...*Grocery Stores*
4220 **PEACOCK PRINTING**...*Miscellaneous Publishing*
4230 **A ALTERATIONS & TAILORING**...*Laundry And Garment Services Nec*

1998
SOURCE: DIGITAL BUSINESS DIRECTORY
59TH STREET WEST

Part 4 of 4

4230 **ADULT HAIR DESIGN**...*Beauty Shops*
4230 **BREITENBACH JACK INSURANCE**...*Insurance Agents Brokers And Service*
4230 **BREITENBACH JACK INSURANCE**...*Insurance Agents Brokers And Service*
4230 **CENTRAL SERVICE CONTRACTORS**...*Single-family Housing Construction*
4230 **STATE FARM INSURANCE COMPANIES AGENTS**...*Insurance Agents Brokers And Service*
4230 **STATE FARM INSURANCE COMPANIES AGENTS**...*Insurance Agents Brokers And Service*
4236 **LEGLER MARY ANN ARNP MSN MA**...*Offices And Clinics Of Medical Doctors*
18508 **BRADENTON OB GYN SPECIALISTS**...*Offices And Clinics Of Medical Doctors*

162 total records. *Part 1 of 4*

400 FISHER JOE CONSTRUCTION CO INC GENL CONTR
603 HAIRLOOM BEAUTY SALON
613 PALMA SOLA BARBER SHOP
615 PERFECT IMPRESSION NAIL & FACIAL SALON
617 PERFECT IMPRESSIONS
908 ARTHUR KENNETH J
912 CAMPBELL WALTER
912 CLARK WILMA A
916 HANF SOL J & IDA L
920 JOHNS BIC DORIS
924 WEBER LAUIS PHIE
928 GRAHAM DOUG & DIANE
1004 LA RUE DONALD L & KATH L
1008 SMITH ROBT O & PAT
1012 TRUONG HUNG VO
1016 WILLIAMS W T & GM
1020 COOK BRENDA
1020 DAVIS WINFIELD
1104 KRULL GERARD V & KAY
1104 RITTERMEYER VIRGINIA
1108 ANDRAKA JOSEPH T & BETTE C
1204 MARBURGER JOHN & CONNJE S
1204 MARBURGER MARK E
1208 NOT VERIFIED
1212 MC GEEHAN HUGH F & MARY
1220 HUDSON BRUCE W PHYS
1300 POWELL ARCHIBALD B & LAURENE P
1400 CARDIOLOGY ASSOCIATES
1400 MULTI TENANT PROFESSIONAL
1410 UROLOGY ASSOCIATES
1414 KENNEDY J RANDALL PHYS
1414 MENDEZ CARLOS A PHYS
1416 CATALANO PHILIP M PHYS
1416 FULGHUM DAVID D PHYS
1450 BELLINO ROBT J PHYS
1450 HEARING CARE CENTER PHYS
1450 LIFECARE MANAGEMENT INC RETIREMENT HM MGMT - DEV
1500 TINSWORTH STEVEN H ORTHODONTICS
1616 FIRST CHURCH OF THE NAZARENE
1700 FIRST UNION NATIONAL BANK OF FLORIDA
1812 CENTRAL HEALTH SERVICES
1814 FIRST AMERICAN TITLE INSURANCE CO
1816 ALLIED CLINICAL LABORATORIES
1818 SYLVAN LEARNING CENTER
1820 PARENT WILLIAM P CPA
1822 JE`MI HAIR SALON BEAUTY SALON
1826 PRUDENTIAL FLORIDA REALTY
1828 A K M TYPING SERVICE
1830 NICKI`S WEST FIFTY NINTH RESTAURANT
1838 EXECUTIVE TRAVEL OF MANATEE COUNTY
1840 CLIFFORD CHAPMAN EAR NOSE THROAT PHYSICIANS
1850 BACH MICHAEL C PHYS
1850 BRADENTON OB - GYN SPECIALISTS PHYS

1992
SOURCE: POLKS
59TH STREET WEST

Part 2 of 4

1850 BRAXTAN THOMAS N PHYS
1850 INFECTIOUS DISEASES CONSULTANTS PHYS
1850 LACEFIELD JERRY N
1850 LE FROCK JACK L PHYS
1850 SUTTON HAROLD S PHYS
1850 TURNER LEE M PHYS
1878 BELSITO ALPHONSO A PHYS
1880 MULTI TENANT PROFESSIONAL
1880 SARASOTA RETINA INSTITUTE
1882 PEDIATRIC DENTISTRY
1882 RUGGIERO CARL W DENTIST
1884 PEURIFOY J TOM PHYS
1886 BLAKE HOME HEALTH DEPT OF BLAKE HOSP
1886 ZIMMERMAN SARAH
1894 BLAKE L W HEALTH CENTER AMERICA HEALTH CLUB
1902 FREEDOM CARE PAVILION NURSING HOME
1906 BLAKE DENTAL PROFESSIONAL PARK PHYS OFCS
1906 BURGESS GEO H DENTIST
1906 CUMMINGS DONALD B DENTIST
1906 DE VITA RICHD N ENDO DENTIST
1906 EASTMAN LINDSAY B DENTIST
1906 ELFERVIG MARK T DENTIST
1906 LAUKHUF GARY L DENTIST
1906 RICHMOND H JOHN DENTIST
1906 RUBINO THOS G DENTIST
1906 TOMEO CHARLES A PHYS
2010 ALLERGY AFFILIATES PHYS
2010 ALLERGY CENTER CLINIC
2010 BARAN STOUTAMYER STRATOS & TEMPKIN PHYS
2010 BRADENTON BREAST EVALUATION CENTER
2010 BRADENTON ORTHOPAEDIC ASSOCIATES
2010 BRADENTON ORTHOPAEDIC ASSOCIATES OVERFLOW
2010 DAMON CLINICAL LABORATORIES CYTOLOGY
2010 EAR NOSE & THROAT ASSOCIATES OF MANATEE P PHYS
2010 FACIAL PLASTIC SURGERY CENTER THE CLINIC
2010 FLORIDA DRUG RESEARCH INC
2010 L L & B ELECTROCARDIOGRAMS BILLING OFFICE
2010 MANATEE EYE CLINIC
2010 MANATEE FAMILY PHYSICIANS
2010 MANATEE HEARING & SPEECH CENTER INC
2010 MANATEE OPTICAL CO
2010 MEDICAL ARTS BUILDING
2010 MEDICAL ARTS PHARMACY
2010 MEDICAL ARTS REHABILITATION INC
2010 MULTI TENANT PROFESSIONAL
2010 MULTI TENANT PROFESSIONAL
2010 NOT VERIFIED
2010 PHYSICIAN LINK INFORMATION
2010 VACANT
2010 VACANT
2010 WEST COAST NON - INVASIVE VASCULAR LABY INC
2010 WESTSIDE MEDICAL ASSOCIATES

Part 3 of 4

2020 BLAKE HOSPITAL PHARMACY
2020 H C A L W BLAKE HOSPITAL
2103 MULTI TENANT PROFESSIONAL
2105 INTERNATIONAL MEDICAL LABORATORY INC
2107 COHEN DANIEL C DENTIST
2109 KIRKLAND BARCLAY DENTIST
2111 DE JONGH L CARL DENTIST
2111 HOLLOWAY NORMAN L DENTIST
2215 MC CARTHY OWEN M PHYS
2215 SAVE RX PHARMACY
2221 MULTI TENANT PROFESSIONAL
2223 VACANT
2227 KOSER ROBERT B PHYS
2227 NELSON JEFFREY D PHYS
2302 HERITAGE PARK OF BRADENTON NURSING HOME
2800 NOT VERIFIED
2901 BRADENTON CITY FIRE DEPT STA NO 3
2902 BRADENTON PLASTIC SURGERY
2902 GULFCOAST PAIN MEDICINE CENTER INC
2902 HOME HEALTH SERVICES OF MANATEE - HOME HEALTH
2902 MANATEE MEDICAL LABORATORIES INC
2902 MULTI TENANT PROFESSIONAL
2902 NATIONAL DEVELOPMENT PROPERTIES OF FLORIDA INC
2902 NOT VERIFIED
2902 PALM COAST EYE CENTER
2902 STATE FARM INS
2902 VACANT
2905 AMERICAN RED CROSS MANATEE COUNTY CHAPTER
3801 SUGG W D MIDDLE SCHOOL
3805 LEARNING TREE PRE - SCHOOL
3805 MANATEE COUNTY FAMILY Y M C A
3809 MANATEE COUNTY GIRL'S CLUB W BRADENTON BR
4012 VACANT
4014 VACANT
4020 MARSHALL ROBERT L
4028 HEUSER BRENT
4030 -4116 VACANT (4 HSES)
4118 MARTIN THERESA G
4207 CHIROPRACTIC CENTRE THE
4207 HADAM RONALD T PHYS
4207 LANZISERA LISA R CHIRO
4207 TOTAL FAMILY FOOT CARE
4208 SEVEN ELEVEN INC
4220 PEACOCK PRINTING
4230 A A ALTERATIONS
4230 BREITENBACH JACK INSURANCE
4230 CENTRAL SERVICES CONTRACTORS INC
4230 THIRD DIMENSIONS HAIRSTYLING
4236 METTS INSURANCE CONSULTANTS
4236 NOT VERIFIED
4236 NOT VERIFIED
4236 PLAZA FIFTY NINE

1992
SOURCE: POLKS
59TH STREET WEST

Part 4 of 4

4236 TOWNE & SHORE REALTY
4236 TOWNE AND SHORE REALTY ADDL SP
4236 VACANT
4236 VACANT
4236 VACANT (2 BUSINESSES)

156 total records. *Part 1 of 3*

330 PETERS BARBARA MRS
400 FISHER R
603 HAIRLOOM BEAUTY SALON
611 AUSBORN ELECTRONIC WATCH & JEWELRY REPAIR INC
613 PALMA SOLA BARBER SHOP
615 COUNTRY NAILS BOUTIQUE
617 VACANT
804 NIETO RALPH
908 TAYLOR EARL S
912 CLARK MERVIN L
916 HANF SOL J
920 BRADY TED F
924 PENA NOEL
928 SYKES GINA
928 SYKES RAY
1004 LA RUE DONALD L
1008 STIRLITH FRANCIS E
1012 TRUONG HUNG VO
1016 HAUBERT PAUL
1020 LOOBY STEPHEN J
1104 KRULL GERALD V
1108 ANDRAKA JOSEPH T
1204 SCHIER JAS R
1208 STONEBROOK STEVE E
1212 MC GEEHAN HUGH F
1220 HUDSON BRUCE W PHYS
1222 UNDER CONSTN
1400 CARDIOLOGY ASSOCIATES
1400 DAY MICHL L PHYS
1400 DE GROAT THOS S PHYS
1410 FISCELLA KENNETH R PHYS
1410 POLIS CHARLES T JR PHYS
1410 UROLOGY ASSOCIATES
1414 KENNEDY J RANDALL PHYS
1416 CATALANO PHILIP M PHYS
1416 FULGHUM DAVID D PHYS
1616 FIRST CHURCH OF THE NAZARENE
1616 MATHIAS JOHN
1700 COMMUNITY BANK OF MANATEE
1800 BLAKE PARK
1810 COMMUNITY MORTGAGE
1812 BLAKE PARK FLORIST
1814 FIRST TITLE OF MANATEE INC
1816 CARPENTER`S SHOP THE RELIGIOUS SUP
1820 UNIFORM PRN SLS
1822 BLAKE PARK STYLISTS BEAUTY SALON
1826 GOLDEN GATE REAL ESTATE INC
1830 CIA`S PETITE CAFE
1838 EXECUTIVE TRAVEL OF MANATEE COUNTY INC
1840 HOME MEDICAL MED SUP RENTAL
1880 CHEN MELVIN C PHYS
1880 FLORIDA WEST COAST RETINA ASSOCIATES
1880 KINGHAM JAS D PHYS

1987
SOURCE: POLKS
59TH STREET WEST

Part 2 of 3

1882 PEDIATRIC DENTISTRY
1884 PEURIFOY J TOM PHYS
1886 H C A BLAKE HOME HEALTH AGENCY HOME NURSING SERV
1894 HEALTH CENTER AMERICA HEALTH CLUB
1901 BISHOP ANIMAL SHELTER S P C A SIDE ENT
1902 CAROL LOU MORA CARE CENNTER NURSING HOME
1906 ACQUARO RONALD S DENTIST
1906 BURGESS GEO H DENTIST
1906 CUMMINGS DONALD B DENTIST
1906 EASTMAN LINDSAY B DENTIST
1906 LACKEY DONALD W DENTIST
1906 TOMEO CHARLES A DENTIST
2010 ALPHA MED LAND CORP
2010 BELSITO ALPHONSO A
2010 BRADENTON BREAST EVALUATION CENTER
2010 BRADENTON ORTHOPAEDIC ASSOCIATES
2010 DAMON CLINICAL LABORATORIES
2010 EAR NOSE & THROAT ASSOCIATES OF MANATEE P A PHYS
2010 KING MEYER DODT CANTOLINO & POPE PHYS
2010 L L & B ELECTROCARDIOGRAMS
2010 MANATEE EYE CLINIC
2010 MANATEE FAMILY PHYSICIANS
2010 MANATEE HEARING & SPEECH CENTER
2010 MANATEE OPTICAL CO
2010 MEDICAL ARTS BUILDING
2010 MEDICAL ARTS PHARMACY
2010 MULTI TENANT PROFESSIONAL
2010 MULTI TENANT PROFESSIONAL
2010 NEURO - LOGICS INC
2010 OUTPATIENT RADIOLOGY
2010 PEAK'S COFFEE SHOP
2010 PERDONES HEALTH CARE SECURITY
2010 VACANT
2010 WEST COAST NON - INVASIVE VASCULAR LABY INC
2010 WESTSIDE MEDICAL ASSOCIATES
2010 WESTSIDE PHYSICAL THERAPY INC
2020 BLAKE HOSPITAL PHARMACY
2020 BLAKE L W MEMORIAL HOSPITAL
2101 TINSWORTH STEVEN H DENTIST
2103 MULTI TENANT PROFESSIONAL
2105 GULF COAST PATHOLOGY & MEDICAL LABORATORY SERVICE
2107 COHEN DANIEL C DENTIST
2107 HYGIENIC PORCELAIN MED SUPS
2109 TROXLER ROBT W DENTIST
2111 DE JONGH L CARL DENTIST
2111 HOLLOWAY NORMAN L DENTIST
2215 RASULO PHILIP S PHYS
2215 SAVE RX PHARMACY
2221 MULTI TENANT PROFESSIONAL
2223 CHASTEEN KENNETH R PHYS
2223 VACANT
2227 KOSER ROBERT B PHYS

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2227 NELSON JEFFREY D PHYS
2302 HERITAGE PARK OF BRADENTON NURSING HOME
2602 VACANT
2702 VACANT
2704 VACANT
2706 HAUSER STEVEN D
2708 VACANT
2800 CARRIAGE CLUB
2901 CITY FIRE DEPT STA NO 3
2902 NATIONAL DEVELOPMENT PROPERTIES OF FLORIDA INC
2905 AMERICAN RED CROSS MANATEE COUNTY CHAPTER
2905 COUNTY PARK & REC DEPT WEST ENTRANCE
2909 PARKSIDE MEDICAL MALL
3801 SUGG W D MIDDLE SCHOOL
3805 LEARNING TREE PRE - SCHOOL
3805 MANATEE COUNTY FAMILY Y M C A
3805 ST ANDREW'S CHRISTIAN CHURCH
3809 WEST BRADENTON GIRL'S CLUB
3830 ARMSTRONG JAY
4012 COUNTY AMBULANCE EMERGENCY MED SERV
4014 VACANT
4020 MARSHALL ROBERT L
4028 DUFF MARY
4028 STEVENS JAS E
4030 MITCHELL MICHL
4108 KING WINNIFRED I
4110 MUELLER MICHL E
4116 HOWELLS KEVIN
4118 CURT MESNARD
4204 VACANT
4207 CHIROPRACTIC CENTER THE
4207 HADAM RONALD T PHYS
4207 TOTAL FAMILY FOOT CARE
4208 SEVEN ELEVEN INC
4220 PEACOCK PRINTING
4230 BREITENBACH JACK INSURANCE
4230 RICHARDSON MANUFACTURING HOME SALES
4230 THIRD DIMENSIONS HAIRSTYLING
4236 AMERICAN DIAMOND PURE WATER CORP
4236 BRENNEMAN & COMPANY REAL ESTATE
4236 BROOKS TIMOTHY H REAL ESTATE
4236 FERRARI PATRICIA L ATTY
4236 FERRARI PATRICIA L OVERFLOW
4236 HARGER LIGHTING PROTECTION INC
4236 MINISTERS LIFE
4236 PLAZA FIFTY NINE
4236 SHORELAND WATER CO INC BOTTLE WATER
4236 SUNSTATE INSTITUTE REAL ESTATE
4236 TOWNE & SHORE REALTY
4236 TOWNE & SHORE REALTY OVERFLOW
4236 VACANT

81 total records. *Part 1 of 2*

. COHEN DANL C DENTIST
400 COKER ROBT E
412 HAWKER SHARON
908 TAYLOR EARL S
912 CLARK MERVIN L
916 HANF SOL J
920 MIGNEAULT DAVID
924 MOWRY CW
928 CAMPBELL ROBT W JR
1004 LA RUE DONALD L
1008 STIRLITH FRANCIS E
1012 KANE EP
1016 MILLER
1020 LOBSTER BOAT CORP - PROCESSORS & SHIPPERS
1108 ANDRAKA JOSEPH T
1204 SCHIER JAS R
1208 GRICE ERMA M MRS
1212 MC GEEHAN HUGH F
1410 FISCELLA KENNETH R PHYS
1410 POLIS CHARLES T JR PHYS
1414 KENNEDY J RANDALL PHYS
1416 CATALANO PHILIP M PHYS
1416 FULGHUM DAVID D PHYS
1508 OAKS THE CONDOMINIUMS
1901 BISHOP ANIMAL SHELTER S P C A SIDE ENT
1902 MORA CAROL LOU CARE CENTER
1906 ACQUARO RONALD S DENTIST
1906 BURGESS GEO H DENTIST
1906 CAJOLEAS GEO J DENTIST
1906 CUMMINGS DONALD B DENTIST
2010 MANATEE FAMILY PHYSICIANS
2010 MANATEE HEARING & SPEECH CENTER
2010 MANATEE OPTICAL CO
2010 MEDICAL ARTS BUILDING
2010 MEDICAL ARTS PHARMACY
2010 MEDICAL SERVICES LABORATORY
2010 MULTI TENANT PROFESSIONAL
2010 MULTI TENANT PROFESSIONAL
2010 TOWNSEND LASSEN & ROGERS MD`S PA
2010 VACANT
2010 WESTSIDE FAMILY PHYSICIANS
2020 BLAKE HOSPITAL PHARMACY
2020 BLAKE L W MEMORIAL HOSP
2101 TINSWORTH STEVEN H ORTHODONTIST
2103 FRIEDMAN CARL E JR DENTIST
2103 ZAMIKOFF IRVING I DENTIST
2105 GULF COAST PATHOLOGY & MEDICAL LABORATORY SERVICE
2105 MC CORMICK ELDRIDGE E PHYS
2109 TROXLER ROBT W DENTIST
2111 DE JONGH LEON C DENTIST
2215 MITCHELL REGINALD
2221 MULTI TENANT PROFESSIONAL
2221 TANGLEWOOD FAMILY PHYSICIANS

1981-1982
SOURCE: POLKS

59TH STREET WEST

Part 2 of 2

2411 TANGLEWOOD DEVELOPMENT REAL EST
2901 CITY FIRE DEPT STA NO 3
2905 AMERICAN RED CROSS
3801 SUGG WD MIDDLE SCHOOL
3805 MANATEE COUNTY FAMILY Y M C A
3805 MANATEE COUNTY SAFETY COUNCIL
3809 WEST BRADENTON GIRL'S CLUB
4012 VACANT
4014 RADKE TED M
4020 MARSHALL ROBERT L
4028 VACANT
4030 VACANT
4108 ANDERSON THOS
4110 VACANT
4116 PATTERSON NINA B MRS
4118 VACANT
4204 VACANT
4220 GULF COAST AGENCY INC
4230 ACTON INSURANCE INC
4230 BREITENBACH JACK INSURANCE
4230 CICERO ALFRED H ACCT
4230 S & S REALTY CO
4230 STAPLETON STEVEN W REAL EST BROKER
4236 GLORY LAND BUILDING & DEVELOPMENT INC
4236 GLORY REALTY INC
4236 HEIDE & ASSOCIATES INC REAL EST
4236 HOME CRAFTERS GENL CONTRS
4236 TUTTLE ROBERT L REAL EST

1977
SOURCE: POLKS

59TH STREET WEST

400 GROENEWOLD MARTHA K MRS
908 BROWN CLARENCE I
912 CLARK MERVIN L
916 HANF SOL J
920 PIER WM A
924 VACANT
928 CAMPBELL ROBT W
1004 LA RUE DONALD L
1008 STIRLITH FRANCIS E
1012 KANE A P
1018 VACANT
1020 SPANISH PARK HOMES SLS OFC
1108 DE BRUYNE GEO
1204 STIVERS MELVIN D
1208 GRICE ERMA M MRS
1212 MC GEEHAN HUGH F
1414 KENNEDY J RANDALL PHYS
1416 CATALANO PHILIP M PHYS
1416 FULGHUM DAVID D PHYS
1901 BISHOP ANIMAL SHELTER SPCA
2010 MANATEE HEARING & SPEECH CENTER
2010 MANATEE OPTICAL CO OPTNS
2010 MEDICAL ARTS BUILDING
2010 MEDICAL ARTS PHARMACY
2010 MEDICAL SERVICES LABORATORY
2010 MULTI TENANT PROFESSIONAL
2020 BLAKE HOSPITAL PHARMACY
2020 BLAKE LW MEMORIAL HOSP
2101 TINSWORTH STEVEN H ORTHODONTIST
2103 COHEN DANL C DENTIST
2103 ZAMIKOFF IRVING I DENTIST
2109 TROXLER ROBT W DENTIST
2111 DE JONGH L CARL DENTIST
2215 KINSEY JACKIE MRS
2221 RICKMAN SCOTT V
2901 CITY FIRE DEPT STA NO 3
2905 AMERICAN RED CROSS
3801 SUGG W D MIDDLE SCHOOL
3805 MANATEE FAMILY Y M C A
4020 KINKADE GARLAND D
4028 PINKLEY JOHN W
4030 WELCH KATHLENE MRS
4108 NO RETURN
4110 VACANT
4116 BOGGS JEANIE N MRS
4118 VACANT
4204 CARRINGTON PHILIP E
4230 MORA GILBERT E JR

1972
SOURCE: POLKS

59TH STREET WEST

400 **GROENEWOLD MARTHA K MRS**
1416 **CATALANO PHILIP M PHYS**
1416 **FULGHUM DAVID D PHYS**
2215 **VACANT**
2221 **RICKMAN SCOTT V**
4020 **KINKADE GARLAND D**
4028 **AU COIN GARFIELD W**
4030 **WELCH ES MRS**
4108 **ALLEE JAMES C**
4110 **NELSON STEVEN L**
4112 **SARGENT LINDA**
4114 **VACANT**
4230 **MORA GILBERT E JR**

1967
SOURCE: POLKS

59TH STREET WEST

400 **GROENEWOLD JOHN**
2221 **RICKMAN SCOTT V**
4020 **PHILLIPS JERRY R**

1964
SOURCE: POLKS

59TH STREET WEST

400 **GROENEWOLD JOHN**

1960
SOURCE: POLKS

59TH STREET WEST

400 **GROENEWOLD JOHN**
404 **CONNOR CHAS W**
412 **MALOTT JOS J**
415 **GOULDEN DUDLEY D**
420 **PONGER JOHN**
423 **DOTY LOCKWOOD R**

1955
SOURCE: POLKS

59TH STREET WEST

STREET NOT LISTED

1950
SOURCE: POLKS

59TH STREET WEST

STREET NOT LISTED

1945
SOURCE: POLKS

59TH STREET WEST

STREET NOT LISTED

1939
SOURCE: POLKS

59TH STREET WEST

STREET NOT LISTED

1936
SOURCE: POLKS

59TH STREET WEST

STREET NOT LISTED

1931
SOURCE: POLKS

59TH STREET WEST

STREET NOT LISTED

1927
SOURCE: POLKS

59TH STREET WEST

STREET NOT LISTED

--- END REPORT ---

Attachment B – ERIS Database Report

DATABASE REPORT

Project Property:	*59th St. Corridor* *59th St W* *Bradenton FL 34209*
Project No:	*148400073*
Report Type:	*Quote - Custom Radius - Linear Reports*
Order No:	*21062500523*
Requested by:	*Kimley-Horn & Associates, Inc*
Date Completed:	*July 1, 2021*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

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Executive Summary

Property Information:

Project Property:	*59th St. Corridor* *59th St W Bradenton FL 34209*
Project No:	*148400073*

Coordinates:

Latitude:	*27.47926867*
Longitude:	*-82.62045915*
UTM Northing:	*3,040,565.32*
UTM Easting:	*339,900.69*
UTM Zone:	*17R*

Elevation: *22 FT*

Order Information:

Order No:	*21062500523*
Date Requested:	*June 25, 2021*
Requested by:	*Kimley-Horn & Associates, Inc*
Report Type:	*Quote - Custom Radius - Linear Reports*

Historicals/Products:

Aerial Photographs	*Historical Aerials (Boundaries)*
City Directory Search	*CD - 1 Street Search*
ERIS Xplorer	*ERIS Xplorer*
Excel Add-On	*Excel Add-On*

Executive Summary: Report Summary

Database	Searched	Project Property	Within 0.095mi	Total
Standard Environmental Records				
Federal				
DOE FUSRAP	Y	0	0	0
NPL	Y	0	0	0
PROPOSED NPL	Y	0	0	0
DELETED NPL	Y	0	0	0
SEMS	Y	0	0	0
SEMS ARCHIVE	Y	0	0	0
ODI	Y	0	0	0
CERCLIS	Y	0	0	0
IODI	Y	0	0	0
CERCLIS NFRAP	Y	0	0	0
CERCLIS LIENS	Y	0	0	0
RCRA CORRACTS	Y	0	0	0
RCRA TSD	Y	0	0	0
RCRA LQG	Y	0	0	0
RCRA SQG	Y	0	0	0
RCRA VSQG	Y	0	**4**	**4**
RCRA NON GEN	Y	0	**1**	**1**
FED ENG	Y	0	0	0
FED INST	Y	0	0	0
LUCIS	Y	0	0	0
ERNS 1982 TO 1986	Y	0	0	0
ERNS 1987 TO 1989	Y	0	0	0
ERNS	Y	0	**1**	**1**
FED BROWNFIELDS	Y	0	0	0
FEMA UST	Y	0	0	0
FRP	Y	0	0	0
HIST GAS STATIONS	Y	0	0	0

Database	Searched	Project Property	Within 0.095mi	Total
REFN	Y	0	0	0
BULK TERMINAL	Y	0	0	0
SEMS LIEN	Y	0	0	0
SUPERFUND ROD	Y	0	0	0
State				
SHWS	Y	0	0	0
DELISTED SHWS	Y	0	0	0
CLEANUP DEP	Y	0	0	0
WCRPS	Y	0	**1**	**1**
DELISTED WCRPS	Y	0	0	0
SWF/LF	Y	0	0	0
LST	Y	0	**3**	**3**
DELISTED LST	Y	0	0	0
UST	Y	0	**2**	**2**
AST	Y	0	**3**	**3**
DEL UST AST TANK	Y	0	0	0
DEL STORAGE TANK	Y	0	0	0
FF TANKS	Y	0	0	0
STCS	Y	0	**9**	**9**
INST	Y	0	0	0
ENG	Y	0	0	0
VCP	Y	0	0	0
BROWNFIELDS	Y	0	0	0
BROWNFIELD AREA	Y	0	0	0
Tribal				
INDIAN LUST	Y	0	0	0
INDIAN UST	Y	0	0	0
DELISTED ILST	Y	0	0	0
DELISTED IUST	Y	0	0	0
County	***No County databases were selected to be included in the search.***			

Additional Environmental Records

Federal

PFAS NPL	Y	0	0	0
FINDS/FRS	Y	0	**5**	**5**
TRIS	Y	0	0	0
PFAS TRI	Y	0	0	0
PFAS WATER	Y	0	0	0

Database	Searched	Project Property	Within 0.095mi	Total
HMIRS	Y	0	0	0
NCDL	Y	0	0	0
TSCA	Y	0	0	0
HIST TSCA	Y	0	0	0
FTTS ADMIN	Y	0	0	0
FTTS INSP	Y	0	0	0
PRP	Y	0	0	0
SCRD DRYCLEANER	Y	0	0	0
ICIS	Y	0	0	0
FED DRYCLEANERS	Y	0	0	0
DELISTED FED DRY	Y	0	0	0
FUDS	Y	0	0	0
FORMER NIKE	Y	0	0	0
PIPELINE INCIDENT	Y	0	0	0
MLTS	Y	0	0	0
HIST MLTS	Y	0	0	0
MINES	Y	0	0	0
SMCRA	Y	0	0	0
MRDS	Y	0	0	0
URANIUM	Y	0	0	0
ALT FUELS	Y	0	0	0
SSTS	Y	0	0	0
PCB	Y	0	0	0
State				
PRIORITYCLEAN	Y	0	0	0
DRYCLEANERS	Y	0	0	0
DELISTED DRYCLEANERS	Y	0	0	0
HISTORICAL DRYC	Y	0	0	0
SPILLS	Y	0	**1**	**1**
DWM CONTAM	Y	0	**5**	**5**
DEL CONTAM SITE	Y	0	**1**	**1**
PFAS AFFF	Y	0	0	0
PFAS	Y	0	0	0
UIC	Y	0	0	0
WELL SURVEILLANCE	Y	0	**3**	**3**
CDV SOUTHEAST	Y	0	0	0
TIER 2	Y	0	**1**	**1**
DELISTED COUNTY	Y	0	0	0
Tribal	***No Tribal additional environmental record sources available for this State.***			

Database	Searched	Project Property	Within 0.095mi	Total
County	***No County additional environmental databases were selected to be included in the search.***			
Total:		*0*	***40***	***40***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	AST	HERITAGE PARK CARE & REHAB	2302 59TH ST W BRADENTON FL 34209	S	0.00 / 7.55	0	22
			Facility ID | Facility Status: 9817197 | OPEN ***Tank Status | Status Date:*** U - In Service | 01-JUN-2019				
1	STCS	HERITAGE PARK CARE & REHAB	2302 59TH ST W BRADENTON FL 34209	S	0.00 / 7.55	0	23
			Facility ID | Facility Status (Open Data): 9817197 | OPEN				
2	FINDS/FRS	BISHOP ANIMAL SHELTER	5718 21ST AVE W BRADENTON FL 34209-5606	NNE	0.07 / 371.13	-1	24
3	RCRA VSQG	BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209-4604	N	0.00 / 4.86	-1	25
			EPA Handler ID: FLR000128686				
3	RCRA VSQG	BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209-4604	N	0.00 / 4.86	-1	27
			EPA Handler ID: FLT970057394				
3	AST	BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209	N	0.00 / 4.86	-1	28
			Facility ID | Facility Status: 9046028 | OPEN ***Tank Status | Status Date:*** U - In Service | 01-DEC-1995, U - In Service | 01-DEC-1995				
3	LST	BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209-4604	N	0.00 / 4.86	-1	29
			Facility ID | Facility Status: 9046028 | OPEN ***Cleanup Required:*** R - CLEANUP REQUIRED				
3	STCS	BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209	N	0.00 / 4.86	-1	32
			Facility ID | Facility Status (Open Data): 9046028 | OPEN				
3	WELL SURVEILLANCE	BLAKE MEDICAL CENTER	2020 59TH STREET W BRADENTON FL 34209	N	0.00 / 4.86	-1	35
3	TIER 2	BLAKE MEDICAL CENTER	2020 59 STREET WEST BRADENTON FL 34209	N	0.00 / 4.86	-1	35
4	STCS	CASA MORA REHABILITATION AND EXTENDED CARE	1902 59TH ST WEST BRADENTON FL 34209	N	0.00 / 4.87	-1	38
			Facility ID | Facility Status (Open Data): 9817125 | OPEN				
4	AST	CASA MORA REHABILITATION AND EXTENDED CARE	1902 59TH ST WEST BRADENTON FL 34209	N	0.00 / 4.87	-1	40
			Facility ID | Facility Status: 9817125 | OPEN ***Tank Status | Status Date:*** U - In Service | 01-JUN-2019				

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
5	STCS	AMERICAN RED CROSS	2905 59TH ST W BRADENTON FL 34209	S	0.00 / 9.60	0	41
			***Facility ID	Facility Status (Open Data):*** 9103309 | CLOSED			
6	FINDS/FRS	BUNKER HILL/ DUETTE PARK-BUNKER HILL/ DUETTE PARK	5502 33RD AVE. DRIVE WEST BRADENTON FL 34209	S	0.01 / 55.56	0	43
7	STCS	BRADENTON CITY PUBLIC WORKS LS #23	3000 59TH ST W BRADENTON FL 34209	S	0.00 / 9.31	0	43
			***Facility ID	Facility Status (Open Data):*** 9700355 | CLOSED			
7	STCS	BRADENTON CITY-LIFT STATION #23	3000 W 59TH ST BRADENTON FL 34209	S	0.00 / 9.31	0	45
			***Facility ID	Facility Status (Open Data):*** 9200307 | CLOSED			
8	STCS	MANATEE CNTY SCHOOL BD-SUGG MIDDLE S	3801 59TH ST W BRADENTON FL 34209	S	0.00 / 7.22	-2	47
			***Facility ID	Facility Status (Open Data):*** 9046062 | CLOSED			
9	ERNS		924 59TH ST. WEST BRADENTON FL 34209	N	0.00 / 13.20	3	49
10	SPILLS		SR 64 and W 59th Street BRADENTON FL	N	0.00 / 24.96	3	51
			***Incident No	Incident Date:*** 62303 | 1/25/2019 9:11:00 AM ***Incident Status:*** Pending-DM, Pending-DM			
11	UST	AMOCO-CORTEZ	5904 CORTEZ RD W BRADENTON FL 34210	S	0.02 / 102.24	-2	52
			***Facility ID	Facility Status:*** 8510822 | OPEN ***Tank Status	Status Date:*** U - In Service | 01-JUN-2009, U - In Service | 01-JUN-2009		
11	LST	AMOCO-CORTEZ	5904 CORTEZ RD W BRADENTON FL 34210-2705	S	0.02 / 102.24	-2	55
			***Facility ID	Facility Status:*** 8510822 | OPEN ***Cleanup Required:*** N - NO CLEANUP REQUIRED, R - CLEANUP REQUIRED			
11	STCS	AMOCO-CORTEZ	5904 CORTEZ RD W BRADENTON FL 34210	S	0.02 / 102.24	-2	58
			***Facility ID	Facility Status (Open Data):*** 8510822 | OPEN			
11	WELL SURVEILLANCE	AMOCO STATION	5904 CORTEZ RD W BRADENTON FL 34209	S	0.02 / 102.24	-2	62
11	DWM CONTAM	AMOCO-CORTEZ	5904 CORTEZ RD W BRADENTON FL 34210-2705	S	0.02 / 102.24	-2	62
			Facility ID: 8510822 ***Facility Status:*** OPEN				
12	RCRA VSQG	WINN-DIXIE #2404	5805 MANATEE AVE W BRADENTON FL 34209-2542	N	0.04 / 237.07	2	63
			EPA Handler ID: FLR000211748				
12	FINDS/FRS	WINN-DIXIE #2404	5805 MANATEE AVE W BRADENTON FL 34209-2542	N	0.04 / 237.07	2	65

