

PLANNING DIVISION



2600 Hollywood Boulevard Room 315
Hollywood, FL 33022

File No. (internal use only): _____

GENERAL APPLICATION



Tel: (954) 921-3471

Fax: (954) 921-3347

This application must be completed in full and submitted with all documents to be placed on a Board or Committee's agenda.

The applicant is responsible for obtaining the appropriate checklist for each type of application.

Applicant(s) or their authorized legal agent must be present at all Board or Committee meetings.

At least one set of the submitted plans for each application must be signed and sealed (i.e. Architect or Engineer).

Documents and forms can be accessed on the City's website at

<http://www.hollywoodfl.org/DocumentCenter/Home/View/21>



APPLICATION TYPE (CHECK ONE):

- ☒ Technical Advisory Committee ☐ Historic Preservation Board
☐ City Commission ☐ Planning and Development Board

Date of Application: July 1, 2019

Location Address: 1808 Van Buren Street

Lot(s): 16 thru 26 Block(s): 1 Subdivision: _____

Folio Number(s): 514215017500

Zoning Classification: FH-2 Land Use Classification: Medium High Intensity Mixed Use District

Existing Property Use: Church Sq Ft/Number of Units: 55,170 SF

Is the request the result of a violation notice? () Yes (X) No If yes, attach a copy of violation.

Has this property been presented to the City before? If yes, check all that apply and provide File Number(s) and Resolution(s): _____

- ☐ Economic Roundtable ☐ Technical Advisory Committee ☐ Historic Preservation Board
☐ City Commission ☐ Planning and Development

Explanation of Request:

Applicant requests a special exception to allow the re-purposing of 10,080 SF of existing space into a 9-12 grade school associated with the existing church.

Number of units/rooms: N/A Sq Ft: 55,170 SF

Value of Improvement: \$1,500,000 Estimated Date of Completion: Q1/2022

Will Project be Phased? () Yes (X) No If Phased, Estimated Completion of Each Phase _____

Name of Current Property Owner: Florida Conference Association of Seventh-Day Adventists

Address of Property Owner: 351 S State Road 434 Altamonte Springs FL 32714

Telephone: 407-644-5000 Fax: _____ Email Address: William.Cochran@floridaconference.com

Name of Consultant/Representative/Tenant (circle one): Alfonso Jurado

Address: 1035 N. Miami Ave, # 406 Telephone: 305-206-6214

Fax: _____ Email Address: alfonso@alfonsojurado.com

Date of Purchase: _____ Is there an option to purchase the Property? Yes () No ()

If Yes, Attach Copy of the Contract.

List Anyone Else Who Should Receive Notice of the Hearing: Gary Held, William Cochran

Address: _____

Email Address: gary@garyheldlaw.com

William.Cochran@floridaconference.com

PLANNING DIVISION



2600 Hollywood Boulevard Room 315
Hollywood, FL 33022

File No. (internal use only): _____

GENERAL APPLICATION

CERTIFICATION OF COMPLIANCE WITH APPLICABLE REGULATIONS

The applicant/owner(s) signature certifies that he/she has been made aware of the criteria, regulations and guidelines applicable to the request. This information can be obtained in Room 315 of City Hall or on our website at www.hollywoodfl.org. The owner(s) further certifies that when required by applicable law, including but not limited to the City's Zoning and Land Development Regulations, they will post the site with a sign provided by the Office of Planning and Development Services. The owner(s) will photograph the sign the day of posting and submit photographs to the Office of Planning and Development Services as required by applicable law. Failure to post the sign will result in violation of State and Municipal Notification Requirements and Laws.

(I)(We) certify that (I) (we) understand and will comply with the provisions and regulations of the City's Zoning and Land Development Regulations, Design Guidelines, Design Guidelines for Historic Properties and City's Comprehensive Plan as they apply to this project. (I)(We) further certify that the above statements and drawings made on any paper or plans submitted herewith are true to the best of (my)(our) knowledge. (I)(We) understand that the application and attachments become part of the official public records of the City and are not returnable.

Signature of Current Owner: Date: 7-1-2019

PRINT NAME: William Cockburn V.P. Date: _____

Signature of Consultant/Representative: Date: 7-1-2019

PRINT NAME: Alfonso Jurado Date: 07-01-2019

Signature of Tenant: _____ Date: _____

PRINT NAME: _____ Date: _____

Current Owner Power of Attorney

I am the current owner of the described real property and that I am aware of the nature and effect the request for _____ to my property, which is hereby made by me or I am hereby authorizing _____ to be my legal representative before the _____ (Board and/or Committee) relative to all matters concerning this application.

Sworn to and subscribed before me
this _____ day of _____

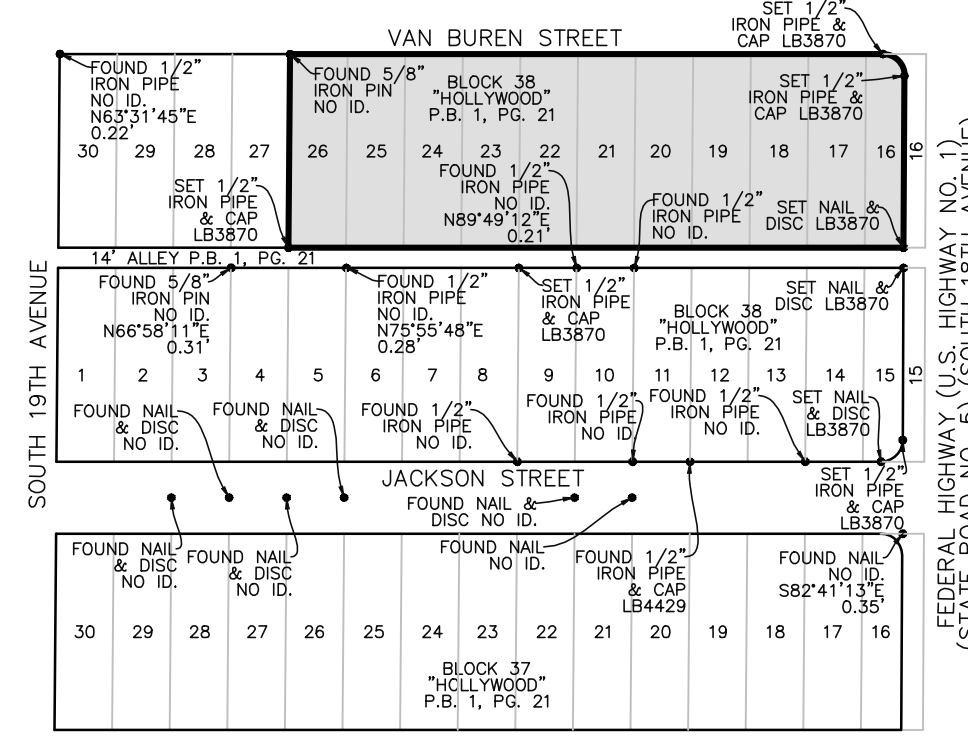
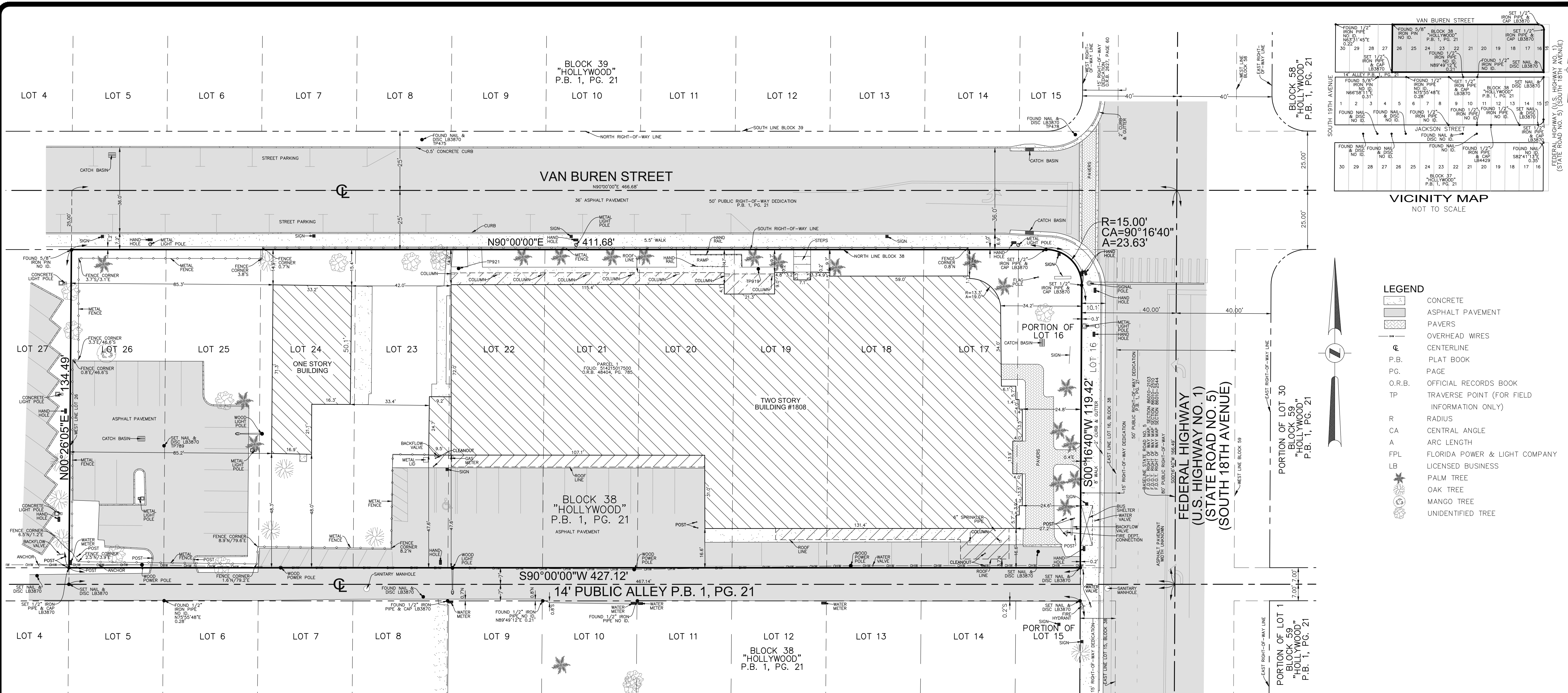
Signature of Current Owner

Notary Public

Print Name

State of Florida

My Commission Expires: _____ (Check One) ☐ Personally known to me; OR ☐ Produced Identification _____



- LEGEND**
- CONCRETE
 - ASPHALT PAVEMENT
 - PAVERS
 - OVERHEAD WIRES
 - CENTERLINE
 - P.B. PLAT BOOK
 - P.G. PAGE
 - O.R.B. OFFICIAL RECORDS BOOK
 - TP TRAVERSE POINT (FOR FIELD INFORMATION ONLY)
 - R RADIUS
 - CA CENTRAL ANGLE
 - A ARC LENGTH
 - FPL FLORIDA POWER & LIGHT COMPANY
 - LB LICENSED BUSINESS
 - PALM TREE
 - OAK TREE
 - MANGO TREE
 - UNIDENTIFIED TREE

CERTIFICATION:
TO FLORIDA CONFERENCE ASSOCIATION OF SEVENTH-DAY ADVENTISTS, FLORIDA NON-PROFIT CORPORATION; FRANK McMILLAN, ATTORNEY AT LAW:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7(a), 8, 9, & 11 OF TABLE A THEREOF.

- ☐ JOHN F. PULICE, PROFESSIONAL SURVEYOR AND MAPPER LS2691
 - ☐ BETH BURNS, PROFESSIONAL SURVEYOR AND MAPPER LS6136
 - ☐ VICTOR R. GILBERT, PROFESSIONAL SURVEYOR AND MAPPER LS6274
- STATE OF FLORIDA

FLORIDA CONFERENCE ASSOCIATION OF SEVENTH-DAY ADVENTISTS PARCEL		
1808 VAN BUREN STREET		
HOLLYWOOD, BROWARD COUNTY		
FLORIDA 33020		
NO.	REVISIONS	BY

BOUNDARY & TOPOGRAPHIC SURVEY
ALTA/NSPS LAND TITLE SURVEY

PLS

PULICE LAND SURVEYORS, INC.
5381 NOB HILL ROAD
SUNRISE, FLORIDA 33351
TELEPHONE: (954) 572-1777
FAX: (954) 572-1778
E-MAIL: surveys@pulicelandsurveyors.com
WEBSITE: www.pulicelandsurveyors.com
CERTIFICATE OF AUTHORIZATION LB#3870

DRAWN BY: B.E.
CHECKED BY: J.F.P.

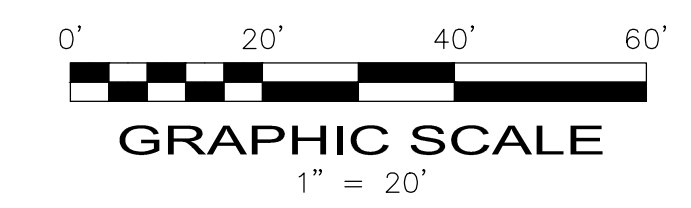
SCALE: 1" = 20'
SURVEY DATE: 06/13/18

FILE FLORIDA CONFERENCE ASSOCIATION OF SEVENTH-DAY ADVENTISTS
ORDER NO.: 66183

LEGAL DESCRIPTION:
LOT 16, LESS THE EAST 15 FEET OF SAID LOT 16, AND LESS THAT PART OF SAID LOT 16 WHICH IS INCLUDED IN THE EXTERNAL AREA FORMED BY 15 FOOT RADIUS ARC WHICH IS TANGENT TO THE NORTH LINE OF SAID LOT 16 AND TANGENT TO A LINE WHICH IS 15 FEET WEST OF AND PARALLEL TO THE EAST LINE OF SAID LOT 16, AND ALL OF LOTS 17, 18, 19, 20, 21, 22, 23, 24, 25 AND 26, BLOCK 38, "HOLLYWOOD", ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 21, PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.

- NOTES:**
- THIS SITE CONTAINS 57,369 SQUARE FEET (1.3170 ACRES) MORE OR LESS.
 - FLOOD ZONE: X; BASE FLOOD ELEVATION: NONE; PANEL #125113 0569H; MAP DATE: 08/18/14.
 - THIS SITE LIES IN SECTION 15, TOWNSHIP 51 SOUTH, RANGE 42 EAST, BROWARD COUNTY, FLORIDA.
 - BEARINGS ARE BASED ON THE CENTERLINE OF JACKSON STREET BEING S90°00'00"W.
 - REASONABLE EFFORTS WERE MADE REGARDING THE EXISTENCE AND THE LOCATION OF UNDERGROUND UTILITIES. THIS FIRM, HOWEVER, DOES NOT ACCEPT RESPONSIBILITY FOR THIS INFORMATION. BEFORE EXCAVATION OR CONSTRUCTION CONTACT THE APPROPRIATE UTILITY COMPANIES FOR FIELD VERIFICATION.
 - THE HORIZONTAL POSITIONAL ACCURACY OF WELL DEFINED IMPROVEMENTS ON THIS SURVEY IS ±0.07'. THE VERTICAL POSITIONAL ACCURACY OF WELL DEFINED IMPROVEMENTS ON THIS SURVEY IS ±0.07'.
 - THIS SITE CONTAINS 35 TOTAL PARKING SPACES (34 REGULAR & 1 DISABLED), ALONG WITH 13 PARALLEL PARKING SPACES ALONG VAN BUREN STREET IN THE SOUTH 1/2 OF RIGHT-OF-WAY, NORTH OF THIS SITE.
 - THIS SURVEY WAS PREPARED WITH BENEFIT OF OWNERSHIP AND ENCUMBRANCE REPORT PREPARED ON JUNE 27, 2019 BY FRANK McMILLAN, ATTORNEY AT LAW, COVERING A PERIOD FROM FEBRUARY 1, 1921 TO JUNE 20, 2019 AT 11:00 PM. THE FOLLOWING ITEMS ARE LISTED IN SAID REPORT:
RESTRICTIONS/EASEMENTS:
ITEM 1: LEASES NOT ADDRESSED.
ITEM 2: ALL MATTERS IN PLAT BOOK 1, PAGE 21 APPLY TO THIS SITE. THERE ARE NOT PLATTED EASEMENTS.
ITEM 3: ORDINANCE NO. 2111 VACATING AND ABANDONMENT OF A PORTION OF SOUTH 10TH AVENUE, DEDICATING A PERMANENT EASEMENT AND DEDICATING 15' OF RIGHT-OF-WAY FOR FEDERAL HIGHWAY FROM BLOCK 39, IN O.R.B. 2627, PAGE 60 DOES NOT APPLY TO THIS SITE AS DEPICTED HEREON.
ITEM 4: ORDINANCE NO. 0-81-26 REGARDING ZONING CHANGES IN O.R.B. 40082, PAGE 1783 APPLIES TO THIS SITE BUT IS NOT PLOTTABLE.
ITEM 5: ORDINANCE NO. 2005-18 REGARDING LAND USE PLAN AMENDMENT IN O.R.B. 40082, PAGE 1783 APPLIES TO THIS SITE BUT IS NOT PLOTTABLE.
ITEM 6: ORDINANCE NO. 2005-19 REGARDING FUTURE LAND USE IN O.R.B. 40082, PAGE 1789 APPLIES TO THIS SITE BUT IS NOT PLOTTABLE.
 - ALL RECORDED DOCUMENTS REFER TO BROWARD COUNTY RECORDS UNLESS OTHERWISE NOTED.

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PRE-APPLICATION CONCEPTUAL OVERVIEW

June 17, 2019

TECHNICAL ADVISORY COMMITTEE

July 15, 2019



SHEET LIST

A0.01 PROJECT DATA
A0.02 SITE PLAN

A1.01 LEVEL 1
A1.02 LEVEL 2
A1.03 PARKING LEVEL 3
A1.04 PARKING LEVEL 4
A1.05 ROOF LEVEL

A2.01 LEVEL 1 SCHOOL
A2.02 LEVEL 2 SCHOOL

A3.00 SITE ELEVATIONS
A3.01 ELEVATIONS
A3.02 ELEVATIONS

A4.01 SECTIONS
A4.02 SECTIONS

A5.01 RENDERINGS
A5.02 RENDERINGS
A5.03 RENDERINGS
A5.04 RENDERINGS

BROWARD ACADEMY

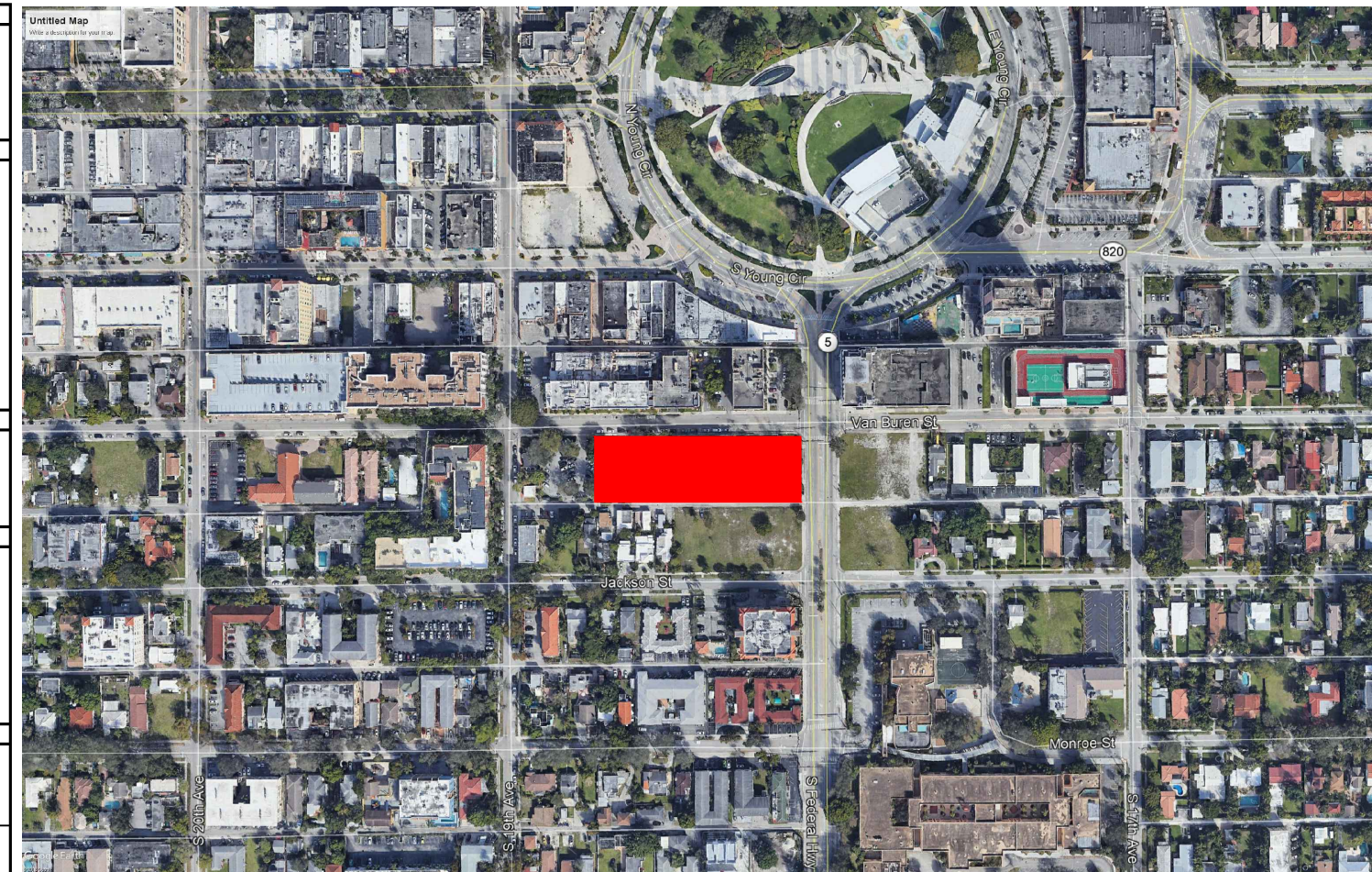
A SEVENTH DAY 9-12 EDUCATIONAL PROGRAM

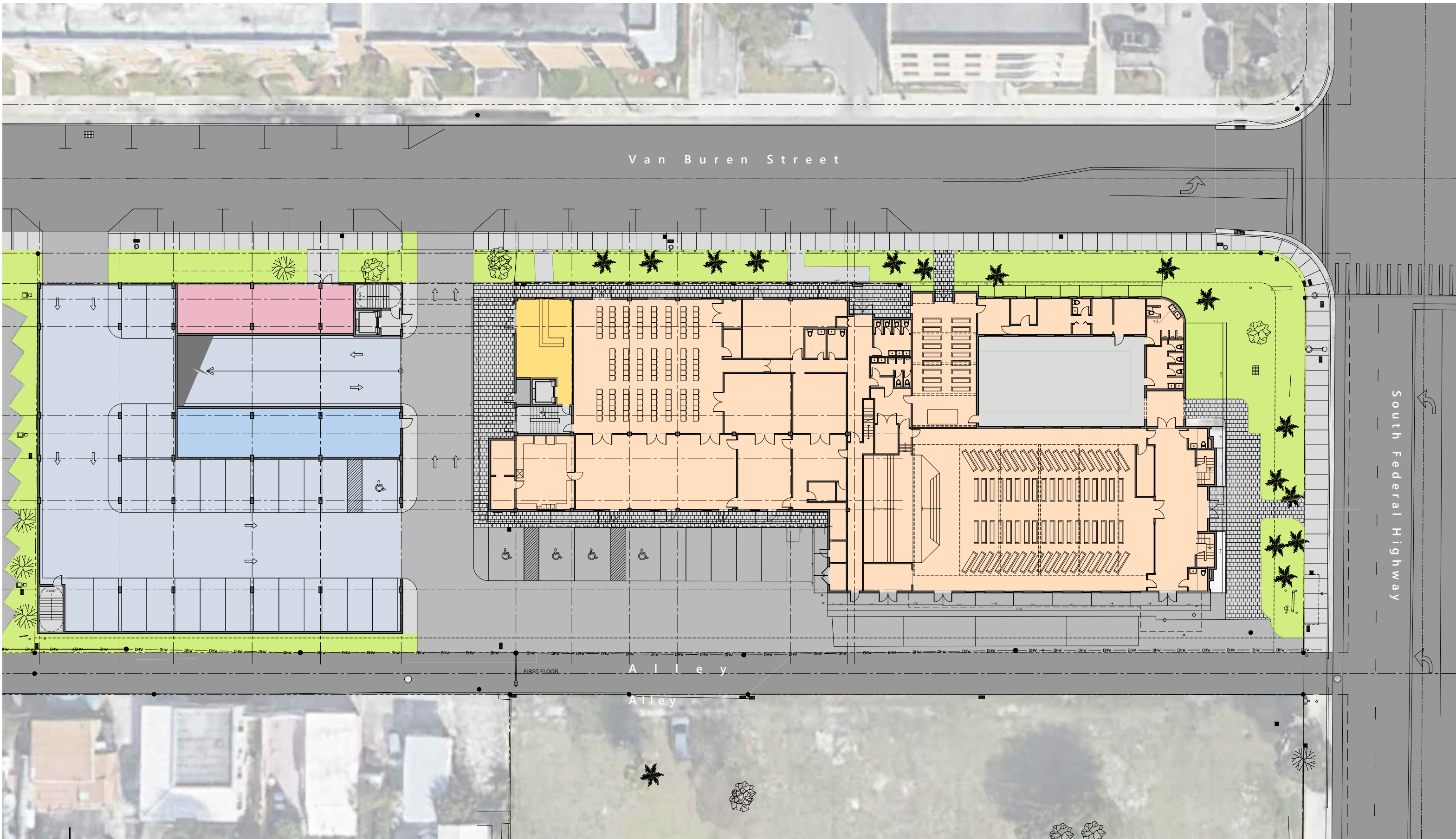
1808 VAN BUREN STREET, HOLLYWOOD, FL

PROJECT DATA

I. GENERAL LOT INFORMATION					
MUNICIPALITY	City of Hollywood				
ZONING CLASSIFICATION	FH-2				
FOLIO NUMBER	5142 15 01 7500				
PROPERTY ADDRESS	1808 Van Buren Street, Hollywood, FL 33020				
FEMA ZONE	ZONE-X				
II. LOT DISPOSITION					
NET LOT AREA:		REQUIRED		PROVIDED	
LOT WIDTH:		5,000 SF Minimum		57,369	
LOT COVERAGE:	N/A	100' Minimum		330	
MAX. FLOOR AREA RATIO (F.A.R.):	Max. FAR 3.00 =	172,107 SF	Total FLR =	36,344 SF	
DENSITY:	Unlimited	Unlimited	Total Units =	0 Units	
OPEN SPACE:	N/A		Open Space Provided:	SF	
FRONTAGE:	N/A	LF	Frontage at ground level =		
PEDESTAL HEIGHT RESTRICTIONS:	55 FT		4 Stories	48' Total	
MAX NUMBER OF STORIES	18 Stories, 190 FT		4 Stories	48' Total	
III. BUILDING SETBACKS					
PODIUM:		REQUIRED		PROVIDED	
STREET FRONTAGE (Non Residential)		10'-0" Minimum		10'-0"	
SIDE INTERIOR		0'-0" Minimum		0'-0"	
REAR (Alley)		5'-0" Minimum		5'-0"	
IV. BUILDING AREA FAR CALCULATIONS					
PODIUM:		Gsf/Floor	# of Floors		
Ground Level		20,960	1	20,960 GSF	
Level 2		10,662	1	10,662 GSF	
				31,622 GSF	
TOTAL BUILDING AREAS:		ALLOWED:		PROVIDED:	
		172,107 GSF		31,622 GSF	
V. PARKING ANALYSIS					
Educational: 1 Space/10 Students + 1/Faculty	115 /10 + 1(14)			26 Spaces Required	
Church: 1 Space/60 SF	5,240 SF x 1 / 60			87 Spaces Required	
Office: 1 Space/250 SF	750 SF x 1 / 250			3 Spaces Required	
Retail: 3 Spaces/1000 SF	888 SF x 3 / 1000			3 Spaces Required	
Total				119 Spaces Required	
Parking Level 1				35 Spaces	
Parking Level 2				19 Spaces	
Parking Level 3				37 Spaces	
Parking Level 4				40 Spaces	
Total Provided Parking				131 Parking Spaces	

