

July 18th, 2025

Coastal Construction Control Line Program
Division of Water Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Road, Mail Station 3522
Tallahassee, Florida 32399-2400

**Re: Drainage Calculations and Cover Letter
Fontainebleau Exterior Renovation
4441 Collins Avenue, Miami Beach, FL 33140
Langan Project No.: 300370701**

To Whom It May Concern:

Langan Engineering and Environmental Services has been retained to assist with the permitting of the drainage improvements for the Fontainebleau Exterior Renovation project located at 4441 Collins Avenues in the City of Miami Beach. The project consists of renovating the existing Fontainebleau hotel pool deck, including the addition of water slides and a kids splash pad, demolishing some of the existing pools and constructing new pools and Cabanas.

PROPOSED SITE DRAINAGE IMPROVEMENTS

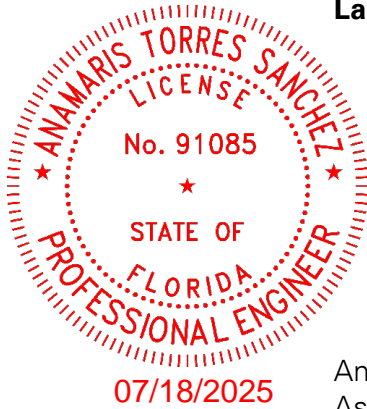
The proposed stormwater management design for the project consists of trench drains, yard drains, exfiltration trench and drainage wells. The proposed drainage system will be interconnected with the existing drainage system to remain. Refer to **Attachment A** for Drainage area figure. The Seasonal High Water Table elevation for the City of Miami Beach is 0.52-ft NAVD, which is what was used in the stormwater management calculations for this project.

The stormwater management system will provide water quality treatment through exfiltration trench. The required water quality treatment volume being provided is equivalent to 2.5" times the percentage of imperviousness. Using an exfiltration rate of 4.70×10^{-4} (CFS/sf-ft), 350 LF of exfiltration trench is required for water quality treatment. A total of 520 LF of exfiltration trench is provided, which includes 355 LF of existing exfiltration trench to remain and 165 LF of proposed exfiltration trench. Refer to **Attachment A** for Percolation test results and **Attachment B** for Water Quality and Exfiltration trench calculations.

The proposed stormwater management has been designed to retain the 25yr-72hr storm event onsite using available surface storage and discharge through the drainage wells. A routing analysis was performed using StormWise, which determined that a total of 9 drainage wells are required to retain the design storm. There are 4 existing drainage wells onsite to remain and 5 drainage wells are proposed. Refer to **Attachment B** for StormWise Routing Results.

Sincerely,
Langan Engineering and Environmental Services, LLC

This item has been digitally signed and sealed by Anamaris Torres Sanchez, PE on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



Anamaris Torres Sanchez



Digitally signed by Anamaris Torres Sanchez
DN: CN=Anamaris Torres Sanchez,
o=LANGAN ENGINEERING AND ENVIRONMENTAL
SERVICES INC, C=US
Date: 2025.07.18 13:05:01-04'00'