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
13	RCRA NON GEN	SHELL OIL COMPANY	5818 MANATEE AVE W BRADENTON FL 34209-2541 ***EPA Handler ID:*** FLR000049668	N	0.05 / 238.07	4	65
13	RCRA VSQG	SHELL SERVICE STATION	5818 MANATEE AVE W BRADENTON FL 34209-2541 ***EPA Handler ID:*** FLTMP9103250	N	0.05 / 238.07	4	67
13	UST	WESTWAY SERVICES LLC	5818 MANATEE AVE W BRADENTON FL 34209 ***Facility ID | Facility Status:*** 8510863 | OPEN ***Tank Status | Status Date:*** U - In Service | 01-MAR-2010	N	0.05 / 238.07	4	68
13	LST	WESTWAY SERVICES LLC	5818 MANATEE AVE W BRADENTON FL 34209-2541 ***Facility ID | Facility Status:*** 8510863 | OPEN ***Cleanup Required:*** R - CLEANUP REQUIRED	N	0.05 / 238.07	4	70
13	FINDS/FRS	SHELL OIL COMPANY	5818 MANATEE AVE W BRADENTON FL 342092541	N	0.05 / 238.07	4	73
13	FINDS/FRS	SHELL SERVICE STATION	5818 MANATEE AVE W BRADENTON FL 342092541	N	0.05 / 238.07	4	73
13	DEL CONTAM SITE	SHELL SAP #136462 (FORMER)	5818 MANATEE AVE WEST BRADENTON FL 34209	N	0.05 / 238.07	4	74
13	STCS	WESTWAY SERVICES LLC	5818 MANATEE AVE W BRADENTON FL 34209 ***Facility ID | Facility Status (Open Data):*** 8510863 | OPEN	N	0.05 / 238.07	4	74
13	WELL SURVEILLANCE	SHELL WESTWAY	5818 MANATEE AVE W BRADENTON FL 34209	N	0.05 / 238.07	4	77
13	WCRPS	SHELL SAP #136462 (FORMER)	5818 MANATEE AVE WEST BRADENTON FL	N	0.05 / 238.07	4	77
13	DWM CONTAM	WESTWAY SERVICES LLC	5818 MANATEE AVE W BRADENTON FL 34209-2541 ***Facility ID:*** 8510863 ***Facility Status:*** OPEN	N	0.05 / 238.07	4	78
13	DWM CONTAM	CIRCLE K # 2211027	5818 MANATEE AVE W BRADENTON FL 34209 ***Facility ID:*** 8510863 ***Facility Status:*** WAITING	N	0.05 / 238.07	4	79
13	DWM CONTAM	SHELL SAP #136462 (FORMER)	5818 MANATEE AVE WEST BRADENTON FL 34209 ***Facility ID:*** 277030 ***Facility Status:*** OPEN	N	0.05 / 238.07	4	79

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
13	DWM CONTAM	CIRCLE K #2211027	5818 MANATEE AVE W BRADENTON FL 34209 ***Facility ID:*** 8510863 ***Facility Status:*** WAITING	N	0.05 / 238.07	4	80

Executive Summary: Summary by Data Source

Standard

Federal

RCRA VSQG - RCRA Very Small Quantity Generators List

A search of the RCRA VSQG database, dated Apr 5, 2021 has found that there are 4 RCRA VSQG site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209-4604 ***EPA Handler ID**: FLR000128686*	N	0.00 / 4.86	3
BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209-4604 ***EPA Handler ID**: FLT970057394*	N	0.00 / 4.86	3
WINN-DIXIE #2404	5805 MANATEE AVE W BRADENTON FL 34209-2542 ***EPA Handler ID**: FLR000211748*	N	0.04 / 237.07	12
SHELL SERVICE STATION	5818 MANATEE AVE W BRADENTON FL 34209-2541 ***EPA Handler ID**: FLTMP9103250*	N	0.05 / 238.07	13

RCRA NON GEN - RCRA Non-Generators

A search of the RCRA NON GEN database, dated Apr 5, 2021 has found that there are 1 RCRA NON GEN site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
SHELL OIL COMPANY	5818 MANATEE AVE W BRADENTON FL 34209-2541 ***EPA Handler ID**: FLR000049668*	N	0.05 / 238.07	13

ERNS - Emergency Response Notification System

A search of the ERNS database, dated Nov 9, 2020 has found that there are 1 ERNS site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
	924 59TH ST. WEST BRADENTON FL 34209	N	0.00 / 13.20	9

State

WCRPS - Waste Cleanup Responsible Party Sites

A search of the WCRPS database, dated Apr 11, 2021 has found that there are 1 WCRPS site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
SHELL SAP #136462 (FORMER)	5818 MANATEE AVE WEST BRADENTON FL	N	0.05 / 238.07	13

LST - Leaking Tanks

A search of the LST database, dated May 17, 2021 has found that there are 3 LST site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209-4604	N	0.00 / 4.86	3
	***Facility ID | Facility Status**: 9046028 | OPEN* ***Cleanup Required**: R - CLEANUP REQUIRED*			
AMOCO-CORTEZ	5904 CORTEZ RD W BRADENTON FL 34210-2705	S	0.02 / 102.24	11
	***Facility ID | Facility Status**: 8510822 | OPEN* ***Cleanup Required**: N - NO CLEANUP REQUIRED, R - CLEANUP REQUIRED*			
WESTWAY SERVICES LLC	5818 MANATEE AVE W BRADENTON FL 34209-2541	N	0.05 / 238.07	13
	***Facility ID | Facility Status**: 8510863 | OPEN* ***Cleanup Required**: R - CLEANUP REQUIRED*			

UST - Underground Storage Tanks

A search of the UST database, dated Mar 1, 2021 has found that there are 2 UST site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
AMOCO-CORTEZ	5904 CORTEZ RD W BRADENTON FL 34210	S	0.02 / 102.24	11
	***Facility ID | Facility Status**: 8510822 | OPEN* ***Tank Status | Status Date**: U - In Service | 01-JUN-2009, U - In Service | 01-JUN-2009*			
WESTWAY SERVICES LLC	5818 MANATEE AVE W BRADENTON FL 34209	N	0.05 / 238.07	13
	***Facility ID | Facility Status**: 8510863 | OPEN* ***Tank Status | Status Date**: U - In Service | 01-MAR-2010*			

AST - Aboveground Storage Tanks

A search of the AST database, dated Mar 1, 2021 has found that there are 3 AST site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
HERITAGE PARK CARE & REHAB	2302 59TH ST W BRADENTON FL 34209	S	0.00 / 7.55	1

Site	Address	Direction	Distance (mi/ft)	Map Key
	***Facility ID | Facility Status**: 9817197 | OPEN* ***Tank Status | Status Date**: U - In Service | 01-JUN-2019*			
BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209	N	0.00 / 4.86	3
	***Facility ID | Facility Status**: 9046028 | OPEN* ***Tank Status | Status Date**: U - In Service | 01-DEC-1995, U - In Service | 01-DEC-1995*			
CASA MORA REHABILITATION AND EXTENDED CARE	1902 59TH ST WEST BRADENTON FL 34209	N	0.00 / 4.87	4
	***Facility ID | Facility Status**: 9817125 | OPEN* ***Tank Status | Status Date**: U - In Service | 01-JUN-2019*			

STCS - Storage Tank/Contaminated Facility Search

A search of the STCS database, dated Mar 2, 2021 has found that there are 9 STCS site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
HERITAGE PARK CARE & REHAB	2302 59TH ST W BRADENTON FL 34209	S	0.00 / 7.55	1
	***Facility ID | Facility Status (Open Data)**: 9817197 | OPEN*			
BLAKE MEDICAL CENTER	2020 59TH ST W BRADENTON FL 34209	N	0.00 / 4.86	3
	***Facility ID | Facility Status (Open Data)**: 9046028 | OPEN*			
CASA MORA REHABILITATION AND EXTENDED CARE	1902 59TH ST WEST BRADENTON FL 34209	N	0.00 / 4.87	4
	***Facility ID | Facility Status (Open Data)**: 9817125 | OPEN*			
AMERICAN RED CROSS	2905 59TH ST W BRADENTON FL 34209	S	0.00 / 9.60	5
	***Facility ID | Facility Status (Open Data)**: 9103309 | CLOSED*			
BRADENTON CITY-LIFT STATION #23	3000 W 59TH ST BRADENTON FL 34209	S	0.00 / 9.31	7
	***Facility ID | Facility Status (Open Data)**: 9200307 | CLOSED*			
BRADENTON CITY PUBLIC WORKS LS #23	3000 59TH ST W BRADENTON FL 34209	S	0.00 / 9.31	7
	***Facility ID | Facility Status (Open Data)**: 9700355 | CLOSED*			
MANATEE CNTY SCHOOL BD-SUGG MIDDLE S	3801 59TH ST W BRADENTON FL 34209	S	0.00 / 7.22	8
	***Facility ID | Facility Status (Open Data)**: 9046062 | CLOSED*			
AMOCO-CORTEZ	5904 CORTEZ RD W BRADENTON FL 34210	S	0.02 / 102.24	11

Site	Address	Direction	Distance (mi/ft)	Map Key
	***Facility ID | Facility Status (Open Data)**: 8510822 | OPEN*			
WESTWAY SERVICES LLC	5818 MANATEE AVE W BRADENTON FL 34209	N	0.05 / 238.07	13
	***Facility ID | Facility Status (Open Data)**: 8510863 | OPEN*			

Non Standard

Federal

FINDS/FRS - Facility Registry Service/Facility Index

A search of the FINDS/FRS database, dated Nov 2, 2020 has found that there are 5 FINDS/FRS site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
BISHOP ANIMAL SHELTER	5718 21ST AVE W BRADENTON FL 34209-5606	NNE	0.07 / 371.13	2
BUNKER HILL/ DUETTE PARK-BUNKER HILL/ DUETTE PARK	5502 33RD AVE. DRIVE WEST BRADENTON FL 34209	S	0.01 / 55.56	6
WINN-DIXIE #2404	5805 MANATEE AVE W BRADENTON FL 34209-2542	N	0.04 / 237.07	12
SHELL SERVICE STATION	5818 MANATEE AVE W BRADENTON FL 342092541	N	0.05 / 238.07	13
SHELL OIL COMPANY	5818 MANATEE AVE W BRADENTON FL 342092541	N	0.05 / 238.07	13

State

SPILLS - Oil and Hazardous Materials Incidents

A search of the SPILLS database, dated May 18, 2021 has found that there are 1 SPILLS site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
	SR 64 and W 59th Street BRADENTON FL	N	0.00 / 24.96	10
	***Incident No | Incident Date**: 62303 | 1/25/2019 9:11:00 AM* ***Incident Status**: Pending-DM, Pending-DM*			

DWM CONTAM - Contaminated Sites

A search of the DWM CONTAM database, dated Mar 12, 2020 has found that there are 5 DWM CONTAM site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
AMOCO-CORTEZ	5904 CORTEZ RD W BRADENTON FL 34210-2705 ***Facility ID**: 8510822* ***Facility Status**: OPEN*	S	0.02 / 102.24	11
CIRCLE K #2211027	5818 MANATEE AVE W BRADENTON FL 34209 ***Facility ID**: 8510863* ***Facility Status**: WAITING*	N	0.05 / 238.07	13
WESTWAY SERVICES LLC	5818 MANATEE AVE W BRADENTON FL 34209-2541 ***Facility ID**: 8510863* ***Facility Status**: OPEN*	N	0.05 / 238.07	13
SHELL SAP #136462 (FORMER)	5818 MANATEE AVE WEST BRADENTON FL 34209 ***Facility ID**: 277030* ***Facility Status**: OPEN*	N	0.05 / 238.07	13
CIRCLE K # 2211027	5818 MANATEE AVE W BRADENTON FL 34209 ***Facility ID**: 8510863* ***Facility Status**: WAITING*	N	0.05 / 238.07	13

DEL CONTAM SITE - Delisted Contaminated Sites

A search of the DEL CONTAM SITE database, dated Sep 30, 2015 has found that there are 1 DEL CONTAM SITE site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
SHELL SAP #136462 (FORMER)	5818 MANATEE AVE WEST BRADENTON FL 34209	N	0.05 / 238.07	13

WELL SURVEILLANCE - Well Surveillance Program Facilities

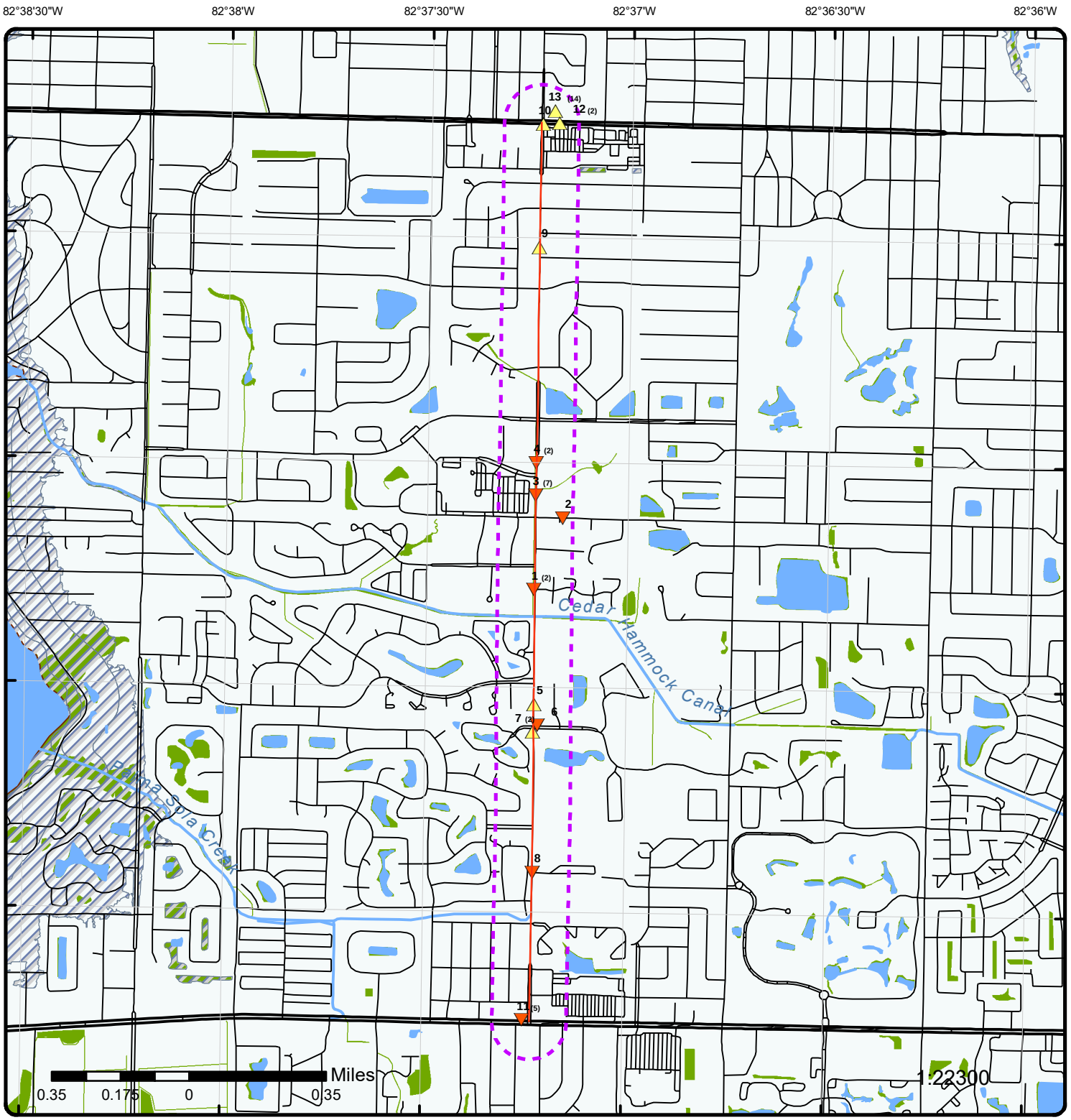
A search of the WELL SURVEILLANCE database, dated Apr 5, 2021 has found that there are 3 WELL SURVEILLANCE site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
BLAKE MEDICAL CENTER	2020 59TH STREET W BRADENTON FL 34209	N	0.00 / 4.86	3
AMOCO STATION	5904 CORTEZ RD W BRADENTON FL 34209	S	0.02 / 102.24	11
SHELL WESTWAY	5818 MANATEE AVE W BRADENTON FL 34209	N	0.05 / 238.07	13

TIER 2 - Tier 2 Report

A search of the TIER 2 database, dated Jun 24, 2020 has found that there are 1 TIER 2 site(s) within approximately 0.095 miles of the project property.

Site	Address	Direction	Distance (mi/ft)	Map Key
BLAKE MEDICAL CENTER	2020 59 STREET WEST BRADENTON FL 34209	N	0.00 / 4.86	3



Map: 0.095 Mile Radius

Order Number: 21062500523

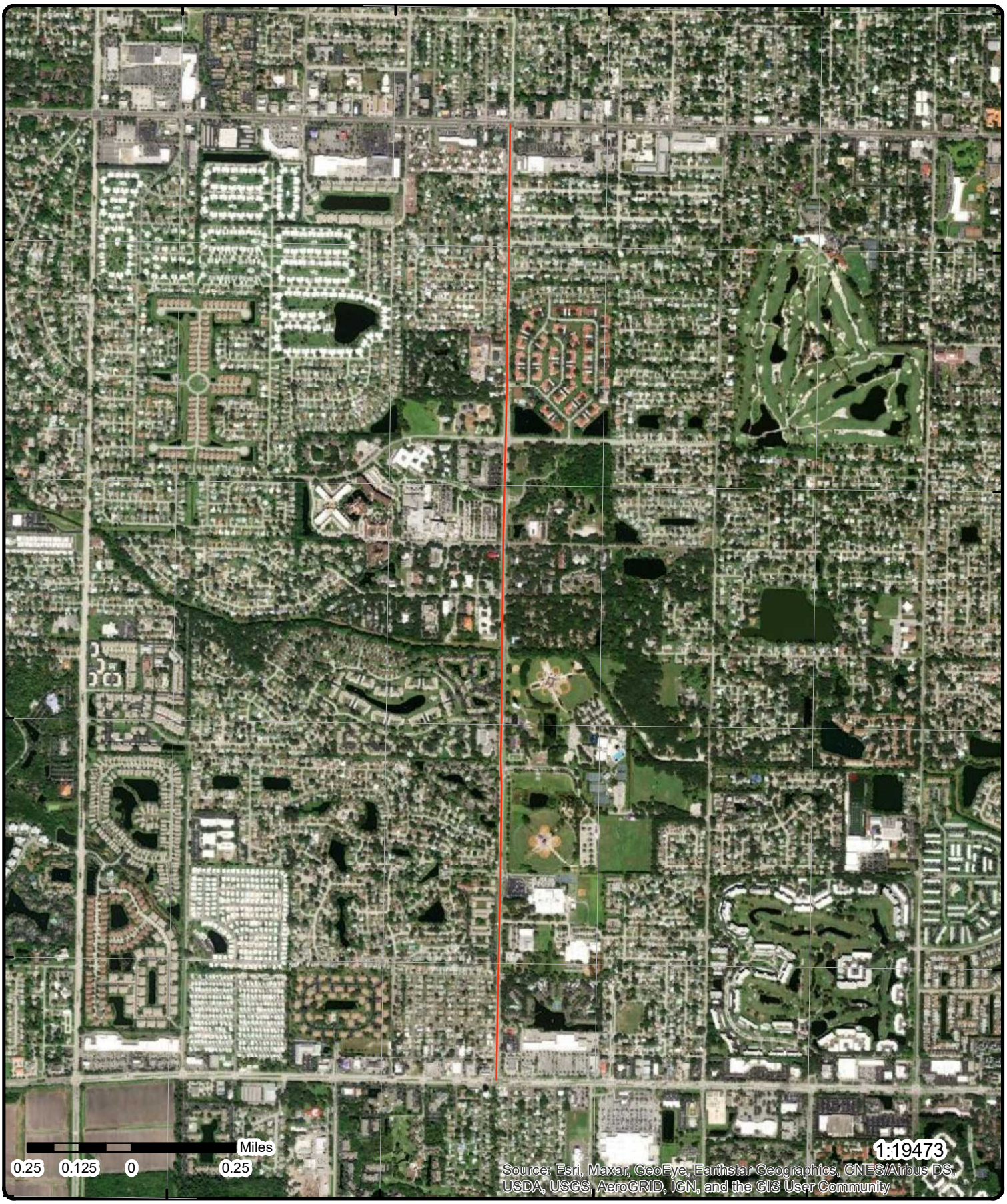
Address: 59th St W, Bradenton, FL

ERIS

- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- County Boundary
- Rails
- Major Highways
- Major Highways Ramps
- Major Roads
- Major Roads Ramps
- Secondary Roads
- Secondary Roads Ramps
- Local Roads and Ramps
- State Boundary
- National Priority List Sites
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- Historic Fill
- FWS Special Designation Areas
- State Brownfield Sites
- State Brownfield Areas
- State Superfund Areas:Dept. of Defense
- State Superfund Areas:NPL
- WQARF Areas
- Federal Lands: Dept. of Defense (owned/administered areas)
- Plume

Source: © 2016 ESRI

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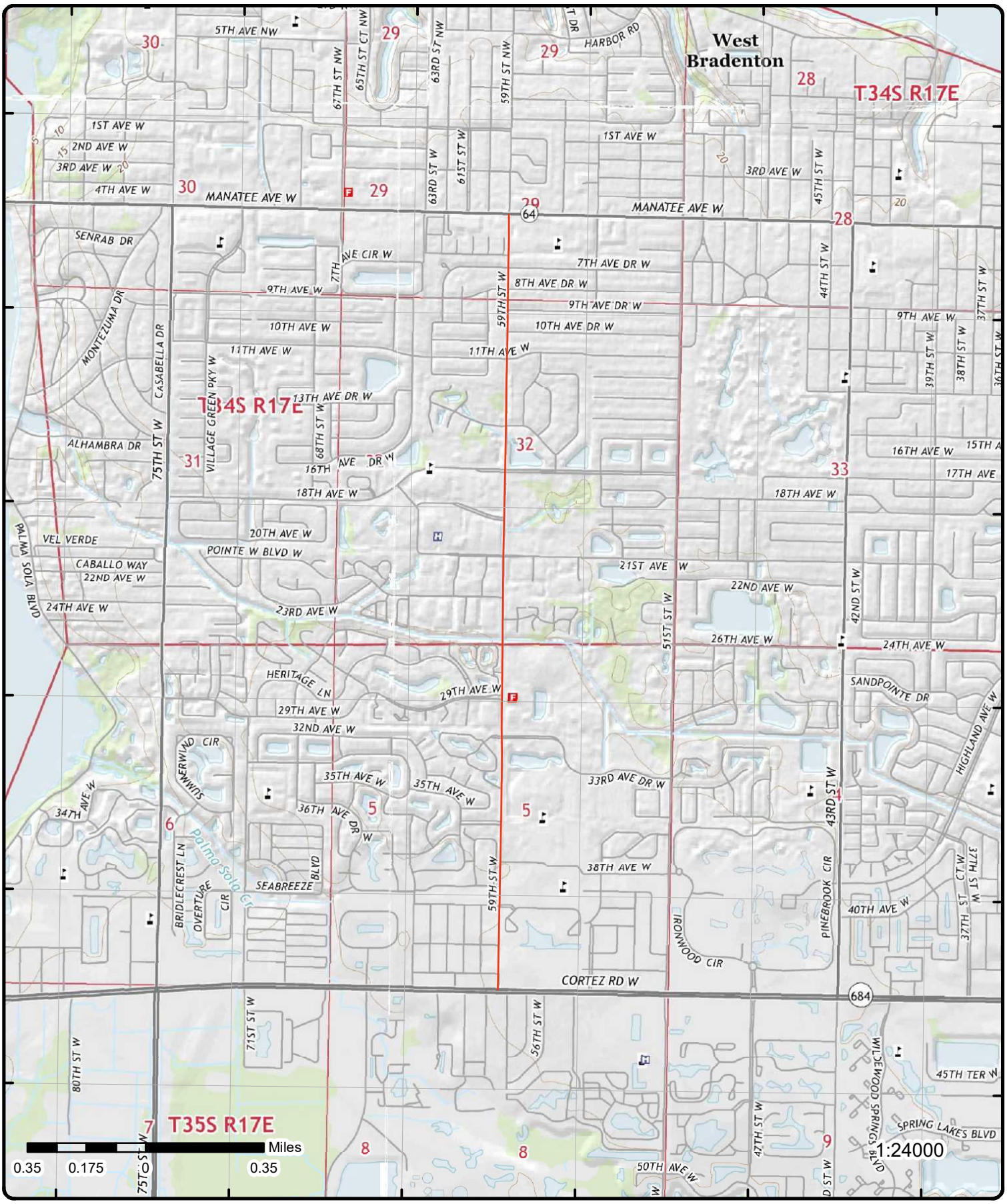
Aerial **Year: 2020**

Address: 59th St W, Bradenton, FL

Source: ESRI World Imagery

Order Number: 21062500523

© ERIS Information Inc.



Topographic Map

Year: 2015

Order Number: 21062500523

Address: 59th St W, FL

Quadrangle(s): Bradenton Beach, FL; Anna Maria, FL; Palmetto, FL; Bradenton, FL

Source: USGS Topographic Map

© ERIS Information Inc.

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 2	S	0.00 / 7.55	22.11 / 0	HERITAGE PARK CARE & REHAB 2302 59TH ST W BRADENTON FL 34209	AST

Facility ID: 9817197
Facility Status: OPEN
ASTS: 1
USTS: 0
Tanks: 1
Facility Type: C
Contact: JOSHUA ENGLIN
Facility Phone: 9417928480
Owner ID: 78591
Owner Phone: 9417928480
Owner: LP BRADENTON LLC
Owner Address1: 2302 59TH ST W
Owner Address2: ATTN: STORAGE TANK REGIS
Owner City: BRADENTON
Owner State: FL
Owner Zip 5: 34209
Owner Zip 4:
Type Desc: Fuel user/Non-retail
Oculus Docs Inventory URL: https://erisservice7.ecologeris.com/ErisExt/flo/ocure.ashx?ID=9817197&CAT=11
Information Portal Facility URL: http://prodenv.dep.state.fl.us/DepNexus/public/facilitysearch?pagination=true&facility.id=9817197
Information Portal Doc URL: http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9817197/facility!search

Lat DD:
Lat MM:
Lat SS:
Long DD:
Long MM:
Long SS:
Lat/Long Method:
Bad Addr Indicator:
County: MANATEE
Dep Co: C

Tank Information

Tank ID: 1
Tank Status: U - In Service
Status Date: 01-JUN-2019
Installation Date: 01-JUN-2019
Substance: G - Emerg Generator Diesel

Determination: Double Walled
Gallons: 1550
Placement: ABOVEGROUND
Tank Vessel Indic: TANK

Piping

Tank ID: 1
Tkstat: U
Stat Date: 01-JUN-2019

Piping Description: X-No piping associated w/tank

Monitoring

Tkstat: U

Stat Date: 01-JUN-2019

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Monitoring Desc:	F-Monitor dbl wall tank space					

1	2 of 2	S	0.00 / 7.55	22.11 / 0	**HERITAGE PARK CARE & REHAB** **2302 59TH ST W** **BRADENTON FL 34209**	STCS

Facility ID:	9817197	**City (Map):**	BRADENTON
Status (Map):	REVIEWED	**County (Map):**	41
Contam (Map):		**Zip4 (Map):**	
Fac Type (Map):	C	**Zip5 (Map):**	34209
Fac Stat (Map):	OPEN	**County:**	41 - Manatee
Address (Map):	2302 59TH ST W	**Type :**	C - Fuel User/Non-Retail
Name (Map):	HERITAGE PARK CARE & REHAB	**Status:**	Open

Fac Name(OpenData):	HERITAGE PARK CARE & REHAB
Status (Open Data):	REVIEWED
Facility Status (Open Data):	OPEN
Facility Type Code (Open Data):	C
Facility Type (Open Data):	Fuel user/Non-retail
Fac Clnup Stat Cd(OpenData):	
Fac Cleanup Status(OpenData):	
Cleanup Status Effective Date:	1970/01/01 00:00:00+00
Address (Open Data):	2302 59TH ST W
City (Open Data):	BRADENTON
Zip5 (Open Data):	34209
County (Open Data):	MANATEE
CC County ID (Open Data):	41

FDEP Storage Tank Monitoring Open Data Details

Object ID:	69883	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Regulated:	YES	**Ver Date:**	2019/07/17 17:43:32+00
OOIC:	FACILITY	**Elevation:**	
Rel Feat:	CENTR	**El Datum:**	
ALB East:	535982.28	**El Resolut:**	
ALB North:	386656.1	**El Units:**	
Datum:	NAD83	**Loc ID:**	70519
Col Meth:	DPHO	**Lat DD:**	27
Col Name:	WILLIAMS_CA	**Lat MM:**	28
Col Date:	2019/07/17 17:43:32+00	**Long DD:**	82
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long MM:**	37
Map Src:	imagerywithroads	**Lat SS:**	
Map Scale:	4514	**Long SS:**	
Coord Acc:	4	**X:**	-82.6211574338219
Ver Meth:	DPHO	**Y:**	27.4786260542649
Ver Name:	WILLIAMS_CA		

Col Aff:	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Ver Aff:	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Direct:	
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9817197/gis-facility!search

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Loc ID:	70519	**Coord Acc:**	4
Object ID:	70519	**Ver Meth:**	DPHO
OOIC:	FACILITY	**Ver Name:**	WILLIAMS_CA
Site Type:	Fuel user/Non-retail	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		**Ver Date:**	7/17/2019
Next action:	PLACARD 06-OCT-2020	**Elevation:**	
Fin Respon:		**El Datum:**	
Rel Feat:	CENTR	**El Resolut:**	
Alb East:	535982.28	**El Units:**	
Alb North:	386656.1	**Office:**	SWD
Datum:	NAD83	**Phone:**	9417928480
Col Meth:	DPHO	**Operator:**	JOSHUA ENGLIN
Col Name:	WILLIAMS_CA	**Lat DD:**	27
Col Date:	7/17/2019	**Lat MM:**	28
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long DD:**	82
Map Src:	imagerywithroads	**Long MM:**	37
Map Scale:	4514		

Col Aff: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Ver Aff: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Documents: https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9817197/gis-facility!search

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Contact:	Joshua Englin	**Latitude:**	27:28:43.0356
Phone:	941-792-8480	**Longitude:**	82:37:16.1544
District:	SWD	**LL Method:**	DPHO
County 1:	41 - Manatee	**Account Owner:**	Lp Bradenton Llc

Name: Heritage Park Care & Rehab
2302 59th St W
Bradenton, FL 34209

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	1	**Installed:**	06/01/2019
Placement:	ABOVE	**Size:**	1550
Status:	In Service	**Content:**	Emerg Generator Diesel

Construction: C - Steel
I - Double Wall
M - Spill Containment Bucket
P - Level Gauges/Alarms
Piping: X - No Piping Associated W/Tank
Monitoring: F - Monitor Dbl Wall Tank Space

2	1 of 1	NNE	0.07 / 371.13	21.20 / -1	**BISHOP ANIMAL SHELTER** **5718 21ST AVE W** **BRADENTON FL 34209-5606**	FINDS/FRS

Registry ID:	110070670421
FIPS Code:	
HUC Code:	03100201
Site Type Name:	STATIONARY

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Location Description:	
Supplemental Location:	
Create Date:	09-DEC-19
Update Date:	
Interest Types:	ICIS-NPDES NON-MAJOR, STORM WATER CONSTRUCTION
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	FRS-GEOCODE
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	13
Census Block Code:	120810004061002
EPA Region Code:	04
County Name:	
US/Mexico Border Ind:	
Latitude:	27.48126
Longitude:	-82.619127
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Coord Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value:	50
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070670421
Program Acronyms:	

NPDES:FLR20DG20

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of 7	N	0.00 / 4.86	21.74 / -1	BLAKE MEDICAL CENTER 2020 59TH ST W BRADENTON FL 34209-4604	RCRA VSQG

EPA Handler ID:	FLR000128686
Gen Status Universe:	VSG
Contact Name:	DAVID MATTHEWS
Contact Address:	2020 , 59TH ST W , , BRADENTON , FL, 34209 , US
Contact Phone No and Ext:	941-798-6600
Contact Email:	
Contact Country:	US
County Name:	MANATEE
EPA Region:	04
Land Type:	Private
Receive Date:	20060517
Location Latitude:	27.481113
Location Longitude:	-82.620468

Violation/Evaluation Summary

Note: NO VIOLATIONS: All of the compliance records associated with this facility (EPA ID) indicate NO VIOLATIONS; Compliance Monitoring and Enforcement table dated April, 2021.

