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July 11, 2024

Ms. Cristina Ortega Castineiras, P.E. ENV SP
City Engineer
City of Miami Beach
Public Works Department
1700 Convention Center Drive
Miami Beach, Florida 33139
cristinaortega@miamibeachfl.gov

**Re: 6701 Collins Avenue (Deauville Development) (Folio No. 02-3211-007-0420)
Water Demand Calculation, Fire Flow Requirement & Sanitary Sewer Load)**

Dear Ms. Ortega Castineiras,

The Deauville site is proposed to be re-developed. The previously existing facilities are tabulated in the attached exhibit "A". As per said exhibit "A", the site had a water demand of 84,679 GPD for both water use (not accounting for irrigation) and sanitary sewer generation. The proposed re-development is tabulated below and in exhibit "B".

I. Water Demand:

1. 140 apartment units @ 135 GPD (gallons per day)/unit = 18,900 GPD
 2. 280 hotel rooms @ 115 GPD (gallons per day)/room= 32,200 GPD
 3. 7,300 SF (square feet) Retail @ 10 GPD/100SF= 730 GPD
 4. 8,528 SF of lounge/bar @ 20 GPD/100SF= 1,706 GPD
 5. 25,235 SF of full-service restaurant @ 100GPD/100SF= 25,235 GPD
 6. 24,244 SF of ballroom/banquet hall @ 10GPD/100SF= 2,424 GPD
 7. 7,450 SF of wellness/spa/sauna @ 20 GPD/100SF= 1,490 GPD
 8. 5,255 SF of fitness/gym @ 10 GPD/100 SF= 526 GPD
- (Total water demand excluding irrigation (items 1 to 8) = 83,211 GPD)**
9. **The irrigation demand is estimated to be 10,400 GPD**
 10. **Fire demand will be 3000 GPM**

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City Engineer

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Based on the current Miami-Dade WASD flow generation/demand chart, this development will require a **total water demand of 93,611 GPD and a fire flow requirement of 3,000 GPM @ 20 psi for 3 hours.**

II. Sanitary Sewer Load:

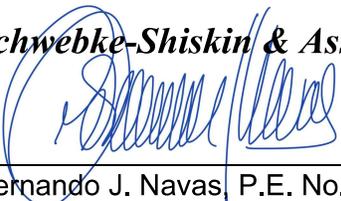
As per the proposed development program, the anticipated sanitary sewer flow generation (load) will be 83,211 GPD. Please note that is less than the previous sanitary sewer load (84,679 GPD).

Attached please find a copy of the preliminary water & sewer plan for the proposed development (exhibit "C") showing the proposed points of connection to the City's system along Collins Avenue.

Please review and provide acceptance to the proposed points of connection.

Respectfully submitted,

Schwebke-Shiskin & Associates, Inc.



Hernando J. Navas, P.E. No. 50635
Principal (CA#87)

Date: 07-11-2024

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY HERNANDO J. NAVAS, P.E. 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.

Digitally signed by
Hernando J Navas
Date: 2024.07.11
09:36:18-04'00'



Exhibit "A"
6701 Collins Avenue, Miami Beach

EXISTING DEAUVILLE SITE			
EXECUTIVE SUMMARY	Area (SF)	Unit of flow (GPD/SF)	Flow (GPD)
Retail	14,984	0.10	1,498
Ice Skating Rink	4,883	0.10	488
Restaurant	5,292	1.00	5,292
Lobby Bar	2,722	0.20	544
Napoleon Ballroom	19,694	0.10	1,969
Casanova Room	7,022	0.10	702
Richelieu Dining Room	11,127	1.00	11,127
Nightclub	3,359	0.20	672
Meeting Room	1,119	0.05	56
Hotel Unit Count 540 Hotel Rooms + 2 Penthouse			
45 Hotel Units per floor x 12 floors			
Total hotel Floor Area	274,320	Unit of flow (GPD/room)	
22,860 sf x 12 floors		115	62,330
TOTAL =	330,549 SF		84,679

