

# WHAT YOU SEE IS WHAT YOU GET

## Hamilton's Street Imagery

With more than 3 million images available at the click of a mouse, staff at the city of Hamilton can tour the city streets without leaving their desks.

"Authentic, accurate and highly detailed images make a world of difference for anyone needing a clear view of the urban landscape," say Gord McGuire, the city's manager of Surveys and Technical Services.

"We can use the images to resolve claims, issue permits and update plans. And not only can we do it quicker than making a site visit, it is considerably less expensive as well."

"See. There it is," says Bob Howard, a public utility co-ordinator with the city of Hamilton, pointing to the screen. A couple of quick clicks on the mouse and he zooms in to take a closer look. "You can see the utility cut in the pavement right there and a crack starting to form on the edge."

In less than five minutes, Bob had downloaded a high-resolution picture of a small residential street in the downtown core, spotted the problem and resolved the issue.

Bob's use of Hamilton's street imagery is just one example of the more than 2,500 times a month that city staff use high resolution pictures to resolve claims, issue utility permits, update development and site plans, or to do just about anything else where a clear view of the urban landscape is needed.

In 2007, Hamilton embarked on an ambitious plan to create a portrait of the city. Over the next two years, iLOOKABOUT, a firm based in London Ontario, cruised the city streets taking a snapshot of the landscape every five metres. Each set of pictures provides a panoramic view of the street at a particular spot and each picture is identified with its GPS co-ordinates so that it can be accurately located. By the time iLOOKABOUT had finished, it had taken more than 3 million images covering the 6,500 lane kilometres of city streets. The result, once the pictures are stitched together, is a complete virtual representation of the city.

If you think this sounds remarkably similar to Google's Street View, which now covers most Canadian cities and is available for free on the web, you are right but there are some

important exceptions, notes Gord McGuire, the city's manager of Surveys and Technical Services for the city's public works department.

"Google's Street View is a very compelling product but it is limited for what we want," he says. "It doesn't cover all the rural roads and back roads. The images don't have the resolution that we need to see specific details. And the pictures aren't dated so you don't know exactly when the picture was taken."

The images from iLOOKABOUT's StreetScape, on the other hand, are spatially correct, accurately dated, and provide far more detail.

"You can zoom in on a picture and pick up details that other images can't match," says Gord. "In fact, the images are so clear that we automatically blur faces and license plates to protect people's privacy. As people discovered with Google's Street View, some of the images could prove to be embarrassing."

Images are identified by their GPS co-ordinates, so access to a specific image is only a click of the mouse away. The data is easily integrated with other software and works across departments and platforms, and the city is now using it with its web, GIS and CAD systems to make it easier for all users.

"StreetScape brings the real world right to your screen. It's just like being there," says Gord. "And anyone who needs a visual image can save an enormous amount of time and effort using this system."



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“It cuts across all city departments. It’s not just public works. Our real estate department can look at specific buildings. The forestry department can zoom in on boulevards and parks. The asset management group uses the images to scope projects. The police can use the pictures to plot a tactical response and dispatchers can tell a cruiser about potential problems. The images are available for anyone who needs to use them.”

Unlike Google Street View, iLOOKABOUT’s service was not free. It cost about \$200,000 to take all the pictures and iLOOKABOUT, which stores the images, has joint ownership of the content and can sell images to third parties. But McGuire says it was worth it.

“Based on how the images are used, we estimate that conservatively, we are adding an additional \$400,000 a year in value,” he says. “We have eliminated a lot of site visits and given staff the tools they need to stay focused on their tasks.”

The city is working with iLOOKABOUT to load customer content into the image bank (useful for before and after images when work is done on city streets) and is testing a new hand held camera with a GPS attachment that can be used to take pictures of parks and trails. **M**



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