Evaluation Details

Evaluation Start Date: 20070228
Evaluation Type Description: NON-FINANCIAL RECORD REVIEW
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 20060517
Evaluation Type Description: COMPLIANCE ASSISTANCE VISIT
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 200605
Receive Date: 20060517
Handler Name: BLAKE MEDICAL CENTER
Federal Waste Generator Code: 3
Generator Code Description: Very Small Quantity Generator
Source Type: Implementer

Waste Code Details

Hazardous Waste Code: F003
Waste Code Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	2020 59TH ST W
Name:	BLAKE MEDICAL CENTER	***Street 2:***	
Date Became Current:	20060518	***City:***	BRADENTON
Date Ended Current:		***State:***	FL
Phone:	941-792-6600	***Country:***	US
Source Type:	Implementer	***Zip Code:***	34209

3	*2 of 7*	*N*	*0.00 / 4.86*	*21.74 / -1*	***BLAKE MEDICAL CENTER 2020 59TH ST W BRADENTON FL 34209-4604***	***RCRA VSQG***

EPA Handler ID:	FLT970057394
Gen Status Universe:	VSG
Contact Name:	
Contact Address:	US
Contact Phone No and Ext:	
Contact Email:	
Contact Country:	US
County Name:	MANATEE
EPA Region:	04
Land Type:	Private
Receive Date:	19970226
Location Latitude:	27.481113
Location Longitude:	-82.620468

Violation/Evaluation Summary

Note: NO RECORDS: As of April 2021, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No

Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	199702
Receive Date:	19970226
Handler Name:	BLAKE MEDICAL CENTER
Federal Waste Generator Code:	3
Generator Code Description:	Very Small Quantity Generator
Source Type:	Emergency

---

3 | ***3 of 7*** | ***N*** | ***0.00 / 4.86*** | ***21.74 / -1*** | ***BLAKE MEDICAL CENTER
2020 59TH ST W
BRADENTON FL 34209*** | ***AST***

Facility ID:	9046028	**Lat DD:**	27
Facility Status:	OPEN	**Lat MM:**	29
ASTS:	2	**Lat SS:**	54
USTS:	0	**Long DD:**	82
Tanks:	2	**Long MM:**	37
Facility Type:	C	**Long SS:**	27
Contact:	EDWIN BAKER	**Lat/Long Method:**	AGPS
Facility Phone:	9417926156	**Bad Addr Indicator:**	
Owner ID:	47865	**County:**	MANATEE
Owner Phone:	4075183557	**Dep Co:**	P

Owner:	BLAKE MEDICAL CENTER
Owner Address1:	2020 59TH ST W
Owner Address2:	
Owner City:	BRADENTON
Owner State:	FL
Owner Zip 5:	34209
Owner Zip 4:	
Type Desc:	Fuel user/Non-retail
Oculus Docs Inventory URL:	https://erisservice7.ecologeris.com/ErisExt/flo/ocure.ashx?ID=9046028&CAT=11
Information Portal Facility URL:	http://prodenv.dep.state.fl.us/DepNexus/public/facilitysearch?pagination=true&facility.id=9046028
Information Portal Doc URL:	http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9046028/facility!search

Tank Information

Tank ID:	4	**Determination:**	Double Walled
Tank Status:	U - In Service	**Gallons:**	8000
Status Date:	01-DEC-1995	**Placement:**	ABOVEGROUND
Installation Date:	01-DEC-1995	**Tank Vessel Indic:**	TANK
Substance:	G - Emerg Generator Diesel		

Piping

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Tank ID: 4 — **Piping Description:** B-Steel/galvanized metal
Tkstat: U
Stat Date: 01-DEC-1995

Tank ID: 4 — **Piping Description:** A-Abv, no soil contact
Tkstat: U
Stat Date: 01-DEC-1995

Monitoring

Tkstat: U — **Stat Date:** 01-DEC-1995
Monitoring Desc: Q-Visual inspection of ASTs

Tkstat: U — **Stat Date:** 01-DEC-1995
Monitoring Desc: F-Monitor dbl wall tank space

Tank Information

Tank ID: 5 — **Determination:** Double Walled
Tank Status: U - In Service — **Gallons:** 2000
Status Date: 01-DEC-1995 — **Placement:** ABOVEGROUND
Installation Date: 01-DEC-1995 — **Tank Vessel Indic:** TANK
Substance: G - Emerg Generator Diesel

Piping

Tank ID: 5 — **Piping Description:** B-Steel/galvanized metal
Tkstat: U
Stat Date: 01-DEC-1995

Tank ID: 5 — **Piping Description:** A-Abv, no soil contact
Tkstat: U
Stat Date: 01-DEC-1995

Monitoring

Tkstat: U — **Stat Date:** 01-DEC-1995
Monitoring Desc: F-Monitor dbl wall tank space

Tkstat: U — **Stat Date:** 01-DEC-1995
Monitoring Desc: 1-Continuous electronic sensing

Tkstat: U — **Stat Date:** 01-DEC-1995
Monitoring Desc: Q-Visual inspection of ASTs

3	4 of 7	N	0.00 / 4.86	21.74 / -1	BLAKE MEDICAL CENTER 2020 59TH ST W BRADENTON FL 34209-4604	LST

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Facility ID:	9046028	**Contact:**	EDWIN BAKER
Facility Status:	OPEN	**Phone:**	(941)792-6156
Facility Type:	C - Fuel user/Non-retail	**Name Changed:**	10/13/1998
Score:	6	**Address Changed:**	
Score Effctve Date:	04/10/2003	**Section:**	032
Score when Ranked:	6	**Township:**	034
Rank:	12937	**Range:**	17E
Operator:	ROBERT STITELY	**District:**	SWD
Prim Related Party:	47865	**County:**	MANATEE
Primary RP Role:	ACCOUNT OWNER	**County No:**	41
RP Begin Date:	10/13/1998	**Lat DD:**	27
RP Address1:	2020 59TH ST W	**Lat MM:**	28
RP Address2:		**Lat SS:**	53.4307
RP City:	BRADENTON	**Long DD:**	82
RP State:	FL	**Long MM:**	37
RP Zip5:	34209	**Long SS:**	25.6692
RP Zip4:		**Feature:**	
RP Phone:	(407)518-3557	**Method:**	AGPS
RP Phone Ext.:		**Datum:**	0
RP Bad Addr Ind:	No		

Facility Name (Map):	BLAKE MEDICAL CENTER
Address (Map):	2020 59TH ST W
City (Map):	BRADENTON
Zip5 (Map):	34209
Facility T (Map):	Fuel user/Non-retail
Facility S (Map):	OPEN
County (Map):	MANATEE
Lat DD (Map):	27
Lat MM (Map):	28
Long DD (Map):	82
Long MM (Map):	37
Datum (Map):	HARN
Rel Feat (Map):	EXACT
Collection (Map):	DPHO
Collector (Map):	ALDEN_J41
Collecti 1 (Map):	20-Oct-2003
Document L (Map):	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9046028/facility!search
Lat SS (Map):	
Long SS (Map):	
Geometry (Map):	
RP Name:	BLAKE MEDICAL CENTER
Oculus Docs Inventory:	https://erisservice7.ecologeris.com/ErisExt/flo/ocure.ashx?ID=9046028&CAT=11
Information Portal Fac URL:	http://prodenv.dep.state.fl.us/DepNexus/public/facilitysearch?pagination=true&facility.id=9046028
Information Portal Doc URL:	http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9046028/facility!search

Discharge Cleanup Summary

Discharge Date:	10/12/1995
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	SRCR - SRCR COMPLETE
Discharge Cleanup Stat Date:	03/19/2019

Eligibility Indicator: E - ELIGIBLE
Site Manager: MIGLIORELLI_L
Site Manager End Date: 07/02/2019
Tank Office: PCTM6 - PETROLEUM CLEANUP TEAM 6

Contaminated Media

Contaminated Drinking Wells: 0
Contaminated Mntring Wells: YES
Contaminated Soil: YES
Contaminated Surface Water: NO
Contaminated Ground Water: NO
Pollutant: M - Fuel Oil - Onsite Heat
Other Description:
Gallons Discharged:

Petroleum Cleanup Program Eligibility

Cleanup Program: P - PETROLEUM LIABILITY AND RESTORATION INSURANCE PROGRAM
Eligibility Status: ELIGIBLE

Task Info

SA Task ID: 95187
SA Cleanup Resp: -
SA Fund Elig Type: -
SA Actual Cost:
SA Complete Date:
SA Payment Date:
SR Task ID:
SR Cleanup Resp: -
SR Fund Elig Type: -
SR Actual Cost:
SR Complete Date:
SR Payment Date:
SR Oral Date:
SR Written Date:
SR Soil Removal:
SR Free Prod Rmvl:
SR Soil Ton Remove:
SR Soil Treatment:
SR Other Treatment:
SR Alt Proc Rec:
SR Alternate Procedure Status:
SR Alt Procedure Status Dt:
SR Alt Procedure Comment:

RAP Task ID:
RAP Clean Resp ID: -
RAP Fund Elig Type: -
RAP Actual Cost:
RAP Complete Date:
RAP Payment Date:
RAP Last Ord Appr:
RA Task ID:
RA Cleanup Resp: -
RA Fund Elig Type: -
RA Yrs to Complete:
RA Actual Cost:
SRC Action Type: -
SRC Submit Date:
SRC Review Date:
SRC Complete Status: -
SRC Comp Status Dt:
SRC Issue Date:
SRC Comments:
Tank Office: PCTM6 - Team 6

Petroleum Cleanup Funding Cap Encumbrance to Date

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

FCFS:	$0.00
LPSPASM:	$0.00
SPASM:	$0.00
NPDES:	$0.00
Utility 1 Time Payments:	$0.00
All Wo Ta Co Pos Encumbered:	$27,127.89
Wo Ta Co Pos Exclu from Cap:	$0.00
Ttl Amnt Encumbered to Date:	$27,127.89
Ttl Amnt Encumbered Towar:	$27,127.89

Petroleum Cleanup PCT Facility Score

Facility Cleanup Status:	CMPL - COMPLETED
Related Party ID:	47865
RP Contact:	EDWIN BAKER
Bad Address Indicator:	N

Discharge Info (Map)

Discharge:	47182	***Discharg 3:***	SRCR
Discharg 1:	12-Oct-1995	***Disch Clea:***	19-Mar-2019
Discharg 2:	6	***Report Pha:***	COMPLETED
Eligibilit:	ELIGIBLE	***Report Sub:***	COMPLETED
Eligibil 1:	PLIRP	***Report S 1:***	19-Mar-2019
General Cl:	CLOSURE	***Staff Assi:***	
Tank Offic:	PETROLEUM CLEANUP TEAM 6		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	5 of 7	N	0.00 / 4.86	21.74 / -1	***BLAKE MEDICAL CENTER 2020 59TH ST W BRADENTON FL 34209***	STCS

Facility ID:	9046028	***City (Map):***	BRADENTON
Status (Map):	REVIEWED	***County (Map):***	41
Contam (Map):		***Zip4 (Map):***	4604
Fac Type (Map):	C	***Zip5 (Map):***	34209
Fac Stat (Map):	OPEN	***County:***	41 - Manatee
Address (Map):	2020 59TH ST W	***Type :***	C - Fuel User/Non-Retail
Name (Map):	BLAKE MEDICAL CENTER	***Status:***	Open

Fac Name(OpenData):	BLAKE MEDICAL CENTER
Status (Open Data):	REVIEWED
Facility Status (Open Data):	OPEN
Facility Type Code (Open Data):	C
Facility Type (Open Data):	Fuel user/Non-retail
Fac Clnup Stat Cd(OpenData):	CMPL
Fac Cleanup Status(OpenData):	COMPLETED
Cleanup Status Effective Date:	2019/03/18 18:15:19+00
Address (Open Data):	2020 59TH ST W
City (Open Data):	BRADENTON
Zip5 (Open Data):	34209
County (Open Data):	MANATEE
CC County ID (Open Data):	41

FDEP Storage Tank Monitoring Open Data Details

Object ID:	35882	***Ver Prog:***	TANKS-PETROLEUM CONTAMINATION
Regulated:	YES	***Ver Date:***	2003/10/20 15:55:57+00
OOIC:	FACILITY	***Elevation:***	
Rel Feat:	EXACT	***El Datum:***	
ALB East:	535718.06	***El Resolut:***	
ALB North:	386973.82	***El Units:***	
Datum:	HARN	***Loc ID:***	36744
Col Meth:	DPHO	***Lat DD:***	27
Col Name:	ALDEN_J41	***Lat MM:***	28
Col Date:	2003/10/20 15:55:57+00	***Long DD:***	82
Col Prog:	TANKS-PETROLEUM CONTAMINATION	***Long MM:***	37
Map Src:	1999 doqs	***Lat SS:***	
Map Scale:	1028	***Long SS:***	
Coord Acc:	4	***X:***	-82.6238004346732
Ver Meth:	DPHO	***Y:***	27.4815135826801
Ver Name:	ALDEN_J41		
Col Aff:	COUNTY HEALTH DEPARTMENT		
Ver Aff:	COUNTY HEALTH DEPARTMENT		
Direct:			
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9046028/gis-facility!search		

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Loc ID:	36744	***Coord Acc:***	4
Object ID:	36744	***Ver Meth:***	DPHO
OOIC:	FACILITY	***Ver Name:***	ALDEN_J41
Site Type:	Fuel user/Non-retail	***Ver Prog:***	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		***Ver Date:***	10/20/2003
Next action:	PLACARD 10-JUN-2020	***Elevation:***	
Fin Respon:		***El Datum:***	
Rel Feat:	EXACT	***El Resolut:***	
Alb East:	535718.06	***El Units:***	
Alb North:	386973.82	***Office:***	SWD
Datum:	HARN	***Phone:***	9417926156
Col Meth:	DPHO	***Operator:***	ROBERT STITELY
Col Name:	ALDEN_J41	***Lat DD:***	27
Col Date:	10/20/2003	***Lat MM:***	28
Col Prog:	TANKS-PETROLEUM CONTAMINATION	***Long DD:***	82
Map Src:	1999 doqs	***Long MM:***	37
Map Scale:	1028		
Col Aff:	COUNTY HEALTH DEPARTMENT		
Ver Aff:	COUNTY HEALTH DEPARTMENT		
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9046028/gis-facility!search		

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Contact:	Robert Stitely	***Latitude:***	27:28:53.4307

Phone: 941-792-6156
Longitude: 82:37:25.6692
District: SWD
LL Method: DPHO - Autonomous GPS
County 1: 41 - Manatee
Account Owner: Blake Medical Center
Name: Blake Medical Center
2020 59th St W
Bradenton, FL 34209- 4604

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No: 1
Installed: 07/01/1973
Placement: UNDER
Size: 10000
Status: Closed In Place
Content: Emerg Generator Diesel
Construction:
Piping:
Monitoring:

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No: 4
Installed: 12/01/1995
Placement: ABOVE
Size: 8000
Status: In Service
Content: Emerg Generator Diesel
Construction: C - Steel
M - Spill Containment Bucket
P - Level Gauges/Alarms
R - Double Wall - Tank Jacket
Piping: A - Abv, No Soil Contact
B - Steel/Galvanized Metal
Monitoring: F - Monitor Dbl Wall Tank Space
Q - Visual Inspection Of Asts

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No: 5
Installed: 12/01/1995
Placement: ABOVE
Size: 2000
Status: In Service
Content: Emerg Generator Diesel
Construction: C - Steel
M - Spill Containment Bucket
P - Level Gauges/Alarms
R - Double Wall - Tank Jacket
Piping: A - Abv, No Soil Contact
B - Steel/Galvanized Metal
Monitoring: 1 - Continuous Electronic Sensing
F - Monitor Dbl Wall Tank Space
Q - Visual Inspection Of Asts

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No: 3
Installed: 12/01/1995
Placement: ABOVE
Size: 2000
Status: In Service
Content: Fuel Oil - Onsite Heat
Construction: C - Steel
M - Spill Containment Bucket
P - Level Gauges/Alarms

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Piping: A - Abv, No Soil Contact
B - Steel/Galvanized Metal
Monitoring: F - Monitor Dbl Wall Tank Space
Q - Visual Inspection Of Asts

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No: 2
Placement: ABOVE
Status: Removed from Site
Construction:
Piping:
Monitoring:
Installed: 07/01/1973
Size: 1500
Content: Emerg Generator Diesel

3	6 of 7	N	0.00 / 4.86	21.74 / -1	BLAKE MEDICAL CENTER 2020 59TH STREET W BRADENTON FL 34209	WELL SURVEILLANCE

Facility ID: 9046028
Project ID: SUPER
Req No:
Loc ID: 193941
GPS ID: 193941
Type: PETROLEUM
Insp CHD: MANATEE
HAE: 11.55
Loc Method: DGPS - Differentially Corrected GPS
Insp F Name: TOM
Insp L Name: LARKIN
Comment: multiple tanks only central tank shot
County: MANATEE
Longitude: -82.623989
Latitude: 27.4817
GPS Date: 3/3/2003
Datum: WS1984
Software:
Streetside:
Agency:

3	7 of 7	N	0.00 / 4.86	21.74 / -1	BLAKE MEDICAL CENTER 2020 59 STREET WEST BRADENTON FL 34209	TIER 2

Facility Name: BLAKE MEDICAL CENTER

2018 Data

Facility ID: 6071982
Filing Year: 2017(Tier2)
CAS No: 68476346
Solid: False
Liquid: True
Gas: False
Pure: False
Mixture: True
Explosive: False
Chemical Name: Diesel Fuel
Hazard Not Otherwise Classifie: False
Contact Name: Blake Medical Center
Filing Type: 312
First Submit Date: 2018-02-21(Tier2)
NAICS Code: 622110
Dun Bradstreet: 073216582
Max Daily Qty: 90813
Avg Daily Qty: 90813
EHS:
Below Thresholds:
Trade Secret:

Contact Type:	Owner / Operator
Contact Email:	cheryl.wade@hcahealthcare.com
Contact Work Phone:	
Contact 24 Hour Phone:	941-792-6611
Contact Mobile Phone:	941-782-7350

2018 Data

Facility ID:	6071982	**Filing Type:**	312
Filing Year:	2017(Tier2)	**First Submit Date:**	2018-02-21(Tier2)
CAS No:	7782447	**NAICS Code:**	622110
Solid:	False	**Dun Bradstreet:**	073216582
Liquid:	True	**Max Daily Qty:**	51379
Gas:	False	**Avg Daily Qty:**	51379
Pure:	True	**EHS:**	
Mixture:	False	**Below Thresholds:**	
Explosive:	False	**Trade Secret:**	

Chemical Name:	Oxygen Gas, Refrigerated Liquid, Oxidizing, N.o.s.
Hazard Not Otherwise Classifie:	False
Contact Name:	Blake Medical Center
Contact Type:	Owner / Operator
Contact Email:	cheryl.wade@hcahealthcare.com
Contact Work Phone:	
Contact 24 Hour Phone:	941-792-6611
Contact Mobile Phone:	941-782-7350

2019 Data

Facility ID:	6371177	**Filing Type:**	312
Filing Year:	2018(Tier2)	**First Submit Date:**	2019-01-16(Tier2)
CAS No:	7782447	**NAICS Code:**	622110
Solid:	False	**Dun Bradstreet:**	073216582
Liquid:	True	**Max Daily Qty:**	51379
Gas:	False	**Avg Daily Qty:**	51379
Pure:	True	**EHS:**	
Mixture:	False	**Below Thresholds:**	
Explosive:	False	**Trade Secret:**	

Chemical Name:	Oxygen Gas, Refrigerated Liquid, Oxidizing, N.o.s.
Hazard Not Otherwise Classifie:	False
Contact Name:	Blake Medical Center
Contact Type:	Owner / Operator
Contact Email:	cheryl.wade@hcahealthcare.com
Contact Work Phone:	
Contact 24 Hour Phone:	941-792-6611
Contact Mobile Phone:	941-782-7350

2019 Data

Facility ID:	6371177	**Filing Type:**	312
Filing Year:	2018(Tier2)	**First Submit Date:**	2019-01-16(Tier2)

CAS No:	68476346	**NAICS Code:**	622110
Solid:	False	**Dun Bradstreet:**	073216582
Liquid:	True	**Max Daily Qty:**	90813
Gas:	False	**Avg Daily Qty:**	90813
Pure:	False	**EHS:**	
Mixture:	True	**Below Thresholds:**	
Explosive:	False	**Trade Secret:**	
Chemical Name:	Diesel Fuel		
Hazard Not Otherwise Classifie:	False		
Contact Name:	Blake Medical Center		
Contact Type:	Owner / Operator		
Contact Email:	cheryl.wade@hcahealthcare.com		
Contact Work Phone:			
Contact 24 Hour Phone:	941-792-6611		
Contact Mobile Phone:	941-782-7350		

2020 Data (Filed)

Facility ID:	6648569	**Dun Bradstreet Code:**	073216582
Filing Year:	2019(Tier2)	**Max Daily Wty:**	51,379
CAS Number:	7782447	**Avg Daily Qty:**	51,379
Filing Type:	312	**EHS:**	
First Submit Date:	2020-01-30(Tier2)	**Below Thresholds:**	
NAICS Code:	622110	**Trade Secret:**	
Explosive:	False		
Mixture:	False		
Pure:	True		
Liquid:	True		
Solid:	False		
Gas:	False		
Chemical Name:	Oxygen Gas, Refrigerated Liquid, Oxidizing, N.o.s.		
Hazard Not Otherwise Classifi:	False		
Contact Name:	Blake Medical Center		
Contact Type:	Owner / Operator		
Contact Email:	cheryl.wade@hcahealthcare.com		
Contact Work Phone:			
Contact 24 Hour Phone:	941-792-6611		
Contact Mobile Phone:	941-782-7350		

2020 Data (Filed)

Facility ID:	6648569	**Dun Bradstreet Code:**	073216582
Filing Year:	2019(Tier2)	**Max Daily Wty:**	90,813
CAS Number:	68476346	**Avg Daily Qty:**	90,813
Filing Type:	312	**EHS:**	
First Submit Date:	2020-01-30(Tier2)	**Below Thresholds:**	
NAICS Code:	622110	**Trade Secret:**	
Explosive:	False		
Mixture:	True		
Pure:	False		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Liquid:	True
Solid:	False
Gas:	False
Chemical Name:	Diesel Fuel
Hazard Not Otherwise Classifi:	False
Contact Name:	Blake Medical Center
Contact Type:	Owner / Operator
Contact Email:	cheryl.wade@hcahealthcare.com
Contact Work Phone:	
Contact 24 Hour Phone:	941-792-6611
Contact Mobile Phone:	941-782-7350

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	1 of 2	N	0.00 / 4.87	21.65 / -1	CASA MORA REHABILITATION AND EXTENDED CARE 1902 59TH ST WEST BRADENTON FL 34209	STCS

Facility ID:	9817125	**City (Map):**	BRADENTON
Status (Map):	REVIEWED	**County (Map):**	41
Contam (Map):		**Zip4 (Map):**	
Fac Type (Map):	C	**Zip5 (Map):**	34209
Fac Stat (Map):	OPEN	**County:**	41 - Manatee
Address (Map):	1902 59TH ST WEST	**Type :**	C - Fuel User/Non-Retail
Name (Map):	CASA MORA REHABILITATION AND EXTENDED CARE	**Status:**	Open

Fac Name(OpenData):	CASA MORA REHABILITATION AND EXTENDED CARE
Status (Open Data):	REVIEWED
Facility Status (Open Data):	OPEN
Facility Type Code (Open Data):	C
Facility Type (Open Data):	Fuel user/Non-retail
Fac Clnup Stat Cd(OpenData):	
Fac Cleanup Status(OpenData):	
Cleanup Status Effective Date:	1970/01/01 00:00:00+00
Address (Open Data):	1902 59TH ST WEST
City (Open Data):	BRADENTON
Zip5 (Open Data):	34209
County (Open Data):	MANATEE
CC County ID (Open Data):	41

FDEP Storage Tank Monitoring Open Data Details

Object ID:	69633	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Regulated:	YES	**Ver Date:**	2019/07/17 17:42:48+00
OOIC:	FACILITY	**Elevation:**	
Rel Feat:	CENTR	**El Datum:**	
ALB East:	535677.85	**El Resolut:**	
ALB North:	387281.04	**El Units:**	
Datum:	NAD83	**Loc ID:**	70457
Col Meth:	DPHO	**Lat DD:**	27
Col Name:	WILLIAMS_CA	**Lat MM:**	29
Col Date:	2019/07/17 17:42:48+00	**Long DD:**	82
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long MM:**	37

Map Src:	imagerywithroads	**Lat SS:**	
Map Scale:	4514	**Long SS:**	
Coord Acc:	4	**X:**	-82.6241734348674
Ver Meth:	DPHO	**Y:**	27.4842840555661
Ver Name:	WILLIAMS_CA		
Col Aff:	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Direct:			
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9817125/gis-facility!search		

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Loc ID:	70457	**Coord Acc:**	4
Object ID:	70457	**Ver Meth:**	DPHO
OOIC:	FACILITY	**Ver Name:**	WILLIAMS_CA
Site Type:	Fuel user/Non-retail	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		**Ver Date:**	7/17/2019
Next action:	PLACARD 08-JUN-2020	**Elevation:**	
Fin Respon:		**El Datum:**	
Rel Feat:	CENTR	**El Resolut:**	
Alb East:	535677.85	**El Units:**	
Alb North:	387281.04	**Office:**	SWD
Datum:	NAD83	**Phone:**	9417611000
Col Meth:	DPHO	**Operator:**	TIMOTHY ELIAS
Col Name:	WILLIAMS_CA	**Lat DD:**	27
Col Date:	7/17/2019	**Lat MM:**	29
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long DD:**	82
Map Src:	imagerywithroads	**Long MM:**	37
Map Scale:	4514		
Col Aff:	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9817125/gis-facility!search		

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Contact:	Timothy Elias	**Latitude:**	27:29:03.4044
Phone:	941-761-1000	**Longitude:**	82:37:27.0120
District:	SWD	**LL Method:**	DPHO
County 1:	41 - Manatee	**Account Owner:**	Casa Mora Rehabilitation And Extended Care
Name:	Casa Mora Rehabilitation And Extended Care 1902 59th St West Bradenton, FL 34209		

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	CMHC1	**Installed:**	06/01/2019
Placement:	ABOVE	**Size:**	5300
Status:	In Service	**Content:**	Emerg Generator Diesel
Construction:	C - Steel I - Double Wall M - Spill Containment Bucket		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Piping:
A - Abv, No Soil Contact
B - Steel/Galvanized Metal
I - Suction Piping System

Monitoring:
Q - Visual Inspection Of Asts
R - Monitor Tank Bottom Space

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	2 of 2	N	0.00 / 4.87	21.65 / -1	CASA MORA REHABILITATION AND EXTENDED CARE 1902 59TH ST WEST BRADENTON FL 34209	AST

Facility ID: 9817125
Facility Status: OPEN
ASTS: 1
USTS: 0
Tanks: 1
Facility Type: C
Contact: TIMOTHY ELIAS
Facility Phone: 9417611000
Owner ID: 78460
Owner Phone: 9417611000
Owner: CASA MORA REHABILITATION AND EXTENDED CARE
Owner Address1: 1902 59TH ST WEST
Owner Address2: ATTN: STORAGE TANK REGIS
Owner City: BRADENTON
Owner State: FL
Owner Zip 5: 34209
Owner Zip 4:
Type Desc: Fuel user/Non-retail
Oculus Docs Inventory URL: https://erisservice7.ecologeris.com/ErisExt/flo/ocure.ashx?ID=9817125&CAT=11
Information Portal Facility URL: http://prodenv.dep.state.fl.us/DepNexus/public/facilitysearch?pagination=true&facility.id=9817125
Information Portal Doc URL: http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9817125/facility!search

Lat DD:
Lat MM:
Lat SS:
Long DD:
Long MM:
Long SS:
Lat/Long Method:
Bad Addr Indicator:
County: MANATEE
Dep Co: C

Tank Information

Tank ID: CMHC1
Tank Status: U - In Service
Status Date: 01-JUN-2019
Installation Date: 01-JUN-2019
Substance: G - Emerg Generator Diesel

Determination: Double Walled
Gallons: 5300
Placement: ABOVEGROUND
Tank Vessel Indic: TANK

Piping

Tank ID: CMHC1
Tkstat: U
Stat Date: 01-JUN-2019
Piping Description: B-Steel/galvanized metal

Tank ID: CMHC1
Tkstat: U
Stat Date: 01-JUN-2019
Piping Description: I-Suction piping system

Tank ID: CMHC1
Piping Description: A-Abv, no soil contact

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Tkstat: U
Stat Date: 01-JUN-2019

Monitoring

Tkstat: U **Stat Date:** 01-JUN-2019
Monitoring Desc: R-Monitor tank bottom space

Tkstat: U **Stat Date:** 01-JUN-2019
Monitoring Desc: Q-Visual inspection of ASTs

---

5 **1 of 1** **S** **0.00 / 9.60** **22.83 / 0** ***AMERICAN RED CROSS***
2905 59TH ST W
BRADENTON FL 34209 ***STCS***

Facility ID: 9103309
Status (Map): REVIEWED
Contam (Map):
Fac Type (Map): C
Fac Stat (Map): CLOSED
Address (Map): 2905 59TH ST W
Name (Map): AMERICAN RED CROSS
City (Map): BRADENTON
County (Map): 41
Zip4 (Map):
Zip5 (Map): 34209
County: 41 - Manatee
Type : C - Fuel User/Non-Retail
Status: Closed
Fac Name(OpenData): AMERICAN RED CROSS
Status (Open Data): REVIEWED
Facility Status (Open Data): CLOSED
Facility Type Code (Open Data): C
Facility Type (Open Data): Fuel user/Non-retail
Fac Clnup Stat Cd(OpenData):
Fac Cleanup Status(OpenData):
Cleanup Status Effective Date: 1970/01/01 00:00:00+00
Address (Open Data): 2905 59TH ST W
City (Open Data): BRADENTON
Zip5 (Open Data): 34209
County (Open Data): MANATEE
CC County ID (Open Data): 41

FDEP Storage Tank Monitoring Open Data Details

Object ID: 38934
Regulated: NO
OOIC: FACILITY
Rel Feat: ENTRA
ALB East: 536072.48
ALB North: 386270.33
Datum: HARN
Col Meth: DPHO
Col Name: ROESSLER_J
Col Date: 2006/07/11 15:15:34+00
Col Prog: TANKS-PETROLEUM CONTAMINATION
Map Src: 1999 doqs
Map Scale: 5000
Ver Prog: TANKS-PETROLEUM CONTAMINATION
Ver Date: 2006/07/11 15:15:34+00
Elevation:
El Datum:
El Resolut:
El Units:
Loc ID: 36649
Lat DD: 27
Lat MM: 28
Long DD: 82
Long MM: 37
Lat SS:
Long SS:

Coord Acc:	4	**X:**	-82.6202916001312
Ver Meth:	DPHO	**Y:**	27.4751402478837
Ver Name:	ROESSLER_J		
Col Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Direct:			
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9103309/gis-facility!search		

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Loc ID:	36649	**Coord Acc:**	4
Object ID:	36649	**Ver Meth:**	DPHO
OOIC:	FACILITY	**Ver Name:**	ROESSLER_J
Site Type:	Fuel user/Non-retail	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		**Ver Date:**	7/11/2006
Next action:		**Elevation:**	
Fin Respon:		**El Datum:**	
Rel Feat:	ENTRA	**El Resolut:**	
Alb East:	536072.48	**El Units:**	
Alb North:	386270.33	**Office:**	SWD
Datum:	HARN	**Phone:**	8137928686
Col Meth:	DPHO	**Operator:**	OMLOR, ROBERTA
Col Name:	ROESSLER_J	**Lat DD:**	27
Col Date:	7/11/2006	**Lat MM:**	28
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long DD:**	82
Map Src:	1999 doqs	**Long MM:**	37
Map Scale:	5000		
Col Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9103309/gis-facility!search		

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Contact:	Omlor, Roberta	**Latitude:**	27:28:30.4867
Phone:	813-792-8686	**Longitude:**	82:37:13.0374
District:	SWD	**LL Method:**	DPHO - Address Matching
County 1:	41 - Manatee	**Account Owner:**	American Red Cross
Name:	American Red Cross 2905 59th St W Bradenton, FL 34209		

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	1	**Installed:**	
Placement:	UNDER	**Size:**	250
Status:	Removed from Site	**Content:**	Emerg Generator Diesel
Construction:			
Piping:			
Monitoring:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6	1 of 1	S	0.01 / 55.56	22.31 / 0	BUNKER HILL/ DUETTE PARK- BUNKER HILL/ DUETTE PARK 5502 33RD AVE. DRIVE WEST BRADENTON FL 34209	FINDS/FRS

Registry ID: 110047092221
FIPS Code:
HUC Code: 03100201
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 26-OCT-12
Update Date: 10-MAY-20
Interest Types: WATER TREATMENT PLANT
SIC Codes:
SIC Code Descriptions:
NAICS Codes:
NAICS Code Descriptions:
Conveyor: FRS-GEOCODE
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 13
Census Block Code: 120810004061011
EPA Region Code: 04
County Name:
US/Mexico Border Ind:
Latitude: 27.47211
Longitude: -82.61463
Reference Point: CENTER OF A FACILITY OR STATION
Coord Collection Method: ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value: 30
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110047092221
Program Acronyms:

SFDW:FL6412545 441986412545

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	1 of 2	S	0.00 / 9.31	22.40 / 0	BRADENTON CITY PUBLIC WORKS LS #23 3000 59TH ST W BRADENTON FL 34209	STCS

Facility ID: 9700355
Status (Map): REVIEWED
Contam (Map):
Fac Type (Map): H
Fac Stat (Map): CLOSED
Address (Map): 3000 59TH ST W
Name (Map): BRADENTON CITY PUBLIC WORKS LS #23
Fac Name(OpenData): BRADENTON CITY PUBLIC WORKS LS #23
City (Map): BRADENTON
County (Map): 41
Zip4 (Map):
Zip5 (Map): 34209
County: 41 - Manatee
Type : H - Local Government
Status: Closed

Status (Open Data):	REVIEWED
Facility Status (Open Data):	CLOSED
Facility Type Code (Open Data):	H
Facility Type (Open Data):	Local Government
Fac Clnup Stat Cd(OpenData):	
Fac Cleanup Status(OpenData):	
Cleanup Status Effective Date:	1970/01/01 00:00:00+00
Address (Open Data):	3000 59TH ST W
City (Open Data):	BRADENTON
Zip5 (Open Data):	34209
County (Open Data):	MANATEE
CC County ID (Open Data):	41

FDEP Storage Tank Monitoring Open Data Details

Object ID:	52582	***Ver Prog:***	TANKS-PETROLEUM CONTAMINATION
Regulated:	NO	***Ver Date:***	2006/12/18 12:34:50+00
OOIC:	FACILITY	***Elevation:***	
Rel Feat:	VICIN	***El Datum:***	
ALB East:	536070.01	***El Resolut:***	
ALB North:	386057.11	***El Units:***	
Datum:	HARN	***Loc ID:***	52222
Col Meth:	DPHO	***Lat DD:***	27
Col Name:	BERNHARD_K	***Lat MM:***	28
Col Date:	2006/12/18 12:34:50+00	***Long DD:***	82
Col Prog:	TANKS-PETROLEUM CONTAMINATION	***Long MM:***	37
Map Src:	2004 doqqs	***Lat SS:***	
Map Scale:	5000	***Long SS:***	
Coord Acc:	4	***X:***	-82.6203360167506
Ver Meth:	DPHO	***Y:***	27.4732224418615
Ver Name:	BERNHARD_K		
Col Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Direct:			
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9700355/gis-facility!search		

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Loc ID:	52222	***Coord Acc:***	4
Object ID:	52222	***Ver Meth:***	DPHO
OOIC:	FACILITY	***Ver Name:***	BERNHARD_K
Site Type:	Local Government	***Ver Prog:***	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		***Ver Date:***	12/18/2006
Next action:		***Elevation:***	
Fin Respon:		***El Datum:***	
Rel Feat:	VICIN	***El Resolut:***	
Alb East:	536070.01	***El Units:***	
Alb North:	386057.11	***Office:***	SWD
Datum:	HARN	***Phone:***	9417486330
Col Meth:	DPHO	***Operator:***	DENNIS BUSSEL/EXT247

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Col Name:	BERNHARD_K	**Lat DD:**	27
Col Date:	12/18/2006	**Lat MM:**	28
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long DD:**	82
Map Src:	2004 doqqs	**Long MM:**	37
Map Scale:	5000		
Col Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9700355/gis-facility!search		

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Contact:	Dennis Bussel/Ext247	**Latitude:**	27:28:23.5826
Phone:	941-748-6330	**Longitude:**	82:37:13.1973
District:	SWD	**LL Method:**	DPHO - Address Matching
County 1:	41 - Manatee	**Account Owner:**	Siemens Water Technologies
Name:	Bradenton City Public Works Ls #23 3000 59th St W Bradenton, FL 34209		

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	1	**Installed:**	07/01/1993
Placement:	ABOVE	**Size:**	1500
Status:	Removed from Site	**Content:**	Hazardous Substance
Construction:			
Piping:			
Monitoring:			

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	2	**Installed:**	07/01/1993
Placement:	ABOVE	**Size:**	1500
Status:	Removed from Site	**Content:**	Hazardous Substance
Construction:			
Piping:			
Monitoring:			

7	2 of 2	S	0.00 / 9.31	22.40 / 0	***BRADENTON CITY-LIFT STATION #23*** ***3000 W 59TH ST*** ***BRADENTON FL 34209***	***STCS***

Facility ID:	9200307	**City (Map):**	BRADENTON
Status (Map):	REVIEWED	**County (Map):**	41
Contam (Map):		**Zip4 (Map):**	
Fac Type (Map):	H	**Zip5 (Map):**	34209
Fac Stat (Map):	CLOSED	**County:**	41 - Manatee
Address (Map):	3000 W 59TH ST	**Type :**	H - Local Government
Name (Map):	BRADENTON CITY-LIFT STATION #23	**Status:**	Closed
Fac Name(OpenData):	BRADENTON CITY-LIFT STATION #23		
Status (Open Data):	REVIEWED		