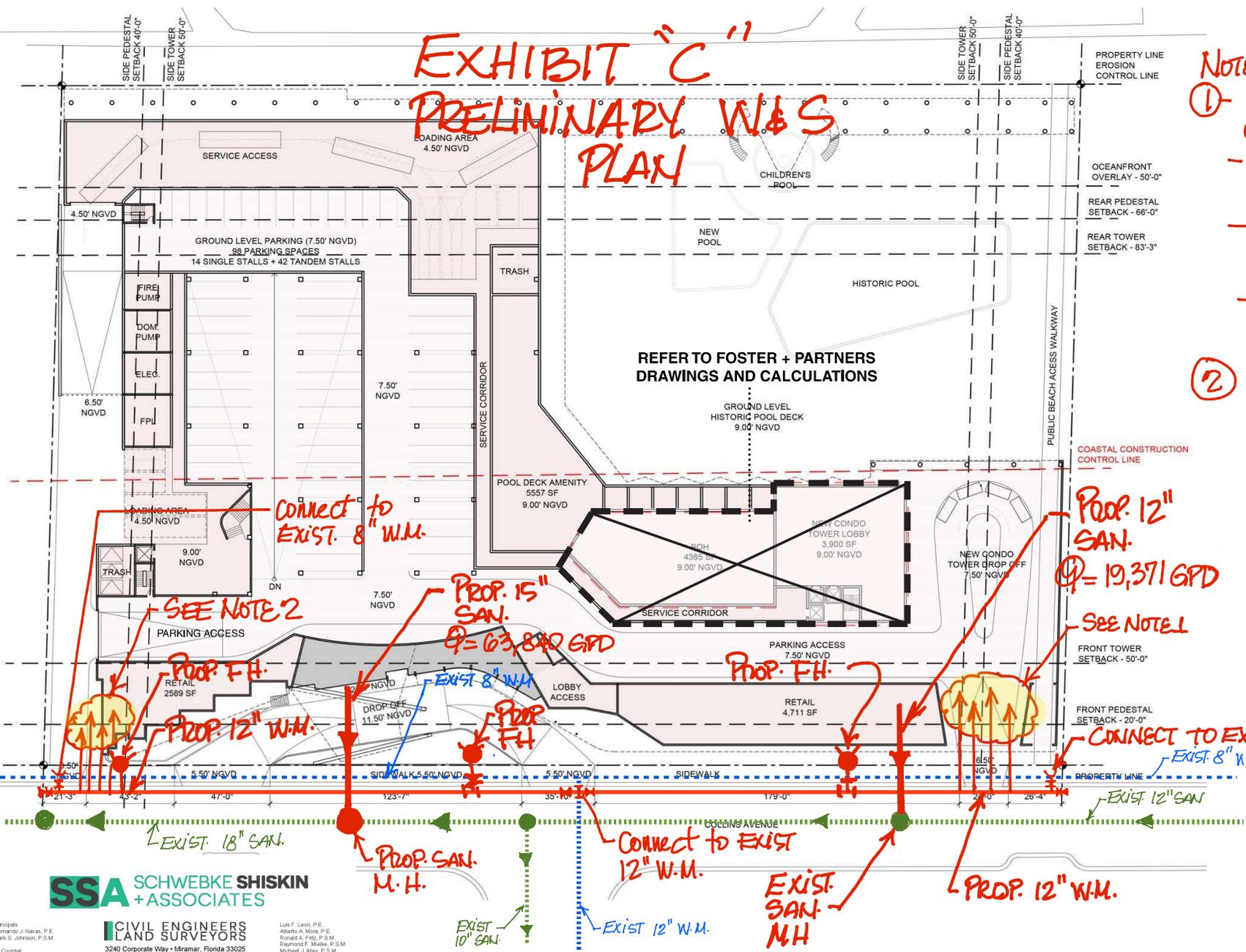
Exhibit "B"

6701 Collins Avenue, Miami Beach

PROPOSED DEAUVILLE SITE			
EXECUTIVE SUMMARY	Area (SF)	Unit of flow (GPD/SF)	Flow (GPD)
Retail	7,300	0.10	730
Lobby Bar	2,721	0.20	544
Lobby Level F&B	18,490	1.00	18,490
Napoleon Ballroom Room A	9,159	0.10	916
Napoleon Ballroom Room B	8,063	0.10	806
Casanova Room	7,022	0.10	702
Wellness / Spa	4,559	0.20	912
Fitness / Gym	5,255	0.10	526
Sauna/Steam/Hammam	2,891	0.20	578
Restaurant & Club	6,745	1.00	6,745
Rooftop Lounge	5,807	0.20	1,161
Hotel Unit Count 280 Hotel Rooms 28 Hotel Units per floor x 10 floors	228,600	Unit of flow (GPD/unit)	
Total Hotel Floor Area 22,860 sf x 10 floors		115	32,200
Aparment Unit Count 140 Unit		135	18,900
TOTAL =	306,612		83,211

EXHIBIT "C" PRELIMINARY W&S PLAN

- NOTES**
- ① - Prop. 8" Fire line
 $Q = 1500 \text{ GPM}$
 - 6" DOMESTIC
 $Q = 18,900 \text{ GPD}$
 - 2" Commercial
 $Q = 471 \text{ GPD}$
 - 2" IRRIGATION
 $Q = 5,200 \text{ GPD}$
 - ② - Prop. 8" Fire line
 $Q = 1,500 \text{ GPM}$
 - 6" Hotel/Amenities
 $Q = 63,581 \text{ GPD}$
 - 2" Commercial
 $Q = 259 \text{ GPD}$
 - 2" IRRIGATION
 $Q = 5,200 \text{ GPD}$



REFER TO FOSTER + PARTNERS
DRAWINGS AND CALCULATIONS



**CIVIL ENGINEERS
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 Principal
 Schwabke-Shiskin & Associates, Inc.
 7-11-24

6701 Collins Avenue - Max Development Program