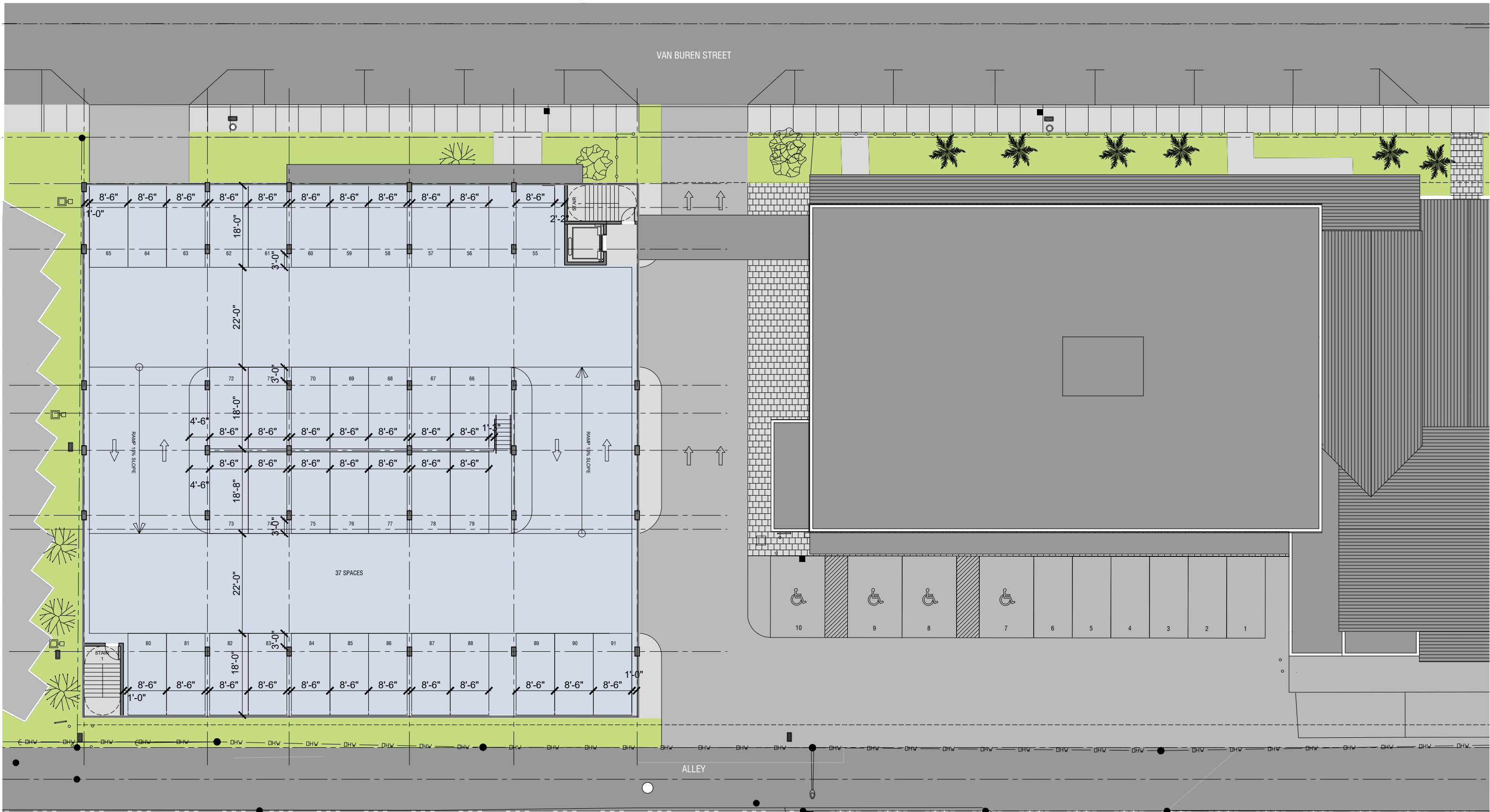
LOCATION PLAN

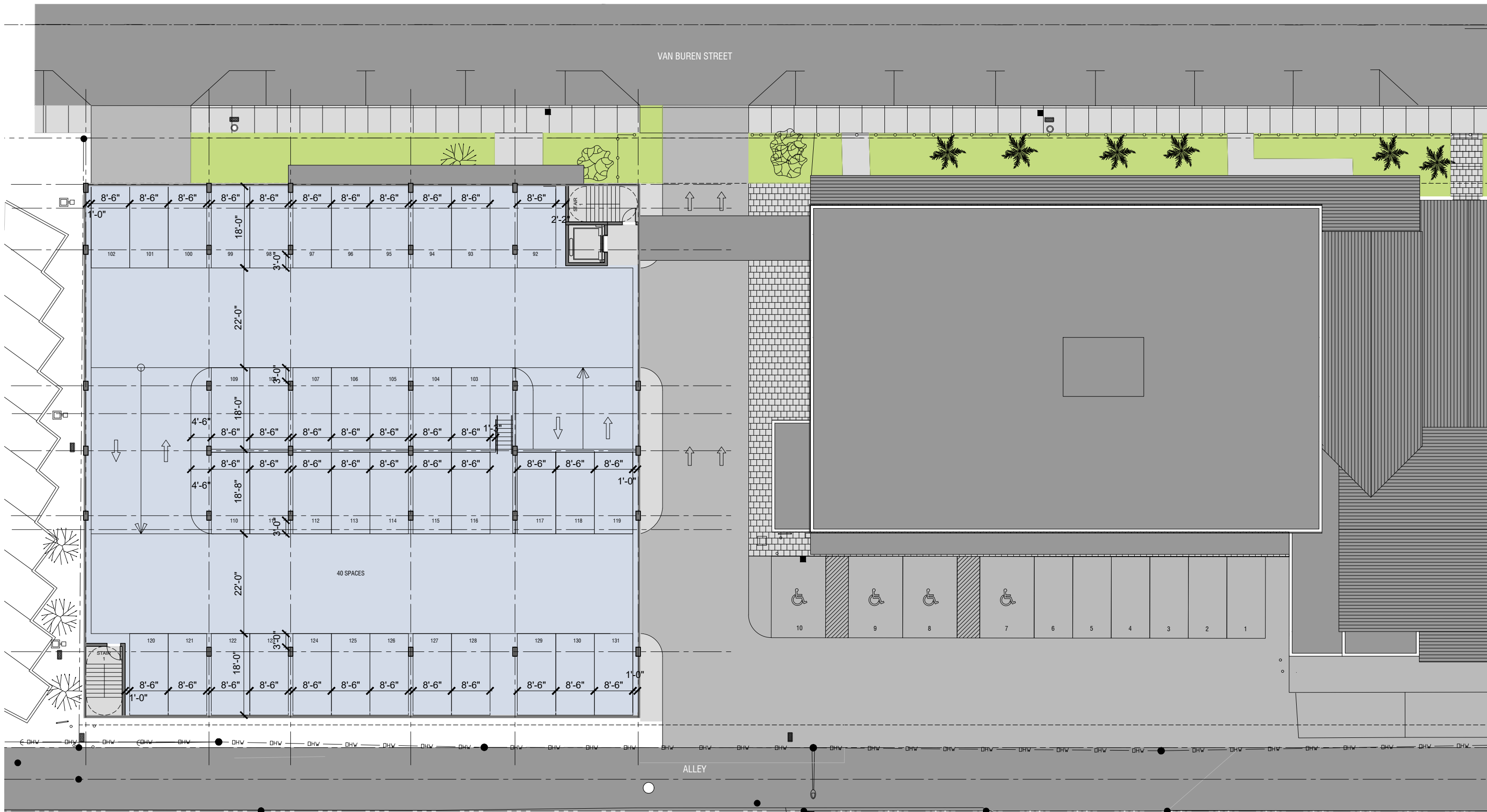


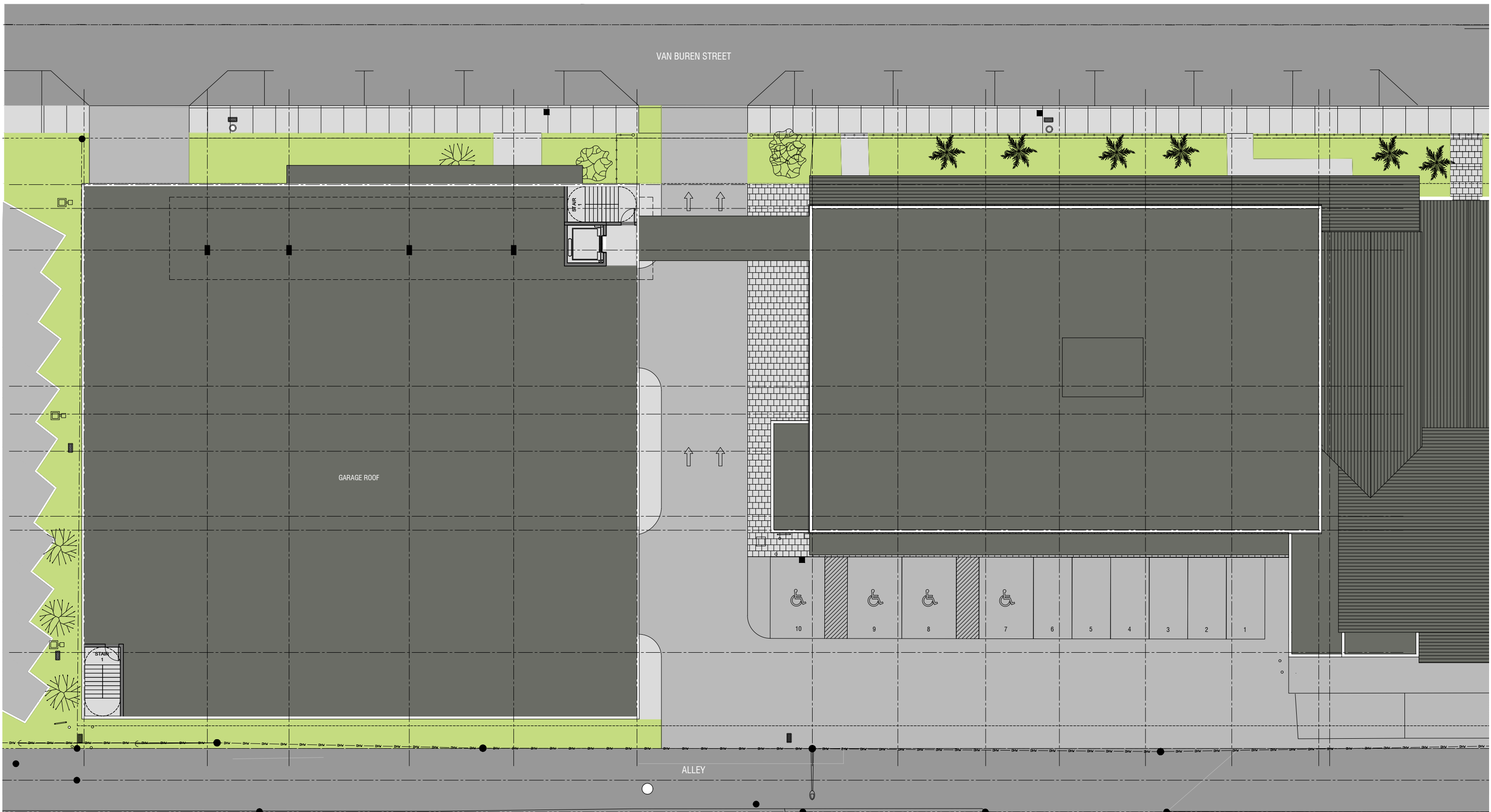


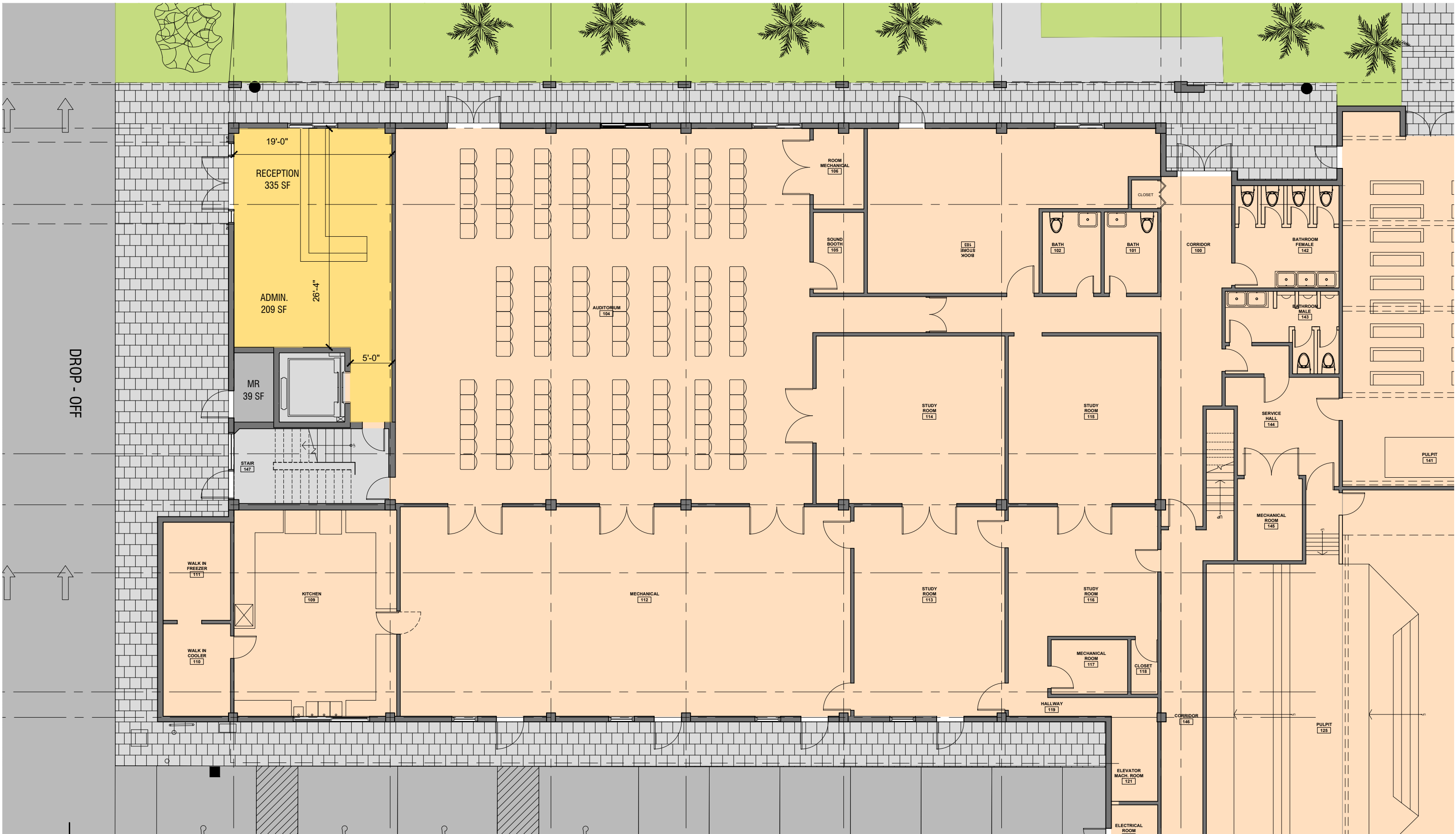


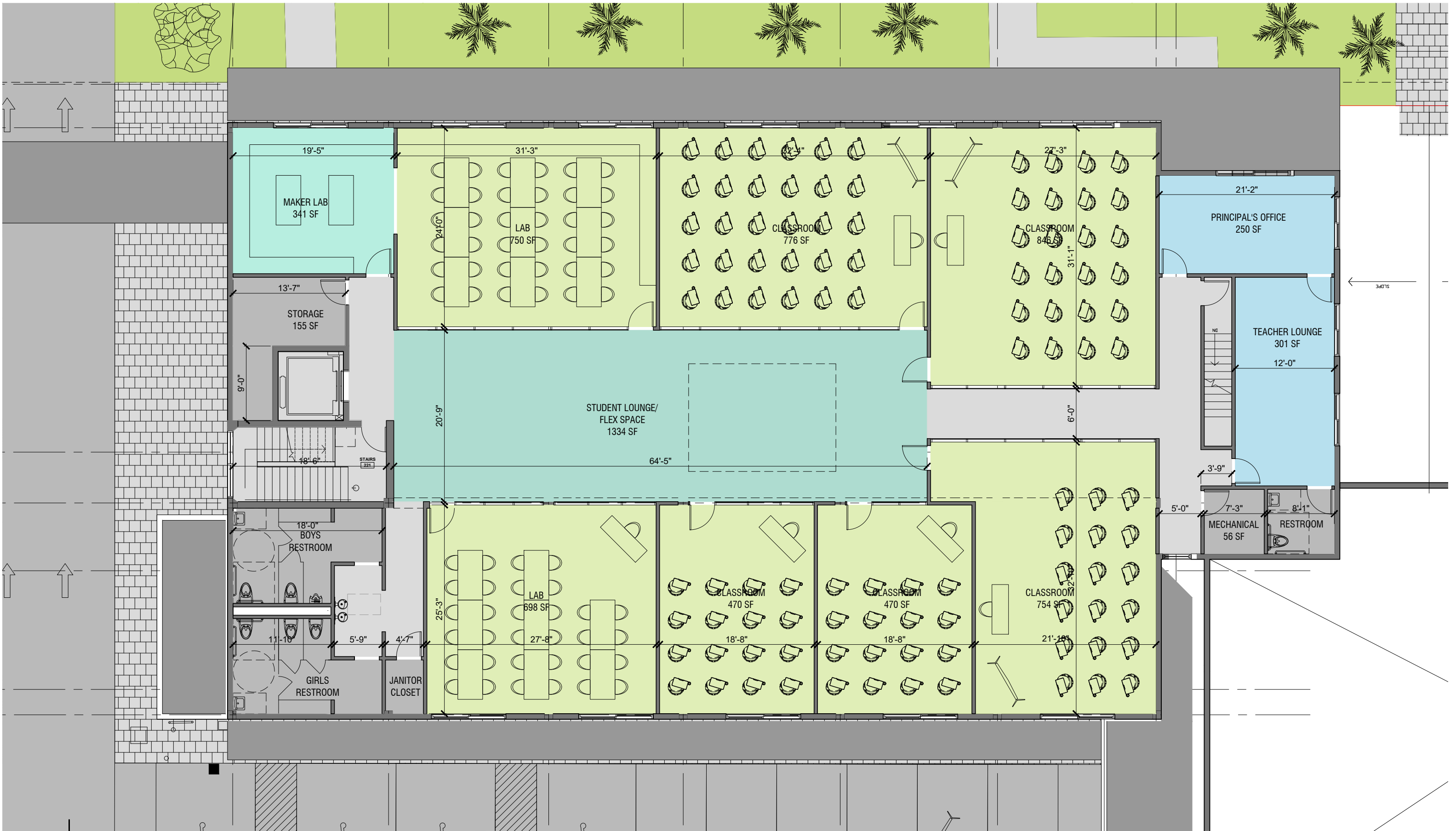
 L e v e l 1
A1 | 01
 Scale: 1" = 20'





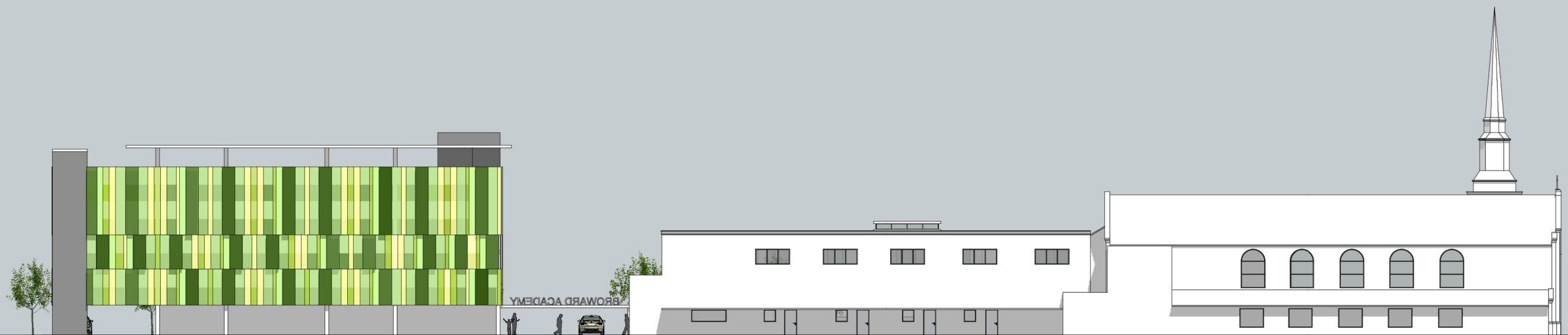




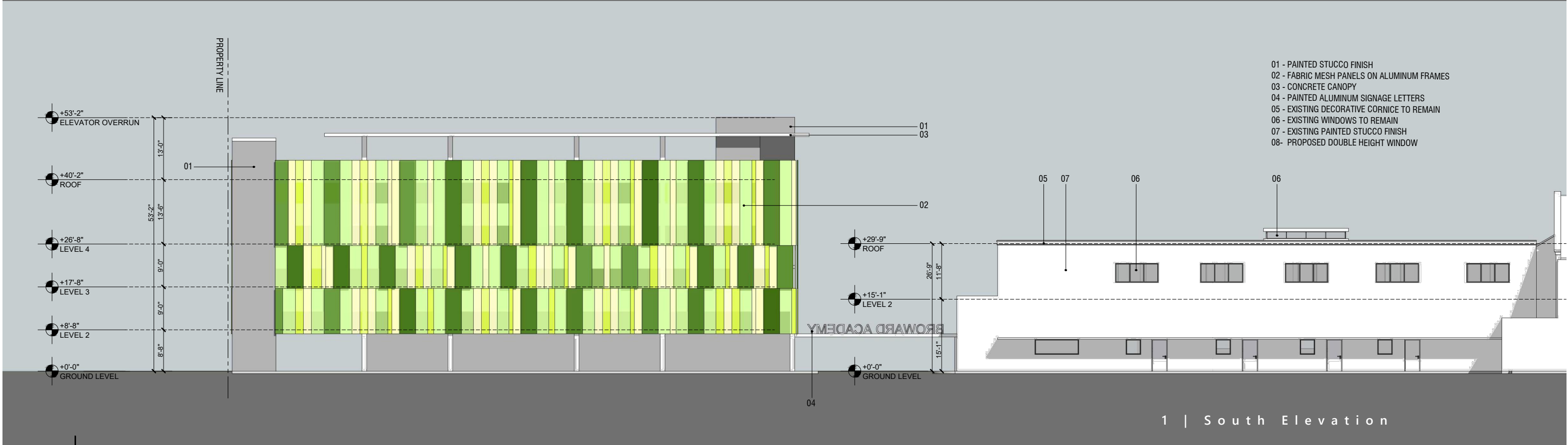
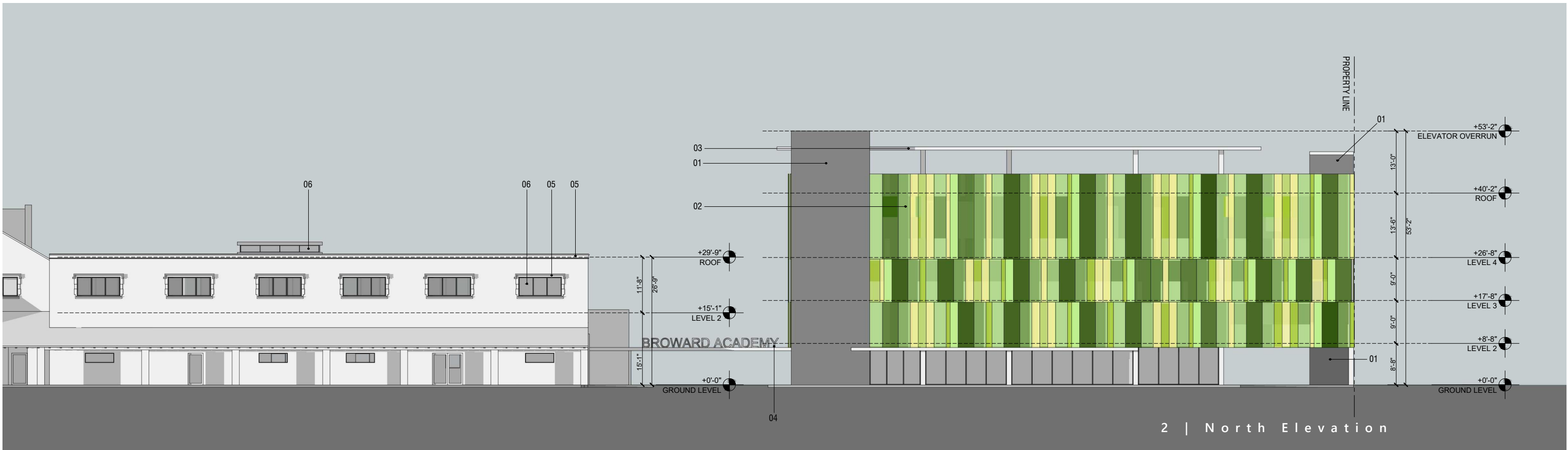