Facility Status (Open Data):	CLOSED
Facility Type Code (Open Data):	H
Facility Type (Open Data):	Local Government
Fac Clnup Stat Cd(OpenData):	
Fac Cleanup Status(OpenData):	
Cleanup Status Effective Date:	1970/01/01 00:00:00+00
Address (Open Data):	3000 W 59TH ST
City (Open Data):	BRADENTON
Zip5 (Open Data):	34209
County (Open Data):	MANATEE
CC County ID (Open Data):	41

FDEP Storage Tank Monitoring Open Data Details

Object ID:	38863	***Ver Prog:***	TANKS-PETROLEUM CONTAMINATION
Regulated:	NO	***Ver Date:***	2006/12/18 12:37:19+00
OOIC:	FACILITY	***Elevation:***	
Rel Feat:	VICIN	***El Datum:***	
ALB East:	536070.01	***El Resolut:***	
ALB North:	386057.11	***El Units:***	
Datum:	HARN	***Loc ID:***	36634
Col Meth:	DPHO	***Lat DD:***	27
Col Name:	BERNHARD_K	***Lat MM:***	28
Col Date:	2006/12/18 12:37:19+00	***Long DD:***	82
Col Prog:	TANKS-PETROLEUM CONTAMINATION	***Long MM:***	37
Map Src:	2004 doqqs	***Lat SS:***	
Map Scale:	5000	***Long SS:***	
Coord Acc:	4	***X:***	-82.6203360167506
Ver Meth:	DPHO	***Y:***	27.4732224418615
Ver Name:	BERNHARD_K		
Col Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Direct:			
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9200307/gis-facility!search		

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Loc ID:	36634	***Coord Acc:***	4
Object ID:	36634	***Ver Meth:***	DPHO
OOIC:	FACILITY	***Ver Name:***	BERNHARD_K
Site Type:	Local Government	***Ver Prog:***	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		***Ver Date:***	12/18/2006
Next action:	PLACARD 01-OCT-98	***Elevation:***	
Fin Respon:		***El Datum:***	
Rel Feat:	VICIN	***El Resolut:***	
Alb East:	536070.01	***El Units:***	
Alb North:	386057.11	***Office:***	SWD
Datum:	HARN	***Phone:***	8137480800
Col Meth:	DPHO	***Operator:***	CITY OF BRADENTON-PUBLIC WORKS
Col Name:	BERNHARD_K	***Lat DD:***	27

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Col Date:	12/18/2006	**Lat MM:**	28
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long DD:**	82
Map Src:	2004 doqqs	**Long MM:**	37
Map Scale:	5000		
Col Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9200307/gis-facility!search		

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Contact:	City Of Bradenton-Public Works	**Latitude:**	27:28:23.5826
Phone:	813-748-0800	**Longitude:**	82:37:13.1973
District:	SWD	**LL Method:**	DPHO - Unverified
County 1:	41 - Manatee	**Account Owner:**	Bradenton City
Name:	Bradenton City-Lift Station #23 3000 W 59th St Bradenton, FL 34209		

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	1	**Installed:**	12/01/1981
Placement:	ABOVE	**Size:**	3000
Status:	NonReg Construction	**Content:**	Hazardous Substance
Construction:	B - Internal Lining		
Piping:	C - Fiberglass		
Monitoring:	8 - Manually Sampled Wells C - Groundwater Monitoring Plan		

8	1 of 1	S	0.00 / 7.22	20.37 / -2	***MANATEE CNTY SCHOOL BD-SUGG MIDDLE S 3801 59TH ST W BRADENTON FL 34209***	***STCS***

Facility ID:	9046062	**City (Map):**	BRADENTON
Status (Map):	REVIEWED	**County (Map):**	41
Contam (Map):		**Zip4 (Map):**	6050
Fac Type (Map):	H	**Zip5 (Map):**	34209
Fac Stat (Map):	CLOSED	**County:**	41 - Manatee
Address (Map):	3801 59TH ST W	**Type :**	H - Local Government
Name (Map):	MANATEE CNTY SCHOOL BD-SUGG MIDDLE S	**Status:**	Closed
Fac Name(OpenData):	MANATEE CNTY SCHOOL BD-SUGG MIDDLE S		
Status (Open Data):	REVIEWED		
Facility Status (Open Data):	CLOSED		
Facility Type Code (Open Data):	H		
Facility Type (Open Data):	Local Government		
Fac Clnup Stat Cd(OpenData):			
Fac Cleanup Status(OpenData):			
Cleanup Status Effective Date:	1970/01/01 00:00:00+00		
Address (Open Data):	3801 59TH ST W		
City (Open Data):	BRADENTON		
Zip5 (Open Data):	34209		

County (Open Data): MANATEE
CC County ID (Open Data): 41

FDEP Storage Tank Monitoring Open Data Details

Object ID:	36005	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Regulated:	NO	**Ver Date:**	2006/12/20 16:49:17+00
OOIC:	FACILITY	**Elevation:**	
Rel Feat:	CENTR	**El Datum:**	
ALB East:	536251.83	**El Resolut:**	
ALB North:	385569.41	**El Units:**	
Datum:	HARN	**Loc ID:**	36742
Col Meth:	DPHO	**Lat DD:**	27
Col Name:	BERNHARD_K	**Lat MM:**	28
Col Date:	2006/12/20 16:49:17+00	**Long DD:**	82
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long MM:**	37
Map Src:	2004 doqqs	**Lat SS:**	
Map Scale:	5000	**Long SS:**	
Coord Acc:	4	**X:**	-82.6185462383206
Ver Meth:	DPHO	**Y:**	27.4688097741655
Ver Name:	BERNHARD_K		

Col Aff: DEPARTMENT OF ENVIRONMENTAL PROTECTION
Ver Aff: DEPARTMENT OF ENVIRONMENTAL PROTECTION
Direct:
Documents: https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9046062/gis-facility!search

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Loc ID:	36742	**Coord Acc:**	4
Object ID:	36742	**Ver Meth:**	DPHO
OOIC:	FACILITY	**Ver Name:**	BERNHARD_K
Site Type:	Local Government	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		**Ver Date:**	12/20/2006
Next action:	PLACARD 27-JUN-97	**Elevation:**	
Fin Respon:		**El Datum:**	
Rel Feat:	CENTR	**El Resolut:**	
Alb East:	536251.83	**El Units:**	
Alb North:	385569.41	**Office:**	SWD
Datum:	HARN	**Phone:**	8137465171
Col Meth:	DPHO	**Operator:**	MANATEE CNTY SCHOOL BD
Col Name:	BERNHARD_K	**Lat DD:**	27
Col Date:	12/20/2006	**Lat MM:**	28
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long DD:**	82
Map Src:	2004 doqqs	**Long MM:**	37
Map Scale:	5000		

Col Aff: DEPARTMENT OF ENVIRONMENTAL PROTECTION
Ver Aff: DEPARTMENT OF ENVIRONMENTAL PROTECTION
Documents: https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/9046062/gis-facility!search

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Contact: Manatee Cnty School Bd
Phone: 813-746-5171
District: SWD
County 1: 41 - Manatee
Name: Manatee Cnty School Bd-Sugg Middle S
3801 59th St W
Bradenton, FL 34209- 6050

Latitude: 27:28:07.6970
Longitude: 82:37:06.7541
LL Method: DPHO - Unverified
Account Owner: Manatee Cnty School Bd

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No: 2
Placement: UNDER
Status: Removed from Site
Construction:
Piping:
Monitoring:

Installed:
Size: 3000
Content: Fuel Oil - Onsite Heat

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No: 1
Placement: UNDER
Status: Removed from Site
Construction:
Piping:
Monitoring:

Installed:
Size: 375
Content: Emerg Generator Diesel

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
9	1 of 1	N	0.00 / 13.20	25.09 / 3	924 59TH ST. WEST BRADENTON FL 34209	ERNS

NRC Report No: 917847
Type of Incident: FIXED
Incident Cause: UNKNOWN
Incident Date: 9/15/2009 10:00:00 AM
Incident Location:
Incident Dtg: DISCOVERED
Distance from City:
Distance Units:
Direction from City:
Location County: MANATEE
Potential Flag: No
Year: Year 2009 Reports

Latitude Degrees:
Latitude Minutes:
Latitude Seconds:
Longitude Degrees:
Longitude Minutes:
Longitude Seconds:
Lat Quad:
Long Quad:
Location Section:
Location Township:
Location Range:

Description of Incident: CALLER STATES SOMEBODY IS PUMPING SOMETHING IN THE SEWERS AT THE ADDRESS LOCATION WHICH IS CREATING A VERY STRONG HAZARDOUS ODOR. CALLER STATES THE MASSIVE FUMES ARE CAUSING HEADACHES AND THERE IS NO VAPOR RECOVERY TO REDUCE THE FUMES.

Material Spill Information

Chris Code: NCC
CAS No: 000000-00-0
UN No:

Unit of Measure: UNKNOWN AMOUNT
If Reached Water: YES
Amount in Water: 0

Name of Material:	HAZARDOUS ODOR	**Unit Reach Water:**	UNKNOWN AMOUNT
Amount of Material:	0		

Calls Information

Date Time Received:	9/15/2009 12:05:30 PM	**Responsible City:**	
Date Time Complete:	9/15/2009 12:11:38 PM	**Responsible State:**	FL
Call Type:	INC	**Responsible Zip:**	
Resp Company:	MANATEE COUNTY	**Source:**	TELEPHONE
Resp Org Type:	LOCAL GOVERNMENT		

Incident Information

Tank ID:		**Building ID:**	
Tank Regulated:	U	**Location Area ID:**	
Tank Regulated By:		**Location Block ID:**	
Capacity of Tank:		**OCSG No:**	
Capacity Tank Units:		**OCSP No:**	
Description of Tank:		**State Lease No:**	
Actual Amount:		**Pier Dock No:**	
Actual Amount Units:		**Berth Slip No:**	
Tank Above Ground:	ABOVE	**Brake Failure:**	U
NPDES:		**Airbag Deployed:**	U
NPDES Compliance:	U	**Transport Contain:**	U
Init Contin Rel No:		**Location Subdiv:**	
Contin Rel Permit:		**Platform Rig Name:**	
Contin Release Type:		**Platform Letter:**	
Aircraft ID:		**Allision:**	U
Aircraft Runway No:		**Type of Structure:**	
Aircraft Spot No:		**Structure Name:**	
Aircraft Type:		**Structure Oper:**	U
Aircraft Model:		**Transit Bus Flag:**	
Aircraft Fuel Cap:		**Date Time Norm Serv:**	
Aircraft Fuel Cap U:		**Serv Disrupt Time:**	
Aircraft Fuel on Brd:		**Serv Disrupt Units:**	
Aircraft Fuel OB U:		**CR Begin Date:**	
Aircraft Hanger:		**CR End Date:**	
Road Mile Marker:		**CR Change Date:**	
Power Gen Facility:	N	**FBI Contact:**	
Generating Capacity:		**FBI Contact Dt Tm:**	
Type of Fixed Obj:	UNKNOWN	**Passenger Handling:**	
Type of Fuel:		**Passenger Route:**	XXX
DOT Crossing No:		**Passenger Delay:**	XXX
DOT Regulated:	U	**Sub Part C Test Req:**	XXX
Pipeline Type:		**Conductor Test:**	
Pipeline Abv Ground:	ABOVE	**Engineer Test:**	
Pipeline Covered:	U	**Trainman Test:**	
Exposed Underwater:	N	**Yard Foreman Test:**	
Railroad Hotline:		**RCL Operator Test:**	
Railroad Milepost:		**Brakeman Test:**	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Grade Crossing:	U	**Train Dispat Test:**	
Crossing Device Ty:		**Signalman Test:**	
Ty Vehicle Involved:		**Oth Employee Test:**	
Device Operational:	U	**Unknown Test:**	

Incident Details Information

Release Secured:	U	**State Agen Report No:**	NO REPORT #
Release Rate:		**State Agen on Scene:**	NONE
Release Rate Unit:		**State Agen Notified:**	MANATEE COUNTY
Release Rate Rate:		**Fed Agency Notified:**	NONE
Est Duration of Rel:		**Oth Agency Notified:**	
Desc Remedial Act:	NONE	**Body of Water:**	STORM SEWER
Fire Involved:	N	**Tributary of:**	UNKNOWN
Fire Extinguished:	U	**Near River Mile Make:**	
Any Evacuations:	N	**Near River Mile Mark:**	
No Evacuated:		**Offshore:**	N
Who Evacuated:		**Weather Conditions:**	PARTLY CLOUDY
Radius of Evacu:		**Air Temperature:**	
Any Injuries:	N	**Wind Direction:**	
No. Injured:		**Wind Speed:**	
No. Hospitalized:		**Wind Speed Unit:**	
No. Fatalities:		**Water Supp Contam:**	U
Any Fatalities:	N	**Water Temperature:**	
Any Damages:	N	**Wave Condition:**	
Damage Amount:		**Current Speed:**	
Air Corridor Closed:	N	**Current Direction:**	
Air Corridor Desc:		**Current Speed Unit:**	
Air Closure Time:		**EMPL Fatality:**	
Waterway Closed:	N	**Pass Fatality:**	
Waterway Desc:		**Community Impact:**	
Waterway Close Time:		**Passengers Transfer:**	NO
Road Closed:	N	**Passenger Injuries:**	
Road Desc:		**Employee Injuries:**	
Road Closure Time:		**Occupant Fatality:**	
Road Closure Units:		**Sheen Size:**	
Closure Direction:		**Sheen Size Units:**	
Major Artery:	No	**Sheen Size Length:**	
Track Closed:	N	**Sheen Size Length U:**	
Track Desc:		**Sheen Size Width:**	
Track Closure Time:		**Sheen Size Width U:**	
Track Closure Units:		**Sheen Color:**	
Track Close Dir:		**Dir of Sheen Travel:**	
Media Interest:	NONE	**Sheen Odor Desc:**	
Medium Desc:	WATER	**Duration Unit:**	
Addl Medium Info:	STORM SEWER, ATMOSPHERE (ODOR)	**Additional Info:**	CALLER HAD NO ADDITIONAL COMMENTS.

10	1 of 1	N	0.00 / 24.96	25.26 / 3	SR 64 and W 59th Street BRADENTON FL	SPILLS

Incident No:	62303	**Incident Date:**	1/25/2019 9:11:00 AM

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Incident Type: Inland
County: Manatee

Spill Details

Incident Status: Pending-DM
Incident Party Type: Reporting Party
Incident Party Name: Bexley Rhiannon
Pollutant Name: None
Pollutant Category: None
Pollutant Actual Volume: 0
Pollutant Unit Measure: gallon
Criminal Indicator: No
Hurricane Indicator: No
Description: Abandoned Containers
On Scene Response: Yes

Spill Details

Incident Status: Pending-DM
Incident Party Type: Responsible Party
Incident Party Name: RP UNKNOWN
Pollutant Name: None
Pollutant Category: None
Pollutant Actual Volume: 0
Pollutant Unit Measure: gallon
Criminal Indicator: No
Hurricane Indicator: No
Description: Abandoned Containers
On Scene Response: Yes

---

11 | **1 of 5** | **S** | **0.02 / 102.24** | **20.36 / -2** | **AMOCO-CORTEZ**
5904 CORTEZ RD W
BRADENTON FL 34210 | **UST**

Facility ID: 8510822
Facility Status: OPEN
ASTs: 0
USTs: 2
Tanks: 2
Facility Type: A
Contact: MARK HESSER
Facility Phone: 9417950492
Owner ID: 1105
Owner Phone: 9413557619
Owner: ATCO INC
Owner Address1: PO BOX 698
Owner Address2: ATTN: STORAGE TANK REGIS
Owner City: SARASOTA
Owner State: FL
Owner Zip 5: 34230
Owner Zip 4:
Type Desc: Retail Station
Oculus Docs Inventory URL: https://erisservice7.ecologeris.com/ErisExt/flo/ocure.ashx?ID=8510822&CAT=11
Information Portal Facility URL: http://prodenv.dep.state.fl.us/DepNexus/public/facilitysearch?pagination=true&facility.id=8510822
Information Portal Doc URL: http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510822/facility!search
Lat DD: 27
Lat MM: 27
Lat SS: 45
Long DD: 82
Long MM: 37
Long SS: 16
Lat/Long Method: AGPS
Bad Addr Indicator:
County: MANATEE
Dep Co: P

Tank Information

Tank ID:	1R	**Determination:**	Double Walled
Tank Status:	U - In Service	**Gallons:**	12000
Status Date:	01-JUN-2009	**Placement:**	UNDERGROUND
Installation Date:	01-MAY-2009	**Tank Vessel Indic:**	TANK
Substance:	B - Unleaded Gas		

Piping

Piping Description:	K-Dispenser liners
Tkstat:	U
Stat Date:	01-JUN-2009

Piping Description:	C-Fiberglass
Tkstat:	U
Stat Date:	01-JUN-2009

Piping Description:	J-Pressurized piping system
Tkstat:	U
Stat Date:	01-JUN-2009

Piping Description:	F-Double wall
Tkstat:	U
Stat Date:	01-JUN-2009

Monitoring

Monitoring Desc:	F-Monitor dbl wall tank space
Tkstat:	U
Stat Date:	01-JUN-2009

Monitoring Desc:	3-Electronic monitor pipe sumps
Tkstat:	U
Stat Date:	01-JUN-2009

Monitoring Desc:	H-Mechanical line leak detector
Tkstat:	U
Stat Date:	01-JUN-2009

Monitoring Desc:	2-Visual inspect pipe sumps
Tkstat:	U
Stat Date:	01-JUN-2009

Monitoring Desc:	K-Monitor dbl wall pipe space
Tkstat:	U
Stat Date:	01-JUN-2009

Monitoring Desc:	4-Visual inspect dispenser liners
Tkstat:	U
Stat Date:	01-JUN-2009

Tank Information

Tank ID:	2R	***Determination:***	Double Walled
Tank Status:	U - In Service	***Gallons:***	12000
Status Date:	01-JUN-2009	***Placement:***	UNDERGROUND
Installation Date:	01-MAY-2009	***Tank Vessel Indic:***	TANK
Substance:	D - Vehicular Diesel		

Piping

Piping Description:	C-Fiberglass
Tkstat:	U
Stat Date:	01-JUN-2009
Piping Description:	J-Pressurized piping system
Tkstat:	U
Stat Date:	01-JUN-2009
Piping Description:	K-Dispenser liners
Tkstat:	U
Stat Date:	01-JUN-2009
Piping Description:	F-Double wall
Tkstat:	U
Stat Date:	01-JUN-2009

Monitoring

Monitoring Desc:	F-Monitor dbl wall tank space
Tkstat:	U
Stat Date:	01-JUN-2009
Monitoring Desc:	2-Visual inspect pipe sumps
Tkstat:	U
Stat Date:	01-JUN-2009
Monitoring Desc:	H-Mechanical line leak detector
Tkstat:	U
Stat Date:	01-JUN-2009
Monitoring Desc:	4-Visual inspect dispenser liners
Tkstat:	U
Stat Date:	01-JUN-2009
Monitoring Desc:	3-Electronic monitor pipe sumps
Tkstat:	U
Stat Date:	01-JUN-2009
Monitoring Desc:	K-Monitor dbl wall pipe space
Tkstat:	U

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Stat Date:		01-JUN-2009				
11	2 of 5	S	0.02 / 102.24	20.36 / -2	AMOCO-CORTEZ 5904 CORTEZ RD W BRADENTON FL 34210-2705	LST

Facility ID:	8510822	**Contact:**	MARK HESSER
Facility Status:	OPEN	**Phone:**	(941)795-0492
Facility Type:	A - Retail Station	**Name Changed:**	
Score:	29	**Address Changed:**	
Score Effctve Date:	04/19/2012	**Section:**	
Score when Ranked:	10	**Township:**	
Rank:	8533	**Range:**	
Operator:	SHEAREN CHARLES	**District:**	SWD
Prim Related Party:	1105	**County:**	MANATEE
Primary RP Role:	ACCOUNT OWNER	**County No:**	41
RP Begin Date:	05/20/1994	**Lat DD:**	27
RP Address1:	PO BOX 698	**Lat MM:**	27
RP Address2:	ATTN: STORAGE TANK REGIS	**Lat SS:**	46.5768
RP City:	SARASOTA	**Long DD:**	82
RP State:	FL	**Long MM:**	37
RP Zip5:	34230	**Long SS:**	14.7108
RP Zip4:	698	**Feature:**	
RP Phone:	(941)355-7619	**Method:**	AGPS
RP Phone Ext.:	307	**Datum:**	0
RP Bad Addr Ind:	No		

Facility Name (Map):	AMOCO-CORTEZ
Address (Map):	5904 CORTEZ RD W
City (Map):	BRADENTON
Zip5 (Map):	34210
Facility T (Map):	Retail Station
Facility S (Map):	OPEN
County (Map):	MANATEE
Lat DD (Map):	27
Lat MM (Map):	27
Long DD (Map):	82
Long MM (Map):	37
Datum (Map):	HARN
Rel Feat (Map):	EXACT
Collection (Map):	DPHO
Collector (Map):	BACHMANN_J
Collecti 1 (Map):	13-Oct-2008
Document L (Map):	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510822/facility!search
Lat SS (Map):	
Long SS (Map):	
Geometry (Map):	
RP Name:	ATCO INC
Oculus Docs Inventory:	https://erisservice7.ecologeris.com/ErisExt/flo/ocure.ashx?ID=8510822&CAT=11
Information Portal Fac URL:	http://prodenv.dep.state.fl.us/DepNexus/public/facilitysearch?pagination=true&facility.id=8510822
Information Portal Doc URL:	http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510822/facility!search

Discharge Cleanup Summary

Discharge Date:	03/05/1990
Cleanup Required:	N - NO CLEANUP REQUIRED
Discharge Cleanup Status:	NREQ - CLEANUP NOT REQUIRED
Discharge Cleanup Stat Date:	10/06/2010
Eligibility Indicator:	I - INELIGIBLE
Site Manager:	
Site Manager End Date:	
Tank Office:	-

Petroleum Cleanup Program Eligibility

Cleanup Program:	O - OTHER
Eligibility Status:	NOT ELIGIBLE

Task Info

SA Task ID:		***RAP Task ID:***	
SA Cleanup Resp:	-	***RAP Clean Resp ID:***	-
SA Fund Elig Type:	-	***RAP Fund Elig Type:***	-
SA Actual Cost:		***RAP Actual Cost:***	
SA Complete Date:		***RAP Complete Date:***	
SA Payment Date:		***RAP Payment Date:***	
SR Task ID:		***RAP Last Ord Appr:***	
SR Cleanup Resp:	-	***RA Task ID:***	
SR Fund Elig Type:	-	***RA Cleanup Resp:***	-
SR Actual Cost:		***RA Fund Elig Type:***	-
SR Complete Date:		***RA Yrs to Complete:***	
SR Payment Date:		***RA Actual Cost:***	
SR Oral Date:		***SRC Action Type:***	-
SR Written Date:		***SRC Submit Date:***	
SR Soil Removal:		***SRC Review Date:***	
SR Free Prod Rmvl:		***SRC Complete Status:***	-
SR Soil Ton Remove:		***SRC Comp Status Dt:***	
SR Soil Treatment:		***SRC Issue Date:***	
SR Other Treatment:		***SRC Comments:***	
SR Alt Proc Rec:		***Tank Office:***	-
SR Alternate Procedure Status:			
SR Alt Procedure Status Dt:			
SR Alt Procedure Comment:			

Discharge Cleanup Summary

Discharge Date:	12/19/1988
Cleanup Required:	R - CLEANUP REQUIRED
Discharge Cleanup Status:	RA - RA ONGOING
Discharge Cleanup Stat Date:	07/24/2009
Eligibility Indicator:	E - ELIGIBLE
Site Manager:	KURAYAZIYADEH_N

Site Manager End Date:
Tank Office: PCLP29 - HILLSBOROUGH ENVIRONMENTAL PROTECTION COMMISSION

Contaminated Media

Contaminated Drinking Wells: 0
Contaminated Mntring Wells: YES
Contaminated Soil: YES
Contaminated Surface Water: NO
Contaminated Ground Water: YES
Pollutant: Y - Unknown/Not Reported
Other Description:
Gallons Discharged:

Petroleum Cleanup Program Eligibility

Cleanup Program: E - EARLY DETECTION INCENTIVE
Eligibility Status: ELIGIBLE

Task Info

SA Task ID: 51038
SA Cleanup Resp: RP - RESPONSIBLE PARTY
SA Fund Elig Type: -
SA Actual Cost:
SA Complete Date: 04-19-1992
SA Payment Date:
SR Task ID:
SR Cleanup Resp: -
SR Fund Elig Type: -
SR Actual Cost:
SR Complete Date:
SR Payment Date:
SR Oral Date:
SR Written Date:
SR Soil Removal:
SR Free Prod Rmvl:
SR Soil Ton Remove:
SR Soil Treatment:
SR Other Treatment:
SR Alt Proc Rec:
SR Alternate Procedure Status:
SR Alt Procedure Status Dt:
SR Alt Procedure Comment:

RAP Task ID: 51039
RAP Clean Resp ID: ST - STATE
RAP Fund Elig Type: -
RAP Actual Cost:
RAP Complete Date: 09-13-1993
RAP Payment Date:
RAP Last Ord Appr: 9/13/1993
RA Task ID: 51040
RA Cleanup Resp: ST - STATE
RA Fund Elig Type: -
RA Yrs to Complete:
RA Actual Cost:
SRC Action Type: -
SRC Submit Date:
SRC Review Date:
SRC Complete Status: -
SRC Comp Status Dt:
SRC Issue Date:
SRC Comments:
Tank Office: PCLP29 - Hillsborough County

Petroleum Cleanup Funding Cap Encumbrance to Date

FCFS: $299,288.92
LPSPASM: $0.00

SPASM:	$0.00
NPDES:	$0.00
Utility 1 Time Payments:	$0.00
All Wo Ta Co Pos Encumbered:	$81,172.43
Wo Ta Co Pos Exclu from Cap:	$44,395.43
Ttl Amnt Encumbered to Date:	$380,461.35
Ttl Amnt Encumbered Towar:	$336,065.92

Petroleum Cleanup PCT Facility Score

Facility Cleanup Status:	ONGO - ONGOING
Related Party ID:	1105
RP Contact:	MARK HESSER
Bad Address Indicator:	N

Contract

Contractor:	FOURTUNE 4, INC D/B/A ENVIRONMENTAL ASSESSMENTS & CONSULTING
Score:	29
Facility Name:	AMOCO-CORTEZ
Address:	5904 CORTEZ RD W
City:	BRADENTON
Zip:	34210
District:	SWD
County ID:	41
County:	MANATEE

Discharge Info (Map)

Discharge:	21945	***Discharg 3:***	NREQ
Discharg 1:	05-Mar-1990	***Disch Clea:***	06-Oct-2010
Discharg 2:	25	***Report Pha:***	COMPLETED
Eligibilit:	INELIGIBLE	***Report Sub:***	COMPLETED
Eligibil 1:		***Report S 1:***	06-Oct-2010
General Cl:	NO CLEANUP REQUIRED	***Staff Assi:***	
Tank Offic:			

Discharge Info (Map)

Discharge:	21946	***Discharg 3:***	RA
Discharg 1:	19-Dec-1988	***Disch Clea:***	24-Jul-2009
Discharg 2:	29	***Report Pha:***	SA
Eligibilit:	ELIGIBLE	***Report Sub:***	SA
Eligibil 1:	EDI	***Report S 1:***	22-Apr-2021
General Cl:	WORK UNDERWAY	***Staff Assi:***	KURAYAZIYADEH_N
Tank Offic:	HILLSBOROUGH ENVIRONMENTAL PROTECTION COMMISSION		

11	***3 of 5***	***S***	***0.02 / 102.24***	***20.36 / -2***	***AMOCO-CORTEZ 5904 CORTEZ RD W***	***STCS***

BRADENTON FL 34210

Facility ID:	8510822	***City (Map):***	BRADENTON
Status (Map):	REVIEWED	***County (Map):***	41
Contam (Map):	YES	***Zip4 (Map):***	2705
Fac Type (Map):	A	***Zip5 (Map):***	34210
Fac Stat (Map):	OPEN	***County:***	41 - Manatee
Address (Map):	5904 CORTEZ RD W	***Type :***	A - Retail Station
Name (Map):	AMOCO-CORTEZ	***Status:***	Open

Fac Name(OpenData):	AMOCO-CORTEZ
Status (Open Data):	REVIEWED
Facility Status (Open Data):	OPEN
Facility Type Code (Open Data):	A
Facility Type (Open Data):	Retail Station
Fac Clnup Stat Cd(OpenData):	ONGO
Fac Cleanup Status(OpenData):	ONGOING
Cleanup Status Effective Date:	2005/03/07 18:25:20+00
Address (Open Data):	5904 CORTEZ RD W
City (Open Data):	BRADENTON
Zip5 (Open Data):	34210
County (Open Data):	MANATEE
CC County ID (Open Data):	41

FDEP Storage Tank Monitoring Open Data Details

Object ID:	3762	***Ver Prog:***	TANKS-PETROLEUM CONTAMINATION
Regulated:	YES	***Ver Date:***	2008/10/13 11:41:00+00
OOIC:	FACILITY	***Elevation:***	
Rel Feat:	EXACT	***El Datum:***	
ALB East:	536041.31	***El Resolut:***	
ALB North:	384915.13	***El Units:***	
Datum:	HARN	***Loc ID:***	37320
Col Meth:	DPHO	***Lat DD:***	27
Col Name:	BACHMANN_J	***Lat MM:***	27
Col Date:	2008/10/13 11:41:00+00	***Long DD:***	82
Col Prog:	TANKS-PETROLEUM CONTAMINATION	***Long MM:***	37
Map Src:	2004 DOQQs	***Lat SS:***	
Map Scale:	10	***Long SS:***	
Coord Acc:	4	***X:***	-82.6207564332193
Ver Meth:	DPHO	***Y:***	27.4629430504628
Ver Name:	BACHMANN_J		

Col Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION
Direct:	
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510822/gis-facility!search

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Loc ID:	37320	***Coord Acc:***	4
Object ID:	37320	***Ver Meth:***	DPHO

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

OOIC:	FACILITY	**Ver Name:**	BACHMANN_J
Site Type:	Retail Station	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		**Ver Date:**	10/13/2008
Next action:	PLACARD 08-JUN-2020	**Elevation:**	
Fin Respon:		**El Datum:**	
Rel Feat:	EXACT	**El Resolut:**	
Alb East:	536041.31	**El Units:**	
Alb North:	384915.13	**Office:**	SWD
Datum:	HARN	**Phone:**	9417950492
Col Meth:	DPHO	**Operator:**	SHEAREN CHARLES
Col Name:	BACHMANN_J	**Lat DD:**	27
Col Date:	10/13/2008	**Lat MM:**	27
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long DD:**	82
Map Src:	2004 DOQQs	**Long MM:**	37
Map Scale:	10		
Col Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510822/gis-facility!search		

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Contact:	Shearen Charles	**Latitude:**	27:27:46.5768
Phone:	941-795-0492	**Longitude:**	82:37:14.7108
District:	SWD	**LL Method:**	DPHO - Autonomous GPS
County 1:	41 - Manatee	**Account Owner:**	Atco Inc
Name:	Amoco-Cortez 5904 Cortez Rd W Bradenton, FL 34210- 2705		

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	2	**Installed:**	07/01/1973
Placement:	UNDER	**Size:**	8000
Status:	Removed from Site	**Content:**	Unleaded Gas
Construction:			
Piping:			
Monitoring:			

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	4	**Installed:**	07/01/1973
Placement:	UNDER	**Size:**	4000
Status:	Removed from Site	**Content:**	Vehicular Diesel
Construction:			
Piping:			
Monitoring:			

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	1	**Installed:**	07/01/1973

Placement:	UNDER	***Size:***	10000
Status:	Removed from Site	***Content:***	Unleaded Gas
Construction:			
Piping:			
Monitoring:			

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	1R	***Installed:***	05/01/2009
Placement:	UNDER	***Size:***	12000
Status:	In Service	***Content:***	Unleaded Gas
Construction:	F - Fiberglass Clad Steel M - Spill Containment Bucket N - Flow Shut-Off O - Tight Fill P - Level Gauges/Alarms R - Double Wall - Tank Jacket		
Piping:	C - Fiberglass F - Double Wall J - Pressurized Piping System K - Dispenser Liners		
Monitoring:	2 - Visual Inspect Pipe Sumps 3 - Electronic Monitor Pipe Sumps 4 - Visual Inspect Dispenser Liners F - Monitor Dbl Wall Tank Space H - Mechanical Line Leak Detector K - Monitor Dbl Wall Pipe Space		

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	3	***Installed:***	07/01/1973
Placement:	UNDER	***Size:***	8000
Status:	Removed from Site	***Content:***	Unleaded Gas
Construction:			
Piping:			
Monitoring:			

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	2R	***Installed:***	05/01/2009
Placement:	UNDER	***Size:***	12000
Status:	In Service	***Content:***	Vehicular Diesel
Construction:	F - Fiberglass Clad Steel L - Compartmented M - Spill Containment Bucket N - Flow Shut-Off O - Tight Fill P - Level Gauges/Alarms R - Double Wall - Tank Jacket		
Piping:	C - Fiberglass F - Double Wall J - Pressurized Piping System K - Dispenser Liners		
Monitoring:	2 - Visual Inspect Pipe Sumps 3 - Electronic Monitor Pipe Sumps 4 - Visual Inspect Dispenser Liners F - Monitor Dbl Wall Tank Space		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

H - Mechanical Line Leak Detector
K - Monitor Dbl Wall Pipe Space

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11 | ***4 of 5*** | ***S*** | ***0.02 / 102.24*** | ***20.36 / -2*** | ***AMOCO STATION 5904 CORTEZ RD W BRADENTON FL 34209*** | ***WELL SURVEILLANCE***

Facility ID:	8510822	***County:***	MANATEE
Project ID:	SUPER	***Longitude:***	-82.620753
Req No:	45794	***Latitude:***	27.462938
Loc ID:	179557	***GPS Date:***	5/7/2008
GPS ID:	179557	***Datum:***	WS1984
Type:	PETROLEUM	***Software:***	Risk_Solo_v2
Insp CHD:	MANATEE	***Streetside:***	
HAE:	11.31	***Agency:***	DOH
Loc Method:	DGPS - Differentially Corrected GPS		
Insp F Name:	TERRI		
Insp L Name:	STRIPLING		
Comment:	NOW BP		

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11 | ***5 of 5*** | ***S*** | ***0.02 / 102.24*** | ***20.36 / -2*** | ***AMOCO-CORTEZ 5904 CORTEZ RD W BRADENTON FL 34210-2705*** | ***DWM CONTAM***

Facility ID:	8510822	***Related Party ID:***	1105
Facility Type:	A - Retail Station	***Primary RP Role:***	ACCOUNT OWNER
Program Area:	Storage Tanks	***RP Begin Date:***	5/20/1994
Rank:	8533	***RP Name:***	ATCO INC
Operator:	SHEAREN CHARLES	***RP Address1:***	PO BOX 698
Phone:	(941)795-0492	***RP Address2:***	ATTN: STORAGE TANK REGIS
Name Changed:		***RP City:***	SARASOTA
Addr Changed:		***RP State:***	FL
Method:	AGPS	***RP Zip5:***	34230
Datum:	0	***RP Zip4:***	698
County:	MANATEE	***Contact:***	MARK HESSER
Range:		***RP Phone:***	(941)355-7619
Township:		***RP Extension:***	307
Section:		***Rp Bad Addr Ind:***	N

