

RESOLUTION NO. 18- 1522

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA, PURSUANT TO SUBSECTION 13-305(f)(1) OF THE TOWN OF MIAMI LAKES LAND DEVELOPMENT CODE; PERTAINING TO A VARIANCE FROM SECTION 13-545(d) TO PERMIT A THREE (3) STORY BUILDING, AND A VARIANCE FROM SECTION 13-545(c) REDUCING REQUIRED FRONT SETBACK FROM 25 FEET TO 20 FEET; PERTAINING TO A REQUEST IN ACCORDANCE WITH SECTION 13-304(h) OF THE TOWN OF MIAMI LAKES LAND DEVELOPMENT CODE FOR SITE PLAN APPROVAL; ALL BEING SUBMITTED FOR THE PROPERTY LOCATED AT 14575 NW 77TH AVENUE, AS PROVIDED AT EXHIBIT “A”, MIAMI LAKES, FLORIDA, FOLIO NOS. 32-2023-001-0541, 32-2023-001-0550, AND 32-2023-001-0560, AS DESCRIBED AT EXHIBIT “B”; PROVIDING FOR INCORPORATION OF RECITALS; PROVIDING FINDINGS; PROVIDING FOR APPEAL; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, pursuant to Subsection 13-304 of the Town of Miami Lakes ("Town") Land Development Code ("LDC"), Alari Holdings I, LLC and Global Lakeside Development, LLC, (the "Applicant") applied to the Town for approval of a Site Plan, entitled “Proposed Office Building for: Alari 1, LLC,” dated stamped received February 22, 2018, consisting of 10 sheets, as prepared by Alberto O. Gonzalez Architect, PA. a copy of the Site Plan (the “Site Plan”) being attached hereto as Exhibit "A", for property located at 14757 SW 77th Avenue, bearing Miami-Dade Tax Folio Nos. 32-2023-001-0541, 32-2023-001-0550, AND 32-2023-001-0560, and legally described on the survey as provided in Exhibit "B" (“Property”), and containing approximately 2.07 acres of land; and

WHEREAS, pursuant to Section 13-305(f)(1) of the Town’s LDC, the Applicant is requesting relief from Section, 13-545(d) to increase the maximum permitted height from two (2) stories to three (3) stories, and relief from Section 13-545-(c), requesting to reduce the required front yard setback from twenty-five (25) to twenty (20) feet as further depicted on the Site Plan attached to this Resolution; and

WHEREAS, in accordance with Section 13-309 of the Town LDC, proper notice was mailed to the appropriate property owners of record, notice was posted at the property, and duly advertised in the newspaper; for a quasi-judicial public hearing on the Variance Requests and Site Plan as noticed for Tuesday, March 6, 2018, at 6:30 P.M. at Town Hall, 6601 Main Street, Miami Lakes, Florida; and all interested parties had the opportunity to address their comments to the Town Council; and

WHEREAS, on March 6, 2018, at the properly noticed quasi-judicial hearing held by the Town Council of the Town of Miami Lakes, after hearing testimony from staff, the applicant, the public, and other testimony, both verbal, and written, as incorporated herein by reference, the Town Council determined that the requested variances meet the criteria set forth by section 13-305(f)(1), and determined the submitted site plan meets the criteria of section 13-304(h) for approval; and

WHEREAS, the Town Council now desires to approve the Applicant's Variances and Site Plan requests.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA, AS FOLLOWS:

Section 1. Recitals. The foregoing recitals are true and correct and are incorporated herein by this reference.

Section 2. Findings. In consideration of all the submitted evidenced, both verbal and written, as provided at the March 6, 2018 hearing, the Town Council finds, in accordance with Section 13-305(f)(1) of the Towns LDC, that the following variance requests:

1. Section 13-545(d) increase the maximum permitted height from two (2) stories to three (3) stories; and
2. Section 13-545(c) reducing the required front yard setback from twenty-five (25) feet to twenty (20) feet;

are in conditional compliance with the following criteria:

(1) *Practical difficulty*. The application may be considered under the requirements of practical difficulty as set forth herein. Any approval or approval with modifications and/or conditions, of a variance based on practical difficulty shall require a majority vote of the members of the Town Council or designated Town board present at the meeting. In order to authorize any variance application from the requirements of this chapter on the basis of practical difficulty, the Town Council or designated Town board shall balance the rights of property owners in the Town as a whole against the need of the individual property owner to deviate from the requirements of this chapter based on an evaluation of the factors below. All of the factors should be considered and given their due weight; however, no single factor is dispositive:

- a. Whether the Town has received written support of the specifically identified variance requests from adjoining property owners;
- b. Whether approval of the variance would be compatible with development patterns in the Town;
- c. Whether the essential character of the neighborhood would be preserved;
- d. Whether the variance can be approved without causing substantial detriment to adjoining properties;
- e. Whether the variance would do substantial justice to the property owner as well as to other property owners justifying a relaxation of this chapter to provide substantial relief;
- f. Whether the plight of the applicant is due to unique circumstances of the property and/or applicant which would render conformity with the strict requirements of this chapter unnecessarily burdensome; and
- g. Whether the special conditions and circumstances which exist are the result of actions beyond the control of the applicant;

and in consideration of all the submitted evidenced, both verbal and written, as provided at the March 6, 2018 hearing, the Town Council finds, in accordance with and in accordance with Section 13-308(h), that the Application conditionally meets the criteria for Site Plan Approval which are as follows:

- (1) In what respects the plan is or is not consistent with the Comprehensive Plan, the purpose and intent of the zoning district in which it is located and any design or planning studies adopted by the Town Council that include recommendations applicable to the design of the site under review.
- (2) In what respects the plan is or is not in conformance with all applicable regulations of the zoning district in which it is located.
- (3) In what respects the plan is or is not in conformance with Town code requirements including:
 - a. The design and construction of streets, utility facilities and other essential services as may be required by the Town or other governmental agencies.
 - b. Internal and external circulation, including vehicular, bicycle and pedestrian. Circulation systems shall serve the needs of the development and be compatible

with, and functionally integrate with, circulation systems outside the development. Vehicular traffic from non-residential development shall be routed so as to minimize impacts on residential development.

- (4) In what respects the plan is or is not consistent with good design standards in respect to all external relationships including but not limited to:
- a. Design and architectural standards as provided at section 13-311.
 - b. Disposition of open space, use of screening or buffering where appropriate to provide a logical transition to existing, permitted or planned uses on adjoining properties.
 - c. Landscaping that enhances architectural features, strengthens vistas and important axes, provides shade, blocks noise generated by major roadways and intense-use areas and, to the maximum extent practicable, preserves existing trees on-site.
 - d. All outdoor lighting, signs or permanent outdoor advertising or identification features shall be designed as an integral part of and be harmonious with building design and the surrounding landscape.
 - e. Service areas shall be screened and so located as to minimize or eliminate visibility, to the greatest extent possible, from the public right-of-way and other properties.
 - f. Design of the site shall ensure adequate access for emergency vehicles and personnel.
 - g. Design of the site shall utilize strategies to provide for the conservation of energy and natural resources, including water.
- (5) In what respects the plan is or is not in conformance with the Town policy in respect to sufficiency of ownership, guarantee for completion of all required improvements and the guarantee for continued maintenance.

Section 3. Approval of Variances. Pursuant to Section 13-305(f)(1) of the Towns LDC, the proposed Variances identified at Section 2 of this Resolution as so associated with plans entitled “Proposed Office Building for Alari 1, LLC,” dated stamped received February 22, 2018, consisting of 10 sheets, as prepared by Alberto O. Gonzalez Architect, PA, a copy of the Site Plan (the “Site Plan”) being attached hereto as Exhibit “A”, is hereby Approved with the following condition:

1. The front setback area shall be further developed to better address the sidewalk as well as serve as an open urban space of entry into the future Par3 park.
2. Fencing is not permitted along the NW 77th Avenue
3. The northside setback shall be developed as a bicycle path, open to the public, granting entrance and passage into the future Par3 park.
4. All mechanical equipment shall be located on the roof.

5. The Applicant shall obtain all required building permits, within one (1) year of the date of this approval. If all required building permits are not obtained or an extension granted not within the prescribed time limit, this approval shall become null and void.

Section 4. Approval of Site Plan. Pursuant to Section 13-304(h), the proposed Site Plan entitled “Proposed Office Building for: Alari 1, LLC,” dated stamped received February 22, 2018, consisting of 10 sheets, as prepared by Alberto O. Gonzalez Architect, PA a copy of the Site Plan (the “Site Plan”) being attached hereto as Exhibit "A", is hereby Approved with the following conditions:

1. The project shall be developed in substantial compliance with the approved Site Plan.
2. Approval of the Variance requests for a third floor and for a reduced front setback and any conditions related thereto.
3. Prior to the issuance of a building permit authorizing any construction, all required impact fees, including Mobility Fees, must be paid in full.
4. Prior to permitting, all civil plans must be finalized and in substantial compliance with the Site Plan.
5. Prior to permitting, the project shall secure all approvals for water and sewer and shall receive approval from the Miami-Dade Fire Rescue Department.
6. The Applicant shall obtain a Certificate of Use (CU), upon compliance with all the terms and conditions of this approval, the same subject to cancellation by the Town upon violation of any of the conditions. Business tax receipt shall be obtained if applicable.
7. The Applicant shall obtain all required building permits, within one (1) year of the date of this approval. If all required building permits are not obtained or an extension granted not within the prescribed time limit, this approval shall become null and void.
8. Compliance with all other applicable laws not specifically identified herein.
9. All fees associated with this request that are owed to the Town be paid in full prior to issuance of development order.

Section 5. Violation of Conditions. Failure to adhere to the terms and conditions of this Resolution shall be considered a violation of the Town LDC and persons found violating the conditions shall be subject to the penalties prescribed by the Town LDC, including but not limited to, the revocation of any of the approval(s) granted in this Resolution. The Applicant understands and acknowledges that it must comply with all other applicable requirements of the Town LDC before it may commence operation, and that the foregoing approval in this Resolution may be revoked by the Town at any time upon a determination that the Applicant is in non-compliance with

the Town LDC.

Section 6. Appeal. In accordance with Section 13-310 of the Town LDC, the Applicant, or any affected party may seek review of development orders of the Town Council by the filing of an appeal or writ of certiorari in the appropriate court as prescribed in the Florida Rules of Appellate Procedure.

Section 7. Final Order.

This is a Final Order.

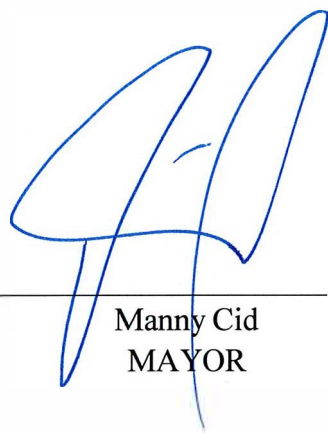
Section 8. Effective Date. This Resolution shall become effective immediately upon adoption hereof.

THIS SPACE INTENTIONALLY LEFT BLANK

Passed and adopted this 6th day of March 2018.

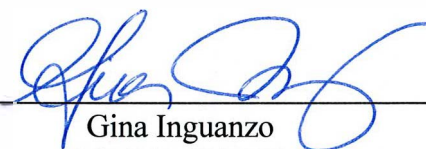
The foregoing resolution was offered by Councilmember Daubert who moved its adoption. The motion was seconded by Councilmember Mestre and upon being put to a vote, the vote was as follows:

Mayor Manny Cid	<u>YES</u>
Vice Mayor Frank Mingo	<u>YES</u>
Councilmember Luis Collazo	<u>YES</u>
Councilmember Tim Daubert	<u>YES</u>
Councilmember Ceasar Mestre	<u>YES</u>
Councilmember Nelson Rodriguez	<u>YES</u>
Councilmember Marilyn Ruano	<u>NO</u>



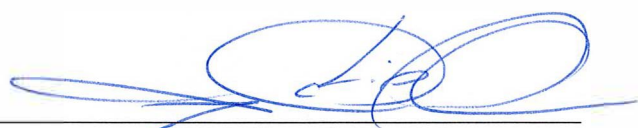
Manny Cid
MAYOR

Attest:



Gina Inguanzo
TOWN CLERK

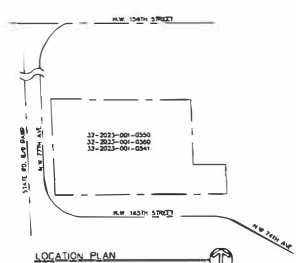
Approved as to Form and Legal Sufficiency:



Raul Gastesi, Jr.
Gastesi & Associates, P.A.
TOWN ATTORNEY

EXHIBIT A
SITE PLAN



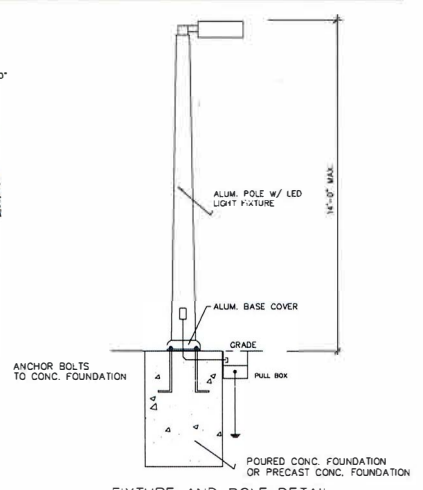
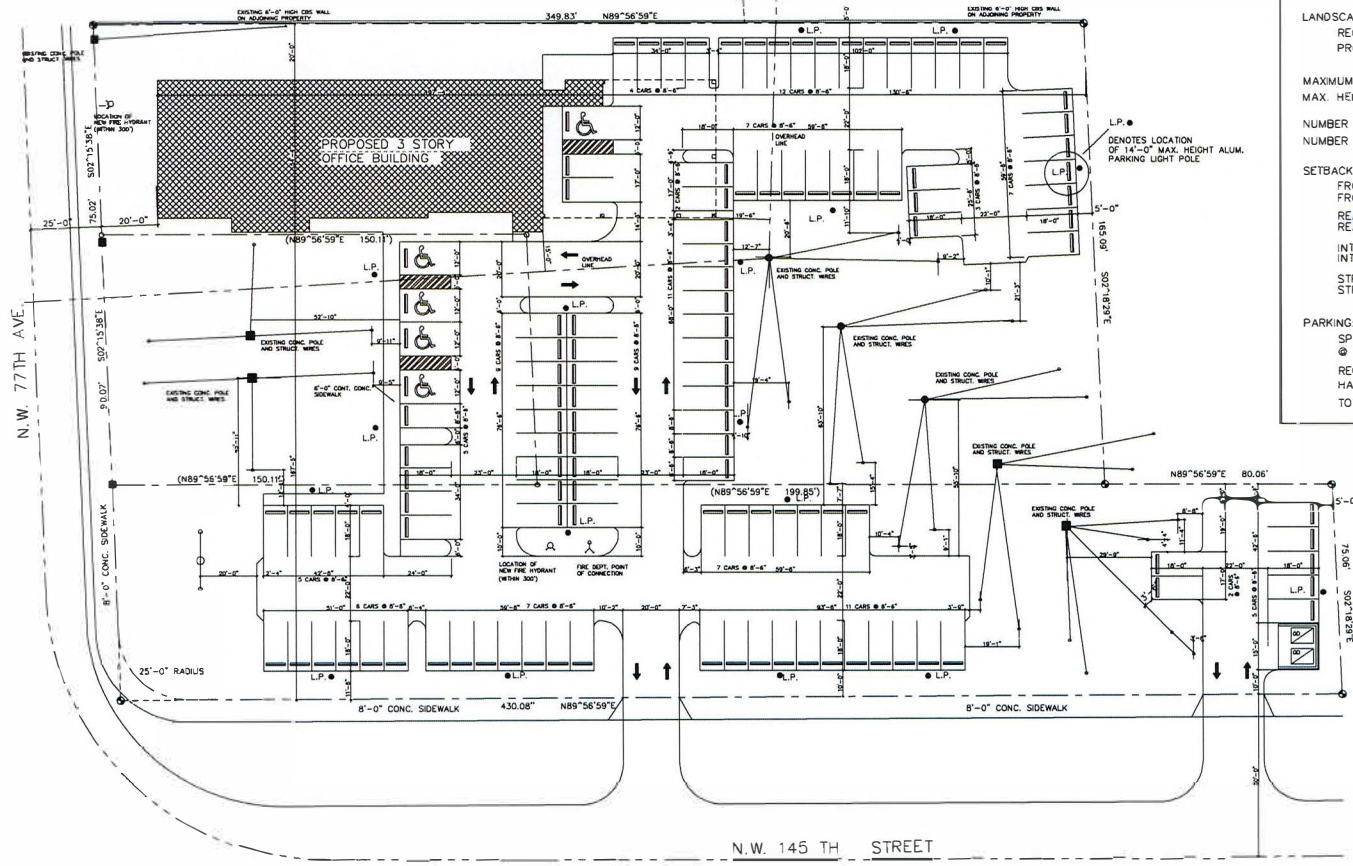


EXISTING FOLIO NUMBERS:
 21-2023-00-0550
 32-2023-001-0560
 32-2023-001-0560
 32-2023-001-0541

SITE NOTES:
 ALL PARKING LIGHTING STRUCTURES SHALL NOT EXCEED A HEIGHT OF 14'-0" ABOVE GRADE AND SUPPORTED AT THE BASE WITH BOLTS AND GRADE LEVEL (NO AUGERED POLE SYSTEM)
 ALL LANDSCAPE AREAS TO BE IRRIGATED AS PER FPL GUIDELINES
 NO PLANTINGS OF LANDSCAPE OF ANY KIND SHALL EXCEED A MAXIMUM OF 14'-0" ABOVE FIN. GRADE

ZONING LEGEND:

