Universal Development Application

This application is required for ALL applications submitted to the Planning, Zoning and Historic Preservation Division. If you have questions regarding this application, please make an appointment with planning staff.

1. /	Application Type (s	elect all that apply	')			
a.	Site Plan:	Minor	🔳 Major	Planned Development	□ Sust	ainable Bonus
b.	Use:	Administrative)	Conditional		
c.	Proximity Waiver:	🗆 Alcoholic Bev	erage	Community Residence	🗆 Gam	ing Establishment
		🖾 Adult Use				
d.	Approvals:	🗆 Variance	□ Mural	Cert. of Appropriateness	🗆 Adju	stment
e.	Amendments:	🗆 Rezoning / M	ар	□ Text		
f.	Other:	□ Subdivsion/Pl	lat	□ Annexation	🗆 Zoni	ng Letter
		□ ABT Signoff				
2. I	Project Information	_				
a.	Project Name: 7-E	leven #41361				
b.	Project Location / A	\ddress: <u>1900 10</u>	th Ave N			
C.	Legal Description:	S/D OF 21-44-43, W	1/2 S 220 F	T OF E 1/2 OF TR 5 (LESS S 20 FT	, E 25 FT	RD R/W & I-95 R/W)
d.	Property Control N	umber (PCN): 38-	43-44- <u>21-(</u>	02-005-0030		
e.	Zoning:	Existing: MU-W	1	Proposed: n/a		
f.	Future Land Use:	Existing: <u>MU-W</u>	,	Proposed: n/a		
g.	Proposed Use:	🛛 Residential; l	Jnits	_ 🔳 Commercial; <u>4,730</u> S.F	. 🗆 Ind	ustrial;S.F.
h.	Total Estimated Pro	oject Cost: <u>\$1.5 r</u>	nil			
i.	Description of Wor	K:	tructures and rec	develop site with retail space and fuel pump ca	anopy with 7 I	MPDs(14 fueling positions)
3.	Contact Informatio	า				
a.	Project Manager /	Contact Person: <u>/</u>	Anne-Chris	stine Carrie		
	Company: KEITH					
	Address: 2312 S.	Andrews Ave	(City: Fort Lauderdale S	t: <u>FL</u>	Zip: <u>33316</u>
	Phone Number: 9	54-788-3400 x 48	51 I	E-Mail Address: <u>acarrie@keit</u>	hteam.co	om
b.	Applicant Name (if	different from Pro	ject Manag	er):		
	Company:		.			· · · · · · · · · · · · · · · · · · ·
	Address:		0	City: S	t:	_Zip:
	Phone Number:			E-Mail Address:		
C.	Owner Name: 190	0 10TH AVE LLC	<u> </u>			
	Company: <u>1900 1</u>	0TH AVE LLC				
	Address: 555 HY	POLUXO RD ST	EB (City: LAKE WORTH S	it: <u>FL</u>	_Zip: <u>33462</u>
	Phone Number:			E-Mail Address:		

City of Lake Worth Beach / Department for Community Sustainability / Planning, Zoning, & Historic Preservation Division 2 1900 2nd Ave N, Lake Worth Beach, FL 33463 / 561-586-1687 / pzoning@lakeworth.org

4. Owner's Consent

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5.

1900 10 Avenue, LLC. ("Owner") 1900 10th Avenue, Lake Worth Beach, FL 33461 ("Subject F	certifies that it is the owner of the property located at Property") and expressly consents to the use of the Subject
Property as described in this application and to all conditions that	t may be agreed to as a part of the approval of this application,
which may be imposed by the decision making board. Owner herel	by authorizes, Anne-Christine Carrie (KEITH); Josh Long, AICP (Gunster) as
agent, to file this application and represent Owner at any and all me	eetings and hearings required for the approval of this application.
Owner's Signature: * Ju Sauce	Date: 2/25/20
Name/Title of Signatory:	
STATE OF Florida	
COUNTY OF <u>Falm Beach</u>	
The foregoing instrument was acknowledged before me this $\prod m$	day of teleuply, 20 70, by USa Dasile
who is personally known to me or who produced a	_ as identification. He/she did not take an oath.
(NOTARY SEAL)	× Ulto In pliaggo (Signature of Notary Public) Arta Inpup A 2220 (Name of Notary)
Affidavit of Completeness and Accuracy Instructions: To be completed by the individual submitting the application	(owner or authorized agent)
Project Name: 7-Eleven #41361	Submittal Date: <u>3/3/2020</u>
STATEMENT OF COMPLETENESS AND ACCURACY:	
I hereby certify all property owners have full knowledge the proper all owners and petitioners have been provided a complete copy of Lake Worth relating to this application. I further certify the statement are true and correct to the best of my knowledge. I understand to become official records of the Planning, Zoning and Historic Prese understand that any knowingly false, inaccurate or incomplete im administrative withdrawal of this application, request, approval or required by Palm Beach County to process this application. I further comply with the Fair Housing Standards. I further consent to the C documents submitted as a part of this application for any third party, as part of the approval of this application.	ty they own is the subject of this application. I hereby certify that all material, attachments and documents submitted to the City of hts or information made in any paper or plans submitted herewith this application, related application material and all attachments rvation Division of Lake Worth, Florida, and will not be returned. I formation provided by me will result in the denial, revocation or permit. I further acknowledge that additional information may be acknowledge that any plans that I have prepared or had prepared City of Lake Worth to publish, copy or reproduce any copyrighted . I further agree to all terms and conditions, which may be imposed
Anne-Christine Carrie	× Walla
(Name – type, stamp, or print clearly)	(Signature)
KEITH	2312 S Andrews Ave, Fort Lauderdale, FL 33316
(Name of Firm)	(Address, City, State, Zip)
STATE OF Florida	
COUNTY OF Broward	
The foregoing instrument was acknowledged before me this <u>1440</u>	day of February, 2020, by Anne-Christing Carrie
who is personally known to me or who produced a	_ as identification. He/she did not take an oath.
(NOTABLE SEAL Notary Public State of Florida Michael J Vonder Meulen My Commission GG 236459 Expires 11/02/2022	× <u>(Signature of Nofary Public)</u> <u>Michael</u> <u>Jonder</u> <u>Mevlen</u> (Name of Notary)
City of Lake Workh Deach / Deverture with face Community Cout	sinchilles (Planning, Zoning, & Historic Preservation Division

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6-19 Page 2 of 2 City of Lake Worth Beach / Department for Community Sustainability / Planning, Zoning, & Historic Preservation Division 1900 2nd Ave N, Lake Worth Beach, FL 33463 / 561-586-1687 / pzoning@lakeworth.org

Sign Posting Agreement



This form is required for all Historic Applications and Public Hearing Items.

- 1. Applicant: Anne-Christine Carrie
- 2. Property Owner: 1900 10TH AVE LLC
- 3. Contact Phone Number: <u>954-7</u>88-3400
- 4. Property Location: 1900 10th Ave North
- 5. I, Anne-Christine Carrie , hereby affirm that I will post the notification sign(s) provided to me

for a minimum of ten calendar days before the scheduled date of the hearing of Planning and Zoning Case

No. Date: 02/25/2020 Signature: Name/Title of Signatory: ANNE- CHRISTINE CARRIE,

STATE OF FLORI	D A)	
COUNTY OF BRON	ARD)	ł

The foregoing	ig instrument was acknowledged before me this <u>2544</u>	day of February 20 Zo, by
Anne Christine	e Currie who is personally known to me or who produce	ہ ed aas

identification. He/she did not take an oath.

(NOTARY SEAL)

Signature of Notary Public

onder Meulen

Notary Public State of Florida fichael J Vonder Meulen Commission GG 236459 1/02/2022

Name of Notary

Prepared By and Return To: Kirk Grantham, P.A. 1860 Forest Hill Blvd. Suite 105 () - () West Palm Beach, FL 33406

> MAY-01-1996 10:53am タムー148142 ORB タ238 Ps 498 I Mimum II # IIII # Mil # Mil # Mil # Con 500,000.00 Doc 3,500.00

WARRANTY DEED (STATUTORY FORM-SECTION 689.02 F.S.)

THIS INDENTURE, made this 23rd day of ______ April____, 1996, BETWEEN

Jane A. Armstrong, a single woman, and Mark R. Armstrong and Steven Armstrong

of the County of Palm Beach , State of Florida JAA: 1719 Crestwood Blvd. Lake Worth, FL 33460

, Grantor*, whose address is

and

Matus Akers Corp., a Florida corporation,

of the County of Palm Beach, State of Florida, Grantee, whose address is 1900 10 the Ave North, Lake Worth, FL 33461

WITNESSETH: That said Grantor, for and in consideration of the sum of TEN DOLLARS (\$10.00) and other good and valuable considerations to said Grantor in hand paid by said Grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said Grantee, and Grantee's heirs and assigns forever, the following described land, situate, lying and being in Palm Reach County, Florida, to-wit:

The South 220 feet of the East half (1/2) of Tract 5 of the subdivision of the West half (1/2) of Section 21, Township 44 South, Range 43 East, Plat Book 5, Page 12, LESS the South 20 feet thereof, LESS the East 25 feet thereof and LESS that parcel taken for 10th Avenue and State Road 9 (I-95) right-of-way, being Parcel No. 520.1-R, Section 93220-2405, all of the public records of Palm Beach County, Florida.

The above-described property is not the homestead of the Grantors, whose legal residences are as follows:

	Mark A. Armstrong	<u>6 r</u>	OSEANNE DETUE, FAJENJEW, NC 28730	
•	Steven Armstrong: 12	0	CHURCHELL DOWNS DR., FAILVIEW, NC 28730	-

0RB 9238 Ps 499

Subject to restrictions, reservations, easements and limitations of record, if any, provided that this shall not serve to reimpose same, zoning ordinances, and taxes for the current year and subsequent years.

Said Grantor does hereby fully warrant the title to said land, and will defend that same against the lawful claims of all persons whomsoever.

*'Grantor' and "Grantee" are used for singular or plural, as context requires.

IN WITNESS WHEREOF, Grantor has hereunto set Grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence 11 ø C571 AC STATE OF FLA COUNTY OF PALM BEACL

Jane A. Armstrong

Mark R. Armstrong

Steven Armstrong

The foregoing instrument was acknowledged before me this 2^{3} day of $\beta R \bar{c}$, 1996 by Jane A. Armstrong, a single woman, who is personally known to me or who has produced as identification.

~___.

Notary Public, State of 440

My Commission Expires:

Commission Number:

ORB 9238 Ps 500 DOROTHY H. WILKEN, CLERK PB COUNTY, FL

STATE OF North Carolina COUNTY OF Buncombe

The foregoing instrument was acknowledged before me this <u>16th</u> day of <u>Apri/</u>, 1996 by Mark R. Armstrong, who is personally known to me or who has produced ______ as

KELLY A. LANCASTER My Commission Expires: Notary Public, Henderson Cty., NO Commission Exp. Feb. 27, 1999

STATE OF North Carolina COUNTY OF Buncombe

The foregoing instrument was acknowledged before me this 1644 day of April Armstrong, who is personally known to me or who has produced

, 1996 by Steven as identification.

cartu Notary State

My Commission Expires: KELLY A. LANCASTER Commission Number: Notary Public, Henderson Cty., NC Commission Exp. Feb. 27, 1999

PARCEL IDENTIFICATION #

Grantee

Taxpayer I.D. Number

Description: Palm Beach,FL Document - Book.Page 9238.498 Page: 3 of 3 Order: sca Comment:



March 3, 2020

William Waters, AIA, NCARB, LEED AP BD+C, ID, SEED Director, Community Sustainability Department City of Lake Worth Beach 1900 Second Avenue North Lake Worth Beach, Florida 33461

RE: Conditional Use Justification Statement 7-Eleven #104671 at 1900 10th Avenue North KEITH #11007.02

On behalf of 7-Eleven, Inc. (the "Applicant"), KEITH requests a Conditional Use permit and Site Plan approval to allow the construction of a new 4,730 SF retail store, a fuel canopy with 7 MPDs (14 fueling positions), underground fuel storage tanks and associated parking on a property located on the northwest corner of 10th Avenue North and Barnett Drive The property's address is 1900 10th Avenue North and the parcel control number is 38-43-44-21-02-005-0030 (the "Property"). The Property is approximately 54,495 SF (1.34 acres) in size.

Existing Conditions:

The Property is currently vacant but was formerly used as a Rent-A-Truck facility with outdoor vehicle display. The Property contains a 1,600 SF, one-story structure that will be demolished as part of this application. The majority of the Property contains asphalt which was used as a parking lot to store rental trucks.

The subject site features:

- One (1) full-movement driveway along Barnett Drive. Currently the property does not have a driveway providing access to 10th Avenue North.
- A 6-foot chain link fence with gated driveway running along the perimeter of the property.
- Limited vegetation consisting primarily of palm trees along the ROW, a 3-foot perimeter hedge, interior landscape islands and parking medians.
- Site lighting.
- A pole mounted monument sign adjacent to 10th Avenue North.
- A 5-foot public sidewalk.

Proposed Conditions:

7-Eleven proposes to demolish the existing building and construct a new 4,730 SF commercial retail store and fuel canopy with 7 MPDs (14 fueling positions), underground fuel storage tanks, dumpster enclosure, associated parking and landscaping. The proposed project is designed in accordance with the qualitative standards outlined in Section 23.2-31 of the Land Development Regulations ("LDR's"). Emphasis has

Corporate Office 301 E Atlantic Blvd Pompano Beach FL 33060 954.788.3400 Miami-Dade County 5805 Blue Lagoon Drive Suite 218 Miami, FL 33122 305.667.5474 Broward County 2312 S Andrews Ave Fort Lauderdale FL 33316 954.788.3400 Palm Beach County 120 N Federal Hwy Suite 208 Lake Worth, FL 33460 561.469.0992 Orange County 2948 E Livingston Street Suite 100 Orlando, FL 32803 954.788.3400 been placed on screening of the vehicular use areas and service areas on the Property. The Property is designed to ensure a safe and efficient circulation pattern for pedestrians, personal vehicles, emergency access and service vehicles. As set forth in Section 23.2-31.13, the new 7-Eleven will provide enhanced vegetation that will improve the aesthetic appearance of this area.

Zoning Information:

The subject property is currently zoned and designated by the Future Land Use Map as Mixed-Use West ("MU-W"). Vehicle Filling Stations are permitted subject to Conditional Use approval within the MU-W zoning district pursuant to Section 23.3-6. Furthermore, Section 23.4-13 allows the sale of sundries as an accessory use to the Vehicle Filling Station.

Per Sec. 5-5(a)(2), a minimum of 500 feet is required between an establishment holding an alcohol beverage license and "a church, public or private school, park, library (protected land use) or other place of business of a person holding a beverage license." According to a review of the Palm Beach County Property Appraiser's listings, there are no protected land uses or other establishments within 500 feet of the Property. The request satisfies the distancing requirement set forth in Section 5-5(a)(2).

Conditional Use Request

Pursuant to Section 23.2-29.d, prior to approving any conditional use permit, the Planning and Zoning Board shall make findings based on competent and substantial evidence that the request meets the Conditional Use Criteria identified in the LDR.

For the proposed 7-Eleven, there is competent and substantial evidence that the request is consistent with the Criteria for a Conditional Use Permit as outlined in Section 23.2-29.d.

<u>Criteria d.1</u>: As set forth in Section 23.2-29.d.1, the Conditional Use exactly as proposed at the location where proposed will be in harmony with the uses which, under these LDRs and the Future Land Use Element, are most likely to occur in the immediate area where located.

<u>Justification</u>: The Property is designated in the City of Lake Worth Beach Future Land Use Map and the Zoning Map as "Mixed-Use West (MU-W)".

Policy 1.1.1.6 of the Future Land Use Elements of the Comprehensive Plan provides that the MU-W designation allows for a mixture of activities, such as residential, office, service and commercial retail uses, but of a higher intensity. It is a designation found within specific areas west of I-95 where all buildings are required to provide transitional buffering and design features to mitigate impact of the MU-W sites adjacent to residential zoning districts. The Property is not adjacent to residential zoning districts; however, we have provided generous buffers along the perimeter of the site.

The proposed 7-Eleven will consist of a retail store and vehicle filling station (the "7-Eleven"). Per Section 23.4-13.c.1.a.2, Vehicle Filling Stations may sell cold drinks, candies, tobacco products and similar goods for service station customers, but only as accessory and incidental to the principal business operation. The proposed Automobile Filling Station is classified as a "Medium Intensity Vehicular Use-Less than 7,500 square feet," and is permitted as a Conditional Use in the MU-W district; per Sec. 23.3-6, Use Tables.

In accordance with the LDR and the City of Lake Worth Beach Comprehensive Plan, the 7-Eleven meets the Conditional Use criteria of Section 23.2-29.d.1.



<u>Criteria d.2</u>: As set forth in Section 23.2-29.d.2, the Conditional Use exactly as proposed at the location where proposed will be in harmony with existing uses in the immediate area where located.

<u>Justification</u>: The area is characterized by commercial retail businesses and warehouses. The properties to the north and east of the Property are developed with a parking lot and a warehouse-distribution center and are zoned Industrial - Park of Commerce. The parcel to the west is developed with a parking lot and a multi-story office building and is zoned Mixed-Use West. To the south, across 10th Avenue North contains a granite countertop distributor and a used car dealership. The request is consistent with the criteria of Section 23.2-29.d.2 for the proposed Vehicle Filling Station is of an equal or lesser intensity than the neighboring uses.

<u>Criteria d.3</u>: As set forth in Section 23.2-29.d.3, the conditional use exactly as proposed will not result in substantially less public benefit or greater harm than would result from use of the site or some use permitted by right or some other conditional use permitted on the site.

<u>Justification</u>: The project will add architectural interest to this corridor by replacing the existing structure with a new, modern building that implements the form-based elements of the LDR. The development will generate more public benefit for the vehicular use area will now be screened from the public eye with enhanced landscaping. The proposed development will generate new jobs and improve the aesthetic appearance of the area. The design team does not expect the project to result in substantially less public benefit than would a development permitted by right.

<u>Criteria d.4</u>: As set forth in Section 23.2-29.d.4, the Conditional Use exactly as proposed will not result in more intensive development in advance of when such development is approved by the Future Land use Element of the Comprehensive Plan.

<u>Justification</u>: Per the Future Land Use Elements of the Comprehensive Plan, Policy 1.1.1.6, the MU-W designation allow a mixture of activities, such as residential, office, service and commercial retail uses, but of a higher intensity. The proposed uses are not more intensive than that which is permitted by the Future Land Use Element.

Pursuant to Section 23.2-29.e, there is competent and substantial evidence that the request is also consistent with the requirements which are specific to all Conditional Uses.

<u>Criteria e.1:</u> As set forth in Section 23.2-29.e.1, the proposed Conditional Use will not generate traffic volumes or movements which will result in a significant adverse impact or reduce the level of service provided on any street to a level lower than would result from a development permitted by right.

<u>Justification</u>: It is anticipated that most of the traffic generated by the new 7-Eleven will be on 10th Avenue North where a new driveway is proposed. This will avoid the need to turn onto Barnett Drive to access the Property and minimize the impact on the level of service of the city street. The project will not result in substantially less public benefit than would a development permitted by right. <u>Criteria e.2</u>: As set forth in Section 23.2-29.e.2, the proposed Conditional Use will not result in a significantly greater amount of through traffic on local streets than would result from a development permitted by right and is appropriately located with respect to collector and arterial streets.

<u>Justification</u>: The proposed conditional use is located along a corridor predominantly characterized by Commercial or Industrial development. The proposed conditional use is compatible with the transportation impacts generated by these adjoining uses and will not result in a significantly greater amount of through traffic on local streets than would result from a development permitted by right. Furthermore, vehicular trips generated by the development will use the new access point proposed along 10 Avenue North and are not expected to have a great impact on Barnett Drive - a local street. A thorough analysis by a certified traffic engineer will be provided to City staff.

<u>Criteria e.3</u>: As set forth in Section 23.2-29.e.3, the proposed conditional use will not produce significant air pollution emissions, or will appropriately mitigate anticipated emissions to a level compatible with that which would result from a development permitted by right.

<u>Justification</u> The project will comply with all DEP and EPA regulations and, as such, will not produce significant air pollution emissions. The proposal is thereby consistent with the criteria of Section 23.2-29.e.3.

<u>Criteria e.4:</u> As set forth in Section 23.2-29.e.4, the proposed conditional use will be so located in relation to the thoroughfare system that neither extension nor enlargement nor any other alteration of that system in a manner resulting in higher net public cost or earlier incursion of public cost than would result from development permitted by right.

<u>Justification</u>: The proposed conditional use is designed in such a way that neither the extension, enlargement or other alteration of that system would result in higher net public cost or earlier incursion of public cost than would result from development permitted by right.

<u>Criteria e.5</u>: As set forth in Section 23.2-29.e.5, the proposed Conditional Use will be so located in relation to water lines, sanitary sewers, storm sewers, surface drainage systems and other utility systems that neither extension nor enlargement nor any other alteration of such systems in a manner resulting in higher net public cost than would result from development permitted by right will occur.

<u>Justification</u>: The proposed conditional use is located adjacent to existing water, sanitary sewer, storm, and surface drainage systems. It is not anticipated that an extension, enlargement or any other alteration of such systems would result in a higher net public cost than would a development permitted by right or other conditional use.

<u>Criteria e.6</u>: As set forth in Section 23.2-29.e.6, the proposed Conditional Use will not place a demand on municipal police or fire protection service beyond the capacity of those services, except that the proposed facility may place a demand on municipal police or fire protection services which does not exceed that likely to result from a development permitted by right will occur.

<u>Justification</u>: The proposed conditional use is located along a corridor predominantly characterized by Commercial or Industrial development. The proposed conditional use will not generate a demand beyond the capacity of municipal police or fire protection service.

