

GREENWAY PARK IRRIGATION

9 February 2009

The irrigation system in Greenway Park (GWP) needs to be replaced and modernized in lieu of continuing to spend money on repairs. This endeavor will cost a fair amount of money and will require careful attention on behalf of the Board of Directors, members of the community and input from our maintenance supervisor. It is expected that the implementation of this system will likely be phased over a multi-year period and will be subject to the availability of funds and to community will.

The following information is a result of Solutions Meetings held late last year. The irrigation focus group discussed many topics like competitive bidding and turf reduction. In order to have a better-informed discussion, it was decided to create a drawing of the overall community – something that did not exist. This drawing would document existing conditions as accurately as possible and provide approximate area calculations. It would also allow GWP to garner additional bids for the irrigation design.

See the attached document for the Overall Site Plan. The City of Broomfield provided the plat information, and Google Earth images were used to document everything else.

The GWP irrigation system that serves all of the community-owned open space consists of the following areas:

The Golf Course	(~20.0 acres)
The Green Belts	(~12.6 acres)
Right-of-Way	(~5.1 acres)
Townhome Common Areas	(~2.0 acres)



The approximate total irrigated area is 39.7 acres or about 29% of the total land area of Greenway Park. Because of our zoning (R-3 P.U.D.), we are bound to maintain the character of our community per the City of Broomfield development standards. This means that densities, building coverage, lot sizes, parking requirements, locations and species of trees and shrubs and the locations and types of turf and planting areas may be altered with a City of Broomfield staff-level review, but any change may not exceed more than 10%. We can alter the site grading, but this would require a specific review and approval by a city engineer. Any character changes in excess of 10% would require a formal review from the City Council as well as the Planning Commission.

For additional information, see the following:

- www.broomfield.org
- City and County Government
- Municipal Code
- Title 17, Zoning
- Chapter 17.38.230 Modifications

OPTIONS

ONE: MAINTAIN STATUS QUO

This option is very straightforward and maintains the unique character of our community. GWP would replace the entire irrigation system, save for the pump. The project would most likely be built in phases with the worst areas addressed first. A construction permit will only be required if GWP proposes to alter any of the site grading or if any of the backflow prevention devices will be altered or replaced. The City of Broomfield Planning Dept. has requested that GWP submit a proposal that illustrates the existing conditions as well as proposed changes. A letter would also be written to convey the community's intent. Planning would then suggest a plan of action. Given the scope of this option, GWP *should* expect full support from the City staff.

TWO: REDUCE / REPLACE TOTAL AMOUNT OF TURF

This option strives to improve the character of our community by utilizing smart growth principles. The golf course turf is water intensive, and GWP could benefit visually, environmentally and financially if water usage were reduced. A viable strategy would be to replace regions of existing sod with native grasses. The City of Broomfield's Parks Dept. has recommended two seed mixes from Arkansas Valley Seed – the Foothills Mix or the Low Grow Grass Mix. See attached sheets.

This would be visually pleasing due to the textural and color differences. Due to our semi-arid climate, native grasses would have less of an impact on our water resources, and the greater City of Broomfield would benefit because GWP would be decreasing its load on the reclaimed water system. The GWP community would benefit financially because less would be paid for water consumption.

Over the last two years, the golf course was responsible for 64% of the GWP water bill. If the course required 16% less water, then the community would have saved over 10K.*

As in option one, the planning department expects to review our proposal, and in this case, the City will require a staff-level review because GWP would be altering 8% of the overall turf. This would suggest that GWP could also augment some of the green belts up to 2% of the total or 33,000 sq.ft. This would keep the proposal within the allowable 10% change in turf, and in turn, from a lengthy (4-6 months) and costly (2K+) site plan amendment. Ideally, people in the community will draw attention to specific areas of the green belts that deserve consideration. Maintenance has already voiced their areas of concern.



The dark areas above are good candidates for turf replacement. They represent 16% of the Golf Course or 8% of the total open space.

Replacing the turf also means reducing the cost of the irrigation design, but the savings will get reallocated toward the costs associated with replacing the turf.

*Total water costs in 2007 and 2008, combined: \$103,143
Total water costs in 2007 and 2008, combined for Golf Course only: \$65,548

STRATEGY

ONE: HIRE A DESIGN-BUILD FIRM

In late October of 2008, AJI Irrigation Company provided GWP with a preliminary proposal to design and build an irrigation system. Their total proposed fee was 662K which included 11,600.00 for the design portion, and is really intended to serve as a budgeting number. The final cost could be higher or lower, but in most cases, the final cost is higher.

The benefit with a design-build company is one-stop shopping – the designers and the field installers are under one roof. Communication between the field and the designer is often more efficient, but there is also little incentive to competitively bid the design or the implementation portion of the job.

This option deserves to be researched a bit more.

TWO: INITIALLY HIRE AN IRRIGATION DESIGN PROFESSIONAL

This option requires a little more effort, but the rewards may be worth it. GWP would hire an irrigation design professional to provide a design and specifications for a set fee. These designs and specifications would then be used to competitively bid the implementation of the design, also for a set fee.

The downside of this strategy is that the cost to produce the design and specifications is more costly – generally two times more than AJI’s design portion. But the benefit of this strategy is the opportunity to get many bids based on a solid body of information. And given the state of our economy, GWP will be well positioned to potentially get a good price on the installation of the design.

Several bids have been submitted for the irrigation design. They are as follows:

• Larry Rogers Design Group	Larry Rogers	\$48,000.00
• HydroSystems / KDI, Inc.	Ken DiPaolo	\$28,750.00
• Irrigation Design Consultants	Steve Nelson	\$24,950.00
• Keesen Water Management	John Keesen	\$24,600.00
• Avocet Irrigation Design	David Zickerman	\$23,500.00 (full design) \$18,500.00 (70% design)

All of the above bids will be available at the office for additional review.