

#### Public Service Commission

-M-E-M-O-R-A-N-D-U-M-

**DATE:** June 27, 1997

TO: Division of Records and Reporting

Division of Legal Services, Alice Crosby

FROM: Division of Water & Wastewater, J. Travis Coker

RE: Docket No. 981086-WS; Application for grandfather certificate by Grenelefe in Polk

County.

ACK \_\_\_\_

AFA

Please include this information in the above mentioned docket file. If you have any questions concerning this memo, please contact me at 413-6997.



June 13, 1997

DRMP # 95-0092 002

Mr. Charles Edge Utilities Manager Grenelefe Golf and Tennis Resort 3200 S.R. 546 Haines City, Florida 33844-9732 RECEIVED

Floride Public Service Commission Division of Water and Wastewate

Subject:

Grenelefe Golf and Tennis Resort

Non-Potable Irrigation System Value Analysis

Dear Chuck:

Attached is a breakdown of the estimated replacement and initial construction costs for Grenelese non-potable irrigation equipment. The total replacement costs based on 1997 dollars is estimated at \$3,050,000.00 and was developed through review of historic bid tabulations and discussions with irrigation equipment suppliers and specialty contractors. The total initial construction costs is estimated at \$990,000.00 and is a summation of Grenelese's actual dollars spent in constructing the non-potable equipment since the resort was constructed in 1972. The initial construction costs were calculated by applying the U.S. Department of Commerce Gross Domestic Product Implicit Price Deflator Index to the 1997 estimated replacement unit costs. Based on discussions with Mr. Robert Ori of PRMG, this information is sufficient in completing the Florida Public Service Commission permit application

Also, enclosed for your use is a revised color-c, ded map of Grenelefe's potable and non-potable distribution system. The map includes the location of non-potable irrigation mains serving residential, commercial, and common areas but does not include irrigation mains serving the golf courses.

Should you have any questions or need additional information, please do not hesitate to contact either myself or John Toomey.

Very truly yours,

Dyer, Riddle, Mills & Precourt, Inc.

Andrew M. Stevens, E.I.

Project Engineer

cc: Rob Ori, PRMG w/ enclosures

John Toomey

## Grenelefe Golf and Tennis Resort Estimated Value of Non-Potable Irrigation Equipment Serving the Residential, Commercial, and Common Areas