<u>Criteria e.7</u>: As set forth in Section 23.2-29.e.7, the proposed Conditional Use will not generate significant noise, or will appropriately mitigate anticipated noise to a level compatible with that which would result from a development permitted by right. Any proposed use must meet all the requirements and stipulations set forth in Section 15.24 – Noise Control.

<u>Justification</u>: The proposed conditional use is located along a corridor predominantly characterized by Commercial or Industrial development. These uses are wholly compatible with the noise typically generated by the proposed conditional use and therefore will not conflict with those requirements and stipulations set forth in Section 15.24 – Noise Control.

<u>Criteria e.8</u>: As set forth in Section 23.2-29.e.8, the proposed Conditional Use will not generate light or glare which encroaches onto any residential property in excess of that allowed in Section 23.4-10 – Exterior Lighting.

<u>Justification</u>: The proposed conditional use is not adjacent to any residential properties and therefore will not generate light or glare which encroaches onto any residential property in excess of that allowed in Section 23.4-10 – Exterior Lighting.

The design team looks forward to further discussing this development with the Lake Worth Beach planning staff. For any questions or concerns, please feel free to contact me at 954-788-3400 or via e-mail at <u>acarrie@keithteam.com</u>.

Respectfully,

Anne-Christine Carrie, Planner

CC: Shane Laakso, Creighton Construction and Management



March 5, 2020

William Waters, AIA, NCARB, LEED AP BD+C, ID, SEED Director, Community Sustainability Department City of Lake Worth Beach 1900 Second Avenue North Lake Worth Beach, Florida 3346

RE: Design Standards Narrative 7-Eleven #1046710 at 1900 10th Avenue North

On behalf of 7-Eleven, Inc. this missive seeks to satisfactorily illustrate the compliance of the subject property with the site design qualitative standard, Sec 23.2-31 of the Code of Ordinances of the City of Lake Worth.

Project Data

Project Address	1900 10 th Av	1900 10 th Ave. North, lake Worth, FL 33461			
Current Zoning	Mixed-Use \	Mixed-Use West (MU-W)			
Designation					
Adjacent Zoning North		Industrial – Park of Commerce (I-POC)			
	South	MU-W (Mixed-Use West)			
	East	Industrial – Park of Commerce (I-POC)			
	West	MU-W (Mixed-Use West)			

Existing Conditions:

The Property is currently vacant but was formerly used as a Rent-A-Truck facility with outdoor vehicle display. The Property contains a 1,600 SF, one-story structure that will be demolished as part of this application. The majority of the Property contains asphalt which was used as a parking lot to store rental trucks.

The subject site features:

- One (1) full-movement driveway along Barnett Drive. Currently the property does not have a driveway providing access to 10th Avenue North.
- A 6-foot chain link fence with gated driveway running along the perimeter of the property.

• Limited vegetation consisting primarily of palm trees along the ROW, a 3-foot perimeter hedge, interior landscape islands and parking medians.

- Site lighting.
- A pole mounted monument sign adjacent to 10th Avenue North.
- A 5-foot public sidewalk.

Surrounding Property Conditions:

The immediate surrounding properties are primarily light industrial in nature. Adjacent properties include automotive repair and/or modifications, warehouse storage, automotive sales, packing, shipping



and distribution, among others. The dominant architectural style along primary and minor arteries appear to be single story, metal clad steel framed structures, as well as stucco clad masonry units. Primary building sizes range from small (<5,000 SF) to medium (>50,000 SF), however, noted exceptions exist, including a multi-story office building directly west of the subject property.

Proposed Conditions:

7-Eleven proposes to demolish the existing building and construct a new 4,730 SF commercial retail store and fuel canopy with 7 MPDs (14 fueling positions), underground fuel storage tanks, dumpster enclosure, associated parking and landscaping. The proposed project is designed in accordance with the qualitative standards outlined in Section 23.2-31 of the Land Development Regulations ("LDR's"). Emphasis has been placed on screening of the vehicular use areas and service areas on the Property. The Property is designed to ensure a safe and efficient circulation pattern for pedestrians, personal vehicles, emergency access and service vehicles. As set forth in Section 23.2-31.13, the new 7-Eleven will provide enhanced vegetation that will improve the aesthetic appearance of this area.

Zoning Information:

The subject property is currently zoned and designated by the Future Land Use Map as Mixed-Use West ("MU-W"). Vehicle Filling Stations are permitted subject to Conditional Use approval within the MU-W zoning district pursuant to Section 23.3-6. Furthermore, Section 23.4-13 allows the sale of sundries as an accessory use to the Vehicle Filling Station.

Per Sec. 5-5(a)(2), a minimum of 500 feet is required between an establishment holding an alcohol beverage license and "a church, public or private school, park, library (protected land use) or other place of business of a person holding a beverage license." According to a review of the Palm Beach County Property Appraiser's listings, there are no protected land uses or other establishments within 500 feet of the Property. The request satisfies the distancing requirement set forth in Section 5-5(a)(2).

Design Qualitative Standards (23.2-31)

Requirement #1:

Harmonious and efficient organization. All elements of the site plan shall be harmoniously and efficiently organized in relation to topography, the size and type of plot, the character of adjoining property and the type and size of buildings. The site shall be developed so as to not impede the normal and orderly development or improvement of surrounding property for uses permitted in these LDRs.

Response:

The subject property exhibits a primarily flat topography which presents little opportunity for a disharmonious layout with relation to the sites existing topography. The proposed configuration maintains this flat topography and situates the building towards the rear of the property, with the fuel canopy towards the center. The site is oriented towards the primary artery, 10th Avenue North, however, convenient entrances are provided along both primary and minor arteries. Public parking is provided towards the protected interior of the site and away from the adjacent arteries, such that any disruptions to traffic flow can be minimized, and the safety of the customers can be



prioritized. The site complies the required setbacks and presents no limitations to the development of adjacent properties.

Requirement #2:

Preservation of natural conditions. The natural (refer to landscape code, Article 6 of these LDRs) landscape shall be preserved in its natural state, insofar as practical, by minimizing tree and soil removal and by such other site planning approaches as are appropriate. Terrain and vegetation shall not be disturbed in a manner likely to significantly increase either wind or water erosion within or adjacent to a development site. Natural detention areas and other means of natural vegetative filtration of stormwater runoff shall be used to minimize ground and surface water pollution, particularly adjacent to major waterbodies. Fertilizer/pesticide conditions may be attached to development adjacent to waterbodies. Marinas shall be permitted only in water with a mean low tide depth of four feet or more.

Response:

The site is presently paved throughout the majority of its extents. Minimal landscaping within the property extents consist primarily of a parking island within the existing parking area, and landscaping (turf) in the required setback areas. As aforementioned, enhanced landscaping will be provided to improve the aesthetic appearance of the property, and the new site will comply with all required building setbacks as well as provide any required landscape buffers.

Requirement #3:

Screening and buffering. Fences, walls or vegetative screening shall be provided where needed and practical to protect residents and users from undesirable views, lighting, noise, odors or other adverse off-site effects, and to protect residents and users of off-site development from on-site adverse effects. This section may be interpreted to require screening and buffering in addition to that specifically required by other sections of these LDRs, but not less.

Response:

Where applicable, screening, including fences, walls, and/or vegetative screening will be provided in compliance with Section 23.2-31.

Requirement #4:

Enhancement of residential privacy. The site plan shall provide reasonable, visual and acoustical privacy for all dwelling units located therein and adjacent thereto. Fences, walks, barriers and vegetation shall be arranged for the protection and enhancement of property and to enhance the privacy of the occupants.

Response:

The property is neither located in, nor adjacent to any residential properties. Refer to the Property Data subsection, as provided earlier in this document



Requirement #5:

Emergency access. Structures and other site features shall be so arranged as to permit emergency vehicle access by some practical means to all sides of all buildings.

Response:

The Property is designed to ensure a safe and efficient circulation pattern for pedestrians, personal vehicles, emergency access and service vehicles. In addition, the property complies with required setbacks, allowing practicable access to the entirety of the building, in compliance with the Design Qualitative Standards

Requirement #6:

Access to public ways. All buildings, dwelling units and other facilities shall have safe and convenient access to a public street, walkway or other area dedicated to common use; curb cuts close to railroad crossings shall be avoided.

Response:

Safe and convenient access is provided to the subject property along both Barrett Drive, and 10th Avenue North. Access from the building to the public way is provided with sidewalks and clearly defined paths showing safe and convenient access.

Requirement #7:

Pedestrian circulation. There shall be provided a pedestrian circulation system which is insulated as completely as reasonably possible from the vehicular circulation system.

Response:

Pedestrian circulation is provided such that a continuous walking surface is provided leading to the building entrance, allowing reasonable access without the interacting with the drive aisles to the extent possible.

Requirement #8:

Design of ingress and egress drives. The location, size and numbers of ingress and egress drives to the site will be arranged to minimize the negative impacts on public and private ways and on adjacent private property. Merging and turnout lanes traffic dividers shall be provided where they would significantly improve safety for vehicles and pedestrians.

<u>Response:</u>

Ingress and egress drives are provided to the site in compliance with all local, and/or state requirements.

Requirement #9:

Coordination of on-site circulation with off-site circulation. The arrangement of public or common ways for vehicular and pedestrian circulation shall be coordinated with the pattern of existing or planned streets and pedestrian or bicycle pathways in the area. Minor streets shall not be connected to major streets in such a way as to facilitate improper utilization.



Response:

All circulation provided are designed in conjunction with existing vehicular patterns, and in compliance with applicable codes and regulations, in order to maintain a safe and consistent vehicular exchange between the proposed property and existing arteries. The site is configured such that improper use, including as a byway between the major and minor arterial rights-of-way, is discouraged

Requirement #10:

Design of on-site public right-of-way. On-site public street and rights-of-way shall be designed for maximum efficiency. They shall occupy no more land than is required to provide access, nor shall they unnecessarily fragment development into small blocks. Large developments containing extensive public rights-of-way shall have said rights-of-way arranged in a hierarchy with local streets providing direct access to parcels and other streets providing no or limited direct access to parcels.

Response:

On-site public rights-of-way are maintained where applicable and are not configured to encourage fragmentation.

Requirement #11:

Off-street parking, loading and vehicular circulation areas. Off-street parking, loading and vehicular circulation areas shall be located, designed and screened to minimize the impact of noise, glare and odor on adjacent property.

Response:

Off-street parking and circulation are configured such that, the impact on adjacent properties is minimized and the safety of customers are prioritized

Requirement #12:

Refuse and service areas. Refuse and service areas shall be located, designed and screened to minimize the impact of noise, glare and odor on adjacent property.

Response:

A screened refuse compound is provided on the subject property and is located such that disruptions to adjacent properties, including noise, glare and odor are minimized, and practicable access is provided for quick efficient servicing

Requirement #13:

Protection of property values. The elements of the site plan shall be arranged so as to have minimum negative impact on the property values of adjoining property.

Response:



The proposed elements of the site plan are in compliance with or exceed the current architectural standards of the adjacent properties. It is anticipated that the subject property should not negatively impact the property values of neighboring properties.

Requirement #14:

Transitional development. Where the property being developed is located on the edge of the zoning district, the site plan shall be designed to provide for a harmonious transition between districts. Building exteriors shall complement other buildings in the vicinity in size, scale, mass, bulk, rhythm of openings and character. Consideration shall be given to a harmonious transition in height and design style so that the change in zoning districts is not accentuated. Additional consideration shall be given to complementary setbacks between the existing and proposed development.

Response:

The configuration of the subject property is designed to suitably comply with the existing standards of both zoning districts bordering the subject property (reference the Property Data subsection earlier in this document). The architectural design is comprised of materials common throughout both zoning districts, included stucco, glazing, and architectural canopies, as well as metal cladding on the fuel canopy. The site design aspires to an enhanced aesthetic appearance beneficial to both neighboring zoning districts

Please feel free to contact us with any questions or concerns, at the particulars below.

Jeffi

Chief Development Officer Ph: (407) 661-9100 Ext. 2419 Jeff.Suchan@c-p.com



March 5, 2020

William Waters, Director Department for Community Sustainability City of Lake Worth Beach 1900 2nd Avenue North Lake Worth Beach, Florida 33461

RE: Community Appearance Criteria Letter of Compliance 7-Eleven #104671 at 1900 10th Avenue North KEITH #11007.02

On behalf of 7-Eleven, LLC (the "Applicant"), KEITH requests a Conditional Use permit and Site Plan approval to allow the construction of a new 4,730 SF retail store, a fuel canopy with 7 MPDs (14 fueling positions), underground fuel storage tanks and associated parking on a property located on the northwest corner of 10th Avenue North and Barnett Drive with the address 1900 10th Avenue North (the "Property). The site's parcel number is 38-43-44-21-02-005-0030 and it is approximately 54,495 SF (1.34 acres) in size.

This letter of compliance is in support of the Site Plan narrative and Justification Statement for a Conditional Use for the same development. In accordance with Section 23.2-31(I), the Site Plan complies with the Community Appearance Criteria which are as follows:

"The plan for the proposed structure or project is in conformity with good taste, good design, and in general contributes to the image of the City as a place of beauty, spaciousness, harmony, taste, fitness, broad vistas and high quality."

The elevations of the proposed structure uses nature tones while maintaining the identity of the 7-Eleven retailer. Architectural details such as medallions and shifts in planes at different intervals ensure that there is no uniformity in the facades. Sheets A-202 and A-201 demonstrate the vertical interest that is created by the single-story structure. Furthermore, the base of the building is designed to frame the pedestrian space with an aesthetically pleasing change in texture and color. This design is in good taste and complements the City's appearance.

"The proposed structure or project is not, in its exterior design and appearance, of inferior quality such as to cause the nature of the local environment or evolving environment to materially depreciate in appearance and value."

The existing property currently has landscape islands and medians but the vegetation is poor. As such, the outdoor vehicle storage is fully exposed to the public. The new development will

Corporate Office 301 E Atlantic Blvd Pompano Beach FL 33060 954.788.3400 Miami-Dade County 2160 NW 82 Ave Doral FL 33122 305.667.5474 Broward County 2312 S Andrews Ave Fort Lauderdale FL 33316 954.788.3400 Palm Beach County 120 N Federal Hwy Suite 208 Lake Worth, FL 33460 561.469.0992 Orange County 321 N Crystal Lake Drive Suite 208 Orlando, FL 32803 954.788.3400 provide wide buffers and exceed the landscape requirements of the Code. The vehicular use areas will be screened by enhanced landscaping and the existing perimeter hedges will be enhanced with ground plating. Finally, the addition of canopy trees will provide shade and aesthetic appeal to the public.

"The proposed structure or project is in harmony with the proposed developments in the general area, with code requirements pertaining to site plan, signage and landscaping, and the comprehensive plan for the City, and with the criteria set forth herein.

Sheet SP-101 lists the required and proposed development standards pursuant to Chapter 23, Article IV of the Code of Ordinances. As proposed, the site satisfies the Code requirements. As stated in the Design Standards narrative, the property will be developed within the context of the 10th Avenue North corridor, as well as that of the neighboring commercial developments.

As indicated in the Justification Statement for the Conditional Use request, the development would not have a greater impact on the area as would a development permitted by right. Finally, the request is consistent with the Comprehensive Plan for the Mixed-Use West Future Land Use Designation for it proposes a commercial use of a higher intensity.

The proposed structure or project is in compliance with this section and 23.2-29, as applicable.

The design team has provided the documents and plans required for Site Plan and Conditional Use approval. The project is consistent with the criteria set forth for both requests and the proposed structures are in good taste and form.

The design team looks forward to further discussing this development with the Lake Worth Beach planning staff. For any questions or concerns, please feel free to contact me at 954-788-3400 or via e-mail at <u>acarrie@keithteam.com</u>.

Respectfully,

Anne-Christine Carrie, Planner

CC: Shane Laakso, Creighton Construction and Management



June 12, 2020

Mr. William Waters, AIA, NCARB, LEED AP BD+C, ID, SEED Director, Community Sustainability Department City of Lake Worth Beach 1900 Second Avenue North Lake Worth Beach, FL 33461

Re: 7-Eleven #41361 @ 1900 10th Avenue North Variance – Justification Statement PZB Project Number: 20-00500003

Dear William,

It's our pleasure to submit on behalf of our client, 7-Eleven, Inc. ("7-Eleven"), a Variance Application for our client's proposed 7-Eleven Gas Station with Single Destination Retail at 1900 10th Avenue North ("Site"). The zoning classification for the Site is Mixed Use West. Our application requests a front setback variance from the Mixed Use West zoning district regulations which require that structures be located between 20 to 32 feet from the front property line. The City of Lake Worth Beach Major Thoroughfare Design Guidelines require that both 10th Avenue North and Barnett Drive are treated as the front property line. Our client's proposed fuel canopy is located 30.21 feet from Barnett Drive and 40.34 feet from 10th Avenue North. This application seeks an 8.34 foot variance from the front setback requirement for 10th Avenue North. Our application complies with applicable City of Lake Worth Beach standards for a variance as outlined below:

• Special circumstances or conditions exist which are peculiar to the land or building for which the variance is sought and do not apply generally to nearby lands and buildings, and that this is not the result of action of the applicant.

REPLY: There are two (2) unique conditions that require the requested variance.

1. The Site is located at the bottom of the west bound lane for the 10^{th} Avenue North I-95 overpass. The grade change from the top of the overpass to the Site is significant and the roads at the Barnett Drive & 10^{th} Avenue North intersection have been designed to accommodate for the grade change. The intersection's unique design has created an unusual geometric configuration for the Site. A typical property is square or rectangular in design with straight lines and right angles where the property lines intersect. The overpass requires the roads at this intersection flare out and as a result the front property line is not straight. The front property line for the Site is curved which creates unique design conditions that necessitate the requested variance.

2. Gas station fueling canopies require traffic circulation on all four (4) sides of the fuel canopy. A typical building would require traffic circulation on just one (1) or two (2) of the building's facades which would allow the structure to be located closer to the road. The Mixed Use West zoning regulations would require that the fuel canopy, an allowed use, be placed close to the property line along both 10th Avenue North and Barnett Drive. The required four (4) sided traffic circulation and the required landscape buffers create design constraints which prevent the fuel canopy from being placed within the required front setback along 10th Avenue North. The fuel canopy does comply with the setback requirement for Barnett Drive.

• The strict application of the provision of these LDRs would deprive the applicant of any reasonable use of the land or building for which the variance is sought.

REPLY: The strict application of the setback standard would prevent our client from selling gas which would deprive our client from a reasonable use of the Site. The Site is a unique property and most appropriately suited for gas operations due to its location adjacent to I-95 and along 10th Avenue North, which are both highly trafficked roads. A strict application of the setback standard would prevent our client from using the property for its most appropriate use.

• That the variance proposed is the minimum variance which makes possible the reasonable use of the land or building.

REPLY: The fuel canopy has been located as close to 10th Avenue North as possible without adversely impacting safe on-site traffic circulation or the required landscape buffer.

• That the granting of the variance will be in accordance with the spirit and purpose of this chapter, and will not be unduly injurious to contiguous property or the surrounding neighborhood nor otherwise detrimental to the public welfare.

REPLY: The purpose of the Land Development Regulations is found in Section 23.1-3, which identifies several areas of focus, including the City's Comprehensive Plan. Both the Comprehensive Plan and Land Development Regulations promote economic development, job creation and encourage providing goods and services to the residents of the City. The Site is currently a vacant parking lot, which adds little value and does not meet the purpose and intent of the Land Development Regulations. The addition of the 7-Eleven Gas Station with Single Destination Retail will turn the vacant corner into a viable commercial business for the City, increasing the City's tax base, foster community pride, bringing jobs to the area, and enhancing the community appearance through orderly development with enhanced architecture and landscaping along both 10th Avenue North and Barnett Drive. The intersection is a commercial node, where only other commercial

and industrial type uses are located; the proposed use conforms with and is harmonious with the other uses within the area.

If you have any questions or need further information about this request, please do not hesitate to contact me anytime at (561) 650-0719.

Best Regards, Joshua I. Long, AICP Planner JIL/op

Client cc: Brian M. Seymour, Esq.



May 12, 2020

Engineer's Drainage Statement

Subject: 7-Eleven 41361 1900 10th Avenue North Lake Worth, Forida 33461 KEITH Project No. 11007.02

Project Description:

The site is located in Section 21, Township 44 S, Range 43 E within the City of Lake Worth Beach. The address of the site is 1900 10th Avenue North, Lake Worth, Florida 33461. The project consists of the construction of a convenience store and gas station and associated infrastructure on a presently developed site. The existing building and parking lot are to be demolished.

Existing Conditions:

The site consists of an existing building and parking lot with associated infrastructure. A drainage system exists, however, there is no existing storm water permit for this site.

Permitting Requirements:

An Environmental Resource Permit (ERP) "10-2 Self-Certification" is required for this project. Additionally, the project will be reviewed by the City of Lake Worth Beach and Palm Beach County Land Development.

Drainage Facilities:

The proposed improvements shall be designed to meet requirements of SFWMD, Florida Administrative Code Rule 14-86, Article 11 of Palm Beach County's ULDC and City of Lake Worth Beach requirements. Exfiltration trenches and dry retention areas shall be constructed to provide the required storm water storage and water quality treatment. Pre vs. post development storm water management calculations shall be produced to demonstrate that the development will not adversely impact adjacent properties.

Sincerely,

KEITH & ASSOCIATES, INC. Consulting Engineers

Thomas F. Donahue, P.E. Florida Reg. No. 60529 (for the firm)

Corporate Office 301 E. Atlantic Blvd Pompano Beach FL 33060 954.788.3400 Miami-Dade County 2160 N.W. 82 Ave Doral FL 33122 305.667.5474 Broward County 2312 S. Andrews Ave Fort Lauderdale FL 33316 954.788.3400 Palm Beach County 120 N. Federal Hwy Suite 208 Lake Worth, FL 33460 561.469.0992 St. Lucie County 2325 S.E. Patio Cir. Port St. Lucie FL 34952 954.788.3400 Orange County 2948 E. Livingston St.

