

MEMORANDUM

To: Steven M. Kelton, LEED GA
Hope W. Calhoun, Esq.

From: Karl B. Peterson, P.E.

Date: September 21, 2020

Subject: Popeyes Restaurant – Lauderhill, Florida
Traffic Circulation / Drive-Through Lane Analysis

There is an existing Popeyes fast food restaurant with drive-through lane located at 7050 W. Commercial Boulevard (State Road 870) in Lauderhill, Broward County, Florida. The subject site is located on the south side of W. Commercial Boulevard between NW 70th Avenue and N. University Drive (State Road 817). A project location map is presented in Attachment A to this memorandum.

Vehicular access to the site is provided by cross-access with properties to the east and west. To the east there is a right-in / right-out only driveway on W. Commercial Boulevard serving a gas station and convenience store in the southwest corner of the intersection at NW 70th Avenue and W. Commercial Boulevard. To the west there is a full median opening on W. Commercial Boulevard that provides direct access the adjacent office property. These driveways are accessible in both directions via internal drive aisles. A survey of the subject site is presented in Attachment B to this memorandum and the existing site plan is presented in Attachment C.

Plans have been developed to construct a new Popeyes restaurant (with drive-through lane) on the adjacent (vacant) property to the east and repurpose the existing Popeyes building as a retail building without a drive-through lane. The proposed site plan is presented in Attachment D to this memorandum. We understand that City staff has expressed some concerns relative to the circulation of traffic and drive-through operations on the existing site. More specifically, they have noted “over stacking” of the drive-through lane during peak hours. The purpose of this memorandum is to conduct a review of the proposed traffic circulation patterns and the proposed drive-through lane operations.

Traffic Circulation

Vehicular access to the existing Popeyes site is provided to and from the east and west on the north side of the building (parallel to W. Commercial Boulevard). Vehicular access is also provided to the rear (south) side of the site from the office development to the west. The existing site has two-way traffic flow on the north and west sides of the building. The single-lane drive-through facility is accessed from the north-south driveway on the west side of the site and exits to the east-west drive aisle on the north side of the site.

One of the challenges created by the existing traffic circulation pattern is the two-way traffic flow on the west side of the building. As mentioned previously, access to the drive-through lane is provided from this drive aisle. The drive-through lane capacity is approximately five (5) vehicles including one (1) vehicle at the menu board and one (1) vehicle prior to the menu board. As such, during peak times both the overall capacity of the drive-through lane and the capacity at and approaching the order board are exceeded.

When this condition occurs, vehicles queue in the southbound lane (and frequently block the northbound lane) of the north-south drive aisle. If the northbound lane is not blocked, this causes southbound non-drive-through traffic to utilize the northbound lane which is an unsafe condition. When both lanes are occupied / blocked, the overall traffic circulation on the site is compromised by effectively blocking north-south movement on the site.

The proposed site plan specifically addresses this issue by creating one-way (southbound) traffic flow on the west side of the building and one-way (northbound) traffic flow on the east side of the building. On the west side of the building there are two (2) travel lanes with the lane closest to the building designated for the drive-through lane. This single lane feeds two (2) lanes at two (2) separate menu boards. These lanes then merge to one lane on the approach to the pick-up window. This configuration provides a drive-through lane capacity of approximately eleven (11) vehicles and does not obstruct traffic flow on the site. This is a significant traffic circulation improvement when compared to the existing site.

Drive-Through Lane Operations

As noted, City staff has expressed concerns about “over stacking” of the drive-through lane during peak hours. This condition has been exacerbated by the ongoing COVID-19 pandemic conditions just as it has at many other drive-through facilities. Current drive-through demand at the subject Popeyes restaurant greatly exceeds typical drive-through demand; however, conditions are gradually returning to normal.

In order to assess the “normal” drive-through lane demand for this facility, we have reviewed drive-through lane data collected by our firm at a similar Popeyes restaurant located 3051 W. Atlantic Boulevard in Pompano Beach. This data was collected in late 2016 and is presented in Attachment E. According to this data collected during typical conditions we would expect to see average vehicle queues of approximately five (5) vehicles and reasonable maximum vehicle queues of approximately eight (8) vehicles.