CURRENT ZONING:	INTERIM USE
PROPOSED ZONING:	RO-13
NET LAND AREA:	2.07 ACRES - 90,169.20 SQFT
LOT COVERAGE:	
ALLOWED (30%):	27,050.76 SQFT
PROVIDED (11.6%):	10,535 SQFT
FLOOR AREA RATIO:	
ALLOWED (60%):	54,101.52 SQFT
PROVIDED (31.3%):	28,240 SQFT
FLOOR AREA (PER FLOOR):	
GROUND FLOOR:	7,330 SQFT
SECOND FLOOR:	10,590 SQFT
THIRD FLOOR:	10,120 SQFT
	28,040 SQFT
LANDSCAPE OPEN SPACE:	
REQUIRED MIN. (30%):	27,050.76 SQFT
PROVIDED (46.7%):	42,195 SQFT
MAXIMUM HEIGHT ALLOWED:	35'-0"
MAX. HEIGHT PROVIDED:	51'-0"
NUMBER OF STORIES ALLOW:	2
NUMBER OF STORIES PROV.:	3
SETBACKS	
FRONT REQUIRED:	25'-0"
FRONT PROVIDED:	20'-0" VARIANCE
REAR REQUIRED:	25'-0"
REAR PROVIDED:	130'-6"
INTERIOR SIDE REQUIRED:	15'-0"
INTERIOR SIDE PROVIDED:	20'-0" FPL EASEMENT
STREET SIDE REQUIRED:	15'-0"
STREET SIDE PROVIDED:	167'-5"
PARKING:	
SPACES REQUIRED	94 SPACES
1 SPACE/ 300 SQFT	
REGULAR SPACES PROVIDED:	114 SPACES
HANDICAP SPACES PROVIDED:	5 SPACES
TOTAL SPACES PROVIDED:	119 SPACES



S I T E P L A N
 SC. 1 = 20'-0"

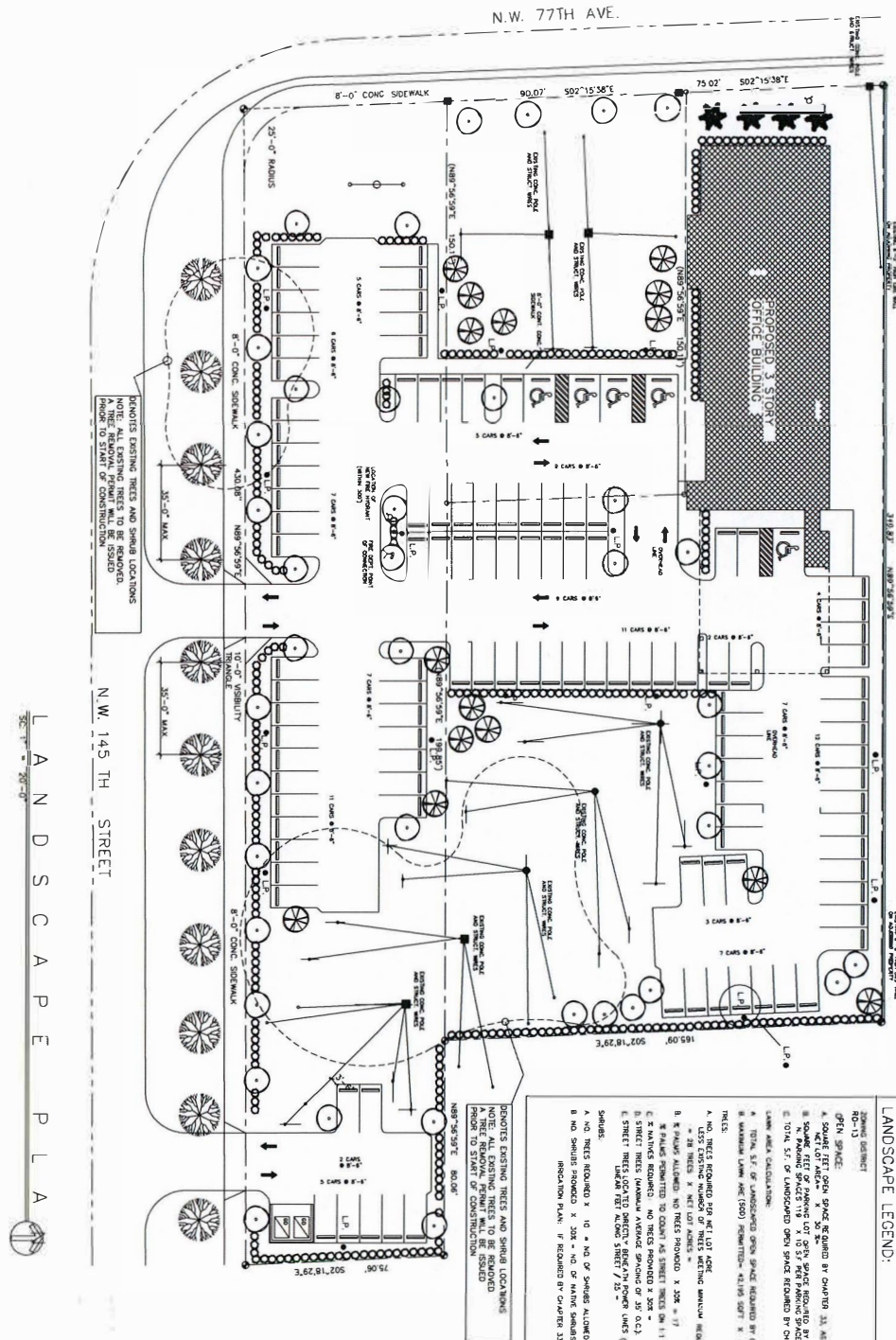
REVISIONS BY

ALBERT O. GONZALEZ ARCHITECT, PA
 18400 NW 59TH AVE. MIAMI LAKES, FLORIDA 33014
 (305) 827-8933 aog@bellsouth.net

PROPOSED OFFICE BUILDING FOR:
ALARI HOLDINGS 1, LLC
 JOB ADDRESS: 14575 NW 77th AVE.
 MIAMI LAKES, FLORIDA 305-827-8933

DATE _____
 SCALE _____
 DRAWN _____
 JOB _____
 SHEET
 1 OF 6

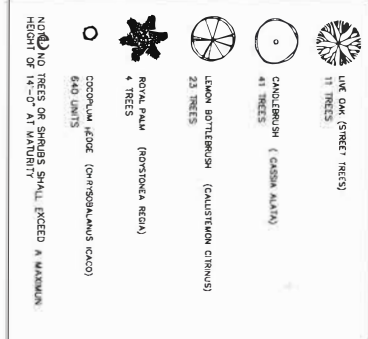
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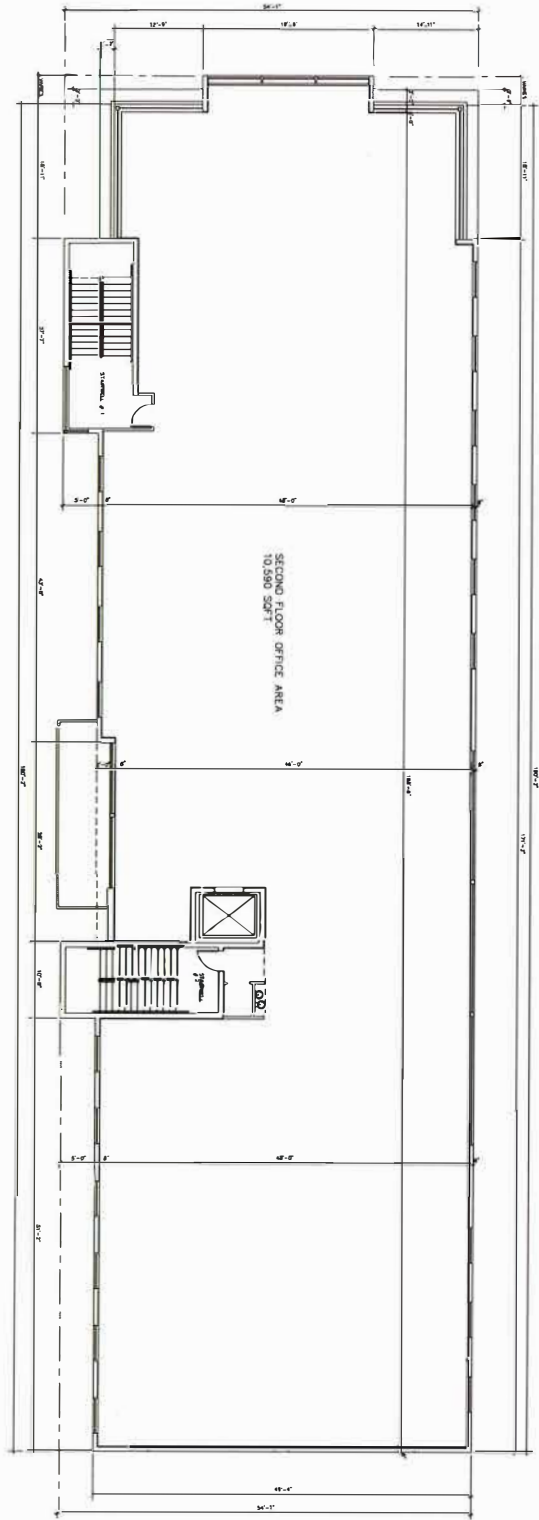
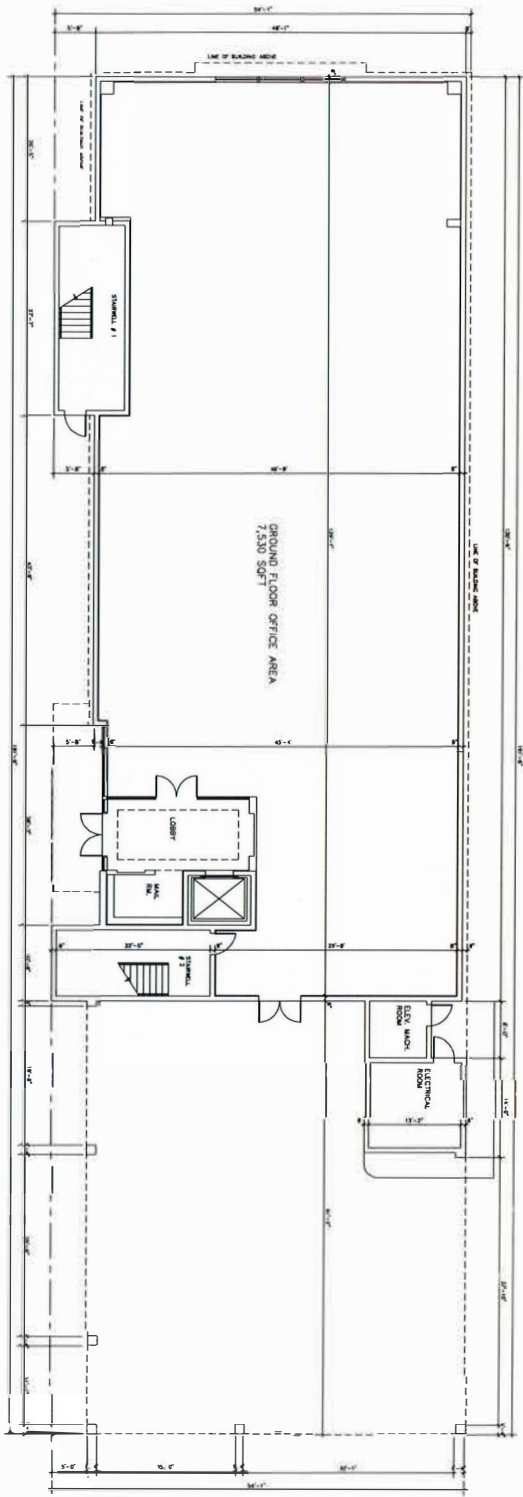
LANDSCAPE LEGEND:

ZONING DISTRICT	NET LOT AREA	REQUIRED	PROVIDED
ROC-13	90,163.20 SQFT	27,000.75	42,195.50FT
OPEN SPACE			
A. COVERED OPEN SPACE REQUIRED BY CHAPTER 21, AS INDICATED ON SITE PLAN		1,949.50FT	
B. SQUARE FEET OF PARKING OR OPEN SPACE PROVIDED BY CHAPTER 18A, AS INDICATED ON SITE PLAN		28,246.75	
C. TOTAL SQ. FT. OF LANDSCAPED OPEN SPACE PROVIDED BY CHAPTER 21, A. & B.			26,297.25
LANDSCAPE CALCULATION:			
A. TOTAL SQ. FT. OF LANDSCAPED OPEN SPACE REQUIRED BY CHAPTER 21	12,558		
B. MAXIMUM LANDSCAPE PERMITTED: 42,195.50 SQ. FT. X .60 = 25,317.30 SQ. FT.		16,540	
C. NO. TREES REQUIRED PER NET LOT AREA			640
D. LESS EXISTING NUMBER OF TREES MEETING MINIMUM REQUIREMENTS			190
E. NET TREES REQUIRED			450
F. 28 TREES X NET LOT AREA: X 20K = 17			4
G. 2 TREES REQUIRED. NO TREES PROVIDED X 20K = 24			31
H. STREET TREES (MAXIMUM AVERAGE SPACING OF 25' O.C.)			
I. STREET TREES LOCATED DIRECTLY BEHIND PARKING LINES (MAXIMUM AVERAGE SPACING OF 25' O.C.)			
J. TOTAL NET TREES REQUIRED: 17 + 4 + 31 = 52			
Notes:			
1. NO. TREES REQUIRED X 10' = NO. OF SHRUBS ALLOWED			
2. NO. TREES REQUIRED X 20K = NO. OF PALM SHRUBS REQUIRED			
3. NO. SHRUBS REQUIRED X 20K = NO. OF PALM SHRUBS REQUIRED			
4. RECALCULATION PLAN: IF REQUIRED BY CHAPTER 21			

TREE / SHRUBS LEGEND:



LANDSCAPE PLAN



AR-0011983

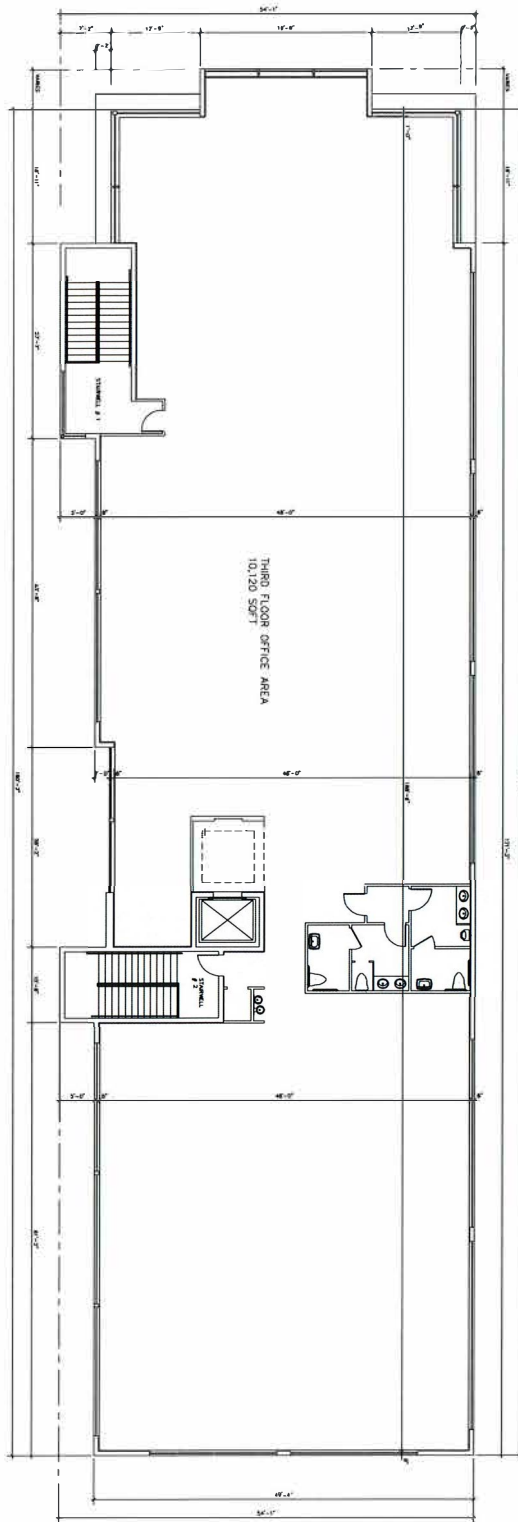
3 OF 6

DATE
SCALE
DRAWN
JOB
SHEET

PROPOSED OFFICE BUILDING FOR:
ALARI HOLDINGS 1, LLC
JOB ADDRESS: 14575 NW 77th AVE.
MIAMI LAKES, FLORIDA 305-827-8933

ALBERT O. GONZALEZ ARCHITECT, PA
18400 NW 59TH AVE. MIAMI LAKES, FLORIDA 33014
(305) 827-8933 aog@bellsouth.net AA-26003246

ME SHOWER



THIRD FLOOR PLAN

AR-0011963

4 OF 6

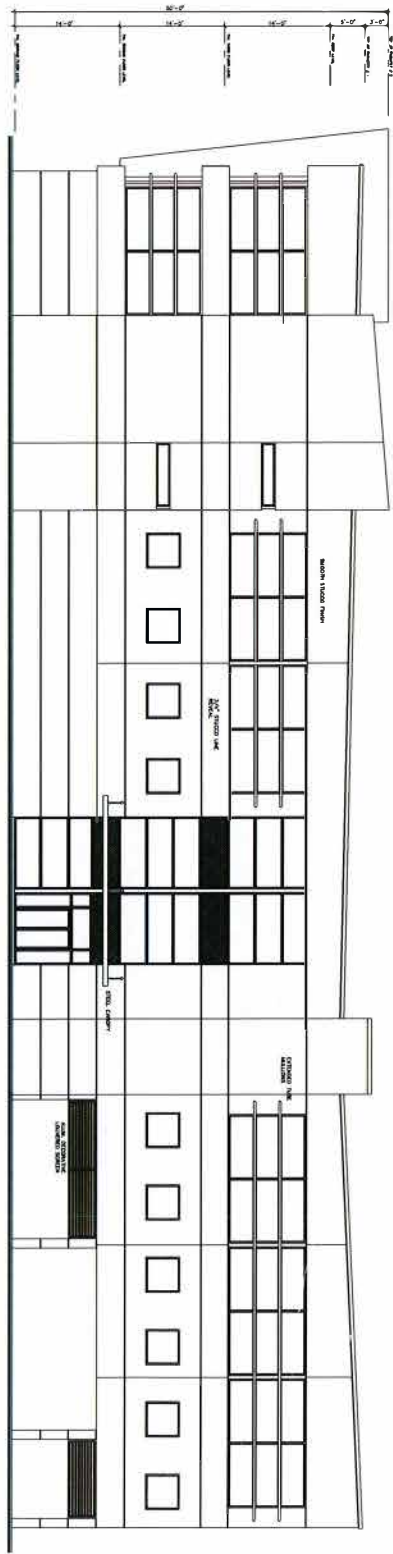
DATE
 DRAWN
 JOB
 SHEET

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 ALARI HOLDINGS 1, LLC
 JOB ADDRESS: 14575 NW 77th AVE.
 MIAMI LAKES, FLORIDA 305-827-8933