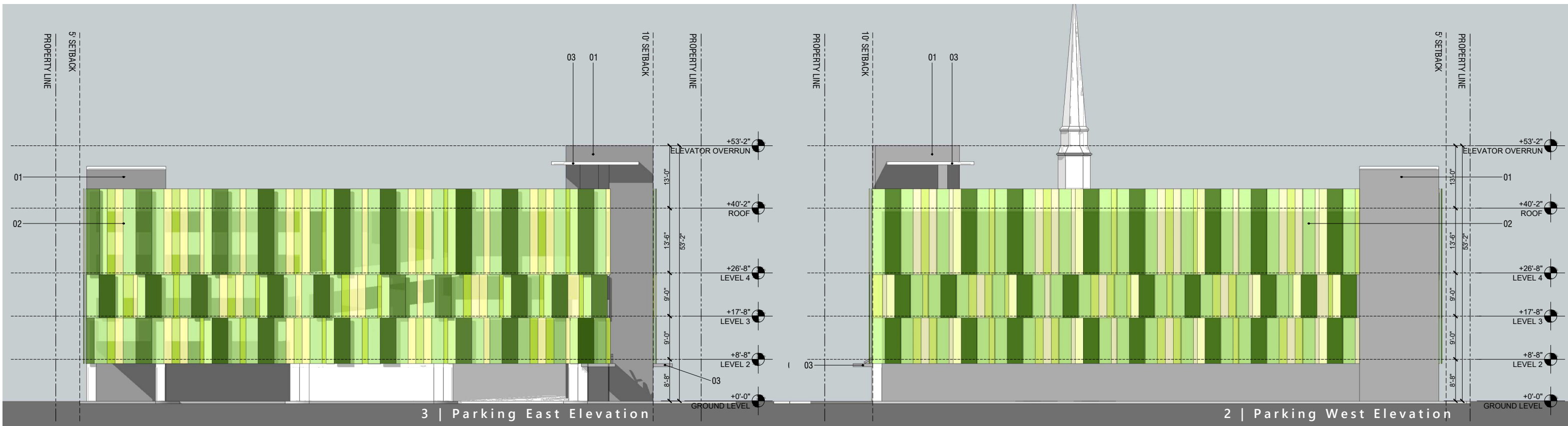


2 | North Elevation

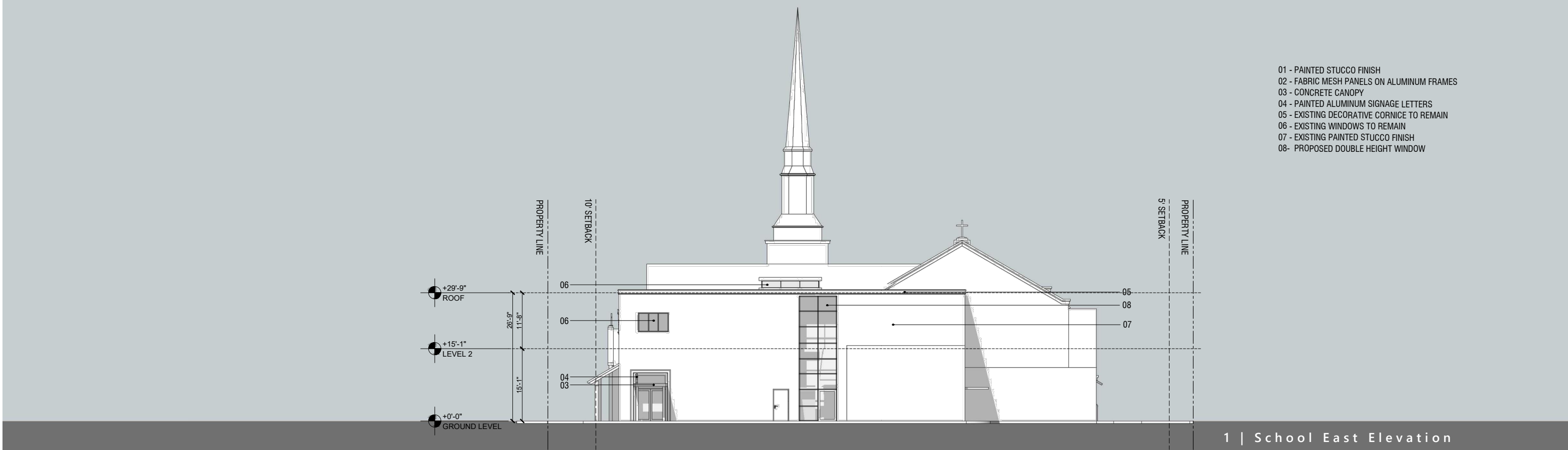


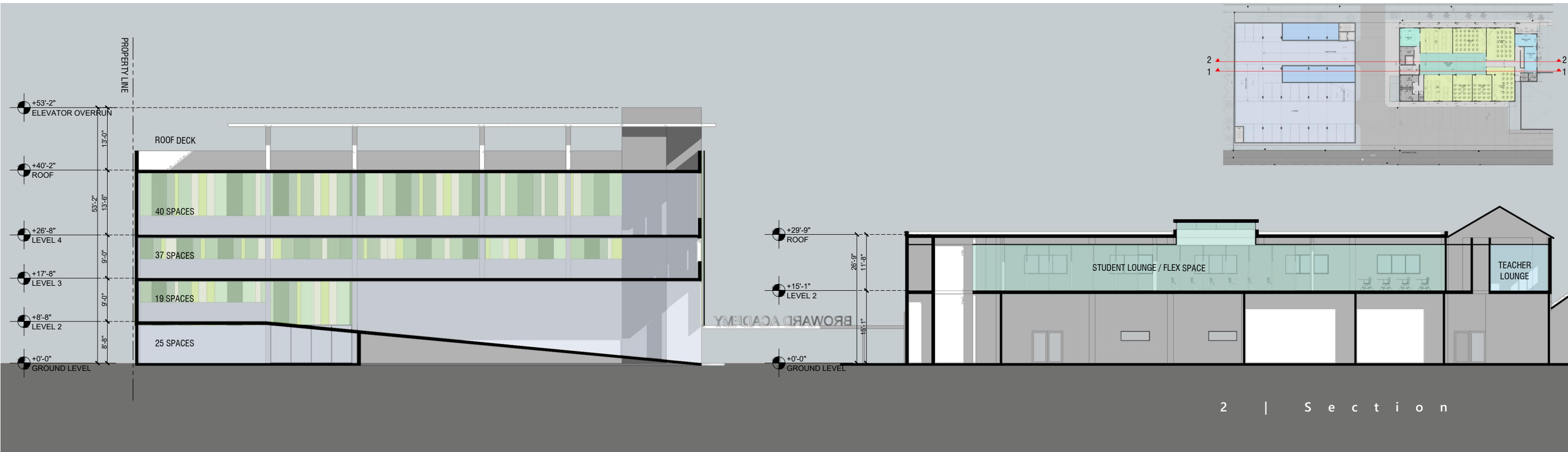
1 | South Elevation

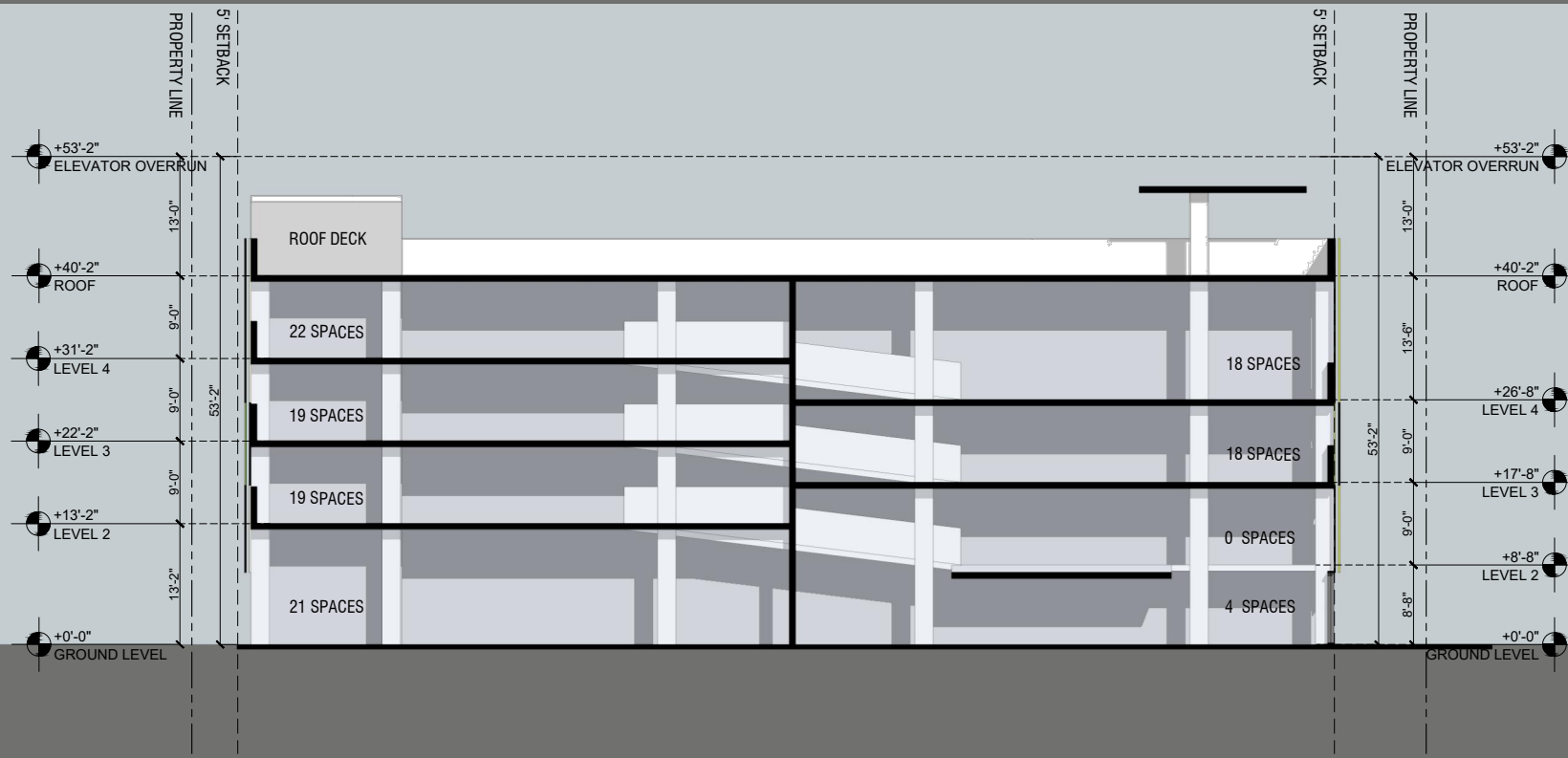
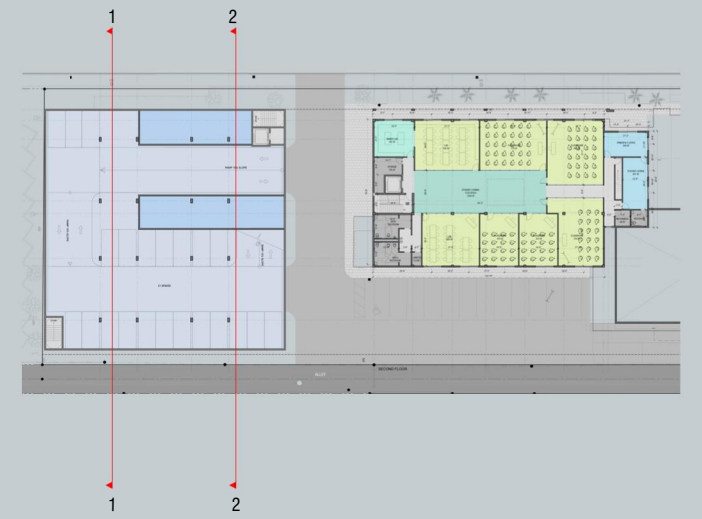
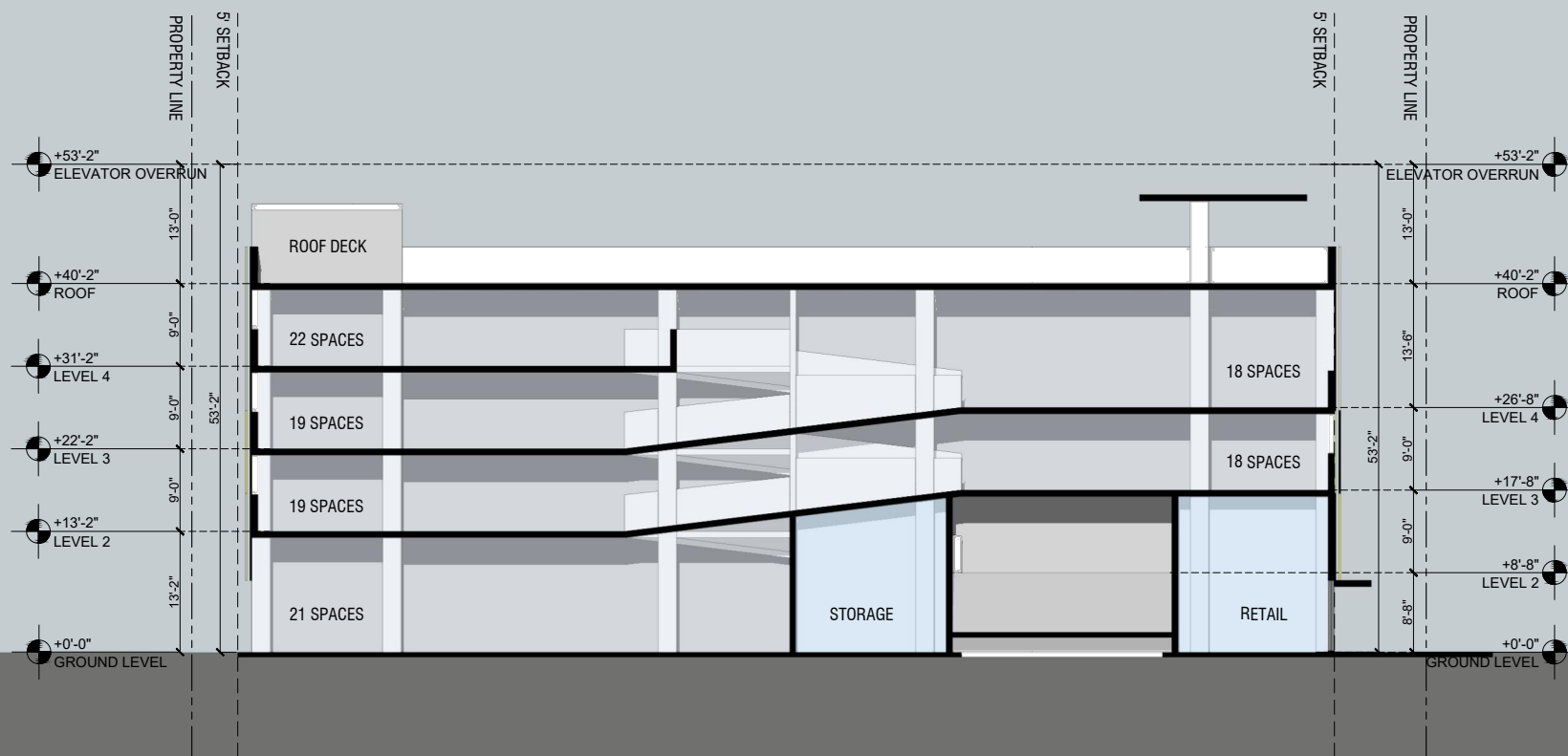




- 01 - PAINTED STUCCO FINISH
- 02 - FABRIC MESH PANELS ON ALUMINUM FRAMES
- 03 - CONCRETE CANOPY
- 04 - PAINTED ALUMINUM SIGNAGE LETTERS
- 05 - EXISTING DECORATIVE CORNICE TO REMAIN
- 06 - EXISTING WINDOWS TO REMAIN
- 07 - EXISTING PAINTED STUCCO FINISH
- 08- PROPOSED DOUBLE HEIGHT WINDOW







1 | Section

Broward Academy
 A Seventh-Day Adventist 9-12 Educational Program
 1808 Van Buren Street, Hollywood, FL
 July 15, 2019











Seventh Day Adventist Church School

1808 Van Buren Street
Hollywood, Broward County, Florida

prepared for:

**Seventh Day Adventist Church
School**

traffic study

TRAFTECH
ENGINEERING, INC.

June, 2019

June 28, 2019

Seventh Day Adventist Church School
c/o Alfonso Jurado, AIA, LEED AP
alfonsojurado / Architecture

Re: **Seventh Day Adventist Church School – Traffic Study**

Dear Alfonso:

Traf Tech Engineering, Inc. is pleased to provide you with the results of this traffic study undertaken for the proposed Seventh Day Adventist Church School to be located at 1808 Van Buren Street in City of Hollywood in Broward County, Florida

It has been a pleasure working with you on this project.

Sincerely,

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer



June 28, 2019

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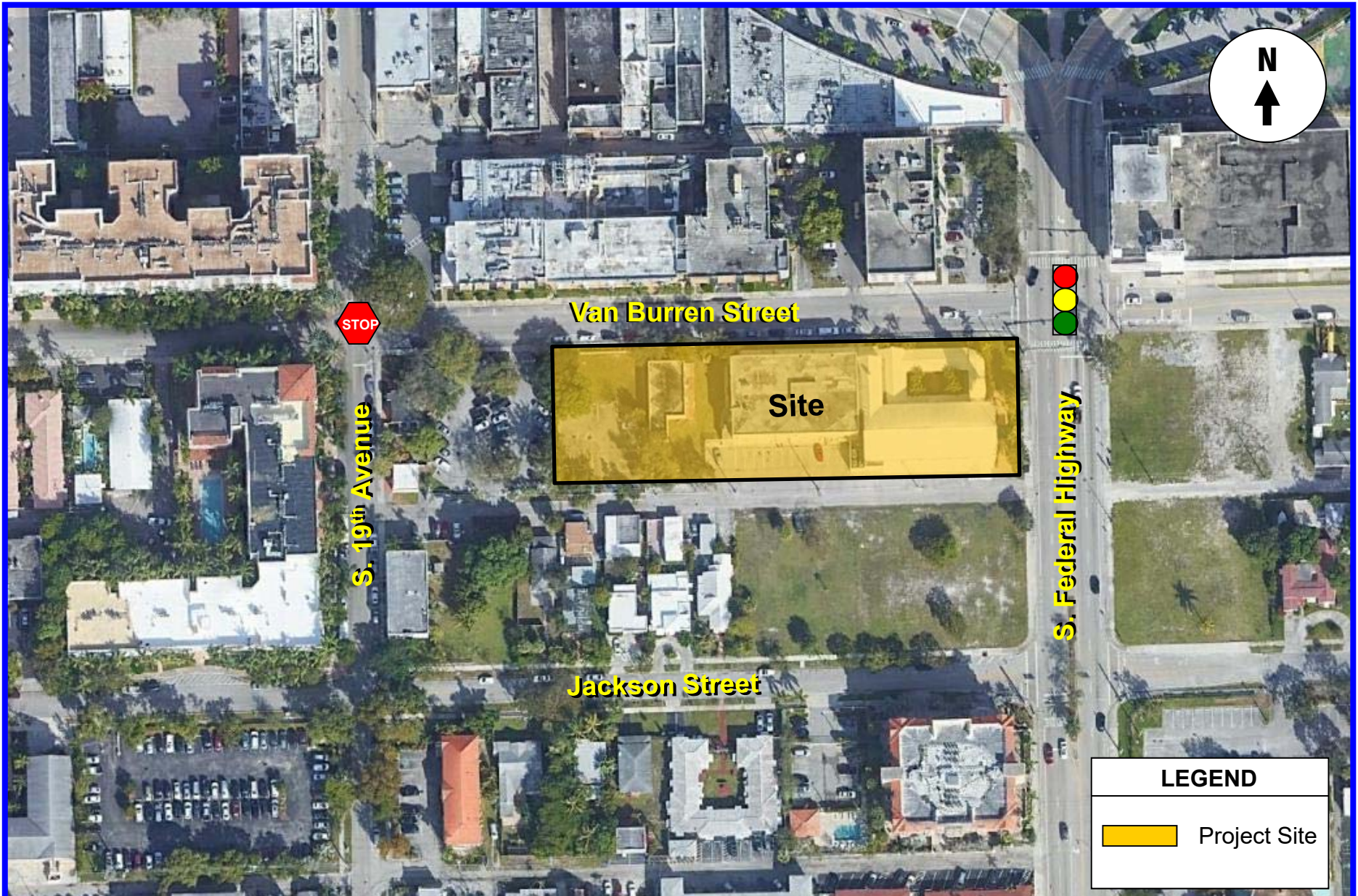
Appendices

INTRODUCTION

Seventh Day Adventist Church School is a proposed educational institution planned to be located at 1808 Van Buren Street in City of Hollywood in Broward County, Florida. The location of the school site is illustrated in Figure 1 on the following page.

Traf Tech Engineering, Inc. has been retained by the Seventh Day Adventist Church to conduct a traffic study in connection with this education facility. The subject school will have a capacity of 160 students. This study addresses trip generation and the traffic impacts created by the proposed project on the nearby transportation network. This study is divided into eight (8) sections, as listed below:

1. Inventory
2. Existing Conditions
3. Traffic Counts
4. Trip Generation
5. Trip Distribution and Traffic Assignment
6. Traffic Analyses
7. Accumulation Analysis
8. Conclusions and Recommendations



Traf Tech
ENGINEERING, INC.

PROJECT LOCATION MAP

FIGURE 1
Seventh Day Adventist
Church School
Hollywood, Florida

INVENTORY

Existing Land Use

The site is currently occupied with a church and related facilities (Seventh Day Adventist Church).

Proposed Land Use and Access

The site will be developed with a new school housing 160 students (Grades K to 8th). The proposed school is anticipated to be built and occupied in the Fall of 2021. Appendix A contains the proposed site plan for the proposed School.

EXISTING CONDITIONS

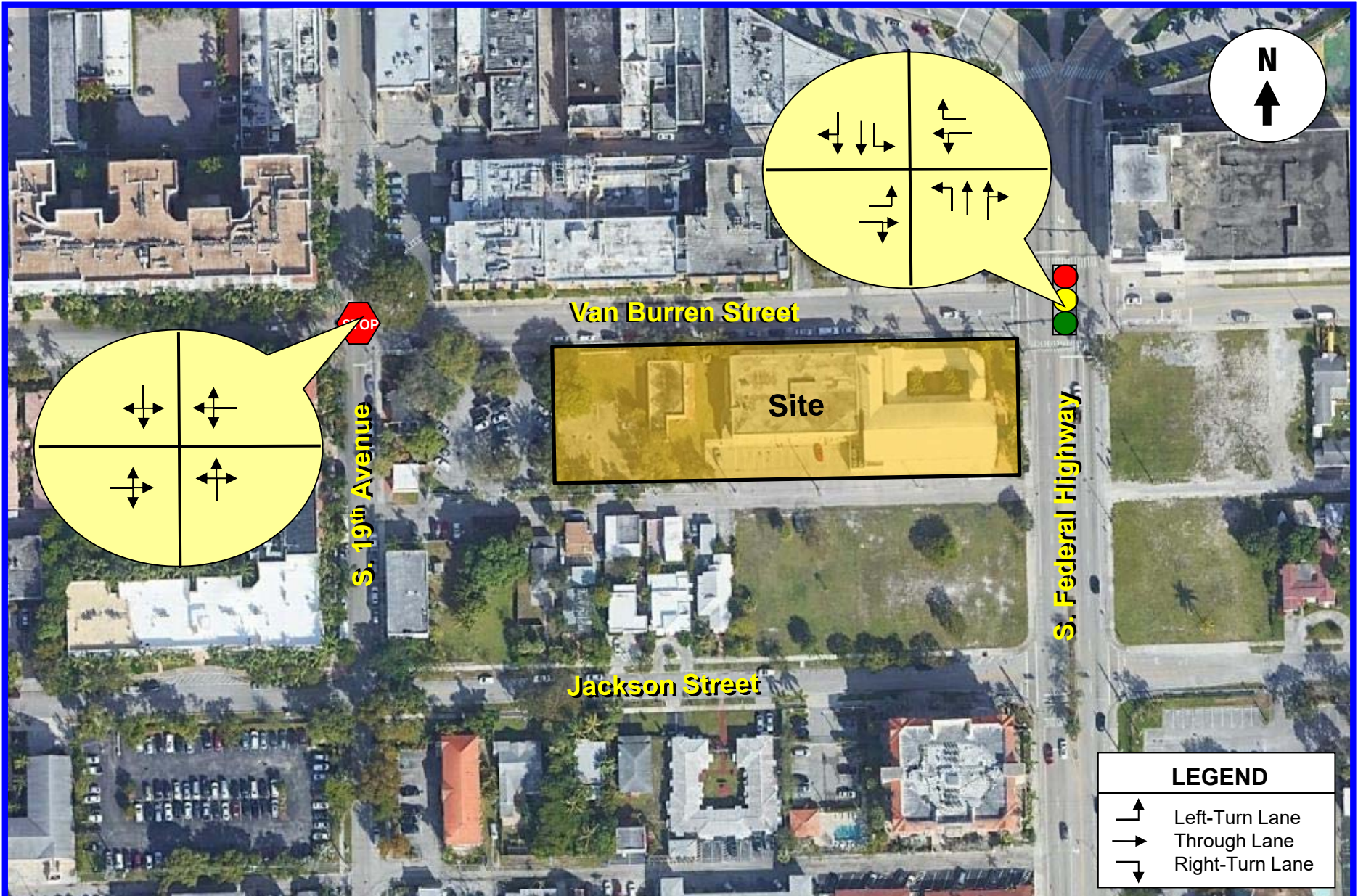
This section of the report addresses the transportation system located in the vicinity of the project site.

