Data is a key component of asset management, whoever controls your data, controls the accuracy of the information and your knowledge of your assets and subsequently controls the decision making process. Therefore why not use a trusted organization for this important responsibility, an organization with a long history of supporting Ontario municipalities:
the Ontario Good Roads Association

Why use Municipal DataWorks for Asset Management?

"Public infrastructure provides the foundation for our quality of life and is critical to Ontario's economic prosperity. It's the heart and soul of our communities" (Ministry of Public Infrastructure Renewal, 2007). Asset Management includes the planning, design, construction, operation, maintenance, renewal and replacement of infrastructure assets used to provide services to municipal customers while, at the same time, carefully managing the scarce financial and human resources needed to achieve the goals and objectives of an asset management plan. All of this is accomplished under the close scrutiny of the public who pay for and are regular users of the municipality's infrastructure assets and who increasingly demand improved levels of service in terms of safety, reliability, environmental impact, comfort and so on.

Asset Management is not new; it has always been a primary function of local government. What is new is incorporating what we have always done into a comprehensive and transparent asset management plan document that would be available for public review. In order to make decisions that are transparent and based on good information, a key element of asset management is up-to-date and accurate data for all assets included in an asset management plan. Municipal DataWorks provides a relational non-proprietary data repository (and more) upon which a municipality can build and update their asset management plan.

How does Municipal DataWorks Define the Standard for Asset Management?
Data available corporation wide in one location:

- MDW gets your infrastructure data off of paper and out of excel spreadsheets and other data silos that may exist within individual departments and into a single relational database;
- MDW is built on the Municipal Infrastructure Data Standard (MIDS) a recognized database standard that has a long history in Ontario. Originally MIDS was developed by the Province of Ontario and municipal practitioners for the Road, Bridge, Sewer and Water Inventory Management Systems. The standard has been used since the demise of the conditional grant program by consulting engineers and some municipality's to develop new applications. The standard was recently redeveloped as a relational database. Building MDW using MIDS ensures consistent inputs and outputs;
- Data can be collected and stored for over 120 different asset types including transportation, sewer and water network assets (data dictionaries are available for these asset networks), buildings, fleet, equipment, park, transit and traffic asset types;
- MDW is a web-based application that can be accessed by anyone with a user ID and password from any location;
- The profile administrator for each municipality can set the level of permission for each module to be accessed by an individual and whether or not the access granted is for read only or full edit capabilities;

- An Authorized Service Provider (consulting engineer, municipal auditor, etc.) can access multiple client municipalities with a single user ID and password. Permission simply needs to be granted by a municipality; and
- Software applications from 3rd party vendors can be integrated with MDW. These applications can offer additional manipulations or spatial display of a municipality's existing MDW data, providing information that improves the decision making process.

It is important to note that OGRA is not seeking to mandate a single software application but rather establish a province wide data standard for the collection of infrastructure data.

Confirmation that you are using up-to-date data:

- Whether staff is responsible for updating raw data and ensuring data integrity; looks after work flow, financial management or plans for the future needs of the infrastructure assets, all these functions require access to the same data. With multiple staff in several departments responsible for various functions, maintaining a single database of information for all assets types is crucial for ensuring that everyone is working with current data.

Municipal DataWorks can:

1. Document asset data
    - MDW allows for the collecting and storing of data for over 120 different asset types that includes but not limited to roads, bridges, sewers, waterlines, buildings, fleet and equipment.
    - For each asset type, only 3 fields of data are mandatory: asset ID, asset name and asset status. All other data fields are optional.
    - The master list of asset attributes (those attributes included in MDW by OGRA) can easily be supplemented with additional attributes. Likewise additional values can be added to a pick list or existing pick list values can be turned off. Text fields can also be quickly converted to a pick list. These features ensure that staff is restricted to selecting only the preferred local municipal choices.

2. Document regular asset inspections
    - MDW has two built in inspection modules:
        - The road section inspection module is linked to the asset material type and will use either MTO's Manual for Condition Rating of Flexible Pavement SP-024, Manual for Condition Rating of Rigid Pavement SP-026 or Manual for Condition Rating of Gravel Surface Roads SP-025 to calculate a Pavement Condition Index (PCI) value. The module can also be used to calculate a Road Sufficiency Index (RSI). If the RSI value is not used other condition and performance values can be used such as: substandard stopping site distance, substandard vertical and horizontal alignment, traffic volume to name a few. These other values can be manually input into each road asset record included in MDW.
        - The bridge inspection module follows the Ontario Structure Inspection Manual (OSIM) to calculate a Bridge Condition Index (BCI) value and includes the factors for the calculation of the Bridge Sufficiency Index (BSI). As with road inspections, if the inspection module is not used BCI, BSI and other condition ratings can be manually added.

- For all other asset types that do not have a standard inspection methodology, MDW does contain asset specific ratings of condition and performance or a condition rating value is available for all asset types all of which are manually added to each asset type.

3. Document Lifecycle Events (LCE)
    - LCE's include the building or acquisition of a new asset and all work required to operate, maintain, renew and replace an asset.
    - For each LCE, any and all documentation related to that LCE can be stored as a lifecycle event attachment. This includes word, excel, PDF and jpeg file formats. Adding the documentation as a lifecycle event attachment allows for the review of the information about that LCE at any time, from anywhere, by anyone with permission to access the data.

4. Amortize Capital Expenditures
    - Users can establish criteria for grouping like assets together (referred to as categories in the module) and set the useful life, amortization method and capitalization threshold amount for each category within a single asset type; and
    - LCE's for asset betterment, renewal and replacement in excess of the capitalization threshold can be easily capitalized and amortized over the assets useful using the asset valuation module of MDW. By simply adding a lifecycle event for the work completed on an asset and including the "Total Cost" of the project, the asset valuation module will automatically capitalize and amortize the total cost over the assets useful life when the next report is run. If the project extends the useful life of an asset, an adjusted replacement date must be included in the LCE in order for the module to amortize the total cost over the extended timeframe.

5. Forecast renewal actions
    - The Capital Infrastructure, Improvement and Investment Planning module (CI^3P) permits the development of up to a 10 year plan;
    - Users can establish criteria for grouping like assets together (referred to as categories in the module) and set the strategies to be used for each group/category of like assets;
    - Users can select age based or condition based planning;
    - Users can select the strategies that will be used for asset renewal and the timing for implementation of those strategies based on age or condition for each category;
    - Users would input local costs for each strategy selected; and
    - Projects included in the plan can be moved from year to year or can be made into a multiyear project with a minimum of effort.

MDW is an OGRA Member Service. Ontario municipalities that are members of OGRA can gain access to MDW's "web hosted solution" at no additional cost to the municipality other than your annual membership with OGRA. A Data Provision Agreement must be completed and signed. Contact Brian Anderson**,** MDW Customer Support at **brian@ogra.org** for further information.