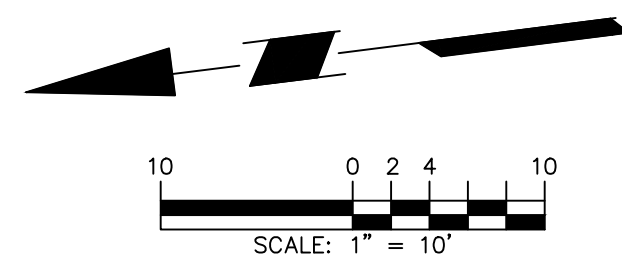
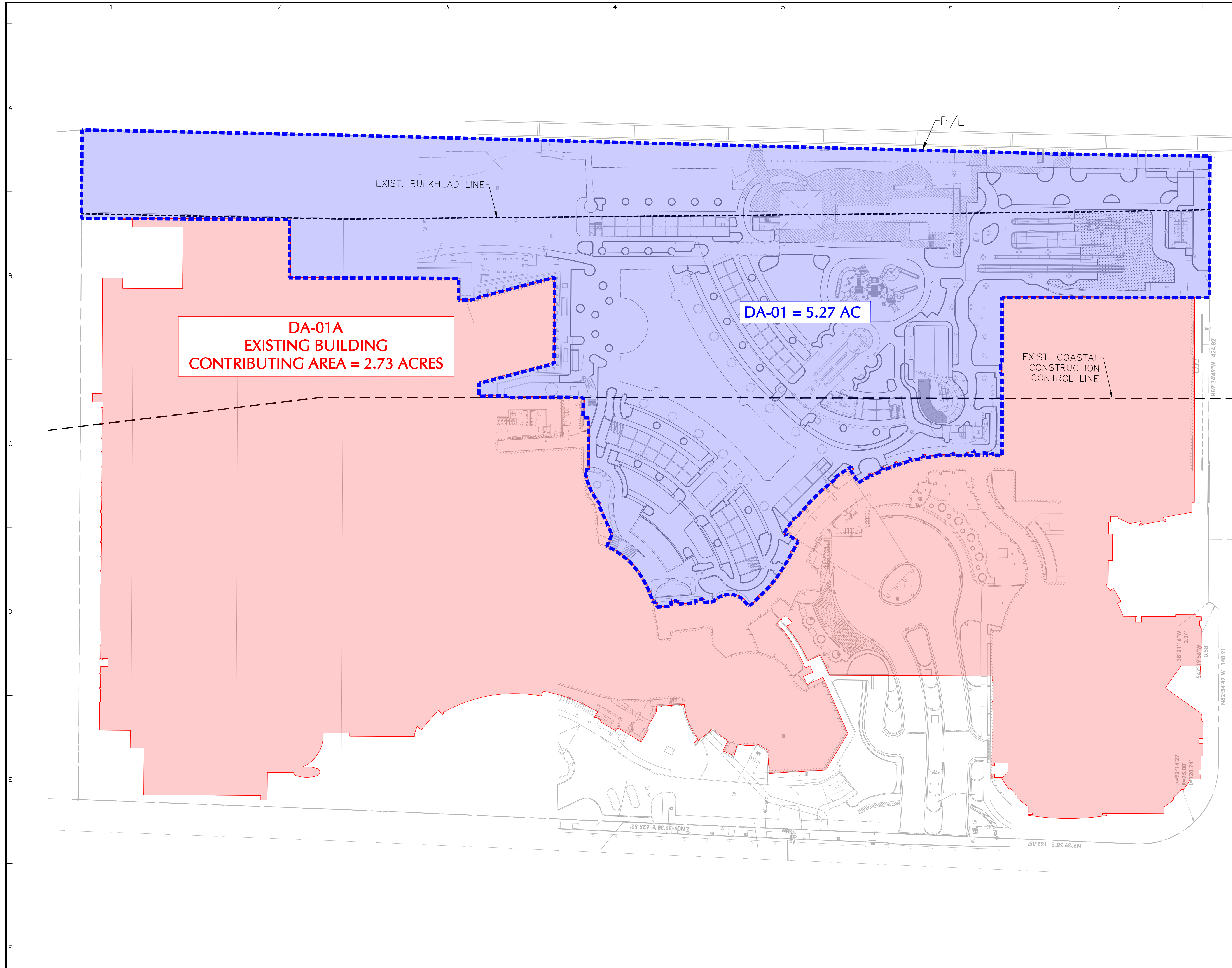
Anamaris Torres Sanchez, PE
Associate
Florida PE License No. 91085

Enclosure(s): Attachment A – Design Parameters
Attachment B – Stormwater Management Calculations

FBPE Registry No. 6601

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**ATTACHMENT A
DESIGN PARAMETERS**



**DA-01A
EXISTING BUILDING
CONTRIBUTING AREA = 2.73 ACRES**

DA-01 = 5.27 AC

EXIST. COASTAL
CONSTRUCTION
CONTROL LINE

Date	Description	No.
Revisions		

SIGNATURE: ANAMARIS TORRES SANCHEZ DATE SIGNED: PROFESSIONAL ENGINEER FL Lic. No. 91085

LANGAN

Langan Engineering and Environmental Services, LLC
1221 Brickell Ave, Suite 1800
Miami, FL 33131

T: 786.264.7200 F: 786.264.7201 www.langan.com
FBPE Registry No. 00006601LB8172LB8198

Project
**FONTAINEBLEAU
EXTERIOR
RENOVATION**

MIAMI-DADE COUNTY MIAMI BEACH FLORIDA

Drawing Title
**DRAINAGE AREA
FIGURE**

Project No.
300370701
Date
07/18/2025
Drawn By
LT
Checked By
ATS

FG-01



NOAA Atlas 14, Volume 9, Version 2
Location name: Miami Beach, Florida, USA*
Latitude: 25.8181°, Longitude: -80.122°
Elevation: 3 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerals](#)

