

PROPOSED DOMESTIC WATER DEMAND FEIS PROPOSED ACTION (860)

DATE:	4/28/2011
PROJECT NO.:	03610-001
PROJECT NAME:	Glen Isle Glen Cove Waterfront Redevelopment
PROJECT TOWN:	City of Glen Cove, Nassau County, NY
PREPARED BY:	LMM/PAR

FEIS PROPOSED ACTION (860)				
	<u># of Units/Size</u>	<u>Unit Daily Demand⁽¹⁾ (gpd)</u>	<u>Daily Demand (gpd)</u>	<u>Sub-Total</u>
Restaurant at the Point				
Restaurant Seats	200	82.5	16,500	
Public Restrooms at Beach (per swimmer)	50 (estimated)	11	550	
				17,050 gpd
Condominium Units (35%)				
1 Bedroom	68	302.5	20,570	
2 Bedroom	135	522.5	70,538	
3 Bedroom	68	742.5	50,490	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	271			141,680 gpd
Rental Units (65%)				
1 Bedroom	176	302.5	53,240	
2 Bedroom	252	522.5	131,670	
3 Bedroom	75	742.5	55,688	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	503			240,680 gpd
Workforce Condominium Units (35%)				
1 Bedroom	4	302.5	1,210	
2 Bedroom	26	522.5	13,585	
	30			14,795 gpd
Workforce Rental Units (65%)				
1 Bedroom	8	302.5	2,420	
2 Bedroom	48	522.5	25,080	
	56			27,500 gpd
Hotel (Block C)				
Hotel Units	250	220	55,000	
Restaurant Seats	160	82.5	13,200	
Conference Room (sf)	7,200	0.165 ⁽²⁾	1,188	
Catering Seats	300	44	13,200	
Spa (18,000sf) (patrons)	200	27.5 ⁽³⁾	5,500	
Retail GSF (sf)	5,300	0.165 ⁽⁴⁾	875	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
Marina Support Building (sf)	600	0.165 ⁽⁴⁾	99	
Luxury Boat Marina (15 slips)	15	50 ⁽⁵⁾	750	
				89,894 gpd
Office (Block D)				
Office GSF	50,000	0.165	8,250	
				8,250 gpd
Angler's Club (sf)	1,500	0.165 ⁽²⁾	248	

Angler's Club Marina (39 slips)	39	50 ⁽⁵⁾	1,950	2,198 gpd
Commercial/Cultural (Block J)				
Commercial/Cultural GSF (sf)	20,000	0.165 ⁽⁴⁾	3,300	
Marina Support Building (sf)	1,200	0.165 ⁽⁴⁾	198	
Transient Marina (40 slips)	40	50 ⁽⁵⁾	2,000	5,498 gpd
Irrigation Demand ⁽⁶⁾ (Block K)				
Irrigation Demand (total)	1	100,000	100,000	100,000 gpd
			PROJECT TOTAL =	647,543 gpd

NOTES:

(1) Unit daily flows taken from "Manual of On-Site Sewage Disposal" from Nassau County Department of Health, dated September 1, 1983 plus 10% for general rule of thumb for water demand (water in is generally 10% more than water out).

(2) Use office space criteria = 0.15 gpd/sf of space plus 10%.

(3) Use country club criteria = 25 gpd/member with 200 patrons or "members" per day plus 10%.

(4) Use department store criteria = 0.15 gpd/sf of space plus 10%.

(5) Use 50 gpd/slip per attached marina calculations.

(6) Total irrigation demand for development (see attached calculations).

**PROPOSED DOMESTIC WATER DEMAND
FEIS PROPOSED ACTION (860)**

DATE: 4/28/2011
PROJECT NO.: 03610-001
PROJECT NAME: **Glen Isle Glen Cove Waterfront Redevelopment**
PROJECT TOWN: City of Glen Cove, Nassau County, NY
PREPARED BY: LMM/PAR