Roadway System

The roadway system located in the vicinity of the proposed school includes Van Buren Street, S. Federal Highway, and S. 19th Avenue. Van Buren Street is 2-lane local street oriented in the east-west direction. S. Federal Highway is a north-south arterial roadway with two through lanes in each direction (four-lane facility) with center turn lanes and a posted speed limit of 45 miles per hour. S. 19th Avenue is a 2-lane local street oriented in the north-south direction.

Nearby Intersection

The closest intersections to the school site include the intersection of Van Buren Street & S. Federal Highway is controlled with a traffic signal and the intersection of Van Buren Street & S. 19th Avenue is currently controlled by stop signs (all-way stop control intersection). Figure 2 shows the existing lane geometry of the closest intersections and the number of lanes on the street system surrounding the school site is also depicted in this figure.

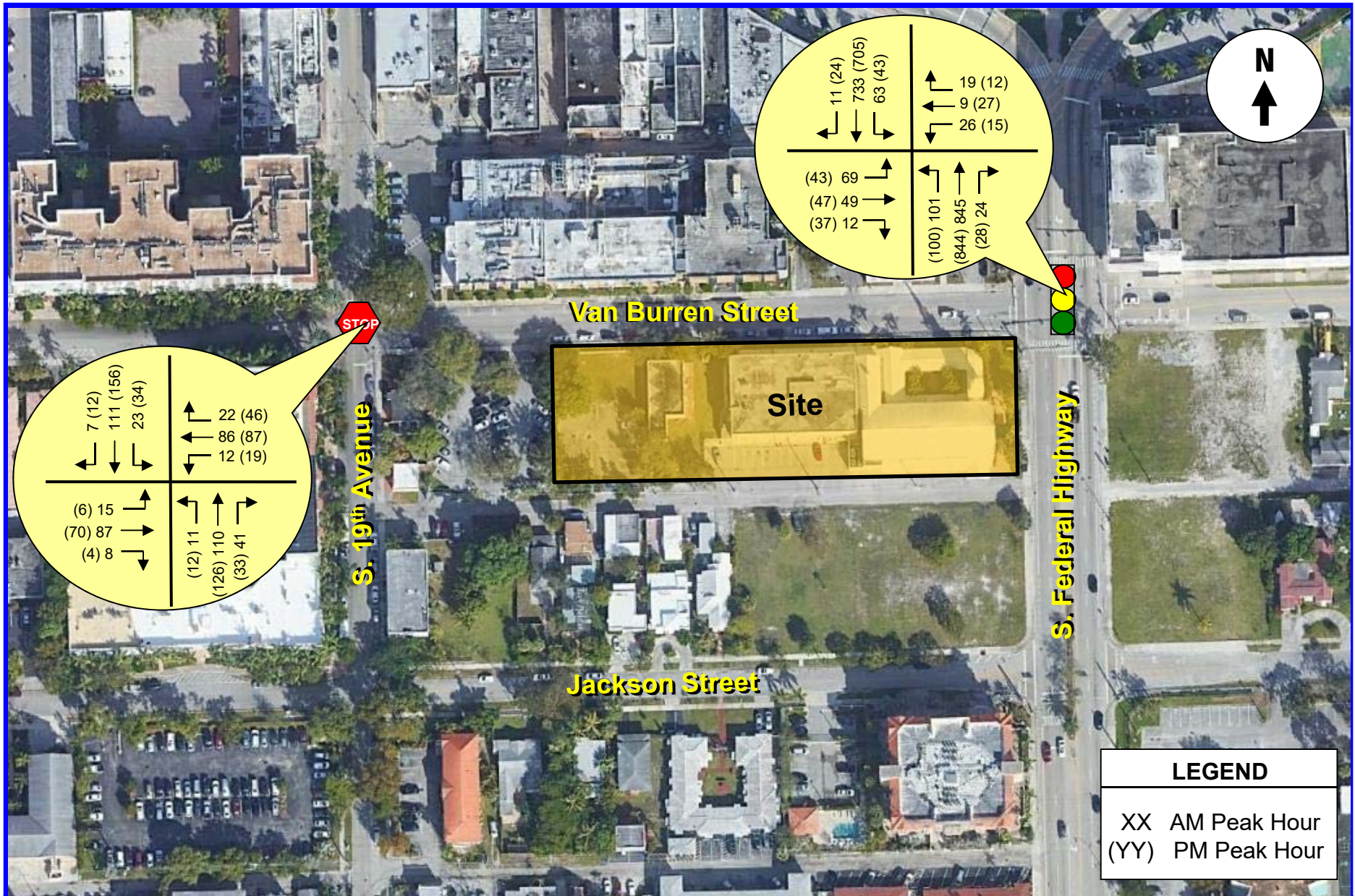


TRAFFIC COUNTS

Traf Tech Engineering, Inc., in association with Video Data Solutions, Inc., collected traffic data at the following locations:

- Van Buren Street and S. Dixie Highway (signal)
- Van Buren Street and S. 19th Avenue (stop)

The intersection turning movement counts were collected on Wednesday, May 22, 2019 during the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (2:00 PM to 4:00 PM). The existing AM and PM peak hour traffic counts are presented in Figure 3 on the following page. Appendix B contains the traffic data as collected in the field. The signal timing plan for the signalized intersection is also contained in Appendix B.



TRIP GENERATION

A trip generation analysis was conducted for the proposed school. The analysis was performed using the trip generation equations published in the Institute of Transportation Engineer's ITE Trip Generation Manual (10th Edition). The trip generation analysis was undertaken for daily, AM peak hour, and PM peak hour conditions.

According to ITE's Trip Generation Manual (10th Edition), the most appropriate "land use" category for the proposed land use is:

PRIVATE SCHOOL K-8 (ITE Land Use 534)

Daily Trip Generation

$$T = 4.11 (X)$$

Where T = number of daily trips

X = number of students

AM Peak Hour of Generator

$$T = 0.93 (X) \text{ (56\% inbound and 44\% outbound)}$$

Where T = number of AM peak hour trips

X = number of students

PM Peak Hour of Generator

$$T = 0.62 (X) \text{ (47\% inbound and 53\% outbound)}$$

Where T = number of PM peak hour trips

X = number of students

Using the above-listed trip generation equations from the ITE document, a trip generation analysis was undertaken for the proposed project. The results of this effort are documented in Table 1 below.

TABLE 1 Trip Generation Summary (Proposed Uses) Seventh Day Adventist Church School								
Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Private School (K-8)	160	658	149	83	66	99	47	52
External Trips		658	149	83	66	99	47	52

Source: ITE Trip Generation Manual (10th Edition)

As indicated in Table 1, the proposed school is anticipated to generate approximately 658 daily trips, approximately 149 AM peak hour trips (83 inbound and 66 outbound) and approximately 99 trips (47 inbound and 52 outbound) during the school's afternoon peak hour.

TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The trip distribution and traffic assignment for the project were based on the residential homes located within a 2-mile radius from the site. Based on this procedure, the following traffic assignment was developed for the proposed school project:

- 30% to and from the north via S. Federal Highway
- 30% to and from the south via S. Federal Highway
- 15% to and from the east via Van Buren Street
- 5% to and from the west via Van Buren Street
- 10% to and from the north via S. 19th Avenue
- 10% to and from the south via S. 19th Avenue

The new peak hour traffic generated by the school was assigned to the nearby transportation network using the traffic assignment documented above. The project traffic assignment is summarized in Figure 4.

TRAFFIC ANALYSES

This section of the study is divided into two (2) parts. The first part consists of developing the future conditions traffic volumes for the study area. The second part includes level-of-service analyses for future conditions with and without the school.

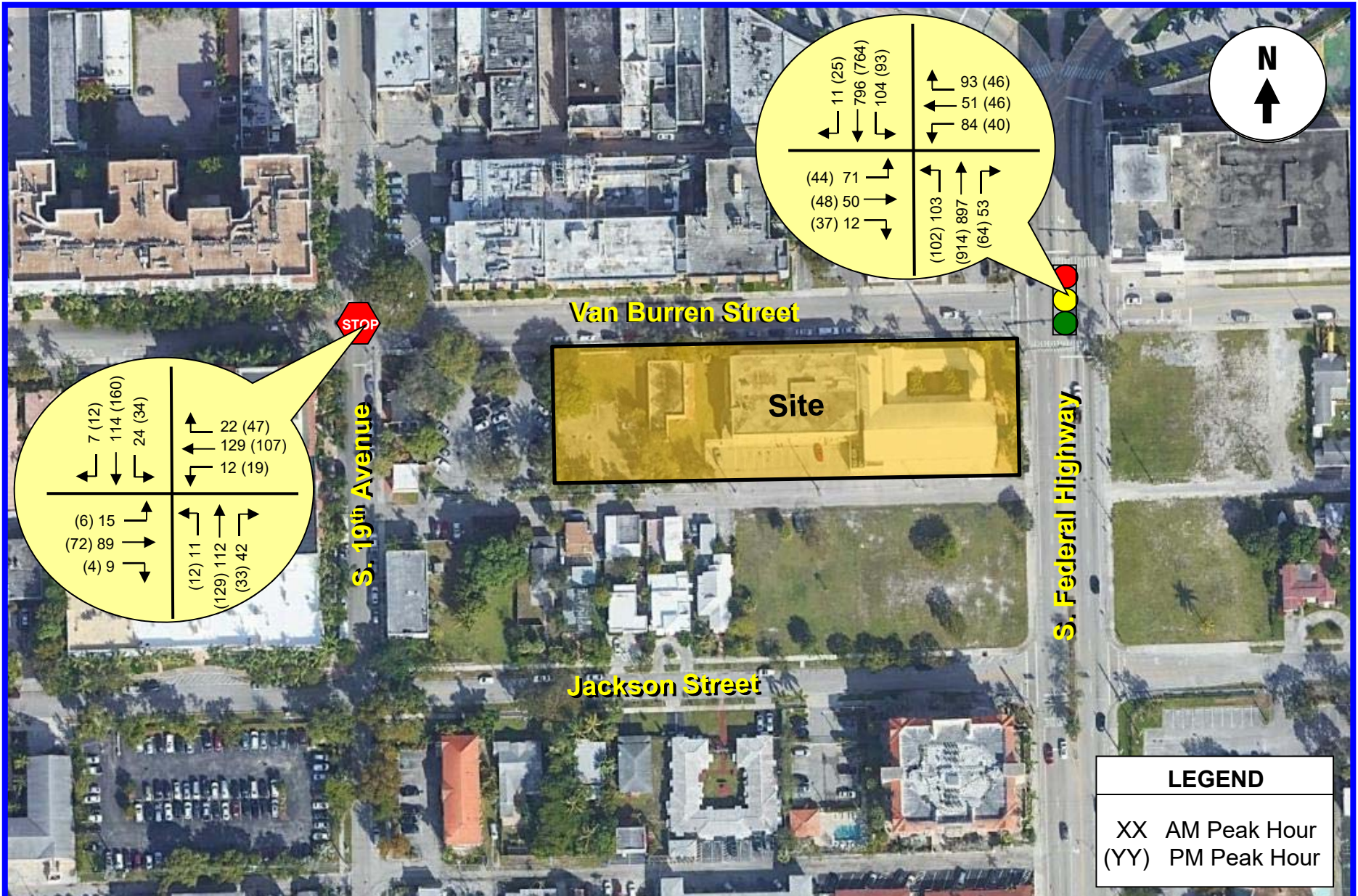
Future Conditions Traffic Volumes

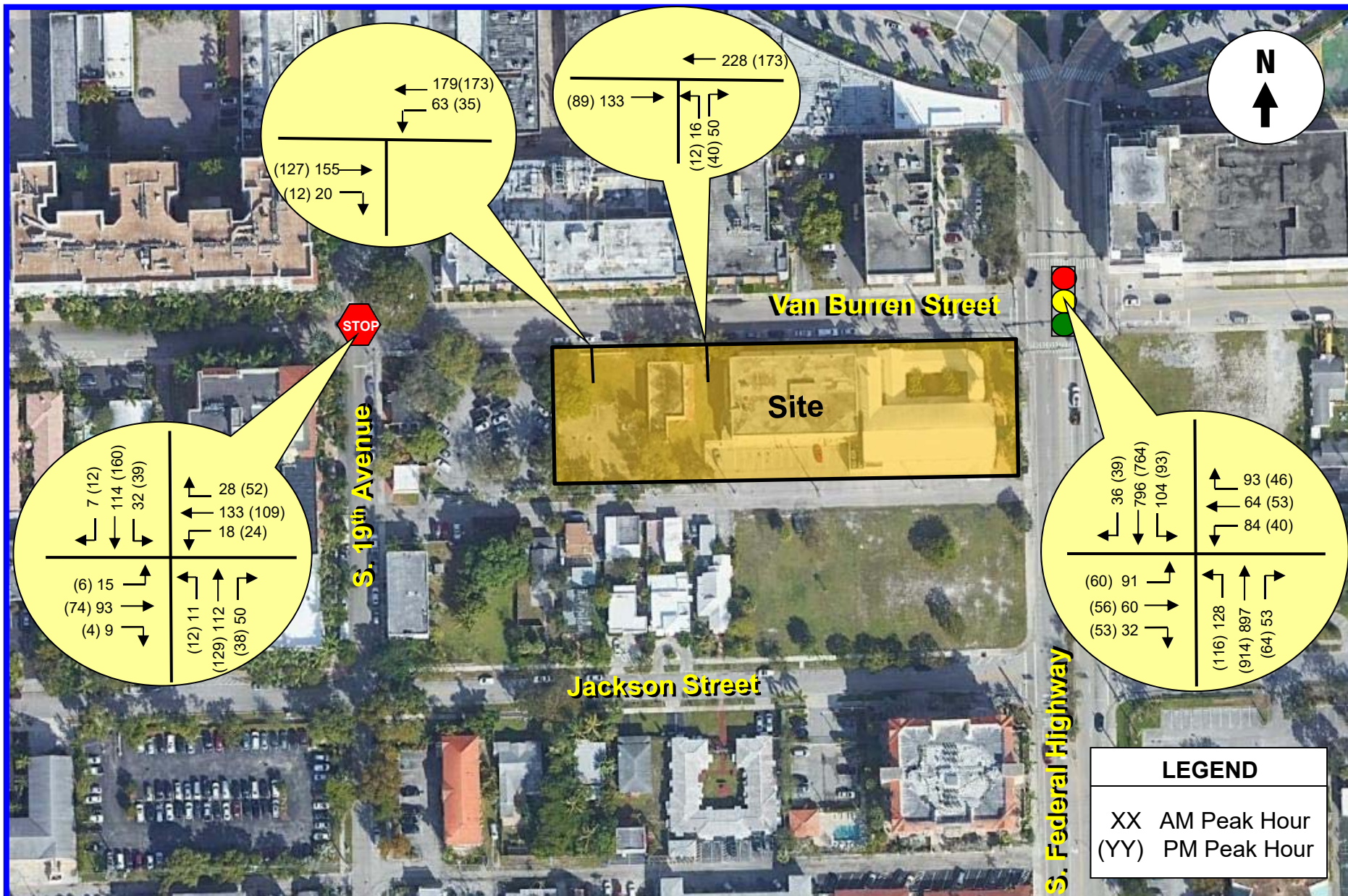
Two sets of future traffic volumes were developed. The first set includes project buildout conditions without the proposed project and the second set adds the new trips anticipated to be generated by the project.

In order to develop year 2021 traffic volumes (the school is anticipated to be built and occupied by the year 2021), without the proposed project, two separate analyses were undertaken. The first analysis converts the existing peak hour traffic counts collected in the field during the month of May to average peak season conditions. Based on FDOT's Peak Season Factor Category report a factor of 1.05 is required to convert traffic counts collected during the fourth week of May to average peak season conditions (refer to Appendix D). The second analysis includes a growth factor to project 2019 peak season traffic volumes to the year 2021. Historical traffic count stations located in the area were used to estimate a growth rate of 1.0 % per year. This growth factor was used to assess future traffic projections with a conservative approach since traffic growth in the area is very low. Also, approved project traffic (committed trips) that may impact the study intersections were added. Committed development trips from Block 55, Block 40, and Parc Place Phase 1 and 2 were included in the analysis.

The future traffic calculations (peak season adjustments, traffic growth, committed developments and the traffic associated with the proposed school) for the study intersections are contained in Appendix E in tabular format.

The new trips generated by the school (refer to Figure 4) were added to the 2021 background traffic in order to develop total traffic conditions. Figure 5 includes background traffic only (without the proposed project) and Figure 6 includes the additional traffic anticipated to be generated by the proposed school.





Intersection Level of Service

Intersection capacity/level of service analyses were conducted for the two study intersections. Level of service analyses were undertaken following the capacity/level of service of the Highway Capacity Manual using the SYNCHRO software. The results of the intersection analyses are summarized in Table 2.

TABLE 2 Intersection Level of Service Seventh Day Church School			
Intersection/Movements	Existing	Future Traffic Conditions	
		Year 2021 Without Project	Year 2021 With Project
<i>Van Buren Street & S. Federal Highway (Signal)</i>	B (B)	B (B)	B (B)
<i>Van Buren Street & S. 19th Avenue (4-way Stop)</i>	A (A)	A (B)	A (B)
<i>Van Buren Street & Access (Stop-Controlled) NB</i>	-	-	A (A)

As indicated in Table 2, all intersections are expected to operate at acceptable level of service in the year 2021 with the project in place.

The access driveway off of Van Buren Street, as proposed, is projected to operate at acceptable level of service with the proposed project in place.

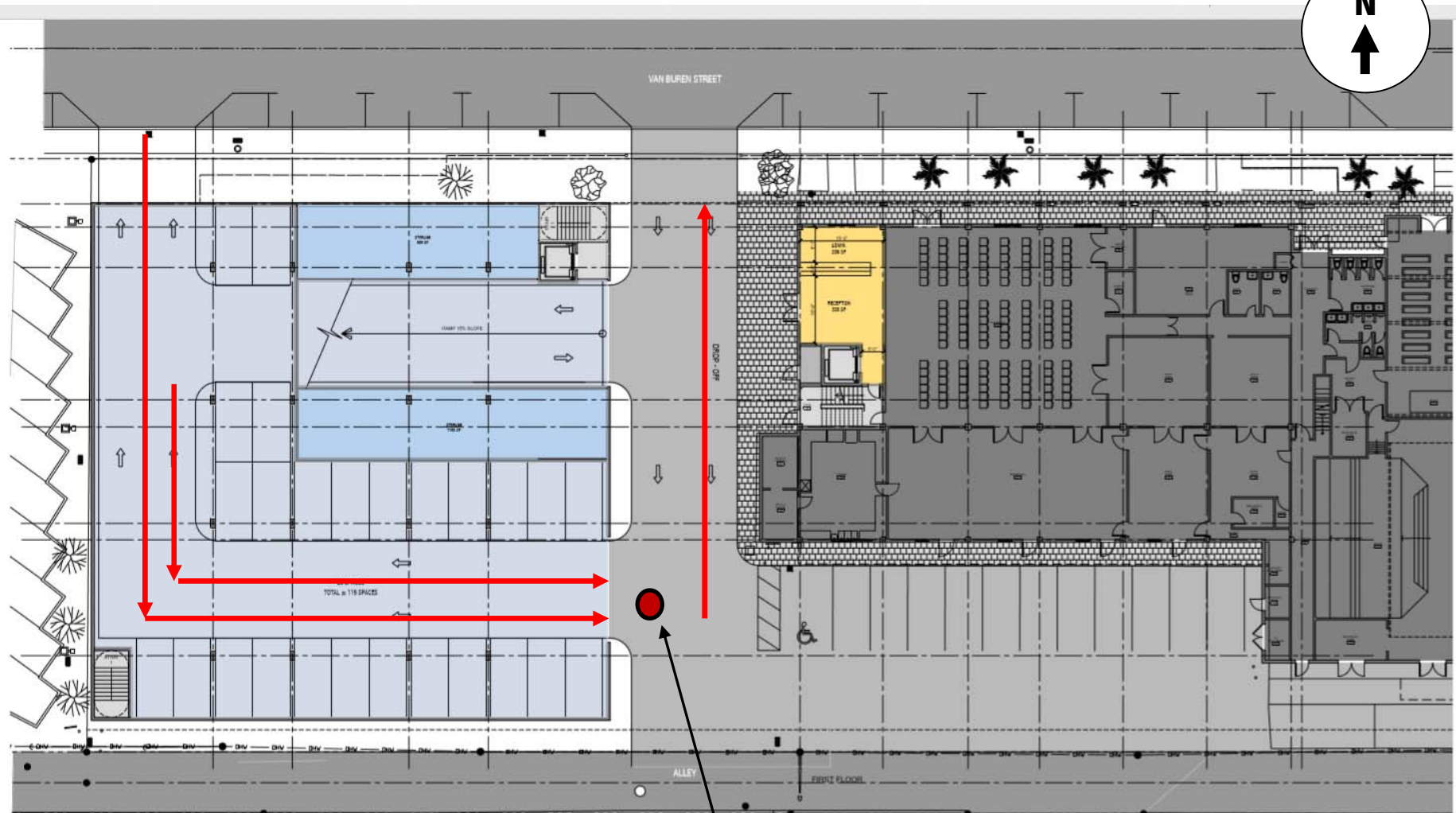
Appendix C contains the peak season conversion factor published by the FDOT and the future traffic projections for the study intersections. The results of the SYNCHRO analyses are presented in Appendix D.

ACCUMULATION ANALYSIS

A vehicle accumulation study was conducted for the proposed Seventh Day Church School. Based on vehicle accumulation studies conducted by Traf Tech Engineering, Inc. on schools in South Florida, the typical vehicle accumulation (vehicles in queue and parked vehicles) of schools range between 11% and 18% of the student population. For purposes of this study, the vehicle accumulation was assumed to be 18% of the student population, or 29 vehicles (160 x 18%). Since the proposed school is designed to accommodate approximately 22¹ vehicles within the stacking lanes plus 38 parking spaces for a total on-site accumulation capacity of approximately 60 vehicles (22 plus 38). The 38 available parking spaces include 26 parking stalls assigned to the school plus 12 surplus parking spaces (131 spaces provided minus 119 required parking spaces). It is important to note that a significant amount of the church's required parking spaces is projected to be available during the school's morning and afternoon peak periods. Therefore, stacking should not be a problem (capacity to accommodate 29 vehicles is required and 60 vehicles can be accommodated on site).

A Traffic Operations Plan (TOP) has been developed for the proposed charter school and is depicted in Figure 7.

¹ Approximately 446 linear feet at 22 feet per vehicle is approximately 22 vehicles.



**18% Accumulation
= 29 vehicles on site**

**Controlled by a
Traffic Control Personnel**

**→ Traffic Circulation
(446 ft +/-)**

Traf Tech
ENGINEERING, INC.

School Circulation

FIGURE 7
Seventh Day Adventist
Church School
Hollywood, Florida

CONCLUSIONS AND RECOMMENDATIONS

Seventh Day Adventist Church School is a proposed educational institution planned to be located 1808 Van Buren Street in City of Hollywood in Broward County, Florida.

Traf Tech Engineering, Inc. has been retained by the Seventh Day Adventist Church to conduct a traffic study in connection with this education facility. The subject school will have a capacity of 160 students. This study addresses trip generation and the traffic impacts created by the proposed project on the nearby transportation network.

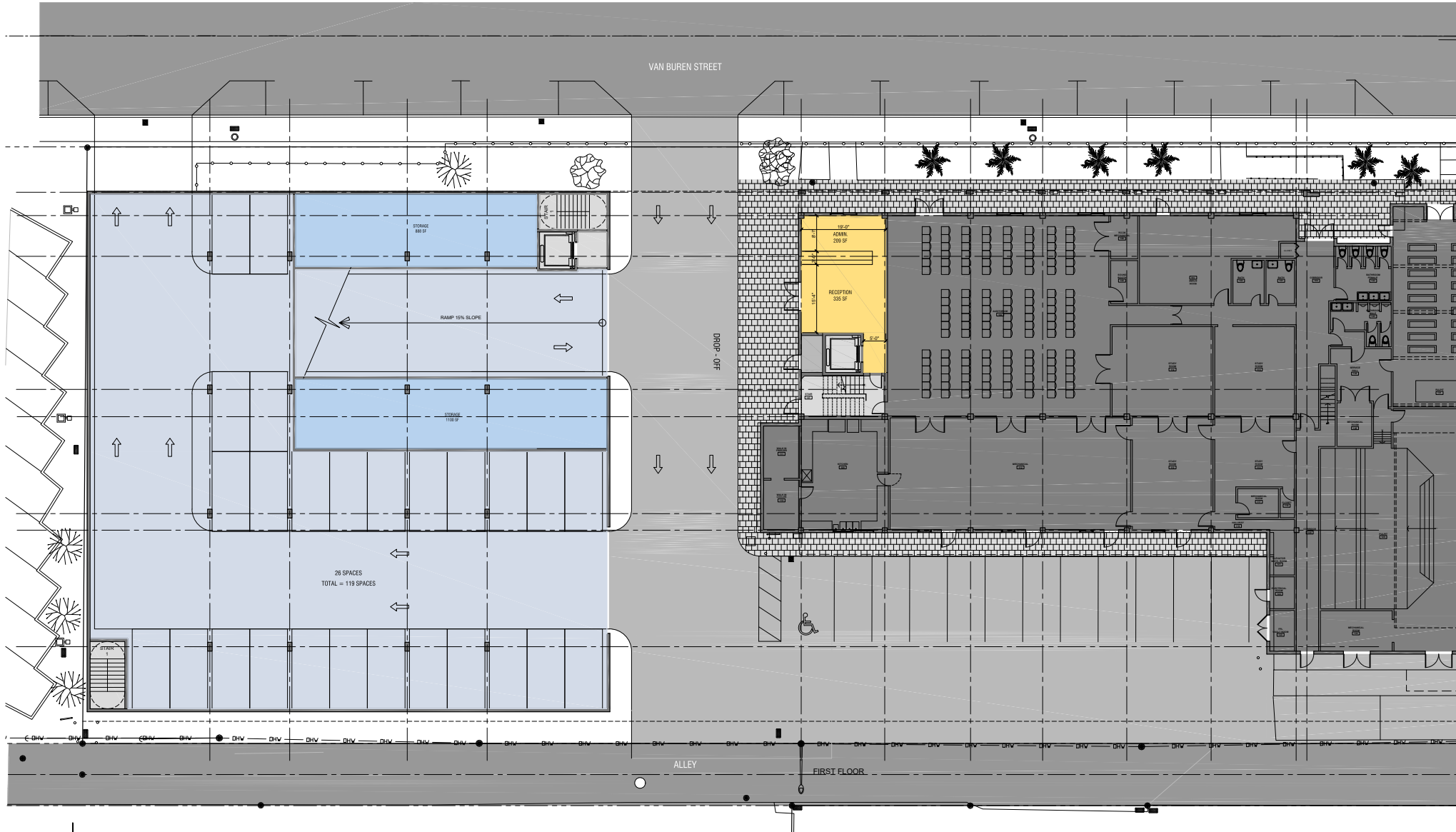
The site is currently vacant. The site will be developed with a new school housing 160 students (Grades K to 8th). The proposed school is anticipated to be built and occupied in the Fall of 2021.