Description	Unit	Quantity	Repia	ement Cost	Estimate	d Age	Initial Con	struction Cost	Notes
·	1		Unit Cost	Total	Year Installed	Age	Estimated	Estimated	
			(1997 \$)	(1997 \$)	or Replaced	(year)	Unit Cost	Total	
Schedule 1: Cantebury Pump House (wells 3 and 4)									
1.01 17' ± 24' wood frame building	\$F	408	\$25.00	\$10,200.00	1972	25	\$6 75	\$2,753.57	8.9
1.02 12" diameter well with 200' casing (well # 3)	LS	1	<b>\$20,000.</b> (*)	\$20,000 00	1972	25	\$5,400.00	\$5,400.00	1,2,9
1.03 9 bowl mebine, 6° well pump (capacity 500 gpm @ 100 psi) set at 65 feet deep	LS	1	\$9,000.00	\$9,000 00	1972	25	\$2,430 00	\$2,430.00	1,2,9
with 50 H.P. motor			<u> </u>				Ĺ l		
1.04 6" diameter well (well # 4)	LS	1	\$10,000.00	\$10,000.00	1972	25	\$2,700.00	\$2,700 00	1,2,9
1.05 9 bowl surblas, 4" well pump (capacity 200 gpm @ 100 psi) set at 65 feet deep	LS	1	\$6,000.00	\$6,000.00	1972	25	\$1,620.00	\$1,620 00	1,2,9
with 20 H.P. motor	<u> </u>		<b></b> i				<u>.                                    </u>		
1.06 SSO (gal) capacity hydropneumatic tank	EA	1	\$4,200.00	\$4,200.00	1972	25	\$1,130.00	\$1,130.00	2,9
1.07 2° air and vacuum release valve	EA	2	\$500.00	\$1,000.00	1972	25	\$130.00	\$260.00	2,9
1.06 8° pressure reducing and check valve	EA	1	\$3,300.00	\$3,300.00	1972	25	\$890.00	\$890.00	2,9
1.09 8° propeller flow meter	EA	2	\$2,050.00	\$4,100.00	1972	25	\$550.00	\$1,100.00	2,9
1.10 Rain Sensor	LS	1	\$650.00	\$650.00	1997	0	\$650.00	\$650.00	3
1.11 Terigation clock	LS	<u>l</u>	\$500.00	\$500.00	1996	1	\$500.00	\$500.00	3
1.12 6° PVC RWM (serving wells 3, 4, and 5 combined)	LF	7,600		\$60,800.00	1972	25	\$2.20	\$16,720.00	4,9
1.13 4" PVC RWM (serving wells 3, 4, and 5 combined)	LF	14,000	\$6.00	\$84,000.00	1972	25	\$1.60	\$22,400.00	4,9
1.14 3" PVC RWM (serving wells 3, 4, and 5 combined)	LF	3,400	\$5.00	\$17,000.00	1972	25	\$1.30	\$4,420.00	4,9
1.15 2-1/2" PVC RWM (serving wells 3, 4, and 5 combined)	LF	5,600	\$4.00	\$22,400.00	1972	25	\$1.10	\$6,160.00	4,9
1.16 2" PVC RWM (serving wells 3, 4, and 5 combined)	LF	4,200	4 -11-2	\$16,800 00	1972	25	\$1.10	\$4,620.00	4,9
2.17 Electrical (10% of schedules 1.03, 1.05, 1.09 through 1.11)	LS	1	\$2,000.00	\$2,000 00			\$900.00	\$900.00	5
1.18 Miscellaneous piping and appurtenances (10% of schedules 1.06 through 1.09)	LS	1	\$1,000.00	\$1,000 00			\$300.00	\$300.00	6
Schodule 1 Subtotal	<u> </u>			\$272,950.00				\$74,950.00	
Schedule 2: Cart Shed (well 5)							_		
2.01 12° diameter well with 200' casing (well # 5)	LS	1	\$20,000.00	\$20,000.00	1972	25	\$5,400.00	\$5,400.00	1,2,9
2.02 9 howl turbine, 8" well pump (capacity 750 gpm @ 100 psi) set at 65 feet deep	LS	1	\$13,000.00	\$13,000.00	1972	25	\$3,510 00	\$3,510.00	1,2,9
with 75 H.P. motor	l	<u> </u>							
2.03 2° air and vacuum release valve	EA	1	\$500.00	\$500.00	1972	25	\$130.00	\$130.00	2.9
2.04 8° pressure reducing and check valve	EA	1	\$3,300.00	\$3,300.00	1972	25	\$890 00	\$890.00	2,9
2.05 8° Propeller flow meter	EA	1 1	\$2,050.00	\$2,050.00	1972	25	\$550 00	\$550.00	2,9
2.06 Rain sensor	LS	l	\$490.00	\$490.00	1997	0	\$490 00	\$490.00	3
2.07 Electrical (10% of schedules 2.02, 2.05, and 2.06)	LS	1	\$1,600.00	\$1,600.00			\$600 00	\$600.00	5
2.08 Miscellaneous piping and appurtenances (10% of schedules 2.03 through 2.05)	LS_		\$600.00	\$600 00			\$200.00	\$200.00	6
Schedule 2 Subtotal				\$41,540.00			T	\$11,770.00	

## Grenelese Golf and Tennis Resort Estimated Value of Non-Potable Irrigation Equipment Serving the Residential, Commercial, and Common Areas