As noted earlier, the proposed drive-through lane will have a maximum capacity of approximately eleven (11) vehicles. Given the drive-through queuing characteristics documented at a similar Popeyes restaurant during typical conditions, it is apparent that the proposed drive-through lane capacity will be sufficient as to minimize the likelihood that vehicle queues will negatively impact onsite traffic circulation. Furthermore, the proposed facility will include dual menu boards / ordering positions that will expedite the ordering process and reduce service times thereby reducing vehicle queues.

In view of the above, it is our opinion that the proposed Popeyes site plan provides improved site circulation and drive-through facilities when compared with the current facilities. Furthermore, it is expected that, under typical operating conditions (i.e. post-COVID-19) the drive-through lane facilities should be adequate as to minimize impacts to traffic circulation both onsite and on adjacent properties. If you have any questions or comments, please do not hesitate to contact me.

Attachment A

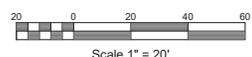
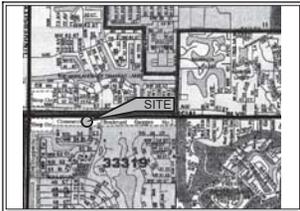
Popeyes – Lauderdale, Florida

Project Location Map

Attachment B

Popeyes – Lauderdale, Florida

Site Survey

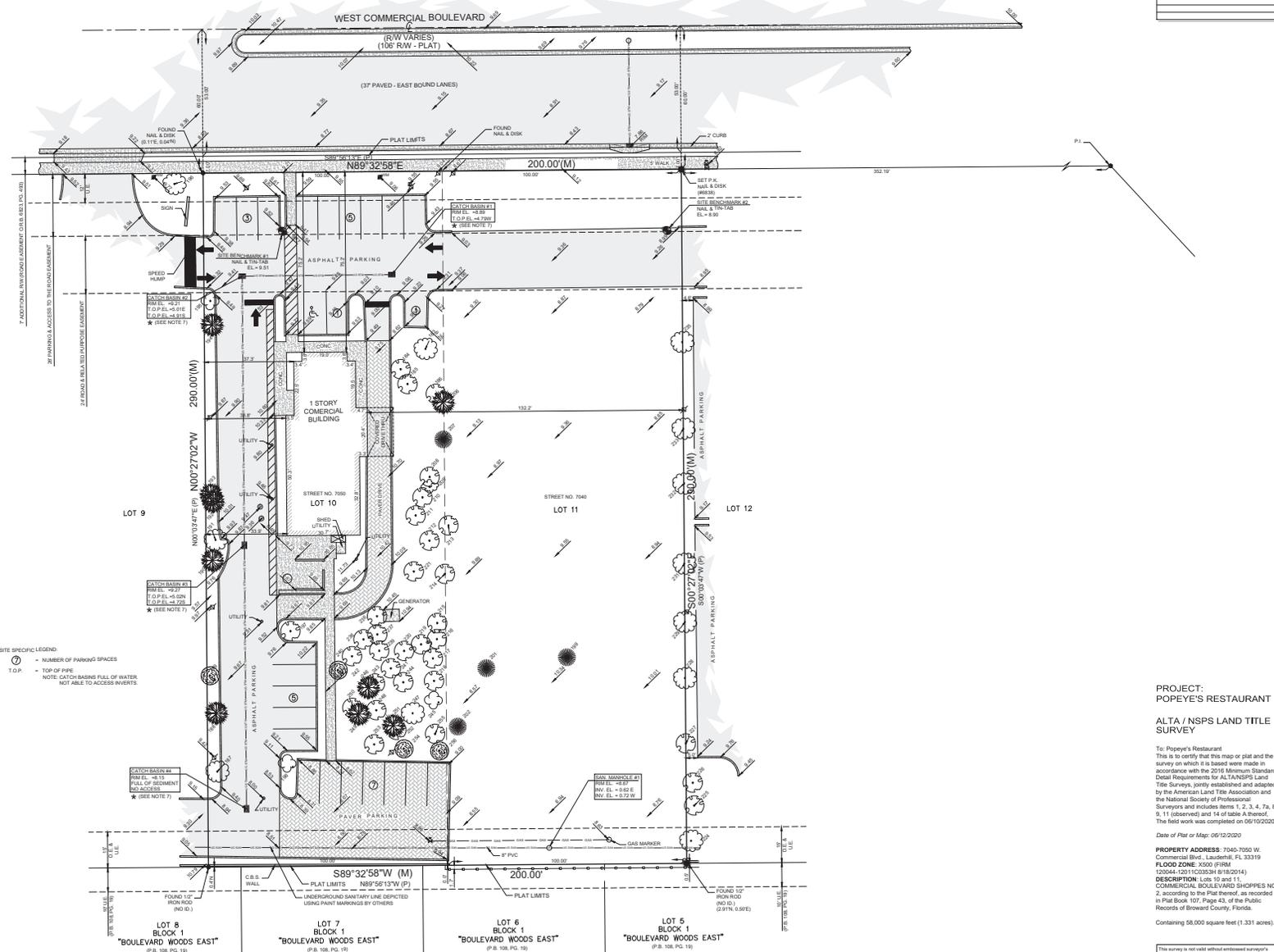


- TREE LEGEND**
- OAK TREE
 - CYPRESS TREE
 - HITCH APPLE TREE
 - UNKNOWN TREE
 - PINE TREE
 - STRANGLER FIG