Results of the intersection level of service analysis reveal that all intersections are projected to operate at acceptable level of service in the year 2021 with the proposed school project in place.

The access driveway off of Van Buren Street, as proposed, is projected to operate at acceptable level of service with the proposed project in place.

The proposed school is designed to accommodate approximately 12 vehicles within the stacking lanes plus 38 parking spaces for a total on-site accumulation capacity of approximately 60 vehicles. Since the maximum vehicle accumulation anticipated for this school is 29 vehicles, stacking should not be a problem.

APPENDIX A
Site Plan – Seventh Day Adventist
Church School



APPENDIX B
Intersection Turning Movement Counts
and Signal Timing Data

TrafTech Engineering Inc.

File Name : 1-Van Buren St & S 19th Ave
 Site Code : 00000000
 Start Date : 5/22/2019
 Page No : 1

Groups Printed- Autos - Heavy Vehicles

	S 19th Ave From North					Van Buren Street From East					S 19th Ave From South					Van Buren Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	1	19	3	0	23	0	8	1	0	9	5	17	1	0	23	1	13	2	0	16	71
07:15	1	12	4	0	17	1	8	0	0	9	7	25	4	0	36	1	12	1	0	14	76
07:30	4	24	6	0	34	6	15	3	0	24	7	28	3	0	38	2	12	6	0	20	116
07:45	0	29	6	0	35	5	30	1	0	36	12	28	5	0	45	2	23	3	0	28	144
Total	6	84	19	0	109	12	61	5	0	78	31	98	13	0	142	6	60	12	0	78	407
08:00	0	25	7	0	32	1	22	4	0	27	12	26	1	0	39	2	32	0	0	34	132
08:15	3	28	3	0	34	9	15	3	0	27	8	23	1	0	32	2	16	5	0	23	116
08:30	4	21	4	0	29	3	20	4	0	27	2	22	3	0	27	1	15	0	0	16	99
08:45	6	20	4	0	30	3	18	6	0	27	2	22	2	0	26	1	12	4	0	17	100
Total	13	94	18	0	125	16	75	17	0	108	24	93	7	0	124	6	75	9	0	90	447
*** BREAK ***																					
14:00	3	16	10	0	29	8	21	5	0	34	3	13	0	0	16	2	20	3	0	25	104
14:15	3	19	8	0	30	7	9	3	0	19	7	20	3	0	30	3	15	2	0	20	99
14:30	4	32	11	0	47	14	17	5	0	36	8	38	0	0	46	1	21	1	0	23	152
14:45	4	34	8	0	46	7	23	4	0	34	9	22	3	0	34	2	16	3	0	21	135
Total	14	101	37	0	152	36	70	17	0	123	27	93	6	0	126	8	72	9	0	89	490
15:00	3	41	3	0	47	16	31	6	0	53	6	37	5	0	48	1	20	2	0	23	171
15:15	0	42	10	0	52	7	12	3	0	22	8	23	3	0	34	0	10	0	0	10	118
15:30	2	30	2	0	34	15	18	4	0	37	5	29	2	0	36	3	19	3	0	25	132
15:45	3	32	7	0	42	8	14	4	0	26	2	22	3	0	27	3	23	3	0	29	124
Total	8	145	22	0	175	46	75	17	0	138	21	111	13	0	145	7	72	8	0	87	545
Grand Total	41	424	96	0	561	110	281	56	0	447	103	395	39	0	537	27	279	38	0	344	1889
Apprch %	7.3	75.6	17.1	0		24.6	62.9	12.5	0		19.2	73.6	7.3	0		7.8	81.1	11	0		
Total %	2.2	22.4	5.1	0	29.7	5.8	14.9	3	0	23.7	5.5	20.9	2.1	0	28.4	1.4	14.8	2	0	18.2	
Autos	41	418	96	0	555	109	280	55	0	444	103	392	38	0	533	25	278	37	0	340	1872
% Autos	100	98.6	100	0	98.9	99.1	99.6	98.2	0	99.3	100	99.2	97.4	0	99.3	92.6	99.6	97.4	0	98.8	99.1
Heavy Vehicles																					
% Heavy Vehicles	0	1.4	0	0	1.1	0.9	0.4	1.8	0	0.7	0	0.8	2.6	0	0.7	7.4	0.4	2.6	0	1.2	0.9

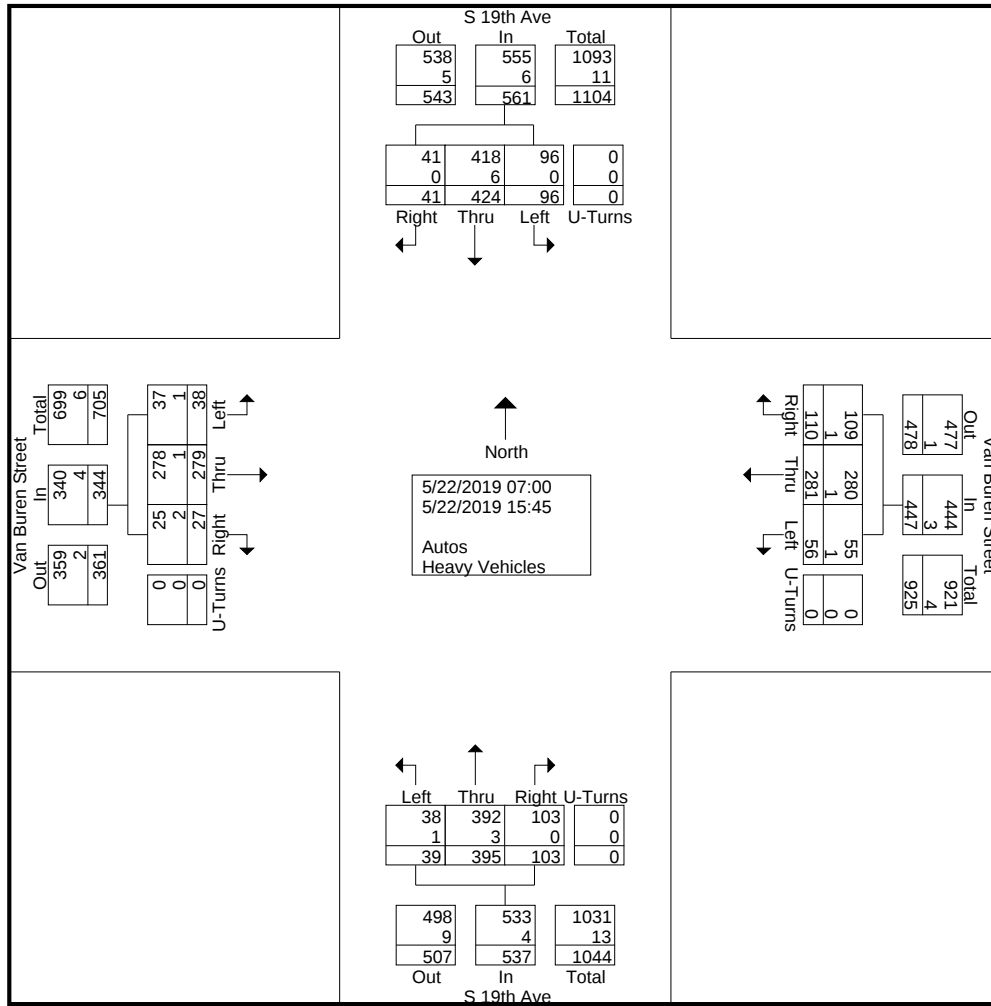
Traf Tech Engineering Inc.

File Name : 1-Van Buren St & S 19th Ave

Site Code : 00000000

Start Date : 5/22/2019

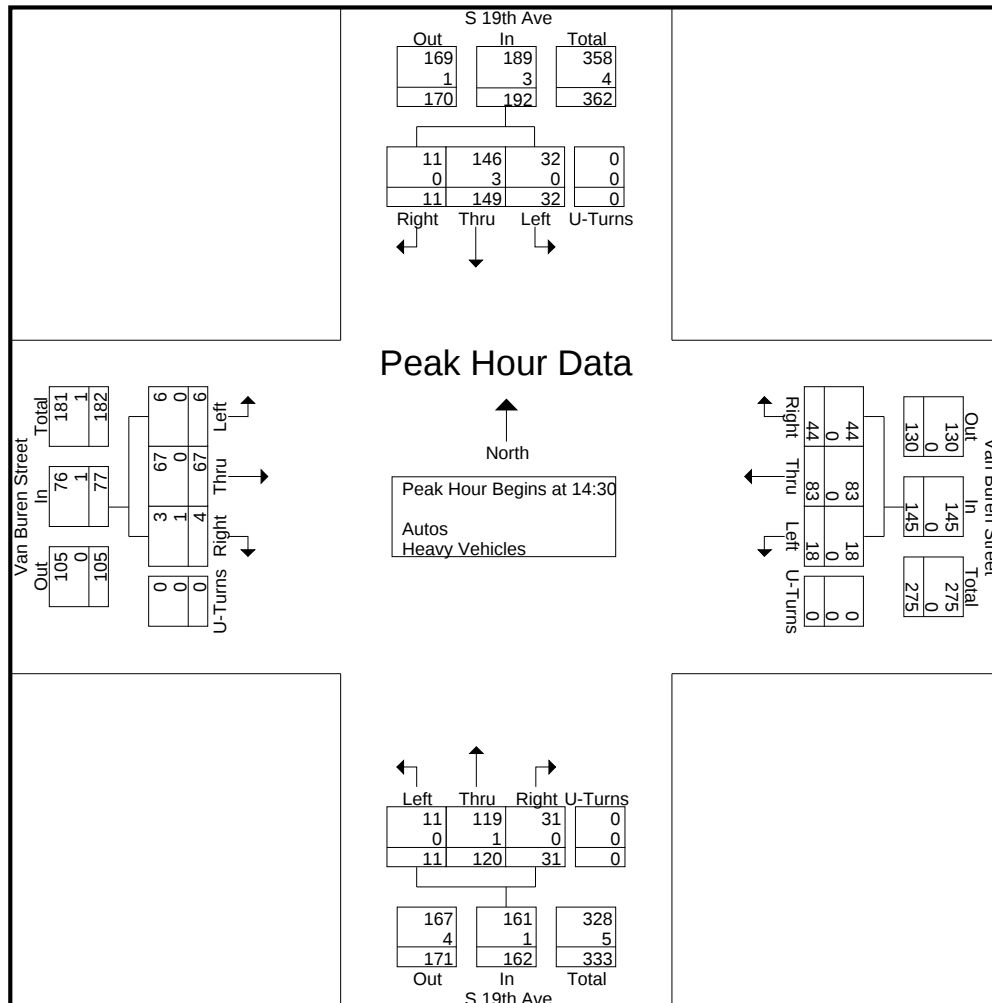
Page No : 2



Traf Tech Engineering Inc.

File Name : 1-Van Buren St & S 19th Ave
 Site Code : 00000000
 Start Date : 5/22/2019
 Page No : 3

	S 19th Ave From North					Van Buren Street From East					S 19th Ave From South					Van Buren Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 15:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:30																					
14:30	4	32	11	0	47	14	17	5	0	36	8	38	0	0	46	1	21	1	0	23	152
14:45	4	34	8	0	46	7	23	4	0	34	9	22	3	0	34	2	16	3	0	21	135
15:00	3	41	3	0	47	16	31	6	0	53	6	37	5	0	48	1	20	2	0	23	171
15:15	0	42	10	0	52	7	12	3	0	22	8	23	3	0	34	0	10	0	0	10	118
Total Volume	11	149	32	0	192	44	83	18	0	145	31	120	11	0	162	4	67	6	0	77	576
% App. Total	5.7	77.6	16.7	0		30.3	57.2	12.4	0		19.1	74.1	6.8	0		5.2	87	7.8	0		
PHF	.688	.887	.727	.000	.923	.688	.669	.750	.000	.684	.861	.789	.550	.000	.844	.500	.798	.500	.000	.837	.842
Autos	11	146	32	0	189	44	83	18	0	145	31	119	11	0	161	3	67	6	0	76	571
% Autos	100	98.0	100	0	98.4	100	100	100	0	100	100	99.2	100	0	99.4	75.0	100	100	0	98.7	99.1
Heavy Vehicles																					
% Heavy Vehicles	0	2.0	0	0	1.6	0	0	0	0	0	0	0.8	0	0	0.6	25.0	0	0	0	1.3	0.9



Traf Tech Engineering Inc.

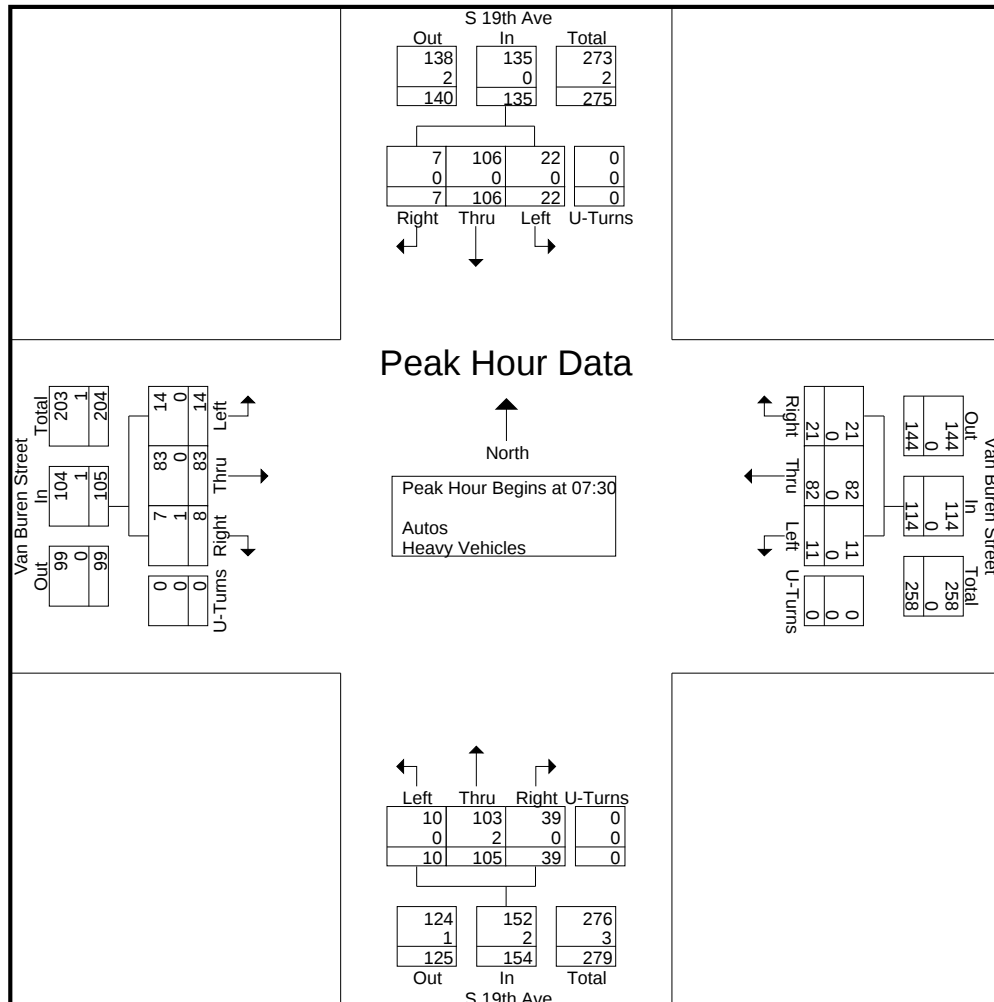
File Name : 1-Van Buren St & S 19th Ave
 Site Code : 00000000
 Start Date : 5/22/2019
 Page No : 4

	S 19th Ave From North					Van Buren Street From East					S 19th Ave From South					Van Buren Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30

07:30	4	24	6	0	34	6	15	3	0	24	7	28	3	0	38	2	12	6	0	20	116
07:45	0	29	6	0	35	5	30	1	0	36	12	28	5	0	45	2	23	3	0	28	144
08:00	0	25	7	0	32	1	22	4	0	27	12	26	1	0	39	2	32	0	0	34	132
08:15	3	28	3	0	34	9	15	3	0	27	8	23	1	0	32	2	16	5	0	23	116
Total Volume	7	106	22	0	135	21	82	11	0	114	39	105	10	0	154	8	83	14	0	105	508
% App. Total	5.2	78.5	16.3	0		18.4	71.9	9.6	0		25.3	68.2	6.5	0		7.6	79	13.3	0		
PHF	.438	.914	.786	.000	.964	.583	.683	.688	.000	.792	.813	.938	.500	.000	.856	1.00	.648	.583	.000	.772	.882
Autos	7	106	22	0	135	21	82	11	0	114	39	103	10	0	152	7	83	14	0	104	505
% Autos	100	100	100	0	100	100	100	100	0	100	100	98.1	100	0	98.7	87.5	100	100	0	99.0	99.4
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	1.3	12.5	0	0	0	1.0	0.6



Traf Tech Engineering Inc.

File Name : 1-Van Buren St & S 19th Ave

Site Code : 00000000

Start Date : 5/22/2019

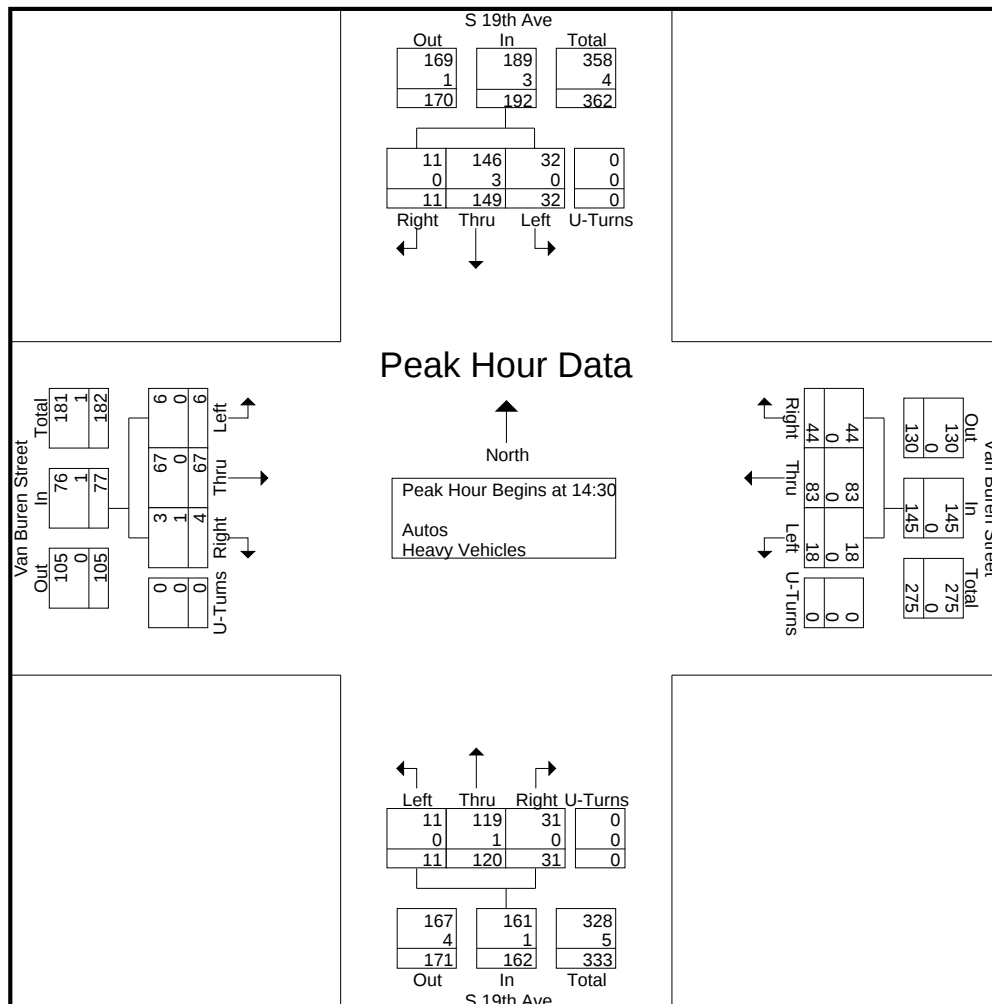
Page No : 5

	S 19th Ave From North					Van Buren Street From East					S 19th Ave From South					Van Buren Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total

Peak Hour Analysis From 14:00 to 15:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 14:30

14:30	4	32	11	0	47	14	17	5	0	36	8	38	0	0	46	1	21	1	0	23	152
14:45	4	34	8	0	46	7	23	4	0	34	9	22	3	0	34	2	16	3	0	21	135
15:00	3	41	3	0	47	16	31	6	0	53	6	37	5	0	48	1	20	2	0	23	171
15:15	0	42	10	0	52	7	12	3	0	22	8	23	3	0	34	0	10	0	0	10	118
Total Volume	11	149	32	0	192	44	83	18	0	145	31	120	11	0	162	4	67	6	0	77	576
% App. Total	5.7	77.6	16.7	0		30.3	57.2	12.4	0		19.1	74.1	6.8	0		5.2	87	7.8	0		
PHF	.688	.887	.727	.000	.923	.688	.669	.750	.000	.684	.861	.789	.550	.000	.844	.500	.798	.500	.000	.837	.842
Autos	11	146	32	0	189	44	83	18	0	145	31	119	11	0	161	3	67	6	0	76	571
% Autos	100	98.0	100	0	98.4	100	100	100	0	100	100	99.2	100	0	99.4	75.0	100	100	0	98.7	99.1
Heavy Vehicles																					
% Heavy Vehicles	0	2.0	0	0	1.6	0	0	0	0	0	0	0.8	0	0	0.6	25.0	0	0	0	1.3	0.9



TrafTech Engineering Inc.

File Name : 1-Van Buren St & S 19th Ave
 Site Code : 00000000
 Start Date : 5/22/2019
 Page No : 1

Groups Printed- Peds & Bikes

	S 19th Ave From North				Van Buren Street From East				S 19th Ave From South				Van Buren Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1
07:30	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0	0	2
07:45	0	0	0	6	1	0	0	1	0	0	0	2	0	0	0	0	10
Total	0	0	0	8	1	0	0	3	0	0	0	5	0	0	0	0	22
08:00	0	0	0	10	0	0	0	6	0	0	0	1	0	0	0	0	17
08:15	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	4
08:30	0	0	0	1	1	0	0	0	0	0	0	3	0	0	0	0	6
08:45	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	18	1	0	0	6	0	0	0	4	0	0	0	0	31
*** BREAK ***																	
14:00	0	0	0	1	1	0	0	1	0	0	0	3	1	0	0	0	8
14:15	0	0	0	3	2	0	0	2	0	0	0	1	0	0	0	0	9
14:30	0	0	0	2	0	0	0	0	0	0	0	2	1	0	0	0	14
14:45	0	0	0	2	2	0	0	0	0	0	0	4	0	0	0	0	9
Total	0	0	0	8	5	0	0	3	0	0	0	10	2	0	0	0	40
15:00	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	9
15:15	0	0	0	5	0	0	0	0	0	0	0	1	2	0	0	0	16
15:30	0	0	0	1	0	0	0	2	0	0	0	1	2	0	0	0	8
15:45	0	0	0	2	1	0	0	2	0	0	0	0	0	0	0	10	15
Total	0	0	0	9	1	0	0	4	0	0	0	2	5	0	0	0	48
Grand Total	0	0	0	43	8	0	0	16	0	0	0	21	7	0	0	46	141
Apprch %	0	0	0	100	33.3	0	0	66.7	0	0	0	100	13.2	0	0	86.8	
Total %	0	0	0	30.5	5.7	0	0	11.3	0	0	0	14.9	5	0	0	32.6	

TrafTech Engineering Inc.