MODIFIED BR MIX FOR SENSITIVITY ANALYSIS				
	<u># of Units/Size</u>	<u>Unit Daily Demand⁽¹⁾ (gpd)</u>	<u>Daily Demand (gpd)</u>	<u>Sub-Total</u>
Restaurant at the Point				
Restaurant Seats	200	82.5	16,500	
Public Restrooms at Beach (per swimmer)	50 (estimated)	11	550	
				17,050 gpd
Condominium Units (35%)				
1 Bedroom	63	302.5	19,058	
2 Bedroom	127	522.5	66,358	
3 Bedroom	81	742.5	60,143	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	271			145,640 gpd
Rental Units (65%)				
1 Bedroom	166	302.5	50,215	
2 Bedroom	236	522.5	123,310	
3 Bedroom	101	742.5	74,993	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	503			248,600 gpd
Workforce Condominium Units (35%)				
1 Bedroom	5	302.5	1,513	
2 Bedroom	21	522.5	10,973	
3 Bedroom	5	742.5	3,713	
	31			16,198 gpd
Workforce Rental Units (65%)				
1 Bedroom	8	302.5	2,420	
2 Bedroom	39	522.5	20,378	
3 Bedroom	8	742.5	5,940	
	55			28,738 gpd
Hotel (Block C)				
Hotel Units	250	220	55,000	
Restaurant Seats	160	82.5	13,200	
Conference Room (sf)	7,200	0.165 ⁽²⁾	1,188	
Catering Seats	300	44	13,200	
Spa (18,000sf) (patrons)	200	27.5 ⁽³⁾	5,500	
Retail GSF (sf)	5,300	0.165 ⁽⁴⁾	875	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
Marina Support Building (sf)	600	0.165 ⁽⁴⁾	99	
Luxury Boat Marina (15 slips)	15	50 ⁽⁵⁾	750	
				89,894 gpd
Office (Block D)				
Office GSF	50,000	0.165	8,250	

				8,250 gpd
Angler's Club (sf)	1,500	0.165 ⁽²⁾	248	
Angler's Club Marina (39 slips)	39	50 ⁽⁵⁾	1,950	2,198 gpd
Commercial/Cultural (Block J)				
Commercial/Cultural GSF (sf)	20,000	0.165 ⁽⁴⁾	3,300	
Marina Support Building (sf)	1,200	0.165 ⁽⁴⁾	198	
Transient Marina (40 slips)	40	50 ⁽⁵⁾	2,000	
				5,498 gpd
Irrigation Demand ⁽⁶⁾ (Block K)				
Irrigation Demand (total)	1	100,000	100,000	100,000 gpd
PROJECT TOTAL =				662,063 gpd

NOTES:

(1) Unit daily flows taken from "Manual of On-Site Sewage Disposal" from Nassau County Department of Health, dated September 1, 1983 plus 10% for general rule of thumb for water demand (water in is generally 10% more than water out).

(2) Use office space criteria = 0.15 gpd/sf of space plus 10%.

(3) Use country club criteria = 25 gpd/member with 200 patrons or "members" per day plus 10%.

(4) Use department store criteria = 0.15 gpd/sf of space plus 10%.

(5) Use 50 gpd/slip per attached marina calculations.

(6) Total irrigation demand for development (see attached calculations).

**PROPOSED DOMESTIC WATER DEMAND
FEIS PROPOSED ACTION (860)**

DATE: 4/28/2011
PROJECT NO.: 03610-001
PROJECT NAME: **Glen Isle Glen Cove Waterfront Redevelopment**
PROJECT TOWN: City of Glen Cove, Nassau County, NY
PREPARED BY: LMM/PAR

DEIS/INITIAL FEIS (NOW ALTERNATIVE 1)				
	# of Units/Size	Unit Daily Demand⁽¹⁾ (gpd)	Daily Demand (gpd)	Sub-Total
Restaurant at the Point				
Restaurant Seats	200	82.5	16,500	
Public Restrooms at Beach (per swimmer)	50 (estimated)	11	550	
				17,050 gpd
Condominium Units (35%)				
1 Bedroom	148	302.5	44,770	
2 Bedroom	297	522.5	155,183	
3 Bedroom	149	742.5	110,633	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	594			310,667 gpd
Rental Units (65%)				
1 Bedroom	63	302.5	19,058	
2 Bedroom	90	522.5	47,025	
3 Bedroom	27	742.5	20,048	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	180			86,212 gpd
Workforce Condominium Units (35%)				
1 Bedroom	13	302.5	3,933	
2 Bedroom	73	522.5	38,143	
	86			42,075 gpd
Hotel (Block C)				
Hotel Units	250	220	55,000	
Restaurant Seats	160	82.5	13,200	
Conference Room (sf)	7,200	0.165 ⁽²⁾	1,188	
Catering Seats	300	44	13,200	
Spa (18,000sf) (patrons)	200	27.5 ⁽³⁾	5,500	
Retail GSF (sf)	5,300	0.165 ⁽⁴⁾	875	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
Marina Support Building (sf)	600	0.165 ⁽⁴⁾	99	
Luxury Boat Marina (15 slips)	15	50 ⁽⁵⁾	750	
				89,894 gpd
Office (Block D)				
Office GSF	50,000	0.165	8,250	
				8,250 gpd
Angler's Club (sf)	1,500	0.165 ⁽²⁾	248	
Angler's Club Marina (39 slips)	39	50 ⁽⁵⁾	1,950	
				2,198 gpd
Commercial/Cultural (Block J)				