Orlando FL 32803 954.788.3400

STORMWATER MANAGEMENT CALCULATIONS

for

7-Eleven 41361

KEITH Project No. 11007.02

May 12, 2020

FINISHED FLOOR ELEVATION SUMMARY

Criteria	Min. Elevation
FEMA FIRM (BFE) Zone X	N/A
ASCE/SEI 24-05 (Cat II, BFE + 12")	N/A
City of Lake Worth Beach (100-year, 3-day zero discharge elevation)	16.74 NAVD
Palm Beach County ULDC (100-year, 3-day zero discharge elevation)	16.74 NAVD
Design 100-year, 3-day, zero discharge elevation	16.74 NAVD
Controling FFE	16.74 NAVD

POST-DEVELOPMENT STAGE ELEVATIONS

Design Storm	Pre- Development Stage (feet NAVD)	Pre- Development Discharge (cfs)	Post- Development Stage (feet NAVD)	Post- Development Discharge (cfs)	Design Criteria
3-year, 1-hour	-	-	14.00 ft	0.00 cfs	
5-year, 1-day	16.52 ft	0.00 cfs	15.25 ft	0.00 cfs	Parking Lot
25-year, 3-day	17.45 ft	0.00 cfs	16.36 ft	0.00 cfs	Perimeter Berm
100-year, 3-day	17.83 ft	0.00 cfs	16.74 ft	0.00 cfs	Finished Floor

EXISTING LAND USE SUMMARY

Land Use Description		Sub-Area	Area
			1.07
	Building	0.07	
	Pavement	1.00	
	Sidewalk	0.00	
Pervious Area			0.18
	Pervious	0.18	
Total Site Area			1.25 ac

RAINFALL DATA

Storm Frequency	24 Hour Rainfall	72 Hour Rainfall
5 Year	7.00 in	-
25 Year	-	13.00 in
100 Year	-	16.00 in

EXISTING DISCHARGE

Criteria	Discharge
Allowable Discharge	N/A

WET SEASON GROUND WATER ELEVATION

Criteria	WSWT Elev.
LWDD Maintained Canal Elevation (Water Table)	8.30 NAVD

EXISTING STAGE-STORAGE

Land Use	Area	Elevation Range (NAVD)		Average Elev. (NAVD)	Storage Type	
		Low	High			
Building	0.07 ac	19.11	19.11	19.11	Vert.	
Pavement	1.00 ac	14.26	19.05	16.66	Linear	
Pervious	0.18 ac	14.52	19.65	17.09	Linear	

Weighted Average Site Elevation = 16.85 NAVD Weighted Average Pervious Elevation = 17.09 NAVD Depth to Water Table = 8.79 NAVD

EXISTING SOIL STORAGE

Soil Classification = Assuming 25% Void Reduction, Available Ground Storage = Available Soil Storage = Available Storage x Pervious Area

Available Soil Storage = 0.12 ac-ft

Converted to Site-Wide Moisture Storage, S S = Available Soil Storage / Site Area

S= 1.18 inches

SCS Curve Number, CN

CN = 1000/(s+10) CN = 89 Coastal 8.18 inches

PRE-DEVELOPMENT STAGE STORAGE

Starting Stage = 14.00 NAVD

Ending Stage = 20.00 NAVD

Stage Increment = 0.50 Feet

Stage	Pavement Pervious		Total Storage
(NAVD)	(ac)	(ac)	(ac-ft)
Area	1.00	0.18	
Start Elev.	14.26	14.52	
End Elev.	19.05	19.65	
	Linear	Linear	
14.00	0.00	0.00	0.00
14.50	0.01	0.00	0.01
15.00	0.06	0.00	0.06
15.50	0.16	0.02	0.18
16.00	0.32	0.04	0.35
16.50	0.52	0.07	0.59
17.00	0.78	0.11	0.89
17.50	1.10	0.16	1.25
18.00	1.46	0.21	1.67
18.50	1.88	0.28	2.15
19.00	2.35	0.35	2.70
19.50	2.87	0.44	3.30
20.00	3.44	0.52	3.96

PRE-DEVELOPMENT - ZERO DISCHARGE FLOOD ROUTING

Project Name: PRE 05 - year, 1 - day Reviewer: TD Project Number: 11007.02 Period Begin: Jan 01, 2000;0000 hr End: Jan 04, 2000;0000 hr Duration: 72 hr Time Step: 0.05 hr, Iterations: 10

Basin 1: 7-Eleven

Method: Santa Barbara Unit Hydrograph Rainfall Distribution: SFWMD - 24 hr Design Frequency: 5 year 1 Day Rainfall: 7 inches Area: 1.25 acres Ground Storage: 1.18 inches Time of Concentration: 0.17 hours Initial Stage: 14 ft NAVD

Stage	Storage
(ft NAVD)	(acre-ft)
14.00	0.00
14.50	0.01
15.00	0.06
15.50	0.18
16.00	0.35
16.50	0.59
17.00	0.89
17.50	1.25
18.00	1.67
18.50	2.15
19.00	2.70
19.50	3.28
20.00	3.87

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

=========		=======		=====	============	
Struc	Max	(cfs)	Time	(hr)	Min (cfs)	Time (hr)
=========	=====	=======	======	=====	================	

BASIN MAXIMUM AND MINIMUM STAGES

=======================================			=======================================	===========
Basin N	Max (ft)	Time (hr)	Min (ft)	Time (hr)
7-Eleven	16 52	25 55	14 00	0 00

BASIN WATER BUDGETS (all units in acre-ft)

=======================================	=======================================		=======================================			============
Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
7-Eleven	0.60	0.00	0.00	0.00	0.60	0.00

Project Name: PRE 25 - year, 3 - day Reviewer: TD Project Number: 11007.02 Period Begin: Jan 01, 2000;0000 hr End: Jan 04, 2000;0000 hr Duration: 72 hr Time Step: 0.05 hr, Iterations: 10

Basin 1: 7-Eleven

Method: Santa Barbara Unit Hydrograph Rainfall Distribution: SFWMD - 3day Design Frequency: 25 year 3 Day Rainfall: 13 inches Area: 1.25 acres Ground Storage: 1.18 inches Time of Concentration: 0.17 hours Initial Stage: 14 ft NAVD

Stage	Storage
(ft NAVD)	(acre-ft)
14.00	0.00
14.50	0.01
15.00	0.06
15.50	0.18
16.00	0.35
16.50	0.59
17.00	0.89
17.50	1.25
18.00	1.67
18.50	2.15
19.00	2.70
19.50	3.28
20.00	3.87

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

	=====	=======	======	=====	==============	
Struc	Max	(cfs)	Time	(hr)	Min (cfs)	Time (hr)
=========	=====	======	======	=====	================	

BASIN MAXIMUM AND MINIMUM STAGES

				==================
Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
7-Eleven	======================================	72 00	======================================	0 00

BASIN WATER BUDGETS (all units in acre-ft)

=======================================	=======================================	=======================================	=======================================			============
Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
7-Eleven	1.21	0.00	0.00	0.00	1.21	0.00

Project Name: PRE 100 - year, 3 - day Reviewer: TD Project Number: 11007.02 Period Begin: Jan 01, 2000;0000 hr End: Jan 04, 2000;0000 hr Duration: 72 hr Time Step: 0.05 hr, Iterations: 10

Basin 1: 7-Eleven

Method: Santa Barbara Unit Hydrograph Rainfall Distribution: SFWMD - 3day Design Frequency: 100 year 3 Day Rainfall: 16 inches Area: 1.25 acres Ground Storage: 1.18 inches Time of Concentration: 0.17 hours Initial Stage: 14 ft NAVD

Stage	Storage
(ft NAVD)	(acre-ft)
14.00	0.00
14.50	0.01
15.00	0.06
15.50	0.18
16.00	0.35
16.50	0.59
17.00	0.89
17.50	1.25
18.00	1.67
18.50	2.15
19.00	2.70
19.50	3.28
20.00	3.87

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

	=====	=======	======	=====	==============	
Struc	Max	(cfs)	Time	(hr)	Min (cfs)	Time (hr)
=========	=====	======	======	=====	================	

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
7-Eleven	17.83	72.00	14.00	0.00

BASIN WATER BUDGETS (all units in acre-ft)

=======================================	=======================================					============
Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
7-Eleven	1.52	0.00	0.00	0.00	1.52 ¹	0.00

STORMWATER MANAGEMENT SYSTEM DESCRIPTION

The proposed stormwater management system consists of a system of drainage structures and pipes to convey stormwater runoff into exfiltration trenches and dry retention areas.

Land Use	Description	Sub-Area	Area		
Impervious Area			0.89 ac		
	Building	0.11 ac			
	Pavement	0.72 ac			
	Sidewalk	0.06 ac			
Pervious Area			0.36 ac		
	Pervious	0.28 ac			
	Retention Bank	0.06 ac			
	Retention Bottom	0.02 ac			
Total Site Area			1.25 ac		

PROPOSED LAND USE SUMMARY

RAINFALL DATA

Storm Frequency	24 Hour Rainfall	72 Hour Rainfall
5 Year	7.00 in	-
25 Year	-	13.00 in
100 Year	-	16.00 in

ALLOWABLE DISCHARGE

Criteria	Allowable Discharge		
Allowable Discharge per SFWMD Basin Criteria	N/A	N/A	

WET SEASON GROUND WATER ELEVATION

Criteria	WSWT Elevation
LWDD Maintained Canal Elevation (Water Table)	8.30 NAVD

PROPOSED STAGE-STORAGE

		Elevation Range (NAVD)		Elevation Range Average Elev. (NAVD) (NAVD)	
Land Use	Area	Low	High		
Building	0.11 ac	18.00	18.00	18.00	Vert.
Pavement	0.72 ac	14.40	17.62	16.01	Linear
Sidewalk	0.06 ac	14.50	18.00	16.25	Linear
Pervious	0.28 ac	14.50	17.50	16.00	Linear
Retention Bank	0.06 ac	14.00	16.00	15.00	Linear
Retention Bottom	0.02 ac	14.00	14.00	14.00	Vert.

Coastal

8.18 inches

Weighted Average Site Elevation = 16.11 NAVD

Weighted Average Pervious Elevation = 15.72 NAVD

Depth to Water Table = 7.42 NAVD

AVAILABLE SOIL STORAGE

Soil Classification = Assuming 25% Void Reduction, Available Ground Storage = Available Soil Storage = Available Storage x Pervious Area

Available Soil Storage = 0.25 ac-ft

Converted to Site-Wide Moisture Storage, S S = Available Soil Storage / Site Area

S= 2.36 inches

SCS Curve Number, CN

CN = 1000/(s+10) CN = 80

WATER QUALITY CALCULATION

Water quality treatment for the greater of one inch of runoff over the entire site or 2.5 inches over the percentage of impervious area shall be provided in the proposed exfiltration trenches.

a. Site area for water quality pervious/impervious calculation = total project - (lake + roof)

1.14 ac

b. Impervious area for water quality pervious/impervious calculations =

(site area for water quality pervious/impervious) - pervious =

0.78 ac

- c. Percentage of imperviousness for water quality =
 - impervious area for water quality x 100% / site area for water quality = 68 %
- d. For 2.5 in. time the percentage impervious = 2.5 in x 68%

1.71 inches to be treated

e. Compute volume required for water quality detention = inches to be treated x (total site - lake) 0.18 ac-ft required detention storage

Site Area (ac) 1" Over Basin		2.5" x % Impervious	Controling Condition	
1.25	0.10 ac-ft	0.18 ac-ft	0.18 ac-ft	

PRE-TREATMENT CALCULATION

Site Area (ac)	1/2" Over Basin
1.25	0.05 ac-ft

EXFILTRATION TRENCH SECTION #1 CALCULATION FOR WATER QUALITY VOLUME

	Required Length of Trench for Water Quality Treatment					
	Top of Trench Elevation	12.00				
	Bottom of Trench Elevation	8.00				
	Wet Season Water Table Elevation	8.30				
FS	Factor of safety; no less than 2.0	2.00				
%WQ	Percent reduction in required water quality treatment volume	0.50				
V _{wq}	Required wet water quality volume (ac-in)	2.14				
К	Hydraulic conductivity (cfs/ft²-ft. head)	6.09E-04				
H ₂	Depth to water table (ft.)	5.70				
W	Trench width (ft.)	8.00				
D _u	Non-saturated trench depth (ft.)	3.70				
D _s	Saturated trench depth (ft.)	0.30				
L	Length of trench required for water quality treatment (ft.)	42 LF				
Vs	Volume of stormwater stored in WQ exfiltration trenches	0.18 ac-ft				

$L = \frac{FS[(\%WQ)(V_{wq})]}{K(H_2W + 2H_2D_u - D_u^2 + 2H_2D_s) + (1.39 \times 10^{-4})WD_u}$

EXFILTRATION TRENCH STORAGE VOLUME

$$V_{s} = \frac{L \times [K(H_{2}W + 2H_{2}D_{u} - D_{u}^{2} + 2H_{2}D_{s}) + (1.39 \times 10^{-4})WD_{u}]}{FS}$$

	Length of Proposed Exfiltration Trench for Stormwater Storage					
	Maximum allowable storage from exfiltration trench (3.28" x Site Area)	0.34 ac-ft				
FS	Factor of safety; no less than 2.0	2.00				
L	Total length of additional proposed exfiltration trench (ft.)	71.00				
К	Hydraulic conductivity (cfs/ft ² -ft. head)	6.09E-04				
H ₂	Depth to water table (ft.)	5.70				
W	Trench width (ft.)	8.00				
D _u	Non-saturated trench depth (ft.)	3.70				
D _s	Saturated trench depth (ft.)	0.30				
Vs	Additional Volume of stormwater stored in exfiltration trenches	0.15 ac-ft				
Vs	Total Volume of stormwater stored in exfiltration trenches	0.33 ac-ft				
Τ _L	Total Length of Exfiltration Trench	113 LF				

POST-DEVELOPMENT STAGE STORAGE

Starting Stage = 12.00 NAVD Ending Stage = 18.50 NAVD Stage Increment = 0.50 Feet

Stage	Pavement	Sidewalk	Pervious	Retention Bank	Retention Bottom	Exfiltration Trench	Total Storage
(NAVD)	(ac)	(ac)	(ac)	(ac)	(ac)		(ac-ft)
Area	0.72	0.06	0.28	0.06	0.02	0.33	
Start Elev.	14.40	14.50	14.50	14.00	14.00		
End Elev.	17.62	18.00	17.50	16.00			
	Linear	Linear	Linear	Linear	Vertical		
12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.50	0.00	0.00	0.00	0.00	0.00	0.33	0.33
13.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33
13.50	0.00	0.00	0.00	0.00	0.00	0.33	0.33
14.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33
14.50	0.00	0.00	0.00	0.00	0.01	0.33	0.34
15.00	0.04	0.00	0.01	0.02	0.02	0.33	0.42
15.50	0.14	0.01	0.05	0.03	0.03	0.33	0.58
16.00	0.29	0.02	0.11	0.06	0.04	0.33	0.84
16.50	0.49	0.03	0.19	0.09	0.05	0.33	1.18
17.00	0.76	0.05	0.29	0.12	0.06	0.33	1.61
17.50	1.07	0.08	0.42	0.15	0.07	0.44	2.23
18.00	1.43	0.11	0.56	0.18	0.08	0.44	2.80

Post-Development 3-Year, 1- Hour Storm Event	
3-Year, 1-Hour Rainfall	2.60 in
Available Soil Storage	2.36 in
Residual Rainfall (Rainfall - Soil Storage)	0.24 in
Rainfall Runoff (Required Storage)	0.03 ac-ft
3-Year, 1-Hour Stage (From Stage Storage Table)	14.00 NAVD

The 3-year, 1-hour requirement is met in the proposed exfiltration trench at elevation 14.00 NAVD, which is lower than the perimeter elevation of the site
POST-DEVELOPMENT FLOOD ROUTING

Project Name: POST 05 - year, 1 - day Reviewer: TD Project Number: 11007.02 Period Begin: Jan 01, 2000;0000 hr End: Jan 04, 2000;0000 hr Duration: 72 hr Time Step: 0.05 hr, Iterations: 10

Basin 1: 7-Eleven

Method: Santa Barbara Unit Hydrograph Rainfall Distribution: SFWMD - 24 hr Design Frequency: 5 year 1 Day Rainfall: 7 inches Area: 1.25 acres Ground Storage: 2.36 inches Time of Concentration: 1 hours Initial Stage: 12 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
12.00	0.00
12.50	0.33
13.00	0.33
13.50	0.33
14.00	0.33
14.50	0.34
15.00	0.42
15.50	0.58
16.00	0.84
16.50	1.18
17.00	1.61
17.50	2.23
18.00	2.80

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max	(cfs)	Time	(hr)	Min	(cfs)	Time	(hr)

BASIN MAXIMUM AND MINIMUM STAGES

						====	======	-====	====
	Basin	Max	(ft)	Time	(hr)	Min	(ft)	Time	(hr)
 7-	-Eleven	 1	======= 5.25	:====:	======== 33.90		2.00		0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
7-Eleven	0.50	0.00	0.00	0.00	0.50	0.00

Project Name: POST 25 - year, 3 - day
Reviewer: TD
Project Number: 11007.02
Period Begin: Jan 01, 2000;0000 hr End: Jan 04, 2000;0000 hr Duration: 72 hr
Time Step: 0.05 hr, Iterations: 10

Basin 1: 7-Eleven

Method: Santa Barbara Unit Hydrograph Rainfall Distribution: SFWMD - 3day Design Frequency: 25 year 3 Day Rainfall: 13 inches Area: 1.25 acres Ground Storage: 2.36 inches Time of Concentration: 1 hours Initial Stage: 12 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
12.00	0.00
13.00	0.33
13.50	0.33
14.50	0.34
15.00 15.50	0.42
16.00	0.84
16.50	1.18
17.50	2.23
18.00	2.80

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max	(cfs)	Time	(hr)	Min	(cfs)	Time	(hr)

BASIN MAXIMUM AND MINIMUM STAGES

	========		======			====		-===
Basi	n Max	(ft)	Time	(hr)	Min	(ft)	Time	(hr)
	n 1	 L6.36	7	2.00	 1	2.00		0.00

BASIN WATER BUDGETS (all units in acre-ft)

						===========
Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
7-Eleven	1.09	0.00	0.00	0.00	1.09	0.00

Project Name: POST 100 - year, 3 - day
Reviewer: TD
Project Number: 11007.02
Period Begin: Jan 01, 2000;0000 hr End: Jan 04, 2000;0000 hr Duration: 72 hr
Time Step: 0.05 hr, Iterations: 10

Basin 1: 7-Eleven

Method: Santa Barbara Unit Hydrograph Rainfall Distribution: SFWMD - 3day Design Frequency: 100 year 3 Day Rainfall: 16.0001 inches Area: 1.25 acres Ground Storage: 2.36 inches Time of Concentration: 1 hours Initial Stage: 12 ft NAVD

Stage	Storage
(ft NAVD)	(acre-ft)
12.00	0.00
12.50	0.33
13.00	0.33
13.50	0.33
14.00	0.33
14.50	0.34
15.00	0.42
15.50	0.58
16.00	0.84
16.50	1.18
17.00	1.61
17.50	2.23
10.00	2.00

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max	(cfs)	Time	(hr)	Min	(cfs)	Time	(hr)

BASIN MAXIMUM AND MINIMUM STAGES

B	asin Ma	ax (ft)	Time (hr)	Min (ft)	Time (hr)
======================================	even	16.74	72.00	12.00	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
7-Eleven	1.39	0.00	0.00	0.00	1.39	0.00



AAI File No. 20-1603 February 10, 2020

Creighton Construction & Management, LLC 900 SW Pine Island Rd, Suite 202 Cape Coral, FL 33991

Attention: Tara Creighton

SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION PROPOSED 7-ELEVEN – 1900 10TH AVENUE NORTH LAKE WORTH BEACH, FLORIDA

1.0 INTRODUCTION

In accordance with your request and authorization, Ardaman & Associates, Inc. has completed a subsurface exploration and geotechnical engineering evaluation for the above referenced project. We explored the general subsurface conditions in order to evaluate their suitability for the support of the proposed construction, to obtain a measure of pertinent engineering properties of subsurface materials, and to provide recommendations for site preparation and foundation design. Our work included Standard Penetration Test (SPT) borings, auger borings, a field permeability test and engineering analyses. This report describes our explorations and tests, reports their findings, and summarizes our conclusions and recommendations.

2.0 SITE LOCATION AND DESCRIPTION

The site is located at 1900 10th Avenue North (Section 21, Township 44 South, and Range 43 East) in Lake Worth Beach, Palm Beach County, Florida. The site was developed (an abandoned truck/automobile lot with a small maintenance/office building) with a one-story commercial building and the associated parking and drive areas. A site vicinity map is presented as our Figure 1.

3.0 PROJECT DESCRIPTION

We have examined a Conceptual Site Plan prepared by Keith, dated November 2019. A portion of this plan has been reproduced as our Boring Location Plan, Figure 2. This figure shows the approximate boring and test locations arranged on the site. It is our understanding that the project involves the construction of a 7-Eleven facility which includes razing the existing structures and constructing a one-story convenience store, new fuel tanks and a covered canopy along with the associated parking and drive areas. We understand the convenience store will have a combination of weight-bearing masonry walls and isolated columns. For construction of this type, we anticipate maximum wall loads on the order of 4 kips per lineal foot and maximum column loads (if any) on the order of 70 kips. We expect the canopy to be supported on steel or concrete columns with loads on the order of 15 to 20 kips.

