

Giles-Flythe HOA Reserve Study Add-In

Giles-Flythe had an existing process for creating property management reserve studies, but it was a tedious manual process to produce client-understandable charts and reports. They desired a way to automate the process while still allowing engineers to edit the final output.

GOALS

- Produce high-quality, professional reports and charts for clients
- Simplify data entry of repetitive numbers
- Ability to make just-in-time modifications before printing

TECHNOLOGY

- Microsoft Excel Plug-in written in JavaScript
- Custom Excel template used for questionnaire and basis report
- Add-in, template, and support documents housed on corporate web server

APPROACH

- Leverage the existing office experience in using Microsoft Excel
- Create a custom Excel Add-in to perform complex calculations and formatting
- Allow engineers to try “what-if” scenarios in a simple iterative manner

RESULTS

- 100+ Client reports produced in the first 6 months of operation
- Several cycles of improvements made based upon direct user feedback
- Single page manual and no training required of new engineers

Designing for skilled users

Giles-Flythe is an engineering firm and, as such, was already very skilled in the use of Microsoft Excel. Through our initial consultations and discovery, we jointly decided to leverage that skill set, and build an Excel add-in, rather than develop a full application from scratch. The Excel add-in increases the engineers' capabilities dramatically, without requiring extensive training or support.

Iterative improvement process

Since its initial release, Giles-Flythe and Digital Mettle have gone through several cycles of incremental improvements on the tool. Giles-Flythe maintains a running list of requested features and enhancement requests. Several times each year, we revisit the list together to prioritize and scope the improvements that have the 'biggest bang for the buck.'

EXPENSE ESTIMATES

Capital Item Description	Quantity	Unit	Unit Cost	Total Cost Per Cycle	Estimated Useful Life (years)	Estimated Remaining Life (years)	Full Funding Balance	Notes
Site Improvements								
Crack fill, seal coat, stripe asphalt paving	1,725	SY	\$2.00	\$3,450	5	0	\$3,450.00	
Resurface asphalt paving	1,725	SY	\$18.00	\$31,050	20	5	\$23,287.50	
Repair sections of concrete curb and flatwork	1	LS	\$5,500.00	\$5,500	5	3	\$2,200.00	Approx. 5% every 5 years
Common area drainage improvements	1	LS	\$5,000.00	\$5,000	5	2	\$3,000.00	
Repair/dredge stormwater pond	1	LS	\$35,000.00	\$35,000	18	0	\$35,000.00	
Refurbish entrance signs	14	EA	\$1,200.00	\$16,800	10	4	\$10,080.00	
Paint/repair aluminum fencing at pool, site	500	LF	\$15.00	\$7,500	10	2	\$6,000.00	
Building Exterior								
Replace pool building roof	30	SQ	\$285.00	\$8,550	20	6	\$5,985.00	
Paint/repair pool building	1	LS	\$6,000.00	\$6,000	7	0	\$6,000.00	
Replace pool pump room doors	2	EA	\$1,500.00	\$3,000	15	0	\$3,000.00	
Replace building doors and windows	1	LS	\$11,400.00	\$11,400	30	14	\$6,080.00	
Building Interior								
Refurbish restrooms, fixtures	2	EA	\$7,500.00	\$15,000	15	12	\$3,000.00	
Mechanical, Electrical, Plumbing Systems								
Replace water heater	1	LS	\$2,000.00	\$2,000	15	0	\$2,000.00	
Repair/upgrade access control system	1	LS	\$7,500.00	\$7,500	8	4	\$3,750.00	
Replace drinking water fountain	1	LS	\$2,300.00	\$2,300	15	0	\$2,300.00	
Allocation for electrical/plumbing system repairs	1	LS	\$8,000.00	\$8,000	15	0	\$8,000.00	
Replace pole mounted lights at pool parking lot	5	EA	\$750.00	\$3,750	15	0	\$3,750.00	
Amenities								
Re-plaster swimming pool surface	4,200	SF	\$18.00	\$75,600	15	0	\$75,600.00	
Repair pool pump and filtration equipment	1	LS	\$4,500.00	\$4,500	15	0	\$4,500.00	

EXPENSE SUMMARY

Total over term capital expenditure (un-inflated)	\$968,694
Total over term capital expenditure with inflation:	\$968,694
Average estimated annual capital expenditure with inflation:	\$48,435
Current Reserve Account Balance	\$258,181
Full Funding Balance	\$1,145,794
Percent Funded	103.82%

Breakdown of Total Costs by Type

Site Improvements	20%
Amenities	24%
Mechanical, Electrical, Plumbing Systems	5%
Building Exterior	7%
Other	7%

"We prepare over 200 reserve studies each year for homeowner association clients. As part of the reserve study process we estimate repair expenses for our clients' buildings over a 20-year period and then complete a financial analysis. We needed a way to easily set up cost estimates and financial models for each project. We also needed to be able to provide the tables, charts and graphs in a clean presentable report format for our clients. We interviewed several software consultancies during the process. We chose Digital Mettle because they presented the most logical and user friendly solution to our needs through custom add-ins for MS Excel."

- Kevin Giles, Director of Operations, Giles Flythe Engineers