ALBERT O. GONZALEZ ARCHITECT, PA
 18400 NW 59TH AVE. MIAMI LAKES, FLORIDA 33014
 (305) 827-8933 aog@bellsouth.net AA-26003246

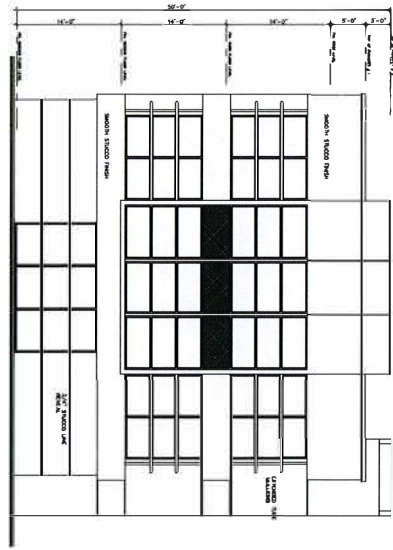
REVISIONS

11



FACED AREA: 8,878 SQ FT
 FLOORED PENETRATION AREA (CONC): 2,001 SQ FT
 FLOORED PENETRATION AREA: 2,001 SQ FT

SOUTH SIDE ELEVATION



FACED AREA: 1,448 SQ FT
 FLOORED PENETRATION AREA (CONC): 566 SQ FT
 FLOORED PENETRATION AREA: 1,448 SQ FT

WEST SIDE ELEVATION

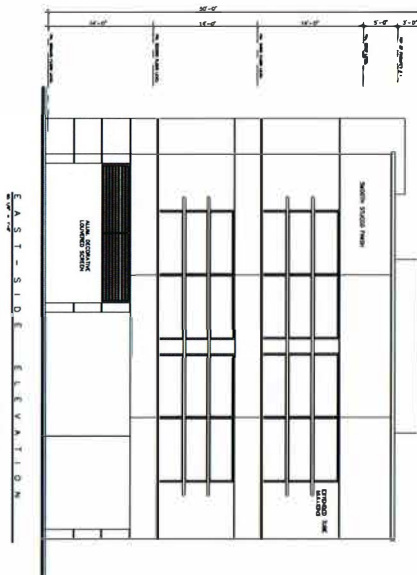
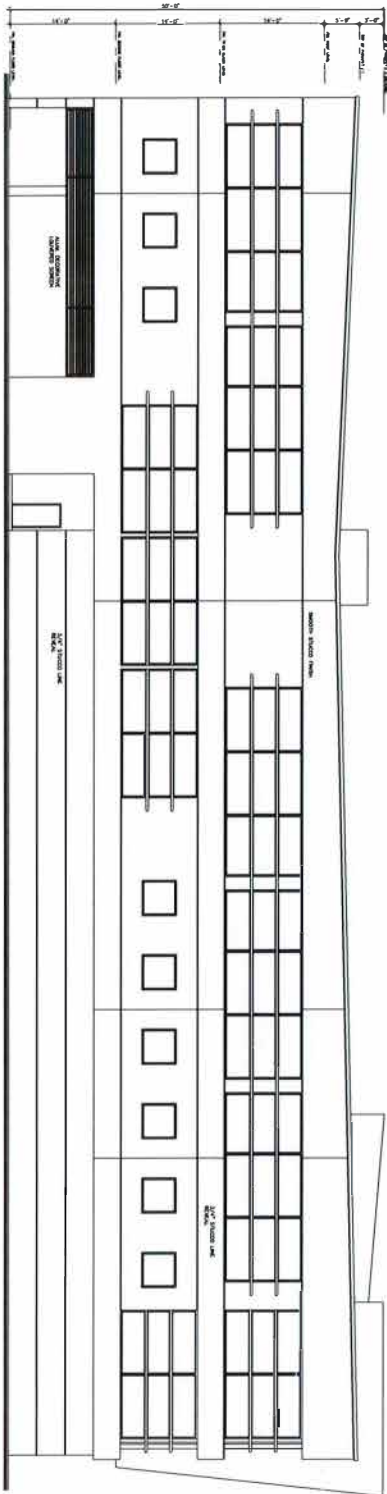
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5 OF 6
 SHEET
 JOB
 SCALE
 DATE

PROPOSED OFFICE BUILDING FOR:
 ALARI HOLDINGS 1, LLC
 JOB ADDRESS: 14575 NW 77th AVE.
 MIAMI LAKES, FLORIDA 305-827-8933

ALBERT O. GONZALEZ ARCHITECT, PA
 18400 NW 59TH AVE. MIAMI LAKES, FLORIDA 33014
 (305) 827-8933 aog@bellsouth.net AA-26003246

SWS/SHAR
 AM



AR-0011983

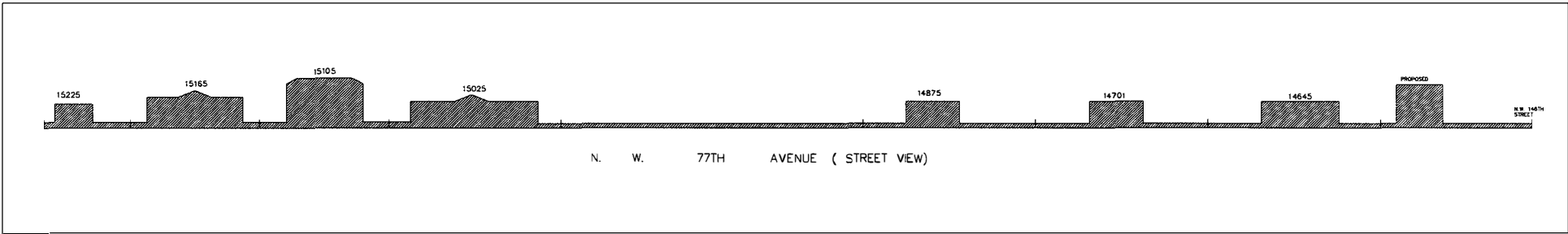
6 OF 6

DATE	
SCALE	
DRAWN	
NO	
SHEET	

PROPOSED OFFICE BUILDING FOR:
 ALARI HOLDINGS 1, LLC
 JOB ADDRESS: 14575 NW 77th AVE.
 MIAMI LAKES, FLORIDA 305-827-8933

ALBERT O. GONZALEZ ARCHITECT, PA
 16400 NW 59TH AVE. MIAMI LAKES, FLORIDA 33014
 (305) 827-8933 aog@bellsouth.net AA-26003245

ENGINEER	
DATE	



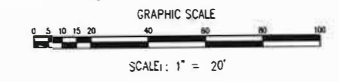
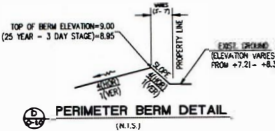
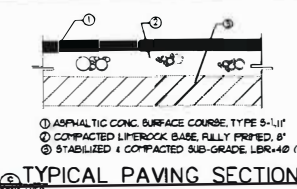
PALMETTO EXPRESSWAY (S.R. 826)

N W 77th AVENUE

PROP. OFFICE BLDG.
FIN. FLOOR ELEV.=9.5 (NGVD)

FRONTAGE ROAD

CANAL R/W



LEGEND
 - - - DENOTES STORMWATER FLOW DIRECTION
 9.00 DENOTES PROPOSED ELEVATION

US SOUTH
ENGINEERING & TESTING
LABORATORY, Inc.
14347 Commerce Way,
Miami, FL 33016
Ph. 305-558-3388 Fax. 305-362-4588

APPROVALS

DESIGNED: E.R.	CHECKED: E.R.
DRAWN: Y.P.	FINAL CHECKER:
FILE NO: B 16-9007	
DATE:	DESCRIPTION:
REVISION:	DESCRIPTION:

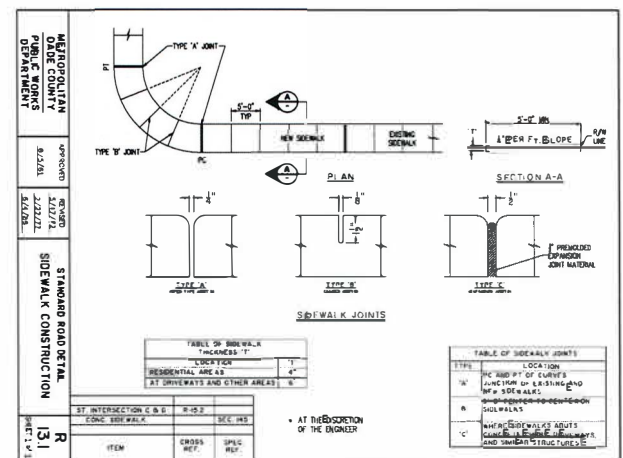
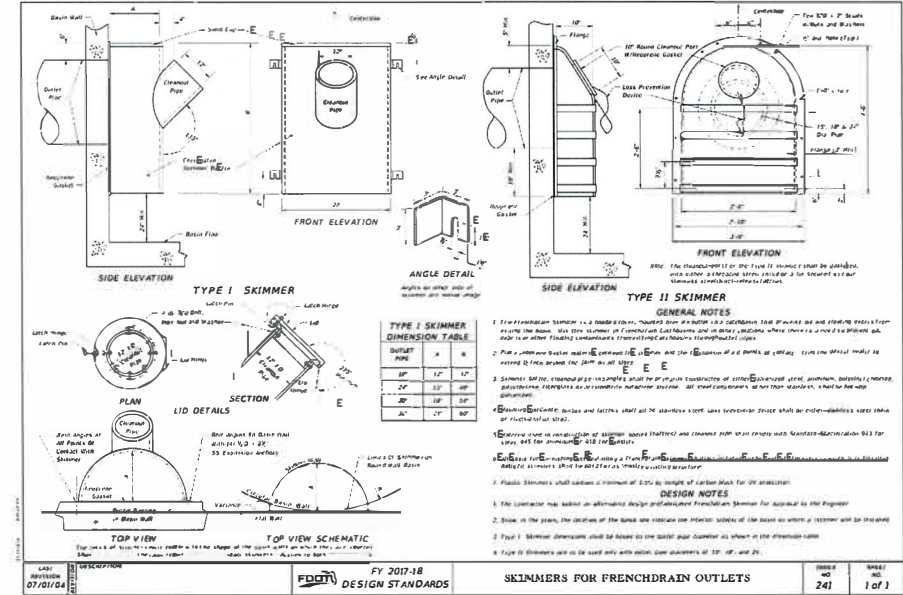
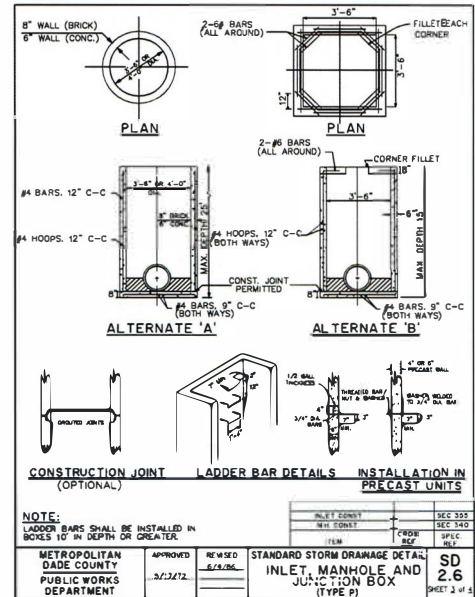
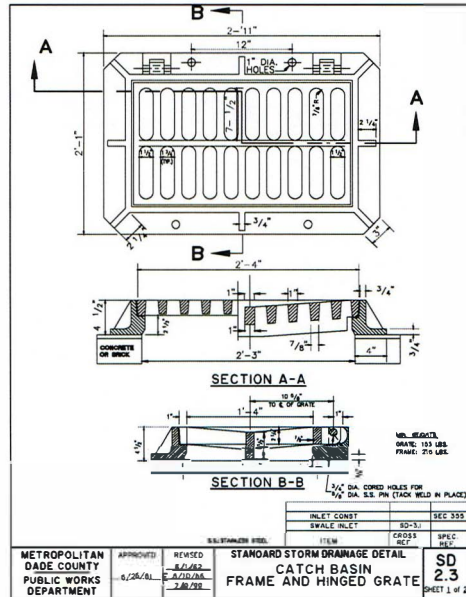
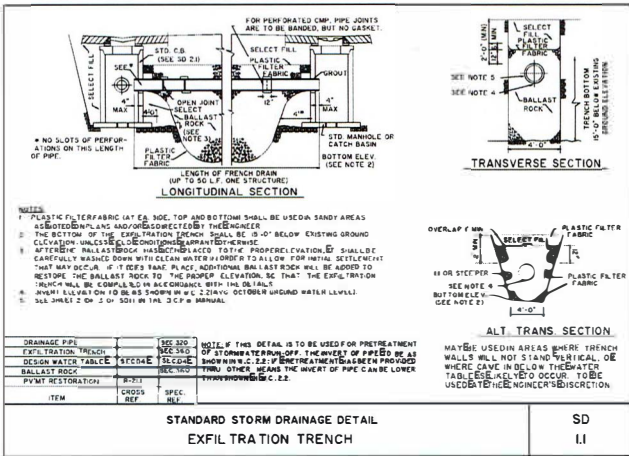
N.W. 77th AVENUE & 145 St.
 FOLIOS: 32-2023-001-0541 / 0550 / 0560
 MIAMI LAKES, FL

DRAWING TITLE:
 CONCEPTUAL
 WATER, SEWER,
 PAVING & DRAINAGE

Eduardo Rodriguez Jr. P.E.
 Project Manager
 State of Florida - License No. 56197
 Date: _____

DRAWN: Y.P. / 01/28/2018 / SCALE: AS SHOWN
 SHEET C-1.0
 OF SHEETS

PAVING & GRADING PLAN



US SOUTH ENGINEERING & TESTING LABORATORY, INC.
14547 Commerce Way, Miami, FL 33016
PH: 305-558-2588 Fax: 305-562-4660

APPROVALS

DESIGNED: E.R. INCHESD: E.R.
DRAWN: Y.P. FINAL CHECKER:
FILE No.: 8 16-9007

N. W. 77th AVENUE & 145 St.
FOLIOS: 32-2023-004-0541 / 0550 / 0560
MIAMI LAKES, FL

CONCEPTUAL WATER, SEWER, PAVING & DRAINAGE

Eduardo Rodriguez, Jr., P.E.
Project Engineer
Sara E. Evaristo - License No. 56197

DATE: 01/29/2018 SCALE: AS SHOWN
SHEET **C-1.1** OF SHEETS

PAVING & GRADING DETAILS

APPROVALS:

DESIGNED BY:	Checked: E.R.
DRAWN BY:	PAW, OUTCER
FILE NO.:	B 16-0037

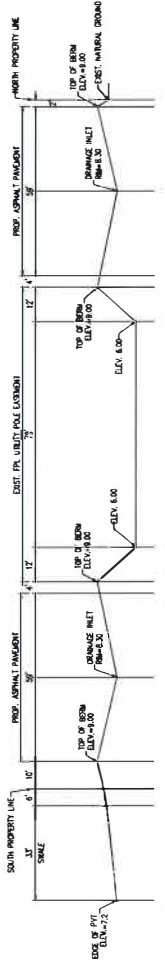
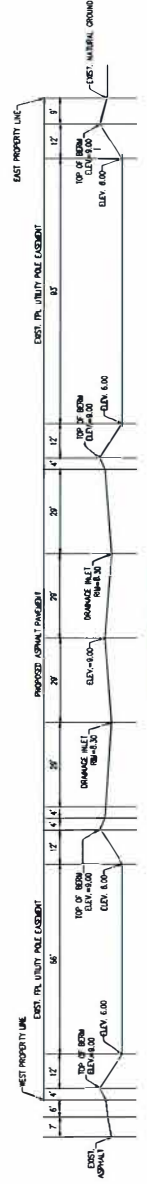
DATE	REVISIONS / DISCUSSION

N.W. 77th AVENUE & 145 St.
MIAMI LAKES, FL
FOLIOS: 32-2023-001-0541 / 0550 / 0560

DRAWING TITLE:
CONCEPTUAL
WATER SEWER,
PAVING & DRAINAGE

Author: Estanys Rodriguez, Jr., P.E.
Date: _____
State of Florida - License No. 56197

