

## Exhibit K - Utility Demand Analysis



June 18, 2025

Anjuli Panse, P.E.  
Utilities Director  
Village of Wellington Utilities  
1100 Wellington Trace  
Wellington FL 33414

**RE: Isla Carroll Wellington  
Water/Wastewater Demand Analysis**

Dear Ms. Panse:

This letter is to confirm the anticipated Water/Wastewater demand for the *Isla Carroll Wellington* project, located at the northwest corner of 120<sup>th</sup> Avenue and 35<sup>th</sup> Street, in the Village of Wellington, Palm Beach County, Florida.

The site is +/-81 acres and is a proposed Planned Unit of Development (PUD) with equestrian focused amenities. The PUD generally consists of 40 single family lots of approximately ½ of an acre and country club amenities such as a polo field, clubhouse, pool, spa, fitness areas, multiple restaurants, pickleball courts, walking trails, equestrian trails, paddocks, stables, and the internal roads, parking areas, and associated utility and stormwater infrastructure.

See the following breakdown for how each program use was categorized for the utility demand:

- *Country Club* for members (includes uses for clubhouse, pool(s), playground, fitness center, spa, racquet center, kids club, and activity barn)
- *Food Operations* (for main restaurants and pool bar) accounts for 400 indoor/outdoor seats
- *Spa Operations* accounts for a maximum use of 30 patrons per day at 250 gpd/person/day
- *Office use* for the proposed 6,692 SF business center and 437 ST gatehouses.
- *Single Family Residential* (see supplemental spreadsheet attached for calculations)

**Table 1: Potable Water and Sanitary Sewer Average Day Projected Demand Summary**

TYPE OF ESTABLISHMENT	Number of Units	WW demand per unit (GPD)	Water demand per unit (GPD)	Avg WW Demand (GPD)	Avg Water Demand (GPD)
<b>Country club:</b>					
(a) Per Resident	80	100	130	8000	10400
(b) Per member or patron	245	25	33	6125	7963
<b>Food operations:</b>					
(a) Restaurant operating 16 hours or less per day per seat	400	40	52	16000	20800
(e) Bar and cocktail lounge per seat	25	20	26	500	650

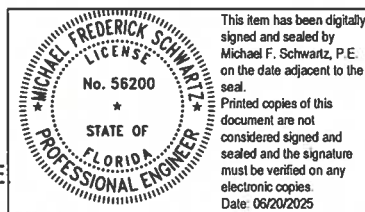
TYPE OF ESTABLISHMENT	Number of Units	WW demand per unit (GPD)	Water demand per unit (GPD)	Avg WW Demand (GPD)	Avg Water Demand (GPD)
<b>Office building:</b>					
Per 100 square feet of floor space	74	15	20	1114	1449
<b>Spa:</b>					
Number of Patrons per Day	30	250	325	7500	9750
<b>Residential:</b>					
4 Bedroom with 2251 - 3300 sq. ft. of building area	40	400	520	16000	20800
For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increase by 60 gallons per dwelling unit	95	60	78	5702	9750
<b>Summary of Average Day Wastewater and Water Demands (GPD) =</b>				<b>60,942</b>	<b>79,224</b>
<b>Summary of Average Day Wastewater and Water Demands (MGD) =</b>				<b>0.061</b>	<b>0.079</b>
<b>Summary of Peak Day Wastewater and Water Demands (MGD) = Average Daily Demand x 1.4 =</b>				<b>0.085</b>	<b>0.111</b>

Please let me know if you have any questions.