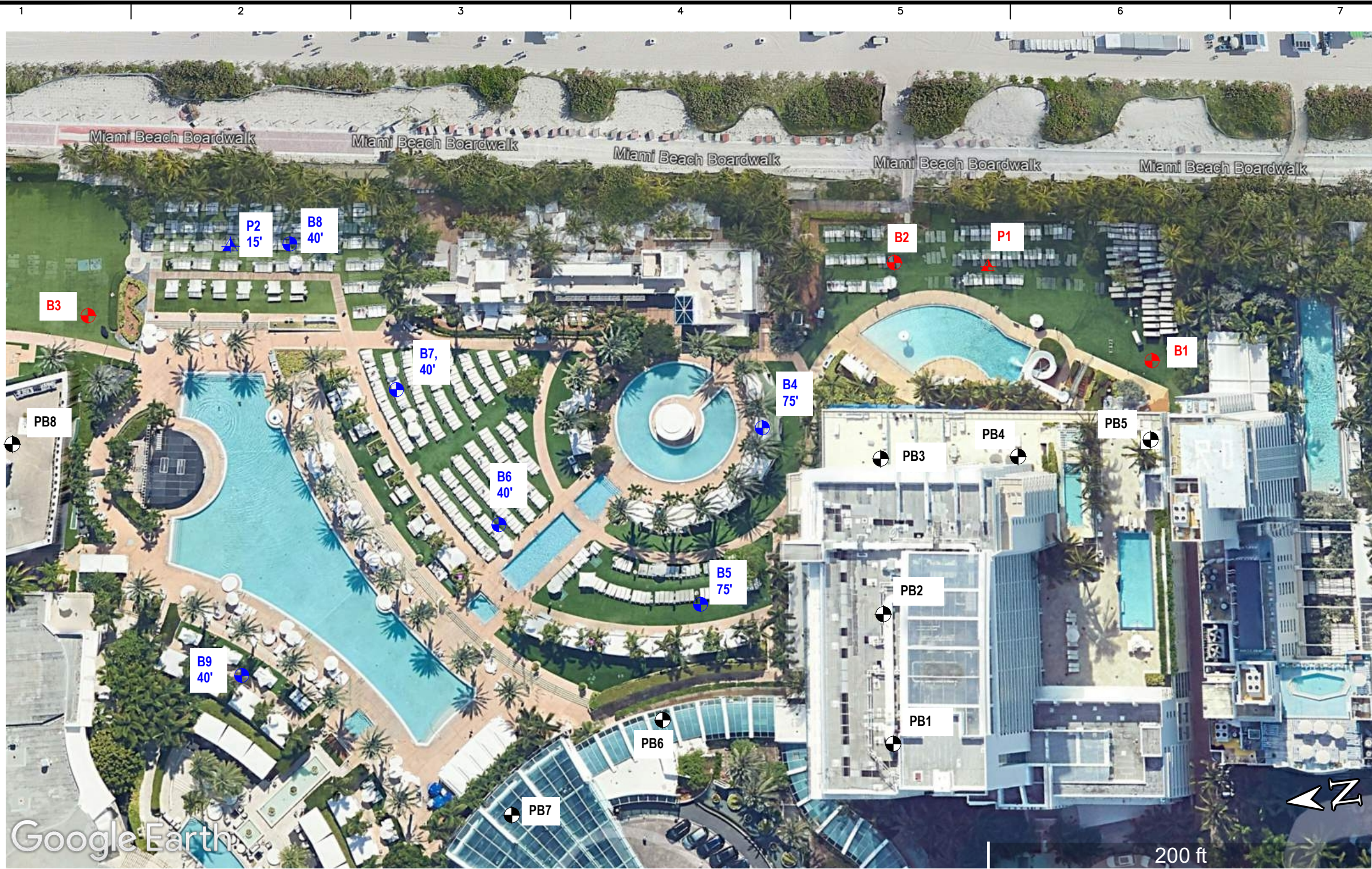
PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.566 (0.464-0.688)	0.648 (0.530-0.788)	0.783 (0.639-0.955)	0.898 (0.728-1.10)	1.06 (0.829-1.34)	1.18 (0.905-1.52)	1.31 (0.967-1.73)	1.44 (1.02-1.95)	1.62 (1.10-2.26)	1.75 (1.16-2.48)
10-min	0.829 (0.679-1.01)	0.949 (0.776-1.15)	1.15 (0.936-1.40)	1.32 (1.07-1.61)	1.55 (1.21-1.96)	1.73 (1.32-2.22)	1.92 (1.42-2.53)	2.11 (1.49-2.86)	2.37 (1.61-3.30)	2.57 (1.70-3.64)
15-min	1.01 (0.828-1.23)	1.16 (0.947-1.41)	1.40 (1.14-1.71)	1.60 (1.30-1.96)	1.89 (1.48-2.39)	2.11 (1.62-2.71)	2.34 (1.73-3.08)	2.57 (1.82-3.49)	2.89 (1.96-4.03)	3.13 (2.07-4.44)
30-min	1.54 (1.26-1.88)	1.78 (1.45-2.16)	2.16 (1.76-2.63)	2.48 (2.01-3.04)	2.93 (2.30-3.71)	3.28 (2.51-4.22)	3.64 (2.69-4.79)	4.00 (2.83-5.42)	4.49 (3.05-6.27)	4.87 (3.22-6.90)
60-min	2.07 (1.70-2.52)	2.37 (1.94-2.88)	2.89 (2.36-3.52)	3.35 (2.72-4.11)	4.04 (3.19-5.16)	4.61 (3.54-5.96)	5.21 (3.86-6.91)	5.85 (4.15-7.98)	6.75 (4.60-9.47)	7.47 (4.94-10.6)
2-hr	2.60 (2.14-3.14)	2.96 (2.44-3.58)	3.62 (2.97-4.39)	4.23 (3.44-5.14)	5.15 (4.10-6.58)	5.93 (4.59-7.66)	6.78 (5.06-8.97)	7.70 (5.50-10.5)	9.01 (6.19-12.6)	10.1 (6.70-14.2)
3-hr	2.90 (2.39-3.48)	3.30 (2.72-3.97)	4.05 (3.33-4.89)	4.77 (3.90-5.78)	5.90 (4.73-7.56)	6.89 (5.36-8.90)	7.97 (5.98-10.5)	9.16 (6.59-12.5)	10.9 (7.52-15.2)	12.3 (8.22-17.3)
6-hr	3.38 (2.80-4.03)	3.89 (3.22-4.65)	4.86 (4.02-5.83)	5.81 (4.77-7.00)	7.33 (5.92-9.36)	8.65 (6.78-11.1)	10.1 (7.65-13.4)	11.8 (8.51-15.9)	14.1 (9.83-19.6)	16.1 (10.8-22.5)
12-hr	3.84 (3.20-4.55)	4.52 (3.76-5.37)	5.80 (4.81-6.91)	7.01 (5.78-8.39)	8.90 (7.21-11.3)	10.5 (8.28-13.4)	12.3 (9.35-16.1)	14.3 (10.4-19.2)	17.1 (12.0-23.6)	19.5 (13.2-26.9)
24-hr	4.39 (3.68-5.18)	5.22 (4.37-6.16)	6.74 (5.62-7.98)	8.16 (6.77-9.70)	10.4 (8.42-13.0)	12.2 (9.66-15.5)	14.3 (10.9-18.5)	16.5 (12.1-22.0)	19.7 (13.9-27.0)	22.3 (15.2-30.7)
2-day	5.18 (4.36-6.07)	6.07 (5.10-7.11)	7.70 (6.46-9.05)	9.24 (7.70-10.9)	11.6 (9.50-14.5)	13.7 (10.9-17.2)	15.9 (12.2-20.5)	18.4 (13.5-24.3)	21.9 (15.5-29.8)	24.8 (17.0-33.9)
3-day	5.81 (4.91-6.78)	6.76 (5.70-7.89)	8.50 (7.14-9.95)	10.1 (8.45-11.9)	12.6 (10.3-15.6)	14.7 (11.7-18.4)	17.0 (13.1-21.8)	19.5 (14.4-25.6)	23.0 (16.4-31.2)	26.0 (17.9-35.3)
4-day	6.38 (5.39-7.42)	7.35 (6.21-8.56)	9.12 (7.68-10.6)	10.7 (9.00-12.6)	13.2 (10.9-16.3)	15.4 (12.3-19.1)	17.7 (13.6-22.6)	20.2 (14.9-26.4)	23.7 (16.9-32.0)	26.7 (18.4-36.2)
7-day	7.82 (6.64-9.05)	8.74 (7.41-10.1)	10.4 (8.81-12.1)	12.0 (10.1-14.0)	14.5 (11.9-17.7)	16.6 (13.3-20.5)	18.8 (14.6-23.9)	21.4 (15.9-27.9)	25.0 (17.9-33.5)	28.0 (19.4-37.8)
10-day	8.95 (7.62-10.3)	9.89 (8.41-11.4)	11.6 (9.85-13.4)	13.2 (11.2-15.4)	15.7 (13.0-19.2)	17.9 (14.4-22.0)	20.2 (15.7-25.5)	22.7 (17.0-29.5)	26.4 (18.9-35.2)	29.3 (20.4-39.5)
20-day	11.6 (9.96-13.3)	13.1 (11.2-15.0)	15.5 (13.2-17.8)	17.6 (14.9-20.3)	20.5 (16.9-24.6)	22.9 (18.5-27.8)	25.4 (19.8-31.6)	28.0 (20.9-35.8)	31.5 (22.7-41.5)	34.3 (24.1-45.9)
30-day	13.8 (11.9-15.8)	15.7 (13.4-17.9)	18.7 (16.0-21.4)	21.1 (18.0-24.3)	24.5 (20.2-29.0)	27.1 (21.8-32.6)	29.7 (23.1-36.6)	32.3 (24.2-41.0)	35.7 (25.8-46.7)	38.3 (27.0-51.0)
45-day	16.7 (14.4-19.0)	18.9 (16.3-21.5)	22.5 (19.3-25.6)	25.3 (21.6-29.0)	29.1 (23.9-34.1)	31.9 (25.7-38.0)	34.5 (26.9-42.3)	37.1 (27.8-46.8)	40.4 (29.2-52.4)	42.8 (30.2-56.7)
60-day	19.3 (16.7-21.9)	21.7 (18.7-24.7)	25.6 (22.0-29.1)	28.6 (24.4-32.7)	32.5 (26.8-38.0)	35.4 (28.6-42.0)	38.1 (29.8-46.4)	40.7 (30.5-51.0)	43.8 (31.7-56.6)	46.0 (32.6-60.9)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical



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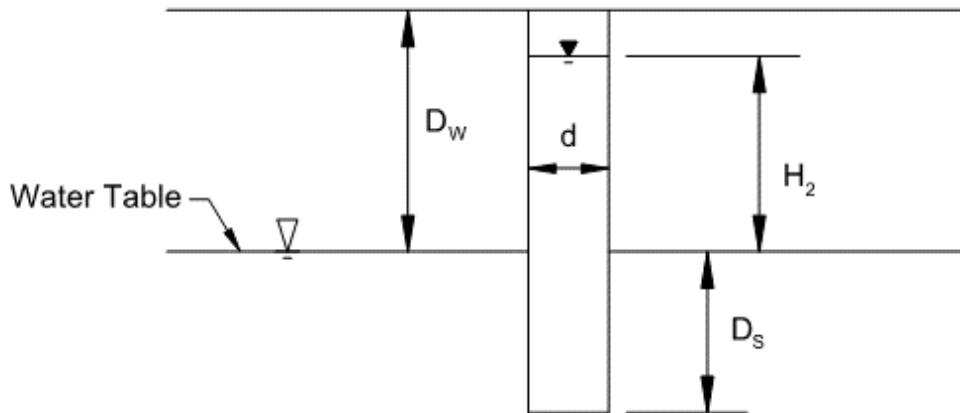
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**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
"USUAL CONDITION" OPEN-HOLE
EXFILTRATION TEST**