Program Details

Facility Status:	OPEN	***Lat DD:***	27
Priority Score:	29	***Lat MM:***	27
Score Effective Dt:	4/19/2012	***Lat SS:***	46.5768
Score When Ranked:	1/10/1900	***Long DD:***	82
Offsite Contam:		***Long MM:***	37
Program Eligible:		***Long SS:***	14.7108
Ineligible:		***Datum:***	0
District:	SWD	***Staff Assigned:***	
Method:	AGPS	***Priority:***	
Project Coordinator:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
12	1 of 2	N	0.04 / 237.07	24.87 / 2	WINN-DIXIE #2404 5805 MANATEE AVE W BRADENTON FL 34209-2542	RCRA VSQG

EPA Handler ID: FLR000211748
Gen Status Universe: VSG
Contact Name: LORI HODGE
Contact Address: 15500 , W BEAVER STREET , , JACKSONVILLE , FL, 32234 , US
Contact Phone No and Ext: 904-266-8029
Contact Email: LORIHODGE@BILOHOLDINGS.COM
Contact Country: US
County Name: MANATEE
EPA Region: 04
Land Type: Private
Receive Date: 20140603
Location Latitude: 27.496194
Location Longitude: -82.647046

Violation/Evaluation Summary

Note: NO RECORDS: As of April 2021, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 201406
Receive Date: 20140603
Handler Name: WINN-DIXIE #2404
Federal Waste Generator Code: 3
Generator Code Description: Very Small Quantity Generator
Source Type: Notification

Waste Code Details

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D002
Waste Code Description: CORROSIVE WASTE

Hazardous Waste Code: P001
Waste Code Description: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

Hazardous Waste Code: P075
Waste Code Description: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Hazardous Waste Code: U034
Waste Code Description: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

Hazardous Waste Code: U058
Waste Code Description: 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE (OR) CYCLOPHOSPHAMIDE

Hazardous Waste Code: U129
Waste Code Description: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

Hazardous Waste Code: U132
Waste Code Description: HEXACHLOROPHENE (OR) PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-

Hazardous Waste Code: U188
Waste Code Description: PHENOL

Hazardous Waste Code: U200
Waste Code Description: RESERPINE (OR) YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL) OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-

Hazardous Waste Code: U205
Waste Code Description: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	1991 MAIN STREET BOX 183
Name:	PROPERTY HOLDINGS LLC	***Street 2:***	
Date Became Current:	19751023	***City:***	SARASOTA
Date Ended Current:		***State:***	FL
Phone:		***Country:***	US
Source Type:	Notification	***Zip Code:***	34236
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	5050 EDGEWOOD CT

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Name:	WINN DIXIE	**Street 2:**	
Date Became Current:	20140404	**City:**	JACKSONVILLE
Date Ended Current:		**State:**	FL
Phone:	904-783-5000	**Country:**	US
Source Type:	Notification	**Zip Code:**	32254

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
12	2 of 2	N	0.04 / 237.07	24.87 / 2	WINN-DIXIE #2404 5805 MANATEE AVE W BRADENTON FL 34209-2542	FINDS/FRS

Registry ID:	110062926847
FIPS Code:	12081
HUC Code:	03100202
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	03-DEC-14
Update Date:	17-OCT-17
Interest Types:	CESQG
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	445110
NAICS Code Descriptions:	SUPERMARKETS AND OTHER GROCERY (EXCEPT CONVENIENCE) STORES.
Conveyor:	FRS-GEOCODE
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	13
Census Block Code:	120810012022069
EPA Region Code:	04
County Name:	MANATEE
US/Mexico Border Ind:	
Latitude:	27.49594
Longitude:	-82.61932
Reference Point:	CENTER OF A FACILITY OR STATION
Coord Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value:	30
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110062926847
Program Acronyms:	

RCRAINFO:FLR000211748

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	1 of 14	N	0.05 / 238.07	25.93 / 4	SHELL OIL COMPANY 5818 MANATEE AVE W BRADENTON FL 34209-2541	RCRA NON GEN

EPA Handler ID:	FLR000049668
Gen Status Universe:	No Report
Contact Name:	DAVID ZABCIK

Contact Address:	910 , LOUISIANA ST , , HOUSTON , TX, 77002-4916 , US
Contact Phone No and Ext:	713-241-5077
Contact Email:	DAVID.ZABCIK@SHELL.COM
Contact Country:	US
County Name:	MANATEE
EPA Region:	04
Land Type:	Private
Receive Date:	20101001
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note:	NO RECORDS: As of April 2021, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	201010
Receive Date:	20101001
Handler Name:	SHELL OIL COMPANY
Source Type:	Notification
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Waste Code Details

Hazardous Waste Code:	D001
Waste Code Description:	IGNITABLE WASTE
Hazardous Waste Code:	D018

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Waste Code Description: BENZENE

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	PO BOX 2099
Name:	SHELL OIL CO	**Street 2:**	
Date Became Current:	19981026	**City:**	HOUSTON
Date Ended Current:	20101001	**State:**	TX
Phone:		**Country:**	US
Source Type:	Notification	**Zip Code:**	77252-2099

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	PO BOX 2099
Name:	DAVID ZABCIK	**Street 2:**	
Date Became Current:	19981026	**City:**	HOUSTON
Date Ended Current:		**State:**	TX
Phone:		**Country:**	US
Source Type:	Notification	**Zip Code:**	77252

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	PO BOX 2099
Name:	MOTIVA ENTERPRISES LLC	**Street 2:**	
Date Became Current:	19981026	**City:**	HOUSTON
Date Ended Current:		**State:**	TX
Phone:		**Country:**	US
Source Type:	Notification	**Zip Code:**	77252-2099

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	PO BOX 2099
Name:	SHELL OIL CO	**Street 2:**	
Date Became Current:	19981026	**City:**	HOUSTON
Date Ended Current:		**State:**	TX
Phone:		**Country:**	US
Source Type:	Notification	**Zip Code:**	77252

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	2 of 14	N	0.05 / 238.07	25.93 / 4	SHELL SERVICE STATION 5818 MANATEE AVE W BRADENTON FL 34209-2541	RCRA VSQG

EPA Handler ID:	FLTMP9103250
Gen Status Universe:	VSG
Contact Name:	
Contact Address:	US
Contact Phone No and Ext:	
Contact Email:	
Contact Country:	US
County Name:	MANATEE
EPA Region:	04
Land Type:	Other
Receive Date:	19911115

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Location Latitude: 27.496194
Location Longitude: -82.647046

Violation/Evaluation Summary

Note: NO RECORDS: As of April 2021, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 199111
Receive Date: 19911115
Handler Name: SHELL SERVICE STATION
Federal Waste Generator Code: 3
Generator Code Description: Very Small Quantity Generator
Source Type: Emergency

13	3 of 14	N	0.05 / 238.07	25.93 / 4	**WESTWAY SERVICES LLC** **5818 MANATEE AVE W** **BRADENTON FL 34209**	UST

Facility ID: 8510863
Facility Status: OPEN
ASTs: 0
USTs: 1
Tanks: 1
Facility Type: A
Contact:
Facility Phone: 9417920412
Owner ID: 76642
Owner Phone: 9418126249
Owner: WESTWAY SERVICES LLC
Owner Address1: 5818 MANATEE AVE W

Lat DD: 27
Lat MM: 29
Lat SS: 48
Long DD: 82
Long MM: 37
Long SS: 12
Lat/Long Method: AGPS
Bad Addr Indicator:
County: MANATEE
Dep Co: P

Owner Address2:
Owner City: BRANDON
Owner State: FL
Owner Zip 5: 34209
Owner Zip 4:
Type Desc: Retail Station
Oculus Docs Inventory URL: https://erisservice7.ecologeris.com/ErisExt/flo/ocure.ashx?ID=8510863&CAT=11
Information Portal Facility URL: http://prodenv.dep.state.fl.us/DepNexus/public/facilitysearch?pagination=true&facility.id=8510863
Information Portal Doc URL: http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510863/facility!search

Tank Information

Tank ID: 5
Tank Status: U - In Service
Status Date: 01-MAR-2010
Installation Date: 01-MAR-2010
Substance: B - Unleaded Gas
Determination: Double Walled
Gallons: 20000
Placement: UNDERGROUND
Tank Vessel Indic: TANK

Piping

Piping Description: C-Fiberglass
Tkstat: U
Stat Date: 01-MAR-2010

Piping Description: F-Double wall
Tkstat: U
Stat Date: 01-MAR-2010

Piping Description: K-Dispenser liners
Tkstat: U
Stat Date: 01-MAR-2010

Piping Description: J-Pressurized piping system
Tkstat: U
Stat Date: 01-MAR-2010

Monitoring

Monitoring Desc: H-Mechanical line leak detector
Tkstat: U
Stat Date: 01-MAR-2010

Monitoring Desc: 2-Visual inspect pipe sumps
Tkstat: U
Stat Date: 01-MAR-2010

Monitoring Desc: K-Monitor dbl wall pipe space
Tkstat: U
Stat Date: 01-MAR-2010

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Monitoring Desc: 4-Visual inspect dispenser liners
Tkstat: U
Stat Date: 01-MAR-2010

Monitoring Desc: F-Monitor dbl wall tank space
Tkstat: U
Stat Date: 01-MAR-2010

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13 | **4 of 14** | **N** | **0.05 / 238.07** | **25.93 / 4** | **WESTWAY SERVICES LLC**
5818 MANATEE AVE W
BRADENTON FL 34209-2541 | **LST**

Facility ID:	8510863	**Contact:**	
Facility Status:	OPEN	**Phone:**	(941)792-0412
Facility Type:	A - Retail Station	**Name Changed:**	03/30/2018
Score:	6	**Address Changed:**	12/05/2006
Score Effctve Date:	07/30/2007	**Section:**	
Score when Ranked:	10	**Township:**	
Rank:	8533	**Range:**	
Operator:	ANTHONY BEGLEY	**District:**	SWD
Prim Related Party:	76642	**County:**	MANATEE
Primary RP Role:	ACCOUNT OWNER	**County No:**	41
RP Begin Date:	03/30/2018	**Lat DD:**	27
RP Address1:	5818 MANATEE AVE W	**Lat MM:**	29
RP Address2:		**Lat SS:**	46.5639
RP City:	BRANDON	**Long DD:**	82
RP State:	FL	**Long MM:**	37
RP Zip5:	34209	**Long SS:**	12.5029
RP Zip4:		**Feature:**	
RP Phone:	(941)812-6249	**Method:**	AGPS
RP Phone Ext.:		**Datum:**	0
RP Bad Addr Ind:	No		

Facility Name (Map):	WESTWAY SERVICES LLC
Address (Map):	5818 MANATEE AVE W
City (Map):	BRADENTON
Zip5 (Map):	34209
Facility T (Map):	Retail Station
Facility S (Map):	OPEN
County (Map):	MANATEE
Lat DD (Map):	27
Lat MM (Map):	29
Long DD (Map):	82
Long MM (Map):	37
Datum (Map):	HARN
Rel Feat (Map):	EXACT
Collection (Map):	DPHO
Collector (Map):	RICCI_L
Collecti 1 (Map):	08-Oct-2003
Document L (Map):	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510863/facility!search
Lat SS (Map):	
Long SS (Map):	
Geometry (Map):	

RP Name: WESTWAY SERVICES LLC
Oculus Docs Inventory: https://erisservice7.ecologeris.com/ErisExt/flo/ocure.ashx?ID=8510863&CAT=11
Information Portal Fac URL: http://prodenv.dep.state.fl.us/DepNexus/public/facilitysearch?pagination=true&facility.id=8510863
Information Portal Doc URL: http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510863/facility!search

Discharge Cleanup Summary

Discharge Date: 12/15/1998
Cleanup Required: R - CLEANUP REQUIRED
Discharge Cleanup Status: RA - RA ONGOING
Discharge Cleanup Stat Date: 05/06/2010
Eligibility Indicator: E - ELIGIBLE
Site Manager: NEWKIRK_S
Site Manager End Date: 06/01/2020
Tank Office: PCLP29 - HILLSBOROUGH ENVIRONMENTAL PROTECTION COMMISSION

Contaminated Media

Contaminated Drinking Wells:
Contaminated Mntring Wells:
Contaminated Soil:
Contaminated Surface Water:
Contaminated Ground Water:
Pollutant: B - Unleaded Gas
Other Description:
Gallons Discharged:

Petroleum Cleanup Program Eligibility

Cleanup Program: P - PETROLEUM LIABILITY AND RESTORATION INSURANCE PROGRAM
Eligibility Status: ELIGIBLE

Task Info

SA Task ID: 91418
SA Cleanup Resp: -
SA Fund Elig Type: -
SA Actual Cost:
SA Complete Date:
SA Payment Date:
SR Task ID:
SR Cleanup Resp: -
SR Fund Elig Type: -
SR Actual Cost:
SR Complete Date:
SR Payment Date:
SR Oral Date:
SR Written Date:
SR Soil Removal:

RAP Task ID:
RAP Clean Resp ID: _
RAP Fund Elig Type: _
RAP Actual Cost:
RAP Complete Date:
RAP Payment Date:
RAP Last Ord Appr:
RA Task ID: 85766
RA Cleanup Resp: _
RA Fund Elig Type: _
RA Yrs to Complete:
RA Actual Cost:
SRC Action Type: _
SRC Submit Date:
SRC Review Date:

SR Free Prod Rmvl:		**SRC Complete Status:**	-
SR Soil Ton Remove:		**SRC Comp Status Dt:**	
SR Soil Treatment:		**SRC Issue Date:**	
SR Other Treatment:		**SRC Comments:**	
SR Alt Proc Rec:		**Tank Office:**	PCTM5 - Team 5
SR Alternate Procedure Status:			
SR Alt Procedure Status Dt:			
SR Alt Procedure Comment:			

Petroleum Cleanup Funding Cap Encumbrance to Date

FCFS:	$0.00
LPSPASM:	$0.00
SPASM:	$0.00
NPDES:	$0.00
Utility 1 Time Payments:	$0.00
All Wo Ta Co Pos Encumbered:	$79,728.00
Wo Ta Co Pos Exclu from Cap:	$39,820.01
Ttl Amnt Encumbered to Date:	$79,728.00
Ttl Amnt Encumbered Towar:	$39,907.99

Petroleum Cleanup PCT Facility Score

Facility Cleanup Status:	ONGO - ONGOING
Related Party ID:	76642
RP Contact:	
Bad Address Indicator:	N

Contract

Contractor:	GROUNDWATER AND ENVIRONMENTAL SERVICES, INC.
Score:	6
Facility Name:	WESTWAY SERVICES LLC
Address:	5818 MANATEE AVE W
City:	BRADENTON
Zip:	34209
District:	SWD
County ID:	41
County:	MANATEE

Discharge Info (Map)

Discharge:	51170	**Discharg 3:**	RA
Discharg 1:	15-Dec-1998	**Disch Clea:**	06-May-2010
Discharg 2:	6	**Report Pha:**	SA
Eligibilit:	ELIGIBLE	**Report Sub:**	SA
Eligibil 1:	PLIRP	**Report S 1:**	28-Apr-2020
General Cl:	WORK UNDERWAY	**Staff Assi:**	
Tank Offic:	HILLSBOROUGH ENVIRONMENTAL PROTECTION COMMISSION		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	5 of 14	N	0.05 / 238.07	25.93 / 4	SHELL OIL COMPANY 5818 MANATEE AVE W BRADENTON FL 342092541	FINDS/FRS

Registry ID: 110005652720
FIPS Code: 12081
HUC Code: 03100202
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 01-MAR-00
Update Date: 08-AUG-10
Interest Types: STATE MASTER, UNSPECIFIED UNIVERSE
SIC Codes:
SIC Code Descriptions:
NAICS Codes: 562998
NAICS Code Descriptions: ALL OTHER MISCELLANEOUS WASTE MANAGEMENT SERVICES.
Conveyor: RCRAINFO
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 13
Census Block Code: 120810012022038
EPA Region Code: 04
County Name: MANATEE
US/Mexico Border Ind:
Latitude: 27.496618
Longitude: -82.619861
Reference Point: CENTER OF A FACILITY OR STATION
Coord Collection Method: INTERPOLATION-PHOTO
Accuracy Value: 4
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110005652720
Program Acronyms:

FDM:39293, RCRAINFO:FLR000049668

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	6 of 14	N	0.05 / 238.07	25.93 / 4	SHELL SERVICE STATION 5818 MANATEE AVE W BRADENTON FL 342092541	FINDS/FRS

Registry ID: 110035654173
FIPS Code: 12081
HUC Code: 03100202
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 24-APR-08
Update Date: 28-MAR-14

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Interest Types:	CESQG, STATE MASTER
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	FRS-GEOCODE
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	13
Census Block Code:	120810012022069
EPA Region Code:	04
County Name:	MANATEE
US/Mexico Border Ind:	
Latitude:	27.49595
Longitude:	-82.61996
Reference Point:	CENTER OF A FACILITY OR STATION
Coord Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value:	30
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110035654173
Program Acronyms:	

FDM:64112, RCRAINFO:FLTMP9103250

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	7 of 14	N	0.05 / 238.07	25.93 / 4	SHELL SAP #136462 (FORMER) 5818 MANATEE AVE WEST BRADENTON FL 34209	DEL CONTAM SITE

Prgm Site ID:	277030	**Record Date:**	
Remedi Status:	OPEN	**County:**	Manatee
Priority Score:	24	**Method:**	UNVR
Program Area:	Responsible Party	**Datum:**	83
Program Eligible:		**Lat DD:**	27
Ineligible:		**Lat MM:**	29
Offsite Contam:	N	**Lat SS:**	47.2305
Dt Known Offsite:		**Long DD:**	82
Proj Manager:	MADRID_T	**Long MM:**	37
Office District:	SWD	**Long SS:**	11.8692
Original Source:	CS		
Record Date:	31-MAR-2015		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	8 of 14	N	0.05 / 238.07	25.93 / 4	WESTWAY SERVICES LLC 5818 MANATEE AVE W BRADENTON FL 34209	STCS

Facility ID:	8510863	**City (Map):**	BRADENTON
Status (Map):	REVIEWED	**County (Map):**	41
Contam (Map):	YES	**Zip4 (Map):**	2541

Fac Type (Map):	A	**Zip5 (Map):**	34209
Fac Stat (Map):	OPEN	**County:**	41 - Manatee
Address (Map):	5818 MANATEE AVE W	**Type :**	A - Retail Station
Name (Map):	WESTWAY SERVICES LLC	**Status:**	Open

Fac Name(OpenData):	WESTWAY SERVICES LLC
Status (Open Data):	REVIEWED
Facility Status (Open Data):	OPEN
Facility Type Code (Open Data):	A
Facility Type (Open Data):	Retail Station
Fac Clnup Stat Cd(OpenData):	ONGO
Fac Cleanup Status(OpenData):	ONGOING
Cleanup Status Effective Date:	2010/02/16 18:16:08+00
Address (Open Data):	5818 MANATEE AVE W
City (Open Data):	BRADENTON
Zip5 (Open Data):	34209
County (Open Data):	MANATEE
CC County ID (Open Data):	41

FDEP Storage Tank Monitoring Open Data Details

Object ID:	3822	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Regulated:	YES	**Ver Date:**	2003/10/08 14:00:39+00
OOIC:	FACILITY	**Elevation:**	
Rel Feat:	EXACT	**El Datum:**	
ALB East:	536060.38	**El Resolut:**	
ALB North:	388616.7	**El Units:**	
Datum:	HARN	**Loc ID:**	37304
Col Meth:	DPHO	**Lat DD:**	27
Col Name:	RICCI_L	**Lat MM:**	29
Col Date:	2003/10/08 14:00:39+00	**Long DD:**	82
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long MM:**	37
Map Src:	1994 doqs	**Lat SS:**	
Map Scale:	1852	**Long SS:**	
Coord Acc:	4	**X:**	-82.6201431285233
Ver Meth:	DPHO	**Y:**	27.4962728085795
Ver Name:	RICCI_L		
Col Aff:	DEPARTMENT OF ENVIRONMENTAL PR		
Ver Aff:	DEPARTMENT OF ENVIRONMENTAL PR		
Direct:			
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510863/gis-facility!search		

FDEP Open Data - Storage Tank Contamination Monitoring (STCM)

Loc ID:	37304	**Coord Acc:**	4
Object ID:	37304	**Ver Meth:**	DPHO
OOIC:	FACILITY	**Ver Name:**	RICCI_L
Site Type:	Retail Station	**Ver Prog:**	TANKS-PETROLEUM CONTAMINATION
Contam Ind:		**Ver Date:**	10/8/2003
Next action:	PLACARD 16-JUN-2020	**Elevation:**	
Fin Respon:		**El Datum:**	

Rel Feat:	EXACT	**El Resolut:**	
Alb East:	536060.38	**El Units:**	
Alb North:	388616.7	**Office:**	SWD
Datum:	HARN	**Phone:**	9417920412
Col Meth:	DPHO	**Operator:**	ANTHONY BEGLEY
Col Name:	RICCI_L	**Lat DD:**	27
Col Date:	10/8/2003	**Lat MM:**	29
Col Prog:	TANKS-PETROLEUM CONTAMINATION	**Long DD:**	82
Map Src:	1994 doqs	**Long MM:**	37
Map Scale:	1852		

Col Aff: DEPARTMENT OF ENVIRONMENTAL PR
Ver Aff: DEPARTMENT OF ENVIRONMENTAL PR
Documents: https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/8510863/gis-facility!search

FDEP - Storage Tank Contamination Monitoring (STCM) Details

Contact:	Anthony Begley	**Latitude:**	27:29:46.5639
Phone:	941-792-0412	**Longitude:**	82:37:12.5029
District:	SWD	**LL Method:**	DPHO - Autonomous GPS
County 1:	41 - Manatee	**Account Owner:**	Westway Services Llc

Name: Westway Services Llc
5818 Manatee Ave W
Bradenton, FL 34209- 2541

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	1	**Installed:**	04/01/1982
Placement:	UNDER	**Size:**	10000
Status:	Removed from Site	**Content:**	Unleaded Gas
Construction:			
Piping:			
Monitoring:			

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	2	**Installed:**	04/01/1982
Placement:	UNDER	**Size:**	6000
Status:	Removed from Site	**Content:**	Unleaded Gas
Construction:			
Piping:			
Monitoring:			

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	4	**Installed:**	07/01/1971
Placement:	UNDER	**Size:**	1000
Status:	Removed from Site	**Content:**	Waste Oil
Construction:			
Piping:			
Monitoring:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	5	***Installed:***	03/01/2010
Placement:	UNDER	***Size:***	20000
Status:	In Service	***Content:***	Unleaded Gas
Construction:	F - Fiberglass Clad Steel L - Compartmented M - Spill Containment Bucket N - Flow Shut-Off O - Tight Fill R - Double Wall - Tank Jacket		
Piping:	C - Fiberglass F - Double Wall J - Pressurized Piping System K - Dispenser Liners		
Monitoring:	2 - Visual Inspect Pipe Sumps 4 - Visual Inspect Dispenser Liners F - Monitor Dbl Wall Tank Space H - Mechanical Line Leak Detector K - Monitor Dbl Wall Pipe Space		

FDEP - Registered Tanks from Storage Tank Contamination Monitoring (STCM) Details

Tank No:	3	***Installed:***	04/01/1982
Placement:	UNDER	***Size:***	8000
Status:	Removed from Site	***Content:***	Unleaded Gas
Construction:			
Piping:			
Monitoring:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	*9 of 14*	*N*	*0.05 / 238.07*	*25.93 / 4*	***SHELL WESTWAY*** ***5818 MANATEE AVE W*** ***BRADENTON FL 34209***	***WELL SURVEILLANCE***

Facility ID:	8510863	***County:***	MANATEE
Project ID:	SUPER	***Longitude:***	-82.620167
Req No:	RE42499	***Latitude:***	27.496243
Loc ID:	120391	***GPS Date:***	6/22/2007
GPS ID:	120391	***Datum:***	
Type:	PETROLEUM	***Software:***	Risk_Solo_v2
Insp CHD:	MANATEE	***Streetside:***	
HAE:	7.77	***Agency:***	DOH
Loc Method:	DGPS - Differentially Corrected GPS		
Insp F Name:	TERRI		
Insp L Name:	STRIPLING		
Comment:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	*10 of 14*	*N*	*0.05 / 238.07*	*25.93 / 4*	***SHELL SAP #136462 (FORMER)*** ***5818 MANATEE AVE WEST*** ***BRADENTON FL***	***WCRPS***

Site ID:	277030	***Coord Accuracy ID:***	3
Datum ID:	WGS84	***Zip5:***	34209

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Method ID:	DPHO	**Zip4:**	
Feature:		**County ID:**	41
Object of Interest:	CAP_RAP SITE	**County:**	MANATEE
Proximity to Object:	APPRX	**Lat DD:**	27
Interpolation Scale:	681	**Lat MM:**	29
Map Source:	2008_DOQQ	**Long DD:**	82
Map Source Scale:	681	**Long MM:**	37
Collect Program ID:	CR		
Collect Username:	MADRID_T		
Collect Affiliation:	Florida Department of Environmental Protection		
Verifying Program ID:	CR		
Verify Method ID:	DPHO		
Verifier Username:	MADRID_T		
Verifier Affiliation:	DEPARTMENT OF ENVIRONMENTAL PROTECTION		
Project Name:	SHELL SAP #136462 (FORMER)		
Documents:	https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/COM_277030/gis-facility!search		

Project Details

Project ID:	247874	**District:**	SWD
OGC No:		**GIS ALBX:**	536077.51
Status:	CLOSED	**GIS ALBY:**	388637.45
Priority Score:		**Source:**	Closed Responsible Party Sites
Offsite COC:	N		
Contaminants:	GW PCE; Scoring 3/31/09; rpt 07/2009 - As, Cr in soil, PAHs in GW, rescored 8/4/09		

13	11 of 14	N	0.05 / 238.07	25.93 / 4	**WESTWAY SERVICES LLC** **5818 MANATEE AVE W** **BRADENTON FL 34209-2541**	DWM CONTAM

Facility ID:	8510863	**Related Party ID:**	76642
Facility Type:	A - Retail Station	**Primary RP Role:**	ACCOUNT OWNER
Program Area:	Storage Tanks	**RP Begin Date:**	3/30/2018
Rank:	8533	**RP Name:**	WESTWAY SERVICES LLC
Operator:	ANTHONY BEGLEY	**RP Address1:**	5818 MANATEE AVE W
Phone:	(941)792-0412	**RP Address2:**	
Name Changed:	3/30/2018	**RP City:**	BRANDON
Addr Changed:	12/5/2006	**RP State:**	FL
Method:	AGPS	**RP Zip5:**	34209
Datum:	0	**RP Zip4:**	
County:	MANATEE	**Contact:**	
Range:		**RP Phone:**	(941)812-6249
Township:		**RP Extension:**	
Section:		**Rp Bad Addr Ind:**	N

Program Details

Facility Status:	OPEN	**Lat DD:**	1/27/1900
Priority Score:	6	**Lat MM:**	29
Score Effective Dt:	7/30/2007	**Lat SS:**	46.5639
Score When Ranked:	1/10/1900	**Long DD:**	82

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Offsite Contam:		**Long MM:**	37
Program Eligible:		**Long SS:**	12.5029
Ineligible:		**Datum:**	0
District:	SWD	**Staff Assigned:**	
Method:	AGPS	**Priority:**	
Project Coordinator:			

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13 | ***12 of 14*** | ***N*** | ***0.05 / 238.07*** | ***25.93 / 4*** | ***CIRCLE K # 2211027***
5818 MANATEE AVE W
BRADENTON FL 34209 | ***DWM CONTAM***

Facility ID:	8510863	**Related Party ID:**	
Facility Type:		**Primary RP Role:**	
Program Area:	Petroleum	**RP Begin Date:**	
Rank:		**RP Name:**	
Operator:		**RP Address1:**	
Phone:		**RP Address2:**	
Name Changed:		**RP City:**	
Addr Changed:		**RP State:**	
Method:		**RP Zip5:**	
Datum:		**RP Zip4:**	
County:	MANATEE	**Contact:**	
Range:		**RP Phone:**	
Township:		**RP Extension:**	
Section:		**Rp Bad Addr Ind:**	

Program Details

Facility Status:	WAITING	**Lat DD:**	27
Priority Score:	6	**Lat MM:**	29
Score Effective Dt:		**Lat SS:**	46.5639
Score When Ranked:		**Long DD:**	82
Offsite Contam:	U	**Long MM:**	37
Program Eligible:	Y	**Long SS:**	12.5029
Ineligible:		**Datum:**	HARN
District:	PCSWD	**Staff Assigned:**	
Method:	DPHO	**Priority:**	
Project Coordinator:			

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13 | ***13 of 14*** | ***N*** | ***0.05 / 238.07*** | ***25.93 / 4*** | ***SHELL SAP #136462 (FORMER)***
5818 MANATEE AVE WEST
BRADENTON FL 34209 | ***DWM CONTAM***

Facility ID:	277030	**Related Party ID:**	
Facility Type:		**Primary RP Role:**	
Program Area:	Responsible Party	**RP Begin Date:**	
Rank:		**RP Name:**	
Operator:		**RP Address1:**	
Phone:		**RP Address2:**	
Name Changed:		**RP City:**	
Addr Changed:		**RP State:**	
Method:		**RP Zip5:**	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Datum:		**RP Zip4:**	
County:	Manatee	**Contact:**	
Range:		**RP Phone:**	
Township:		**RP Extension:**	
Section:		**Rp Bad Addr Ind:**	

Program Details

Facility Status:	OPEN	**Lat DD:**	27.00
Priority Score:	24	**Lat MM:**	29.00
Score Effective Dt:		**Lat SS:**	47.2305
Score When Ranked:		**Long DD:**	82.00
Offsite Contam:	N	**Long MM:**	37.00
Program Eligible:		**Long SS:**	11.8692
Ineligible:		**Datum:**	83
District:	SWD	**Staff Assigned:**	
Method:	UNVR	**Priority:**	
Project Coordinator:	MADRID_T		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	14 of 14	N	0.05 / 238.07	25.93 / 4	CIRCLE K #2211027 5818 MANATEE AVE W BRADENTON FL 34209	DWM CONTAM

Facility ID:	8510863	**Related Party ID:**	
Facility Type:		**Primary RP Role:**	
Program Area:	Petroleum	**RP Begin Date:**	
Rank:		**RP Name:**	
Operator:		**RP Address1:**	
Phone:		**RP Address2:**	
Name Changed:		**RP City:**	
Addr Changed:		**RP State:**	
Method:		**RP Zip5:**	
Datum:		**RP Zip4:**	
County:	MANATEE	**Contact:**	
Range:		**RP Phone:**	
Township:		**RP Extension:**	
Section:		**Rp Bad Addr Ind:**	

Program Details

Facility Status:	WAITING	**Lat DD:**	27
Priority Score:	6	**Lat MM:**	29
Score Effective Dt:		**Lat SS:**	46.5639
Score When Ranked:		**Long DD:**	82
Offsite Contam:	U	**Long MM:**	37
Program Eligible:	Y	**Long SS:**	12.5029
Ineligible:		**Datum:**	HARN
District:	PCSWD	**Staff Assigned:**	
Method:	DPHO	**Priority:**	
Project Coordinator:			

Unplottable Summary

Total: 14 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
ERNS		BERTH 9 PORT MANATEE, TAMPA BAY	MANATEE FL		806716944
ERNS		57TH AVE WEST	BREADINGTON FL		806842416
ERNS		GREEN MARKER 25 ON MANATEE RIVER	BRADENTON FL	33602	807087650
ERNS		BERTH 6 PORT MANATEE, FLORIDA	MANATEE FL		807104925
ERNS		WESTED OF MANATEE AVE. HOLMES BEACH/MANATEE BEACH,ANNA MARIE ISLAND	BRADENTON FL		858621574
ERNS		MANATEE AVE BRIDGE	BRADINGTON FL		806641149
FINDS/FRS	17TH AVENUE WEST BRIDGE REPLACEMENT	17TH AVENUE WEST	BRADENTON FL	34205	825954038
FINDS/FRS	SR-684 - CORTEZ RD	FR 17TH ST W TO E OF 42ND AVE E	BRADENTON FL	34205	816415656
FINDS/FRS	43RD ST W AT CORTEZ RD INTERSE	B/W 40TH AVE W/47TH AVE W	BRADENTON FL	34210	816407329
FINDS/FRS	CITY OF BRADENTON	12TH AVENUE WEST	BRADENTON FL	34209	816411943
FINDS/FRS	57TH AVENUE WEST AND EAST	57TH AVE FROM US 41 TO 15TH ST	BRADENTON FL	34203	816415226
FINDS/FRS	ROBINSON PRESERVE ADDITION	9TH AVENUE WEST	BRADENTON FL	34209	816416452

SPILLS	Robinson Preserve Site, end of 17th Ave. NW	BRADENTON FL	813600370
SPILLS	Parking lot, 75 Street and Manatee Avenue West	BRADENTON FL	813598332

Unplottable Report

Site:

BERTH 9 PORT MANATEE,TAMPA BAY MANATEE FL

ERNS

NRC Report No:	501183	***Latitude Degrees:***	
Type of Incident:	VESSEL	***Latitude Minutes:***	
Incident Cause:	OTHER	***Latitude Seconds:***	
Incident Date:	10/4/1999 3:45:00 PM	***Longitude Degrees:***	
Incident Location:		***Longitude Minutes:***	
Incident Dtg:	DISCOVERED	***Longitude Seconds:***	
Distance from City:		***Lat Quad:***	
Distance Units:		***Long Quad:***	
Direction from City:		***Location Section:***	
Location County:	MANATEE	***Location Township:***	
Potential Flag:		***Location Range:***	
Year:	Year 1999 Reports		

Description of Incident: M/V TAMPA / RESIDUAL OIL IN A HOSE WAS ACCIDENTALLY SPILLED INTO THEWATER

Material Spill Information

Chris Code:	OMT	***Unit of Measure:***	UNKNOWN AMOUNT
CAS No:		***If Reached Water:***	YES
UN No:		***Amount in Water:***	0
Name of Material:	OIL, MISC: MOTOR	***Unit Reach Water:***	UNKNOWN AMOUNT
Amount of Material:	0		

Calls Information

Date Time Received:	10/4/1999 3:56:08 PM	***Responsible City:***	
Date Time Complete:	10/4/1999 4:04:00 PM	***Responsible State:***	XX
Call Type:	INC	***Responsible Zip:***	
Resp Company:	H VIDA MARINE AND TOWING	***Source:***	UNAVAILABLE
Resp Org Type:	PRIVATE ENTERPRISE		

Incident Information

Tank ID:		***Building ID:***	
Tank Regulated:	U	***Location Area ID:***	
Tank Regulated By:		***Location Block ID:***	
Capacity of Tank:		***OCSG No:***	
Capacity Tank Units:		***OCSP No:***	
Description of Tank:		***State Lease No:***	
Actual Amount:		***Pier Dock No:***	
Actual Amount Units:		***Berth Slip No:***	
Tank Above Ground:	ABOVE	***Brake Failure:***	N
NPDES:		***Airbag Deployed:***	
NPDES Compliance:	U	***Transport Contain:***	U
Init Contin Rel No:		***Location Subdiv:***	
Contin Rel Permit:		***Platform Rig Name:***	
Contin Release Type:		***Platform Letter:***	
Aircraft ID:		***Allision:***	N
Aircraft Runway No:		***Type of Structure:***	
Aircraft Spot No:		***Structure Name:***	
Aircraft Type:	UNKNOWN	***Structure Oper:***	Y
Aircraft Model:		***Transit Bus Flag:***	
Aircraft Fuel Cap:		***Date Time Norm Serv:***	
Aircraft Fuel Cap U:		***Serv Disrupt Time:***	
Aircraft Fuel on Brd:		***Serv Disrupt Units:***	
Aircraft Fuel OB U:		***CR Begin Date:***	
Aircraft Hanger:		***CR End Date:***	

Road Mile Marker:		***CR Change Date:***	
Power Gen Facility:	U	***FBI Contact:***	
Generating Capacity:		***FBI Contact Dt Tm:***	
Type of Fixed Obj:	UNKNOWN	***Passenger Handling:***	
Type of Fuel:		***Passenger Route:***	XXX
DOT Crossing No:		***Passenger Delay:***	XXX
DOT Regulated:	U	***Sub Part C Test Req:***	XXX
Pipeline Type:	UNKNOWN	***Conductor Test:***	
Pipeline Abv Ground:	ABOVE	***Engineer Test:***	
Pipeline Covered:	U	***Trainman Test:***	
Exposed Underwater:	U	***Yard Foreman Test:***	
Railroad Hotline:	No	***RCL Operator Test:***	
Railroad Milepost:	UNKNOWN	***Brakeman Test:***	
Grade Crossing:	N	***Train Dispat Test:***	
Crossing Device Ty:		***Signalman Test:***	
Ty Vehicle Involved:	UNKNOWN	***Oth Employee Test:***	
Device Operational:	Y	***Unknown Test:***	

Incident Details Information

Release Secured:	U	***State Agen Report No:***	
Release Rate:		***State Agen on Scene:***	
Release Rate Unit:		***State Agen Notified:***	
Release Rate Rate:		***Fed Agency Notified:***	
Est Duration of Rel:		***Oth Agency Notified:***	
Desc Remedial Act:	THE RELEASE WAS SECURED / IT IS UNKNOWN WHAT ACTIONS WILL BE TAKEN TOMITIGATE	***Body of Water:***	
Fire Involved:	N	***Tributary of:***	
Fire Extinguished:	U	***Near River Mile Make:***	
Any Evacuations:	N	***Near River Mile Mark:***	
No Evacuated:		***Offshore:***	N
Who Evacuated:		***Weather Conditions:***	
Radius of Evacu:		***Air Temperature:***	
Any Injuries:	U	***Wind Direction:***	
No. Injured:		***Wind Speed:***	
No. Hospitalized:		***Wind Speed Unit:***	
No. Fatalities:		***Water Supp Contam:***	U
Any Fatalities:	U	***Water Temperature:***	
Any Damages:	N	***Wave Condition:***	
Damage Amount:		***Current Speed:***	
Air Corridor Closed:	N	***Current Direction:***	
Air Corridor Desc:		***Current Speed Unit:***	
Air Closure Time:		***EMPL Fatality:***	
Waterway Closed:	N	***Pass Fatality:***	
Waterway Desc:		***Community Impact:***	N
Waterway Close Time:		***Passengers Transfer:***	UNK
Road Closed:	N	***Passenger Injuries:***	
Road Desc:		***Employee Injuries:***	
Road Closure Time:		***Occupant Fatality:***	
Road Closure Units:		***Sheen Size:***	
Closure Direction:		***Sheen Size Units:***	
Major Artery:	No	***Sheen Size Length:***	
Track Closed:	N	***Sheen Size Length U:***	
Track Desc:		***Sheen Size Width:***	
Track Closure Time:		***Sheen Size Width U:***	
Track Closure Units:		***Sheen Color:***	
Track Close Dir:		***Dir of Sheen Travel:***	
Media Interest:		***Sheen Odor Desc:***	
Medium Desc:	WATER	***Duration Unit:***	
Addl Medium Info:	PORT MANATEE	***Additional Info:***	SHEEN SIZE:100 FT X UNKNOWN / COLOR: RAINBOWWEATHER COND:OVERCAST / WINDS:CALM / SEAS:3-5 FT

Site:

57TH AVE WEST BREADINGTON FL

ERNS

NRC Report No:	633053	***Latitude Degrees:***	
Type of Incident:	STORAGE TANK	***Latitude Minutes:***	

Incident Cause:	DUMPING	***Latitude Seconds:***	
Incident Date:	12/31/2002 7:00:00 AM	***Longitude Degrees:***	
Incident Location:		***Longitude Minutes:***	
Incident Dtg:	DISCOVERED	***Longitude Seconds:***	
Distance from City:		***Lat Quad:***	
Distance Units:		***Long Quad:***	
Direction from City:		***Location Section:***	
Location County:	MANATEE	***Location Township:***	
Potential Flag:		***Location Range:***	
Year:	Year 2002 Reports		

Description of Incident: THE CALLER IS REPORTING A COMPANY THAT IS DUMPING DRUMS OF OIL ON THEIR PROPERTY.