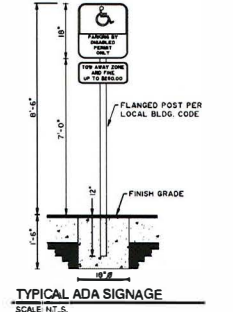
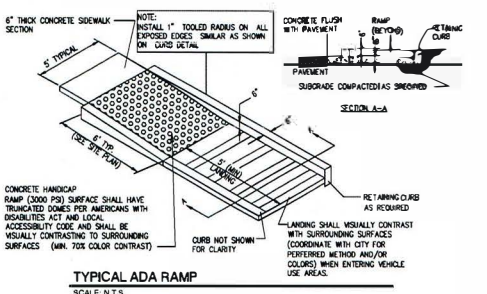
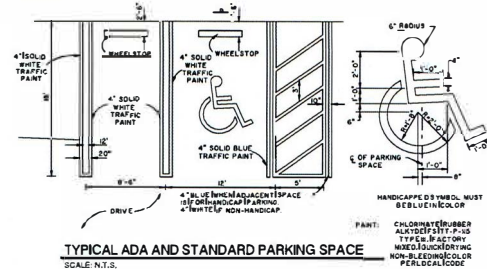
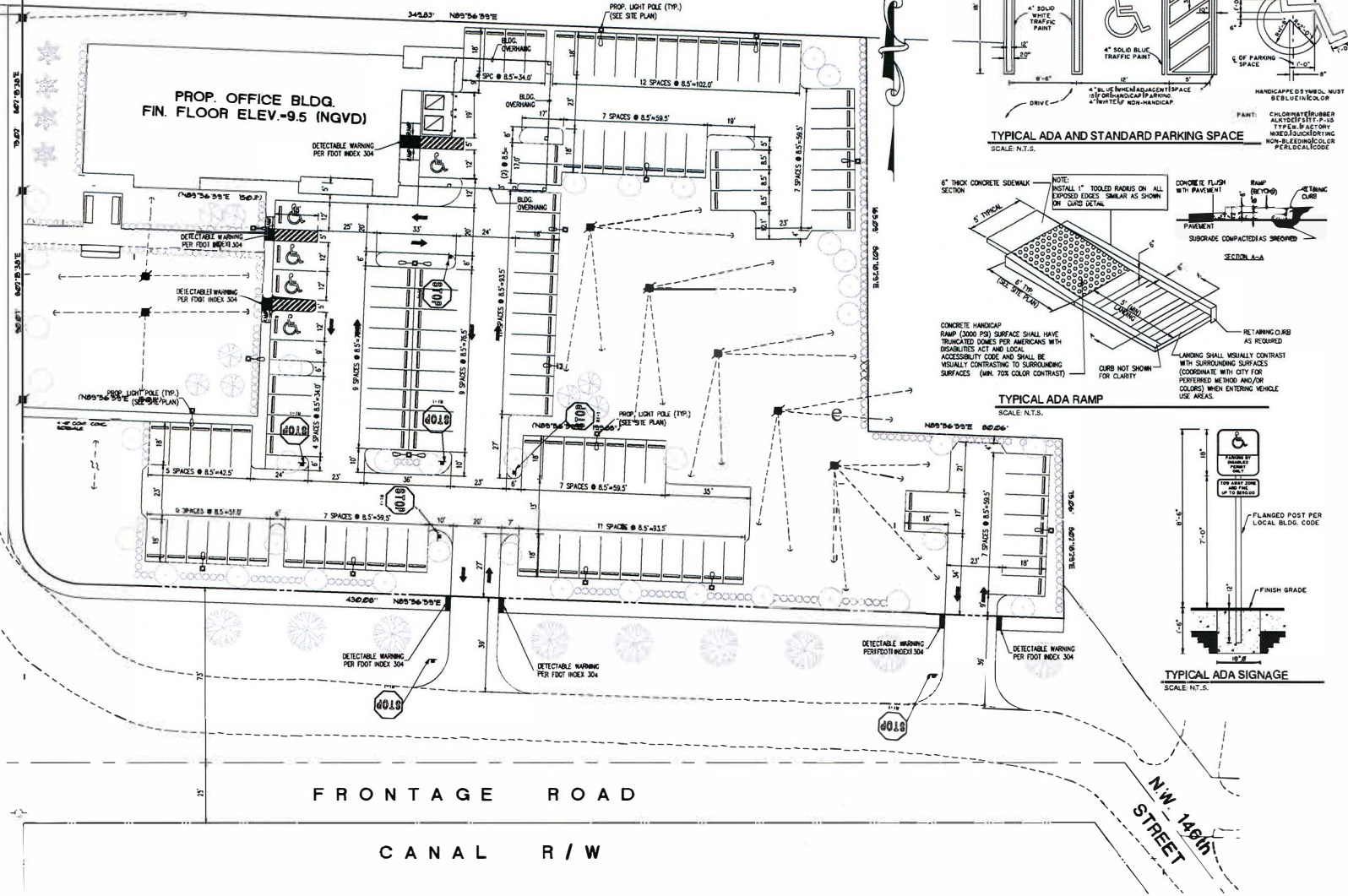
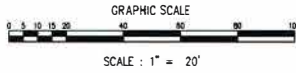
SCALE: AS SHOWN
SHEET C-12
OF SHEETS



PROJECT CROSS SECTION

PALMETTO EXPRESSWAY (S.R. 826)

N W 77th AVENUE



US SOUTH
ENGINEERING & TESTING
LABORATORY, INC.
14347 Commerce Way,
Miami, FL 33016
Ph. 305-358-2588 Fax 305-362-4669

APPROVALS
DESIGNED: E.R. CHECKED: E.R.
DRAWN: Y.P. FINAL CHECKER:
FILE No.: B 16-9007

DATE	DESCRIPTION

N.W.77th AVENUE & 145 St.
FOLIOS: 32-2023-001-0541 / 0550 / 0560
MIAMI LAKES, FL

DRAWING TITLE:
CONCEPTUAL
WATER, SEWER,
PAVING & DRAINAGE

Edward Rodriguez Jr. P.E.
Project Manager
State of Florida - License No. 156197
Date: _____

DATE: 01/29/2018 SCALE: AS SHOWN
SHEET C-2.0
OF SHEETS

PAVEMENT MARKINGS & SIGNS PLAN



US SOUTH
ENGINEERING & TESTING
LABORATORY, Inc.
14347 Commerce Way,
Miami, FL 33016

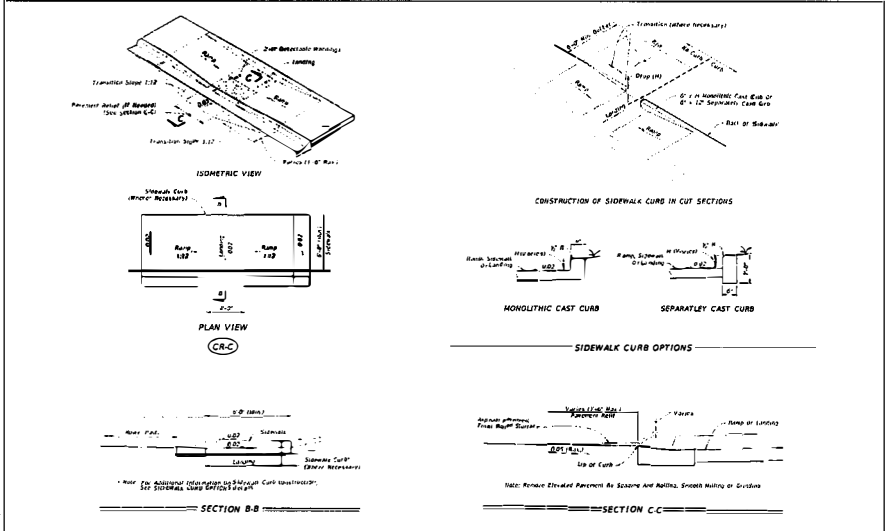
Ph. 305-568-2588 Fax. 305-562-4688

APPROVALS

DESIGNED: E.R. CHECKED: E.R.
DRAWING: Y.P. FINAL CHECK: E.R.

FILE No.:	9 16-9007
DATE	
REVISION	DESCRIPTION

N.W. 77th AVENUE & 145 St.
FOLIOS: 32-2023-001-0541 / 0550 / 0560
MIAMI LAKES, FL



SIDEWALK CURB RAMP CR-C AND SIDEWALK CURB

DATE	DESCRIPTION	REVISED BY	DATE
11/01/16			

FDOT	FY 2017-18	SECTION	304
DESIGN STANDARDS		DETECTABLE WARNINGS AND SIDEWALK CURB RAMP	3 of 8

PAVEMENT MARKING DETAILS

DATE: 01/28/2018 SCALE: AS SHOWN
SHEET **C-2.1**
OF SHEETS



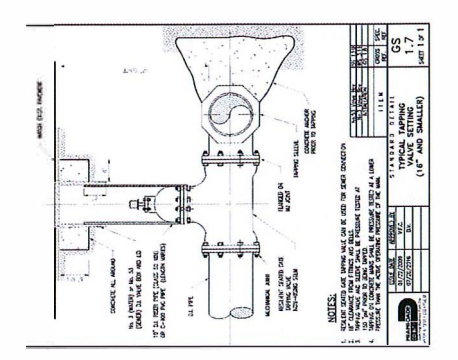
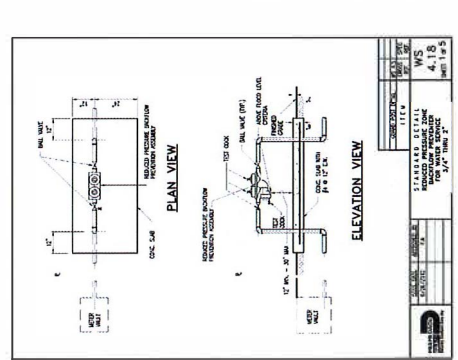
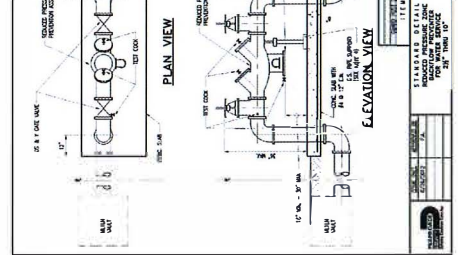
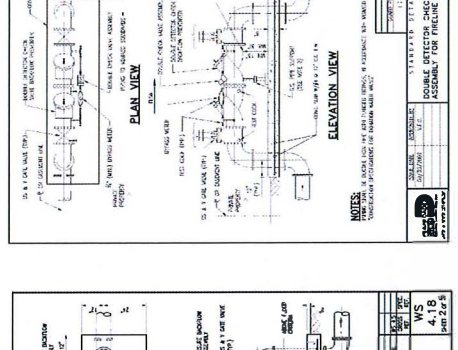
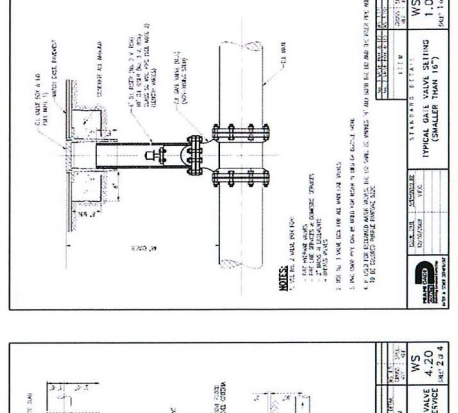
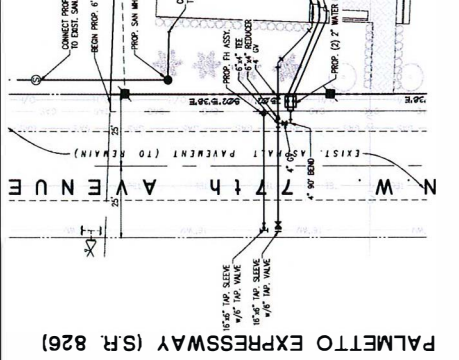
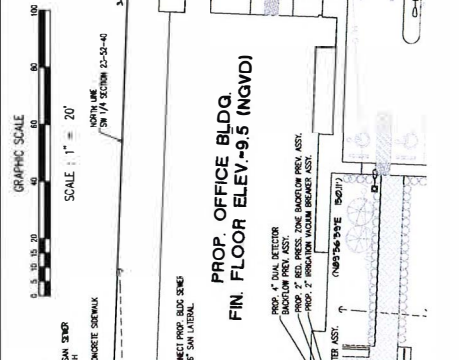
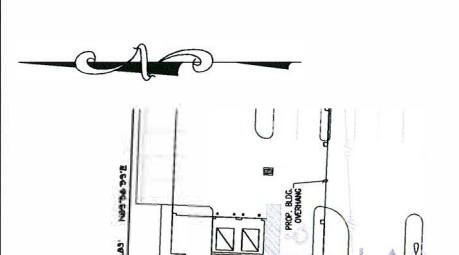
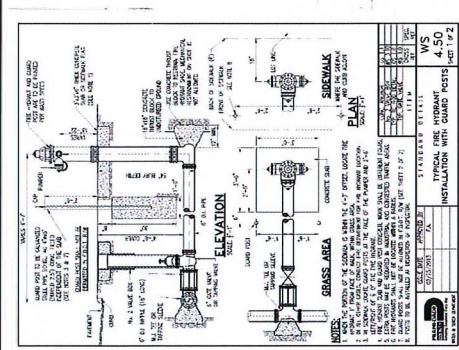
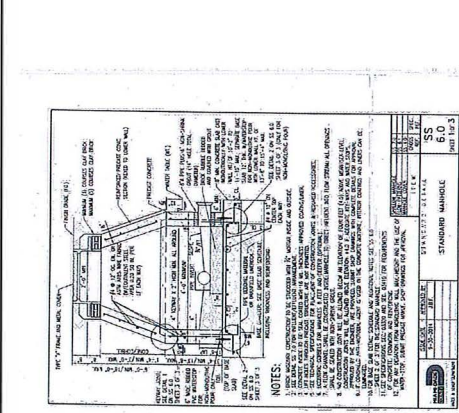
U.S. SOUTH
ENGINEERING, INC.
14347 Commerce Way,
Miami, FL 33016
PH: 305-598-0568 Fax: 305-591-4668

APPROVALS
DESIGNED: E.R. JORDON, E.R.
DRAWN: V.P. JIM CUCKLER, E.R.
DATE: MAY 16, 2007

PROJECT TITLE:
CONCEPTUAL
WATER, SEWER,
PAVING & DRAINAGE

CLIENT: U.S. SOUTH ENGINEERING, INC.
PROJECT: PALMETTO EXPRESSWAY (SR 826)
DATE: MAY 16, 2007

SCALE: AS SHOWN
SHEET: C-30
OF: SHEETS



NOTES:
1. ALL DIMENSIONS ARE IN FEET AND INCHES.
2. ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE.
3. ALL DIMENSIONS ARE TO CENTER UNLESS NOTED OTHERWISE.
4. ALL DIMENSIONS ARE TO CENTER UNLESS NOTED OTHERWISE.
5. ALL DIMENSIONS ARE TO CENTER UNLESS NOTED OTHERWISE.

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4. ALL DIMENSIONS ARE TO CENTER UNLESS NOTED OTHERWISE.
5. ALL DIMENSIONS ARE TO CENTER UNLESS NOTED OTHERWISE.

WATER & SEWER PLAN AND DETAILS

DRAINAGE REPORT

for:

“MIAMI LAKES OFFICE BUILDING”

A subdivision of a portion of the Northwest ¼ of
Section 23, Township 52 South, Range 40 East,
City of Miami Lakes, Miami-Dade County, Florida
(Basin C-8)

January, 2018

Prepared by:

U.S. SOUTH ENGINEERING & TESTING LABORATORY, Inc.
14347 Commerce Way
Miami, Fl. 33016
(305) 558-2588

THIS PROJECT

R. 35 E. | R. 36 E. | R. 37 E. | R. 38 E. | R. 39 E. | R. 40 E. | R. 41 E. | R. 42 E.

T. 52 S.
T. 53 S.
T. 54 S.
T. 55 S.

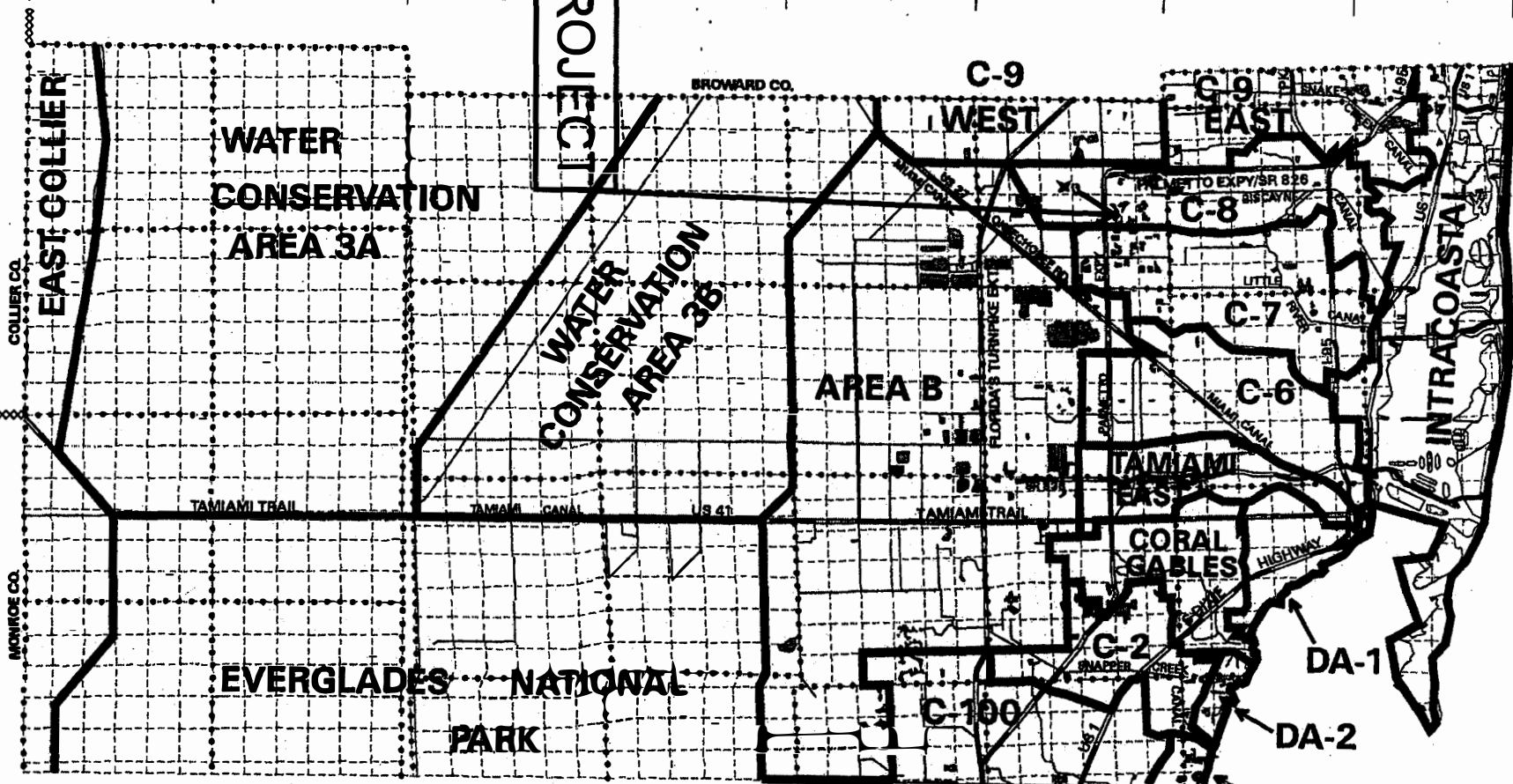
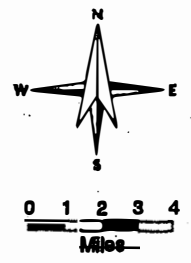
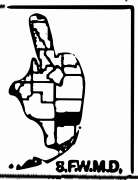
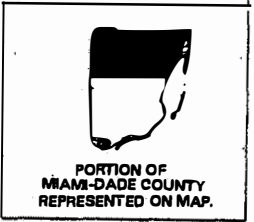


Figure B-11



DRAINAGE BASINS for NORTHERN MIAMI-DADE COUNTY, FL.



INTRODUCTION

Purpose

This report and calculations have been prepared to accompany a Site Plan approval application to the city of Miami Lakes.

The subject property will be developed as a three story office building with parking:

The final result of the flood routing will demonstrate that the maximum stages reached do not exceed the designed finish floor elevation (Elev. 9.5) for the 100 year – 3 day storm event.

The surface water management system consists of drainage inlets and pipes directing storm water run-off through a network of exfiltration trenches. Overflow will be directed to an on-site dry retention area.

The first inch of runoff shall be dispersed through an interconnect network of French drains (170 LF provided, 83 LF required).