Sincerely,



Michael F. Schwartz, P.E.  
Principal  
FL. License #56200



Potable Water and Sanitary Sewer Average Day Projected Demand Table Worksheet- July 2022					
TYPE OF ESTABLISHMENT	Number of Units	WW demand per unit (GPD)	Water demand per unit (GPD)	Avg WW Demand (GPD)	Avg Water Demand (GPD)
Complete Green Cells to Calculate Projected Average and Peak Demands					
Water to Wastewater average day Demand Factor (12 month rolling average) Updated October 1, 2018	1.30				
<b>COMMERCIAL:</b>					
Barber & beauty shops per service chair		75	98	0	0
Bowling alley bathroom waste only per lane		50	65	0	0
Country Club*			0		
(a) Per resident	80	100	130	8000	10400
(b) Add Per member or patron	245	25	33	6125	7962.5
(c) Add Per employee per 8 hour shift		15	20	0	0
Doctor and Dentist offices			0		
(a) Per practitioner		250	325	0	0
(b) Add per employee per 8 hour shift		15	20	0	0
Food operations			0		
(a) Restaurant operating 16 hours or less per day per seat**	400	40	52	16000	20800
(b) Restaurant operating more than 16 hours per day per seat		60	78	0	0
(c) Restaurant using single service articles only and operating 16 hour or less per day per seat		20	26	0	0
(d) Restaurant using single service articles only and operating more than 16 hours per day per seat		35	46	0	0
(e) Bar and cocktail lounge per seat	25	20	26	500	650
1. add per pool table or video game		15	20	0	0
(f) Drive - in restaurant per car space		50	65	0	0
(g) Carry out only, including caterers			0		
1. Per 100 square feet of floor space		50	65	0	0
2. Add per employee per 8 hour shift		15	20	0	0
(h) Institutions per meal		5	7	0	0
(i) Food Outlets excluding deli's, bakery, or meat department per 100 square feet of floor space		10	13	0	0
1. Add for deli per 100 square feet of deli floor space		40	52	0	0
2. Add for bakery per 100 square feet of bakery floor space		40	52	0	0
3. Add for meat department per 100 square feet of meat department floor space		75	98	0	0
4. Add per water closet		200	260	0	0
Hotels			0		
(a) Regular per room		100	130	0	0
(b) Resort hotels, camps, cottages per room		200	260	0	0
(c) Add for establishments with self-service laundry facilities per machine		750	975	0	0
Office building			0		
1. per employee per 8 hour shift or		15	20	0	0
2. per 100 square feet of floor space, whichever is greater*	74	15	20	1114	1449
Service stations per water closet			0		
(a) Open 16 hours per day or less		250	325	0	0
(b) Open more than 16 hours per day		325	423	0	0
Shopping centers without food or laundry per square foot of floor space		0.1	0.13	0	0
Stadiums, race tracks, ball park per seat		4	5	0	0
Stores per bathroom		200	260	0	0
Theatres and Auditoriums, per seat		4	5	0	0
Veterinary Clinic			0		
(a) Per practitioner		250	325	0	0
(b) Add per employee per 8 hour shift		15	20	0	0
(c) Add per kennel, stall or cage		20	26	0	0
Warehouse			0		
(a) Add per employee per 8 hour shift		15	20	0	0
(b) Add per loading bay		100	130	0	0
(c) self-storage, per unit(up to 200 units)		1	1	0	0
1. Add 1 gallon for each 2 units or fraction thereof, for over 200 units, and shall be in addition to employees, offices or living quarters flow rates.		1	1	0	0
<b>INSTITUTIONAL:</b>					
Churches per seat which includes kitchen wastewater flows unless meals prepared on a routine basis		3	4	0	0
1. If meals served on a regular basis add per meal prepared		5	7	0	0
Hospitals per bed which does not include kitchen wastewater flows		200	260	0	0
1. add per meal prepared		5	7	0	0
Nursing, rest homes, adult congregate living facilities per bed which does not include kitchen wastewater flows		100	130	0	0
1. add per meal prepared		5	7	0	0
Parks, public picnic			0		
(a) With toilets only per person		4	5	0	0
(b) With bathhouse, shower & toilets per person		10	13	0	0
Public Institutions other than schools and hospitals per person which does not include kitchen wastewater flows		100	130	0	0
1. add per meal prepared		5	7	0	0
Schools per student			0		
(a) Day-type		10	13	0	0
(b) Add for shower		4	5	0	0
(c) Add for cafeteria		4	5	0	0
(d) Add for day school workers		15	20	0	0
(e) Boarding -type		75	98	0	0
<b>RESIDENTIAL</b>					
(a) Single or multiple family per dwelling Unit			0		
1 Bedroom with 750 sq. ft. or less of building area		100	130	0	0
2 Bedroom with 751 - 1200 sq. ft. of building area		200	260	0	0
3 Bedroom with 1201 - 2250 sq. ft. of building area		300	390	0	0
4 Bedroom with 2251 - 3300 sq. ft. of building area ***	40	400	520	16000	20800
For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increase by 60 gallons per dwelling unit ***	95	60	78	5702	7413.12
(b) Other per occupant		50	65	0	0
5pa (Max 30 People @ 250/GPD/Day)	30	250	325	7500	9750
OTHER CATEGORY NOT LISTED (ENGINEER TO PROVIDE BACKUP)				0	0
OTHER CATEGORY NOT LISTED (ENGINEER TO PROVIDE BACKUP)				0	0
Summary of Average Day Wastewater and Water Demands (GPD) =				60942	79224
Summary of Average Day Wastewater and Water Demands (MGD) =				0.061	0.079
Summary of Peak Day Wastewater and Water Demands (MGD) = Average Daily Demand x 1.4 =				0.085	0.111

# RESIDENTIAL CALCULATIONS

	Lot Size	35% Bldg Coverage	number of homes	addtl SF over 3300	each 750 sf over 3300	60 gals for each 750 over 330	400 GPD for up to 3300 SF	TOTAL
1)	1/3 acre 14520 SF	5082 SF Bldg	40	3300	2.376	142.56	400 + 142.56 = 542.56 x 40 homes =	21702.4
SUBTOTALS:			40					21702.4

(a) Single or multiple family per dwelling Unit  
 1 Bedroom with 750 sq. ft. or less of building area  
 2 Bedroom with 751 - 1200 sq. ft. of building area  
 3 Bedroom with 1201 - 2250 sq. ft. of building area  
 4 Bedroom with 2251 - 3300 sq. ft. of building area  
 For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increase by 60 gallons per dwelling unit