Commercial/Cultural GSF (sf)	20,000	0.165 ⁽⁴⁾	3,300	
Marina Support Building (sf)	1,200	0.165 ⁽⁴⁾	198	
Transient Marina (40 slips)	40	50 ⁽⁵⁾	2,000	
				5,498 gpd
Irrigation Demand ⁽⁶⁾ (Block K)				
Irrigation Demand (total)	1	100,000	100,000	
				100,000 gpd
PROJECT TOTAL =				661,843 gpd

NOTES:

(1) Unit daily flows taken from "Manual of On-Site Sewage Disposal" from Nassau County Department of Health, dated September 1, 1983 plus 10% for general rule of thumb for water demand (water in is generally 10% more than water out).

(2) Use office space criteria = 0.15 gpd/sf of space plus 10%.

(3) Use country club criteria = 25 gpd/member with 200 patrons or "members" per day plus 10%.

(4) Use department store criteria = 0.15 gpd/sf of space plus 10%.

(5) Use 50 gpd/slip per attached marina calculations.

(6) Total irrigation demand for development (see attached calculations).

**PROPOSED DOMESTIC WATER DEMAND
FEIS PROPOSED ACTION (1085)**

DATE: 7/28/2011
PROJECT NO.: 03610-001
PROJECT NAME: **Glen Isle Glen Cove Waterfront Redevelopment**
PROJECT TOWN: City of Glen Cove, Nassau County, NY
PREPARED BY: LMM/PAR

ALTERNATIVE 2				
	<u># of Units/Size</u>	<u>Unit Daily Demand⁽¹⁾ (gpd)</u>	<u>Daily Demand (gpd)</u>	<u>Sub-Total</u>
Restaurant at the Point				
Restaurant Seats	200	82.5	16,500	
Public Restrooms at Beach (per swimmer)	50 (estimated)	11	550	
				17,050 gpd
Condominium Units (35%)				
1 Bedroom	85	302.5	25,713	
2 Bedroom	171	522.5	89,348	
3 Bedroom	86	742.5	63,855	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	342			178,997 gpd
Rental Units (65%)				
1 Bedroom	222	302.5	67,155	
2 Bedroom	318	522.5	166,155	
3 Bedroom	95	742.5	70,538	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	635			303,930 gpd
Workforce Condominium Units (35%)				
1 Bedroom	6	302.5	1,815	
2 Bedroom	32	522.5	16,720	
	38			18,535 gpd
Workforce Rental Units (65%)				
1 Bedroom	11	302.5	3,328	
2 Bedroom	60	522.5	31,350	
	71			34,678 gpd
Hotel (Block C)				
Hotel Units	125	220	27,500	
Restaurant Seats	160	82.5	13,200	
Conference Room (sf)	7,200	0.165 ⁽²⁾	1,188	
Catering Seats	300	44	13,200	
Spa (18,000sf) (patrons)	200	27.5 ⁽³⁾	5,500	
Retail GSF (sf)	5,300	0.165 ⁽⁴⁾	875	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
Marina Support Building (sf)	600	0.165 ⁽⁴⁾	99	
Luxury Boat Marina (15 slips)	15	50 ⁽⁵⁾	750	
				62,394 gpd
Office (Block D)				
Office GSF	50,000	0.165	8,250	
				8,250 gpd
Angler's Club (sf)	1,500	0.165 ⁽²⁾	248	

Angler's Club Marina (39 slips)	39	50 ⁽⁵⁾	1,950	2,198 gpd
Commercial/Cultural (Block J)				
Commercial/Cultural GSF (sf)	20,000	0.165 ⁽⁴⁾	3,300	
Marina Support Building (sf)	1,200	0.165 ⁽⁴⁾	198	
Transient Marina (40 slips)	40	50 ⁽⁵⁾	2,000	
				5,498 gpd
Irrigation Demand ⁽⁶⁾ (Block K)				
Irrigation Demand (total)	1	100,000	100,000	100,000 gpd
PROJECT TOTAL =				731,528 gpd

NOTES:

(1) Unit daily flows taken from "Manual of On-Site Sewage Disposal" from Nassau County Department of Health, dated September 1, 1983 plus 10% for general rule of thumb for water demand (water in is generally 10% more than water out).