File Name : 2-Van Buren St & Federal Hwy

Site Code : 00000000

Start Date : 5/22/2019

Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Federal Hwy From North					Van Buren Street From East					Federal Hwy From South					Van Buren Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	2	113	8	0	123	2	0	7	2	11	7	128	7	0	142	2	12	7	0	21	297
07:15	3	146	25	0	174	2	2	6	0	10	4	157	7	0	168	3	11	3	0	17	369
07:30	1	160	19	0	180	2	0	4	0	6	7	205	26	0	238	3	5	11	0	19	443
07:45	4	180	18	1	203	3	2	4	0	9	4	225	25	0	254	2	17	18	0	37	503
Total	10	599	70	1	680	9	4	21	2	36	22	715	65	0	802	10	45	39	0	94	1612
08:00	1	186	15	0	202	9	2	7	0	18	10	197	29	0	236	4	15	24	0	43	499
08:15	4	172	8	2	186	4	5	10	0	19	2	178	16	0	196	2	10	13	0	25	426
08:30	6	190	1	0	197	4	13	7	0	24	4	177	17	0	198	3	10	6	0	19	438
08:45	9	147	13	0	169	5	13	8	0	26	1	162	14	0	177	4	6	4	0	14	386
Total	20	695	37	2	754	22	33	32	0	87	17	714	76	0	807	13	41	47	0	101	1749
*** BREAK ***																					
14:00	5	153	15	0	173	2	1	2	0	5	2	206	29	0	237	13	12	5	0	30	445
14:15	9	132	5	0	146	1	0	1	0	2	4	225	11	0	240	7	3	13	0	23	411
14:30	8	150	9	0	167	1	4	2	0	7	9	220	25	0	254	9	15	14	0	38	466
14:45	5	204	13	0	222	0	8	3	0	11	5	176	23	0	204	7	11	10	0	28	465
Total	27	639	42	0	708	4	13	8	0	25	20	827	88	0	935	36	41	42	0	119	1787
15:00	6	137	8	0	151	5	9	2	0	16	9	223	32	0	264	7	10	13	0	30	461
15:15	4	180	11	0	195	5	5	7	0	17	4	185	15	0	204	12	9	4	0	25	441
15:30	3	177	9	0	189	5	8	5	0	18	7	174	26	0	207	7	12	3	0	22	436
15:45	4	149	7	0	160	5	10	8	0	23	4	150	14	0	168	9	12	5	0	26	377
Total	17	643	35	0	695	20	32	22	0	74	24	732	87	0	843	35	43	25	0	103	1715
Grand Total	74	2576	184	3	2837	55	82	83	2	222	83	2988	316	0	3387	94	170	153	0	417	6863
Apprch %	2.6	90.8	6.5	0.1		24.8	36.9	37.4	0.9		2.5	88.2	9.3	0		22.5	40.8	36.7	0		
Total %	1.1	37.5	2.7	0	41.3	0.8	1.2	1.2	0	3.2	1.2	43.5	4.6	0	49.4	1.4	2.5	2.2	0	6.1	
Autos	74	2531									2933										
% Autos	100	98.3	98.9	100	98.3	98.2	98.8	98.8	0	97.7	100	98.2	99.7	0	98.3	98.9	100	100	0	99.8	98.4
Heavy Vehicles																					
% Heavy Vehicles	0	1.7	1.1	0	1.7	1.8	1.2	1.2	100	2.3	0	1.8	0.3	0	1.7	1.1	0	0	0	0.2	1.6

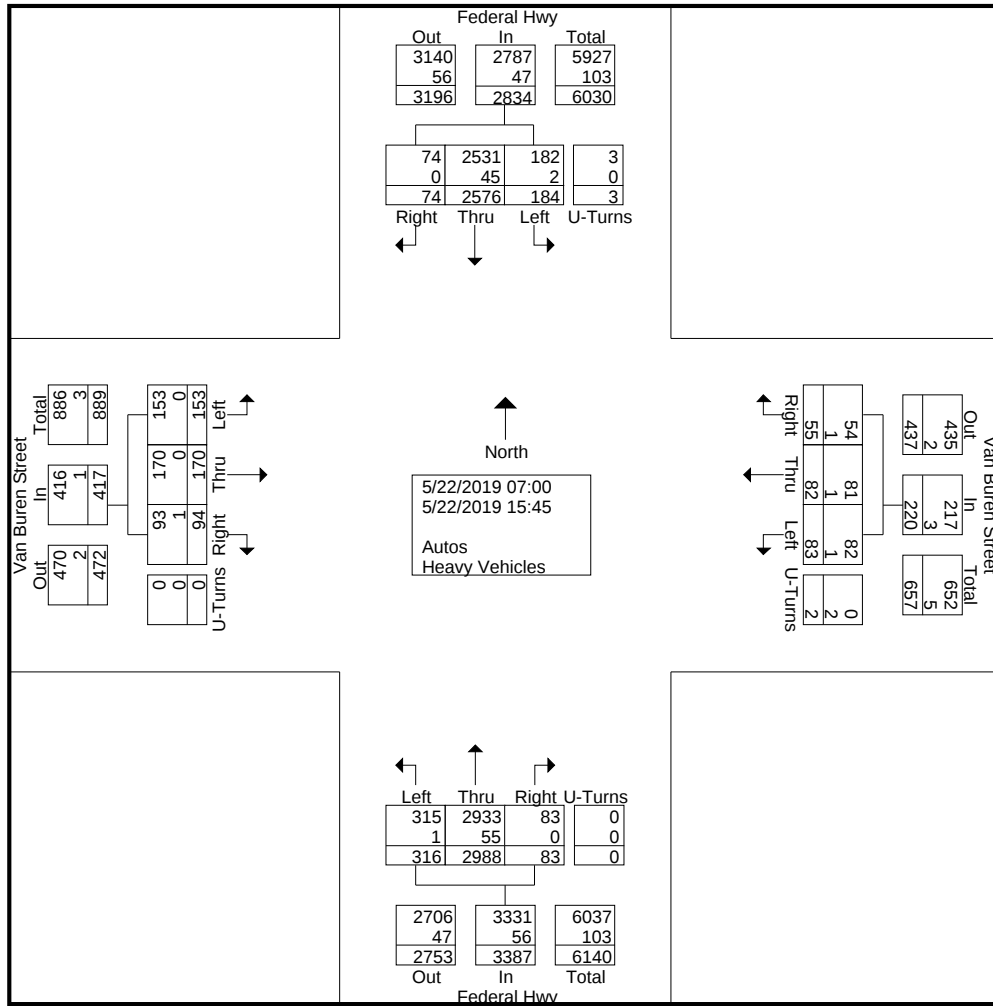
Traf Tech Engineering Inc.

File Name : 2-Van Buren St & Federal Hwy

Site Code : 00000000

Start Date : 5/22/2019

Page No : 2



Traf Tech Engineering Inc.

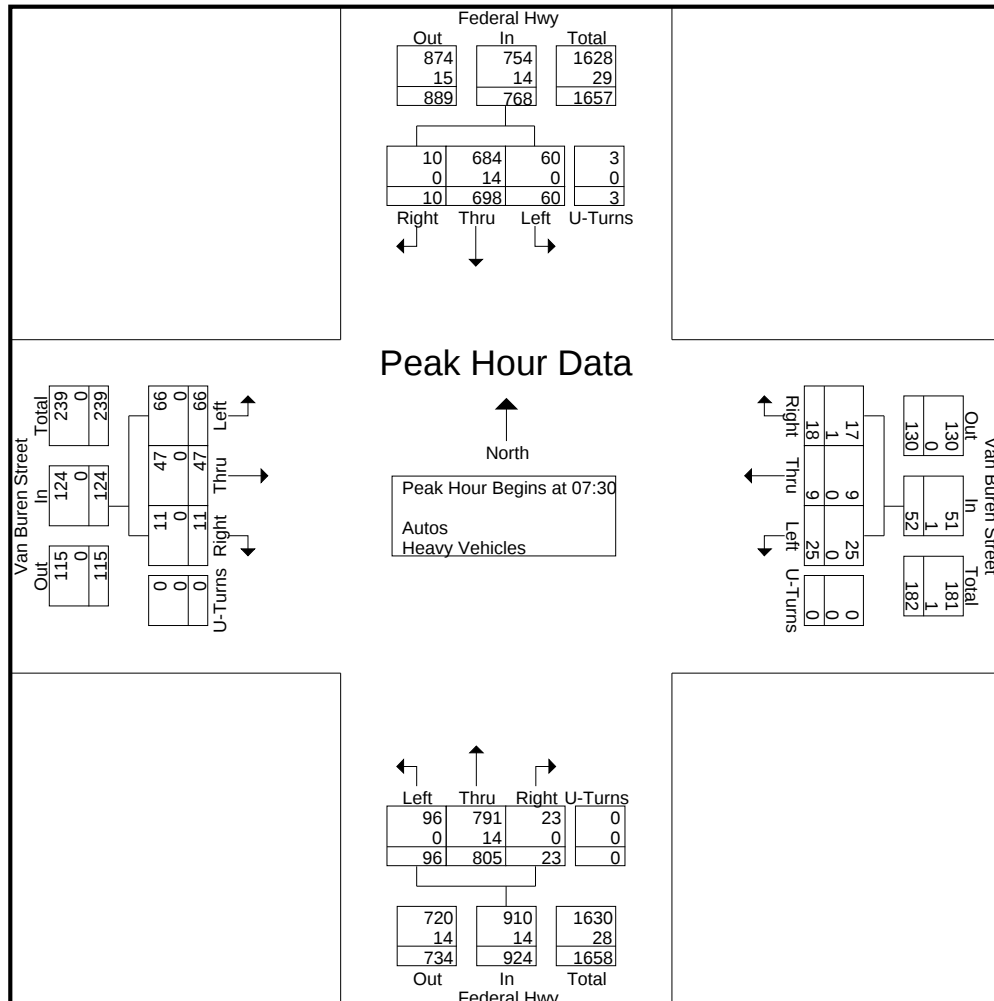
File Name : 2-Van Buren St & Federal Hwy

Site Code : 00000000

Start Date : 5/22/2019

Page No : 3

	Federal Hwy From North					Van Buren Street From East					Federal Hwy From South					Van Buren Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 15:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	1	160	19	0	180	2	0	4	0	6	7	205	26	0	238	3	5	11	0	19	443
07:45	4	180	18	1	203	3	2	4	0	9	4	225	25	0	254	2	17	18	0	37	503
08:00	1	186	15	0	202	9	2	7	0	18	10	197	29	0	236	4	15	24	0	43	499
08:15	4	172	8	2	186	4	5	10	0	19	2	178	16	0	196	2	10	13	0	25	426
Total Volume	10	698	60	3	771	18	9	25	0	52	23	805	96	0	924	11	47	66	0	124	1871
% App. Total	1.3	90.5	7.8	0.4		34.6	17.3	48.1	0		2.5	87.1	10.4	0		8.9	37.9	53.2	0		
PHF	.625	.938	.789	.375	.950	.500	.450	.625	.000	.684	.575	.894	.828	.000	.909	.688	.691	.688	.000	.721	.930
Autos	10	684	60	3	757	17	9	25	0	51	23	791	96	0	910	11	47	66	0	124	1842
% Autos	100	98.0	100	100	98.2	94.4	100	100	0	98.1	100	98.3	100	0	98.5	100	100	100	0	100	98.5
Heavy Vehicles																					
% Heavy Vehicles	0	2.0	0	0	1.8	5.6	0	0	0	1.9	0	1.7	0	0	1.5	0	0	0	0	0	1.5



Traf Tech Engineering Inc.

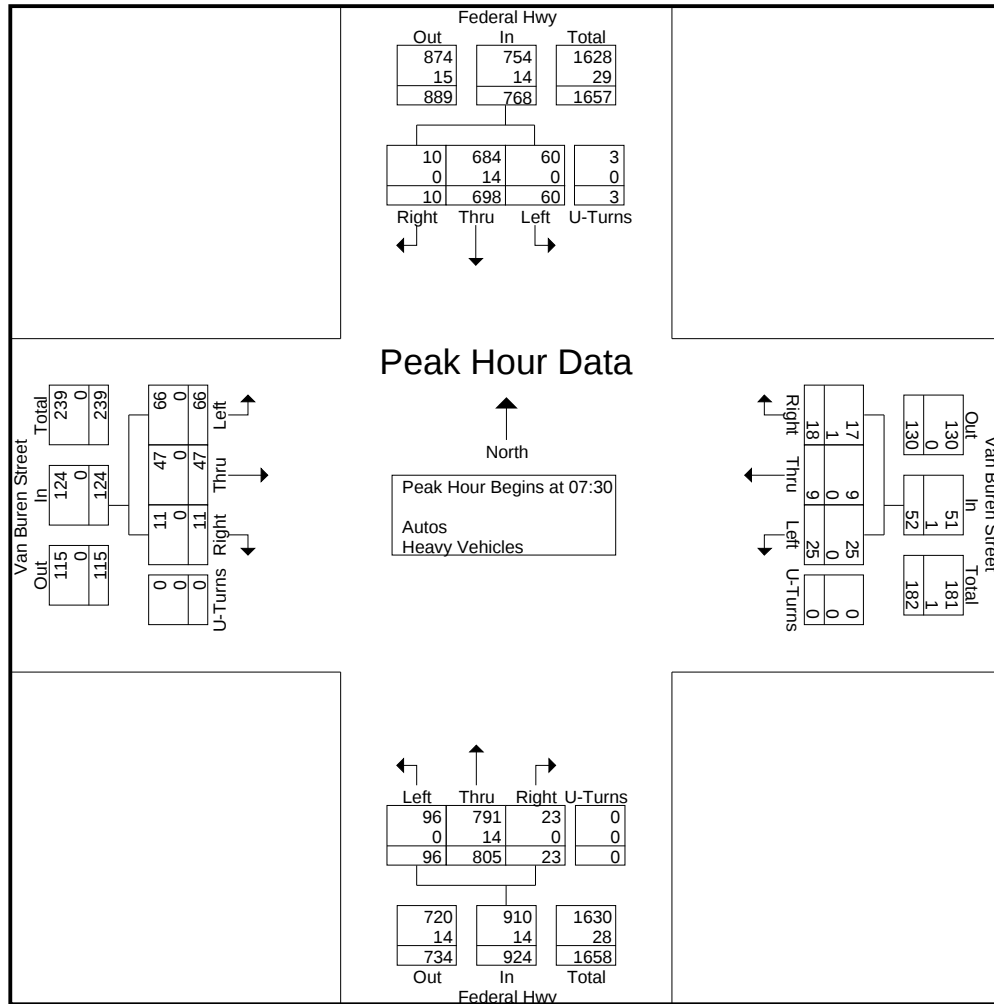
File Name : 2-Van Buren St & Federal Hwy

Site Code : 00000000

Start Date : 5/22/2019

Page No : 4

	Federal Hwy From North					Van Buren Street From East					Federal Hwy From South					Van Buren Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	1	160	19	0	180	2	0	4	0	6	7	205	26	0	238	3	5	11	0	19	443
07:45	4	180	18	1	203	3	2	4	0	9	4	225	25	0	254	2	17	18	0	37	503
08:00	1	186	15	0	202	9	2	7	0	18	10	197	29	0	236	4	15	24	0	43	499
08:15	4	172	8	2	186	4	5	10	0	19	2	178	16	0	196	2	10	13	0	25	426
Total Volume	10	698	60	3	771	18	9	25	0	52	23	805	96	0	924	11	47	66	0	124	1871
% App. Total	1.3	90.5	7.8	0.4		34.6	17.3	48.1	0		2.5	87.1	10.4	0		8.9	37.9	53.2	0		
PHF	.625	.938	.789	.375	.950	.500	.450	.625	.000	.684	.575	.894	.828	.000	.909	.688	.691	.688	.000	.721	.930
Autos	10	684	60	3	757	17	9	25	0	51	23	791	96	0	910	11	47	66	0	124	1842
% Autos	100	98.0	100	100	98.2	94.4	100	100	0	98.1	100	98.3	100	0	98.5	100	100	100	0	100	98.5
Heavy Vehicles																					
% Heavy Vehicles	0	2.0	0	0	1.8	5.6	0	0	0	1.9	0	1.7	0	0	1.5	0	0	0	0	0	1.5



Traf Tech Engineering Inc.

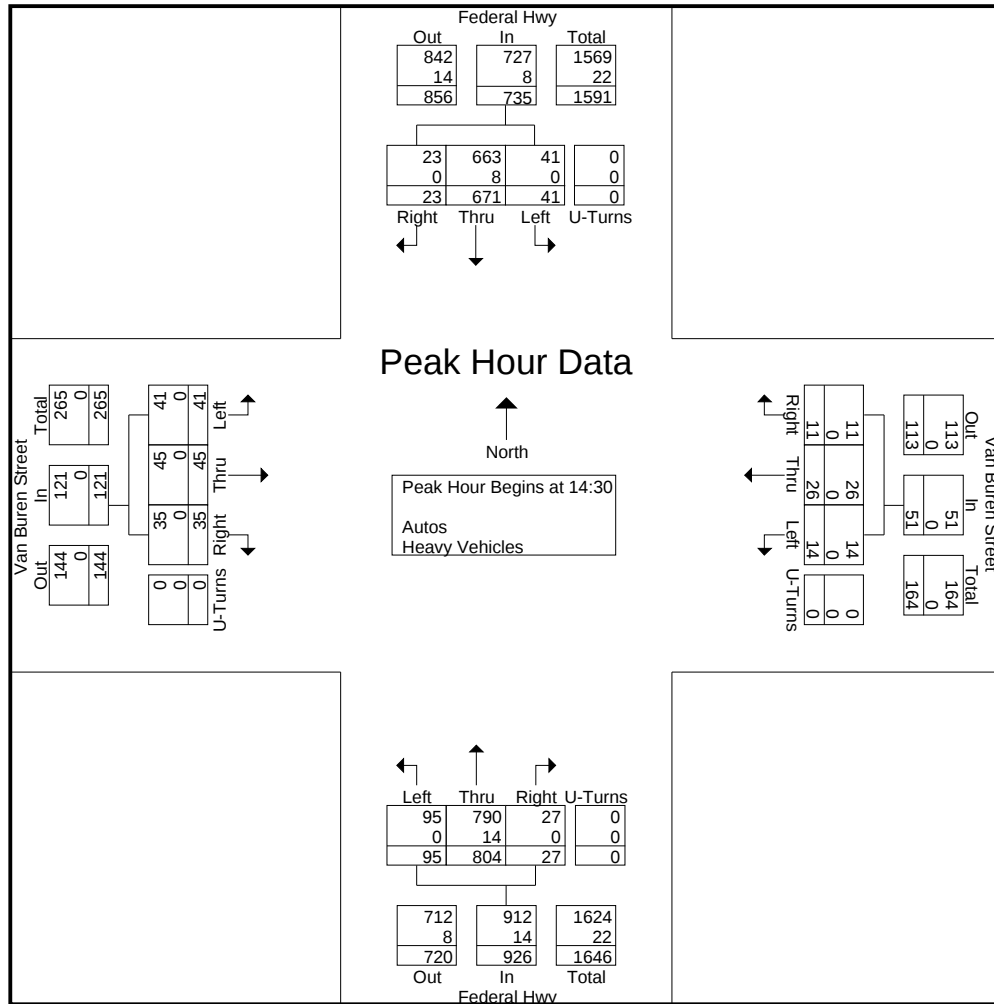
File Name : 2-Van Buren St & Federal Hwy

Site Code : 00000000

Start Date : 5/22/2019

Page No : 5

	Federal Hwy From North					Van Buren Street From East					Federal Hwy From South					Van Buren Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 15:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:30																					
14:30	8	150	9	0	167	1	4	2	0	7	9	220	25	0	254	9	15	14	0	38	466
14:45	5	204	13	0	222	0	8	3	0	11	5	176	23	0	204	7	11	10	0	28	465
15:00	6	137	8	0	151	5	9	2	0	16	9	223	32	0	264	7	10	13	0	30	461
15:15	4	180	11	0	195	5	5	7	0	17	4	185	15	0	204	12	9	4	0	25	441
Total Volume	23	671	41	0	735	11	26	14	0	51	27	804	95	0	926	35	45	41	0	121	1833
% App. Total	3.1	91.3	5.6	0		21.6	51	27.5	0		2.9	86.8	10.3	0		28.9	37.2	33.9	0		
PHF	.719	.822	.788	.000	.828	.550	.722	.500	.000	.750	.750	.901	.742	.000	.877	.729	.750	.732	.000	.796	.983
Autos	23	663	41	0	727	11	26	14	0	51	27	790	95	0	912	35	45	41	0	121	1811
% Autos	100	98.8	100	0	98.9	100	100	100	0	100	100	98.3	100	0	98.5	100	100	100	0	100	98.8
Heavy Vehicles																					
% Heavy Vehicles	0	1.2	0	0	1.1	0	0	0	0	0	0	1.7	0	0	1.5	0	0	0	0	0	1.2



TrafTech Engineering Inc.

File Name : 2-Van Buren St & Federal Hwy

Site Code : 00000000

Start Date : 5/22/2019

Page No : 1

Groups Printed- Peds & Bikes

	Federal Hwy From North				Van Buren Street From East				Federal Hwy From South				Van Buren Street From West				Int. Total
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	
07:00	0	0	0	1	2	0	0	4	0	0	0	0	2	0	0	3	12
07:15	0	0	0	3	0	0	0	1	0	0	0	2	0	0	0	1	7
07:30	1	0	0	4	3	0	0	1	0	0	0	1	3	0	0	5	18
07:45	0	0	0	9	1	0	0	8	0	0	0	3	2	0	0	2	25
Total	1	0	0	17	6	0	0	14	0	0	0	6	7	0	0	11	62
08:00	0	0	0	24	0	0	0	5	0	0	0	1	0	0	0	4	34
08:15	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	4
08:30	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	2	5
08:45	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	1	5
Total	0	0	0	27	0	0	0	8	1	0	0	2	2	0	0	8	48
*** BREAK ***																	
14:00	0	0	0	1	0	0	0	7	0	0	0	1	0	0	0	2	11
14:15	0	0	1	5	0	0	0	2	0	0	0	0	0	0	0	1	9
14:30	0	0	0	6	0	0	0	0	0	0	0	1	0	0	0	0	7
14:45	0	0	0	8	0	0	0	1	0	0	0	1	0	0	0	1	11
Total	0	0	1	20	0	0	0	10	0	0	0	3	0	0	0	4	38
15:00	0	0	0	2	1	0	0	8	0	0	0	0	0	0	0	0	11
15:15	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0	2	8
15:30	0	0	0	3	1	0	0	2	0	0	0	0	0	0	0	5	11
15:45	0	0	0	0	2	0	0	2	1	0	0	3	1	0	0	5	14
Total	0	0	0	7	4	0	0	14	1	0	0	5	1	0	0	12	44
Grand Total	1	0	1	71	10	0	0	46	2	0	0	16	10	0	0	35	192
Apprch %	1.4	0	1.4	97.3	17.9	0	0	82.1	11.1	0	0	88.9	22.2	0	0	77.8	
Total %	0.5	0	0.5	37	5.2	0	0	24	1	0	0	8.3	5.2	0	0	18.2	



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	3206	Initial Operation Date	9/9/77
Controller Type	2070 LN	System Number	3206
Modification Number	10	Modification Date	09/30/2014
Drawing/Project No	228034-1-52-01	FPL Grid Number	87671279106
Intersection	FEDERAL HWY. (US 1/SR 5) and VAN BUREN STREET		
Municipality	HOLLYWOOD		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2		4	5	6		8
Direction	SBL	NB		EB	NBL	SB		WB
Initial Green(MIN)	4	10		6	4	10		6
Vehicle Ext.(GAP)	1.5	3.0		2.0	1.5	3.0		2.0
Maximum Green I	12	50		20	12	50		20
Maximum Green II								
Yellow Clearance	4.0	4.0		4.0	4.0	4.0		4.0
All Red Clearance	2.0	2.0		2.0	2.0	2.0		2.0
Phase Recall	OFF	MIN		OFF	OFF	MIN		OFF
Detector Delay				20RT				20RT
Walk		7		5		7		5
Pedestrian Clearance		11		18		11		18
Permissive	5 SECT				5 SECT			
Flash Operation		YELLOW		RED		YELLOW		RED
Green Return								

Attachment

Channel/Drop / **IP Address**

NOTES:

1. ANTI-BACKDOWN NORTH/SOUTH: PHASES 2+6 ON--->OMIT PHASES 1+5.
2. DUAL ENTRY HARDWIRED EAST/WEST.
3. MOD.10 UPDATES ALL RED CLEARANCE VALUES.