Material Spill Information

Chris Code:	OUN	***Unit of Measure:***	UNKNOWN AMOUNT
CAS No:	000000-00-0	***If Reached Water:***	NO
UN No:		***Amount in Water:***	
Name of Material:	UNKNOWN OIL	***Unit Reach Water:***	
Amount of Material:	0		

Calls Information

Date Time Received:	12/31/2002 9:37:11 AM	***Responsible City:***	BREADINGTON
Date Time Complete:	12/31/2002 9:49:26 AM	***Responsible State:***	FL
Call Type:	INC	***Responsible Zip:***	
Resp Company:	ISAC'S SERVICE STATION	***Source:***	TELEPHONE
Resp Org Type:	PRIVATE ENTERPRISE		

Incident Information

Tank ID:		***Building ID:***	
Tank Regulated:	N	***Location Area ID:***	
Tank Regulated By:		***Location Block ID:***	
Capacity of Tank:		***OCSG No:***	
Capacity Tank Units:		***OCSP No:***	
Description of Tank:	55 GALLON DRUM	***State Lease No:***	
Actual Amount:		***Pier Dock No:***	
Actual Amount Units:		***Berth Slip No:***	
Tank Above Ground:	ABOVE	***Brake Failure:***	N
NPDES:		***Airbag Deployed:***	
NPDES Compliance:	U	***Transport Contain:***	Y
Init Contin Rel No:		***Location Subdiv:***	
Contin Rel Permit:		***Platform Rig Name:***	
Contin Release Type:		***Platform Letter:***	
Aircraft ID:		***Allision:***	N
Aircraft Runway No:		***Type of Structure:***	
Aircraft Spot No:		***Structure Name:***	
Aircraft Type:		***Structure Oper:***	U
Aircraft Model:		***Transit Bus Flag:***	
Aircraft Fuel Cap:		***Date Time Norm Serv:***	
Aircraft Fuel Cap U:		***Serv Disrupt Time:***	
Aircraft Fuel on Brd:		***Serv Disrupt Units:***	
Aircraft Fuel OB U:		***CR Begin Date:***	
Aircraft Hanger:		***CR End Date:***	
Road Mile Marker:		***CR Change Date:***	
Power Gen Facility:	U	***FBI Contact:***	
Generating Capacity:		***FBI Contact Dt Tm:***	
Type of Fixed Obj:		***Passenger Handling:***	
Type of Fuel:		***Passenger Route:***	XXX
DOT Crossing No:		***Passenger Delay:***	XXX
DOT Regulated:	U	***Sub Part C Test Req:***	XXX
Pipeline Type:		***Conductor Test:***	
Pipeline Abv Ground:	ABOVE	***Engineer Test:***	
Pipeline Covered:	U	***Trainman Test:***	
Exposed Underwater:	N	***Yard Foreman Test:***	
Railroad Hotline:		***RCL Operator Test:***	
Railroad Milepost:		***Brakeman Test:***	
Grade Crossing:	N	***Train Dispat Test:***	

Crossing Device Ty:		***Signalman Test:***	
Ty Vehicle Involved:		***Oth Employee Test:***	
Device Operational:	Y	***Unknown Test:***	

Incident Details Information

Release Secured:	U	***State Agen Report No:***	
Release Rate:		***State Agen on Scene:***	
Release Rate Unit:		***State Agen Notified:***	
Release Rate Rate:		***Fed Agency Notified:***	
Est Duration of Rel:		***Oth Agency Notified:***	
Desc Remedial Act:	NONE	***Body of Water:***	
Fire Involved:	N	***Tributary of:***	
Fire Extinguished:	U	***Near River Mile Make:***	
Any Evacuations:	N	***Near River Mile Mark:***	
No Evacuated:		***Offshore:***	N
Who Evacuated:		***Weather Conditions:***	CLEAR
Radius of Evacu:		***Air Temperature:***	
Any Injuries:	N	***Wind Direction:***	
No. Injured:		***Wind Speed:***	
No. Hospitalized:		***Wind Speed Unit:***	
No. Fatalities:		***Water Supp Contam:***	U
Any Fatalities:	N	***Water Temperature:***	
Any Damages:	N	***Wave Condition:***	
Damage Amount:		***Current Speed:***	
Air Corridor Closed:	N	***Current Direction:***	
Air Corridor Desc:		***Current Speed Unit:***	
Air Closure Time:		***EMPL Fatality:***	
Waterway Closed:	N	***Pass Fatality:***	
Waterway Desc:		***Community Impact:***	N
Waterway Close Time:		***Passengers Transfer:***	UNK
Road Closed:	N	***Passenger Injuries:***	
Road Desc:		***Employee Injuries:***	
Road Closure Time:		***Occupant Fatality:***	
Road Closure Units:		***Sheen Size:***	
Closure Direction:		***Sheen Size Units:***	
Major Artery:	No	***Sheen Size Length:***	
Track Closed:	N	***Sheen Size Length U:***	
Track Desc:		***Sheen Size Width:***	
Track Closure Time:		***Sheen Size Width U:***	
Track Closure Units:		***Sheen Color:***	
Track Close Dir:		***Dir of Sheen Travel:***	
Media Interest:	NONE	***Sheen Odor Desc:***	
Medium Desc:	LAND	***Duration Unit:***	
Addl Medium Info:	SOIL	***Additional Info:***	THE CALLER HAD NO ADDITIONAL INFORMATION.

Site:

GREEN MARKER 25 ON MANATEE RIVER BRADENTON FL 33602 ERNS

NRC Report No:	327531	***Latitude Degrees:***	
Type of Incident:	UNKNOWN SHEEN	***Latitude Minutes:***	
Incident Cause:	UNKNOWN	***Latitude Seconds:***	
Incident Date:	2/22/1996 5:44:00 PM	***Longitude Degrees:***	
Incident Location:		***Longitude Minutes:***	
Incident Dtg:	DISCOVERED	***Longitude Seconds:***	
Distance from City:		***Lat Quad:***	
Distance Units:		***Long Quad:***	
Direction from City:		***Location Section:***	
Location County:	PASCO	***Location Township:***	
Potential Flag:		***Location Range:***	
Year:	Year 1996 Reports		
Description of Incident:	UNKNOWN / UNKNOWN SHEEN SIGHTING, SHEEN SIZE:300FT X 300FT / DARK COLOR		

Material Spill Information

Chris Code:	OUN	***Unit of Measure:***	UNKNOWN AMOUNT
CAS No:		***If Reached Water:***	YES

UN No:		***Amount in Water:***	0
Name of Material:	UNKNOWN OIL	***Unit Reach Water:***	UNKNOWN AMOUNT
Amount of Material:	0		

Calls Information

Date Time Received:	2/22/1996 5:52:30 PM	***Responsible City:***	
Date Time Complete:	2/22/1996 5:54:45 PM	***Responsible State:***	XX
Call Type:	INC	***Responsible Zip:***	
Resp Company:		***Source:***	UNAVAILABLE
Resp Org Type:	UNKNOWN		

Incident Information

Tank ID:		***Building ID:***	
Tank Regulated:	U	***Location Area ID:***	
Tank Regulated By:		***Location Block ID:***	
Capacity of Tank:		***OCSG No:***	
Capacity Tank Units:		***OCSP No:***	
Description of Tank:		***State Lease No:***	
Actual Amount:		***Pier Dock No:***	
Actual Amount Units:		***Berth Slip No:***	
Tank Above Ground:	ABOVE	***Brake Failure:***	N
NPDES:		***Airbag Deployed:***	
NPDES Compliance:	U	***Transport Contain:***	U
Init Contin Rel No:		***Location Subdiv:***	
Contin Rel Permit:		***Platform Rig Name:***	
Contin Release Type:		***Platform Letter:***	
Aircraft ID:		***Allision:***	N
Aircraft Runway No:		***Type of Structure:***	
Aircraft Spot No:		***Structure Name:***	
Aircraft Type:	UNKNOWN	***Structure Oper:***	Y
Aircraft Model:		***Transit Bus Flag:***	
Aircraft Fuel Cap:		***Date Time Norm Serv:***	
Aircraft Fuel Cap U:		***Serv Disrupt Time:***	
Aircraft Fuel on Brd:		***Serv Disrupt Units:***	
Aircraft Fuel OB U:		***CR Begin Date:***	
Aircraft Hanger:		***CR End Date:***	
Road Mile Marker:		***CR Change Date:***	
Power Gen Facility:	U	***FBI Contact:***	
Generating Capacity:		***FBI Contact Dt Tm:***	
Type of Fixed Obj:	UNKNOWN	***Passenger Handling:***	
Type of Fuel:		***Passenger Route:***	XXX
DOT Crossing No:		***Passenger Delay:***	XXX
DOT Regulated:	U	***Sub Part C Test Req:***	XXX
Pipeline Type:	UNKNOWN	***Conductor Test:***	
Pipeline Abv Ground:	ABOVE	***Engineer Test:***	
Pipeline Covered:	U	***Trainman Test:***	
Exposed Underwater:	U	***Yard Foreman Test:***	
Railroad Hotline:	No	***RCL Operator Test:***	
Railroad Milepost:	UNKNOWN	***Brakeman Test:***	
Grade Crossing:	N	***Train Dispat Test:***	
Crossing Device Ty:		***Signalman Test:***	
Ty Vehicle Involved:	UNKNOWN	***Oth Employee Test:***	
Device Operational:	Y	***Unknown Test:***	

Incident Details Information

Release Secured:		***State Agen Report No:***	
Release Rate:		***State Agen on Scene:***	
Release Rate Unit:		***State Agen Notified:***	
Release Rate Rate:		***Fed Agency Notified:***	
Est Duration of Rel:		***Oth Agency Notified:***	
Desc Remedial Act:	NONE	***Body of Water:***	
Fire Involved:	N	***Tributary of:***	
Fire Extinguished:		***Near River Mile Make:***	
Any Evacuations:	N	***Near River Mile Mark:***	
No Evacuated:		***Offshore:***	

Who Evacuated:		***Weather Conditions:***	
Radius of Evacu:		***Air Temperature:***	
Any Injuries:	U	***Wind Direction:***	
No. Injured:		***Wind Speed:***	
No. Hospitalized:		***Wind Speed Unit:***	
No. Fatalities:		***Water Supp Contam:***	
Any Fatalities:	U	***Water Temperature:***	
Any Damages:	N	***Wave Condition:***	
Damage Amount:		***Current Speed:***	
Air Corridor Closed:	N	***Current Direction:***	
Air Corridor Desc:		***Current Speed Unit:***	
Air Closure Time:		***EMPL Fatality:***	
Waterway Closed:		***Pass Fatality:***	
Waterway Desc:		***Community Impact:***	
Waterway Close Time:		***Passengers Transfer:***	UNK
Road Closed:	N	***Passenger Injuries:***	
Road Desc:		***Employee Injuries:***	
Road Closure Time:		***Occupant Fatality:***	
Road Closure Units:		***Sheen Size:***	
Closure Direction:		***Sheen Size Units:***	
Major Artery:		***Sheen Size Length:***	
Track Closed:		***Sheen Size Length U:***	
Track Desc:		***Sheen Size Width:***	
Track Closure Time:		***Sheen Size Width U:***	
Track Closure Units:		***Sheen Color:***	
Track Close Dir:		***Dir of Sheen Travel:***	
Media Interest:		***Sheen Odor Desc:***	
Medium Desc:	WATER	***Duration Unit:***	
Addl Medium Info:	MANATEE RIVER	***Additional Info:***	

Site:

BERTH 6 PORT MANATEE,FLORIDA MANATEE FL

ERNS

NRC Report No:	416799	***Latitude Degrees:***	
Type of Incident:	VESSEL	***Latitude Minutes:***	
Incident Cause:	UNKNOWN	***Latitude Seconds:***	
Incident Date:	12/22/1997 8:15:00 AM	***Longitude Degrees:***	
Incident Location:		***Longitude Minutes:***	
Incident Dtg:	OCCURRED	***Longitude Seconds:***	
Distance from City:		***Lat Quad:***	
Distance Units:		***Long Quad:***	
Direction from City:		***Location Section:***	
Location County:	MANATEE	***Location Township:***	
Potential Flag:		***Location Range:***	
Year:	Year 1997 Reports		

Description of Incident: M/V ARCTIC VOYAGER/UNKNOWNSHEEN: UNKNOWN (CALLER COULD NOT PROVIDE DETAILS)

Material Spill Information

Chris Code:	OHY	***Unit of Measure:***	GALLON(S)
CAS No:		***If Reached Water:***	YES
UN No:		***Amount in Water:***	30
Name of Material:	HYDRAULIC OIL	***Unit Reach Water:***	GALLON(S)
Amount of Material:	30		

Calls Information

Date Time Received:	12/22/1997 8:23:29 AM	***Responsible City:***	NEW YORK
Date Time Complete:	12/22/1997 8:37:23 AM	***Responsible State:***	NY
Call Type:	INC	***Responsible Zip:***	
Resp Company:	SOUTHERN STAR SHIPPING	***Source:***	UNAVAILABLE
Resp Org Type:	PRIVATE ENTERPRISE		

Incident Information

Tank ID:		***Building ID:***	
Tank Regulated:	U	***Location Area ID:***	
Tank Regulated By:		***Location Block ID:***	

Capacity of Tank:		***OCSG No:***	
Capacity Tank Units:		***OCSP No:***	
Description of Tank:		***State Lease No:***	
Actual Amount:		***Pier Dock No:***	
Actual Amount Units:		***Berth Slip No:***	
Tank Above Ground:	ABOVE	***Brake Failure:***	N
NPDES:		***Airbag Deployed:***	
NPDES Compliance:	U	***Transport Contain:***	U
Init Contin Rel No:		***Location Subdiv:***	
Contin Rel Permit:		***Platform Rig Name:***	
Contin Release Type:		***Platform Letter:***	
Aircraft ID:		***Allision:***	N
Aircraft Runway No:		***Type of Structure:***	
Aircraft Spot No:		***Structure Name:***	
Aircraft Type:	UNKNOWN	***Structure Oper:***	Y
Aircraft Model:		***Transit Bus Flag:***	
Aircraft Fuel Cap:		***Date Time Norm Serv:***	
Aircraft Fuel Cap U:		***Serv Disrupt Time:***	
Aircraft Fuel on Brd:		***Serv Disrupt Units:***	
Aircraft Fuel OB U:		***CR Begin Date:***	
Aircraft Hanger:		***CR End Date:***	
Road Mile Marker:		***CR Change Date:***	
Power Gen Facility:	U	***FBI Contact:***	
Generating Capacity:		***FBI Contact Dt Tm:***	
Type of Fixed Obj:	UNKNOWN	***Passenger Handling:***	
Type of Fuel:		***Passenger Route:***	XXX
DOT Crossing No:		***Passenger Delay:***	XXX
DOT Regulated:	U	***Sub Part C Test Req:***	XXX
Pipeline Type:	UNKNOWN	***Conductor Test:***	
Pipeline Abv Ground:	ABOVE	***Engineer Test:***	
Pipeline Covered:	U	***Trainman Test:***	
Exposed Underwater:	U	***Yard Foreman Test:***	
Railroad Hotline:	No	***RCL Operator Test:***	
Railroad Milepost:	UNKNOWN	***Brakeman Test:***	
Grade Crossing:	N	***Train Dispat Test:***	
Crossing Device Ty:		***Signalman Test:***	
Ty Vehicle Involved:	UNKNOWN	***Oth Employee Test:***	
Device Operational:	Y	***Unknown Test:***	

Incident Details Information

Release Secured:	U	***State Agen Report No:***	
Release Rate:		***State Agen on Scene:***	
Release Rate Unit:		***State Agen Notified:***	
Release Rate Rate:		***Fed Agency Notified:***	
Est Duration of Rel:		***Oth Agency Notified:***	
Desc Remedial Act:	COAST GUARD RESPONSE AND FLORIDA MARINE DEPARTMENT ARE EVALUATING THEAREA OF IMPACT TO DETERMINE CLEANUP STRATEGY	***Body of Water:***	
Fire Involved:	N	***Tributary of:***	
Fire Extinguished:	U	***Near River Mile Make:***	
Any Evacuations:	N	***Near River Mile Mark:***	
No Evacuated:		***Offshore:***	N
Who Evacuated:		***Weather Conditions:***	
Radius of Evacu:		***Air Temperature:***	
Any Injuries:	U	***Wind Direction:***	
No. Injured:		***Wind Speed:***	
No. Hospitalized:		***Wind Speed Unit:***	
No. Fatalities:		***Water Supp Contam:***	U
Any Fatalities:	U	***Water Temperature:***	
Any Damages:	N	***Wave Condition:***	
Damage Amount:		***Current Speed:***	
Air Corridor Closed:	N	***Current Direction:***	
Air Corridor Desc:		***Current Speed Unit:***	
Air Closure Time:		***EMPL Fatality:***	
Waterway Closed:	N	***Pass Fatality:***	
Waterway Desc:		***Community Impact:***	N
Waterway Close Time:		***Passengers Transfer:***	UNK
Road Closed:	N	***Passenger Injuries:***	

Road Desc:		***Employee Injuries:***	
Road Closure Time:		***Occupant Fatality:***	
Road Closure Units:		***Sheen Size:***	
Closure Direction:		***Sheen Size Units:***	
Major Artery:	No	***Sheen Size Length:***	
Track Closed:	N	***Sheen Size Length U:***	
Track Desc:		***Sheen Size Width:***	
Track Closure Time:		***Sheen Size Width U:***	
Track Closure Units:		***Sheen Color:***	
Track Close Dir:		***Dir of Sheen Travel:***	
Media Interest:		***Sheen Odor Desc:***	
Medium Desc:	WATER	***Duration Unit:***	
Addl Medium Info:	HILLSBORO BAY	***Additional Info:***	CURRENT: OUTGOING/ WIND:E AT 10KTS/ SEA:1-2FT COVER:CLEAR/ TEMP:60F

Site:

WESTED OF MANATEE AVE. HOLMES BEACH/MANATEE BEACH,ANNA MARIE ISLAND BRADENTON FL ERNS

NRC Report No:	1158212	***Latitude Degrees:***	
Type of Incident:	FIXED	***Latitude Minutes:***	
Incident Cause:	HURRICANE	***Latitude Seconds:***	
Incident Date:	9/5/2016 2:45:00 PM	***Longitude Degrees:***	
Incident Location:		***Longitude Minutes:***	
Incident Dtg:	DISCOVERED	***Longitude Seconds:***	
Distance from City:		***Lat Quad:***	
Distance Units:		***Long Quad:***	
Direction from City:		***Location Section:***	
Location County:	MANATEE	***Location Township:***	
Potential Flag:	No	***Location Range:***	
Year:	Year 2016 Reports		

Description of Incident: THE RP IS REPORTING A RELEASE OF SEWAGE. RP STATED THAT THERE WAS A NEWS REPORT THAT STATED THAT THE SEWAGE WAS RELEASED DUE TO OVERFLOWING FROM THE HURRICANE IN THE AREA. RP STATED THE MATERIAL WAS SPOTTED IN THE WATER AND THERE IS A HEAVY ODOR IN THE ATMOSPHERE AS WELL.

Material Spill Information

Chris Code:	NCC	***Unit of Measure:***	UNKNOWN AMOUNT
CAS No:	000000-00-0	***If Reached Water:***	YES
UN No:		***Amount in Water:***	0
Name of Material:	SEWAGE	***Unit Reach Water:***	UNKNOWN AMOUNT
Amount of Material:	0		

Calls Information

Date Time Received:	9/5/2016 3:12:17 PM	***Responsible City:***	
Date Time Complete:	9/5/2016 3:18:03 PM	***Responsible State:***	XX
Call Type:	INC	***Responsible Zip:***	
Resp Company:		***Source:***	TELEPHONE
Resp Org Type:	UNKNOWN		

Incident Information

Tank ID:		***Building ID:***	
Tank Regulated:	U	***Location Area ID:***	
Tank Regulated By:		***Location Block ID:***	
Capacity of Tank:		***OCSG No:***	
Capacity Tank Units:		***OCSP No:***	
Description of Tank:		***State Lease No:***	
Actual Amount:		***Pier Dock No:***	
Actual Amount Units:		***Berth Slip No:***	
Tank Above Ground:	ABOVE	***Brake Failure:***	U
NPDES:		***Airbag Deployed:***	U
NPDES Compliance:	U	***Transport Contain:***	U
Init Contin Rel No:		***Location Subdiv:***	
Contin Rel Permit:		***Platform Rig Name:***	
Contin Release Type:		***Platform Letter:***	

Aircraft ID:		***Allision:***	U
Aircraft Runway No:		***Type of Structure:***	
Aircraft Spot No:		***Structure Name:***	
Aircraft Type:		***Structure Oper:***	U
Aircraft Model:		***Transit Bus Flag:***	
Aircraft Fuel Cap:		***Date Time Norm Serv:***	
Aircraft Fuel Cap U:		***Serv Disrupt Time:***	
Aircraft Fuel on Brd:		***Serv Disrupt Units:***	
Aircraft Fuel OB U:		***CR Begin Date:***	
Aircraft Hanger:		***CR End Date:***	
Road Mile Marker:		***CR Change Date:***	
Power Gen Facility:	N	***FBI Contact:***	
Generating Capacity:		***FBI Contact Dt Tm:***	
Type of Fixed Obj:	UNKNOWN	***Passenger Handling:***	
Type of Fuel:		***Passenger Route:***	XXX
DOT Crossing No:		***Passenger Delay:***	XXX
DOT Regulated:	U	***Sub Part C Test Req:***	XXX
Pipeline Type:		***Conductor Test:***	
Pipeline Abv Ground:	ABOVE	***Engineer Test:***	
Pipeline Covered:	U	***Trainman Test:***	
Exposed Underwater:	N	***Yard Foreman Test:***	
Railroad Hotline:		***RCL Operator Test:***	
Railroad Milepost:		***Brakeman Test:***	
Grade Crossing:	U	***Train Dispat Test:***	
Crossing Device Ty:		***Signalman Test:***	
Ty Vehicle Involved:		***Oth Employee Test:***	
Device Operational:	U	***Unknown Test:***	

Incident Details Information

Release Secured:	U	***State Agen Report No:***	
Release Rate:		***State Agen on Scene:***	
Release Rate Unit:		***State Agen Notified:***	
Release Rate Rate:		***Fed Agency Notified:***	
Est Duration of Rel:		***Oth Agency Notified:***	
Desc Remedial Act:		***Body of Water:***	GULF OF MEXICO
Fire Involved:	N	***Tributary of:***	
Fire Extinguished:	U	***Near River Mile Make:***	
Any Evacuations:	N	***Near River Mile Mark:***	
No Evacuated:		***Offshore:***	N
Who Evacuated:		***Weather Conditions:***	SUNNY
Radius of Evacu:		***Air Temperature:***	92
Any Injuries:	N	***Wind Direction:***	
No. Injured:		***Wind Speed:***	
No. Hospitalized:		***Wind Speed Unit:***	
No. Fatalities:		***Water Supp Contam:***	U
Any Fatalities:	N	***Water Temperature:***	
Any Damages:	N	***Wave Condition:***	
Damage Amount:		***Current Speed:***	
Air Corridor Closed:	N	***Current Direction:***	
Air Corridor Desc:		***Current Speed Unit:***	
Air Closure Time:		***EMPL Fatality:***	
Waterway Closed:	N	***Pass Fatality:***	
Waterway Desc:		***Community Impact:***	
Waterway Close Time:		***Passengers Transfer:***	NO
Road Closed:	N	***Passenger Injuries:***	
Road Desc:		***Employee Injuries:***	
Road Closure Time:		***Occupant Fatality:***	
Road Closure Units:		***Sheen Size:***	
Closure Direction:		***Sheen Size Units:***	
Major Artery:	No	***Sheen Size Length:***	
Track Closed:	N	***Sheen Size Length U:***	
Track Desc:		***Sheen Size Width:***	
Track Closure Time:		***Sheen Size Width U:***	
Track Closure Units:		***Sheen Color:***	BROWN
Track Close Dir:		***Dir of Sheen Travel:***	
Media Interest:	LOW	***Sheen Odor Desc:***	
Medium Desc:	WATER	***Duration Unit:***	
Addl Medium Info:	GULF OF MEXICO	***Additional Info:***	

Site:

MANATEE AVE BRIDGE BRADINGTON FL

ERNS

NRC Report No:	835195	***Latitude Degrees:***	
Type of Incident:	MOBILE	***Latitude Minutes:***	
Incident Cause:	TRANSPORT ACCIDENT	***Latitude Seconds:***	
Incident Date:	5/13/2007 3:17:00 AM	***Longitude Degrees:***	
Incident Location:		***Longitude Minutes:***	
Incident Dtg:	OCCURRED	***Longitude Seconds:***	
Distance from City:		***Lat Quad:***	
Distance Units:		***Long Quad:***	
Direction from City:		***Location Section:***	
Location County:	MANATEE	***Location Township:***	
Potential Flag:	No	***Location Range:***	
Year:	Year 2007 Reports		

Description of Incident: AN SUV HAS RUN INTO THE ANNA MARIA SOUND AND SPILLED GASOLINE.

Material Spill Information

Chris Code:	GAS	***Unit of Measure:***	GALLON(S)
CAS No:	000000-00-0	***If Reached Water:***	YES
UN No:		***Amount in Water:***	10
Name of Material:	GASOLINE: AUTOMOTIVE (UNLEADED)	***Unit Reach Water:***	GALLON(S)
Amount of Material:	10		

Calls Information

Date Time Received:	5/13/2007 6:44:22 AM	***Responsible City:***	
Date Time Complete:	5/13/2007 6:50:06 AM	***Responsible State:***	XX
Call Type:	INC	***Responsible Zip:***	
Resp Company:		***Source:***	TELEPHONE
Resp Org Type:	UNKNOWN		

Incident Information

Tank ID:		***Building ID:***	
Tank Regulated:	U	***Location Area ID:***	
Tank Regulated By:		***Location Block ID:***	
Capacity of Tank:		***OCSG No:***	
Capacity Tank Units:		***OCSP No:***	
Description of Tank:		***State Lease No:***	
Actual Amount:		***Pier Dock No:***	
Actual Amount Units:		***Berth Slip No:***	
Tank Above Ground:	ABOVE	***Brake Failure:***	U
NPDES:		***Airbag Deployed:***	N
NPDES Compliance:	U	***Transport Contain:***	U
Init Contin Rel No:		***Location Subdiv:***	
Contin Rel Permit:		***Platform Rig Name:***	
Contin Release Type:		***Platform Letter:***	
Aircraft ID:		***Allision:***	N
Aircraft Runway No:		***Type of Structure:***	
Aircraft Spot No:		***Structure Name:***	
Aircraft Type:		***Structure Oper:***	U
Aircraft Model:		***Transit Bus Flag:***	
Aircraft Fuel Cap:		***Date Time Norm Serv:***	
Aircraft Fuel Cap U:		***Serv Disrupt Time:***	
Aircraft Fuel on Brd:		***Serv Disrupt Units:***	
Aircraft Fuel OB U:		***CR Begin Date:***	
Aircraft Hanger:		***CR End Date:***	
Road Mile Marker:		***CR Change Date:***	
Power Gen Facility:	U	***FBI Contact:***	
Generating Capacity:		***FBI Contact Dt Tm:***	
Type of Fixed Obj:		***Passenger Handling:***	
Type of Fuel:		***Passenger Route:***	XXX
DOT Crossing No:		***Passenger Delay:***	XXX
DOT Regulated:	U	***Sub Part C Test Req:***	XXX
Pipeline Type:		***Conductor Test:***	
Pipeline Abv Ground:	ABOVE	***Engineer Test:***	

Pipeline Covered:	U	***Trainman Test:***	
Exposed Underwater:	N	***Yard Foreman Test:***	
Railroad Hotline:		***RCL Operator Test:***	
Railroad Milepost:		***Brakeman Test:***	
Grade Crossing:	U	***Train Dispat Test:***	
Crossing Device Ty:		***Signalman Test:***	
Ty Vehicle Involved:		***Oth Employee Test:***	
Device Operational:	Y	***Unknown Test:***	

Incident Details Information

Release Secured:	U	***State Agen Report No:***	NONE
Release Rate:		***State Agen on Scene:***	NONE
Release Rate Unit:		***State Agen Notified:***	NONE
Release Rate Rate:		***Fed Agency Notified:***	USCG
Est Duration of Rel:		***Oth Agency Notified:***	
Desc Remedial Act:	THE USCG ARE ON THE SCENE	***Body of Water:***	ANNA MARIA SOUND
Fire Involved:	N	***Tributary of:***	
Fire Extinguished:	U	***Near River Mile Make:***	
Any Evacuations:	N	***Near River Mile Mark:***	
No Evacuated:		***Offshore:***	N
Who Evacuated:		***Weather Conditions:***	CLEAR
Radius of Evacu:		***Air Temperature:***	
Any Injuries:	N	***Wind Direction:***	
No. Injured:		***Wind Speed:***	
No. Hospitalized:		***Wind Speed Unit:***	
No. Fatalities:		***Water Supp Contam:***	N
Any Fatalities:	N	***Water Temperature:***	
Any Damages:	N	***Wave Condition:***	
Damage Amount:		***Current Speed:***	
Air Corridor Closed:	N	***Current Direction:***	
Air Corridor Desc:		***Current Speed Unit:***	
Air Closure Time:		***EMPL Fatality:***	
Waterway Closed:	N	***Pass Fatality:***	
Waterway Desc:		***Community Impact:***	
Waterway Close Time:		***Passengers Transfer:***	NO
Road Closed:	N	***Passenger Injuries:***	
Road Desc:		***Employee Injuries:***	
Road Closure Time:		***Occupant Fatality:***	
Road Closure Units:		***Sheen Size:***	
Closure Direction:		***Sheen Size Units:***	
Major Artery:	No	***Sheen Size Length:***	
Track Closed:	N	***Sheen Size Length U:***	
Track Desc:		***Sheen Size Width:***	
Track Closure Time:		***Sheen Size Width U:***	
Track Closure Units:		***Sheen Color:***	
Track Close Dir:		***Dir of Sheen Travel:***	
Media Interest:	NONE	***Sheen Odor Desc:***	
Medium Desc:	WATER	***Duration Unit:***	
Addl Medium Info:	ANNA MARIA SOUND	***Additional Info:***	NONE

Site: ***17TH AVENUE WEST BRIDGE REPLACEMENT***
17TH AVENUE WEST BRADENTON FL 34205

FINDS/FRS

Registry ID:	110060352737
FIPS Code:	FL081
HUC Code:	03100202
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	05-SEP-14
Update Date:	07-OCT-16
Interest Types:	ICIS-NPDES NON-MAJOR, STORM WATER CONSTRUCTION
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	ICIS
Federal Facility Code:	

Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 13
Census Block Code: 120810006013024
EPA Region Code: 04
County Name: MANATEE
US/Mexico Border Ind:
Latitude: 27.484588
Longitude: -82.580803
Reference Point:
Coord Collection Method:
Accuracy Value: 500
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110060352737
Program Acronyms:

NPDES:FLR10NY57

Site: ***SR-684 - CORTEZ RD***
FR 17TH ST W TO E OF 42ND AVE E BRADENTON FL 34205 FINDS/FRS

Registry ID: 110035446354
FIPS Code: 00081
HUC Code: 03100202
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 23-APR-08
Update Date:
Interest Types: STATE MASTER
SIC Codes:
SIC Code Descriptions:
NAICS Codes:
NAICS Code Descriptions:
Conveyor: FDM
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 13
Census Block Code: 120810002013001
EPA Region Code: 04
County Name: MANATEE
US/Mexico Border Ind:
Latitude: 27.458333
Longitude: -82.566667
Reference Point: FACILITY CENTROID
Coord Collection Method: UNKNOWN
Accuracy Value: 1000
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110035446354
Program Acronyms:

FDM:4162

Site: ***43RD ST W AT CORTEZ RD INTERSE***
B/W 40TH AVE W/47TH AVE W BRADENTON FL 34210 FINDS/FRS

Registry ID: 110020561809
FIPS Code: 12081
HUC Code: 03100201
Site Type Name: STATIONARY
Location Description:

Supplemental Location:
Create Date: 25-JAN-05
Update Date: 05-MAR-13
Interest Types: ICIS-NPDES NON-MAJOR, STATE MASTER, STORM WATER CONSTRUCTION
SIC Codes:
SIC Code Descriptions:
NAICS Codes:
NAICS Code Descriptions:
Conveyor: FDM
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 13
Census Block Code: 120810011051018
EPA Region Code: 04
County Name: MANATEE
US/Mexico Border Ind:
Latitude: 27.45
Longitude: -82.6
Reference Point: FACILITY CENTROID
Coord Collection Method: UNKNOWN
Accuracy Value: 1000
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110020561809
Program Acronyms:

FDM:8270, NPDES:FLR10T027

Site: ***CITY OF BRADENTON***
12TH AVENUE WEST BRADENTON FL 34209

FINDS/FRS

Registry ID: 110055199379
FIPS Code: FL081
HUC Code: 03100202
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 05-APR-13
Update Date: 11-JAN-16
Interest Types: ICIS-NPDES NON-MAJOR
SIC Codes:
SIC Code Descriptions:
NAICS Codes:
NAICS Code Descriptions:
Conveyor: FRS-GEOCODE
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 13
Census Block Code: 120810004071001
EPA Region Code: 04
County Name: MANATEE
US/Mexico Border Ind:
Latitude: 27.48904
Longitude: -82.62401
Reference Point: ENTRANCE POINT OF A FACILITY OR STATION
Coord Collection Method: ADDRESS MATCHING-BLOCK FACE
Accuracy Value: 500
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110055199379
Program Acronyms:

NPDES:FLR10ML79

Site: ***57TH AVENUE WEST AND EAST***
57TH AVE FROM US 41 TO 15TH ST BRADENTON FL 34203

FINDS/FRS

Registry ID:	110020569240
FIPS Code:	12081
HUC Code:	03100202
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	E
Create Date:	25-JAN-05
Update Date:	18-AUG-15
Interest Types:	ICIS-NPDES NON-MAJOR, STATE MASTER, STORM WATER CONSTRUCTION
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	FRS-GEOCODE
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	13
Census Block Code:	120810007031031
EPA Region Code:	04
County Name:	MANATEE
US/Mexico Border Ind:	
Latitude:	27.49888
Longitude:	-82.56306
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Coord Collection Method:	ADDRESS MATCHING-BLOCK FACE
Accuracy Value:	500
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110020569240
Program Acronyms:	

FDM:6774, NPDES:FLR10Q814

Site: ***ROBINSON PRESERVE ADDITION***
9TH AVENUE WEST BRADENTON FL 34209

FINDS/FRS

Registry ID:	110055262950
FIPS Code:	12081
HUC Code:	03100201
Site Type Name:	BROWNFIELDS SITE
Location Description:	
Supplemental Location:	
Create Date:	18-JUN-13
Update Date:	11-MAR-14
Interest Types:	BROWNFIELDS PROPERTY
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	ACRES
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	13
Census Block Code:	120810012041024
EPA Region Code:	04
County Name:	MANATEE
US/Mexico Border Ind:	
Latitude:	27.5067

Longitude: -82.6647
Reference Point: ENTRANCE POINT OF A FACILITY OR STATION
Coord Collection Method: ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value:
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110055262950
Program Acronyms:

ACRES:156604

Site:
Robinson Preserve Site, end of 17th Ave. NW BRADENTON FL

SPILLS

Incident No: 7145
Incident Type: Inland
Incident Date: 11/07/2006
County: Manatee

Spill Details

Incident Status:
Incident Party Type:
Incident Party Name:
Pollutant Name: Waste oil
Pollutant Category:
Pollutant Actual Volume: 55
Pollutant Unit Measure: gallon
Criminal Indicator:
Hurricane Indicator:
Description: Abandoned Containers
On Scene Response:

Spill Details

Incident Status:
Incident Party Type:
Incident Party Name:
Pollutant Name: Waste oil
Pollutant Category:
Pollutant Actual Volume: 55
Pollutant Unit Measure: gallon
Criminal Indicator:
Hurricane Indicator:
Description: Leaking drum
On Scene Response:

Spill Details

Incident Status:
Incident Party Type:
Incident Party Name:
Pollutant Name: Waste oil
Pollutant Category:
Pollutant Actual Volume: 55
Pollutant Unit Measure: gallon
Criminal Indicator:
Hurricane Indicator:
Description: Spill
On Scene Response:

Site:
Parking lot, 75 Street and Manatee Avenue West BRADENTON FL

SPILLS

Incident No: 25181
Incident Type: Inland
Incident Date: 12/27/2004
County: Manatee

Spill Details

Incident Status:
Incident Party Type:
Incident Party Name:
Pollutant Name: Diesel fuel
Pollutant Category:
Pollutant Actual Volume: 30
Pollutant Unit Measure: gallon
Criminal Indicator:
Hurricane Indicator:
Description: Spill
On Scene Response:

Spill Details

Incident Status:
Incident Party Type:
Incident Party Name:
Pollutant Name: Diesel fuel
Pollutant Category:
Pollutant Actual Volume: 30
Pollutant Unit Measure: gallon

Criminal Indicator:
Hurricane Indicator:
Description: Vehicle Accident
On Scene Response:

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

Formerly Utilized Sites Remedial Action Program: DOE FUSRAP

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Government Publication Date: Mar 4, 2017

National Priority List: NPL

National Priorities List (Superfund)-NPL: EPA's (United States Environmental Protection Agency) list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action.

Government Publication Date: Apr 27, 2021

National Priority List - Proposed: PROPOSED NPL

Includes sites proposed (by the EPA, the state, or concerned citizens) for addition to the NPL due to contamination by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

Government Publication Date: Apr 27, 2021

Deleted NPL: DELETED NPL

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Government Publication Date: Apr 27, 2021

SEMS List 8R Active Site Inventory: SEMS

The Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted.

Government Publication Date: Mar 23, 2021

SEMS List 8R Archive Sites: SEMS ARCHIVE

The Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Government Publication Date: Mar 23, 2021

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Apr 5, 2021

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Government Publication Date: Apr 5, 2021

RCRA Generator List: RCRA LQG

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Apr 5, 2021

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Apr 5, 2021

RCRA Very Small Quantity Generators List: RCRA VSQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Apr 5, 2021

RCRA Non-Generators: RCRA NON GEN

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Apr 5, 2021

Federal Engineering Controls-ECs: FED ENG

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Feb 23, 2021

Federal Institutional Controls- ICs: FED INST

Institutional controls are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's (United States Environmental Protection Agency) expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

Government Publication Date: Feb 23, 2021

Land Use Control Information System: LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

Government Publication Date: Sep 1, 2006

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Nov 9, 2020

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 6, 2021

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan: FRP

List of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: Dec 2, 2020

Historical Gas Stations: HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

Petroleum Refineries: REFN

List of petroleum refineries from the U.S. Energy Information Administration (EIA) Refinery Capacity Report. Includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Survey locations adjusted using public data.

Government Publication Date: Jul 10, 2020

Petroleum Product and Crude Oil Rail Terminals: BULK TERMINAL

List of petroleum product and crude oil rail terminals made available by the U.S. Energy Information Administration (EIA). Includes operable bulk petroleum product terminals located in the 50 States and the District of Columbia with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil that were active between 2017 and 2018. Petroleum product terminals comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings. Survey locations adjusted using public data.

Government Publication Date: Apr 28, 2020

LIEN on Property: SEMS LIEN

The EPA Superfund Enterprise Management System (SEMS) provides LIEN information on properties under the EPA Superfund Program.

Government Publication Date: Mar 23, 2021

Superfund Decision Documents: SUPERFUND ROD

This database contains a listing of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD), along with other associated memos and files. This information is maintained and made available by the US EPA (Environmental Protection Agency).

Government Publication Date: Feb 23, 2021

State

Superfund Waste Cleanup & State-Funded Action Sites: SHWS

List of hazardous waste cleanup sites participating in various federal and state funded cleanup programs. Florida's State-Funded Action Sites and Superfund Waste Cleanup Sites lists are maintained and made available by the Florida Department of Environmental Protection (FDEP). This database is state equivalent CERCLIS.

Government Publication Date: May 18, 2021

Delisted State-Funded Action Sites: DELISTED SHWS

This database contains a list of closed hazardous waste sites of various federal and state funded cleanup programs that were removed from the Florida Department of Environmental Protection (FDEP).

Government Publication Date: May 18, 2021

Florida Department of Environmental Protection Cleanup Sites: CLEANUP DEP

The Cleanup Sites layer feeds the FDEP's Contamination Locator Map (CLM). It provides locations and document links for sites currently in the cleanup process and sites awaiting cleanup funding. Cleanup programs include: Brownfields, Petroleum, EPA Superfund (CERCLA), Drycleaning, Responsible Party Cleanup, State Funded Cleanup, State Owned Lands Cleanup and Hazardous Waste Cleanup.

Government Publication Date: Oct 28, 2020

Waste Cleanup Responsible Party Sites: WCRPS

List of Open, Closed, and Inactive Waste Cleanup Responsible Party sites made available by the Florida Department of Environmental Protection.

Government Publication Date: Apr 11, 2021

Delisted Waste Cleanup Responsible Party Sites: DELISTED WCRPS

List of sites which once appeared on - and have since been removed from - the list of Waste Cleanup Responsible Party Sites made available by the Florida Department of Environmental Protection.

Government Publication Date: Apr 11, 2021

Solid Waste Facilities and Landfills: SWF/LF

The Solid Waste Facility Inventory Report made available by the Florida Department of Environmental Protection (FDEP) includes all types of authorized and unauthorized facilities: municipal solid waste, landfills, dumps, construction and demolition disposal, recycling facilities, and more.

Government Publication Date: Mar 24, 2021

Leaking Tanks: LST

The Storage Tank Regulation Section is part of the Petroleum Restoration Program in the Florida Department of Environmental Protection (FDEP)s Division of Waste Management. In 1983, Florida was one of the first states in the union to pass legislation and adopt rules for underground and aboveground storage tank systems. Since then, over 28,000 facilities have reported discharges of petroleum products from storage tank systems. Florida relies on groundwater for about 92 percent of its drinking water needs, and has some of the most stringent rules in the country.

Government Publication Date: May 17, 2021

Delisted Leaking Tanks: DELISTED LST

Whereas Leaking Tanks (LST) includes only facilities which currently have contamination as recorded by the Florida Department of Environmental Protection, this list contains facilities which were once included in LST data but no longer appear on the list made available by FDEP. Facilities may be removed from the current LST list because the discharge has been cleaned up, or the discharge is not required for 62-770.

Government Publication Date: May 17, 2021

Underground Storage Tanks: UST

List of underground storage tank locations made available by the Florida Department of Environmental Protection (FDEP). In an effort to minimize the occurrence and environmental risks of releases and discharges, FDEP administers standards pertaining to the construction, installation, operation, maintenance, repair, closure, and disposal of underground storage tank systems that store regulated substances.

Government Publication Date: Mar 1, 2021

Aboveground Storage Tanks: AST

The Florida Department of Environmental Protection (FDEP) provides standards for aboveground storage tanks (ASTs) that have individual storage tank capacities greater than 550 gallons. The state also regulates the registration, construction, installation, operation, maintenance, repair, closure, and disposal of storage tank systems that store regulated substances. The listing of regulated aboveground storage tank facilities is maintained by FDEP.

Government Publication Date: Mar 1, 2021

Delisted AST UST Storage Tanks: DEL UST AST TANK

This database contains a list of closed UST and AST storage tank sites that were removed from the Florida Department of Environmental Protection (FDEP) storage tank database.

Government Publication Date: Jul 2, 2015

Delisted Storage Tanks: DEL STORAGE TANK

This database contains a list of closed storage tank sites that were removed from the Florida Department of Environmental Protection (FDEP) storage tank database.

Government Publication Date: Jun 24, 2021

Federal Facilities Listing: FF TANKS

The Florida Department of Environmental Protection (FDEP) Storage Tank Program registers facilities and storage tanks where aboveground or underground storage tanks store pollutants, hazardous substances, and/or mineral acid substances regulated by Chapter 62-761, Florida Administrative Code, or when aboveground storage tanks or compression vessels store a hazardous substance which requires registration according to Chapter 376, Florida Statutes.

Government Publication Date: Jun 24, 2021

Storage Tank/Contaminated Facility Search: STCS

List of facilities and tanks in the Florida Department of Environmental Protection (FDEP) Bureau of Petroleum Storage Systems Storage Tank/Contaminated Facility Search which do not currently have active, regulated underground or aboveground storage tanks (USTs or ASTs) containing petroleum. Note that tank details do not appear for facilities for which all tanks have been removed.

Government Publication Date: Mar 2, 2021

Institutional Controls Registry: INST

The Institutional Controls registry is maintained by the Florida Department of Environmental Protection (FDEP). The registry aims to help preserve adequate protection of contaminated soil regions and help to minimize any chances of exposure.

Government Publication Date: Dec 10, 2020

Engineering Controls: ENG

A listing of all engineering controls that are in place to eliminate or reduce the potential for contaminant migration and exposure to contaminants. These controls may include caps, barriers, guards or fences. The list is maintained by the Florida Department of Environmental Protection (FDEP).

Government Publication Date: Dec 10, 2020

Voluntary Cleanup Sites: VCP

A listing of active and closed voluntary cleanup sites registered by the Florida Department of Environmental Protection (FDEP).

Government Publication Date: Dec 31, 2020

Brownfield Sites: BROWNFIELDS

Brownfields are defined by the Florida Department of Environmental Protection (FDEP) as abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. This is a list of sites within designated Brownfield Areas within Florida where Brownfield Site Rehabilitation Agreement (BSRA)s have been executed between FDEP and a responsible party.

Government Publication Date: May 24, 2021

Brownfield Areas: BROWNFIELD AREA

Brownfields are defined by the Florida Department of Environmental Protection (FDEP) as abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. This is a list of Brownfield Areas, defined by the FDEP as contiguous areas of one or more brownfield sites, some of which may not be contaminated, that have been designated as such by a local government resolution. Such areas may include all or portions of community redevelopment areas, enterprise zones, empowerment zones, other such designated economically deprived communities and areas, and Environmental Protection Agency (EPA) designated brownfield pilot projects. Because a variety of sources and methods were used to derive information for this data, locations are approximate.

Government Publication Date: May 28, 2021

Tribal

Leaking Underground Storage Tanks (LUSTs) on Indian Land: INDIAN LUST

Leaking Underground Storage Tanks (LUSTs) on Tribal/Indian Lands in EPA Region 4, which includes Florida.

Government Publication Date: Apr 14, 2020

Underground Storage Tanks (USTs) on Indian Lands: INDIAN UST

Listing of underground storage tanks (USTs) on Tribal/Indian Lands in EPA Region 4, which includes Florida.

Government Publication Date: Apr 14, 2020

Delisted Tribal Leaking Storage Tanks: DELISTED ILST

Leaking Underground Storage Tank facilities which have been removed from the Regional Tribal LUST lists made available by the EPA.

Government Publication Date: Apr 14, 2020

Delisted Tribal Underground Storage Tanks: DELISTED IUST

Underground Storage Tank facilities which have been removed from the Regional Tribal UST lists made available by the EPA.

Government Publication Date: Apr 14, 2020

County

No County databases were selected to be included in the search.

Additional Environmental Record Sources

Federal

PFOA/PFOS Contaminated Sites: PFAS NPL

List of sites where PFOA or PFOS contaminants have been found in drinking water or soil. Made available by the Federal Environmental Protection Agency (EPA).

Government Publication Date: Mar 1, 2021

Facility Registry Service/Facility Index: FINDS/FRS

The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the Environmental Protection Agency (US EPA).

Government Publication Date: Nov 2, 2020

Toxics Release Inventory (TRI) Program: TRIS

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U. S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: Feb 19, 2020

Perfluorinated Alkyl Substances (PFAS) Releases: PFAS TRI

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a Per- or polyfluorinated alkyl substance (PFAS) included in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances. The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment.

Government Publication Date: Feb 19, 2020

Perfluorinated Alkyl Substances (PFAS) Water Quality: PFAS WATER

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC). This listing includes records from the Water Quality Portal where the characteristic (environmental measurement) is in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances.

Government Publication Date: Jul 20, 2020

Hazardous Materials Information Reporting System: HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: Sep 1, 2020

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department") provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Oct 5, 2020

Toxic Substances Control Act: TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.
The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

Government Publication Date: Apr 11, 2019

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.
The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List: PRP

Early in the cleanup process, the Environmental Protection Agency (EPA) conducts a search to find the potentially responsible parties (PRPs). EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site.

Government Publication Date: Apr 27, 2021

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The Integrated Compliance Information System (ICIS) is a system that provides information for the Federal Enforcement and Compliance (FE&C) and the National Pollutant Discharge Elimination System (NPDES) programs. The FE&C component supports the Environmental Protection Agency's (EPA) Civil Enforcement and Compliance program activities. These activities include Compliance Assistance, Compliance Monitoring and Enforcement. The NPDES program supports tracking of NPDES permits, limits, discharge monitoring data and other program reports.

Government Publication Date: Mar 24, 2021

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) online search. The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: May 5, 2021

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: May 5, 2021

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DoD) is responsible for an environmental restoration. This list is published by the U.S. Army Corps of Engineers.

Government Publication Date: Jan 28, 2020

Former Military Nike Missile Sites: FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 1, 1984

PHMSA Pipeline Safety Flagged Incidents: PIPELINE INCIDENT

A list of flagged pipeline incidents made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types.

Government Publication Date: Jul 7, 2020

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) contains mine identification numbers issued by the Department of Labor Mine Safety and Health Administration (MSHA) for mines active or opened since 1971. Note that addresses may or may not correspond with the physical location of the mine itself.

Government Publication Date: Nov 3, 2020

Surface Mining Control and Reclamation Act Sites: SMCRA

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of Abandoned Mine Land (AML) impacts, as well as information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Government Publication Date: Dec 18, 2020

Mineral Resource Data System: MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2006

Uranium Mill Tailings Radiation Control Act Sites: URANIUM

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

Government Publication Date: Mar 4, 2017

Alternative Fueling Stations: ALT FUELS

List of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE). The National Renewable Energy Laboratory (NREL) obtains information about new stations from trade media, Clean Cities coordinators, a Submit New Station form on the Station Locator website, and through collaborating with infrastructure equipment and fuel providers, original equipment manufacturers (OEMs), and industry groups.

Government Publication Date: Apr 27, 2021

Registered Pesticide Establishments: SSTS

List of active EPA-registered foreign and domestic pesticide-producing and device-producing establishments based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that facilities producing pesticides, active ingredients, or devices be registered. The list of establishments is made available by the EPA.

Government Publication Date: Apr 13, 2021

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Nov 19, 2020

State

Priority Ranking List: PRIORITYCLEAN

The Florida Legislature has established a state-funded program to cleanup properties that are contaminated as a result of the operations of a drycleaning facility or wholesale supply facility (Chapter 376, Florida Statutes). The program is administered by the Florida Department of Environmental Protection (FDEP). The statute was sponsored by the drycleaning industry to address environmental, economic, and liability issues resulting from drycleaning solvent contamination. The program provides limited liability protection to the owner, operator and real property owner of drycleaning or wholesale supply facilities for cleanup of drycleaning solvent contamination if the parties meet the eligibility conditions stated in the law.

Government Publication Date: Apr 21, 2021

Dry Cleaning Facilities: DRYCLEANERS

A listing of dry cleaning facilities registered with the Florida Department of Environmental Protection (FDEP). The information contains facility identification number, site location information, related party (owner) information, and facility type and status. Data is taken from the Storage Tank & Contamination Monitoring database, the registration repository of dry cleaner facility data.

Government Publication Date: Mar 9, 2021

Delisted Dry Cleaning Facilities: DELISTED DRYCLEANERS

List of sites removed from the drycleaners database made available by the Florida Department of Environmental Conservation (DEC).

Government Publication Date: Mar 9, 2021

Historical Dry Cleaners: HISTORICAL DRYC

The Florida Department of Environmental Protection (FDEP) provided this historical database of regulated and non-regulated dry cleaning facilities. These facilities were at one time tracked and registered by the FDEP OCULUS Electronic Document Management System as "drums" in the underground storage tank database.

Government Publication Date: Aug 2, 2013

Oil and Hazardous Materials Incidents: SPILLS

Statewide listing of oil and hazardous materials spills and incidents recorded by the Florida Department of Environmental Protection (FDEP).

Government Publication Date: May 18, 2021

Contaminated Sites: DWM CONTAM

Florida Department of Environmental Protection (FDEP) Division of Waste Management (DWM) listing of active or known sites that include sites requiring cleanup but are not actively being worked on due to the agency's lack of funding (primarily petroleum and drycleaning).

Government Publication Date: Mar 12, 2020

Delisted Contaminated Sites: DEL CONTAM SITE

List of sites which were once included on the Florida Department of Environmental Protection (FDEP) Division of Waste Management (DWM)'s Contaminated Sites list. As sites on the Contaminated Sites (CS) list are cleaned up or closed under risk based corrective action, they are removed from the CS list.

Government Publication Date: Sep 30, 2015

Aqueous Film Forming Foam (AFFF): PFAS AFFF

A list of fire fighter training facilities that use or possibly used Aqueous Film Forming Foam (AFFF). This list is made available by the Florida Department of Environmental Protection (DEP).

Government Publication Date: Aug 20, 2020

PFAS Investigation at Federal Facilities: PFAS

List of Federal facilities in Florida with confirmed or suspected usage of Aqueous Film Forming Foam (AFFF) made available by the Florida Department of Environmental Protection (DEP). Investigative work for AFFF source areas at DOD facilities in Florida is in the early stages with some preliminary sampling completed to confirm perfluorooctanoic acid (PFOA) and/or perfluorooctane sulfonate (PFOS) presence and some sampling to be completed at suspected AFFF potential release areas. DEP will continue to work closely with the Department of Defencse (DOD), as well as other federal facilities, in order to investigate and mitigate for PFOA and PFOS introduced due to use of AFFF or other sources, with an emphasis to identify and protect drinking water resources.

Government Publication Date: Apr 20, 2020

Underground Injection Control Wells: UIC

Class I Underground Injection Control (UIC) wells that are currently or were previously active, as well as proposed sites, regulated by the Florida Department of Environmental Protection (FDEP). Class I UIC wells are used to inject nonhazardous waste, hazardous waste (new hazardous waste wells were banned in 1983), or municipal waste below the lowermost underground source of drinking water.

Government Publication Date: May 18, 2021

Well Surveillance Program Facilities: WELL SURVEILLANCE

List of facilities made available by the Florida Health Well Surveillance group. The Well Surveillance group manages several programs to identify and monitor areas in Florida where contaminated drinking water is suspected and may pose a threat to public health. The section coordinates with the County Health Departments (CHDs) to locate potable wells and conduct water sampling for contaminants of concern. The Well Surveillance Section is composed of the State Underground Petroleum Environmental Response Act (SUPER Act), Drinking Water Toxics Program (Toxics), Drycleaner Solvent Cleanup Program (DSCP). Includes locations of known cattle dipping vats.

Government Publication Date: Apr 5, 2021

Cattle Dip Vats: CDV SOUTHEAST

A list of Cattle Dip Vats in Southeast Florida made available by the Florida Department of Environmental Protection.

Government Publication Date: Jan 19, 2017

Tier 2 Report: TIER 2

A list of Tier 2 facilities in the state of Florida. The list tracks the inventory of chemicals within a particular facility. This list is provided by the Florida Division of Emergency Management.

Government Publication Date: Jun 24, 2020

Delisted County Records: DELISTED COUNTY

Records removed from county databases. Records may be removed from the county lists made available by the respective county departments because they are inactive, or because they have been deemed to be below reportable thresholds.

Government Publication Date: Apr 13, 2021

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental databases were selected to be included in the search.

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

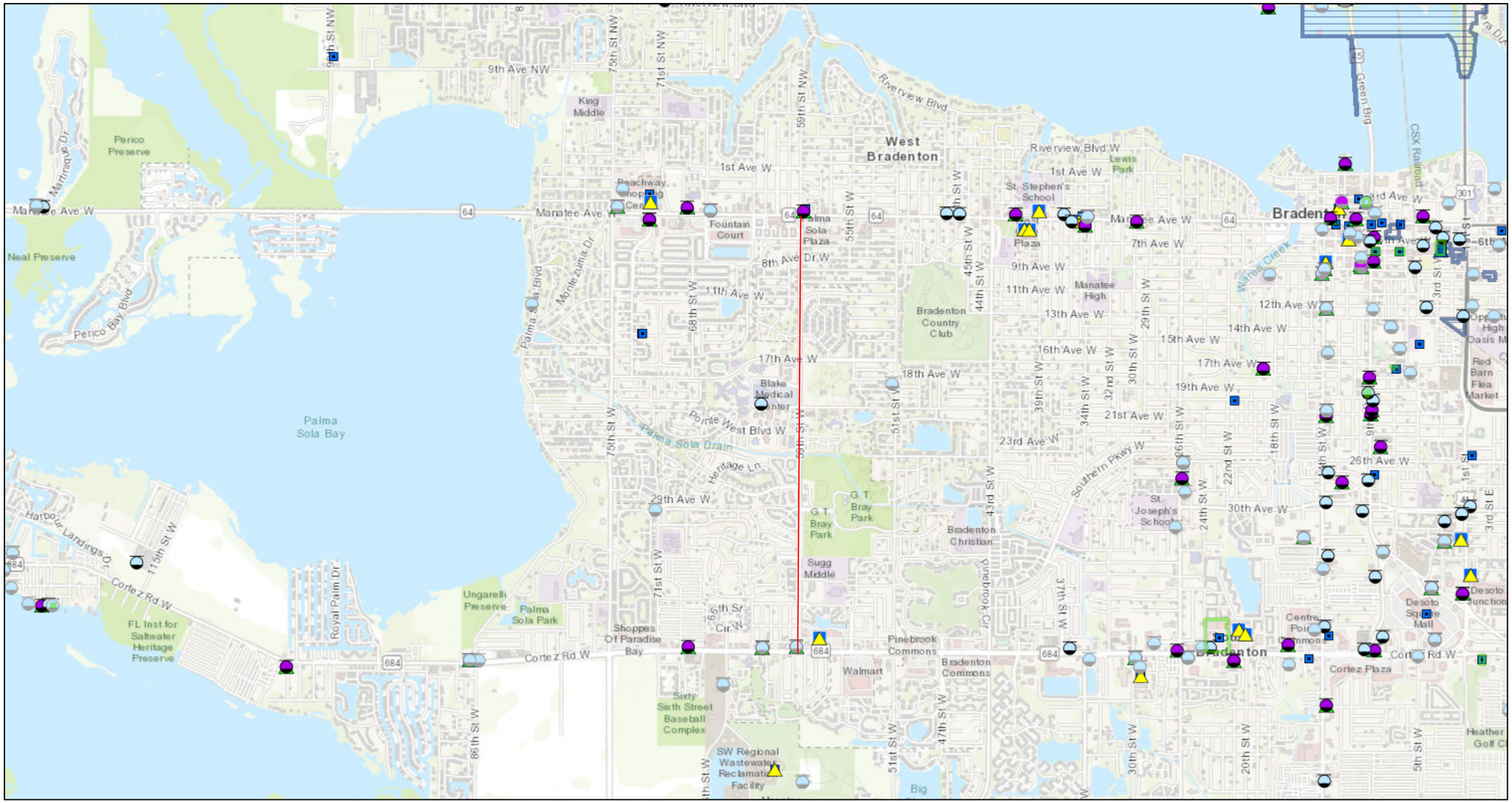
Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Attachment C - FDEP's Map Direct Database

Standard Map



July 29, 2021

1:36,112

0 0.4 0.8 1.6 mi

0 0.5 1 2 km

- ERIC Waste Cleanup
- Drycleaning Solvent Program Cleanup Sites

DEP Cleanup Sites

- BROWNFIELD SITES
- PETROLEUM
- OTHER WASTE CLEANUP
- Brownfield Areas
- Brownfield Sites

Petroleum Contamination Monitoring (PCTS) Discharges from STCM

- ELIGIBLE DISCHARGES OPEN
- INELIGIBLE DISCHARGES OPEN
- ELIGIBLE DISCHARGES COMPLETED
- INELIGIBLE DISCHARGES COMPETED
- Florida Institutional Controls Registry

FDEP, DWM, FDEP,DWM, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, FDEP/DWM/BWC

Map created by Map Direct, powered by ESRI. undefined

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Potential Contamination Screening Memo

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Sarasota, FL 34236

Manatee County FLORIDA

Appendix F –
Drainage Information

THIS FORM IS INTENDED TO FACILITATE AND GUIDE THE DIALOGUE DURING A PRE-APPLICATION MEETING BY PROVIDING A PARTIAL "PROMPT LIST" OF DISCUSSION SUBJECTS. IT IS NOT A LIST OF REQUIREMENTS FOR SUBMITTAL BY THE APPLICANT.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
RESOURCE REGULATION DIVISION
PRE-APPLICATION MEETING NOTES

FILE NUMBER:

PA 408889

Date:	10/06/2021		
Time:	14:00		
Project Name:	59th Street W from Cortez Rd to Manatee Ave		
District Engineer:	Scott VanOrsdale		
District ES:	Russell Martin		
Attendees:	Cris Schooley, Victor Gallo, Manatee County, Gloria Manriquez		
County:	Manatee County	**Sec/Twp/Rge:**	05/35/17
Total Land Acreage:	N/A	**Project Acreage:**	TBD acres

Prior On-Site/Off-Site Permit Activity:

- Multiple ERPs adjacent to project area. Applicant to review and determine if impacts will result. Must modify or accommodate any impacts to existing permits.

Project Overview:

- Manatee County is conducting a Project Development & Corridor Study to evaluate a 2.3-mile segment of 59th Street West from Cortez Road to Manatee Avenue in the City of Bradenton and Manatee County, Florida. The study evaluates options for widening the existing 2-lane roadway to a 4-lane roadway with a center left turn lane and/or median with bicycle lanes and sidewalks to provide an enhanced mobility experience for all users. As part of the study, pond site options are also being evaluated.
- Similar expansion of 75th Street West from Manatee Avenue South to Palma Sola Drain.
- New Individual permit.
- Portion of the runoff will drain north to the Manatee River, which is part of the Tampa Bay and will require net improvement.
- Additional comments and requirements mentioned below:

Environmental Discussion: (Wetlands On-Site, Wetlands on Adjacent Properties, Delineation, T&E species, Easements, Drawdown Issues, Setbacks, Justification, Elimination/Reduction, Permanent/Temporary Impacts, Secondary and Cumulative Impacts, Mitigation Options, SHWL, Upland Habitats, Site Visit, etc.)

- No wetland or surface water impacts proposed. No widening of bridge over canal proposed.
- Provide the limits of jurisdictional wetlands and surface waters. Roadside ditches or other water conveyances, including permitted and constructed water conveyance features, can be claimed as surface waters per Chapter 62-340 F.A.C. if they do not meet the definition of a swale as stated under Rule 403.803 (14) F.S.
- A site visit by District staff will be required to verify the presence or absence of wetlands and/or surface waters. Prior to the site visit, District staff will contact the applicant or authorized agent to provide an approximate date of the site visit and to ensure that the project area is accessible. If wetlands or surface waters are discovered during the site visit, additional information may be required.

Site Information Discussion: (SHW Levels, Floodplain, Tailwater Conditions, Adjacent Off-Site Contributing Sources, Receiving Waterbody, etc.)

- Watersheds – City of Bradenton, see links below for Floodplain Limits within the PA
- WBIDs need to be independently verified by the consultant - WBID – 1885A West Cedar Hammock; impaired for fecal coliform. WBID – 1848A; Manatee River below Braden River; part of Tampa Bay and will require net improvement for nutrients.
- No direct discharges to an OFW
- Document/justify SHWE's at pond locations, wetlands, and OSWs.
- Determine normal pool elevations of wetlands.
- Determine 'pop-off' locations and elevations of wetlands.
- Provide documentation to support tailwater conditions for quality and quantity design
- Proposed control structures in wetlands should be consistent with existing 'pop-off' elevations of wetlands; demonstrate no adverse impacts to wetland hydroperiod for up to 2.33yr mean annual storm.
- Minimum flows and levels of receiving waters shall not be disrupted.

- Contamination issues need to be resolved with the FDEP. Check FDEP MapDirect layer for possible contamination points within/adjacent to the project area. FDEP MapDirect Link
  - Multiple FDEP Site ID Nos. located within or adjacent to site. Please verify with FDEP if any have current contamination issues.

  For known contamination within the site or within 500' beyond the proposed stormwater management system:

  - after the application is submitted, please contact FDEP staff listed below and provide them with the ERP Application ID # along with a mounding analysis (groundwater elevation versus distance) of the proposed stormwater management system that shows the proposed groundwater mound will not adversely impact the contaminated area. FDEP will review the plans submitted to the District and mounding analysis to determine any adverse impacts. Provide documentation from FDEP that the proposed construction will not result in adverse impacts. This is required prior to the ERP Application being deemed complete.

  For known offsite contamination between 500' and 1500' beyond the site:

  - FDEP may also require a mounding analysis (groundwater elevation versus distance) for the proposed stormwater systems. SWFWMD will issue the permit when contamination sites are located outside the 500 ft radius prior to concurrence from DEP, however, it is the Permittee's responsibility to resolve contaminated site assessment concerns with the FDEP prior to beginning any construction activities. A permit condition will be used to reiterate this. You are advised to contact DEP as soon as possible, preferably during permit application period.

  FDEP Contacts:

  - For projects located within Citrus, Hernando, Pasco, Hillsborough, Pinellas, Manatee, Polk and Hardee Counties: Yanisa Angulo yanisa.angulo@floridadep.gov
- Stormwater retention and detention systems are classified as moderate sanitary hazards with respect to public and private drinking water wells. Stormwater treatment facilities shall not be constructed within 100 feet of an existing public water supply well and shall not be constructed within 75 feet of an existing private drinking water well. Subsection 4.2, A.H.V.II.

Water Quantity Discussions: (Basin Description, Storm Event, Pre/Post Volume, Pre/Post Discharge, etc.)