If any of this information is incorrect or anticipated to change, we should be notified in writing and allowed to review the changes and make corrections to this report as needed.

4.0 FIELD EXPLORATION

4.1 SOIL BORINGS

To explore the subsurface conditions at the site, five (5) Standard Penetration Test (SPT) borings and two (2) auger borings were performed at the approximate locations shown on Figure 2. The SPT borings were terminated at depths of 15 to 25 feet, and the auger borings at depths of 5 feet below the existing ground surface. The soil borings were performed in general accordance with the procedures outlined in ASTM D-1586 (SPT borings) and ASTM D-1452 (auger borings). The boring logs and a description of our drilling and testing procedures are attached.

4.2 FIELD PERMEABILITY TEST

In order to estimate the hydraulic conductivity of the upper soils, a field permeability test was performed at the approximate location shown in Figure 2. This test was conducted in general accordance with the usual open-hole exfiltration test method described in the South Florida Water Management District (SFWMD) Permit Information Manual, Volume IV. Descriptions of the soils observed in the test borehole and the test results are presented in the attached field permeability test log. In brief, the exfiltration test yielded a hydraulic conductivity value of 6.09×10^{-4} cfs/sqf - ft head.

4.3 GENERAL

Our field exploration was conducted on February 6 and 7, 2020. The boring and test locations were laid out in the field in reference to distinguishable property boundaries and existing site features. We estimate that the actual boring locations are within approximately 15 feet of the locations shown in Figure 2.

5.0 LABORATORY TESTING

Our drillers examined the soils recovered from the borings, placed the recovered soil samples in moisture proof containers, and maintained a log for each boring. The field soil boring logs and recovered soil samples were transported to our West Palm Beach soils laboratory from the project site. Each soil sample was then examined by an Engineer and visually classified and described in general accordance with the Unified Soil Classification System (USCS). The soil classifications and other pertinent data obtained from our explorations and laboratory examinations and tests are reported on the attached boring logs. The soil samples recovered from our explorations will be kept in our laboratory for 60 days, then discarded unless you request otherwise.

6.0 GENERAL SUBSURFACE CONDITIONS

The attached boring logs present a detailed description of the soils encountered at the locations and the depths explored. The soil stratification shown on the boring logs is based on examination of recovered soil samples and interpretation of the driller's field logs. It indicates only the approximate boundaries between soil types. The actual transitions between adjacent soil strata may be gradual and indistinct. The borings were performed through existing pavement and encountered approximately 1.5 to 2 inches of asphalt and 7 to 9 inches of limerock base material. The soils below the pavement consisted generally of very loose fine sands to depths of 19 to 23 feet, followed by loose fine sands with some cemented sand and shell to the termination depth of our deepest borings at 25 feet.

7.0 GROUNDWATER CONDITIONS

Groundwater was encountered from about 9.2 to greater than 10 feet below the existing grades at the time our borings were completed. Drilling fluid was introduced below 10 feet that prevented accurate depth to groundwater measurements in boring location B-5. Groundwater levels on this site should be expected to vary throughout the year due to a variety of factors including recharge from rainfall and established drainage patterns. Groundwater levels somewhat above the present levels should be expected after major storm events and periods of heavy or prolonged rainfall.

8.0 DISCUSSIONS AND RECOMMENDATIONS

8.1 GENERAL

Based on the findings of our site exploration and our evaluation of the encountered subsurface conditions, we conclude that the soils underlying this site are generally satisfactory to support the proposed construction on conventional shallow foundations or on monolithic slab foundations. The bearing capacity of the near-surface sands should be improved in order to reduce the risk of unsatisfactory foundation performance. Following are specific recommendations for site preparation procedures and the design of foundation systems.

8.2 SITE PREPARATION RECOMMENDATIONS

8.2.1 Clearing

The building areas within lines five feet outside the building perimeters, and the areas to be paved, should be cleared of surface vegetation, trash, debris, topsoil and remnants of foundations and other former structures. Utility lines and any exfiltration trenches should be properly abandoned, removed or rerouted around the construction areas. Excavations made while removing unsuitable materials, utilities, etc. should be backfilled with approved granular fill placed and compacted in thin lifts as recommended below.

8.2.2 Proofrolling and Placement of Fill

The cleared areas should be proofrolled with a heavy weight (10-12 ton) vibratory roller. Any soft, yielding soils detected during the proofrolling operations should be excavated and replaced with approved fill conforming to the specifications below. Sufficient passes should be made during the proofrolling operations to produce minimum dry densities of 98 percent of the Modified Proctor (ASTM D-1557) maximum dry density value of the compacted subgrade soils to depths of 2 feet below the compacted surface. The proofrolled areas should receive not less than 10 overlapping passes, half of them in each of two perpendicular directions.

After the exposed surface has been proofrolled and tested to verify that the desired dry density has been obtained, the construction areas may be filled to the desired grades. All fill material should conform to the specifications below. It should be placed in uniform layers, not exceeding 12 inches in loose thickness, individually compacted with a heavy vibratory roller to a minimum dry density of 98 percent of the Modified Proctor maximum dry density value of the fill material.

We recommend that the site preparation contractor monitor the vibrations produced during the proofrolling operations so that they do not adversely affect any nearby structures present at the time of construction. Should there be concern about vibration levels produced by the compaction operations, a seismograph with a suitable indicator range may be arranged on the site while this work is undertaken. We remain available to assist you in this regard.

8.2.3 Final Compaction

Note that after completion of the general site preparation, when excavations for the construction of foundations or thickened slab edges are made through the compacted soils, the bottom of the foundation excavations should be compacted to densify soils loosened during or after the excavation process and washed or sloughed into the excavation prior to the placement of forms. A heavy-duty vibratory rammer should be used for this final compaction, immediately prior to the placement of reinforcing steel, with previously described minimum dry density requirements to be maintained below the foundation level.

After the foundations are cast and the forms are removed, backfill around the foundations should be placed in thin lifts, six inches or less in loose thickness, individually compacted with a heavyduty vibratory rammer or vibratory plate compactor to a minimum dry density of 98 percent of the Modified Proctor maximum dry density value of the backfill material.

8.2.4 Fill Material Specifications

All fill material under the buildings and pavement should consist of clean sands or fragmented limerock, free of organics and other deleterious materials. The fill material should have not more than eight percent by dry weight passing the U.S. No. 200 sieve and no particle larger than 3 inches in diameter. Backfill behind walls, if any, should be particularly pervious, with not more than 4 percent by dry weight passing the U.S. No. 200 sieve.

8.2.5 Additional Recommendations

Care must be exercised prior to, during and after construction to prevent erosion effects or undermining of foundations. The integrity of the raised building "pad" must hence be maintained for a distance of at least five feet beyond the foundation levels, with gutters disposing of rainfall runoff beyond the pad limits.

Foundation concrete should not be cast over a foundation surface containing topsoil or organic soils, trash of any kind, surface made muddy by rainfall runoff, or groundwater rise, or loose soil caused by excavation or other construction work. Reinforcing steel should also be clean at the time of concrete casting. If such conditions develop during construction, the reinforcing steel must be lifted out and the foundation surface reconditioned and approved by the Foundation Engineer.

8.3 FOUNDATIONS

After the foundation soils have been prepared in accordance with the above site preparation recommendations, the site should be suitable for supporting the proposed structure on conventional shallow foundations or a "monolithic" slab proportioned for a maximum allowable bearing stress of 2,500 pounds per square foot (psf). Continuous foundations should be at least 18 inches wide, and individual column footings should have a minimum width of 24 inches; shallow foundations should bear at least 18 inches, and monolithic slab foundations at least 12 inches below adjacent finish grades.

8.3.1 Bearing Capacity and Settlements

Based upon the boring information and the assumed loading conditions, we estimate that the recommended allowable bearing stress will provide a minimum factor of safety in excess of two against bearing capacity failure. With the site prepared and the foundations designed and constructed as recommended, we anticipate total settlements of one inch or less, and differential settlement between adjacent similarly loaded footings of less than one half of an inch. For design purposes, we recommend using a subgrade reaction modulus of 125 pounds per cubic inch (pci) for all well compacted fine sands.

8.3.2 Slab-On-Grade

Ground floor slabs can be placed directly on the compacted subgrade. In our opinion, a highly porous base material is not necessary. We recommend the use of a polyolefin film vapor barrier with a minimum thickness of 10 mils. Care must be exercised in installing control joints shortly after placing the concrete, and in placing and maintaining the steel reinforcement at its designated elevation within the floor slab.

8.4 UNDERGROUND STORAGE TANKS

Loose fine sands with some cemented sand were encountered below depths of 19 feet, but no hard limestone or other hard "rock" layers were encountered that would be expected to pose a difficulty for tank excavation. Note that the groundwater was more than 9 feet below the existing grades at the time our borings were completed, but it could rise to higher elevations after major storm events and periods of heavy or prolonged rainfall.

Dewatering will be needed for deeper tank excavations to allow proper inspection, placement and compaction of the backfill. The dewatering scheme should be developed by the earthwork contractor. <u>Dewatering measures should be controlled so that the groundwater is not lowered under adjacent structures.</u>

The contractor is to be responsible for implementing all necessary safety measures to protect the adjacent properties and construction crews. The contractor, as a minimum, should comply with the latest editions of the OSHA standards for trenching and excavation.

8.5 QUALITY CONTROL

We recommend establishing a comprehensive quality assurance and control program to verify that all site preparation and foundation construction is conducted in accordance with the appropriate plans and specifications. Materials testing and inspection services should be provided by Ardaman & Associates, Inc.

At a minimum, an on-site engineering technician should monitor all stripping and grubbing to verify that all deleterious materials have been removed and should observe the proofrolling operation to verify that the appropriate numbers of passes are applied to the subgrade. In-situ density tests should be conducted during filling activities and below all footings and floor slabs to verify that the required densities have been achieved. In-situ density values should be compared to laboratory Proctor moisture-density results for each of the different natural and fill soils encountered. Finally, we recommend inspecting and testing the construction materials for the foundations and other structural components.

8.5.1 In-Place Density Testing Frequency

In Southeast Florida, earthwork testing is typically performed on an on-call basis when the contractor has completed a portion of the work. The test result from a specific location is only representative of a larger area if the contractor has used consistent means and methods and the soils are practically uniform throughout. The frequency of testing can be increased and full-time construction inspection can be provided to account for variations. We recommend that the following minimum testing frequencies be utilized.

In proposed structural areas, the minimum frequency of in-place density testing should be one test for each 2,500 square feet of structural area (minimum of five test locations). In-place density testing should be performed at this minimum frequency for a depth of 1 foot below natural ground and for every 1-foot lift of fill placed in the structural areas. In addition, density tests should be performed in each column footing for a depth of 2 feet below the bearing surface. For continuous or wall footings, density tests should be performed at a minimum frequency of one test for every 50 lineal feet of footing, and for a depth of 2 feet below the bearing surface.

Utility backfill should be tested at a minimum frequency of one in-place density test for each 12inch lift for each 200 lineal feet of pipe. Additional tests should be performed in backfill for manholes, inlets, etc.

Representative samples of the various natural ground and fill soils should be obtained and transported to our laboratory for Proctor compaction tests. These tests will determine the maximum dry density and optimum moisture content for the materials tested and will be used in conjunction with the results of the in-place density tests to determine the degree of compaction achieved.

Please note that the reliance on Ardaman's recommendations presented herein is predicated on an Ardaman representative being onsite to verify that the all subgrade soils have been prepared and the foundations are installed in compliance with our report recommendations.

9.0 CLOSURE

This report has been prepared specifically for subject project. It is intended for the exclusive use of Creighton Construction & Management, LLC. and their representatives. Our work has used methods and procedures consistent with local foundation engineering practices. No other warranty, expressed or implied, is made. We do not guarantee project performance in any respect, only that our work meets normal standards of professional care. Environmental concerns, including (but not limited to) the possibility that hazardous materials or petroleum-contaminated soils or groundwater may be present on the subject site, were not included in the scope of work. The recommendations submitted in this report are based on the data obtained from our exploration program and our understanding of the proposed construction and loading conditions

7-Eleven Facility – 1900 10th Avenue North, Lake Worth Beach AAI File No. 20-1603

as described herein. This report may not account for any variations that may exist between conditions observed in the borings and conditions at locations that were not explored. The nature and extent of any such variations may not become evident until construction is underway. If variations are then observed, we should be requested to review the conclusions and recommendations in this report.

In the event any changes occur in the design, nature or location of any project facilities, we should be requested to review the conclusions and recommendations in this report. We also recommend that we be requested to review the final foundation drawings and earthwork specifications so that our recommendations may be properly interpreted and implemented in the contract documents.

It has been a pleasure to assist you on this phase of your project. Please contact us whenever we may be of service to you, and please call if you have any questions concerning this report.

ARDAMAN & ASSOCIATES, INC.

FL. Certificate of Authorization No. 5950

Kewh Ferguson, P.E. Geotechnical Engineer Fla. Reg. No. 60712

Attachments: Site Vicinity Map - Figure 1 Boring Location Plan - Figure 2 Subsurface Exploration Information SPT Boring Logs (5) Auger Boring Logs (2) Field Permeability Test Log



Ardaman & Associates, Inc.







SUBSURFACE EXPLORATION INFORMATION

GENERAL

Our borings describe subsurface conditions only at the locations drilled and at the time drilled. They provide no information about subsurface conditions below the bottom of the boreholes. At locations not explored, surface conditions that differ from those observed in the borings may exist and should be anticipated.

The information reported on our boring logs is based on our drillers' logs and on visual examination in our laboratory of disturbed soil samples recovered from the borings. The distinction shown on the logs between soil types is approximate only. The actual transition from one soil to another may be gradual and indistinct.

The groundwater depth shown on our boring logs is the water level the driller observed in the borehole when it was drilled. These water levels may have been influenced by the drilling procedures, especially in borings made by rotary drilling with bentonitic drilling mud. An accurate determination of groundwater level requires long-term observation of suitable monitoring wells. Fluctuations in groundwater levels throughout the year should be anticipated.

The absence of a groundwater level on certain logs indicates that no groundwater data is available. It does not mean that no groundwater will be encountered at that boring location.

STANDARD PENETRATION TEST BORINGS

The Standard Penetration Test is a widely accepted method of testing foundation soils in place. The N-Value obtained from the test has been correlated empirically with various soil properties. These empirical correlations allow satisfactory estimates to be made of how the soil is likely to behave when subjected to foundation loads. Tests are usually performed in the boreholes at intervals of five feet. In addition, our Firm performs tests continuously in the interval directly below the expected foundation bearing grade where the soil will be most highly stressed.

Boreholes where Standard Penetration Tests will be performed are drilled with a truck-mounted drilling rig. The boreholes are advanced by rotary drilling with a winged bit that makes a hole about three inches in diameter. A bentonitic drilling mud is recirculated in order to remove the cuttings and support the walls of the borehole. The drag bit is specially modified to direct the mud upward and reduce disturbance of the soil ahead of the bit. If access is not available for our truck-mounted drilling equipment, portable tripod drilling equipment can be used instead.

Occasionally, running or squeezing ground is encountered that cannot be stabilized by the drilling mud alone. In addition, drilling mud may be lost into the soil or rock strata that are unusually pervious. In such cases, flush-joint steel casing with an outside diameter of about 3.5 inches is driven as a liner for the borehole.

Subsurface Exploration Information

After the borehole has been advanced to the depth where a Standard Penetration Test will be performed, the soil sampler used to run the test is attached to the end of the drill rods and lowered to the bottom of the borehole. The testing procedure used conforms closely to the methods recommended in ASTM D-1586. The sampler used has a split-barrel 24 inches long and an outside diameter of 2.0 inches. It is driven into the ground below the bottom of the borehole using a hammer that weighs 140 pounds and falls 30 inches. The driller records the number of hammer blows needed to advance the sampler in successive increments of six inches. The total number of blows required to advance the sampler the second and third six-inch increments constitutes the test result; that is, the N-value at the depth. The test is completed after the sampler has been driven not more than 24 inches or when refusal is encountered, whichever occurs first. Refusal occurs when 50 hammer blows advance the sampler less than 6 inches. After the test is completed, the sampler is removed from the borehole and opened.

The drillers examines and classifies the soil recovered by the sampler, place representative soil specimens from each test in glass jars or plastic bags and take them to our laboratory. In the laboratory, additional evaluations and tests are performed, if needed. The driller's classifications may be adjusted, if necessary, to conform more closely with the Unified Soil Classification System (USCS). Jar samples are retained in our laboratory for sixty days, then discarded unless our clients request otherwise.

The following tables relate N-values to a qualitative description of the relative soil density.

	Description	SPT N Value
	Very loose	0-4
Cohesionless Soils	Loose	5-9
Concoronicos Cons	Medium dense	10-29
	Dense	30-49
	Very dense	50+

	Description	SPT N Value
	Very soft	0-2
	Soft	3-4
Cohesive Soils	Medium stiff	5-8
	Stiff	9-15
	Very stiff	16-30
	Hard	31+



HAND AUGER BORINGS

Hand auger borings are used, if soil conditions are favorable, when the soil strata are to be determined within a shallow (approximately 5 foot) depth, or when access is not available for our truck-mounted drilling equipment. The testing procedure used conforms closely to the methods recommended in ASTM D-1452. A portable, manually operated, 3-inch diameter bucket auger with a cutting head is simultaneously turned and pressed into the ground. The bucket auger is retrieved at approximately 6-inch increments and its content emptied for inspection. The soil samples obtained are described and representative samples put in jars or bags and transported to our laboratory for further classification and testing, if necessary.

SFWMD EXFILTRATION TESTS

In order to estimate the hydraulic conductivity of the upper soils, constant head or falling head exfiltration tests can be performed. These tests are performed in accordance with methods described in the South Florida Water Management District (SFWMD) Permit Information Manual, Volume IV. In brief, a 6 to 9 inch diameter test hole is augered to the desired test depth (typically 6 feet), then a screen is lowered into the test hole, the depths of the test hole and groundwater level are recorded, then the surroundings of the test hole are saturated by pouring water into the screen as needed to maintain the water level in the test hole at the ground surface for 10 minutes.

If a constant head test is performed, the rate of pumping will be recorded at fixed intervals of 1 minute for a total of 10 minutes, following the saturation period.

If a falling head test is performed (typically for relatively high permeability soils), water is added until the water level reaches the ground surface. Then the water flow is stopped and the drop in water level for discrete time intervals is recorded until the water level in the test hole has dropped to at least half the distance to the groundwater table.

LEGEND FOR BORING LOGS

The following abbreviations are often used in our boring logs:

MC: Moisture content (percent of dry weight)

- OC: Organic content (percent of dry weight)
- PL: Moisture content at the plastic limit
- LL: Moisture content at the liquid limit
- PI: Plasticity index (LL-PL)

Qu: Unconfined compressive strength (tons per square foot, unless otherwise noted)

-200: Percent passing a No. 200 sieve (200 wash)



PROJECT: 7-Eleven-1900 10th Avenue North Lake Worth Beach, Florida

BORING LOCATION: As per plan.

FILE No.: 20-1603

DRILL CREW: DG/NH

DATE DRILLED: 2/06/20

WATER OBSERVED AT DEPTH 9.5 feet.

DEPTH	SYMBOLS FIELD TEST DATA	SOIL DESCRIPTION	SAMPLE	N	N VALUE
(FEEI)	FIELD IESI DATA		No.	VALUE	5 15 25 30 50 50 50 50 50 50 50 50 50 50 50 50 50
		Asphalt=2.0 inches; Limerock base=7.0 inches Brown fine sand Light brown fine sand	×		
	1/6	Brown fine sand	1		
5-	1/6 2/6 3/6	Light yenowish brown the sand	1	3	-
+	2/6 2/6 2/6 3/6 3/6 3/6		2	4	d
10	2/6 3/6	Light orangish brown fine sand	3	5	
- 15	1/6 1/6 1/6	Orangish brown fine sand	4	2	
+ + + + + + + + + + + + + + + + + + + +					
-	2/6 5/6 6/6	Gray fine sand Gray fine sand, some cemented sand and shell	5	7	8
	4/6		7		
25 -	3/6 2/6	Poring torminated at 25 feet		7	6
+		bornig terminated at 25 reet			
Ţ					
30 —				F	
NOTES: I	Hand augered to 4 feet Boring terminated at 25	to clear shallow utilities. 5 feet.			
FIELD T	EST DATA ARE ''BLOW	S"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALI Ardaman & Associates		TM D-158	6)

PROJECT: 7-Eleven-1900 10th Avenue North Lake Worth Beach, Florida

FILE No.: 20-1603

BORING LOCATION: As per plan.

DRILL CREW: DG/NH

WATER OBSERVED AT DEPTH 9.3 feet.

DATE DRILLED: 2/07/20

DEPTH	SYMBOLS	SOIL DESCRIPTION	SAMPLE	N	N VALUE
(FEEI)	FIELD IESI DATA		No.	VALUE	40 20 20 20 20 20 40 20 20 20 20 20 20 20 20 20 2
0		Asphalt=2.0 inches; Limerock base=7.0 inches Light gray fine sand			
5	1/6 1/6 2/6 2/6 3/6	Brown fine sand	1	3	9
	3/6 3/6 4/6	Light orangish brown fine sand	2	6	þ
	4/6 3/6 4/6	Orangish brown fine sand	3	7	¢
+		Brown to slightly orangish brown fine sand	4		
	2/6 3/6			4	
20	2/6 1/6 2/6 1/6 1/6	Brownish gray fine sand	5	3	
	4/6 4/6 4/6 6/6	Grayish brown to brown fine sand, some cemented sand and shell	6	8	0
-		Boring terminated at 25 feet			
30					
NOTES:	Hand augered to 4 feet Boring terminated at 25	to clear shallow utilities. 5 feet.			
FIELD T	EST DATA ARE "BLOW	S"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALI Ardaman & Associates	L. (AS	TM D-158	6)

PROJECT: 7-Eleven-1900 10th Avenue North Lake Worth Beach, Florida

FILE No.: 20-1603

BORING LOCATION: As per plan.