Design Criteria

- LEGAL DESCRIPTION: Portion of Tract 48 of "FLORIDA FRUIT LANDS COMPANY SUBDIVISION No. 1", of Section 23, Township 52 South, Range 40 East, according the plat thereof as recorded in Plat Book 2, at Page 17, of the Public Records of Miami-Dade County, Florida.
- Project is located North of N.W. 145th Street & east of N.W. 77th Avenue.
- All land areas to be filled to Miami-Dade County Flood Criteria.
- All elevations refer to N.G.V.D.
- Miami-Dade County Flood Criteria = +6.5 (NGVD)
- Proposed Minimum Finish Floor Elevation: +9.50 (NGVD)
- Maximum peak flood routing stage for 100 year – 3 day storm event: 9.21 (NGVD)
- Maximum flood routing stage for 25 year – 3 day storm event: 8.96 (NGVD)
- Maximum flood routing stage for 10 year – 24 hr. storm event: 8.59 (NGVD)
- Existing natural ground elevation = +6.0 (NGVD) (average)
- Average Yearly Lowest groundwater elevation = +2.0 N.G.V.D. (W.C. – 2.3)
- Average October groundwater elevation = +3.0 N.G.V.D. (W.C. – 2.2)

Summary of Drainage Areas

Gross Area= 2.053 acres

Total Building Area: **0.170** acres

Total dry retention Area: **0.693** acres

Open Land Area (Gross Area – Buildings – Lakes): (2.053 – 0.170 – 0.693 = **1.189** acres

Total Impervious Area: **1.033** acres

- Roof Area: 0.170 acres
- Pavement & Sidewalks: 0.863 acres

Total Pervious Area **0.326** acres

Assumed runoff coefficient:

- Filled areas = 0.8
- Pervious areas = 0.3

Pervious & Impervious Areas

<i>On-Site Areas</i>	%
0.326 Acres Pervious	15.90
0.863 Acres Impervious	42.03
0.170 Acres (Bldg.)	8.30
0.693 Acres (dry retention area)	33.77

Flood Routing Data

Depth of groundwater from filled surface = +8.20 (average) – 3.0 = 5.2 ft

Available groundwater storage (From SFWMD Permit Manual):

8.18 inches (under pervious areas)

Groundwater storage weighted for pervious areas = 8.18 x 0.1590 = **1.30 inches**

STAGE / STORAGE

	DRY RETENTION		OPEN LAND		TOTAL "A"
Stage (ft)	Area (Acres)	Storage (acre/feet)	Area (Acres)	Storage (acre/feet)	Storage (acre/feet)
6.00	0.69	0.00	0.00	0.00	0.00
6.50	0.69	0.35	0.00	0.00	0.35
7.00	0.69	0.69	0.00	0.00	0.69
7.50	0.69	1.04	0.13	0.01	1.05
8.00	0.69	1.39	0.46	0.16	1.55
8.50	0.69	1.73	0.79	0.48	2.21
9.00	0.69	2.08	1.12	0.95	3.03
9.50	0.69	2.43	1.19	1.55	3.97

Water Quality Calculation

Total Project Area: 2.053 acres

Total Impervious Area: 0.863 acres (50.33%)

- Building Area: 0.170 acres (8.30%)
- Pavement/Concrete/Sidewalks: 0.863 acres (42.03%)

Total Pervious Area: 0.326 acres (15.90%)

Dry Retention area: 0.693 acres (33.77%)

For water quality treatment, the first inch of runoff from the entire site, or the amount of 2½ inches times the percentage of imperviousness shall be treated, whichever is greater.

1. First inch of runoff:
 - a. Volume required = 1 inch x 2.053 ÷ 12 = 0.171 acre feet
2. 2½ inches times the percentage of imperviousness¹:
 - a. Volume required = 2½ x 0.4203 = 1.05 inches
 - b. Volume to be treated = 1.05 (inches) x 2.05 (acres) ÷ 12 = 0.179 acre-feet
3. Condition 2 is greater than Condition 1 therefore:
4. Volume to be treated: **0.179** acre-feet

Drainage trench required (see attached calculations) 308 L.F. required (8.3985 acre/inches treated ÷ 0.700 acre/feet).

Drainage trench provided (see attached calculations) **170 L.F.**

Rainfall Constants

For Flood Routing computations (Cascade)

100 year rainfall quantity: 13.72 inches (3.28 inch rainfall credit applied)

25 year rainfall quantity: 10.72 inches (3.28 inch rainfall credit applied)

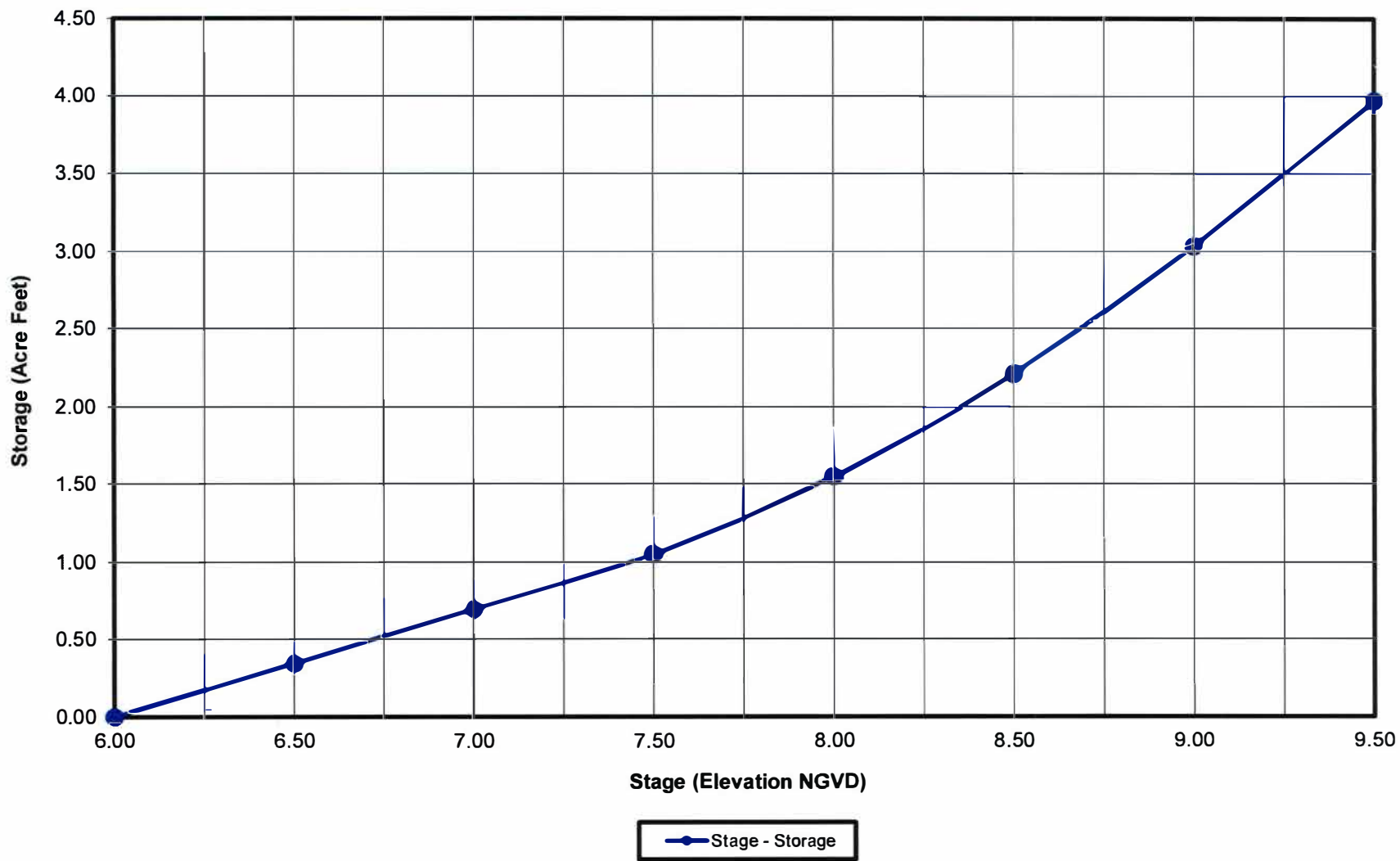
10 year rainfall quantity: 7.0 inches (from Permit Manual 10 year map)

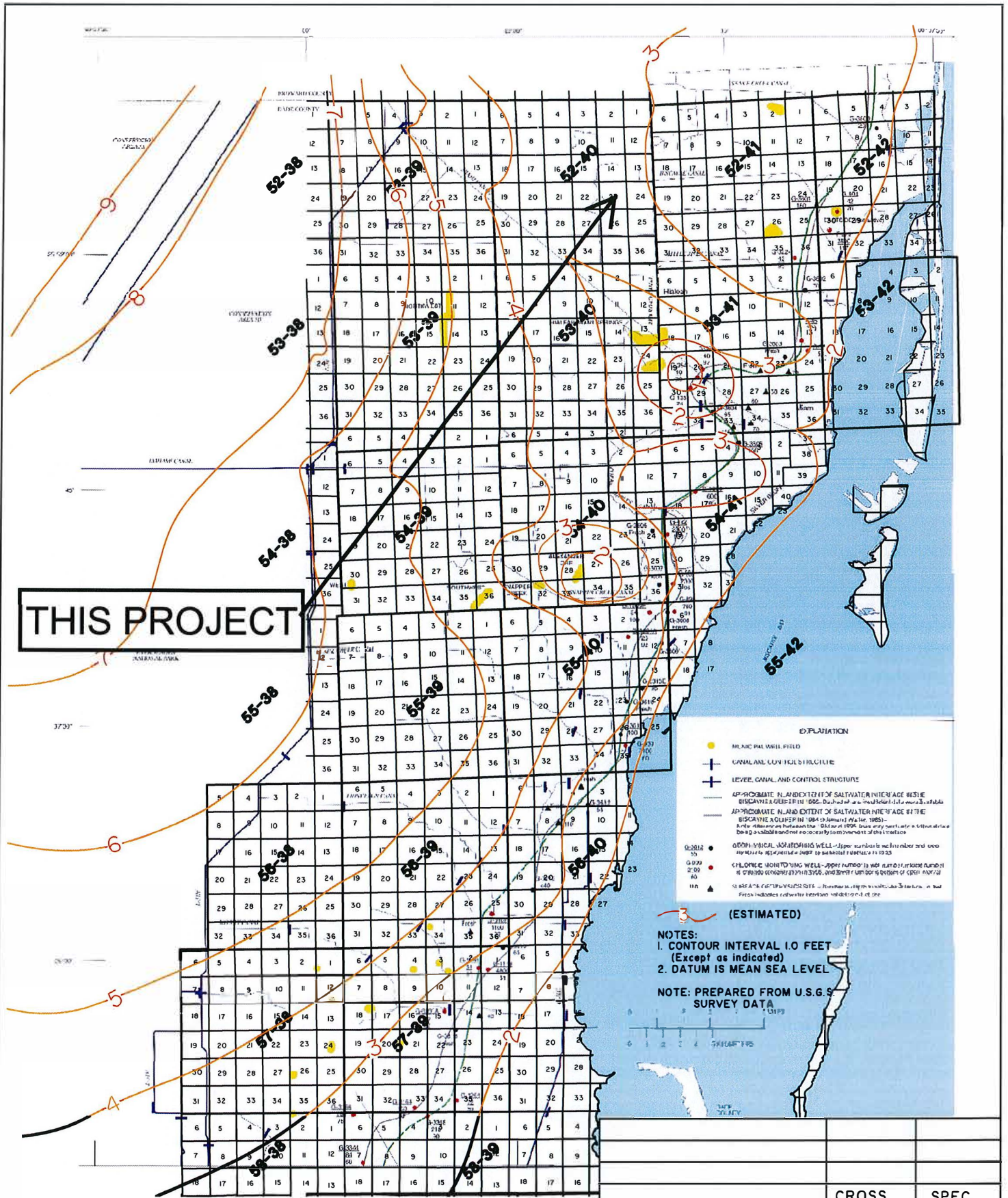
Conclusion

This analysis and corresponding calculations prove that the storm water retention system designed for this project exceeds the local and state requirements for storm water management systems.

¹ Pursuant to SFWMD Permit Manual (2013), roof and stormwater retention area may be deducted from site area for water quality calculation purposes (Part IV – Stormwater Quality, Section 4.2.2(c)).

Stage - Storage





**METROPOLITAN
 DADE COUNTY
 PUBLIC WORKS
 DEPARTMENT**

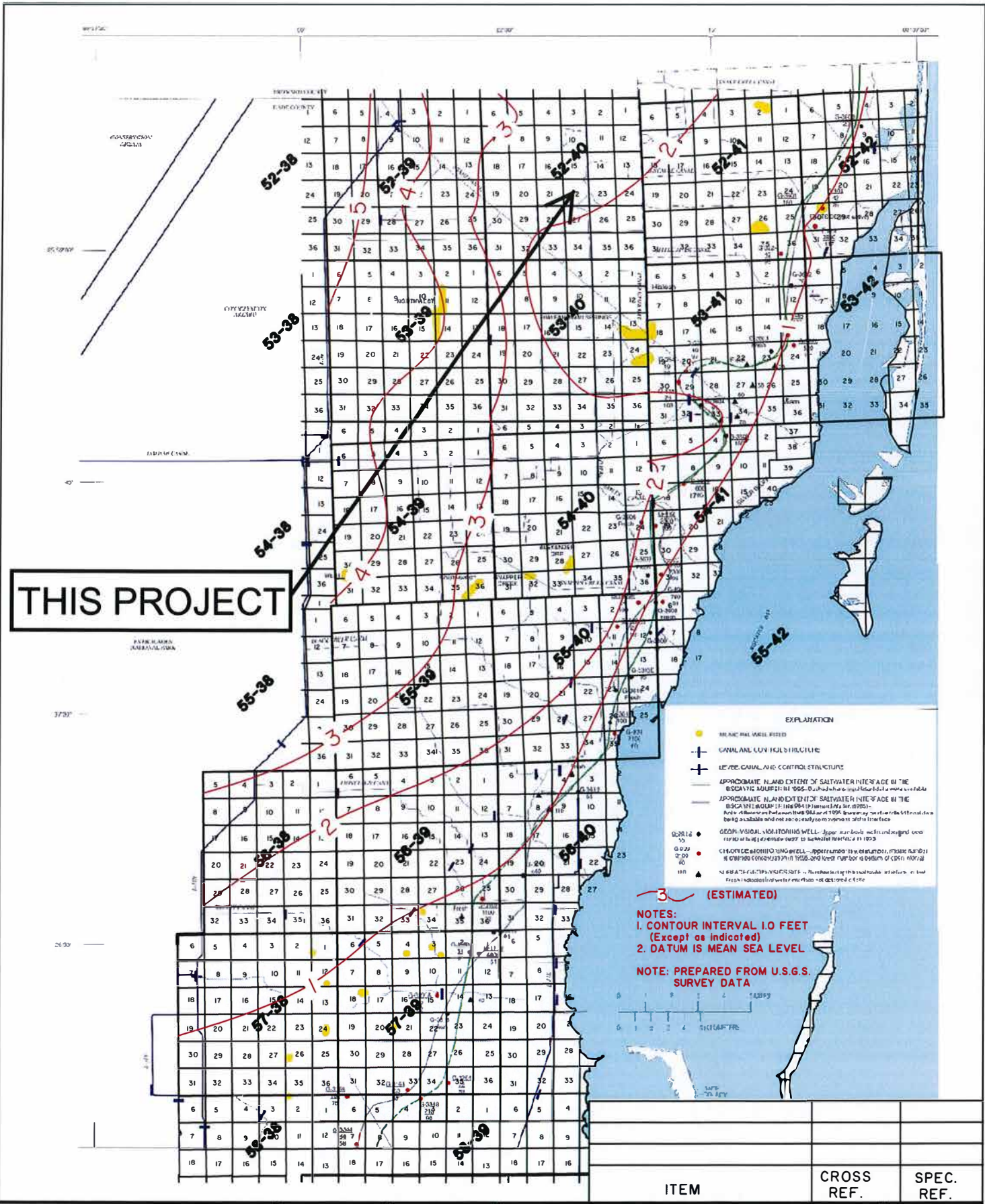
APPROVED
 4/5/72

REVISED
 2/19/75
 4/14/77

**DESIGN STANDARDS
 AVERAGE OCTOBER
 GROUND WATER LEVEL
 1960-75**

**WC
 2.2**
 SHEET 1 of 1

ITEM	CROSS REF.	SPEC. REF.



THIS PROJECT

- EXPLANATION**
- BRACIAL WELL FEED
 - CANAL AND CONTROL STRUCTURE
 - LEVEE CANAL AND CONTROL STRUCTURE
 - APPROXIMATE ISLAND EXTENT OF SALTWATER INTERFACE IN THE BISCAYNE AQUIFER IN 1960 (Dashed line is approximate)
 - APPROXIMATE ISLAND EXTENT OF SALTWATER INTERFACE IN THE BISCAYNE AQUIFER IN 1965 (Solid line is approximate)
 - GEOPHYSICAL MONITORING WELL - Spot readings only and original cover material is removed to be submitted to the State in 1975
 - GEOPHYSICAL MONITORING WELL - Approximate elevation number is shown in parenthesis in 1960 and lower number is bottom of open interval
 - ESTIMATED DATA - Approximate elevation number is shown in parenthesis in 1960 and lower number is bottom of open interval

NOTES:
 1. CONTOUR INTERVAL 10 FEET (Except as indicated)
 2. DATUM IS MEAN SEA LEVEL
 NOTE: PREPARED FROM U.S.G.S. SURVEY DATA

ITEM	CROSS REF.	SPEC. REF.