Submitted By _____ **Approved By** _____

Station : 3206 - US 1 & Van Buren St (Standard File)

Phase	1 (SL)	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		5		7		5								
Ped Clearance		11		18		11		18								
Min Green	4	10		6	4	10		6								
Gap Ext	1.5	3		2	1.5	3		2								
Max1	12	50		20	12	50		20								
Max2																
Yellow Clr	4	4	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2		2	2	2		2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON	ON	ON		ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Cal																
Concurrent Ps	1	1	1	1	2	2	2	2								

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash			ON	ON		ON
Override Higher Preempt			ON	ON		ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6		6	
Min Walk						
Ped Clear						
Track Green			1		1	
Min Dwell	8	8	8		8	
Max Presence	180	180	180		180	
Track Veh 1					9	
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1		2	
Dwell Cyc Veh 2	6	8	6		5	
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	4	1	2		2	
Exit 2	8	5	6		6	
Exit 3						
Exit 4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Coordination

[illegible]

	Split 16	Easy
	Split 15	
	Split 14	
	Split 13	
	Split 12	
	Split 11	
	Split 10	
	Split 9	
	Split 8	
	Split 7	
	Split 6	
	Split 5	
	Split 4	
	Split 3	
	Split 2	
	Split 1	
	Dwell	
	Long	
	Short	
	Segue	
	Split	
	Offset	
	Cycle	
	Pattern	
	Action	
	Minute	
	Hour	
Day Plan 4		

[illegible]

User Comments:

TRAFFIC ENGINEERING DIVISION

SIGNALIZED INTERSECTION

LOCATION FEDERAL HWY/US 1 & VAN BUREN ST

ORDER NO FDOT ISSUE DATE --- REVISION NO. 3 COMPLETION DATE 7/28/04

DWG. NO. 04-10-07-01 FILE NO. C-206 CITY HOLLYWOOD SCALE: 1' = 50'

DWN BY: LARRY

NORTH



Illuminated
Street name

4-REQ'D

1 6

5 2



5-SECT
1-WAY
2-REQ'D

2 4 6 8

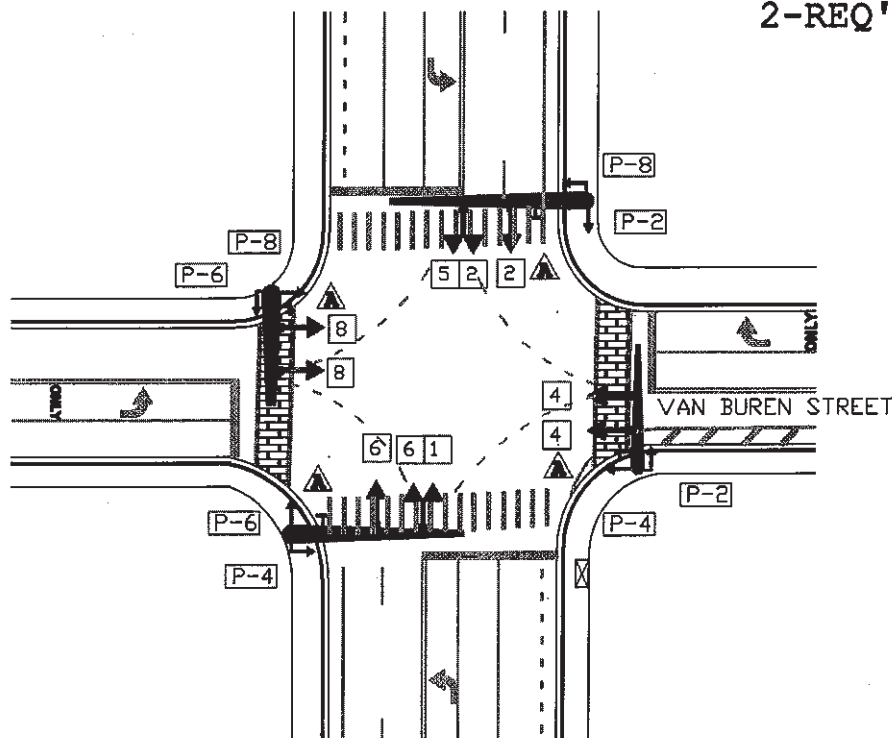


3-SECT
1-WAY
6-REQ'D

P-2 P-4 P-6 P-8



1-SECT
1-WAY
8-REQ'D



1. VIDEO DETECTION

2. SIGNALS REBUILT UNDER FDOT PROJ NO 228034-1-52-01

APPENDIX C

Peak Season Conversion Factors, Historical Traffic Counts, Committed Developments, and Projected Turning Movement Volumes

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8601 CEN.-W OF US1 TO SR7

WEEK	DATES	SF	MOCF: 0.98 PSCF
1	01/01/2018 - 01/06/2018	1.00	1.02
2	01/07/2018 - 01/13/2018	1.01	1.03
3	01/14/2018 - 01/20/2018	1.01	1.03
4	01/21/2018 - 01/27/2018	1.00	1.02
* 5	01/28/2018 - 02/03/2018	0.99	1.01
* 6	02/04/2018 - 02/10/2018	0.97	0.99
* 7	02/11/2018 - 02/17/2018	0.96	0.98
* 8	02/18/2018 - 02/24/2018	0.96	0.98
* 9	02/25/2018 - 03/03/2018	0.96	0.98
*10	03/04/2018 - 03/10/2018	0.97	0.99
*11	03/11/2018 - 03/17/2018	0.97	0.99
*12	03/18/2018 - 03/24/2018	0.97	0.99
*13	03/25/2018 - 03/31/2018	0.98	1.00
*14	04/01/2018 - 04/07/2018	0.98	1.00
*15	04/08/2018 - 04/14/2018	0.98	1.00
*16	04/15/2018 - 04/21/2018	0.99	1.01
*17	04/22/2018 - 04/28/2018	1.00	1.02
18	04/29/2018 - 05/05/2018	1.01	1.03
19	05/06/2018 - 05/12/2018	1.02	1.04
20	05/13/2018 - 05/19/2018	1.03	1.05
21	05/20/2018 - 05/26/2018	1.03	1.05
22	05/27/2018 - 06/02/2018	1.03	1.05
23	06/03/2018 - 06/09/2018	1.02	1.04
24	06/10/2018 - 06/16/2018	1.02	1.04
25	06/17/2018 - 06/23/2018	1.02	1.04
26	06/24/2018 - 06/30/2018	1.02	1.04
27	07/01/2018 - 07/07/2018	1.02	1.04
28	07/08/2018 - 07/14/2018	1.03	1.05
29	07/15/2018 - 07/21/2018	1.03	1.05
30	07/22/2018 - 07/28/2018	1.02	1.04
31	07/29/2018 - 08/04/2018	1.02	1.04
32	08/05/2018 - 08/11/2018	1.01	1.03
33	08/12/2018 - 08/18/2018	1.01	1.03
34	08/19/2018 - 08/25/2018	1.01	1.03
35	08/26/2018 - 09/01/2018	1.02	1.04
36	09/02/2018 - 09/08/2018	1.02	1.04
37	09/09/2018 - 09/15/2018	1.03	1.05
38	09/16/2018 - 09/22/2018	1.02	1.04
39	09/23/2018 - 09/29/2018	1.01	1.03
40	09/30/2018 - 10/06/2018	1.01	1.03
41	10/07/2018 - 10/13/2018	1.00	1.02
42	10/14/2018 - 10/20/2018	1.00	1.02
43	10/21/2018 - 10/27/2018	1.00	1.02
44	10/28/2018 - 11/03/2018	1.00	1.02
45	11/04/2018 - 11/10/2018	1.01	1.03
46	11/11/2018 - 11/17/2018	1.01	1.03
47	11/18/2018 - 11/24/2018	1.01	1.03
48	11/25/2018 - 12/01/2018	1.01	1.03
49	12/02/2018 - 12/08/2018	1.00	1.02
50	12/09/2018 - 12/15/2018	1.00	1.02
51	12/16/2018 - 12/22/2018	1.01	1.03
52	12/23/2018 - 12/29/2018	1.01	1.03
53	12/30/2018 - 12/31/2018	1.01	1.03

* PEAK SEASON

25-FEB-2019 16:26:26

830UPD

4_8601_PKSEASON.TXT

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0176 - SR 5 / US 1 - 0.1 MI N OF PEMBROKE RD, BROWARD CO

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----	-----	-----	-----	-----
2018	28458 C	N	14647	S 13811	9.00	53.70	2.40
2017	28187 C	N	14465	S 13722	9.00	53.80	2.40
2016	28768 C	N	14693	S 14075	9.00	54.10	2.30
2015	28584 C	N	14649	S 13935	9.00	53.70	2.20
2014	28180 C	N	14309	S 13871	9.00	53.30	2.10
2013	27593 C	N	14209	S 13384	9.00	53.40	2.00
2012	27167 C	N	13986	S 13181	9.00	53.70	2.00
2011	26893 C	N	13852	S 13041	9.00	53.30	2.00
2010	26513 C	N	13628	S 12885	8.28	52.80	2.10
2009	25616 C	N	13177	S 12439	8.48	54.02	2.20
2008	25717 C	N	13221	S 12496	8.72	53.65	2.30
2007	27079 C	N	13993	S 13086	8.58	53.34	2.20
2006	26851 C	N	13884	S 12967	8.50	55.12	2.00
2005	33500 F	N		S	8.20	57.30	2.00
2004	32244 C	N	16442	S 15802	8.20	57.30	2.00
2003	31336 C	N	16022	S 15314	8.20	57.30	2.00

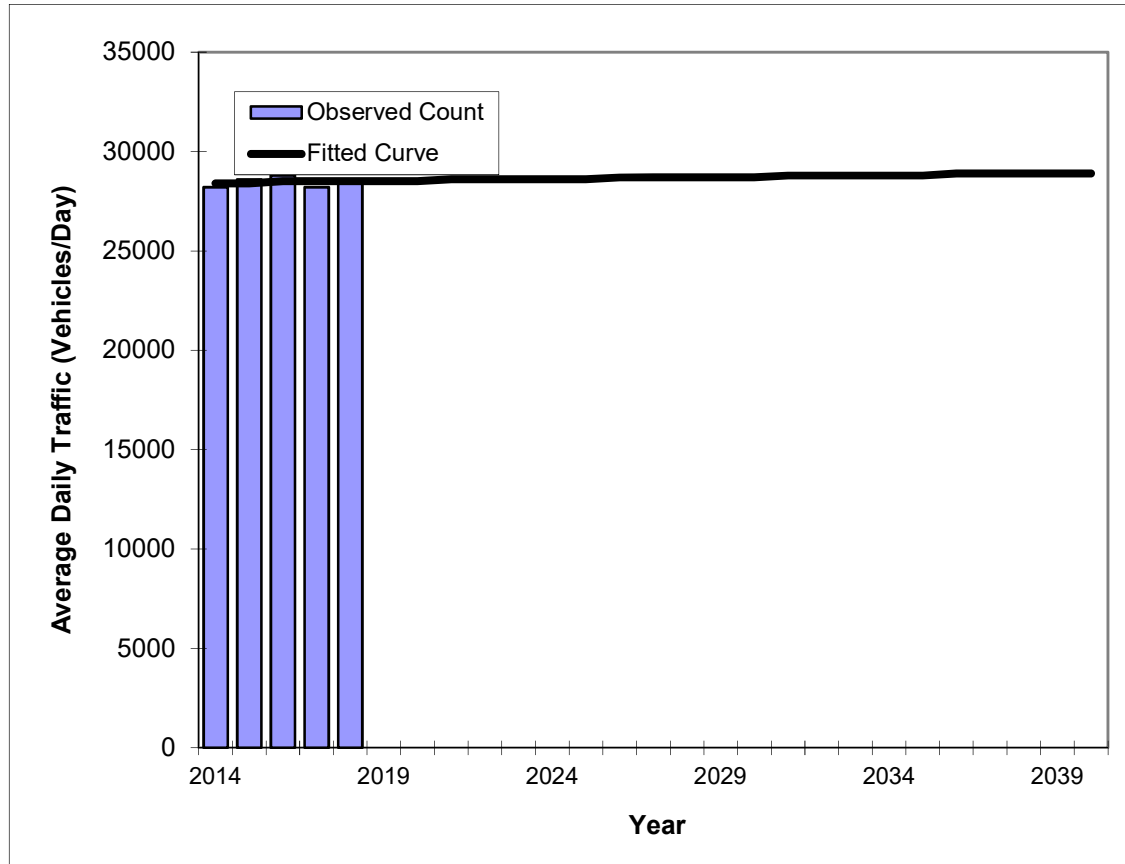
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V2.0

SR 5 / US 1 -- 0.1 MI N OF PEMBROKE RD,BROWARD C

PIN#	0
Location	1

County:	Broward
Station #:	0176
Highway:	SR 5 / US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2014	28200	28400
2015	28600	28400
2016	28800	28500
2017	28200	28500
2018	28500	28500
2019 Opening Year Trend		
2019	N/A	28500
2020 Mid-Year Trend		
2020	N/A	28500
2021 Design Year Trend		
2021	N/A	28600
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	20
Trend R-squared:	1.47%
Trend Annual Historic Growth Rate:	0.09%
Trend Growth Rate (2018 to Design Year):	0.12%
Printed:	26-Jun-19
Straight Line Growth Option	

*Axle-Adjusted

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Federal Highway\US 1 at Van Buren Street AM Peak Hour

Description	Federal Highway\US 1 Northbound			Federal Highway\US 1 Southbound			Van Buren Street Eastbound			Van Buren Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/23/2017)	107	744	14	44	879	15	38	78	13	18	25	11
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2017 Peak Season Traffic	107	744	14	44	879	15	38	78	13	18	25	11
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Committed Developments:												
Block 55		24			24							
Block 40		11			24							
2022 Background Traffic	110	798	14	45	949	15	39	80	13	18	26	11
Existing Development												
Parc Place:												
Primary Trip (Phase 1)			9							18	12	21
Primary Trip (Phase 2 and 3)			19	40						39	29	53
2022 Total Traffic	110	798	42	85	949	15	39	80	13	75	67	85

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Federal Highway\US 1 at Van Buren Street PM Peak Hour

Description	Federal Highway\US 1 Northbound			Federal Highway\US 1 Southbound			Van Buren Street Eastbound			Van Buren Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/23/2017)	61	993	30	55	760	22	36	66	54	36	68	15
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2017 Peak Season Traffic	61	993	30	55	760	22	36	66	54	36	68	15
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Committed Developments:												
Block 55		24			24							
Block 40		29			21							
2022 Background Traffic	63	1,071	31	56	824	23	37	68	55	37	70	15
Existing Development												
Parc Place:												
Primary Trip (Phase 1)			11							8	5	10
Primary Trip (Phase 2 and 3)			24	49						17	13	24
2022 Total Traffic	63	1,071	66	105	824	23	37	68	55	62	88	49

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Van Buren Street and S. 19 Avenue AM Peak Hour

Description	S. 19 Avenue Northbound			S. 19 Avenue Southbound			Van Buren Street Eastbound			Van Buren Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/22/2019)	10	105	39	22	106	7	14	83	8	11	82	21
Season Adjustment Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
2019 Peak Season Traffic	11	110	41	23	111	7	15	87	8	12	86	22
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Development												
Block 55												
Block 40												
Parc Place Phase 1											12	
Parc Place Phase 2											29	
2021 Background Traffic	11	112	42	24	114	7	15	89	9	12	129	22
School (160 students)			8	8				4		6	4	6
2021 Total Traffic	11	112	50	32	114	7	15	93	9	18	133	28

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Van Buren Street and S. 19 Avenue PM Peak Hour

Description	S. 19 Avenue Northbound			S. 19 Avenue Southbound			Van Burren Street Eastbound			Van Burren Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/22/2019)	11	120	31	32	149	11	6	67	4	18	83	44
Season Adjustment Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
2019 Peak Season Traffic	12	126	33	34	156	12	6	70	4	19	87	46
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Development												
Block 55												
Block 40												
Parc Place Phase 1											5	
Parc Place Phase 2											13	
2021 Background Traffic	12	129	33	34	160	12	6	72	4	19	107	47
School (160 students)			5	5				2		5	2	5
2021 Total Traffic	12	129	38	39	160	12	6	74	4	24	109	52

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Van Buren Street and Federal Highway AM Peak Hour

Description	Federal Highway Northbound			Federal Highway Southbound			Van Burren Street Eastbound			Van Burren Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/22/2019)	96	805	23	60	698	10	66	47	11	25	9	18
Season Adjustment Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
2019 Peak Season Traffic	101	845	24	63	733	11	69	49	12	26	9	19
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Development												
Block 55		24			24							
Block 40		11			24							
Parc Place Phase 1			9							18	12	21
Parc Place Phase 2			19	40						39	29	53
2021 Background Traffic	103	897	53	104	796	11	71	50	12	84	51	93
School (160 students)	25					25	20	10	20		13	
2021 Total Traffic	128	897	53	104	796	36	91	60	32	84	64	93

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Van Buren Street and Federal Highway PM Peak Hour

Description	Federal Highway Northbound			Federal Highway Southbound			Van Burren Street Eastbound			Van Burren Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (5/22/2019)	95	804	27	41	671	23	41	45	35	14	26	11
Season Adjustment Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
2019 Peak Season Traffic	100	844	28	43	705	24	43	47	37	15	27	12
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Development												
Block 55		24			24							
Block 40		29			21							
Parc Place Phase 1			11							8	5	10
Parc Place Phase 2			24	49						17	13	24
2021 Background Traffic	102	914	64	93	764	25	44	48	37	40	46	46
School (160 students)	14					14	16	8	16		7	
2021 Total Traffic	116	914	64	93	764	39	60	56	53	40	53	46

APPENDIX D

Intersection Capacity Analyses

HCM 2010 Signalized Intersection Summary

102: S. Federal Hwy & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	49	12	26	9	19	101	845	24	63	733	11
Future Volume (veh/h)	69	49	12	26	9	19	101	845	24	63	733	11
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.94	0.95		0.93	1.00		0.97	1.00		0.97
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	74	53	13	28	10	20	109	909	26	68	788	12
Adj No. of Lanes	1	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	275	67	227	72	283	463	2082	60	401	2084	32
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.04	0.59	0.59	0.03	0.58	0.58
Sat Flow, veh/h	1303	1425	350	852	373	1469	1774	3510	100	1774	3566	54
Grp Volume(v), veh/h	74	0	66	38	0	20	109	458	477	68	391	409
Grp Sat Flow(s),veh/h/ln	1303	0	1775	1226	0	1469	1774	1770	1841	1774	1770	1851
Q Serve(g_s), s	5.1	0.0	3.1	1.4	0.0	1.1	2.4	14.2	14.2	1.5	11.8	11.8
Cycle Q Clear(g_c), s	9.6	0.0	3.1	4.5	0.0	1.1	2.4	14.2	14.2	1.5	11.8	11.8
Prop In Lane	1.00		0.20	0.74		1.00	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	265	0	343	299	0	283	463	1049	1092	401	1034	1082
V/C Ratio(X)	0.28	0.00	0.19	0.13	0.00	0.07	0.24	0.44	0.44	0.17	0.38	0.38
Avail Cap(c_a), veh/h	352	0	461	391	0	382	547	1049	1092	500	1034	1082
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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	0.0	33.8	34.5	0.0	33.0	8.2	11.2	11.2	8.6	11.1	11.1
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.1	0.0	0.0	0.1	1.3	1.3	0.1	1.1	1.0
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(50%),veh/ln	1.9	0.0	1.5	0.9	0.0	0.5	1.2	7.3	7.5	0.7	6.1	6.3
LnGrp Delay(d),s/veh	38.7	0.0	33.9	34.6	0.0	33.0	8.3	12.5	12.4	8.7	12.1	12.1
LnGrp LOS	D		C	C		C	A	B	B	A	B	B
Approach Vol, veh/h	140					58		1044			868	
Approach Delay, s/veh	36.4					34.0		12.0			11.8	
Approach LOS	D					C		B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.4	65.3	25.3		10.3	64.4	25.3					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	9.0	47.0	26.0		9.0	47.0	26.0					
Max Q Clear Time (g_c+l1), s	3.5	16.2	11.6		4.4	13.8	6.5					
Green Ext Time (p_c), s	0.0	6.6	0.3		0.0	5.4	0.1					
Intersection Summary												
HCM 2010 Ctrl Delay	14.2											
HCM 2010 LOS	B											

Timings

102: S. Federal Hwy & Van Burren St

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	69	49	26	9	19	101	845	63	733
Future Volume (vph)	69	49	26	9	19	101	845	63	733
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	10.0	4.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	10.0	24.0	10.0	24.0
Total Split (s)	32.0	32.0	32.0	32.0	32.0	15.0	53.0	15.0	53.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	15.0%	53.0%	15.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	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	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	10.3	10.3		10.3	10.3	75.9	72.4	73.5	68.6
Actuated g/C Ratio	0.10	0.10		0.10	0.10	0.76	0.72	0.74	0.69
v/c Ratio	0.56	0.34		0.27	0.08	0.21	0.37	0.15	0.33
Control Delay	57.4	38.3		44.6	0.7	4.2	7.8	4.1	7.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	38.3		44.6	0.7	4.2	7.8	4.1	7.9
LOS	E	D		D	A	A	A	A	A
Approach Delay		48.4		29.4			7.4		7.6
Approach LOS		D		C			A		A

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 10.8

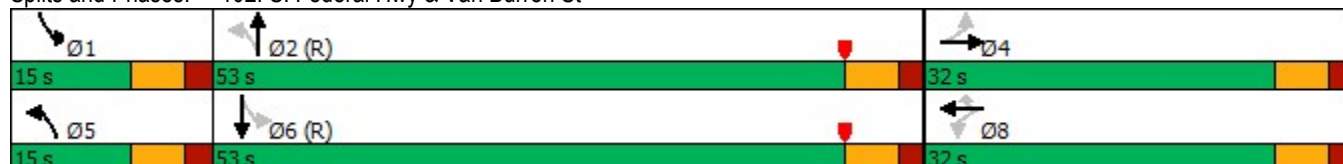
Intersection LOS: B

Intersection Capacity Utilization 62.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 102: S. Federal Hwy & Van Burren St



Queues

102: S. Federal Hwy & Van Burren St

								
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	74	66	38	20	109	935	68	800
v/c Ratio	0.56	0.34	0.27	0.08	0.21	0.37	0.15	0.33
Control Delay	57.4	38.3	44.6	0.7	4.2	7.8	4.1	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	38.3	44.6	0.7	4.2	7.8	4.1	7.9
Queue Length 50th (ft)	46	32	23	0	13	124	8	103
Queue Length 95th (ft)	88	70	52	0	32	197	21	167
Internal Link Dist (ft)		436	589			416		409
Turn Bay Length (ft)	70			60	140		80	
Base Capacity (vph)	337	476	356	458	572	2548	522	2421
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.14	0.11	0.04	0.19	0.37	0.13	0.33
Intersection Summary								

HCM Unsignalized Intersection Capacity Analysis

101: S 19 Ave & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	15	87	8	12	86	22	11	110	41	23	111	7
Future Volume (vph)	15	87	8	12	86	22	11	110	41	23	111	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	17	99	9	14	98	25	13	125	47	26	126	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	125	137	185	160								
Volume Left (vph)	17	14	13	26								
Volume Right (vph)	9	25	47	8								
Hadj (s)	0.02	-0.06	-0.10	0.04								
Departure Headway (s)	5.0	4.9	4.7	4.8								
Degree Utilization, x	0.17	0.19	0.24	0.22								
Capacity (veh/h)	667	681	724	694								
Control Delay (s)	9.0	9.0	9.1	9.2								
Approach Delay (s)	9.0	9.0	9.1	9.2								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay				9.1								
Level of Service				A								
Intersection Capacity Utilization				31.1%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM 2010 Signalized Intersection Summary 102: S. Federal Hwy & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	50	12	84	51	93	103	897	53	104	796	11
Future Volume (veh/h)	71	50	12	84	51	93	103	897	53	104	796	11
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.95		0.93	1.00		0.97	1.00		0.96
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	76	54	13	90	55	100	111	965	57	112	856	12
Adj No. of Lanes	1	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	309	74	224	124	319	418	1895	112	363	1999	28
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.04	0.56	0.56	0.04	0.56	0.56
Sat Flow, veh/h	1186	1433	345	768	575	1479	1774	3388	200	1774	3571	50
Grp Volume(v), veh/h	76	0	67	145	0	100	111	504	518	112	424	444
Grp Sat Flow(s),veh/h/ln	1186	0	1779	1343	0	1479	1774	1770	1819	1774	1770	1852
Q Serve(g_s), s	6.1	0.0	3.1	7.4	0.0	5.7	2.6	17.5	17.5	2.7	13.9	13.9
Cycle Q Clear(g_c), s	16.5	0.0	3.1	10.4	0.0	5.7	2.6	17.5	17.5	2.7	13.9	13.9
Prop In Lane	1.00		0.19	0.62		1.00	1.00		0.11	1.00		0.03
Lane Grp Cap(c), veh/h	204	0	384	348	0	319	418	990	1017	363	990	1036
V/C Ratio(X)	0.37	0.00	0.17	0.42	0.00	0.31	0.27	0.51	0.51	0.31	0.43	0.43
Avail Cap(c_a), veh/h	257	0	462	412	0	384	499	990	1017	443	990	1036
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	0.0	32.0	35.2	0.0	33.0	9.5	13.6	13.6	10.3	12.8	12.8
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.3	0.0	0.2	0.1	1.9	1.8	0.2	1.4	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(50%),veh/ln	2.0	0.0	1.5	3.6	0.0	2.4	1.3	9.1	9.3	1.3	7.1	7.4
LnGrp Delay(d),s/veh	42.6	0.0	32.0	35.5	0.0	33.2	9.7	15.4	15.4	10.5	14.1	14.0
LnGrp LOS	D		C	D		C	A	B	B	B	B	B
Approach Vol, veh/h	143					245		1133			980	
Approach Delay, s/veh	37.6					34.6		14.9			13.7	
Approach LOS	D					C		B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	10.5	61.9	27.6		10.5	62.0	27.6					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	9.0	47.0	26.0		9.0	47.0	26.0					
Max Q Clear Time (g_c+l1), s	4.7	19.5	18.5		4.6	15.9	12.4					
Green Ext Time (p_c), s	0.0	7.3	0.2		0.0	6.0	0.6					
Intersection Summary												
HCM 2010 Ctrl Delay	17.6											
HCM 2010 LOS	B											

Timings

102: S. Federal Hwy & Van Burren St

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	71	50	84	51	93	103	897	104	796
Future Volume (vph)	71	50	84	51	93	103	897	104	796
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	10.0	4.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	10.0	24.0	10.0	24.0
Total Split (s)	32.0	32.0	32.0	32.0	32.0	15.0	53.0	15.0	53.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	15.0%	53.0%	15.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	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	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	14.5	14.5		14.5	14.5	67.5	61.5	67.5	61.6
Actuated g/C Ratio	0.14	0.14		0.14	0.14	0.68	0.62	0.68	0.62
v/c Ratio	0.50	0.25		0.70	0.33	0.26	0.47	0.30	0.40
Control Delay	49.1	32.2		57.5	10.2	6.3	12.2	6.9	11.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	32.2		57.5	10.2	6.3	12.2	6.9	11.4
LOS	D	C		E	B	A	B	A	B
Approach Delay		41.2		38.2			11.6		10.9
Approach LOS		D		D			B		B

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 15.6

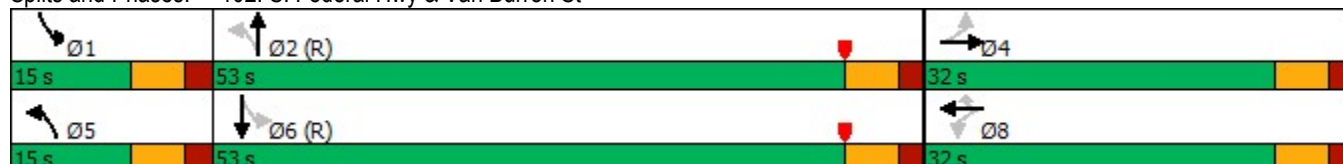
Intersection LOS: B

Intersection Capacity Utilization 65.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 102: S. Federal Hwy & Van Burren St



Queues

102: S. Federal Hwy & Van Burren St



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	67	145	100	111	1022	112	868
v/c Ratio	0.50	0.25	0.70	0.33	0.26	0.47	0.30	0.40
Control Delay	49.1	32.2	57.5	10.2	6.3	12.2	6.9	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	32.2	57.5	10.2	6.3	12.2	6.9	11.4
Queue Length 50th (ft)	45	31	89	0	17	168	17	135
Queue Length 95th (ft)	86	66	145	42	41	273	41	221
Internal Link Dist (ft)		436	589			416		409
Turn Bay Length (ft)	70			60	140		80	
Base Capacity (vph)	274	477	371	459	488	2156	425	2173
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.14	0.39	0.22	0.23	0.47	0.26	0.40
Intersection Summary								

HCM Unsignalized Intersection Capacity Analysis

101: S 19 Ave & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	15	89	9	12	129	22	11	112	42	24	114	7
Future Volume (vph)	15	89	9	12	129	22	11	112	42	24	114	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	17	101	10	14	147	25	13	127	48	27	130	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	128	186	188	165								
Volume Left (vph)	17	14	13	27								
Volume Right (vph)	10	25	48	8								
Hadj (s)	0.01	-0.03	-0.11	0.04								
Departure Headway (s)	5.1	4.9	4.8	5.0								
Degree Utilization, x	0.18	0.26	0.25	0.23								
Capacity (veh/h)	646	674	692	664								
Control Delay (s)	9.2	9.6	9.5	9.5								
Approach Delay (s)	9.2	9.6	9.5	9.5								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay				9.5								
Level of Service				A								
Intersection Capacity Utilization				32.7%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM 2010 Signalized Intersection Summary