DRILL CREW: DG/NH

WATER OBSERVED AT DEPTH 9.2 feet.

DATE DRILLED: 2/06/20

DEPTH	SYMBOLS FIELD TEST DATA	SOIL DESCRIPTION	SAMPLE	N	N VALUE
(FEEI)	FIELD IEST DATA		No.	VALUE	40 45 50 50 50 50 50 50 50 50 50 5
0 _		Asphalt=1.8 inches; Limerock base=9.0 inches			
		Light gray fine sand			
II					
	हांगान -	Dark brown fine sand to slightly silty fine sand	- 1		
5-	3/6 4/6 -	Orangish brown fine sand	2		
	4/6			8	
+	4/0 3/6 2/6	Orangish brown to light orangish brown fine sand	3	5	
-	3/6		4	5	
+ .	3/6		4	7	0
10-	5/6			ŀ	
+					
+	7/6		5		
	7/6 2/6			3	6
15		Boring terminated at 15 feet		ŀ	
-					
+					
20-					
Ŧ					
+					
-					
+					
25					
Ī					
1					
4					
30⊥					
NOTES	Hand augered to 4 feet	to clear shallow utilities			
]	Boring terminated at 1.	5 feet.			
FIELD T	EST DATA ARE "BLOW	S"/"INCHES DRIVEN" 140-LB HAMMER 30.INCH FALL	(19	TM D 159	0
	22011	Ardaman & Associates	J. (AS	TM D-139	<i>J</i>)

PROJECT: 7-Eleven-1900 10th Avenue North Lake Worth Beach, Florida

FILE No.: 20-1603

BORING LOCATION: As per plan.

DRILL CREW: DG/NH

DATE DRILLED: 2/07/20

WATER OBSERVED AT DEPTH 9.3 feet.

DEPTH (FFFT)	SYMBOLS	SOIL DESCRIPTION	SAMPLE	N	N VALUE
(TEET)	TIELD TEST DATA		No.	VALUE	5 10 30 30 40 45
0		Asphalt=2.0 inches; Limerock base=8.0 inches			
		Brown fine sand			
+					
	· · · · · · · · · · · · · · · · · · ·	Light brown fine sand			
5	1.	Dark reddish brown fine sand to slightly silty fine sand	1		
5	1 1 1 1 1 2/6			3	٩
Ť	1.1.1.1.1.2/6				
†	3/6	Orangish brown fine sand	2	5	9
+	4/6		3		
+ .	4/6		5	8	0
10	5/6				
T					
	2/6	Brown to slightly orangish brown fine sand	4		
+	2/6			4	4
15 —	4/0			ŀ	
+					
+					
+					
	2/6	Brown fine sand	5		
	1/6			3	5
20 -		Boring terminated at 20 feet		ŀ	
+					
-					
-					
-					
25 -					
T					
1		전문의 영향을 가지 않는 것이 같은 것입니다.			
+					
30 —	Sand and the second second				
NOTES:	Hand augered to 4 feet	to clear shallow utilities.			
]	Boring terminated at 20	0 feet.			
FIELD T	EST DATA ARE "BLOW	S"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALI	. (AS	TM D-158	6)
		Ardaman & Associates		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	

PROJECT: 7-Eleven-1900 10th Avenue North Lake Worth Beach, Florida

FILE No.: 20-1603

BORING LOCATION: As per plan.

DRILL CREW: DG/NH

WATER OBSERVED AT DEPTH Greater than 10 feet

DATE DRILLED: 2/07/20

DEPTH	SYMBOLS	SOIL DESCRIPTION	SAMPLE	N	N VALUE
(FEET)	FIELD TEST DATA		No.	VALUE	5 330 220 5 4 50 330 220 5 4 50 5 7 50 50 5 7 50 50 50 50 50 50 50 50 50 50 50 50 50
		Asphalt=1.5 inches; Limerock base=8.0 inches Brown fine sand Light brown fine sand			
5-	1/6 2/6 1/6 2/6	Brown fine sand	1	3	
-	2/6 1/6 2/6 2/6 2/6 2/6		2	3	¢
	2/6 2/6 2/6	Brown to slightly orangish brown fine sand	3	4	
+	2/6 3/6 3/6	Brown to yellowish brown fine sand	4	6	4
15 	6/6	Boring terminated at 15 feet		-	
20-			-		
-					
25 —					
-					
30					
NOTES:	Hand augered to 4 feet Boring terminated at 15	to clear shallow utilities. 5 feet.			J
FIELD T	EST DATA ARE ''BLOW	S"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALI Ardaman & Associates	(AS	TM D-158	6)

		HAND AUGER DUKI	NG LUG	
		BORING HA-1		
ROJECT	7-Eleven-1900 Lake Worth Bea	10th Avenue North ach, Florida	FILE No.: 20-10	503
ORING L	OCATION: As	per plan.	DRILL CREW: DG	/NH
VATER OI	BSERVED AT D	EPTH Greater than 5 feet.	DATE DRILLED: 2/07	//20
DEPTH	SYMBOL	SOIL DESC	RIPTION	SAMPI
0 T		Asphalt=2.0 inches; Limerock base=8.0 inches		No.
+		Brown fine sand		
		Light brown fine sand		
Ť				
+				
-				
		Brown fine sand		
+				-
+				
T				
+				
+				
÷				
-				
-				
+				

		HAND AUGEK BOK	ING LOG	
DOLECT.	7 El. 1000	BORING HA-2		
RUJECT	Lake Worth Bea	ach, Florida	FILI	E No.: 20-1603
BORING LO	OCATION: As	per plan.	DRILL C	CREW: DG/NH
VATER OB	SERVED AT D	EPTH Greater than 5 feet.	DATE DRI	LLED: 2/07/20
DEPTH	SYMBOL	SOIL DE	SCRIPTION	SAMP No.
)		Asphalt=1.5 inches; Limerock base=8.0 inches		••••••
+		Brown fine sand		
-				
+		Dark brown fine sand to slightly silty fine sand		
1				
		Dark brown to slightly reddish brown fine sand	· · · · · · · · · · · · · · · · · · ·	
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Dark brown slightly silty fine sand

Orangish brown fine sand

NOTES: Boring terminated at 6 feet.

3

7-Eleven

1900 10th Avenue North Lake Worth, Florida 33461

Traffic Impact Study



May 14, 2020

Prepared By: Lisa S. Bernstein, PE 7660 NW 6 Court Plantation, Florida 33324

7-Eleven

1900 10th Avenue North Lake Worth, Florida 33461

Traffic Impact Study

May 2020

Prepared For:

Creighton Construction & Management, LLC 900 SW Pine Island Road, Suite 202 Cape Coral, Florida 33991

> Prepared By: Lisa S. Bernstein, PE 7660 NW 6 Court Plantation, Florida 33324

TRAFFIC IMPACT STUDY 7-Eleven 1900 10th Avenue North Lake Worth, Florida 33461

Introduction

7-Eleven is proposing to construct a convenience market (with Laredo Taco inside) and gas station at 1900 10th Avenue North, Lake Worth, Florida. The proposed 7-Eleven will replace an existing truck rental lot located on the northwest corner of 10th Avenue North and Barnett Drive. The City of Lake Worth and Palm Beach County are requesting a Traffic Impact Study for the proposed redevelopment.

This Traffic Impact Study is prepared in accordance with the *Palm Beach County Unified Land Development Code, Article 12: Traffic Performance Standards (TPS)* which states:

This standard consists of two tests. The first test relates to the Buildout Period of the Project and requires that the Project not add Traffic in the Radius of Development Influence which would have Total Traffic exceeding the Adopted LOS at the end of the Buildout Period. The second test relates to the evaluation of traffic five years in the future and requires that the Project not add Traffic in the Radius of Development Influence which would have Total Traffic exceeding the Adopted LOS at the end of the Five-Year Analysis Period. Total Traffic for Test 2 is based in part upon Background Traffic information from the TPS Database.

Buildout of the project, for this analysis, is anticipated to be in 2022

Existing Conditions

There are two (2) roadways next to the proposed development:

- 10th Avenue North A five-lane, east-west roadway with a 35 MPH speed limit to the east and a 40 MPH speed limit to the west.
- Barnett Drive A two-lane, north-south roadway with a 25 MPH speed limit.

There is currently a closed truck rental business on the site. The existing site has full access from Barnett Drive, 120 feet north of 10th Avenue North. The Palm Beach County Property Appraiser information is included in Appendix A.

The existing location is shown in Figure 1.

Proposed Conditions

The redevelopment of the site will result in the proposed 7-Eleven with a 4,230 SF convenience store, a 500 SF Laredo Taco (inside the store), 14 fueling positions (7 MUPD's) and no car wash. The full access opening on Barnett will be revised to be an additional 10 feet further north of the intersection. A full access opening is proposed on 10th Avenue North at the west end of the site. The access on 10th Avenue North has been discussed with Palm Beach County and is permitted. The proposed site plan is included in Appendix B.



Trip Generation

Trip generation calculations for the existing and proposed land use designations are based on trip generation rates and equations published by Palm Beach County Trip Generation Rates, March 26, 2019 and the Institute of Transportation Engineers (ITE), *Trip Generation Manual,* 10th Edition. ITE Land Use Code (LUC) 841, Automobile Sales (Used) is used for the truck rental business (per Palm Beach County approval) for the existing site. FDOT Gas Station with Convenience Store and ITE LUC 933, Fast Food Restaurant w/out Drive-Thru (for Laredo Taco) from Palm Beach County are used for the proposed development. The pass-by rate of 61% is applied to the total trips generated by the Gas Station with Convenience Store and 45% is applied to the Laredo Taco.

The existing development includes a 1,650 SF truck rental business. The proposed development includes a 4,230 SF convenience market with 14 fueling stations (6 MUPD's) and a 500 SF Laredo Taco, inside the store. The Daily, AM Peak Hour and PM Peak Hour volumes are shown in Table 1.

The proposed 7-Eleven will generate 1,367 net new daily trips, 94 net new AM Peak Hour trips and 94 net new PM Peak Hour trips. Appendix C contains both the ITE and Palm Beach County Trip Generation Rates and Equations.

Radius of Development Influence and Trip Distribution

The Radius of Development Influence (RDI) for Test 1 and Test 2 is based on the Traffic Performance Standards Table 12.B.2.D-7 3A. Using the Test 1 RDI Table and a Net New AM and PM Peak Hour of 94 trips, the RDI is one (1) mile. Figure 2 illustrates the one (1) mile RDI.

The trip distribution and traffic assignment for the one (1) mile RDI is based on the Florida Department of Transportation (FDOT) count stations, the surrounding roadway characteristics and current traffic volumes. Figure 3 details the trip distribution within the one (1) mile RDI.

Appendix D contains Table 12.B.2.D-7 3A.

Table 1 Trip Generation

Land Lica	ITE	Inton			AM	Peak H	our	PIV	l Peak	Hour
	Code	inten	sity	Daily mps	In	Out	Total	In	Out	Total
Existing										
Automobiles Sales (Used)	841	1,650	SF	45	3	1	4	3	3	6
Total				45	3	1	4	3	3	6
Proposed										
Gas Station w/ Convenience Store	FDOT	4,230	SF	3,400	119	119	238	119	119	238
		14	FP							
Pass-By (61%)				2,074	73	74	146	73	73	146
Sub-Total				1,326	46	45	91	46	46	92
Fast Food Restaurant w/o DT	933	500	SF	173	8	5	13	7	7	14
Pass-by (45%)				78	3	2	6	3	3	6
Sub-Total				95	4	3	7	4	4	8
Total Proposed				1,421	50	48	98	50	50	100
Net New Total (Proposed - Existing)				1,376	47	47	94	47	47	94
Driveway Total				3,573	127	124	251	126	126	252

Source: Palm Beach County Trip Generation Rates (March 26, 2019) and ITE 10th Edition





Test 1 and Test 2 – Link Analysis

Test 1 is an analysis of project traffic on the links identified within the Radius of Influence to determine Significance. The peak hour directional volumes of the project are compared to the applicable thresholds in Table 12.B.2.C-1 1A LOS D - Link Service Volumes. A roadway link is considered Significant if the Net Trips assigned to that link are greater than one percent (1%) of the Level of Service (LOS) D link volume within the RDI and greater than five percent (5%) of the Level of Service (LOS) E link volume outside the RDI. Table 12.B.2.C-1 1A LOS D - Link Service Volumes is included in Appendix D.

For Test 2, the Links within the Radius of Development Influence are considered significant if the peak hour peak direction Net Trips are greater than three percent (3%) of the LOS E Link Service Volume compared to the thresholds in Table 12.B.2.C-4, 2A LOS E - Link Service Volumes. Also significant are those links outside the Radius of Development Influence on which its Net Trips are greater than five percent (5%) of the LOS E Link Service Volumes. Table 12.B.2.C-4, 2A LOS E Link Service Volumes is included in Appendix D.

Table 2 details the links within the RDI, the peak hour project traffic using the Net New trip generation and distribution, and link significance for the Test 1 LOS D Link Service Volumes. As can be seen in the table, there are two (2) significant links (1% or more of the LOS D Service Volume) on 10th Avenue North within the RDI.

For Test 2, the Net Trips will not be greater than three percent (3%) of the LOS E Link Service Volume within the RDI and will not have a greater than five percent (5%) of the Level of Service (LOS) E link volume outside the RDI for Test 1. Table 3 details the links within the RDI, the peak hour project traffic using the Net New trip generation and distribution, and link significance for the Test 2 LOS E Link Service Volumes. As can be seen in the table, there are no significant links (3% or more of the LOS D Service Volume) on 10th Avenue North within the RDI.

							AM Peak H	our - Net I	New Project	Traffic	PM Peak	Hour - Net	New Project	Traffic		Project	mpact	
		F			Facility	LOSD	Incoming =	47	Outgoing =	47	Incoming =	47	Outgoing =	47	AM Pea	ak Hour	PM Pea	k Hour
	HOL	<u>;;</u>	DIrection	LIASS	Type	Capacity									%		%	
							% Assign	Trips	% Assign	Trips	% Assign	Trips	% Assign	Trips	Impact S	ignificant	Impact Si	gnificant
	1	Flavid- Married	EB	=	SL	1,770	28%	13			28%	13			0.74%	No	0.74%	No
	summer street	FIORIDA INARGO KOAD	WB	=	SL	1,770			28%	13			28%	13	0.74%	No	0.74%	No
	Florido Manao Bood	Bouthing! Bood	EB	=	SL	1,770	38%	18			38%	18			1.00%	No	1.00%	No
	FIULIUA INALIGU NUAU		WB	=	5L	1,770			38%	18			38%	18	1.00%	No	1.00%	No
	Devidence Deced	Domoth Drive	EB	=	5L	1,770	47%	22			47%	22			1.25%	Yes	1.25%	Yes
			WB	=	5L	1,770			47%	22			47%	22	1.25%	Yes	1.25%	Yes
	Dornott Drive	1 05	EB	=	5L	1,770			47%	22			47%	22	1.25%	Yes	1.25%	Yes
10th Avenue North	סמנופוו חנואב	CE-1	WB	=	5L	1,770	47%	22			47%	22			1.25%	Yes	1.25%	Yes
	1-05	1-05		=	2L	1,770			37%	17			37%	17	%86.0	No	0.98%	No
	CC-1	CC-1		=	5L	1,770	37%	17			37%	17			0.98%	No	0.98%	No
	1.05	North A Ctreat	EB	=	4D	1,770			24%	11			24%	11	0.64%	No	0.64%	No
	C6-1	ואטונוו א אוו בבר	WB	=	4D	1,770	24%	11			24%	11			0.64%	No	0.64%	No
	North A Street	North Divia Highway	EB	=	4D	1,770			16%	8			16%	∞	0.42%	No	0.42%	No
			WB	=	4D	1,770	16%	8			16%	8			0.42%	No	0.42%	No
Elorida Mango Boad	bend mled	10th Avenue North	NB	-	2L	880			10%	S			10%	ъ	0.53%	No	0.53%	No
FIUILIUA INIALISU NUAU			SB	-	2L	880	10%	5			10%	5			0.53%	No	0.53%	No
	Barrolona Avenue	10th Avenue North	NB	-	2L	880			2%	2			2%	2	0.22%	No	0.22%	No
beed the second			SB	-	2L	880	2%	1			2%	1			0.11%	No	0.11%	No
	10th Aucouro Mosth	745 Aucouro North	NB	_	2L	880	4%	2			4%	2			0.21%	No	0.21%	No
	TOUL AVERIUE NOT UT		SB	-	2L	880			4%	2			4%	2	0.21%	No	0.21%	No
Boutting	10th Aucouro Mosth	Isko Worth Boad	NB	_	2L	880	%6	4			%6	4			0.48%	No	0.48%	No
DOULWEIL NOGU			SB	-	2L	880			9%	4			6%	4	0.48%	No	0.48%	No
	Eoraet Hill Boulevisrd	10th Avenue North	NB	N/A	10LX	9,320			13%	9			13%	9	0.07%	No	0.07%	No
1 05			SB	N/A	10LX	9,320	13%	6			13%	6			0.07%	No	0.07%	No
06-1	10th Avenue Morth	6th Austria Courth	NB	N/A	10LX	9,320	10%	S			10%	S			0.05%	No	0.05%	No
			SB	N/A	10LX	9,320			10%	5			10%	5	0.05%	No	0.05%	No
	22pd Avenue North	10th Avenue North	NB	_	2L	880			4%	2			4%	2	0.21%	No	0.21%	No
North A Street			SB	-	2L	880	4%	2			4%	2			0.21%	No	0.21%	No
	10th August Mosth	I also Mosth Boad	NB	_	2L	880	4%	2			4%	2			0.21%	No	0.21%	No
	TUUI AVERILE INOLULI	Läke wurnin kuau	SB	_	2L	880			4%	2			4%	2	0.21%	No	0.21%	No

Table 3	Test 2 - Link Analysis	1900 10th Avenue North
---------	------------------------	------------------------

							AM Peak F	Hour - Net I	New Project	Traffic	PMPeak	Hour - Net	New Proje	ect Traffic		Project	Impact	
		F			Facility	LOS E	Incoming =	47	Outgoing =	47	Incoming =	47	Outgoing	:= 47	AM P _t	sak Hour	PM Pea	k Hour
		<u>.</u>	nirection		Type	Capacity									%		%	
							% Assign	Trips	% Assign	Trips	% Assign	Trips	% Assign	n Trips	Impact	Significant	Impact S	ignificant
	Cimmor Ctroot	Elorida Mango Doad	EB	=	5L	1,870	28%	13			28%	13			0.70%	No	0.70%	No
		FIULINA INALIÉU MUAU	WB	=	5L	1,870			28%	13			28%	13	0.70%	No	0.70%	No
	El cri da Manao Boad	Pointman Dood	EB	=	5L	1,870	38%	18			38%	18			0.95%	No	0.95%	No
	FIULTURE MERISO MURA		WB	=	5L	1,870			38%	18			38%	18	0.95%	No	0.95%	No
	Dout Hout	Darnott Drive	EB	=	SL	1,870	47%	22			47%	22			1.18%	No	1.18%	No
		םמוובוו חוואב	WB	=	۶L	1,870			47%	22			47%	22	1.18%	No	1.18%	No
JUTH AVENUE NORTH	Darnott Drive	1 05	EB	=	5L	1,870			47%	22			47%	22	1.18%	No	1.18%	No
	ממוובוו מואב	06-1	WB	=	۶L	1,870	47%	22			47%	22			1.18%	No	1.18%	No
	- DE	North A Ctroot	EB	=	4D	1,870			23%	11			23%	11	0.58%	No	0.58%	No
	CG-1		WB	=	đ	1,870	23%	11			23%	11			0.58%	No	0.58%	No
	Morth A Ctroot	Morth Divio Linhum	EB	=	đ	1,870			16%	∞			15%	7	0.40%	No	0.38%	No
			WB	=	đ	1,870	15%	7			15%	7			0.38%	No	0.38%	No
Elorido Mango Boad		10th Avenue North	NB	_	2L	880			10%	5			10%	5	0.53%	No	0.53%	No
			SB	-	2L	880	10%	5			10%	5			0.53%	No	0.53%	No
	Barrolona August	10th Avenue North	NB	_	2L	880			1%	1			1%	1	0.17%	No	0.17%	No
Poort Boord			SB	-	2L	880	1%	0			1%	0			0.05%	No	0.05%	No
	10th Avenue North	7th Avenue North	NB	-	2L	880	3%	1			3%	1			0.16%	No	0.16%	No
			SB	-	2L	880			3%	1			3%	1	0.16%	No	0.16%	No
Boutwoll Boad	10th Avenue North	I also Morth Boad	NB	_	2L	880	%6	4			%6	4			0.48%	No	0.48%	No
			SB	-	2L	880			9%	4			6%	4	0.48%	No	0.48%	No
	Foroth Uill Bouloused	10th Avenue North	NB	N/A	10LX	10,580			13%	9			13%	9	%90.0	No	0.06%	No
1.05			SB	N/A	10LX	10,580	13%	9			13%	9			0.06%	No	0.06%	No
R-	10th Avenue North	6th Avenue Couth	NB	N/A	10LX	10,580	10%	5			10%	5			0.04%	No	0.04%	No
			SB	N/A	10LX	10,580			10%	5			10%	5	0.04%	No	0.04%	No
	32pd Avenue North	10th Avenue North	NB	_	2L	880			4%	2			4%	2	0.21%	No	0.21%	No
North A Street			SB	-	2L	880	4%	2			4%	2			0.21%	No	0.21%	No
	10th Avenue North	I ake Worth Boad	NB	_	2L	880	4%	2			4%	2			0.21%	No	0.21%	No
			SB	_	2L	880			4%	2			4%	2	0.21%	No	0.21%	No
Test 1 – Intersections

The Net New trips generated by the proposed project have a significant impact on two (2) of the links within the RDI. Per the TPS, major the intersections in each direction nearest to the point at which the Project's Traffic enters each Project Accessed Link, and where the Project Traffic entering or exiting the intersection from/to the Project Accessed Link is significant.