METROPOLITAN DADE COUNTY PUBLIC WORKS DEPARTMENT	APPROVED <hr/> 4/5/72	REVISED <u>2/19/75</u> <u>4/14/77</u>	DESIGN STANDARDS AVERAGE MAY GROUND WATER LEVEL 1960-75	WC 2.4 SHEET 1 of 1
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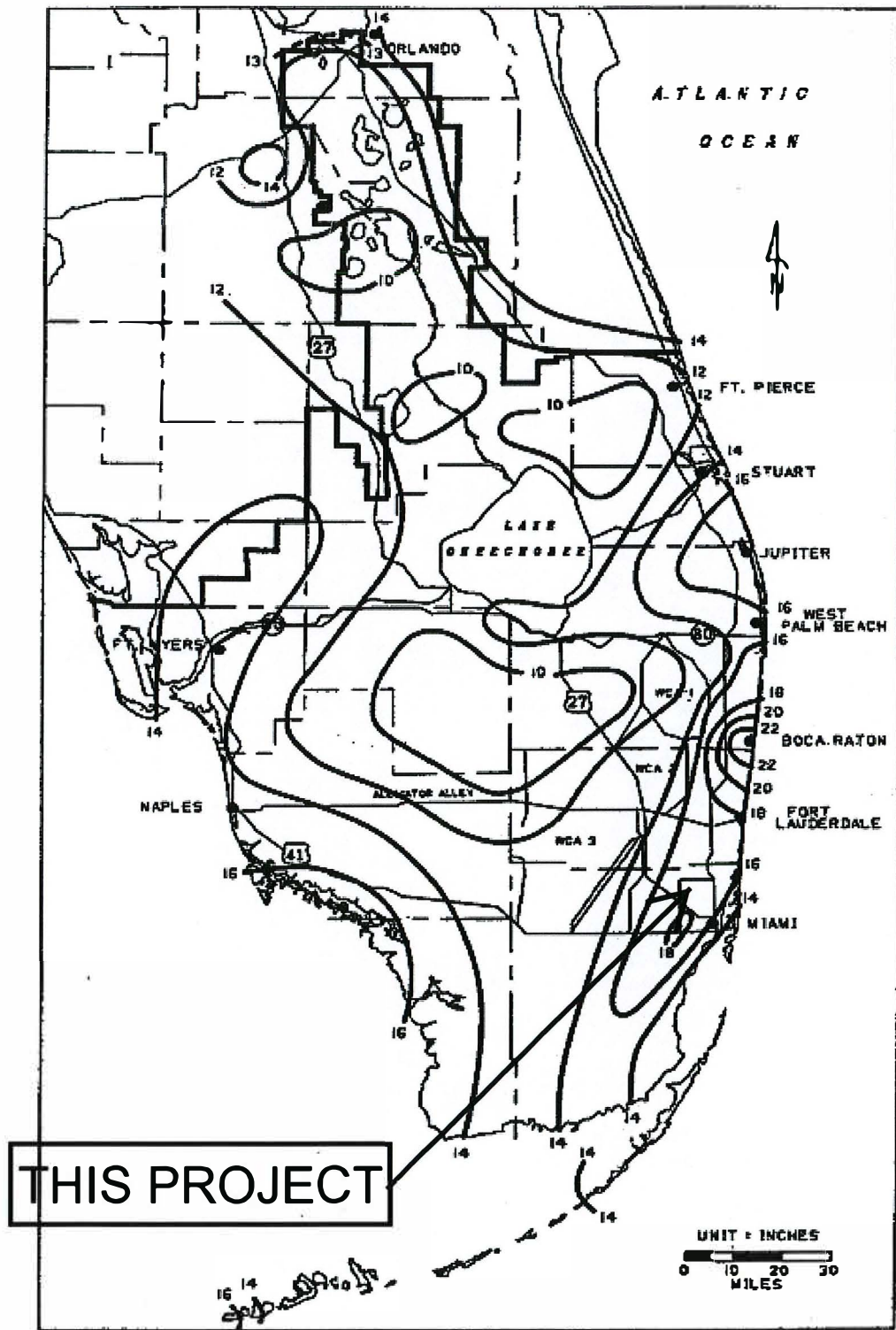


FIGURE C-9. 3-DAY RAINFALL: 100-YEAR RETURN PERIOD

Project Name: Zone2017-0614

Reviewer: 2a

Project Number: U.S.S.

Period Begin: Jan 25, 2018:0000 hr End: Jan 28, 2018:0000 hr Duration: 72 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Retention Area

Method: Santa Barbara Unit Hydrograph
 Rainfall Distribution: SFWMD - 3day
 Design Frequency: 100 year
 3 Day Rainfall: 13.7201 inches
 Area: 0.693003 acres
 Ground Storage: 1.3 inches
 Time of Concentration: 1 hours
 Initial Stage: 6 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
6.00	0.00
6.50	0.35
7.00	0.69
7.50	1.04
8.00	1.39
8.50	1.73
9.00	2.08
9.50	2.43

Basin 2: Paving

Method: Santa Barbara Unit Hydrograph
 Rainfall Distribution: SFWMD - 3day
 Design Frequency: 100 year
 3 Day Rainfall: 13.7201 inches
 Area: 1.189 acres
 Ground Storage: 1.3 inches
 Time of Concentration: 1 hours
 Initial Stage: 7.3 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
7.30	0.00
7.50	0.01
8.00	0.16
8.50	0.48
9.00	0.95
9.50	1.55

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)
Retention Area	7.01	72.00	6.00	0.00
Paving	9.21	72.00	7.30	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Retention Area	0.70	0.00	0.00	0.00	0.70	0.00
Paving	1.20	0.00	0.00	0.00	1.20	0.00

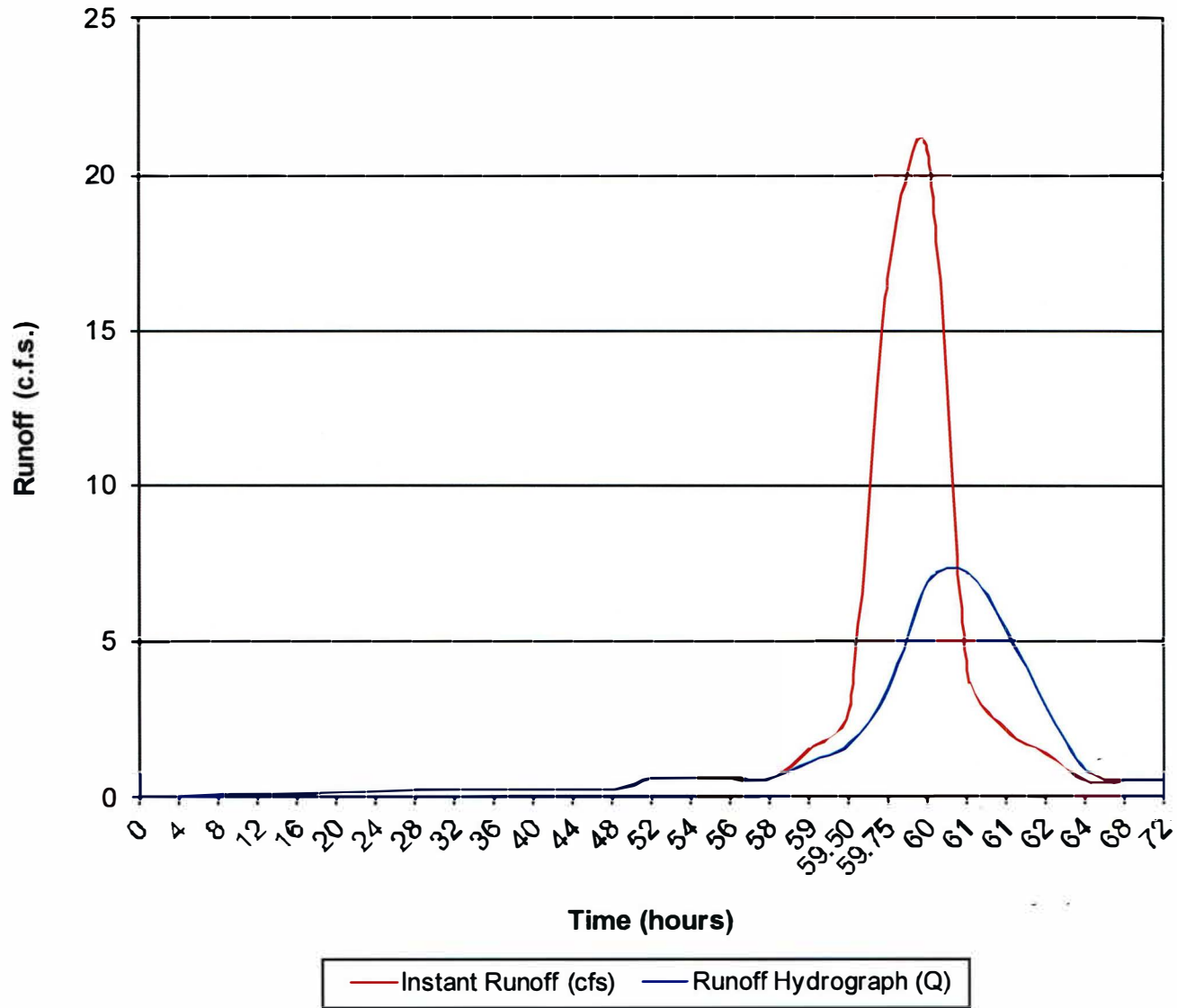
100 Year

**Miami Lakes Office Building
100 Year - 72 hour Event**

Time of Concentration (Hr.): 1.00
 Impervious Area (Acres): 1.03
 Pervious Area (Acres): 1.02
 Total Land Area (Acres): 2.05
 Pervious Percentage: 49.76%
 Available Soil Storage (inches): 8.18
 Weighted Soil Storage (inches): 1.30
 Rainfall: 13.72
 Frequency (year): 100
 Duration (hours): 72

Time (Hours)	Ratio (P/P24)	Cumulative Rain (in)	Runoff (in)	Cumulative Runoff (AF)	Instant Runoff (cfs)	Runoff Hydrograph (Q)
0.00	0.000	0.00	0.00	0.00	0.00	0.00
4.00	0.024	0.33	0.00	0.00	0.02	0.00
8.00	0.049	0.67	0.10	0.02	0.07	0.06
12.00	0.073	1.00	0.27	0.05	0.10	0.09
16.00	0.097	1.33	0.49	0.08	0.12	0.12
20.00	0.122	1.67	0.73	0.13	0.13	0.13
24.00	0.146	2.00	1.00	0.17	0.15	0.14
28.00	0.182	2.49	1.41	0.24	0.22	0.21
32.00	0.217	2.98	1.84	0.31	0.22	0.22
36.00	0.253	3.47	2.28	0.39	0.23	0.23
40.00	0.288	3.95	2.73	0.47	0.23	0.23
44.00	0.324	4.44	3.19	0.54	0.24	0.23
48.00	0.359	4.93	3.65	0.62	0.22	0.24
52.00	0.444	6.10	4.77	0.82	0.58	0.57
54.00	0.487	6.68	5.34	0.91	0.58	0.58
56.00	0.530	7.27	5.91	1.01	0.58	0.58
58.00	0.572	7.85	6.48	1.11	0.56	0.58
59.00	0.628	8.62	7.23	1.24	1.55	1.14
59.50	0.678	9.30	7.91	1.35	2.77	1.68
59.75	0.828	11.36	9.94	1.70	16.65	3.46
60.00	1.015	13.93	12.48	2.13	20.85	6.86
60.50	1.088	14.93	13.47	2.30	4.08	7.21
61.00	1.126	15.45	13.99	2.39	2.12	5.37
62.00	1.177	16.15	14.69	2.51	1.43	2.91
64.00	1.213	16.65	15.18	2.59	0.51	0.85
68.00	1.286	17.65	16.18	2.76	0.51	0.52
72.00	1.359	18.65	17.17	2.93	0.51	0.51

Santa Barbara Urban Hydrograph (100 Year)



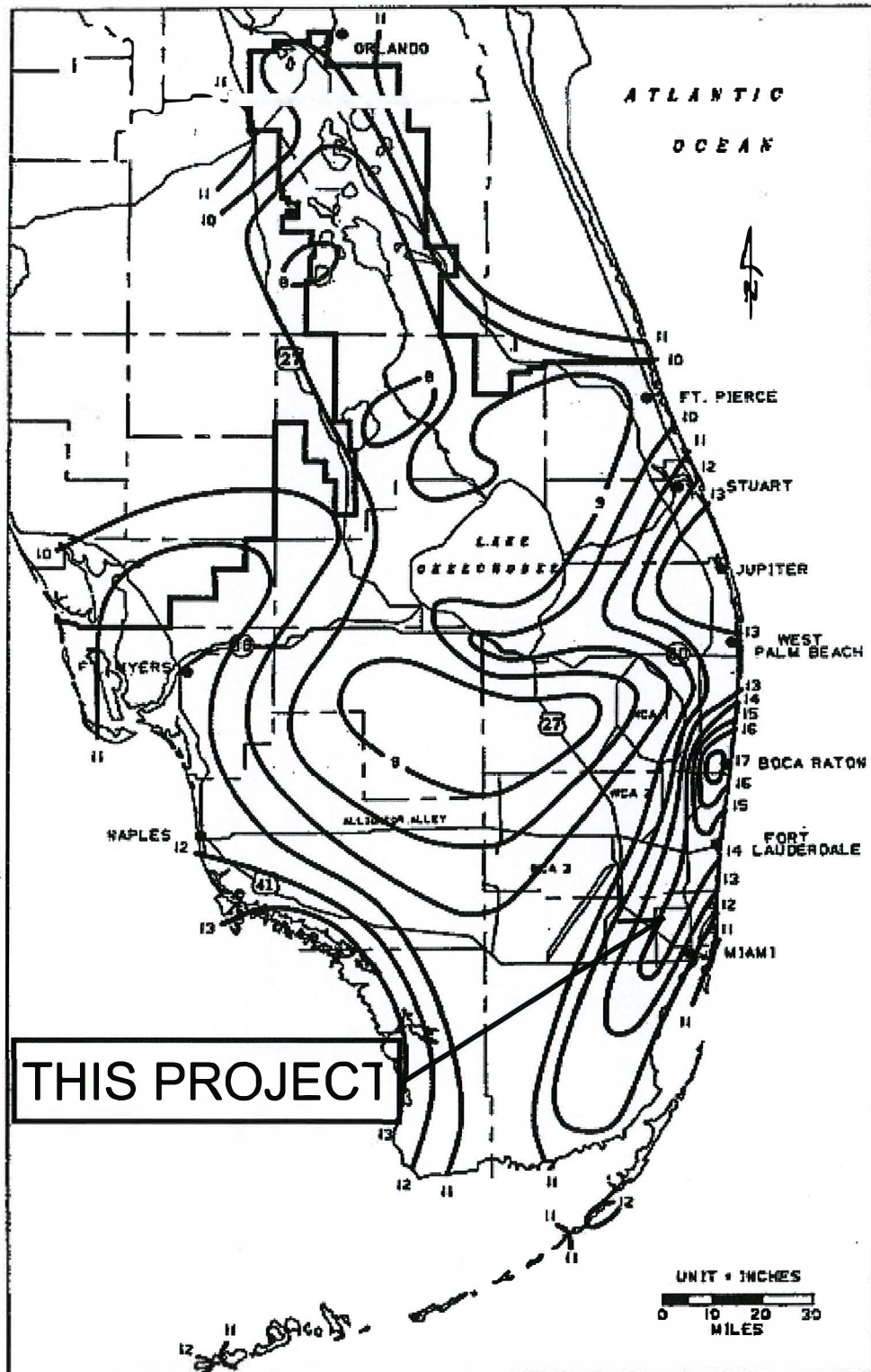


FIGURE C-8. 3-DAY RAINFALL: 25-YEAR RETURN PERIOD

Project Name: Zone2017-0614

Reviewer: 2a

Project Number: U.S.S.

Period Begin: Jan 25, 2018:0000 hr End: Jan 28, 2018:0000 hr Duration: 72 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Retention Area

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 10.72 inches

Area: 0.693003 acres

Ground Storage: 1.3 inches

Time of Concentration: 1 hours

Initial Stage: 6 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
6.00	0.00
6.50	0.35
7.00	0.69
7.50	1.04
8.00	1.39
8.50	1.73
9.00	2.08
9.50	2.43

Basin 2: Paving

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 10.72 inches

Area: 1.189 acres

Ground Storage: 1.3 inches

Time of Concentration: 1 hours

Initial Stage: 7.3 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
7.30	0.00
7.50	0.01
8.00	0.16
8.50	0.48
9.00	0.95
9.50	1.55

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)
Retention Area	6.77	72.00	6.00	0.00
Paving	8.96	72.00	7.30	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Retention Area	0.53	0.00	0.00	0.00	0.53	0.00
Paving	0.91	0.00	0.00	0.00	0.91	0.00

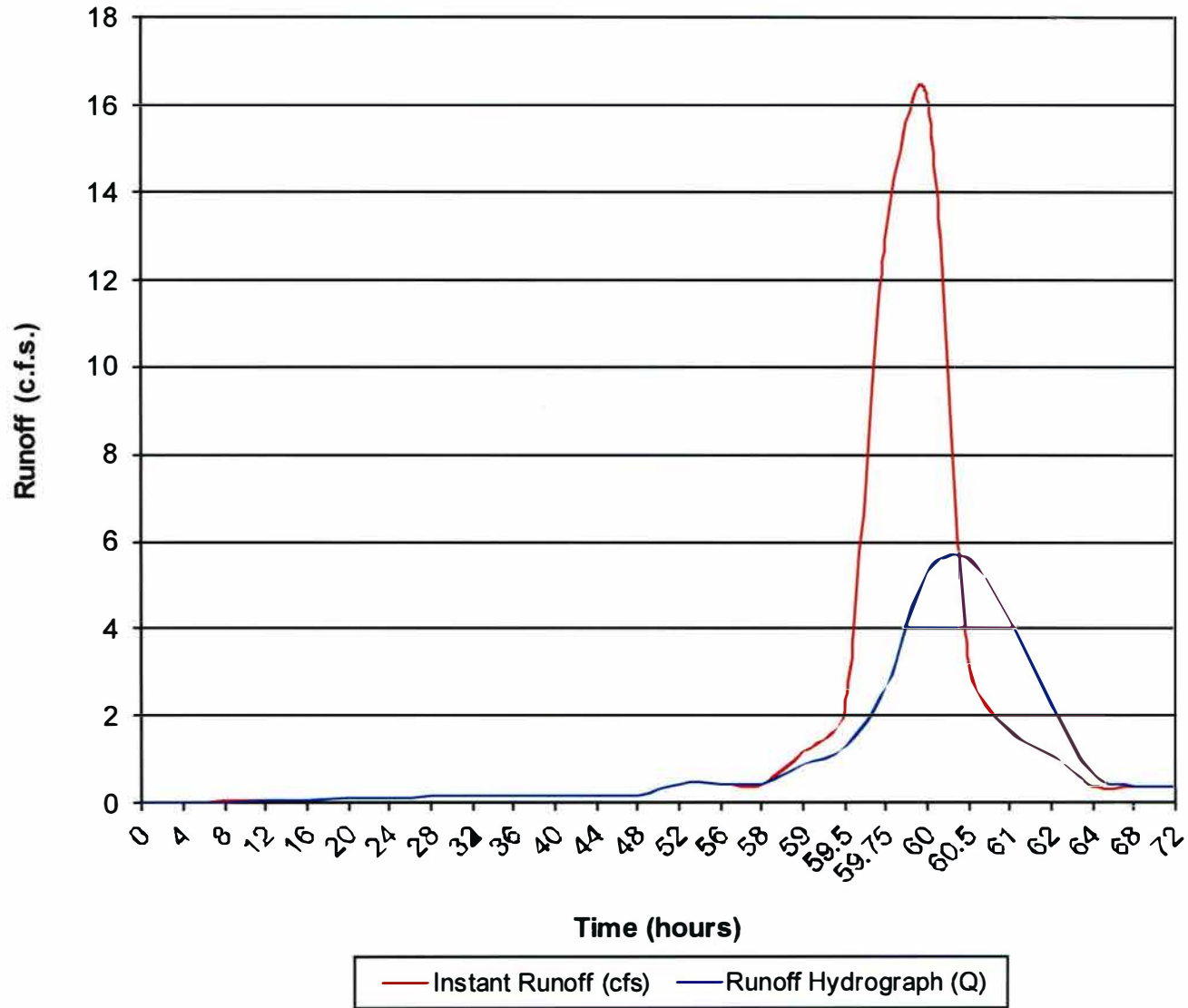
25 Year

**Miami Lakes Office Building
25 Year - 72 hour Event**

Time of Concentration (Hr.): 1.00
 Impervious Area (Acres): 1.03
 Pervious Area (Acres): 1.02
 Total Land Area (Acres): 2.05
 Pervious Percentage: 49.76%
 Available Soil Storage (inches): 8.18
 Weighted Soil Storage (inches): 1.30
 Rainfall: 10.72
 Frequency (year): 25
 Duration (hours): 72