Description	Unit	Quanty	Repla	cement Cost	Estimate	d Age	Initial Con	struction Cost	Notes
•	l	1 3 7	Unit Cost	Total	Year installed	Age	Esturnated	Estimated	l
		33	(1997 \$)	(1997 \$)	or Replaced	(year)	Unit Cost	Total	i .
Schedule 3: Abbey Pump House (wells 7, 9, and 15)									
3.01 17' x 24' wood frame building	SF	408	\$25.00	\$10,200.00	1980	17	\$10.00	\$4,080.00	8.9
3.02 6° diameter well (well # 9)	LS		\$10,000.00	\$10,000.00	1980	17	\$4,850.00	\$4,850.00	1,2,9
3.03 9 bowl turbine, 4" well pump (capacity 300 gpm @ 100 psi) set at 65 feet deep with 30 H.P. motor	LS	1	\$7,000.u^	\$7,000 00	1980	17	\$3,390.00	\$3,390.00	1,2,9
3.04 12° diameter well (well # 7)	LS	1	\$20,000.00	\$20,000.00	1980	17	\$9,690.00	\$9,690.00	1,2,9
3.05 9 bowl terbine, 8" well pump (capacity 1,000 gpm @ 100 psi) set at 65 feet deep with 100 H.P. motor	LS	1	\$14,000.00	\$14,000.00	1980	17	\$6,790.00	\$6,790.00	1,2,9
3.06 12" diameter well (well # 15)	LS	1	\$20,000.00	\$20,000 00	1980	17	\$9,690.00	\$9,690.00	1,2,9
3.07 9 bowl turbins, 6" well pump (capacity 750 gpm @ 100 psi) set at 65 feet deep with 75 H.P. motor	LS	1	\$12,500.00	\$12,500 00	1980	17	\$6,060.00	\$6,060.00	2.9
3.08 550 (gal) capacity hydropneumatic tank	EA	1	\$4,200.00	\$4,200.00	1980	17	\$2,040.00		2,9
3.09 2" air and vacuom release valve	EA	3	\$500.00	\$1,500.00	1980	17	\$240.00	\$720.00	2,9
3.10 8* pressure reducing and check valve	EA	1	\$3,300.00	\$3,300.00	1980	17	\$1,600.00	\$1,600.00	2,9
3.11 8° Propeller flow meter	EA	2	\$2,050.00	\$4,100.00	1980	17	\$990.00	\$1,9±0.00	2,9
3.12 6° Propeller flow meter	EA	1	\$1,700.00	\$1,700.00	1980	17	\$820.00	\$820.00	2,9
3.13 Rain sensor	LS_	i	\$490.00	Sixu.u0	1997	0	\$490.00	\$490.00	3
3.14 8" PVC RWM	LF	300		\$3,000.00	1980	17	\$4.80	\$1,440.00	4,9
3.15 6° PVC RWM	LF	6,900		\$55,200.00	1980	17	\$3.90	\$26,910.00	4,9
3.16 4" PVC RWM	LF	22,000		\$132,000.00	1980	17	\$2.90	\$63,800.00	4,9
3.17 3" PVC RWM	LP	2,200		\$11,000.00	i980	17	\$2.40	\$5,280.00	4,9
3.18 2-1/2" PVC RWM	LP	4,600		\$18,400.00	1980	17	\$1.90	\$8,740.00	4,9
3.19 2" PVC RWM	LP	1,400	\$4.00	\$5,600.00	1980	17	\$1.90	\$2,660.00	4,9
3.20 Electrical (10% of schedules 3.03, 3.05, and 3.11 through 3.13)	LS.	1	\$4,000.00	\$4,000.00			\$2,200.00	\$2,200.00	5
3.21 Miscellansous piping and appurtenances (10% of schedules 3.08 through 3.12)	LS	1	\$1,200.00	\$1,200.00			\$600.00	\$600.00	6
Schedule 3 Subtotal	l	[		\$339,390.00	L			\$161,790.00	

# Grenelefe Golf and Tennis Resort Estimated Value of Non-Potable Irrigation Equipment Serving the Residential, Commercial, and Common Areas