(2) Use office space criteria = 0.15 gpd/sf of space plus 10%.

(3) Use country club criteria = 25 gpd/member with 200 patrons or "members" per day plus 10%.

(4) Use department store criteria = 0.15 gpd/sf of space plus 10%.

(5) Use 50 gpd/slip per attached marina calculations.

(6) Total irrigation demand for development (see attached calculations).

PROPOSED DOMESTIC WATER DEMAND FEIS PROPOSED ACTION (1085)

DATE:	7/28/2011
PROJECT NO.:	03610-001
PROJECT NAME:	Glen Isle Glen Cove Waterfront Redevelopment
PROJECT TOWN:	City of Glen Cove, Nassau County, NY
PREPARED BY:	LMM/PAR

MODIFIED BR MIX FOR SENSITIVITY ANALYSIS				
	<u># of Units/Size</u>	<u>Unit Daily Demand⁽¹⁾ (gpd)</u>	<u>Daily Demand (gpd)</u>	<u>Sub-Total</u>
Restaurant at the Point				
Restaurant Seats	200	82.5	16,500	
Public Restrooms at Beach (per swimmer)	50 (estimated)	11	550	
			17,050	gpd
Condominium Units (35%)				
1 Bedroom	80	302.5	24,200	
2 Bedroom	159	522.5	83,078	
3 Bedroom	103	742.5	76,478	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	342		183,837	gpd
Rental Units (65%)				
1 Bedroom	209	302.5	63,223	
2 Bedroom	299	522.5	156,228	
3 Bedroom	127	742.5	94,298	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	635		313,830	gpd
Workforce Condominium Units (35%)				
1 Bedroom	5	302.5	1,513	
2 Bedroom	27	522.5	14,108	
3 Bedroom	6	742.5	4,455	
	38		20,075	gpd
Workforce Rental Units (65%)				
1 Bedroom	11	302.5	3,328	
2 Bedroom	49	522.5	25,603	
3 Bedroom	11	742.5	8,168	
	71		37,098	gpd
Hotel (Block C)				
Hotel Units	125	220	27,500	
Restaurant Seats	160	82.5	13,200	
Conference Room (sf)	7,200	0.165 ⁽²⁾	1,188	
Catering Seats	300	44	13,200	
Spa (18,000sf) (patrons)	200	27.5 ⁽³⁾	5,500	
Retail GSF (sf)	5,300	0.165 ⁽⁴⁾	875	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
Marina Support Building (sf)	600	0.165 ⁽⁴⁾	99	
Luxury Boat Marina (15 slips)	15	50 ⁽⁵⁾	750	
			62,394	gpd
Office (Block D)				
Office GSF	50,000	0.165	8,250	

				8,250 gpd
Angler's Club (sf)	1,500	0.165 ⁽²⁾	248	
Angler's Club Marina (39 slips)	39	50 ⁽⁵⁾	1,950	2,198 gpd
Commercial/Cultural (Block J)				
Commercial/Cultural GSF (sf)	20,000	0.165 ⁽⁴⁾	3,300	
Marina Support Building (sf)	1,200	0.165 ⁽⁴⁾	198	
Transient Marina (40 slips)	40	50 ⁽⁵⁾	2,000	
				5,498 gpd
Irrigation Demand ⁽⁶⁾ (Block K)				
Irrigation Demand (total)	1	100,000	100,000	100,000 gpd
PROJECT TOTAL =				750,228 gpd

NOTES:

(1) Unit daily flows taken from "Manual of On-Site Sewage Disposal" from Nassau County Department of Health, dated September 1, 1983 plus 10% for general rule of thumb for water demand (water in is generally 10% more than water out).

(2) Use office space criteria = 0.15 gpd/sf of space plus 10%.

(3) Use country club criteria = 25 gpd/member with 200 patrons or "members" per day plus 10%.

(4) Use department store criteria = 0.15 gpd/sf of space plus 10%.

(5) Use 50 gpd/slip per attached marina calculations.