Test No.	Test Date	Test Depth	Test Location	Surface Elevation	Witnessed by:
P-1	06/04/2025	15 feet	See Figure 2	+7.2 (ft, NGVD29)	A. Bendeck

TEST DATA

d_h = Test Hole Diameter:	4.0 inches
d_c = Perforated Casing Diameter:	3.0 inches
D_w = Depth to Water Table:	6.0 feet
H₂ = Head on Water Table:	6.0 feet
D_s = Saturated Hole Depth:	9.0 feet
Q = Average Stabilized Flow Rate:	16.0 gallons per minute

HYDRAULIC CONDUCTIVITY

$$K = \text{Hydraulic Conductivity} = 4Q / [\pi d_c (2H_2^2 + 4H_2 D_s + H_2 d_c)]$$

$$K = 4.7 \times 10^{-4} \text{ CFS/ft}^2 \text{ per foot of head}$$

SOIL PROFILE

<u>Depth</u>	<u>Description</u>
0' – 2'	Light brown SAND, some limerock (Fill)
2' – 15'	Light brown SAND, trace shell

LANGAN

Langan Engineering & Environmental Services, Inc.
1221 Brickell Ave, Suite 1800
Miami, FL 33131
P.786.264.7200 F.786.264.7201

FB Miami Poolscapc Renovation

4441 Collins Ave,
Miami Beach, FL 33140

Project No. 300370701

\\langan.com\data\MIA\data7\300370701\Project Data_Discipline\Geotechnical\Reports\Before - Demolition Geo Rpt\SFWM

**ATTACHMENT B
STORMWATER MANAGEMENT
CALCULATIONS**

Water Quality and Exfiltration Trench Calculations for Fontainebleau Exterior Renovations

SITE DATA

Total Drainage Area =	7.99	acres	
Building Area =	3.33		
Impervious (Paved) Area =	2.66	acres	(C = 0.90)
Retention Area Bottom =	0.00	acres	
Retention Area Bank =	0.00	acres	
Landscape Area =	2.00	acres	
Pervious Area =	2.00	acres	(C = 0.30)

WATER QUALITY CALCULATIONS

1. Compute the first inch of runoff from the entire developed site.

=	1.00	in	x	7.99	acres	x	1 ft/12in
=	0.67	ac-ft	for the first inch of runoff				

2. Compute 2.5 in. times the percentage of imperviousness.
 - a. Site area, for water quality pervious/impervious calculation only

=	Total project - (lake + roof)	
=	7.99	ac
=	4.66	ac

 site area, for water quality pervious/impervious calculation only

 - b. Impervious area, for water quality pervious/impervious calculations only

=	(Site area for water quality pervious/impervious) - pervious	
=	4.66	ac
=	2.66	ac

 impervious area, for water quality pervious/impervious

 - c. Percentage of imperviousness for water quality

=	Impervious area for water quality X 100% / Site area for water quality						
=	2.66	ac	/	4.66	ac	x	100 %
=	57	% Impervious					

 - d. For 2.5 in. times the percentage impervious

=	2.50	in	x	0.57
=	1.43	in	to be treated	

 - e. Compute volume required for quality detention

=	inches to be treated X (total site - lake)	
=	1.43	in
=	0.95	ac-ft

3. The first inch of runoff from the entire developed site = **0.67 ac-ft**
 2.5 inches times the percentage impervious = **0.95 ac-ft**

Required Water Quality Volume = 0.95 ac-ft controls

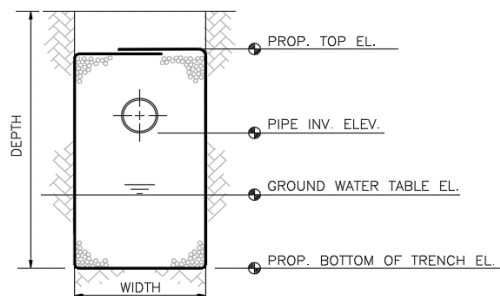
TYPICAL EXFILTRATION TRENCH DESIGN

Proposed Exfiltration Trench Data:

Lowest Grnd. Elev. for Prop. Exfil. Trench =	6.00	ft. NAVD	
Weir Elevation =	6.00	ft. NAVD	
Top Elevation =	5.00	ft. NAVD	
GWT =	0.52	ft. NAVD	
Pipe Diameter =	18.00	inches	
Inv. Elevation =	2.50	ft. NAVD	
Depth =	15.00	feet.	
Bottom Elevation =	-9.00	ft. NAVD	
Width =	4.00	feet.	
Weir Elevation =	n/a	ft. NAVD	
Weighted k =	4.70E-04	cfs/sf-ft of head.	
Safety Factor =	2.00		
Design Storm Frequency):	5		
Minimum Time of Concentration (Minutes):	10.00		