The major intersections on the significant links are 10th Avenue North and Boutwell Road; 10th Avenue North and Barnett Drive; and 10th Avenue North and I-95. The project traffic at the intersections is provided in Figure 4.

The Critical Movement Analyses (CMA) for both the AM and PM Peak Hours are provided for these intersections. The intersection volumes used in the analyses, are obtained from the TPS Database for the buildout year 2022. The CMA results demonstrate that for the intersections of 10th Avenue North and Boutwell Road and 10th Avenue North and I-95 the critical sum is less than 1,400. At the intersection of 10th Avenue North and Barnett Drive, the PM Peak Hour is over the critical sum of 1,400.

The Highway Capacity Software (HCS) is used to analyze the PM Peak Hour of the intersection of 10th and Barnett Drive, as the critical sum is over 1,400. The analyses include the Future Without Project, Future With Project and Future With Project with signal timing adjustments. Table 4 provides the Level of Service (LOS) and delay for the intersection movements and overall operation.

Intersection		Future \	Without	: Project	:		Future	e With P	roject			Future	e With P	roject	
	FB	WB	NB	SB	Int	FB	WB	NB	SB	Int	FB	WB	NR NR	SB	Int
			110	35					50				110	55	
10th Avenue North and Barnett Drive	D	Е	F	F	E	D	Е	F	F	F	D	Е	Е	F	Е
Delay (s/veh) Signalized	48.1	55.2	83.9	350.3	73.1	47.8	56.9	84.9	458.5	81.8	47.9	69	64.2	236.2	73.1
															1

Table 4 Level of Service - PM Peak Hour

Table 4 shows that the intersection, without the project, has a LOS E with significant delay in the southbound movement. The addition of the project trips (24 total) to the southbound movement adds to the existing delay. The analysis is then revised by modifying the signal timing slightly, while keeping the same cycle length, which reduces the southbound delay to less than without the project. This modification will result in an acceptable LOS.

The Critical Movement Analyses (CMA), signal timing and HCS analyses are included in Appendix E.



Site Access Volumes

Based on the distribution provided in Figure 3, the project's total turning movement volumes for the AM and PM Peak hours is provided at the proposed full access connections to 10th Avenue North and Barnett Drive. The full access on 10th Avenue North is approved per the Palm Beach County email, included in Appendix E. The volumes are shown in Figure 5

There do not appear to be any operational issues currently, or any foreseen in the future with the proposed project.

Conclusions

7-Eleven is proposing to construct a convenience market and gas station at 1900 10th Avenue North, Lake Worth, Florida. The proposed 7-Eleven will replace an existing truck rental lot located on the northwest corner of 10th Avenue North and Barnett Drive. The City of Lake Worth and Palm Beach County are requesting a Traffic Impact Study for the proposed redevelopment.

The analyses indicates that, with a minor signal timing adjustment at the intersection of 10th Avenue North and Barnett Drive, the net new trips anticipated to be generated by the proposed redevelopment of the site will not have a significant impact on the surrounding roadways.



Summary	
7-Eleven:	1900 10 th Avenue North
Municipality:	City of Lake Worth
Location:	1900 10 th Avenue North
Parcel Control Number (PCN):	38-43-44-21-02-005-0030
Existing Land Use:	Truck Rental
Proposed Land Use:	7-Eleven Gas Station and Convenience Store
Net New Daily Trips:	1,376
Net New AM Peak Hour Trips:	94 (47 In/47 Out)
Net New PM Peak Hour Trips:	94 (47 In/47 Out)

Appendix A

Property Appraiser Public Access



Appendix B

Proposed Site Plan



Appendix C

Palm Beach County Trip Generation ITE Trip Generation

(May be used immediately, but must be used in traffic studies submited to the County on or after 4/15/2019) Palm Beach County Trip Generation Rates

		ITE	+inl	Daily Pate/Equation	Dace_Bv %	+	AM Peak Hour Date/Education	+	PM Peak Hour Date/Education	
Cal.	Lailuuse	5000					NaterLyuation	III/ Out	Nater Equation	_
	Light Industrial	110	1000 S.F.	4.96	10%	88/12	0.7	13/87	0.63	_
lei	Warehouse	150	1000 S.F.	1.74	10%	77/23	0.17	27/73	0.19	_
ıtsu	Flex Space - IND FLU	PBC	1000 S.F.	7.86	10%	64/36	1.53	40/60	1.21	_
pul	Flex Space - COM FLU	PBC	1000 S.F.	29.67	45%	72/28	2.12	40/60	2.67	_
	Mini-Warehouse/SS	151	1000 S.F.	1.51	10%	60/40	0.1	47/53	0.17	_
	Single Family Detached	210	Dwelling Unit	10	%0	25/75	0.74	63/37	Ln(T) = 0.96 Ln(X) + 0.20	_
P	Multifamily Low-Rise Housing upto 2 story (Apartment/Condo/TH)	220	Dwelling Unit	7.32	%0	23/77	0.46	63/37	0.56	_
eitnəb	Multifamily Mid-Rise Housing 3-10 story (Apartment/Condo/TH)	221	Dwelling Unit	5.44	%0	26/74	0.36	61/39	0.44	
isə	55+ SF Detached	251	Dwelling Unit	4.27	%0	33/67	0.24	61/39	0.30	_
Я	55+ SF Attached	252	Dwelling Unit	3.7	%0	35/65	0.2	55/45	0.26	_
	Congregate Care Facility	253	Dwelling Unit	2.02	%0	60/40	0.07	53/47	0.18	_
	Assisted Living Facility	254	Beds	2.6	%0	63/37	0.19	38/62	0.26	_
Ldg	Hotel	310	Rooms	8.36	10%	59/41	0.47	51/49	0.6	_
Эe	Movie Theater	444	Seats	1.76	5%	N/A	0	55/45	0.09	_
ห	Health Club	492	1000 S.F.	32.93	5%	50/50	1.41	57/43	3.53	_
	Elementary School	520	Students	1.89	%0	54/46	0.67	48/52	0.17	_
	Middle/Junior School	522	Students	2.13	%0	54/46	0.58	49/51	0.17	_
ler	High School	530	Students	2.03	%0	67/33	0.52	48/52	0.14	_
loit	Private School (K-8)	534	Students	Use Private K-12 rate	%0	55/45	0.91	46/54	0.26	_
ntite	Private School (K-12)*	536	Students	2.48	%0	61/39	0.80	43/57	0.17	_
sul	Church/Synagogue ^a	560	1000 S.F.	6.95	5%	60/40	0.33	45/55	0.49	_
	Day Care	565	Students	4.09	50%	53/47	0.78	47/53	0.79	_
	Library	590	1000 S.F.	72.05	10%	71/29	1	48/52	8.16	_
p€	Hospital	610	1000 S.F.	10.72	10%	68/32	0.89	32/68	0.97	_
w	Nursing Home	620	Beds	3.06	10%	72/28	0.17	33/67	0.22	_
	General Office (>5,000 SF GFA)	710	1000 S.F.	Ln(T) = 0.97 Ln(X) + 2.50	10%	86/14	T = 0.94(X) + 26.49	16/84	1.15	_
ə:	Small Office Building (<=5,000 SF GFA)	712	1000 S.F.	16.19	10%	83/18	1.92	32/68	2.45	_
offic	Medical Office	720	1000 S.F.	34.8	10%	78/22	2.78	28/72	3.46	_
c	Medical Office (Reduced) ^b	PBC	1000 S.F.	17.4	10%	78/22	1.39	28/72	1.73	_
	Government Office	730	1000 S.F.	22.59	10%	75/25	3.34	25/75	1.71	_

Trip Generation Rates - Mostly from ITE 10th Edition

Updated March 26, 2019

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		ITE				'	AM Peak Hour		PM Peak Hour
Cat.	Landuse	Code	Unit	Daily Rate/Equation	Pass-By %	In/Out	Rate/Equation	In/Out	Rate/Equation
	Nursery (Garden Center)	817	Acre	108.1	%0	N/A	2.82	N/A	8.06
	Nursery (Wholesale)	818	Acre	19.5°	%0	N/A ^I	0.26	N/A ^I	0.45
ļ	Gen. Commercial	820	1000 S.F.	$Ln(T) = 0.68 Ln(X) + 5.57^{d}$	Note e	62/38	0.94	48/52	$Ln(T) = 0.74 Ln(X) + 2.89^{f}$
etə	Automobile Sales (New)	840	1000 S.F.	27.84	15%	73/27	1.87	40/60	2.43
Я	Automobile Parts Sales	843	1000 S.F.	55.34	28%	55/45	2.59	48/52	16.4
	Tire Store	848	1000 S.F.	28.52	28%	64/36	2.72	43/57	36.5
	Pharmacy + DT	881	1000 S.F.	109.16	20%	53/47	3.84	50/50	10.29
	Drive-In Bank ^g	912	1000 S.F.	100.03	47%	58/42	9.5	50/50	20.45
	Quality Restaurant	931	1000 S.F.	83.84	44%	50/50	0.73	67/33	8.7
	High Turnover Sit-Down Rest.	932	1000 S.F.	112.18	43%	55/45	9.94	62/38	22.6
Sə	Fast Food Restaurant w/o DT	<mark>933</mark>	<mark>1000 S.F.</mark>	<mark>.346.23</mark>	<mark>45%</mark>	<mark>60/40</mark>	<mark>25.1</mark>	<mark>50/50</mark>	28.34
vic	Fast Food Restaurant + DT	934	1000 S.F.	470.95	49%	51/49	40.19	52/48	32.67
əS	Coffee/Donut Shop w/o DT	936	1000 S.F.	686.67 ^h	45%	51/49	101.14	50/50	36.31
	Coffee/Donut Shop + DT	937	1000 S.F.	820.38	49%	51/49	88.99	50/50	43.38
	Gas Station w/Convenience Store	FDOT	FP, 1000 S.F.	14.3*PM Trips	61%	50/50	Note j	50/50	12.3*FP+15.5*(X)
	Carwash (Automated) ^k	PBC	Lane	166.00	%0	50/50	11.97	50/50	13.65

(May be used immediately, but must be used in traffic studies submited to the County on or after 4/15/2019)

Footnotes: a) Weekend peak hour rate = 9.99 per 1,000 s.f. with a 48/52 directional split

b) To be used only when adjacent to hospital, for Med. Office square footage not to exceed 44% of the hospital square footage

c) Use caution when using because of very low sample data. Consult with the County before using.

d) For intensities under 10,000 s.f., use a rate of 125.61 / 1,000 S.F. instead of the equation.

e) Pass-by percent = 62% for 10,000 s.f. or less, otherwise = 83.18 - 9.30 * Ln(A) where A is 1,000 s.f. of leasable area

f) For intensities under 10,000 s.f., use a rate of 9.9 / 1,000 s.f. instead of the equation.

g) Use these rates for a drive-in bank with up to 4 drive-thru lanes (excl. ATM lane). For additional drive-thru lanes,

use per lane rates from ITE Code 912 (124.76 daily, 8.83 AM, 27.15 PM. Use same in/out splits)

h) ITE rate NA. Rate derived using PM to Daily ratio for ITE Code 937

i) FP=Fueling Position. Use both FP and Convenience Store size in estimating trips using the provided equation. Note that no internalization betwee the gas pumps and convenience store, as per ULDC Artice 12, should be applied to estimate the net trips.

j) Use PM rates

k) Daily rate taken from PBC trip gen. study. Peak hour rates derived by applying peak to daily ratios for gas station to daily carwash rate I) Assume 50/50

Trip Generation Rates - Mostly from ITE 10th Edition

Automobile Sales (Used) (841)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

Setting/Location:	General Urban/Suburban
Number of Studies:	14
Avg. 1000 Sq. Ft. GFA:	2
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
27.06	4.44 - 71.21	17.91

Data Plot and Equation



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Automobile (8	Sales (Used) 41)
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	8
Avg. 1000 Sq. Ft. GFA:	3
Directional Distribution:	76% entering, 24% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.13	0.38 - 7.41	1.98

Data Plot and Equation



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Automobile (8	Sales (Used) 41)
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	14
Avg. 1000 Sq. Ft. GFA:	2
Directional Distribution:	47% entering, 53% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.75	0.56 - 8.15	2.28

Data Plot and Equation



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Appendix D

Palm Beach County - TPS

Table 12.B.2.D-7 3A – Radius of Development of Influence

Table 12.B.2.C-1 1A - LOS D Link Service Volumes

Table 12.B.2.C-4 2A - LOS E Link Service Volumes

				P	eak Hour, Pe	eak Direction
			Peak Hour			Uninterrupted
Facility Type		ADT	Two Way	Class I	Class II	Flow
2 lanes undivided (1)	2L	16,200	1,570	880	860	1,440
2 lanes one-way	2LO	21,100		2,350	2,240	
3 lanes two-way	3L	16,200	1,570	880	860	
3 lanes one-way	3LO					
		31,900		3,530	3,400	
4 lanes undivided (1)	4L	33,300	3,230	1,860	1,780	3,570
4 lanes divided	4LD	35,100	3,400	1,960	1,870	3,760
5 lanes two-way	5L	35,100	3,400	1,960	1,870	
6 lanes divided	6LD	53,100	5,150	2,940	2,830	5,650
8 lanes divided	8LD	70,900	6,880	3,940	3,780	
4 lanes expressway	4LX	79,400	7,300	4,020		
6 lanes expressway	6LX	122,700	11,290	6,200		
8 lanes expressway	8LX	166,000	15,270	8,400		
10 lanes expressway	10LX	209,200	19,250	10,580		
[Ord. 2005-002] [Ord. 2	2007-013]	[Ord. 2010-022]				
Notes:						
Based on the 2009 FDC	DT Quality/	LOS Handbook				
1. Service volumes	for "undiv	vided" roadways	s assume excl	usive left tui	m lanes are	provided at signalized
intersections. If the	nere are no	left turn lanes, i	reduce these va	alues by 20 p	ercent.	

Table 12 B 2 C-4 2A – LOS E Link Service Volumes

Table 12.B.2.C-5 2B – LOS E Intersection Thresholds

LOS	Critical Movement	HCM Operational Analysis			
E	1500	Greater than 55.0 to 80.0 Seconds of delay			
Notes:					
The delay identifies seco	onds of delay greater than 55.0 an	d less than or equal to 80.0			

I ne delay identifies seconds of delay greater than 55.0 and less than or equa

Table 12.B.2.C-6 2C – LOS E Speed Thresholds

Urban Street Class		I				
Range of Free Flow	55 to 45 miles per hour	45 to 35 miles per hour	35 to 30 miles per hour			
Speeds (FFS)						
Typical FFS	50 miles per hour	40 miles per hour	35 miles per hour			
LOS	Average Travel Speed (Miles per Hour)					
E	Greater than 16 to 21	Greater than 13 to 17	Greater than 10 to 14			
Notes:						
Speed values refer to a "rar than or equal to 27 miles pe	nge" of values that will achie r hour will all be LOS D for a	ve LOS D. For example spea a Class I roadway.	eds greater than 21 but less			

D. Radius of Development Influence/Project Significance

Table 12.B.2.D-7, 3A represents the Radius of Development Influence for the specific volume of the proposed Project's Net Trips. [Ord. 2006-043] [Ord. 2007-013]

Table 12.B.2.D-7 3A – Radius of Development Influence

Net External Peak Hour		Two-Way Trip Generation	Radius
1	thru	20	Directly accessed link(s)
21	thru	50	0.5 miles
51	thru	100	1 mile
101	thru	500	2 miles
501	thru	1,000	3 miles
1,001	thru	2,000	4 miles
2,001	and	Up	5 miles
[Ord. 2005-002] [Ord. 200	6 -0 43] [Or	d. 2007-013] [Ord. 2010-022]	

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B in Rural Areas as adopted by the FDOT. This standard must be met for roadways on a peak hour/peak direction basis, in accordance with the methodologies specified in FDOT Rule 14-94. **[Ord. 2007-013]**

4. A different service volume may be adopted for a specific road or intersection as part of the Plan as a CRALLS. A required roadway improvement that is the subject of a development order condition may not be necessary due to the adoption of a CRALLS. An applicant with a Project that has a development order condition for a roadway improvement or is phased to the unnecessary roadway improvement may request the appropriate governing body to remove the applicable roadway phasing condition. The application may be approved provided that the concurrency reservation (for unincorporated Projects) or determination of the County Engineer (for municipal Projects) has been amended to delete the applicable roadway phasing condition. If a Project has relied upon a CRALLS volume on a roadway and/or intersection to meet the standard, the subsequent subdivision of that Project into separate lots shall still require all parcels or lots in their entirety taken together of that subdivision to be addressed against the standard and any required CRALLS mitigation for the overall Project to be completed by the developers of the separate lots. [Ord. 2010-022]

				Peak Hour, Peak Direction			
Facility Type		ADT	Peak Hour Two Way	Class I	Class II	Uninterrupted Flow	
2 lanes undivided (1)	2L	15,200	1,480	880	810	1,140	
2 lanes one-way	2LO	19,900		2,350	2,120		
3 lanes two-way	3L	15,200	1,480	880	810		
3 lanes one-way	3LO	30,200		3,530	3,220		
4 lanes undivided (1)	4L	31,500	3,060	1,860	1,680	3,150	
4 lanes divided	4LD	33,200	3,220	1,960	1,770	3,320	
5 lanes two-way	5L	33,200	3,220	1,960	1,770		
6 lanes divided	6LD	50,300	4,880	2,940	2,680	4,980	
8 lanes divided	8LD	67,300	6,530	3,940	3,590		
4 lanes expressway	4LX	73,600	6,770		3,720		
6 lanes expressway	6LX	110,300	10,150		5,580		
8 lanes expressway	8LX	146,500	13,480		7,420		
10 lanes expressway	10LX	184,000	16,930	9,320			
[Ord. 2005-002] [Ord. 2007-013] [Ord. 2010-022]							
Notes:	Notes:						
Based on the 2009 FDOT Q	uality/ LOS Ha	andbook					
1. Service volumes for "undivided" roadways assume exclusive left turn lanes are provided at signalized							

Table 12 B	2 C-1 1A -	- LOS D Link	Service	Volumes
	-2-0-1 17			Volumes

Table 12.B.2.C-2 1B – LOS D Intersection Thresholds

LOS	Critical Movement	HCM Operational Analysis				
D	1,400	Greater than 35.0 to 55.0 Seconds of Delay				
Notes:						
The delay identifies seconds of delay greater than 35.0 and less than or equal to 55.0.						

Table 12.B.2.C-3 1C – LOS D Speed Thresholds

Urban Street Class	I	II	III		
Range of Free Flow Speeds	55 to 45 miles per hour	45 to 35 miles per hour	35 to 30 miles per hour		
(FFS)					
Typical FFS	50 miles per hour	40 miles per hour	35 miles per hour		
LOS	Average Travel Speed (Miles per Hour)				
D	Greater than 21 to 27	Greater than 17 to 22	Greater than 14 to 18		
Note:		-			
Speed values refer to a "range	" of values that will achieve LOS	S D. For example speeds greater th	an 21 but less than or equal to 27		
Imiles per hour will all he LOS I	D for a Class I roadway				

						-
				P	eak Hour, Pe	eak Direction
			Peak Hour			Uninterrupted
Facility Type		ADT	Two Way	Class I	Class II	Flow
2 lanes undivided (1)	2L	16,200	1,570	880	860	1,440
2 lanes one-way	2LO	21,100		2,350	2,240	
3 lanes two-way	3L	16,200	1,570	880	860	
3 lanes one-way	3LO					
		31,900		3,530	3,400	
4 lanes undivided (1)	4L	33,300	3,230	1,860	1,780	3,570
4 lanes divided	4LD	35,100	3,400	1,960	1,870	3,760
5 lanes two-way	5L	35,100	3,400	1,960	1,870	
6 lanes divided	6LD	53,100	5,150	2,940	2,830	5,650
8 lanes divided	8LD	70,900	6,880	3,940	3,780	
4 lanes expressway	4LX	79,400	7,300		4,0	20
6 lanes expressway	6LX	122,700	11,290		6,2	00
8 lanes expressway	8LX	166,000	15,270		8,4	00
10 lanes expressway	10LX	209,200	19,250		10,5	580
[Ord. 2005-002] [Ord.	[Ord. 2005-002] [Ord. 2007-013] [Ord. 2010-022]					
Notes:						
Based on the 2009 FD	Based on the 2009 FDOT Quality/ LOS Handbook					
1. Service volumes	for "undiv	/ided" roadway	s assume excl	usive left tu	rn lanes are	provided at signalized
intersections. If the	nere are no	left turn lanes,	reduce these va	alues by 20 p	ercent.	

Table 12.B.2.C-4 2A – LOS E Link Service Volumes

Table 12.B.2.C-5 2B – LOS E Intersection Thresholds

LOS	Critical Movement	HCM Operational Analysis			
E	1500	Greater than 55.0 to 80.0 Seconds of delay			
Notes:					
The delay identifies seco	onds of delay greater than 55.0 an	d less than or equal to 80.0			

Table 12.B.2.C-6 2C – LOS E Speed Thresholds

Urban Street Class			III			
Range of Free Flow	55 to 45 miles per hour	45 to 35 miles per hour	35 to 30 miles per hour			
Speeds (FFS)						
Typical FFS	50 miles per hour	40 miles per hour	35 miles per hour			
LOS	Average Travel Speed (Miles per Hour)					
E	Greater than 16 to 21	Greater than 13 to 17	Greater than 10 to 14			
Notes:						
Speed values refer to a "range" of values that will achieve LOS D. For example speeds greater than 21 but less than or equal to 27 miles per hour will all be LOS D for a Class I roadway.						