 - CABBAGE PALM TREE

NUMBER	TRUNK DIA	TREE TYPE
183	1.0'	OAK
184	0.8'	CYPRESS
185	0.8'	CYPRESS
186	0.8'	CYPRESS
187	0.8'	OAK
188	1.2'	CABBAGE PALM
189	0.8'	HITCH APPLE
190	2.0'	CABBAGE PALM
191	2.2'	OAK
192	1.7'	CABBAGE PALM
193	1.7'	CABBAGE PALM
194	1.7'	CABBAGE PALM
195	0.8'	UNKNOWN
196	2.0'	OAK
197	0.8'	CYPRESS
198	1.8'	UNKNOWN
199	1.8'	PINE
200	1.8'	PINE
201	1.8'	PINE
202	1.8'	PINE
203	0.8'	CABBAGE PALM
204	1.8'	PINE
205	1.8'	CYPRESS
206	0.8'	STRANGLER FIG
207	0.8'	CYPRESS
208	0.8'	CYPRESS
209	0.8'	CYPRESS
210	0.8'	CYPRESS
211	0.8'	CYPRESS
212	0.8'	CYPRESS
213	0.7'	CYPRESS
214	0.8'	CYPRESS
215	0.8'	CYPRESS
216	0.8'	CYPRESS
217	0.8'	CYPRESS
218	0.8'	CYPRESS
219	0.8'	CYPRESS
220	0.8'	CYPRESS
221	0.8'	CYPRESS
222	1.0'	OAK
223	0.8'	CYPRESS
224	0.8'	OAK
225	0.8'	OAK
226	0.8'	CYPRESS
227	0.8'	CYPRESS
228	1.0'	OAK
229	1.0'	OAK
230	0.8'	OAK
231	0.8'	OAK
232	0.8'	OAK
233	0.8'	OAK
234	0.8'	CYPRESS
235	0.8'	CYPRESS
236	0.8'	CYPRESS
237	0.8'	CYPRESS
238	0.8'	CYPRESS
239	0.8'	CYPRESS
240	0.8'	CYPRESS
241	0.8'	CYPRESS
242	0.8'	HITCH APPLE
243	0.8'	CYPRESS
244	0.8'	CYPRESS
245	0.8'	UNKNOWN
246	2.2'	CABBAGE PALM
247	0.8'	OAK TRUNK
248	1.0'	CYPRESS
249	1.0'	CABBAGE PALM
250	1.0'	CYPRESS
251	2.1'	CABBAGE PALM
252	0.8'	CYPRESS
253	0.8'	CYPRESS
254	0.8'	HITCH APPLE
255	0.8'	CYPRESS
256	0.8'	HITCH APPLE

- SITE SPECIFIC LEGEND:**
- NUMBER OF PARKING SPACES
 - TOP OF PIPE
 - NOTE: CATCH BASINS FULL OF WATER NOT ABLE TO ACCESS INVERTS.

