



Atlantic Infrastructure Management Network

AIMnet Software Tools (currently available)

1. AIMnet GIS Data Capture

The **AIMnet** GIS data capture process enables municipalities to capture their infrastructure in a pre-defined **AIMnet** data structure. The **AIMnet** data capture process uses QGIS software, a free open-source GIS program. (ArcGIS may be used as an alternative.)

This component will:

- Build an inventory of linear infrastructure including water, sanitary, storm and road networks.
- Produce hard-copy maps
- Provide the municipality with a functional GIS for viewing its infrastructure on a desktop computer.

Desktop GIS data structure

All the **AIMnet** Toolkit applications are based on QGIS. The latest version of QGIS can be downloaded at www.qgis.org. A QGIS project file with sample data structures for water, sewer, storm and road networks is available upon request. (Note: The template is in ArcGIS shape file format)

2. Preliminary State of Infrastructure Reports

Preliminary State of Infrastructure Reports provide a municipality with a preliminary overview of the state of their infrastructure. The **AIMnet** methodology is used to generate reports by extracting relevant infrastructure data from the GIS system and presenting it in a summary format to support asset management decision-making.

The following reports are generated for EACH linear asset group:

- Condition Assessments
- Replacement Costs
- Life Expectancy
- Annual Renewal/Replacement Costs.

Preliminary State of Infrastructure Report spreadsheet for linear assets and structures

This a spreadsheet based template that can be used to calculate, analyze and report on the replacement cost, condition and life expectancy of linear assets. Spreadsheet templates available upon request.

3. Infrastructure On-site Data Collection Component

The Infrastructure On-site Data Collection component enables the municipality to capture and maintain their infrastructure on a tablet while in the field.

- Location of infrastructure is captured through the GPS functionality;
- A user-friendly data input function allows the attribute data to be captured onsite; and



Atlantic Infrastructure Management Network

- Photo functionality is built in to facilitate condition assessment.

This Infrastructure On-site Data Collection component uses a low-cost GPS tablet designed specifically for capturing and updating infrastructure information. The data collected can be synchronized on line with the municipality's GIS data back in the office.

Tablet-GPS

This application was developed with Intramaps ROAM and can be downloaded here: <http://roam-docs.readthedocs.io/en/latest/> . For a detailed guide to install and use this tool, please contact AIM Network.

4. *Easy to use View and Query Interface & Web-Mobile component*

The View and Query web browsing interface allows the non-GIS user to view and query maps of their infrastructure on the desktop browser and on cell phones.

The *Web-Mobile* functionality of this component of the **AIMnet Solution** also supports real time access to infrastructure data in the field through a cloud solution.

Web-Mobile map server

The web-mobile application uses QGIS server with open layers. For more information about the software, please contact us.