Time (Hours)	Ratio (P/P24)	Cumulative Rain (in)	Runoff (in)	Cumulative Runoff (AF)	Instant Runoff (cfs)	Runoff Hydrograph (Q)
0.00	0.000	0.00	0.00	0.00	0.00	0.00
4.00	0.024	0.26	0.00	0.00	0.00	0.00
8.00	0.049	0.52	0.04	0.01	0.04	0.03
12.00	0.073	0.78	0.15	0.03	0.06	0.06
16.00	0.097	1.04	0.29	0.05	0.08	0.08
20.00	0.122	1.30	0.46	0.08	0.09	0.09
24.00	0.146	1.57	0.65	0.10	0.11	0.10
28.00	0.182	1.95	0.95	0.16	0.16	0.16
32.00	0.217	2.33	1.27	0.22	0.17	0.16
36.00	0.253	2.71	1.60	0.27	0.17	0.17
40.00	0.288	3.09	1.94	0.33	0.18	0.17
44.00	0.324	3.47	2.28	0.39	0.18	0.18
48.00	0.359	3.85	2.63	0.45	0.17	0.18
52.00	0.444	4.76	3.49	0.60	0.44	0.44
56.00	0.530	5.68	4.37	0.75	0.45	0.45
58.00	0.572	6.13	4.81	0.82	0.44	0.45
59.00	0.628	6.73	5.39	0.92	1.20	0.88
59.50	0.678	7.27	5.91	1.01	2.14	1.30
59.75	0.828	8.88	7.49	1.28	12.92	2.68
60.00	1.015	10.88	9.46	1.62	16.20	5.32
60.50	1.088	11.66	10.24	1.75	3.17	5.60
61.00	1.126	12.07	10.64	1.82	1.65	4.17
62.00	1.177	12.62	11.18	1.91	1.11	2.26
64.00	1.213	13.01	11.57	1.98	0.40	0.66
68.00	1.286	13.79	12.34	2.11	0.40	0.40
72.00	1.359	14.57	13.12	2.24	0.40	0.40

Santa Barbara Urban Hydrograph (25 Year)



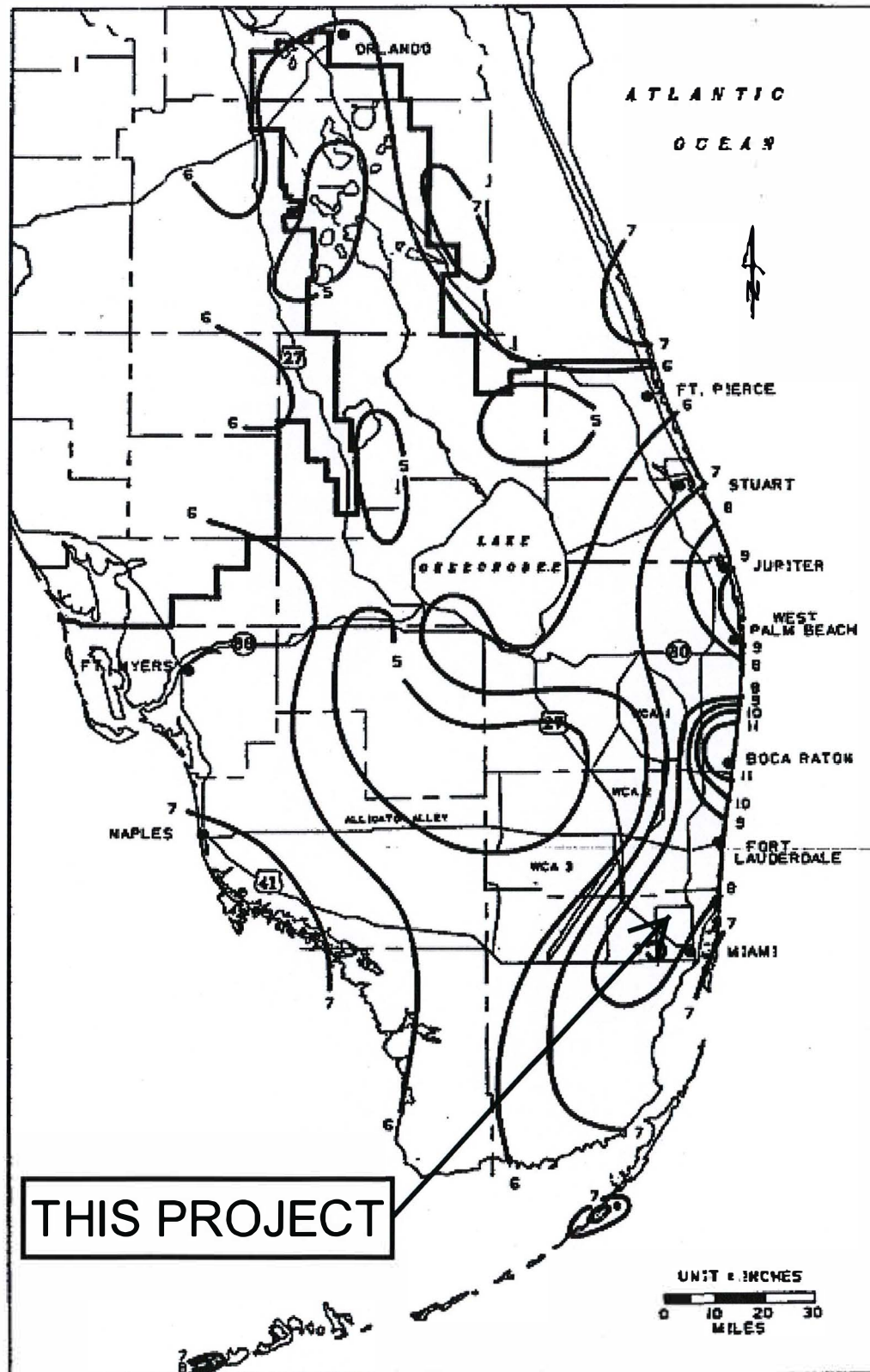


FIGURE C-4. 1-DAY RAINFALL: 10-YEAR RETURN PERIOD

Project Name: Zone2017-0614

Reviewer: 2a

Project Number: U.S.S.

Period Begin: Jan 25, 2018;0000 hr End: Jan 28, 2018;0000 hr Duration: 72 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Retention Area

Method: Santa Barbara Unit Hydrograph
 Rainfall Distribution: SFWMD - 24 hr
 Design Frequency: 10 year
 1 Day Rainfall: 7 inches
 Area: 0.693003 acres
 Ground Storage: 1.3 inches
 Time of Concentration: 1 hours
 Initial Stage: 6 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
6.00	0.00
6.50	0.35
7.00	0.69
7.50	1.04
8.00	1.39
8.50	1.73
9.00	2.08
9.50	2.43

Basin 2: Paving

Method: Santa Barbara Unit Hydrograph
 Rainfall Distribution: SFWMD - 24 hr
 Design Frequency: 10 year
 1 Day Rainfall: 7 inches
 Area: 1.189 acres
 Ground Storage: 1.3 inches
 Time of Concentration: 1 hours
 Initial Stage: 7.3 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
7.30	0.00
7.50	0.01
8.00	0.16
8.50	0.48
9.00	0.95
9.50	1.55

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)
Retention Area	6.47	35.00	6.00	0.00
Paving	8.59	34.80	7.30	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Retention Area	0.33	0.00	0.00	0.00	0.33	0.00
Paving	0.56	0.00	0.00	0.00	0.56	0.00

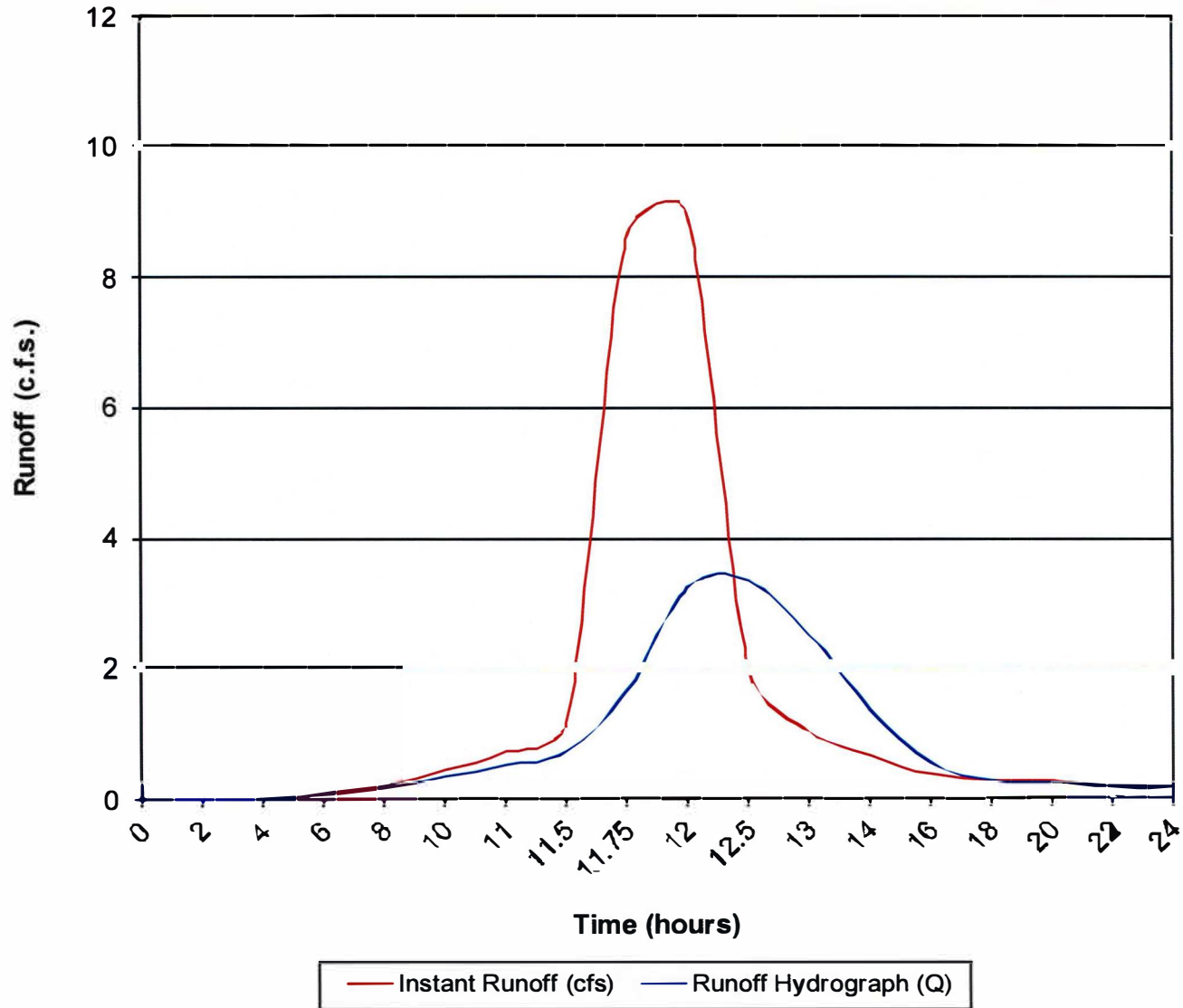
10 Year

**Miami Lakes Office Building
10 Year - 24 hour Event**

Time of Concentration (Hr.): 1.00
 Impervious Area (Acres): 1.03
 Pervious Area (Acres): 1.02
 Total Land Area (Acres): 2.05
 Pervious Percentage: 49.76%
 Available Soil Storage (inches): 8.18
 Weighted Soil Storage (inches): 1.30
 Rainfall: 7.00
 Frequency (year): 10
 Duration (hours): 24

Time (Hours)	Ratio (P/P24)	Cumulative Rain (in)	Runoff (in)	Cumulative Runoff (AF)	Instant Runoff (cfs)	Runoff Hydrograph (Q)
0.00	0.000	0.00	0.00	0.00	0.00	0.00
2.00	0.020	0.14	0.00	0.00	0.00	0.00
4.00	0.045	0.32	0.00	0.00	0.01	0.00
6.00	0.083	0.58	0.06	0.01	0.10	0.06
8.00	0.137	0.96	0.24	0.04	0.23	0.18
10.00	0.213	1.49	0.60	0.10	0.46	0.36
11.00	0.269	1.88	0.90	0.15	0.73	0.52
11.50	0.319	2.23	1.19	0.20	1.20	0.74
11.75	0.488	3.42	2.24	0.38	8.58	1.66
12.00	0.656	4.59	3.33	0.57	8.99	3.24
12.50	0.729	5.10	3.82	0.65	2.02	3.35
13.00	0.767	5.37	4.07	0.70	1.04	2.52
14.00	0.818	5.73	4.42	0.75	0.66	1.38
16.00	0.880	6.16	4.83	0.83	0.39	0.56
18.00	0.916	6.41	5.08	0.87	0.28	0.29
20.00	0.952	6.66	5.32	0.91	0.28	0.25
22.00	0.976	6.83	5.49	0.94	0.17	0.18
24.00	1.000	7.00	5.65	0.97	0.17	0.17

Santa Barbara Urban Hydrograph (10 Year)



U.S. South Engineering
14347 Commerce Way
Miami, FL. 33016
(305) 558-2588

PROJECT: Miami Lakes Office
JOB No:

DATE: 11/1/2017

$$\text{VOLUME TREATED (V)} \quad V = C_w \times A \times R$$

TRENCH LENGTH FORMULAS **

$$\text{IF } D_s > D_u \quad L = \frac{V}{K(2H_2D_U - D_U^2 + 2H_2D_S) + 1.39 \times 10^{-4}(WD_U)}$$

$$\text{IF } D_u > D_s \quad L = \frac{V}{K(H_2W + 2H_2D_U - D_U^2 + 2H_2D_S) + 1.39 \times 10^{-4}(WD_U)}$$

**** Taken from South Florida Water Management District Permitting Information Manual (2013).**

BASE DATA

Grate Elevation:	8.00 (N.G.V.D.)	
Water-Table Table Elev:	3.00 (WC 2.2.) (Wt)	
Trench Depth (ft):	15	
Bottom Trench Elevation:	-7.00	(bottom)
Impervious Area Coefficient:	0.90 (constant)	(Ci)
Sodded Swale Area Coefficient:	0.30 (constant)	(Cs)
Grassed Lot Area Coefficient:	0.40 (constant)	(Cg)
Roof Area Coefficient	1.00 (constant)	(Cr)
Rainfall (Inches):	6.20 (in.)	(i)
Trench width (ft):	4 (feet)	(w)
Depth to Water Table (H2)	5.00 (feet)	(H2)
Unsaturated Depth	3.33 (feet)	(Du)
Saturated Depth	10.00 (feet)	(Ds)

Table

Drainage Area	Total
Gross Area (ft2):	89408
Grassed Area (ft2):	44407
Lot Coverage (%):	100%
Impervious Area (ft2):	37579
Roof Area (ft2):	7422
Weighted Coefficient (Cw):	0.6600
Volume of Runoff (Acre-inch.)(Q):	8.3985
Conductivity Coefficient (k)	7.00E-04

Length of Trench required (LF):	83
Trench length provided (LF):	170

Project Name:
Project Number:

U.S. South Engineering

MASS DIAGRAM

Drainage Area Distribution

Gross Area ft ²	Lot Area ft ²	R/W Area ft ²	Gross Area ft ²	(Cg)	Roof Area ft ²	(Cr)	Swale Area ft ²	(Cs)	Impervious ft ²	(Ci)
89408	89408	0	44407	0.3	7422	1.0	0	0.4	37579	0.9

System Storage Data

C factor for Pervious Areas:	0.35
C factor for Impervious Areas:	0.95
Total Drainage Area (Acres):	2.053
Impervious Areas (Acres):	1.033
Pervious Areas (Acres):	1.019
Exfiltration Rate (ft ³ /sec/LF):	0.0859
Run-off Coefficient (Cw):	0.610
Storage available (ft ³ /1000):	0.9800
Trench Length Required:	71
Trench Length Provided:	140
Trench Length Safety Factor:	2.0

Trench Data

Water Table Elevation (WC 2.2):	3.00
Grate Elevation:	8.00
Trench Width (ft):	4
Non-Saturated Top of Trench*:	6.50
Hydraulic Conductivity (k)(avg):	7.00E-04
Height to Water Table (ft)(H2):	5
Unsaturated Trench (ft)(Du):	3.50
Saturated Trench (ft)(Ds):	10
Pipe Diameter (inches):	18
Pipe Invert Elevation:	3.00
Percentage of Voids:	50%
Trench Depth (ft):	15

*(Assumes 24" minimum cover over pipe)