D. Radius of Development Influence/Project Significance

Table 12.B.2.D-7, 3A represents the Radius of Development Influence for the specific volume of the proposed Project's Net Trips. [Ord. 2006-043] [Ord. 2007-013]

Table 12.B.2.D-7 3A – Radius of Development Influence

Net External Peak Hour		Two-Way Trip Generation	Radius
1	thru	20	Directly accessed link(s)
21	thru	50	0.5 miles
51	thru	100	1 mile
101	thru	500	2 miles
501	thru	1,000	3 miles
1,001	thru	2,000	4 miles
2,001	and	Up	5 miles
[Ord. 2005-002] [Ord. 200	6-043] [Or	d. 2007-013] [Ord. 2010-022]	

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Appendix E

Critical Movement Analyses

Signal Timing

HCS+ Reports

PBC Access Email

Palm Beach County Signalized Intersection Analysis

INTERSECTION: 10th Avenue North and Barnett Drive

VOLUMES: Existing = 2018, Future = 2022 **GEOMETRY:** Existing

Input Data							
	AM	PM					
Growth Rate =	3.75%	3.75%	Peak Season = 1.0	06 Current '	Year = 2018	Buildout Year =	2022

AM Peak Hour												
		In	tersecti	on Volu	ime Dev	elopme	nt					
	N	orthbour	nd	S	outhbou	nd	E	astbour	nd	V	/estbour	nd
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Total Volume (County TPS)	83	12	247	40	12	33	21	960	92	312	1007	117
Peak Season Adjustment	5	1	15	2	1	2	1	58	6	19	60	7
Diversion (%)												
Diversion (Volumes)	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	14	2	42	7	2	6	4	161	15	52	169	20
1% Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
Approved Projects Traffic	0	0	0	0	0	0	0	166	0	0	171	0
Background Used: GR	0	0	42	7	0	6	4	183	0	0	160	20
Project Traffic	0	2	0	22	2	0	7	0	0	0	15	7
Total	88	15	303	71	15	41	33	1201	98	331	1242	151
Approach Total		406			126			1,331			1,724	
			Critic	cal Volu	me Ana	lysis						
No. of Lanes	1	1	<	1	1	<	1	2	<	1	2	<
Per Lane Volume	88	318	<	71	55	<	33	649	<	331	697	<
Right on Red			10			10			10			10
Overlaps Left			0			0			0			0
Adj. Per Lane Volume	88	308	<	71	45	<	33	639	<	331	687	<
Through/Right Volume		308			45			639			687	
Opposing Left Turns	71			88			331			33		
Critical Volume for Approach	379			133			970			719		
Critical Volume for Direction	379			970								
Intersection Critical Volume						1,3	849					
STATUS?						Ne	ear					

PM Peak Hour												
		In	tersecti	on Volu	me Dev	elopme	nt					
	N	orthbou	nd	S	outhbou	nd	E	astbour	ld	N	/estbour	nd
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Total Volume (County TPS)	153	7	327	125	19	54	24	1004	123	243	1347	39
Peak Season Adjustment	9	0	20	8	1	3	1	60	7	15	81	2
Diversion (%)												
Diversion (Volumes)	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	26	1	55	21	3	9	4	169	21	41	227	7
1% Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
Approved Projects Traffic	0	0	0	0	0	0	0	183	0	0	195	0
Background Used: GR	26	1	55	21	3	9	4	169	21	41	227	7
Project Traffic	0	2	0	22	2	0	22	0	0	0	11	11
Total	188	11	402	176	25	66	51	1233	151	298	1665	59
Approach Total		600		267				1,436			2,023	
			Critic	cal Volu	me Ana	lysis						
No. of Lanes	1	1	<	1	1	<	1	2	<	1	2	<
Per Lane Volume	188	412	<	176	92	<	51	692	<	298	862	<
Right on Red			10			10			10			10
Overlaps Left			0			0			0			0
Adj. Per Lane Volume	188	402	<	176	82	<	51	682	<	298	852	<
Through/Right Volume		402			82			682			852	
Opposing Left Turns		176			188			298			51	
Critical Volume for Approach		578			270			981			904	
Critical Volume for Direction			5	78					98	31		
Intersection Critical Volume						1,5	558					
STATUS?						0	/er					

For Committed Development traffic see TPS Databse worksheets in the Appendix.

Palm Beach County Signalized Intersection Analysis

INTERSECTION: 10th Avenue North and Boutwell Road **VOLUMES:** Existing = 2018, Future = 2022

GEOMETRY: Existing

			Input	Data				
	AM	PM						
Growth Rate =	3.75%	3.75%	Peak Season =	1.06	Current Year = 20	018	Buildout Year =	2022

AM Peak Hour												
		In	tersecti	on Volu	ime Dev	elopme	nt					
	N	orthbou	nd	S	outhbou	nd	E	Eastbour	ıd	V	/estbour	nd
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Total Volume (County TPS)	135	12	197	29	9	13	8	1052	166	253	873	20
Peak Season Adjustment	8	1	12	2	1	1	0	63	10	15	52	1
Diversion (%)												
Diversion (Volumes)	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	23	2	33	5	2	2	1	177	28	43	147	3
1% Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
Approved Projects Traffic	0	0	0	0	0	0	0	76	0	0	110	0
Background Used: GR	0	0	33	5	0	2	1	177	28	43	147	3
Project Traffic	0	0	4	0	0	0	0	18	0	5	18	0
Total	143	13	246	36	10	16	10	1310	204	316	1090	25
Approach Total		402			61			1,524			1,430	
			Critic	al Volu	me Ana	lysis						
No. of Lanes	1	1	<	1	1	1	1	2	<	1	2	1
Per Lane Volume	143	259	<	36	10	16	10	757	<	316	545	25
Right on Red			10			60			10			60
Overlaps Left			0			10			0			36
Adj. Per Lane Volume	143	249	<	36	10	0	10	747	<	316	545	0
Through/Right Volume	249 10 747				545							
Opposing Left Turns	36			143			316			10		
Critical Volume for Approach	284			153			1063			555		
Critical Volume for Direction			- 28	34					10	63		
Intersection Critical Volume						1,3	347					
STATUS?						Ne	ear					

				PM Pea	ak Houi							
		In	tersecti	on Volu	me Dev	elopme	nt					
	N	orthboui	nd	S	outhbou	nd	E	astboun	ıd	N	/estbour	nd
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Total Volume (County TPS)	166	11	163	28	29	20	8	834	188	206	1272	276
Peak Season Adjustment	10	1	10	2	2	1	0	50	11	12	76	17
Diversion (%)												
Diversion (Volumes)	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	28	2	27	5	5	3	1	140	32	35	214	46
1% Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
Approved Projects Traffic	0	0	0	0	0	0	0	144	0	0	179	0
Background Used: GR	28	2	27	5	5	3	1	140	32	35	214	46
Project Traffic	0	0	4	0	0	0	0	18	0	4	18	0
Total	204	14	204	34	36	25	10	1042	231	257	1580	339
Approach Total		422			95			1,283			2,176	
		•	Critic	cal Volu	me Ana	lysis			-			
No. of Lanes	1	1	<	1	1	1	1	2	<	1	2	1
Per Lane Volume	204	218	<	34	36	25	10	637	<	257	790	339
Right on Red			10			60			10			60
Overlaps Left			0			10			0			34
Adj. Per Lane Volume	204	208	<	34	36	0	10	627	<	257	790	245
Through/Right Volume		208			36			627			790	
Opposing Left Turns		34			204			257			10	
Critical Volume for Approach	242				239			884			800	
Critical Volume for Direction			24	42					88	34		
Intersection Critical Volume						1,1	26					
STATUS?						Un	der					

For Committed Development traffic see TPS Databse worksheets in the Appendix.

Palm Beach County Signalized Intersection Analysis

INTERSECTION: 10th Avenue North and I-95 West

VOLUMES: Existing = 2018, Future = 2022 **GEOMETRY:** Existing

			Input Data			
	AM	PM				
Growth Rate =	3.75%	3.75%	Peak Season = 1.06	Current Year = 2018	Buildout Year = 2022	

AM Peak Hour												
		In	tersecti	on Volu	me Dev	elopme	nt					
	N	orthbou	nd	S	outhbou	nd	E	astbour	ıd	V	/estbour	าd
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Total Volume (County TPS)	0	0	0	403	0	557	0	805	548	461	582	0
Peak Season Adjustment	0	0	0	24	0	33	0	48	33	28	35	0
Diversion (%)												1
Diversion (Volumes)	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	68	0	94	0	135	92	78	98	0
1% Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
Approved Projects Traffic	0	0	0	0	0	0	0	166	0	0	124	0
Background Used: GR	0	0	0	68	0	94	0	183	0	0	160	0
Project Traffic	0	2	0	22	2	0	23	0	0	0	11	11
Total	0	2	0	517	2	684	23	1036	581	489	788	11
Approach Total		2			1,203			1,640			1,288	
			Critic	cal Volu	me Ana	lysis						
No. of Lanes	0	0	0	2	0	2	0	4	0	1	2	0
Per Lane Volume	0	0	0	258	0	342	0	259	0	489	394	0
Right on Red			0			0			10			10
Overlaps Left			489			0			0			258
Adj. Per Lane Volume	0	0	0	258	0	342	0	259	0	489	394	0
Through/Right Volume		0			342 259 3		394					
Opposing Left Turns	258				0			489			0	
Critical Volume for Approach	258			342			748			394		
Critical Volume for Direction	342		748									
Intersection Critical Volume						1,0	90					
STATUS?						Un	der					

PM Peak Hour												
		In	tersecti	on Volu	me Dev	elopme	nt					
	N	orthbou	nd	S	outhbou	nd	E	astbour	nd	N	/estbour	nd
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Total Volume (County TPS)	0	0	0	514	0	506	0	972	389	289	1023	0
Peak Season Adjustment	0	0	0	31	0	30	0	58	23	17	61	0
Diversion (%)												
Diversion (Volumes)	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	86	0	85	0	163	65	49	172	0
1% Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
Approved Projects Traffic	0	0	0	0	0	0	0	183	0	0	161	0
Background Used: GR	0	0	0	86	0	85	0	163	65	49	172	0
Project Traffic	0	2	0	22	2	0	22	0	0	0	11	11
Total	0	2	0	653	2	621	22	1194	478	355	1267	11
Approach Total		2			1,277			1,694			1,633	
			Critic	cal Volu	me Ana	lysis						
No. of Lanes	0	0	0	2	0	2	0	4	0	1	2	0
Per Lane Volume	0	0	0	327	0	311	0	298	0	355	634	0
Right on Red			10			30			10			10
Overlaps Left			355			0			0			327
Adj. Per Lane Volume	0	0	0	327	0	281	0	298	0	355	634	0
Through/Right Volume		0			281			298			634	
Opposing Left Turns		327			0			355			0	
Critical Volume for Approach	327				281			653			634	
Critical Volume for Direction			32	27					6	53		
Intersection Critical Volume						98	30					
STATUS?						Un	der					

For Committed Development traffic see TPS Databse worksheets in the Appendix.

CONTROLLER TIME SHEET

DATE TIMING INSTALLED:

CONTROLLER TYPE:
CVCTEM #

	DETECTOR	L1=NORMAL	L2=NORMAL		L4=D/N (5) L4R=D/N(5)	L5=NORMAL	L6=NORMAL		L8=D/N (5) L8R=D/N(5)
in the second	CALLS	0	-		0	0	-		0
	PHASE ENABLE	-	-		-	-	Ŧ		-
	PED RCL								
	MAX RCL								
	MIN RCL	0	Ŧ		0	0	4		0
INTERVAL	PED CLR	0.0	14.0		0.0	0.0	14.0		25.0
TIMING	WALK	0.0	7.0		0.0	0.0	7.0		7.0
	RED CLR	2.0	2.0		3.0	2.0	2.0		3.0
	YEL	4.5	4.5		4.0	4.5	4.5		4.0
	MAX 2								
	MAX 1	20.0	45.0		40.0	20.0	45.0		40.0
	GAP EXT	2.0	4.0		3.0	2.0	4.0		2.0
	MIN GREEN	4.0	20.0		6.0	4.0	20.0		6.0
	GNUOB	EBLT	WB		NB	WBLT	8		SB
	NUMBER	I.	2	3	4	'n	9	7	60

The second		THE PARTY	PLANS				9/2×1/9	
	INTO FLASH	4,8	ALT TIMING			4	DATE:	
TIONS	OUT OF FLASH	2,6	IMING AND					
ECIAL FUNC	DET SWITCH	1,5	O SYSTEM 1	LT TABLES		1	12	
2	DUAL ENTRY	2,4,6,8	1. REFER T	LAN (3), & A			E PTOE	
	START Ø	2,6	tes:	ED TIMING P			LEE GAO, P.	
testa - s			No	2. UPDATE	mi	4.	PROVED BY:	
Par Such	EXIT Ø			2,6			AF	
	WIN DWELL		81	25.0				
States of the second se	DWELL &			1,6			9/24/2019	
SN	TRACK CLR GREEN			0.0			DATE:	
PTION TIM	TRACK CLR Ø			N/A				
PRE-EM	PRE-EMPT LOCK			NO			BETTS	
Beeling	GREEN BEFORE			5.0			RONALD TIBE	
and the second	DELAY BEFORE			45.0			DESIGNED BY:	
		R/R	BRIDGE	FIRE STN	BUS		TIMING	

SHEET
JIMING
SYSTEM 1

DATE TIMING INSTALLED:

BARNETT DR	CONTROLLER TYPE: N
	CICNAL # 25840 CVCTEM # 2

		PATTERN	4	4		
	AV	TIME	7:00	21:00		
	SUND	PATTERN	<u>1</u> 00	-	100	
QND		TIME	0:00	00:6	23:00	
WÉEKE		PATTERN	4	4		
	DAY	TIME	7:00	21:00		
WEEKDAY I DU JUNE	SATUR	PATTERN	100	÷	100	
		TIME	00:0	00:6	23:00	
		PATTERN	2	e	100	
	Statut and	TIME	6:00	15:00	23:00	
		PATTERN	100	1	4	
A STATUT	Contraction of the	TIME	0:00	9:30	19:00	

	inter North	Contraction of the local section of the local secti			State Share	DNIWIL	PLANS	A NO. 6. DOM	ALL ALL AND A	EL CHALES	20 S. 10 S	のなどの	
PATTERN	Same and	San Shirt	1.	S. College	2	North State	3	Wite States	4	Section 1	5	North Contraction	6
CYCLE LENGTH (SEC)			140		160		160		120				All and a set of the
OFFSET (SEC)	Strates 1		112		8		159		15				
COORDINATED PHASE			2		2		2		2				
SEQUENCE			1		-		-		-				
ALT TIMING PLAN	and the second		1		2		6		4				
		SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE	SPLIT	MODE
FORCE-OFF 1 (SEC)	EBLT	24	NON	24	NON	24	NON	20	NON				
FORCE-OFF 2 (SEC)	WB	71	MAX	86	MAX	86	MAX	60	MAX				
FORCE-OFF 3 (SEC)													
FORCE-OFF 4 (SEC)	NB	45	NON	50	NON	50	NON	40	NON				
FORCE-OFF 5 (SEC)	WBLT	24	NON	24	NON	30	MAX	20	NON				
FORCE-OFF 6 (SEC)	8	71	MAX	86	MAX	80	MAX	60	MAX				
FORCE-OFF 7 (SEC)													
FORCE-OFF 8 (SEC)	SB	45	NON	20	NON	50	NON	4	NON				
Special Features:	Theory of the	N S CONTRACT	Section - Maria	STORE STORE AS	CARL DEPARTMENT		ないというの二書の記録	Supplicion of	All Concerns	Contraction of the second	State of the second second		State of the second
(1												a share and a	0.0000000000000000000000000000000000000
2)													
3)													
TIMING DESIGNED BY	RONALD T	IBBETTS									DATE:	9/24/2019	
APPROVED BY:	LEE GAO,	P.E PTOE	SUS	0							DATE:	9/21	105/01
													hart
			1										1

[1.1.6.1] ALTERNATE TIMING SHEET

INTER	SECTION:	10TH	AVE N	& BA	RNETT DR	1					S	IGNAL #	3584	0			S	YSTEM #	3020		
	MIN GREEN	GAP TIME	MAX 1	MAX 2	YELLOW	RED CLEAR	WALK	PED CLEAR	ASSIGNED PHASE	BIKE		MIN GREEN	GAP TIME	MAX 1	MAX 2	YELLOW	RED	WALK	PED	ASSIGNED	BIKE
- 32	1.25	1253			ALT T	IMING PI	AN 1	100		못받다			2005		125	ALT 1	TIMING P	LAN 2	100		
1	4.0	2.0	20.0	8.0	4.5	2.0	0.0	0.0	1		1	4.0	2.0	20.0	8.0	4.5	2.0	0.0	0.0	1	
2	20.0	4.0	45.0	31.0	4.5	2.0	7.0	14.0	2		2	20.0	4.0	45.0	31.0	4.5	2.0	7.0	14.0	2	
3											3										
4	6.0	3.0	40.0	10.0	4.0	3.0	0.0	0.0	4		4	6.0	3.0	40.0	12.0	4.0	3.0	0.0	0.0	4	
5	4.0	2.0	20.0	8.0	4.5	2.0	0.0	0.0	5		5	4.0	2.0	20.0	9.0	4.5	2.0	0.0	0.0	5	
6	20.0	4.0	45.0	31.0	4.5	2.0	7.0	14.0	6		6	20.0	4.0	45.0	31.0	4.5	2.0	7.0	14.0	6	
7											7	-									<u> </u>
8	6.0	2.0	40.0	10.0	4.0	3.0	7.0	25.0	8		8	6.0	2.0	40.0	12.0	4.0	3.0	7.0	25.0	8	-
122.7	MIN	GAP	MAX	MAX		RED		PED	ASSIGNED	BIKE	1	MIN	GAP	MAX	MAX	28. (A.S.)	RED	10.54000	PFD	ASSIGNED	BIKE
	GREEN	TIME	1	2	YELLOW	CLEAR	WALK	CLEAR	PHASE	CLEAR		GREEN	TIME	1	2	YELLOW	CLEAR	WALK	CLEAR	PHASE	CLEAR
					ALTT	IMING PL	AN 3	1	1415	120.20	-				0.22	ALT T	IMING PL	AN 4	1		1.12
1	4.0	2.0	10.0	8,0	4.5	2.0	0.0	0.0	1		1	4.0	2.0	10.0	8.0	4.5	2.0	0,0	0.0	1	
2	20.0	4.0	45.0	31.0	4.5	2.0	7.0	14.0	2		2	20.0	4.0	45.0	31.0	4.5	2.0	7.0	14.0	2	
3											3										
4	6.0	3.0	42.0	12.0	4.0	3.0	0.0	0.0	4		4	6.0	3.0	40.0	8.0	4.0	3.0	0.0	0.0	4	
5	4.0	2.0	50.0	8.0	4.5	2.0	0.0	0.0	5		5	4.0	2.0	20.0	8.0	4.5	2.0	0.0	0.0	5	
6	20.0	4.0	45.0	31.0	4.5	2.0	7.0	14.0	6		6	20.0	4.0	45.0	31.0	4.5	2.0	7.0	14.0	6	
7		•									7										
8	6.0	2.0	42.0	12.0	4.0	3.0	7.0	25.0	8		8	6.0	2.0	40.0	8.0	4.0	3.0	7.0	25.0	8	
1	MIN	GAP	MAX	MAX	YELLOW	RED	WALK	PED	ASSIGNED	BIKE	10-21	0.0	128	(0,52);	AI	TTIMING		SIGNMENT		2.911.91	120
	GREEN	TIME	1	2	ALT T	CLEAR MING PL	AN 5	CLEAR	PHASE	CLEAR	創業			CANULA STATES	~~		FLAN AS	SIGNALINA	3	1	143
1											ALT T	IMING PL	AN 1	PATTE	ERN 1						
2											ALT T	MING PL	AN 2	PATTE	ERN 2						_
3											ALT T	IMING P	LAN 3	PATTE	ERN 3						
4		-									ALT T	IMING P	LAN 4	PATTE	ERN 4						_
5											ALT T	MING PI	LAN 5								-
6													- 1								
7													1.2								
8																					_
IOTEC	L							<u> </u>													
UTES		12	172		1657 15		Deter a	1425						Page 1	5.5	15 12	1.1				
															_						

