

**MEMORANDUM NO. M16-007**

**TO:** Administration & Finance Committee  
**FROM:** Dean R. Bostrom, Executive Director  
Craig Talsma, Deputy Director/Director of Admin & Finance  
Gary Buczkowski, Director Planning and Development  
**RE:** GIS consulting contract  
**DATE:** January 13, 2016

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**Background**

GIS mapping systems help decision makers to better visualize, analyze and interpret data in an effort to understand relationships, patterns and trends. In the past, this type of resource system has been traditionally used by Federal, State and city government agencies to manage asset resources. This is due to the need to manage large asset quantities i.e. 3000 manholes, 5000 stop signs and miles of water mains. Smaller agencies have not taken advantage of the powers of GIS based on the notion that their asset resources can be easily managed by traditional record keeping methodologies. Over the years new information technologies and software have made the process easier, however, the lack of being able to compare and analyze the data to spatial information was left out of the process.

Directing limited resources toward the best end use return on investment has become the number one priority of successfully run agencies; managing the assets we have will be a priority going forward. GIS systems and with other data base software systems tailored to the parks and recreation industry might be the key to operational success in the future.

This expenditure is exempt from bidding due to the proprietary software development exemption.

*How can GIS benefit the Hoffman Estates Park District in future decision making?*

- Cost savings from greater efficiency  
GIS is widely used to optimize maintenance schedules, daily staffing and fleet movements. Typical implementations can result in a savings in operational expenses through the reduction in fuel use and staff time, improved customer service, and more efficient scheduling.
- Better decision making  
GIS is the "go-to-technology" for making better decisions about location. Common examples relevant to parks and recreation might be site selection for particular programming and infrastructure support development. It also allows the District to better understand the district's customer base in relationship to geographic location.
- Better communicative tools with relative, reliable data.  
GIS-based maps help to quantify the data input and assist in the understanding of the particular situations and the justifications made. This data can be the language that improves the communication and buy-in between different departments, disciplines, organizations, elected officials and the public.

- Record Keeping  
As a government agency, we are the caretakers of the public's property. Today, the public at large insists that we manage those assets in their best interest whether or not they personally take advantage of those resources. GIS provides a strong framework for managing the care, upkeep and replacement of those assets with data base systems and reporting tools.

### **Implications**

Given the positive potential of this technology, staff researched a number of options as they relate to software and system design. As mentioned earlier, most data bases have been set up to meet the needs of city/county/state needs and their typical asset inventories. While some of the district's assets might be similar (i.e. signs, benches, trees etc.) the need to better track sub components within our facilities is a major goal of the initiative. With this in mind, establishing a complete asset inventory including facility mechanical equipment is a prime need in identifying the optimum GIS platform and/or system design.

Given the much smaller data base size in a district such as ours, the need to provide ongoing resources in the way of trained staffing is much less than a typical city government operation. Requiring a much more user friendly system to operate is significant in determining the return on investment both in the short and long term. One company that has recognized this niche need is Geographic Technologies Group. They have developed a software platform known as Green City GIS which is tailored to Park and Recreation departments. Geared to be non-professional (non- GIS trained), their system utilizes data retrieval hardware, tables and smart phones which allows existing staff to input, maintain and manage the data base system on an ongoing basis. Green City software is also written to communicate with Main Trac and Proragis, two software packages the district currently utilizes.

Understanding that many park districts or recreation agencies have similar needs, Green City will be writing code for customizations ("widgets") that compare different data sets for use in quantitative discussions. Once a widget is developed it becomes available to all agencies who maintain a Green City GIS support agreement. It should be noted that while Green City will be developing the specific software code to meet our specific needs, the underlying software has been developed by ESRI which is one of the industry standard for GIS applications. Attached is marketing information regarding Green City GIS.

With some understanding as to the advantages of partnering with Geographic Technologies Group, staff has negotiated a fee proposal which addresses the district's particular needs (see attached proposal). From the overall cost point of view, their proposal consists of two cost areas. First is the development of specific software, software licenses and a means to record data. The second item is the actual inventory of 77 parks and 6 facilities. Included in the facilities number is the golf course clubhouse building. Tree inventory at the parks and golf course was not included in the base price but would be completed by staff at a later date once they were trained by Green City Staff and time is available. In addition, the amenities on the golf course could be added by staff as well at a later date.

Assuming ten user ESRI ArcGIS licenses, the total anticipated cost for this contract with Geographic Technologies Group would be \$77,000. This is ten licenses so more than ten people can use it, just not at the same time. Staff feels this is sufficient but will monitor if an

increase is needed. 10 licenses cost \$5,000 per year; 15 licenses cost \$7,500 per year and 50 licenses cost \$10,000 per year. There will also be an annual fee of \$6,000 for support (including two "widgets" per year) beginning after the first year.

The budgeted amount in the 2016 Capital budget for this GIS project is \$85,000. If this project were to move forward, the difference between this contract price and the budgeted amount would be utilized to purchase additional recording tablets and cover some additional local labor cost to obtain some of the Villages data sets or additional specific inventory additions to be incorporated into the park district's data. It also allows flexibility if we needed to purchase the additional licenses.

**Recommendation**

That the A&F committee recommend to the full Board to approve expending an amount not to exceed \$85,000 for the GIS development project which includes the proposed contract cost to Geographic Technologies Group for an amount of \$77,000.