Existing Exfiltration Trench Data:

Pipe Diameter =	n/a	inches	
Inv. Elevation =	n/a	ft. NAVD	
Depth =	n/a	feet.	
Bottom Elevation =	n/a	ft. NAVD	
Width =	n/a	feet.	
Length =	n/a	feet.	
Assumed Usage =	0.00	percent	



Proposed Exfiltration Trench Calculations:

$$L = FS \times [(\%WQ \times \text{Volume WQ}) + \text{Volume Additional}] / [k \times (2 \times H2 \times Du - Du^2 + 2 \times H2 \times Ds) + (1.39 \times 10^{-4}) \times (W \times Du)]$$

Volume = Treatment Vol. - Capacity of Exist. Trench (ac-in)

%WQ = **100%**

k = Weighted Hyd. Conductivity (cfs/sf - ft)

H2 = Depth to the Water Table (ft)

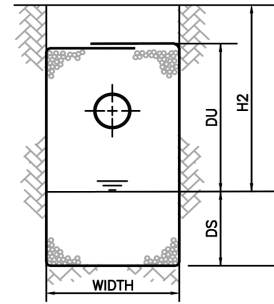
W = Trench width (ft)

Du = Non-Saturated Trench Depth (ft)

Ds = Saturated Trench Depth (ft)

SF = Safety Factor

PS = Pipe Storage (ft.^3)



Capacity of Exist. Exfil. Trench =	0.00	ha-m or	0.00	ac.-ft.
Treatment Volume =	0.117	ha-m or	0.95	ac.-ft.
Volume =	11.402	ac-in.		
%WQ =	100%			
k =	4.70E-04	cfs/sf-ft		
H2 =	5.48	ft.		
W =	4.00	ft.		
Du =	4.48	ft.		
Ds =	9.52	ft.		
SF =	2.00			

LENGTH REQUIRED = 350 feet

LENGTH PROVIDED = 520 feet

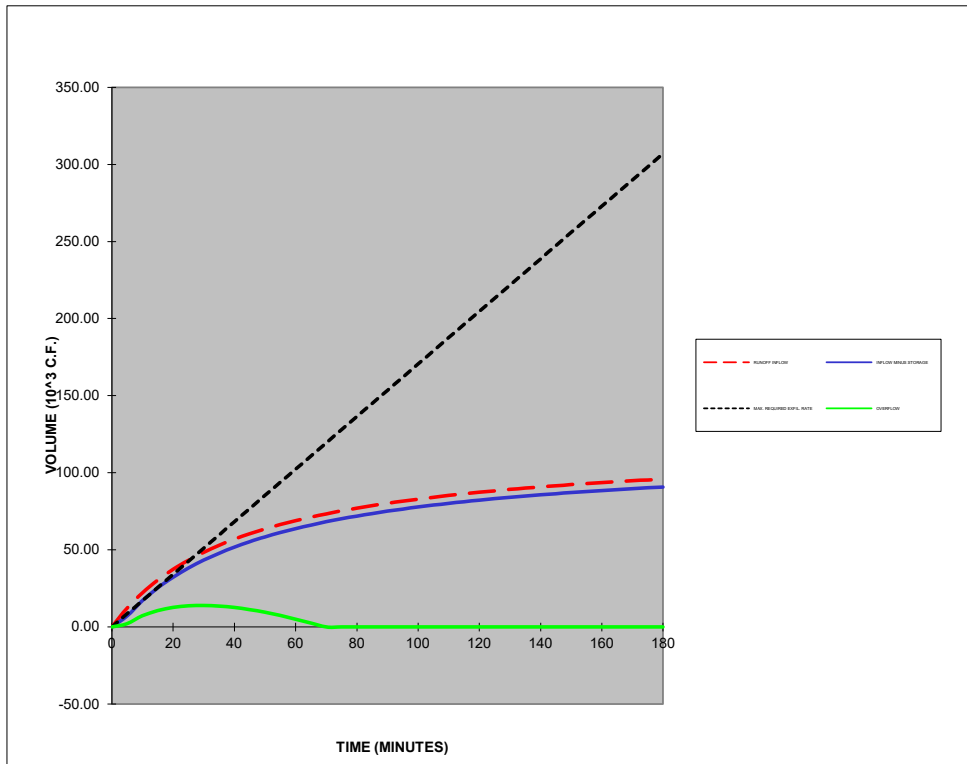
*Includes existing exfiltration trench to remain and proposed exfiltration trench

VOLUME PROVIDED = 2.82 ac.-ft.

>

0.95 ac.-ft. required, OK

Overflow Rate - Mass Diagram:



MAXIMUM OVERFLOW RATE = 12.13 CFS

Fontainebleau Exterior Renovations

CURVE NUMBER, SITE AND SOIL STORAGE

SURFACE WATERMANAGEMENT CALCULATIONS

I. Design Criteria:

1) SHWT: 0.52 ft. NAVD

2) Rainfall Amounts:

Design Events	Rainfall Amounts*	
	24 Hour	72 Hour
5 Year Storm Event	6.74 inches	
25 Year Storm Event		12.60 inches
100 Year Storm Event		17.00 inches

*Rainfall data was obtained from NOAA Atlas 14

II. Area Breakdown and Site Elevation Information:

Description	Area (Ac.)	% of Area	From Elevation (ft.)	To Elevation (ft.)	C % (0%, 50%, 100%)
Building	3.33	41.68%	7.50	7.50	100%
Pervious	2.00	25.03%	3.50	7.50	50%
Impervious	2.66	33.29%	2.42	7.50	100%
Total Site Area:		7.99 Ac.			