- SURVEY NOTES:**
- Lands shown hereon were not abstracted for easements and/or rights-of-way of record by this office.
 - Area of subject lot = 58,000 square feet (1.331 acres).
 - Elevations shown hereon are based on North Atlantic Vertical Datum of 1988 (NAVD 88).
 - Originating benchmark = Leica Global Positioning System.
 - Existing elevation (NAVD 88 typical).
 - No underground improvements located.
 - Measured bearings shown hereon are grid bearings. The bearing base line is the South right of way line of W. Commercial Blvd. having a bearing of N 89° 32' 58" E.
 - This firm's Certificate of Authorization number is 1B 6858.
- ★ 7) ALL DRAINAGE STRUCTURES WERE FULL OF WATER AT THE TIME OF FIELD WORK. NOT ABLE TO ACCESS INVERTS ON ROSE SIDE.



REVISIONS:

NO.	DATE	DESCRIPTION

PROJECT:
POPEY'S RESTAURANT

ALTA / NSPS LAND TITLE SURVEY

To: Popey's Restaurant
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by the American Land Title Association and the National Society of Professional Surveyors and includes items 1, 2, 3, 4, 7a, 8, 9, 11 (observed) and 14 of table A thereof. The field work was completed on 06/10/2020.

Date of Plat or Map: 06/10/2020

PROPERTY ADDRESS: 7040-7050 W. Commercial Blvd., Landover, FL 33419
FLOOD ZONE: X500 (FIRM)
 120044-1201102030W (8/18/2014)
DESCRIPTION: Lots 10 and 11 COMMERCIAL BOULEVARD SURVEY'S NO. 2, according to the Plat thereof, as recorded in Plat Book 107, Page 43, of the Public Records of Broward County, Florida.
 Containing 58,000 square feet (1.331 acres).



LEGEND:

1. UNLOCATED	10. ASCE	19. POINT OF BEGINNING	28. ASPHALT PAVEMENT
2. UNLOCATED	11. ASCE	20. POINT OF BEGINNING	29. CONCRETE PAVEMENT
3. UNLOCATED	12. ASCE	21. POINT OF BEGINNING	30. PAVED DRIVEWAY
4. UNLOCATED	13. ASCE	22. POINT OF BEGINNING	31. UNPAVED DRIVEWAY
5. UNLOCATED	14. ASCE	23. POINT OF BEGINNING	32. DRIVEWAY
6. UNLOCATED	15. ASCE	24. POINT OF BEGINNING	33. DRIVEWAY
7. UNLOCATED	16. ASCE	25. POINT OF BEGINNING	34. DRIVEWAY
8. UNLOCATED	17. ASCE	26. POINT OF BEGINNING	35. DRIVEWAY
9. UNLOCATED	18. ASCE	27. POINT OF BEGINNING	36. DRIVEWAY

MILLER LAND SURVEYING
 1121 LAKE AVENUE
 LAKE WORTH, FLORIDA 33460
 PHONE: (561) 588-2659 - FAX: (561) 582-0151
 www.millersurveying.com
 e-mail: orders@millersurveying.com

