

Gregory E Martin, Martin Design, ASGCA

As golf courses grow older, they mature and the nuance and charm of a design becomes more evident. But as a living and breathing entity, golf courses age and infrastructure fails, ultimately requiring attention.

Trees planted for scale are now overgrown, impacting play and turf health deteriorates; the irrigation system is leaking and programming options are woefully out-of-date; bunkers are not draining and sand is contaminated; tee surface is insufficient; youth golf is waning; paths and circulation are crumbling and maintenance costs are swelling. Sound familiar?

As decision makers contemplate the need for golf course renovation, it is necessary to understand the simple arithmetic of improvement: there is a substantial cost to renovation. Maybe more important and less understood is "the price of inaction". The cost of renovation may be considerably more tolerable when the substantial cost of waiting is understood.

Simply, the cost of a renovation is the price of the project, less the cost of inaction.

What is the cost of inaction? Plainly, if renovation is inevitable, maintenance costs will continue to escalate while revenues and golfer satisfaction will decline. For instance. a bunker improvement project can be a significant cost, but it may likely reduce ongoing maintenance and restoration costs while improving golfer satisfaction and use.

Those should be factored as part of the renovation cost. In some cases this can be significant.

Case Study – Arrowhead Golf Club

At Arrowhead Golf Club in Wheaton, Illinois, the yearly cost to maintain bunkers was increasing. Labor and material costs for the 135,000 sf. of bunkers were increasing, particularly after rain events. The cost to maintain these bunkers after a rainfall [pump, restore sand and re-establish eroded edges] was a minimum of \$35,000 per year and each year those costs were increasing. It was estimated that over a 10-year period, the cost to maintain the bunkers, if left untouched – because of failed or ineffective drainage in the bunkers - would exceed \$400,000. If left untouched, those costs would continue to escalate.



Ultimately, this project was approved based upon our analysis. We illustrated that the cost of the renovation PLUS future cost savings [Renovation] would be acceptable against the cost of current maintenance PLUS future maintenance and loss of revenue [Inaction].

The results were telling. After a fairly extensive bunker reduction/renovation the maintenance costs for bunkers were reduced substantially. Over a 10-15 year period – or the life span of a bunker - it is projected that the net savings will result in more than \$500,000 of maintenance cost savings. These future savings/benefits can now be applied to the cost of the project. A \$1,200,000 project now has a net cost of \$700,000 or less. This is substantial.

Certainly, every project is different; The specifics of design, the improvement program, the site, the soils, golfer expectations and ownership interest are relevant and will have impacts to current and estimated future costs. However, the golfers at Arrowhead now enjoy better conditions, better strategy, and better aesthetics while maintenance costs have been stabilized. Satisfied golfers are the best marketing.

This analysis can be constructed to measure any kind of project. At Wilmette Golf Club in Wilmette, Illinois, we used this analysis to determine the viability for more significant improvements.

A highly utilized club [35-40,000 rounds], this facility suffered from shutdowns after rain events [flat site and impacts from nearby North Branch of the Chicago River]. Turf conditions deteriorated because of inadequate drainage, sluggish recovery and over-planting. Further, Wilmette is a 90-year old golf course with design features from every one of the past decades, possessing a variety of push-up, USGA and modified sand-greens, multiple bunker types, tees of every kind and shape, as well as the described under-performing drainage system.

Recent rain events and springtime flooding caused serious damage and each year those rain events became more and more destructive. While rounds remained stable, maintenance costs associated to recovery continued to escalate.

Our Master Plan was comprehensive. It called for a substantial underground drainage system to work in concert with improved overland drainage and a new network of ponds, wetlands and swales. We proposed raising fairways [in primary landing areas] and raising greens where necessary while expanding water features to accomplish more effective stormwater management. This in conjunction with improved bunkers, tees, modifying greens to USGA standard, will produce a more resilient golf course and more efficient use of maintenance resources.

To fully understand the long-term benefits of this project we developed a matrix that compared near-term and long-term costs from No-Action to Full Course Renovation, and a variety of intermediate investment strategies. This review allowed the club, the membership and ownership to fully understand the most effective, long-term investments.

Some of the plan options included:

- 1. No-action;
- 2. Minimal in-house improvements;
- 3. Hybrid plan [small renovation and in-house over time
- 4. Master plan "light"; and
- 5. Full renovation

The analysis compared implementation costs from nothing to the full "comprehensive renovation" version and then and calculated golfer satisfaction and future maintenance costs. The following were just some aspects of the review and analysis:

- Turfgrass condition, turf type, tree cover
- Golf course impacts after rain events
- Stormwater management capabilities
- Access & circulation [paths]
- Design Features [bunkers, greens, tees recovery & consistency]

- Customer Expectation & Satisfaction
- Phase costs [Loss of income and staff costs]
- Fee impacts
- Residual income
- Aesthetics and design consistency

This analysis showed that there were substantial costs to inaction including: declining customer satisfaction, reduced golfer use, loss of cart revenue due to limited access after rain events, and increasing recovery, restoration and maintenance costs.

Ultimately, the renovation strategy selected was a mid-range plan termed "Master Plan 'Light". It targeted all of the drainage concerns, necessary tree removals and improved stormwater capacity while upgrading much of the strategic, playability and aesthetic aspects of the golf course. Most of the work was contracted, with a small share of the work to be completed 'inhouse'.

Wilmette Golf Club will open in late spring, but already, the project sees benefits. Golfers are enthused and the golf course superintendent, Mike Matchen, is satisfied knowing that many of past maintenance struggles have been addressed. A significant side benefit is the expansion of wetlands and the new buffer swale system on the golf course improving water quality and reducing maintenance.



Regardless of the project there will likely be dissent. Improvement project costs are likely significant, but, longterm cost savings from those improvements may be equally noteworthy. This analysis begins to shed light on the enduring benefits of project completion while exposing the menacing cost of doing nothing. Conditions will improve, golfer enjoyment is be amplified, customer satisfaction increases and maintenance costs are, at minimum, stabilized.

Only time will tell if our financial projections are correct, but even if maintenance cost savings are nominal, conditions are improved, resources are focused and golfer satisfaction will saturate the community. There is a cost to inaction and project costs can result in savings. The cost of inaction needs to be factored and fully understood during the planning stages of a project. (7)