C= Compaction

III. SCS Curve Number and Soil Storage Calculations:

A) Soil Moisture Storage table for Coastal (1) Soil Type:

Depth to Water Table (ft.)	Cumulative Moisture Storage (in.) C 0%	Cumulative Moisture Storage (in.) C 50%	Cumulative Moisture Storage (in.) C 100%
1	0.60	0.53	0.45
2	2.50	2.19	1.88
3	6.60	5.78	4.95
4	10.90	9.54	8.18

C=Compaction

Note: Moisture Storage based on SFWMD Part III Section F. Water Storage, A. Ground Storage

B) Available Soil Storage Calculations:

Post-Development Conditions:

1) Soil Storage Calculations:

Description	Area (Ac.) (A)	Avg. Elevation (ft.)	Depth to SHWT (ft.)	Moisture Storage (S)	Volume Stored (Ac-in) (V)*
Building	3.33	7.50	6.98	0.00	0.00
Pervious	2.00	5.50	4.98	9.54	19.08
Impervious	2.66	4.96	4.44	0.00	0.00

*V=A x S

Total Volume Stored: 19.08

2) Moisture Storage Calculation (S):

$$\begin{aligned} &= \text{Available Storage} / \text{Total Site Area} \\ &= 19.08 \text{ ac-in} / 7.99 \text{ acres} \\ &= \mathbf{2.39 \text{ inches}} \end{aligned}$$

3) SCS Curve Number Calculation (CN):

$$\begin{aligned} &= 1000 / (S + 10) \\ &= 1000 / (2.24 + 10) \\ &= \mathbf{81} \end{aligned}$$