(6) Total irrigation demand for development (see attached calculations).

**PROPOSED DOMESTIC WATER DEMAND
FEIS PROPOSED ACTION (1085)**

DATE: 7/28/2011
PROJECT NO.: 03610-001
PROJECT NAME: **Glen Isle Glen Cove Waterfront Redevelopment**
PROJECT TOWN: City of Glen Cove, Nassau County, NY
PREPARED BY: LMM/PAR

MODIFIED TENURE MIX FOR SENSITIVITY ANALYSIS				
	<u># of Units/Size</u>	<u>Unit Daily Demand⁽¹⁾ (gpd)</u>	<u>Daily Demand (gpd)</u>	<u>Sub-Total</u>
Restaurant at the Point				
Restaurant Seats	200	82.5	16,500	
Public Restrooms at Beach (per swimmer)	50 (estimated)	11	550	
				17,050 gpd
Condominium Units (35%)				
1 Bedroom	193	302.5	58,383	
2 Bedroom	385	522.5	201,163	
3 Bedroom	193	742.5	143,303	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	771			402,930 gpd
Rental Units (65%)				
1 Bedroom	72	302.5	21,780	
2 Bedroom	102	522.5	53,295	
3 Bedroom	31	742.5	23,018	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	205			98,175 gpd
Workforce Condominium Units (35%)				
1 Bedroom	13	302.5	3,933	
2 Bedroom	73	522.5	38,143	
	86			42,075 gpd
Workforce Rental Units (65%)				
1 Bedroom	3	302.5	908	
2 Bedroom	20	522.5	10,450	
	23			11,358 gpd
Hotel (Block C)				
Hotel Units	125	220	27,500	
Restaurant Seats	160	82.5	13,200	
Conference Room (sf)	7,200	0.165 ⁽²⁾	1,188	
Catering Seats	300	44	13,200	
Spa (18,000sf) (patrons)	200	27.5 ⁽³⁾	5,500	
Retail GSF (sf)	5,300	0.165 ⁽⁴⁾	875	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
Marina Support Building (sf)	600	0.165 ⁽⁴⁾	99	
Luxury Boat Marina (15 slips)	15	50 ⁽⁵⁾	750	
				62,394 gpd
Office (Block D)				
Office GSF	50,000	0.165	8,250	
				8,250 gpd
Angler's Club (sf)	1,500	0.165 ⁽²⁾	248	

Angler's Club Marina (39 slips)	39	50 ⁽⁵⁾	1,950	2,198 gpd
Commercial/Cultural (Block J)				
Commercial/Cultural GSF (sf)	20,000	0.165 ⁽⁴⁾	3,300	
Marina Support Building (sf)	1,200	0.165 ⁽⁴⁾	198	
Transient Marina (40 slips)	40	50 ⁽⁵⁾	2,000	
				5,498 gpd
Irrigation Demand ⁽⁶⁾ (Block K)				
Irrigation Demand (total)	1	100,000	100,000	100,000 gpd
PROJECT TOTAL =				749,926 gpd

NOTES:

(1) Unit daily flows taken from "Manual of On-Site Sewage Disposal" from Nassau County Department of Health, dated September 1, 1983 plus 10% for general rule of thumb for water demand (water in is generally 10% more than water out).

(2) Use office space criteria = 0.15 gpd/sf of space plus 10%.

(3) Use country club criteria = 25 gpd/member with 200 patrons or "members" per day plus 10%.

(4) Use department store criteria = 0.15 gpd/sf of space plus 10%.

(5) Use 50 gpd/slip per attached marina calculations.

(6) Total irrigation demand for development (see attached calculations).

PROPOSED DOMESTIC WATER DEMAND FEIS PROPOSED ACTION (1120)

DATE:	4/28/2011
PROJECT NO.:	03610-001
PROJECT NAME:	Glen Isle Glen Cove Waterfront Redevelopment
PROJECT TOWN:	City of Glen Cove, Nassau County, NY
PREPARED BY:	LMM/PAR