SCALE: 1" = 20'
 DRAWN BY: PICARD (C)
 FIELD WK: M/M/BSM
 DATE: 06/11/2020

REF: 85495
 1719902
 JOB NOS: 120044-1201102030W
 JOB NO: Y20046
 L - 2047 - A

Attachment C

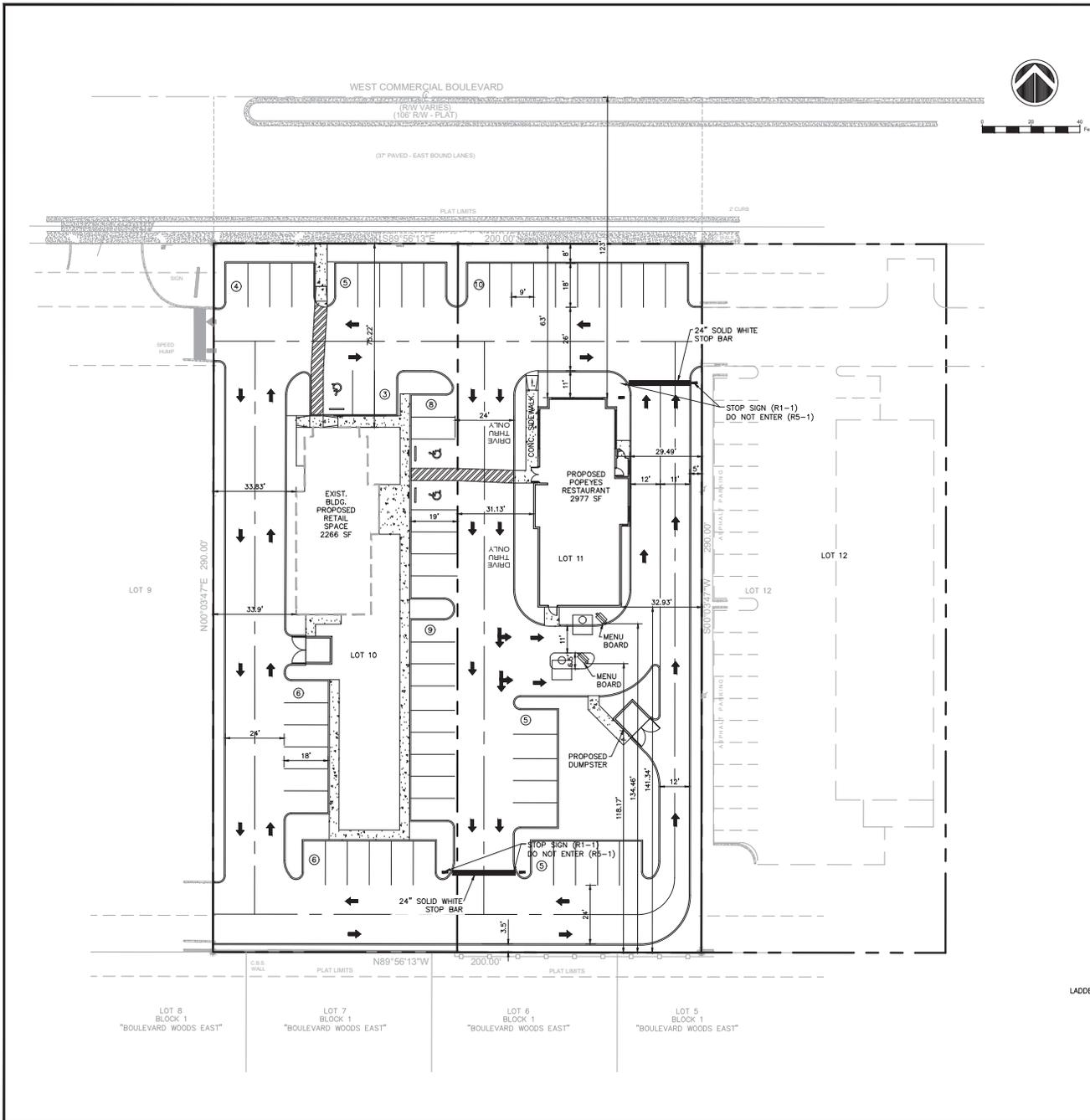
Popeyes – Lauderdale, Florida

Existing Site Plan

Attachment D

Popeyes – Lauderdale, Florida

Proposed Site Plan



SITE DATA

CURRENT USE:	RESTURANT/ACANT
7040 PARCEL ID NUMBER:	4941 15 14 0110
7050 PARCEL ID NUMBER:	4941 15 14 0100
FUTURE LAND USE:	(C) COMMERCIAL
ZONING DESIGNATION:	(C2) GENERAL COMMERCIAL
WATER SERVICE PROVIDER:	CITY OF LAUDERHILL
WASTEWATER SERVICE PROVIDER:	CITY OF LAUDERHILL
BUILDING HEIGHT:	21'-4"
BUILDING LENGTH:	85'-8"
NUMBER OF STORIES:	1 STORY
GROSS FLOOR AREA:	2,977 SF

	SF	ACRES	PERCENTAGE
LAND AREA	58,000	1.33	100
PROP. BLDG	2,977	0.07	5.13
EXISTING BLDG	2,265	0.05	3.91
ASPHALT	35,186	0.81	60.67
SIDEWALK	2,390	0.05	4.12
TOTAL IMPERVIOUS	42,818	0.98	73.82
PERVIOUS /LANDSCAPE	15,182	0.35	26.18

PARKING REQUIRED

1 PER 30 SF CUSTOMER SERVICE AREA
1 PER 200 SF OTHER AREA

PROPOSED POPEYES

1214 SF / 30 CUSTOMER SERVICE AREA = 41

EXISTING BUILDING/RETAIL

2266 SF / 200 = 12

TOTAL PARKING REQUIRED = 53 SPACES

PARKING PROVIDED = 61 SPACES (INCLUDES 3 HC SPACES)