Run-off Generation Data

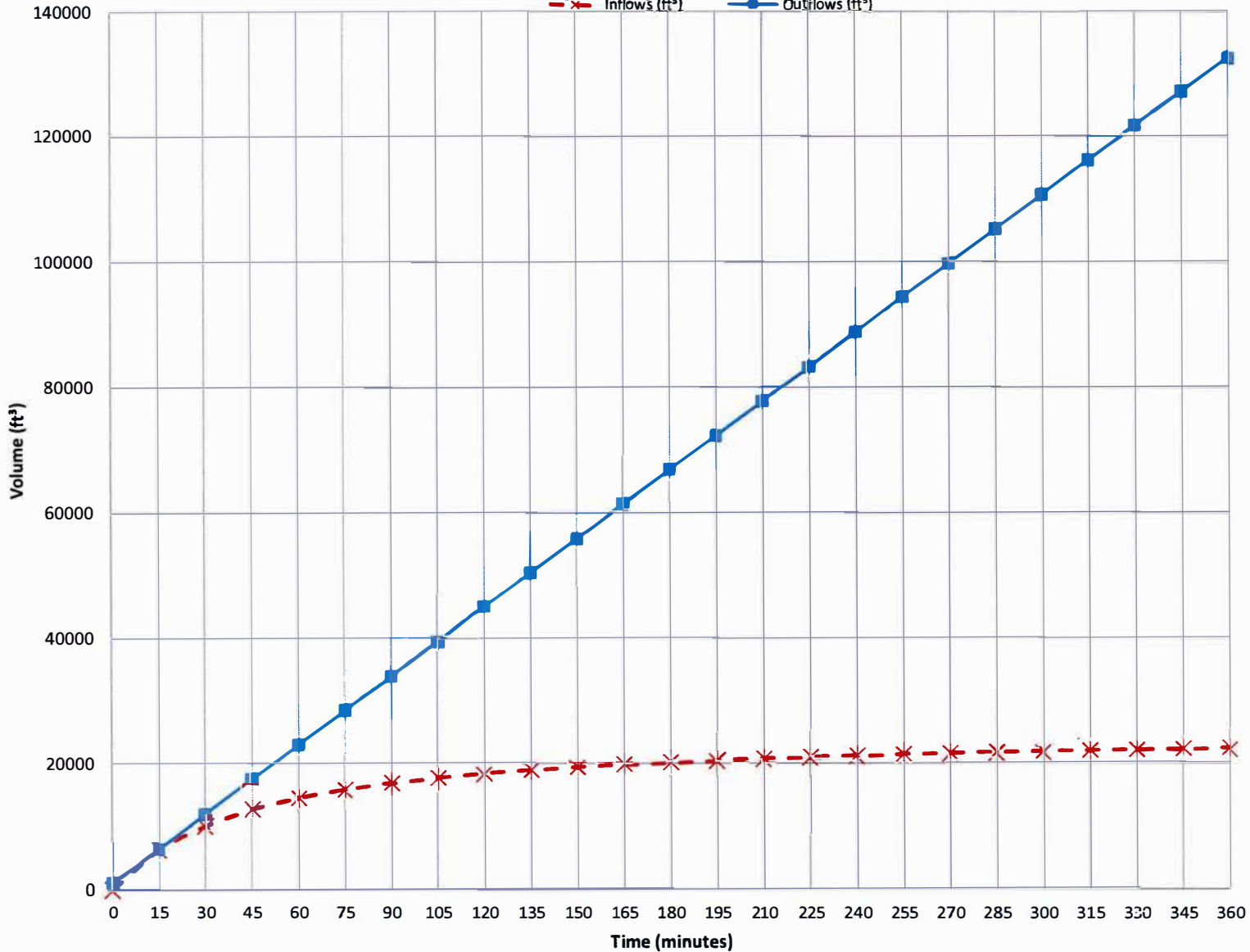
Volume of one inch of run-off (ft ³):	7451
Storm Frequency (years):	5
Initial Time of Concentration (Tc):	10
Time to generate 1" of run-off (min.):	19

U.S. South Engineering

MASS DIAGRAM OF INFLOWS AND OUTFLOWS

Time (min.)	Intensity (in/hr)	Run-Off (ft ³ /sec)	Inflows (ft ³)	Exfiltration (ft ³ /sec)	Cumulative (ft ³)	System Storage(ft ³)	Outflows (ft ³)	Overflows (ft ³)
0	7.58	9.49	0	6.09	0	980	980	-980.0
15	5.64	7.07	6363	6.09	5484	980	6464	-101.4
30	4.50	5.63	10139	6.09	10969	980	11949	-1,809.6
45	3.74	4.68	12640	6.09	16453	980	17433	-4,793.6
60	3.20	4.00	14417	6.09	21938	980	22918	-8,500.3
75	2.79	3.50	15746	6.09	27422	980	28402	-12,655.9
90	2.48	3.11	16777	6.09	32906	980	33886	-17,109.5
105	2.23	2.79	17600	6.09	38391	980	39371	-21,770.9
120	2.03	2.54	18272	6.09	43875	980	44855	-26,583.0
135	1.86	2.32	18832	6.09	49360	980	50340	-31,508.0
150	1.71	2.14	19304	6.09	54844	980	55824	-36,519.5
165	1.59	1.99	19709	6.09	60328	980	61308	-41,599.0
180	1.48	1.86	20060	6.09	65813	980	66793	-46,732.8
195	1.39	1.74	20367	6.09	71297	980	72277	-51,910.6
210	1.31	1.64	20637	6.09	76782	980	77762	-57,124.6
225	1.23	1.55	20877	6.09	82266	980	83246	-62,368.8
240	1.17	1.46	21092	6.09	87750	980	88730	-67,638.5
255	1.11	1.39	21285	6.09	93235	980	94215	-72,929.6
270	1.06	1.32	21460	6.09	98719	980	99699	-78,239.3
285	1.01	1.26	21619	6.09	104203	980	105183	-83,564.9
300	0.97	1.21	21764	6.09	109688	980	110668	-88,904.3
315	0.92	1.16	21896	6.09	115172	980	116152	-94,255.9
330	0.89	1.11	22019	6.09	120657	980	121637	-99,618.1
345	0.85	1.07	22131	6.09	126141	980	127121	-104,989.8
360	0.82	1.03	22236	6.09	131625	980	132605	-110,369.8

Mass Diagram (Inflows vs. Outflows)



Project No:
Project:

11/3/2017

Mass Diagram (MLakes).xlsx

EXHIBIT B

SURVEY

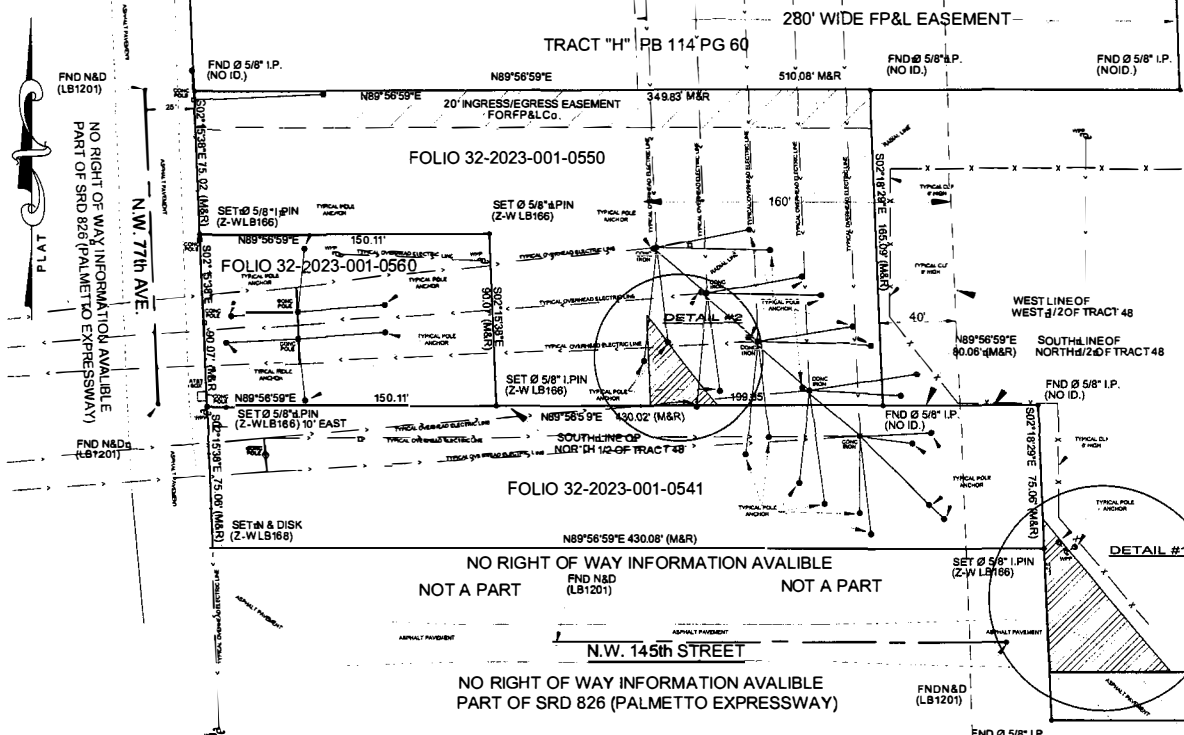
SYMBOL LEGEND:

- LIGHT POLE
TYPICAL STATION
UTILITY POLE
MAILBOX
ELECTRIC BOX
TRAFFIC SIGNAL BOX
FIRE HYDRANT
STORM SEWER/CATCH BASIN
WATER METER
SIGN
TELEPHONE BOX
WATER VALVE
ELEVATIONS
TRAFFIC LANE FLOW CENTERLINE
MONUMENT LINE
DIAMETER.

ABBREVIATIONS:

- AS: ASSESSOR
BL: BOUNDARY LINE
CB: CURB
CD: CENTERLINE
CH: CENTERLINE
CL: CENTERLINE
CO: CENTERLINE
CR: CENTERLINE
CS: CENTERLINE
CT: CENTERLINE
CZ: CENTERLINE
DA: DISTANCE
DB: DISTANCE
DC: DISTANCE
DD: DISTANCE
DE: DISTANCE
DF: DISTANCE
DG: DISTANCE
DH: DISTANCE
DI: DISTANCE
DJ: DISTANCE
DK: DISTANCE
DL: DISTANCE
DM: DISTANCE
DN: DISTANCE
DO: DISTANCE
DP: DISTANCE
DQ: DISTANCE
DR: DISTANCE
DS: DISTANCE
DT: DISTANCE
DU: DISTANCE
DV: DISTANCE
DW: DISTANCE
DX: DISTANCE
DY: DISTANCE
DZ: DISTANCE

BOUNDARY SURVEY

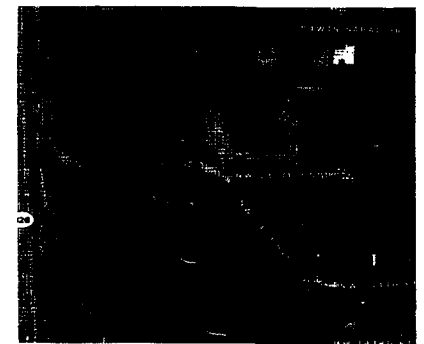


LEGAL DESCRIPTION: AS PER ORB 17359 PG'S 1892-1893 FROM FP&L COMPANY TO MIAMI-DADE COUNTY (POLITICAL SUBDIVISION)

A portion of the South 1/2 of Tract 48 of FLORIDA FRUIT LANDS COMPANY'S SUBDIVISION NO. 1, according to the plat thereof recorded in Plat Book 2 at Page 17 of the Public Records of Dade County, Florida, lying in the SW1/4 of Section 23, Township 32 South, Range 40 East, Dade County, Florida, being more particularly described as follows:
SEE DETAIL #1
Begin at the point of intersection of the East line of the West 580.00 feet of said Tract 48, with the North line of the South 25.00 feet of said Tract 48; thence run N 2°37'30" W along the East line of the West 580.00 feet of said Tract 48 for a distance of 80.23 feet to a point; thence run S 19°28'56" E for a distance of 103.22 feet to the point of intersection with the North line of the South 25.00 feet of said Tract 48; thence run S 89°33'35" W along the North line of the South 25.00 feet of said Tract 48 for a distance of 61.96 feet to the Point of Beginning;

LEGAL DESCRIPTION: NOTE, THIS LEGAL WILL COMPRISE THE TOTALITY OF THE LANDS SURVEYED. THERE APPEARS TO BE SEVERAL INCONSISTENCIES WITH THE LEGAL DESCRIPTIONS PROVIDED. THEY ALSO CONFLICT WITH RIGHT OF WAY GRANTS (WITHIN THE "RED" MATCH) THAT WAS DEEDED TO MIAMI-DADE COUNTY FROM FP&L.

THIS FIRM HIGHLY RECOMMENDS THAT A TITLE SEARCH BE PERFORMED. THERE IS A HIGH PROBABILITY OF FURTHER EASEMENTS AND DEDICATIONS NOT PROVIDED TO THIS OFFICE NOR SURVEYOR.
THE NORTH 1/2 OF TRACT 48, LESS THE EAST 700' AND LESS THE PALMETTO EXPRESS WAY RIGHT OF WAY ON THE WEST SIDE OF TRACT 48.
AND
THE NORTH 75' OF THE SOUTH 1/2 OF TRACT 48, LESS THE EAST 620' AND LESS THE PALMETTO EXPRESS WAY RIGHT OF WAY ON THE WEST SIDE OF TRACT 48.



SURVEYOR'S NOTES:
1. CONTINUATION OF THE SUBJECT OF THE TITLE WILL HAVE TO BE MADE TO DETERMINE RECORD INSTRUMENTS IF ANY, AFFECTING THE PROPERTY.
2. LOCATION AND IDENTIFICATION OF UNDERGROUND ENCROACHMENTS OR UTILITIES ON AND/OR ADJACENT TO THE PROPERTY WERE NOT SECURED AS OF THE TIME THIS SURVEY WAS CONDUCTED.
3. THE SEARCH OF PUBLIC RECORDS HAS BEEN MADE BY THIS OFFICE FOR ACCURACY AND CORRECTIONS.
4. THIS SURVEY IS ONLY FOR THE LANDS DESCRIBED. IT IS NOT A CERTIFICATION OF TITLE, ZONING, EASEMENTS, OR FREEDOM FROM ENCUMBRANCES. TITLE ABSTRACT NOT REVIEWED.
5. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT SHOWN IN THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.
6. THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF THE PARTIES NAMED HEREON AND DOES NOT EXTEND TO ANY UNNAMED PARTIES.
7. CONVEYING BEARING ANGLES INDICATED HEREIN ARE MEASURED AND ARE THE SAME AS PLAT VALUES UNLESS OTHERWISE INDICATED. BEARINGS ARE BASED ON SPOONER PLAT VALUES (IF ANY) OR AN ASSUMED VALUE.
8. DALLIES SET IN THIS SURVEY ARE PUBLIC UTILITIES UNLESS OTHERWISE NOTED.
9. UTILITIES FACILITIES WITHIN UTILITY RIGHTS WAY NOTED AS SUCH. ENCROACHMENTS OR PORTIONS THEREOF WITHIN ROADWAY NOT NOTED AS ENCROACHMENTS OR PORTIONS THEREOF.
10. UNLESS OTHERWISE REFERENCED TO THE PLAT OF PUBLIC RECORDS (LISTED BELOW) NO ADDITIONAL INFORMATION WAS PROVIDED TO THIS OFFICE REGARDING CHANGE IN RIGHTS OF WAY OR EASEMENTS. LOT UNLESS OTHERWISE INDICATED.
11. THIS DRAWING IS THE PROPERTY OF ZURWELLE-WHITTAKER, INC. AND CANNOT BE REPRODUCED WITHOUT WRITTEN CONSENT BY ZURWELLE-WHITTAKER, INC.
12. THE ELEVATION INFORMATION SHOWN HEREON IS RELATIVE TO THE NATIONAL GEOGRAPHIC VERTICAL DATUM (N.G.V.D.) OF 1929, UNLESS OTHERWISE NOTED.
13. BENCH MARK USED: 810 ELEVATION CHECKED.
14. COORDINATE CONVERSIONS FROM THE NAD 83 TO NAD 83 (2011) WERE MADE USING THE NAD 83 TO NAD 83 (2011) CONVERSION SOFTWARE.
15. COORDINATE CONVERSIONS FROM THE NAD 83 TO NAD 83 (2011) WERE MADE USING THE NAD 83 TO NAD 83 (2011) CONVERSION SOFTWARE.
16. UNLESS IT BEARS THE SIGNATURE AND THE ORIGINAL BASE SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER, THIS DRAWING, SET, OR PLAT MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.
17. ACCURACY OF THIS SURVEY (FOR DIRECT USE OF LAND SURVEYING) IS BASED ON THE FIELD MEASUREMENTS VERIFIED BY CALCULATION OF A CLOSED GEOMETRIC POLYGON BASED UPON FIELD INFORMATION TAKEN IN THE FIELD BY TOTAL STATION AND/OR GPS.
RELATIVE DISTANCE ACCURACY FOR THIS SURVEY IS AS FOLLOWS:
20' COMMERCIAL HIGH RES: LINEAR 1 FOOT IN 30,000 FEET
SURVEYING: LINEAR 1 FOOT IN 1,500 FEET
STAKE: LINEAR 1 FOOT IN 3,000 FEET

CERTIFIED TO: Alari Holdings, LLC

SURVEYOR'S CERTIFICATE:
I HEREBY CERTIFY THAT THE ATTACHED "BOUNDARY SURVEY" WAS PREPARED UNDER MY DIRECTION AND I TRUST THAT THE SURVEY MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYING AND MAPPING PURSUANT TO CHAPTER 473.17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.02.

FLOOD INFORMATION:
COMMUNITY NUMBER: 120686
PANEL NUMBER: 12088C0114L
SUFFIX: L
DATE OF FIRM: 09-11-2009
FORM: AE
BASE FLOOD ELEVATION: 8'
DATE FIELD WORK: 10-30-2017
DATE DRAFTING: 10-31-2017
DATE SIGNED AND SEALED: 11-01-2017
REVISED FIELD SURVEY: N/A

REVISIONS table with columns: NO., DATE, DESCRIPTION, DRAWN BY, CHECKED BY, FIELD BOOK, REVISIONS, SHEET NO., SCALE.

PROJECT: MACO GROUP, LLC
DRAWN BY: JMR
JOB NO.: N/A
REVISIONS: EAM, J.C. CAREAGA
SHEET NO.: 1 OF 1
SCALE: 1"=30'

JUAN C. CAREAGA
PROFESSIONAL SURVEYOR AND MAPPER NO. 136861
STATE OF FLORIDA

ZURWELLE-WHITTAKER, INC.
CONSULTING ENGINEERS AND SURVEYORS
600 WEST 49th STREET, SUITE 504, MIAMI, FL 33012
PH: (305) 534-4668 FAX: (305) 531-4589
WWW.ZURWELLE-WHITTAKER.COM