	Description	Description Unit (		Repta	cement Cost	Estimate	d Age	Initial Construction Cost		Notes
	•	1		Unit Cort	Total	Year Installed	Age	Estimated	Estimated	
			l	(1997 \$)	(1997.\$)	or Replaced	(year)	Unit Cost	Total	l
Sche	lule 4: Villa Pump House (take withdrawi from well 22)									
4.01	15-1/2' x 20' wood frame building	SP	310	00. کچ	\$7,750.00	1985	12	\$20.00	\$6,200.00	8,9
4.02	5 bowl surblas, 4° diameter pump (capacity 250 gpm @ 100 psi with 36° inlet	LS	1	\$25,100.00	\$25,100.00	1985	12	\$17,140.00	\$17,140.00	1.9
	set at 15 feet deep with a 20 H.P. motor) with centrifical booster pump	į.						]		
	with 10 H.P. motor	LS								
4.03	550 (gal) capacity hydropaeumatic tank	EA		\$4,200.00	\$4,200.00	1985	12	\$2,870.00	\$2,870.00	2,9
4.04	2" air and vacuus release valve	EA		\$500.00	\$500.00	1985	12	\$340.00	\$340.00	2,9
4.05	4" pressure reducing and check valve	EA	1	\$1,300.00	\$1,300.00	1985	12	\$890.00	\$890.00	2,9
4.06	4* Propeller flow meter	EA	1	\$1,650.00	\$1,650.00	1985	12	\$1,130.00	\$1,130.00	2,9
4.07	Rain Sensor	LS	1	\$490.00	\$490.00	1997	0	\$490.00	\$490.00	3
4.08	6° PVC RWM	LF	400	\$8.00	\$3,200.00	1985	12	\$5.50	\$2,200.00	4,9
4.09	3" PVC RWM	LF	800	\$5.00	\$4,000.00	1985	12	\$3.40	\$2,720.00	4,9
4.10	2-1/2" PVC RWM	LF	5,400	41111	\$21,600.00	1985	. 12	\$2.70	\$14,580.00	4,9
	Electrical (10% of schedules 4.02, 4.06, and 4.07)	LS	1	\$2,700.00	\$2,700.00			\$2,300.00	\$2,300.00	5
4.12	Miscellansous piping and appurtenances (10% of schedules 4.03 through 4.06)	LS	1	\$800.00	\$800.00		•	\$500.00	\$500.00	6
	Schedule 4 Subtotal				\$73,290.00				\$51,360.00	
Sche	lule 5: Chab Estates Pump House (no well I.D.)									
3.01	10' x 15' wood frame building	SF	150		\$3,750.00	1987	10	\$20.00	\$3,000.00	8.9
5.02	8" diameter well with 200' casing (SFWMD)	LS	1	\$12,000.00	\$12,000.00	1987	10	\$8,710.00	\$8,710.00	2,9
5.03	8° diameter well pump, with 30 H.P. motor	LS	1	\$7,000.00	\$7,000.00	1987	10	\$5,080.00	\$5,080.00	2,9
5.04	550 (gal) capacity hydropneumatic tank	EA	1 1	\$4,200.00	\$4,200.00	1987	10	\$3,050.00	\$3,050.00	2,9
5.0	2° air and vacuum release valve	EA	1	\$500,00	\$500.00	1987	10	\$360.00	\$360.00	2,9
5.06	8° pressure reducing and check valve	EA	1	\$3,300.00	\$3,300.00	1987	10	\$2,400.00	\$2,400.00	2,9
5.07	8° Propeller flow meter	EA	1	\$2,050.00	\$2,050.00	1987	10	\$1,490.00	\$1,490.00	2,9
5.08	Rain sensor	LS	1	\$490.00	\$490.00	1997	. 0	\$490.00	\$490.00	3
5.09	4° PVC RWM	LF	3,300		\$19,800.00	1987	10	\$4.40	\$14,520.00	4,9
5.10	2" PVC RWM	LF	200		\$800.00	1987	10	\$2.90	\$580.00	4,9
5.11	Electrical controls (10% of schedule 5.03, 5.07, and 5.08)	LS	1	\$1,000.00	\$1,000.00			\$1,300.00	\$1,300.00	5
	Miscellaneous piping and appurtenances (10% of schedules 5.04 through 5.07)	LS	1	\$1,000.00	\$1,000.00			\$700.00	\$700.00	6
	Schedule 5 Subtotal		I .		\$55,890.00				\$41,680.00	

### Grenelefe Golf and Tennis Resort Estimated Value of Non-Potable Irrigation Equipment Serving the Residential, Commercial, and Common Areas

