

**m**obile **SIGNview**

**“We simply could not have anticipated this amount of time and money savings this soon.”**

*- Quint Pertzsch, GIS Coordinator, City of Golden, Colorado*

In the City of Golden, Colorado, the Department of Public Works operates with some clear intentions—to be a nationally-recognized leader and a source of pride to their community. With those goals in mind, the City of Golden has partnered frequently with CartêGraph to expand upon and refine its capabilities in the areas of workflow, asset and GIS systems management. Beginning in the early part of 2008, Golden integrated CartêGraph<sup>mobile</sup> technology with its existing set of CartêGraph solutions, giving their field crews the tools and resources to get information from the field to the office in the most efficient manner possible. As a result, the City of Golden has been able to cite a remarkable per inspection cost savings of 83.68% over that of 2007.

As a decidedly forward-thinking community, Golden, Colorado was an early adopter in the arena of wireless technology. Eager to find a more efficient and responsive method of working from the field, Golden had armed its crews with laptop computers, intending to translate the desktop functionality of its CartêGraph solutions to the field. However, despite their best hopes, the City found itself disappointed with the limitations posed by this wireless solution. By 2007, it had become clear that laptops were far more cumbersome and far less efficient than anticipated. While these computers were able to interface



with CartêGraph, their lack of portability often required personnel to enter collected data twice—once on paper at the site of the asset, and again in the computer back in the truck.

Golden made due with the situation, but when the time came to gain a firm grip on its growing inventory of street signs, the City went to market seeking to augment its existing method of sign asset management. Because of their satisfaction with CartêGraph’s desktop SIGNview application—a sign management tool used to capture and maintain inventory information, track inspection history, and monitor the age and condition of street signs and their supports—Golden sought a solution that would combine SIGNview’s functionality with paperless technology and superior portability.

After listening carefully and studying Golden's situation, CartêGraph responded by recommending *mobileSIGNview*, an easy-to-use, field-ready application built on the Windows Mobile® platform. Because of its tight integration with the existing *SIGNview* desktop application, *mobileSIGNview* would easily provide complementary functionality and make it accessible on a handheld, mobile, wireless device. This option would not only help the City of Golden to eliminate paperwork, but it would allow field crews to access *SIGNview* directly at the point of service—making them more accurate when entering data, recording information, and conducting inspections. The City deliberated only briefly before partnering with CartêGraph to mobilize the Golden workforce.

The City of Golden's mobile integration effort went live in February, 2008, introducing CartêGraph's *mobileSIGNview* application to its growing population of active signs. By pairing the portability of Trimble's wireless data collection devices with the functionality of *mobileSIGNview* technology, Golden provided their field crews the newly-refined means to get the record, fill it out, and close it—all in one session, and all in the field. At the same time, unlike their previous wireless effort, *mobileSIGNview*'s portable environment provided personnel some much-needed freedom from paperwork and redundant practices of data entry.

And while *mobileSIGNview* was a departure from its traditional workflow methods, Golden's field crews responded to it without hesitation. After 15 minutes of training conducted by CartêGraph technology representatives, crew members found themselves well versed in the surprising capabilities of *mobileSIGNview*'s pocket-sized, user-friendly environment. In fact, in the 10 short months that followed the *mobileSIGNview* integration, Golden field crews were able to complete

inspections on 100% of the City's sign assets, averaging a mere 2 minutes and 19 seconds per inspection.

As the City of Golden's longtime GIS Coordinator, Quint Pertsch has witnessed, firsthand, the benefits that an enterprise-wide work and asset management system can provide to an organization. In the decade-long relationship that has existed between CartêGraph and Golden, Quint has proven to be a pivotal collaborator, offering his insight to tailor solutions that are specific to the City's needs. As such, Golden finds itself in a position that enables them to better identify inefficiencies, justify overtime hours, quantify budget numbers, and address staffing issues.

"We simply could not have anticipated this amount of time and money savings this soon," Pertsch says, reflecting on the City's decision to adopt a more portable approach to technology in its administration of public works.

Just as notable, however, are the intangible results that the CartêGraph mobile effort has achieved. For instance, like countless other communities nationwide, Golden has made environmental preservation a top goal and ongoing priority. With that aim in mind, *mobileSIGNview* has quickly emerged as a welcome, albeit unexpected, ally in this sustainable effort. By providing field crews an electronic method of asset tracking, Golden finds itself saving reams of paper that would—by way of previous methods—have been



used to manually print work orders, asset coordinates, and inspection reports. Additionally, by linking the portability of *mobileSIGNview* with their existing GIS system, the City has been successful in accurately mapping sign assets and linking them to their existing geodatabase—allowing crews to easily find and track signs, thereby eliminating the unnecessary fuel consumption that often results when crews are left to “search” for assets.

To Pertzsch, the choice to integrate CartêGraph *mobileSIGNview* is no choice at all.

“You want the truth?” asks Pertzsch, before answering himself immediately. “Any organization that doesn’t explore the potential of *mobileSIGNview* and mobile technology in general is, for lack of a better term, quite foolish. In fact, I’d say that they’re throwing their money away.”

When referring to *mobileSIGNview*, Pertzsch likes to describe what he refers to as the “domino effect.”

“Being efficient in one area will obviously make you efficient in other areas,” Pertzsch explains. “Even though you may not be able to quantify those efficiency numbers, it is safe to assume that if this field person had an extra 150 hours per year to dedicate to something else, that something else becomes more efficient, and so on.”

“The name just does not do it justice,” he continues, “because, among other things, it’s a money saver, a time saver, a paper saver, a fuel saver... a job saver, really.”

And the good news keeps coming. Already in 2009, Golden has improved upon the 2008 statistics, lowering per sign

inspection costs from \$1.54 to just 86 cents. Along with this monetary savings, CartêGraph<sup>mobile</sup> has allowed the City to save even more time, lowering the average sign inspection time from just over 2 minutes to just over 1 minute.

By all accounts, the ease, convenience and success associated with the integration of CartêGraph’s *mobileSIGNview* have City officials and field crews anxiously awaiting the introduction of more mobile capabilities.

“CartêGraph has certainly found a niche with this mobile capability,” adds Pertzsch, “and we’re anxious to see what’s next.”

### Analysis:

*Cartegraph<sup>mobile</sup> Implementation at Golden, Colorado*  
\*results achieved from 12/31/2007 thru 06/30/2009

### Cost per sign inspection:

In 2007, sign inspection costs averaged **\$5.27 per sign, per inspection**. In 2008, *mobileSIGNview* successfully reduced that number to **\$1.54**; a cost savings of **70.78%**. Through the first two quarters those sign inspection costs were reduced once again, to a mere 86 cents; a cost savings of 83.68% over those of 2007.

### Time saved per inspection:

Using laptop computer-based methods of inspection, Golden dedicated 14 minutes per sign inspection during 2007. By employing *mobileSIGNview*, that duration was **reduced to 2 minutes and 19 seconds per inspection in 2008**; a time savings of **83.45 %**. In 2009, that figure was **reduced again, to 1 minute 32 seconds**; a time savings of 89.05% since implementation.