102: S. Federal Hwy & Van Buren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	60	32	84	64	93	128	897	53	104	796	36
Future Volume (veh/h)	91	60	32	84	64	93	128	897	53	104	796	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.96		0.94	1.00		0.96	1.00		0.96
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	98	65	34	90	69	100	138	965	57	112	856	39
Adj No. of Lanes	1	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	259	136	206	143	341	405	1844	109	353	1847	84
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.54	0.54	0.05	0.54	0.54
Sat Flow, veh/h	1176	1130	591	653	625	1484	1774	3388	200	1774	3441	157
Grp Volume(v), veh/h	98	0	99	159	0	100	138	504	518	112	440	455
Grp Sat Flow(s),veh/h/ln	1176	0	1721	1277	0	1484	1774	1770	1819	1774	1770	1828
Q Serve(g_s), s	8.1	0.0	4.7	7.9	0.0	5.6	3.5	18.1	18.2	2.8	15.3	15.3
Cycle Q Clear(g_c), s	20.7	0.0	4.7	12.6	0.0	5.6	3.5	18.1	18.2	2.8	15.3	15.3
Prop In Lane	1.00		0.34	0.57		1.00	1.00		0.11	1.00		0.09
Lane Grp Cap(c), veh/h	194	0	395	350	0	341	405	963	990	353	950	981
V/C Ratio(X)	0.50	0.00	0.25	0.45	0.00	0.29	0.34	0.52	0.52	0.32	0.46	0.46
Avail Cap(c_a), veh/h	230	0	447	394	0	386	469	963	990	431	950	981
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	0.0	31.5	35.2	0.0	31.8	10.6	14.5	14.5	11.2	14.3	14.3
Incr Delay (d2), s/veh	0.8	0.0	0.1	0.3	0.0	0.2	0.2	2.0	2.0	0.2	1.6	1.6
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	2.7	0.0	2.2	4.0	0.0	2.3	1.7	9.4	9.6	1.4	7.9	8.1
LnGrp Delay(d),s/veh	44.5	0.0	31.6	35.6	0.0	32.0	10.8	16.6	16.5	11.4	15.9	15.9
LnGrp LOS	D		C	D		C	B	B	B	B	B	B
Approach Vol, veh/h		197			259			1160			1007	
Approach Delay, s/veh		38.0			34.2			15.8			15.4	
Approach LOS		D			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	60.4		29.0	11.4	59.7		29.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	47.0		26.0	9.0	47.0		26.0				
Max Q Clear Time (g_c+l1), s	4.8	20.2		22.7	5.5	17.3		14.6				
Green Ext Time (p_c), s	0.0	7.3		0.2	0.0	6.2		0.6				
Intersection Summary												
HCM 2010 Ctrl Delay				19.1								
HCM 2010 LOS				B								

Timings

102: S. Federal Hwy & Van Buren St

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	91	60	84	64	93	128	897	104	796
Future Volume (vph)	91	60	84	64	93	128	897	104	796
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	10.0	4.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	10.0	24.0	10.0	24.0
Total Split (s)	32.0	32.0	32.0	32.0	32.0	15.0	53.0	15.0	53.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	15.0%	53.0%	15.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	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	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	15.5	15.5		15.5	15.5	67.0	60.5	66.0	60.0
Actuated g/C Ratio	0.16	0.16		0.16	0.16	0.67	0.60	0.66	0.60
v/c Ratio	0.63	0.34		0.72	0.32	0.33	0.48	0.31	0.42
Control Delay	56.2	29.7		57.5	9.7	7.3	12.9	7.5	12.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	29.7		57.5	9.7	7.3	12.9	7.5	12.5
LOS	E	C		E	A	A	B	A	B
Approach Delay		42.9		39.1			12.2		11.9
Approach LOS		D		D			B		B

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 17.0

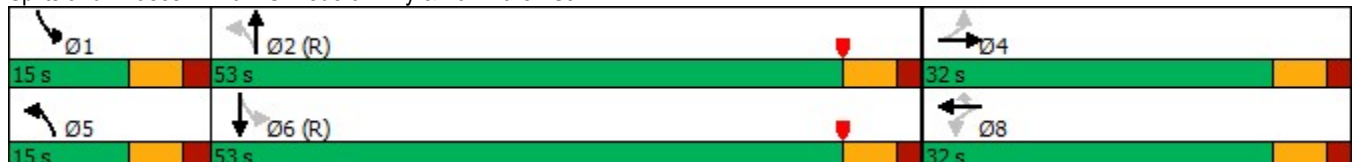
Intersection LOS: B

Intersection Capacity Utilization 65.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 102: S. Federal Hwy & Van Buren St



Queues

102: S. Federal Hwy & Van Buren St



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	98	99	159	100	138	1022	112	895
v/c Ratio	0.63	0.34	0.72	0.32	0.33	0.48	0.31	0.42
Control Delay	56.2	29.7	57.5	9.7	7.3	12.9	7.5	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	29.7	57.5	9.7	7.3	12.9	7.5	12.5
Queue Length 50th (ft)	59	42	98	0	22	174	18	147
Queue Length 95th (ft)	106	83	155	42	52	281	43	242
Internal Link Dist (ft)		436	589			416		409
Turn Bay Length (ft)	70			60	140		80	
Base Capacity (vph)	262	474	371	459	464	2120	417	2107
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.21	0.43	0.22	0.30	0.48	0.27	0.42
Intersection Summary								

HCM Unsignalized Intersection Capacity Analysis

101: S 19 Ave & Van Buren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	15	93	9	18	133	28	11	112	50	32	114	7
Future Volume (vph)	15	93	9	18	133	28	11	112	50	32	114	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	17	106	10	20	151	32	13	127	57	36	130	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	133	203	197	174								
Volume Left (vph)	17	20	13	36								
Volume Right (vph)	10	32	57	8								
Hadj (s)	0.01	-0.04	-0.13	0.05								
Departure Headway (s)	5.2	5.0	4.9	5.1								
Degree Utilization, x	0.19	0.28	0.27	0.25								
Capacity (veh/h)	632	663	680	649								
Control Delay (s)	9.4	10.0	9.7	9.8								
Approach Delay (s)	9.4	10.0	9.7	9.8								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay				9.7								
Level of Service				A								
Intersection Capacity Utilization				36.8%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

202: Exit Driveway & Van Buren St

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	133	0	0	228	16	50
Future Volume (Veh/h)	133	0	0	228	16	50
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	145	0	0	248	17	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage veh						
Upstream signal (ft)	516					
pX, platoon unblocked					1.00	
vC, conflicting volume	145			393	145	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	145			390	145	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	100			97	94	
cM capacity (veh/h)	1437			612	902	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	145	248	17	54		
Volume Left	0	0	17	0		
Volume Right	0	0	0	54		
cSH	1700	1700	612	902		
Volume to Capacity	0.09	0.15	0.03	0.06		
Queue Length 95th (ft)	0	0	2	5		
Control Delay (s)	0.0	0.0	11.0	9.2		
Lane LOS						
Approach Delay (s)	0.0	0.0	9.7			
Approach LOS						
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			22.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM 2010 Signalized Intersection Summary 102: S. Federal Hwy & Van Burren St

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Traffic Volume (veh/h)	43	47	37	15	27	12	100	844	28	43	705	24								
Future Volume (veh/h)	43	47	37	15	27	12	100	844	28	43	705	24								
Number	7	4	14	3	8	18	5	2	12	1	6	16								
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0								
Ped-Bike Adj(A_pbT)	0.97		0.96	0.97		0.96	1.00		0.99	1.00		0.99								
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								
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900								
Adj Flow Rate, veh/h	44	48	38	15	28	12	102	861	29	44	719	24								
Adj No. of Lanes	1	1	0	0	1	1	1	2	0	1	2	0								
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	2	2	2	2	2	2	2	2	2								
Cap, veh/h	212	143	113	108	177	231	521	2238	75	447	2204	74								
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.04	0.64	0.64	0.03	0.63	0.63								
Sat Flow, veh/h	1323	948	750	392	1173	1527	1774	3493	118	1774	3494	117								
Grp Volume(v), veh/h	44	0	86	43	0	12	102	436	454	44	364	379								
Grp Sat Flow(s),veh/h/ln	1323	0	1698	1564	0	1527	1774	1770	1841	1774	1770	1841								
Q Serve(g_s), s	3.1	0.0	4.5	0.0	0.0	0.7	2.0	11.8	11.8	0.9	9.6	9.6								
Cycle Q Clear(g_c), s	7.6	0.0	4.5	4.6	0.0	0.7	2.0	11.8	11.8	0.9	9.6	9.6								
Prop In Lane	1.00		0.44	0.35		1.00	1.00		0.06	1.00		0.06								
Lane Grp Cap(c), veh/h	212	0	257	285	0	231	521	1134	1179	447	1116	1161								
V/C Ratio(X)	0.21	0.00	0.34	0.15	0.00	0.05	0.20	0.38	0.38	0.10	0.33	0.33								
Avail Cap(c_a), veh/h	356	0	441	459	0	397	613	1134	1179	557	1116	1161								
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Uniform Delay (d), s/veh	41.4	0.0	37.9	36.9	0.0	36.3	6.4	8.6	8.6	6.6	8.6	8.6								
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.1	0.0	0.0	0.1	1.0	1.0	0.0	0.8	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	1.1	0.0	2.1	1.0	0.0	0.3	1.0	6.0	6.2	0.4	4.9	5.1								
LnGrp Delay(d),s/veh	41.6	0.0	38.2	37.0	0.0	36.3	6.4	9.6	9.5	6.6	9.4	9.3								
LnGrp LOS	D		D	D		D	A	A	A	A	A	A								
Approach Vol, veh/h	130		55				992				787									
Approach Delay, s/veh	39.4		36.8				9.2				9.2									
Approach LOS	D		D				A				A									
Timer	1	2	3	4	5	6	7	8												
Assigned Phs	1	2	4		5	6	8													
Phs Duration (G+Y+Rc), s	8.8	70.1	21.1		9.8	69.1	21.1													
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0													
Max Green Setting (Gmax), s	9.0	47.0	26.0		9.0	47.0	26.0													
Max Q Clear Time (g_c+l1), s	2.9	13.8	9.6		4.0	11.6	6.6													
Green Ext Time (p_c), s	0.0	6.3	0.3		0.0	5.0	0.1													
Intersection Summary																				
HCM 2010 Ctrl Delay																				
HCM 2010 LOS																				

Timings

102: S. Federal Hwy & Van Burren St

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	43	47	15	27	12	100	844	43	705
Future Volume (vph)	43	47	15	27	12	100	844	43	705
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	10.0	4.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	10.0	24.0	10.0	24.0
Total Split (s)	32.0	32.0	32.0	32.0	32.0	15.0	53.0	15.0	53.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	15.0%	53.0%	15.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	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	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	8.2	8.2		8.2	8.2	79.2	76.9	76.8	74.2
Actuated g/C Ratio	0.08	0.08		0.08	0.08	0.79	0.77	0.77	0.74
v/c Ratio	0.41	0.49		0.33	0.06	0.18	0.33	0.09	0.28
Control Delay	54.0	35.7		49.5	0.5	3.2	5.7	3.1	6.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	35.7		49.5	0.5	3.2	5.7	3.1	6.2
LOS	D	D		D	A	A	A	A	A
Approach Delay		41.9		38.8			5.5		6.1
Approach LOS		D		D			A		A

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.1

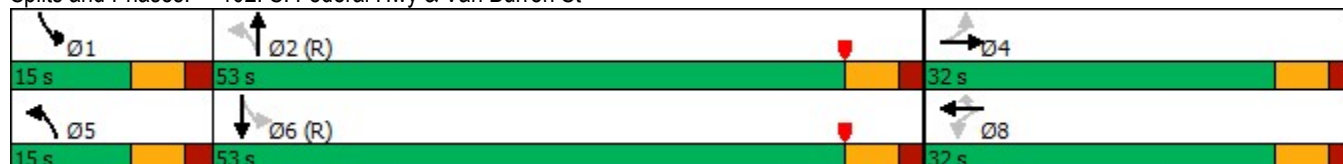
Intersection LOS: A

Intersection Capacity Utilization 57.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 102: S. Federal Hwy & Van Burren St



Queues

102: S. Federal Hwy & Van Burren St

								
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	44	86	43	12	102	890	44	743
v/c Ratio	0.41	0.49	0.33	0.06	0.18	0.33	0.09	0.28
Control Delay	54.0	35.7	49.5	0.5	3.2	5.7	3.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	35.7	49.5	0.5	3.2	5.7	3.1	6.2
Queue Length 50th (ft)	27	30	26	0	10	104	4	85
Queue Length 95th (ft)	61	75	59	0	25	161	13	135
Internal Link Dist (ft)		436	589			416		409
Turn Bay Length (ft)	70			60	140		80	
Base Capacity (vph)	345	477	411	469	629	2705	566	2611
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.18	0.10	0.03	0.16	0.33	0.08	0.28
Intersection Summary								

HCM Unsignalized Intersection Capacity Analysis

101: S 19 Ave & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	70	4	19	87	46	12	126	33	34	156	12
Future Volume (vph)	6	70	4	19	87	46	12	126	33	34	156	12
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	83	5	23	104	55	14	150	39	40	186	14
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	95	182	203	240								
Volume Left (vph)	7	23	14	40								
Volume Right (vph)	5	55	39	14								
Hadj (s)	0.02	-0.12	-0.07	0.03								
Departure Headway (s)	5.3	5.0	4.9	4.9								
Degree Utilization, x	0.14	0.25	0.28	0.33								
Capacity (veh/h)	606	652	686	683								
Control Delay (s)	9.2	9.7	9.8	10.4								
Approach Delay (s)	9.2	9.7	9.8	10.4								
Approach LOS	A	A	A	B								
Intersection Summary												
Delay				9.9								
Level of Service				A								
Intersection Capacity Utilization				39.5%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM 2010 Signalized Intersection Summary 102: S. Federal Hwy & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	48	37	40	46	46	102	914	64	93	764	25
Future Volume (veh/h)	44	48	37	40	46	46	102	914	64	93	764	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.98		0.97	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	45	49	38	41	47	47	104	933	65	95	780	26
Adj No. of Lanes	1	1	0	0	1	1	1	2	0	1	2	0
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	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	160	124	140	142	256	480	2067	144	401	2144	71
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.04	0.62	0.62	0.04	0.61	0.61
Sat Flow, veh/h	1267	959	744	522	853	1532	1774	3355	234	1774	3494	116
Grp Volume(v), veh/h	45	0	87	88	0	47	104	492	506	95	395	411
Grp Sat Flow(s),veh/h/ln	1267	0	1702	1375	0	1532	1774	1770	1819	1774	1770	1841
Q Serve(g_s), s	3.3	0.0	4.5	2.4	0.0	2.6	2.2	14.8	14.8	2.0	11.1	11.1
Cycle Q Clear(g_c), s	10.2	0.0	4.5	6.9	0.0	2.6	2.2	14.8	14.8	2.0	11.1	11.1
Prop In Lane	1.00		0.44	0.47		1.00	1.00		0.13	1.00		0.06
Lane Grp Cap(c), veh/h	196	0	284	282	0	256	480	1090	1120	401	1086	1130
V/C Ratio(X)	0.23	0.00	0.31	0.31	0.00	0.18	0.22	0.45	0.45	0.24	0.36	0.36
Avail Cap(c_a), veh/h	314	0	443	425	0	398	570	1090	1120	495	1086	1130
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	0.0	36.6	37.4	0.0	35.8	7.1	10.2	10.2	7.7	9.6	9.6
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.2	0.0	0.1	0.1	1.4	1.3	0.1	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(50%),veh/ln	1.2	0.0	2.1	2.2	0.0	1.1	1.1	7.5	7.7	1.0	5.7	5.9
LnGrp Delay(d),s/veh	42.4	0.0	36.8	37.6	0.0	35.9	7.2	11.6	11.5	7.8	10.6	10.5
LnGrp LOS	D		D	D		D	A	B	B	A	B	B
Approach Vol, veh/h	132					135		1102		901		
Approach Delay, s/veh	38.7					37.0		11.1		10.3		
Approach LOS	D					D		B		B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.7	67.6	22.7		10.0	67.4	22.7					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	9.0	47.0	26.0		9.0	47.0	26.0					
Max Q Clear Time (g_c+l1), s	4.0	16.8	12.2		4.2	13.1	8.9					
Green Ext Time (p_c), s	0.0	7.3	0.3		0.0	5.5	0.3					
Intersection Summary												
HCM 2010 Ctrl Delay			13.9									
HCM 2010 LOS			B									

Timings

102: S. Federal Hwy & Van Burren St

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	44	48	40	46	46	102	914	93	764
Future Volume (vph)	44	48	40	46	46	102	914	93	764
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	10.0	4.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	10.0	24.0	10.0	24.0
Total Split (s)	32.0	32.0	32.0	32.0	32.0	15.0	53.0	15.0	53.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	15.0%	53.0%	15.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	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	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	10.2	10.2		10.2	10.2	75.5	72.1	74.1	68.8
Actuated g/C Ratio	0.10	0.10		0.10	0.10	0.76	0.72	0.74	0.69
v/c Ratio	0.35	0.42		0.58	0.19	0.20	0.40	0.22	0.33
Control Delay	47.9	30.8		57.1	2.1	4.1	8.1	4.5	7.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	30.8		57.1	2.1	4.1	8.1	4.5	7.8
LOS	D	C		E	A	A	A	A	A
Approach Delay		36.7		37.9			7.7		7.4
Approach LOS		D		D			A		A

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 11.1

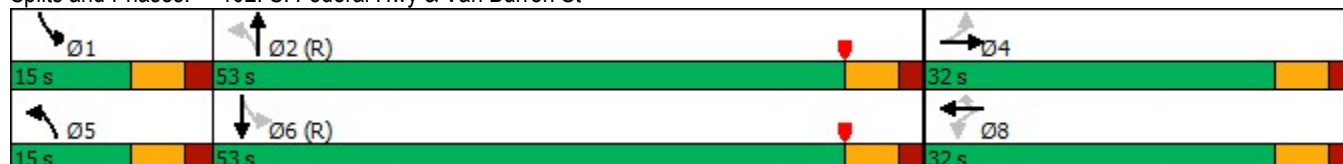
Intersection LOS: B

Intersection Capacity Utilization 62.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 102: S. Federal Hwy & Van Burren St



Queues

102: S. Federal Hwy & Van Burren St

								
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	45	87	88	47	104	998	95	806
v/c Ratio	0.35	0.42	0.58	0.19	0.20	0.40	0.22	0.33
Control Delay	47.9	30.8	57.1	2.1	4.1	8.1	4.5	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	30.8	57.1	2.1	4.1	8.1	4.5	7.8
Queue Length 50th (ft)	27	29	55	0	12	137	11	103
Queue Length 95th (ft)	60	73	101	3	30	215	27	165
Internal Link Dist (ft)		436	589			416		409
Turn Bay Length (ft)	70			60	140		80	
Base Capacity (vph)	331	477	390	469	574	2521	492	2422
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.18	0.23	0.10	0.18	0.40	0.19	0.33
Intersection Summary								

HCM Unsignalized Intersection Capacity Analysis

101: S 19 Ave & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	72	4	19	107	47	12	129	33	34	160	12
Future Volume (vph)	6	72	4	19	107	47	12	129	33	34	160	12
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	86	5	23	127	56	14	154	39	40	190	14
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	98	206	207	244								
Volume Left (vph)	7	23	14	40								
Volume Right (vph)	5	56	39	14								
Hadj (s)	0.02	-0.11	-0.07	0.03								
Departure Headway (s)	5.4	5.1	5.0	5.1								
Degree Utilization, x	0.15	0.29	0.29	0.34								
Capacity (veh/h)	593	645	669	666								
Control Delay (s)	9.4	10.2	10.0	10.7								
Approach Delay (s)	9.4	10.2	10.0	10.7								
Approach LOS	A	B	B	B								
Intersection Summary												
Delay				10.2								
Level of Service				B								
Intersection Capacity Utilization				40.8%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM 2010 Signalized Intersection Summary 102: S. Federal Hwy & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	48	37	40	46	46	102	914	64	93	764	25
Future Volume (veh/h)	44	48	37	40	46	46	102	914	64	93	764	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.98		0.97	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	45	49	38	41	47	47	104	933	65	95	780	26
Adj No. of Lanes	1	1	0	0	1	1	1	2	0	1	2	0
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	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	160	124	140	142	256	480	2067	144	401	2144	71
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.04	0.62	0.62	0.04	0.61	0.61
Sat Flow, veh/h	1267	959	744	522	853	1532	1774	3355	234	1774	3494	116
Grp Volume(v), veh/h	45	0	87	88	0	47	104	492	506	95	395	411
Grp Sat Flow(s),veh/h/ln	1267	0	1702	1375	0	1532	1774	1770	1819	1774	1770	1841
Q Serve(g_s), s	3.3	0.0	4.5	2.4	0.0	2.6	2.2	14.8	14.8	2.0	11.1	11.1
Cycle Q Clear(g_c), s	10.2	0.0	4.5	6.9	0.0	2.6	2.2	14.8	14.8	2.0	11.1	11.1
Prop In Lane	1.00		0.44	0.47		1.00	1.00		0.13	1.00		0.06
Lane Grp Cap(c), veh/h	196	0	284	282	0	256	480	1090	1120	401	1086	1130
V/C Ratio(X)	0.23	0.00	0.31	0.31	0.00	0.18	0.22	0.45	0.45	0.24	0.36	0.36
Avail Cap(c_a), veh/h	314	0	443	425	0	398	570	1090	1120	495	1086	1130
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	0.0	36.6	37.4	0.0	35.8	7.1	10.2	10.2	7.7	9.6	9.6
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.2	0.0	0.1	0.1	1.4	1.3	0.1	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(50%),veh/ln	1.2	0.0	2.1	2.2	0.0	1.1	1.1	7.5	7.7	1.0	5.7	5.9
LnGrp Delay(d),s/veh	42.4	0.0	36.8	37.6	0.0	35.9	7.2	11.6	11.5	7.8	10.6	10.5
LnGrp LOS	D		D	D		D	A	B	B	A	B	B
Approach Vol, veh/h	132					135		1102			901	
Approach Delay, s/veh	38.7					37.0		11.1			10.3	
Approach LOS	D					D		B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.7	67.6	22.7		10.0	67.4	22.7					
Change Period (Y+Rc), s	6.0	6.0	6.0		6.0	6.0	6.0					
Max Green Setting (Gmax), s	9.0	47.0	26.0		9.0	47.0	26.0					
Max Q Clear Time (g_c+l1), s	4.0	16.8	12.2		4.2	13.1	8.9					
Green Ext Time (p_c), s	0.0	7.3	0.3		0.0	5.5	0.3					
Intersection Summary												
HCM 2010 Ctrl Delay			13.9									
HCM 2010 LOS			B									

Timings

102: S. Federal Hwy & Van Burren St

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	44	48	40	46	46	102	914	93	764
Future Volume (vph)	44	48	40	46	46	102	914	93	764
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	4.0	10.0	4.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	10.0	24.0	10.0	24.0
Total Split (s)	32.0	32.0	32.0	32.0	32.0	15.0	53.0	15.0	53.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	15.0%	53.0%	15.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	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	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	10.2	10.2		10.2	10.2	75.5	72.1	74.1	68.8
Actuated g/C Ratio	0.10	0.10		0.10	0.10	0.76	0.72	0.74	0.69
v/c Ratio	0.35	0.42		0.58	0.19	0.20	0.40	0.22	0.33
Control Delay	47.9	30.8		57.1	2.1	4.1	8.1	4.5	7.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	30.8		57.1	2.1	4.1	8.1	4.5	7.8
LOS	D	C		E	A	A	A	A	A
Approach Delay		36.6		37.9			7.7		7.4
Approach LOS		D		D			A		A

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 11.1

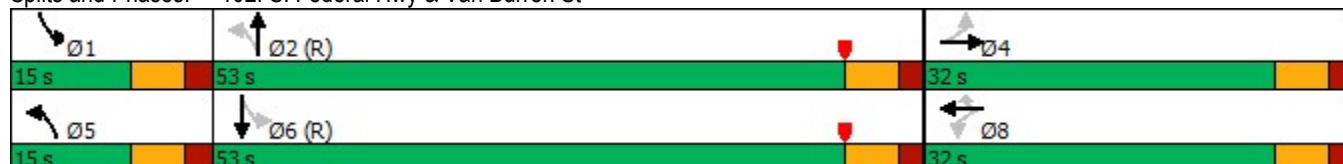
Intersection LOS: B

Intersection Capacity Utilization 62.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 102: S. Federal Hwy & Van Burren St



Queues

102: S. Federal Hwy & Van Burren St

								
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	45	87	88	47	104	998	95	806
v/c Ratio	0.35	0.42	0.58	0.19	0.20	0.40	0.22	0.33
Control Delay	47.9	30.8	57.1	2.1	4.1	8.1	4.5	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	30.8	57.1	2.1	4.1	8.1	4.5	7.8
Queue Length 50th (ft)	27	29	55	0	12	137	11	103
Queue Length 95th (ft)	60	73	101	3	30	215	27	165
Internal Link Dist (ft)		436	589			416		409
Turn Bay Length (ft)	70			60	140		80	
Base Capacity (vph)	332	477	390	469	574	2521	492	2422
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.18	0.23	0.10	0.18	0.40	0.19	0.33
Intersection Summary								

HCM Unsignalized Intersection Capacity Analysis

101: S 19 Ave & Van Burren St

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	72	4	19	107	47	12	129	33	34	160	12
Future Volume (vph)	6	72	4	19	107	47	12	129	33	34	160	12
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	86	5	23	127	56	14	154	39	40	190	14
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	98	206	207	244								
Volume Left (vph)	7	23	14	40								
Volume Right (vph)	5	56	39	14								
Hadj (s)	0.02	-0.11	-0.07	0.03								
Departure Headway (s)	5.4	5.1	5.0	5.1								
Degree Utilization, x	0.15	0.29	0.29	0.34								
Capacity (veh/h)	593	645	669	666								
Control Delay (s)	9.4	10.2	10.0	10.7								
Approach Delay (s)	9.4	10.2	10.0	10.7								
Approach LOS	A	B	B	B								
Intersection Summary												
Delay				10.2								
Level of Service				B								
Intersection Capacity Utilization				40.8%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

202: Exit Driveway & Van Burren St

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	89	0	0	173	12	40
Future Volume (Veh/h)	89	0	0	173	12	40
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	97	0	0	188	13	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			97	285		97
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			97	285		97
tC, single (s)			4.1	6.4		6.2
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			100	98		96
cM capacity (veh/h)			1496	705		959
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	97	188	13	43		
Volume Left	0	0	13	0		
Volume Right	0	0	0	43		
cSH	1700	1700	705	959		
Volume to Capacity	0.06	0.11	0.02	0.04		
Queue Length 95th (ft)	0	0	1	4		
Control Delay (s)	0.0	0.0	10.2	8.9		
Lane LOS			B	A		
Approach Delay (s)	0.0	0.0	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			19.1%		ICU Level of Service	
					A	
Analysis Period (min)			15			