SETBACK REQUIREMENTS

REQUIRED	PROVIDED
FRONT 123' & COMMERCIAL BLVD	123'
SIDE EAST 5'	29.49'
SIDE WEST 5'	33.90'
REAR 25'	147.34'

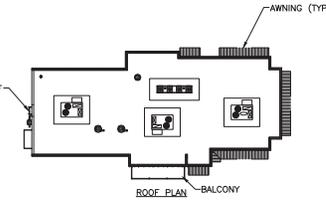
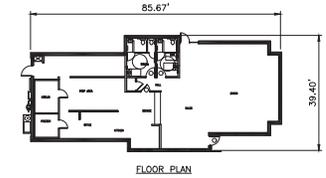
NOTE:

1. ALL TRAFFIC CONTROL PAVEMENT MARKINGS WILL BE THERMOPLASTIC.

PROPERTY ADDRESS: 7040-7050 W. COMMERCIAL BLVD., LAUDERHILL, FL 33319
FLOOD ZONE: X500 (FIRM 120044-12011C0353H 8/18/2014)

LEGAL DESCRIPTION:

LOTS 10 AND 11, COMMERCIAL BOULEVARD SHOPPES NO. 2, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 107, PAGE 43, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.



REV.	DESCRIPTION	DATE

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 48102
STATE OF FLORIDA

Digitally signed by
Imtiaz Ahmed
DN: cn=Imtiaz Ahmed,
o=IMTIAZ AHMED ENGINEERING SERVICES, INC.,
ou=IMTIAZ AHMED ENGINEERING SERVICES, INC.,
email=imtiaz.ahmed@aes-inc.com, c=US
Date: 2020.07.24 16:59:33 -0400

SEAL

METRO CHICKEN
7040-7050 W. COMMERCIAL BLVD
LAUDERHILL, FL 33319

ATLANTIC ENGINEERING SERVICES, INC.
200 C2 CROSSWINDS DRIVE
WEST PALM BEACH, FL 33413
PHONE - (561) 358-1140
FAX - (561) 866-9242
CERTIFICATE OF AUTHORIZATION NO.: 9390

SITE PLAN

PRCJ. NO. 0000
SCALE: AS SHOWN

DES.	DWN.	CHK.
djt		
SHEET NUMBER		
SP1		
DATE DRAWN MAY, 2020		

Attachment E

Popeyes – Lauderdale, Florida

**Drive-Through Lane Data Collected at the
Popeyes Restaurant in Pompano Beach**

**Popeyes Restaurant
Pompano Beach, FL**

Drive-Through Lane Analysis

Location: 3051 W. Atlantic Boulevard

Time Period: 11:00 AM to 7:00 PM

Maximum Drive-Thru Lane Queue

Time	11/30/2016	12/1/2016
11:00 - 11:15	4	3
11:15 - 11:30	4	5
11:30 - 11:45	3	5
11:45 - 12:00	5	2
12:00 - 12:15	3	8
12:15 - 12:30	7	7
12:30 - 12:45	4	11
12:45 - 1:00	3	7
1:00 - 1:15	6	6
1:15 - 1:30	8	3
1:30 - 1:45	3	6
1:45 - 2:00	4	8
2:00 - 2:15	2	8
2:15 - 2:30	3	4
2:30 - 2:45	3	2
2:45 - 3:00	3	3
3:00 - 3:15	7	2
3:15 - 3:30	4	5
3:30 - 3:45	3	5
3:45 - 4:00	2	7
4:00 - 4:15	2	8
4:15 - 4:30	2	2
4:30 - 4:45	1	4
4:45 - 5:00	1	3
5:00 - 5:15	3	2
5:15 - 5:30	3	3
5:30 - 5:45	5	6
5:45 - 6:00	6	3
6:00 - 6:15	6	3
6:15 - 6:30	6	2
6:30 - 6:45	5	5
6:45 - 7:00	4	6
Maximum Queue:	8	11
Average Queue:	4	5
50th Percentile Queue:	3.5	5
85th Percentile Queue:	6.0	7.4
95th Percentile Queue:	7.0	8.0