DEIS ALTERNATIVE E - MAX. BUILD OUT (For reference only - not being further studied)				
	<u># of Units/Size</u>	<u>Unit Daily Demand⁽¹⁾ (gpd)</u>	<u>Daily Demand (gpd)</u>	<u>Sub-Total</u>
Restaurant at the Point				
Restaurant Seats	200	82.5	16,500	
Public Restrooms at Beach (per swimmer)	50 (estimated)	11	550	
			17,050	gpd
Condominium Units (35%)				
1 Bedroom	195	302.5	58,988	
2 Bedroom	390	522.5	203,775	
3 Bedroom	195	742.5	144,788	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	780		407,632	gpd
Rental Units (65%)				
1 Bedroom	80	302.5	24,200	
2 Bedroom	114	522.5	59,565	
3 Bedroom	34	742.5	25,245	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
	228		109,092	gpd
Workforce Condominium Units (35%)				
1 Bedroom	17	302.5	5,143	
2 Bedroom	95	522.5	49,638	
	112		54,780	gpd
Hotel (Block C)				
Hotel Units	250	220	55,000	
Restaurant Seats	160	82.5	13,200	
Conference Room (sf)	7,200	0.165 ⁽²⁾	1,188	
Catering Seats	300	44	13,200	
Spa (18,000sf) (patrons)	200	27.5 ⁽³⁾	5,500	
Retail GSF (sf)	5,300	0.165 ⁽⁴⁾	875	
Pool (20'x40'x5' deep) = 30,000 gal/365 days	-	82	82	
Marina Support Building (sf)	600	0.165 ⁽⁴⁾	99	
Luxury Boat Marina (15 slips)	15	50 ⁽⁵⁾	750	
			89,894	gpd
Office (Block D)				
Office GSF	50,000	0.165	8,250	
			8,250	gpd
Angler's Club (sf)	1,500	0.165 ⁽²⁾	248	
Angler's Club Marina (39 slips)	39	50 ⁽⁵⁾	1,950	
			2,198	gpd
Commercial/Cultural (Block J)				

Commercial/Cultural GSF (sf)	20,000	0.165 ⁽⁴⁾	3,300	
Marina Support Building (sf)	1,200	0.165 ⁽⁴⁾	198	
Transient Marina (40 slips)	40	50 ⁽⁵⁾	2,000	
				5,498 gpd
Irrigation Demand ⁽⁶⁾ (Block K)				
Irrigation Demand (total)	1	100,000	100,000	
				100,000 gpd
PROJECT TOTAL =				794,393 gpd

NOTES:

(1) Unit daily flows taken from "Manual of On-Site Sewage Disposal" from Nassau County Department of Health, dated September 1, 1983 plus 10% for general rule of thumb for water demand (water in is generally 10% more than water out).

(2) Use office space criteria = 0.15 gpd/sf of space plus 10%.

(3) Use country club criteria = 25 gpd/member with 200 patrons or "members" per day plus 10%.

(4) Use department store criteria = 0.15 gpd/sf of space plus 10%.

(5) Use 50 gpd/slip per attached marina calculations.

(6) Total irrigation demand for development (see attached calculations).



Paulus, Sokolowski and Sartor Engineering, PC

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PROPOSED DOMESTIC WATER DEMAND

DATE:	4/28/2011
PROJECT NAME:	Glen Isle Glen Cove Waterfront Redevelopment
PROJECT TOWN:	City of Glen Cove, Nassau County, NY
PREPARED BY:	PAR LMM/PAR

MARINA DEMAND	
Utilizing Glen Cove Marina data for basis of analysis:	
<ul style="list-style-type: none"> • 1.4 million gallons used in 2007 (per W. Archambault 12/23/08) • 340 slips (per Glen Cove Marina website 12/2008) • Assume season is May – September (total of 153 days) 	
1,400,000 gal / 153 days	= 9,150 gpd
9,150 gpd / 340 slips	= 27 gpd / slip
27 gpd / slip => say 50 gpd / slip	



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IRRIGATION DEMAND	
Landscape area to be irrigated	= 539,390 sf ±
Roof area to be irrigated	= 231,150 sf ±
Total	= 770,540 sf ±
<ul style="list-style-type: none"> • Utilizing Rain Bird potential evapotranspiration (PET) for warm humid climate = 0.20 in/day 	
770,540 sf x 0.20 in/day	= 89,900 cf / week
	= 12,845 cf / day
	= 96,087 gpd
<ul style="list-style-type: none"> • For conservative planning purposes assume that all irrigation water is provided by city water ---> 96,087 ~ 100,000 gpd 	
NOTES:	
1. Irrigation chambers are proposed to collect 1" of runoff from roof areas and store in chambers to use for irrigation	
2. Proposed storage = 56,415 cf = 422,000 gallons (or 4 days of irrigation)	