Description		Unit	Quantity	Replacement Cost		Estimated Age		Initial Construction Cost		Notes
				Unit Cost	Total	Year Installed	Age	Estimated	Estimated	
l		<u> </u>		(1997 5)	(1997 \$)	or Replaced	(year)	Unit Cost	Total	l
Schee	dule 6: Non-petable irrigation heads, controls, and small diameter piping									
6.01	Green space serving the condominium areas	SF	2,434,000	\$0.75	\$1,338,700 00	1972	25	\$0 15	\$365,100.00	7,9
6.02	Green space serving the common\commercial areas	SF	2,245,000	\$0.40	\$898,000.00	1972	25	50 11	\$246,950.00	7,9
	Schedule 4 Subtotal	I			\$2,236,700.00				\$612,050.00	
Sche	dule 7: Non-Putable irrigation flow meters									
8.0L	1-1/2* meter + plastic meter box	EA	81	\$133.00	\$10,773.00	1996	1	\$133 00	\$10,773.00	3
8.02	2" meter + pinstic meter box	EA	109	\$198.70	\$21,582 00	1996	1	\$198 00	\$21,582.00	3
8.03	4" meter + plastic meter box	EA	1	\$458.0u	\$458 00	1996	1	\$458 00	\$458.00	3
	Schedule 7 Subtatul				\$32,813.00				\$32,813.00	
	Total (Schedules 1 through 7)	1			\$3,052,573.00				\$966,413.00	

#### Notes:

- Well depths, pumping capacities, and main line diameters from Section D and Table D, SWPWMD Water Use Permit Application for Grenelefe Golf and Conference Center, prepared by Artanta Testing and Engineering, Inc. 1992.
- 2. Estimated replacement costs based upon information supplied by contractors and manufacturers and includes adjustments for installation.
- 3. Initial construction cost provided by Grenelefe and includes adjustments for installation.
- 4. Pining quantities provided by Grenetefe. Replacement costs based upon historical construction cost estimates.
- 5. Electrical controls replacement costs estimated equal to 10% of applicable mechanical equipment replacement costs.
- 6. Miscellaneous piping and appurtenances replacement costs estimated to equal 10% of mechanical equipment replacement costs.
- 7. Green space serving the condominium and common/commercial areas equal to 55.88 and 51.53 acres respectively and is based upon delineations and field measurements provided by Atlanta Testing and Engineering, Inc.. Replacement costs for green space based upon landscape contractors quotes and includes costs associated with irrigation heads, master controllers, small diameter piping, valves, and miscellaneous items. Contractor's quotes based upon historical estimates.
- 8. Replacement cost for buildings based upon engineering estimates from Means Building Construction Cost Data, 53rd Edition, 1995.
- Initial construction cost equal to the replacement cost and adjusted by the gross domestic product implicit price deflator index as provided by the U.S. Department of Commerce Benerotic and Statistics Administration, Bureau of Economic Analysis.

	Gra	enelete l	11:17	Employe		
	Szlary	title	Potable	Dewer	RZW irrigation	<u> </u>
/.	21,632	operator	100%			
2.	21.632	operator		100%		
3.	19,552	Cust. Service	50%		50%	
4.	18.200	Dist. tech.	50%		50%	
5.	16.120	Dist. tech	50%		50%	
6.	15,600	Maint tech.	33%	33%	34%	
7.	9,600	Accounting	33%	33%	34%	
8.	39,000	Management	33%	33%	34%	
	161,336					
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Cavo	E1	rioz Pou	her Charles	200 h-91-t	5 5 97
Month	Club Estates Inigetion	Czater bury Pump Station	ver Charge	AGGETI +	Carl Owin
June	436.64	1,082.47	324,88	2 102.95	980.59
July	187.99	536.8/	171.90	1,470.48	646.75
August	336.99	915.27	276.51	1,838.79	840.10
	335.43	546.90	173.77	1413.06	599.65
Sept.	312.43	808.95	277.50	126#.86	695.58
Nov.	229.01	948.20	276.01	1,800.63	1003.60
A	146.62	789.3/	247.58	1,283,80	745.68
Dec. Izn.		722.88	269.21	1439.65	806.66
	205.42	469.94	209.97	936.85	630.87
Feb. March	5.42	505.60	144.68	1,187.91	885.20
A .		477.98		1,590.44	845.80
April	303.02		125.52		r
1/24	205.42	640.24	155.96	1,823,50	477.83
·	2466.92	8,444.55	2653.49	18,152.92	9158.31
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Total of	Power Cha	rges 40,	876.19		
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#### 10: PRMG - Carolyn Sculco 407-628-5884 From: Grenelete - Chuck Edge

Carolyn, this is additional information requested by the F.P.SC., to be added to addendum for franchise.

Raw water irrigation:

Total Customers - 179

Total Consumption fees - #102,902.75

Total Base fees #39,152.92

Total Volume 70,234,950

Oct. 1996 First Billing
May 1997 (711-4 1121)