TIMING DESIGNED BY:	RONALD TIBBETTS
APPROVED BY:	LEE GAO, P.E PTOE

DATE 9/24/2019 DATE 9/1/101

					SI	HORT	REPO	RT							
General Info	ormation				_		Site Ir	formati	ion						
Analyst Agency or Co Date Perform Time Period	LSB o. Lisa S Berr ned 5/4/2020 PM Peak H	stein P our	E				Interse Area T Jurisd Analys	ection ype iction sis Year	10tl All d PBC Futi	n Avenue other area C ure Witho	N/Barn as out Proje	ett Drive ect)		
Volume and	Timing Input						<u> </u>								
				EB			WB	1		NB	i		SB		
Number of L	2200		_	1H 2											
		- <i>'</i>	+ -		0	1									
)	20	1	223	151	208	1654	18		0	102	L 154	23	66	
) hicles	29	+'	233	2	290	2	2	2	2	2	2	23	2	
PHF		0 95		2 95	2 0.95	2 0.95	2 0.95	2 0.95	2 0.95	0.95	0.95	0.95	2 0.95	2 0.95	
Pretimed/Act	tuated $(P A)$	Δ	Ť	.35 P	0.30 P	Δ	0.30 P	0.90 P	Δ	Δ	Δ	Δ	Δ	Δ	
Startup Lost	Time	2.0		2.0	, 	2.0	2.0	, ,	2.0	2.0		2.0	2.0		
Extension of	Effective Gree	1 2.0		2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival Type		3		3		3	3		3	3		3	3		
Unit Extensio	on	3.0		3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RT	OR Volume	0	+	0	10	0	0	10	0	0	10	0	0	10	
Lane Width	-	12.0	1	2.0		12.0	12.0	-	12.0	12.0		12.0	12.0		
Parking/Grad	de/Parking	N		0	N	N	0	N	N	0	N	N	0	N	
Parking/Hour	r														
Bus Stops/H	our	0		0		0	0		0	0		0	0		
Minimum Pe	destrian Time		3	3.2			3.2			3.2			3.2		
Phasing	Excl. Left		nly	EW	/ Perm	0	4	NS Pe	rm	06		07)8	
Timing	G = 17.5 Y = 0	G = 0.0 Y = 6.5	= 6.0 G = = 6.5 Y =		6.5	Y =		G = 43 Y = 7	0.0	<u>G –</u> Y =	Y =	-	Y =		
Duration of A	nalysis (hrs) =	0.25	5.0 1 - 0.0			•				Cycle Le	ngth C =	= 160.0)		
Lane Grou	up Capacity	Cont	Control Delay, and				Deterr	ninatio	on						
			EB				WB			NB		SB			
Adjusted Flor	w Rate	31	31 1446			314	1781		198	422		162	83		
Lane Group	Capacity	240	1	604		307	1900		352	427		85	447		
v/c Ratio		0.13	0	.90		1.02	0.94		0.56	0.99		1.91	0.19		
Green Ratio		0.57	0	.46		0.65	0.54		0.27	0.27		0.27	0.27		
Uniform Dela	ay d ₁	27.4	3	9.9		56.7	34.5		50.4	58.2		58.5	45.0		
Delay Factor	k	0.11	0	.50		0.50	0.50		0.16	0.49		0.50	0.11		
Incremental I	Delay d ₂	0.2		8.6		57.3	10.4		2.1	40.3		448.2	0.2		
PF Factor		1.00	0 1	.000		1.000	1.000		1.000	1.000		1.000	1.000		
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Generated: 5/13/2020 4:38 PM

RE: 1900 10th Avenue N - Proposed 7-Eleven

Quazi Bari <QBari@pbcgov.org>

Mon 5/4/2020 4:57 PM

To: Lisa Bernstein lisa.bernstein@lsbpe.net>Cc: Motasem AI-Turk MAlturk@pbcgov.org>; Bogdan Piorkowski <BPiorkow@pbcgov.org>

1 attachments (1 KB) image001.wmz;

Lisa:

Mo and I briefly discussed this project again this afternoon. We will allow full access on 10th Ave N driveway, which should be located at the western end of the site. A right turn lane, regardless of the amount of right turn volumes, with a minimum of deceleration length + 1 car length, must be provided on 10th Ave N at this driveway. Barnett Drive is a City maintained road. We will convey our very strong desire to the City to allow out-only movement from the driveway on Barnett Dr (no inbound traffic). The applicant is urged to discuss this with the City while discussing site planning, before the site plan is sent to the County for driveway permits on 10th Ave N. You also have to provide a fuel delivery truck template to show safe circulation of those trucks within the site and onto the public roads.

This email will supersede any previous staff decisions on access for this site. Please save this email for future references so that we do not have to research again on access issues for this site.

Thanks.

Quazi Bari, P.E., PTOE | Manager – Growth Management | Traffic Division

2300 N. Jog Road, West Palm Beach, FL 33411 T: 561.684.4030 | <u>gbari@pbcgov.org</u>

From: Lisa Bernstein <lisa.bernstein@lsbpe.net>
Sent: Monday, May 4, 2020 10:45 AM
To: Quazi Bari <QBari@pbcgov.org>
Subject: 1900 10th Avenue N - Proposed 7-Eleven

***** Note: This email was sent from a source external to Palm Beach County. Links or attachments should not be accessed unless expected from a trusted source. *****

Good Morning Quazi,

Hope you had a nice weekend! Since I no longer work for Keith I am unable to get our previous email discussions for this project. I remember that we discussed the 10th Avenue access was allowed to be a full access, were there any other requirements for 10th Avenue other than adding the driveway connection? Please remind me and if you have any questions please let me know. Thank you! L.

Lisa S. Bernstein, PE Senior Traffic Engineer

LISA S BERNSTEIN PE 954-494-5408 7660 NW 6 CT PLANTATION, FL 33324 lsbpe.net

Anne-Christine Carrie

From:	Felipe Lofaso <flofaso@lakeworthbeachfl.gov></flofaso@lakeworthbeachfl.gov>
Sent:	Wednesday, May 6, 2020 12:58 PM
To:	Anne-Christine Carrie
Cc:	Andrew Meyer; William Waters; Erin Sita; Shane Laakso; Michael Vonder Meulen; Martin Grinbank; Long, Joshua
Subject:	RE: 7-Eleven #41361 at 1900 10th Avenue North, Lake Worth Beach K#11007.02 - DUMPSTER
Follow Up Flag:	Follow up
Flag Status:	Flagged

Good afternoon Ms. Carrie,

The comments listed below are pertinent and otherwise apply. The Solid Waste equipment can access the enclosure, albeit they would need to cross over the entire site. Keep in mind the City would not be liable to your client if the truck weight causes damage to the parking lot and drive areas. This would be the only concern with looking to site the enclosure in a different location or angle it more appropriately off of Barnett Drive so we drive in/back out the entrance off Barnett.

Thanks,

Felipe Lofaso Assistant Director | Public Works Department



City of Lake Worth Beach – Public Works Dept. 1749 3rd Avenue South Lake Worth, FL 33460 P: 561-586-1720 <u>flofaso@lakeworthbeachfl.gov</u> www.lakeworthbeachfl.gov

"We are LAKE WORTH BEACH. A hometown City that is committed to delivering the highest level of customer service through a commitment to integrity, hard work and a friendly attitude. We strive to exceed the expectations of our citizens, our businesses, our elected officials and our fellow employees."

CITY OF LAKE WORTH BEACH E-MAIL DISCLAIMER:

PLEASE NOTE: Florida has a very broad public records law. Most written communications to or from local officials regarding city business are public records available to the public and media upon request. Your e-mail communications may therefore be subject to public disclosure.

From: Anne-Christine Carrie <acarrie@keithteam.com>

Sent: Wednesday, May 6, 2020 12:16 PM

To: Felipe Lofaso <flofaso@lakeworthbeachfl.gov>

Cc: Andrew Meyer <ameyer@lakeworthbeachfl.gov>; William Waters <wwaters@lakeworthbeachfl.gov>; Erin Sita <esita@LakeWorthBeachfl.gov>; Shane Laakso <SLaakso@creightondev.com>; Michael Vonder Meulen

<MVonderMeulen@keithteam.com>; Martin Grinbank <MGrinbank@keithteam.com>; Long, Joshua <JLong@gunster.com>

Subject: 7-Eleven #41361 at 1900 10th Avenue North, Lake Worth Beach K#11007.02 - DUMPSTER

Caution: This is an external email. Do not click links or open attachments from unknown or unverified sources.

Good morning Mr. Lofaso and thank you for returning my call from yesterday:

As discussed, I wanted to clarify the comments received from the Planning Division and yourself regarding the circulation and access to our dumpster. Although we will be enlarging the dumpster area due to the addition of a restaurant, it is my understanding that the access (from Barnett) and circulation proposed for the refuse truck is acceptable. You also indicated that the enclosure gates or openings needed to be at least 10' wide.

I am copying Urban Design for they had a similar comment as follows:

2. Access to dumpster by refuse may be a challenge as the only access would be from 10th Avenue North and across site to the dumpster enclosure.

Please let me know if there is anything else that you would like me to take into consideration for our next submittal.

Thank you,

954-204-5452



Anne-Christine Carrie Planner 2312 S. Andrews Ave, Ft. Lauderdale Office: 954.788.3400 Email: <u>acarrie@keithteam.com</u> www.KEITHteam.com

RE: 1900 10th Ave North

Morton Rose <MRose@pbcgov.org>

Tue 6/23/2020 5:34 PM

To: Lisa Bernstein <lisa.bernstein@lsbpe.net>; Martin Grinbank <MGrinbank@keithteam.com> Cc: Quazi Bari <QBari@pbcgov.org>; Kathleen Farrell <KFarrell@pbcgov.org>; Serge Jerome <SJerome@pbcgov.org> Hi Lisa,

The County does have an intersection improvement project at 10th Ave. and Boutwell Rd., programmed for construction in FY 2021. We are also conducting a <u>study</u> to add a westbound lane between Congress Ave and I-95. If you need additional information on these items you can contact Kathleen Farrell. She is copied on this email.

Thanks.

Morton L. Rose P.E., Director Roadway Production Division 2300 N. Jog Rd., 3rd Floor W. West Palm Beach, FL 33411 Ph: 561-684-4150

From: Lisa Bernstein lisa.bernstein@lsbpe.net>
Sent: Tuesday, June 23, 2020 5:00 PM
To: Morton Rose <MRose@pbcgov.org>; Martin Grinbank <MGrinbank@keithteam.com>
Cc: Quazi Bari <QBari@pbcgov.org>
Subject: 1900 10th Ave North

****** Note: This email was sent from a source external to Palm Beach County. Links or attachments should not be accessed unless expected from a trusted source. *****

Good Afternoon Morton,

Hope all is well! I am working on a project at this address and the City of Lake Worth Beach has asked about any roadway improvements to 10th Avenue North in addition to the ramp project FDOT has already completed. I have spoken with Quazi Bari, PBC Traffic, with regard to our access and there did not appear to be any roadway projects west of Barnett Drive.

Would you please confirm if there are any future plans for 10th Avenue North, west of Barnett Drive? If you have any questions, please let me know. Thank you! L.

Lisa S. Bernstein, PE Senior Traffic Engineer

LISA S BERNSTEIN PE 954-494-5408 7660 NW 6 CT PLANTATION, FL 33324 Isbpe.net

Under Florida law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

RE: 1900 10th Avenue N - Proposed 7-Eleven

Quazi Bari <QBari@pbcgov.org>

Mon 5/11/2020 3:51 PM To: Lisa Bernstein <lisa.bernstein@lsbpe.net> Cc: Motasem Al-Turk <MAlturk@pbcgov.org>; Bogdan Piorkowski <BPiorkow@pbcgov.org>

1 attachments (1 KB) image001.wmz;

Hi Lisa:

County is responsible for allowing access on 10th Ave, which is County maintained. As stated earlier, we will allow a full access at the driveway on 10th Ave. Barnett Dr is City maintained, therefore the City will permit access on that road. We will only convey our concerns to the City regarding the impact on the operation of the intersection of 10th Ave/ Barnett Dr of allowing inbound traffic at that driveway. You have to make the argument with the City for that access, not to the County.

If it helps, we will support, if asked, for an arrangement where the Barnett Dr is outbound-only driveway, but designed in such a way that only fuel delivery trucks can occasionally enter the site with the assistance of a flagger from the gas station on the site. The design should clearly convey to the general public that the driveway is outbound only. You may discuss this with the City at your discretion.

Thank you.

Quazi Bari, P.E., PTOE | Manager – Growth Management | Traffic Division

2300 N. Jog Road, West Palm Beach, FL 33411 T: 561.684.4030 | <u>gbari@pbcgov.org</u>

From: Lisa Bernstein <lisa.bernstein@lsbpe.net> Sent: Thursday, May 7, 2020 5:41 PM To: Quazi Bari <QBari@pbcgov.org> Cc: Motasem Al-Turk <MAlturk@pbcgov.org>; Bogdan Piorkowski <BPiorkow@pbcgov.org> Subject: Re: 1900 10th Avenue N - Proposed 7-Eleven

****** Note: This email was sent from a source external to Palm Beach County. Links or attachments should not be accessed unless expected from a trusted source. *****

Hi Quazi,

The fuel truck may not go in reverse on the site. Since the trucks are usually not during the peak hour, they should not interfere with traffic flow. There are only 198 southbound vehicles during the peak hour with 54 of them turning right so they may not be there long. The signal also lets them out. This does not seem to be such a large volume as to restrict the left in and there are a number of side streets with the same condition. Is there any data that says this has been a problem in the past at other locations? This is the typical access for most gas stations even at locations with much higher volumes and there do not appear to be any issues.

Why is it being assumed that is going to be a problem when the numbers to not support that view? I am trying to understand your concerns and I would agree if the driveway was closer to the intersection, it is over 100 feet away which is better than most. What if we looked at adding a SB/NB permitted-protected left turn signal? That would let the lefts out quicker and reduce the queue. Thoughts?

I do appreciate your thinking about solutions, there are truck restrictions due to the fuel, so it is challenging. Any questions, please let me know. Thank you! L.

Lisa S. Bernstein, PE Senior Traffic Engineer

LISA S BERNSTEIN PE 954-494-5408 7660 NW 6 CT PLANTATION, FL 33324 Isbpe.net

From: Quazi Bari <<u>QBari@pbcgov.org</u>>
Sent: Thursday, May 7, 2020 5:13 PM
To: Lisa Bernstein <<u>lisa.bernstein@lsbpe.net</u>>
Cc: Motasem Al-Turk <<u>MAlturk@pbcgov.org</u>>; Bogdan Piorkowski <<u>BPiorkow@pbcgov.org</u>>
Subject: RE: 1900 10th Avenue N - Proposed 7-Eleven

Lisa:

You may have to try various options that may involve redesigning and/or removing few pumps/reducing building footprint, etc. if you really want a 7-Eleven on this difficult site. I don't know if it will work, but how about having the fuel delivery trucks come in through 10th Ave entrance, go straight, back up to the underground tanks, and deliver fuel. For their way out, they move forward to go towards north drive aisle, then back-up on the drive aisle between the store and the pumps, and then move forward to exit from 10th Ave. I did not use any turning template to test the above and it may not work at all, but you may try that approach if those trucks are allowed to back-up and 7-Eleven's policy does not prohibit those maneuvers.

Thanks.

Quazi Bari, P.E., PTOE | Manager - Growth Management | Traffic Division

2300 N. Jog Road, West Palm Beach, FL 33411 T: 561.684.4030 | <u>gbari@pbcgov.org</u>

From: Lisa Bernstein <lisa.bernstein@lsbpe.net>
Sent: Wednesday, May 6, 2020 12:31 PM
To: Quazi Bari <<u>QBari@pbcgov.org</u>>
Cc: Motasem Al-Turk <<u>MAlturk@pbcgov.org</u>>; Bogdan Piorkowski <<u>BPiorkow@pbcgov.org</u>>
Subject: Re: 1900 10th Avenue N - Proposed 7-Eleven

****** Note: This email was sent from a source external to Palm Beach County. Links or attachments should not be accessed unless expected from a trusted source. *****

Good Afternoon All,

Thank you very much for your quick response. We are designing the turn lane to use the maximum available frontage on 10th Ave N, with the access at the west end. That is the best we can do with what is available.

With regard to Barnett Drive, I have attached the truck route exiting the site which shows it cannot safely make the turn, the truck will be in the opposing lane and on the sidewalk. I have also attached the safe truck access entering from Barnett Drive. It was also discussed that the truck should go around the block to enter, which would also be inbound on Barnett, however, this puts the truck on a one-way road with chain link fencing on both sides of the road (with no exit access) in front of a middle school. This is not an ideal situation from a safety standpoint, to potentially trap a truck load of fuel in front of a school.

With the turning radii of the truck, the driveway width cannot be reduced or channelized, so we are requesting to provide the safest access possible, which is from Barnett Drive. The driveway is at the north end of the site, which affords plenty of room. There are usually only a couple of fuel deliveries per week and usually not during the peak hour. Please take a look and let me nkow if you have any questions. Thank you and stay safe!! L.

Lisa S. Bernstein, PE Senior Traffic Engineer

LISA S BERNSTEIN PE 954-494-5408 7660 NW 6 CT PLANTATION, FL 33324 Isbpe.net

From: Quazi Bari <<u>QBari@pbcgov.org</u>>
Sent: Monday, May 4, 2020 4:57 PM
To: Lisa Bernstein <<u>lisa.bernstein@lsbpe.net</u>>
Cc: Motasem Al-Turk <<u>MAlturk@pbcgov.org</u>>; Bogdan Piorkowski <<u>BPiorkow@pbcgov.org</u>>
Subject: RE: 1900 10th Avenue N - Proposed 7-Eleven

Lisa:

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Thanks.

Quazi Bari, P.E., PTOE | Manager - Growth Management | Traffic Division

2300 N. Jog Road, West Palm Beach, FL 33411 T: 561.684.4030 | <u>gbari@pbcgov.org</u>

From: Lisa Bernstein <<u>lisa.bernstein@lsbpe.net</u>> Sent: Monday, May 4, 2020 10:45 AM To: Quazi Bari <<u>QBari@pbcgov.org</u>> Subject: 1900 10th Avenue N - Proposed 7-Eleven

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Good Morning Quazi,

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Lisa S. Bernstein, PE Senior Traffic Engineer

LISA S BERNSTEIN PE 954-494-5408 7660 NW 6 CT PLANTATION, FL 33324 Isbpe.net

Under Florida law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.
Martin Grinbank

Subject:

FW: 11007.02- Request for Information on I-95 FDOT Project

From: Christopher Lehman <clehman@floridadrawbridges.com>
Sent: Wednesday, May 6, 2020 11:00 AM
To: Martin Grinbank <MGrinbank@keithteam.com>; Dean, Jerry <Jerry.Dean@dot.state.fl.us>; Drouin, Brett
<Brett.Drouin@dot.state.fl.us>
Cc: Lisa Bernstein lisa.bernstein@lsbpe.net>; Shane Laakso <SLaakso@creightondev.com>; Paul Watt
<pwatt@floridadrawbridges.com>
Subject: RE: 11007.02- Request for Information on I-95 FDOT Project

Good morning Martin,

You are correct. The work for the 10th Ave N Improvement Project has been completed. However, FDOT Maintenance will be placing pavement markings and striping East of Barnet Drive with an estimated completion date of June 5th.

Please contact me at your convenience if you have any questions or comments.

Best regards, Chris Christopher Lehman I-95 Project Engineer FDI Services 7153 Southern Blvd. WPB, FL 33413 Office: (561) 557-3067 Cell: (954) 798-2963 Fax: (561) 557-3106 *E-mail: clehman@floridadrawbridges.com*



From: Martin Grinbank <<u>MGrinbank@keithteam.com</u>>
Sent: Tuesday, May 5, 2020 3:16 PM
To: Dean, Jerry <<u>Jerry.Dean@dot.state.fl.us</u>>; Drouin, Brett <<u>Brett.Drouin@dot.state.fl.us</u>>; Christopher Lehman
<<u>clehman@floridadrawbridges.com</u>>
Cc: Lisa Bernstein <<u>lisa.bernstein@lsbpe.net</u>>; Shane Laakso <<u>SLaakso@creightondev.com</u>>
Subject: RE: 11007.02- Request for Information on I-95 FDOT Project

Chris, the comment we received from the City is below. From what we can see, the work on the I-95 ramps has already been completed.

"Ensure the plan conforms/integrates with the FDOT I-95 & 10th Ave N improvement project. Provide an acknowledgement from the DOT."

Please let me know if you have any questions or if you need any additional information.

Regards,



Martin Grinbank Project Manager II 301 East Atlantic Blvd, Pompano Beach Office: 954.788.3400 Email: <u>MGrinbank@keithteam.com</u> www.KEITHteam.com

From: Dean, Jerry <Jerry.Dean@dot.state.fl.us>
Sent: Tuesday, May 5, 2020 12:52 PM
To: Drouin, Brett <Brett.Drouin@dot.state.fl.us>; Lehman, Christopher <clehman@floridadrawbridges.com>
Cc: Martin Grinbank <MGrinbank@keithteam.com>
Subject: FW: 11007.02- Request for Information on I-95 FDOT Project
Importance: High

Chris,

Can you please help Martin with his question concerning an I-95 project in Lake Worth?

Teleworking from home since March 16, 2020. Life is so precious, protect the ones you love with knowledge...



Jerry M. Dean District IV Permits Coordinator 3400 W. Commercial Blvd. Ft. Lauderdale, FL 33309 Tel: (954) 777-4374 Work Hours M-Friday 7:00am-3:30pm

OSP Link: https://osp.fdot.gov

From: Prapti Shinde <<u>PShinde@keithteam.com</u>> Sent: Monday, May 4, 2020 9:41 AM To: Dean, Jerry <<u>Jerry.Dean@dot.state.fl.us</u>> Cc: Martin Grinbank <<u>MGrinbank@keithteam.com</u>> Subject: 11007.02- Request for Information on FDOT Project

EXTERNAL SENDER: Use caution with links and attachments.

Good morning,

We are working on a 7-Eleven located at 1900 10th Avenue North, Lake Worth, Florida. We recently got comments from the city for this project and there is a comment which requires additional information from FDOT. It would be great if you could help us address the comment or direct us to the appropriate person who could help us address it. It is as follows:

a. Ensure the plan conforms/integrates with the FDOT I-95 & 10th Ave N improvement project. Provide an acknowledgement from the DOT.

It would be great if you could provide us with additional information on the improvement project mentioned above. The site plan is attached for your reference. Thank you for your time and help. Please reply at your earliest convenience.

Please feel free to contact me if you have any questions or need additional information. Thank you,



Prapti Shinde Engineer I 301 East Atlantic Blvd, Pompano Beach Office: 954.788.3400 Email: <u>PShinde@keithteam.com</u> www.KEITHteam.com