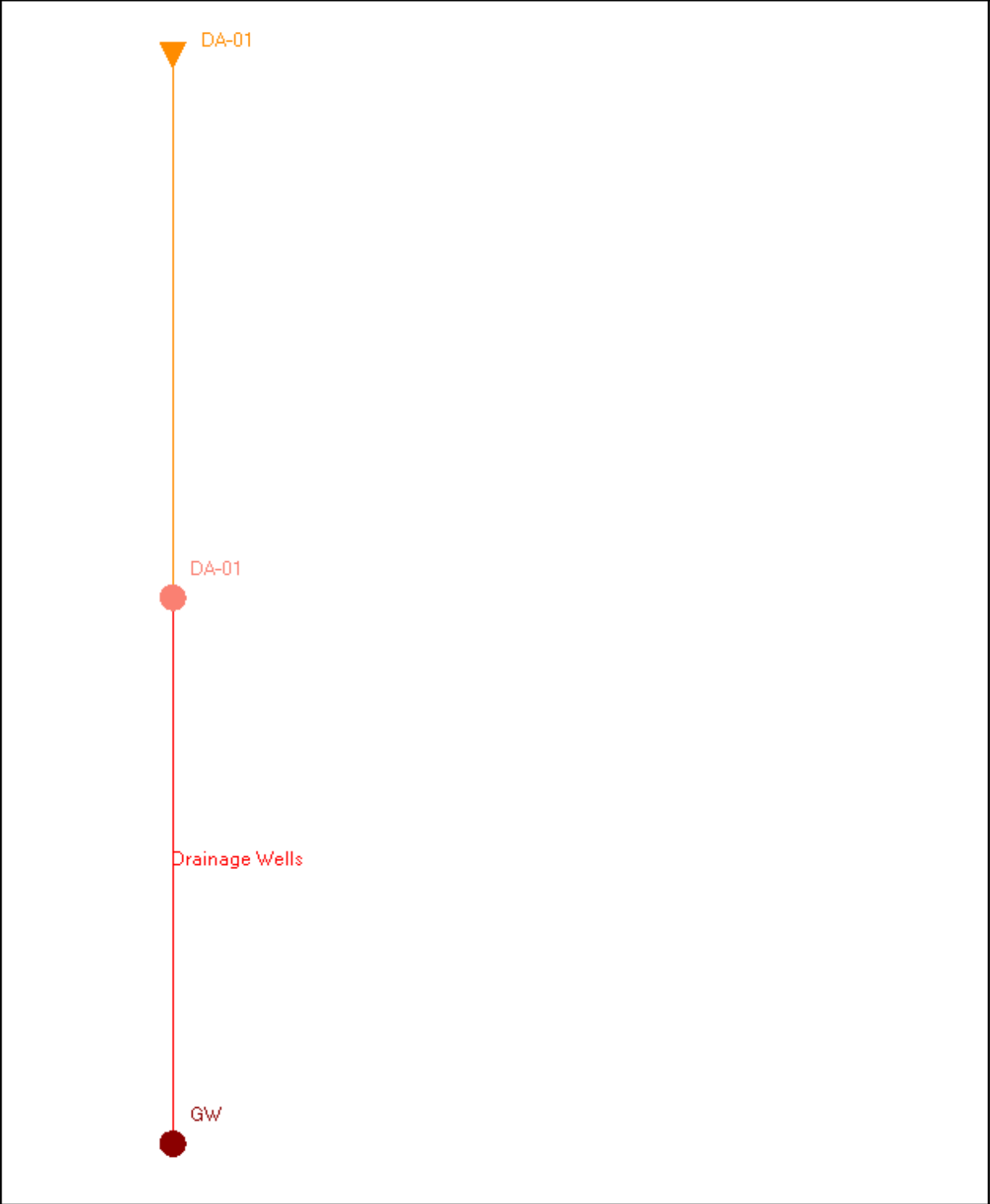
IV. Stage Storage

A) Surface Storage Calculation

Stage (Feet NGVD)	Site Storage (ac-ft)
2.00	0.00
3.00	0.05
4.00	0.18
5.00	0.39
6.00	1.00
7.00	1.87
8.00	3.62
9.00	6.38

Note: Refer to ICPR model for maximum stage elevations for the various design storms

Background Image: Fontainebleau Exterior Renovations



Simple Basin: DA-01

Scenario: Scenario1
 Node: DA-01
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH256
 Peaking Factor: 256.0
 Area: 7.9900 ac
 Curve Number: 81.0
 Ia/S: 0.00
 % Impervious: 0.00
 % DCIA: 0.00
 % Direct: 0.00
 Rainfall Name:

Comment:

Node: DA-01

Scenario: Scenario1
 Type: Stage/Volume
 Base Flow: 0.00 cfs
 Initial Stage: 2.00 ft
 Warning Stage: 7.50 ft
 Alert Stage: 0.00 ft

Stage [ft]	Volume [ac-ft]	Volume [ft3]
2.00	0.00	0
3.00	0.05	2344
4.00	0.18	7870
5.00	0.39	17164
6.00	1.00	43578
7.00	1.87	81621
8.00	3.62	157599
9.00	6.38	277776

Comment:

Node: GW

Scenario: Scenario1
 Type: Time/Stage
 Base Flow: 0.00 cfs
 Initial Stage: 0.52 ft

Warning Stage: 0.53 ft
 Alert Stage: 0.00 ft
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	0.52
0	0	0	9999.0000	0.52

Comment:

Rating Curve Link: Drainage Wells

Scenario: Scenario1
 From Node: DA-01
 To Node: GW
 Link Count: 9
 Flow Direction: Both

Table	Elev On [ft]	Elev On Node	Elev Off [ft]	Elev Off Node
DW	2.02	DA-01	2.02	DA-01

Comment: 500 GPM

Simulation: 100YR-72HR

Scenario: Scenario1
 Run Date/Time: 7/17/2025 7:41:44 PM
 Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph
Folder:

Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set:

Green-Ampt Set:

Vertical Layers Set:

Impervious Set:

Tolerances & Options

Time Marching: SAOR
 Max Iterations: 6
 Over-Relax Weight: 0.5 dec
 Fact:
 dZ Tolerance: 0.0010 ft
 Max dZ: 1.0000 ft
 Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr

Ia/S: 0.20 dec

Smp/Man Basin Rain: Global
Opt:

Rainfall Name: ~SFWMD-72
 Rainfall Amount: 17.00 in
 Storm Duration: 72.0000 hr
 Dfit Damping (1D): 0.0050 ft
 Min Node Srf Area: 100 ft2
 (1D):
 Energy Switch (1D): Energy

Comment:

Simulation: 25YR-72HR

Scenario: Scenario1

Run Date/Time: 7/17/2025 7:42:11 PM

Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph
Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:

Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight: 0.5 dec
Fact:
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr

Ia/S: 0.20 dec

Smp/Man Basin Rain: Global
Opt:

Rainfall Name: ~SFWMD-72
Rainfall Amount: 12.60 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area: 100 ft2

(1D):
Energy Switch (1D): Energy

Comment:

Simulation: 5YR-24HR

Scenario: Scenario1
Run Date/Time: 7/17/2025 7:42:34 PM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:

Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
 Max Iterations: 6
 Over-Relax Weight: 0.5 dec
 Fact:
 dZ Tolerance: 0.0010 ft
 Max dZ: 1.0000 ft
 Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
 Ia/S: 0.20 dec
 Smp/Man Basin Rain Opt: Global
 Rainfall Name: ~FLMOD
 Rainfall Amount: 6.74 in
 Storm Duration: 24.0000 hr
 Dflt Damping (1D): 0.0050 ft
 Min Node Srf Area (1D): 100 ft2
 Energy Switch (1D): Energy

Comment:

Node Max Conditions : Multi Item | (sim, name) [Scenario1]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
100YR-72HR	DA-01	7.50	0.00	5.83	-0.0010	58.05	38.16	29713
25YR-72HR	DA-01	7.50	0.00	5.13	-0.0010	42.05	31.23	19769
5YR-24HR	DA-01	7.50	0.00	4.13	0.0010	25.52	21.12	8722