- Project will outfall to the Palma Sola Drain, a tidally influenced creek. There appears to be several constrictions downstream which will require attenuation requirements. Given the downstream location, it may be possible to demonstrate that increasing the discharge rate into the creek will not cause adverse upstream or downstream impacts.
- Demonstrate that post development peak discharges from proposed project area will not cause an adverse impact for a 25-year, 24-hour storm event.
- Demonstrate that site will not impede the conveyance of contributing off-site flows.
- Demonstrate that the project will not increase flood stages up- or down-stream of the project area(s).
- Watershed Model information may be available for download using the following link: https://watermatters.sharefile.com/d-s8c9019e00fd243908654e733a6b2016c
- Provide equivalent compensating storage for all 100-year, 24-hour riverine floodplain impacts if applicable. Providing cup-for-cup storage in dedicated areas of excavation is the preferred method of compensation if no impacts to flood conveyance are proposed and storage impacts and compensation occur within the same basin. In this case, tabulations should be provided at 0.5-foot increments to demonstrate encroachment and compensation occur at the same levels. Otherwise, storage modeling will be required to demonstrate no increase in flood stages will occur on off-site properties, using the mean annual, 10-year, 25-year, and 100-year storm events for the pre- and post-development conditions.
- Please be aware that if there is credible historical evidence of past flooding or the physical capacity of the downstream conveyance or receiving waters indicates that the conditions for issuance will not be met without consideration of storm events of different frequency or duration, applicants shall be required to provide additional analyses using storm events of different duration or frequency than the 25-year 24-hour storm event, or to adjust the volume, rate or timing of discharges. [Section 3.0 Applicant's Handbook Volume II]

Water Quality Discussions: (Type of Treatment, Technical Characteristics, Non-presumptive Alternatives, etc.)

- Applicant must demonstrate a net improvement for the parameters of concern by performing a pre/post pollutant loading analysis based on existing land use and the proposed land use.
- Also, replace treatment function of existing ditches to be filled.
- Presumptive Water Quality Treatment for Alterations to Existing Public Roadway Projects:
  -Refer to Section 4.5 A.H.V.II for Alterations to Existing Public Roadway Projects.

-Refer to Sections 4.8, 4.8.1 and 4.8.2 A.H.V.II for Compensating Stormwater Treatment, Overtreatment, and Offsite Compensation.
-All co-mingled existing & new impervious that is proposed to be connected to a treatment pond will require treatment for an area equal to the co-mingled existing & new impervious (times ½" for dry treatment or 1" for wet treatment). This applies whether or not equivalent treatment concepts are used.
-However, if equivalent treatment concepts are used it is possible to strategically locate the pond(s) so that the minimum treatment requirement may be for an area equivalent to the new impervious area only. That is, co-mingled existing & new impervious that is not connected to a treatment pond may bypass treatment (as per Section 4.5(2), A.H.V.II); if the 'total impervious area' that is connected to the treatment pond(s) is at least equivalent to the area of new impervious only. The 'total impervious area' that is connected to the pond(s) may be composed of co-mingled existing & new impervious.
-Offsite impervious not required to be treated; but may be useful to be treated when using equivalent treatment concepts.
-Existing treatment capacity displaced by any road project will require additional compensating volume. Refer to Subsection 4.5(c), A.H.V.II.

- Will acknowledge compensatory treatment to offset pollutant loads associated with portions of the project area that cannot be physically treated.
- Net improvement
  -Refer to rule 62-330.301(2), F.A.C.
  -The Tampa Bay Estuary Program (TBEP) identifies WBID 1848A as a discharge to Tampa Bay. Tampa Bay is designated as a Category 4b waterbody (impaired, but no TMDL required); therefore, net improvement (for nutrients) is required for discharges to Tampa Bay.
  -The application must demonstrate a net improvement for nutrients. Applicant may demonstrate a net improvement for the parameters of concern by performing a pre/post pollutant loading analysis based on existing land use and the proposed land use. Refer to ERP Applicant's Handbook Vol. II Subsection 4.1(g).
  -Effluent filtration is known to be ineffective for treating nutrient related impairments, unless special nutrient adsorption media provided. However, please note special nutrient adsorption media has extremely low conductivity values compared to typical sand type effluent filtration filter media. Note: if treatment volume required for net improvement is less than the treatment volume required for 'presumptive' treatment, then use of effluent filtration is ok.

Sovereign Lands Discussion: (Determining Location, Correct Form of Authorization, Content of Application, Assessment of Fees, Coordination with FDEP)

- No SSL issues.

Operation and Maintenance/Legal Information: (Ownership or Perpetual Control, O&M Entity, O&M Instructions, Homeowner Association Documents, Coastal Zone requirements, etc.)

- The permit must be issued to entity that owns or controls the property.
- Provide evidence of ownership or control by deed, easement, contract for purchase, etc. Evidence of ownership or control must include a legal description. A Property Appraiser summary of the legal description is NOT acceptable.

Application Type and Fee Required:

- SWERP – Sections A, C, and E of the ERP Application.
- < 40 acres of project area and < 3 acres wetland or surface water impacts - $2,491.50 Online Submittal
- < 100 acres of project area and < 10 acre of wetland or surface water impacts - $2,798.25
- Consult the fee schedule for different thresholds.

Other: (Future Pre-Application Meetings, Fast Track, Submittal Date, Construction Start Date, Required District Permits – WUP, WOD, Well Construction, etc.)

- An application for an individual permit to construct or alter a dam, impoundment, reservoir, or appurtenant work, requires that a notice of receipt of the application must be published in a newspaper within the affected area. Provide documentation that such noticing has been accomplished. Note that the published notices of receipt for an ERP can be in accordance with the language provided in Rule 40D-1.603(10), F.A.C.

- Provide a copy of the legal description (of all applicable parcels within the project area) in one of the following forms:
  a. Deed with complete Legal Description attachment.
  b. Plat.
  c. Boundary survey of the property(ies) with a sketch.

- The plans and drainage report submitted electronically must include the appropriate information required under Rules 61G15-23.005 and 61G15-23.004 (Digital), F.A.C. The following text is required by the Florida Board of Professional Engineers (FBPE) to meet this requirement when a digitally created seal is not used and must appear where the signature would normally appear:

  ELECTRONIC (Manifest): *[NAME] State of Florida, Professional Engineer, License No. [NUMBER] This item has been electronically signed and sealed by [NAME] on the date indicated here using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies*

  DIGITAL: *[NAME] State of Florida, Professional Engineer, License No. [NUMBER]; This item has been digitally signed and sealed by [NAME] on the date indicated here; Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.*
- Provide soil erosion and sediment control measures for use during construction. Refer to ERP Applicant's Handbook Vol. 1 Part IV Erosion and Sediment Control.
- Demonstrate that excavation of any stormwater ponds does not breach an aquitard (see Subsection 2.1.1, A.H.V.II) such that it would allow for lesser quality water to pass, either way, between the two systems. In those geographical areas of the District where there is not an aquitard present, the depth of the pond(s) shall not be excavated to within two (2) feet of the underlying limestone which is part of a drinking water aquifer. [Refer to Subsection 5.4.1(b), A.H.V.II]
- If lowering of SHWE is proposed, then burden is on Applicant to demonstrate no adverse onsite or offsite impacts as per Subsection 3.6, A.H.V.II. Groundwater drawdown 'radius of influence' computations may be required to demonstrate no adverse onsite or offsite impacts. Please note that new roadside swales or deepening of existing roadside swales may result in lowering of SHWE. Proposed ponds with control elevation less than SHWE may result in adverse lowering of onsite or offsite groundwater.
- On December 17, 2020, the Environmental Protection Agency (EPA) formally transferred permitting authority under CWA Section 404 from the U.S. Army Corps of Engineers (Corps) to the State of Florida for a broad range of water resources within the State. The primary State 404 Program rules are adopted by the Florida Department of Environmental Protection (FDEP) as Chapter 62-331 of the Florida Administrative Code (F.A.C.). While the State 404 Program is a separate permitting program from the Environmental Resource Permitting program (ERP) under Chapter 62-330, F.A.C., and agency action for State 404 Program verifications, notices, or permits shall be taken independently from ERP agency action, the FDEP and the Southwest Florida Water Management District (SWFWMD) will be participating in a Joint application Process. Upon submittal of an ERP application that proposes dredge/fill activities in wetlands or surface waters within state assumed waters, the SWFWMD will forward a copy of your application to the FDEP for activities under State 404 jurisdiction. The applicant may choose to have the State 404 Program and ERP agency actions issued concurrently to help ensure consistency and reduce the need for project modifications that may occur when the agency actions are issued at different times. Additional information on the FDEP's 404 delegation can be found at: https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program

  Additionally, for those projects located in areas where the Corps retains jurisdiction, the applicant is advised that the District will not send a copy of an application that does not qualify for a State Programmatic General Permit (SPGP) to the U.S. Army Corps of Engineers. If a project does not qualify for a SPGP, you will need to apply separately to the Corps using the appropriate federal application form for activities under federal jurisdiction. Please see the Corps' Jacksonville District Regulatory Division Sourcebook for more information about federal permitting. Please call your local Corps office if you have questions about federal permitting. Link: http://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/

Disclaimer: The District ERP pre-application meeting process is a service made available to the public to assist interested parties in preparing for submittal of a permit application. Information shared at pre-application meetings is superseded by the actual permit application submittal. District permit decisions are based upon information submitted during the application process and Rules in effect at the time the application is complete.

Curve Number and Runoff Volume Calculation (25YR/24HR)

Basin 1A:

Pre-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	1.15	acres	98	113
Sod/Grass	11, 20	A, A/D	0.45	acres	39	17
Additional ROW			0.00	acres	39	0
Pond Site			0.31	acres	98	30
		Totals:	1.91	acres		161
		Pre-Condition Composite Curve Number:	84.2			

Pre-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 84.2
Drainage Area (A) = 1.91 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.88 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 6.98 IN
Pre-Condition Runoff Volume (V_{PRE}) = A x Q = 1.11 AC-FT

Post-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	1.36	acres	98	133
Sod/Grass	11, 20	A, A/D	0.24	acres	39	9
		Subtotal:	1.60	acres		
Pond Impervious	--	--	0.23	acres	100	23
Pond Pervious	11, 20	A, A/D	0.08	acres	39	3
		Totals:	1.91	acres		169
		Post-Condition Composite Curve Number:	88.4			

Post-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 88.4
Drainage Area (A) = 1.91 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.32 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 7.49 IN
Post-Condition Runoff Volume (V_{POST}) = A x Q = 1.19 AC-FT

Required Attenuation Volume = V_{POST} - V_{PRE} =	**0.08**	**AC-FT**

Pond 1A: Dry Pond

Treatment Volume Calculation

Drainage Area =	1.91	Acres
Treatment Volume Required =	1.0	Inch
Treatment Volume Required =	0.16	Acre-Feet

Pond Size Estimation

Soil Data

NRCS Soils at Pond Site: 11 - Cassia; 20 - EauGallie

Average High Water Depth = 2.5 Ft (From Manatee County Soil Survey)

Pond Vertical Constraints

Roadway Edge of Pavement Low Elevation =	22.0	Feet
Average Existing Ground Elevation at Pond Site =	22.0	Feet
Seasonal High Water Table Elevation at Pond Site =	19.5	Feet
Available Depth for Treatment and Attenuation =	2.5	Feet
Actual Depth of Treatment and Attenuation =	1.0	Feet

Pond Elevations

Bottom of Treatment Volume Elevation =	20.0	Feet
Top of Treatment Volume Elevation =	20.7	Feet
Top of Attenuation Volume Elevation =	21.0	Feet
Proposed Bottom of Berm Elevation =	22.0	Feet
Proposed Top of Berm Elevation =	23.5	Feet

Pond Size

Square Dimension at Bottom of Treatment Depth =	100	Feet
Square Dimension at Top of Treatment Depth =	105	Feet
Square Dimension at Top of Attenuation Depth =	108	Feet
Square Dimension Bottom of Berm =	116	Feet
Square dimension at top berm =	116	Feet
Outside pond dimensions (including tie-down) =	116	Feet

Minimum Total Area Required = 0.34 Acres (10% SAFETY FACTOR)

Stage-Storage Calculation

Elevation (ft)	Area (sf)	Area (ac)	Incremental Volume (cf)	Total Volume (cf)	Total Volume (ac-ft)	REMARKS
20.00	10000	0.23	0	0	0.00	
20.65	11067	0.25	6847	6847	0.16	*Top of TV*
21.00	11664	0.27	3978	10825	0.25	*Top of AV*
22.00	13456	0.31	12560	23385	0.54	*Bottom of Berm*

Required Treatment Volume =	0.16	Acre-Feet	
Provided Treatment Volume =	**0.16**	**Acre-Feet**	✓
Required Attenuation Volume =	0.08	Acre-Feet	
Provided Attenuation Volume =	**0.09**	**Acre-Feet**	✓

IN CONJUCTION WITH POND 1C

Notes:

Pond is surrounded by roadway access, maintenance berm is not needed for access.

Curve Number and Runoff Volume Calculation (25YR/24HR)

Basin 1B:

Pre-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	2.21	acres	98	217
Sod/Grass	20, 38	A/D	2.21	acres	39	86
Additional ROW			0.00	acres	39	0
Pond Site			1.77	acres	39	69
		Totals:	6.19	acres		372
		Pre-Condition Composite Curve Number:	60.0			

Pre-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 60.0
Drainage Area (A) = 6.19 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 6.65 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 4.03 IN
Pre-Condition Runoff Volume (V_{PRE}) = A x Q = 2.08 AC-FT

Post-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	3.76	acres	98	368
Sod/Grass	20, 38	A/D	0.66	acres	39	26
		Subtotal:	4.42	acres		
Pond Impervious	--	--	1.03	acres	100	103
Pond Pervious	20, 38	A/D	0.74	acres	39	29
		Totals:	6.19	acres		526
		Post-Condition Composite Curve Number:	84.9			

Post-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 84.9
Drainage Area (A) = 6.19 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.77 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 7.08 IN
Post-Condition Runoff Volume (V_{POST}) = A x Q = 3.65 AC-FT

Required Attenuation Volume = V_{POST} - V_{PRE} = 1.57 AC-FT

Pond 1B: Wet Pond

Treatment Volume Calculation

Drainage Area =	6.19	Acres
Treatment Volume Required =	1.0	Inch
Treatment Volume Required =	0.52	Acre-Feet

Pond Size Estimation

Soil Data

NRCS Soils at Pond Site: 38 - Palmetto

Average High Water Depth = 0.0 Ft (From Manatee County Soil Survey)

Pond Vertical Constraints

Roadway Edge of Pavement Low Elevation =	22.0	Feet
Average Existing Ground Elevation at Pond Site =	22.0	Feet
Seasonal High Water Table Elevation at Pond Site =	22.0	Feet
Available Depth for Treatment and Attenuation =	0.0	Feet
Actual Depth of Treatment and Attenuation =	2.0	Feet

Pond Elevations

Bottom of Treatment Volume Elevation =	19.0	Feet	(Liner Required)
Top of Treatment Volume Elevation =	19.6	Feet	
Top of Attenuation Volume Elevation =	21.0	Feet	
Proposed Bottom of Berm Elevation =	22.0	Feet	
Proposed Top of Berm Elevation =	23.5	Feet	

Pond Size

Square Dimension at Bottom of Treatment Depth =	212	Feet	
Square Dimension at Top of Treatment Depth =	217	Feet	
Square Dimension at Top of Attenuation Depth =	228	Feet	
Square Dimension Bottom of Berm =	236	Feet	
Square dimension at top berm =	266	Feet	
Outside pond dimensions (including tie-down) =	278	Feet	
Minimum Total Area Required =	**1.95**	**Acres**	(10% SAFETY FACTOR)

Stage-Storage Calculation

Elevation	Area	Area	Incremental Volume	Total Volume	Total Volume	REMARKS
(ft)	(sf)	(ac)	(cf)	(cf)	(ac-ft)	
19.00	44944	1.03	0	0	0.00	
19.60	47002	1.08	27584	27584	0.63	*Top of TV*
21.00	51984	1.19	69290	96874	2.22	*Top of AV*
22.00	55696	1.28	53840	150714	3.46	*Bottom of Berm*

Required Treatment Volume =	0.52	Acre-Feet	
Provided Treatment Volume =	**0.63**	**Acre-Feet**	✓
Required Attenuation Volume =	1.57	Acre-Feet	
Provided Attenuation Volume =	**1.59**	**Acre-Feet**	✓

Curve Number and Runoff Volume Calculation (25YR/24HR)

Basin 1C:

Pre-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	1.10	acres	98	108
Sod/Grass	20, 38	A/D	1.72	acres	39	67
Additional ROW			0.00	acres	39	0
Pond Site			1.06	acres	39	41
		Totals:	3.88	acres		216

Pre-Condition Composite Curve Number: 55.7

Pre-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 55.7
Drainage Area (A) = 3.88 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 7.94 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 3.50 IN
Pre-Condition Runoff Volume (V_{PRE}) = A x Q = 1.13 AC-FT

Post-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	2.40	acres	98	235
Sod/Grass	20, 38	A/D	0.42	acres	39	16
		Subtotal:	2.82	acres		
Pond Impervious	--	--	0.47	acres	100	47
Pond Pervious	20, 38	A/D	0.59	acres	39	23
		Totals:	3.88	acres		321

Post-Condition Composite Curve Number: 82.9

Post-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 82.9
Drainage Area (A) = 3.88 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 2.07 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 6.82 IN
Post-Condition Runoff Volume (V_{POST}) = A x Q = 2.20 AC-FT

Required Attenuation Volume = V_{POST} - V_{PRE} = 1.07 AC-FT

Pond 1C: Wet Pond

Treatment Volume Calculation

Drainage Area =	3.88	Acres
Treatment Volume Required =	1.0	Inch
Treatment Volume Required =	0.32	Acre-Feet

Pond Size Estimation

Soil Data

NRCS Soils at Pond Site: 20 - EauGallie

Average High Water Depth = 1.0 Ft (From Manatee County Soil Survey)

Pond Vertical Constraints

Roadway Edge of Pavement Low Elevation =	22.0	Feet
Average Existing Ground Elevation at Pond Site =	22.0	Feet
Seasonal High Water Table Elevation at Pond Site =	21.0	Feet
Available Depth for Treatment and Attenuation =	1.0	Feet
Actual Depth of Treatment and Attenuation =	2.7	Feet

Pond Elevations

Bottom of Treatment Volume Elevation =	18.3	Feet	(Liner Required)
Top of Treatment Volume Elevation =	19.1	Feet	
Top of Attenuation Volume Elevation =	21.0	Feet	
Proposed Bottom of Berm Elevation =	22.0	Feet	
Proposed Top of Berm Elevation =	23.5	Feet	

Pond Size

Square Dimension at Bottom of Treatment Depth =	143	Feet	
Square Dimension at Top of Treatment Depth =	149	Feet	
Square Dimension at Top of Attenuation Depth =	165	Feet	
Square Dimension Bottom of Berm =	173	Feet	
Square dimension at top berm =	203	Feet	
Outside pond dimensions (including tie-down) =	215	Feet	
Minimum Total Area Required =	**1.16**	**Acres**	(10% SAFETY FACTOR)

Stage-Storage Calculation

Elevation	Area	Area	Incremental Volume	Total Volume	Total Volume	REMARKS
(ft)	(sf)	(ac)	(cf)	(cf)	(ac-ft)	
18.30	20449	0.47	0	0	0.00	
19.10	22320	0.51	17108	17108	0.39	*Top of TV*
21.00	27093	0.62	46943	64051	1.47	*Top of AV*
22.00	29791	0.68	28442	92493	2.12	*Bottom of Berm*

Required Treatment Volume =	0.32	Acre-Feet	
Provided Treatment Volume =	**0.39**	**Acre-Feet**	✓
Required Attenuation Volume =	1.07	Acre-Feet	
Provided Attenuation Volume =	**1.08**	**Acre-Feet**	✓

IN CONJUCTION WITH POND 1A

Curve Number and Runoff Volume Calculation (25YR/24HR)

Basin 2A:

Pre-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	3.10	acres	98	304
Sod/Grass	19, 42	A	3.79	acres	39	148
Additional ROW			0.00	acres	39	0
Pond Site			0.00	acres	39	0
		Totals:	6.90	acres		452
		Pre-Condition Composite Curve Number:	65.6			

Pre-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 65.6
Drainage Area (A) = 6.90 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 5.26 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 4.70 IN
Pre-Condition Runoff Volume (V_{PRE}) = A x Q = 2.70 AC-FT

Post-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	5.86	acres	98	574
Sod/Grass	19, 42	A	1.03	acres	39	40
		Subtotal:	6.90	acres		
Pond Impervious	--	--	0.00	acres	100	0
Pond Pervious	19, 42	A	0.00	acres	39	0
		Totals:	6.90	acres		615
		Post-Condition Composite Curve Number:	89.2			

Post-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 89.2
Drainage Area (A) = 6.90 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.22 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 7.59 IN
Post-Condition Runoff Volume (V_{POST}) = A x Q = 4.36 AC-FT

Required Attenuation Volume = V_{POST} - V_{PRE} = 1.66 AC-FT

Pond 2A: Existing Wet Pond

Treatment Volume Calculation

Drainage Area =	6.90	Acres
Treatment Volume Required =	1.0	Inch
Treatment Volume Required =	0.57	Acre-Feet

Pond Size Estimation

Soil Data

NRCS Soils at Pond Site: 20 - EauGallie

Average High Water Depth = 1.0 Ft (From Manatee County Soil Survey)

Pond Vertical Constraints

Roadway Edge of Pavement Low Elevation =	22.0	Feet	
Average Existing Ground Elevation at Pond Site =	24.0	Feet	
Bottom of Treatment Volume Elevation =	19.0	Feet	

Modifications to Existing Pond

Treatment plus Attenuation Volume Required =	2.23	Acre-Feet	(Option 1)
Average Surface Area of Pond =	1.76	Acre	
Additional Depth Needed in Pond=	1.27	Feet	
Treatment plus Attenuation Volume Required =	2.23	Acre-Feet	(Option 2)
Average Pond Depth	1.50	Feet	
Average Surface Area of Pond Required=	1.49	Acre	
Bottom and Top Berm Depth	2.50	Feet	
Total Pond Depth	4.00		

Pond Size

Square Dimension at Bottom of Treatment Depth =	277	Feet	
Square Dimension at Top of Treatment Depth =	281	Feet	(OPTION 2 WAS CHOSEN AS A CONSERVATIVE APPROACH, INSTEAD OF RIASING THE STAGES IN OPTION 1)
Square Dimension at Top of Attenuation Depth =	289	Feet	
Square Dimension Bottom of Berm =	297	Feet	
Square dimension at top berm =	327	Feet	
Outside pond dimensions (including tie-down) =	335	Feet	
Minimum Total Area Required =	**2.83**	**Acres**	(10% SAFETY FACTOR)

Curve Number and Runoff Volume Calculation (FDOT 100YR/24HR)

Basin 2B:

Pre-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	3.10	acres	98	304
Sod/Grass	6, 20	A/D, C/D	3.79	acres	44	167
Additional ROW			0.00	acres	44	0
Pond Site			1.50	acres	39	59
		Totals:	8.40	acres		530

Pre-Condition Composite Curve Number: 63.1

Pre-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 63.1
Drainage Area (A) = 8.40 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 5.86 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 4.40 IN
Pre-Condition Runoff Volume (V_{PRE}) = A x Q = 3.08 AC-FT

Post-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	5.86	acres	98	574
Sod/Grass	6, 20	A/D, C/D	1.03	acres	44	46
		Subtotal:	6.90	acres		
Pond Impervious	--	--	0.83	acres	100	83
Pond Pervious	6, 20	A/D, C/D	0.68	acres	39	26
		Totals:	8.40	acres		729

Post-Condition Composite Curve Number: 86.8

Post-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 86.8
Drainage Area (A) = 8.40 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.52 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 7.30 IN
Post-Condition Runoff Volume (V_{POST}) = A x Q = 5.11 AC-FT

Required Attenuation Volume = V_{POST} - V_{PRE} = 2.04 AC-FT

Pond 2B: Wet Pond

Treatment Volume Calculation

Drainage Area =	8.40	Acres
Treatment Volume Required =	1.0	Inch
Treatment Volume Required =	0.70	Acre-Feet

Pond Size Estimation

Soil Data

NRCS Soils at Pond Site: 20 - EauGallie

Average High Water Depth = 1.0 Ft (From Manatee County Soil Survey)

Pond Vertical Constraints

Roadway Edge of Pavement Low Elevation =	22.0	Feet
Average Existing Ground Elevation at Pond Site =	24.0	Feet
Seasonal High Water Table Elevation at Pond Site =	23.0	Feet
Available Depth for Treatment and Attenuation =	-1.0	Feet
Actual Depth of Treatment and Attenuation =	3.0	Feet

Pond Elevations

Bottom of Treatment Volume Elevation =	18.0	Feet	(Liner Required)
Top of Treatment Volume Elevation =	18.9	Feet	
Top of Attenuation Volume Elevation =	21.0	Feet	
Proposed Bottom of Berm Elevation =	22.0	Feet	
Proposed Top of Berm Elevation =	23.5	Feet	

Pond Size

Square Dimension at Bottom of Treatment Depth =	190	Feet	
Square Dimension at Top of Treatment Depth =	197	Feet	
Square Dimension at Top of Attenuation Depth =	214	Feet	
Square Dimension Bottom of Berm =	222	Feet	
Square dimension at top berm =	252	Feet	
Outside pond dimensions (including tie-down) =	256	Feet	
Minimum Total Area Required =	**1.65**	**Acres**	(10% SAFETY FACTOR)

Stage-Storage Calculation

Elevation	Area	Area	Incremental Volume	Total Volume	Total Volume	REMARKS
(ft)	(sf)	(ac)	(cf)	(cf)	(ac-ft)	
18.00	36100	0.83	0	0	0.00	
18.90	38888	0.89	33745	33745	0.77	*Top of TV*
21.00	45796	1.05	88918	122663	2.82	*Top of AV*
22.00	49284	1.13	47540	170203	3.91	*Bottom of Berm*

Required Treatment Volume =	0.70	Acre-Feet	
Provided Treatment Volume =	**0.77**	**Acre-Feet**	✓
Required Attenuation Volume =	2.04	Acre-Feet	✓
Provided Attenuation Volume =	**2.05**	**Acre-Feet**	

Curve Number and Runoff Volume Calculation (FDOT 100YR/24HR)

Basin 3A:

Pre-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	6.72	acres	98	659
Sod/Grass	7, 13, 16, 20, 28, 38, 42, 48	A/D, C/D	5.73	acres	42	240
Additional ROW			0.00	acres	42	0
Pond Site			1.72	acres	56	97
		Totals:	14.17	acres		996

Pre-Condition Composite Curve Number: 70.3

Pre-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 70.3
Drainage Area (A) = 14.17 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 4.23 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 5.28 IN
Pre-Condition Runoff Volume (V_{PRE}) = A x Q = 6.23 AC-FT

Post-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	10.58	acres	98	1037
Sod/Grass	7, 13, 16, 20, 28, 38, 42, 48	A/D, C/D	1.87	acres	42	78
		Subtotal:	12.45	acres		
Pond Impervious	--	--	0.92	acres	100	92
Pond Pervious	7, 13, 16, 20, 28, 38, 42, 48	A/D, C/D	0.81	acres	56	45
		Totals:	14.17	acres		1252

Post-Condition Composite Curve Number: 88.4

Post-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 88.4
Drainage Area (A) = 14.17 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.32 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 7.49 IN
Post-Condition Runoff Volume (V_{POST}) = A x Q = 8.85 AC-FT

Required Attenuation Volume = V_{POST} - V_{PRE} = 2.62 AC-FT

Pond 3A: Wet Pond

Treatment Volume Calculation

Drainage Area =	14.17	Acres
Treatment Volume Required =	1.0	Inch
Treatment Volume Required =	1.18	Acre-Feet

Pond Size Estimation

Soil Data

NRCS Soils at Pond Site: 16 - Delray
48 - Wabasso

Average High Water Depth = 1.0 Ft (From Manatee County Soil Survey)

Pond Vertical Constraints

Roadway Edge of Pavement Low Elevation =	22.0	Feet
Average Existing Ground Elevation at Pond Site =	22.0	Feet
Seasonal High Water Table Elevation at Pond Site =	21.0	Feet
Available Depth for Treatment and Attenuation =	1.0	Feet
Actual Depth of Treatment and Attenuation =	3.0	Feet

Pond Elevations

Bottom of Treatment Volume Elevation =	18.0	Feet	(Liner Required)
Top of Treatment Volume Elevation =	19.3	Feet	
Top of Attenuation Volume Elevation =	21.0	Feet	
Proposed Bottom of Berm Elevation =	22.0	Feet	
Proposed Top of Berm Elevation =	23.5	Feet	

Pond Size

Square Dimension at Bottom of Treatment Depth =	200	Feet	
Square Dimension at Top of Treatment Depth =	210	Feet	
Square Dimension at Top of Attenuation Depth =	224	Feet	
Square Dimension Bottom of Berm =	232	Feet	
Square dimension at top berm =	262	Feet	
Outside pond dimensions (including tie-down) =	274	Feet	
Minimum Total Area Required =	**1.90**	**Acres**	(10% SAFETY FACTOR)

Stage-Storage Calculation

Elevation	Area	Area	Incremental Volume	Total Volume	Total Volume	REMARKS
(ft)	(sf)	(ac)	(cf)	(cf)	(ac-ft)	
18.00	40000	0.92	0	0	0.00	
19.30	44268	1.02	54774	54774	1.26	*Top of TV*
21.00	50176	1.15	80278	135052	3.10	*Top of AV*
22.00	53824	1.24	52000	187052	4.29	*Bottom of Berm*

Required Treatment Volume =	1.18	Acre-Feet	
Provided Treatment Volume =	**1.26**	**Acre-Feet**	✓
Required Attenuation Volume =	1.76	Acre-Feet	
Provided Attenuation Volume =	**1.84**	**Acre-Feet**	✓

Curve Number and Runoff Volume Calculation (FDOT 100YR/24HR)

Basin 3B:

Pre-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	6.72	acres	98	659
Sod/Grass	7, 13, 16, 20, 28, 38, 42, 48	A/D, C/D	5.73	acres	42	240
Additional ROW			0.00	acres	42	0
Pond Site			0.00	acres	56	0
		Totals:	12.45	acres		899

Pre-Condition Composite Curve Number: 72.2

Pre-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 72.2
Drainage Area (A) = 12.45 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 3.84 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 5.52 IN
Pre-Condition Runoff Volume (V_{PRE}) = A x Q = 5.73 AC-FT

Post-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	10.58	acres	98	1037
Sod/Grass	7, 13, 16, 20, 28, 38, 42, 48	A/D, C/D	1.87	acres	42	78
		Subtotal:	12.45	acres		
Pond Impervious	--	--	0.00	acres	100	0
Pond Pervious	7, 13, 16, 20, 28, 38, 42, 48	A/D, C/D	0.00	acres	56	0
		Totals:	12.45	acres		1115

Post-Condition Composite Curve Number: 89.6

Post-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 89.6
Drainage Area (A) = 12.45 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.16 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 7.64 IN
Post-Condition Runoff Volume (V_{POST}) = A x Q = 7.93 AC-FT

Required Attenuation Volume = V_{POST} - V_{PRE} = 2.20 AC-FT

Pond 3B: Wet Pond

Treatment Volume Calculation

Drainage Area =	12.45	Acres
Treatment Volume Required =	1.0	Inch
Treatment Volume Required =	1.04	Acre-Feet

Pond Size Estimation

Soil Data

NRCS Soils at Pond Site: 20 - EauGallie

Average High Water Depth = 1.0 Ft (From Manatee County Soil Survey)

Modifications to Existing Pond

Treatment plus Attenuation Volume Required =	3.24	Acre-Feet	
Average Surface Area of Pond =	4.60	Acre	(Includes walls along the perimiter of the pond to increase the provided volume)
Additional Depth Needed in Pond=	0.70	Feet	
Additional Depth Needed in Pond=	8.5	Inches	

Curve Number and Runoff Volume Calculation (FDOT 100YR/24HR)

Basin 4:

Pre-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	1.40	acres	98	137
Sod/Grass	42	A	0.23	acres	39	9
Additional ROW			0.00	acres	39	0
Pond Site			0.13	acres	39	5
		Totals:	1.75	acres		151

Pre-Condition Composite Curve Number: 86.0

Pre-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 86.0
Drainage Area (A) = 1.75 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.63 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 7.21 IN
Pre-Condition Runoff Volume (V_{PRE}) = A x Q = 1.05 AC-FT

Post-Condition Curve Number Calculation

Land Use Description	Soil Map Unit	Hydrologic Group	Area		CN	Product
Impervious Roadway	--	--	1.35	acres	98	132
Sod/Grass	42	A	0.28	acres	39	11
		Subtotal:	1.62	acres		
Pond Impervious	--	--	0.13	acres	100	13
Pond Pervious	42	A	0.00	acres	39	0
		Totals:	1.75	acres		156

Post-Condition Composite Curve Number: 88.9

Post-Condition Runoff Volume Calculation

25-yr/24-hr Rainfall Depth (P) = 8.90 IN
CN = 88.9
Drainage Area (A) = 1.75 AC
Potential maximum retention after runoff begins (S) and S is:
(S) = 1000/CN-10 = 1.25 IN
Runoff Depth (Q) = (P-0.2S)^2/(P+0.8S) = 7.55 IN
Post-Condition Runoff Volume (V_{POST}) = A x Q = 1.10 AC-FT

Required Attenuation Volume = V_{POST} - V_{PRE} = 0.05 AC-FT

Pond 4: Dry Pond

Treatment Volume Calculation

Drainage Area =	1.75	Acres
Treatment Volume Required =	1.0	Inch
Treatment Volume Required =	0.15	Acre-Feet

Pond Size Estimation

Soil Data

NRCS Soils at Pond Site: 42 - Pomello

Average High Water Depth = 3.5 Ft (From Okaloosa County Soil Survey)

Pond Vertical Constraints

Roadway Edge of Pavement Low Elevation =	24.0	Feet
Average Existing Ground Elevation at Pond Site =	24.0	Feet
Seasonal High Water Table Elevation at Pond Site =	20.5	Feet
Available Depth for Treatment and Attenuation =	3.5	Feet
Actual Depth of Treatment and Attenuation =	2.3	Feet

Pond Elevations

Bottom of Treatment Volume Elevation =	20.8	Feet
Top of Treatment Volume Elevation =	22.1	Feet
Top of Attenuation Volume Elevation =	23.0	Feet
Proposed Bottom of Berm Elevation =	24.0	Feet
Proposed Top of Berm Elevation =	25.5	Feet

Pond Size

Square Dimension at Bottom of Treatment Depth =	75	Feet	
Square Dimension at Top of Treatment Depth =	75	Feet	
Square Dimension at Top of Attenuation Depth =	75	Feet	
Square Dimension Bottom of Berm =	75	Feet	
Square dimension at top berm =	75	Feet	
Outside pond dimensions (including tie-down) =	75	Feet	(Walled SWMF)
Minimum Total Area Required =	**0.14**	**Acres**	(10% SAFETY FACTOR)

Stage-Storage Calculation

Elevation	Area	Area	Incremental Volume	Total Volume	Total Volume	REMARKS
(ft)	(sf)	(ac)	(cf)	(cf)	(ac-ft)	
20.75	5625	0.13	0	0	0.00	
22.10	5625	0.13	7594	7594	0.17	*Top of TV*
23.00	5625	0.13	5062	12656	0.29	*Top of AV*
24.00	5625	0.13	5625	18281	0.42	*Bottom of Berm*

Required Treatment Volume =	0.15	Acre-Feet	
Provided Treatment Volume =	**0.17**	**Acre-Feet**	✓
Required Attenuation Volume =	0.05	Acre-Feet	
Provided Attenuation Volume =	**0.12**	**Acre-Feet**	✓

Notes:

Due to pond site limitations, this pond is proposed to be a walled facility.



Project Development and Corridor Study Report

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